

Doc code: RCEX

Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (02-18)

Approved for use through 11/30/2020. OMB 0651-0031

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

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**REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL**  
**(Submitted Only via EFS-Web)**

|                      |            |             |            |                               |               |          |      |
|----------------------|------------|-------------|------------|-------------------------------|---------------|----------|------|
| Application Number   | 17/483,190 | Filing Date | 2021-09-23 | Docket Number (if applicable) | CONT-16188683 | Art Unit | 2658 |
| First Named Inventor | JOHN USHER |             |            | Examiner Name                 | VILLENA, MARK |          |      |

**This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.**  
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at [WWW.USPTO.GOV](http://WWW.USPTO.GOV)

**SUBMISSION REQUIRED UNDER 37 CFR 1.114**

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on \_\_\_\_\_

☐ Other \_\_\_\_\_

☒ Enclosed

☒ Amendment/Reply

☐ Information Disclosure Statement (IDS)

☐ Affidavit(s)/ Declaration(s)

☐ Other \_\_\_\_\_

**MISCELLANEOUS**

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months \_\_\_\_\_  
(Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other \_\_\_\_\_

**FEES**

**The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.**

☐ The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No \_\_\_\_\_

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED**

☒ Patent Practitioner Signature

Applicant Signature

Samsung v. Techiya  
IPR2024-01003  
Exhibit 1045

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| Signature of Registered U.S. Patent Practitioner |                |                     |            |
|--------------------------------------------------|----------------|---------------------|------------|
| Signature                                        | John P. Keady/ | Date (YYYY-MM-DD)   | 2023-10-12 |
| Name                                             | John P. Keady  | Registration Number | 56389      |

This collection of information is required by 37 CFR 1.114. 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 1.11 and 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.

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

## 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.

| Electronic Patent Application Fee Transmittal      |                 |                                              |               |                             |
|----------------------------------------------------|-----------------|----------------------------------------------|---------------|-----------------------------|
| <b>Application Number:</b>                         |                 | 17483190                                     |               |                             |
| <b>Filing Date:</b>                                |                 | 23-Sep-2021                                  |               |                             |
| <b>Title of Invention:</b>                         |                 | METHOD AND DEVICE FOR VOICE OPERATED CONTROL |               |                             |
| <b>First Named Inventor/Applicant Name:</b>        |                 | John Usher                                   |               |                             |
| <b>Filer:</b>                                      |                 | John Patrick Keady                           |               |                             |
| <b>Attorney Docket Number:</b>                     |                 | 11472-38-6_CONT-16188683                     |               |                             |
| 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(\$) |
|--------------------------|----------|----------|--------|----------------------|
| <b>Miscellaneous:</b>    |          |          |        |                      |
| RCE- 1ST REQUEST         | 2801     | 1        | 544    | 544                  |
| <b>Total in USD (\$)</b> |          |          |        | <b>544</b>           |

