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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	WYAT-0002.USD1C1C1
	Application Number	
Title of Invention	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE	

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.
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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 Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	David		WYATT	

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

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Postal Code	95131	Country i	US

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

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☐ **An Address is being provided for the correspondence Information of this application.**

Customer Number	41066		
Email Address	officeaction@mhbpatents.com	Add Email	Remove Email

Application Information:

Title of the Invention	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE		
Attorney Docket Number	WYAT-0002.USD1C1C1	Small Entity Status Claimed	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	7	Suggested Figure for Publication (if any)	

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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.

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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		Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Continuation of	14981757	2015-12-28

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Title of Invention	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE	

Prior Application Status	Patented				Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
14981757	Continuation of	14680979	2015-04-07	9224083	2015-12-29
Prior Application Status	Patented				Remove
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
14680979	Division of	14217261	2014-03-17	9022286	2015-05-05
Prior Application Status	Expired				Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)		
14217261	Claims benefit of provisional	61794891	2013-03-15		

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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)[i] 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).

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Application Number	Country[i]	Filing Date (YYYY-MM-DD)	Access Code[i] (if applicable)

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

☐ 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.
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.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	WYAT-0002.USD1C1C1
	Application Number	
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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.

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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.

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Title of Invention	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE	

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.

Applicant 1 Remove

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.

Clear

● Assignee	Legal Representative under 35 U.S.C. 117	Joint Inventor
Person to whom the inventor is obligated to assign.	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:

If the Applicant is an Organization check here. ☒

Organization Name	Virtual Electric Inc.		
Mailing Address Information For Applicant:			
Address 1	1314 Vanna Ct		
Address 2			
City	San Jose	**State/Province**	CA
Country	US	Postal Code	95131
Phone Number		Fax Number	
Email Address			

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Assignee Information including Non-Applicant Assignee Information:

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Assignee 1

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.

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If the Assignee or Non-Applicant Assignee is an Organization check here. ☐

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

Signature	/Anthony C. Murabito/			Date (YYYY-MM-DD)	2017-09-11
First Name	Anthony	Last Name	Murabito	Registration Number	35295

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Title of Invention	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE	

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.**

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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.

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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 CooperationTreaty.

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.

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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.

MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE

RELATED APPLICATIONS

[0001] This continuation application claims the benefit of and priority to co-pending, commonly owned U.S. Patent Application Serial No. 14/981,757, now U.S. Patent 9,760,884, filed 12/28/2015, entitled "Multi-Functional Credit Card Type Portable Electronic Device," to inventor David Wyatt, which in turn claimed the benefit of and priority to U.S. Non-provisional Patent Application No. 14/680,979, now U.S. Patent 9,224,083, entitled "Multi-Functional Credit Card Type Portable Electronic Device," filed April 7, 2015 to inventor David Wyatt, which claims the benefit of and priority to U.S. Non-provisional Patent No. 14/217,261, entitled "Multi-Functional Credit Card Device," filed March 17, 2014 to inventor David Wyatt, which claims the benefit of and priority to U.S. Provisional Patent No. 61/794,891, entitled "Multi-Functional Credit Card Device," filed March 15, 2013 to inventor David Wyatt, each of which are hereby incorporated herein in their entirety by reference.

FIELD OF THE INVENTION

[0002] Embodiments according to the present disclosure generally relate to electronic or smart credit card devices and, more specifically, to more secure, smart credit card devices.

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BACKGROUND OF THE INVENTION

[0003] There are several different types of credit cards available in the marketplace at present. A first type of credit card is a conventional, standard piece of plastic with a magnetic strip, which is readily available and in wide commercial use. The advantage of this first type of credit card is that a large portion of the infrastructure for credit card transactions is built around this type of card, and consequently such a card works in a wide array of vendors' credit card machines, automated teller machines (ATMs), and other devices that support the present credit card and banking infrastructure.

[0004] Another type of credit card device employs the use of a smart integrated circuit chip. These types of credit cards have a built in microprocessor with cryptographic capabilities. These microprocessors operate in a similar manner to a cell phone having a chip comprising a cryptographic processor. Such a smart card device requires contact with a reader in order to be read and to perform a transaction. The reader provides the manner in which a facility interacts with the built-in processor on the card, e.g., for purposes of performing verification on the authenticity of the card or for making a direct deposit on the card. These credit card devices also comprise a magnetic strip such that they are compatible with standard plastic credit card readers in wide use.

[0005] A different type of credit card device in circulation employs radio frequency identification ("RFID"). These cards essentially have a low-power RF antenna built into the card, and when the cardholder passes the antenna in front of a reader comprising an RF field, enough power is generated to enable the processor to interact wirelessly with the receiving device.

[0006] A concern with each of these types of credit cards presently available in the marketplace is that they can all be, in various ways, susceptible to theft and/or compromise. Therefore, these types of

credit cards have security limitations. Further, cards employing smart integrated circuit chips and RF technology are not in wide use at present because they are incompatible with existing credit card infrastructure, which still predominantly supports conventional plastic credit cards.

SUMMARY OF THE INVENTION

[0007] This Summary is provided to introduce a selection of concepts in a simplified form that are further described below in the Detailed Description. This Summary is not intended to identify key features or essential features of the claimed subject matter, nor is it intended to be used to limit the scope of the claimed subject matter.

[0008] An embodiment includes a credit card device capable of generating a programmed magnetic field of alternating polarity based on a speed of a card swipe, and methods for constructing the device for the purpose of emulating a standard credit card. An apparatus is described to allow said device to emulate behavior of a credit card when used in electronic credit card readers. Additionally methods are described to allow user control of said device for the purpose of authorizing or controlling use of said device in the application of credit, debit and cash transactions, including cryptocurrency and card-to-card transactions. Methods are also described for generating a limited-duration credit card number when performing a transaction for the purpose of creating a limited-use credit card number, which is limited in scope of use to a predetermined number of authorized transactions. Furthermore said device may interact with other similar devices in proximity for the purpose of funds or credit/debit transfers.

[0009] More specifically, an aspect of the present disclosure provides an apparatus comprising: a thin card shaped sized body; a memory operative to store a plurality of identification data; a processor coupled to the memory; a user interface for selecting a select identification data of said plurality of identification data; a magnetic card reader detection unit for determining if the body is adjacent to a standard magnetic card reader; and an inductor assembly coupled to the processor and integrated into the body, the inductor assembly under processor control for generating a magnetic field of alternating polarity responsive to the body being detected as adjacent to a standard magnetic card reader, the magnetic field generated in a region substantially encompassing the standard magnetic card reader, wherein the magnetic field encodes said select identification data, and wherein the magnetic field is operable to be read by a magnetic read head of the standard magnetic card reader.

[0010] According to another aspect of the present disclosure, a credit card device comprises: a near-field communication (NFC) unit; a touch sensor array; a display; a motion rate detection array; a memory, storing a user data and a currency amount; and a processor operatively coupled to the NFC unit, the touch sensor array, the display, the motion rate detection array, and the memory; and wherein the processor initiates a card-to-card transaction between two credit card devices by a detected proximity of a first credit card device and a second credit card device and an input of information by a first user via said touch sensor array, and wherein the card-to-card transaction comprises an exchange of stored currency and said user data between the first credit card device and the second credit card device via the NFC unit.

[0011] According to yet another aspect of the present disclosure, a method of performing a transaction comprises: receiving an input signal at a credit card device from a user enabling operation of a near-field communication (NFC) unit of the credit card device; receiving an indication of an

amount of currency for a transaction; generating at said credit card device a limited-duration credit card number; and transmitting said limited-duration credit card number from said credit card device to a recipient of the transaction.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] Embodiments of the present disclosure are illustrated by way of example, and not by way of limitation, in the figures of the accompanying drawings and in which like reference numerals refer to similar elements.

[0013] Figure 1 is an illustration depicting an exemplary interaction between a credit card device and a standard magnetic card reader, according to an embodiment of the present disclosure.

[0014] Figures 2A-2B are block diagrams illustrating data flow between the magnetic coils on the credit card device and the microprocessor on the credit card according to an embodiment of the present disclosure.

[0015] Figure 2C depicts an exemplary process of selecting an account from a plurality of stored accounts according to an embodiment of the present disclosure.

[0016] Figure 3 is a flowchart illustrating an exemplary process of generating a magnetic field with an alternating polarity according to an embodiment of the present disclosure.

[0017] Figures 4A-4B illustrate a user interacting with a touch sensor of the credit card device, according to an embodiment of the present disclosure.

[0018] Figure 5 is an illustration of a credit card device connected with a computing system and operating according to an embodiment of the present disclosure.

[0019] Figure 6 is an illustration of two credit card devices performing a transaction according to an embodiment of the present disclosure.

[0020] Figure 7 depicts an exemplary process according to an embodiment of the present disclosure.

DETAILED DESCRIPTION OF THE INVENTION

[0021] Reference will now be made in detail to the various embodiments of the present disclosure, examples of which are illustrated in the accompanying drawings. While described in conjunction with these embodiments, it will be understood that they are not intended to limit the disclosure to these embodiments. On the contrary, the disclosure is intended to cover alternatives, modifications and equivalents, which may be included within the spirit and scope of the disclosure as defined by the appended claims. Furthermore, in the following detailed description of the present disclosure, numerous specific details are set forth in order to provide a thorough understanding of the present disclosure. However, it will be understood that the present disclosure may be practiced without these specific details. In other instances, well-known methods, procedures, components, and circuits have not been described in detail so as not to unnecessarily obscure aspects of the present disclosure.

[0022] Some portions of the detailed descriptions which follow are presented in terms of procedures, steps, logic blocks, processing, and other symbolic representations of operations on data bits that can be performed on computer memory. These descriptions and representations are the means used by those skilled in the data processing arts to most effectively convey the substance of their work to others skilled in the art. A procedure, computer generated step, logic block, process,

etc., is here, and generally, conceived to be a self-consistent sequence of steps or instructions leading to a desired result. The steps are those requiring physical manipulations of physical quantities. Usually, though not necessarily, these quantities take the form of electrical or magnetic signals capable of being stored, transferred, combined, compared, and otherwise manipulated in a computer system. It has proven convenient at times, principally for reasons of common usage, to refer to these signals as bits, values, elements, symbols, characters, terms, numbers, or the like.

[0023] It should be borne in mind, however, that all of these and similar terms are to be associated with the appropriate physical quantities and are merely convenient labels applied to these quantities. Unless specifically stated otherwise as apparent from the following discussions, it is appreciated that throughout the present claimed subject matter, discussions utilizing terms such as "storing," "creating," "protecting," "receiving," "encrypting," "decrypting," "destroying," or the like, refer to the action and processes of a computer system or integrated circuit, or similar electronic computing device, including an embedded system, that manipulates and transforms data represented as physical (electronic) quantities within the computer system's registers and memories into other data similarly represented as physical quantities within the computer system memories or registers or other such information storage, transmission or display devices.

ENCODING VIA AN ALTERNATING POLARITY OF A MAGNETIC FIELD

[0024] In one embodiment of the present disclosure, a smart credit card device comprises a dynamic magnetic region (strip) incorporating a main inductor assembly from which programmed magnetic field data symbols are dynamically generated. In one embodiment the inductor assembly may be a planar coil formed within the material that embodies the credit card. An advantage of using a planar coil is that it can dynamically produce a magnetic field in such a manner as to emulate the

interaction between a traditional magnetic strip and a conventional credit card reader. As the magnetic strip of a conventional credit card is passed through a magnetic reader head, stripes of alternating magnetic polarity embedded in the strip induce a magnetic field of alternating polarity at the reader head. The pattern formed by the alternating polarity of the magnetic field encodes information, which when transformed by a transducer to a current signal in the magnetic reader head, provides user information for a transaction.

[0025] Embodiments of the present disclosure provide a credit card device able to generate a programmed magnetic field, wherein data is encoded and represented by an alternating polarity of the generated magnetic field. In a similar manner to a conventional plastic credit card, the magnetic field produced by the planar coil is able to be read by a pickup (or "transducer") and to thereby transmit information to the magnetic card reader. Figure 1 illustrates a credit card transaction 100 performed between a credit card device 101 and a conventional magnetic reader 150. The credit card device 101 generates a magnetic field of alternating polarity 120 to be read by the conventional magnetic card reader 150, according to an embodiment of the present disclosure. The credit card device 101 is moved at a rate 130 relative to a magnetic reader head 155 of conventional magnetic card reader 150. The magnetic field 120 extends with sufficient distance and intensity from credit card 101 so as to be read by magnetic head reader 155. The magnetic head reader 155 responds to the magnetic field 120 by producing a current in the conventional fashion, which is then interpreted as encoded information by the magnetic reader 150. Therefore the magnetic field of alternating polarity 120 produced by the credit card device 101 has a substantially identical encoding effect as a traditional magnetic strip.

[0026] A characteristic of encoding information in a conventional magnetic card strip is that binary information is encoded by the pattern of alternating magnetic polarity formed by ferromagnetic

stripes embedded on the magnetic strip. As the conventional magnetic card strip has a standardized format, the encoding of information is provided at a specified data density (bits per inch), according to which conventional magnetic readers are designed for interpretation of encoded data. In order to most ably emulate a conventional credit card interaction with a conventional magnetic reader the credit card device 101 of the present disclosure is provided with a means of determining a substantially optimal rate for alternating the polarity of the generated magnetic field 120 in order to produce data at a rate which is able to be readily received and correctly interpreted by the conventional magnetic reader 150. Embodiments of the present disclosure provide several means of determining the relative movement rate 130 between the credit card device 101 and the magnetic reader head 155. These features, as well as other characteristics of the credit card device of the present disclosure, can be better appreciated by a description of the internal components and functions of credit card device 101.

[0027] Figures 2A and 2B depict exemplary embodiments of the smart credit card device, in a block diagram view. The components of the block diagram are illustrated according to functional connections, and their locations should not be construed as being limited to the respective locations as depicted in Figures 2A-2B. In Figure 2A, credit card device 201a is shown in a block diagram view. Credit card device 201a comprises a processor 205 and a memory unit 207, the processor 205 operatively coupled to the components of credit card device 201a. The memory 207 comprises a plurality of accounts 209, which may be credit card accounts, banking accounts, merchant accounts, online accounts, cryptocurrency accounts, and combinations thereof. A motion detection module 210 is coupled to the processor unit 205 and to a set of motion detection units, which comprise a rate detection assembly 225, an optical sensor array 230, and a set of accelerometers 235. The magnetic field is generated via a planar coil 220, which is controlled by the processor unit 205 via a coil

interface 215. The rate at which the magnetic field changes polarity to encode the user data depends on the rate of relative movement detected by the rate detector. The credit card device 201a further comprises a real-time clock 240, a touch-sensor array 245, and a display 250, each operatively coupled to the processor unit 205. A user input may be made via the touch sensor array 245, which may comprise a touch screen panel, a keypad, or a combination thereof. The display 250 is able to display an alphanumeric sequence, as well as graphical icons (such as a logo for a bank, or other images). Further, an optional backup power source 255 is depicted.

[0028] In one embodiment, the processor unit 205 is connected to the planar coil 220 and the motion detection units, via the motion detection module 210. The processor unit 205 is responsible for determining the appropriate rate with which to output data from the planar coil 220, wherein output data is encoded using alternating polarity of a generated magnetic field. The rate of the alternating polarity of the magnetic field is generated in accordance with the detected movement speed with which the card is swiped through the reader, in order for the reader to receive the encoded data at the appropriate rate. Magnetic card readers, which are designed to read conventional credit cards, are constructed to read data at specified input rates that correspond with the data density present in conventional magnetic card strips. The magnetic data symbols generated by the planar coil 220 are produced to align with the rate at which data is being read by the magnetic card reader. Accordingly, it is irrelevant if the credit card device 201a of the present disclosure is being swiped quickly or slowly, the planar coil 220 is controlled by the processor unit 205 to produce data at a substantially optimized rate, where the rate of data production is dependent on the rate at which the credit card device 201a is detected to be passing across the magnetic reader head.

[0029] Figure 2B depicts a credit card device 201b according to an embodiment of the present disclosure. Credit card device 201b comprises a processor 205 and a memory unit 207, the processor 205 operatively coupled to the components of credit card device 201b. The memory 207 comprises a plurality of accounts 209, which may be credit card accounts, banking accounts, merchant accounts, online accounts, cryptocurrency accounts, and combinations thereof. A motion detection module 210 is coupled to the processor unit 205 and to a set of motion detection units, which comprise a rate detection assembly 225, an optical sensor array 230, and a set of accelerometers 235. Additionally, a galvanic sensor 275 is coupled to processor unit 205. The magnetic field is generated via a planar coil 220, which is controlled by the processor unit 205 via a coil interface 215. The rate at which the magnetic field changes polarity to encode the user data depends on the rate of relative movement detected by the rate detector. The credit card device 201b further comprises a real-time clock 240, a touch-sensor array 245, and a display 250, each operatively coupled to the processor unit 205. A user input may be made via the touch sensor array 245, which may comprise a touch screen panel, a keypad, or a combination thereof. The display 250 is able to display an alphanumeric sequence, as well as graphical icons (such as a logo for a bank, or other images). Further, an optional backup power source 255 is depicted. Credit card device 201b further comprises a near-field communication (NFC) unit 260, as well as a radio frequency identification (RFID) unit 265, both of which are operatively coupled to the processor unit 205. In one embodiment the NFC and RFID may share the planar coil for use as a RF antennae, through the coil interface 215. In one embodiment one or both the NFC andthe RFID may have antennae dedicated to that individual sub-system. A universal serial bus (USB) connector 270 is coupled to the processor unit 205. The functionality of the components with regard to exemplary uses of credit card devices 201a and 201b is described in greater detail in the following description.

[0030] A further aspect of the present disclosure provides a single credit card device that can be used for multiple banks or financial institutions. For example, instead of carrying a separate credit card for each account of a variety of credit card companies, a customer need only to carry a single card according to embodiments of the present disclosure. The capability of the credit card device to generate a multitude of credit card numbers provides the ability of the credit card device to be associated with multiple accounts. Futhermore, inputs at the touch sensor array on the credit card device can be used to select the appropriate bank or credit provider account stored in the memory unit of the credit card device.

[0031] Figure 2C depicts a process of selecting an account from a plurality of stored accounts in order to perform a transaction with the selected account, according to an embodiment of the present disclosure. The process 280 begins at step 282, where a plurality of accounts stored by the credit card device memory is displayed. The plurality of accounts 209 are stored by memory 207, and are displayed using display 250. A user indicates an account selected from the plurality of accounts at step 284. The selection is able to be made by keypad or touch sensor array 245, and an indication of the selected account can be displayed via display 250. At step 286 the credit card device is configured according to account information associated with the selected account, which may include an account number, an expiration date, and other user information associated with the account (e.g. a username, PIN, password, email address, etc.). At step 288 the planar coil of the credit card device is encoded with a limited-duration credit card number that is associated with the selected account. The limited-duration credit card number is able to be generated according to the selected account, a timestamp, a transaction amount, an indicated merchant, user key or secrets, on-card unique hardware secrets,

credit card authority key or secrets, user input from the card interface, and other information associated with the transaction.

MOVEMENT RATE FEEDBACK

[0032] The relative movement rate of credit card device 201a is detected by one or more of the set of motion detection units, comprising the rate detection assembly 225, the optical sensor array 230, and the set of accelerometers 235. Each of the motion detection units detects the motion of the credit card 201a in a distinct manner. The rate detection assembly 225, which is positioned alongside (but independent of) the planar coil 220, is able to detect the location of a magnetic head reader as the rate detection assembly 220 is being passed through the credit card reader. The reader module of a conventional credit card reader comprises a metal head having a small gap at the tip of the head. A pickup armature resides in this gap, such that as the metal head passes over a credit card strip, an electric field is induced in the head reader pickup circuit. In one embodiment the rate detection assembly 225 is constructed of an array of auxiliary inductor coils and magnetic pickup coils. As the metal head of the card reader assembly passes over the arrangement of auxiliary inductor coils and magnetic pickup coils of the rate detection assembly 225, a disturbance in the magnetic field flowing between the two is induced, generating a change in current and producing a detected movement signal. The change in current is detected by the motion detection module 210, and is used to determine the rate of motion of the card reader head passing across the surface of the credit card device 201a (and therefore along the planar coil 220).

[0033] The optical sensor array 230 is also operable to detect a movement rate of the credit card device 201a with respect to a conventional magnetic card reader. The optical sensor array 230 is disposed nearby the planar coil 220, in order to accurately detect a movement rate in the region of the

planar coil 220. In an embodiment, the optical sensor array 230 is a thin strip parallel to, and extending along, the length of the planar coil 220. The optical sensor array 230 determines a location of a minimum of received light, which corresponds to the region of a surface in nearest proximity to the optical sensor array 230. The magnetic reader head of a conventional magnetic card reader extends furthest from the surface of the card reader, and therefore the detected minimum in received light at the optical sensor array 230 corresponds with the location of the reader head. By tracking over time the position of this minimum received light along the optical sensor array, a detected movement rate may be found.

[0034] The set of accelerometers 235 are also operable to detect a movement rate of the credit card device 201a. The set of accelerometers 235 are positioned in the credit card device 201a in order to effectively measure the position and acceleration of the credit card device 201a. In an embodiment, the set of accelerometers comprises groups of accelerometers, each group having one or more accelerometers disposed at orthogonal planes to each other, and each group capable of generating signals that allow for determination of the orientation, motion and acceleration of the credit card device 201a.

[0035] The detected movement signal is received by the motion detection module 210. The detected movement signal is generated by any one of the set of motion detection units, or any combination of motion detection units of the set. For example, the movement detection signal is able to be generated by the combination of the rate detection assembly 225 and the optical sensor array 230. In an embodiment, the movement detection module 210 is able to determine the movement rate of the credit card device 201a from the detected movement signals, and transmits the determined movement rate, and orientation to the processor unit 205. In an embodiment, the motion detection

module 210 sends the detected movement signal to the processor unit 205, and the processor unit 205 determines the relative movement rate.

[0036] In one embodiment, the generation of the magnetic field by the planar coil 220 at a specified rate of alternating polarity is accomplished according to the following description. One or more of the motion detection units in the set of motion detection units (rate detection assembly 225, optical sensor array 230, and set of accelerometers 235) detect a movement rate of the credit card device 201a with respect to a magnetic card reader, and signal the motion detection module 210. The movement rate is provided to the processor unit 205, which determines the appropriate rate for alternating the polarity of the magnetic field generated by the planar coil 220. The processor unit 205 outputs instructions or data to the coil interface 215 at the determined rate, which in an embodiment is a digital-to-analog converter (a DAC) and acts to translate the signal from digital to analog in order to drive the planar coil 220 and produce the magnetic field. The instructions from the processor unit 205 are comprise binary code, which are output through a shift register to the coil interface 215. The shift register outputs data at a rate proportional to the determined movement rate of the credit card device 201a – thus, a higher determined credit card device 201a movement rate has a corresponding higher output rate at the shift register, leading to a higher rate of alternating polarity at the generated magnetic field (i.e., encoded data symbols output more quickly). Conversely, a lower movement rate of credit card device 201a leads the processor unit 205 to control the shift register to output data at a lower rate, and consequently the rate of alternating polarity in the generated magnetic field is lower.

[0037] Figure 3 illustrates an exemplary process 300 for determining the rate to alternate the polarity of the generated magnetic field of the credit card device, according to an embodiment of the present disclosure. At step 301 the process determines if a standard magnetic card reader is detected

to be in proximity with the credit card device. If NO, the step repeats. If YES, the process moves to step 303. At step 303 a detection of a movement rate at which the body of the credit card device is moving relative to the standard magnetic card reader is made. The process continues at step 305, wherein a magnetic field is generated by an inductor assembly comprised by the credit card device, the magnetic field having a target rate of alternating polarity that is based on the detected movement rate from step 303. The process then repeats at step 301, determining if a standard magnetic card reader is (or remains) in proximity to the credit card device. In this manner, while a standard magnetic card reader is detected to be in proximity to the credit card device, the movement rate of the credit card device is determined and the polarity and orientation of the generated magnetic field is alternated at the appropriate rate, to recreate the data as described above, at the correct rate, in order to clock out the data to be conveyed to the magnetic strip reader, at a rate matching the action of an ordinary magnetic strip card through same said magnetic card reader.

SECURITY

[0038] Security is an area of concern for credit card holders, as the small form factor makes theft quite easy, and additionally there are many ways for a malicious third-party to record the account number of a credit card in order to later make fraudulent transactions on the account. Embodiments of the present disclosure address security concerns of a credit card owner on several fronts.

[0039] In one aspect, security of the credit card device is enhanced by providing a means of locking the credit card device in order to prevent use, until such time that a valid user input is entered. Embodiments of the present disclosure provide a credit card device having a region for receiving human input, e.g., touch sensors which are able to be formed by contacts that a user can press (e.g., the touch sensor array 245 of Figures 2A-2B). Figures 4A-4B illustrate a user interacting with a credit

card device 401 via a keypad or touch sensor array 445. In Figure 4A, the credit card device 401 is in a locked state. A display 450 is able to display a message to the user, for instance, the message "device locked" or "enter password," or question prompts which guide the user to respond with answers through said key-pad or said touch sensor, to certain preset questions, that confirm personal knowledge known only to the associated user. The touch sensor array 445 enables user interaction with the credit card device 401. An exemplary use of the touch sensor array 445 is an input of a currency amount to be used in a transaction. The touch sensor array 445 is able to include buttons, or a touch-sensitive pad, or a combination of the two. Other embodiments of the touch sensor array 445 allowing a user to input data to the credit card device 401 are consistent with the spirit and scope of the present disclosure.

