

|                                                                 |  |                                                                                                                     |  |
|-----------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------|--|
| <b>UTILITY<br/>PATENT APPLICATION<br/>TRANSMITTAL</b>           |  | Attorney Docket No. <b>143297.00102</b>                                                                             |  |
|                                                                 |  | First Named Inventor <b>Alex Bezing</b>                                                                             |  |
|                                                                 |  | Title <b>A METHOD AND CIRCUIT FOR SWITCHING A<br/>WRISTWATCH FROM A FIRST POWER MODE TO<br/>A SECOND POWER MODE</b> |  |
| (Only for new nonprovisional applications under 37 CFR 1.53(b)) |  | Express Mail Label No.                                                                                              |  |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>APPLICATION ELEMENTS</b><br><small>See MPEP chapter 600 concerning utility patent application contents.</small>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>ADDRESS TO:</b><br>Commissioner for Patents<br>P.O. Box 1450<br>Alexandria, VA 22313-1450                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 1. <input checked="" type="checkbox"/> <b>Fee Transmittal Form</b><br><small>(PTO/SB/17 or equivalent)</small><br>2. <input checked="" type="checkbox"/> <b>Applicant asserts small entity status.</b><br><small>See 37 CFR 1.27</small><br>3. <input type="checkbox"/> <b>Applicant certifies micro entity status.</b> See 37 CFR 1.29.<br><small>Applicant must attach form PTO/SB/15A or B or equivalent.</small><br>4. <input checked="" type="checkbox"/> <b>Specification</b> [Total Pages <b>24</b> ]<br><small>Both the claims and abstract must start on a new page.<br/>(See MPEP § 608.01(a) for information on the preferred arrangement)</small><br>5. <input checked="" type="checkbox"/> <b>Drawing(s)</b> (35 U.S.C. 113) [Total Sheets <b>5</b> ]<br>6. <input type="checkbox"/> <b>Inventor's Oath or Declaration</b> [Total Pages <b>12</b> ]<br><small>(including substitute statements under 37 CFR 1.64 and assignments<br/>serving as an oath or declaration under 37 CFR 1.63(e))</small><br>a. <input type="checkbox"/> Newly executed (original or copy)<br>b. <input checked="" type="checkbox"/> A copy from a prior application (37 CFR 1.63(d))<br>7. <input checked="" type="checkbox"/> <b>Application Data Sheet</b> * See note below.<br><small>See 37 CFR 1.75 (PTO/AIA/14 or equivalent)</small><br>8. <input type="checkbox"/> <b>CD-ROM or CD-R</b><br><small>in duplicate, large table, or Computer Program (Appendix)</small><br><input type="checkbox"/> Landscape Table on CD<br>9. <input type="checkbox"/> <b>Nucleotide and/or Amino Acid Sequence Submission</b><br><small>(if applicable, items a. – c. are required)</small><br>a. <input type="checkbox"/> Computer Readable Form (CRF)<br>b. <input type="checkbox"/> Specification Sequence Listing on:<br>i. <input type="checkbox"/> CD-ROM or CD-R (2 copies); or<br>ii. <input type="checkbox"/> Paper<br>c. <input type="checkbox"/> Statements verifying identity of above copies | <b>ACCOMPANYING APPLICATION PAPERS</b><br>10. <input type="checkbox"/> <b>Assignment Papers</b><br><small>(cover sheet &amp; document(s))</small><br><div style="border: 1px solid black; padding: 5px; margin-top: 5px;">           Name of Assignee         </div> 11. <input type="checkbox"/> <b>37 CFR 3.73(c) Statement</b> <input type="checkbox"/> <b>Power of Attorney</b><br><small>(when there is an assignee)</small><br>12. <input type="checkbox"/> <b>English Translation Document</b> (if applicable)<br>13. <input checked="" type="checkbox"/> <b>Information Disclosure Statement</b><br><small>(PTO/SB/08 or PTO-1449)</small><br><input type="checkbox"/> Copies of citations attached<br>14. <input checked="" type="checkbox"/> <b>Preliminary Amendment</b><br>15. <input type="checkbox"/> <b>Return Receipt Postcard</b><br><small>(MPEP § 503) (Should be specifically itemized)</small><br>16. <input type="checkbox"/> <b>Certified Copy of Priority Document(s)</b><br><small>(if foreign priority is claimed)</small><br>17. <input type="checkbox"/> <b>Nonpublication Request</b><br><small>Under 35 U.S.C. 122(b)(2)(B)(i) Applicant must attach form PTO/SB/35<br/>or equivalent</small><br>18. <input checked="" type="checkbox"/> <b>Other:</b> <div style="border: 1px solid black; padding: 5px; display: inline-block;">           Substitute Statements in Lieu of an Oath<br/>           or Declaration (4); Substitute Specification<br/>           (clean and marked-up versions)         </div> |

\*Note: (1) Benefit claims under 37 CFR 1.78 and foreign priority claims under 1.55 must be included in an Application Data Sheet (ADS).  
 (2) For applications filed under 35 U.S.C. 111, the application must contain an ADS specifying the applicant if the applicant is an assignee, person to whom the inventor is under an obligation to assign, or person who otherwise shows sufficient proprietary interest in the matter. See 37 CFR 1.46(b).

|                                                                                                                                                        |  |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| <b>19. CORRESPONDENCE ADDRESS</b>                                                                                                                      |  |  |  |  |  |
| <input checked="" type="checkbox"/> The address associated with Customer Number: <b>27557</b> OR <input type="checkbox"/> Correspondence address below |  |  |  |  |  |
| Name                                                                                                                                                   |  |  |  |  |  |
| Address                                                                                                                                                |  |  |  |  |  |
| City                                                                                                                                                   |  |  |  |  |  |
| Country                                                                                                                                                |  |  |  |  |  |

|                   |                     |                                   |                  |
|-------------------|---------------------|-----------------------------------|------------------|
| Signature         | /Peter S. Weissman/ | Date                              | October 31, 2017 |
| Name (Print/Type) | Peter S. Weissman   | Registration No. (Attorney/Agent) | 40,220           |

143297.00102/106283847

|                                             |                                                                                                                                                         |                         |                       |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-----------------------|
| <h1 style="margin: 0;">FEE TRANSMITTAL</h1> |                                                                                                                                                         | Complete if known       |                       |
|                                             |                                                                                                                                                         | Application Number      | Not Yet Assigned      |
|                                             |                                                                                                                                                         | Filing Date             | Concurrently Herewith |
| <input checked="" type="checkbox"/>         | Applicant asserts small entity status. See 37 CFR 1.27.                                                                                                 | First Named Inventor    | Alex Bezing           |
| <input type="checkbox"/>                    | Applicant certifies micro entity status. See 37 CFR 1.29. Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously. | Examiner Name           | Not Yet Assigned      |
|                                             |                                                                                                                                                         | Art Unit                | N/A                   |
| TOTAL AMOUNT OF PAYMENT                     |                                                                                                                                                         | (\$)                    | 730.00                |
|                                             |                                                                                                                                                         | Practitioner Docket No. | 143297.00102          |

**METHOD OF PAYMENT** (check all that apply)

☐ Check    ☒ Credit Card    ☐ Money Order    ☐ None    ☐ Other (please identify): \_\_\_\_\_

☐ Deposit Account    Deposit Account Number: 23-2185    Deposit Account Name: Blank Rome LLP

For the above-identified deposit account, the Director is hereby authorized to (check all that apply):

☐ Charge fee(s) indicated below    ☐ Charge fee(s) indicated below, **except for the filing fee**

☒ Charge any additional fee(s) or underpayment of fee(s) under 37 CFR 1.16 and 1.17    ☒ Credit any overpayment of fee(s)

**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

**FEE CALCULATION**

**1. BASIC FILING, SEARCH, AND EXAMINATION FEES** (U = undiscounted fee; S = small entity fee; M = micro entity fee)

| Application Type | FILING FEES |        |        | SEARCH FEES |        |        | EXAMINATION FEES |        |        | Fees Paid (\$) |
|------------------|-------------|--------|--------|-------------|--------|--------|------------------|--------|--------|----------------|
|                  | U (\$)      | S (\$) | M (\$) | U (\$)      | S (\$) | M (\$) | U (\$)           | S (\$) | M (\$) |                |
| Utility          | 280         | 140*   | 70     | 600         | 300    | 150    | 720              | 360    | 180    | 730.00         |
| Design           | 180         | 90     | 45     | 120         | 60     | 30     | 460              | 230    | 115    |                |
| Plant            | 180         | 90     | 45     | 380         | 190    | 95     | 580              | 290    | 145    |                |
| Reissue          | 280         | 140    | 70     | 600         | 300    | 150    | 2,160            | 1,080  | 540    |                |
| Provisional      | 260         | 130    | 65     | 0           | 0      | 0      | 0                | 0      | 0      |                |

\* The \$140 small entity status filing fee for a utility application is further reduced to \$70 for a small entity status applicant who files the application via EFS-Web.

**2. EXCESS CLAIM FEES**

| Fee Description                                    | Undiscounted Fee (\$) | Small Entity Fee (\$) | Micro Entity Fee (\$) |
|----------------------------------------------------|-----------------------|-----------------------|-----------------------|
| Each claim over 20 (including Reissues)            | 80                    | 40                    | 20                    |
| Each independent claim over 3 (including Reissues) | 420                   | 210                   | 105                   |
| Multiple dependent claims                          | 780                   | 390                   | 195                   |

**Total Claims**    **Extra Claims**    **Fee (\$)**    **Fee Paid (\$)**    **Multiple Dependent Claims**

11 - 20 or HP = \_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_    **Fee (\$)**    **Fee Paid (\$)**

HP = highest number of total claims paid for, if greater than 20.

**Indep. Claims**    **Extra Claims**    **Fee (\$)**    **Fee Paid (\$)**

1 - 3 or HP = \_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_

HP = highest number of independent claims paid for, if greater than 3.

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$400 (\$200 for small entity) (\$100 for micro entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

**Total Sheets**    **Extra Sheets**    **Number of each additional 50 or fraction thereof**    **Fee (\$)**    **Fee Paid (\$)**

33 - 100 = \_\_\_\_\_ / 50 = \_\_\_\_\_ (round up to a whole number) x \_\_\_\_\_ = \_\_\_\_\_

**4. OTHER FEE(S)**

Non-English specification, \$130 fee (no small or micro entity discount)

Non-electronic filing fee under 37 CFR 1.16(t) for a utility application, \$400 fee (\$200 small or micro entity)

Other (e.g., late filing surcharge): \_\_\_\_\_

**SUBMITTED BY**

|                   |                     |                                   |                  |           |                |
|-------------------|---------------------|-----------------------------------|------------------|-----------|----------------|
| Signature         | /Peter S. Weissman/ | Registration No. (Attorney/Agent) | 40,220           | Telephone | (202) 772-5805 |
| Name (Print/Type) | Peter S. Weissman   | Date                              | October 31, 2017 |           |                |

143297.00102/106283909

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                |                        |              |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------|--------------|
| <b>Application Data Sheet 37 CFR 1.76</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                | Attorney Docket Number | 143297.00102 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                | Application Number     |              |
| Title of Invention                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | A METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |                        |              |
| <p>The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.</p> <p>This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.</p> |                                                                                                |                        |              |

**Secrecy Order 37 CFR 5.2:**

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

**Inventor Information:**

|                                                                                                                                                                          |            |                                   |             |        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----------------------------------|-------------|--------|
| Inventor 1 <span style="float: right;">Remove</span>                                                                                                                     |            |                                   |             |        |
| Legal Name                                                                                                                                                               |            |                                   |             |        |
| Prefix                                                                                                                                                                   | Given Name | Middle Name                       | Family Name | Suffix |
|                                                                                                                                                                          | Alex       |                                   | BEZINGE     |        |
| Residence Information (Select One) <input type="radio"/> US Residency <input checked="" type="radio"/> Non US Residency <input type="radio"/> Active US Military Service |            |                                   |             |        |
| City                                                                                                                                                                     | Saviese    | Country of Residence <sup>i</sup> | CH          |        |
| Mailing Address of Inventor:                                                                                                                                             |            |                                   |             |        |
| Address 1                                                                                                                                                                |            | Prafirmin 213                     |             |        |
| Address 2                                                                                                                                                                |            |                                   |             |        |
| City                                                                                                                                                                     | Saviese    | State/Province                    |             |        |
| Postal Code                                                                                                                                                              | CH-1965    | Country <sup>i</sup>              | CH          |        |
| Inventor 2 <span style="float: right;">Remove</span>                                                                                                                     |            |                                   |             |        |
| Legal Name                                                                                                                                                               |            |                                   |             |        |
| Prefix                                                                                                                                                                   | Given Name | Middle Name                       | Family Name | Suffix |
|                                                                                                                                                                          | Adrian     |                                   | MOHNI       |        |
| Residence Information (Select One) <input type="radio"/> US Residency <input checked="" type="radio"/> Non US Residency <input type="radio"/> Active US Military Service |            |                                   |             |        |
| City                                                                                                                                                                     | St-Gallen  | Country of Residence <sup>i</sup> | CH          |        |
| Mailing Address of Inventor:                                                                                                                                             |            |                                   |             |        |
| Address 1                                                                                                                                                                |            | Boppartshofweg 12                 |             |        |
| Address 2                                                                                                                                                                |            |                                   |             |        |
| City                                                                                                                                                                     | St-Gallen  | State/Province                    |             |        |
| Postal Code                                                                                                                                                              | CH-9014    | Country <sup>i</sup>              | CH          |        |
| Inventor 3 <span style="float: right;">Remove</span>                                                                                                                     |            |                                   |             |        |
| Legal Name                                                                                                                                                               |            |                                   |             |        |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

|                                           |                                                                                                |                        |              |
|-------------------------------------------|------------------------------------------------------------------------------------------------|------------------------|--------------|
| <b>Application Data Sheet 37 CFR 1.76</b> |                                                                                                | Attorney Docket Number | 143297.00102 |
|                                           |                                                                                                | Application Number     |              |
| Title of Invention                        | A METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |                        |              |

|        |            |             |             |        |
|--------|------------|-------------|-------------|--------|
| Prefix | Given Name | Middle Name | Family Name | Suffix |
|        | Daniel     |             | PFEIFER     |        |

Residence Information (Select One) ☐ US Residency ☒ Non US Residency ☐ Active US Military Service

|      |                      |                                   |    |
|------|----------------------|-----------------------------------|----|
| City | St. Anton Am Arlberg | Country of Residence <sup>i</sup> | AT |
|------|----------------------|-----------------------------------|----|

**Mailing Address of Inventor:**

|             |                      |                      |    |
|-------------|----------------------|----------------------|----|
| Address 1   | Pfarrweg 33          |                      |    |
| Address 2   |                      |                      |    |
| City        | St. Anton Am Arlberg | State/Province       |    |
| Postal Code | A-6580               | Country <sup>i</sup> | AT |

Inventor 4

Remove

**Legal Name**

|        |            |             |             |        |
|--------|------------|-------------|-------------|--------|
| Prefix | Given Name | Middle Name | Family Name | Suffix |
|        | Musa       |             | DOGAN       |        |

Residence Information (Select One) ☐ US Residency ☒ Non US Residency ☐ Active US Military Service

|      |           |                                   |    |
|------|-----------|-----------------------------------|----|
| City | Heerbrugg | Country of Residence <sup>i</sup> | CH |
|------|-----------|-----------------------------------|----|

**Mailing Address of Inventor:**

|             |                        |                      |    |
|-------------|------------------------|----------------------|----|
| Address 1   | Karl-Völker-Strasse 10 |                      |    |
| Address 2   |                        |                      |    |
| City        | Heerbrugg              | State/Province       |    |
| Postal Code | CH-9435                | Country <sup>i</sup> | CH |

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button.

Add

**Correspondence Information:**Enter either Customer Number or complete the Correspondence Information section below.  
For further information see 37 CFR 1.33(a).☐ An Address is being provided for the correspondence information of this application.

|                 |       |           |              |
|-----------------|-------|-----------|--------------|
| Customer Number | 27557 |           |              |
| Email Address   |       | Add Email | Remove Email |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

|                                           |                                                                                                |                        |              |
|-------------------------------------------|------------------------------------------------------------------------------------------------|------------------------|--------------|
| <b>Application Data Sheet 37 CFR 1.76</b> |                                                                                                | Attorney Docket Number | 143297.00102 |
|                                           |                                                                                                | Application Number     |              |
| Title of Invention                        | A METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |                        |              |

**Application Information:**

|                                         |                                                                                                |                                           |                                     |
|-----------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------|
| Title of the Invention                  | A METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |                                           |                                     |
| Attorney Docket Number                  | 143297.00102                                                                                   | Small Entity Status Claimed               | <input checked="" type="checkbox"/> |
| Application Type                        | Nonprovisional                                                                                 |                                           |                                     |
| Subject Matter                          | Utility                                                                                        |                                           |                                     |
| Total Number of Drawing Sheets (if any) | 5                                                                                              | Suggested Figure for Publication (if any) |                                     |

**Filing By Reference:**

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

|                                                        |                          |                                            |
|--------------------------------------------------------|--------------------------|--------------------------------------------|
| Application number of the previously filed application | Filing date (YYYY-MM-DD) | Intellectual Property Authority or Country |
|                                                        |                          |                                            |

**Publication Information:**

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

**Representative Information:**

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32). Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

|                    |                                                  |                                              |                                                         |
|--------------------|--------------------------------------------------|----------------------------------------------|---------------------------------------------------------|
| Please Select One: | <input checked="" type="radio"/> Customer Number | <input type="radio"/> US Patent Practitioner | <input type="radio"/> Limited Recognition (37 CFR 11.9) |
| Customer Number    | 27557                                            |                                              |                                                         |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

|                                           |                                                                                                |                        |              |
|-------------------------------------------|------------------------------------------------------------------------------------------------|------------------------|--------------|
| <b>Application Data Sheet 37 CFR 1.76</b> |                                                                                                | Attorney Docket Number | 143297.00102 |
|                                           |                                                                                                | Application Number     |              |
| Title of Invention                        | A METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |                        |              |

**Domestic Benefit/National Stage Information:**

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.

When referring to the current application, please leave the "Application Number" field blank.

|                                                                                                                       |                        |                          |                                    |
|-----------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------|------------------------------------|
| Prior Application Status                                                                                              | Pending                | <a href="#">Remove</a>   |                                    |
| Application Number                                                                                                    | Continuity Type        | Prior Application Number | Filing or 371(c) Date (YYYY-MM-DD) |
|                                                                                                                       | Continuation of        | 14/352727                | 2014-04-18                         |
| Prior Application Status                                                                                              | Expired                | <a href="#">Remove</a>   |                                    |
| Application Number                                                                                                    | Continuity Type        | Prior Application Number | Filing or 371(c) Date (YYYY-MM-DD) |
| 14/352727                                                                                                             | a 371 of international | PCT/EP2012/070273        | 2012-10-12                         |
| Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the <b>Add</b> button. |                        |                          |                                    |

**Foreign Priority Information:**

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)<sup>1</sup> the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

|                                                                                                        |                      |                          |                                          |
|--------------------------------------------------------------------------------------------------------|----------------------|--------------------------|------------------------------------------|
| Application Number                                                                                     | Country <sup>i</sup> | Filing Date (YYYY-MM-DD) | <a href="#">Remove</a>                   |
| 01689/11                                                                                               | CH                   | 2011-10-18               | Access Code <sup>j</sup> (if applicable) |
| Additional Foreign Priority Data may be generated within this form by selecting the <b>Add</b> button. |                      |                          |                                          |

**Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.</p> <p><input type="checkbox"/> NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.</p> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

|                                           |                                                                                                |                        |              |
|-------------------------------------------|------------------------------------------------------------------------------------------------|------------------------|--------------|
| <b>Application Data Sheet 37 CFR 1.76</b> |                                                                                                | Attorney Docket Number | 143297.00102 |
|                                           |                                                                                                | Application Number     |              |
| Title of Invention                        | A METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |                        |              |

## Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

**NOTE:** This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

### 1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

**A. Priority Document Exchange (PDX)** - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

**B. Search Results from U.S. Application to EPO** - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

### 2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

**NOTE:** Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

|                                           |                                                                                                |                        |              |
|-------------------------------------------|------------------------------------------------------------------------------------------------|------------------------|--------------|
| <b>Application Data Sheet 37 CFR 1.76</b> |                                                                                                | Attorney Docket Number | 143297.00102 |
|                                           |                                                                                                | Application Number     |              |
| Title of Invention                        | A METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |                        |              |

**Applicant Information:**

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                |                                                                        |         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|------------------------------------------------------------------------|---------|
| Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                |                                                                        |         |
| <b>Applicant 1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                |                                                                        |         |
| If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section. |                                                                |                                                                        |         |
| <input type="button" value="Clear"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                |                                                                        |         |
| <input checked="" type="radio"/> Assignee                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <input type="radio"/> Legal Representative under 35 U.S.C. 117 | <input type="radio"/> Joint Inventor                                   |         |
| <input type="radio"/> Person to whom the inventor is obligated to assign.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                | <input type="radio"/> Person who shows sufficient proprietary interest |         |
| If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                |                                                                        |         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                |                                                                        |         |
| Name of the Deceased or Legally Incapacitated Inventor: <input type="text"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                |                                                                        |         |
| If the Applicant is an Organization check here. <input checked="" type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                |                                                                        |         |
| Organization Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Slyde Watch SA                                                 |                                                                        |         |
| <b>Mailing Address Information For Applicant:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                |                                                                        |         |
| Address 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Chemin de l'Eglise 1                                           |                                                                        |         |
| Address 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                |                                                                        |         |
| City                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Luins                                                          | State/Province                                                         |         |
| Country                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | CH                                                             | Postal Code                                                            | CH-1184 |
| Phone Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                | Fax Number                                                             |         |
| Email Address                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                |                                                                        |         |
| Additional Applicant Data may be generated within this form by selecting the Add button.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                |                                                                        |         |

**Assignee Information including Non-Applicant Assignee Information:**

|                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office. |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

|                                           |                                                                                                |                        |              |
|-------------------------------------------|------------------------------------------------------------------------------------------------|------------------------|--------------|
| <b>Application Data Sheet 37 CFR 1.76</b> |                                                                                                | Attorney Docket Number | 143297.00102 |
|                                           |                                                                                                | Application Number     |              |
| Title of Invention                        | A METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |                        |              |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |                |             |        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------|-------------|--------|
| <b>Assignee 1</b>                                                                                                                                                                                                                                                                                                                                                                                                                                      |            |                |             |        |
| Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication. |            |                |             |        |
| If the Assignee or Non-Applicant Assignee is an Organization check here. <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                      |            |                |             |        |
| Prefix                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Given Name | Middle Name    | Family Name | Suffix |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |                |             |        |
| <b>Mailing Address Information For Assignee including Non-Applicant Assignee:</b>                                                                                                                                                                                                                                                                                                                                                                      |            |                |             |        |
| Address 1                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                |             |        |
| Address 2                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |                |             |        |
| City                                                                                                                                                                                                                                                                                                                                                                                                                                                   |            | State/Province |             |        |
| Country i                                                                                                                                                                                                                                                                                                                                                                                                                                              |            | Postal Code    |             |        |
| Phone Number                                                                                                                                                                                                                                                                                                                                                                                                                                           |            | Fax Number     |             |        |
| Email Address                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                |             |        |
| Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button.                                                                                                                                                                                                                                                                                                                                      |            |                |             |        |

**Signature:**

**NOTE:** This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).

This Application Data Sheet must be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

|                                                                                     |                     |           |                   |                     |
|-------------------------------------------------------------------------------------|---------------------|-----------|-------------------|---------------------|
| Signature                                                                           | /Peter S. Weissman/ |           | Date (YYYY-MM-DD) | 2017-10-31          |
| First Name                                                                          | Peter               | Last Name | Weissman          | Registration Number |
| 40,220                                                                              |                     |           |                   |                     |
| Additional Signature may be generated within this form by selecting the Add button. |                     |           |                   |                     |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

|                                           |                                                                                                |                        |              |
|-------------------------------------------|------------------------------------------------------------------------------------------------|------------------------|--------------|
| <b>Application Data Sheet 37 CFR 1.76</b> |                                                                                                | Attorney Docket Number | 143297.00102 |
|                                           |                                                                                                | Application Number     |              |
| Title of Invention                        | A METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |                        |              |

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

## Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Docket No.: 143297.00102  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

-----  
In re Patent Application of:  
Alex BEZINGE et al.

Application No.: Not Yet Assigned

Confirmation No.: N/A

Filed: Concurrently Herewith

Art Unit: N/A

For: A METHOD AND CIRCUIT FOR SWITCHING      Examiner: Not Yet Assigned  
A WRISTWATCH FROM A FIRST POWER  
MODE TO A SECOND POWER MODE  
-----

**PRELIMINARY AMENDMENT**

MS PCT  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

**Amendments to the Specification** begin on page 2 of this paper.

**Amendments to the Claims** are reflected in the listing of claims which begins on page 3 of this paper.

**Amendments to the Abstract** begin on page 6 of this paper.

**Amendments to the Drawings** begin on page 7 of this paper and include attached replacement sheets.

**Remarks/Arguments** begin on page 8 of this paper.

An **Appendix** including replacement drawing figures is attached following page 8 of this paper.

Application No.: Not Yet Assigned  
Amendment dated October 31, 2017  
First Preliminary Amendment

2

Docket No.: 143297.00102

**AMENDMENTS TO THE SPECIFICATION**

A Substitute Specification is enclosed herewith, including a clean copy and a marked-up version of the application. The Substitute Specification corrects formal matters of the application. No new matter is entered.

**AMENDMENTS TO THE CLAIMS**

Claims 1-17. (Cancelled)

18. (New) A method for switching a wristwatch from a first power mode to a second power mode, comprising:

using an accelerometer for detecting a wristturn, and

switching said wristwatch from said first power mode to said second power mode when a wristturn has been detected,

wherein said step of detecting a wristturn comprises:

detecting that an orientation of the wristwatch is in a first range;

detecting that an orientation of the wristwatch is then in a second range, different from said first range,

in response to a detection that the orientation of the wristwatch is in the second range, detecting that the wristwatch remains substantially immobile during a predetermined duration.

19. (New) The method of claim 18, wherein

said first range is an angle range from 25° to 155° relatively to the horizontal.

20. (New) The method of claim 18, wherein

said second range is an angle range from -25° to -75° relatively to the horizontal.

21. (New) The method of claim 18, wherein said step of detecting that the wristwatch remains substantially immobile during a predetermined duration comprises:

detecting that an orientation of the wristwatch is held in a range from  $-25^{\circ}$  to  $-60^{\circ}$  relatively to the horizontal during said predetermined duration.

22. (New) The method of claim 18, wherein

said step of detecting that the orientation of the wristwatch is in the first range comprises detecting that the orientation of the wristwatch is held within this first range for a defined time.

23. (New) The method of claim 22, wherein said defined time is 50 ms.

24. (New) The method of claim 18, wherein

said step of detecting that the orientation of the wristwatch is in the second range comprises detecting that the orientation of the wristwatch is held within this second range for a defined time.

25. (New) The method of claim 24, wherein said defined time is 50 ms.

26. (New) The method of claim 18, wherein said step of detecting that the orientation of the wristwatch is in a second range comprises:

detecting that a duration between the wristwatch being held in the first range and the wristwatch being held in the second range is in a predefined third range.

27. (New) The method of claim 18, wherein

said step of detecting that the orientation of the wristwatch is then in a second range comprises detecting that a display of the wristwatch is oriented towards a face of the user.

28. (New) The method of claim 18, wherein said steps of detecting that the orientation of the wristwatch is in a first range and then in a second range comprise:

in response of a detection of the orientation of the wristwatch is in the second range, checking if the orientation of the wristwatch was in the first range during a previous step.

**AMENDMENTS TO THE ABSTRACT**

Please substitute the following paragraph for the abstract now appearing in the currently filed specification:

An electronic wristwatch operable in two power modes. The wristwatch has an inertial sensor for detecting a gesture on a cover glass of the wristwatch. A touch panel is provided underneath the cover glass for detecting the gesture. Gesture detection by the inertial sensor is combined with gesture detection by the touch panel for triggering a switch from a first power mode to a second power mode.

Application No.: Not Yet Assigned  
Amendment dated October 31, 2017  
First Preliminary Amendment

7

Docket No.: 143297.00102

**AMENDMENTS TO THE DRAWINGS**

The attached sheets of drawings include replacement drawings. No new matter is submitted.

Attachment: Replacement sheets

Application No.: Not Yet Assigned  
Amendment dated October 31, 2017  
First Preliminary Amendment

8

Docket No.: 143297.00102

**REMARKS**

In view of the above amendment, applicant believes the pending application is in condition for examination.

Please charge any shortage or credit any overpayment of fees to BLANK ROME LLP, Deposit Account No. 23-2185 under Order No. 143297.00102. In the event that a petition for an extension of time is required to be submitted herewith and in the event that a separate petition does not accompany this or is insufficient to render this timely, the Applicant hereby petitions under 37 C.F.R. §1.136(a) for an extension of time for as many months as required to render this submission timely. Any fee due is authorized above.

Dated: October 31, 2017

Respectfully submitted,

Electronic Signature: /Peter S. Weissman/  
Peter S. Weissman

Registration No.: 40,220  
BLANK ROME LLP  
Correspondence Customer Number: 27557  
Attorney for Applicant

Replacement Sheet  
1/5

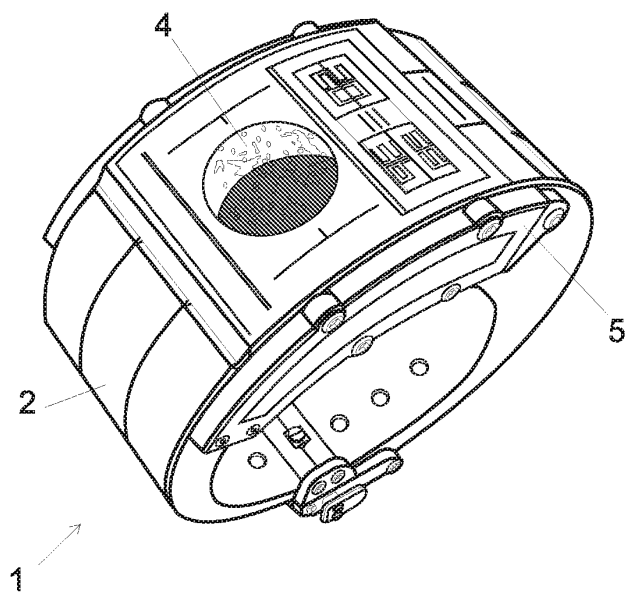


Fig. 1a

Source: J-1007

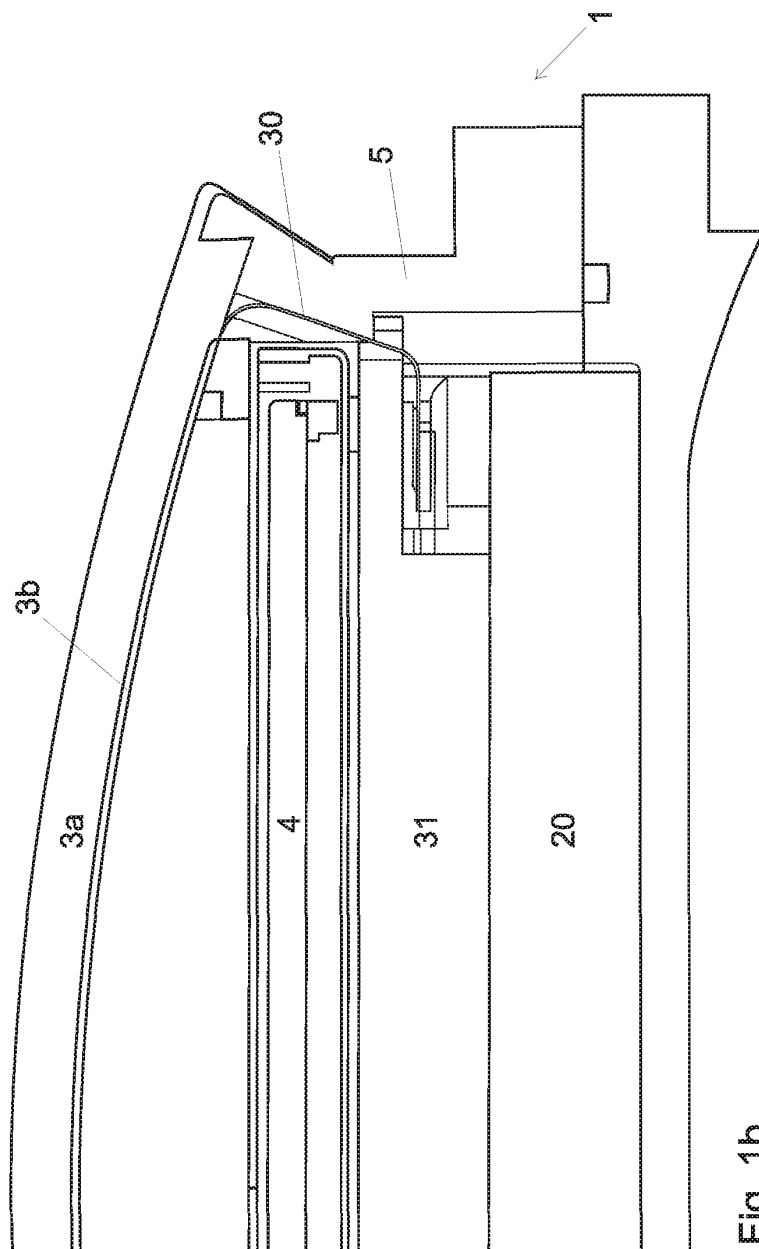


Fig. 1b

Source: 31007

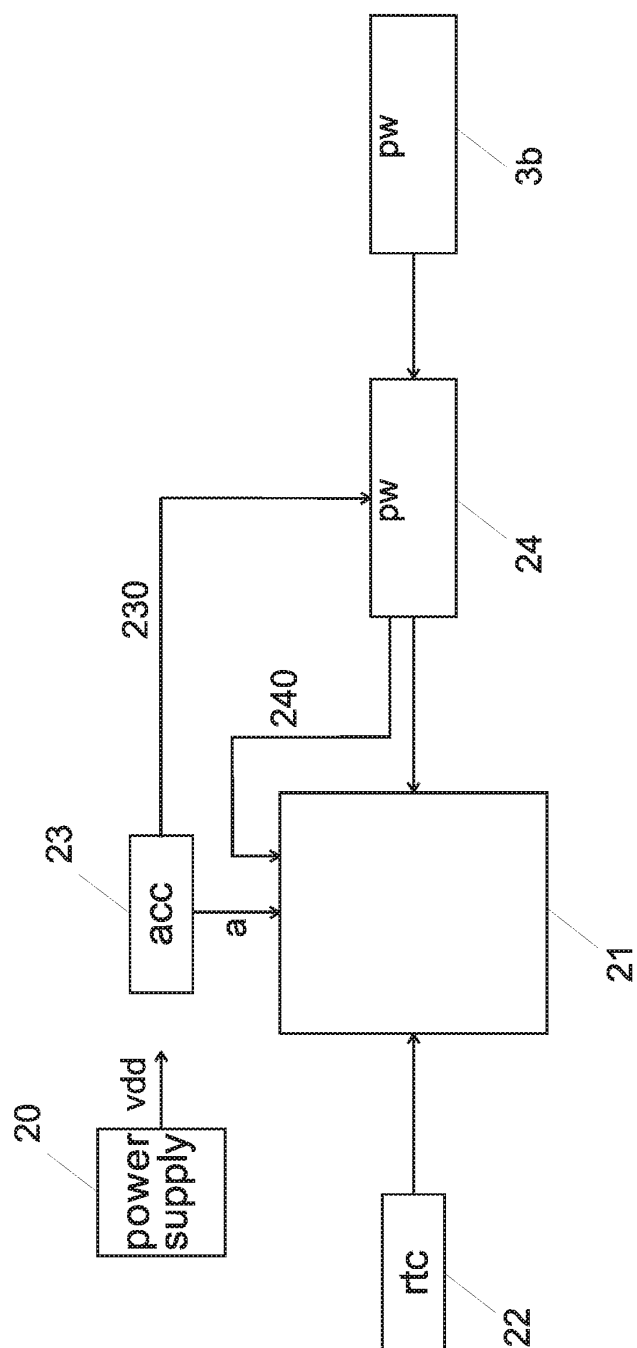


Fig. 2

5/20/2017

# Replacement Sheet

4/5

Fig. 3

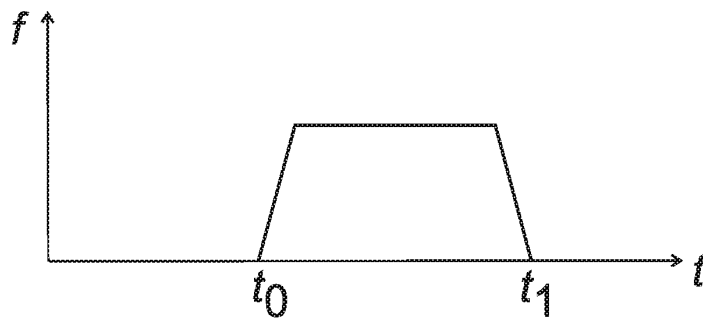


Fig. 4

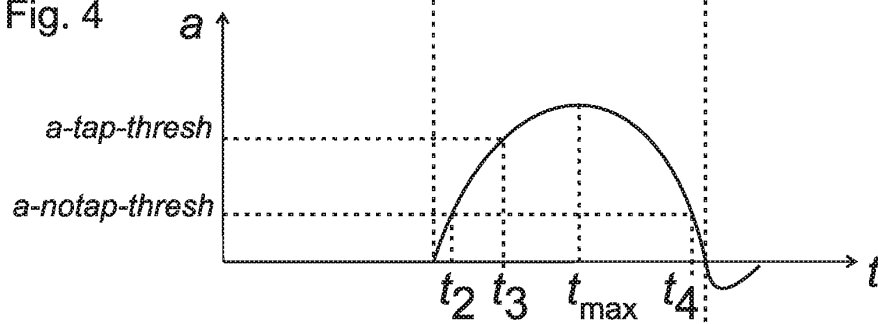


Fig. 5

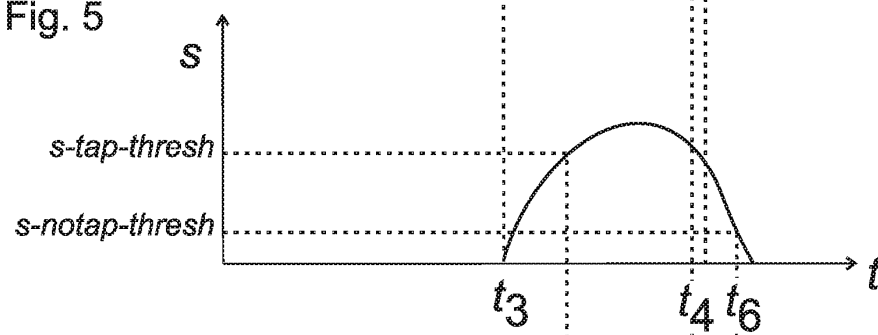
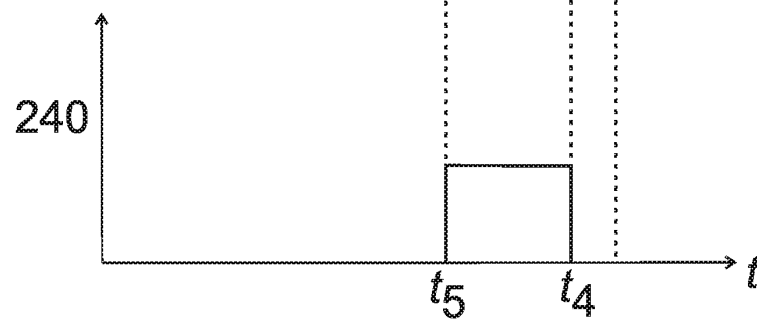
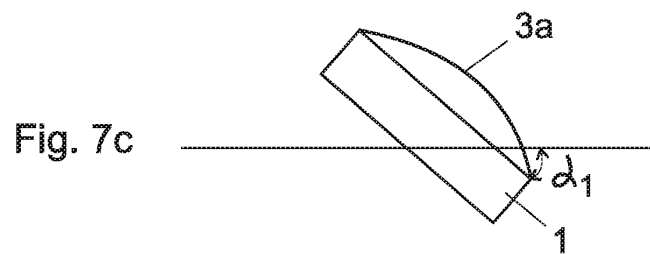
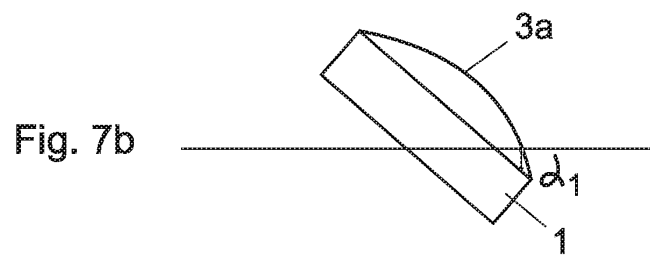
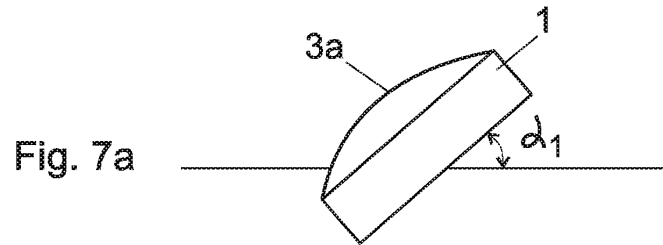


Fig. 6



Source: 3-1907

Replacement Sheet  
5/5



Sheet 3 of 10

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(10) International Publication Number  
**WO 2013/057048 A1**

(43) International Publication Date  
25 April 2013 (25.04.2013)

(51) International Patent Classification:

G04G 21/08 (2010.01) G04G 17/04 (2006.01)  
G04G 19/12 (2006.01) G04C 3/00 (2006.01)

(21) International Application Number:

PCT/EP2012/070273

(22) International Filing Date:

12 October 2012 (12.10.2012)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

01689/11 18 October 2011 (18.10.2011) CH

(71) Applicant: SLYDE WATCH SA [CH/CH]; Chemin de l'Eglise 1, CH-1184 Luins (CH).

(72) Inventors: BEZINGE, Alex; Prafirmin 213, CH-1965 Savièse (CH). MOHNI, Adrian; Boppartshofweg 12, CH-9014 St-Gallen (CH). PFEIFER, Daniel; Pfarrweg 33, A-6580 St Anton am Arlberg (AT). DOGAN, Musa; Karl-Völker-Strasse 10, CH-9435 Heerbrugg (CH).

(74) Agent: P&TS SA; Av. J.-J. Rousseau 4, P.O. Box 2848, CH-2001 Neuchâtel (CH).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

(54) Title: A METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE

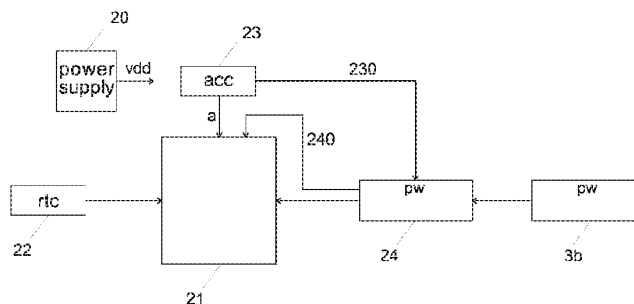


Fig. 2

(57) Abstract: An electronic wristwatch operable in two power modes and comprising: an inertial sensor for detecting a gesture on a cover glass of said wristwatch; a touch panel underneath said cover glass for detecting said gesture; gesture detection by the inertial sensor is combined with gesture detection by the touch panel for triggering a switch from a first power mode to a second power mode.

WO 2013/057048 A1

**A method and circuit for switching a wristwatch from a first power mode to a second power mode**

Field of the invention

[0001] The present invention is related to a method for switching a wristwatch from a first power mode to a second power mode, and to a wristwatch which can be switched from a first power mode to a second power mode. The present invention is also related to wristwatches with a touch panel and a plurality of power modes.

Description of related art

[0001] EP1324159 concerns a wristwatch having a touch panel. When not used, a display is switched to a sleeping mode. To avoid an accidental activation of the sensors, a press button is provided to activate the sensors and the liquid crystal display.

[0002] US2009199130 concerns a method and apparatus for receiving an input by a user on an interactive touchscreen display. The input comprises a contact gesture detected with accelerometers.

[0003] US2002118605 discloses a tactile wristwatch in which touch-sensitive keyboard keys are switched on when a user presses a touch-sensitive keyboard.

[0004] US2009102669 discloses an alarm clock that can be stopped by the hand of a user approaching a proximity sensor.