| Electronic Acknowledgement Receipt          |                                              |
|---------------------------------------------|----------------------------------------------|
| <b>EFS ID:</b>                              | 48714912                                     |
| <b>Application Number:</b>                  | 17483190                                     |
| <b>International Application Number:</b>    |                                              |
| <b>Confirmation Number:</b>                 | 4577                                         |
| <b>Title of Invention:</b>                  | METHOD AND DEVICE FOR VOICE OPERATED CONTROL |
| <b>First Named Inventor/Applicant Name:</b> | John Usher                                   |
| <b>Customer Number:</b>                     | 150139                                       |
| <b>Filer:</b>                               | John Patrick Keady                           |
| <b>Filer Authorized By:</b>                 |                                              |
| <b>Attorney Docket Number:</b>              | 11472-38-6_CONT-16188683                     |
| <b>Receipt Date:</b>                        | 12-OCT-2023                                  |
| <b>Filing Date:</b>                         | 23-SEP-2021                                  |
| <b>Time Stamp:</b>                          | 23:47:36                                     |
| <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                                                                       | \$ 544           |
| RAM confirmation Number                                                                                        | E20230BN48349203 |
| 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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                           |                           |                                          |                  |                  |
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| Document Number                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Document Description                                                                                                      | File Name                 | File Size(Bytes)/<br>Message Digest      | Multi Part /.zip | Pages (if appl.) |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Amendment Submitted/Entered with Filing of Continued Prosecution Application (CPA)/Request for Continued Examination(RCE) | 17483190-RFOA-RCE-JPK.pdf | 655645                                   | no               | 13               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                           |                           | f1f06e48f867fb80d73b38916ceb9b160e16ec7  |                  |                  |
| <b>Warnings:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                           |                           |                                          |                  |                  |
| <b>Information:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                           |                           |                                          |                  |                  |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Request for Continued Examination (RCE)                                                                                   | 17483190_RCE.pdf          | 1349929                                  | no               | 3                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                           |                           | 14bc25a060964ac2a34ab7a17b34deef29c4ec57 |                  |                  |
| <b>Warnings:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                           |                           |                                          |                  |                  |
| <b>Information:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                           |                           |                                          |                  |                  |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Fee Worksheet (SB06)                                                                                                      | fee-info.pdf              | 37779                                    | no               | 2                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                           |                           | 1a708ff17a77dfe62439e65a41c38fefe2834feb |                  |                  |
| <b>Warnings:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                           |                           |                                          |                  |                  |
| <b>Information:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                           |                           |                                          |                  |                  |
| <b>Total Files Size (in bytes):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                           |                           | 2043353                                  |                  |                  |
| <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> |                                                                                                                           |                           |                                          |                  |                  |

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

|                 |   |                                                 |                       |
|-----------------|---|-------------------------------------------------|-----------------------|
| APPLICATION NO. | : | 17/483,190                                      | CONFIRMATION No. 4577 |
| APPLICATION OF  | : | John Usher                                      |                       |
| DATE FILED      | : | 23 Sept. 2021                                   |                       |
| EXAMINER        | : | VILLENA, MARK                                   |                       |
| TC/A.U.         | : | 2658                                            |                       |
| DOCKET          | : | CONT-16188683                                   |                       |
| TITLE           | : | METHOD AND DEVICE FOR VOICE OPERATED<br>CONTROL |                       |

**RESPONSE TO FINAL OFFICE ACTION**

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

Date: October 12, 2023

Sir:

These remarks are filed in response to the Final Office Action dated 17 July 2023 and a Request for Continued Examination. Please amend the above-identified patent application as follows:

- **Amendments to the Claims** begin on page 2 of this paper; and
- **Remarks/Arguments** begin on page 7 of this paper.

### **AMENDMENTS TO THE CLAIMS**

The following listing of claims will replace all prior versions, and listings, of claims in the application.

#### **Listing of Claims:**

1.(currently amended) A device, comprising:

- a first ambient microphone configured to generate a first acoustic signal;
- a second ambient microphone configured to generate a second acoustic signal;
- a speaker configured to play an audio content signal;
- a memory that stores instruction; and
- a processor operatively connected to the first ambient microphone, the second ambient microphone, and the speaker, wherein the first and second ambient microphones and the speaker and the memory and the processor are part of a single device, wherein the processor executes the instructions to perform operations, the operations comprising:
  - generating a first spectral characteristics of the first acoustic signal;
  - generating a second spectral characteristics of the second acoustic signal;
  - selecting a first portion of the first spectral characteristics;
  - selecting a second portion of the second spectral characteristics;
  - detecting a user's voice based on an analysis of the first acoustic signal and the second acoustic signal, ~~and wherein the analysis of the first acoustic signal and the second acoustic signal uses at least one of a coherence analysis, correlation analysis, level comparison, spectral difference, a cross-correlation, or a combination thereof~~ wherein the analysis is performed by comparing the first portion to the second portion;
  - generating a modified audio signal by ~~applying a gain to~~ reducing the volume of the audio content signal if the user's voice has been detected;

mixing the first acoustic signal or a modified first acoustic signal, with the audio content signal or the modified audio signal, to generate a mixed audio content signal; and

sending the mixed audio content signal to the speaker.

2.(original) The device according to claim 1, wherein the operation further comprises:

detecting a background noise level by analyzing at least one of the first acoustic signal or the second acoustic signal or a combination of both

3.(previously presented) The device of claim 1, wherein the modified first acoustic signal is generated by applying a gain value to the first acoustic signal.