[0040] In order to unlock the credit card device 401 and enable a transaction or other usage, the user inputs data via the touch sensor array 445. Figure 4B illustrates the user inputting a password via a gesture 470, which operates to unlock the credit card device 401. The display 450b is able to display a message indicating the credit card device 401 is unlocked and ready for use, for instance, display 450b may display the message "unlocked," or it may display an account number associated with the credit card device 401.

[0041] Embodiments of the present disclosure provide additional functionality for the touch sensor array 445. For example, there may be touch contact terminals that a user can press to wake up the credit card device 401, to cause the battery to supply power, or to place the credit card device 401 in a power reduction mode when it is not being used. In an embodiment, if any number other than the correct password is entered multiple times, or if there is an attempted usage of the credit card device

401 without entering in a password, an automatic phone call may be triggered to the appropriate fraud protection authorities.

[0042] In one embodiment of the present disclosure, the display 450 is a thin-film liquid crystal display ("LCD"). The display 450 is able to have multiple uses. In one embodiment, the display 450 can be used to cue the user for a security question upon input of an improper password. Or if fraud protection services need to contact a customer, they can verify the customer's identity by transmitting a security question to the display 450 of user's credit card device 401, to which the user would need to respond correctly using the input buttons of touch sensor 445 on the card.

LIMITED-DURATION CREDIT CARD NUMBER

[0043] A further security feature of the credit card device provided in the present disclosure is the capability of producing a limited-duration credit card number for performing transactions using accounts of the card. The credit card device comprises a real-time clock that is able to produce a cryptographically protected timestamp for each interaction. The power source is able to activate the processor unit such that a unique number may be generated by the credit card device and verified by the credit authority according to the timestamp and the transmitted user information. The limited-duration credit card number is able to be produced at the time the credit card device is performing a transaction, and is able to be generated according to the user's private information, a bank information, information regarding the facility performing the transaction, and the time of day. The limited-duration credit card number is able to be limited to only one transaction, a finite number of transactions, or may be limited to a specified period of time – e.g., 2 minutes, 10 minutes, 3 hours – after which time that particular limited-duration number would become invalid. As detailed above, if an expired limited-duration credit card is attempted to be used for a transaction, the transaction is

denied and an automatic notification is able to be made to a credit authority in order to notify the user and to prevent transactions on the account. The transaction count is able to be determined through the action of passing the card through magnetic reader, and the process of transmitting said card number to said card reader.

[0044] In one embodiment, the number on the front of the card is able to be a full or partial number. In an embodiment, the number displayed on the credit card device is a static number, but the number transmitted during a transaction is a limited-duration credit card number as described above. The number displayed on the credit card device may not necessarily be a static number. For example, the first four and last four digits of the credit card number are able to be fixed, while the remaining eight digits can be dynamically generated. As the credit card is read by the machine, part or all of the number may be dynamically produced at the time the card is read. As described above, the dynamic part of the limited-duration credit card number generated may be based on the user's private information, the user's bank information, the time of day or the facility that is reading the card. Further, the expiration date of the credit card device can also be dynamically generated.

[0045] Effectively, embodiments of the present disclosure provide a credit card device that has no fixed number, and therefore the account cannot be compromised. Only the number generated at the instant of the credit card transaction matters. Accordingly, unauthorized use of the credit card device is highly unlikely, because a transaction cannot be conducted with an expired limited-duration credit card number, or only the static portion of the credit card number. In one embodiment of the present disclosure, sufficient dynamically generated numbers are provided for on the credit card such that a unique credit card number can be generated for each transaction. In this embodiment, the credit card of the present disclosure effectively acts as a unique per-transaction credit card.

[0046] In one embodiment, the process steps enabling a card transaction are as follows. A credit card device (e.g., credit card device 201b) is connected to a computer system (e.g. computer system 590), via any of the connection means available to the credit card device (USB 270, NFC 260, and RFID 265). User data and other essential information, such as account information, are downloaded to the credit card device. For example, for an account designed for online transactions, user account information will likely include an account email and an account password. The account may be for example a bank account, a credit account, a merchant account, an online transaction account, or a cryptocurrency. In one embodiment a currency amount is also downloaded, which is made accessible to the credit card device 201b for transactions. In an alternative embodiment, rather than a currency amount being downloaded to the credit card device 201b, the user account information (e.g., username and password) is stored such that a subsequent authorized credit card device 201b transaction is automatically pre-authorized to deduct (or credit) the entered transaction amount at a stored account. In an embodiment, a user uses the touch sensor array 245 of the credit card device 201b in order to input the user information, including the amount of currency to be stored. The information entered by the user is able to include an account source of a transaction (e.g., bank account, credit account, merchant account, ATM, online payment service, or a cryptocurrency), as well as a type of transaction to be made (e.g., as a debit card, as a credit card, or as a user account). In another embodiment, the information is entered using the computing system to which the credit card device 201b is connected.

[0047] Transactions may be authenticated on the specified account by entry of the username and password for the account during the transaction, using the touch sensor array 245. In an embodiment, a password for an account is represented by a user input (such as a gesture, a swipe, and/or an unlock keycode) which is entered on credit card device 201b during a transaction for account authentication.

According to an embodiment of the present disclosure, a user that has "primed" the credit card device 201b for a transaction has already performed a security authentication on the card, and therefore a subsequent card transaction is able to be pre-authorized to perform the transaction without further user authentication steps. The priming action can be a tap of the credit card device 201b detected by accelerometers 235, or a gesture, swipe, or a key input received by touch sensor array 245.

[0048] A transaction is able to be communicated using the planar coil 220. In one embodiment, when the transaction is a credit card transaction, a limited-duration credit card number is generated. A user inputs an amount for the transaction using the touch sensor array 245, and the limited-duration credit card number is generated to correspond with the entered amount. The binary data corresponding to this limited-duration credit card number is sent from the processor unit 205 to the coil interface 215, where it is converted to an analog signal in order to drive the planar coil 220 to generate a magnetic field having an alternating polarity corresponding to the encoded data of the limited-duration credit card number.

ONLINE TRANSACTIONS

[0049] Figure 5 displays the credit card device 501 in connection with a computing device 590. In one embodiment, the credit card device 501 is able to be used to make online purchases. In one embodiment, the credit card device 501 is equipped with a means 570 for communicating with the USB port on a computer or other device in order to make online purchases. In one embodiment the credit card device 501 may have an area cut-out, such that contact terminals corresponding to a USB cable connector are contained within, enabling connection of a USB cable (e.g., a micro-USB connection). When performing online transactions, the credit card device 501 can uniquely generate a limited-duration credit card number (as described above) for online purchases. The credit card device 501 receives a user input indicating that a transaction is imminent, and an authorization. The user input is able to comprise a gesture, a swipe, a key input sequence, and combinations thereof. The limited-duration credit card number is able to be displayed on the front display of the credit card device 501. In one embodiment, the credit card device 501 is able to use RFID 265 or near field communication NFC 260 technology in order to connect to a personal computer 590. This enables a per-transaction, limited-use credit card number, enhancing the security of the credit account by substantially negating the possibility of a theft of the credit card number used to perform the transaction leading to account compromise.

[0050] According to an embodiment, the transaction is able to include information regarding a user account, such as an email address of the user, and upon reconnection of credit card device 201b to a computer system (for instance, computer system 590), the transaction information stored on credit card device 201b could be "replayed" by the computer system in order to finalize the transaction.

[0051] In one embodiment, a means of limiting an available credit amount are provided. According to the download process described above, the credit card device is able to have a total credit available. The credit card device is able to reference the total credit available in subsequent transactions, and will provide limited-duration credit card numbers corresponding to amounts up to, but not exceeding, the remaining credit available to the credit card device. An attempt to perform a transaction having an amount exceeding the remaining credit available will not result in a valid limited-duration credit card number, and therefore an authenticated transaction cannot proceed. In general, the credit card device will only successfully generate a limited-duration credit card number if the proper conditions for a transaction are determined to be present. The proper conditions for a transaction comprise a correct identification having been made by the user (via a gesture, swipe, and/or key input) and an amount for the transaction indicated to be less than the total credit available to the account indicated for the transaction.

CARD-TO-DEVICE TRANSACTIONS

[0052] In addition to transactions performed using conventional magnetic card readers (such as at point-of-sale locations, banks, and automated teller machines (ATMs)) and via cable connection with a computing device, transactions performed wirelessly between a card and a device (e.g., card-to-card, card-to-computer device having a reader dongle, card-to-ATM) are provided according to embodiments of the present disclosure. For simplicity, the following describes a card-to-card transaction, but it will be understood that card-to-device transactions are similarly provided.

[0053] Figure 6 illustrates a card-to-card transaction according to one embodiment. A first credit card device 601a comprises a display 650a, and is in contact with a second credit card device 601b. A contact interaction between the cards is indicated by interaction 680. In one embodiment, the contact

interaction is a tapping of credit card device 601a against credit card device 601b. In another embodiment, an optical sensor array at one or both of the cards detects interaction 680. In another embodiment, interaction 680 indicates a swipe of credit card device 601a across credit card device 601b. In one embodiment a user input through said key-pad initiates and enables a transaction from first card to second card. In one embodiment the presence of second card in preparation for card to card transaction is confirmed through "polling", the process of which involves transmission of data between cards, and confirmed receipt of transmitted data by response received from second card received at first card, including information confirming receipt of said information, by second card.

[0054] The planar coil comprised by each of credit card device 601a and credit card device 601b is able to be a means of transferring information for a transaction, e.g., such as an antenna. Once either, or both, of credit card device 601a and credit card device 601b detect interaction 680, a transaction is able to be completed via generation of a magnetic field at one card and reception of the magnetic field (i.e., reading) at the other card. In this manner, the card (e.g., credit card device 601a) receiving the transaction information operates its planar coil in an antenna mode. This enables credit card device 601a and credit card device 601b to authentically perform a transaction, and to transfer a currency between credit card device 601a and credit card device 601b. As described above, in an embodiment the transaction is able to use a limited-duration card number to encode the transaction.

[0055] In an embodiment, a set of accelerometers is used to detect the beginning of the transaction, for instance, a transaction performed by a swipe of credit card device 601a across credit card device 601b. Further, the set of accelerometers can detect a "priming" action for a credit card device, i.e., an indication for a credit card device that a transaction is imminent. The priming action

can be a tap of the credit card device 601a, or tapping the credit card device 601a against the credit card device 601b. In one embodiment, a touch sensor array is able to be used for the priming action.

[0056] In an embodiment of a card-to-card transaction, one card (e.g. 601a, the card of the user having a currency debit) generates the limited-duration credit card number, which is transmitted via the card's planar coil. The credit card device of the recipient (e.g., 601b, the card of the user receiving a currency credit) receives the encoded data via the planar coil, acting as an antenna, and the coil interface is able to convert the received signal into a digital signal understood by the processor to be the limited-duration credit card number, identifying both the correct account and the amount of the transaction.

[0057] In one embodiment, the credit card device 201b stores cryptocurrency information in processor unit 205. The cryptocurrency information stored is able to include a plurality of cryptocurrency addresses, a plurality of private keys, and a plurality of public keys. The credit card device 201b is able to perform a transaction, as described above, using a cryptocurrency as the specified account. In one embodiment, the credit card device 201b is able to hash a portion of the transaction, using the processor unit 205 and the real-time clock 240 along with user information pertinent to the cryptocurrency account and the transaction. A subsequent connection of the credit card 201b to a computing device provides a means of connecting to the cryptocurrency servers and finalizing the transaction. Further, the credit card device 201b is able to sign a cryptocurrency transaction by, for instance, receiving a prompt at the display 250 to input a dynamic PIN specific to the transaction, which is able to be entered by touch sensor array 245.

[0058] In a card-to-card cryptocurrency exchange, a record of the transaction can be made according to the following. A first card (e.g. 601a) making a deduction with an amount indicated via touch sensor array 245 is able to generate a record of the transaction and store the record in the card memory, while a second card (e.g. 601b) receiving the cryptocurrency is able to generate a confirmation of the received transaction amount. In one embodiment, the amount indicated is provided by the receiving card 601b. The hashed record of the transaction contains the unique information of each user, along with the transaction amount. The success or failure of the transaction is able to be displayed on the respective displays of credit cards 601a and 601b.

ACCOUNT THEFT AND UNINTENDED USE PREVENTION

[0059] A security concern for conventional credit cards utilizing wireless communication means is the ability of a thief to access and/or copy user information through un-detected interaction with the wireless communication means. Sensitive and confidential information can be gleaned via, for example, "listening-in" on an RFID interaction between a credit card and a contactless reader, recording the characteristics of the interaction, and replicating certain characteristics to fake an authorized transaction. While to a great extent security concerns are addressed by the usage of limited-duration credit card numbers and other security features provided for by the credit card of the present disclosure and previously described, a further security feature regarding the wireless communication means of the credit card device is described herein.

[0060] In one embodiment, wireless communication means of the credit card device 201b are in a powered-down, or disabled, state prior to receiving an authenticated activation signal from a user. Upon receiving the activation signal, the communication means (e.g., NFC 260, RFID 265, and planar coil 220) are activated, enabling the credit card device 201b to conduct a transaction. The activation

signal can originate from one (or a combination) of the set of motion detection units (rate detection 225, optical sensor array 230, and accelerometers 235), the touch sensor array 245, and the galvanic sensor 275. The galvanic sensor 275 is operable to detect a contact of human skin, via a current produced at the sensor 275 upon such contact. In an embodiment the galvanic sensor 275 is comprised of metallic contacts disposed on opposite sides of, and isolated by, the body of credit card device 201b. In one embodiment, the current produced by user contact with the galvanic sensor 275 contacts is sufficient to provide small amounts of energy in order to power components of the card. For example, energy produced is able to power the processor unit 205 and the RFID 265. In one embodiment the galvanic sensor 275 further comprises two conducting surfaces separated by a junction, and the galvanic sensor 275 is configured as a thermoelectric generator (e.g., via the Peltier effect, the Seebeck effect, or a combination). For example, heat applied at one surface of the credit card device 201b may lead to differential heating between the opposing, separated conducting surfaces of the galvanic sensor 275, generating an electric current and powering a subset of, or all of, the components of credit card device 201b (e.g., the processor unit 205, the NFC 260, and the RFID 265).

[0061] In an embodiment, the communication means are activated only so long as the activation signal continues to be detected. In another embodiment, the communication means are activated for a specified amount of time following detection of the activation signal. For example, if using the credit card device 201b in an ATM (or other device) preventing continuous human contact, the activation signal is able to be a swipe, gesture, or key input sequence entered via the touch sensor array 245, which activates the card for a specified duration (for instance, one minute). In an embodiment the detection of motion through accelerometer input indicates activation by a valid user. In one embodiment the specific motion detected through accelerometer input corresponding with a specific

user action, such as a “flick”, “swipe”, “spin”, “wave”, “tap,” may be used to initiate activation, wherein said motion is not normally generated at idle and during periods of inactivity. For example said motion not being generated accidentally while said card is stored in a user’s wallet, carried while the user is actively moving, or is being handed from user to a clerk at a point of transaction. In one embodiment the specific motion, or sequence of motions, may be associated with a user, and stored on said card memory, such that performing the correct sequence when prompted can confirm the possession of the card by the known owner, thus initiating activation and enabling usage.

[0062] Figure 7 depicts a process of selectively enabling the communication capability of the credit card device according to an embodiment of the present disclosure. The process 700 begins at step 701, where an input signal is received at the credit card device from a user. The input signal is able to be generated by any one, or combination, of a plurality of input means, where the input means comprise: a swipe gesture received at a touch sensor array; a key press sequence; an accelerometer sensor indication of credit card device motion; and a galvanic sensor indication that the credit card is in a user grasp. The input received from the user enables operation of a near-field communication (NFC) unit of the credit card device. In one embodiment, the NFC unit is disabled prior to receiving the input signal. In one embodiment, an RFID communication unit is disabled prior to receiving the input signal, and is activated by the input signal. In one embodiment, the planar coil is disabled prior to receiving the input signal, and is activated by the input signal.

[0063] The credit card device, following enablement of the NFC unit, receives an indication of an amount of currency for a transaction at step 703. At step 705, the credit card device generates a limited-duration credit card number, which at step 707 is transmitted to a recipient of the transaction.

In one embodiment, the limited-duration credit card number has a limited recurrence, and is limited in scope of use to a predetermined number of authorized transactions.

[0064] In the foregoing description of process 700, the ordering of the process steps is exemplary and should not be construed as limiting. Alternative ordering of the process steps is consistent with the present disclosure, as conceived by one skilled in the relevant art.

[0065] The foregoing description, for purpose of explanation, has been described with reference to specific embodiments. However, the illustrative discussions above are not intended to be exhaustive or to limit the invention to the precise forms disclosed. Many modifications and variations are possible in view of the above teachings. The embodiments were chosen and described in order to best explain the principles of the invention and its practical applications, to thereby enable others skilled in the art to best utilize the invention and various embodiments with various modifications as may be suited to the particular use contemplated.

[0066] Embodiments according to the invention are thus described. While the present disclosure has been described in particular embodiments, it should be appreciated that the invention should not be construed as limited by such embodiments, but rather construed according to the below claims.

CLAIMS

What is claimed is:

1. A credit card device comprising:

a near-field communication (NFC) unit;

a touch sensor array;

a display;

a motion rate detection array;

a memory, storing a user data and a currency amount; and

a processor operatively coupled to the NFC unit, the touch sensor array, the display, the motion rate detection array, and the memory; and

wherein the processor initiates a card-to-card transaction between two credit card devices by a detected proximity of a first credit card device and a second credit card device and an input of information by a first user via said touch sensor array, and wherein the card-to-card transaction comprises an exchange of stored currency and said user data between the first credit card device and the second credit card device via the NFC unit.

2. The credit card of Claim 1, wherein the motion rate detection array comprises a set of motion rate detection units, wherein the set comprises: a plurality of inductor coils and companion magnetic-field pickup coils; an optical sensor array; and a plurality of accelerometers, and wherein the detected proximity is determined from at least one of the set of motion rate detection units.

3. The credit card device of Claim 2, wherein the plurality of accelerometers generate an indication of the detected proximity in response to a contact between the first and the second credit card devices.

4. The credit card device of Claim 1, wherein the input of information by the first user comprises one or more of:

an introduction of a transaction-specific identifier;

a confirmation or a denial of an indicated transaction; and

a lock/unlock command determining operation of the first credit card device according to an input sequence or a gesture across the plurality of touch sensors.

5. The credit card device of Claim 1, further comprising a real-time clock which generates a sequential parameter when the processor initiates a transaction, wherein the sequential parameter is combined with any of a user information, a transaction identifier, a user secret, and a credit card authority secret and the processor is operable to generate a limited-duration credit card number therefrom.

6. The credit card device of Claim 5, wherein the limited-duration credit card number has a limited recurrence, and is limited in scope of use to a predetermined number of authorized transactions.

7. The credit card device of Claim 5, wherein the display enables information to be displayed regarding the limited-duration credit card number, the time, a passcode, a sequence code, a

currency amount, and other credit card transaction information of the user, a merchant, a bank or a credit card authority.

8. The credit card device of Claim 5, wherein the card-to-card transaction comprises a cryptographic hash of the transaction unit, wherein the cryptographic hash is processed and stored by at least one of the first credit card device and the second credit card device.

9. The credit card device of Claim 1, further comprising a USB connector for connection to a standard computing device.

MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE

ABSTRACT

An embodiment includes a credit card device capable of generating a programmed magnetic field of alternating polarity based on a speed of a card swipe, and methods for constructing the device for the purpose of emulating a standard credit card. An apparatus is described to allow said device to emulate behavior of a credit card when used in electronic credit card readers. Additionally methods are described to allow user control of said device for the purpose of authorizing or controlling use of said device in the application of credit, debit and cash transactions, including cryptocurrency and card-to-card transactions. Methods are also described for generating a limited-duration credit card number when performing a transaction for the purpose of creating a limited-use credit card number, which is limited in scope of use to a predetermined number of authorized transactions. Furthermore said device may interact with other similar devices in proximity for the purpose of funds or credit/debit transfers.

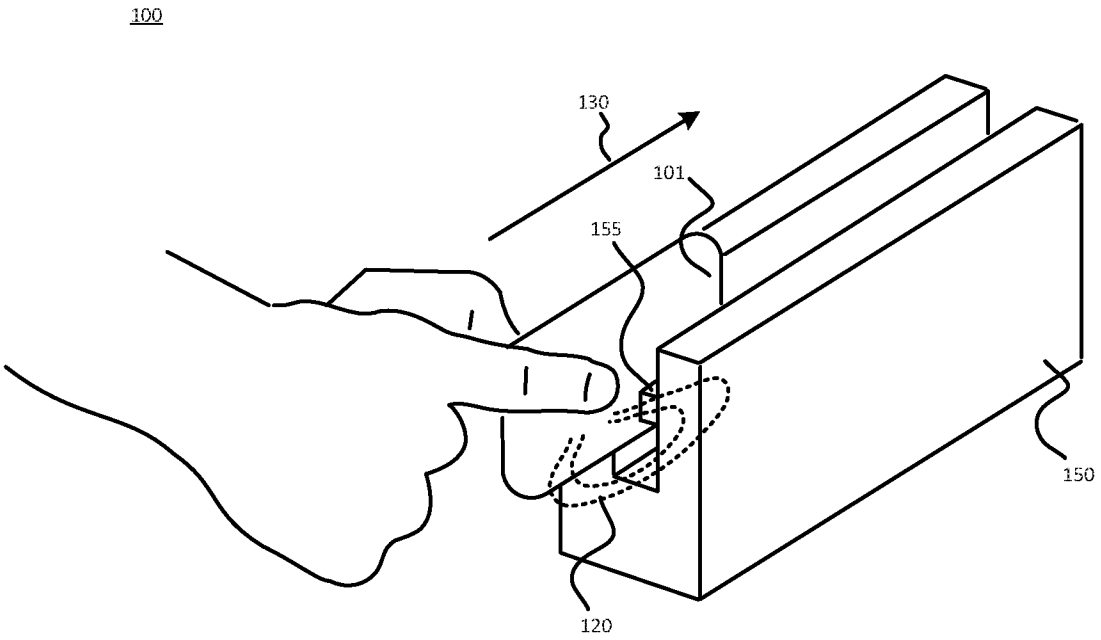

FIG. 1

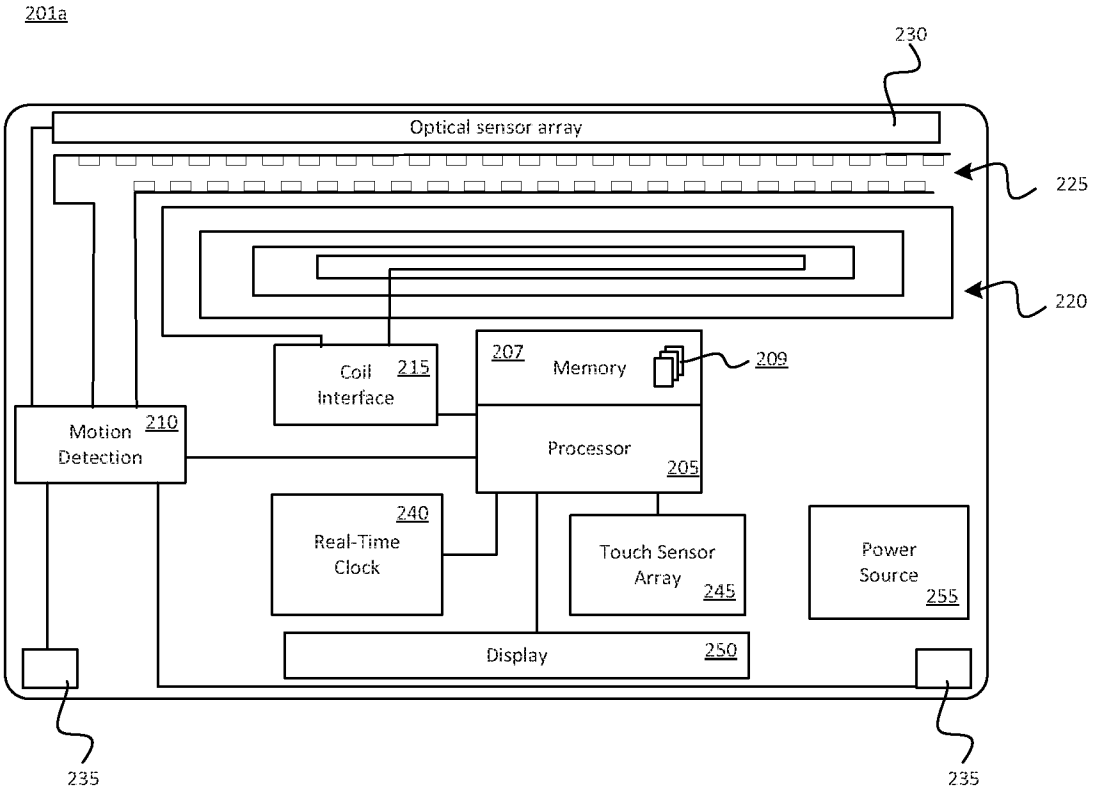
201a
230
Optical sensor array
225
220
Coil Interface 215
207
Memory
209
Motion Detection 210
Processor
205
240
Real-Time Clock
Touch Sensor Array
245
Power Source
255
Display
250
235
235