[0005] WO09120292 concerns mobile handheld devices such as, for example, cell phones or personal digital assistants (PDAs) containing an accelerometer that sends a signal that causes the device to turn on.

[0006] WO11000893 describes a wristwatch with a touch display. The wristwatch comprises an accelerometer which is used for simulating effects

of shocks or acceleration on the movement. In order to reduce the power consumption, the display is automatically switched into a sleeping mode when not used. The user can wake up the display by means of a slight pressure of the glass or with a single tap or a double tap on the touch panel. This document does not describe how taps or double taps are detected and distinguished from other gestures or manipulations of the watch.

[0007] US2010/235667 describes a device with an accelerometer for detecting gestures used to wake up the device.

10 [0008] EP2315101 describes a method combining use of an inertial sensor and of a touch panel for detecting taps on the touch panel of a device such as a smartphone. The detection of taps by the touch panel is mainly based on the amplitude of the acceleration signal; if this amplitude is higher than a threshold, then the touch panel will be woken up to  
15 confirm this detection. Although this process might work well in smartphones, it has been found that a more precise detection method would be needed for wristwatches. Indeed, wristwatches are often subject to high acceleration values, sometimes in the magnitude of 50G or higher, in normal use or during sport. The inertial system described in this  
20 document is not able to distinguish reliably between those high acceleration values in normal use and acceleration due to a tap or other gesture. This results in numerous undesirable activation of the touch panel and therefore in a decrease of the power reserve. Moreover, the user is requested to exert a strong pressure on the display in order to produce an  
25 acceleration above the detection threshold.

[0009] A similar solution is described in EP1785808.

[0010] Therefore, different methods are known in order to switch on a device in sleep mode. However, it is difficult to distinguish between intentional commands to switch a device and other gestures or  
30 accelerations which may be produced during normal use of the device. For example, undesired switch of operating mode could occur when the touch

display touches a piece of cloth or in case of strong acceleration value, for example during sport.

Brief summary of the invention

5 [0011] It is therefore an aim of the invention to provide a better method for switching a device, such as a microelectronic device, into a different power mode.

[0012] It is another aim of the invention to provide a method for faster switching of a device into a different power mode, without causing unwanted power mode switches.

10 [0013] It is another aim to provide a method for switching a device into a different power mode which avoids undesired change of mode.

[0014] According to the invention, these aims are achieved by means of a method for switching a device from a first power mode to a second power mode, comprising:

- 15           using an accelerometer (as example of inertial sensor) with embedded signal processing capabilities for generating an acceleration signal used for detecting a gesture on a cover glass of said wristwatch;  
              using a touch panel underneath said cover glass for detecting said gesture;
- 20           combining gesture detection by the inertial sensor and gesture detection with the touch panel for triggering a switch from said first power mode to said second power mode,
- said method comprising a step of discriminating between gesture and no gesture based on the frequency of said acceleration signal, and/or
- 25           the direction of said acceleration signal as measured by said accelerometer being a three dimensional accelerometer, and/or the slope of said acceleration signal.

[0015] The gesture entered by the user to switch the power mode could be a tap, a double tap, a long tap or any other significant and recognizable

gesture rarely occurring outside of normal use of the device, and which do not need important processing capabilities to be recognized.

[0016] The simultaneous and combinatory usage of an inertial sensor, such as an accelerometer, and of a touch sensor or touch panel for  
5 detecting a gesture provides a more reliable discrimination between various gestures and other manipulations. Moreover, this solution reduces the power consumption in the first power mode since only the inertial sensor needs to be switched on in this mode.

[0017] The discrimination based on the frequency, and/or the slope of  
10 the acceleration signal is much more robust than a discrimination based on the amplitude of the acceleration signal only. It has been found that taps produce an acceleration signal in a specific relatively narrow frequency range. It has also been found that the slope of this acceleration signal, during increase and subsequent decrease, is in a specific range. Therefore,  
15 the frequency and/or the slope of the acceleration signal can both be used, alone or in combination, as a signature of an acceleration produced by taps, or by other gestures one wants to detect, allowing thus to distinguish between an acceleration caused by a tap from most other causes of acceleration.

[0018] It has been found that the acceleration caused by a tap comprises  
20 a significant component along a direction substantially perpendicular to the surface of the glass on which the tap is made, whereas most other causes produce accelerations along other directions. Therefore, a measure of the direction of the acceleration relatively to the surface of the glass  
25 could be used for distinguishing taps.

[0019] This discrimination based on the direction is even more reliable if the user is requested to make a tap on a predefined limited portion of the glass. In this case, detection of the direction of the tap is easier, especially if the glass is curved.

[0020] The first power mode could be a sleep mode, or standby mode, in which the power consumption is reduced but no indications are displayed on the display. The second power mode could be an operating mode where indications are displayed on the display.

5 Brief Description of the Drawings

[0021] The invention will be better understood with the aid of the description of an embodiment given by way of example and illustrated by the figures, in which:

Figure 1a illustrates a perspective view of a buttonless wristwatch  
10 with a touch display according to the invention.

Figure 1b illustrates a transversal cut through the wristwatch of Figure 1a.

Figure 2 schematically illustrates a possible arrangement of some components within an embodiment of wristwatch.

15 Figure 3 is a chronogram which illustrates the force  $f$  applied to the glass of a touch panel during a tap gesture.

Figure 4 is a chronogram which illustrates the acceleration measured by an accelerometer in a direction perpendicular to the glass of a touch panel during a tap gesture.

20 Figure 5 is a chronogram which illustrates a signal measured by a touch sensor during a tap gesture.

Figure 6 is a signal which illustrates an example of power-on signal generated by a circuit according to the invention.

25 Figures 7a to 7c illustrate three successive positions of the wristwatch that are detected during a wristturn detection method.

Detailed Description of possible embodiments of the Invention

[0022] Figures 1a and 1b illustrate an example of a wristwatch 1 according to the invention. The illustrated watch comprises notably a wristband 2 and a watch case 5 closed with a glass 3a and a touch sensor 3b covering a digital matrix display 4.

[0023] In a preferred embodiment, the watch has no crown and no push-buttons and is operated only through the touch panels and additional sensors, such as inertial sensors, inside the watch case. The water-tightness and solidity of the case is thus improved.

10 [0024] A luminosity sensor enabling the intensity of the screen to be automatically adapted to the surrounding luminosity can also be used as an option. The watch can switch nearly instantly from a stand-by mode, where the display is switched off or at least less luminous, to a "time reading" and/or navigation mode, for example as soon as the glass is touched or  
15 following a tap or double tap on the glass.

[0025] The watch case 5 can also include a connector (not shown) to connect the watch to an external computer, for example a micro or nano USB connector on the bottom or in one of the watch's sides. Wireless connection means, for example a ZigBee or Bluetooth module, can also be  
20 provided for connecting the watch to a personal computer and/or for supplying power to the watch and load the battery.

[0026] The watch is advantageously powered electrically by means of a rechargeable accumulator 20 (Figure 1b) through the micro or nano USB connector, through a specific or proprietary connector or, in a variant  
25 embodiment, through a radiofrequency interface.

[0027] The glass 3a with the touch sensor 3b underneath closes the upper surface of the watch case and covers the digital matrix display 4; there is an air gap between the touch sensor 3b and the display. The glass is preferably made of sapphire or of another scratchproof material and is

coated with an anti-glare treatment. In a preferred embodiment, the glass is cylindrically, or possibly spherically curved, while the display 4 is preferably flat.

[0028] The display 4 is preferably a high-resolution digital matrix display, and fills up nearly the entire surface under the glass 3a and thus serves both as multipurpose multifunction display and as time indicator. In a preferred embodiment, the display is a color liquid crystal display (LCD) or color thin film transistor display (TFT) with at least 150x150 pixels or more than 200 dpi (dot per inch). Other types of display, including displays based on the AMOLED technology for example, can also be used. Furthermore, the watch could also have several displays, for example several digital displays, or a digital matrix display combined with hands or other mechanical indicators.

[0029] The display 4 is preferably placed on a printed circuit board 31 on which other components, such as a microcontroller, an inertial sensor etc are also mounted. A connector 30 connects the touch sensor 3b with the printed circuit board 31; in one preferred embodiment, this connector is detachable, so that the glass 3a can be replaced independently of the printed circuit board. In the illustrated embodiment, the printed circuit board 31 rests directly against the watch case 5, so that accelerations on the glass 3a are transmitted to the inertial sensor on the board 31 with minimal damping.

[0030] The touch sensor or touch panel 3b is laminated or deposited underneath the glass 3a. In the following, since those two components are integrated, we will use interchangeably the expression glass or touch panel or touch sensor for designating the same component, depending on the context. A touch panel integrated between the display 4 and the glass cover 3a could also be used in a sandwich configuration with a flat glass cover 3a.

[0031] The touch panel 3b has an array of transparent electrodes and is placed underneath the glass 3a in order to detect the presence of a finger

or of a stylus. The detection technology preferably uses methods known in the state of the art, for example a capacitive detection, for detecting finger contact and various gestures on one or several of the electrodes. In one embodiment, transparent electrodes can be individually powered in order to put the touch panel in a low power mode with only some electrodes, for example electrodes in the middle, which are powered on and can detect finger contact on the corresponding part of the display; the remaining electrodes are not powered on in this low power mode.

[0032] The display 4 can display various indications, for example the current time, date, chrono, reverse counter, calendar, etc...or phases of the moon as shown in Figure 1. In order to extend the watch's functionalities, the user can switch from one display mode to another and for example replace the card displayed in Figure 1 with other cards. In a preferred embodiment, the user can move from one card to the other with a slide (fast) or scroll (slow) gesture for moving through and viewing a collection of available displays or cards. Scrolling or sliding in the horizontal or vertical direction is achieved by moving the finger on the glass in the corresponding direction.

[0033] Figure 2 schematically illustrates a possible arrangement and schematic of some components within an embodiment of wristwatch according to the invention. Only components which are necessary for the understanding of the invention have been represented, although other components and other arrangements could be provided in other embodiments of the invention.

[0034] The illustrated arrangement comprises a power supply 20, such as a rechargeable battery, for supplying power to all other components. A microcontroller 21 controls the display of indications on the matrix panel 4, depending on signals provided by the sensors 22, 23 and on commands entered by the user through the touch panel 4.

[0035] The component 22 is a real-time clock for generating a clock signal based on a quartz (not shown).

- [0036] The sensor 23 is an inertial sensor, preferably an accelerometer, preferably a 3-axis mems-based accelerometer for measuring acceleration values a (Figure 4) in a direction perpendicular to center of the glass of the wristwatch and in two orthogonal directions in a plane tangential to this glass at his center. This inertial sensor can comprise signal processing capabilities embedded within the same component or chip, for determining the frequency of the measured acceleration signal, the direction of this signal in 2 or 3 directions, the duration of an event in the acceleration signal, etc.
- 10 [0037] The component 24 is a touch panel controller (touch controller) for interpreting touch signals provided by the touch panel 3b when the user touches the glass 3a with his finger and consequently generate signals in the touch panel 3b located underneath, and for converting those signals into command signals for the microcontroller 21.
- 15 [0038] Other components, such as an input-output circuit, for example a USB decoder or a Bluetooth or ZigBee receiver, can also be integrated.
- [0039] The microcontroller 21 is specifically configured to interpret the signals from the touch controller 24 and from the inertial sensor 23, to select indications from several available indications depending on these signals, and to display those indications on the digital matrix display 4; this arrangement is preferably achieved by storing in the microcontroller's memory a computer program (firmware) allowing this specific sequence of operation to be fully controlled.
- 20 [0040] At least some of the components 21 to 24 and 3b and 4 can be powered in at least two different modes. In one preferred embodiment, a power saving mode and a time display mode are provided; the whole wristwatch can thus be powered either in time display mode for displaying time or other indications on the display 4, or in power saving mode for preserving the battery 20 by switching the display 4, the touch sensor 3b and other components in a low consumption mode. In one preferred
- 25
- 30

embodiment, the display 4 and the touch sensor 3b are switched off in low power saving mode.

[0041] In some embodiments, more than two power modes can be provided; for example, the real time clock 22 is preferably always powered on in power saving mode, so that the real time is not lost when the display 4 and the touch panel 3b are switched off; it is possible however to switch the real time clock off in a deep sleep mode in order to prevent the battery from being totally discharged. Other components, such as the microcontroller 21, the touch panel 3b etc could have more than two different power modes, for example a hot power saving mode allowing for a very fast re-start, and a cold power saving mode in which restart is possibly slower or necessitates restarting an operating system.

[0042] The device 1 can be switched from a first power mode, such as a power saving mode, to a second power mode, such as a time display mode, with a user gesture on the glass 3a / touch panel 3b. The device 1 can automatically return to the first power mode, for example after a predetermined duration, or when no acceleration and/or no activity are detected.

[0043] In one embodiment, a gesture command to switch the device into a second power mode is detected with the inertial sensor 23 for detecting a tap, a double tap or another command which can be input by the user onto the glass 3a / touch panel 3b in order to trigger a change of power mode. The inertial sensor 23 could be an accelerometer with embedded power processing capabilities and which is always powered on in the first low power mode. The embedded power processing capabilities comprise a processor or other processing means for executing programmable software code for analysing the accelerations values delivered by the accelerometer, and for generating signals or values when certain conditions are met.

[0044] In order to avoid undesired switches to the second power mode, which would switch the display on and reduce the operating time of the

battery, it is necessary to discriminate between changes in the acceleration signals which are caused by a switch on gesture, such as a tap or a double tap, and any other acceleration caused when the wristwatch is displaced or manipulated in normal use. In one preferred embodiment, the  
5 accelerometer 23 generates a power on signal 230 for powering the touch panel 3b and the touch controller 24 when the user enters a tap gesture on the glass 3a/ touch panel 3b, which can be discriminated from other signals with the following properties:

- 10                   –frequency: tap signals are typically high frequency signals and can be distinguished from other signals produced by slide, rub etc and from most acceleration that occur during normal use of the wristwatch. The acceleration produced by a valid single tap is a pulse function with a first step of fast increase of the acceleration almost immediately followed by a step of fast deceleration, the  
15                   duration of the whole pulse being typically in the range of 10 to 20 ms. Therefore, the bandwidth of this pulse-like function is necessarily higher than a predefined threshold, and a low pass filtering of acceleration signals can be used to cancel signals  
20                   produced by gestures other than taps or by movements of the wrist. Preferably, the embedded processing capabilities of the accelerometer exclude the possibility of the tap if the frequency of the acceleration signal, in a given direction such as the direction perpendicular to the center of the glass, is not in a predefined range.
- 25                   –duration of the pulse: as indicated, a valid single tap generates a pulse with a duration within a given range, usually between 5 and 100 ms, typically between 10 and 20 ms.
- 30                   –amplitude of the pulse: a valid single tap is detected only if the amplitude of the acceleration is higher than a first predefined threshold  $a_{\text{tap\_thresh}}$ . End of the tap is detected when the amplitude decreases below a second threshold  $a_{\text{notap\_thresh}}$ .

5        -direction of the acceleration: a tap on the glass generates a maximal acceleration in a main direction perpendicular to the center of the glass, oriented toward the bottom of the watch, and a much lower acceleration in all other directions. A 3D accelerometer can be used for discriminating valid taps based on the direction of the acceleration. For example, if the acceleration in a direction other than the main direction is higher than the acceleration in the main direction, the gesture will not be recognized as a switch on tap.

10       -slope of the acceleration: this feature can also be used to differentiate between a valid switch on tap and a non valid one. Taps typically generate a fast increase of the acceleration, whereas most other gestures such as swipes etc and most movements of the wrist produce a slower acceleration increase.  
15       Therefore, the system could distinguish that a tap is not valid if the slope of the acceleration is not in an expected range. It is also possible to measure the slope of acceleration in one preferential direction, for example in a direction perpendicular to the center of the glass, or separately in a plurality of predefined directions.  
20       The slope may be defined by the difference between two predefined acceleration values divided by the time it takes for the acceleration signal to goes from the first of those predefined values to the second one:  
25       
$$\text{slope} = (a_{\text{tap\_threshold}} - a_{\text{notap\_threshold}}) / (t_3 - t_2) \text{ (see Figure 4).}$$

[0045]   Those discriminating criteria can also be combined in different ways. For example, the processing means within the accelerometer could use the direction of the acceleration only during a limited time window, for example a less than 100 ms time interval starting at the beginning of the  
30       pulse.

[0046]   It is also possible to consider at least one of those criteria separately during the raising portion of the acceleration signal and during

the decreasing portion of this signal. For example, it is possible to verify whether the duration, the frequency, and/or the slope of the acceleration signal during the raising portion, and then during the decreasing portion, are each in predefined ranges compatibles with the gesture one wants to discriminate.

[0047] Other discriminating criteria could be used if other gestures, such as double taps or long taps, are used as command to change the power mode.

[0048] In the embodiment of the invention illustrated on Figure 2, the power on signal 230 generated by the inertial sensor 23 is used to wake up the touch panel 3b and/or the touch controller 24, or to switch those components from a low power mode to another power mode. Therefore, the touch panel 3b is switched off, or at least in low power mode, when the device 1 is in the first power mode, and is powered on, or at least partially powered on, after detection of a likely tap and generation of a wake up signal 230 by the accelerometer 23. In one embodiment, the wake up signal 230 generated by the inertial sensor 23 triggers a switch on command of the touch panel 3b and/or of the touch controller 24 from a low power mode in which nothing is displayed and no finger touch can be detected, to an intermediate power mode where only a subset of electrodes of the touch panel is activated, for example electrodes in the middle of the touch panel, in order detect finger contact such as taps or double taps in this limited area only and to avoid detection if a tap is made in a different area. In another embodiment, the wake up signal 230 triggers a switch on command of the touch controller 24 into a mode where all touch electrodes are activated, to detect a tap or double tap in any area of the touch panel 3b. It is also possible to activate the touch panel 3b and the touch controller 24 during only a limited duration, preferably less than 100 ms, after generation of the wake up signal 230.

[0049] The touch controller 24 generates a second wake up signal 240 to wake up the microcontroller 21, and possibly other components of the device 1, when this touch controller confirms the tap detection. The second

- wake up signal 240 can be input to an interrupt line or switch on line of the microcontroller 21. In one embodiment, the wake signal 230 of the inertial sensor 23 is generated very fast at the beginning of the tap, the touch controller 24 is immediately woken up, and used to confirm the finger
- 5 detection on the touch sensor 3b during the remaining time of the tap. In another embodiment, a double tap is required, and the inertial sensor is used to detect the first tap while the touch sensor 3b, possibly in cooperation with the inertial sensor 23, is used for detecting the second confirmation tap. In yet another embodiment, a long tap is required, i.e. a
- 10 tap where the finger rests against the glass during a minimal period. In all embodiments, a second wake up signal 240 is only generated if confirmation of a tap or double tap from the touch panel 3b occurs within a predetermined duration after the first wake signal, for example within a duration less than 300 ms, preferably less than 100 ms.
- 15 **[0050]** Discrimination of a tap by the touch controller 24 preferably depends on the location, size and duration of a touch signal generated by adjacent electrodes. A tap is usually made with the tip of a finger, i.e. on a small surface, during a short period, preferably on predetermined locations of the display.
- 20 **[0051]** The microcontroller 21 is only woken up by the second wake up signal of the touch controller 24. In another embodiment not illustrated hereby, the microcontroller is already woken up by the first wake up signal, and used for discriminating between tap and no tap based on signals from the touch controller 24; the second wake up signal is only used to confirm
- 25 the first wake up signal and prevent the microcontroller 21 for reentering into the first power mode.
- [0052]** In one embodiment, a rough discrimination between a wake up gesture and no wake up gesture is made by the inertial sensor 23 and/or the touch sensor 3b, in order to wake up the microprocessor 21. The
- 30 microprocessor then analyses the sequence of acceleration value delivered by the acceleration sensor, as well the signals delivered by the touch controller 24, to confirm or infirm the decision to wake up the device 1 and

in particular the display and touch panel 3b. If the microprocessor confirms the tag detection, it remains in operating mode and wake up the display. On the other hand, if tap detection is not confirmed by the more advanced algorithms used by the microcontroller, the microcontroller puts the touch panel 3b, touch controller 24 and itself back into the first power mode.

[0053] Figures 3 to 6 illustrate chronograms of various signals produced during a tap of the user on the glass of the wristwatch. Figure 3 illustrates the force  $f$  applied by the finger on the glass during a tap between  $t_0$  and  $t_1$ . The force increases very suddenly from  $t_0$ , remains approximately constant at a high level, and then decreases very quickly when the user releases the finger until he left the glass at  $t_1$ . The duration between  $t_0$  and  $t_1$  is typically comprised between 10 and 20 ms.

[0054] Figure 4 illustrates the acceleration as measured by the accelerometer 23 in a direction perpendicular to the center of the touch panel 3b during the tap. The acceleration increases from time  $t_0$  up to a maximum at  $t_{max}$ , and then decreases or even becomes negative until  $t_1$ . The acceleration might oscillate at low amplitude after the finger release. A tap is detected only if the amplitude of the measured acceleration reaches a first predefined threshold  $a_{tap\_thresh}$  at time  $t_3$ . End of the tap is detected at time  $t_4$  when the amplitude decreases below a second threshold  $a_{notap\_thresh}$ . A valid tap is discriminated based on the amplitude of the acceleration, duration between  $t_3$  and  $t_4$ , frequency of the amplitude signal, and / or slope of the acceleration signal.

[0055] Figure 5 illustrates a signal  $s$  produced by the touch controller 24 during a tap. This signal might be a combination between signals from different electrodes of the touch panel, or a signal processed from different signals of the electrodes. In one embodiment, the signal  $s$  is related to the probability of a tap, based on criteria like the size of the contact area, the frequency and timing of the contact signal, etc. The touch panel 3b and touch controller 24 are preferably in low power mode until time  $t_3$  when the accelerometer 23 detects a tap and generates a first wake up signal 230. At time  $t_5$ , the signal  $s$  reaches a threshold  $s_{tap\_thresh}$  where the touch

controller 24 detects a tap. End of the tap is detected at time  $t_5$  when the signal  $s$  decreases below the threshold  $s_{\text{notap\_thresh}}$

[0056] Figure 6 illustrates a second wake up signal 240 generated by the touch controller 24 or by a suitable circuit for switching the microcontroller 21 from a first low power mode to a second high power mode. The wake up signal is inactive until time  $t_5$  when a tap is detected by the inertial sensor and confirmed by the touch sensor. The microcontroller 21, and preferably the display of the touch panel 3b, is preferably activated at the rising flank of the signal 240 at time  $t_5$ . This signal becomes inactive at time  $t_4$  or  $t_6$ , at the end of the tap, although this does not result in changing the power mode of the device 1.

[0057] Figures 7a to 7c schematically illustrate three steps of another method for switching the wristwatch 1 from a first power mode to a second power mode. This method can be used in the same wristwatch than the above described method, so that a user can decide to wake his wristwatch either with the above described method (for example with a tap on the glass 3a) or with this other method of Figures 7a to 7c.

[0058] In this second method, a wristturn detection is performed for detecting rotation of the wrist and deciding if this rotation corresponds to predefined pattern, in which case the wristwatch should be switched to a second power mode for example in order to activate the display.

[0059] Initially, the microcontroller 21 is in a low power mode, for example completely off. The touch controller 24 to which the accelerometer 23 is connected, and which has the responsibility to wake up the microcontroller 21, is in a sleep mode (low power mode), but will wake up when an interrupt in the accelerometer 23 occurs. The accelerometer 23 is set so as to generate an interrupt when its position changes and reaches a given range that is maintained during a predetermined duration, as will be described.

[0060] The accelerometer 23 knows its position relatively to the vertical and horizontal direction. This can be determined for example by determining the direction along which the acceleration is substantially equal to 1G when the accelerometer is substantially immobile during a predefined duration.

[0061] During a first step of the wristturn detection method, illustrated on Figure 7a, the wristwatch reaches a starting position in a first defined angle range  $\alpha_1$  (e.g. 25° to 155° relatively to the horizontal). This position must be held for a defined time (e.g. 50ms) otherwise the start position is not registered. This position is identified using the accelerometer 23 internal orientation detection mechanism, for which the angle range can be set. The fact that a valid start position has been reached is then registered, for example in the accelerometer 23 or alternatively in the touch controller 24 which may be quickly woken to register that a valid start position is reached, before it goes back to wait for the next interrupt.

[0062] During a next step of the wristturn detection method, illustrated on Figure 7b, the wristwatch has been rotated and reaches a final position in a second defined angle range  $\alpha_2$  (e.g. -25° to -75° relatively to the horizontal). This position is a typical position for reading the time on the watch, with the display oriented toward the face of the user. This position must be held for a defined time (e.g. 50ms) other the position is not registered. This position is identified using the accelerometer 23 internal orientation detection mechanism, for which the angle range can be set. When a final position in this range is reached, the system checks if a valid start position was registered during the previous step of Figure 7a. If necessary, the touch controller 24 may be woken for this verification and/or for subsequent steps of the method.

[0063] The duration between the starting position and the final position may be measured. If this duration is not in a predefined range, the method is interrupted. Otherwise, the touch controller 24 changes to a No-movement & Angle Check mode. Alternatively, this No-movement & Angle

Check detection may be performed by the embedded processing capabilities within the accelerometer 23.

[0064] On Figure 7c, the system (for example the touch controller 24, or the accelerometer 23) verifies whether this final orientation of the wristwatch is maintained during a given duration. For this, the value of the acceleration along the three axes is periodically verified. If all 3 axis show no movement above a certain threshold for a defined time (respective defined number of samples), and if the orientation calculated from X/Y/Z is in a defined range (e.g. -25° to -60°), then the system determines that the user is probably consulting his watch. In this case, the touch controller 24 activates the microcontroller 21 and the display 3b, so the user can read the time.

[0065] Other methods of combining indications of the inertial sensor 23 and of the touch sensor 3b could be considered by the skilled person, including methods using additional wake up circuitry for discriminating between a tap gesture and no tap based on indication of the two sensors. The described example has the advantage that the number of components which need to be in an active power mode for discriminating a tap is very limited; in fact only the inertial sensor with integrated signal processing is required. In particular, no advanced signal processing capabilities are required in order to discriminate between a tap and other gestures or displacements of the watch with the accelerometer; the limited signal processing possibilities available in current mems-based accelerometers are sufficient.

[0066] Discrimination between a gesture and no gesture could be made within the processing means of the inertial sensor, by the touch controller 24, by the microcontroller 21, by a dedicated circuit (not shown), or by any combination thereof. Hardware and/or software modules could be used for this discrimination.

## Claims

1. A method for switching a wristwatch (1) from a first power mode to a second power mode, comprising:
  - using an accelerometer (23) with embedded signal processing capabilities for generating an acceleration signal used for detecting a
  - 5 gesture on a cover glass (3a) of said wristwatch;
  - using a touch panel (3b) underneath said cover glass (3a) for detecting said gesture;
  - combining gesture detection by the accelerometer (23) and gesture detection with the touch panel (3b) for triggering a switch from
  - 10 said first power mode to said second power mode,
  - said method comprising a step of discriminating between gesture and no gesture based on the frequency of said acceleration signal, and/or the direction of said acceleration signal as measured by said accelerometer being a three dimensional accelerometer, and/or the slope
  - 15 of said acceleration signal.
2. The method of claim 1, wherein the discrimination between gesture and no gesture is also based on the duration of said acceleration signal.
3. The method of one of the claims 1 to 2, wherein the
- 20 discrimination between gesture and no gesture is also based on the amplitude of said acceleration signal.
4. The method of one of the claims 1 to 3, said step of discriminating between gesture and no gesture comprises determining said frequency and determining that there is no gesture if said frequency is not
- 25 in a predetermined frequency range compatible with a tap.
5. The method of one of the claims 1 to 3, said step of discriminating between gesture and no gesture comprises determining said slope and determining that there is no gesture if said slope is not in a predetermined slope range compatible with a tap.

6. The method of claim 5, said step of determining said slope comprising determining the time it takes for said acceleration to increase from a first value to a second value.

7. The method of one of the claims 1 to 6, wherein said touch  
5 panel (3b) comprises a plurality of touch areas, said method comprising a step of applying a power supply sufficient for detecting a gesture to only a first subset of said touch areas.

8. The method of one of the claims 1 to 7, wherein  
discrimination between gesture and no gesture is based on the duration ( $t_5$   
10  $- t_3$ ) between a detection signal from said accelerometer (23) and a detection signal with said touch panel (3b).

9. The method of one of the claims 1 to 8, wherein said  
accelerometer (23) is powered on when said wristwatch (1) is in said first  
power mode,  
15 said method comprising a step of at partially waking up said touch panel (3b) upon detection of a gesture by said accelerometer (23).

10. The method of claim 9, comprising a step of waking up only a subset of the complete area of said touch panel (3b) upon detection of a gesture by said accelerometer (23).

20 11. The method of one of the claims 1 to 10, comprising a step of waking up a microcontroller (21) in said wristwatch upon detection of a gesture by said accelerometer (23) and with said touch panel (3b).

12. The method of one of the claims 1 to 10, comprising a step of waking up a microcontroller (21) in said wristwatch upon detection of a  
25 gesture by said accelerometer (23), said microcontroller (21) being then used for discriminating between gesture and no gesture based at least on signals from said touch panel (3b).

13. The method of one of the claims 1 to 12, said gesture being a tap or a double tap.

14. The method of one of the claims 1 to 13, further comprising a step of detecting a wristturn with said accelerometer (23), and switching  
5 said wristwatch (1) from said first power mode to said second power mode when a wristturn has been detected.

15. The method of claim 14, said step of detecting a wristturn comprising:  
detecting that the wristwatch in a first orientation in a first  
10 range;  
detecting that the wristwatch is then in a second range, different from said first range,  
detecting that the displacements of the wristwatch remains under a predetermined threshold during a predetermined duration.

16. A wristwatch (1) which can be operated in a plurality of power modes including a first power mode and a second power mode, comprising:  
a display (4);  
a touch panel (3b) underneath a cover glass (3a) of said  
20 wristwatch for detecting a gesture on said cover glass (3a);  
an accelerometer (23) with embedded signal processing capabilities, said accelerometer being arranged for generating an acceleration signal and for discriminating between gesture and no gesture based on the frequency of said acceleration signal, and/or the direction of  
25 said acceleration signal as measured by said accelerometer (23) being a three dimensional accelerometer, and/or the slope of said acceleration signal,  
a microcontroller (21) commanded so as to be switched to said second power mode upon gesture detection by accelerometer (23) and  
30 gesture detection by said touch panel.

17. The wristwatch of claim 16, wherein said touch panel (3b) comprises a plurality of touch areas and powering means arranged for powering only a first subset of said touch area upon detection of a gesture by said accelerometer (23), and for powering a larger subset in said second  
5 power mode.

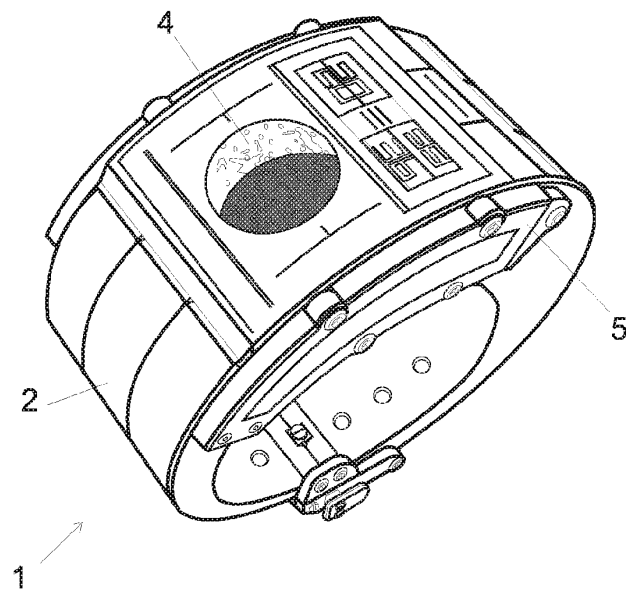


Fig. 1a

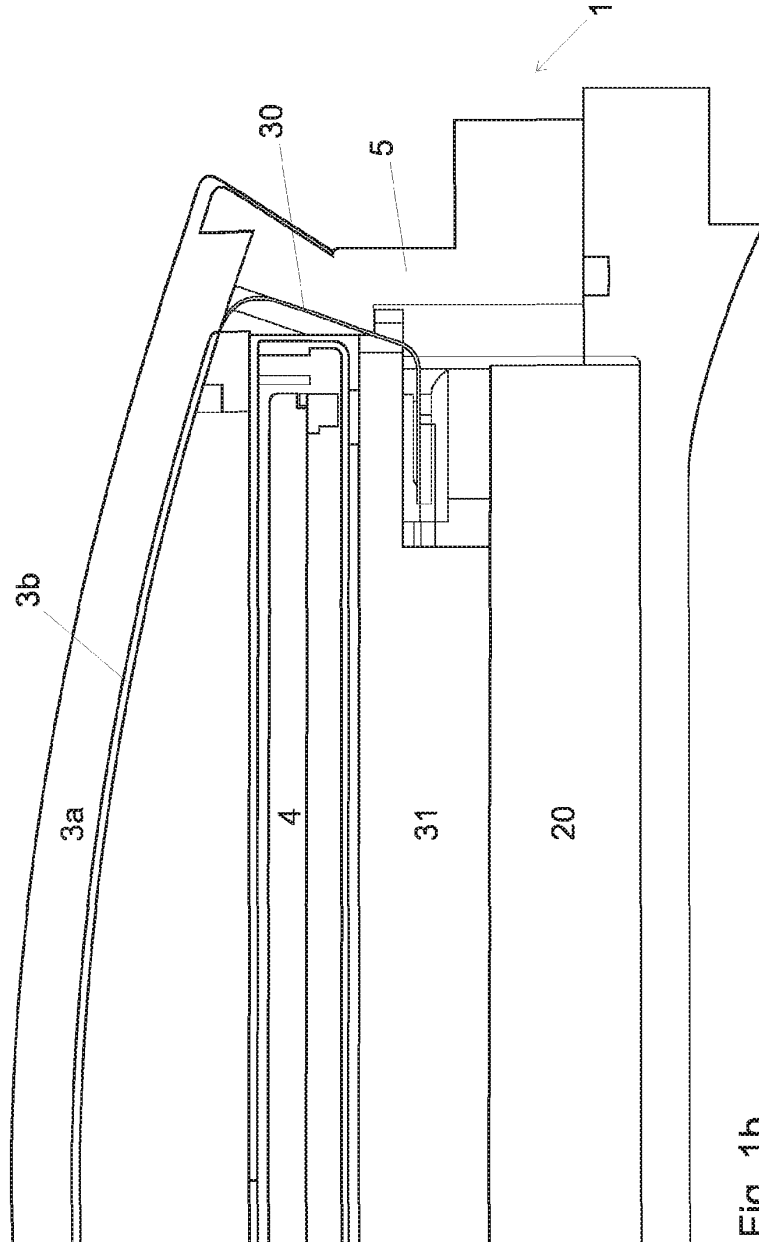


Fig. 1b

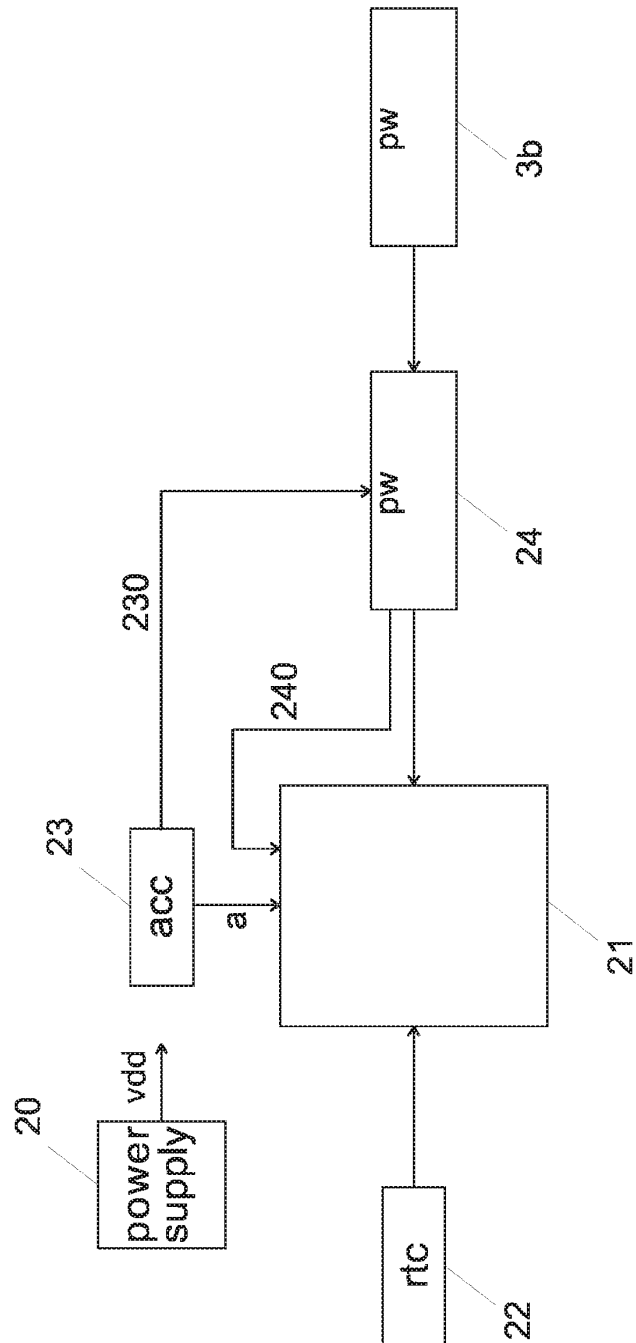


Fig. 2

4/5

Fig. 3

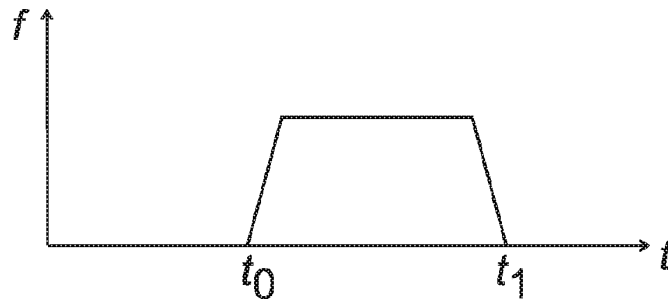


Fig. 4

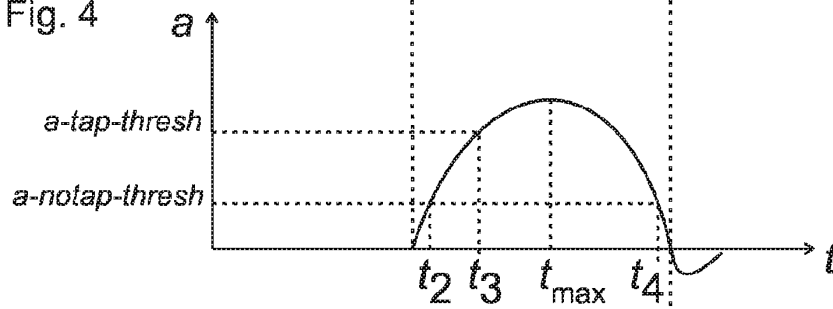


Fig. 5

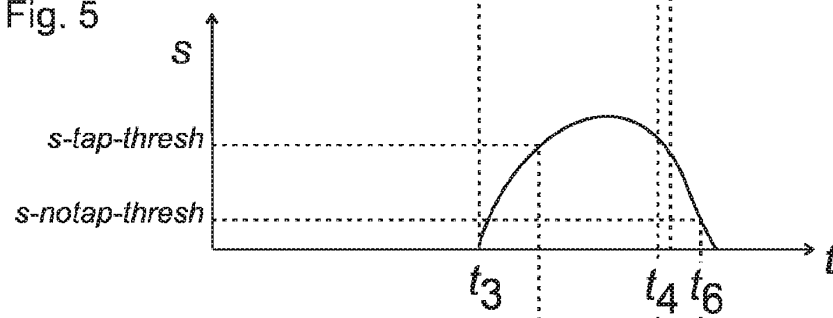
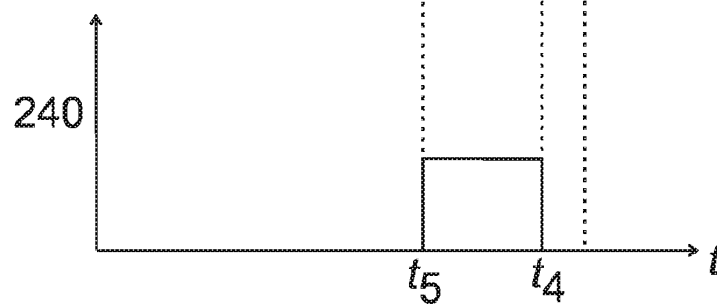
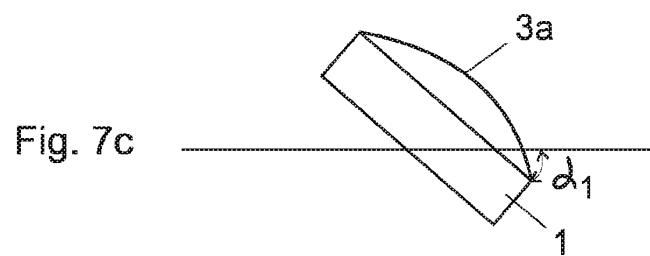
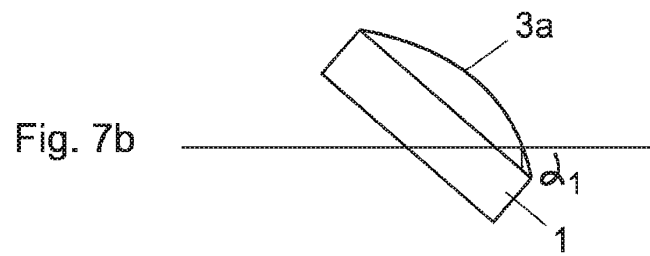
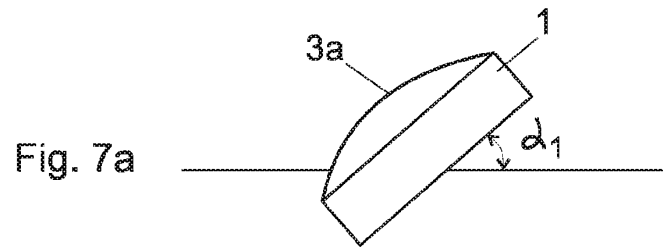


Fig. 6





# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP2012/070273

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This international Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-13, 16, 17

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/EP2012/070273

## A. CLASSIFICATION OF SUBJECT MATTER

INV. G04G21/08 G04G19/12 G04G17/04 G04C3/00  
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

G04G G06F G04C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                                                                                                                                                                                                         | Relevant to claim No. |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| X         | EP 2 315 101 A1 (RESEARCH IN MOTION LTD [CA]) 27 April 2011 (2011-04-27)<br>paragraphs [0002], [0003]<br>paragraphs [0016], [0017]<br>paragraphs [0031], [0038], [0039]<br>paragraphs [0081] - [0092]; figure 9<br>paragraphs [0094] - [0098]; figure 10<br>paragraphs [0101] - [0104]; figure 11<br>----- | 1-13, 16, 17          |
| A         | EP 1 785 808 A1 (RESEARCH IN MOTION LTD [CA]) 16 May 2007 (2007-05-16)<br>paragraphs [0046] - [0050]<br>paragraph [0060]<br>-----                                                                                                                                                                          | 1-13, 16, 17          |
| A         | US 2010/235667 A1 (MUCIGNAT ANDREA [US] ET AL) 16 September 2010 (2010-09-16)<br>figures 3A-4<br>-----<br>-/-                                                                                                                                                                                              | 1-13, 16, 17          |

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"8" document member of the same patent family

Date of the actual completion of the international search

10 January 2013

Date of mailing of the international search report

04/04/2013

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040,  
Fax: (+31-70) 340-3016

Authorized officer

Pirozzi, Giuseppe

# INTERNATIONAL SEARCH REPORT

International application No  
PCT/EP2012/070273

| C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT |                                                                                                                                                                                                                                                                                                                                                                       |                       |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| Category*                                            | Citation of document, with indication, where appropriate, of the relevant passages                                                                                                                                                                                                                                                                                    | Relevant to claim No. |
| A                                                    | <p>BOSCH: "BMA 180 Digital, triaxial acceleration sensor",<br/>BOSCH DATA SHEET,<br/>,<br/>no. BST-BMA180-DS000-03<br/>12 December 2009 (2009-12-12), pages 1-69,<br/>XP007921418,<br/>Retrieved from the Internet:<br/>URL:http://www.sparkfun.com/datasheets/Sensors/Accelerometer/BST-BMA180-DS000-03.pdf<br/>[retrieved on 2013-01-09]<br/>the whole document</p> | 1                     |
| A                                                    | <p>KIMBERLY TUCK: "MMA8450Q Single/Double and Directional Tap Detection",<br/>INTERNET CITATION,<br/>1 February 2010 (2010-02-01), pages 1-18,<br/>XP007921420,<br/>Retrieved from the Internet:<br/>URL:http://cache.freescale.com/files/sensors/doc/app_note/an3919.pdf<br/>[retrieved on 2013-01-09]<br/>the whole document</p>                                    | 1                     |

Form PCT/ISA/210 (continuation of second sheet) (April 2005)

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2012/070273

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s)                                                                                                                                                                  | Publication<br>date                                                                                                                      |
|-------------------------------------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| EP 2315101 A1                             | 27-04-2011          | CA 2716699 A1<br>EP 2315101 A1                                                                                                                                                              | 02-04-2011<br>27-04-2011                                                                                                                 |
| EP 1785808 A1                             | 16-05-2007          | CA 2563139 A1<br>EP 1785808 A1                                                                                                                                                              | 10-05-2007<br>16-05-2007                                                                                                                 |
| US 2010235667 A1                          | 16-09-2010          | CN 102713788 A<br>EP 2470975 A1<br>EP 2482167 A1<br>JP 2013506891 A<br>KR 20120044388 A<br>KR 20120055721 A<br>US 2010235667 A1<br>US 2011093729 A1<br>US 2012297226 A1<br>WO 2011028326 A1 | 03-10-2012<br>04-07-2012<br>01-08-2012<br>28-02-2013<br>07-05-2012<br>31-05-2012<br>16-09-2010<br>21-04-2011<br>22-11-2012<br>10-03-2011 |

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-13, 16, 17

Method for switching a wristwatch between two different power modes based on the combined signals from an accelerometer and a touch panel, the method relying on a discrimination based upon acceleration signal frequency and/or acceleration direction and/or acceleration signal slope.