4.(previously presented) The device of claim 1, wherein the modified first acoustic signal is generated by applying a filter to the first acoustic signal.

5.(previously presented) The device of claim 1, wherein the modified first acoustic signal is generated by applying a filter or a gain to the first acoustic signal to generate an adjusted first acoustic signal, then generating the modified first acoustic signal by applying a gain to the adjusted first acoustic signal if a filter was applied to the first acoustic signal to generate the adjusted first acoustic signal, or generating the modified first acoustic signal by applying a filter to the adjusted first acoustic signal if a gain was applied to the first acoustic signal to generate the adjusted first acoustic signal.

6.(original) The device of claim 1, wherein the operations further comprise:

receiving a user's command, wherein the user's command is at least one of a voice command, a non-voice audio command, a visual command, or a combination thereof.

7.(original) The device of claim 6, wherein the operations further comprise:  
calculating a cross correlation between at the first and second acoustic signals.

8.(previously presented) The device of claim 7, wherein the operations further comprise:  
extracting a peak value of the cross-correlation and a timing of the peak occurs.

9.(previously presented) The device of claim 8, wherein the operations further comprise:  
determining if the timing of the peak is within a predetermined time range.

10.(previously presented) The device of claim 9, wherein the operations further comprise:  
generating a message that the user voice is detected if the timing of the peak is within the predetermined time range.

11.(previously presented) The device of claim 1, wherein the operation of detecting the voice includes an analysis of whether a sound pressure level of the first acoustic signal or the second acoustic signal or a combination of both is above a threshold and if above the threshold the level-comparison is performed to detect whether the user is speaking.

12.(previously presented) The device of claim 1, wherein the operations further comprise:  
analyzing the voice to detect a voice command if the user's voice has been detected.

13.(original) The device of claim 1, wherein the operations further comprise:

generating a filtered sound signal by filtering at least one of the first acoustic signal, the second acoustic signal, or a combination thereof, and  
presenting a notification based on the filtered sound signal.

14.(original) The device of claim 1, wherein operations further comprise:

increasing a gain of at least one of the first acoustic signal, the second acoustic signal, or a combination thereof.

15.(previously presented) The device of claim 1, wherein operations further comprise:

obtaining a speaking level associated with the user's voice by using a spectral characteristic of the voice if the user's voice has been detected.

16.(previously presented) The device according to claim 1, wherein the gain is less than 1.

17.(previously presented) The device according to claim 16, wherein the modified audio signal has a lower pressure level when emitted from a speaker than when the audio signal is emitted from the same speaker.

18.(new) The device according to claim 1, wherein the analysis uses at least one of a coherence analysis or correlation analysis or a cross-correlation or a combination thereof.

19.(new) The device according to claim 1, wherein the analysis uses at least one of level-comparison or spectral difference or a combination thereof

20.(new) A method comprising: receiving a first acoustic signal from a first microphone;

- receiving a second acoustic signal from a second microphone;
- generating first spectral characteristics of the first acoustic signal;
- generating second spectral characteristics of the second acoustic signal;
- selecting a first portion of the first spectral characteristics;
- selecting a second portion of the second spectral characteristics;
- comparing the first portion to the second portion to detect if a user's is speaking;
- generating a modified audio content signal by reducing the volume of an audio content signal if the user is speaking;
- generating a modified first acoustic signal by filtering the first acoustic signal if the user is speaking;
- generating a mixed acoustic signal by combining the modified first acoustic signal with the modified audio content signal; and
- sending the mixed acoustic signal to the speaker while the user is speaking or a neighboring talker is speaking to the user.

## **REMARKS**

The foregoing amendments and the following remarks are made in response to the Office Action dated 22 Sept. 2022. At the time of the Office Action, the Examiner noted that claims 1-15 were pending. The Examiner rejected claims 1-15 under 35 U.S.C. § 103 and on the grounds of nonstatutory double patenting over claims of U.S. Patent No. 8611560. Claims 1, 3-5, 8-11 and 15 have been amended, and claims 18-20 are new. In view of the arguments set forth below, claims 1-17 are allowable, and the Examiner is respectfully requested to withdraw the rejection and issue a Notice of Allowance.

Note that Applicant may only discuss a single feature difference between the related art and pending claims, which should not be interpreted as Applicant accepting the related art as allegedly showing the remaining features.