FIG. 2A

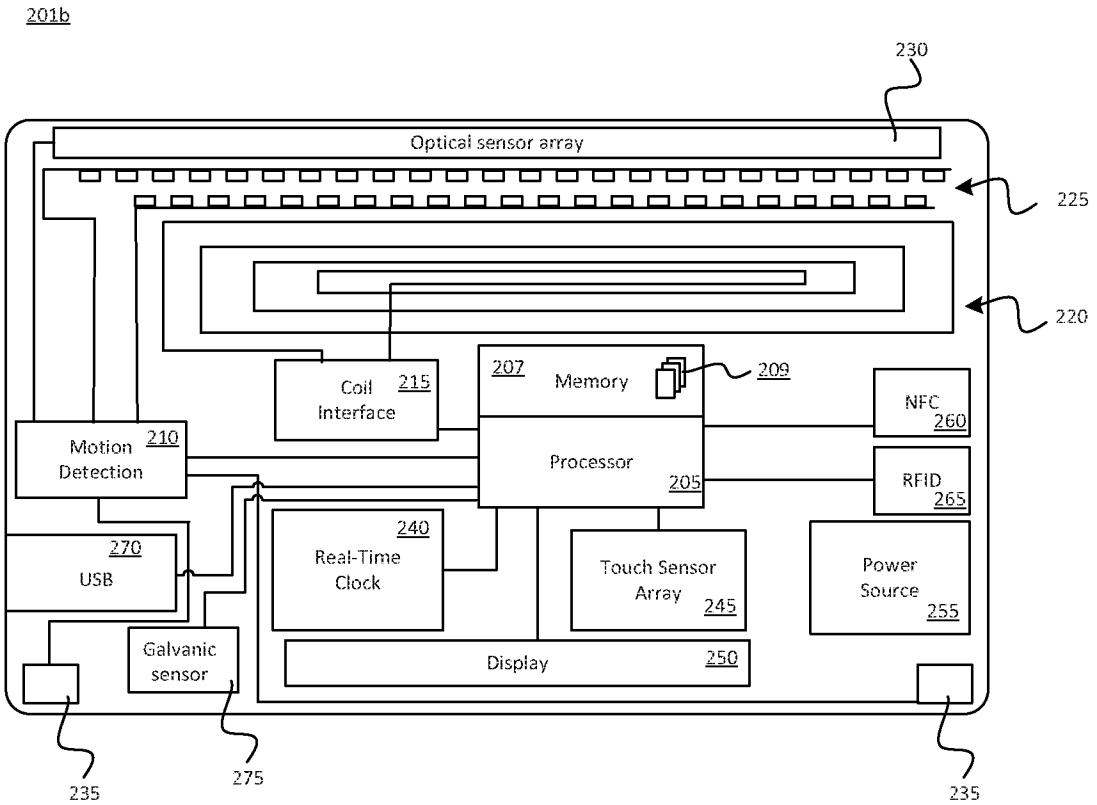
201b
230
Optical sensor array
225
220
Coil Interface 215
207
Memory
209
NFC
260
Motion Detection 210
Processor
205
RFID
265
270
USB
240
Real-Time Clock
Touch Sensor Array
245
Power Source
255
Galvanic sensor
Display
250
235
275
235

FIG. 2B

280

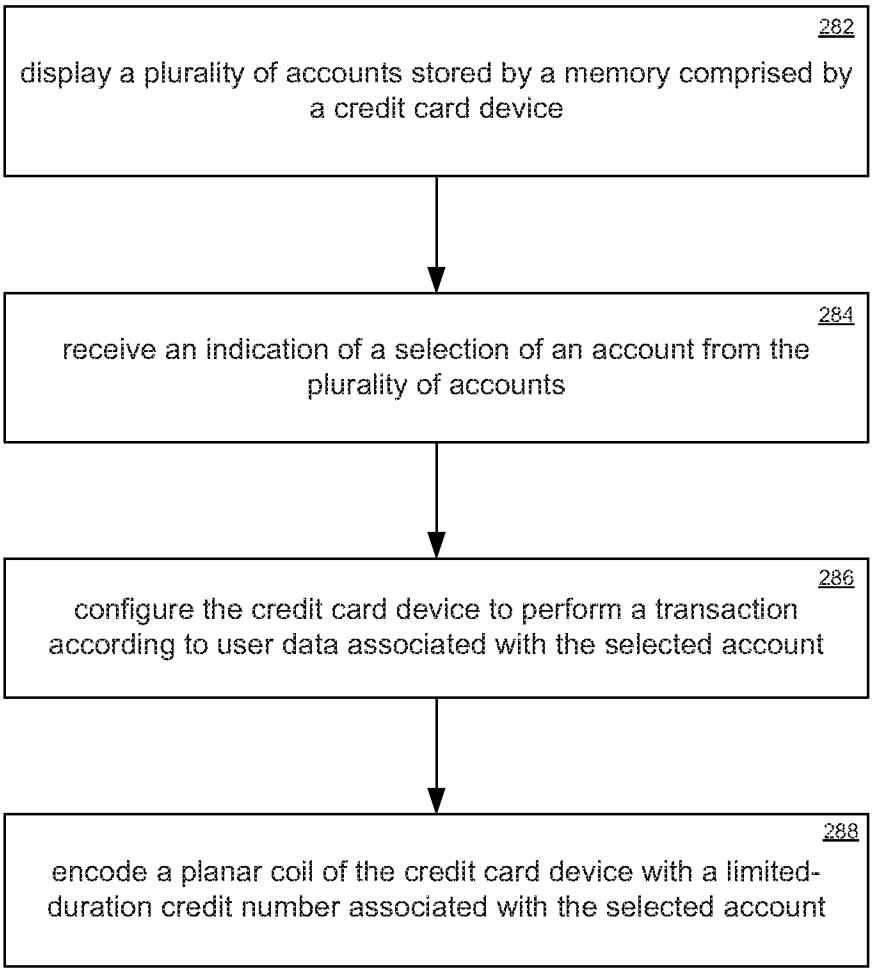
282
display a plurality of accounts stored by a memory comprised by a credit card device
284
receive an indication of a selection of an account from the plurality of accounts
286
configure the credit card device to perform a transaction according to user data associated with the selected account
288
encode a planar coil of the credit card device with a limited-duration credit number associated with the selected account

FIG. 2C

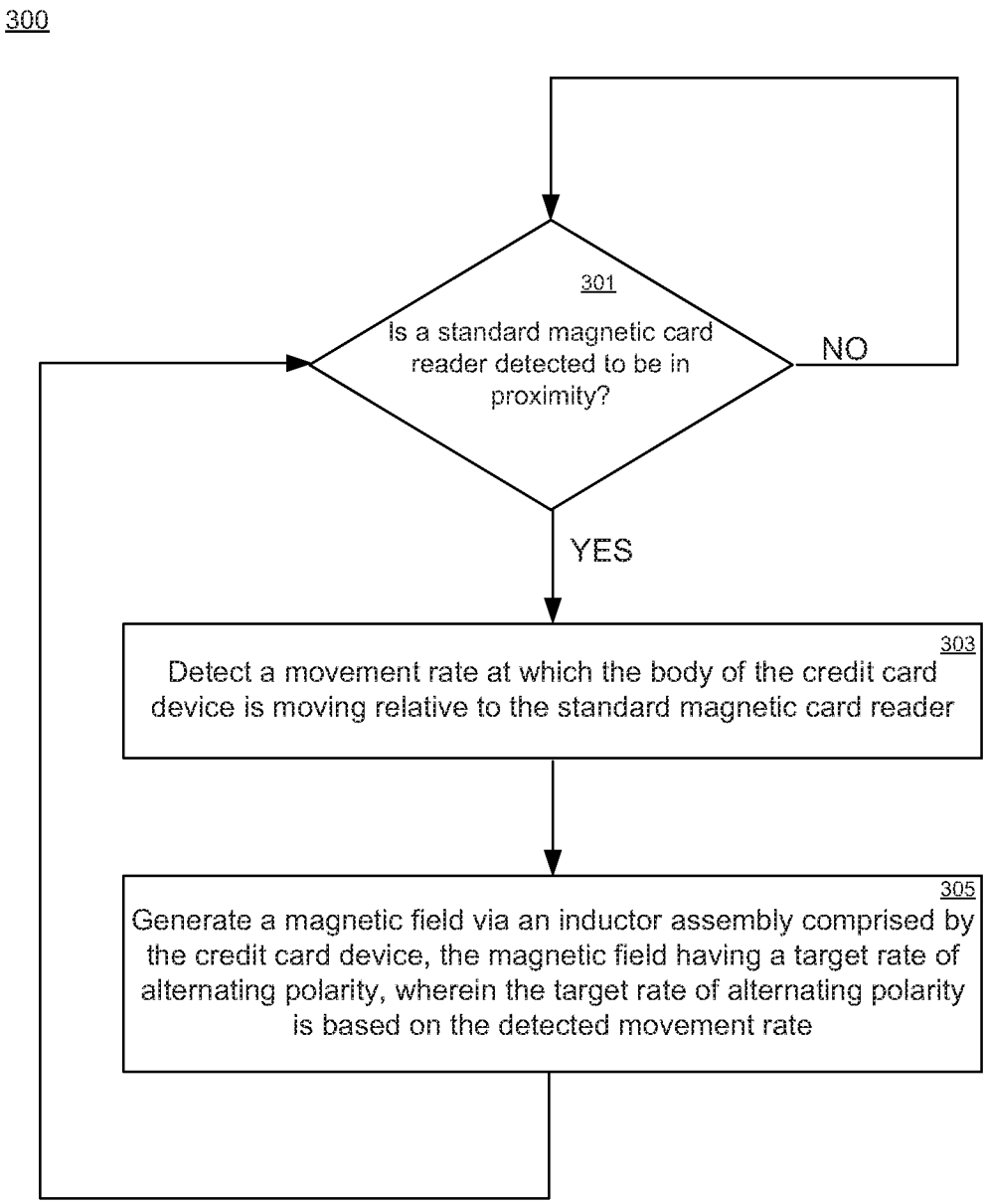
300
301
Is a standard magnetic card reader detected to be in proximity?
NO
YES
303
Detect a movement rate at which the body of the credit card device is moving relative to the standard magnetic card reader
305
Generate a magnetic field via an inductor assembly comprised by the credit card device, the magnetic field having a target rate of alternating polarity, wherein the target rate of alternating polarity is based on the detected movement rate

FIG. 3

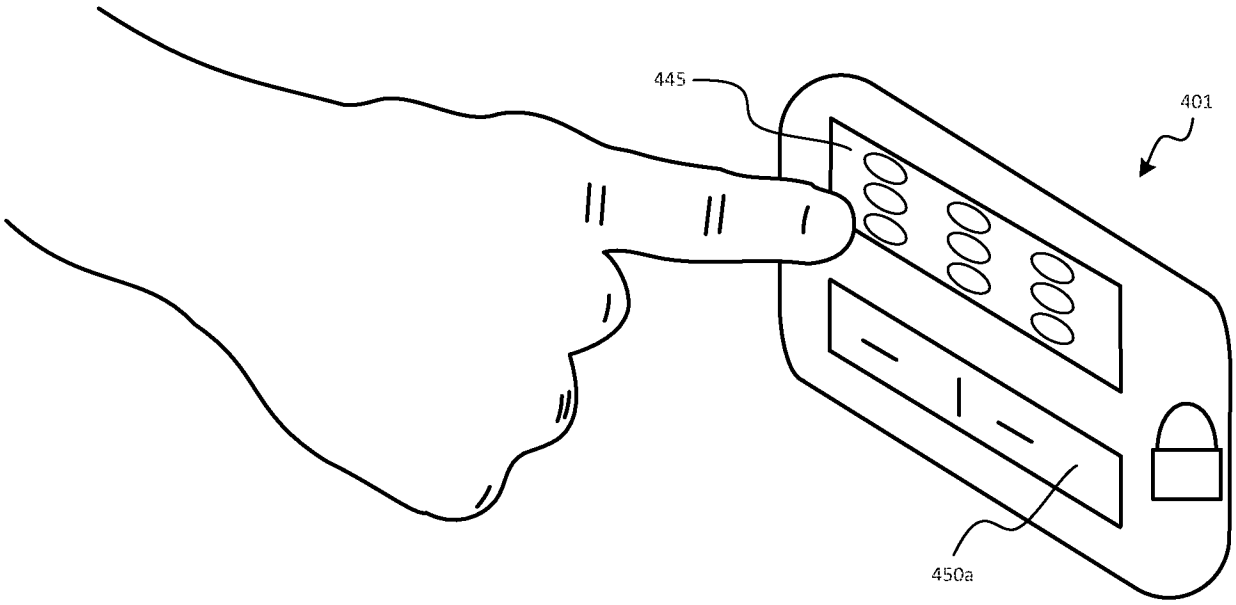

FIG. 4A

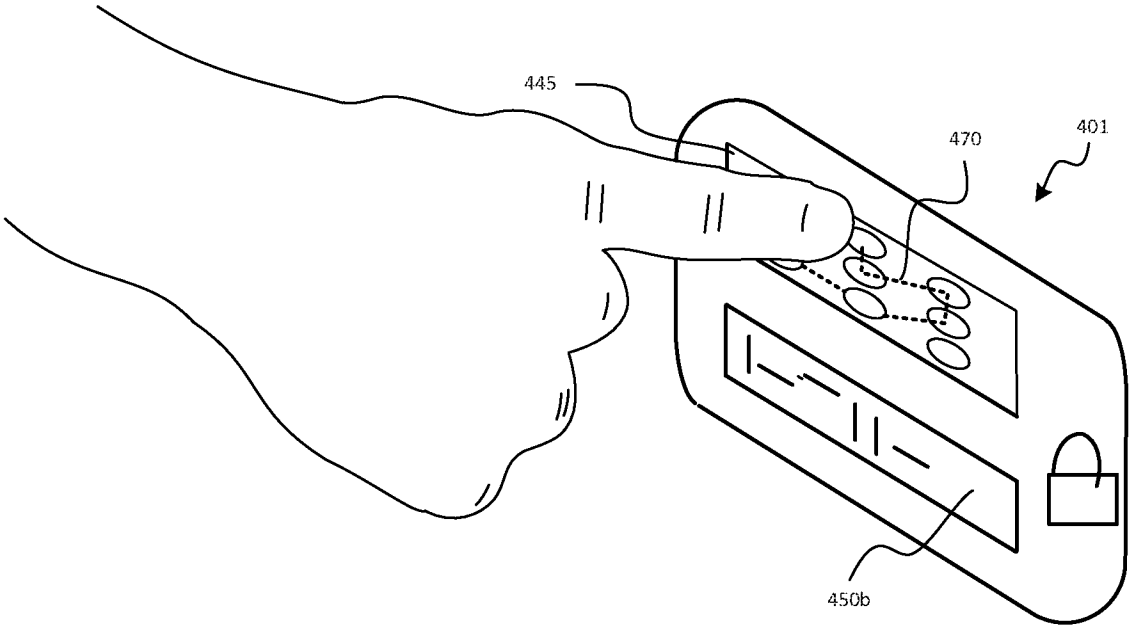

FIG. 4B

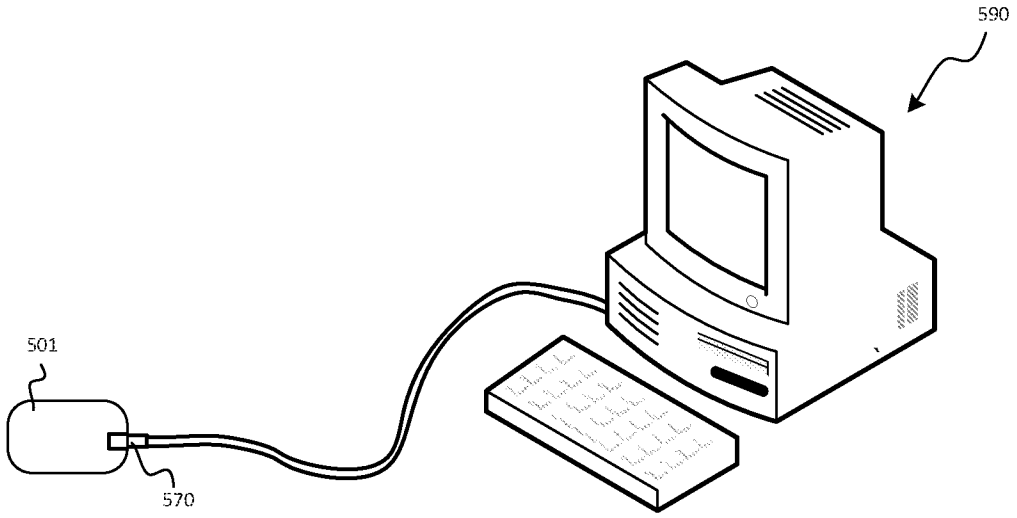

FIG. 5

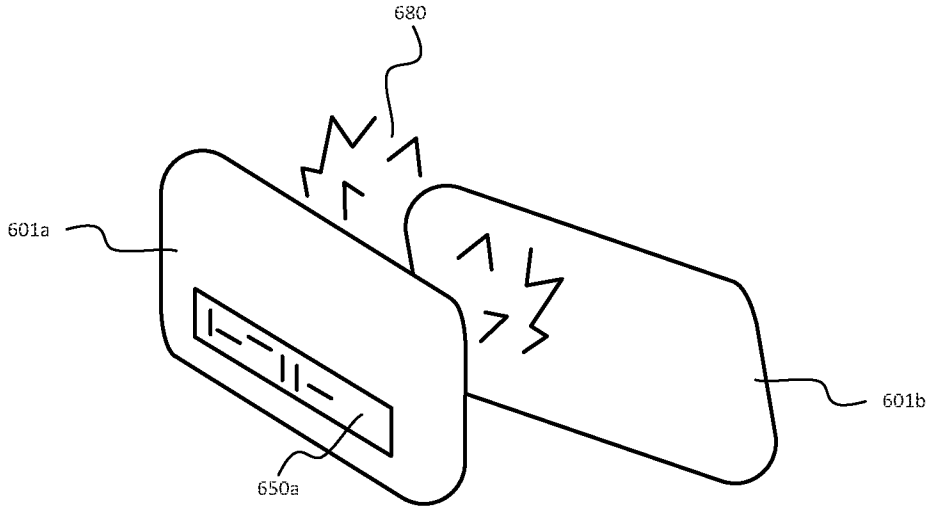

FIG. 6

700

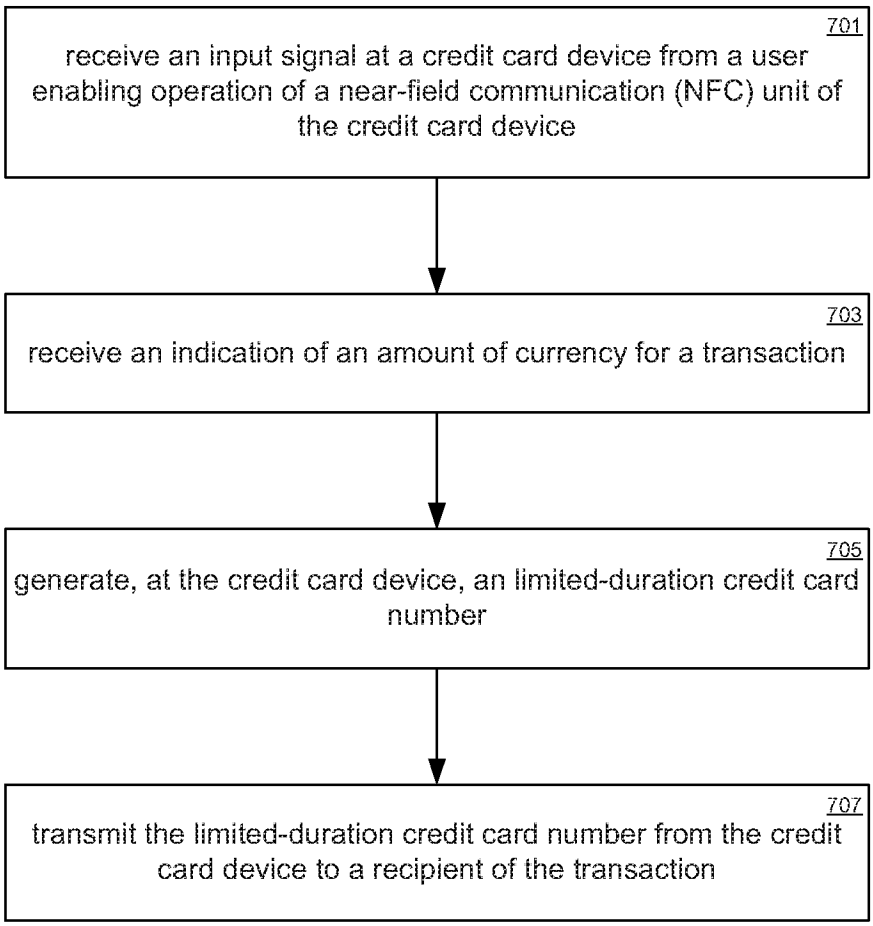
701
receive an input signal at a credit card device from a user enabling operation of a near-field communication (NFC) unit of the credit card device
703
receive an indication of an amount of currency for a transaction
705
generate, at the credit card device, an limited-duration credit card number
707
transmit the limited-duration credit card number from the credit card device to a recipient of the transaction

FIG. 7

Electronic Acknowledgement Receipt

EFS ID:	30330002
Application Number:	15701261
International Application Number:	
Confirmation Number:	2165
Title of Invention:	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
First Named Inventor/Applicant Name:	David WYATT
Customer Number:	41066
Filer:	Anthony C. Murabito/Donna Petford
Filer Authorized By:	Anthony C. Murabito
Attorney Docket Number:	WYAT-0002.USD1C1C1
Receipt Date:	11-SEP-2017
Filing Date:	
Time Stamp:	19:28:24
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	Application Data Sheet	WYAT-0002USD1C1C1_ADS_09-11-2017-.pdf	1793296 2dc1503b12fd42cbbb6eb7095a2ad62edfe9c67c	no	8

Warnings:

Information:					
2		WYAT-0002USD1C1C1_Patent_App_09-11-2017.pdf	164113 b1ea9ca9b29a774847f4cf284314b780abd4e38e	yes	34
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Specification		1	30	
	Claims		31	33	
	Abstract		34	34	
Warnings:					
Information:					
3	Drawings-only black and white line drawings	WYAT-0002USD1C2_US_FIGURES.pdf	46794 2739eb91011d99e141616e0d16bf314ef892e272	no	7
Warnings:					
Information:					
		Total Files Size (in bytes):	2004203		

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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.
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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.

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
15/701,261	09/11/2017	2876	0.00	WYAT-0002.USD1C1C1	9	1

CONFIRMATION NO. 2165

FILING RECEIPT

OC000000094210811

41066
MURABITO, HAO & BARNES LLP
TWO NORTH MARKET STREET
THIRD FLOOR
SAN JOSE, CA 95113

Date Mailed: 09/21/2017

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)

David WYATT, San Jose, CA;

Applicant(s)

Virtual Electric Inc., San Jose, CA;

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a CON of 14/981,757 12/28/2015 PAT 9760884
which is a CON of 14/680,979 04/07/2015 PAT 9224083
which is a DIV of 14/217,261 03/17/2014 PAT 9022286
which claims benefit of 61/794,891 03/15/2013

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

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: 09/20/2017

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/701,261**

Projected Publication Date: To Be Determined - pending completion of Missing Parts

Non-Publication Request: No

Early Publication Request: No
**** SMALL ENTITY ****
Title

MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE

Preliminary Class

235

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

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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.

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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).

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Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number
15/701,261

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	70		N/A	
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	300		N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	360		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	9 minus 20 =	*	x 40 =	0.00	OR		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	1 minus 3 =	*	x 210 =	0.00			
APPLICATION SIZE FEE (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			
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	730		TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
AMENDMENT A	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
AMENDMENT A	Application Size Fee (37 CFR 1.16(s))									
AMENDMENT A	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE($)	ADDITIONAL FEE($)		RATE($)	ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
AMENDMENT B	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
AMENDMENT B	Application Size Fee (37 CFR 1.16(s))									
AMENDMENT B	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/701,261	09/11/2017	David WYATT	WYAT-0002.USD1C1C1

CONFIRMATION NO. 2165

FORMALITIES LETTER

41066
MURABITO, HAO & BARNES LLP
TWO NORTH MARKET STREET
THIRD FLOOR
SAN JOSE, CA 95113

OC000000094210612

Date Mailed: 09/21/2017

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

Items Required To Avoid Abandonment:

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The statutory basic filing fee is missing.
- The application search fee must be submitted.
- The application examination fee must be submitted.
- Surcharge as set forth in 37 CFR 1.16(f) must be submitted.
  The surcharge is due for any one of:
  - late submission of the basic filing fee, search fee, or examination fee,
  - late submission of inventor's oath or declaration,
  - filing an application that does not contain at least one claim on filing, or
  - submission of an application filed by reference to a previously filed application.

SUMMARY OF FEES DUE:

The fee(s) required within **TWO MONTHS** from the date of this Notice to avoid abandonment is/are itemized below. Small entity discount is in effect. If applicant is qualified for micro entity status, an acceptable Certification of Micro Entity Status must be submitted to establish micro entity status. (See 37 CFR 1.29 and forms PTO/SB/15A and 15B.)

- $ **70** basic filing fee.
- $ **70** surcharge.
- $ **300** search fee.
- $ **360** examination fee.
- $(**0**) previous unapplied payment amount.
- $ **800** TOTAL FEE BALANCE DUE.

Items Required To Avoid Processing Delays:

Applicant is notified that the above-identified application contains the deficiencies noted below. No period for reply is set forth in this notice for correction of these deficiencies. However, if a deficiency relates to the inventor's

oath or declaration, the applicant must file an oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each actual inventor no later than the expiration of the time period set in the "Notice of Allowability" to avoid abandonment. See 37 CFR 1.53(f).