---

2. claims: 14, 15

Method for switching a wristwatch between two different power modes based on the combined signals from an accelerometer and a touch panel, the method relying on a discrimination based upon the detection of a wrist turn performed by the accelerometer.

---

**A method and circuit for switching a wristwatch from a first power mode to a second power mode**

[0001] The present application is a continuation of U.S. Patent Application No. 14/352,727, filed April 18, 2014, which is a national phase application of PCT/EP2012/070273, filed October 12, 2012, which claims priority to Swiss Patent Application No. CH2011/1689, filed October 18, 2011. The entire contents of those applications are hereby incorporated by reference.

Field of the invention

[0002] ~~[001]~~ The present invention is related to a method for switching a wristwatch from a first power mode to a second power mode, and to a wristwatch which can be switched from a first power mode to a second power mode. The present invention is also related to wristwatches with a touch panel and a plurality of power modes.

15 Description of related art

[0003] ~~[001]~~ EP1324159 concerns a wristwatch having a touch panel. When not used, a display is switched to a sleeping mode. To avoid an accidental activation of the sensors, a press button is provided to activate the sensors and the liquid crystal display.

[0004] ~~[002]~~ US2009199130 concerns a method and apparatus for receiving an input by a user on an interactive touchscreen display. The input comprises a contact gesture detected with accelerometers.

[0005] ~~+003~~ US2002118605 discloses a tactile wristwatch in which touch-sensitive keyboard keys are switched on when a user presses a touch-sensitive keyboard.

[0006] ~~+004~~ US2009102669 discloses an alarm clock that can  
5 be stopped by the hand of a user approaching a proximity sensor.

[0007] ~~+005~~ WO09120292 concerns mobile handheld devices such as, for example, cell phones or personal digital assistants (PDAs) containing an accelerometer that sends a signal that  
10 causes the device to turn on.

[0008] ~~+006~~ WO11000893 describes a wristwatch with a touch display. The wristwatch comprises an accelerometer which is used for simulating effects of shocks or acceleration on the movement. In order to reduce the power consumption, the  
15 display is automatically switched into a sleeping mode when not used. The user can wake up the display by means of a slight pressure of the glass or with a single tap or a double tap on the touch panel. This document does not describe how taps or double taps are detected and distinguished from other  
20 gestures or manipulations of the watch.

[0009] ~~+007~~ US2010/235667 describes a device with an accelerometer for detecting gestures used to wake up the device.

[0010] ~~+008~~ EP2315101 describes a method combining use of an  
25 inertial sensor and of a touch panel for detecting taps on the touch panel of a device such as a smartphone. The detection of taps by the touch panel is mainly based on the

amplitude of the acceleration signal; if this amplitude is higher than a threshold, then the touch panel will be woken up to confirm this detection. Although this process might work well in smartphones, it has been found that a more  
5 precise detection method would be needed for wristwatches. Indeed, wristwatches are often subject to high acceleration values, sometimes in the magnitude of 50G or higher, in normal use or during sport. The inertial system described in this document is not able to distinguish reliably between  
10 those high acceleration values in normal use and acceleration due to a tap or other gesture. This results in numerous undesirable activation of the touch panel and therefore in a decrease of the power reserve. Moreover, the user is requested to exert a strong pressure on the display in order  
15 to produce an acceleration above the detection threshold.

[0011] ~~[009]~~ A similar solution is described in EP1785808.

[0012] ~~[0010]~~ Therefore, different methods are known in order to switch on a device in sleep mode. However, it is difficult to distinguish between intentional commands to switch a  
20 device and other gestures or accelerations which may be produced during normal use of the device. For example, undesired switch of operating mode could occur when the touch display touches a piece of cloth or in case of strong acceleration value, for example during sport.

25 Brief summary of the invention

[0013] ~~[0011]~~ It is therefore an aim of the invention to provide a better method for switching a device, such as a microelectronic device, into a different power mode.

[0014] [0012] It is another aim of the invention to provide a method for faster switching of a device into a different power mode, without causing unwanted power mode switches.

[0015] [0013] It is another aim to provide a method for  
5 switching a device into a different power mode which avoids undesired change of mode.

[0016] [0014] According to the invention, these aims are achieved by means of a method for switching a device from a first power mode to a second power mode, comprising:  
10 using an accelerometer (as example of inertial sensor) with embedded signal processing capabilities for generating an acceleration signal used for detecting a gesture on a cover glass of said wristwatch;  
using a touch panel underneath said cover glass for  
15 detecting said gesture;  
combining gesture detection by the inertial sensor and gesture detection with the touch panel for triggering a switch from said first power mode to said second power mode, said method comprising a step of discriminating  
20 between gesture and no gesture based on the frequency of said acceleration signal, and/or the direction of said acceleration signal as measured by said accelerometer being a three dimensional accelerometer, and/or the slope of said acceleration signal.

[0017] [0015] The gesture entered by the user to switch the  
25 power mode could be a tap, a double tap, a long tap or any other significant and recognizable gesture rarely occurring outside of normal use of the device, and which do not need important processing capabilities to be recognized.

[0018] [0016] The simultaneous and combinatory usage of an inertial sensor, such as an accelerometer, and of a touch sensor or touch panel for detecting a gesture provides a more reliable discrimination between various gestures and other manipulations. Moreover, this solution reduces the power consumption in the first power mode since only the inertial sensor needs to be switched on in this mode.

[0019] [0017] The discrimination based on the frequency, and/or the slope of the acceleration signal is much more robust than a discrimination based on the amplitude of the acceleration signal only. It has been found that taps produce an acceleration signal in a specific relatively narrow frequency range. It has also been found that the slope of this acceleration signal, during increase and subsequent decrease, is in a specific range. Therefore, the frequency and/or the slope of the acceleration signal can both be used, alone or in combination, as a signature of an acceleration produced by taps, or by other gestures one wants to detect, allowing thus to distinguish between an acceleration caused by a tap from most other causes of acceleration.

[0020] [0018] It has been found that the acceleration caused by a tap comprises a significant component along a direction substantially perpendicular to the surface of the glass on which the tap is made, whereas most other causes produce accelerations along other directions. Therefore, a measure of the direction of the acceleration relatively to the surface of the glass could be used for distinguishing taps.

[0021] [0019] This discrimination based on the direction is even more reliable if the user is requested to make a tap on

a predefined limited portion of the glass. In this case, detection of the direction of the tap is easier, especially if the glass is curved.

5     [0022]     ~~[0020]~~ The first power mode could be a sleep mode, or standby mode, in which the power consumption is reduced but no indications are displayed on the display. The second power mode could be an operating mode where indications are displayed on the display.

#### Brief Description of the Drawings

10    [0023]     ~~[0021]~~ The invention will be better understood with the aid of the description of an embodiment given by way of example and illustrated by the figures, in which:

Figure 1a illustrates a perspective view of a buttonless wristwatch with a touch display according to the invention.

15     Figure 1b illustrates a transversal cut through the wristwatch of Figure 1a.

Figure 2 schematically illustrates a possible arrangement of some components within an embodiment of wristwatch.

20     Figure 3 is a chronogram which illustrates the force  $f$  applied to the glass of a touch panel during a tap gesture.

Figure 4 is a chronogram which illustrates the acceleration measured by an accelerometer in a direction

perpendicular to the glass of a touch panel during a tap gesture.

Figure 5 is a chronogram which illustrates a signal measured by a touch sensor during a tap gesture.

5        Figure 6 is a signal which illustrates an example of power-on signal generated by a circuit according to the invention.

10        Figures 7a to 7c illustrate three successive positions of the wristwatch that are detected during a wristturn detection method.

#### Detailed Description of possible embodiments of the Invention

15        [0024]    ~~[0022]~~ Figures 1a and 1b illustrate an example of a wristwatch 1 according to the invention. The illustrated watch comprises notably a wristband 2 and a watch case 5 closed with a glass 3a and a touch sensor 3b covering a digital matrix display 4.

20        [0025]    ~~[0023]~~ In a preferred embodiment, the watch has no crown and no push-buttons and is operated only through the touch panels and additional sensors, such as inertial sensors, inside the watch case. The water-tightness and solidity of the case is thus improved.

25        [0026]    ~~[0024]~~ A luminosity sensor enabling the intensity of the screen to be automatically adapted to the surrounding luminosity can also be used as an option. The watch can switch nearly instantly from a stand-by mode, where the

display is switched off or at least less luminous, to a "time reading" and/or navigation mode, for example as soon as the glass is touched or following a tap or double tap on the glass.

5 [0027] ~~[0025]~~ The watch case 5 can also include a connector (not shown) to connect the watch to an external computer, for example a micro or nano USB connector on the bottom or in one of the watch's sides. Wireless connection means, for example a ZigBee or Bluetooth module, can also be provided for  
10 connecting the watch to a personal computer and/or for supplying power to the watch and load the battery.

[0028] ~~[0026]~~ The watch is advantageously powered electrically by means of a rechargeable accumulator 20 (Figure 1b) through the micro or nano USB connector, through a specific or  
15 proprietary connector or, in a variant embodiment, through a radiofrequency interface.

[0029] ~~[0027]~~ The glass 3a with the touch sensor 3b underneath closes the upper surface of the watch case and covers the digital matrix display 4; there is an air gap between the  
20 touch sensor 3b and the display. The glass is preferably made of sapphire or of another scratchproof material and is coated with an anti-glare treatment. In a preferred embodiment, the glass is cylindrically, or possibly spherically curved, while the display 4 is preferably flat.

25 [0030] ~~[0028]~~ The display 4 is preferably a high-resolution digital matrix display, and fills up nearly the entire surface under the glass 3a and thus serves both as multipurpose multifunction display and as time indicator. In

a preferred embodiment, the display is a color liquid crystal display (LCD) or color thin film transistor display (TFT) with at least 150x150 pixels or more than 200 dpi (dot per inch). Other types of display, including displays based on the AMOLED technology for example, can also be used. Furthermore, the watch could also have several displays, for example several digital displays, or a digital matrix display combined with hands or other mechanical indicators.

[0031] ~~[0029]~~ The display 4 is preferably placed on a printed circuit board 31 on which other components, such as a microcontroller, an inertial sensor etc are also mounted. A connector 30 connects the touch sensor 3b with the printed circuit board 31; in one preferred embodiment, this connector is detachable, so that the glass 3a can be replaced independently of the printed circuit board. In the illustrated embodiment, the printed circuit board 31 rests directly against the watch case 5, so that accelerations on the glass 3a are transmitted to the inertial sensor on the board 31 with minimal damping.

[0032] ~~[0030]~~ The touch sensor or touch panel 3b is laminated or deposited underneath the glass 3a. In the following, since those two components are integrated, we will use interchangeably the expression glass or touch panel or touch sensor for designating the same component, depending on the context. A touch panel integrated between the display 4 and the glass cover 3a could also be used in a sandwich configuration with a flat glass cover 3a.

[0033] ~~[0031]~~ The touch panel 3b has an array of transparent electrodes and is placed underneath the glass 3a in order to

detect the presence of a finger or of a stylus. The detection technology preferably uses methods known in the state of the art, for example a capacitive detection, for detecting finger contact and various gestures on one or several of the electrodes. In one embodiment, transparent electrodes can be individually powered in order to put the touch panel in a low power mode with only some electrodes, for example electrodes in the middle, which are powered on and can detect finger contact on the corresponding part of the display; the remaining electrodes are not powered on in this low power mode.

[0034] ~~[0032]~~ The display 4 can display various indications, for example the current time, date, chrono, reverse counter, calendar, etc...or phases of the moon as shown in Figure 1. In order to extend the watch's functionalities, the user can switch from one display mode to another and for example replace the card displayed in Figure 1 with other cards. In a preferred embodiment, the user can move from one card to the other with a slide (fast) or scroll (slow) gesture for moving through and viewing a collection of available displays or cards. Scrolling or sliding in the horizontal or vertical direction is achieved by moving the finger on the glass in the corresponding direction.

[0035] ~~[0033]~~ Figure 2 schematically illustrates a possible arrangement and schematic of some components within an embodiment of wristwatch according to the invention. Only components which are necessary for the understanding of the invention have been represented, although other components and other arrangements could be provided in other embodiments of the invention.

[0036] [0034] The illustrated arrangement comprises a power supply 20, such as a rechargeable battery, for supplying power to all other components. A microcontroller 21 controls the display of indications on the matrix panel 4, depending on signals provided by the sensors 22, 23 and on commands entered by the user through the touch panel 4.

[0037] [0035] The component 22 is a real-time clock for generating a clock signal based on a quartz (not shown).

[0038] [0036] The sensor 23 is an inertial sensor, preferably an accelerometer, preferably a 3-axis mems-based accelerometer for measuring acceleration values a (Figure 4) in a direction perpendicular to center of the glass of the wristwatch and in two orthogonal directions in a plane tangential to this glass at his center. This inertial sensor can comprise signal processing capabilities embedded within the same component or chip, for determining the frequency of the measured acceleration signal, the direction of this signal in 2 or 3 directions, the duration of an event in the acceleration signal, etc.

[0039] [0037] The component 24 is a touch panel controller (touch controller) for interpreting touch signals provided by the touch panel 3b when the user touches the glass 3a with his finger and consequently generate signals in the touch panel 3b located underneath, and for converting those signals into command signals for the microcontroller 21.

[0040] [0038] Other components, such as an input-output circuit, for example a USB decoder or a Bluetooth or ZigBee receiver, can also be integrated.

|        [0041]    ~~[0039]~~ The microcontroller 21 is specifically configured to interpret the signals from the touch controller 24 and from the inertial sensor 23, to select indications from several available indications depending on these  
5    signals, and to display those indications on the digital matrix display 4; this arrangement is preferably achieved by storing in the microcontroller's memory a computer program (firmware) allowing this specific sequence of operation to be fully controlled.

| 10   [0042]    ~~[0040]~~ At least some of the components 21 to 24 and 3b and 4 can be powered in at least two different modes. In one preferred embodiment, a power saving mode and a time display mode are provided; the whole wristwatch can thus be powered  
15   indications on the display 4, or in power saving mode for preserving the battery 20 by switching the display 4, the touch sensor 3b and other components in a low consumption mode. In one preferred embodiment, the display 4 and the touch sensor 3b are switched off in low power saving mode.

| 20   [0043]    ~~[0041]~~ In some embodiments, more than two power modes can be provided; for example, the real time clock 22 is preferably always powered on in power saving mode, so that the real time is not lost when the display 4 and the touch panel 3b are switched off; it is possible however to switch  
25   the real time clock off in a deep sleep mode in order to prevent the battery from being totally discharged. Other components, such as the microcontroller 21, the touch panel 3b etc could have more than two different power modes, for example a hot power saving mode allowing for a very fast re-  
30   start, and a cold power saving mode in which restart is

possibly slower or necessitates restarting an operating system.

[0044] [0042] The device 1 can be switched from a first power mode, such as a power saving mode, to a second power mode, such as a time display mode, with a user gesture on the glass 3a / touch panel 3b. The device 1 can automatically return to the first power mode, for example after a predetermined duration, or when no acceleration and/or no activity are detected.

10 [0045] [0043] In one embodiment, a gesture command to switch the device into a second power mode is detected with the inertial sensor 23 for detecting a tap, a double tap or another command which can be input by the user onto the glass 3a / touch panel 3b in order to trigger a change of power  
15 mode. The inertial sensor 23 could be an accelerometer with embedded power processing capabilities and which is always powered on in the first low power mode. The embedded power processing capabilities comprise a processor or other processing means for executing programmable software code for  
20 analysing the accelerations values delivered by the accelerometer, and for generating signals or values when certain conditions are met.

[0046] [0044] In order to avoid undesired switches to the second power mode, which would switch the display on and  
25 reduce the operating time of the battery, it is necessary to discriminate between changes in the acceleration signals which are caused by a switch on gesture, such as a tap or a double tap, and any other acceleration caused when the wristwatch is displaced or manipulated in normal use. In one

preferred embodiment, the accelerometer 23 generates a power on signal 230 for powering the touch panel 3b and the touch controller 24 when the user enters a tap gesture on the glass 3a/ touch panel 3b, which can be discriminated from other  
5 signals with the following properties:

-frequency: tap signals are typically high frequency signals and can be distinguished from other signals produced by slide, rub etc and from most acceleration that occur during normal use of the wristwatch. The  
10 acceleration produced by a valid single tap is a pulse function with a first step of fast increase of the acceleration almost immediately followed by a step of fast deceleration, the duration of the whole pulse being typically in the range of 10 to 20 ms.  
15 Therefore, the bandwidth of this pulse-like function is necessarily higher than a predefined threshold, and a low pass filtering of acceleration signals can be used to cancel signals produced by gestures other than taps or by movements of the wrist. Preferably,  
20 the embedded processing capabilities of the accelerometer exclude the possibility of the tap if the frequency of the acceleration signal, in a given direction such as the direction perpendicular to the center of the glass, is not in a predefined range.

-duration of the pulse: as indicated, a valid single tap generates a pulse with a duration within a given range, usually between 5 and 100 ms, typically  
25 between 10 and 20 ms.

-amplitude of the pulse: a valid single tap is detected only if the amplitude of the acceleration is higher than a first predefined threshold `a_tap_thresh`. End of the tap is detected when the amplitude decreases below a second threshold `a_notap_thresh`.

-direction of the acceleration: a tap on the glass generates a maximal acceleration in a main direction perpendicular to the center of the glass, oriented toward the bottom of the watch, and a much lower acceleration in all other directions. A 3D accelerometer can be used for discriminating valid taps based on the direction of the acceleration. For example, if the acceleration in a direction other than the main direction is higher than the acceleration in the main direction, the gesture will not be recognized as a switch on tap.

-slope of the acceleration: this feature can also be used to differentiate between a valid switch on tap and a non valid one. Taps typically generate a fast increase of the acceleration, whereas most other gestures such as swipes etc and most movements of the wrist produce a slower acceleration increase. Therefore, the system could distinguish that a tap is not valid if the slope of the acceleration is not in an expected range. It is also possible to measure the slope of acceleration in one preferential direction, for example in a direction perpendicular to the center of the glass, or separately in a plurality of predefined directions. The slope may be defined by the difference between

two predefined acceleration values divided by the time it takes for the acceleration signal to go from the first of those predefined values to the second one:

5        slope= (a\_tap\_threshold - a\_notap\_threshold)/(t<sub>3</sub> - t<sub>2</sub>)  
         (see Figure 4).

|        [0047]    ~~[0045]~~ Those discriminating criteria can also be combined in different ways. For example, the processing means within the accelerometer could use the direction of the  
10        acceleration only during a limited time window, for example a less than 100 ms time interval starting at the beginning of the pulse.

|        [0048]    ~~[0046]~~ It is also possible to consider at least one of those criteria separately during the raising portion of the  
15        acceleration signal and during the decreasing portion of this signal. For example, it is possible to verify whether the duration, the frequency, and/or the slope of the acceleration signal during the raising portion, and then during the decreasing portion, are each in predefined ranges compatibles  
20        with the gesture one wants to discriminate.

|        [0049]    ~~[0047]~~ Other discriminating criteria could be used if other gestures, such as double taps or long taps, are used as command to change the power mode.

|        [0050]    ~~[0048]~~ In the embodiment of the invention illustrated  
25        on Figure 2, the power on signal 230 generated by the inertial sensor 23 is used to wake up the touch panel 3b and/or the touch controller 24, or to switch those components from a low power mode to another power mode. Therefore, the

touch panel 3b is switched off, or at least in low power mode, when the device 1 is in the first power mode, and is powered on, or at least partially powered on, after detection of a likely tap and generation of a wake up signal 230 by the accelerometer 23. In one embodiment, the wake up signal 230 generated by the inertial sensor 23 triggers a switch on command of the touch panel 3b and/or of the touch controller 24 from a low power mode in which nothing is displayed and no finger touch can be detected, to an intermediate power mode where only a subset of electrodes of the touch panel is activated, for example electrodes in the middle of the touch panel, in order detect finger contact such as taps or double taps in this limited area only and to avoid detection if a tap is made in a different area. In another embodiment, the wake up signal 230 triggers a switch on command of the touch controller 24 into a mode where all touch electrodes are activated, to detect a tap or double tap in any area of the touch panel 3b. It is also possible to activate the touch panel 3b and the touch controller 24 during only a limited duration, preferably less than 100 ms, after generation of the wake up signal 230.

[0051] ~~[0049]~~ The touch controller 24 generates a second wake up signal 240 to wake up the microcontroller 21, and possibly other components of the device 1, when this touch controller confirms the tap detection. The second wake up signal 240 can be input to an interrupt line or switch on line of the microcontroller 21. In one embodiment, the wake signal 230 of the inertial sensor 23 is generated very fast at the beginning of the tap, the touch controller 24 is immediately woken up, and used to confirm the finger detection on the touch sensor 3b during the remaining time of the tap. In

another embodiment, a double tap is required, and the inertial sensor is used to detect the first tap while the touch sensor 3b, possibly in cooperation with the inertial sensor 23, is used for detecting the second confirmation tap.

5 In yet another embodiment, a long tap is required, i.e. a tap where the finger rests against the glass during a minimal period. In all embodiments, a second wake up signal 240 is only generated if confirmation of a tap or double tap from the touch panel 3b occurs within a predetermined duration

10 after the first wake signal, for example within a duration less than 300 ms, preferably less than 100 ms.

[0052] ~~[0050]~~ Discrimination of a tap by the touch controller 24 preferably depends on the location, size and duration of a touch signal generated by adjacent electrodes. A tap is

15 usually made with the tip of a finger, i.e. on a small surface, during a short period, preferably on predetermined locations of the display.

[0053] ~~[0051]~~ The microcontroller 21 is only woken up by the second wake up signal of the touch controller 24. In another

20 embodiment not illustrated hereby, the microcontroller is already woken up by the first wake up signal, and used for discriminating between tap and no tap based on signals from the touch controller 24; the second wake up signal is only used to confirm the first wake up signal and prevent the

25 microcontroller 21 for reentering into the first power mode.

[0054] ~~[0052]~~ In one embodiment, a rough discrimination between a wake up gesture and no wake up gesture is made by the inertial sensor 23 and/or the touch sensor 3b, in order to wake up the microprocessor 21. The microprocessor then

analyses the sequence of acceleration value delivered by the acceleration sensor, as well the signals delivered by the touch controller 24, to confirm or infirm the decision to wake up the device 1 and in particular the display and touch panel 3b. If the microprocessor confirms the tag detection, it remains in operating mode and wake up the display. On the other hand, if tap detection is not confirmed by the more advanced algorithms used by the microcontroller, the microcontrollers puts the touch panel 3b, touch controller 24 and itself back into the first power mode.

[0055] [0053] Figures 3 to 6 illustrate chronograms of various signals produced during a tap of the user on the glass of the wristwatch. Figure 3 illustrates the force  $f$  applied by the finger on the glass during a tap between  $t_0$  and  $t_1$ . The force increases very suddenly from  $t_0$ , remains approximately constant at a high level, and then decreases very quickly when the user releases the finger until he left the glass at  $t_1$ . The duration between  $t_0$  and  $t_1$  is typically comprised between 10 and 20 ms.

[0056] [0054] Figure 4 illustrates the acceleration as measured by the accelerometer 23 in a direction perpendicular to the center of the touch panel 3b during the tap. The acceleration increases from time  $t_0$  up to a maximum at  $t_{\max}$ , and then decreases or even becomes negative until  $t_1$ . The acceleration might oscillate at low amplitude after the finger release. A tap is detected only if the amplitude of the measured acceleration reaches a first predefined threshold  $a_{\text{tap\_thresh}}$  at time  $t_3$ . End of the tap is detected at time  $t_4$  when the amplitude decreases below a second threshold  $a_{\text{notap\_thresh}}$ . A valid tap is discriminated based on the

amplitude of the acceleration, duration between  $t_3$  and  $t_4$ , frequency of the amplitude signal, and / or slope of the acceleration signal.

[0057] [0055] Figure 5 illustrates a signal  $s$  produced by the touch controller 24 during a tap. This signal might be a combination between signals from different electrodes of the touch panel, or a signal processed from different signals of the electrodes. In one embodiment, the signal  $s$  is related to the probability of a tap, based on criteria like the size of the contact area, the frequency and timing of the contact signal, etc. The touch panel 3b and touch controller 24 are preferably in low power mode until time  $t_3$  when the accelerometer 23 detects a tap and generates a first wake up signal 230. At time  $t_5$ , the signal  $s$  reaches a threshold  $S_{\text{tap\_thresh}}$  where the touch controller 24 detects a tap. End of the tap is detected at time  $t_6$  when the signal  $s$  decreases below the threshold  $S_{\text{notap\_thresh}}$

[0058] [0056] Figure 6 illustrates a second wake up signal 240 generated by the touch controller 24 or by a suitable circuit for switching the microcontroller 21 from a first low power mode to a second high power mode. The wake up signal is inactive until time  $t_3$  when a tap is detected by the inertial sensor and confirmed by the touch sensor. The microcontroller 21, and preferably the display of the touch panel 3b, is preferably activated at the rising flank of the signal 240 at time  $t_5$ . This signal becomes inactive at time  $t_4$  or  $t_6$ , at the end of the tap, although this does not result in changing the power mode of the device 1.

[0059] [0057] Figures 7a to 7c schematically illustrate three steps of another method for switching the wristwatch 1 from a first power mode to a second power mode. This method can be used in the same wristwatch than the above described method, so that a user can decide to wake his wristwatch either with the above described method (for example with a tap on the glass 3a) or with this other method of Figures 7a to 7c.

[0060] [0058] In this second method, a wristturn detection is performed for detecting rotation of the wrist and deciding if this rotation corresponds to predefined pattern, in which case the wristwatch should be switched to a second power mode for example in order to activate the display.

[0061] [0059] Initially, the microcontroller 21 is in a low power mode, for example completely off. The touch controller 24 to which the accelerometer 23 is connected, and which has the responsibility to wake up the microcontroller 21, is in a sleep mode (low power mode), but will wake up when an interrupt in the accelerometer 23 occurs. The accelerometer 23 is set so as to generate an interrupt when its position changes and reaches a given range that is maintained during a predetermined duration, as will be described.

[0062] [0060] The accelerometer 23 knows its position relatively to the vertical and horizontal direction. This can be determined for example by determining the direction along which the acceleration is substantially equal to 1G when the accelerometer is substantially immobile during a predefined duration.

[0063] [0064] During a first step of the wristturn detection method, illustrated on Figure 7a, the wristwatch reaches a starting position in a first defined angle range  $\alpha_1$  (e.g.  $25^\circ$  to  $155^\circ$  relatively to the horizontal). This position must be held for a defined time (e.g. 50ms) otherwise the start position is not registered. This position is identified using the accelerometer 23 internal orientation detection mechanism, for which the angle range can be set. The fact that a valid start position has been reached is then registered, for example in the accelerometer 23 or alternatively in the touch controller 24 which may be quickly woken to register that a valid start position is reached, before it goes back to wait for the next interrupt.

[0064] [0062] During a next step of the wristturn detection method, illustrated on Figure 7b, the wristwatch has been rotated and reaches a final position in a second defined angle range  $\alpha_1$  (e.g.  $-25^\circ$  to  $-75^\circ$  relatively to the horizontal). This position is a typical position for reading the time on the watch, with the display oriented toward the face of the user. This position must be held for a defined time (e.g. 50ms) other the position is not registered. This position is identified using the accelerometer 23 internal orientation detection mechanism, for which the angle range can be set. When a final position in this range is reached, the system checks if a valid start position was registered during the previous step of Figure 7a. If necessary, the touch controller 24 may be woken for this verification and/or for subsequent steps of the method.

[0065] [0063] The duration between the starting position and the final position may be measured. If this duration is not

in a predefined range, the method is interrupted. Otherwise, the touch controller 24 changes to a No-movement & Angle Check mode. Alternatively, this No-movement & Angle Check detection may be performed by the embedded processing capabilities within the accelerometer 23.

[0066] [0064] On Figure 7c, the system (for example the touch controller 24, or the accelerometer 23) verifies whether this final orientation of the wristwatch is maintained during a given duration. For this, the value of the acceleration along the three axes is periodically verified. If all 3 axis show no movement above a certain threshold for a defined time (respective defined number of samples), and if the orientation calculated from X/Y/Z is in a defined range (e.g. -25° to -60°), then the system determines that the user is probably consulting his watch. In this case, the touch controller 24 activates the microcontroller 21 and the display 3b, so the user can read the time.

[0067] [0065] Other methods of combining indications of the inertial sensor 23 and of the touch sensor 3b could be considered by the skilled person, including methods using additional wake up circuitry for discriminating between a tap gesture and no tap based on indication of the two sensors. The described example has the advantage that the number of components which need to be in an active power mode for discriminating a tap is very limited; in fact only the inertial sensor with integrated signal processing is required. In particular, no advanced signal processing capabilities are required in order to discriminate between a tap and other gestures or displacements of the watch with the accelerometer; the limited signal processing possibilities

available in current mems-based accelerometers are sufficient.

5 [0068] ~~[0066]~~ Discrimination between a gesture and no gesture could be made within the processing means of the inertial sensor, by the touch controller 24, by the microcontroller 21, by a dedicated circuit (not shown), or by any combination thereof. Hardware and/or software modules could be used for this discrimination.

**A method and circuit for switching a wristwatch from a first power mode to a second power mode**

[0001] The present application is a continuation of U.S. Patent Application No. 14/352,727, filed April 18, 2014, which is a national phase application of PCT/EP2012/070273, filed October 12, 2012, which claims priority to Swiss Patent  
5 Application No. CH2011/1689, filed October 18, 2011. The entire contents of those applications are hereby incorporated by reference.

Field of the invention

[0002] The present invention is related to a method for  
10 switching a wristwatch from a first power mode to a second power mode, and to a wristwatch which can be switched from a first power mode to a second power mode. The present invention is also related to wristwatches with a touch panel and a plurality of power modes.

15 Description of related art

[0003] EP1324159 concerns a wristwatch having a touch panel. When not used, a display is switched to a sleeping mode. To avoid an accidental activation of the sensors, a press button is provided to activate the sensors and the liquid crystal  
20 display.

[0004] US2009199130 concerns a method and apparatus for receiving an input by a user on an interactive touchscreen display. The input comprises a contact gesture detected with accelerometers.

[0005] US2002118605 discloses a tactile wristwatch in which touch-sensitive keyboard keys are switched on when a user presses a touch-sensitive keyboard.

[0006] US2009102669 discloses an alarm clock that can be  
5 stopped by the hand of a user approaching a proximity sensor.

[0007] W009120292 concerns mobile handheld devices such as, for example, cell phones or personal digital assistants (PDAs) containing an accelerometer that sends a signal that causes the device to turn on.

10 [0008] W011000893 describes a wristwatch with a touch display. The wristwatch comprises an accelerometer which is used for simulating effects of shocks or acceleration on the movement. In order to reduce the power consumption, the display is automatically switched into a sleeping mode when  
15 not used. The user can wake up the display by means of a slight pressure of the glass or with a single tap or a double tap on the touch panel. This document does not describe how taps or double taps are detected and distinguished from other gestures or manipulations of the watch.

20 [0009] US2010/235667 describes a device with an accelerometer for detecting gestures used to wake up the device.

[0010] EP2315101 describes a method combining use of an inertial sensor and of a touch panel for detecting taps on  
25 the touch panel of a device such as a smartphone. The detection of taps by the touch panel is mainly based on the amplitude of the acceleration signal; if this amplitude is

higher than a threshold, then the touch panel will be woken up to confirm this detection. Although this process might work well in smartphones, it has been found that a more precise detection method would be needed for wristwatches.

5 Indeed, wristwatches are often subject to high acceleration values, sometimes in the magnitude of 50G or higher, in normal use or during sport. The inertial system described in this document is not able to distinguish reliably between those high acceleration values in normal use and acceleration

10 due to a tap or other gesture. This results in numerous undesirable activation of the touch panel and therefore in a decrease of the power reserve. Moreover, the user is requested to exert a strong pressure on the display in order to produce an acceleration above the detection threshold.

15 [0011] A similar solution is described in EP1785808.

[0012] Therefore, different methods are known in order to switch on a device in sleep mode. However, it is difficult to distinguish between intentional commands to switch a device and other gestures or accelerations which may be produced

20 during normal use of the device. For example, undesired switch of operating mode could occur when the touch display touches a piece of cloth or in case of strong acceleration value, for example during sport.

#### Brief summary of the invention

25 [0013] It is therefore an aim of the invention to provide a better method for switching a device, such as a microelectronic device, into a different power mode.

**[0014]** It is another aim of the invention to provide a method for faster switching of a device into a different power mode, without causing unwanted power mode switches.

**[0015]** It is another aim to provide a method for switching a  
5 device into a different power mode which avoids undesired change of mode.

**[0016]** According to the invention, these aims are achieved by means of a method for switching a device from a first power mode to a second power mode, comprising:  
10 using an accelerometer (as example of inertial sensor) with embedded signal processing capabilities for generating an acceleration signal used for detecting a gesture on a cover glass of said wristwatch;  
using a touch panel underneath said cover glass for  
15 detecting said gesture;  
combining gesture detection by the inertial sensor and gesture detection with the touch panel for triggering a switch from said first power mode to said second power mode, said method comprising a step of discriminating  
20 between gesture and no gesture based on the frequency of said acceleration signal, and/or the direction of said acceleration signal as measured by said accelerometer being a three dimensional accelerometer, and/or the slope of said acceleration signal.

25 **[0017]** The gesture entered by the user to switch the power mode could be a tap, a double tap, a long tap or any other significant and recognizable gesture rarely occurring outside of normal use of the device, and which do not need important processing capabilities to be recognized.

**[0018]** The simultaneous and combinatory usage of an inertial sensor, such as an accelerometer, and of a touch sensor or touch panel for detecting a gesture provides a more reliable discrimination between various gestures and other manipulations. Moreover, this solution reduces the power consumption in the first power mode since only the inertial sensor needs to be switched on in this mode.

**[0019]** The discrimination based on the frequency, and/or the slope of the acceleration signal is much more robust than a discrimination based on the amplitude of the acceleration signal only. It has been found that taps produce an acceleration signal in a specific relatively narrow frequency range. It has also been found that the slope of this acceleration signal, during increase and subsequent decrease, is in a specific range. Therefore, the frequency and/or the slope of the acceleration signal can both be used, alone or in combination, as a signature of an acceleration produced by taps, or by other gestures one wants to detect, allowing thus to distinguish between an acceleration caused by a tap from most other causes of acceleration.

**[0020]** It has been found that the acceleration caused by a tap comprises a significant component along a direction substantially perpendicular to the surface of the glass on which the tap is made, whereas most other causes produce accelerations along other directions. Therefore, a measure of the direction of the acceleration relatively to the surface of the glass could be used for distinguishing taps.

**[0021]** This discrimination based on the direction is even more reliable if the user is requested to make a tap on a

predefined limited portion of the glass. In this case, detection of the direction of the tap is easier, especially if the glass is curved.

- [0022] The first power mode could be a sleep mode, or  
5 standby mode, in which the power consumption is reduced but no indications are displayed on the display. The second power mode could be an operating mode where indications are displayed on the display.

#### Brief Description of the Drawings

- 10 [0023] The invention will be better understood with the aid of the description of an embodiment given by way of example and illustrated by the figures, in which:

Figure 1a illustrates a perspective view of a buttonless wristwatch with a touch display according to the invention.

- 15 Figure 1b illustrates a transversal cut through the wristwatch of Figure 1a.

Figure 2 schematically illustrates a possible arrangement of some components within an embodiment of wristwatch.

- 20 Figure 3 is a chronogram which illustrates the force  $f$  applied to the glass of a touch panel during a tap gesture.

Figure 4 is a chronogram which illustrates the acceleration measured by an accelerometer in a direction

perpendicular to the glass of a touch panel during a tap gesture.

Figure 5 is a chronogram which illustrates a signal measured by a touch sensor during a tap gesture.

5        Figure 6 is a signal which illustrates an example of power-on signal generated by a circuit according to the invention.

10        Figures 7a to 7c illustrate three successive positions of the wristwatch that are detected during a wristturn detection method.

#### Detailed Description of possible embodiments of the Invention

[0024]        Figures 1a and 1b illustrate an example of a wristwatch 1 according to the invention. The illustrated watch comprises notably a wristband 2 and a watch case 5 closed with a glass 3a and a touch sensor 3b covering a digital matrix display 4.

[0025]        In a preferred embodiment, the watch has no crown and no push-buttons and is operated only through the touch panels and additional sensors, such as inertial sensors, inside the watch case. The water-tightness and solidity of the case is thus improved.

[0026]        A luminosity sensor enabling the intensity of the screen to be automatically adapted to the surrounding luminosity can also be used as an option. The watch can switch nearly instantly from a stand-by mode, where the

display is switched off or at least less luminous, to a "time reading" and/or navigation mode, for example as soon as the glass is touched or following a tap or double tap on the glass.

5    **[0027]**    The watch case 5 can also include a connector (not shown) to connect the watch to an external computer, for example a micro or nano USB connector on the bottom or in one of the watch's sides. Wireless connection means, for example a ZigBee or Bluetooth module, can also be provided for  
10   connecting the watch to a personal computer and/or for supplying power to the watch and load the battery.

**[0028]**    The watch is advantageously powered electrically by means of a rechargeable accumulator 20 (Figure 1b) through the micro or nano USB connector, through a specific or  
15   proprietary connector or, in a variant embodiment, through a radiofrequency interface.

**[0029]**    The glass 3a with the touch sensor 3b underneath closes the upper surface of the watch case and covers the digital matrix display 4; there is an air gap between the  
20   touch sensor 3b and the display. The glass is preferably made of sapphire or of another scratchproof material and is coated with an anti-glare treatment. In a preferred embodiment, the glass is cylindrically, or possibly spherically curved, while the display 4 is preferably flat.

25   **[0030]**    The display 4 is preferably a high-resolution digital matrix display, and fills up nearly the entire surface under the glass 3a and thus serves both as multipurpose multifunction display and as time indicator. In a preferred

embodiment, the display is a color liquid crystal display (LCD) or color thin film transistor display (TFT) with at least 150x150 pixels or more than 200 dpi (dot per inch). Other types of display, including displays based on the  
5 AMOLED technology for example, can also be used. Furthermore, the watch could also have several displays, for example several digital displays, or a digital matrix display combined with hands or other mechanical indicators.

**[0031]** The display 4 is preferably placed on a printed  
10 circuit board 31 on which other components, such as a microcontroller, an inertial sensor etc are also mounted. A connector 30 connects the touch sensor 3b with the printed circuit board 31; in one preferred embodiment, this connector is detachable, so that the glass 3a can be replaced  
15 independently of the printed circuit board. In the illustrated embodiment, the printed circuit board 31 rests directly against the watch case 5, so that accelerations on the glass 3a are transmitted to the inertial sensor on the board 31 with minimal damping.

20 **[0032]** The touch sensor or touch panel 3b is laminated or deposited underneath the glass 3a. In the following, since those two components are integrated, we will use interchangeably the expression glass or touch panel or touch sensor for designating the same component, depending on the  
25 context. A touch panel integrated between the display 4 and the glass cover 3a could also be used in a sandwich configuration with a flat glass cover 3a.

**[0033]** The touch panel 3b has an array of transparent electrodes and is placed underneath the glass 3a in order to

detect the presence of a finger or of a stylus. The detection technology preferably uses methods known in the state of the art, for example a capacitive detection, for detecting finger contact and various gestures on one or several of the  
5 electrodes. In one embodiment, transparent electrodes can be individually powered in order to put the touch panel in a low power mode with only some electrodes, for example electrodes in the middle, which are powered on and can detect finger contact on the corresponding part of the display; the  
10 remaining electrodes are not powered on in this low power mode.

**[0034]** The display 4 can display various indications, for example the current time, date, chrono, reverse counter, calendar, etc...or phases of the moon as shown in Figure 1. In  
15 order to extend the watch's functionalities, the user can switch from one display mode to another and for example replace the card displayed in Figure 1 with other cards. In a preferred embodiment, the user can move from one card to the other with a slide (fast) or scroll (slow) gesture for moving  
20 through and viewing a collection of available displays or cards. Scrolling or sliding in the horizontal or vertical direction is achieved by moving the finger on the glass in the corresponding direction.

**[0035]** Figure 2 schematically illustrates a possible  
25 arrangement and schematic of some components within an embodiment of wristwatch according to the invention. Only components which are necessary for the understanding of the invention have been represented, although other components and other arrangements could be provided in other embodiments  
30 of the invention.

[0036] The illustrated arrangement comprises a power supply 20, such as a rechargeable battery, for supplying power to all other components. A microcontroller 21 controls the display of indications on the matrix panel 4, depending on  
5 signals provided by the sensors 22, 23 and on commands entered by the user through the touch panel 4.

[0037] The component 22 is a real-time clock for generating a clock signal based on a quartz (not shown).

[0038] The sensor 23 is an inertial sensor, preferably an  
10 accelerometer, preferably a 3-axis mems-based accelerometer for measuring acceleration values a (Figure 4) in a direction perpendicular to center of the glass of the wristwatch and in two orthogonal directions in a plane tangential to this glass at his center. This inertial sensor can comprise signal  
15 processing capabilities embedded within the same component or chip, for determining the frequency of the measured acceleration signal, the direction of this signal in 2 or 3 directions, the duration of an event in the acceleration signal, etc.

20 [0039] The component 24 is a touch panel controller (touch controller) for interpreting touch signals provided by the touch panel 3b when the user touches the glass 3a with his finger and consequently generate signals in the touch panel 3b located underneath, and for converting those signals into  
25 command signals for the microcontroller 21.

[0040] Other components, such as an input-output circuit, for example a USB decoder or a Bluetooth or ZigBee receiver, can also be integrated.

- [0041] The microcontroller 21 is specifically configured to interpret the signals from the touch controller 24 and from the inertial sensor 23, to select indications from several available indications depending on these signals, and to  
5 display those indications on the digital matrix display 4; this arrangement is preferably achieved by storing in the microcontroller's memory a computer program (firmware) allowing this specific sequence of operation to be fully controlled.
- 10 [0042] At least some of the components 21 to 24 and 3b and 4 can be powered in at least two different modes. In one preferred embodiment, a power saving mode and a time display mode are provided; the whole wristwatch can thus be powered either in time display mode for displaying time or other  
15 indications on the display 4, or in power saving mode for preserving the battery 20 by switching the display 4, the touch sensor 3b and other components in a low consumption mode. In one preferred embodiment, the display 4 and the touch sensor 3b are switched off in low power saving mode.
- 20 [0043] In some embodiments, more than two power modes can be provided; for example, the real time clock 22 is preferably always powered on in power saving mode, so that the real time is not lost when the display 4 and the touch panel 3b are switched off; it is possible however to switch the real time  
25 clock off in a deep sleep mode in order to prevent the battery from being totally discharged. Other components, such as the microcontroller 21, the touch panel 3b etc could have more than two different power modes, for example a hot power saving mode allowing for a very fast re-start, and a cold

power saving mode in which restart is possibly slower or necessitates restarting an operating system.