### **I. Pre-AIA Examination:**

The Examiner states:

“...Regarding AIA status, the Examiner notes that the application is examined under the first inventor to file provisions of the AIA if the application is ever a CON, DIV, or CIP of an earlier application that ever contained a claim having an effective filing date that is on or after 3/16/13. In this case, this pending application is a CON of an earlier application containing a claim having an effective filing date on or after 03/16/2013....” (Final Office Action (FOA), pg. 2)

First a non provisional application claims priority under 35 USC 119 to provisional's filing date, making the effective filing date of a non provisional the filing date of the provisional, then any continuation claiming priority to the non provisional and receives the Provisional's filing date as the effective filing date. Any subsequent continuation likewise claims back to the provisional as well, not to only the previous continuation which the Examiner seems to suggest. The present application is not a CIP and thus no material has been added.

Below is the present application's continuity as listed on PAIR.

| 17/483,190 METHOD AND DEVICE FOR VOICE OPERATED CONTROL |                  |                              |                              |                 |               |                     |                         |             |             | 11472-35-6_CONT-16183683 |
|---------------------------------------------------------|------------------|------------------------------|------------------------------|-----------------|---------------|---------------------|-------------------------|-------------|-------------|--------------------------|
| Select New Case                                         | Application Data | Transmittal History          | Image File Wrapper           | Continuity Data | Fees          | Published Documents | Address & Mailing Agent | Assignments | Disclaimers | Publication Review       |
| Parent Continuity Data                                  |                  |                              |                              |                 |               |                     |                         |             |             |                          |
| Description                                             | Parent Number    | Parent Filing or 371(c) Date | AIA (First Inventor to File) | Parent Status   | Patent Number |                     |                         |             |             |                          |
| This application is a Continuation of                   | 15/188,883       | 11-13-2018                   | Yes                          | Patented        | 11,117,111    |                     |                         |             |             |                          |
| is a continuation of                                    | 14/025,113       | 12-03-2013                   | No                           | Patented        | 10,125,524    |                     |                         |             |             |                          |
| is a continuation of                                    | 12/192,555       | 04-14-2008                   | No                           | Patented        | 8,511,360     |                     |                         |             |             |                          |
| Claims Priority from Provisional Application            | 88/211,881       | 04-13-2007                   | -                            | Expired         | -             |                     |                         |             |             |                          |

Hence the present application has an effective filing date of 4-13-2007, which is clearly **before 3/16/2013**.

The invention claimed herein predates 16 March 2013 and is entitled and requested to be examined under Pre-AIA provisions.

## **II. Rejections Under 35 U.S.C. § 103**

The Examiner rejected Claim(s) 1-7 and 11-17 under 35 U.S.C. 103 as being unpatentable over Ziller (20080101638) in view of Visser et al. (20080201138 A1).

The Examiner rejected Claim(s) 8-10 under 35 U.S.C. 103 as being unpatentable over Ziller in view of Visser as applied to claim 7 above, and further in view of Sharma et al. (US 20020075815 A1).

Applicant has amended claim 1 for clarity, in particular “applying a gain” is not meant to mean that the volume only increases. The term gain is a common acoustic DSP term, to refer to a value that is applied to the acoustic signal to either increase the volume (gain increases) or reduce the volume (gain reduces). To make sure the present scope of claim 1 is clear claim 1 has been amended. Claim 1 now states:

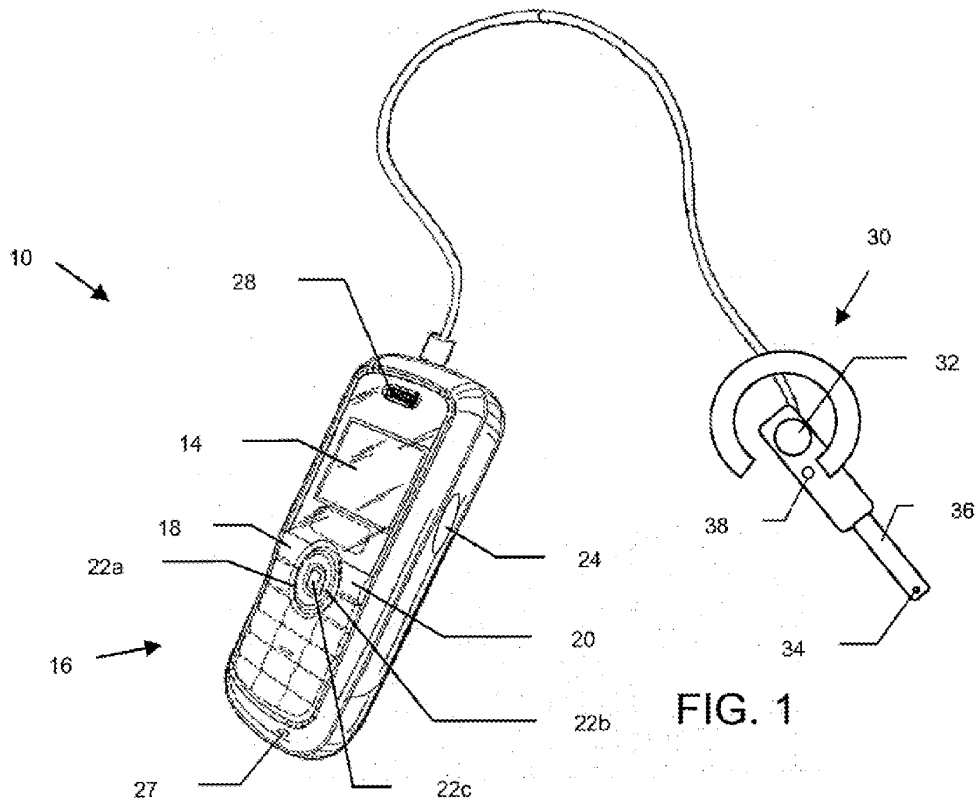
1.(currently amended) A device, comprising:  
a first ambient microphone configured to generate a first acoustic signal;  
a second ambient microphone configured to generate a second acoustic signal;  
a speaker configured to play an audio content signal;  
a memory that stores instruction; and  
a processor operatively connected to the first ambient microphone, the second ambient microphone, and the speaker, wherein the first and second ambient microphones and the speaker and the memory and the processor are part of a single device, wherein the processor executes the instructions to perform operations, the operations comprising:  
generating a first spectral characteristics of the first acoustic signal;  
generating a second spectral characteristics of the second acoustic signal;  
selecting a first portion of the first spectral characteristics;  
selecting a second portion of the second spectral characteristics;  
detecting a user's voice based on an analysis of the first acoustic signal and the second acoustic signal, ~~and wherein the analysis of the first acoustic signal and the second acoustic signal uses at least one of a coherence analysis, correlation analysis, level comparison, spectral difference, a cross correlation, or a combination thereof~~ wherein the analysis is performed by comparing the first portion to the second portion;  
generating a modified audio signal by ~~applying a gain to~~ reducing the volume of the audio content signal if the user's voice has been detected;  
mixing the first acoustic signal or a modified first acoustic signal, with the audio content signal or the modified audio signal, to generate a mixed audio content signal; and  
sending the mixed audio content signal to the speaker.

### **Ziller (US 2008/0101638)**

Ziller is directed to a hands-free accessory that combines an audio signal with an ambient sound signal and reduces or disables the ambient sound signal prior to addition with the audio signal in response to a non voice event. (Ziller, Abstract, Fig. 3, Fig. 4, [0057], [0061], [0063], [0073]) In essence the hands free accessory is designed to reduce ambient sound passthrough when a non-voice event is detected but leave alone a playing audio signal. Ziller does not use multiple microphones to detect voice. Ziller describes a headset 30 having an ambient microphone 38 and another

microphone 34, closer to a user's mouth ("attached at the end of a boom 36"), that it uses to pick up a user's voice more so than that picked up by microphone 38 ("picks up ambient sound (including the user's own voice...". (Ziller, Fig. 1, Fig. 6, [0052], [0053]) Note that Ziller does not use two microphones to detect a user's voice, nor does it modify the audio signal when a user's voice is detected. In fact Ziller is directed to a device that focuses on leaving the audio signal alone and focuses on modifying the ambient signal when a non-voice event is detected.