- A properly executed inventor's oath or declaration has not been received for the following inventor(s):
  David WYATT

Replies must be received in the USPTO within the set time period or must include a proper Certificate of Mailing or Transmission under 37 CFR 1.8 with a mailing or transmission date within the set time period. For more information and a suggested format, see Form PTO/SB/92 and MPEP 512.

Replies should be mailed to:

Mail Stop Missing Parts
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web, including a copy of this Notice and selecting the document description "Applicant response to Pre-Exam Formalities Notice". https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html

For more information about EFS-Web please call the USPTO Electronic Business Center at 1-866-217-9197 or visit our website at http://www.uspto.gov/ebc.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/dmnguyen/

Electronic Patent Application Fee Transmittal

Application Number:	15701261
Filing Date:	11-Sep-2017
Title of Invention:	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
First Named Inventor/Applicant Name:	David WYATT
Filer:	Anthony C. Murabito/Mina Oliveri
Attorney Docket Number:	WYAT-0002.USD1C1C1

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
UTILITY FILING FEE (ELECTRONIC FILING)	4011	1	75	75
UTILITY SEARCH FEE	2111	1	330	330
UTILITY EXAMINATION FEE	2311	1	380	380
Pages:				
Claims:				
Miscellaneous-Filing:				
LATE FILING FEE FOR OATH OR DECLARATION	2051	1	80	80
Petition:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Extension - 5 months with $0 paid	2255	1	1500	1500
Miscellaneous:				
		Total in USD ($)		**2365**

Electronic Acknowledgement Receipt

EFS ID:	32315108
Application Number:	15701261
International Application Number:	
Confirmation Number:	2165
Title of Invention:	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
First Named Inventor/Applicant Name:	David WYATT
Customer Number:	41066
Filer:	Anthony C. Murabito/Mina Oliveri
Filer Authorized By:	Anthony C. Murabito
Attorney Docket Number:	WYAT-0002.USD1C1C1
Receipt Date:	11-APR-2018
Filing Date:	11-SEP-2017
Time Stamp:	19:40:24
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	EFT
Payment was successfully received in RAM	$2365
RAM confirmation Number	041218INTEFSW19442600
Deposit Account	504160
Authorized User	Mina Oliveri

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Fee Worksheet (SB06)	fee-info.pdf	39138 7051464035c1231aa360ff828cee4f37280be278	no	2

Warnings:

Information:

Total Files Size (in bytes):	39138

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 NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
15/701,261	09/11/2017	2876	865	WYAT-0002.USD1C1C1	9	1

CONFIRMATION NO. 2165

UPDATED FILING RECEIPT

OC000000099733374

41066
MURABITO, HAO & BARNES LLP
TWO NORTH MARKET STREET
THIRD FLOOR
SAN JOSE, CA 95113

Date Mailed: 05/22/2018

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)

David WYATT, San Jose, CA;

Applicant(s)

Virtual Electric Inc., San Jose, CA;

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a CON of 14/981,757 12/28/2015 PAT 9760884
which is a CON of 14/680,979 04/07/2015 PAT 9224083
which is a DIV of 14/217,261 03/17/2014 PAT 9022286
which claims benefit of 61/794,891 03/15/2013

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

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: 09/20/2017

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/701,261**

Projected Publication Date: 08/30/2018

Non-Publication Request: No

Early Publication Request: No
**** SMALL ENTITY ****
Title

MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE

Preliminary Class

235

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 AssetsControl, 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 NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/701,261	09/11/2017	David WYATT	WYAT-0002.USD1C1C1

CONFIRMATION NO. 2165

41066
MURABITO, HAO & BARNES LLP
TWO NORTH MARKET STREET
THIRD FLOOR
SAN JOSE, CA 95113

INFORMAL NOTICE

OC000000099733375

Date Mailed: 05/22/2018

INFORMATIONAL NOTICE TO APPLICANT

Applicant is notified that the above-identified application contains the deficiencies noted below. No period for reply is set forth in this notice for correction of these deficiencies. However, if a deficiency relates to the inventor's oath or declaration, the applicant must file an oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each actual inventor no later than the expiration of the time period set in the "Notice of Allowability" to avoid abandonment. See 37 CFR 1.53(f).

The item(s) indicated below are also required and should be submitted with any reply to this notice to avoid further processing delays.

- A properly executed inventor's oath or declaration has not been received for the following inventor(s):
  David WYATT

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/mnguyen/

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number
15/701,261

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	75		N/A	
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	330		N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	380		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	9 minus 20 =	*	x 50 =	0.00	OR		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	1 minus 3 =	*	x 230 =	0.00			
APPLICATION SIZE FEE (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			
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	785		TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
AMENDMENT A	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
AMENDMENT A	Application Size Fee (37 CFR 1.16(s))									
AMENDMENT A	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE($)	ADDITIONAL FEE($)		RATE($)	ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
AMENDMENT B	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
AMENDMENT B	Application Size Fee (37 CFR 1.16(s))									
AMENDMENT B	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
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
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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/701,261	09/11/2017	David WYATT	WYAT-0002.USD1C1C1	2165

41066 7590 06/12/2018
MURABITO, HAO & BARNES LLP
TWO NORTH MARKET STREET
THIRD FLOOR
SAN JOSE, CA 95113

EXAMINER
LEE, SEUNG H

ART UNIT	PAPER NUMBER
2887	

MAIL DATE	DELIVERY MODE
06/12/2018	PAPER

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.

Office Action Summary	Application No. 15/701,261	Applicant(s) WYATT, DAVID	
	Examiner SEUNG LEE	Art Unit 2887	AIA (First Inventor to File) Status 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 _____.

☐ 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) 1-9 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) 1-9 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 or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ 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. _____.

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) ☒ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

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

DETAILED ACTION

Double Patenting

2. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process... may obtain a patent therefor..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the claims that are directed to the same invention so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

3. Claims 1-9 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims of prior U.S. Patent No. 9224083. This is a statutory double patenting rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEUNG LEE whose telephone number is (571)272-2401. The examiner can normally be reached on Monday-Friday, 7:30 AM- 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven S. Paik can be reached on (571) 272-2404. 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.

/SEUNG LEE/
Primary Examiner, Art Unit 2887

Notice of References Cited	Application/Control No. 15/701,261	Applicant(s)/Patent Under Reexamination WYATT, DAVID	
	Examiner SEUNG LEE	Art Unit 2887	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-9,224,083 B2	12-2015	Wyatt; David	G07F19/00	1/1
	B	US-				
	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 Country Code-Number-Kind Code	Date 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
L1	27	"680979"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2018/06/11 09:05
L13	1	"9224083".pn.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2018/06/11 09:06
S1	40	"217261"	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/11/28 19:31
S2	9031	235/380.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/11/28 19:53
S3	2123	235/449.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/11/28 19:53
S4	1108	235/439.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/11/28 19:54
S5	1725	235/493.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/11/28 19:54
S6	12807	S2 S3 S4 S5	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/11/28 19:54
S8	900	S6 and (generat$4 same (magnetic near20 field))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/11/28 19:55
S9	267	S6 and (generat$4 same (magnetic near20 field) same card same reader)	US-PGPUB; USPAT; EPO;	OR	ON	2014/11/28 19:56

			JPO			
S10	25	S6 and (generat$4 same (magnetic near20 field) same card same reader same inductor)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/11/28 19:57
S11	7973	235/492.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2014/12/13 15:39
S12	124	S11 and (card same display same tempora$6)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2014/12/13 15:39
S13	0	S11 and (card same display same tempora$6 same inductor)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2014/12/13 15:40
S14	6	("7841539").URPN.	USPAT	OR	OFF	2014/12/13 16:03
S15	226906	((credit ic smart) adj5 card)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2014/12/13 16:14
S16	3536	S15 same nfc	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2014/12/13 16:15
S17	50	S16 same (generat$4 with number)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2014/12/13 16:15
S18	52	("7128274").URPN.	USPAT	OR	OFF	2014/12/13 16:20
S19	28	("20030011868" | "20030052168" | "20030085286" | "20050231490" | "20060242698" | "20060282330" | "20060287964" | "20070235539" | "20070241183" | "20080011833" | "20080149734" | "20080223937" | "20090255996" | "4667087" | "5478994" | "5485520" | "5585787" | "5590038" | "5838059" | "5945652" | "6202927" | "6247129" | "6595342" | "6641050" | "6769607" | "6863219" | "7128274" | "7530495").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/12/13 16:28
S20	7	S19 and (random near60 number)	US-PGPUB; USPAT; USOCR	OR	OFF	2014/12/13 16:30
S21	164	("4667087").URPN.	USPAT	OR	OFF	2014/12/13 16:33
S22	21	S21 and (random near60 number)	US-	OR	OFF	2014/12/13

			PGPUB; USPAT; USOCR			16:33
S23	226906	((credit ic smart) adj5 card)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2014/12/13 20:13
S24	848	S23 same display same charg$4 same amount	US-PGPUB; USPAT; USOCR	OR	OFF	2014/12/13 20:13
S25	99	S24 same (antenna wireless$4 contactless$4)	US-PGPUB; USPAT; USOCR	OR	OFF	2014/12/13 20:14
S26	45	S25 same (button keypad key input$4 activat$4)	US-PGPUB; USPAT; USOCR	OR	OFF	2014/12/13 20:14
S27	179	("20010034702" | "20010047335" | "20020059114" | "20020082989" | "20020096570" | "20020120583" | "20030034388" | "20030052168" | "20030057278" | "20030105964" | "20030116635" | "20030152253" | "20030173409" | "20030179909" | "20030179910" | "20030226899" | "20040035942" | "20040133787" | "20040162732" | "20040172535" | "20040177045" | "20050043997" | "20050080747" | "20050086160" | "20050086177" | "20050116026" | "20050119940" | "20050154643" | "20050228959" | "20060000900" | "20060037073" | "20060041759" | "20060085328" | "20060091223" | "20060161435" | "20060163353" | "20060174104" | "20060186209" | "20060256961" | "20070114274" | "20070174614" | "20070192249" | "20070241201" | "20080040271" | "20080096326" | "20090108064" | "20090255996" | "4353064" | "4394654" | "4614861" | "4667087" | "4701601" | "4720860" | "4786791" | "4791283" | "4797542" | "5038251" | "5168520" | "5237614" | "5276311" | "5347580" | "5361062" | "5412199" | "5434398" | "5434405" | "5478994" | "5479512" | "5484997" | "5485519" | "5585787" | "5591949" | "5608203" | "5657388" | "5834756" | "5856661" | "5864623" | "5907142" | "5913203" | "5937394" | "5955021" | "5956699" | "6025054" | "6045043" | "6076163" | "6085320" | "6095416" | "6130621" | "6145079" | "6157920" | "6161181" | "6163771" | "6176430" | "6182894" | "6189098" | "6199052" | "6206293" | "6240184" | "6241153" | "6256873" | "6269163" | "6286022" | "6313724" | "6389442" |	US-PGPUB; USPAT; USOCR	OR	OFF	2014/12/13 20:24

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S28	241	S23 same (motion adj10 sensor)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2014/12/13 20:39
S29	9	S28 same (antenna inductor)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2014/12/13 21:27
S30	9043	235/380.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/12/13 21:37
S31	2129	235/449.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/12/13 21:37
S32	1118	235/439.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/12/13 21:37
S33	1725	235/493.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/12/13 21:37
S34	12831	S30 S31 S32 S33	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/12/13 21:37

S35	58	S34 and S24	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/12/13 22:13
S36	7973	235/492.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/12/13 23:10
S37	15	S36 and S24	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/12/13 23:11
S38	27	S24.clm.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/12/13 23:11
S39	1	("9022286").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2015/08/15 09:55
S40	22	"680979"	US-PGPUB; USPAT; EPO; JPO	OR	ON	2015/09/24 09:46
S41	5	"9022286"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 09:48
S42	9296	235/380.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:13
S44	8416	235/492.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:13
S45	1842	235/493.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:13
S46	17411	S42 S44 S45	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:13

S48	448	S46 and ((transfer$4 trasnaction) same (first adj20 card) same (second adj20 card))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:14
S49	26	S48 and (nfc (near$1field near20 communciaiton))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:15
S50	9514	card same (nfc (near$1field near20 communciaiton))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:21
S51	4039	((transfer$4 trasnaction) same (first adj20 card) same (second adj20 card))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:21
S52	21	S51 same (nfc (near$1field near20 communciaiton))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:21
S53	0	S51 same proximity same touch	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:24
S54	55	S51 same touch	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:25
S55	4	S54 same exchang$4	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:25
S56	1109	((transfer$4 trasnaction) same (first adj20 card) same (second adj20 card)).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:47
S57	37	S56 and (touch same sensor)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:48

S58	0	("2014/0052632").URPN.	USPAT	OR	ON	2015/09/24 16:56
S59	9296	235/380.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:10
S60	8416	235/492.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:10
S61	1842	235/493.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:10
S62	17411	S59 S60 S61	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:10
S63	126	S62 and (transfer same card same (value monetary currency) same first same second)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:11
S64	5	S63 and (sensor with touch)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:12
S65	10	S63 and (nfc (near$1field near20 communciaiton))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:20
S66	2028	(transfer$4 same card same (value monetary currency) same first same second)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:26
S67	16	S66 same (nfc (near$1field near20 communciaiton))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:26
S68	1	"20140052632"	US-PGPUB; USPAT; USOCR;	OR	ON	2015/09/24 17:36

			EPO; JPO			
S69	11909	((G06K19/0718 OR G06Q20/105 OR G06Q20/223 OR G06Q20/3223 OR G06Q20/341 OR G06Q20/3563 OR G06Q20/40145 OR G07F7/0833 OR G07F7/0846 OR G07F7/10).CPC.)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:37
S70	168	S69 and (transfer same card same (value monetary currency) same first same second)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:37
S71	45	S69 and (transfer same card same (value monetary currency) same first same second).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:38
S72	13	"981757"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/05/31 10:14
S73	2	"9224083"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/05/31 10:16
S74	329	nfc same inductor same antenna	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/05/31 10:34
S75	177523	credit adj5 card	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/10 10:16
S76	25	S75 same nfc same random same generat$4	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/10 10:16
S77	89	("7128274").URPN.	USPAT	OR	ON	2016/12/10 10:20
S78	7	nfc same random same generat$4 same (random near10 S75)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/10 10:32
S79	253	generat$4 same (random near10 S75)	US-PGPUB;	OR	ON	2016/12/10 10:33

			USPAT; USOCR; EPO; JPO			
S80	7	S79 same nfc	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/10 10:33
S81	31	S79 and 235/492.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/10 10:34
S82	2	nfc same generat$4 same (dynamic near10 S75)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/10 10:34
S83	2	nfc same generat$4 same (dynamic near10 credit near10 card)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/10 13:58
S84	21	nfc same mobile same (dynamic near10 credit near10 card)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/10 13:59
S85	12	("20030149882" | "20040098627" | "20060143456" | "20070208933" | "20070208947" | "20070244811" | "20090104888" | "20090288143" | "20090307069" | "5661807" | "5790667" | "6986039").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2016/12/10 14:00
S86	2	"9298962"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/19 10:41
S87	7	"51523147".FMID.	US-PGPUB; USPAT; FPRS	OR	ON	2016/12/21 08:59
S88	5	S87 and (amount same nfc).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:01
S89	8	("20060032908" | "20080223937" | "20130048712" | "6631849" | "6641050" | "7793851" | "7841539" | "8702007").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2016/12/21 09:03

S90	9342	235/380.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:05
S91	8586	235/492.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:05
S92	1854	235/493.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:05
S93	17633	S90 S91 S92	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:05
S94	13339	((G06K19/0718 OR G06Q20/105 OR G06Q20/223 OR G06Q20/3223 OR G06Q20/341 OR G06Q20/3563 OR G06Q20/40145 OR G07F7/0833 OR G07F7/0846 OR G07F7/10).CPC.)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:06
S95	28113	S93 S94	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:06
S96	25	S95 and (currency same nfc same number)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:06
S97	114	(currency same nfc same number)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:07
S98	6	(currency same nfc same number).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:07
S99	13	("20060032908" | "20080223937" | "20110140841" | "20130048712" | "20140052632" | "6631849" | "6641050" | "7360688" | "7784692" | "7793851" | "7841539" | "8702007").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2017/04/15 11:37

S100	182399	credit adj5 card	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2017/04/15 21:39
S101	4463	S100 same nfc	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2017/04/15 21:39
S102	79	S101 same amount same generat$4	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2017/04/15 21:39
S103	33	S102 same transmit$4	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2017/04/15 21:40
S104	13	("20060032908" | "20080223937" | "20110140841" | "20130048712" | "20140052632" | "6631849" | "6641050" | "7360688" | "7784692" | "7793851" | "7841539" | "8702007").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2017/04/15 21:41
S105	2	S104 and nfc	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2017/04/15 21:43

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Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15701261	WYATT, DAVID
	Examiner	**Art Unit**
	SEUNG LEE	2887

CPC- SEARCHED		
Symbol	**Date**	**Examiner**
G06K19/0718, G06Q20/105, G06Q20/223, G06Q20/3223, G06Q20/341, G06Q20/3563, G06Q20/40145, G07F7/0833, G07F7/0846, G07F7/10	6/11/18	sl

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	6/11/18	sl
14/217261, 14/680978, 14/981757 (parent cases)	6/11/18	sl

INTERFERENCE SEARCH			
US Class/ CPC Symbol	**US Subclass / CPC Group**	**Date**	**Examiner**

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15701261	WYATT, DAVID
	Examiner	**Art Unit**
	SEUNG LEE	2887

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	06/11/2018								
	1	✓								
	2	✓								
	3	✓								
	4	✓								
	5	✓								
	6	✓								
	7	✓								
	8	✓								
	9	✓								

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	15701261
Filing Date	2017-09-11
First Named Inventor	David WYATT
Art Unit	2887
Examiner Name	LEE, SEUNG H
Attorney Docket Number	WYAT-0002.USD1C1C1

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	6631849		2003-10-14	Blossom	
	2	6641050		2003-11-04	Kelley , et al.	
	3	7128274		2006-10-31	Kelley , et al.	
	4	7202825		2007-04-10	Leizerovich , et al.	
	5	7360688		2008-04-22	Harris	
	6	7784692		2010-08-31	Arrington, III	
	7	7793851		2010-09-14	Mullen	
	8	7841539		2010-11-30	Hewton	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	15701261
	Filing Date	2017-09-11
	First Named Inventor	David WYATT
	Art Unit	2887
	Examiner Name	LEE, SEUNG H
	Attorney Docket Number	WYAT-0002.USD1C1C1

	9	8702007		2014-04-22	Yisraelian , et al.	
	10	9022286		2015-05-05	Wyatt	
	11	9430765		2016-08-30	Wyatt	
	12	9760884		2017-09-12	Wyatt	
	13	10013693		2018-07-03	Wyatt	

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20060032908		2006-02-16	Sines; Randy D.	
	2	20080223937		2008-09-18	Preta; Joseph Frank ; et al.	
	3	20110140841		2011-06-16	Bona; John Kenneth ; et al.	
	4	20130048712		2013-02-28	Guillaud; Philippe ; et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	15701261
	Filing Date	2017-09-11
	First Named Inventor	David WYATT
	Art Unit	2887
	Examiner Name	LEE, SEUNG H
	Attorney Docket Number	WYAT-0002.USD1C1C1

	5	20130124292		2013-05-16	Juthani; Nirmal	
	6	20140052632		2014-02-20	Galloway; Ivason J.	

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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							

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NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	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, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1		

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EXAMINER SIGNATURE

Examiner Signature		Date Considered	

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

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	15701261
	Filing Date	2017-09-11
	First Named Inventor	David WYATT
	Art Unit	2887
	Examiner Name	LEE, SEUNG H
	Attorney Docket Number	WYAT-0002.USD1C1C1

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Anthony C. Murabito/	Date (YYYY-MM-DD)	2018-08-01
Name/Print	Anthony C. Murabito	Registration Number	35295

This collection of information is required by 37 CFR 1.97 and 1.98. 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 1 hour 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.**

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 record s.

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

Application Number:	15701261
Filing Date:	11-Sep-2017
Title of Invention:	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
First Named Inventor/Applicant Name:	David WYATT
Filer:	Anthony C. Murabito/Julie Giaramita
Attorney Docket Number:	WYAT-0002.USD1C1C1

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	1806	1	240	240
		Total in USD ($)		**240**

Electronic Acknowledgement Receipt

EFS ID:	33349877
Application Number:	15701261
International Application Number:	
Confirmation Number:	2165
Title of Invention:	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
First Named Inventor/Applicant Name:	David WYATT
Customer Number:	41066
Filer:	Anthony C. Murabito/Julie Giaramita
Filer Authorized By:	Anthony C. Murabito
Attorney Docket Number:	WYAT-0002.USD1C1C1
Receipt Date:	01-AUG-2018
Filing Date:	11-SEP-2017
Time Stamp:	19:02:43
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	EFT
Payment was successfully received in RAM	$240
RAM confirmation Number	080218INTEFSW19033500
Deposit Account	504160
Authorized User	Julie Giaramita

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	WYAT-0002USD1C1C_IDS.pdf	613002 5f3a9f54f0b212ce6b9c2e106adc05c60b66d236	no	5
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30698 e0d842cda95314872385c64ba6f3b8335735e873	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	643700		

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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.

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	15701261
Filing Date	2017-09-11
First Named Inventor	David WYATT
Art Unit	2887
Examiner Name	LEE, SEUNG H
Attorney Docket Number	WYAT-0002.USD1C1C1

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	8577813		2013-11-05	Weiss	
	2	8856539		2014-10-07	Weiss	
	3	9100826		2015-08-04	Weiss	
	4	9530137		2016-12-27	Weiss	

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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FOREIGN PATENT DOCUMENTS Remove

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number	15701261
	Filing Date	2017-09-11
	First Named Inventor	David WYATT
	Art Unit	2887
	Examiner Name	LEE, SEUNG H
	Attorney Docket Number	WYAT-0002.USD1C1C1

	1						

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NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	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, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1		

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EXAMINER SIGNATURE

Examiner Signature		Date Considered	

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☒ A certification statement is not submitted herewith.

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Signature	/Anthony C. Murabito/	Date (YYYY-MM-DD)	2018-08-02
Name/Print	Anthony C. Murabito	Registration Number	35295

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Electronic Acknowledgement Receipt

EFS ID:	33353667
Application Number:	15701261
International Application Number:	
Confirmation Number:	2165
Title of Invention:	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
First Named Inventor/Applicant Name:	David WYATT
Customer Number:	41066
Filer:	Anthony C. Murabito/Julie Giaramita
Filer Authorized By:	Anthony C. Murabito
Attorney Docket Number:	WYAT-0002.USD1C1C1
Receipt Date:	02-AUG-2018
Filing Date:	11-SEP-2017
Time Stamp:	11:36:07
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	Information Disclosure Statement (IDS) Form (SB08)	WYAT-0002USD1C1C_IDS_pt2_8-2-18.pdf	612324 ab64139343ff7fa31ca6f3b22ce214f2f72ae7a0	no	4

Warnings:

Information:	
Total Files Size (in bytes):	612324

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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 NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/701,261	09/11/2017	David WYATT	WYAT-0002.USD1C1C1

CONFIRMATION NO. 2165

41066
MURABITO, HAO & BARNES LLP
TWO NORTH MARKET STREET
THIRD FLOOR
SAN JOSE, CA 95113

PUBLICATION NOTICE

OC000000101983765

Title:MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE

Publication No.US-2018-0247300-A1
Publication Date:08/30/2018

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 publically available Searchable Databases via the Internet at 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 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 Managment, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: David WYATT

Serial: 15/701,261 Group Art Unit: 2887

Filed: 9/11/2017 Examiner: Lee, Seung H.

For: Multi-Functional Credit Card Type Portable Electronic Device

AMENDMENT and RESPONSE

Honorable Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Official Action 6/12/2018, please consider the following remarks for filing in the above captioned patent application.

Electronic Patent Application Fee Transmittal

Application Number:	15701261
Filing Date:	11-Sep-2017
Title of Invention:	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
First Named Inventor/Applicant Name:	David WYATT
Filer:	Anthony C. Murabito/Mina Oliveri
Attorney Docket Number:	WYAT-0002.USD1C1C1

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
CLAIMS IN EXCESS OF 20	2202	4	50	200
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Extension - 3 months with $0 paid	2253	1	700	700
Miscellaneous:				
			Total in USD ($)	**900**

Electronic Acknowledgement Receipt

EFS ID:	34555748
Application Number:	15701261
International Application Number:	
Confirmation Number:	2165
Title of Invention:	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
First Named Inventor/Applicant Name:	David WYATT
Customer Number:	41066
Filer:	Anthony C. Murabito/Mina Oliveri
Filer Authorized By:	Anthony C. Murabito
Attorney Docket Number:	WYAT-0002.USD1C1C1
Receipt Date:	11-DEC-2018
Filing Date:	11-SEP-2017
Time Stamp:	19:42:32
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	EFT
Payment was successfully received in RAM	$900
RAM confirmation Number	121218INTEFSW19451100
Deposit Account	504160
Authorized User	Mina Oliveri

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		WYAT-0002USD1C1C_AMDT_12-11-2018.pdf	76980 a4baf204a524dc7e971893aba1c5962e5d31b664	yes	16

Multipart Description/PDF files in .zip description

Document Description	Start	End
Applicant Arguments/Remarks Made in an Amendment	15	16
Claims	2	14
Amendment/Req. Reconsideration-After Non-Final Reject	1	1

Warnings:

Information:

2	Fee Worksheet (SB06)	fee-info.pdf	32346 f5ddadb09ad76496d436f541bf51a91538209124	no	2

Warnings:

Information:

Total Files Size (in bytes):	109326

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.