[0044] The device 1 can be switched from a first power mode, such as a power saving mode, to a second power mode, such as a time display mode, with a user gesture on the glass 3a / touch panel 3b. The device 1 can automatically return to the first power mode, for example after a predetermined duration, or when no acceleration and/or no activity are detected.

[0045] In one embodiment, a gesture command to switch the device into a second power mode is detected with the inertial sensor 23 for detecting a tap, a double tap or another command which can be input by the user onto the glass 3a / touch panel 3b in order to trigger a change of power mode. The inertial sensor 23 could be an accelerometer with embedded power processing capabilities and which is always powered on in the first low power mode. The embedded power processing capabilities comprise a processor or other processing means for executing programmable software code for analysing the accelerations values delivered by the accelerometer, and for generating signals or values when certain conditions are met.

[0046] In order to avoid undesired switches to the second power mode, which would switch the display on and reduce the operating time of the battery, it is necessary to discriminate between changes in the acceleration signals which are caused by a switch on gesture, such as a tap or a double tap, and any other acceleration caused when the wristwatch is displaced or manipulated in normal use. In one preferred embodiment, the accelerometer 23 generates a power

on signal 230 for powering the touch panel 3b and the touch controller 24 when the user enters a tap gesture on the glass 3a/ touch panel 3b, which can be discriminated from other signals with the following properties:

- 5            -frequency: tap signals are typically high frequency signals and can be distinguished from other signals produced by slide, rub etc and from most acceleration that occur during normal use of the wristwatch. The acceleration produced by a valid single tap is a
- 10           pulse function with a first step of fast increase of the acceleration almost immediately followed by a step of fast deceleration, the duration of the whole pulse being typically in the range of 10 to 20 ms. Therefore, the bandwidth of this pulse-like function
- 15           is necessarily higher than a predefined threshold, and a low pass filtering of acceleration signals can be used to cancel signals produced by gestures other than taps or by movements of the wrist. Preferably, the embedded processing capabilities of the
- 20           accelerometer exclude the possibility of the tap if the frequency of the acceleration signal, in a given direction such as the direction perpendicular to the center of the glass, is not in a predefined range.
- 25           -duration of the pulse: as indicated, a valid single tap generates a pulse with a duration within a given range, usually between 5 and 100 ms, typically between 10 and 20 ms.
- amplitude of the pulse: a valid single tap is detected only if the amplitude of the acceleration is

higher than a first predefined threshold `a_tap_thresh`.  
End of the tap is detected when the amplitude  
decreases below a second threshold `a_notap_thresh`.

5        -direction of the acceleration: a tap on the glass  
generates a maximal acceleration in a main direction  
perpendicular to the center of the glass, oriented  
toward the bottom of the watch, and a much lower  
acceleration in all other directions. A 3D  
10        accelerometer can be used for discriminating valid  
taps based on the direction of the acceleration. For  
example, if the acceleration in a direction other  
than the main direction is higher than the  
acceleration in the main direction, the gesture will  
not be recognized as a switch on tap.

15        -slope of the acceleration: this feature can also be  
used to differentiate between a valid switch on tap  
and a non valid one. Taps typically generate a fast  
increase of the acceleration, whereas most other  
gestures such as swipes etc and most movements of the  
20        wrist produce a slower acceleration increase.  
Therefore, the system could distinguish that a tap is  
not valid if the slope of the acceleration is not in  
an expected range. It is also possible to measure the  
slope of acceleration in one preferential direction,  
25        for example in a direction perpendicular to the  
center of the glass, or separately in a plurality of  
predefined directions.  
The slope may be defined by the difference between  
two predefined acceleration values divided by the  
30        time it takes for the acceleration signal to goes

from the first of those predefined values to the second one:

$\text{slope} = (\text{a\_tap\_threshold} - \text{a\_notap\_threshold}) / (t_3 - t_2)$   
(see Figure 4).

- 5    **[0047]**    Those discriminating criteria can also be combined in different ways. For example, the processing means within the accelerometer could use the direction of the acceleration only during a limited time window, for example a less than 100 ms time interval starting at the beginning of the pulse.
- 10   **[0048]**    It is also possible to consider at least one of those criteria separately during the raising portion of the acceleration signal and during the decreasing portion of this signal. For example, it is possibly to verify whether the duration, the frequency, and/or the slope of the acceleration
- 15   signal during the raising portion, and then during the decreasing portion, are each in predefined ranges compatibles with the gesture one wants to discriminate.

- [0049]**    Other discriminating criteria could be used if other gestures, such as double taps or long taps, are used as
- 20   command to change the power mode.

- [0050]**    In the embodiment of the invention illustrated on Figure 2, the power on signal 230 generated by the inertial sensor 23 is used to wake up the touch panel 3b and/or the touch controller 24, or to switch those components from a low
- 25   power mode to another power mode. Therefore, the touch panel 3b is switched off, or at least in low power mode, when the device 1 is in the first power mode, and is powered on, or at least partially powered on, after detection of a likely tap

and generation of a wake up signal 230 by the accelerometer 23. In one embodiment, the wake up signal 230 generated by the inertial sensor 23 triggers a switch on command of the touch panel 3b and/or of the touch controller 24 from a low power mode in which nothing is displayed and no finger touch can be detected, to an intermediate power mode where only a subset of electrodes of the touch panel is activated, for example electrodes in the middle of the touch panel, in order to detect finger contact such as taps or double taps in this limited area only and to avoid detection if a tap is made in a different area. In another embodiment, the wake up signal 230 triggers a switch on command of the touch controller 24 into a mode where all touch electrodes are activated, to detect a tap or double tap in any area of the touch panel 3b. It is also possible to activate the touch panel 3b and the touch controller 24 during only a limited duration, preferably less than 100 ms, after generation of the wake up signal 230.

**[0051]** The touch controller 24 generates a second wake up signal 240 to wake up the microcontroller 21, and possibly other components of the device 1, when this touch controller confirms the tap detection. The second wake up signal 240 can be input to an interrupt line or switch on line of the microcontroller 21. In one embodiment, the wake signal 230 of the inertial sensor 23 is generated very fast at the beginning of the tap, the touch controller 24 is immediately woken up, and used to confirm the finger detection on the touch sensor 3b during the remaining time of the tap. In another embodiment, a double tap is required, and the inertial sensor is used to detect the first tap while the touch sensor 3b, possibly in cooperation with the inertial

sensor 23, is used for detecting the second confirmation tap. In yet another embodiment, a long tap is required, i.e. a tap where the finger rests against the glass during a minimal period. In all embodiments, a second wake up signal 240 is  
5 only generated if confirmation of a tap or double tap from the touch panel 3b occurs within a predetermined duration after the first wake signal, for example within a duration less than 300 ms, preferably less than 100 ms.

[0052] Discrimination of a tap by the touch controller 24  
10 preferably depends on the location, size and duration of a touch signal generated by adjacent electrodes. A tap is usually made with the tip of a finger, i.e. on a small surface, during a short period, preferably on predetermined locations of the display.

15 [0053] The microcontroller 21 is only woken up by the second wake up signal of the touch controller 24. In another embodiment not illustrated hereby, the microcontroller is already woken up by the first wake up signal, and used for discriminating between tap and no tap based on signals from  
20 the touch controller 24; the second wake up signal is only used to confirm the first wake up signal and prevent the microcontroller 21 for reentering into the first power mode.

[0054] In one embodiment, a rough discrimination between a wake up gesture and no wake up gesture is made by the  
25 inertial sensor 23 and/or the touch sensor 3b, in order to wake up the microprocessor 21. The microprocessor then analyses the sequence of acceleration value delivered by the acceleration sensor, as well the signals delivered by the touch controller 24, to confirm or infirm the decision to

wake up the device 1 and in particular the display and touch panel 3b. If the microprocessor confirms the tag detection, it remains in operating mode and wake up the display. On the other hand, if tap detection is not confirmed by the more  
5 advanced algorithms used by the microcontroller, the microcontrollers puts the touch panel 3b, touch controller 24 and itself back into the first power mode.

**[0055]** Figures 3 to 6 illustrate chronograms of various signals produced during a tap of the user on the glass of the wristwatch. Figure 3 illustrates the force  $f$  applied by the  
10 finger on the glass during a tap between  $t_0$  and  $t_1$ . The force increases very suddenly from  $t_0$ , remains approximately constant at a high level, and then decreases very quickly when the user releases the finger until he left the glass at  
15  $t_1$ . The duration between  $t_0$  and  $t_1$  is typically comprised between 10 and 20 ms.

**[0056]** Figure 4 illustrates the acceleration as measured by the accelerometer 23 in a direction perpendicular to the center of the touch panel 3b during the tap. The acceleration  
20 increases from time  $t_0$  up to a maximum at  $t_{\max}$ , and then decreases or even becomes negative until  $t_1$ . The acceleration might oscillate at low amplitude after the finger release. A tap is detected only if the amplitude of the measured acceleration reaches a first predefined threshold  $a_{\text{tap\_thresh}}$  at  
25 time  $t_3$ . End of the tap is detected at time  $t_4$  when the amplitude decreases below a second threshold  $a_{\text{notap\_thresh}}$ . A valid tap is discriminated based on the amplitude of the acceleration, duration between  $t_3$  and  $t_4$ , frequency of the amplitude signal, and / or slope of the acceleration signal.

**[0057]** Figure 5 illustrates a signal  $s$  produced by the touch controller 24 during a tap. This signal might be a combination between signals from different electrodes of the touch panel, or a signal processed from different signals of the electrodes. In one embodiment, the signal  $s$  is related to the probability of a tap, based on criteria like the size of the contact area, the frequency and timing of the contact signal, etc. The touch panel 3b and touch controller 24 are preferably in low power mode until time  $t_3$  when the accelerometer 23 detects a tap and generates a first wake up signal 230. At time  $t_5$ , the signal  $s$  reaches a threshold  $S_{\text{tap\_thresh}}$  where the touch controller 24 detects a tap. End of the tap is detected at time  $t_6$  when the signal  $s$  decreases below the threshold  $S_{\text{notap\_thresh}}$

**[0058]** Figure 6 illustrates a second wake up signal 240 generated by the touch controller 24 or by a suitable circuit for switching the microcontroller 21 from a first low power mode to a second high power mode. The wake up signal is inactive until time  $t_5$  when a tap is detected by the inertial sensor and confirmed by the touch sensor. The microcontroller 21, and preferably the display of the touch panel 3b, is preferably activated at the rising flank of the signal 240 at time  $t_5$ . This signal becomes inactive at time  $t_4$  or  $t_6$ , at the end of the tap, although this does not result in changing the power mode of the device 1.

**[0059]** Figures 7a to 7c schematically illustrate three steps of another method for switching the wristwatch 1 from a first power mode to a second power mode. This method can be used in the same wristwatch than the above described method, so that a user can decide to wake his wristwatch either with the

above described method (for example with a tap on the glass 3a) or with this other method of Figures 7a to 7c.

[0060] In this second method, a wristturn detection is performed for detecting rotation of the wrist and deciding if this rotation corresponds to predefined pattern, in which case the wristwatch should be switched to a second power mode for example in order to activate the display.

[0061] Initially, the microcontroller 21 is in a low power mode, for example completely off. The touch controller 24 to which the accelerometer 23 is connected, and which has the responsibility to wake up the microcontroller 21, is in a sleep mode (low power mode), but will wake up when an interrupt in the accelerometer 23 occurs. The accelerometer 23 is set so as to generate an interrupt when its position changes and reaches a given range that is maintained during a predetermined duration, as will be described.

[0062] The accelerometer 23 knows its position relatively to the vertical and horizontal direction. This can be determined for example by determining the direction along which the acceleration is substantially equal to 1G when the accelerometer is substantially immobile during a predefined duration.

[0063] During a first step of the wristturn detection method, illustrated on Figure 7a, the wristwatch reaches a starting position in a first defined angle range  $\alpha_1$  (e.g.  $25^\circ$  to  $155^\circ$  relatively to the horizontal). This position must be held for a defined time (e.g. 50ms) otherwise the start position is not registered. This position is identified using

the accelerometer 23 internal orientation detection mechanism, for which the angle range can be set. The fact that a valid start position has been reached is then registered, for example in the accelerometer 23 or  
5 alternatively in the touch controller 24 which may be quickly woken to register that a valid start position is reached, before it goes back to wait for the next interrupt.

**[0064]** During a next step of the wristturn detection method, illustrated on Figure 7b, the wristwatch has been rotated and  
10 reaches a final position in a second defined angle range  $\alpha_1$  (e.g.  $-25^\circ$  to  $-75^\circ$  relatively to the horizontal). This position is a typical position for reading the time on the watch, with the display oriented toward the face of the user. This position must be held for a defined time (e.g. 50ms)  
15 other the position is not registered. This position is identified using the accelerometer 23 internal orientation detection mechanism, for which the angle range can be set. When a final position in this range is reached, the system checks if a valid start position was registered during the  
20 previous step of Figure 7a. If necessary, the touch controller 24 may be woken for this verification and/or for subsequent steps of the method.

**[0065]** The duration between the starting position and the final position may be measured. If this duration is not in a  
25 predefined range, the method is interrupted. Otherwise, the touch controller 24 changes to a No-movement & Angle Check mode. Alternatively, this No-movement & Angle Check detection may be performed by the embedded processing capabilities within the accelerometer 23.

[0066] On Figure 7c, the system (for example the touch controller 24, or the accelerometer 23) verifies whether this final orientation of the wristwatch is maintained during a given duration. For this, the value of the acceleration along the three axes is periodically verified. If all 3 axis show no movement above a certain threshold for a defined time (respective defined number of samples), and if the orientation calculated from X/Y/Z is in a defined range (e.g. -25° to -60°), then the system determines that the user is probably consulting his watch. In this case, the touch controller 24 activates the microcontroller 21 and the display 3b, so the user can read the time.

[0067] Other methods of combining indications of the inertial sensor 23 and of the touch sensor 3b could be considered by the skilled person, including methods using additional wake up circuitry for discriminating between a tap gesture and no tap based on indication of the two sensors. The described example has the advantage that the number of components which need to be in an active power mode for discriminating a tap is very limited; in fact only the inertial sensor with integrated signal processing is required. In particular, no advanced signal processing capabilities are required in order to discriminate between a tap and other gestures or displacements of the watch with the accelerometer; the limited signal processing possibilities available in current mems-based accelerometers are sufficient.

[0068] Discrimination between a gesture and no gesture could be made within the processing means of the inertial sensor, by the touch controller 24, by the microcontroller 21, by a

dedicated circuit (not shown), or by any combination thereof. Hardware and/or software modules could be used for this discrimination.

Doc Code: Oath  
Document Description: Oath or declaration filed

PTO/AIA/08 (05-12)  
Approved for use through 01/31/2014. CMB 0851-0032  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE  
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

|                                                                                       |                        |                                                                                                                                   |
|---------------------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>DECLARATION FOR UTILITY OR<br/>DESIGN<br/>PATENT APPLICATION<br/>(37 CFR 1.63)</b> | Attorney Docket Number | BEZINGE.00101                                                                                                                     |
|                                                                                       | First Named Inventor   | Adrian MOHNI                                                                                                                      |
|                                                                                       | COMPLETE IF KNOWN      |                                                                                                                                   |
|                                                                                       | Application Number     | 14/352,727-Conf. #4023                                                                                                            |
|                                                                                       | Filing Date            | April 18, 2014                                                                                                                    |
|                                                                                       | Art Unit               | N/A                                                                                                                               |
| <input type="checkbox"/> Declaration<br>Submitted<br>With Initial<br>Filing           | OR                     | <input checked="" type="checkbox"/> Declaration<br>Submitted after Initial<br>Filing (surcharge<br>(37 CFR 1.16 (f))<br>required) |
| Examiner Name                                                                         |                        | Not Yet Assigned                                                                                                                  |

**A METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO  
A SECOND POWER MODE**

(Title of the Invention)

As a below named inventor, I hereby declare that:

This declaration is directed to:

☐ The attached application

OR

☒ United States Application Number or PCT International application number PCT/EP2012/070273  
filed on 10/12/2012

The above-identified application was made or authorized to be made by me.

I believe I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001  
by fine or imprisonment of not more than five (5) years, or both.

**Authorization To Permit Access To Application by Participating Office**

☒ If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the above-identified patent application is filed access to the above-identified patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the above-identified patent application is filed to have access to the above-identified patent application.

In accordance with 37 CFR 1.14(h)(2), access will be provided to a copy of the above-identified patent application with respect to: 1) the above-identified patent application-as-filed; 2) any foreign application to which the above-identified patent application claims priority under 35 USC 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the above-identified patent application; and 3) any U.S. application-as-filed from which benefit is sought in the above-identified patent application.

In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing the Authorization to Permit Access to Application by Participating Offices.

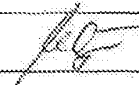
| DECLARATION — Utility or Design Patent Application                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                |                        |                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------------------------------|
| Direct all correspondence to:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <input checked="checked" type="checkbox"/> The address associated with Customer Number: <span style="border: 1px solid black; padding: 2px 20px;">27557</span> | OR                     | <input type="checkbox"/> Correspondence address below |
| Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                |                        |                                                       |
| Address                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                |                        |                                                       |
| City                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                | State                  | Zip                                                   |
| Country                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Telephone                                                                                                                                                      | Email                  |                                                       |
| <b>WARNING:</b><br>Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identify theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available. Petitioner/applicant is advised that documents which form the record of a patent application (such as the PTO/SB/01) are placed into the Privacy Act system of records DEPARTMENT OF COMMERCE, COMMERCE-PAT-7, System name: Patent Application Files. Documents not retained in an application file (such as the PTO-2038) are placed into the Privacy Act system of COMMERCE/PAT-TM-10, System name: Deposit Accounts and Electronic Funds Transfer Profiles. |                                                                                                                                                                |                        |                                                       |
| <b>LEGAL NAME OF SOLE OR FIRST INVENTOR:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                |                        |                                                       |
| (E.g., Given Name (first and middle [if any]) and Family Name or Surname)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                |                        |                                                       |
| Adrian MOHNI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                |                        |                                                       |
| Inventor's Signature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                |                        | Date (Optional)<br>26.5.14                            |
| Residence: City<br>St-Gallen                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | State                                                                                                                                                          | Country<br>Switzerland |                                                       |
| Mailing Address:<br><br>Boppartshofweg 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                |                        |                                                       |
| City<br>St-Gallen                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | State                                                                                                                                                          | Zip<br>CH-9014         | Country<br>Switzerland                                |
| <input checked="checked" type="checkbox"/> Additional inventors are being named on the <u>1</u> supplemental sheet(s) PTO/AIA/10 attached hereto.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                |                        |                                                       |

|                                           |  |                                                                         |  |
|-------------------------------------------|--|-------------------------------------------------------------------------|--|
| <b>SUPPLEMENTAL SHEET FOR DECLARATION</b> |  | <b>ADDITIONAL INVENTOR(S)</b><br>Supplemental Sheet (for PTO/AIA/08,09) |  |
|                                           |  | Page <u>1</u> of <u>1</u>                                               |  |

|                                                                                                                                      |       |                                 |         |
|--------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------|---------|
| <b>Legal Name of Additional Joint Inventor, if any:</b><br>(E.g., Given Name (first and middle (if any)) and Family Name or Surname) |       |                                 |         |
| Daniel PFEIFER                                                                                                                       |       |                                 |         |
| Inventor's Signature                                |       | Date (Optional) <u>15.05.14</u> |         |
| Residence: City                                                                                                                      | State | Country                         |         |
| Anton Am Arlberg                                                                                                                     |       | Austria                         |         |
| Mailing Address                                                                                                                      |       |                                 |         |
| Pfarriweg 33                                                                                                                         |       |                                 |         |
| City                                                                                                                                 | State | Zip                             | Country |
| Anton Am Arlberg                                                                                                                     |       | A-6580                          | Austria |

|                                                                                                                                      |       |                                 |             |
|--------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------|-------------|
| <b>Legal Name of Additional Joint Inventor, if any:</b><br>(E.g., Given Name (first and middle (if any)) and Family Name or Surname) |       |                                 |             |
| Musa DOGAN                                                                                                                           |       |                                 |             |
| Inventor's Signature                               |       | Date (Optional) <u>25.05.14</u> |             |
| Residence: City                                                                                                                      | State | Country                         |             |
| Heerbrugg                                                                                                                            |       | Switzerland                     |             |
| Mailing Address                                                                                                                      |       |                                 |             |
| Karl-Volker-Strasse 10                                                                                                               |       |                                 |             |
| City                                                                                                                                 | State | Zip                             | Country     |
| Heerbrugg                                                                                                                            |       | CH-9435                         | Switzerland |

|                                                                                                                                      |       |                 |             |
|--------------------------------------------------------------------------------------------------------------------------------------|-------|-----------------|-------------|
| <b>Legal Name of Additional Joint Inventor, if any:</b><br>(E.g., Given Name (first and middle (if any)) and Family Name or Surname) |       |                 |             |
| Alex BEZINGE                                                                                                                         |       |                 |             |
| Inventor's Signature See Substitute Statement in Lieu of an Oath or Declaration                                                      |       | Date (Optional) |             |
| Residence: City                                                                                                                      | State | Country         |             |
| Saviese                                                                                                                              |       | Switzerland     |             |
| Mailing Address                                                                                                                      |       |                 |             |
| Prafirmin 213                                                                                                                        |       |                 |             |
| City                                                                                                                                 | State | Zip             | Country     |
| Saviese                                                                                                                              |       | CH-1965         | Switzerland |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

| SUPPLEMENTAL SHEET FOR DECLARATION                                                                                                                     |       | ADDITIONAL INVENTOR(S)<br>Supplemental Sheet (for PTO/AIA/08,09) |             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------------------------------------------------------|-------------|
|                                                                                                                                                        |       | Page <u>1</u> of <u>1</u>                                        |             |
| <b>Legal Name of Additional Joint Inventor, if any:</b><br>(E.g., Given Name (first and middle (if any)) and Family Name or Surname)<br>Daniel PFEIFER |       |                                                                  |             |
| Inventor's Signature                                                                                                                                   |       | Date (Optional)                                                  |             |
| Residence: City                                                                                                                                        | State | Country                                                          |             |
| Anton Am Arlberg                                                                                                                                       |       | Austria                                                          |             |
| Mailing Address                                                                                                                                        |       |                                                                  |             |
| City                                                                                                                                                   | State | Zip                                                              | Country     |
| Pfarrweg 33                                                                                                                                            |       | A-6580                                                           | Austria     |
| <b>Legal Name of Additional Joint Inventor, if any:</b><br>(E.g., Given Name (first and middle (if any)) and Family Name or Surname)<br>Musa DOGAN     |       |                                                                  |             |
| Inventor's Signature                                                                                                                                   |       | Date (Optional)                                                  |             |
| Residence: City                                                                                                                                        | State | Country                                                          |             |
| Heerbrugg                                                                                                                                              |       | Switzerland                                                      |             |
| Mailing Address                                                                                                                                        |       |                                                                  |             |
| City                                                                                                                                                   | State | Zip                                                              | Country     |
| Heerbrugg                                                                                                                                              |       | CH-9435                                                          | Switzerland |
| <b>Legal Name of Additional Joint Inventor, if any:</b><br>(E.g., Given Name (first and middle (if any)) and Family Name or Surname)<br>Alex BEZINGE   |       |                                                                  |             |
| Inventor's Signature                                                                                                                                   |       | Date (Optional)                                                  |             |
| Residence: City                                                                                                                                        | State | Country                                                          |             |
| Saviese                                                                                                                                                |       | Switzerland                                                      |             |
| Mailing Address                                                                                                                                        |       |                                                                  |             |
| City                                                                                                                                                   | State | Zip                                                              | Country     |
| Saviese                                                                                                                                                |       | CH-1965                                                          | Switzerland |

134404.00101/36366802V.1

Doc Code: Oath

Document Description: Oath or declaration filed

PTO/AIA/02 (07-13)

Approved for use through 01/31/2014. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

| SUBSTITUTE STATEMENT IN LIEU OF AN OATH OR DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (35 U.S.C. 115(d) AND 37 CFR 1.84)                                                |                                                                                                |         |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------|---------|
| Title of Invention                                                                                                                                                                | A METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |         |         |
| This statement is directed to:                                                                                                                                                    |                                                                                                |         |         |
| <input type="checkbox"/> The attached application,                                                                                                                                |                                                                                                |         |         |
| OR                                                                                                                                                                                |                                                                                                |         |         |
| <input checked="" type="checkbox"/> United States application or PCT international application number <u>PCTEP2012/070273</u> filed on <u>10/12/2012</u>                          |                                                                                                |         |         |
| LEGAL NAME of inventor to whom this substitute statement applies:                                                                                                                 |                                                                                                |         |         |
| (E.g., Given Name (first and middle (if any)) and Family Name or Surname)                                                                                                         |                                                                                                |         |         |
| Alex BEZINGE                                                                                                                                                                      |                                                                                                |         |         |
| Residence (except for a deceased or legally incapacitated inventor):                                                                                                              |                                                                                                |         |         |
| City                                                                                                                                                                              | State                                                                                          | Country |         |
| Mailing Address (except for a deceased or legally incapacitated inventor):                                                                                                        |                                                                                                |         |         |
| City                                                                                                                                                                              | State                                                                                          | Zip     | Country |
| I believe the above-named inventor or joint inventor to be the original inventor or an original joint inventor of a claimed invention in the application.                         |                                                                                                |         |         |
| The above-identified application was made or authorized to be made by me.                                                                                                         |                                                                                                |         |         |
| I hereby acknowledge that any willful false statement made in this statement is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both. |                                                                                                |         |         |
| Relationship to the inventor to whom this substitute statement applies:                                                                                                           |                                                                                                |         |         |
| <input checked="" type="checkbox"/> Legal Representative (for deceased or legally incapacitated inventor only).                                                                   |                                                                                                |         |         |
| <input type="checkbox"/> Assignee.                                                                                                                                                |                                                                                                |         |         |
| <input type="checkbox"/> Person to whom the inventor is under an obligation to assign.                                                                                            |                                                                                                |         |         |
| <input type="checkbox"/> Person who otherwise shows a sufficient proprietary interest in the matter (petition under 37 CFR 1.46 is required), or                                  |                                                                                                |         |         |
| <input type="checkbox"/> Joint Inventor.                                                                                                                                          |                                                                                                |         |         |

**SUBSTITUTE STATEMENT**

Circumstances permitting execution of this substitute statement:

- ☒ Inventor is deceased,
- ☐ Inventor is under legal incapacity,
- ☐ Inventor cannot be found or reached after diligent effort, or
- ☐ Inventor has refused to execute the oath or declaration under 37 CFR 1.63.

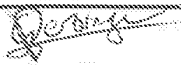
If there are joint inventors, please check the appropriate box below:

- ☒ An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) naming the entire inventive entity has been or is currently submitted.
- OR
- ☐ An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) has not been submitted. Thus, a Substitute Statement Supplemental Sheet (PTO/AIA/11 or equivalent) naming the entire inventive entity and providing inventor information is attached. See 37 CFR 1.64(b).

**WARNING:**

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

**PERSON EXECUTING THIS SUBSTITUTE STATEMENT:**

|                                                                                                                                                                                                                          |        |                      |                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------|----------------------|
| Name: Gaetan Bezinge                                                                                                                                                                                                     |        | Date (Optional):     |                      |
| Signature:                                                                                                                            |        |                      |                      |
| APPLICANT NAME AND TITLE OF PERSON EXECUTING THIS SUBSTITUTE STATEMENT:                                                                                                                                                  |        |                      |                      |
| If the applicant is a juristic entity, list the applicant name and the title of the signer:                                                                                                                              |        |                      |                      |
| Applicant Name: Slyde Watch SA                                                                                                                                                                                           |        |                      |                      |
| Title of Person Executing This Substitute Statement: Hair of inventor, Alex Bezinge                                                                                                                                      |        |                      |                      |
| The signer, whose title is supplied above, is authorized to act on behalf of the applicant.                                                                                                                              |        |                      |                      |
| Residence of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent):                                                                                                                        |        |                      |                      |
| City: Saviese                                                                                                                                                                                                            | State: | Country: Switzerland |                      |
| Mailing Address of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent):                                                                                                                  |        |                      |                      |
| Chemin de la Roua 52, 1965 Ormone                                                                                                                                                                                        |        |                      |                      |
| City: Saviese                                                                                                                                                                                                            | State: | Zip:                 | Country: Switzerland |
| Note: Use an additional PTO/AIA/02 form for each inventor who is deceased, legally incapacitated, cannot be found or reached after diligent effort, or has refused to execute the oath or declaration under 37 CFR 1.63. |        |                      |                      |

Doc Code: Oath

Document Description: Oath or declaration filed

PTO/AIA/02 (07-13)

Approved for use through 01/31/2014. OMB 0651-0032

U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

| SUBSTITUTE STATEMENT IN LIEU OF AN OATH OR DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (35 U.S.C. 115(d) AND 37 CFR 1.64)                                                |                                                                                                |         |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------|---------|
| Title of Invention                                                                                                                                                                | A METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |         |         |
| This statement is directed to:                                                                                                                                                    |                                                                                                |         |         |
| <input type="checkbox"/> The attached application,                                                                                                                                |                                                                                                |         |         |
| OR                                                                                                                                                                                |                                                                                                |         |         |
| <input checked="" type="checkbox"/> United States application or PCT international application number <u>PCT/EP2012/070273</u> filed on <u>10/12/2012</u>                         |                                                                                                |         |         |
| LEGAL NAME of inventor to whom this substitute statement applies:                                                                                                                 |                                                                                                |         |         |
| (E.g., Given Name (first and middle (if any)) and Family Name or Surname)                                                                                                         |                                                                                                |         |         |
| Alex BEZINGE                                                                                                                                                                      |                                                                                                |         |         |
| Residence (except for a deceased or legally incapacitated inventor):                                                                                                              |                                                                                                |         |         |
| City                                                                                                                                                                              | State                                                                                          | Country |         |
| Mailing Address (except for a deceased or legally incapacitated inventor):                                                                                                        |                                                                                                |         |         |
| City                                                                                                                                                                              | State                                                                                          | Zip     | Country |
| I believe the above-named inventor or joint inventor to be the original inventor or an original joint inventor of a claimed invention in the application.                         |                                                                                                |         |         |
| The above-identified application was made or authorized to be made by me.                                                                                                         |                                                                                                |         |         |
| I hereby acknowledge that any willful false statement made in this statement is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both. |                                                                                                |         |         |
| Relationship to the inventor to whom this substitute statement applies:                                                                                                           |                                                                                                |         |         |
| <input checked="" type="checkbox"/> Legal Representative (for deceased or legally incapacitated inventor only),                                                                   |                                                                                                |         |         |
| <input type="checkbox"/> Assignee,                                                                                                                                                |                                                                                                |         |         |
| <input type="checkbox"/> Person to whom the inventor is under an obligation to assign,                                                                                            |                                                                                                |         |         |
| <input type="checkbox"/> Person who otherwise shows a sufficient proprietary interest in the matter (petition under 37 CFR 1.46 is required), or                                  |                                                                                                |         |         |
| <input type="checkbox"/> Joint inventor.                                                                                                                                          |                                                                                                |         |         |

**SUBSTITUTE STATEMENT**

Circumstances permitting execution of this substitute statement:

- ☒ Inventor is deceased,  
☐ Inventor is under legal incapacity,  
☐ Inventor cannot be found or reached after diligent effort, or  
☐ Inventor has refused to execute the oath or declaration under 37 CFR 1.63.

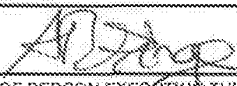
If there are joint inventors, please check the appropriate box below:

- ☒ An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) naming the entire inventive entity has been or is currently submitted.  
OR  
☐ An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) has not been submitted. Thus, a Substitute Statement Supplemental Sheet (PTO/AIA/11 or equivalent) naming the entire inventive entity and providing inventor information is attached. See 37 CFR 1.64(b).

**WARNING:**

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

**PERSON EXECUTING THIS SUBSTITUTE STATEMENT:**

|                                                                                                                                                                                                                          |        |                      |                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|----------------------|----------------------|
| Name: Alois Nathan Bezinge                                                                                                                                                                                               |        | Date (Optional):     |                      |
| Signature:                                                                                                                            |        |                      |                      |
| APPLICANT NAME AND TITLE OF PERSON EXECUTING THIS SUBSTITUTE STATEMENT:                                                                                                                                                  |        |                      |                      |
| If the applicant is a juristic entity, list the applicant name and the title of the signer:                                                                                                                              |        |                      |                      |
| Applicant Name: Slyde Watch SA                                                                                                                                                                                           |        |                      |                      |
| Title of Person Executing This Substitute Statement: Heir of inventor, Alex Bezinge                                                                                                                                      |        |                      |                      |
| The signer, whose title is supplied above, is authorized to act on behalf of the applicant.                                                                                                                              |        |                      |                      |
| Residence of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent):                                                                                                                        |        |                      |                      |
| City: Saviese                                                                                                                                                                                                            | State: | Country: Switzerland |                      |
| Mailing Address of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent):                                                                                                                  |        |                      |                      |
| Chemin de la Roua 52, 1965 Ormone                                                                                                                                                                                        |        |                      |                      |
| City: Saviese                                                                                                                                                                                                            | State: | Zip:                 | Country: Switzerland |
| Note: Use an additional PTO/AIA/02 form for each inventor who is deceased, legally incapacitated, cannot be found or reached after diligent effort, or has refused to execute the oath or declaration under 37 CFR 1.63. |        |                      |                      |

Doc Code: Oath

Document Description: Oath or declaration filed

PTO/AIA/02 (07-13)

Approved for use through 01/31/2014, OMB 0651-0032

U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

| SUBSTITUTE STATEMENT IN LIEU OF AN OATH OR DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (35 U.S.C. 115(d) AND 37 CFR 1.64)                                                |                                                                                                |         |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------|---------|
| Title of Invention                                                                                                                                                                | A METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |         |         |
| This statement is directed to:                                                                                                                                                    |                                                                                                |         |         |
| <input type="checkbox"/> The attached application,                                                                                                                                |                                                                                                |         |         |
| OR                                                                                                                                                                                |                                                                                                |         |         |
| <input checked="" type="checkbox"/> United States application or PCT international application number <u>PCT/EP2012/070273</u> filed on <u>10/12/2012</u>                         |                                                                                                |         |         |
| LEGAL NAME of inventor to whom this substitute statement applies:                                                                                                                 |                                                                                                |         |         |
| (E.g., Given Name (first and middle (if any)) and Family Name or Surname)                                                                                                         |                                                                                                |         |         |
| Alex BEZINGE                                                                                                                                                                      |                                                                                                |         |         |
| Residence (except for a deceased or legally incapacitated inventor):                                                                                                              |                                                                                                |         |         |
| City                                                                                                                                                                              | State                                                                                          | Country |         |
| Mailing Address (except for a deceased or legally incapacitated inventor):                                                                                                        |                                                                                                |         |         |
| City                                                                                                                                                                              | State                                                                                          | Zip     | Country |
| I believe the above-named inventor or joint inventor to be the original inventor or an original joint inventor of a claimed invention in the application.                         |                                                                                                |         |         |
| The above-identified application was made or authorized to be made by me.                                                                                                         |                                                                                                |         |         |
| I hereby acknowledge that any willful false statement made in this statement is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both. |                                                                                                |         |         |
| Relationship to the inventor to whom this substitute statement applies:                                                                                                           |                                                                                                |         |         |
| <input checked="" type="checkbox"/> Legal Representative (for deceased or legally incapacitated inventor only),                                                                   |                                                                                                |         |         |
| <input type="checkbox"/> Assignee,                                                                                                                                                |                                                                                                |         |         |
| <input type="checkbox"/> Person to whom the inventor is under an obligation to assign,                                                                                            |                                                                                                |         |         |
| <input type="checkbox"/> Person who otherwise shows a sufficient proprietary interest in the matter (petition under 37 CFR 1.46 is required), or                                  |                                                                                                |         |         |
| <input type="checkbox"/> Joint Inventor.                                                                                                                                          |                                                                                                |         |         |

**SUBSTITUTE STATEMENT**

Circumstances permitting execution of this substitute statement:

- ☒ Inventor is deceased,  
☐ Inventor is under legal incapacity,  
☐ Inventor cannot be found or reached after diligent effort, or  
☐ Inventor has refused to execute the oath or declaration under 37 CFR 1.63.

If there are joint inventors, please check the appropriate box below:

- ☒ An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) naming the entire inventive entity has been or is currently submitted.
- OR
- ☐ An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) has not been submitted. Thus, a Substitute Statement Supplemental Sheet (PTO/AIA/11 or equivalent) naming the entire inventive entity and providing inventor information is attached. See 37 CFR 1.64(b).

**WARNING:**

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

**PERSON EXECUTING THIS SUBSTITUTE STATEMENT:**

Name: Layane Bezingé Date (Optional):

Signature:

**APPLICANT NAME AND TITLE OF PERSON EXECUTING THIS SUBSTITUTE STATEMENT:**

If the applicant is a juristic entity, list the applicant name and the title of the signer.

Applicant Name: Siyde Watch SA

Title of Person Executing  
This Substitute Statement: Heir of inventor, Alex Bezingé

The signer, whose title is supplied above, is authorized to act on behalf of the applicant.

**Residence of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent):**

City Saviese State Country Switzerland

**Mailing Address of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent)**

Chemin de la Roua 52, 1965 Ormone

City Saviese State Zip Country Switzerland

Note: Use an additional PTO/AIA/02 form for each inventor who is deceased, legally incapacitated, cannot be found or reached after diligent effort, or has refused to execute the oath or declaration under 37 CFR 1.63.

Doc Code: Oath

Document Description: Oath or declaration filed

PTO/AIA/02 (07-13)

Approved for use through 01/31/2014. OMB 0651-0032

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

| SUBSTITUTE STATEMENT IN LIEU OF AN OATH OR DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (35 U.S.C. 115(d) AND 37 CFR 1.64)                                                |                                                                                                |         |         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------|---------|
| Title of Invention                                                                                                                                                                | A METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |         |         |
| This statement is directed to:                                                                                                                                                    |                                                                                                |         |         |
| <input type="checkbox"/> The attached application,                                                                                                                                |                                                                                                |         |         |
| OR                                                                                                                                                                                |                                                                                                |         |         |
| <input checked="" type="checkbox"/> United States application or PCT international application number <u>PCT/EP2012/076273</u> filed on <u>10/12/2012</u>                         |                                                                                                |         |         |
| LEGAL NAME of inventor to whom this substitute statement applies:                                                                                                                 |                                                                                                |         |         |
| (E.g., Given Name (first and middle (if any)) and Family Name or Surname)                                                                                                         |                                                                                                |         |         |
| Alex BEZINGE                                                                                                                                                                      |                                                                                                |         |         |
| Residence (except for a deceased or legally incapacitated inventor)                                                                                                               |                                                                                                |         |         |
| City                                                                                                                                                                              | State                                                                                          | Country |         |
| Mailing Address (except for a deceased or legally incapacitated inventor)                                                                                                         |                                                                                                |         |         |
| City                                                                                                                                                                              | State                                                                                          | Zip     | Country |
| I believe the above-named inventor or joint inventor to be the original inventor or an original joint inventor of a claimed invention in the application.                         |                                                                                                |         |         |
| The above-identified application was made or authorized to be made by me.                                                                                                         |                                                                                                |         |         |
| I hereby acknowledge that any willful false statement made in this statement is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both. |                                                                                                |         |         |
| Relationship to the inventor to whom this substitute statement applies:                                                                                                           |                                                                                                |         |         |
| <input checked="" type="checkbox"/> Legal Representative (for deceased or legally incapacitated inventor only),                                                                   |                                                                                                |         |         |
| <input type="checkbox"/> Assignee,                                                                                                                                                |                                                                                                |         |         |
| <input type="checkbox"/> Person to whom the inventor is under an obligation to assign,                                                                                            |                                                                                                |         |         |
| <input type="checkbox"/> Person who otherwise shows a sufficient proprietary interest in the matter (petition under 37 CFR 1.46 is required), or                                  |                                                                                                |         |         |
| <input type="checkbox"/> Joint inventor.                                                                                                                                          |                                                                                                |         |         |

**SUBSTITUTE STATEMENT**

Circumstances permitting execution of this substitute statement:

- ☒ Inventor is deceased.
- ☐ Inventor is under legal incapacity.
- ☐ Inventor cannot be found or reached after diligent effort, or
- ☐ Inventor has refused to execute the oath or declaration under 37 CFR 1.63.

If there are joint inventors, please check the appropriate box below:

- ☒ An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) naming the entire inventive entity has been or is currently submitted.
- OR
- ☐ An application data sheet under 37 CFR 1.76 (PTO/AIA/14 or equivalent) has not been submitted. Thus, a Substitute Statement Supplemental Sheet (PTO/AIA/11 or equivalent) naming the entire inventive entity and providing inventor information is attached. See 37 CFR 1.64(b).

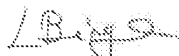
**WARNING:**

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

PERSON EXECUTING THIS SUBSTITUTE STATEMENT:

Name: Leonard Bastien Bezingé Date (Optional):

Signature:



APPLICANT NAME AND TITLE OF PERSON EXECUTING THIS SUBSTITUTE STATEMENT:

If the applicant is a juristic entity, list the applicant name and the title of the signer:

Applicant Name: Slyde Watch SA

Title of Person Executing This Substitute Statement: Hair of inventor, Alex Bezingé

The signer, whose title is supplied above, is authorized to act on behalf of the applicant.

Residence of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent):

City: Saviese State: Country: Switzerland

Mailing Address of the signer (unless provided in an application data sheet, PTO/AIA/14 or equivalent)

Chemin de la Roua 52, 1965 Omone

City: Saviese State: Zip: Country: Switzerland

Note: Use an additional PTO/AIA/02 form for each inventor who is deceased, legally incapacitated, cannot be found or reached after diligent effort, or has refused to execute the oath or declaration under 37 CFR 1.63.

Docket No.: 143297.00102  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Alex Bezing et al.

Application No.: Not Yet Assigned

Confirmation No.: N/A

Filed: Concurrently Herewith

Art Unit: N/A

For: A METHOD AND CIRCUIT FOR SWITCHING  
A WRISTWATCH FROM A FIRST POWER  
MODE TO A SECOND POWER MODE

Examiner: Not Yet Assigned

**INFORMATION DISCLOSURE STATEMENT (IDS)**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98, the attention of the United States Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of the above-identified application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement accompanies the new patent application submitted herewith.

In accordance with 37 C.F.R. § 1.98(d)(1) and as noted by a double-asterisk next to the Cite No. on the attached PTO/SB/08, the listed references are not supplied because they were previously cited by or submitted to the Office in prior application number 14/352,727 filed April 18, 2014 and relied on in the above-identified application for an earlier effective filing date under 35 U.S.C. § 120.

143297.00102/106283917

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made. In accordance with 37 C.F.R. § 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that the information cited in this Information Disclosure Statement is, or is considered to be, material to the patentability as defined in 37 C.F.R. § 1.56(b).

It is submitted that the Information Disclosure Statement is in compliance with 37 C.F.R. § 1.98, and the Examiner is respectfully requested to consider the listed references.

Applicant believes no fee is due with this response. Please charge any shortage or credit any overpayment of fees to BLANK ROME LLP, Deposit Account No. 23-2185 under Order No. 143297.00102. In the event that a petition for an extension of time is required to be submitted herewith and in the event that a separate petition does not accompany this or is insufficient to render this timely, the Applicant hereby petitions under 37 C.F.R. § 1.136(a) for an extension of time for as many months as required to render this submission timely. Any fee due is authorized above.