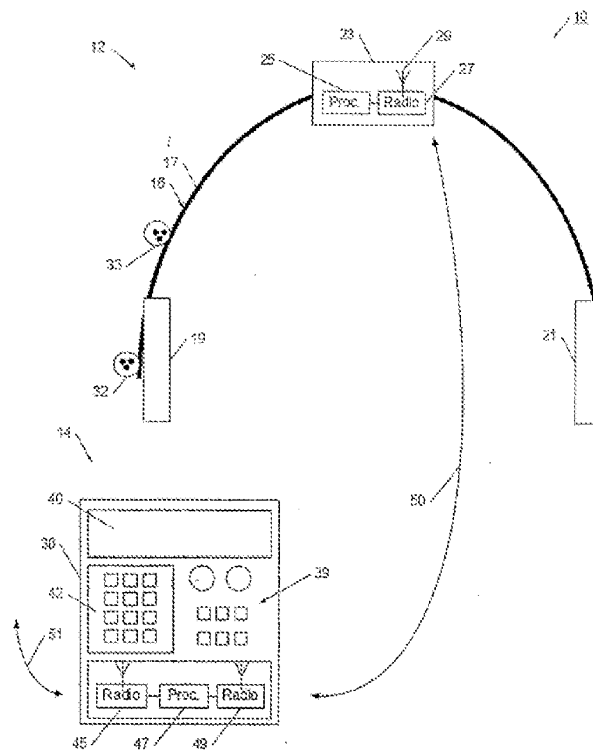
Fig. 1 of Ziller illustrates the system of Ziller.



**Visser et al. (US 2008/0201138)**

Visser is directed to a headset that uses microphones positioned so that each microphone has a different audio path to a user's mouth, which is used to detect a user's voice. Each microphone receives a user's speech and ambient noise. The microphone closer to the mouth receives the user's speech first compared to the farther microphone and this is used to extract out less noisy user speech. (Visser, Abstract, [0043], [0045]) Auto-correlation is used in Visser to detect inactive speech, comparing long term estimates based on background noise to short term estimates based on a period of digital voice samples.(Visser, [0079]) Correlation of the first and second acoustic signals is not used in Visser to detect a user's voice, nor does Visser use coherence analysis, level-comparison, spectral difference, or a cross-correlation.

Fig. 1 of Visser illustrates the system of Visser.



**Argument 1:**

Neither Ziller nor Visser, although Applicants do not admit the references are combinable, show suggest or teach “... generating a modified audio signal by reducing the volume of the audio content signal if the user’s voice has been detected; ...” a feature of amended claim 1.

Note that Ziller states: “... **disabling the reproduction of the ambient sound** signal by the at least one speaker based **upon the detected occurrence of the predefined event**, ...”(emphasis added, Ziller, [Abstract])

Note that Visser states: “... For example, Volume on speech signal 281 may be substantially reduced at times when no voice activity is detected. Then, **when voice activity is detected, the volume may be increased** on speech signal 281...” (emphasis added, Visser, [0086])

Neither Ziller nor Visser show decreasing the audio content volume when the user’s voice has been detected. Neither does Sharma.

Thus, Ziller and Visser, fail to show, suggest or teach all the features of amended claim 1.

Therefore, for at least these reasons, independent claims 1, and those claims depending therefrom 2-19, are allowable, and the Examiner is respectfully requested to withdraw the rejections under 35 U.S.C. § 103 and issue a Notice of Allowance.

**III. Double Patenting**

The Examiner has rejected claims 1-15 on the ground of nonstatutory double patenting based upon claims 11, 16, 17-20, and 26-29 of U.S. Patent No. 8611560.

Although Applicant contends the scope of the present claims are not identical to the cited claims of 8611560, Applicant in the interest of expedited prosecution has filed a terminal disclaimer.

Therefore, for at least these reasons, the Examiner is respectfully requested to withdraw the double patenting rejection and issue a Notice of Allowance.

#### **IV. Conclusion**

For at least the reasons given above, claims 1-17 are allowable, and the Examiner is respectfully requested to withdraw all rejections. Should the Examiner believe that anything further is necessary, the Examiner is respectfully requested to contact the undersigned representative at the telephone number listed below.

Respectfully submitted,

**TECHIYA LLC**

Date: October 12, 2023

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