REMARKS

Claims 1-24 are pending in the present application. Claims 1-9 are amended. Claims 10-24 are newly added. Applicants respectfully request reconsideration of the present application in view of the following remarks.

Double Patenting

Claims 1-9 stand rejected under 35 U.S.C. § 101 as statutory double patenting. The amendments to Claims 1-9 overcome this rejection.

CONCLUSION

Claims 1-24 are pending in the present application. Applicants respectfully request reconsideration of the present application.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Please charge any additional fees or apply any credits to our PTO deposit account number: 504160.

Respectfully submitted,

MURABITO, HAO & BARNES LLP

Date: 12-11-2018

/Anthony C. Murabito/

Anthony C. Murabito
Reg. No. 35,295

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San Jose, California 95113
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In the Claims:

1. (currently amended) An electronic ~~credit card~~ device comprising:

a near-field communication (NFC) unit;

a touch sensor array;

a display;

a motion rate detection array;

a memory~~,~~ for storing a user data and a currency amount; ~~and~~

a processor operatively coupled to the NFC unit, the touch sensor array, the display, the motion rate detection array, and the memory; ~~and~~

~~wherein the processor initiates a card-to-card transaction between two credit card devices by a detected proximity of a first credit card device and a second credit card device and an input of information by a first user via said touch sensor array, and wherein the card-to-card transaction comprises an exchange of stored currency and said user data between the first credit card device and the second credit card device via the NFC unit;~~

a computer readable medium having instructions stored thereon that, responsive to execution by the electronic device, cause the electronic device to perform operations comprising:

accepting a user input of issued payment information input at a touch screen display of the electronic device, wherein the information comprises an issuer provided payment information;

wherein the memory comprises device-specific and user-specific information; and,

wherein the issuer provided payment information is communicated wirelessly; and,

wirelessly receiving a static device account number payment information for storage on the electronic device; and

wherein at least a portion of the payment information is a limited-use number for limited- use by the device, in place of a issuer provided payment information; and,

dynamically-generating a one-time limited-use number based on at least one of a set of information including: user-identifying information; user secrets; device information; device secrets; time; merchant; facility location; sequence count; payment information; account information; amount; and transaction information; and

using said static device account number and said dynamically generated one-time limited-use number together in the place of issuer provided payment information for making a payment transaction.

2. (currently amended) The electronic device~~credit card~~ of Claim 1, wherein the motion rate detection array comprises a set of motion rate detection units, wherein the set comprises: a plurality of inductor coils and companion magnetic-field pickup coils; an optical sensor array; and a plurality of accelerometers, and wherein the detected proximity is determined from at least one of the set of motion rate detection units.

3. (currently amended) The electronic ~~credit card~~ device of Claim 1, wherein the plurality of accelerometers generate an indication of the detected proximity in response to a contact between the first and the second credit card devices.

4. (currently amended) The ~~credit card~~ electronic device of Claim 1, wherein the user input ~~of information by the first user~~ comprises one or more of:

an introduction of a transaction-specific identifier;

a confirmation or a denial of an indicated transaction; and

a lock/unlock command determining operation of the first credit card device according to an input sequence or a gesture across the plurality of touch sensors.

5. (currently amended) The ~~credit card~~electronic device of Claim 1, further comprising a ~~real-time clock~~sequence counter which generates a sequential parameter when the processor initiates a transaction, wherein the sequential parameter is combined with any of a user information, a transaction identifier, a user secret, and a credit card authority secret and the processor is operable to generate a limited-duration credit card number therefrom.

6. (currently amended) The ~~credit card~~electronic device of Claim 1, wherein the limited-~~duration credit card~~use number has a limited recurrence, and is limited in scope of use to a predetermined number of authorized transactions.

7. (currently amended) The ~~credit card~~electronic device of Claim 1, wherein the display enables information to be displayed regarding the limited-~~duration credit card~~use number, the time, a passcode, a sequence code, a currency amount, and other credit card transaction information of the user, a merchant, a bank or a credit card authority.

8. (currently amended) The ~~credit card~~electronic device of Claim 1, wherein the ~~card-to-card~~payment transaction comprises a cryptographic hash of the transaction unit, wherein the cryptographic hash is processed and stored by at least one of

the first credit card device and the second credit card device.

9. (currently amended) The ~~credit card~~electronic device of Claim 1, further comprising a USB connector for connection to a standard computing device.

10. (new) A method of storing and generating payment information in an electronic device, the method comprising:

accepting a user input of issued payment information input at a touch screen display of the electronic device, wherein the information comprises an issuer provided payment information;

wherein the electronic device comprises device-specific and user-specific information; and,

wherein the issuer provided payment information is communicated wirelessly; and,

receiving wirelessly a static device account number payment information for storage on the electronic device; and wherein

at least a portion of the payment information is a limited-use number for limited use by the device, in place of a issuer provided payment information; and,

dynamically generating a one-time limited-use number based on at least one of a set of information including: user-identifying information; user secrets;

device information; device secrets; time; merchant; facility location; sequence count; payment information; account information; amount; and transaction information; and

using said static device account number and said dynamically generated one-time limited-use number together in the place of issuer provided payment information for making a payment transaction.

11. (new) The method of claim 10, wherein the electronic device is configured to accept the user input by at least one of a means comprising: a touch sensor array; a touch screen; a keypad; buttons; device motion; an accelerometer; a biometric input; a proximity contact sensor; optical sensors; an NFC unit; a wireless interface; a wired connection; a USB connection; an RF antenna; an inductor assembly.

12. (new) The method of claim 10, wherein the device-specific information comprises at least one of a set including: device identifiers; device secrets; devices keys; device usage sequence counters; and device account numbers.

13. (new) The method of claim 10, wherein the user-specific information comprises at least one of a set comprising: an email address; a username; a password; a PIN; a passcode; gestures; user information; bank accounts; payment information; device account numbers; merchant accounts; online

accounts; currency amount; currency type; cryptocurrency address; cryptocurrency keys; private/public keys; signature information; and user secrets.

14. (new) The method of claim 10, further comprising rendering on the display of the electronic device the payment method types stored in the electronic device, wherein said rendering comprises rendering with images, alphanumeric characters and iconography including at least one of a set comprising: a bank logo; an issuer logo; card network icons; payment network icons; a portion of the account number; and a cardholder name.

15. (new) The method of claim 14, further comprising accepting a user selection of a payment method type for use in a transaction responsive to a user selection from a list of payment method images rendered the display and using a touch screen interface for the user selection.

16. (new) The method of claim 15, wherein the user selection is a default payment method to be used in transactions.

17. (new) The method of claim 15, wherein the issuer provided payment information is selected from at least one of a set comprising: account number; card number; device account number; expiration date; card security codes; card

validation values; card identification numbers; cardholder name; payment method type; merchant account; online account; an account type; a direction of transaction; the payment issuing authority; the amount of currency; the unit of currency; a funds type; cryptocurrency address; cryptocurrency key; cryptocurrency network; and card-type information

18. (new) A method of facilitating and authorizing an automated teller machine (ATM) transaction involving an electronic device, wherein an electronic device transacts wirelessly with an ATM, the method comprising:

providing, by the electronic device, at least one of: account information; identification; and authorization, for the ATM transaction; and,

wherein the electronic device comprises a user interface comprising: displays; touch sensors; and buttons; and,

recording a user selection from the user interface of the electronic device of a user selected account from which the electronic device is operable to wirelessly convey with an ATM; and,

recording a user selection from the user interface of the electronic device of a user selected account operation, wherein said user selected account operation is selected from a list of funds transfer operations; and,

wherein user input information from the user interface includes at least one of a set comprising: identification, account, amount of currency, operation and authorizing information; and,

wherein the identification, selection, information and authorizing operations are exchanged wirelessly between the electronic device and the ATM via NFC; and,

wherein the ATM is configured for performing the user selected account operation using the identification and authorizing information; and,

wherein the identification and authorizing information exchanged wirelessly between the electronic device and the ATM comprises: statically and dynamically generated limited-use number portions; and,

wherein said static and dynamic information is combined to perform the user selected ATM operation.

19. (new) A method of Claim 18, wherein the identification and authorizing information is generated from at least one of a set identification and data comprising: ATM accounts; user identification; biometric user identification; device-identifiers; email address; username; transactional information; merchant identifiers; facility location; user accounts; cryptocurrency address; cryptocurrency keys; merchant accounts; online accounts; bank accounts; device account numbers; payment numbers; card issuing authority; and payment-issuer; and

wherein further the data includes at least one of: time; duration; passwords; passcodes; device position; device motion; device-specifics; secrets;

keys; a currency; currency amounts; cryptocurrency amount; transaction limits; transaction records; usage duration; and usage sequence counts

20. (new) A method of Claim 18, wherein user entered identification and authorizing information is recorded through the user interface of the electronic device from at least one of set including:

a plurality of button-press actions;

a swipe gesture received at a touch sensor of the electronic device;

a key press sequence received at the touch sensor;

a passcode sequence received at the buttons;

a plurality of swipe gestures received at a touch sensor of the electronic device;

a key press PIN sequence received at the touch sensor;

a passcode sequence received at the touch sensor;

an accelerometer sensor indicating a user motion of the electronic device;

an action and sequence of motions of the electronic device as performed by a user;

an action of the user to move the electronic device into a specific orientation;

a biometric sensor confirming the electronic device is in a grip of the user; and

a biometric sensor confirming the electronic device has remained in the possession of the user from activation to transaction.

21. (new) A method of Claim 18, wherein the identification and authorizing information is recorded responsive to the user inputting information using input methods provided by the ATM to record at least one of: a PIN number; a passcode; a password; a biometric identification; and user known secrets.

22. (new) The method of claim 18, wherein the limited-use number dynamically generated in the device is based on cryptographically combining data selected from the group consisting of:

an ATM information,

the locality of an ATM reader facility,

information regarding the facility performing the transaction,

bank information,

a time of day,

a date,

a transaction amount,

a count of past transactions,

a sequence count,

a historical record of transactions,

a merchant account,

a user's location,

an online address,

a device-internal secret,

a device unique identifier,

a payment authority key,

a payment issuer authority secret,

a method and direction of payment, deposit, transfer and receipt,

a cryptocurrency server,

a cryptocurrency type,

a cryptocurrency private key,

a cryptocurrency public key,

a cryptocurrency address,

a touch gesture,

a biometrically sensed user information,

a user's private information,

a user key,

a user email,

password,

passcode,

a PIN,

a user secret, and

a user input.

23. (new) The method of claim of 18, wherein the payment information comprises combining a plurality of static portions, and a plurality of dynamically generated limited-use portions, and wherein the static portion is a token account number with a limited-duration expiration date, to be used in place of issuer provided information.

24. (new) The method of claim of 18, wherein the amount of currency information can be a unit of value from at least one of a set of comprising: a cash amount, an amount of a debit account, an amount of credit, a maximum spending amount, a merchant account, a bank account amount, a unit of cryptocurrency, an online account funds, an payment issuer unit of funds, and a merchant account points.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number	Filing Date	
15/701,261	09/11/2017	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	x $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	x $ =	
☐ APPLICATION SIZE FEE (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).			
☐ 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	

APPLICATION AS AMENDED – PART II

AMENDMENT	12/11/2018	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 24	Minus	** 20	= 4	x $50 =	200
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	x $230 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	**200**

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	x $ =	
	Independent (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	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
JERMAINE MINOR

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	15701261
Filing Date	2017-09-11
First Named Inventor	David WYATT
Art Unit	2887
Examiner Name	LEE, SEUNG H
Attorney Docket Number	WYAT-0002.USD1C1C1

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	8639629		2014-01-28	Hoffman	
	2	8768838		2014-07-01	Hoffman	
	3	9536238		2017-01-03	Garrett , et al.	

If you wish to add additional U.S. Patent citation information please click the Add button. Add

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20180240106		2018-08-23	Garrett; Peter ; et al.	
	2	20140279555		2014-09-18	Guillaud; Philippe	
	3	20100260388		2010-10-14	Garrett; Peter ; et al.	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	15701261
	Filing Date	2017-09-11
	First Named Inventor	David WYATT
	Art Unit	2887
	Examiner Name	LEE, SEUNG H
	Attorney Docket Number	WYAT-0002.USD1C1C1

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
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Examiner Initials*	Cite No	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, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1		

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EXAMINER SIGNATURE

Examiner Signature		Date Considered	

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

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	15701261
	Filing Date	2017-09-11
	First Named Inventor	David WYATT
	Art Unit	2887
	Examiner Name	LEE, SEUNG H
	Attorney Docket Number	WYAT-0002.USD1C1C1

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Anthony C. Murabito/	Date (YYYY-MM-DD)	2018-12-14
Name/Print	Anthony C. Murabito	Registration Number	35295

This collection of information is required by 37 CFR 1.97 and 1.98. 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 1 hour 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.**

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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 record s.

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

Application Number:	15701261
Filing Date:	11-Sep-2017
Title of Invention:	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
First Named Inventor/Applicant Name:	David WYATT
Filer:	Anthony C. Murabito/Julie Giaramita
Attorney Docket Number:	WYAT-0002.USD1C1C1

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	2806	1	120	120
		Total in USD ($)		**120**

Electronic Acknowledgement Receipt

EFS ID:	34594064
Application Number:	15701261
International Application Number:	
Confirmation Number:	2165
Title of Invention:	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
First Named Inventor/Applicant Name:	David WYATT
Customer Number:	41066
Filer:	Anthony C. Murabito/Julie Giaramita
Filer Authorized By:	Anthony C. Murabito
Attorney Docket Number:	WYAT-0002.USD1C1C1
Receipt Date:	14-DEC-2018
Filing Date:	11-SEP-2017
Time Stamp:	16:17:23
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	EFT
Payment was successfully received in RAM	$120
RAM confirmation Number	121718INTEFSW16183300
Deposit Account	504160
Authorized User	Julie Giaramita

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	WYAT-0002-USD1C1C1_IDS_12-14-18.pdf	612394 8f1aa782acb5e5a8438be399f24745d1242a7abe	no	4
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30437 ac280c78483068548bd306553f3a9b93d1da4e14	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	642831		

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.

WYAT-0002.US

PTO/AIA/01 (06-12)
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.

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE

As the below named inventor, I hereby declare that:

This declaration is directed to:

- [x] The attached application, or
- [ ] United States application or PCT international application number _____ filed on _____.

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

I believe that 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.

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.

LEGAL NAME OF INVENTOR

Inventor: David WYATT Date (Optional): 3/17/14

Signature: D. A. Wyatt

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. 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 1 minute 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.

Electronic Acknowledgement Receipt

EFS ID:	34825030
Application Number:	15701261
International Application Number:	
Confirmation Number:	2165
Title of Invention:	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
First Named Inventor/Applicant Name:	David WYATT
Customer Number:	41066
Filer:	Anthony C. Murabito/Missy Isaac
Filer Authorized By:	Anthony C. Murabito
Attorney Docket Number:	WYAT-0002.USD1C1C1
Receipt Date:	10-JAN-2019
Filing Date:	11-SEP-2017
Time Stamp:	20:11:24
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	Oath or Declaration filed	WYAT-0002D1C1CUS_DECLARATION.pdf	56118 89978317e2c70b84df815897f5fb26e081603d43	no	1

Warnings:

The page size in the PDF is too large. The pages should be 8.5 x 11 or A4. If this PDF is submitted, the pages will be resized upon entry into the Image File Wrapper and may affect subsequent processing

Information:

Total Files Size (in bytes):	56118

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

NOTICE OF ALLOWANCE AND FEE(S) DUE

41066 7590 02/05/2019
MURABITO, HAO & BARNES LLP
TWO NORTH MARKET STREET
THIRD FLOOR
SAN JOSE, CA 95113

EXAMINER
LEE, SEUNG H

ART UNIT	PAPER NUMBER
2887	

DATE MAILED: 02/05/2019

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/701,261	09/11/2017	David WYATT	WYAT-0002.USD1C1C1	2165

TITLE OF INVENTION: MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE

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	05/06/2019

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.

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Apple EX1002 Page 134

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)

41066 7590 02/05/2019
MURABITO, HAO & BARNES LLP
TWO NORTH MARKET STREET
THIRD FLOOR
SAN JOSE, CA 95113

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.
15/701,261	09/11/2017	David WYATT	WYAT-0002.USD1C1C1	2165

TITLE OF INVENTION: MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE

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	05/06/2019

EXAMINER	ART UNIT	CLASS-SUBCLASS
LEE, SEUNG H	2887	705-041000

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_____
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. _____

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UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/701,261	09/11/2017	David WYATT	WYAT-0002.USD1C1C1	2165

41066 7590 02/05/2019
MURABITO, HAO & BARNES LLP
TWO NORTH MARKET STREET
THIRD FLOOR
SAN JOSE, CA 95113

EXAMINER
LEE, SEUNG H

ART UNIT	PAPER NUMBER
2887	

DATE MAILED: 02/05/2019

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.

Notice of Allowability	Application No. 15/701,261	Applicant(s) WYATT, David	
	Examiner SEUNG H LEE	Art Unit 2887	AIA Status 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 12/11/2018.
   ☐ 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 1-24 . 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** 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. ☑ Notice of References Cited (PTO-892)
2. ☑ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 8/01/2018, 8/02/2018, 12/14/2018.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.
5. ☐ Examiner's Amendment/Comment
6. ☑ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/SEUNG H LEE/
Primary Examiner, Art Unit 2887

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Apple EX1002 Page 138

DETAILED ACTION

Notice of Pre-AIA or AIA Status

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

2. Receipt is acknowledged of the response filed on December 11, 2018, which has been entered in the file.

Allowable Subject Matter

3. Claims 1-24 are allowed.

4. The following is an examiner's statement of reasons for allowance:

Sebastian et al. (US 2013/0297509) teaches a mobile payment using dynamic code.

However, none of prior art teaches an electronic device to perform operations comprising accepting a user input of issued payment information input at a touch screen display of the electronic device, wherein the information comprises an issuer provided payment information, wherein the memory comprises device-specific and user-specific information, and, wherein the issuer provided payment information is communicated wirelessly, and, wirelessly receiving a static device account number payment information for storage on the electronic device, and wherein at least a portion of the payment information is a limited-use number for limited- use by the device, in place of a issuer provided payment information, and, dynamically-generating a one-time limited-

use number based on at least one of a set of information including user-identifying information, user secrets, device information, device secrets, time, merchant, facility location, sequence count, payment information, account information, amount, and transaction information, and using said static device account number and said dynamically generated one-time limited-use number together in the place of issuer provided payment information for making a payment transaction, and using the electronic device for conducting transaction with an ATM as set forth in the claims.

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."

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEUNG H LEE whose telephone number is (571)272-2401. The examiner can normally be reached on 7-4:00PM.

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, Steven Paik can be reached on 571-272-2404. 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.

/SEUNG H LEE/
Primary Examiner, Art Unit 2887

Notice of References Cited	Application/Control No. 15/701,261	Applicant(s)/Patent Under Reexamination WYATT, David	
	Examiner SEUNG H LEE	Art Unit 2887	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-20130297509-A1	11-2013	Sebastian; Sony	G06Q20/3226	705/44
	B					
	C					
	D					
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FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date 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.

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/701,261	WYATT, David
	Examiner	**Art Unit**
	SEUNG H LEE	2887

CPC						
Symbol					**Type**	**Version**
G06Q	/	20	/	341	F	2013-01-01
G07F	/	19	/	00	I	2013-01-01
G06Q	/	20	/	06	I	2013-01-01
G06Q	/	20	/	223	I	2013-01-01
G06Q	/	20	/	347	I	2013-01-01
G06Q	/	20	/	385	I	2013-01-01
G07F	/	7	/	0873	I	2013-01-01
G06K	/	19	/	06206	I	2013-01-01
G06K	/	19	/	0716	I	2013-01-01
G06K	/	19	/	07749	I	2013-01-01
G06Q	/	20	/	24	I	2013-01-01
G06Q	/	20	/	352	I	2013-01-01
G06Q	/	20	/	409	I	2013-01-01
G06Q	/	20	/	065	I	2013-01-01
G06Q	/	20	/	346	I	2013-01-01
G06Q	/	20	/	3827	I	2013-01-01
G06Q	/	20	/	4012	I	2013-01-01

CPC Combination Sets								
Symbol					**Type**	**Set**	**Ranking**	**Version**
	/		/					

NONE (Assistant Examiner) (Date)		**Total Claims Allowed:** 24	
/SEUNG H LEE/ Primary Examiner, Art Unit 2887 (Primary Examiner) (Date)	29 January 2019	O.G. Print Claim(s) 1	O.G. Print Figure 1

U.S. Patent and Trademark Office Part of Paper No.: 20190129

IPR2025-01145
Apple EX1002 Page 143

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	15/701,261	WYATT, David
	Examiner	**Art Unit**
	SEUNG H LEE	2887

INTERNATIONAL CLASSIFICATION				
CLAIMED				
G06K19/06	/	19	/	06

NON-CLAIMED				
	/		/	

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**

CROSS REFERENCES(S)						
CLASS	**SUBCLASS (ONE SUBCLASS PER BLOCK)**					

NONE (Assistant Examiner) (Date)		**Total Claims Allowed:** 24	
/SEUNG H LEE/ Primary Examiner, Art Unit 2887 (Primary Examiner) (Date)	29 January 2019	O.G. Print Claim(s) 1	O.G. Print Figure 1

U.S. Patent and Trademark Office Part of Paper No.: 20190129

IPR2025-01145
Apple EX1002 Page 144

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	Examiner	**Art Unit**
	SEUNG H LEE	2887

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIMS

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	10	10	19	19										
2	2	11	11	20	20										
3	3	12	12	21	21										
4	4	13	13	22	22										
5	5	14	14	23	23										
6	6	15	15	24	24										
7	7	16	16												
8	8	17	17												
9	9	18	18												

NONE (Assistant Examiner)	(Date)	**Total Claims Allowed:** 24	
/SEUNG H LEE/ Primary Examiner, Art Unit 2887 (Primary Examiner)	29 January 2019 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 1

U.S. Patent and Trademark Office

Part of Paper No.: 20190129

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/701,261	WYATT, David
	Examiner	**Art Unit**
	SEUNG H LEE	2887

CPC - Searched*		
Symbol	**Date**	**Examiner**
G06K19/0718, G06Q20/105, G06Q20/223, G06Q20/3223, G06Q20/341, G06Q20/3563, G06Q20/40145, G07F7/0833, G07F7/0846, G07F7/10	01/29/2019	sl

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	01/29/2019	sl
14/217261, 14/680978, 14/981757 (parent cases)	01/29/2019	sl

Interference Search			
US Class/CPC Symbol	**US Subclass/CPC Group**	**Date**	**Examiner**
	same as above	01/29/2019	sl

IPR2025-01145
Apple EX1002 Page 146

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/701,261	WYATT, David
	Examiner	**Art Unit**
	SEUNG H LEE	2887

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

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CLAIM		DATE								
Final	Original	06/11/2018	01/29/2019							
1	1	✓	=							
2	2	✓	=							
3	3	✓	=							
4	4	✓	=							
5	5	✓	=							
6	6	✓	=							
7	7	✓	=							
8	8	✓	=							
9	9	✓	=							
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23	23		=							
24	24		=							

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	15701261
Filing Date	2017-09-11
First Named Inventor	David WYATT
Art Unit	2887
Examiner Name	LEE, SEUNG H
Attorney Docket Number	WYAT-0002.USD1C1C1

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	6631849		2003-10-14	Blossom	
	2	6641050		2003-11-04	Kelley , et al.	
	3	7128274		2006-10-31	Kelley , et al.	
	4	7202825		2007-04-10	Leizerovich , et al.	
	5	7360688		2008-04-22	Harris	
	6	7784692		2010-08-31	Arrington, III	
	7	7793851		2010-09-14	Mullen	
	8	7841539		2010-11-30	Hewton	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /S.L./

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	9	8702007		2014-04-22	Yisraelian , et al.	
	10	9022286		2015-05-05	Wyatt	
	11	9430765		2016-08-30	Wyatt	
	12	9760884		2017-09-12	Wyatt	
	13	10013693		2018-07-03	Wyatt	

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20060032908		2006-02-16	Sines; Randy D.	
	2	20080223937		2008-09-18	Preta; Joseph Frank ; et al.	
	3	20110140841		2011-06-16	Bona; John Kenneth ; et al.	
	4	20130048712		2013-02-28	Guillaud; Philippe ; et al.	

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	5	20130124292		2013-05-16	Juthani; Nirmal	
	6	20140052632		2014-02-20	Galloway; Ivason J.	

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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							

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NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	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, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1		

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EXAMINER SIGNATURE

Examiner Signature	/SEUNG H LEE/	Date Considered	01/23/2019

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CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

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See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Anthony C. Murabito/	Date (YYYY-MM-DD)	2018-08-01
Name/Print	Anthony C. Murabito	Registration Number	35295

This collection of information is required by 37 CFR 1.97 and 1.98. 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 1 hour 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.**

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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.