Dated: October 31, 2017

Respectfully submitted,

Electronic signature: /Peter S. Weissman/  
Peter S. Weissman

Registration No.: 40,220  
BLANK ROME LLP  
1825 Eye Street, NW  
Washington, DC 20006-5403  
(202) 772-5800  
Attorney for Applicant

|                                                                                                                                              |   |    |   |                          |                       |
|----------------------------------------------------------------------------------------------------------------------------------------------|---|----|---|--------------------------|-----------------------|
| <p>Substitute for form 1449/PTO</p> <p><b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b></p> <p>(Use as many sheets as necessary)</p> |   |    |   | <b>Complete if Known</b> |                       |
|                                                                                                                                              |   |    |   | Application Number       | Not Yet Assigned      |
|                                                                                                                                              |   |    |   | Filing Date              | Concurrently Herewith |
|                                                                                                                                              |   |    |   | First Named Inventor     | Alex Bezing           |
|                                                                                                                                              |   |    |   | Art Unit                 | N/A                   |
|                                                                                                                                              |   |    |   | Examiner Name            | Not Yet Assigned      |
| Sheet                                                                                                                                        | 1 | of | 1 | Attorney Docket Number   | 143297.00102          |

| U.S. PATENT DOCUMENTS |                          |                                          |                                   |                                                    |                                                                                 |
|-----------------------|--------------------------|------------------------------------------|-----------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------|
| Examiner<br>Initials* | Cite<br>No. <sup>1</sup> | Document Number                          | Publication<br>Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|                       |                          | Number-Kind Code <sup>2</sup> (if known) |                                   |                                                    |                                                                                 |
|                       | **AA                     | US-20090199130                           | 08-06-2009                        | Tsern et al.                                       |                                                                                 |
|                       | **AB                     | US-20020118605                           | 08-29-2002                        | Born et al.                                        |                                                                                 |
|                       | **AC                     | US-20090102669                           | 04-23-2009                        | LIN                                                |                                                                                 |
|                       | **AD                     | US-20100235667                           | 09-16-2010                        | Mucignat et al.                                    |                                                                                 |
|                       | **AE                     | US-20120092383                           | 04-19-2012                        | HYSEK et al.                                       |                                                                                 |
|                       | **AF                     | US-2002/0167699-A1                       | 11-2002                           | Verplaetse et al.                                  |                                                                                 |
|                       | **AG                     | US-2007/0176896-A1                       | 08-2007                           | Gritton et al.                                     |                                                                                 |
|                       | **AH                     | US-2009/0085865-A1                       | 04-2009                           | Fattah                                             |                                                                                 |
|                       | **AI                     | US-2010/0265209-A1                       | 10-2010                           | Nurmi et al.                                       |                                                                                 |
|                       | **AJ                     | US-2011/0080349-A1                       | 04-2001                           | Holbein et al.                                     |                                                                                 |
|                       | **AK                     | US-2011/0109540-A1                       | 05-2011                           | Milne et al.                                       |                                                                                 |
|                       | **AL                     | US-2012/0062470-A1                       | 03-2012                           | Chang                                              |                                                                                 |
|                       | **AM                     | US-2012/0154303-A1                       | 06-2012                           | Lazaridis et al.                                   |                                                                                 |
|                       | **AN                     | US-8,230,246-B1                          | 07-2012                           | Sharkey                                            |                                                                                 |
|                       | **AO                     | US-2010/0231777-A1                       | 09-2010                           | Shintani                                           |                                                                                 |
|                       | **AP                     | US-2006/0256081-A1                       | 11-2006                           | Zalewski                                           |                                                                                 |
|                       | **AQ                     | US-2008/0229255-A1                       | 09-2008                           | Linjama                                            |                                                                                 |
|                       | **AR                     | US-2009/0195497-A1                       | 08-2009                           | Fitzgerald                                         |                                                                                 |
|                       | **AS                     | US-2011/0264928-A1                       | 10-2011                           | Hinckley                                           |                                                                                 |

| FOREIGN PATENT DOCUMENTS |                          |                                                                                   |                                   |                                                    |                                                                                 |
|--------------------------|--------------------------|-----------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------|
| Examiner<br>Initials*    | Cite<br>No. <sup>1</sup> | Foreign Patent Document                                                           | Publication<br>Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>Or Relevant Figures Appear |
|                          |                          | Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known) |                                   |                                                    |                                                                                 |
|                          | **BA                     | EP-1324159-A1                                                                     | 07-02-2003                        | Asulab Sa [ch]                                     |                                                                                 |
|                          | **BB                     | WO-09120292-A2                                                                    | 10-01-2009                        | Lee, Shu                                           |                                                                                 |
|                          | **BC                     | WO-11000893-A1                                                                    | 01-06-2011                        | Hysek, Joerg et al.                                |                                                                                 |
|                          | **BD                     | EP-2315101-A1                                                                     | 04-27-2011                        | Research In Motion Ltd [ca]                        |                                                                                 |
|                          | **BE                     | EP-1785808-A1                                                                     | 05-16-2007                        | Research In Motion Ltd [ca]                        |                                                                                 |

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> CITE NO. Those application(s) which are marked with an single asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. <sup>2</sup> Applicant's unique citation designation number (optional). <sup>3</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>4</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). <sup>5</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>6</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 15 if possible. <sup>7</sup> Applicant is to place a check mark here if English language Translation is attached.

| NON PATENT LITERATURE DOCUMENTS |                          |                                                                                                                                                                                                                                                                 |                |
|---------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Examiner<br>Initials*           | Cite<br>No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T <sup>2</sup> |
|                                 | **CA                     | K. Tuck et al., "MMA84500Q Single/Double and Directional Tap Detection", Freescale Semiconductor, Inc., 2010, 16 pages.                                                                                                                                         |                |
|                                 | **CB                     | BMA180 Digital, "Triaxial Acceleration Sensor", Data Sheet, Bosch Sensortec, December 10, 2009, pps. 1-69.                                                                                                                                                      |                |

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

|                       |                    |
|-----------------------|--------------------|
| Examiner<br>Signature | Date<br>Considered |
|-----------------------|--------------------|

143297.00102/106283965

| Electronic Patent Application Fee Transmittal |          |                                                                                                |        |                      |
|-----------------------------------------------|----------|------------------------------------------------------------------------------------------------|--------|----------------------|
| Application Number:                           |          |                                                                                                |        |                      |
| Filing Date:                                  |          |                                                                                                |        |                      |
| Title of Invention:                           |          | A METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |        |                      |
| First Named Inventor/Applicant Name:          |          | Alex BEZINGE                                                                                   |        |                      |
| Filer:                                        |          | Peter S. Weissman/Keyla Clements                                                               |        |                      |
| Attorney Docket Number:                       |          | 143297.00102                                                                                   |        |                      |
| Filed as Small Entity                         |          |                                                                                                |        |                      |
| Filing Fees for Utility under 35 USC 111(a)   |          |                                                                                                |        |                      |
| Description                                   | Fee Code | Quantity                                                                                       | Amount | Sub-Total in USD(\$) |
| <b>Basic Filing:</b>                          |          |                                                                                                |        |                      |
| UTILITY FILING FEE (ELECTRONIC FILING)        | 4011     | 1                                                                                              | 70     | 70                   |
| UTILITY SEARCH FEE                            | 2111     | 1                                                                                              | 300    | 300                  |
| UTILITY EXAMINATION FEE                       | 2311     | 1                                                                                              | 360    | 360                  |
| <b>Pages:</b>                                 |          |                                                                                                |        |                      |
| <b>Claims:</b>                                |          |                                                                                                |        |                      |
| <b>Miscellaneous-Filing:</b>                  |          |                                                                                                |        |                      |
| <b>Petition:</b>                              |          |                                                                                                |        |                      |
| <b>Patent-Appeals-and-Interference:</b>       |          |                                                                                                |        |                      |

| Description                              | Fee Code | Quantity | Amount | Sub-Total in USD(\$) |
|------------------------------------------|----------|----------|--------|----------------------|
| <b>Post-Allowance-and-Post-Issuance:</b> |          |          |        |                      |
| <b>Extension-of-Time:</b>                |          |          |        |                      |
| <b>Miscellaneous:</b>                    |          |          |        |                      |
| <b>Total in USD (\$)</b>                 |          |          |        | <b>730</b>           |

| Electronic Acknowledgement Receipt          |                                                                                                |
|---------------------------------------------|------------------------------------------------------------------------------------------------|
| <b>EFS ID:</b>                              | 30817943                                                                                       |
| <b>Application Number:</b>                  | 15799608                                                                                       |
| <b>International Application Number:</b>    |                                                                                                |
| <b>Confirmation Number:</b>                 | 8529                                                                                           |
| <b>Title of Invention:</b>                  | A METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |
| <b>First Named Inventor/Applicant Name:</b> | Alex BEZINGE                                                                                   |
| <b>Customer Number:</b>                     | 27557                                                                                          |
| <b>Filer:</b>                               | Peter S. Weissman/Keyla Clements                                                               |
| <b>Filer Authorized By:</b>                 | Peter S. Weissman                                                                              |
| <b>Attorney Docket Number:</b>              | 143297.00102                                                                                   |
| <b>Receipt Date:</b>                        | 31-OCT-2017                                                                                    |
| <b>Filing Date:</b>                         |                                                                                                |
| <b>Time Stamp:</b>                          | 17:23:23                                                                                       |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                                                                    |

### Payment information:

|                                                                                                                |                       |
|----------------------------------------------------------------------------------------------------------------|-----------------------|
| Submitted with Payment                                                                                         | yes                   |
| Payment Type                                                                                                   | CARD                  |
| Payment was successfully received in RAM                                                                       | \$730                 |
| RAM confirmation Number                                                                                        | 110117INTEFSW17240100 |
| Deposit Account                                                                                                |                       |
| Authorized User                                                                                                |                       |
| The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: |                       |

|                 |                                                     |                            |                                          |                  |                  |
|-----------------|-----------------------------------------------------|----------------------------|------------------------------------------|------------------|------------------|
|                 |                                                     |                            |                                          |                  |                  |
| File Listing:   |                                                     |                            |                                          |                  |                  |
| Document Number | Document Description                                | File Name                  | File Size(Bytes)/<br>Message Digest      | Multi Part /.zip | Pages (if appl.) |
| 1               |                                                     | 14329700102Application.pdf | 10738203                                 | yes              | 120              |
|                 |                                                     |                            | 6b1c9c495d7e425a7478936273ac41222a709be7 |                  |                  |
|                 | Multipart Description/PDF files in .zip description |                            |                                          |                  |                  |
|                 | Document Description                                |                            | Start                                    | End              |                  |
|                 | Transmittal of New Application                      |                            | 1                                        | 1                |                  |
|                 | Fee Worksheet (SB06)                                |                            | 2                                        | 2                |                  |
|                 | Application Data Sheet                              |                            | 3                                        | 11               |                  |
|                 | Preliminary Amendment                               |                            | 12                                       | 12               |                  |
|                 | Specification                                       |                            | 13                                       | 13               |                  |
|                 | Claims                                              |                            | 14                                       | 16               |                  |
|                 | Abstract                                            |                            | 17                                       | 17               |                  |
|                 | Drawings-only black and white line drawings         |                            | 18                                       | 18               |                  |
|                 | Applicant Arguments/Remarks Made in an Amendment    |                            | 19                                       | 19               |                  |
|                 | Drawings-only black and white line drawings         |                            | 20                                       | 24               |                  |
|                 | Specification                                       |                            | 25                                       | 43               |                  |
|                 | Claims                                              |                            | 44                                       | 47               |                  |
|                 | Drawings-only black and white line drawings         |                            | 48                                       | 52               |                  |
|                 | Miscellaneous Incoming Letter                       |                            | 53                                       | 57               |                  |
|                 | Specification                                       |                            | 58                                       | 81               |                  |

|  |                                                    |     |     |
|--|----------------------------------------------------|-----|-----|
|  | Specification                                      | 82  | 105 |
|  | Oath or Declaration filed                          | 106 | 117 |
|  | Transmittal Letter                                 | 118 | 119 |
|  | Information Disclosure Statement (IDS) Form (SB08) | 120 | 120 |

**Warnings:**

**Information:**

|   |                      |              |                                          |    |   |
|---|----------------------|--------------|------------------------------------------|----|---|
| 2 | Fee Worksheet (SB06) | fee-info.pdf | 34839                                    | no | 2 |
|   |                      |              | b414ee968a23367701c8652cf3ab6a2f0d48c851 |    |   |

**Warnings:**

**Information:**

|                                     |          |
|-------------------------------------|----------|
| <b>Total Files Size (in bytes):</b> | 10773042 |
|-------------------------------------|----------|

**This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.**

**New Applications Under 35 U.S.C. 111**

**If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.**

**National Stage of an International Application under 35 U.S.C. 371**

**If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.**

**New International Application Filed with the USPTO as a Receiving Office**

**If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.**



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION<br>NUMBER | FILING or<br>371(c) DATE | GRP ART<br>UNIT | FIL FEE REC'D | ATTY. DOCKET NO | TOT CLAIMS | IND CLAIMS |
|-----------------------|--------------------------|-----------------|---------------|-----------------|------------|------------|
| 15/799,608            | 10/31/2017               | 2833            | 730           | 143297.00102    | 11         | 1          |

CONFIRMATION NO. 8529

FILING RECEIPT



000000093790614

27557  
BLANK ROME LLP  
1825 Eye Street NW  
WASHINGTON, DC 20006-5403

Date Mailed: 12/01/2017

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

**Inventor(s)**

Alex BEZINGE, Saviese, SWITZERLAND;  
Adrian MOHNI, St-Gallen, SWITZERLAND;  
Daniel PFEIFER, St. Anton Am Ariberg, AUSTRIA;  
Musa DOGAN, Heerbrugg, SWITZERLAND;

**Applicant(s)**

Slyde Watch SA, Luins, SWITZERLAND;

**Power of Attorney:** None

**Domestic Priority data as claimed by applicant**

This application is a CON of 14/352,727 04/18/2014 PAT 9804678  
which is a 371 of PCT/EP2012/070273 10/12/2012

**Foreign Applications** (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.)  
SWITZERLAND 01689/11 10/18/2011

**Permission to Access Application via Priority Document Exchange:** Yes

**Permission to Access Search Results:** Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

**If Required, Foreign Filing License Granted:** 11/30/2017

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/799,608**

**Projected Publication Date:** 03/08/2018

**Non-Publication Request:** No

**Early Publication Request:** No

**\*\* SMALL ENTITY \*\***

**Title**

METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE

**Preliminary Class**

368

**Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications:** No

## **PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES**

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

**LICENSE FOR FOREIGN FILING UNDER**  
**Title 35, United States Code, Section 184**  
**Title 37, Code of Federal Regulations, 5.11 & 5.15**

**GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

**NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

---

***SelectUSA***

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit <http://www.SelectUSA.gov> or call +1-202-482-6800.

| <b>PATENT APPLICATION FEE DETERMINATION RECORD</b><br>Substitute for Form PTO-875                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                               |                                  |                 |                                    |               | Application or Docket Number<br>15/799,608 |                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------|------------------------------------|---------------|--------------------------------------------|--------------------|
| <b>APPLICATION AS FILED - PART I</b>                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                               |                                  |                 |                                    |               |                                            |                    |
| (Column 1)                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                               | (Column 2)                       |                 | SMALL ENTITY                       |               | OTHER THAN SMALL ENTITY                    |                    |
| FOR                                                                                                                                                                                                                                                                                                                                                                                                        | NUMBER FILED                                                                                                                                                                                                                  | NUMBER EXTRA                     | RATE(\$)        | FEE(\$)                            |               | RATE(\$)                                   | FEE(\$)            |
| BASIC FEE<br>(37 CFR 1.16(a), (b), or (c))                                                                                                                                                                                                                                                                                                                                                                 | N/A                                                                                                                                                                                                                           | N/A                              | N/A             | 70                                 |               | N/A                                        |                    |
| SEARCH FEE<br>(37 CFR 1.16(k), (l), or (m))                                                                                                                                                                                                                                                                                                                                                                | N/A                                                                                                                                                                                                                           | N/A                              | N/A             | 300                                |               | N/A                                        |                    |
| EXAMINATION FEE<br>(37 CFR 1.16(o), (p), or (q))                                                                                                                                                                                                                                                                                                                                                           | N/A                                                                                                                                                                                                                           | N/A                              | N/A             | 360                                |               | N/A                                        |                    |
| TOTAL CLAIMS<br>(37 CFR 1.16(j))                                                                                                                                                                                                                                                                                                                                                                           | 11                                                                                                                                                                                                                            | minus 20 = *                     | x 40 =          | 0.00                               | OR            |                                            |                    |
| INDEPENDENT CLAIMS<br>(37 CFR 1.16(h))                                                                                                                                                                                                                                                                                                                                                                     | 1                                                                                                                                                                                                                             | minus 3 = *                      | x 210 =         | 0.00                               |               |                                            |                    |
| APPLICATION SIZE FEE<br>(37 CFR 1.16(s))                                                                                                                                                                                                                                                                                                                                                                   | If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s). |                                  |                 | 0.00                               |               |                                            |                    |
| MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                               |                                  |                 | 0.00                               |               |                                            |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                               |                                  | TOTAL           | 730                                |               | TOTAL                                      |                    |
| * If the difference in column 1 is less than zero, enter "0" in column 2.                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                               |                                  |                 |                                    |               |                                            |                    |
| <b>APPLICATION AS AMENDED - PART II</b>                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                               |                                  |                 |                                    |               |                                            |                    |
| (Column 1)                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                               | (Column 2)                       |                 | (Column 3)                         |               | SMALL ENTITY                               |                    |
| AMENDMENT A                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                               | CLAIMS REMAINING AFTER AMENDMENT |                 | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA | RATE(\$)                                   | ADDITIONAL FEE(\$) |
|                                                                                                                                                                                                                                                                                                                                                                                                            | Total<br>(37 CFR 1.16(i))                                                                                                                                                                                                     | *                                | Minus           | **                                 | =             | x                                          | =                  |
|                                                                                                                                                                                                                                                                                                                                                                                                            | Independent<br>(37 CFR 1.16(h))                                                                                                                                                                                               | *                                | Minus           | ***                                | =             | x                                          | =                  |
|                                                                                                                                                                                                                                                                                                                                                                                                            | Application Size Fee (37 CFR 1.16(s))                                                                                                                                                                                         |                                  |                 |                                    |               |                                            |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                            | FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))                                                                                                                                                               |                                  |                 |                                    |               |                                            |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                               |                                  | TOTAL ADD'L FEE |                                    |               | OR                                         |                    |
| (Column 1)                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                               | (Column 2)                       |                 | (Column 3)                         |               | OTHER THAN SMALL ENTITY                    |                    |
| AMENDMENT B                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                               | CLAIMS REMAINING AFTER AMENDMENT |                 | HIGHEST NUMBER PREVIOUSLY PAID FOR | PRESENT EXTRA | RATE(\$)                                   | ADDITIONAL FEE(\$) |
|                                                                                                                                                                                                                                                                                                                                                                                                            | Total<br>(37 CFR 1.16(i))                                                                                                                                                                                                     | *                                | Minus           | **                                 | =             | x                                          | =                  |
|                                                                                                                                                                                                                                                                                                                                                                                                            | Independent<br>(37 CFR 1.16(h))                                                                                                                                                                                               | *                                | Minus           | ***                                | =             | x                                          | =                  |
|                                                                                                                                                                                                                                                                                                                                                                                                            | Application Size Fee (37 CFR 1.16(s))                                                                                                                                                                                         |                                  |                 |                                    |               |                                            |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                            | FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))                                                                                                                                                               |                                  |                 |                                    |               |                                            |                    |
|                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                               |                                  | TOTAL ADD'L FEE |                                    |               | OR                                         |                    |
| * If the entry in column 1 is less than the entry in column 2, write "0" in column 3.<br>** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".<br>*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".<br>The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1. |                                                                                                                                                                                                                               |                                  |                 |                                    |               |                                            |                    |



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NUMBER | FILING OR 371(C) DATE | FIRST NAMED APPLICANT | ATTY. DOCKET NO./TITLE |
|--------------------|-----------------------|-----------------------|------------------------|
| 15/799,608         | 10/31/2017            | Alex BEZINGE          | 143297.00102           |

**CONFIRMATION NO. 8529**

27557

BLANK ROME LLP

1825 Eye Street NW

WASHINGTON, DC 20006-5403

**PUBLICATION NOTICE**



\*OC000000097901345\*

**Title:**METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE

**Publication No.**US-2018-0067563-A1

**Publication Date:**03/08/2018

**NOTICE OF PUBLICATION OF APPLICATION**

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publicly available Searchable Databases via the Internet at [www.uspto.gov](http://www.uspto.gov). The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at [www.uspto.gov](http://www.uspto.gov) using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently <https://portal.uspto.gov/pair/PublicPair>. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.           | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------|-------------|----------------------|---------------------|------------------|
| 15/799,608                | 10/31/2017  | Alex BEZINGE         | 143297.00102        | 8529             |
| 27557                     | 7590        | 04/02/2018           | EXAMINER            |                  |
| BLANK ROME LLP            |             |                      | ZHOU, HONG          |                  |
| 1825 Eye Street NW        |             |                      | ART UNIT            |                  |
| WASHINGTON, DC 20006-5403 |             |                      | PAPER NUMBER        |                  |
|                           |             |                      | 2623                |                  |
|                           |             |                      | NOTIFICATION DATE   |                  |
|                           |             |                      | DELIVERY MODE       |                  |
|                           |             |                      | 04/02/2018          |                  |
|                           |             |                      | ELECTRONIC          |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Belay@blankrome.com  
WashingtonDocketing@blankrome.com

|                              |                                      |                                       |                                                  |
|------------------------------|--------------------------------------|---------------------------------------|--------------------------------------------------|
| <b>Office Action Summary</b> | <b>Application No.</b><br>15/799,608 | <b>Applicant(s)</b><br>BEZINGE ET AL. |                                                  |
|                              | <b>Examiner</b><br>HONG ZHOU         | <b>Art Unit</b><br>2623               | <b>AIA (First Inventor to File) Status</b><br>No |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10/31/2017.  
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims\***

- 5) ☒ Claim(s) 18-28 is/are pending in the application.  
5a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 6) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 7) ☒ Claim(s) 18-28 is/are rejected.
- 8) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 9) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

\* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see [http://www.uspto.gov/patents/init\\_events/pph/index.jsp](http://www.uspto.gov/patents/init_events/pph/index.jsp) or send an inquiry to [PPHfeedback@uspto.gov](mailto:PPHfeedback@uspto.gov).

**Application Papers**

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 10/31/2017 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

**Certified copies:**

- a) ☒ All    b) ☐ Some\*\*    c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 14/352,727.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                                          |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                              | 3) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)<br>Paper No(s)/Mail Date ____. | 4) <input type="checkbox"/> Other: ____.                                                |

**DETAILED ACTION**

1. The present application is being examined under the pre-AIA first to invent provisions.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 18-21, 24-25 and 27 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Fitzgerald et al. (US 2009/0195497, cited in IDS dated 10/31/2017) in view of Hinckley (US 2011/0264928, cited in IDS dated 10/31/2017).

Regarding claim 18, Fitzgerald discloses a method for switching a wrist watch from a first power mode to a second power mode (see Figs 4-5; [0045]-[0050], switching the display 18 of the wristwatch 10 from a first power mode to a second power mode), comprising:

using an accelerometer for detecting a wristturn (see Fig. 3; [0043], e.g., inertial sensor 648 can include a MEMS accelerometer to measure tilt movement of the wristwatch 10), and

switching said wristwatch from said first power mode to said second power mode when a wristturn has been detected (see Fig. 4; turning on the display 18 when a viewable angle range has been detected),

wherein said step of detecting a wristturn comprises:

detecting that the orientation of the wristwatch is in a first range ([0048], [0064], e.g., detecting the orientation of the wristwatch 10 is out of the viewable angle range);

detecting that the orientation of the wristwatch is then in a second range, different from said first range ([0048], [0064], e.g., detecting that the wristwatch 10 is then in the viewable angle range).

Fitzgerald does not disclose the method comprising:

in response to a detection that the orientation of the wristwatch is in the second range, detecting that the wristwatch remains substantially immobile during a predetermined duration.

Hinckley discloses a method comprising: in response to a detection that an orientation of a mobile device is in a predefined range, detecting that the mobile device remains substantially immobile during a predetermined duration (see [0130]-[0131]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Hinckley in the invention of Fitzgerald for detecting that the wristwatch maintains in a viewable angle range for a required interval before turning on the display of the wristwatch in order to prevent the display from turning on due to transient signals.

Regarding claim 19, Fitzgerald in view of Hinckley discloses the method of claim 18. Fitzgerald further discloses wherein said first range is outside the viewable angle range which is set from  $-45^{\circ}$  to  $+45^{\circ}$  relatively to the X-axis (see Fig. 5; [0048]). Fitzgerald further discloses that the viewable angle range can be reconfigured by the user (see [0049]-[0050]).

Fitzgerald in view of Hinckley does not specifically disclose wherein said first range is an angle range from 25° to 155° relatively to the horizontal.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Fitzgerald in view of Hinckley to set a non-viewable angle range from 25° to 155° relatively to the horizontal according to a user's choice and an experimental value so that when a wristwatch is being worn, the user can turn the display off by turning the display of the wristwatch in the non-viewable angle range of 25° to 155° relative to the horizontal without twisting his arm.

Regarding claim 20, Fitzgerald in view of Hinckley discloses the method of claim 18. Fitzgerald further discloses wherein said second range is an angle range from -45° to +45° relatively to the horizontal (see Fig. 5; [0048], e.g., relative to the X axis). Fitzgerald further discloses that the angle range can be reconfigured by the user (see [0049]-[0050]).

Fitzgerald in view of Hinckley does not disclose wherein said second range is an angle range from -25° to -75° relatively to the horizontal.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to set a viewable angle range from -25° to -75° relatively to the horizontal according to a user's choice and an experimental value so that a display is in a viewable range to allow the user to interact with a user interface application.

Regarding claim 21, Fitzgerald in view of Hinckley discloses the method of claim 18, wherein said step of detecting that the wristwatch remains substantially immobile during a

predetermined duration comprises: detecting that an orientation of the wristwatch is held in a range from  $-45^{\circ}$  to  $+45^{\circ}$  relatively to the horizontal during said predetermined duration (see Fig. 5; [0048] of Fitzgerald, e.g., relative to the X axis. Also see [0131] of Hinckley).

Fitzgerald further discloses that the angle range can be reconfigured by the user (see [0049]-[0050]).

Fitzgerald in view of Hinckley does not disclose wherein said second range is an angle range from  $-25^{\circ}$  to  $-60^{\circ}$  relatively to the horizontal.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to set an angle range from  $-25^{\circ}$  to  $-60^{\circ}$  relatively to the horizontal according to a user's choice and an experimental value so that a display is in a viewable range to allow the user to interact with a user interface application.

Regarding claim 24, Fitzgerald in view of Hinckley further discloses the method of claim 18, wherein said step of detecting that the orientation of the wristwatch is in a first range and/or in the second range comprises detecting that the position of the wristwatch is held within this second range for a defined time (see [0131] of Hinckley, e.g., at least 0.5 seconds).

Regarding claim 25, Fitzgerald in view of Hinckley further discloses the method of claim 24, wherein said define time is 0.5 seconds or 500 ms (see [0131] of Hinckley). Fitzgerald further discloses that a predetermined amount of time can be user configurable (see [0051]).

Fitzgerald in view of Hinckley does not specifically disclose wherein said define time is 50 ms.

However, since the defined time is the time required for holding the position of the watchwrist within the second range, the defined time can be set as 0.05 seconds, 0.1 seconds, 0.25 seconds, or any other suitable value. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Fitzgerald in view of Hinckley to set the defined time to be 0.05 seconds or 50 ms in order to quickly switch the wristwatch to a second power mode.

Regarding claim 27, Fitzgerald further discloses the method of claim 18, wherein said step of detecting that the orientation of the wristwatch is then in a second range comprises detecting that a display of the wristwatch is oriented towards a face of the user (see [0048], e.g., detecting that the display is within a viewable range).

4. Claims 22 and 23 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Fitzgerald et al. (US 2009/0195497) in view of Hinckley (US 2011/0264928), and further in view of Linjama et al. (US 2008/0229255).

Regarding claim 22, Fitzgerald in view of Hinckley does not disclose the method of claim 18, wherein said step of detecting that the orientation of the wristwatch is in the first range comprises detecting that the orientation of the wristwatch is held within this first range for a defined time.

Linjama discloses a method for detecting a predefined gesture for controlling a function of a mobile terminal (Fig. 2; [0048], [0051]), comprising:

detecting that the mobile terminal is at a first predefined orientation (e.g., oriented downward),

detecting that the mobile terminal is then at a second predefined orientation (e.g., oriented upward),

wherein the step of detecting that the orientation of the wristwatch is at the first orientation comprises detecting that the orientation of the wristwatch is held at this first orientation for a defined time (e.g., 1 or 2 seconds), and

wherein the step of detecting that the orientation of the wristwatch is at the second orientation comprises detecting that the orientation of the wristwatch is held at the second orientation for a defined time (e.g., 1 or 2 seconds).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Linjama in the invention of Fitzgerald in view of Hinckley for defining a gesture by placing a wristwatch in a non-viewable angle range for a first predefined time and then placing the wristwatch in a viewable angle range for a second predefined time because as taught by Linjama the predefined gesture provides reliable detection of user intent, and allows the user to activate a component of a mobile terminal (see [0006] of Linjama),

Regarding claim 23, Fitzgerald in view of Hinckley and Linjama further discloses that predefined time can be 1 second or 0.5 seconds (see [0048] of Linjama, [0131] of Hinckley). Fitzgerald further discloses that a predetermined amount of time can be user configurable (see [0051]).

Fitzgerald in view of Hinckley and Linjama does not specifically disclose wherein said define time is 50 ms.

However, since the defined time is the time required for holding the position of the watchwrist within the first range for identifying a predefined gesture, the defined time can be set as 0.05 seconds, 0.1 seconds, 0.25 seconds, or any other suitable value. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Fitzgerald in view of Hinckley and Linkama to set the defined time to be 0.05 seconds or 50 ms in order to switch the wristwatch to a second power mode quickly.

5. Claim 26 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Fitzgerald et al. (US 2009/0195497) in view of Hinckley (US 2011/0264928), and further in view of Prabhu (US 2011/0164057).

Regarding claim 26, Fitzgerald in view of Hinckley does not disclose the method of claim 18, wherein said step of detecting that the orientation of the wristwatch is in a second range comprises: detecting that a duration between the wristwatch being held in the first range and the wristwatch being held in the second range is in a predefined third range.

Prabhu discloses a method for detecting a mobile device rotation comprising:  
detecting that the mobile device is at a first orientation, and detecting that the mobile device is then at a second orientation, wherein said step of detecting that the orientation of the mobile device is at the second orientation comprises: detecting that a duration between the mobile device being held at the first orientation and the mobile device being held at the second orientation is in a predefined range (Figs 1-2; [0020]-[0021], e.g., a threshold rotation angle

between the first and second orientation such as 45 degrees is set for the controller assumes that the user intends to shift orientation).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teachings of Prabhu in the invention of Fitzgerald in view of Hinckley for setting a third range for checking whether a duration between a wristwatch being held in the non-viewable angle range and the wristwatch being held in a viewable angle range is in the third range in order to accurately determine that a rotational movement is an intentional movement. As a result, an erroneous operation can be prevented.

6. Claim 28 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Fitzgerald et al. (US 2009/0195497) in view of Hinckley (US 2011/0264928), and further in view of Linjama et al. (US 2008/0229255, cited in IDS dated 10/31/2017) and Zalewski et al. (US 2006/0256081, cited in IDS dated 10/31/2017).

Regarding claim 28, Fitzgerald in view of Hinckley does not disclose the method of claim 18, wherein said steps of detecting that the orientation of the wristwatch is in a first range and then in a second range comprise: in response of a detection of the orientation of the wristwatch is in the second range, checking if the orientation of the wristwatch was in the first range during a previous step.

Linjama discloses a method comprising: detecting that a mobile device is in a first orientation; detecting that the mobile device is in a second orientation different from the first orientation, in response to a detection that the mobile device is in the second orientation,

checking if the first orientation and the second orientation correspond to a predefined gesture (see Fig. 2; step S12; [0051]).

It would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to use the teachings of Linjama in the invention of Fitzgerald in view of Hinckley for conducting a step to check if detected first orientation and second orientation of a wristwatch correspond to a predefined gesture in order to generate a control signal to switch the wristwatch from a first power mode to a second power mode when the predefined gesture has been detected.

Fitzgerald in view of Hinckley and Linjama does not specifically disclose checking if the first orientation and the second orientation correspond to a predefined gesture comprising checking if the first orientation of the wristwatch was in the first range during a previous step.

However, Zalewski discloses that in determining whether or not a gesture has been identified, a system may check to see if detected position and orientation falls within a predetermine range (see [0097]).

It would have been obvious to one of ordinary skill in the art before the effective filing date of the invention to use the teachings of Zalewski in the invention of Fitzgerald in view of Hinckley and Linjama for checking if detected first orientation was in a first range in a previous step in order to determine whether a predefined gesture has been detected.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nakajima (US 2004/0179431); a sensor device for detecting a detection object such as a person and an electronic watch using the sensor device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HONG ZHOU whose telephone number is (571)270-5372. The examiner can normally be reached on Monday through Friday 8:30 A.M. - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on (571)272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HONG ZHOU/  
Primary Examiner, Art Unit 2623

Application/Control Number: 15/799,608  
Art Unit: 2623

Page 12

|                                   |                                       |                                                              |             |
|-----------------------------------|---------------------------------------|--------------------------------------------------------------|-------------|
| <b>Notice of References Cited</b> | Application/Control No.<br>15/799,608 | Applicant(s)/Patent Under<br>Reexamination<br>BEZINGE ET AL. |             |
|                                   | Examiner<br>HONG ZHOU                 | Art Unit<br>2623                                             | Page 1 of 1 |

**U.S. PATENT DOCUMENTS**

| * |   | Document Number<br>Country Code-Number-Kind Code | Date<br>MM-YYYY | Name                  | CPC Classification | US Classification |
|---|---|--------------------------------------------------|-----------------|-----------------------|--------------------|-------------------|
| * | A | US-2004/0179431 A1                               | 09-2004         | Nakajima, Kenichi     | G04G21/02          | 368/11            |
| * | B | US-2011/0164057 A1                               | 07-2011         | Prabhu; Sudhir Muroor | G06F3/017          | 345/650           |
|   | C | US-                                              |                 |                       |                    |                   |
|   | D | US-                                              |                 |                       |                    |                   |
|   | E | US-                                              |                 |                       |                    |                   |
|   | F | US-                                              |                 |                       |                    |                   |
|   | G | US-                                              |                 |                       |                    |                   |
|   | H | US-                                              |                 |                       |                    |                   |
|   | I | US-                                              |                 |                       |                    |                   |
|   | J | US-                                              |                 |                       |                    |                   |
|   | K | US-                                              |                 |                       |                    |                   |
|   | L | US-                                              |                 |                       |                    |                   |
|   | M | US-                                              |                 |                       |                    |                   |

**FOREIGN PATENT DOCUMENTS**

| * |   | Document Number<br>Country Code-Number-Kind Code | Date<br>MM-YYYY | Country | Name | CPC Classification |
|---|---|--------------------------------------------------|-----------------|---------|------|--------------------|
|   | N |                                                  |                 |         |      |                    |
|   | O |                                                  |                 |         |      |                    |
|   | P |                                                  |                 |         |      |                    |
|   | Q |                                                  |                 |         |      |                    |
|   | R |                                                  |                 |         |      |                    |
|   | S |                                                  |                 |         |      |                    |
|   | T |                                                  |                 |         |      |                    |

**NON-PATENT DOCUMENTS**

| * |   | Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) |
|---|---|-------------------------------------------------------------------------------------------|
|   | U |                                                                                           |
|   | V |                                                                                           |
|   | W |                                                                                           |
|   | X |                                                                                           |

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

## EAST Search History

## EAST Search History (Prior Art)

| Ref # | Hits | Search Query                                                                                                                                                                                                                                                            | DBs                                                                        | Default Operator | Plurals | Time Stamp          |
|-------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------|---------|---------------------|
| L2    | 644  | (between near10 start\$3 near10 (end\$3 or final)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                                                                             | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2018/03/27<br>13:14 |
| L3    | 73   | (between near10 (start\$3 adj position) near10 ((end\$3 or final) adj position)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2018/03/27<br>13:15 |
| L4    | 21   | ((length or range or duration) near10 (start\$3 adj position) near10 ((end\$3 or final) adj position)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                         | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2018/03/27<br>13:31 |
| L5    | 2    | ("20110221777").PN.                                                                                                                                                                                                                                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2018/03/27<br>13:32 |
| L6    | 419  | (rotat\$3 near5 range\$1) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                                                                                                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2018/03/27<br>13:37 |
| L8    | 327  | ((rotat\$3 or tilt\$3) near10 (threshold or predetermin43 or preset or predefin43) near5 (distance or range\$1 or angle\$1)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2018/03/27<br>13:49 |
| L11   | 5    | ((((rotat\$3 or tilt\$3) near10 (threshold or predetermin\$3 or preset or predefin\$3) near5 (distance or range\$1 or angle\$1)) same (intentional or intend)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. ) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2018/03/27<br>14:46 |

|      |    |                                                                                                                                                                                                                                                    |                                                                            |    |     |                     |
|------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----|-----|---------------------|
| S307 | 1  | "15799608"                                                                                                                                                                                                                                         | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/17<br>14:43 |
| S308 | 13 | ("0072012"   "0092010"   "0112006"  <br>"20020167699"   "20070176896"  <br>"20090085865"   "20090199130"  <br>"20100235667"   "20100265209"  <br>"20110264928"   "20120062470"  <br>"20120092383"   "20120154303").PN.                             | US-PGPUB;<br>USPAT                                                         | OR | OFF | 2018/03/17<br>14:51 |
| S309 | 56 | BEZINGE with Alex                                                                                                                                                                                                                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/17<br>15:00 |
| S310 | 5  | MOHNI with Adrian                                                                                                                                                                                                                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/17<br>15:00 |
| S311 | 14 | PFEI FER with Daniel                                                                                                                                                                                                                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/17<br>15:01 |
| S312 | 5  | DOGAN with Musa                                                                                                                                                                                                                                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/17<br>15:01 |
| S313 | 30 | ((wrist\$1watch or watch) with orientation)<br>and (power near10 (sav\$3 or conservat\$4<br>or consumption)) AND ( (G04C3/002 OR<br>G04G17/045 OR G04G19/12 OR<br>G04G21/08 OR G06F1/3203 OR<br>G06F3/017 OR G06F3/041).CPC. )                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/17<br>15:08 |
| S314 | 70 | ((wrist\$1watch or watch) with<br>(orientation\$1 or angle\$1)) and (power<br>near10 (sav\$3 or conservat\$4 or<br>consumption)) AND ( (G04C3/002 OR<br>G04G17/045 OR G04G19/12 OR<br>G04G21/08 OR G06F1/3203 OR<br>G06F3/017 OR G06F3/041).CPC. ) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/17<br>15:08 |
| S315 | 3  | "14352727"                                                                                                                                                                                                                                         | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;            | OR | OFF | 2018/03/17<br>15:09 |

|      |      |                                                                                                                                                                                                                                                                |                                                                            |    |     |                     |
|------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----|-----|---------------------|
|      |      |                                                                                                                                                                                                                                                                | IBM_TDB                                                                    |    |     |                     |
| S316 | 2    | ("20090195497").PN.                                                                                                                                                                                                                                            | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/17<br>15:10 |
| S318 | 2    | ("20110264928").PN.                                                                                                                                                                                                                                            | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/17<br>15:10 |
| S320 | 1394 | ((orientation\$1 or angle\$1) same second\$1)and (power near10 (sav\$3 or conservat\$4 or consumption)) and second\$1 AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/17<br>15:31 |
| S321 | 23   | ((orientation\$1 or angle\$1) same second\$1)and (power near10 (sav\$3 or conservat\$4 or consumption)) and "50 ms" AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/18<br>19:28 |
| S322 | 123  | ((orientation\$1 or angle\$1) same second\$1)and (power near10 (sav\$3 or conservat\$4 or consumption)) and ((stationary or remain) near10 second\$1) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. ) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/18<br>19:30 |
| S325 | 958  | ((orientation\$1 or angle\$1) with second\$1)and (power near10 (sav\$3 or conservat\$4 or consumption)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/18<br>19:39 |
| S326 | 958  | ((orientation\$1 or angle\$1) with second\$1) and (power near10 (sav\$3 or conservat\$4 or consumption)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                              | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/18<br>19:39 |
| S327 | 661  | ((orientation\$1 or angle\$1 or tilt\$4) with horizontal) and (power near10 (sav\$3 or conservat\$4 or consumption)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/18<br>19:54 |
| S328 | 77   | ((orientation\$1 or angle\$1 or tilt\$4) with (wrist\$1band or watch)) and (power near10 (sav\$3 or conservat\$4 or                                                                                                                                            | US-PGPUB;<br>USPAT;<br>USOCR;                                              | OR | OFF | 2018/03/19<br>09:43 |

|      |     |                                                                                                                                                                                                                                                                                                     |                                                                            |    |     |                     |
|------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----|-----|---------------------|
|      |     | consumption)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                                                                                                                                              | FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                                  |    |     |                     |
| S329 | 134 | ((orientation\$1 or angle\$1 or tilt\$4) with (predetermin\$3 or predefin\$3) with (time or duration or period)) and (power near10 (sav\$3 or conservat\$4 or consumption)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>09:44 |
| S330 | 3   | ("20160011653").PN.                                                                                                                                                                                                                                                                                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>10:00 |
| S331 | 13  | ((orientation\$1 or angle\$1 or tilt\$4) with (predetermin\$3 or predefin\$3) with (time or duration or period) with set) and (power near10 (sav\$3 or conservat\$4 or consumption)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )       | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>10:01 |
| S332 | 44  | ((orientation\$1 or angle\$1 or tilt\$4) with (predetermin\$3 or predefin\$3) with (time or duration or period) with second\$1) and (power near10 (sav\$3 or conservat\$4 or consumption)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. ) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>10:03 |
| S333 | 18  | ((orientation\$1 or angle\$1 or tilt\$4) with (predetermin\$3 or predefin\$3) with (time or duration or period) with any) and (power near10 (sav\$3 or conservat\$4 or consumption)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )       | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>10:12 |
| S337 | 146 | ((predetermin\$3 or predefin\$3) with (time or duration or period) with quick\$3) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                                                                          | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>11:01 |
| S338 | 36  | ((orientation\$1 or angle\$1 or tilt\$4) same (reference adj orientation)) and (power near10 (sav\$3 or conservat\$4 or consumption)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>11:50 |
| S339 | 56  | BEZINGE with Alex                                                                                                                                                                                                                                                                                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;                                     | OR | OFF | 2018/03/19<br>12:11 |

|      |     |                                                                                                                                                                                                                                                                                                              |                                                                            |    |     |                     |
|------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----|-----|---------------------|
|      |     |                                                                                                                                                                                                                                                                                                              | EPO; JPO;<br>DERWENT;<br>IBM_TDB                                           |    |     |                     |
| S340 | 5   | MOHNI with Adrian                                                                                                                                                                                                                                                                                            | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>12:11 |
| S341 | 14  | PFEI FER with Daniel                                                                                                                                                                                                                                                                                         | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>12:11 |
| S342 | 5   | DOGAN with Musa                                                                                                                                                                                                                                                                                              | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>12:12 |
| S344 | 3   | ((orientation\$1 or angle\$1 or tilt\$4) with<br>(wrist\$1watch or watch)) and (power<br>near10 (sav\$3 or conservat\$4 or<br>consumption)) AND (S339 or S340 or<br>S341 or S342)                                                                                                                            | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>12:13 |
| S345 | 87  | ((orientation\$1 or angle\$1 or tilt\$4) with<br>(wrist\$1band or watch or wrist\$1watch))<br>and (power near10 (sav\$3 or conservat\$4<br>or consumption)) AND ( (G04C3/002 OR<br>G04G17/045 OR G04G19/12 OR<br>G04G21/08 OR G06F1/3203 OR<br>G06F3/017 OR G06F3/041).CPC. )                                | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>12:14 |
| S346 | 390 | ((first near5 (orientation\$1 or angle\$1 or<br>tilt\$4)) same (second near5 (orientation\$1<br>or angle\$1 or tilt\$4))) and (power near10<br>(sav\$3 or conservat\$4 or consumption))<br>AND ( (G04C3/002 OR G04G17/045 OR<br>G04G19/12 OR G04G21/08 OR<br>G06F1/3203 OR G06F3/017 OR<br>G06F3/041).CPC. ) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>12:30 |
| S347 | 1   | ("9367098").PN.                                                                                                                                                                                                                                                                                              | USPAT;<br>USOCR                                                            | OR | OFF | 2018/03/19<br>13:39 |
| S348 | 14  | ("20030060753"   "20060053315"  <br>"20060087981"   "20060137198"  <br>"20100085325"   "20100134308"  <br>"20100235664"   "20120133833"  <br>"20130038634"   "20130097447"  <br>"20140184502"   "6473607"   "8296686"  <br>"8856679").PN. OR ("9367098").URPN.                                               | US-PGPUB;<br>USPAT;<br>USOCR                                               | OR | OFF | 2018/03/19<br>13:39 |
| S349 | 5   | (register\$3 near5 first near5<br>(orientation\$1 or angle\$1 or tilt\$4)) and<br>(power near10 (sav\$3 or conservat\$4 or<br>consumption)) AND ( (G04C3/002 OR<br>G04G17/045 OR G04G19/12 OR<br>G04G21/08 OR G06F1/3203 OR                                                                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;            | OR | OFF | 2018/03/19<br>13:42 |