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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First Named Inventor	David WYATT
Art Unit	2887
Examiner Name	LEE, SEUNG H
Attorney Docket Number	WYAT-0002.USD1C1C1

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	8577813		2013-11-05	Weiss	
	2	8856539		2014-10-07	Weiss	
	3	9100826		2015-08-04	Weiss	
	4	9530137		2016-12-27	Weiss	

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]

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Examiner Initials*	Cite No	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, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
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EXAMINER SIGNATURE

Examiner Signature	/SEUNG H LEE/	Date Considered	01/23/2019

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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /S.L./

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	23	"701261"	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2019/01/29 08:48
L2	1344	static same dynamic same number same card	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2019/01/29 08:51
L3	36	2 same combin$4 same payment same transaction	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2019/01/29 08:51
L15	1	"20180247300"	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2019/01/29 08:53
L16	27424	((G06K19/06206 OR G06K19/0716 OR G06K19/07749 OR G06Q20/06 OR G06Q20/065 OR G06Q20/223 OR G06Q20/24 OR G06Q20/341 OR G06Q20/346 OR G06Q20/347 OR G06Q20/352 OR G06Q20/3827 OR G06Q20/385 OR G06Q20/4012 OR G06Q20/409 OR G07F19/00 OR G07F7/0873).CPC.)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2019/01/29 08:53
L17	479	16 and 2	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2019/01/29 08:54
L18	19	16 and 2.clm.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2019/01/29 08:54
L19	1932	static same dynamic same number same account	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2019/01/29 09:16
L20	189	19 same payment same transaction	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2019/01/29 09:16
L21	7	20.clm.	US-	OR	OFF	2019/01/29

			PGPUB; USPAT; EPO; JPO			09:16
L22	111	16 and 20	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2019/01/29 09:30
L23	35	("20080223937" | "6641050" | "7202825" | "9100826" | "20100260388" | "9536238" | "8702007" | "9530137" | "10013693" | "7128274" | "8856539" | "9224083" | "7360688" | "9760884" | "20180240106" | "8639629" | "20110140841" | "20140052632" | "6631849" | "7841539" | "8768838" | "20130048712" | "20130124292" | "9022286" | "8577813" | "20140279555" | "20060032908" | "7784692" | "7793851" | "9430765").PN.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2019/01/29 09:30
S1	40	"217261"	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/11/28 19:31
S2	9031	235/380.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/11/28 19:53
S3	2123	235/449.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/11/28 19:53
S4	1108	235/439.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/11/28 19:54
S5	1725	235/493.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/11/28 19:54
S6	12807	S2 S3 S4 S5	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/11/28 19:54
S8	900	S6 and (generat$4 same (magnetic near20 field))	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/11/28 19:55
S9	267	S6 and (generat$4 same (magnetic near20 field) same card same reader)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/11/28 19:56

S10	25	S6 and (generat$4 same (magnetic near20 field) same card same reader same inductor)	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/11/28 19:57
S11	7973	235/492.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2014/12/13 15:39
S12	124	S11 and (card same display same tempora$6)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2014/12/13 15:39
S13	0	S11 and (card same display same tempora$6 same inductor)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2014/12/13 15:40
S14	6	("7841539").URPN.	USPAT	OR	OFF	2014/12/13 16:03
S15	226906	((credit ic smart) adj5 card)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2014/12/13 16:14
S16	3536	S15 same nfc	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2014/12/13 16:15
S17	50	S16 same (generat$4 with number)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2014/12/13 16:15
S18	52	("7128274").URPN.	USPAT	OR	OFF	2014/12/13 16:20
S19	28	("20030011868" | "20030052168" | "20030085286" | "20050231490" | "20060242698" | "20060282330" | "20060287964" | "20070235539" | "20070241183" | "20080011833" | "20080149734" | "20080223937" | "20090255996" | "4667087" | "5478994" | "5485520" | "5585787" | "5590038" | "5838059" | "5945652" | "6202927" | "6247129" | "6595342" | "6641050" | "6769607" | "6863219" | "7128274" | "7530495").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/12/13 16:28
S20	7	S19 and (random near60 number)	US-PGPUB; USPAT; USOCR	OR	OFF	2014/12/13 16:30
S21	164	("4667087").URPN.	USPAT	OR	OFF	2014/12/13 16:33
S22	21	S21 and (random near60 number)	US-PGPUB; USPAT;	OR	OFF	2014/12/13 16:33

			USOCR			
S23	226906	((credit ic smart) adj5 card)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2014/12/13 20:13
S24	848	S23 same display same charg$4 same amount	US-PGPUB; USPAT; USOCR	OR	OFF	2014/12/13 20:13
S25	99	S24 same (antenna wireless$4 contactless$4)	US-PGPUB; USPAT; USOCR	OR	OFF	2014/12/13 20:14
S26	45	S25 same (button keypad key input$4 activat$4)	US-PGPUB; USPAT; USOCR	OR	OFF	2014/12/13 20:14
S27	179	("20010034702" | "20010047335" | "20020059114" | "20020082989" | "20020096570" | "20020120583" | "20030034388" | "20030052168" | "20030057278" | "20030105964" | "20030116635" | "20030152253" | "20030173409" | "20030179909" | "20030179910" | "20030226899" | "20040035942" | "20040133787" | "20040162732" | "20040172535" | "20040177045" | "20050043997" | "20050080747" | "20050086160" | "20050086177" | "20050116026" | "20050119940" | "20050154643" | "20050228959" | "20060000900" | "20060037073" | "20060041759" | "20060085328" | "20060091223" | "20060161435" | "20060163353" | "20060174104" | "20060186209" | "20060256961" | "20070114274" | "20070174614" | "20070192249" | "20070241201" | "20080040271" | "20080096326" | "20090108064" | "20090255996" | "4353064" | "4394654" | "4614861" | "4667087" | "4701601" | "4720860" | "4786791" | "4791283" | "4797542" | "5038251" | "5168520" | "5237614" | "5276311" | "5347580" | "5361062" | "5412199" | "5434398" | "5434405" | "5478994" | "5479512" | "5484997" | "5485519" | "5585787" | "5591949" | "5608203" | "5657388" | "5834756" | "5856661" | "5864623" | "5907142" | "5913203" | "5937394" | "5955021" | "5956699" | "6025054" | "6045043" | "6076163" | "6085320" | "6095416" | "6130621" | "6145079" | "6157920" | "6161181" | "6163771" | "6176430" | "6182894" | "6189098" | "6199052" | "6206293" | "6240184" | "6241153" | "6256873" | "6269163" | "6286022" | "6313724" | "6389442" | "6393447" | "6411715" | "6446052" | "6460141" | "6592044" | "6607127").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/12/13 20:24

		OR ("6609654" | "6631849" | "6655585" | "6681988" | "6705520" | "6755341" | "6769618" | "6776332" | "6805288" | "6811082" | "6813354" | "6817532" | "6873974" | "6902116" | "6970070" | "6980969" | "6985583" | "6991155" | "7013030" | "7035443" | "7039223" | "7044394" | "7051929" | "7100049" | "7100821" | "7111172" | "7114652" | "7136514" | "7140550" | "7163153" | "7195154" | "7197639" | "7219368" | "7225537" | "7225994" | "7246752" | "7298243" | "7337326" | "7346775" | "7356696" | "7357319" | "7359507" | "7360688" | "7363494" | "7380710" | "7398253" | "7404087" | "7424570" | "7427033" | "7454349" | "7461250" | "7461399" | "7472093" | "7472829" | "7494055" | "7502467" | "7502933" | "7503485" | "7516492" | "7523301" | "7532104" | "7543739" | "7562222" | "7580898" | "7584153" | "7591426" | "7591427" | "7602904" | "7641124" | "7660902").PN.				
S28	241	S23 same (motion adj10 sensor)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2014/12/13 20:39
S29	9	S28 same (antenna inductor)	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2014/12/13 21:27
S30	9043	235/380.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/12/13 21:37
S31	2129	235/449.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/12/13 21:37
S32	1118	235/439.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/12/13 21:37
S33	1725	235/493.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/12/13 21:37
S34	12831	S30 S31 S32 S33	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/12/13 21:37
S35	58	S34 and S24	US-PGPUB;	OR	ON	2014/12/13 22:13

			USPAT; EPO; JPO			
S36	7973	235/492.ccls.	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/12/13 23:10
S37	15	S36 and S24	US-PGPUB; USPAT; EPO; JPO	OR	ON	2014/12/13 23:11
S38	27	S24.clm.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/12/13 23:11
S39	1	("9022286").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	OFF	2015/08/15 09:55
S40	22	"680979"	US-PGPUB; USPAT; EPO; JPO	OR	ON	2015/09/24 09:46
S41	5	"9022286"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 09:48
S42	9296	235/380.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:13
S44	8416	235/492.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:13
S45	1842	235/493.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:13
S46	17411	S42 S44 S45	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:13
S48	448	S46 and ((transfer$4 trasnaction) same (first adj20 card) same (second adj20	US-PGPUB;	OR	ON	2015/09/24 10:14

		card))	USPAT; USOCR; EPO; JPO			
S49	26	S48 and (nfc (near$1field near20 communciaiton))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:15
S50	9514	card same (nfc (near$1field near20 communciaiton))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:21
S51	4039	((transfer$4 trasnaction) same (first adj20 card) same (second adj20 card))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:21
S52	21	S51 same (nfc (near$1field near20 communciaiton))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:21
S53	0	S51 same proximity same touch	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:24
S54	55	S51 same touch	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:25
S55	4	S54 same exchang$4	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:25
S56	1109	((transfer$4 trasnaction) same (first adj20 card) same (second adj20 card)).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:47
S57	37	S56 and (touch same sensor)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 10:48
S58	0	("2014/0052632").URPN.	USPAT	OR	ON	2015/09/24 16:56

S59	9296	235/380.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:10
S60	8416	235/492.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:10
S61	1842	235/493.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:10
S62	17411	S59 S60 S61	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:10
S63	126	S62 and (transfer same card same (value monetary currency) same first same second)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:11
S64	5	S63 and (sensor with touch)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:12
S65	10	S63 and (nfc (near$1field near20 communciaiton))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:20
S66	2028	(transfer$4 same card same (value monetary currency) same first same second)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:26
S67	16	S66 same (nfc (near$1field near20 communciaiton))	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:26
S68	1	"20140052632"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:36

S69	11909	((G06K19/0718 OR G06Q20/105 OR G06Q20/223 OR G06Q20/3223 OR G06Q20/341 OR G06Q20/3563 OR G06Q20/40145 OR G07F7/0833 OR G07F7/0846 OR G07F7/10).CPC.)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:37
S70	168	S69 and (transfer same card same (value monetary currency) same first same second)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:37
S71	45	S69 and (transfer same card same (value monetary currency) same first same second).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2015/09/24 17:38
S72	13	"981757"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/05/31 10:14
S73	2	"9224083"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/05/31 10:16
S74	329	nfc same inductor same antenna	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/05/31 10:34
S75	177523	credit adj5 card	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/10 10:16
S76	25	S75 same nfc same random same generat$4	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/10 10:16
S77	89	("7128274").URPN.	USPAT	OR	ON	2016/12/10 10:20
S78	7	nfc same random same generat$4 same (random near10 S75)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/10 10:32
S79	253	generat$4 same (random near10 S75)	US-PGPUB; USPAT; USOCR;	OR	ON	2016/12/10 10:33

			EPO; JPO			
S80	7	S79 same nfc	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/10 10:33
S81	31	S79 and 235/492.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/10 10:34
S82	2	nfc same generat$4 same (dynamic near10 S75)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/10 10:34
S83	2	nfc same generat$4 same (dynamic near10 credit near10 card)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/10 13:58
S84	21	nfc same mobile same (dynamic near10 credit near10 card)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/10 13:59
S85	12	("20030149882" | "20040098627" | "20060143456" | "20070208933" | "20070208947" | "20070244811" | "20090104888" | "20090288143" | "20090307069" | "5661807" | "5790667" | "6986039").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2016/12/10 14:00
S86	2	"9298962"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/19 10:41
S87	7	"51523147".FMID.	US-PGPUB; USPAT; FPRS	OR	ON	2016/12/21 08:59
S88	5	S87 and (amount same nfc).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:01
S89	8	("20060032908" | "20080223937" | "20130048712" | "6631849" | "6641050" | "7793851" | "7841539" | "8702007").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2016/12/21 09:03
S90	9342	235/380.ccls.	US-PGPUB;	OR	ON	2016/12/21 09:05

			USPAT; USOCR; EPO; JPO			
S91	8586	235/492.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:05
S92	1854	235/493.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:05
S93	17633	S90 S91 S92	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:05
S94	13339	((G06K19/0718 OR G06Q20/105 OR G06Q20/223 OR G06Q20/3223 OR G06Q20/341 OR G06Q20/3563 OR G06Q20/40145 OR G07F7/0833 OR G07F7/0846 OR G07F7/10).CPC.)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:06
S95	28113	S93 S94	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:06
S96	25	S95 and (currency same nfc same number)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:06
S97	114	(currency same nfc same number)	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:07
S98	6	(currency same nfc same number).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2016/12/21 09:07
S99	13	("20060032908" | "20080223937" | "20110140841" | "20130048712" | "20140052632" | "6631849" | "6641050" | "7360688" | "7784692" | "7793851" | "7841539" | "8702007").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2017/04/15 11:37
S100	182399	credit adj5 card	US-PGPUB;	OR	ON	2017/04/15 21:39

			USPAT; USOCR; EPO; JPO			
S101	4463	S100 same nfc	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2017/04/15 21:39
S102	79	S101 same amount same generat$4	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2017/04/15 21:39
S103	33	S102 same transmit$4	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2017/04/15 21:40
S104	13	("20060032908" | "20080223937" | "20110140841" | "20130048712" | "20140052632" | "6631849" | "6641050" | "7360688" | "7784692" | "7793851" | "7841539" | "8702007").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2017/04/15 21:41
S105	2	S104 and nfc	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2017/04/15 21:43
S106	27	"680979"	US-PGPUB; USPAT; USOCR; EPO; JPO	OR	ON	2018/06/11 09:05
S107	1	"9224083".pn.	US-PGPUB; USPAT; EPO; JPO	OR	OFF	2018/06/11 09:06

1/29/2019 9:35:11 AM
C:\Users\slee5\Documents\EAST\Workspaces\15-701261.wsp

Bibliographic Data

Application No: 15/701,261

Foreign Priority claimed: ○ Yes ◉ No

35 USC 119 (a-d) conditions met: ☐ Yes ☑ No ☐ Met After Allowance

Verified and Acknowledged: /SEUNG H LEE/ (Examiner's Signature) | Initials

Title: MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
09/11/2017	705	2887	WYAT-0002.USD1C1C1
RULE			

APPLICANTS

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CONTINUING DATA

This application is a CON of 14981757 12/28/2015 PAT 9760884

14981757 is a CON of 14680979 04/07/2015 PAT 9224083

14680979 is a DIV of 14217261 03/17/2014 PAT 9022286

14217261 has PRO of 61794891 03/15/2013

FOREIGN APPLICATIONS

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UNITED STATES

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	15701261
Filing Date	2017-09-11
First Named Inventor	David WYATT
Art Unit	2887
Examiner Name	LEE, SEUNG H
Attorney Docket Number	WYAT-0002.USD1C1C1

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	8639629		2014-01-28	Hoffman	
	2	8768838		2014-07-01	Hoffman	
	3	9536238		2017-01-03	Garrett , et al.	

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20180240106		2018-08-23	Garrett; Peter ; et al.	
	2	20140279555		2014-09-18	Guillaud; Philippe	
	3	20100260388		2010-10-14	Garrett; Peter ; et al.	

If you wish to add additional U.S. Published Application citation information please click the Add button. Add

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ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /S.L./

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	15701261
Filing Date	2017-09-11
First Named Inventor	David WYATT
Art Unit	2887
Examiner Name	LEE, SEUNG H
Attorney Docket Number	WYAT-0002.USD1C1C1

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							

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Examiner Initials*	Cite No	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, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1		

If you wish to add additional non-patent literature document citation information please click the Add button Add

EXAMINER SIGNATURE

Examiner Signature	/SEUNG H LEE/	Date Considered	01/23/2019

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

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /S.L./

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number	15701261
Filing Date	2017-09-11
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Examiner Name	LEE, SEUNG H
Attorney Docket Number	WYAT-0002.USD1C1C1

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Anthony C. Murabito/	Date (YYYY-MM-DD)	2018-12-14
Name/Print	Anthony C. Murabito	Registration Number	35295

This collection of information is required by 37 CFR 1.97 and 1.98. 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 1 hour 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.**

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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 record s.

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.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /S.L./

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

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/701,261	09/11/2017	David WYATT	WYAT-0002.USD1C1C1	2165

41066 7590 04/09/2019
MURABITO, HAO & BARNES LLP
111 NORTH MARKET STREET
Suite 700
SAN JOSE, CA 95113

EXAMINER
LEE, SEUNG H

ART UNIT	PAPER NUMBER
2887	

MAIL DATE	DELIVERY MODE
04/09/2019	PAPER

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.

Corrected *Notice of Allowability*	**Application No.** 15/701,261	**Applicant(s)** WYATT, David	
	Examiner SEUNG H LEE	**Art Unit** 2887	**AIA (FITF) Status** 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 4/03/2019.
   ☐ 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 1-24 . 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** 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. ☐ Notice of References Cited (PTO-892)
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☑ Interview Summary (PTO-413), Paper No./Mail Date. 20190404.
5. ☑ Examiner's Amendment/Comment
6. ☑ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/SEUNG H LEE/
Primary Examiner, Art Unit 2887

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DETAILED ACTION

Notice of Pre-AIA or AIA Status

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

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in an interview with Mr. A. Murabito (REG.No. 35295) on April 03, 2019.

2. The application has been amended as follows:

Please amend claims 2, 3, 4, and 8 as follows:

2. (Currently amended) The electronic device of Claim 1, wherein the motion rate detection array comprises a set of motion rate detection units, wherein the set comprises: a plurality of inductor coils and companion magnetic-field pickup coils; an optical sensor array; and a plurality of accelerometers, and wherein [the] <u>a</u> detected proximity <u>between the electronic device and a second electronic device</u> is determined from at least one of the set of motion rate detection units.

3. (Currently amended) The electronic device of Claim [1] <u>2</u>, wherein the plurality of accelerometers generate an indication of the detected proximity in response

to a contact between [the first and the second credit card devices] said electronic device and said second electronic device.

4. (Currently amended) The electronic device of Claim 1, wherein the user input comprises one or more of:

an introduction of a transaction-specific identifier;

a confirmation or a denial of an indicated transaction; and

a lock/unlock command determining operation of the [first credit card] electronic device according to an input sequence or a gesture across the plurality of touch sensors.

8. (Currently amended) The electronic device of Claim 1, wherein the payment transaction comprises a cryptographic hash of the transaction unit, wherein the cryptographic hash is processed and stored [by at least one of the first credit card device and the second credit card device] in said memory.

Allowable Subject Matter

1. Claims 1-24 are allowed.

2. The following is an examiner's statement of reasons for allowance:

None of prior art teaches an electronic device to perform operations comprising accepting a user input of issued payment information input at a touch screen display of the electronic device, wherein the information comprises an issuer provided payment information, wherein the memory comprises device-specific and user-specific information, and, wherein the issuer provided payment information is communicated wirelessly, and, wirelessly receiving a static device account number payment

information for storage on the electronic device, and wherein at least a portion of the payment information is a limited-use number for limited- use by the device, in place of a issuer provided payment information, and, dynamically-generating a one-time limited-use number based on at least one of a set of information including user-identifying information, user secrets, device information, device secrets, time, merchant, facility location, sequence count, payment information, account information, amount, and transaction information, and using said static device account number and said dynamically generated one-time limited-use number together in the place of issuer provided payment information for making a payment transaction, and using the electronic device for conducting transaction with an ATM as set forth in the claims.

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."

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEUNG H LEE whose telephone number is (571)272-2401. The examiner can normally be reached on 7-4:00PM.

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, Steven Paik can be reached on 571-272-2404. 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.

/SEUNG H LEE/
Primary Examiner, Art Unit 2887

Applicant-Initiated Interview Summary	Application No. 15/701,261	Applicant(s) WYATT, David	
	Examiner SEUNG H LEE	Art Unit 2887	AIA (FITF) Status No

All participants (applicant, applicants representative, PTO personnel):

(1) SEUNG H. LEE. (3) _____.

(2) Mr. A. Murabito (REG. No. 35295). (4) _____.

Date of Interview: 03 April 2019.

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: 2-4 and 8.

Identification of prior art discussed: _____.

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...)

Mr. Murabito provides the proposed amendment for correcting minor informalities..

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

/SEUNG H LEE/ Primary Examiner, Art Unit 2887	

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 examiners 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 applicants 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 applicants 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 examiners 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 examiners initials.

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/701,261	WYATT, David
	Examiner	**Art Unit**
	SEUNG H LEE	2887

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	06/11/2018	01/29/2019	04/04/2019						
1	1	✓	=	=						
2	2	✓	=	=						
3	3	✓	=	=						
4	4	✓	=	=						
5	5	✓	=	=						
6	6	✓	=	=						
7	7	✓	=	=						
8	8	✓	=	=						
9	9	✓	=	=						
10	10		=	=						
11	11		=	=						
12	12		=	=						
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22	22		=	=						
23	23		=	=						
24	24		=	=						

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/701,261	WYATT, David
	Examiner	**Art Unit**
	SEUNG H LEE	2887

CPC

Symbol					Type	Version
G06Q	/	20	/	341	F	2013-01-01
G07F	/	19	/	00	I	2013-01-01
G06Q	/	20	/	06	I	2013-01-01
G06Q	/	20	/	223	I	2013-01-01
G06Q	/	20	/	347	I	2013-01-01
G06Q	/	20	/	385	I	2013-01-01
G07F	/	7	/	0873	I	2013-01-01
G06K	/	19	/	06206	I	2013-01-01
G06K	/	19	/	0716	I	2013-01-01
G06K	/	19	/	07749	I	2013-01-01
G06Q	/	20	/	24	I	2013-01-01
G06Q	/	20	/	352	I	2013-01-01
G06Q	/	20	/	409	I	2013-01-01
G06Q	/	20	/	065	I	2013-01-01
G06Q	/	20	/	346	I	2013-01-01
G06Q	/	20	/	3827	I	2013-01-01
G06Q	/	20	/	4012	I	2013-01-01

CPC Combination Sets

Symbol					Type	Set	Ranking	Version
	/		/					

NONE (Assistant Examiner)	(Date)	**Total Claims Allowed:** 24	
/SEUNG H LEE/ Primary Examiner, Art Unit 2887 (Primary Examiner)	04 April 2019 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 1

U.S. Patent and Trademark Office

Part of Paper No.: 20190404

IPR2025-01145
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Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/701,261	WYATT, David
	Examiner	**Art Unit**
	SEUNG H LEE	2887

INTERNATIONAL CLASSIFICATION				
CLAIMED				
G06K19/06	/	19	/	06

NON-CLAIMED				
	/		/	

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**

CROSS REFERENCES(S)						
CLASS	**SUBCLASS (ONE SUBCLASS PER BLOCK)**					

NONE (Assistant Examiner) (Date)		**Total Claims Allowed:** 24	
/SEUNG H LEE/ Primary Examiner, Art Unit 2887 (Primary Examiner) (Date)	04 April 2019	O.G. Print Claim(s) 1	O.G. Print Figure 1

U.S. Patent and Trademark Office Part of Paper No.: 20190404

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Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15/701,261	WYATT, David
	Examiner	**Art Unit**
	SEUNG H LEE	2887

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIMS

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	10	10	19	19										
2	2	11	11	20	20										
3	3	12	12	21	21										
4	4	13	13	22	22										
5	5	14	14	23	23										
6	6	15	15	24	24										
7	7	16	16												
8	8	17	17												
9	9	18	18												

NONE (Assistant Examiner)	(Date)	**Total Claims Allowed:** 24	
/SEUNG H LEE/ Primary Examiner, Art Unit 2887 (Primary Examiner)	04 April 2019 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 1

U.S. Patent and Trademark Office

Part of Paper No.: 20190404

IPR2025-01145
Apple EX1002 Page 185

PART B – FEE(S) TRANSMITTAL

Complete and send this form, together with the 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, VA 22313-1450

By fax, send to: (571) 273-2885

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CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

Murabito, Hao & Barnes LLP
Two North Market Street
Third Floor
San Jose, CA 95113

OPAP AKIMA-15 MAY 06 2019 PATENT & TRADEMARK OFFICE

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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.

Mina Oliveri	(Typed or printed name)
/Mina Oliveri/	(Signature)
5-6-2019	(Date)

APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO	CONFIRMATION NO
15/701,261	09/11/2017	David WYATT	WYAT-0002.USD1C1C1	2165

TITLE OF INVENTION:

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$500	$0	$0	$500	05-06-2019

EXAMINER	ART UNIT	CLASS-SUBCLASS

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.

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(A) NAME OF ASSIGNEE: Virtual Electric Inc.

(B) RESIDENCE: (CITY and STATE or COUNTRY): San Jose, CA

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*):

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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 /Anthony C. Murabito/ Date 5-6-2019

Typed or printed name Anthony C. Murabito Registration No. 35,295

United States Patent and Trademark Office

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05/07/2019 INTEFSW 00006276 15701261

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Mina Oliveri	(Typed or printed name)
/Mina Oliveri/	(Signature)
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Authorized Signature /Anthony C. Murabito/ Date 5-6-2019

Typed or printed name Anthony C. Murabito Registration No. 35,295

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

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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.

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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.

Electronic Patent Application Fee Transmittal

Application Number:	15701261
Filing Date:	11-Sep-2017
Title of Invention:	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
First Named Inventor/Applicant Name:	David WYATT
Filer:	Anthony C. Murabito/Mina Oliveri
Attorney Docket Number:	WYAT-0002.USD1C1C1

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
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

EFS ID:	35931830
Application Number:	15701261
International Application Number:	
Confirmation Number:	2165
Title of Invention:	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
First Named Inventor/Applicant Name:	David WYATT
Customer Number:	41066
Filer:	Anthony C. Murabito/Mina Oliveri
Filer Authorized By:	Anthony C. Murabito
Attorney Docket Number:	WYAT-0002.USD1C1C1
Receipt Date:	06-MAY-2019
Filing Date:	11-SEP-2017
Time Stamp:	19:41:08
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	EFT
Payment was successfully received in RAM	$500
RAM confirmation Number	050719INTEFSW19414000
Deposit Account	504160
Authorized User	Mina Oliveri

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37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	WYAT-0002USD1C1C1_IssueFee_5-6-2019.pdf	273391 f20bb1cb046b28a3ef2c005cd1ef9df47afa1cb2	no	2
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30073 788c6b4484dfc17f9476955b487c1057fbb7f931	no	2
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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.
<u>National Stage of an International Application under 35 U.S.C. 371</u>
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.
<u>New International Application Filed with the USPTO as a Receiving Office</u>
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.

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Filer:	Anthony C. Murabito/Mina Oliveri
Attorney Docket Number:	WYAT-0002.USD1C1C1

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
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

EFS ID:	35931750
Application Number:	15701261
International Application Number:	
Confirmation Number:	2165
Title of Invention:	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
First Named Inventor/Applicant Name:	David WYATT
Customer Number:	41066
Filer:	Anthony C. Murabito/Mina Oliveri
Filer Authorized By:	Anthony C. Murabito
Attorney Docket Number:	WYAT-0002.USD1C1C1
Receipt Date:	06-MAY-2019
Filing Date:	11-SEP-2017
Time Stamp:	19:32:14
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	Issue Fee Payment (PTO-85B)	WYAT-0002USD1C1C1_IssueFee_5-6-2019.pdf	273391 f20bb1cb046b28a3ef2c005cd1ef9df47afa1cb2	no	2

Warnings:

Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30074 3a21deef5d6a5b1610e1189e83abb4a7c653292a	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	303465	

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 NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/701,261	07/02/2019	10339520	WYAT-0002.USD1C1C1	2165

41066 7590 06/12/2019
MURABITO, HAO & BARNES LLP
111 NORTH MARKET STREET
Suite 700
SAN JOSE, CA 95113

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):

David WYATT, San Jose, CA;
Virtual Electric Inc., San Jose, CA;

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.

PTO/AIA/80 (07-17)
Approved for use through 03/31/2021. OMB 0651-0035
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no person is required to respond to a collection of information unless it displays a valid OMB control number

POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby revoke all previous powers of attorney given in the application identified in the attached statement under 37 CFR 3.73(c).

I hereby appoint:

[X] Practitioners associated with Customer Number: 136197

OR

[ ] Practitioner(s) named below (if more than ten patent practitioners are to be named, then a customer number must be used):

Name	Registration Number	Name	Registration Number

As attorney(s) or agent(s) to represent the undersigned before the United States Patent and Trademark Office (USPTO) in connection with any and all patent applications assigned only to the undersigned according to the USPTO assignment records or assignment documents attached to this form in accordance with 37 CFR 3.73(c).

Please change the correspondence address for the application identified in the attached statement under 37 CFR 3.73(c) to:

[X] The address associated with Customer Number: 136197

OR

[ ]

Firm or individual name		
Address		
City	State	Zip
Country		
Telephone	Email	

Assignee name and address: CARDWARE, INC
2470 CAMROSE AVE.
SAN JOSE, CALIFORNIA 95130

A copy of this form, together with a statement under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent) is required to be filed in each application in which this form is used. The statement under 37 CFR 3.73(c) may be completed by one of the practitioners appointed in this form, and must identify the application in which this Power of Attorney is to be filed.

SIGNATURE of Assignee of Record

The individual whose signature and title is supplied below is authorized to act on behalf of the assignee.

Signature	Date March 29th, 2022
Name David Wyatt	Telephone 408-892-4421
Title CEO/CTO/President	

This collection of information is required by 37 CFR 1.31, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public, which is to update (and by the USPTO to process) the file of a patent or reexamination proceeding. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 18 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.

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.

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.

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: CARDWARE, INC

Application No./Patent No.: 10,339,520 Filed/Issue Date: 07/02/2019

Titled: MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE

CARDWARE, INC, a corporation

(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☑ The assignee of the entire right, title, and interest.

2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):

☐ The extent (by percentage) of its ownership interest is _____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.

☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (*e.g.*, bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

B. ☑ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: DAVID WYATT To: CARDWARE, INC

The document was recorded in the United States Patent and Trademark Office at

Reel 058891, Frame 0432, or for which a copy thereof is attached.

2. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

This collection of information is required by 37 CFR 3.73(b). 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. 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.

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.

STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

4. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☑ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Jose S. Garcia/	4-8-2022
Signature	Date
Jose S. Garcia	43628
Printed or Typed Name	Title or Registration 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.

Electronic Acknowledgement Receipt

EFS ID:	45435728
Application Number:	15701261
International Application Number:	
Confirmation Number:	2165
Title of Invention:	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
First Named Inventor/Applicant Name:	David WYATT
Customer Number:	41066
Filer:	Jose S. Garcia
Filer Authorized By:	
Attorney Docket Number:	WYAT-0002.USD1C1C1
Receipt Date:	08-APR-2022
Filing Date:	11-SEP-2017
Time Stamp:	20:31:51
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	Power of Attorney	WYAT-0002USD1C1C1_AIA_80_POA_to_MHB_Signed.pdf	170922 5e2119e9f430d371f87d7dc705baf305bcf98a34	no	2

Warnings:

Information:					
2	Assignee showing of ownership per 37 CFR 3.73	WYAT-0002USD1C1C1_aia0096_Statement_under_3_73c.pdf	211229 d35a19dafd94c3b015028bd2f3d019b0cd470def	no	3
Warnings:					
Information:					
			Total Files Size (in bytes):	382151	

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.

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National Stage of an International Application under 35 U.S.C. 371
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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 NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/701,261	09/11/2017	David WYATT	

CONFIRMATION NO. 2165

POA ACCEPTANCE LETTER

136197
David Wyatt c/o Murabito, Hao & Barnes
111 North Market Street
Suite 700
San Jose, CA 95113

OC000000133113684

Date Mailed: 04/12/2022

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 04/08/2022.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/nrhayden/

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
15/701,261	09/11/2017	David WYATT	WYAT-0002.USD1C1C1

CONFIRMATION NO. 2165

POWER OF ATTORNEY NOTICE

41066
MURABITO, HAO & BARNES LLP
111 NORTH MARKET STREET
SUITE 700
SAN JOSE, CA 95113

OC000000133113675

Date Mailed: 04/12/2022

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 04/08/2022.

- The Power of Attorney to you in this application has been revoked by the assignee who has intervened as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/nrhayden/

PTO/SB/26a (02-14)
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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TERMINAL DISCLAIMER IN A PATENT OR PROCEEDING IN VIEW OF ANOTHER PATENT

Docket Number (Optional)
WYAT-0002USD1C1C1

Application/Control Number: 15/701,261
Filing Date: 09-11-2017
First Named Inventor: DAVID WYATT
Title: MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
Patent No.: 10339520

The patentee, CARDWARE, INC, owner of 100 percent interest in the instant patent hereby disclaims, except as provided below, the terminal part of the statutory term of the instant patent which would extend beyond the expiration date of the full statutory term of patent No. 9430765 (the "**reference** patent"), as the term of said **reference** patent is presently shortened by any terminal disclaimer. The patentee hereby agrees that the instant patent shall be enforceable only for and during such period that the instant patent and the **reference** patent are commonly owned. This agreement runs with the instant patent and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the patentee does not disclaim the terminal part of the instant patent that would extend to the expiration date of the full statutory term of the **reference** patent, "as the term of said **reference patent** is presently shortened by any terminal disclaimer," in the event that said **reference** patent later: expires for failure to pay a maintenance fee; is held unenforceable; is found invalid by a court of competent jurisdiction; is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321; has all claims canceled by a reexamination certificate; is reissued; or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer.

I. Check either box 1, 2, or 3 below, as appropriate, if there is an assignment:

1. ☐ The current ownership was established by the filing of a statement under 37 CFR 3.73 during prosecution of the application that issued as the instant patent.

2. ☐ The instant patent was issued from an application filed on or after September 16, 2012, and the current patent owner was the applicant under 37 CFR 1.46.

3. ☑ A statement under 37 CFR 3.73 is attached herewith. Form PTO/SB/96 or PTO/AIA/96, as appropriate, may be used.

II. Authorization for Terminal Disclaimer - Check either box 1 or 2 below, if appropriate:

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

1. ☐ For submissions on behalf of a business/organization (e.g., corporation, partnership, university, government agency, etc.), the undersigned is empowered to act on behalf of the business/organization.

2. ☑ The undersigned is an attorney or agent of record. Reg. No. 43628

/Jose S. Garcia/	4-14-2022
Signature	Date
Jose S. Garcia	408-938-9060
Typed or printed name	Telephone number

☑ The terminal disclaimer fee under 37 CFR 1.20(d) is included.

NOTE: Submit multiple forms if more than one signature is required, see below.*

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.

☐ *Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.321. 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. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Privacy Act Statement

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TERMINAL DISCLAIMER IN A PATENT OR PROCEEDING IN VIEW OF ANOTHER PATENT

Docket Number (Optional)
WYAT-0002USD1C1C1

Application/Control Number: 15/701,261
Filing Date: 09-11-2017
First Named Inventor: DAVID WYATT
Title: MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
Patent No.: 10339520

The patentee, CARDWARE, INC, owner of 100 percent interest in the instant patent hereby disclaims, except as provided below, the terminal part of the statutory term of the instant patent which would extend beyond the expiration date of the full statutory term of patent No. 9022286 (the "**reference** patent"), as the term of said **reference** patent is presently shortened by any terminal disclaimer. The patentee hereby agrees that the instant patent shall be enforceable only for and during such period that the instant patent and the **reference** patent are commonly owned. This agreement runs with the instant patent and is binding upon the grantee, its successors or assigns.

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/Jose S. Garcia/	4-14-2022
Signature	Date
Jose S. Garcia	408-938-9060
Typed or printed name	Telephone number

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Docket Number (Optional)
WYAT-0002USD1C1C1

Application/Control Number: 15/701,261
Filing Date: 09-11-2017
First Named Inventor: DAVID WYATT
Title: MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
Patent No.: 10339520

The patentee, CARDWARE, INC, owner of 100 percent interest in the instant patent hereby disclaims, except as provided below, the terminal part of the statutory term of the instant patent which would extend beyond the expiration date of the full statutory term of patent No. 9224083 (the "**reference** patent"), as the term of said **reference** patent is presently shortened by any terminal disclaimer. The patentee hereby agrees that the instant patent shall be enforceable only for and during such period that the instant patent and the **reference** patent are commonly owned. This agreement runs with the instant patent and is binding upon the grantee, its successors or assigns.

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/Jose S. Garcia/	4-14-2022
Signature	Date
Jose S. Garcia	408-938-9060
Typed or printed name	Telephone number

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Docket Number (Optional) WYAT-0002USD1C1C1

Application/Control Number: 15/701,261
Filing Date: 09-11-2017
First Named Inventor: DAVID WYATT
Title: MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
Patent No.: 10339520

The patentee, CARDWARE, INC, owner of 100 percent interest in the instant patent hereby disclaims, except as provided below, the terminal part of the statutory term of the instant patent which would extend beyond the expiration date of the full statutory term of patent No. 9760884 (the "**reference** patent"), as the term of said **reference** patent is presently shortened by any terminal disclaimer. The patentee hereby agrees that the instant patent shall be enforceable only for and during such period that the instant patent and the **reference** patent are commonly owned. This agreement runs with the instant patent and is binding upon the grantee, its successors or assigns.

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/Jose S. Garcia/	4-14-2022
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Filing Date: 09-11-2017
First Named Inventor: DAVID WYATT
Title: MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
Patent No.: 10339520

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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.

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STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: CARDWARE, INC

Application No./Patent No.: 10,339,520 Filed/Issue Date: 07/02/2019

Titled: MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE

CARDWARE, INC, a corporation

(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☑ The assignee of the entire right, title, and interest.

2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):

☐ The extent (by percentage) of its ownership interest is _____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.

☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (*e.g.*, bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

B. ☑ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: DAVID WYATT To: CARDWARE, INC

The document was recorded in the United States Patent and Trademark Office at

Reel 058891, Frame 0432, or for which a copy thereof is attached.

2. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

This collection of information is required by 37 CFR 3.73(b). 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. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

4. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

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6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☑ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/Jose S. Garcia/	4-14-2022
Signature	Date
Jose S. Garcia	43628
Printed or Typed Name	Title or Registration Number

Privacy Act Statement

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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)).
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Electronic Patent Application Fee Transmittal

Application Number:	15701261
Filing Date:	11-Sep-2017
Title of Invention:	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
First Named Inventor/Applicant Name:	David WYATT
Filer:	Jose S. Garcia
Attorney Docket Number:	

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
STATUTORY OR TERMINAL DISCLAIMER	2814	5	170	850
		Total in USD ($)		**850**

Electronic Acknowledgement Receipt

EFS ID:	45479592
Application Number:	15701261
International Application Number:	
Confirmation Number:	2165
Title of Invention:	MULTI-FUNCTIONAL CREDIT CARD TYPE PORTABLE ELECTRONIC DEVICE
First Named Inventor/Applicant Name:	David WYATT
Customer Number:	136197
Filer:	Jose S. Garcia
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	14-APR-2022
Filing Date:	11-SEP-2017
Time Stamp:	17:42:20
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$850
RAM confirmation Number	E20224DH42460247
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	Terminal Disclaimer Filed	WYAT-0002USD1C1C1_sb0026a_TD_1_of_5.pdf	199750 6290b8feeb0d1884fcbc0d56c2ddbca245a55c3a	no	2
Warnings:					
Information:					
2	Terminal Disclaimer Filed	WYAT-0002USD1C1C1_sb0026a_TD_2_of_5.pdf	180800 a2406b69b657938d5366d5fc65d2b434ac94a2b8	no	2
Warnings:					
Information:					
3	Terminal Disclaimer Filed	WYAT-0002USD1C1C1_sb0026a_TD_3_of_5.pdf	180809 91e8fb8107497537bb3994d67668c6ed4e9619d0	no	2
Warnings:					
Information:					
4	Terminal Disclaimer Filed	WYAT-0002USD1C1C1_sb0026a_TD_4_of_5.pdf	180827 15b03abb0906814f703cdf34cfdadf310e38807b	no	2
Warnings:					
Information:					
5	Terminal Disclaimer Filed	WYAT-0002USD1C1C1_sb0026a_TD_5_of_5.pdf	180812 d5c6b5adc1b38b5d92fbc5f8e4cdc72da7d30b2a	no	2
Warnings:					
Information:					
6	Assignee showing of ownership per 37 CFR 3.73	WYAT-0002USD1C1C1_aia0096_Statement_under_3_73c.pdf	220894 4e806d49574f1c87cc05d09ba371415eecef0737	no	3
Warnings:					
Information:					

7	Fee Worksheet (SB06)	fee-info.pdf	37864 8727564ad201682362d8cfbd96419997931 6024c	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	1181756	

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.

AO 120 (Rev. 08/10)

TO: Mail Stop 8 Director of the U.S. Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450	**REPORT ON THE FILING OR DETERMINATION OF AN ACTION REGARDING A PATENT OR TRADEMARK**

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 Eastern District of Texas, Marshall Division on the following

☐ Trademarks or ☑ Patents. (☐ the patent action involves 35 U.S.C. § 292.):

DOCKET NO.	DATE FILED	U.S. DISTRICT COURT
2:22-cv-00141	5/11/2022	Eastern District of Texas, Marshall Division

PLAINTIFF	DEFENDANT
CardWare Inc.	Samsung Electronics Co., Ltd. and Samsung Electronics America, Inc.

PATENT OR TRADEMARK NO.	DATE OF PATENT OR TRADEMARK	HOLDER OF PATENT OR TRADEMARK
1 10,339,520	7/2/2019	CardWare Inc.
2 10,628,820	4/21/2020	CardWare Inc.
3 10,810,579	10/20/2020	CardWare Inc.
4 11,176,538	11/16/2021	CardWare Inc.
5 11,328,286	4/20/2022	CardWare Inc.

In the above—entitled case, the following patent(s)/ trademark(s) have been included:

DATE INCLUDED	INCLUDED BY ☐ Amendment ☐ Answer ☐ Cross Bill ☐ Other Pleading	
PATENT OR TRADEMARK NO.	DATE OF PATENT 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**

Trials@uspto.gov
571-272-7822

Paper: 13
Entered: June 13, 2023

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
Petitioner,

v.

CARDWARE INC.,
Patent Owner.

IPR2023-00210
Patent 10,339,520 B2

Before BRIAN J. MCNAMARA, ELIZABETH M. ROESEL, and SHARON FENICK, *Administrative Patent Judges.*

ROESEL, *Administrative Patent Judge.*

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. Background and Summary

Samsung Electronics Co., Ltd. ("Petitioner") filed a Petition (Paper 3, "Pet.") seeking an *inter partes* review of claims 1 and 4–17 of U.S. Patent No. 10,339,520 B2 (Ex. 1001, "the '520 Patent"). CardWare Inc. ("Patent Owner") filed a Preliminary Response. Paper 7 ("Prelim. Resp.").

Pursuant to our delegated authority, we may not institute an *inter partes* review "unless . . . the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a) (2018); 37 C.F.R. § 42.4(a) (2022). After considering the information presented in the Petition and the Preliminary Response, we determine that the reasonable likelihood standard is not met. Accordingly, we deny institution of an *inter partes* review.

B. Related Matters

The parties identify the following as a related matter: *CardWare Inc. v. Samsung Electronics Co., Ltd.*, No. 2:22-cv-00141 (E.D. Tex.). Pet. 75; Paper 4, 1 (Patent Owner's mandatory notices).

The parties also identify IPR2023-00211, which involves the same parties and the same patent. Pet. 75; Paper 4, 1.

C. The '520 Patent (Ex. 1001)

The '520 Patent is titled, "Multi-functional credit card type portable electronic device" and discloses methods of using such a device to perform transactions. Ex. 1001, codes (54), (57). According to the '520 Patent, existing types of credit cards have "security limitations" and are "susceptible to theft and/or compromise." *Id.* at 1:63–67. The '520 Patent addresses

these concerns with a credit card device having various security features, including "the capability of producing a limited-duration credit card number for performing transactions using accounts of the card." *Id.* at 10:4–7.

D. Illustrative Claim

Petitioner challenges claims 1 and 4–17 of the '520 Patent, of which claims 1 and 10 are independent. Pet. 1. Claim 1 is illustrative and is reproduced below.

> 1. [1pre] An electronic device comprising:
>
> [1a] a near-field communication (NFC) unit;
>
> [1b] a touch sensor array; a display;
>
> [1c] a motion rate detection array;
>
> [1d] a memory for storing a user data and a currency [1e] amount;
>
> [1f] a processor operatively coupled to the NFC unit, the touch sensor array, the display, the motion rate detection array, and the memory;
>
> [1g] a computer readable medium having instructions stored thereon that, responsive to execution by the electronic device, cause the electronic device to perform operations comprising:
>
> *[1h] accepting a user input of issued payments information input at a touch screen display of the electronic device, wherein the information comprising an issuer provided payment information;*
>
> *[1i] wherein the memory comprises device-specific and user-specific information; and,*
>
> *[1j] wherein the user provided payment information is communicated wirelessly; and,*
>
> *[1k] wirelessly receiving a static device account number payment information for storage on the electronic device; and*

> *[1l] wherein at least a portion of the payment information is a limited-use number for limited-use by the device, in place of a issuer provided payment information; and,*
>
> *[1m] dynamically-generating a one-time limited-use numbers based on at least one of a set of information including: user-identifying information; user secrets; device information; device secrets; time; merchant; facility location; sequence count; payment information; account information; amount; and transaction information; and*
>
> *[1n] using said static device account number and said dynamically generated one-time limited-use number together in the place of issuer provided payment information for making a payment transaction.*

Ex. 1001, 15:64–16:33 (bracket designations and italics added and paragraphs adjusted); *see* Pet. vii–ix (Petitioner's claim listing).

Claim 10 is directed to "[a] method of storing and generating payment information in an electronic device" and recites the above-italicized limitations of claim 1, with only minor differences. Ex. 1001, 17:8–33.

E. Asserted Grounds and Evidence

Petitioner asserts the following grounds of unpatentability:

Ground	Claim(s) Challenged	35 U.S.C. §[1]	Reference(s)/Basis
1A	10–13	103(a)	Gomez,[2] Carlson[3]

[1] The Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103, effective March 16, 2013. Because the '520 Patent claims the benefit of a provisional application filed before that date, we refer to the pre-AIA version of § 103. Ex. 1001, code (60).

[2] Ex. 1005, US 9,600,808 B1, issued March 21, 2017 ("Gomez").

[3] Ex. 1006, US 2008/0319905 Al, published December 25, 2008 ("Carlson").

Ground	Claim(s) Challenged	35 U.S.C. §[1]	Reference(s)/Basis
1B	14–17	103(a)	Gomez, Carlson, Mullen-915[4]
1C	1, 4–6, 8	103(a)	Gomez, Carlson, Jones[5]
1D	7	103(a)	Gomez, Carlson, Jones, Kay[6]
1E	9	103(a)	Gomez, Carlson, Jones, Mullen-701[7]
2A	10–13	103(a)	Carlson, Gomez
2B	14–17	103(a)	Carlson, Gomez, Mullen-915
2C	1, 4–6, 8	103(a)	Carlson, Gomez, Jones
2D	7	103(a)	Gomez, Carlson, Jones, Kay
2E	9	103(a)	Gomez, Carlson, Jones, Mullen-701

We note that Petitioner's Grounds 1A–1E differ from Grounds 2A–2E only with respect to the order of the first two references, Gomez and Carlson. Petitioner submits the Declaration of Michael I. Shamos, Ph.D., in support of the Petition. Ex. 1003.

II. ANALYSIS

A. Legal Standards

"In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is

[4] Ex. 1007, WO 2012/154915 A1, published November 15, 2012 ("Mullen-915").

[5] Ex. 1008, US 2013/0262305 A1, published October 3, 2013 ("Jones").

[6] Ex. 1009, 2013/0124410 A1, published May 16, 2013 ("Kay").

[7] Ex. 1013, US 2009/0159701 A1, published June 25, 2009 ("Mullen-701").

unpatentable." *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify "with particularity . . . the evidence that supports the grounds for the challenge to each claim")); *see also* 37 C.F.R. § 42.104(b) (requiring a petition for *inter partes* review to identify how the challenged claim is to be construed and where each element of the claim is found in the prior art patents or printed publications relied upon).

A patent claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed subject matter 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. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved based on underlying factual determinations including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when presented, objective evidence of nonobviousness, i.e., secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

Additionally, the obviousness inquiry typically requires an analysis of "whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (requiring "articulated reasoning with some rational underpinning to support the legal conclusion of obviousness")). Petitioner cannot satisfy its burden of proving obviousness by employing "mere conclusory statements," but "must instead articulate specific reasoning, based on evidence of record, to support the legal

conclusion of obviousness." *In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

B. Level of Ordinary Skill in the Art

Petitioner contends that a person of ordinary skill in the art ("POSITA") would have had "(1) a bachelor's degree in computer science, computer engineering, electrical engineering, or a related field, and (2) one to two years of experience working with payment processing and/or digital authentication systems, including familiarity with short-range wireless technology." Pet. 5 (citing Ex. 1003 ¶¶ 39–44). According to Petitioner, "[g]raduate education could substitute for professional experience, or significant experience in the field could substitute for formal education." *Id.*

For purposes of the Preliminary Response, Patent Owner does not dispute Petitioner's definition of a POSITA. Prelim. Resp. 14.

For purposes of this Decision, we apply Petitioner's definition of a POSITA, which is consistent with the scope and content of the '520 Patent and the asserted prior art.

C. Claim Construction

In an *inter partes* review, we apply the same claim construction standard as would be used by a district court to construe a claim in a civil action involving the validity or infringement of a patent. 37 C.F.R. § 42.100(b). Under that standard, claim terms are given their ordinary and customary meaning, as would have been understood by a person of ordinary skill in the art at the time of the invention, in light of the language of the claims, the specification, and the prosecution history of record. *Id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–19 (Fed. Cir. 2005) (en banc); *Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1365–66 (Fed. Cir. 2012).

"The Board is required to construe 'only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy." *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (quoting *Vivid Techs., Inc. v. Am. Sci. Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

Both parties assert that claim construction is not required. Pet. 3; Prelim. Resp. 13. Nevertheless, Petitioner addresses the meaning of "static device account number payment information" in element [10e]. Pet. 20–22 & nn.4, 5). According to Petitioner, the "static device account number payment information" in element [10e] is the antecedent for "the payment information" in element [10f] and, consequently, "at least a portion of the static device account number payment information is a 'limited-use number for limited use by the device.'" *Id.* Based on this reasoning, Petitioner asserts that "the static device account number payment information is not required to have an unlimited lifetime." Pet. 22 n.5.

To the extent that Petitioner equates a static number with a dynamic number, we disagree. The '520 Patent uses the words, "static" and "dynamic," consistent with their ordinary and customary meanings, where "static" means fixed or unchanging, and "dynamic" means continuously changing. Exs. 3002, 3003 (Merriam-Webster online dictionary). Claims 1 and 10 recite "a static device account number" and a "dynamically generated one-time limited-use number," and further recite using these two numbers "together in the place of issuer provided payment information for making a payment transaction." Ex. 1001, 16:18–33, 17:18–33. We find that these recitations are consistent with the ordinary and customary meanings of "static" and "dynamic."