|      |      |                                                                                                                                                                                                                                                           |                                                                            |    |     |                     |
|------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----|-----|---------------------|
|      |      | G06F3/017 OR G06F3/041).CPC. )                                                                                                                                                                                                                            | IBM_TDB                                                                    |    |     |                     |
| S350 | 39   | (register\$3 near10 (orientation\$1 or angle\$1 or tilt\$4)) and (power near10 (sav\$3 or conservat\$4 or consumption)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                          | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>13:43 |
| S351 | 2    | (register\$3 near5 initial near5 (orientation\$1 or angle\$1 or tilt\$4 or position)) and (power near10 (sav\$3 or conservat\$4 or consumption)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. ) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>13:50 |
| S352 | 1337 | (register\$3 near5 (first or initial or start\$3) near5 (orientation\$1 or angle\$1 or tilt\$4 or position)) and (power near10 (sav\$3 or conservat\$4 or consumption))                                                                                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>13:50 |
| S353 | 30   | S352 AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                                                                                                             | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>13:51 |
| S354 | 70   | (register\$3 near5 (first or initial or start\$3) near5 (orientation\$1 or angle\$1 or tilt\$4)) and (power near10 (sav\$3 or conservat\$4 or consumption))                                                                                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>13:53 |
| S356 | 217  | ((first or initial or start\$3) adj (orientation\$1 or angle\$1 or tilt\$4)) and (power near10 (sav\$3 or conservat\$4 or consumption)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )          | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>13:56 |
| S357 | 23   | ("20050219220"   "20090198132"   "20100088061"   "20100097331"   "20110169868"   "6538636"   "7701442"   "7809214").PN. OR ("8644884").URPN.                                                                                                              | US-PGPUB;<br>USPAT;<br>USOCR                                               | OR | OFF | 2018/03/19<br>14:04 |
| S358 | 814  | ((first or initial or start\$3) near5 (orientation\$1 or angle\$1 or tilt\$4)) and (power near10 (sav\$3 or conservat\$4 or consumption)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )        | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>14:30 |
| S359 | 2    | ("20040179431").PN.                                                                                                                                                                                                                                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;            | OR | OFF | 2018/03/19<br>14:34 |

|      |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                           |    |     |                     |
|------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|----|-----|---------------------|
|      |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | BM_TDB                                                                    |    |     |                     |
| S360 | 38  | (reference adj orientation\$1) and (power near10 (sav\$3 or conservat\$4 or consumption)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>BM_TDB | OR | OFF | 2018/03/19<br>14:40 |
| S363 | 1   | ("8344998").PN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | USPAT;<br>USOCR                                                           | OR | OFF | 2018/03/19<br>15:18 |
| S364 | 507 | (<br>"20010049470"   "20010055242"  <br>"20020013717"   "20020019585"  <br>"20020077219"   "20020082144"  <br>"20020087264"   "20020109600"  <br>"20020178060"   "20020191797"  <br>"20020198776"   "20030018523"  <br>"20030050537"   "20030065561"  <br>"20030107575"   "20030131059"  <br>"20030171189"   "20030208335"  <br>"20030226695"   "20040054497"  <br>"20040061324"   "20040117963"  <br>"20040122488"   "20040152957"  <br>"20040239497"   "20040249299"  <br>"20040257557"   "20050037844"  <br>"20050038679"   "20050054938"  <br>"20050102172"   "20050107723"  <br>"20050163056"   "20050171410"  <br>"20050186965"   "20050187481"  <br>"20050195830"   "20050216724"  <br>"20050228244"   "20050228692"  <br>"20050234742"   "20050248718"  <br>"20050272564"   "20060004265"  <br>"20060020174"   "20060020177"  <br>"20060025282"   "20060039348"  <br>"20060047208"   "20060047447"  <br>"20060064037"   "20060064276"  <br>"20060069619"   "20060089542"  <br>"20060106535"   "20060111944"  <br>"20060129436"   "20060143645"  <br>"20060166718"   "20060189863"  <br>"20060217231"   "20060247952"  <br>"20060277474"   "20060282021"  <br>"20060287883"   "20060288117"  <br>"20070011028"   "20070049384"  <br>"20070050715"   "20070051369"  <br>"20070061593"   "20070071643"  <br>"20070072156"   "20070083095"  <br>"20070083602"   "20070123391"  <br>"20070135264"   "20070136093"  <br>"20070146116"   "20070155277"  <br>"20070159926"   "20070179356"  <br>"20070179761"   "20070194066"  <br>"20070197920"   "20070208544"  <br>"20070276271"   "20070288265"  <br>"20080001735"   "20080014947"  <br>"20080022089"   "20080032864"  <br>"20080044014").PN. OR ("20080054072"<br>  "20080084823"   "20080093838"  <br>"20080097550"   "20080109158"  <br>"20080114829"   "20080125288"  <br>"20080125959"   "20080129457"  <br>"20080134102"   "20080139910"  <br>"20080140163"   "20080140338"  <br>) | US-PGPUB;<br>USPAT;<br>USOCR                                              | OR | OFF | 2018/03/19<br>15:26 |

|                |                |
|----------------|----------------|
| "20080146892"  | "20080155077"  |
| "20080176655"  | "20080190202"  |
| "20080214360"  | "20080275309"  |
| "20080285805"  | "20080300641"  |
| "20090012418"  | "20090018797"  |
| "20090043531"  | "20090047645"  |
| "20090048044"  | "20090054737"  |
| "20090054751"  | "20090058635"  |
| "20090063193"  | "20090063293"  |
| "20090076765"  | "20090088183"  |
| "20090093341"  | "20090098821"  |
| "20090144456"  | "20090144639"  |
| "20090150178"  | "20090156172"  |
| "20090171788"  | "20090195350"  |
| "20090262088"  | "20090264713"  |
| "20090271147"  | "20090287921"  |
| "20090307517"  | "20090309742"  |
| "20090313857"  | "20100023348"  |
| "20100043056"  | "20100058064"  |
| "20100059561"  | "20100069203"  |
| "20100079291"  | "20100125729"  |
| "20100130873"  | "20100158494"  |
| "20100159709"  | "20100167783"  |
| "20100179411"  | "20100185064"  |
| "20100191153"  | "20100205541"  |
| "20100217099"  | "20100222179"  |
| "20100261987"  | "20100292050"  |
| "20100292600"  | "20100295684"  |
| "20100298656"  | "20100298661"  |
| "20100304674"  | "20100311544"  |
| "20100331145"  | "20110003665"  |
| "20110009051"  | "20110021143"  |
| "20110022349"  | "20110029241"  |
| "20110032105"  | "20110051665"  |
| "20110080349"  | "20110087076"  |
| "20110106449"  | "20110109540"  |
| "20110131005"  | "20110145894"  |
| "20110153773"  | "20110167262"  |
| "20110193704"  | "20110197157"  |
| "20110214030"  | "20110221590") |
| ("20110224508" | "20110230729"  |
| "20110258689"  | "20110275940"  |
| "20120015778"  | "20120035487"  |
| "20120046113"  | "20120072165"  |
| "20120083705"  | "20120083714"  |
| "20120083715"  | "20120083716"  |
| "20120084053"  | "20120084054"  |
| "20120092157"  | "20120094649"  |
| "20120102008"  | "20120116684"  |
| "20120119911"  | "20120150483"  |
| "20120165684"  | "20120166257"  |
| "20120179278"  | "20120183939"  |
| "20120215328"  | "20120221634"  |
| "20120226471"  | "20120226472"  |
| "20120227737"  | "20120245716"  |
| "20120254987"  | "20120265477"  |
| "20120265480"  | "20120274508"  |
| "20120283855"  | "20120290109"  |
| "20120296400"  | "20120297229"  |
| "20120297440"  | "20120316456"  |
| "20120324226"  | "20120330109"  |
| "20130006718"  | "20130041590"  |
| "20130072169"  | "20130073254"  |
| "20130073255"  | "20130080113"  |

PN. OR

|                                       |               |
|---------------------------------------|---------------|
| "20130094600"                         | "20130095459" |
| "20130096843"                         | "20130102251" |
| "20130103847"                         | "20130106684" |
| "20130132501"                         | "20130151193" |
| "20130151196"                         | "20130158369" |
| "20130166048"                         | "20130187789" |
| "20130190008"                         | "20130190903" |
| "20130191034"                         | "20130203475" |
| "20130209972"                         | "20130225117" |
| "20130228063"                         | "20130231574" |
| "20130238287"                         | "20130261475" |
| "20130267249"                         | "20130268199" |
| "20130268236"                         | "20130268687" |
| "20130268767"                         | "20130274904" |
| "20130281110"                         | "20130289366" |
| "20130296666"                         | "20130296672" |
| "20130296673"                         | "20130297220" |
| "20130310896"                         | "20130325396" |
| "20130331058"                         | "20130337974" |
| "20140035761"                         | "20140035764" |
| "20140039804"                         | "20140039840" |
| "20140039841"                         | "20140052280" |
| "20140067278".PN. OR ("20140077673"   |               |
| "20140085077"   "20140094941"         |               |
| "20140099614"                         | "20140121471" |
| "20140125618"                         | "20140156228" |
| "20140164611"                         | "20140191866" |
| "20140200691"                         | "20140207264" |
| "20140213858"                         | "20140275885" |
| "20140278229"                         | "20140316305" |
| "20140337451"                         | "20140337621" |
| "20140343867"                         | "20150057967" |
| "20150088457"                         | "20150102923" |
| "20150120186"                         | "20150127268" |
| "20150137994"                         | "20150220883" |
| "20150289802"                         | "20150324541" |
| "20150374267"                         | "20160058372" |
| "20160061626"                         | "20160063888" |
| "20160089572"                         | "20160107646" |
| "20160278669"                         | "20160285985" |
| "20160323401"   "2717736"   "2827309" |               |
| "2883255"   "3163856"   "3250270"     |               |
| "3522383"   "3918658"   "4192000"     |               |
| "4244020"   "4281663"   "4284849"     |               |
| "4312358"   "4367752"   "4390922"     |               |
| "4407295"   "4425921"   "4466204"     |               |
| "4575804"   "4578769"   "4617525"     |               |
| "4887249"   "4930518"   "4977509"     |               |
| "5058427"   "5224059"   "5295085"     |               |
| "5314389"   "5323650"   "5365930"     |               |
| "5446705"   "5456648"   "5553296"     |               |
| "5583776"   "5645509"   "5671162"     |               |
| "5692324"   "5704350"   "5724265"     |               |
| "5817008"   "5890128"   "5891042"     |               |
| "5894454"   "5899963"   "5941828"     |               |
| "5947868"   "5955667"   "5976083"     |               |
| "6018705"   "6077193"   "6078874"     |               |
| "6085248"   "6129686"   "6145389"     |               |
| "6183425"   "6213872"   "6241684"     |               |
| "6287262"   "6301964"   "6302789"     |               |
| "6305221"   "6309360"   "6454708"     |               |
| "6469639"   "6478736"   "6513381"     |               |
| "6513532"   "6527711"   "6529827"     |               |
| "6558335"   "6561951"   "6571200"     |               |

|      |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                            |    |     |                     |
|------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----|-----|---------------------|
|      |     | "6583369"   "6585622"   "6607493"  <br>"6620078"   "6678629"   "6699188").PN.<br>OR ("6761064"   "6772331"   "6788200"  <br>"6790178"   "6808473"   "6811516"  <br>"6813582"   "6813931"   "6856938"  <br>"6862575"   "6984207"   "7020508"  <br>"7041032"   "7062225"   "7099237"  <br>"7133690"   "7162368"   "7171331"  <br>"7200517"   "7246033"   "7261690"  <br>"7272982"   "7283870"   "7285090"  <br>"7373820"   "7443292"   "7457724"  <br>"7467060"   "7502643"   "7505865"  <br>"7539532"   "7558622"   "7559877"  <br>"7608050"   "7653508"   "7690556"  <br>"7713173"   "7762952"   "7771320"  <br>"7774156"   "7789802"   "7827000"  <br>"7865140"   "7881902"   "7907901"  <br>"7925022"   "7927253"   "7941665"  <br>"7942824"   "7953549"   "7983876"  <br>"8005922"   "8028443"   "8036850"  <br>"8055469"   "8059573"   "8060337"  <br>"8095071"   "8099318"   "8103247"  <br>"8132037"   "8172761"   "8177260"  <br>"8180591"   "8180592"   "8190651"  <br>"8213613"   "8260261"   "8270297"  <br>"8271662"   "8289162"   "8311769"  <br>"8311770"   "8386008"   "8437980"  <br>"8462591"   "8463576"   "8463577"  <br>"8487771"   "8533269"   "8533620"  <br>"8543185"   "8543351"   "8548770"  <br>"8562489"   "8583402"   "8597093"  <br>"8634796"   "8638228"   "8670953"  <br>"8690578"   "8738321"   "8738323"  <br>"8744803"   "8762101"   "8764651"  <br>"8825445"   "8847988"   "8868377"  <br>"8892401"   "8949070"   "8954290"  <br>"8961414"   "8968195"   "9047648"  <br>"9081534"   "9374279"   "9426769").PN.<br>OR ("9639170").URPN. |                                                                            |    |     |                     |
| S365 | 351 | (set\$4 near5 (first or initial or start\$3 or<br>reference) near5 (orientation\$1 or<br>angle\$1 or tilt\$4)) AND ( (G04C3/002 OR<br>G04G17/045 OR G04G19/12 OR<br>G04G21/08 OR G06F1/3203 OR<br>G06F3/017 OR G06F3/041).CPC. )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>15:54 |
| S366 | 13  | ("20040100441"   "20090303204"  <br>"20100060569"   "20100125816"  <br>"20100136957"   "20100208057"  <br>"20110221667"   "20110221777"  <br>"20120032877"   "20120212410"  <br>"6201554").PN. OR ("9213419").URPN.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | US-PGPUB;<br>USPAT;<br>USOCR                                               | OR | OFF | 2018/03/19<br>16:15 |
| S367 | 751 | ((first or initial or start\$3 or reference)<br>near10 (orientation\$1 or angle\$1 or tilt\$4)<br>near10 degree\$1) AND ( (G04C3/002 OR<br>G04G17/045 OR G04G19/12 OR<br>G04G21/08 OR G06F1/3203 OR<br>G06F3/017 OR G06F3/041).CPC. )                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/19<br>16:36 |
| S378 | 630 | ((determin\$3 or detect\$3) near10 (tilt\$3<br>or rotat\$3)) with (initial or reference))<br>AND ( (G04C3/002 OR G04G17/045 OR<br>G04G19/12 OR G04G21/08 OR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;                                     | OR | OFF | 2018/03/25<br>21:09 |

|      |     |                                                                                                                                                                                                                   |                                                          |    |     |                  |
|------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|----|-----|------------------|
|      |     | G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                                                                                                                                      | EPO; JPO; DERWENT; IBM_TDB                               |    |     |                  |
| S379 | 3   | ("20090115644").PN.                                                                                                                                                                                               | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2018/03/25 21:43 |
| S381 | 380 | ((rotat\$3 or turn\$3) near10 (initial or reference or start\$3) near5 angle\$2) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                         | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2018/03/25 21:56 |
| S382 | 2   | ("20090228841").PN.                                                                                                                                                                                               | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2018/03/25 22:05 |
| S383 | 205 | ((rotat\$3 or turn\$3) near10 (initial or reference or start\$3) near10 degree\$1) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                       | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2018/03/25 22:10 |
| S384 | 233 | ((initial or reference or start\$3) near5 (orientation or position\$1 or direction\$1) near10 degree\$1) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. ) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2018/03/25 22:19 |
| S385 | 39  | (default near5 (orientation or position\$1 or direction\$1) near10 degree\$1) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                            | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2018/03/25 22:28 |
| S386 | 56  | (default near5 angle\$1) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                                                 | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2018/03/25 22:30 |
| S387 | 238 | (start\$3 near5 angle\$1) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                                                | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2018/03/25 22:35 |
| S388 | 115 | ((initial or reference or start\$3 or default) near5 (orientation or position\$1 or                                                                                                                               | US-PGPUB; USPAT;                                         | OR | OFF | 2018/03/26 09:13 |

|      |     |                                                                                                                                                                                                                                                                                                                                                                                |                                                                            |    |     |                     |
|------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----|-----|---------------------|
|      |     | direction\$1 or angle) near10 register\$3)<br>AND ( (G04C3/002 OR G04G17/045 OR<br>G04G19/12 OR G04G21/08 OR<br>G06F1/3203 OR G06F3/017 OR<br>G06F3/041).CPC. )                                                                                                                                                                                                                | USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                        |    |     |                     |
| S389 | 20  | ("20060238502"   "20070268246"  <br>"20080074443"   "20080089613"  <br>"20080100825"   "20080211778"  <br>"20100041431"   "20100066763"  <br>"20100123664"   "20100123737"  <br>"20100125816"   "20100136957"  <br>"20100156907"   "20100188397"  <br>"20100222119"   "20110037778"  <br>"20110148930"   "20110167391"  <br>"7689115"   "8030914").PN. OR<br>("9304591").URPN. | US-PGPUB;<br>USPAT;<br>USOCR                                               | OR | OFF | 2018/03/26<br>09:19 |
| S391 | 850 | ((initial or reference or start\$3 or default)<br>near5 (orientation or position\$1 or<br>direction\$1 or angle) near10<br>(predetermin\$3 or preset\$3)) AND ( (G04C3/002 OR G04G17/045 OR<br>G04G19/12 OR G04G21/08 OR<br>G06F1/3203 OR G06F3/017 OR<br>G06F3/041).CPC. )                                                                                                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>09:25 |
| S392 | 128 | ((initial or reference or start\$3 or default)<br>near10 ((predetermin\$3 or preset\$3) adj<br>range\$1)) AND ( (G04C3/002 OR<br>G04G17/045 OR G04G19/12 OR<br>G04G21/08 OR G06F1/3203 OR<br>G06F3/017 OR G06F3/041).CPC. )                                                                                                                                                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>10:07 |
| S394 | 138 | ((initial or reference or start\$3 or default)<br>adj (position or orientation)) near10<br>degree\$1) AND ( (G04C3/002 OR<br>G04G17/045 OR G04G19/12 OR<br>G04G21/08 OR G06F1/3203 OR<br>G06F3/017 OR G06F3/041).CPC. )                                                                                                                                                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>10:11 |
| S395 | 13  | ((initial or reference or start\$3 or default)<br>adj (position or orientation)) near10 set\$4<br>near10 degree\$1) AND ( (G04C3/002 OR<br>G04G17/045 OR G04G19/12 OR<br>G04G21/08 OR G06F1/3203 OR<br>G06F3/017 OR G06F3/041).CPC. )                                                                                                                                          | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>10:13 |
| S396 | 151 | ((initial or reference or start\$3 or default)<br>near10 set\$4 near10 degree\$1) AND ( (G04C3/002 OR G04G17/045 OR<br>G04G19/12 OR G04G21/08 OR<br>G06F1/3203 OR G06F3/017 OR<br>G06F3/041).CPC. )                                                                                                                                                                            | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>10:14 |
| S399 | 366 | ((preset\$4 or predetermin\$3 or set\$4) adj<br>(initial or reference or start\$3 or default)<br>adj (point or position or orientation)) AND<br>( (G04C3/002 OR G04G17/045 OR<br>G04G19/12 OR G04G21/08 OR<br>G06F1/3203 OR G06F3/017 OR<br>G06F3/041).CPC. )                                                                                                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>10:20 |
| S401 | 44  | (user near5 defin\$3 near5 ((initial or<br>reference or start\$3 or default) adj (point                                                                                                                                                                                                                                                                                        | US-PGPUB;<br>USPAT;                                                        | OR | OFF | 2018/03/26<br>10:32 |

|      |    |                                                                                                                                                                                                                                                        |                                                          |    |     |                  |
|------|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|----|-----|------------------|
|      |    | or position or orientation))) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                                                                                 | USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB                  |    |     |                  |
| S402 | 49 | (predefin\$3 near5 ((initial or reference or start\$3 or default) adj (point or position or orientation))) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                    | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2018/03/26 10:41 |
| S403 | 14 | (pre-defin\$3 near5 ((initial or reference or start\$3 or default) adj (point or position or orientation))) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                   | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2018/03/26 10:45 |
| S404 | 35 | (user near5 plac\$3 near5 ((initial or reference or start\$3 or default) adj (point or position or orientation))) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                             | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2018/03/26 10:47 |
| S405 | 90 | (record\$3 near5 ((initial or reference or start\$3 or default) adj (point or position or orientation))) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                      | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2018/03/26 10:49 |
| S406 | 16 | ((((initial or reference or start\$3 or default) adj (point or position or orientation)) near10 (still or stationary or remain) near10 time) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )  | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2018/03/26 10:55 |
| S407 | 2  | ("20090195497").PN.                                                                                                                                                                                                                                    | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2018/03/26 10:56 |
| S408 | 7  | ((first adj (point or position or orientation)) near10 (still or stationary or remain) near10 time) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                           | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2018/03/26 10:58 |
| S409 | 19 | ((((initial or reference or start\$3 or default) adj (point or position or orientation)) near10 (remain43 or station\$4 or held) near10 time) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. ) | US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2018/03/26 11:00 |

|      |     |                                                                                                                                                                                                                                                                              |                                                                            |    |     |                     |
|------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----|-----|---------------------|
| S410 | 32  | ((initial or reference or start\$3 or default) adj (point or position or orientation)) near10 (remain\$3 or station\$4 or held) near10 time) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>11:00 |
| S411 | 101 | (preset\$4 near5 ((initial or reference or start\$3 or default) adj (point or position or orientation))) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                            | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>11:02 |
| S415 | 26  | ((start\$3 adj (position or orientation)) near5 angle\$1) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                                                                           | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>11:34 |
| S416 | 491 | (angle adj range\$1) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                                                                                                                | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>12:53 |
| S421 | 14  | ((wrist\$1watch or watch) with (angle\$1 near5 range\$1)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                                                                           | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>13:54 |
| S422 | 227 | ((start\$3 or initial) near10 (position or angle or orientation) near10 (predefin\$3 or predetermin\$3 or preset or threshold) near10 (time or duration or period)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. ) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>14:45 |
| S423 | 820 | ((start\$3 or initial) near10 (position or angle or orientation) near10 (time or duration or period)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>15:17 |
| S424 | 22  | (hold\$3 near10 (start\$3 or initial) near10 (position or angle or orientation) near10 (time or duration or period)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>15:17 |
| S425 | 13  | ("0072012"   "0092010"   "0112006"   "20020167699"   "20070176896"   "20090085865"   "20090199130"   "20100235667"   "20100265209"                                                                                                                                           | US-PGPUB;<br>USPAT                                                         | OR | OFF | 2018/03/26<br>15:23 |

|      |     |                                                                                                                                                                                                              |                                                                            |    |     |                     |
|------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----|-----|---------------------|
|      |     | "20110264928"   "20120062470"  <br>"20120092383"   "20120154303").PN.                                                                                                                                        |                                                                            |    |     |                     |
| S426 | 249 | ((start\$3 or initial) adj (position or angle or orientation)) near10 (time or duration or period)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. ) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>15:24 |
| S427 | 16  | ((start\$3 or initial) adj (position or angle or orientation)) near10 valid) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>15:33 |
| S428 | 316 | ((position or angle or orientation) near10 valid) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>15:33 |
| S429 | 147 | ((position or angle or orientation) near10 held near10 (time or duration)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                          | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>15:39 |
| S430 | 358 | ((position or angle or orientation) near10 maintain\$3 near10 (time or duration)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>15:46 |
| S431 | 178 | ((held or maintain\$3 or remain\$3) near10 (time or duration) near10 display) same power) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )           | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>16:04 |
| S432 | 43  | (recogniz\$3 near5 ((start\$3 or initial) adj (position or angle or orientation))) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>16:26 |
| S433 | 3   | ((valid adj gesture) same ((start\$3 or initial) adj (position or angle or orientation))) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )           | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>16:38 |
| S434 | 20  | (register\$3 near5 ((start\$3 or initial) adj (position or angle or orientation))) AND ( (G04C3/002 OR G04G17/045 OR                                                                                         | US-PGPUB;<br>USPAT;<br>USOCR;                                              | OR | OFF | 2018/03/26<br>16:39 |

## EAST Search History

|      |     |                                                                                                                                                                                                             |                                                                            |    |     |                     |
|------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----|-----|---------------------|
|      |     | G04G19/12 OR G04G21/08 OR<br>G06F1/3203 OR G06F3/017 OR<br>G06F3/041).CPC. )                                                                                                                                | FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB                                  |    |     |                     |
| S438 | 783 | ((remain\$3 or held or maintain\$3 or<br>station\$4) with (predetermin\$3 adj time))<br>AND ( (G04C3/002 OR G04G17/045 OR<br>G04G19/12 OR G04G21/08 OR<br>G06F1/3203 OR G06F3/017 OR<br>G06F3/041).CPC. )   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>16:58 |
| S440 | 2   | ("20110264928").PN.                                                                                                                                                                                         | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>18:24 |
| S441 | 633 | (start\$3 with (end\$3 or final) with<br>(predefin\$3 or threshold or<br>predetermin\$3)) AND ( (G04C3/002 OR<br>G04G17/045 OR G04G19/12 OR<br>G04G21/08 OR G06F1/3203 OR<br>G06F3/017 OR G06F3/041).CPC. ) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/26<br>18:26 |
| S442 | 4   | ("20090009478").PN.                                                                                                                                                                                         | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/03/27<br>10:27 |

**EAST Search History (Interference)**

&lt;This search history is empty&gt;

**3/ 27/ 2018 3:08:32 PM****C:\Users\hzhou\Documents\EAST\Workspaces\15799608.wsp**

|                                                                                                                                       |   |    |   |                          |                       |
|---------------------------------------------------------------------------------------------------------------------------------------|---|----|---|--------------------------|-----------------------|
| Substitute for form 1449/PTO<br><br><b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br>(Use as many sheets as necessary) |   |    |   | <b>Complete if Known</b> |                       |
|                                                                                                                                       |   |    |   | Application Number       | Not Yet Assigned      |
|                                                                                                                                       |   |    |   | Filing Date              | Concurrently Herewith |
|                                                                                                                                       |   |    |   | First Named Inventor     | Alex Bezing           |
|                                                                                                                                       |   |    |   | Art Unit                 | N/A                   |
|                                                                                                                                       |   |    |   | Examiner Name            | Not Yet Assigned      |
| Sheet                                                                                                                                 | 1 | of | 1 | Attorney Docket Number   | 143297.00102          |

| U.S. PATENT DOCUMENTS    |                       |                                                                                   |                                |                                                    |                                                                                 |                |
|--------------------------|-----------------------|-----------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------|----------------|
| Examiner Initials*       | Cite No. <sup>1</sup> | Document Number                                                                   | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |                |
|                          |                       | Number-Kind Code <sup>2</sup> (if known)                                          |                                |                                                    |                                                                                 |                |
|                          | **AA                  | US-20090199130                                                                    | 08-06-2009                     | Tsem et al.                                        |                                                                                 |                |
|                          | **AB                  | US-20020118605                                                                    | 08-29-2002                     | Born et al.                                        |                                                                                 |                |
|                          | **AC                  | US-20090102669                                                                    | 04-23-2009                     | LIN                                                |                                                                                 |                |
|                          | **AD                  | US-20100235667                                                                    | 09-16-2010                     | Mucignat et al.                                    |                                                                                 |                |
|                          | **AE                  | US-20120092383                                                                    | 04-19-2012                     | HYSEK et al.                                       |                                                                                 |                |
|                          | **AF                  | US-2002/0167699-A1                                                                | 11-2002                        | Verplaetse et al.                                  |                                                                                 |                |
|                          | **AG                  | US-2007/0176896-A1                                                                | 08-2007                        | Gritton et al.                                     |                                                                                 |                |
|                          | **AH                  | US-2009/0085865-A1                                                                | 04-2009                        | Fattah                                             |                                                                                 |                |
|                          | **AI                  | US-2010/0265209-A1                                                                | 10-2010                        | Nurmi et al.                                       |                                                                                 |                |
|                          | **AJ                  | US-2011/0080349-A1                                                                | 04-2001                        | Holbein et al.                                     |                                                                                 |                |
|                          | **AK                  | US-2011/0109540-A1                                                                | 05-2011                        | Milne et al.                                       |                                                                                 |                |
|                          | **AL                  | US-2012/0062470-A1                                                                | 03-2012                        | Chang                                              |                                                                                 |                |
|                          | **AM                  | US-2012/0154303-A1                                                                | 06-2012                        | Lazaridis et al.                                   |                                                                                 |                |
|                          | **AN                  | US-8,230,246-B1                                                                   | 07-2012                        | Sharkey                                            |                                                                                 |                |
|                          | **AO                  | US-2010/0231777-A1                                                                | 09-2010                        | Shintani                                           |                                                                                 |                |
|                          | **AP                  | US-2006/0256081-A1                                                                | 11-2006                        | Zalewski                                           |                                                                                 |                |
|                          | **AQ                  | US-2008/0229255-A1                                                                | 09-2008                        | Linjama                                            |                                                                                 |                |
|                          | **AR                  | US-2009/0195497-A1                                                                | 08-2009                        | Fitzgerald                                         |                                                                                 |                |
|                          | **AS                  | US-2011/0264928-A1                                                                | 10-2011                        | Hinckley                                           |                                                                                 |                |
| FOREIGN PATENT DOCUMENTS |                       |                                                                                   |                                |                                                    |                                                                                 |                |
| Examiner Initials*       | Cite No. <sup>1</sup> | Foreign Patent Document                                                           | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages<br>Or Relevant Figures Appear | T <sup>6</sup> |
|                          |                       | Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known) |                                |                                                    |                                                                                 |                |
|                          | **BA                  | EP-1324159-A1                                                                     | 07-02-2003                     | Asulab Sa [ch]                                     |                                                                                 |                |
|                          | **BB                  | WO-09120292-A2                                                                    | 10-01-2009                     | Lee, Shu                                           |                                                                                 |                |
|                          | **BC                  | WO-11000893-A1                                                                    | 01-06-2011                     | Hysek, Joerg et al.                                |                                                                                 |                |
|                          | **BD                  | EP-2315101-A1                                                                     | 04-27-2011                     | Research In Motion Ltd [ca]                        |                                                                                 |                |
|                          | **BE                  | EP-1785808-A1                                                                     | 05-16-2007                     | Research In Motion Ltd [ca]                        |                                                                                 |                |

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 509. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \* CITE NO. Those application(s) which are marked with an single asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IPFW. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 15 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

| NON PATENT LITERATURE DOCUMENTS |                       |                                                                                                                                                                                                                                                                 |                |
|---------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Examiner Initials*              | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T <sup>2</sup> |
|                                 | **CA                  | K. Tuck et al., "MMA84500Q Single/Double and Directional Tap Detection", Freescale Semiconductor, Inc., 2010, 16 pages.                                                                                                                                         |                |
|                                 | **CB                  | BMA180 Digital, "Triaxial Acceleration Sensor", Data Sheet, Bosch Sensortec, December 10, 2009, pps. 1-69.                                                                                                                                                      |                |

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 509. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

|                    |             |                 |            |
|--------------------|-------------|-----------------|------------|
| Examiner Signature | /HONG ZHOU/ | Date Considered | 03/17/2018 |
|--------------------|-------------|-----------------|------------|

143297.00102/106283965

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /H.Z./

|                                                                                                              |                                                |                                                                      |
|--------------------------------------------------------------------------------------------------------------|------------------------------------------------|----------------------------------------------------------------------|
| <b>Search Notes</b><br><br> | <b>Application/Control No.</b><br><br>15799608 | <b>Applicant(s)/Patent Under Reexamination</b><br><br>BEZINGE ET AL. |
|                                                                                                              | <b>Examiner</b><br><br>HONG ZHOU               | <b>Art Unit</b><br><br>2623                                          |

| CPC- SEARCHED                                                                 |                 |          |
|-------------------------------------------------------------------------------|-----------------|----------|
| Symbol                                                                        | Date            | Examiner |
| G04C3/002, G04G17/045, G04G19/12, G04G21/08, G06F1/3203, G06F3/017, G06F3/041 | 3/18/18-3/27/18 | HZ       |

| CPC COMBINATION SETS - SEARCHED |      |          |
|---------------------------------|------|----------|
| Symbol                          | Date | Examiner |
|                                 |      |          |

| US CLASSIFICATION SEARCHED |          |      |          |
|----------------------------|----------|------|----------|
| Class                      | Subclass | Date | Examiner |
|                            |          |      |          |

\* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

| SEARCH NOTES         |                 |          |
|----------------------|-----------------|----------|
| Search Notes         | Date            | Examiner |
| East Search          | 3/18/18-3/27/18 | HZ       |
| Inventor Name Search | 3/19/18         | HZ       |

| INTERFERENCE SEARCH     |                         |      |          |
|-------------------------|-------------------------|------|----------|
| US Class/<br>CPC Symbol | US Subclass / CPC Group | Date | Examiner |
|                         |                         |      |          |

|  |  |
|--|--|
|  |  |
|--|--|



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
 United States Patent and Trademark Office  
 Address: COMMISSIONER FOR PATENTS  
 P.O. Box 1450  
 Alexandria, Virginia 22313-1450  
 www.uspto.gov

## BIB DATA SHEET

CONFIRMATION NO. 8529

| SERIAL NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | FILING or 371(c)<br>DATE                                                                                          | CLASS                                                    | GROUP ART UNIT                             | ATTORNEY DOCKET<br>NO.                                                                                                                                                                                                                                                    |                               |                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------------------------------------|
| 15/799,608                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 10/31/2017                                                                                                        | 345                                                      | 2623                                       | 143297.00102                                                                                                                                                                                                                                                              |                               |                                    |
| <b>APPLICANTS</b><br>Slyde Watch SA, Luins, SWITZERLAND;<br><b>INVENTORS</b><br>Alex BEZINGE, Saviese, SWITZERLAND;<br>Adrian MOHNI, St-Gallen, SWITZERLAND;<br>Daniel PFEIFER, St. Anton Am Ariberg, AUSTRIA;<br>Musa DOGAN, Heerbrugg, SWITZERLAND;<br><b>** CONTINUING DATA *****</b><br>This application is a CON of 14/352,727 04/18/2014 PAT 9804678<br>which is a 371 of PCT/EP2012/070273 10/12/2012<br><b>** FOREIGN APPLICATIONS *****</b><br>SWITZERLAND 01689/11 10/18/2011<br><b>** IF REQUIRED, FOREIGN FILING LICENSE GRANTED *** SMALL ENTITY **</b><br>11/30/2017 |                                                                                                                   |                                                          |                                            |                                                                                                                                                                                                                                                                           |                               |                                    |
| Foreign Priority claimed <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>35 USC 119(a-d) conditions met <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Verified and /HONG ZHOU/<br>Acknowledged Examiner's Signature                                                                                                                                                                                                                                                                                                                |                                                                                                                   | <input type="checkbox"/> Met after Allowance<br>Initials | <b>STATE OR<br/>COUNTRY</b><br>SWITZERLAND | <b>SHEETS<br/>DRAWINGS</b><br>5                                                                                                                                                                                                                                           | <b>TOTAL<br/>CLAIMS</b><br>11 | <b>INDEPENDENT<br/>CLAIMS</b><br>1 |
| <b>ADDRESS</b><br>BLANK ROME LLP<br>1825 Eye Street NW<br>WASHINGTON, DC 20006-5403<br>UNITED STATES                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                   |                                                          |                                            |                                                                                                                                                                                                                                                                           |                               |                                    |
| <b>TITLE</b><br>METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A<br>SECOND POWER MODE                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                   |                                                          |                                            |                                                                                                                                                                                                                                                                           |                               |                                    |
| <b>FILING FEE<br/>RECEIVED</b><br>730                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | FEES: Authority has been given in Paper<br>No. _____ to charge/credit DEPOSIT ACCOUNT<br>No. _____ for following: |                                                          |                                            | <input type="checkbox"/> All Fees<br><input type="checkbox"/> 1.16 Fees (Filing)<br><input type="checkbox"/> 1.17 Fees (Processing Ext. of time)<br><input type="checkbox"/> 1.18 Fees (Issue)<br><input type="checkbox"/> Other _____<br><input type="checkbox"/> Credit |                               |                                    |

|                                                                                                                    |                                            |                                                                  |
|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------|------------------------------------------------------------------|
| <b><i>Index of Claims</i></b><br> | <b>Application/Control No.</b><br>15799608 | <b>Applicant(s)/Patent Under Reexamination</b><br>BEZINGE ET AL. |
|                                                                                                                    | <b>Examiner</b><br>HONG ZHOU               | <b>Art Unit</b><br>2623                                          |

|   |                 |   |                   |   |                     |   |                 |
|---|-----------------|---|-------------------|---|---------------------|---|-----------------|
| ✓ | <b>Rejected</b> | - | <b>Cancelled</b>  | N | <b>Non-Elected</b>  | A | <b>Appeal</b>   |
| = | <b>Allowed</b>  | ÷ | <b>Restricted</b> | I | <b>Interference</b> | O | <b>Objected</b> |

| <input type="checkbox"/> Claims renumbered in the same order as presented by applicant <input type="checkbox"/> CPA <input type="checkbox"/> T.D. <input type="checkbox"/> R.1.47 |          |            |  |  |  |  |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------|--|--|--|--|--|--|--|--|
| CLAIM                                                                                                                                                                             |          | DATE       |  |  |  |  |  |  |  |  |
| Final                                                                                                                                                                             | Original | 03/27/2018 |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 18       | ✓          |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 19       | ✓          |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 20       | ✓          |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 21       | ✓          |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 22       | ✓          |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 23       | ✓          |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 24       | ✓          |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 25       | ✓          |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 26       | ✓          |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 27       | ✓          |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 28       | ✓          |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 29       |            |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 30       |            |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 31       |            |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 32       |            |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 33       |            |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 34       |            |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 35       |            |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 36       |            |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 37       |            |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 38       |            |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 39       |            |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 40       |            |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 41       |            |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 42       |            |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 43       |            |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 44       |            |  |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 45       |            |  |  |  |  |  |  |  |  |

Doc Code: ECOMM.AUTH/ECOMM.WTDW

Doc Description: Internet Communications Authorized/Internet Communications Authorization Withdrawn

PTO/SB/439 (11-15)

**AUTHORIZATION FOR INTERNET  
COMMUNICATIONS IN A PATENT  
APPLICATION OR REQUEST TO  
WITHDRAW AUTHORIZATION FOR  
INTERNET COMMUNICATIONS**

|                         |               |
|-------------------------|---------------|
| Application No.         | 15/799,608    |
| Filing Date             | Oct. 31, 2017 |
| First Named Inventor    | Alex BEZINGE  |
| Art Unit                | 2623          |
| Examiner Name           | Hong ZHOU     |
| Practitioner Docket No. | 143297.00102  |

To: Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**I. To authorize permission for Internet Communications.**

☒ Recognizing that Internet communications are not secure, I hereby authorize the USPTO to communicate with the undersigned and practitioners in accordance with 37 CFR 1.33 and 37 CFR 1.34 concerning any subject matter of this application via video conferencing, instant messaging, or electronic mail. I understand that a copy of these communications will be made of record in the application file. (MPEP 502.03)

**II. To withdraw authorization for Internet Communications.**

☐ The authorization given on \_\_\_\_\_, to the USPTO to communicate with the undersigned and any practitioner in accordance with 37 CFR 1.33 and 37 CFR 1.34 concerning any subject matter of this application via Internet communications such as video conferencing, instant messaging, or electronic mail is hereby withdrawn. I understand that the withdrawal is effective when approved rather than when received.

I am the

☐ applicant.

☐ attorney or agent of record. Registration number \_\_\_\_\_.

☒ attorney or agent acting under 37 CFR 1.34. Registration number 40,220.

/Peter S. Weissman/  
Signature

Aug. 28, 2018  
Date

Peter S. Weissman  
Typed or printed name

202-772-5805  
Telephone Number

**NOTE:** This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Juristic entities must be represented by a patent practitioner (see 37 CFR 1.31, which is applicable to any paper filed on or after September 16, 2012, that is presented on behalf of a juristic entity, regardless of application filing date). Submit multiple forms if more than one signature is required, see below\*.

☐ \* Total of \_\_\_\_\_ forms are submitted.

| Electronic Acknowledgement Receipt   |                                                                                              |
|--------------------------------------|----------------------------------------------------------------------------------------------|
| EFS ID:                              | 33564520                                                                                     |
| Application Number:                  | 15799608                                                                                     |
| International Application Number:    |                                                                                              |
| Confirmation Number:                 | 8529                                                                                         |
| Title of Invention:                  | METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |
| First Named Inventor/Applicant Name: | Alex BEZINGE                                                                                 |
| Customer Number:                     | 27557                                                                                        |
| Filer:                               | Peter S. Weissman                                                                            |
| Filer Authorized By:                 |                                                                                              |
| Attorney Docket Number:              | 143297.00102                                                                                 |
| Receipt Date:                        | 28-AUG-2018                                                                                  |
| Filing Date:                         | 31-OCT-2017                                                                                  |
| Time Stamp:                          | 16:45:21                                                                                     |
| Application Type:                    | Utility under 35 USC 111(a)                                                                  |

### Payment information:

|                        |    |
|------------------------|----|
| Submitted with Payment | no |
|------------------------|----|

### File Listing:

| Document Number | Document Description               | File Name | File Size(Bytes)/ Message Digest         | Multi Part /.zip | Pages (if appl.) |
|-----------------|------------------------------------|-----------|------------------------------------------|------------------|------------------|
| 1               | Internet Communications Authorized | Auth.pdf  | 60239                                    | no               | 1                |
|                 |                                    |           | 263e0cac9c0312378392e888e02d7bbba0ef80b5 |                  |                  |

### Warnings:

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| <b>Information:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |
| <b>Total Files Size (in bytes):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 60239 |
| <p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b><br/> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b><br/> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b><br/> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p> |       |

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

| <b>PATENT APPLICATION FEE DETERMINATION RECORD</b><br>Substitute for Form PTO-875                                                                                                                                                                                                                                                                                                                                 |                                                                                          |                                                                                                                                                                                                                               |                                  | Application or Docket Number<br><b>15/799,608</b> |       | Filing Date<br><b>10/31/2017</b> |                                    | <input type="checkbox"/> To be Mailed |               |                          |                 |  |                     |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------------------------|-------|----------------------------------|------------------------------------|---------------------------------------|---------------|--------------------------|-----------------|--|---------------------|--|
| <b>ENTITY:</b> <input type="checkbox"/> LARGE <input checked="" type="checkbox"/> SMALL <input type="checkbox"/> MICRO                                                                                                                                                                                                                                                                                            |                                                                                          |                                                                                                                                                                                                                               |                                  |                                                   |       |                                  |                                    |                                       |               |                          |                 |  |                     |  |
| <b>APPLICATION AS FILED – PART I</b>                                                                                                                                                                                                                                                                                                                                                                              |                                                                                          |                                                                                                                                                                                                                               |                                  |                                                   |       |                                  |                                    |                                       |               |                          |                 |  |                     |  |
| (Column 1)                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                          | (Column 2)                                                                                                                                                                                                                    |                                  |                                                   |       |                                  |                                    |                                       |               |                          |                 |  |                     |  |
| FOR                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                          | NUMBER FILED                                                                                                                                                                                                                  |                                  | NUMBER EXTRA                                      |       | RATE (\$)                        |                                    | FEE (\$)                              |               |                          |                 |  |                     |  |
| <input type="checkbox"/> BASIC FEE<br>(37 CFR 1.16(a), (b), or (c))                                                                                                                                                                                                                                                                                                                                               |                                                                                          | N/A                                                                                                                                                                                                                           |                                  | N/A                                               |       | N/A                              |                                    |                                       |               |                          |                 |  |                     |  |
| <input type="checkbox"/> SEARCH FEE<br>(37 CFR 1.16(k), (i), or (m))                                                                                                                                                                                                                                                                                                                                              |                                                                                          | N/A                                                                                                                                                                                                                           |                                  | N/A                                               |       | N/A                              |                                    |                                       |               |                          |                 |  |                     |  |
| <input type="checkbox"/> EXAMINATION FEE<br>(37 CFR 1.16(o), (p), or (q))                                                                                                                                                                                                                                                                                                                                         |                                                                                          | N/A                                                                                                                                                                                                                           |                                  | N/A                                               |       | N/A                              |                                    |                                       |               |                          |                 |  |                     |  |
| TOTAL CLAIMS<br>(37 CFR 1.16(i))                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                          | minus 20 =                                                                                                                                                                                                                    |                                  | *                                                 |       | X \$   =                         |                                    |                                       |               |                          |                 |  |                     |  |
| INDEPENDENT CLAIMS<br>(37 CFR 1.16(h))                                                                                                                                                                                                                                                                                                                                                                            |                                                                                          | minus 3 =                                                                                                                                                                                                                     |                                  | *                                                 |       | X \$   =                         |                                    |                                       |               |                          |                 |  |                     |  |
| <input type="checkbox"/> APPLICATION SIZE FEE<br>(37 CFR 1.16(s))                                                                                                                                                                                                                                                                                                                                                 |                                                                                          | If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s). |                                  |                                                   |       |                                  |                                    |                                       |               |                          |                 |  |                     |  |
| <input type="checkbox"/> MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))                                                                                                                                                                                                                                                                                                                                        |                                                                                          |                                                                                                                                                                                                                               |                                  |                                                   |       |                                  |                                    |                                       |               |                          |                 |  |                     |  |
| * If the difference in column 1 is less than zero, enter "0" in column 2.                                                                                                                                                                                                                                                                                                                                         |                                                                                          |                                                                                                                                                                                                                               |                                  |                                                   |       | TOTAL                            |                                    |                                       |               |                          |                 |  |                     |  |
| <b>APPLICATION AS AMENDED – PART II</b>                                                                                                                                                                                                                                                                                                                                                                           |                                                                                          |                                                                                                                                                                                                                               |                                  |                                                   |       |                                  |                                    |                                       |               |                          |                 |  |                     |  |
| (Column 1)                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                          | (Column 2)                                                                                                                                                                                                                    |                                  | (Column 3)                                        |       |                                  |                                    |                                       |               |                          |                 |  |                     |  |
| <b>AMENDMENT</b>                                                                                                                                                                                                                                                                                                                                                                                                  | <b>09/12/2018</b>                                                                        |                                                                                                                                                                                                                               | CLAIMS REMAINING AFTER AMENDMENT |                                                   |       |                                  | HIGHEST NUMBER PREVIOUSLY PAID FOR |                                       | PRESENT EXTRA |                          | RATE (\$)       |  | ADDITIONAL FEE (\$) |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | Total (37 CFR 1.16(i))                                                                   |                                                                                                                                                                                                                               | * 10                             |                                                   | Minus |                                  | ** 20                              |                                       | = 0           |                          | X \$50 =        |  | 0                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | Independent (37 CFR 1.16(h))                                                             |                                                                                                                                                                                                                               | * 1                              |                                                   | Minus |                                  | *** 3                              |                                       | = 0           |                          | X \$230 =       |  | 0                   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))                           |                                                                                                                                                                                                                               |                                  |                                                   |       |                                  |                                    |                                       |               |                          |                 |  |                     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) |                                                                                                                                                                                                                               |                                  |                                                   |       |                                  |                                    |                                       |               |                          |                 |  |                     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                          |                                                                                                                                                                                                                               |                                  |                                                   |       |                                  |                                    |                                       |               |                          | TOTAL ADD'L FEE |  | <b>0</b>            |  |
| (Column 1)                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                          | (Column 2)                                                                                                                                                                                                                    |                                  | (Column 3)                                        |       |                                  |                                    |                                       |               |                          |                 |  |                     |  |
| <b>AMENDMENT</b>                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                          |                                                                                                                                                                                                                               | CLAIMS REMAINING AFTER AMENDMENT |                                                   |       |                                  | HIGHEST NUMBER PREVIOUSLY PAID FOR |                                       | PRESENT EXTRA |                          | RATE (\$)       |  | ADDITIONAL FEE (\$) |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | Total (37 CFR 1.16(i))                                                                   |                                                                                                                                                                                                                               | *                                |                                                   | Minus |                                  | **                                 |                                       | =             |                          | X \$   =        |  |                     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | Independent (37 CFR 1.16(h))                                                             |                                                                                                                                                                                                                               | *                                |                                                   | Minus |                                  | ***                                |                                       | =             |                          | X \$   =        |  |                     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <input type="checkbox"/> Application Size Fee (37 CFR 1.16(s))                           |                                                                                                                                                                                                                               |                                  |                                                   |       |                                  |                                    |                                       |               |                          |                 |  |                     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <input type="checkbox"/> FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) |                                                                                                                                                                                                                               |                                  |                                                   |       |                                  |                                    |                                       |               |                          |                 |  |                     |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                          |                                                                                                                                                                                                                               |                                  |                                                   |       |                                  |                                    |                                       |               |                          | TOTAL ADD'L FEE |  |                     |  |
| * If the entry in column 1 is less than the entry in column 2, write "0" in column 3.<br>** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".<br>*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".<br>The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1. |                                                                                          |                                                                                                                                                                                                                               |                                  |                                                   |       |                                  |                                    |                                       |               | LIE<br>STEPHEN W. HOOVER |                 |  |                     |  |

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:                    ) Confirmation No. 8529  
                                                      )  
Alex BEZINGE                                 ) Group Art Unit: 2623  
                                                      )  
Serial No.: 15/799608                     ) Examiner: Hong ZHOU  
                                                      )  
Filed: Oct. 31, 2017                        ) Atty. Dkt. No.: 143297.00102  
                                                      )

For: METHOD AND CIRCUIT FOR SWITCHING A  
      WRISTWATCH FROM A FIRST POWER MODE TO  
      A SECOND POWER MODE

**AMENDMENT AND STATEMENT OF INTERVIEW**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Office Action dated April 2, 2018, kindly amend the above-identified patent application as follows:

***Listing of Claims*** begins on page 2 of this paper.

***Remarks/Arguments*** begin on page 5 of this paper.

Also enclosed is a Petition under 37 C.F.R. §1.136(a) requesting an extension of time of three (3) months to respond to the above-mentioned Office Action. Accordingly, this Amendment is timely filed.

**Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-17. (Cancelled)

18. (Currently Amended) A method for switching a wristwatch from a first power mode to a second power mode, comprising:

using an accelerometer for detecting a wristturn, and

switching said wristwatch from said first power mode to said second power mode when a wristturn has been detected,

wherein said step of detecting a wristturn comprises:

detecting that an orientation of the wristwatch is in a starting position~~in a first range;~~ wherein said step of detecting that the orientation is in the starting position comprises detecting that the orientation of the wristwatch is held within a first range for a defined time;

detecting that an orientation of the wristwatch is then in a final position, wherein said step of detecting that the orientation is in the final position comprises detecting that the orientation is in a second range; different from said first range,

in response to a detection that the orientation of the wristwatch is in the second range, detecting that the wristwatch remains substantially immobile during a predetermined duration and that a duration between the starting position and the final position is in a predefined range.

19. (Previously Presented) The method of claim 18, wherein

said first range is an angle range from 25° to 155° relatively to the horizontal.

20. (Previously Presented) The method of claim 18, wherein

said second range is an angle range from -25° to -75° relatively to the horizontal.

21. (Previously Presented) The method of claim 18, wherein said step of detecting that the wristwatch remains substantially immobile during a predetermined duration comprises:

detecting that an orientation of the wristwatch is held in a range from -25° to -60° relatively to the horizontal during said predetermined duration.

22. (cancelled)

23. (Currently amended) The method of claim ~~22~~18, wherein said defined time is 50 ms.

24. (Currently amended) The method of claim 18, ~~wherein further comprising a~~  
step of

in response to a detection said step of detecting that the orientation of the wristwatch  
is in the second range comprises detecting that the orientation of the wristwatch is held within  
this second range for a defined time, registering that an orientation of the wristwatch is in the  
final position; wherein

said duration between the starting position and the final position is provided by  
measuring a duration between the starting position and the registering of the final position.

25. (Previously Presented) The method of claim 24, wherein said defined time is 50 ms.

26. (Previously Presented) The method of claim 18, wherein said step of detecting that the orientation of the wristwatch is in a second range comprises:

detecting that a duration between the wristwatch being held in the first range and the wristwatch being held in the second range is in a predefined third range.

27. (Previously Presented) The method of claim 18, wherein said step of detecting that the orientation of the wristwatch is then in a second range comprises detecting that a display of the wristwatch is oriented towards a face of the user.

28. (Previously Presented) The method of claim 18, wherein said steps of detecting that the orientation of the wristwatch is in a first range and then in a second range comprise:

in response of a detection of the orientation of the wristwatch is in the second range, checking if the orientation of the wristwatch was in the first range during a previous step.

## REMARKS

In view of the above amendments and following remarks, favorable reconsideration is respectfully requested.

By this Amendment, Claim 1 has been amended as follows:

- Step of “detecting that an orientation of the wristwatch is in a first range” has been replaced by “detecting that an orientation of the wristwatch is in a starting position, wherein said step of detecting that the orientation is in the starting position comprises detecting that the orientation of the wristwatch is held within a first range for a defined time”.

Bases can be found notably in paragraph [0081] and in claim 22 of the published application.

- Step of “detecting that an orientation of the wristwatch is then in a second range, different from said first range” has been replaced by “detecting that an orientation of the wristwatch is then in a final position, wherein said step of detecting that the orientation is in the final position comprises detecting that the orientation is in a second range different from said first range”.

A basis can be found notably in paragraph [0082] of the application.

- Step of “in response to a detection that the orientation of the wristwatch is in the second range, detecting that the wristwatch remains substantially immobile during a predetermined duration” has been replaced by “in response to a detection that the orientation of the wristwatch is in the second range, detecting that the wristwatch remains substantially immobile during a predetermined duration and that a duration between the starting position and the final position is in a predefined range”.

A basis can be found notably in paragraph [0083] of the application.

In addition, Claim 22 has been cancelled, and the dependency of Claim 23 has been updated.

### Statement of the Interview

A telephone interview was conducted by the undersigned counsel with the Examiner on August 31, 2018. During the interview, the prior art, proposed revised claims, and office action were discussed. In particular, the Examiner indicated that the changes to claim 1 would overcome the cited art, but noted that claim 24 was unclear. The present Amendment is filed in response to the issues discussed during the telephone interview, and claim 24 was revised to more clearly recite the invention.

### Claim Rejection – Based on Prior Art Under 35 USC §§102, 103

Claims 8-21, 24-25, 27 were rejected over Fitzgerald (US2009/0195497) and Hinkley (US2011/0264928); claims 22-23 were rejected over Fitzgerald, Hinkley, and Linjama (US2008/0229255).

The Examiner cites *Fitzgerald* as disclosing a wrist-worn ([0051] portable device having gesture-based power management. The device comprises an inertial sensor for detecting that the device is either within or outside a viewable range based on a position of the portable device with respect to a user's body angle (cf. [0043], [0048], [0064], claims 16, figs 4-5). The display of the portable device is enabled when the device is within a viewable angle [0048].

*Fitzgerald* doesn't disclose the method for switching a wristwatch from a first power mode to a second power mode comprising:

- F1. detecting a starting position by detecting that the orientation of the wristwatch is held within a first range for a defined time;
- F2. in response to a detection that the orientation of the wristwatch is in a second range being distinct from the first range, detecting that the wristwatch remains substantially immobile during a predetermined duration;
- F3. in response to a detection that the orientation of the wristwatch is in the second range, detecting that that a duration between the starting position and the final position is in a predefined range.

The distinguishing features F1-F3 permit, in a synergetic way, to filter out movements of the wristwatch that are not likely induced by a natural gesture of the user for consulting a watch but also due to (other) human activities, notably:

- swinging movements of the wristwatch are filtered out as not held in the first range for a defined time and/or not remaining immobile when in the second range (F1 and F2);
- horizontal/small amplitude movements of the wristwatch are filtered out as not starting from the first range and/or not remaining immobile when in the second range (F1 and F2);
- too slow or too fast movements of the wristwatch are filtered out as its durations are outside the predefined range (F3).

With respect to *Fitzgerald*, the problem the claimed invention solves is then: how to better discriminate gestures for consulting a watch from other gestures.

The Examiner further cites *Hinckley* as disclosing a method for placing a mobile device in a full power mode by means of a touch sensor and an orientation sensor (abstract, [0130]). *Hinckley* discloses a tablet PC placed in a full-power mode when:

- the touch sensor determines whether the user is holding the device and
- the tilt sensor determine whether the user has properly oriented the device so that it is likely they are looking at it [0130]. The device is powered up if the given orientation is maintained for at least 0.5 second for avoiding transient signals (cf. [0130] and [0131]).

The Examiner then cites *Linjama* as disclosing a method for detecting a predefined sequence of orientations corresponding to a functionality of a mobile terminal (Fig.2; [0048], [0051]).

The skilled person, facing the objective problem set above, would not be prompted to modify or adapt the method disclosed by *Fitzgerald* in order to arrive at the claimed method, because *Hinckley* and *Linjama* do not provide any suggestion or incentive to do so.

Firstly, it is submitted that the skilled man starting from the *Fitzgerald's* and *Hinckley's* teaching would be taught away from the claimed method.

*Fitzgerald*, notably at paragraphs [0060]-[0062], incites the skilled man to improve the discernibility of a movement of a user for looking at a watch face by means of an additional sensor, e.g. an environmental and ambient light sensor. A multiple-sensors approach for providing a better discernibility is further confirmed by *Hinckley* that describes

a method for powering on a device based on an additional sensor providing additional information, i.e. a touch sensor for determining a user is holding the device [0130].

The skilled person, starting from the knowledge of *Fitzgerald* and *Hinckley*, could not deduce, neither directly nor indirectly, a solution based entirely on an accelerometer, because it would be convinced by *Fitzgerald's* and by *Hinckley's* disclosures that the use of an additional sensor is necessary for improving the discernibility of a movement of a user for looking at a watch face.

Secondly, it is submitted that the skilled man would not consider *Linjama's* teaching for facing the above-mentioned technical problem, as *Linjama* provides no solution for improving a discrimination of a natural gesture for looking at a watch face.

In fact, *Linjama* is tacit about a gesture for consulting a watch. At the contrary, *Linjama* discloses a telephone mobile being configured to execute a functionality by detecting a sequence of movements (facing-down/facing up) being expressly designed to be unnatural.

A modification of *Fitzgerald's* method by introducing a detection of *Linjama's* facing down/facing up gesture would thus not be a result of a logical reasoning of the skilled man, but also an outcome of hindsight of the applicant's disclosure. In fact, the skilled man would find no reasonable expectation of an improved detection of a gestures for consulting a watch by detecting a movement that has been expressly defined to be neither a natural gesture of a user for consulting an indication on a display of a mobile device nor a typical gesture of a user worn a wristwatch.

Thirdly, it is submitted that *Fitzgerald*, *Hinckley* and *Linjama* are all tacit about a method including a step of detecting that a duration between the starting position and the final position is in a predefined range (F3).

The subject-matter of amended claim 1 is there novel and non-obvious over *Fitzgerald* in view of *Hinckley* and *Linjama*.

The Applicant notes that the above arguments are not intended to be complete, and there may be other reasons that the claimed invention is patentable over the cited art. The Applicant believes that it has responded to each material issue raised by the Examiner, and the Applicant does not agree to or concede any issue that it has not specifically addressed.

In the event there are any questions relating to this Amendment or to the application in general, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that the prosecution of this application may be expedited.

Please charge any shortage or credit any overpayment of fees to BLANK ROME LLP, Deposit Account No. 23-2185 (Ref. 143297.00102). In the event that a petition for an extension of time is required to be submitted herewith and in the event that a separate petition does not accompany this response, Applicant hereby petitions under 37 CFR 1.136(a) for an extension of time for as many months as are required to render this submission timely. Any fee due is authorized above.

Respectfully submitted,

*Date:* September 12, 2018

Electronic Signature: /Peter S. Weissman/  
Peter S. Weissman  
Reg. No. 40,220

*BLANK ROME LLP  
1825 Eye Street NW  
Washington, DC 20006  
Tel.: (202) 772-5805  
Fax: (202) 572-8398*

| Electronic Patent Application Fee Transmittal      |                 |                                                                                              |               |                             |
|----------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------|---------------|-----------------------------|
| <b>Application Number:</b>                         |                 | 15799608                                                                                     |               |                             |
| <b>Filing Date:</b>                                |                 | 31-Oct-2017                                                                                  |               |                             |
| <b>Title of Invention:</b>                         |                 | METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |               |                             |
| <b>First Named Inventor/Applicant Name:</b>        |                 | Alex BEZINGE                                                                                 |               |                             |
| <b>Filer:</b>                                      |                 | Peter S. Weissman/Keyla Clements                                                             |               |                             |
| <b>Attorney Docket Number:</b>                     |                 | 143297.00102                                                                                 |               |                             |
| Filed as Small Entity                              |                 |                                                                                              |               |                             |
| <b>Filing Fees for Utility under 35 USC 111(a)</b> |                 |                                                                                              |               |                             |
| <b>Description</b>                                 | <b>Fee Code</b> | <b>Quantity</b>                                                                              | <b>Amount</b> | <b>Sub-Total in USD(\$)</b> |
| <b>Basic Filing:</b>                               |                 |                                                                                              |               |                             |
| <b>Pages:</b>                                      |                 |                                                                                              |               |                             |
| <b>Claims:</b>                                     |                 |                                                                                              |               |                             |
| <b>Miscellaneous-Filing:</b>                       |                 |                                                                                              |               |                             |
| <b>Petition:</b>                                   |                 |                                                                                              |               |                             |
| <b>Patent-Appeals-and-Interference:</b>            |                 |                                                                                              |               |                             |
| <b>Post-Allowance-and-Post-Issuance:</b>           |                 |                                                                                              |               |                             |
| <b>Extension-of-Time:</b>                          |                 |                                                                                              |               |                             |

| Description                        | Fee Code | Quantity | Amount | Sub-Total in USD(\$) |
|------------------------------------|----------|----------|--------|----------------------|
| Extension - 3 months with \$0 paid | 2253     | 1        | 700    | 700                  |
| <b>Miscellaneous:</b>              |          |          |        |                      |
| <b>Total in USD (\$)</b>           |          |          |        | <b>700</b>           |

| Electronic Acknowledgement Receipt          |                                                                                              |
|---------------------------------------------|----------------------------------------------------------------------------------------------|
| <b>EFS ID:</b>                              | 33702528                                                                                     |
| <b>Application Number:</b>                  | 15799608                                                                                     |
| <b>International Application Number:</b>    |                                                                                              |
| <b>Confirmation Number:</b>                 | 8529                                                                                         |
| <b>Title of Invention:</b>                  | METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |
| <b>First Named Inventor/Applicant Name:</b> | Alex BEZINGE                                                                                 |
| <b>Customer Number:</b>                     | 27557                                                                                        |
| <b>Filer:</b>                               | Peter S. Weissman/Keyla Clements                                                             |
| <b>Filer Authorized By:</b>                 | Peter S. Weissman                                                                            |
| <b>Attorney Docket Number:</b>              | 143297.00102                                                                                 |
| <b>Receipt Date:</b>                        | 12-SEP-2018                                                                                  |
| <b>Filing Date:</b>                         | 31-OCT-2017                                                                                  |
| <b>Time Stamp:</b>                          | 16:34:26                                                                                     |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                                                                  |

### Payment information:

|                                                                                                                |                       |
|----------------------------------------------------------------------------------------------------------------|-----------------------|
| Submitted with Payment                                                                                         | yes                   |
| Payment Type                                                                                                   | CARD                  |
| Payment was successfully received in RAM                                                                       | \$700                 |
| RAM confirmation Number                                                                                        | 091318INTEFSW16353800 |
| Deposit Account                                                                                                |                       |
| Authorized User                                                                                                |                       |
| The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: |                       |

|                              |                                                       |                          |                                           |                  |                  |
|------------------------------|-------------------------------------------------------|--------------------------|-------------------------------------------|------------------|------------------|
|                              |                                                       |                          |                                           |                  |                  |
| File Listing:                |                                                       |                          |                                           |                  |                  |
| Document Number              | Document Description                                  | File Name                | File Size(Bytes)/ Message Digest          | Multi Part /.zip | Pages (if appl.) |
| 1                            |                                                       | 14329700102Amendment.pdf | 1925354                                   | yes              | 10               |
|                              |                                                       |                          | 50873d26d6c3d049e1cd59f6821b2750f5c7ddfb8 |                  |                  |
|                              | Multipart Description/PDF files in .zip description   |                          |                                           |                  |                  |
|                              | Document Description                                  |                          | Start                                     | End              |                  |
|                              | Extension of Time                                     |                          | 1                                         | 1                |                  |
|                              | Amendment/Req. Reconsideration-After Non-Final Reject |                          | 2                                         | 2                |                  |
|                              | Claims                                                |                          | 3                                         | 5                |                  |
|                              | Applicant Arguments/Remarks Made in an Amendment      |                          | 6                                         | 10               |                  |
| Warnings:                    |                                                       |                          |                                           |                  |                  |
| Information:                 |                                                       |                          |                                           |                  |                  |
| 2                            | Fee Worksheet (SB06)                                  | fee-info.pdf             | 30845                                     | no               | 2                |
|                              |                                                       |                          | 6b415d58970e81d23895050c85ff859c4e289364  |                  |                  |
| Warnings:                    |                                                       |                          |                                           |                  |                  |
| Information:                 |                                                       |                          |                                           |                  |                  |
| Total Files Size (in bytes): |                                                       |                          | 1956199                                   |                  |                  |

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

**New Applications Under 35 U.S.C. 111**

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

**National Stage of an International Application under 35 U.S.C. 371**

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

**New International Application Filed with the USPTO as a Receiving Office**

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

| <b>PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           | Docket Number (Optional)<br>143297.00102    |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------------------------------------------|-------------------------|------------|-------------------------|-------------------------|--|--------------------------------------------------------|-------|-------|------|----------|---------------------------------------------------------|-------|-------|-------|----------|----------------------------------------------------------------------|---------|-------|-------|-----------|----------------------------------------------------------|---------|---------|-------|----------|----------------------------------------------------------|---------|---------|-------|----------|
| Application Number<br>15/799,608-Conf. #8529                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Filed<br>October 31, 2017 |                                             |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| For<br>METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                             |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| Art Unit<br>2623                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Examiner<br>H. Zhou       |                                             |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above-identified application.<br>The requested extension and fee are as follows (check time period desired and enter the appropriate fee below):                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           |                                             |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <table style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 40%;"></th><th style="width: 15%; text-align: center;"><u>Fee</u></th><th style="width: 15%; text-align: center;"><u>Small Entity Fee</u></th><th style="width: 15%; text-align: center;"><u>Micro Entity Fee</u></th><th style="width: 15%;"></th></tr></thead><tbody><tr><td><input type="checkbox"/> One month (37 CFR 1.17(a)(1))</td><td style="text-align: center;">\$200</td><td style="text-align: center;">\$100</td><td style="text-align: center;">\$50</td><td>\$ _____</td></tr><tr><td><input type="checkbox"/> Two months (37 CFR 1.17(a)(2))</td><td style="text-align: center;">\$600</td><td style="text-align: center;">\$300</td><td style="text-align: center;">\$150</td><td>\$ _____</td></tr><tr><td><input checked="" type="checkbox"/> Three months (37 CFR 1.17(a)(3))</td><td style="text-align: center;">\$1,400</td><td style="text-align: center;">\$700</td><td style="text-align: center;">\$350</td><td>\$ 700.00</td></tr><tr><td><input type="checkbox"/> Four months (37 CFR 1.17(a)(4))</td><td style="text-align: center;">\$2,200</td><td style="text-align: center;">\$1,100</td><td style="text-align: center;">\$550</td><td>\$ _____</td></tr><tr><td><input type="checkbox"/> Five months (37 CFR 1.17(a)(5))</td><td style="text-align: center;">\$3,000</td><td style="text-align: center;">\$1,500</td><td style="text-align: center;">\$750</td><td>\$ _____</td></tr></tbody></table> |                           |                                             |                         | <u>Fee</u> | <u>Small Entity Fee</u> | <u>Micro Entity Fee</u> |  | <input type="checkbox"/> One month (37 CFR 1.17(a)(1)) | \$200 | \$100 | \$50 | \$ _____ | <input type="checkbox"/> Two months (37 CFR 1.17(a)(2)) | \$600 | \$300 | \$150 | \$ _____ | <input checked="" type="checkbox"/> Three months (37 CFR 1.17(a)(3)) | \$1,400 | \$700 | \$350 | \$ 700.00 | <input type="checkbox"/> Four months (37 CFR 1.17(a)(4)) | \$2,200 | \$1,100 | \$550 | \$ _____ | <input type="checkbox"/> Five months (37 CFR 1.17(a)(5)) | \$3,000 | \$1,500 | \$750 | \$ _____ |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <u>Fee</u>                | <u>Small Entity Fee</u>                     | <u>Micro Entity Fee</u> |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <input type="checkbox"/> One month (37 CFR 1.17(a)(1))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | \$200                     | \$100                                       | \$50                    | \$ _____   |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <input type="checkbox"/> Two months (37 CFR 1.17(a)(2))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | \$600                     | \$300                                       | \$150                   | \$ _____   |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <input checked="" type="checkbox"/> Three months (37 CFR 1.17(a)(3))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | \$1,400                   | \$700                                       | \$350                   | \$ 700.00  |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <input type="checkbox"/> Four months (37 CFR 1.17(a)(4))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$2,200                   | \$1,100                                     | \$550                   | \$ _____   |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <input type="checkbox"/> Five months (37 CFR 1.17(a)(5))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | \$3,000                   | \$1,500                                     | \$750                   | \$ _____   |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <input checked="" type="checkbox"/> Applicant asserts small entity status. See 37 CFR 1.27.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                             |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <input type="checkbox"/> Applicant certifies micro entity status. See 37 CFR 1.29.<br>Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                             |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <input type="checkbox"/> A check in the amount of the fee is enclosed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                           |                                             |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                             |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <input type="checkbox"/> The Director has already been authorized to charge fees in this application to a Deposit Account.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                             |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <input checked="" type="checkbox"/> The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to<br>Deposit Account Number 23-2185                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |                                             |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <input checked="" type="checkbox"/> Payment made via EFS-Web.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                             |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <b>WARNING:</b> Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                           |                                             |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| I am the                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                           |                                             |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <input type="checkbox"/> applicant.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           |                                             |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <input checked="" type="checkbox"/> attorney or agent of record. Registration number 40,220                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                                             |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                           |                                             |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| _____<br>/Peter S. Weissman/<br>Signature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                           | _____<br>September 12, 2018<br>Date         |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| _____<br>Peter S. Weissman<br>Typed or printed name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                           | _____<br>(202) 772-5805<br>Telephone Number |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <b>NOTE:</b> This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                           |                                             |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |
| <input type="checkbox"/> * Total of 1 forms are submitted.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                           |                                             |                         |            |                         |                         |  |                                                        |       |       |      |          |                                                         |       |       |       |          |                                                                      |         |       |       |           |                                                          |         |         |       |          |                                                          |         |         |       |          |

143297.00102/112255677



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.                                                                                                        | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.             | CONFIRMATION NO.            |
|------------------------------------------------------------------------------------------------------------------------|-------------|----------------------|---------------------------------|-----------------------------|
| 15/799,608                                                                                                             | 10/31/2017  | Alex BEZINGE         | 143297.00102                    | 8529                        |
| 27557 7590 09/17/2018<br>BLANK ROME LLP<br>1825 Eye Street NW<br>WASHINGTON, DC 20006-5403<br>UNITED STATES OF AMERICA |             |                      | EXAMINER<br>ZHOU, HONG          |                             |
|                                                                                                                        |             |                      | ART UNIT<br>2623                | PAPER NUMBER                |
|                                                                                                                        |             |                      | NOTIFICATION DATE<br>09/17/2018 | DELIVERY MODE<br>ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Belay@blankrome.com  
WashingtonDocketing@blankrome.com

|                                                     |                                      |                                       |  |
|-----------------------------------------------------|--------------------------------------|---------------------------------------|--|
| <b><i>Applicant-Initiated Interview Summary</i></b> | <b>Application No.</b><br>15/799,608 | <b>Applicant(s)</b><br>BEZINGE ET AL. |  |
|                                                     | <b>Examiner</b><br>HONG ZHOU         | <b>Art Unit</b><br>2623               |  |

All participants (applicant, applicant's representative, PTO personnel):

(1) HONG ZHOU. (3) \_\_\_\_.

(2) Peter S. Weissman. (4) \_\_\_\_.

Date of Interview: 31 August 2018.

Type:    ☒ Telephonic    ☐ Video Conference  
           ☐ Personal [copy given to: ☐ applicant    ☐ applicant's representative]

Exhibit shown or demonstration conducted:    ☐ Yes    ☒ No.  
           If Yes, brief description: \_\_\_\_.

Issues Discussed    ☐101    ☐112    ☐102    ☐103    ☒Others  
 (For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 18.

Identification of prior art discussed: n/a.

**Substance of Interview**  
 (For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

*The Applicant's representative and the examiner discussed proposed amendments to claim 18. The examiner agreed that the proposed amendments would overcome the current rejection. The amendment will be subject to an updated search when filed.*

**Applicant recordation instructions:** The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview

**Examiner recordation instructions:** Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☒ Attachment

|                                                |  |
|------------------------------------------------|--|
| /HONG ZHOU/<br>Primary Examiner, Art Unit 2623 |  |
|------------------------------------------------|--|

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

#### Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

#### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

## Agenda

See Proposed Claims below.

The Examiner cites *Fitzgerald* as disclosing a wrist-worn ([0051] portable device having gesture-based power management. The device comprises an inertial sensor for detecting that the device is either within or outside a viewable range based on a position of the portable device with respect to a user's body angle (cf. [0043], [0048], [0064], claims 16, figs 4-5). The display of the portable device is enabled when the device is within a viewable angle [0048].

*Fitzgerald* doesn't disclose the method for switching a wristwatch from a first power mode to a second power mode comprising:

F1. detecting a starting position by detecting that the orientation of the wristwatch is held within a first range for a defined time;

F2. in response to a detection that the orientation of the wristwatch is in a second range being distinct from the first range, detecting that the wristwatch remains substantially immobile during a predetermined duration;

F3. in response to a detection that the orientation of the wristwatch is in the second range, detecting that that a duration between the starting position and the final position is in a predefined range.

The distinguishing features F1-F3 permit, in a synergetic way, to filter out movements of the wristwatch that are not likely induced by a natural gesture of the user for consulting a watch but also due to (other) human activities, notably:

- swinging movements of the wristwatch are filtered out as not held in the first range for a defined time and/or not remaining immobile when in the second range (F1 and F2);
- horizontal/small amplitude movements of the wristwatch are filtered out as not starting from the first range and/or not remaining immobile when in the second range (F1 and F2);
- too slow or too fast movements of the wristwatch are filtered out as its durations are outside the predefined range (F3).

With respect to *Fitzgerald*, the problem the claimed invention solves is then: how to better discriminate gestures for consulting a watch from other gestures.

The Examiner further cites *Hinckley* as disclosing a method for placing a mobile device in a full power mode by means of a touch sensor and an orientation sensor (abstract, [0130]). *Hinckley* discloses a tablet PC placed in a full-power mode when:

-the touch sensor determines whether the user is holding the device and

-the tilt sensor determine whether the user has properly oriented the device so that it is likely they are looking at it [0130]. The device is powered up if the given orientation is maintained for at least 0.5 second for avoiding transient signals (cf. [0130] and [0131]).

The Examiner then cites *Linjama* as disclosing a method for detecting a predefined sequence of orientations corresponding to a functionality of a mobile terminal (Fig.2; [0048], [0051]).

The skilled person, facing the objective problem set above, would not be prompted to modify or adapt the method disclosed by *Fitzgerald* in order to arrive at the claimed method, because *Hinckley* and *Linjama* do not provide any suggestion or incentive to do so.

Firstly, it is submitted that the skilled man starting from the *Fitzgerald's* and *Hinckley's* teaching would be taught away from the claimed method.

*Fitzgerald*, notably at paragraphs [0060]-[0062], incites the skilled man to improve the discernibility of a movement of a user for looking at a watch face by means of an additional sensor, e.g. an environmental and ambient light sensor. A multiple-sensors approach for providing a better discernibility is further confirmed by *Hinckley* that describes a method for powering on a device based on an additional sensor providing additional information, i.e. a touch sensor for determining a user is holding the device [0130].

The skilled person, starting from the knowledge of *Fitzgerald* and *Hinckley*, could not deduce, neither directly nor indirectly, a solution based entirely on an accelerometer, because it would be convinced by *Fitzgerald's* and by *Hinckley's* disclosures that the use of an additional sensor is necessary for improving the discernibility of a movement of a user for looking at a watch face.

Secondly, it is submitted that the skilled man would not consider *Linjama's* teaching for facing the above-mentioned technical problem, as *Linjama* provides no solution for improving a discrimination of a natural gesture for looking at a watch face.

In fact, *Linjama* is tacit about a gesture for consulting a watch. At the contrary, *Linjama* discloses a telephone mobile being configured to execute a functionality by detecting a sequence of movements (facing-down/facing up) being expressly designed to be unnatural.

A modification of *Fitzgerald's* method by introducing a detection of *Linjama's* facing down/facing up gesture would thus not be a result of a logical reasoning of the skilled man, but also an outcome of hindsight of the applicant's disclosure. In fact, the skilled man would find no reasonable expectation of an improved detection of a gestures for consulting a watch by detecting a movement that has been expressly defined to be neither a natural gesture of a user for consulting an indication on a display of a mobile device nor a typical gesture of a user worn a wristwatch.

Thirdly, it is submitted that *Fitzgerald*, *Hinckley* and *Linjama* are all tacit about a method including a step of detecting that a duration between the starting position and the final position is in a predefined range (F3).

The subject-matter of amended claim 1 is there novel and non-obvious over *Fitzgerald* in view of *Hinckley* and *Linjama*.

### **Proposed Claims**

Claims 1-17. (Cancelled)

18. (DRAFT) A method for switching a wristwatch from a first power mode to a second power mode, comprising:

using an accelerometer for detecting a wristturn, and

switching said wristwatch from said first power mode to said second power mode

when a wristturn has been detected,

wherein said step of detecting a wristturn comprises:

detecting that an orientation of the wristwatch is in a starting position in  
a first range; wherein said step of detecting that the orientation is in the  
starting position comprises detecting that the orientation of the wristwatch is  
held within a first range for a defined time;

detecting that an orientation of the wristwatch is then in a final  
position, wherein said step of detecting that the orientation is in the final  
position comprises detecting that the orientation is in a second range; different  
from said first range,

in response to a detection that the orientation of the wristwatch is in the  
second range, detecting that the wristwatch remains substantially immobile  
during a predetermined duration and that a duration between the starting  
position and the final position is in a predefined range.

19. (Previously Presented) The method of claim 18, wherein  
said first range is an angle range from 25° to 155° relatively to the horizontal.
20. (Previously Presented) The method of claim 18, wherein  
said second range is an angle range from -25° to -75° relatively to the horizontal.
21. (Previously Presented) The method of claim 18, wherein said step of  
detecting that the wristwatch remains substantially immobile during a predetermined duration  
comprises:

detecting that an orientation of the wristwatch is held in a range from  $-25^{\circ}$  to  $-60^{\circ}$  relatively to the horizontal during said predetermined duration.

22. (cancelled) ~~The method of claim 18, wherein~~

~~said step of detecting that the orientation of the wristwatch is in the first range comprises detecting that the orientation of the wristwatch is held within this first range for a defined time.~~

23. (Currently Amended) The method of claim ~~22~~18, wherein said defined time is 50 ms.

24. (Previously Presented) The method of claim 18, wherein

said step of detecting that the orientation of the wristwatch is in the second range comprises detecting that the orientation of the wristwatch is held within this second range for a defined time.

25. (Previously Presented) The method of claim 24, wherein said defined time is 50 ms.

26. (Previously Presented) The method of claim 18, wherein said step of detecting that the orientation of the wristwatch is in a second range comprises:

detecting that a duration between the wristwatch being held in the first range and the wristwatch being held in the second range is in a predefined third range.

27. (Previously Presented) The method of claim 18, wherein

said step of detecting that the orientation of the wristwatch is then in a second range comprises detecting that a display of the wristwatch is oriented towards a face of the user.

28. (Previously Presented) The method of claim 18, wherein said steps of detecting that the orientation of the wristwatch is in a first range and then in a second range comprise:

in response of a detection of the orientation of the wristwatch is in the second range, checking if the orientation of the wristwatch was in the first range during a previous step.



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

## NOTICE OF ALLOWANCE AND FEE(S) DUE

27557 7590 11/20/2018  
BLANK ROME LLP  
1825 Eye Street NW  
WASHINGTON, DC 20006-5403

EXAMINER

ZHOU, HONG

ART UNIT

PAPER NUMBER

2623

DATE MAILED: 11/20/2018

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 15/799,608      | 10/31/2017  | Alex BEZINGE         | 143297.00102        | 8529             |

TITLE OF INVENTION: METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE

| APPLN. TYPE    | ENTITY STATUS | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|---------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | SMALL         | \$500         | \$0.00              | \$0.00               | \$500            | 02/20/2019 |

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

### HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at [www.uspto.gov/PatentMaintenanceFees](http://www.uspto.gov/PatentMaintenanceFees).**

**PART B - FEE(S) TRANSMITTAL**

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

27557 7590 11/20/2018  
BLANK ROME LLP  
1825 Eye Street NW  
WASHINGTON, DC 20006-5403

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

|                         |
|-------------------------|
| (Typed or printed name) |
| (Signature)             |
| (Date)                  |

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 15/799,608      | 10/31/2017  | Alex BEZINGE         | 143297.00102        | 8529             |

TITLE OF INVENTION: METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE

| APPLN. TYPE    | ENTITY STATUS | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|---------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | SMALL         | \$500         | \$0.00              | \$0.00               | \$500            | 02/20/2019 |

| EXAMINER   | ART UNIT | CLASS-SUBCLASS |
|------------|----------|----------------|
| ZHOU, HONG | 2623     | 345-173000     |

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) The names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_
- (2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_
- 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. Fees submitted: ☐ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

- ☐ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. \_\_\_\_\_

5. Change in Entity Status (from status indicated above)

- ☐ Applicant certifying micro entity status. See 37 CFR 1.29
- ☐ Applicant asserting small entity status. See 37 CFR 1.27
- ☐ Applicant changing to regular undiscounted fee status.

**NOTE:** Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

**NOTE:** If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

**NOTE:** Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_ Registration No. \_\_\_\_\_



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.           | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------|-------------|----------------------|---------------------|------------------|
| 15/799,608                | 10/31/2017  | Alex BEZINGE         | 143297.00102        | 8529             |
| 27557                     | 7590        | 11/20/2018           | EXAMINER            |                  |
| BLANK ROME LLP            |             |                      | ZHOU, HONG          |                  |
| 1825 Eye Street NW        |             |                      | ART UNIT            |                  |
| WASHINGTON, DC 20006-5403 |             |                      | PAPER NUMBER        |                  |
|                           |             |                      | 2623                |                  |
| DATE MAILED: 11/20/2018   |             |                      |                     |                  |

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

## OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.** Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

### Privacy Act Statement

**The Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

|                               |                                      |                                       |                         |
|-------------------------------|--------------------------------------|---------------------------------------|-------------------------|
| <b>Notice of Allowability</b> | <b>Application No.</b><br>15/799,608 | <b>Applicant(s)</b><br>BEZINGE et al. |                         |
|                               | <b>Examiner</b><br>HONG ZHOU         | <b>Art Unit</b><br>2623               | <b>AIA Status</b><br>No |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendments filed 12 September 2018.  
☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on \_\_\_\_\_.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_\_; the restriction requirement and election have been incorporated into this action.

3. ☒ The allowed claim(s) is/are 18-21 and 23-28. As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see [http://www.uspto.gov/patents/init\\_events/pph/index.jsp](http://www.uspto.gov/patents/init_events/pph/index.jsp) or send an inquiry to **PPHfeedback@uspto.gov**.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

**Certified copies:**

a) ☐ All      b) ☐ Some      \*c) ☐ None of the:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file areply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.  
☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

|                                                                                                                   |                                                                                      |
|-------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)                                                  | 5. <input type="checkbox"/> Examiner's Amendment/Comment                             |
| 2. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____.          | 6. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| 3. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material _____. | 7. <input type="checkbox"/> Other _____.                                             |
| 4. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date. _____.                           |                                                                                      |

|                                                |  |
|------------------------------------------------|--|
| /HONG ZHOU/<br>Primary Examiner, Art Unit 2623 |  |
|------------------------------------------------|--|

### ***Reasons for Allowance***

The following is an examiner's statement of reasons for allowance:

The primary reasons for allowance is that the closest prior art (Fitzgerald et al. (US 2009/0195497); Hinckley (US 2011/0264928); Linjama et al. (US 2008/0229255); and Prabhu (US 2011/0164057)) either singularly or in combination, fails to teach a method in which "said step of detecting a wristturn comprises: detecting that an orientation of the wristwatch is in a starting position, wherein said step of detecting that the orientation is in the starting position comprises detecting that the orientation of the wristwatch is held within a first range for a defined time; detecting that an orientation of the wristwatch is then in a final position, wherein said step of detecting that the orientation is in the final position comprises detecting that the orientation is in a second range different from said first range, in response to a detection that the orientation of the wristwatch is in the second range, detecting that the wristwatch remains substantially immobile during a predetermined duration and that a duration between the starting position and the final position is in a predefined range." as required in claim 18.

### ***Conclusion***

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HONG ZHOU whose telephone number is (571)270-5372. The examiner can normally be reached on 9:00-5:00 PM.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, AMARE MENGISTU can be reached on 571-272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HONG ZHOU/  
Primary Examiner, Art Unit 2623

|                                                                                                                    |                                              |                                                                  |
|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------|
| <b><i>Index of Claims</i></b><br> | <b>Application/Control No.</b><br>15/799,608 | <b>Applicant(s)/Patent Under Reexamination</b><br>BEZINGE et al. |
|                                                                                                                    | <b>Examiner</b><br>HONG ZHOU                 | <b>Art Unit</b><br>2623                                          |

|   |                 |   |                   |   |                     |   |                 |
|---|-----------------|---|-------------------|---|---------------------|---|-----------------|
| ✓ | <b>Rejected</b> | - | <b>Cancelled</b>  | N | <b>Non-Elected</b>  | A | <b>Appeal</b>   |
| = | <b>Allowed</b>  | ÷ | <b>Restricted</b> | I | <b>Interference</b> | O | <b>Objected</b> |

| CLAIMS                                                                                                                                                                            |          |            |            |  |  |  |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------|------------|--|--|--|--|--|--|--|
| <input type="checkbox"/> Claims renumbered in the same order as presented by applicant <input type="checkbox"/> CPA <input type="checkbox"/> T.D. <input type="checkbox"/> R.1.47 |          |            |            |  |  |  |  |  |  |  |
| CLAIM                                                                                                                                                                             |          | DATE       |            |  |  |  |  |  |  |  |
| Final                                                                                                                                                                             | Original | 03/27/2018 | 11/05/2018 |  |  |  |  |  |  |  |
| 1                                                                                                                                                                                 | 18       | ✓          | =          |  |  |  |  |  |  |  |
| 2                                                                                                                                                                                 | 19       | ✓          | =          |  |  |  |  |  |  |  |
| 3                                                                                                                                                                                 | 20       | ✓          | =          |  |  |  |  |  |  |  |
| 4                                                                                                                                                                                 | 21       | ✓          | =          |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 22       | ✓          | -          |  |  |  |  |  |  |  |
| 5                                                                                                                                                                                 | 23       | ✓          | =          |  |  |  |  |  |  |  |
| 6                                                                                                                                                                                 | 24       | ✓          | =          |  |  |  |  |  |  |  |
| 7                                                                                                                                                                                 | 25       | ✓          | =          |  |  |  |  |  |  |  |
| 8                                                                                                                                                                                 | 26       | ✓          | =          |  |  |  |  |  |  |  |
| 9                                                                                                                                                                                 | 27       | ✓          | =          |  |  |  |  |  |  |  |
| 10                                                                                                                                                                                | 28       | ✓          | =          |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 29       |            |            |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 30       |            |            |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 31       |            |            |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 32       |            |            |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 33       |            |            |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 34       |            |            |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 35       |            |            |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 36       |            |            |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 37       |            |            |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 38       |            |            |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 39       |            |            |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 40       |            |            |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 41       |            |            |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 42       |            |            |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 43       |            |            |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 44       |            |            |  |  |  |  |  |  |  |
|                                                                                                                                                                                   | 45       |            |            |  |  |  |  |  |  |  |

|                                                                                                                 |                                              |                                                                  |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------|
| <b><i>Search Notes</i></b><br> | <b>Application/Control No.</b><br>15/799,608 | <b>Applicant(s)/Patent Under Reexamination</b><br>BEZINGE et al. |
|                                                                                                                 | <b>Examiner</b><br>HONG ZHOU                 | <b>Art Unit</b><br>2623                                          |

| CPC - Searched*                                                                                                   |                 |          |
|-------------------------------------------------------------------------------------------------------------------|-----------------|----------|
| Symbol                                                                                                            | Date            | Examiner |
| G04C3/002, G04G17/045, G04G19/12, G04G21/08, G06F1/3203, G06F3/017, G06F3/041                                     | 3/18/18-3/27/18 | HZ       |
| G06F3/017, G06F1/3203, G06F1/3218, G06F1/3265, G06F1/163, G06F3/0346, G04C3/002, G04G17/045, G04G19/12, G04G21/08 | 11/05/2018      | HZ       |

| CPC Combination Sets - Searched* |      |          |
|----------------------------------|------|----------|
| Symbol                           | Date | Examiner |
|                                  |      |          |

| US Classification - Searched* |          |      |          |
|-------------------------------|----------|------|----------|
| Class                         | Subclass | Date | Examiner |
|                               |          |      |          |

\* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

| Search Notes         |                 |          |
|----------------------|-----------------|----------|
| Search Notes         | Date            | Examiner |
| East Search          | 3/18/18-3/27/18 | HZ       |
| Inventor Name Search | 3/19/18         | HZ       |
| Updated East Search  | 11/05/2018      | HZ       |

| Interference Search |                                                                                                                   |            |          |
|---------------------|-------------------------------------------------------------------------------------------------------------------|------------|----------|
| US Class/CPC Symbol | US Subclass/CPC Group                                                                                             | Date       | Examiner |
| Searched            | G06F3/017, G06F1/3203, G06F1/3218, G06F1/3265, G06F1/163, G06F3/0346, G04C3/002, G04G17/045, G04G19/12, G04G21/08 | 11/05/2018 | HZ       |

|  |  |
|--|--|
|  |  |
|--|--|

|                                                                                                                  |                                              |                                                                  |
|------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------|
| <b>Issue Classification</b><br> | <b>Application/Control No.</b><br>15/799,608 | <b>Applicant(s)/Patent Under Reexamination</b><br>BEZINGE et al. |
|                                                                                                                  | <b>Examiner</b><br>HONG ZHOU                 | <b>Art Unit</b><br>2623                                          |

| CPC    |   |    |   |      |      |            |
|--------|---|----|---|------|------|------------|
| Symbol |   |    |   |      | Type | Version    |
| G06F   | / | 3  | / | 017  | F    | 2013-01-01 |
| G04G   | / | 17 | / | 045  | I    | 2013-01-01 |
| G04G   | / | 19 | / | 12   | I    | 2013-01-01 |
| G04G   | / | 21 | / | 08   | I    | 2013-01-01 |
| G04C   | / | 3  | / | 002  | I    | 2013-01-01 |
| G06F   | / | 1  | / | 3203 | I    | 2013-01-01 |
| G06F   | / | 3  | / | 041  | I    | 2013-01-01 |

| CPC Combination Sets |   |  |   |      |         |
|----------------------|---|--|---|------|---------|
| Symbol               |   |  |   | Type | Version |
|                      | / |  | / |      |         |

|                                                                                                    |  |                                    |                                    |
|----------------------------------------------------------------------------------------------------|--|------------------------------------|------------------------------------|
| NONE<br>(Assistant Examiner) _____ (Date) _____                                                    |  | <b>Total Claims Allowed:</b><br>10 |                                    |
| /HONG ZHOU/<br>Primary Examiner, Art Unit 2623<br>(Primary Examiner) _____ (Date) 05 November 2018 |  | O.G. Print Claim(s)<br>1           | O.G. Print Figure<br>7a, 7b and 7c |

|                                                                                                                  |                                              |                                                                  |
|------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------|
| <b>Issue Classification</b><br> | <b>Application/Control No.</b><br>15/799,608 | <b>Applicant(s)/Patent Under Reexamination</b><br>BEZINGE et al. |
|                                                                                                                  | <b>Examiner</b><br>HONG ZHOU                 | <b>Art Unit</b><br>2623                                          |

| INTERNATIONAL CLASSIFICATION |  |    |     |
|------------------------------|--|----|-----|
| CLAIMED                      |  |    |     |
| G06F                         |  | 1  | 32  |
| G06F                         |  | 3  | 01  |
| G06F                         |  | 3  | 041 |
| G04G                         |  | 17 | 04  |
| G04G                         |  | 19 | 12  |
| G04G                         |  | 21 | 08  |
| G04C                         |  | 3  | 00  |
| NON-CLAIMED                  |  |    |     |
|                              |  |    |     |

| US ORIGINAL CLASSIFICATION |          |
|----------------------------|----------|
| CLASS                      | SUBCLASS |
|                            |          |

| CROSS REFERENCES(S) |                                   |  |  |  |  |  |
|---------------------|-----------------------------------|--|--|--|--|--|
| CLASS               | SUBCLASS (ONE SUBCLASS PER BLOCK) |  |  |  |  |  |
|                     |                                   |  |  |  |  |  |

|                                                                                                    |  |                                    |                                    |
|----------------------------------------------------------------------------------------------------|--|------------------------------------|------------------------------------|
| NONE<br>(Assistant Examiner) _____ (Date) _____                                                    |  | <b>Total Claims Allowed:</b><br>10 |                                    |
| /HONG ZHOU/<br>Primary Examiner, Art Unit 2623<br>(Primary Examiner) _____ (Date) 05 November 2018 |  | O.G. Print Claim(s)<br>1           | O.G. Print Figure<br>7a, 7b and 7c |

|                                                                                                                  |                                              |                                                                  |
|------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------|
| <b>Issue Classification</b><br> | <b>Application/Control No.</b><br>15/799,608 | <b>Applicant(s)/Patent Under Reexamination</b><br>BEZINGE et al. |
|                                                                                                                  | <b>Examiner</b><br>HONG ZHOU                 | <b>Art Unit</b><br>2623                                          |

|                                                                                                                                                                                   |                 |              |                 |              |                 |              |                 |              |                 |              |                 |              |                 |              |                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|-----------------|
| <input type="checkbox"/> Claims renumbered in the same order as presented by applicant <input type="checkbox"/> CPA <input type="checkbox"/> T.D. <input type="checkbox"/> R.1.47 |                 |              |                 |              |                 |              |                 |              |                 |              |                 |              |                 |              |                 |
| <b>CLAIMS</b>                                                                                                                                                                     |                 |              |                 |              |                 |              |                 |              |                 |              |                 |              |                 |              |                 |
| <b>Final</b>                                                                                                                                                                      | <b>Original</b> | <b>Final</b> | <b>Original</b> | <b>Final</b> | <b>Original</b> | <b>Final</b> | <b>Original</b> | <b>Final</b> | <b>Original</b> | <b>Final</b> | <b>Original</b> | <b>Final</b> | <b>Original</b> | <b>Final</b> | <b>Original</b> |
| -                                                                                                                                                                                 | 1               | -            | 10              | 2            | 19              | 10           | 28              |              |                 |              |                 |              |                 |              |                 |
| -                                                                                                                                                                                 | 2               | -            | 11              | 3            | 20              |              |                 |              |                 |              |                 |              |                 |              |                 |
| -                                                                                                                                                                                 | 3               | -            | 12              | 4            | 21              |              |                 |              |                 |              |                 |              |                 |              |                 |
| -                                                                                                                                                                                 | 4               | -            | 13              | -            | 22              |              |                 |              |                 |              |                 |              |                 |              |                 |
| -                                                                                                                                                                                 | 5               | -            | 14              | 5            | 23              |              |                 |              |                 |              |                 |              |                 |              |                 |
| -                                                                                                                                                                                 | 6               | -            | 15              | 6            | 24              |              |                 |              |                 |              |                 |              |                 |              |                 |
| -                                                                                                                                                                                 | 7               | -            | 16              | 7            | 25              |              |                 |              |                 |              |                 |              |                 |              |                 |
| -                                                                                                                                                                                 | 8               | -            | 17              | 8            | 26              |              |                 |              |                 |              |                 |              |                 |              |                 |
| -                                                                                                                                                                                 | 9               | 1            | 18              | 9            | 27              |              |                 |              |                 |              |                 |              |                 |              |                 |

|                                                                                                    |  |                                    |                                    |
|----------------------------------------------------------------------------------------------------|--|------------------------------------|------------------------------------|
| NONE<br><br>(Assistant Examiner) _____ (Date) _____                                                |  | <b>Total Claims Allowed:</b><br>10 |                                    |
| /HONG ZHOU/<br>Primary Examiner, Art Unit 2623<br>(Primary Examiner) _____ (Date) 05 November 2018 |  | O.G. Print Claim(s)<br>1           | O.G. Print Figure<br>7a, 7b and 7c |

U.S. Patent and Trademark Office

Part of Paper No.: 20181105

## EAST Search History

## EAST Search History (Prior Art)

| Ref # | Hits | Search Query                                                                                                                                                                                                                                         | DBs                                                                        | Default Operator | Plurals | Time Stamp          |
|-------|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|------------------|---------|---------------------|
| L1    | 2    | ("20090195497").PN.                                                                                                                                                                                                                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2018/11/05<br>15:32 |
| L2    | 2    | ("20110264928").PN.                                                                                                                                                                                                                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2018/11/05<br>15:33 |
| L3    | 2    | ("20080229255").PN.                                                                                                                                                                                                                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2018/11/05<br>15:34 |
| L4    | 2    | ("20110164057").PN.                                                                                                                                                                                                                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2018/11/05<br>15:34 |
| L5    | 3    | ((start\$3 adj (orientation or position)) with (predetermin\$3 or threshold or preset) with time) and (final adj (orientation or position)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. ) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2018/11/05<br>15:36 |
| L6    | 25   | ((start\$3 adj (orientation or position)) same (final adj (orientation or position))) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | OFF     | 2018/11/05<br>15:39 |
| L7    | 3    | (start\$3 same (orientation or position) same (rotat\$3 or tilt\$3 or turn\$4) same range\$1 same final) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR               | ON      | 2018/11/05<br>15:43 |
| L8    | 11   | ((wristwatch or watch) same start\$3 same                                                                                                                                                                                                            | US-PGPUB;                                                                  | OR               | ON      | 2018/11/05          |

|     |     |                                                                                                                                                                                                                                                                                                          |                                                                            |    |     |                     |
|-----|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----|-----|---------------------|
|     |     | (orientation or position) same (rotat\$3 or tilt\$3 or turn\$4) same (angle\$1 or degree\$1 or range\$1)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                                                       | USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB              |    |     | 15:44               |
| L9  | 159 | (start\$3 same (orientation or position) same (interval or period\$1 or time) same (rotat\$3 or tilt\$3 or turn\$4) same (angle\$1 or degree\$1 or range\$1)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2018/11/05<br>15:45 |
| L11 | 10  | ("20060094480"   "20070176898"   "20090195497"   "20120223884"   "20130176346"   "20130222243"   "20130234924"   "6624824"   "8381102").PN. OR ("9383818").URPN.                                                                                                                                         | US-PGPUB;<br>USPAT;<br>USOCR                                               | OR | OFF | 2018/11/05<br>16:16 |
| L12 | 61  | (start\$3 same (orientation or position) same (interval or period\$1 or time) same (rotat\$3 or tilt\$3 or turn\$4) same (final or end\$3 or stop\$4) same (angle\$1 or degree\$1 or range\$1)) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. ) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2018/11/05<br>16:32 |
| L13 | 1   | (start\$3 same position same duration same time same final same range\$1) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                                                                                       | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2018/11/05<br>16:35 |
| L15 | 14  | (start\$3 same position same time same final same range\$1) AND ( (G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08 OR G06F1/3203 OR G06F3/017 OR G06F3/041).CPC. )                                                                                                                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | ON  | 2018/11/05<br>16:35 |
| L22 | 1   | ((start\$3 adj (orientation or position)) with (predetermin\$3 or threshold or preset) with time) and (final adj (orientation or position)) AND ( (G06F3/017 OR G06F1/3203 OR G06F1/3218 OR G06F1/3265 OR G06F1/163 OR G06F3/0346 OR G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08).CPC. )           | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/11/05<br>17:06 |
| L23 | 20  | ((start\$3 adj (orientation or position)) same (final adj (orientation or position))) AND ( (G06F3/017 OR G06F1/3203 OR G06F1/3218 OR G06F1/3265 OR G06F1/163 OR G06F3/0346 OR G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08).CPC. )                                                                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/11/05<br>17:06 |
| L24 | 170 | (start\$3 same (orientation or position) same (interval or period\$1 or time) same (rotat\$3 or tilt\$3 or turn\$4) same (angle\$1 or degree\$1 or range\$1)) AND ( (G06F3/017 OR G06F1/3203 OR G06F1/3218 OR G06F1/3265 OR G06F1/163 OR G06F3/0346                                                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;            | OR | OFF | 2018/11/05<br>17:09 |

## EAST Search History

|     |    |                                                                                                                                                                                                                                                                                                                                                                                        |                                                                            |    |     |                     |
|-----|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----|-----|---------------------|
|     |    | OR G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08).CPC. )                                                                                                                                                                                                                                                                                                                           | IBM_TDB                                                                    |    |     |                     |
| L27 | 26 | ((start\$3 adj (orientation or position)) same (interval or period\$1 or time)) and (((final or end\$3 or stop\$4) near5 (orientation or position)) same (rotat\$3 or tilt\$3 or turn\$4) same (angle\$1 or degree\$1 or range\$1)) AND ( (G06F3/017 OR G06F1/3203 OR G06F1/3218 OR G06F1/3265 OR G06F1/163 OR G06F3/0346 OR G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08).CPC. ) | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/11/05<br>17:23 |
| L28 | 0  | (power same mode same start\$3 same position same final same range\$1).clm. AND ( (G06F3/017 OR G06F1/3203 OR G06F1/3218 OR G06F1/3265 OR G06F1/163 OR G06F3/0346 OR G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08).CPC. )                                                                                                                                                         | US-PGPUB;<br>USPAT;<br>USOCR;<br>FPRS;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | OR | OFF | 2018/11/05<br>17:25 |

## EAST Search History (Interference)

| Ref # | Hits | Search Query                                                                                                                                                                                                                   | DBs   | Default Operator | Plurals | Time Stamp          |
|-------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------------|---------|---------------------|
| L29   | 0    | (power same mode same start\$3 same position same final same range\$1).clm. AND ( (G06F3/017 OR G06F1/3203 OR G06F1/3218 OR G06F1/3265 OR G06F1/163 OR G06F3/0346 OR G04C3/002 OR G04G17/045 OR G04G19/12 OR G04G21/08).CPC. ) | USPAT | OR               | OFF     | 2018/11/05<br>17:26 |
| L30   | 0    | (power same mode same start\$3 same position same final same range\$1).clm.                                                                                                                                                    | USPAT | OR               | OFF     | 2018/11/05<br>17:26 |

11/ 5/ 2018 5:26:29 PM

C:\Users\hzhou\Documents\EAST\Workspaces\15799608.wsp

**PART B - FEE(S) TRANSMITTAL**

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

27557 7590 11/20/2018  
BLANK ROME LLP  
1825 Eye Street NW  
WASHINGTON, DC 20006-5403

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

|                         |
|-------------------------|
| (Typed or printed name) |
| (Signature)             |
| (Date)                  |

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 15/799,608      | 10/31/2017  | Alex BEZINGE         | 143297.00102        | 8529             |

TITLE OF INVENTION: METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE

| APPLN. TYPE    | ENTITY STATUS | ISSUE FEE DUE | PUBLICATION FEE DUE | PREV. PAID ISSUE FEE | TOTAL FEE(S) DUE | DATE DUE   |
|----------------|---------------|---------------|---------------------|----------------------|------------------|------------|
| nonprovisional | SMALL         | \$500         | \$0.00              | \$0.00               | \$500            | 02/20/2019 |

| EXAMINER   | ART UNIT | CLASS-SUBCLASS |
|------------|----------|----------------|
| ZHOU, HONG | 2623     | 345-173000     |

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
- (2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Blank Rome LLP

2 \_\_\_\_\_

3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

Slyde Watch SA

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Switzerland

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. Fees submitted: ☒ Issue Fee ☐ Publication Fee (if required) ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Method of Payment: (Please first reapply any previously paid fee shown above)

☒ Electronic Payment via EFS-Web ☐ Enclosed check ☐ Non-electronic payment by credit card (Attach form PTO-2038)

☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. 23-2185

5. Change in Entity Status (from status indicated above)

- ☐ Applicant certifying micro entity status. See 37 CFR 1.29
- ☐ Applicant asserting small entity status. See 37 CFR 1.27
- ☐ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.

NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.

NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature /Peter S. Weissman/

Date December 19, 2018

Typed or printed name Peter S. Weissman

Registration No. 40,220

| Electronic Patent Application Fee Transmittal      |                 |                                                                                              |               |                             |
|----------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------|---------------|-----------------------------|
| <b>Application Number:</b>                         |                 | 15799608                                                                                     |               |                             |
| <b>Filing Date:</b>                                |                 | 31-Oct-2017                                                                                  |               |                             |
| <b>Title of Invention:</b>                         |                 | METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |               |                             |
| <b>First Named Inventor/Applicant Name:</b>        |                 | Alex BEZINGE                                                                                 |               |                             |
| <b>Filer:</b>                                      |                 | Peter S. Weissman/Keyla Clements                                                             |               |                             |
| <b>Attorney Docket Number:</b>                     |                 | 143297.00102                                                                                 |               |                             |
| Filed as Small Entity                              |                 |                                                                                              |               |                             |
| <b>Filing Fees for Utility under 35 USC 111(a)</b> |                 |                                                                                              |               |                             |
| <b>Description</b>                                 | <b>Fee Code</b> | <b>Quantity</b>                                                                              | <b>Amount</b> | <b>Sub-Total in USD(\$)</b> |
| <b>Basic Filing:</b>                               |                 |                                                                                              |               |                             |
| <b>Pages:</b>                                      |                 |                                                                                              |               |                             |
| <b>Claims:</b>                                     |                 |                                                                                              |               |                             |
| <b>Miscellaneous-Filing:</b>                       |                 |                                                                                              |               |                             |
| <b>Petition:</b>                                   |                 |                                                                                              |               |                             |
| <b>Patent-Appeals-and-Interference:</b>            |                 |                                                                                              |               |                             |
| <b>Post-Allowance-and-Post-Issuance:</b>           |                 |                                                                                              |               |                             |
| UTILITY APPL ISSUE FEE                             | 2501            | 1                                                                                            | 500           | 500                         |

| Description        | Fee Code | Quantity | Amount | Sub-Total in USD(\$) |
|--------------------|----------|----------|--------|----------------------|
| Extension-of-Time: |          |          |        |                      |
| Miscellaneous:     |          |          |        |                      |
| Total in USD (\$)  |          |          |        | 500                  |

| Electronic Acknowledgement Receipt          |                                                                                              |
|---------------------------------------------|----------------------------------------------------------------------------------------------|
| <b>EFS ID:</b>                              | 34634701                                                                                     |
| <b>Application Number:</b>                  | 15799608                                                                                     |
| <b>International Application Number:</b>    |                                                                                              |
| <b>Confirmation Number:</b>                 | 8529                                                                                         |
| <b>Title of Invention:</b>                  | METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |
| <b>First Named Inventor/Applicant Name:</b> | Alex BEZINGE                                                                                 |
| <b>Customer Number:</b>                     | 27557                                                                                        |
| <b>Filer:</b>                               | Peter S. Weissman/Keyla Clements                                                             |
| <b>Filer Authorized By:</b>                 | Peter S. Weissman                                                                            |
| <b>Attorney Docket Number:</b>              | 143297.00102                                                                                 |
| <b>Receipt Date:</b>                        | 19-DEC-2018                                                                                  |
| <b>Filing Date:</b>                         | 31-OCT-2017                                                                                  |
| <b>Time Stamp:</b>                          | 12:03:33                                                                                     |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                                                                  |

### Payment information:

|                                                                                                                |                       |
|----------------------------------------------------------------------------------------------------------------|-----------------------|
| Submitted with Payment                                                                                         | yes                   |
| Payment Type                                                                                                   | CARD                  |
| Payment was successfully received in RAM                                                                       | \$ 500                |
| RAM confirmation Number                                                                                        | 121918INTEFSW12041000 |
| Deposit Account                                                                                                |                       |
| Authorized User                                                                                                |                       |
| The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: |                       |

| <b>File Listing:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                             |                         |                                           |                  |                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-------------------------|-------------------------------------------|------------------|------------------|
| Document Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Document Description        | File Name               | File Size(Bytes)/<br>Message Digest       | Multi Part /.zip | Pages (if appl.) |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Issue Fee Payment (PTO-85B) | 14329700102IssueFee.pdf | 181895                                    | no               | 1                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                             |                         | 80e27992324285d77757cca872d8f94b477ceca8  |                  |                  |
| <b>Warnings:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                             |                         |                                           |                  |                  |
| <b>Information:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                             |                         |                                           |                  |                  |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Fee Worksheet (SB06)        | fee-info.pdf            | 30380                                     | no               | 2                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                             |                         | 397470f1cb583297c86c3c4b499eeefa56f03878c |                  |                  |
| <b>Warnings:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                             |                         |                                           |                  |                  |
| <b>Information:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                             |                         |                                           |                  |                  |
| <b>Total Files Size (in bytes):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                             |                         | 212275                                    |                  |                  |
| <p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b><br/> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b><br/> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b><br/> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p> |                             |                         |                                           |                  |                  |



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION<br>NUMBER | FILING or<br>371(c) DATE | GRP ART<br>UNIT | FIL FEE REC'D | ATTY. DOCKET NO | TOT CLAIMS | IND CLAIMS |
|-----------------------|--------------------------|-----------------|---------------|-----------------|------------|------------|
| 15/799,608            | 10/31/2017               | 2623            | 730           | 143297.00102    | 11         | 1          |

**CONFIRMATION NO. 8529**  
**CORRECTED FILING RECEIPT**

27557  
BLANK ROME LLP  
1825 Eye Street NW  
WASHINGTON, DC 20006-5403



0000000104593002

Date Mailed: 12/20/2018

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

**Inventor(s)**

Alex BEZINGE, Saviese, SWITZERLAND, Deceased;  
Adrian MOHNI, St-Gallen, SWITZERLAND;  
Daniel PFEIFER, St. Anton Am Ariberg, AUSTRIA;  
Musa DOGAN, Heerbrugg, SWITZERLAND;

**Applicant(s)**

Slyde Watch SA, Luins, SWITZERLAND;  
Gaetan Bezing, Saviese, SWITZERLAND, Legal Representative;

**Power of Attorney:** None

**Domestic Priority data as claimed by applicant**

This application is a CON of 14/352,727 04/18/2014 PAT 9804678  
which is a 371 of PCT/EP2012/070273 10/12/2012

**Foreign Applications** (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.)  
SWITZERLAND 01689/11 10/18/2011

**Permission to Access Application via Priority Document Exchange:** Yes

**Permission to Access Search Results:** Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

**If Required, Foreign Filing License Granted:** 11/30/2017

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/799,608**

**Projected Publication Date:** Not Applicable

**Non-Publication Request:** No

**Early Publication Request:** No

**\*\* SMALL ENTITY \*\***

**Title**

METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE

**Preliminary Class**

345

**Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications:** No

## **PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES**

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

**LICENSE FOR FOREIGN FILING UNDER**  
**Title 35, United States Code, Section 184**  
**Title 37, Code of Federal Regulations, 5.11 & 5.15**

**GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

**NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

---

***SelectUSA***

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit <http://www.SelectUSA.gov> or call +1-202-482-6800.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION<br>NUMBER | FILING or<br>371(c) DATE | GRP ART<br>UNIT | FIL FEE REC'D | ATTY. DOCKET NO | TOT CLAIMS | IND CLAIMS |
|-----------------------|--------------------------|-----------------|---------------|-----------------|------------|------------|
| 15/799,608            | 10/31/2017               | 2623            | 730           | 143297.00102    | 11         | 1          |

**CONFIRMATION NO. 8529**  
**CORRECTED FILING RECEIPT**

27557  
BLANK ROME LLP  
1825 Eye Street NW  
WASHINGTON, DC 20006-5403



Date Mailed: 12/26/2018

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

**Inventor(s)**

Alex BEZINGE, Saviese, SWITZERLAND, Deceased;  
Adrian MOHNI, St-Gallen, SWITZERLAND;  
Daniel PFEIFER, St. Anton Am Ariberg, AUSTRIA;  
Musa DOGAN, Heerbrugg, SWITZERLAND;

**Applicant(s)**

Slyde Watch SA, Luins, SWITZERLAND;  
Gaetan Bezing, Saviese, SWITZERLAND, Legal Representative;  
Alois Nathan Bezing, Savises, SWITZERLAND, Legal Representative;  
Layane Bezing, Saviese, SWITZERLAND, Legal Representative;  
Leonard Basien Bezing, Savieses, SWITZERLAND, Legal Representative;

**Power of Attorney:** None

**Domestic Priority data as claimed by applicant**

This application is a CON of 14/352,727 04/18/2014 PAT 9804678  
which is a 371 of PCT/EP2012/070273 10/12/2012

**Foreign Applications** (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see <http://www.uspto.gov> for more information.)  
SWITZERLAND 01689/11 10/18/2011

**Permission to Access Application via Priority Document Exchange:** Yes

**Permission to Access Search Results:** Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

**If Required, Foreign Filing License Granted:** 11/30/2017

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/799,608**

**Projected Publication Date:** Not Applicable

**Non-Publication Request:** No

**Early Publication Request:** No

**\*\* SMALL ENTITY \*\***

**Title**

METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE

**Preliminary Class**

345

**Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications:** No

**PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES**

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific

countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

**LICENSE FOR FOREIGN FILING UNDER**  
**Title 35, United States Code, Section 184**  
**Title 37, Code of Federal Regulations, 5.11 & 5.15**

**GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

**NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

---

**SelectUSA**

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop

technology, manufacture products, deliver services, and grow your business, visit <http://www.SelectUSA.gov> or call +1-202-482-6800.

|                                                                                                                                       |   |    |   |                          |                       |
|---------------------------------------------------------------------------------------------------------------------------------------|---|----|---|--------------------------|-----------------------|
| Substitute for form 1449/PTO<br><br><b>INFORMATION DISCLOSURE<br/>STATEMENT BY APPLICANT</b><br><br>(Use as many sheets as necessary) |   |    |   | <b>Complete if Known</b> |                       |
|                                                                                                                                       |   |    |   | Application Number       | Not Yet Assigned      |
|                                                                                                                                       |   |    |   | Filing Date              | Concurrently Herewith |
|                                                                                                                                       |   |    |   | First Named Inventor     | Alex Bezingé          |
|                                                                                                                                       |   |    |   | Art Unit                 | N/A                   |
|                                                                                                                                       |   |    |   | Examiner Name            | Not Yet Assigned      |
| Sheet                                                                                                                                 | 1 | of | 1 | Attorney Docket Number   | 143297.00102          |

Change(s) applied  
to document,  
/G.R.P./  
12/26/2018

| U.S. PATENT DOCUMENTS |                       |                                          |                                |                                                    |                                                                                 |
|-----------------------|-----------------------|------------------------------------------|--------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------|
| Examiner Initials*    | Cite No. <sup>1</sup> | Document Number                          | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|                       |                       | Number-Kind Code <sup>2</sup> (if known) |                                |                                                    |                                                                                 |
|                       | **AA                  | US-20090199130                           | 08-06-2009                     | Tsern et al.                                       |                                                                                 |
|                       | **AB                  | US-20020118605                           | 08-29-2002                     | Born et al.                                        |                                                                                 |
|                       | **AC                  | US-20090102669                           | 04-23-2009                     | LIN                                                |                                                                                 |
|                       | **AD                  | US-20100235667                           | 09-16-2010                     | Mucignat et al.                                    |                                                                                 |
|                       | **AE                  | US-20120092383                           | 04-19-2012                     | HYSEK et al.                                       |                                                                                 |
|                       | **AF                  | US-2002/0167699-A1                       | 11-2002                        | Verplaetse et al.                                  |                                                                                 |
|                       | **AG                  | US-2007/0176896-A1                       | 08-2007                        | Gritton et al.                                     |                                                                                 |
|                       | **AH                  | US-2009/0085865-A1                       | 04-2009                        | Fattah                                             |                                                                                 |
|                       | **AI                  | US-2010/0265209-A1                       | 10-2010                        | Nurmi et al.                                       |                                                                                 |
|                       | **AJ                  | US-2011/0080349-A1                       | <del>04-2001</del>             | Holbein et al.                                     | 04-2011                                                                         |
|                       | **AK                  | US-2011/0109540-A1                       | 05-2011                        | Milne et al.                                       |                                                                                 |
|                       | **AL                  | US-2012/0062470-A1                       | 03-2012                        | Chang                                              |                                                                                 |
|                       | **AM                  | US-2012/0154303-A1                       | 06-2012                        | Lazaridis et al.                                   |                                                                                 |
|                       | **AN                  | US-8,230,246-B1                          | 07-2012                        | Sharkey                                            |                                                                                 |
|                       | **AO                  | US-2010/0231777-A1                       | 09-2010                        | Shintani                                           |                                                                                 |
|                       | **AP                  | US-2006/0256081-A1                       | 11-2006                        | Zalewski                                           |                                                                                 |
|                       | **AQ                  | US-2008/0229255-A1                       | 09-2008                        | Linjama                                            |                                                                                 |
|                       | **AR                  | US-2009/0195497-A1                       | 08-2009                        | Fitzgerald                                         |                                                                                 |
|                       | **AS                  | US-2011/0264928-A1                       | 10-2011                        | Hinckley                                           |                                                                                 |

| FOREIGN PATENT DOCUMENTS |                       |                                                                                   |                                |                                                    |                                                                                 |                |
|--------------------------|-----------------------|-----------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------|----------------|
| Examiner Initials*       | Cite No. <sup>1</sup> | Foreign Patent Document                                                           | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear | T <sup>6</sup> |
|                          |                       | Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known) |                                |                                                    |                                                                                 |                |
|                          | **BA                  | EP-1324159-A1                                                                     | 07-02-2003                     | Asulab Sa [ch]                                     |                                                                                 |                |
|                          | **BB                  | WO-09120292-A2                                                                    | 10-01-2009                     | Lee, Shu                                           |                                                                                 |                |
|                          | **BC                  | WO-11000893-A1                                                                    | 01-06-2011                     | Hysek, Joerg et al.                                |                                                                                 |                |
|                          | **BD                  | EP-2315101-A1                                                                     | 04-27-2011                     | Research in Motion Ltd [ca]                        |                                                                                 |                |
|                          | **BE                  | EP-1785808-A1                                                                     | 05-16-2007                     | Research in Motion Ltd [ca]                        |                                                                                 |                |

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 509. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> CITE NO. Those application(s) which are marked with an single asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IPWV. <sup>2</sup> Applicant's unique citation designation number (optional). <sup>3</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>4</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST 3). <sup>5</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>6</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 15 if possible. <sup>7</sup> Applicant is to place a check mark here if English language Translation is attached.

| NON PATENT LITERATURE DOCUMENTS |                       |                                                                                                                                                                                                                                                                 |                |
|---------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| Examiner Initials*              | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T <sup>7</sup> |
|                                 | **CA                  | K. Tuck et al., "MMA84500Q Single/Double and Directional Tap Detection", Freescale Semiconductor, Inc., 2010, 16 pages.                                                                                                                                         |                |
|                                 | **CB                  | BMA180 Digital, "Triaxial Acceleration Sensor", Data Sheet, Bosch Sensortec, December 10, 2009, pps. 1-69.                                                                                                                                                      |                |

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 509. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

|                    |             |                 |            |
|--------------------|-------------|-----------------|------------|
| Examiner Signature | /HONG ZHOU/ | Date Considered | 03/17/2018 |
|--------------------|-------------|-----------------|------------|

143297.00102/106283965

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /H.Z./



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

| APPLICATION NO. | ISSUE DATE | PATENT NO. | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|------------|------------|---------------------|------------------|
| 15/799,608      | 02/05/2019 | 10198085   | 143297.00102        | 8529             |

27557 7590 01/16/2019  
BLANK ROME LLP  
1825 Eye Street NW  
WASHINGTON, DC 20006-5403

## ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

### **Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)** (application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site <http://pair.uspto.gov> for additional applicants):

Alex BEZINGE, Saviese, SWITZERLAND, Deceased;  
Slyde Watch SA, Luins, SWITZERLAND;  
Adrian MOHNI, St-Gallen, SWITZERLAND;  
Gaetan Bezing, Saviese, SWITZERLAND, Legal Representative;  
Daniel PFEIFER, St. Anton Am Ariberg, AUSTRIA;  
Alois Nathan Bezing, Savises, SWITZERLAND, Legal Representative;  
Musa DOGAN, Heerbrugg, SWITZERLAND;  
Layane Bezing, Saviese, SWITZERLAND, Legal Representative;  
Leonard Basiien Bezing, Savieses, SWITZERLAND, Legal Representative;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit [SelectUSA.gov](http://SelectUSA.gov).

Docket No.: 143297.00102  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

---

In re Patent Application of:  
Alex BEZINGE et al.

Application No.: 15/799,608

Confirmation No.: 8529

Filed: October 31, 2017

Art Unit: 2623

For: METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE      Examiner: H. Zhou

---

**REQUEST FOR CORRECTED FILING RECEIPT**

Office of Initial Patent Examination's Filing Receipt Corrections  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Applicant hereby requests that a corrected Filing Receipt be issued in the above-identified patent application. The official Filing Receipt received by Applicant, a copy of which is attached hereto, has the following errors:

Under Applicant(s), please remove the following:

Gaetan Bezing, Saviese, SWITZERLAND, Legal Representative;

Alois Nathan Bezing, Savises, SWITZERLAND, Legal Representative;

Layane Bezing, Saviese, SWITZERLAND, Legal Representative;

Leonard Basien Bezing, Savieses, SWITZERLAND, Legal Representative;

Applicant additionally requests that all pertinent U.S. Patent and Trademark Office records relating to the subject application be changed to reflect this correction.

143297.00102/117413482v.1

Applicant believes no fee is due with this request. Please charge any shortage or credit any overpayment of fees to BLANK ROME LLP, Deposit Account No. 23-2185 under Order No. 143297.00102. In the event that a petition for an extension of time is required to be submitted herewith and in the event that a separate petition does not accompany this or is insufficient to render this timely, the Applicant hereby petitions under 37 C.F.R. §1.136(a) for an extension of time for as many months as required to render this submission timely. Any fee due is authorized above.

Dated: February 11, 2019

Respectfully submitted,

/Peter S. Weissman/  
Peter S. Weissman  
Registration No.: 40,220  
BLANK ROME LLP  
1825 Eye Street, NW  
Washington, DC 20006-5403  
(202) 772-5800  
Attorney for Applicant



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION<br>NUMBER | FILING or<br>371(c) DATE | GRP ART<br>UNIT | FIL FEE REC'D | ATTY DOCKET NO | TOT CLAIMS | IND CLAIMS |
|-----------------------|--------------------------|-----------------|---------------|----------------|------------|------------|
| 15/799,608            | 10/31/2017               | 2623            | 730           | 143297.00102   | 11         | 1          |

CONFIRMATION NO. 8529  
CORRECTED FILING RECEIPT

27557  
BLANK ROME LLP  
1825 Eye Street NW  
WASHINGTON, DC 20006-5403



00000000 15-799608

Date Mailed: 12/26/2018

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections.

**Inventor(s)**

Alex BEZINGE, Saviese, SWITZERLAND, Deceased;  
Adrian MOHNI, St-Gallen, SWITZERLAND;  
Daniel PFEIFER, St. Anton Am Ariberg, AUSTRIA;  
Musa DOGAN, Heerbrugg, SWITZERLAND;

**Applicant(s)**

Slyde Watch SA, Luins, SWITZERLAND;  
~~Gaetan Bezings, Saviese, SWITZERLAND, Legal Representative;~~  
~~Alois Nathan Bezings, Saviese, SWITZERLAND, Legal Representative;~~  
~~Layane Bezings, Saviese, SWITZERLAND, Legal Representative;~~  
~~Leonard Basien Bezings, Savieses, SWITZERLAND, Legal Representative;~~

Power of Attorney: None

**Domestic Priority data as claimed by applicant**

This application is a CON of 14/352,727 04/18/2014 PAT 9804678  
which is a 371 of PCT/EP2012/070273 10/12/2012

**Foreign Applications** (You may be eligible to benefit from the Patent Prosecution Highway program at the USPTO. Please see <http://www.uspto.gov> for more information.)  
SWITZERLAND 01689/11 10/18/2011

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

**If Required, Foreign Filing License Granted:** 11/30/2017

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/799,608**

**Projected Publication Date:** Not Applicable

**Non-Publication Request:** No

**Early Publication Request:** No

**\*\* SMALL ENTITY \*\***

**Title**

METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE

**Preliminary Class**

345

**Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications:** No

## **PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES**

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at <http://www.uspto.gov/web/offices/pac/doc/general/index.html>.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, <http://www.stopfakes.gov>. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific

page 2 of 4

countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

## **LICENSE FOR FOREIGN FILING UNDER**

### **Title 35, United States Code, Section 184**

### **Title 37, Code of Federal Regulations, 5.11 & 5.15**

#### **GRANTED**

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign Assets Control, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

#### **NOT GRANTED**

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

---

### **SelectUSA**

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop

technology, manufacture products, deliver services, and grow your business, visit <http://www.SelectUSA.gov> or call +1-202-482-6800.

| Electronic Acknowledgement Receipt          |                                                                                              |
|---------------------------------------------|----------------------------------------------------------------------------------------------|
| <b>EFS ID:</b>                              | 35117915                                                                                     |
| <b>Application Number:</b>                  | 15799608                                                                                     |
| <b>International Application Number:</b>    |                                                                                              |
| <b>Confirmation Number:</b>                 | 8529                                                                                         |
| <b>Title of Invention:</b>                  | METHOD AND CIRCUIT FOR SWITCHING A WRISTWATCH FROM A FIRST POWER MODE TO A SECOND POWER MODE |
| <b>First Named Inventor/Applicant Name:</b> | Alex BEZINGE                                                                                 |
| <b>Customer Number:</b>                     | 27557                                                                                        |
| <b>Filer:</b>                               | Peter S. Weissman/Keyla Clements                                                             |
| <b>Filer Authorized By:</b>                 | Peter S. Weissman                                                                            |
| <b>Attorney Docket Number:</b>              | 143297.00102                                                                                 |
| <b>Receipt Date:</b>                        | 11-FEB-2019                                                                                  |
| <b>Filing Date:</b>                         | 31-OCT-2017                                                                                  |
| <b>Time Stamp:</b>                          | 17:24:59                                                                                     |
| <b>Application Type:</b>                    | Utility under 35 USC 111(a)                                                                  |

### Payment information:

|                        |    |
|------------------------|----|
| Submitted with Payment | no |
|------------------------|----|

### File Listing:

| Document Number | Document Description                 | File Name              | File Size(Bytes)/<br>Message Digest      | Multi Part /.zip | Pages (if appl.) |
|-----------------|--------------------------------------|------------------------|------------------------------------------|------------------|------------------|
| 1               | Request for Corrected Filing Receipt | 14329700102Request.pdf | 478236                                   | no               | 6                |
|                 |                                      |                        | 8302d4da2de2045868fb09c0254e33e31791fad1 |                  |                  |

### Warnings:

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| <b>Information:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |
| <b>Total Files Size (in bytes):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 478236 |
| <p><b>This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.</b></p> <p><b><u>New Applications Under 35 U.S.C. 111</u></b><br/> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.</p> <p><b><u>National Stage of an International Application under 35 U.S.C. 371</u></b><br/> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.</p> <p><b><u>New International Application Filed with the USPTO as a Receiving Office</u></b><br/> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.</p> |        |

AO 120 (Rev. 08/10)

|                                                                                                                                                         |                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>TO:</b><br><b>Mail Stop 8</b><br><b>Director of the U.S. Patent and Trademark Office</b><br><b>P.O. Box 1450</b><br><b>Alexandria, VA 22313-1450</b> | <b>REPORT ON THE</b><br><b>FILING OR DETERMINATION OF AN</b><br><b>ACTION REGARDING A PATENT OR</b><br><b>TRADEMARK</b> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been filed in the U.S. District Court \_\_\_\_\_ for the Eastern District of Texas, Marshall Division \_\_\_\_\_ on the following

☐ Trademarks or ☒ Patents. ( ☐ the patent action involves 35 U.S.C. § 292.):

|                                  |                                |                                                                                  |
|----------------------------------|--------------------------------|----------------------------------------------------------------------------------|
| DOCKET NO.<br>2:23-cv-00083      | DATE FILED<br>2/28/2023        | U.S. DISTRICT COURT<br>for the Eastern District of Texas, Marshall Division      |
| PLAINTIFF<br>Slyde Analytics LLC |                                | DEFENDANT<br>Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc. |
| PATENT OR<br>TRADEMARK NO.       | DATE OF PATENT<br>OR TRADEMARK | HOLDER OF PATENT OR TRADEMARK                                                    |
| 1 9,804,678                      | 10/31/2017                     | Slyde Analytics LLC                                                              |
| 2 10,198,085                     | 2/5/2019                       | Slyde Analytics LLC                                                              |
| 3 8,588,033                      | 11/19/2013                     | Slyde Analytics LLC                                                              |
| 4 9,651,922                      | 5/16/2017                      | Slyde Analytics LLC                                                              |
| 5                                |                                |                                                                                  |

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

|                            |                                                                                                                                                |                               |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| DATE INCLUDED              | INCLUDED BY                                                                                                                                    |                               |
|                            | <input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading |                               |
| PATENT OR<br>TRADEMARK NO. | DATE OF PATENT<br>OR TRADEMARK                                                                                                                 | HOLDER OF PATENT OR TRADEMARK |
| 1                          |                                                                                                                                                |                               |
| 2                          |                                                                                                                                                |                               |
| 3                          |                                                                                                                                                |                               |
| 4                          |                                                                                                                                                |                               |
| 5                          |                                                                                                                                                |                               |

In the above—entitled case, the following decision has been rendered or judgement issued:

|                    |
|--------------------|
| DECISION/JUDGEMENT |
|--------------------|

|       |                   |      |
|-------|-------------------|------|
| CLERK | (BY) DEPUTY CLERK | DATE |
|-------|-------------------|------|

Copy 1—Upon initiation of action, mail this copy to Director    Copy 3—Upon termination of action, mail this copy to Director  
 Copy 2—Upon filing document adding patent(s), mail this copy to Director    Copy 4—Case file copy

AO 120 (Rev. 08 10)

|                                                                                                                                                         |                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>TO:</b><br><b>Mail Stop 8</b><br><b>Director of the U.S. Patent and Trademark Office</b><br><b>P.O. Box 1450</b><br><b>Alexandria, VA 22313-1450</b> | <b>REPORT ON THE</b><br><b>FILING OR DETERMINATION OF AN</b><br><b>ACTION REGARDING A PATENT OR</b><br><b>TRADEMARK</b> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|

In Compliance with 35 U.S.C. § 290 and/or 15 U.S.C. § 1116 you are hereby advised that a court action has been  
 filed in the U.S. District Court for the Eastern District of Texas, Marshall Division on the following

☐ Trademarks or ☒ Patents. ( ☐ the patent action involves 35 U.S.C. § 292.);

|                                         |                                |                                                                                    |
|-----------------------------------------|--------------------------------|------------------------------------------------------------------------------------|
| DOCKET NO.<br><b>2:23-cv-00172</b>      | DATE FILED<br><b>4/14/2023</b> | U.S. DISTRICT COURT<br><b>for the Eastern District of Texas, Marshall Division</b> |
| PLAINTIFF<br><b>Slyde Analytics LLC</b> |                                | DEFENDANT<br><b>Zepp Health Corporation</b>                                        |
| PATENT OR<br>TRADEMARK NO.              | DATE OF PATENT<br>OR TRADEMARK | HOLDER OF PATENT OR TRADEMARK                                                      |
| 1 8,588,033                             | 11/19/2013                     | Slyde Analytics LLC                                                                |
| 2 9,651,922                             | 5/16/2017                      | Slyde Analytics LLC                                                                |
| 3 9,804,678                             | 10/31/2017                     | Slyde Analytics LLC                                                                |
| 4 10,198,085                            | 2/5/2019                       | Slyde Analytics LLC                                                                |
| 5 9,320,457                             | 4/26/2016                      | Slyde Analytics LLC                                                                |

In the above—entitled case, the following patent(s) trademark(s) have been included:

|                            |                                                                                                                                                               |                               |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| DATE INCLUDED              | INCLUDED BY<br><input type="checkbox"/> Amendment <input type="checkbox"/> Answer <input type="checkbox"/> Cross Bill <input type="checkbox"/> Other Pleading |                               |
| PATENT OR<br>TRADEMARK NO. | DATE OF PATENT<br>OR TRADEMARK                                                                                                                                | HOLDER OF PATENT OR TRADEMARK |
| 1                          |                                                                                                                                                               |                               |
| 2                          |                                                                                                                                                               |                               |
| 3                          |                                                                                                                                                               |                               |
| 4                          |                                                                                                                                                               |                               |
| 5                          |                                                                                                                                                               |                               |

In the above—entitled case, the following decision has been rendered or judgement issued:

|                    |
|--------------------|
| DECISION/JUDGEMENT |
|--------------------|

|       |                   |      |
|-------|-------------------|------|
| CLERK | (BY) DEPUTY CLERK | DATE |
|-------|-------------------|------|

Copy 1—Upon initiation of action, mail this copy to Director    Copy 3—Upon termination of action, mail this copy to Director  
 Copy 2—Upon filing document adding patent(s), mail this copy to Director    Copy 4—Case file copy