Our finding is reinforced by the Specification, which distinguishes between a "static" number (or number portion) that is "fixed" and a "limited-duration" number (or number portion) that is "dynamically generated." Ex. 1001, 10:3–7, 10:13–23, 10:33–62. According to the '520 Patent, "[t]he limited-duration credit card number is able to be limited to only one transaction, a finite number of transactions, or may be limited to a specified period of time—e.g., 2 minutes, 10 minutes, 3 hours—after which time that particular limited-duration number would become invalid." *Id.* at 10:18–23. The '520 Patent discloses an embodiment in which "the number displayed on the credit card device is a static number, but the number transmitted during a transaction is a limited-duration credit card number as described above." *Id.* at 10:33–36. The '520 Patent discloses another embodiment in which a portion of the credit card number is "fixed" or "static" and another portion is "dynamically generated." *Id.* at 10:34–46, 10:53–56. The Specification does not support construing "a static device account number" as encompassing a number that is dynamically generated and valid for only a finite number of transactions or a specified period of time, such as two minutes, ten minutes, or three hours.

We determine that no further claim construction is necessary for purposes of this Decision.

D. Petitioner's References

We provide an overview of Gomez (Ex. 1005) and Carlson (Ex. 1006) below. An overview of Petitioner's remaining references is not necessary for purposes of this Decision.

1. Gomez (Ex. 1005)

Gomez discloses a secure payment card called an "EPIC payment card" having a static payment card identifying number called an "EPIC account number," which is not itself a live payment card account number, but is linked to one or more live payment card accounts. Ex. 1005, codes (54), (57), 1:63–64, 5:13–18, 5:48–60, 6:7–12, Fig. 2. To prevent theft and fraud, the EPIC payment card generates an authentication cryptogram that is unique for each attempted use of the card and expires within a short period thereafter. *Id.* at code (57), 1:58–63, 5:13–18. "The authentication cryptogram is based at least upon a seed value stored within the payment card and a temporal signal value, such as the date/time of the attempted purchase, and is preferably valid for only a short lifetime after the date/time." *Id.* at 5:25–29; *see also id.* at 1:64–2:4, 14:36–17:12 (describing authentication cryptogram).

Gomez describes a traditional payment system and transaction flow for a retail purchase transaction using a credit or debit card. Ex. 1005, 3:65–4:50, Fig. 1. Gomez also describes "an exemplary EPIC payment system . . . and transaction flow" using the EPIC payment card. *Id.* at 5:48–6:64, Fig. 2. In the EPIC payment system, an authorization cryptogram is encoded in a re-writable field of the EPIC payment card's magnetic stripe. *Id.* at 5:50–56, 5:61–64. When the EPIC payment card is swiped through a magnetic card reader at a point-of-sale ("POS") terminal, the encoded information is combined with transaction information and communicated to an acquirer.[8] *Id.* at 5:64–6:6, Fig. 2 (steps 444, 448). When the account

[8] Gomez explains: "The acquirer . . . functions as an intermediary between a merchant and a card association, such as VISA, MasterCard, Discover, or American Express, to more easily provide for a merchant to be able to

number is recognized as an EPIC account number, the acquirer sends an authentication request, including the authentication cryptogram, to an EPIC authentication server, which determines whether the authentication cryptogram is valid for the transaction. *Id.* at 6:7–24, Fig. 2 (step 452). If so, the authentication server communicates an actual payment card account number back to the acquirer. *Id.* at 6:23–38, Fig. 2 (step 456). From this point, the transaction proceeds in the same manner as for a traditional credit or debit card transaction. *Id.* at 6:39–64, Figs. 1, 2 (steps 412, 416, 420, 422, 424).

2. Carlson (Ex. 1006)

Carlson discloses a secure mobile payment system and a method of using a portable wireless device, such as a cellular phone, to conduct a contactless payment transaction. Ex. 1006, codes (54), (57), ¶¶ 2, 77. To address security concerns associated with wireless communication of sensitive information, Carlson discloses a pseudo account identifier ("PAI")[9] that corresponds to a consumer's real account identifier. *Id.* at code (57), ¶¶ 6–14, 29. According to Carlson, the PAI may be received at a portable wireless device over a network and may have been previously generated by a remote server computer. *Id.* at code (57), ¶¶ 14, 29, 32, 35. Thereafter, the portable wireless device may use the PAI to conduct one or more

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accept many different types of payment cards, without each merchant having to establish electronic connections with multiple card associations, card issuers, or other entities." Ex. 1005, 4:17–23.

[9] Carlson also uses the terms, "primary account identifier" and "pseudo primary account identifier." Ex. 1006 ¶ 13. According to Carlson, a "primary account identifier" is an example of an "account identifier" and a "pseudo primary account identifier" is an example of a "pseudo account identifier." *Id.*

transactions by providing the PAI to an access device, such as a contactless reader of a POS terminal or an automatic teller machine ("ATM"). *Id.* ¶¶ 14, 15, 40, 41. The access device uses the PAI to form an authorization request message that is sent to a payment processing network. *Id.* at code (57), ¶¶ 14, 43. Upon receipt of an authorization request message, the payment processing network converts the PAI back to the real account identifier, which is then sent to the issuer for authorization of the transaction. *Id.* ¶¶ 47, 49; *see also* ¶¶ 73–76, Fig. 4 (flow diagram illustrating a method of processing a transaction involving a PAI).

Carlson discloses that "[t]he payment processing network may dynamically generate the pseudo primary account identifier, select it from a list of predefined pseudo primary account identifiers, or use any other means to create a pseudo primary account identifier." Ex. 1006 ¶ 35. Carlson further discloses that the payment processing network can store the relationship of the PAI to the real account identifier and may also store additional details about the relationship. *Id.* ¶ 36.

> For example, the pseudo primary account number may be set to expire after a certain number of transactions or after a certain time period. Doing so can help to ensure that if for some reason a pseudo primary account number is revealed to anyone other than an authorized user, the amount of damage that can be done is limited due to the limited lifetime of the pseudo primary account number.

Id. Carlson describes the security advantages of the PAI as follows:

> Because the pseudo primary account identifier can be transitory and may have a limited lifetime, it can be noted that this provides a level of protection to the consumer's account. If the pseudo primary account identifier transmitted between the portable wireless device and the contactless reader is intercepted, it would be of limited or no use to a person wishing to use it for conducting unauthorized transactions, as it would likely have

> expired before any illicit use could be made. It is further noted that the primary account is also protected from unscrupulous merchants because the merchant only receives the transitory pseudo primary account identifier and never receives the real primary account identifier.

Id. ¶ 44.

E. Petitioner's Challenges

1. Independent Claims 1 and 10

Petitioner contends that claim 10 would have been obvious based on Gomez and Carlson and that claim 1 would have been obvious based on Gomez, Carlson, and Jones. Pet. 1–2, 6–25, 32–40, 48–58, 62–66. Patent Owner opposes. Prelim. Resp. 14–34.

Our analysis focuses on claim element [1k], which recites "wirelessly receiving a static device account number payment information for storage on the electronic device," and element [10e], which is identical except for the order of the words, "wirelessly" and "receiving." Ex. 1001, 16:18–19, 17:18–19.

Petitioner contends that claim elements [1k] and [10e] are taught by Carlson alone or Gomez in view of Carlson. Pet. 8, 17–20, 39, 55, 65. Patent Owner disagrees. Prelim. Resp. 15–21, 25–28.

After considering the parties' submissions and for the reasons discussed below, we determine that Petitioner's arguments and evidence for claim elements [1k] and [10e] do not meet the threshold for institution.

a) Carlson

Petitioner contends that Carlson's PAI is "static device account number payment information," as recited in claim elements [1k] and [10e], but presents no persuasive argument for why Carlson's PAI should be

considered "static." Pet. 55, 65. We agree with Patent Owner that it is not. Prelim. Resp. 19.

As discussed above, the Specification of the '520 Patent does not support construing "a static device account number" as encompassing a number that is dynamically generated and valid for only a finite number of transactions or a specified period of time, such as two minutes, ten minutes, or three hours. Carlson's PAI is precisely that—a dynamically generated, transitory number that is valid for only a finite number of transactions or a specified period of time. Ex. 1006 ¶ 35 ("The payment processing network may dynamically generate the pseudo primary account identifier . . ."); *id.* ¶ 36 ("[T]he pseudo primary account number may be set to expire after a certain number of transactions or after a certain time period."); *id.* ¶ 44 ("Because the pseudo primary account identifier can be transitory and may have a limited lifetime, it can be noted that this provides a level of protection to the consumer's account.").

b) Gomez in view of Carlson

Petitioner contends that Gomez's EPIC payment card number is a "static device account number," as recited in claim elements [1k] and [10e]. Pet. 17–18. That much of Petitioner's contention is supported by the Gomez. Ex. 1005, 1:63–64 ("An exemplary payment card system uses a static payment card identifying number."); *id.* at 2:19–39 (discussing a "static payment card identifying number"); *id.* at 5:13–15 ("In an exemplary embodiment, an EPIC payment card uses a fully static payment card number . . ."); *id.* at 13:49–52 ("A fully static (16-digit) account number . . . may be printed or embossed on the payment card."); *id.* at 23:15–20 (claims 9, 10: "the payment card identifying number is a static number . . .").

To account for the part of claim elements [1k] and [10e] that recites "wirelessly receiving," however, Petitioner proposes to modify Gomez's EPIC payment card number. Pet. 18–20. More particularly, Petition contends that, "[t]o the extent Gomez does not expressly disclose that the EPIC number is received wirelessly, such features would have been obvious in view of Carlson's teachings." Pet. 18 (citing Ex. 1003 ¶ 171). Petitioner directs us to Carlson's teaching that the PAI is wirelessly received by a portable wireless device. *Id.* (citing Ex. 1006 ¶¶ 32, 34, 51, 68, Figs. 2, 5). As a rationale for combining Carlson's teaching with Gomez, Petitioner contends that "[w]ireless reception of the EPIC number would have enabled the device to more readily obtain new or updated EPIC numbers from time-to-time, such as when the current EPIC number expires or in the event the EPIC account is compromised." Pet. 18–19 (citing Ex. 1003 ¶ 172). As support for this rationale, Petitioner asserts that "Carlson expressly recognizes security protections that would be realized by updating the PAI from time-to-time—i.e., a capability made possible by configuring the device to receive wirelessly new PAIs." Pet. 19 (citing Ex. 1006 ¶¶ 36, 44).

We find that Petitioner's obviousness rationale is unsupported by the evidence or in conflict with the claim requirement for a "static device account number."

To the extent that Petitioner proposes that a new or updated EPIC number would be wirelessly received "from time-to-time, such as when the current EPIC number expires or in the event the EPIC account is compromised" (Pet. 19), such a modification is not supported by Carlson, which teaches that the PAI is "transitory," has a "limited lifetime," and "may be set to expire after a certain number of transactions or after a certain time period." Ex. 1006 ¶¶ 36, 44. Moreover, Carlson does not teach or suggest

that security would be improved by updating Gomez's EPIC number (or Carlson's PAI) merely "from time-to-time, such as when the current EPIC number expires or in the event the EPIC account is compromised," as proposed by Petitioner. Such infrequent updating would provide little or no security improvement over conventional credit card numbers that are updated only when they expire or are compromised. *See* Ex. 1005, 1:40–48 (discussing security risks associated with conventional credit card numbers that are "fixed and never change"). Petitioner fails to show that updating Gomez's EPIC number merely "from time-to-time" would provide a security improvement over Gomez, which discloses that fraudulent use of the static payment card identifying number "would not be possible because any attempted transaction would not be approved without an appropriate authentication cryptogram generated uniquely for such transaction." *Id.* at 2:19–25; *see* Prelim. Resp. 27 ("Petitioner also fails to explain why a POSITA would want or need to update the EPIC account number given that it is used in connection with a dynamically generated cryptogram.").

To the extent that Petitioner proposes that a new or updated EPIC number would be wirelessly received with the same frequency as Carlson teaches for the PAI, then we find that such a modified EPIC number would not be a "static device account number," as claimed. As already discussed, Carlson's PAI is a dynamically generated, transitory number that is valid for only a finite number of transactions or a specified period of time short enough to avoid unauthorized use. Ex. 1006 ¶¶ 35, 36, 44. If Gomez's EPIC number were modified to have the same limited lifetime of Carlson's PAI, then it would not be "static," as claimed.

2. Dependent Claims 4–9 and 11–17

Claims 4–9 depend from claim 1, and claims 11–17 depend, directly or indirectly, from claim 10. Petitioner's arguments and evidence for dependent claims 4–9 and 11–17 do not remedy the deficiencies in their arguments and evidence for independent claims 1 and 10, as discussed above.

F. Discretion under 35 U.S.C. § 314(a)

In view of our determination that Petitioner does not meet the threshold for instituting review on the merits, we do not need to address the parties' dispute about whether the Board should exercise its discretion to deny the Petition under 35 U.S.C. § 314(a). Pet. 71–74; Prelim. Resp. 35–41; Paper 9 (Petitioner's Reply to Patent Owner's Preliminary Response); Paper 10 (Patent Owner's Preliminary Sur-reply).

III. CONCLUSION

For the above reasons, we determine that Petitioner does not establish a reasonable likelihood that it would prevail in showing that at least one of claims 1 and 4–17 of the '520 Patent is unpatentable on the grounds asserted in the Petition.

IV. ORDER

It is

ORDERED that the Petition is *denied*, and no trial is instituted.

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
Petitioner,

v.

CARDWARE INC.,
Patent Owner.

IPR2023-00211
Patent 10,339,520 B2

Before BRIAN J. MCNAMARA, ELIZABETH M. ROESEL, and SHARON FENICK, *Administrative Patent Judges.*

ROESEL, *Administrative Patent Judge.*

DECISION
Granting Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. Background and Summary

Samsung Electronics Co., Ltd. ("Petitioner") filed a Petition (Paper 3, "Pet.") seeking an *inter partes* review of claims 18–24 (the "challenged claims") of U.S. Patent No. 10,339,520 B2 (Ex. 1001, "the '520 Patent"). CardWare Inc. ("Patent Owner") filed a Preliminary Response. Paper 7 ("Prelim. Resp."). With prior authorization, Petitioner filed a Reply (Paper 9, "Prelim. Reply"), and Patent Owner filed a Sur-reply (Paper 10, "Prelim. Sur-reply").

Pursuant to our delegated authority, we may not institute an *inter partes* review "unless . . . the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a) (2018); 37 C.F.R. § 42.4(a) (2022). After considering the information presented in the Petition, the Preliminary Response, the Preliminary Reply, and Preliminary Sur-reply, we determine that Petitioner has shown a reasonable likelihood that it would prevail in showing that at least one of the challenged claims is unpatentable and that discretionary denial is not appropriate. Therefore, we grant institution of an *inter partes* review.

Our findings and conclusions below are based on the record developed thus far. This is not a final decision as to the patentability of any challenged claim. Any final decision will be based on the full record developed during trial.

B. Related Matters

The parties identify the following as a related matter: *CardWare Inc. v. Samsung Electronics Co., Ltd.*, No. 2:22-cv-00141 (E.D. Tex.) ("district court litigation"). Pet. 65; Paper 4, 1 (Patent Owner's mandatory notices).

The parties also identify IPR2023-00210, which involves the same parties and the same patent. Pet. 75; Paper 4, 1.

C. The '520 Patent (Ex. 1001)

The '520 Patent is titled, "Multi-functional credit card type portable electronic device" and discloses methods of using such a device to perform transactions, including transactions using an automated teller machine (ATM). Ex. 1001, codes (54), (57), 12:44–51. According to the '520 Patent, existing types of credit cards have "security limitations" and are "susceptible to theft and/or compromise." *Id.* at 1:63–67. The '520 Patent addresses these concerns with a credit card device having various security features, including "the capability of producing a limited-duration credit card number for performing transactions using accounts of the card." *Id.* at 10:4–7.

D. Illustrative Claim

Petitioner challenges claims 18–24 of the '520 Patent, of which claim 18 is independent. Pet. 1. Claim 18 is illustrative and is reproduced below.

> 18. [18pre] A method of facilitating and authorizing an automated teller machine (ATM) transaction involving an electronic device, wherein an electronic device transacts wirelessly with an ATM, the method comprising:
>
> [18a] providing, by the electronic device, at least one of account information identification and authorization, for the ATM transaction and,

> [18b] wherein the electronic device comprises a user interface comprising: displays touch sensors and buttons and,
>
> [18c] recording a user selection from the user interface of the electronic device of a user selected account from which the electronic device is operable to wirelessly convey with an ATM and,
>
> [18d] recording a user selection from the user interface of the electronic device of a user selected account operation, wherein said user selected account operation is selected from a list of funds transfer operations and,
>
> [18e] wherein user input information from the user interface includes at least one of a set comprising: identification, account, amount of currency, operation and authorizing information and,
>
> [18f] wherein the identification, selection, information and authorizing operations are exchanged wirelessly between the electronic device and the ATM via NFC and,
>
> [18g] wherein the ATM is configured for performing the user selected account operation using the identification and authorizing information and,
>
> [18h] wherein the identification and authorizing information exchanged wirelessly between the electronic device and the ATM comprises: statically and dynamically generated limited-use number portions and,
>
> [18i] wherein said static and dynamic information is combined to perform the user selected ATM operation.

Ex. 1001, 18:11–42 (bracket designations and paragraphs adjusted); *see* Pet. 20–41 (Petitioner's identification of claim elements).

E. Asserted Grounds and Evidence

Petitioner asserts the following grounds of unpatentability:

Claims Challenged	35 U.S.C. §[1]	Reference(s)/Basis
18–21, 24	103(a)	Gill,[2] Smith,[3] Kay[4]
18–24	103(a)	Gill, Smith, Kay, Gomez[5]

Petitioner submits the Declaration of Michael I. Shamos, Ph.D. (the "Shamos Declaration"), in support of the Petition. Ex. 1003.

II. DISCRETION UNDER 35 U.S.C. § 314(A)

A. Legal Standards

Patent Owner argues that we should exercise discretion to deny institution under 35 U.S.C. § 314(a) because the factors identified in *Apple, Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential) ("*Fintiv*"), weigh in favor of denying institution. Prelim. Resp. 28–33; Prelim. Sur-reply. Petitioner argues we should not discretionarily deny institution under *Fintiv*. Pet. 61–65; Prelim. Reply.

The precedential decision in *Fintiv* identifies a non-exclusive list of factors parties may consider addressing where there is a related, parallel

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[1] The Leahy-Smith America Invents Act ("AIA"), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103, effective March 16, 2013. Because the '520 Patent claims the benefit of a provisional application filed before that date, we refer to the pre-AIA version of § 103. Ex. 1001, code (60).

[2] Ex. 1010, US 9,098,846 B2, issued August 4, 2015 ("Gill").

[3] Ex. 1011, US 2013/0232083 A1, published September 5, 2013 ("Smith").

[4] Ex. 1009, US 2013/0124410 A1, published May 16, 2013 ("Kay").

[5] Ex. 1005, US 9,600,808 B1, issued March 21, 2017 ("Gomez").

district court action to determine whether such action provides any basis for discretionary denial. *Fintiv*, 5–16. Those factors include:

> 1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
>
> 2. proximity of the court's trial date to the Board's projected statutory deadline for a final written decision;
>
> 3. investment in the parallel proceeding by the court and the parties;
>
> 4. overlap between issues raised in the petition and in the parallel proceeding;
>
> 5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
>
> 6. other circumstances that impact the Board's exercise of discretion, including the merits.

Id. at 5–6.

In evaluating the factors, we take a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review. *Id.* at 6. The Director has issued additional guidance on the application of *Fintiv*. *See* Katherine K. Vidal, *Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation* (June 21, 2022)[6] ("*Fintiv* Memo"). Additionally, we are guided by the precedential decisions of the Director in *OpenSky Indus., LLC v. VLSI Tech. LLC*, IPR2021-01064, Paper 102, 49–50 (Oct. 4, 2022) (precedential) and *CommScope Techs. LLC v. Dali Wireless, Inc*, IPR2022-01242, Paper 23 (Feb. 27, 2023) (precedential) ("*CommScope*").

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[6] Available at https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf

We are instructed to consider compelling merits under *Fintiv* factor six only after a determination that the first five *Fintiv* factors favor discretionary denial. *CommScope*, 4–5. Thus, we begin by considering the first five *Fintiv* factors.

B. Fintiv Factors

1. Factor 1 - Whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted

"A district court stay of the litigation pending resolution of the PTAB trial allays concerns about inefficiency and duplication of efforts." *Fintiv*, 6. *Fintiv* indicated that, in previous Board decisions, the existence of a district court stay pending Board resolution of an *inter partes* review has weighed strongly against discretionary denial, while a denial of such a stay request sometimes weighs in favor of discretionary denial. *Id.* at 6–8.

Patent Owner notes that a stay was requested and not granted in the district court litigation, and asserts that this factor should be viewed as neutral. Prelim. Resp. 28; Ex. 2003.

Petitioner notes that the dismissal of the stay request was without prejudice, and that it maintains the right to move for a stay if we institute. Prelim. Reply 1, 2. Petitioner argues that the factor should be considered neutral or to disfavor discretionary denial. *Id.* at 2.

The court in the district court litigation noted in its denial of the stay request that it was following "the universal practice" in the district, to deny a stay based on post-grant review requests where institution decisions have not yet been issued, and provided no additional reasoning or indication of future action with respect to any potential renewal of the stay request. Ex. 2003. Because, "[i]n the absence of specific evidence, we will not attempt to predict" whether a district court would stay "based on a variety of

circumstances and facts beyond our control and to which the Board is not privy," we find this factor to be neutral. *See Sand Revolution II, LLC v. Cont'l Intermodal Group – Trucking LLC*, IPR2019-01393, Paper 24 at 7 (PTAB June 16, 2020) (informative) ("*Sand Revolution*").

2. Factor 2 - Proximity of the court's trial date to the Board's projected statutory deadline for a final written decision

The proximity factor in *Fintiv* asks us to evaluate our discretion in light of a trial date that has been set in a parallel litigation. *See Fintiv*, 3, 5 ("*NHK* applies to the situation where the district court has set a trial date to occur earlier than the Board's deadline to issue a final written decision in an instituted proceeding."; "When the patent owner raises an argument for discretionary denial under *NHK* due to an earlier trial date, the Board's decisions have balanced the following factors . . . .") (citing *NHK Spring Co. v. Intri-Plex Techs., Inc.*, IPR2018-00752, Paper 8 at 20 (PTAB Sept. 12, 2018) (precedential)("*NHK*")). As noted above in the discussion of the first factor, *Fintiv* cites concern regarding "inefficiency and duplication of efforts." *Id.* at 6. In its analysis of the proximity factor, *Fintiv* echoes that concern in its guidance that "[i]f the court's trial date is at or around the same time as the projected statutory deadline or even significantly after the projected statutory deadline, the decision whether to institute will likely implicate other factors discussed herein, such as the resources that have been invested in the parallel proceeding." *Id.* at 9. Similarly, in *NHK*, the Board expressed the concern that a trial before the deadline for a final written decision addressing the same prior art and arguments would have undermined the Board's objectives of providing an effective and efficient alternative to district court litigation. *See NHK*, 20 (citing *General Plastic*

Indus. Co., Ltd. v. Cannon Kabushiki Kaisha, IPR2016-01357, Paper 19 at 16–17 (PTAB Sept. 6, 2017 (precedential))).

We are instructed that

> when analyzing the proximity of the court's trial date under factor two of *Fintiv*, when other relevant factors weigh against exercising discretion to deny institution or are neutral, the proximity to trial should not alone outweigh all of those other factors. Parties may present evidence regarding the most recent statistics on median time-to-trial for civil actions in the district court in which the parallel litigation resides for the PTAB's consideration. Where the parties rely on time-to-trial statistics, the PTAB will also consider additional supporting factors such as the number of cases before the judge in the parallel litigation and the speed and availability of other case dispositions.

Fintiv Memo, 8–9 (internal citations and footnote deleted).

At the time of filing the Petition, Petitioner argued that given the district court's median time-to-trial data and the anticipated schedule if we institute, the likely disposition of the district court litigation would be anticipated in the same period of time as a final written decision in this proceeding. Pet. 62 (citing Ex. 1103, 35).

Patent Owner contends that as the docket control order sets jury selection for February, 2024, the trial date precedes the anticipated final written decision deadline by four months. Prelim. Resp. 29 (citing Ex. 2001). Patent Owner additionally argues that, if the Board relies on median time-to-trial, then we should use specific time-to-trial data for the presiding judge, which would indicate an even earlier trial date than that scheduled in the docket control order. *Id.* at 30 (citing Ex. 2002, 1).

We "generally take courts' trial schedules at face value absent some strong evidence to the contrary," and here neither party presents strong evidence casting doubt on the trial date set in the district court's order.

Because the trial in the district court litigation is scheduled to begin four months before our deadline to reach a decision, this factor weighs marginally in favor of discretionary denial. *Apple v. Fintiv*, IPR2020-00019, Paper 15, 13 (PTAB May 13, 2020) (informative).

3. Factor 3 - Investment in the parallel proceeding by the court and the parties

If, at the time of the institution decision, the district court has issued substantive orders related to the challenged patent, such as a claim construction order, this fact weighs in favor of denial. *See Fintiv*, 9–10. On the other hand, if the district court has not issued such orders, this fact weighs against discretionary denial. *Id.* at 10.

Petitioner argues that the bulk of investment in the district court litigation has yet to occur, and that no part of claim construction or document production had occurred at the time of the filing of the Petition. Pet. 63. Petitioner further argues that it was diligent in filing the Petition and that its diligence "heavily favors institution." Prelim. Reply 3.

Patent Owner argues that by the time of our decision, document production will be substantially complete and "the claim-construction process [will] be underway and completed shortly thereafter." Prelim. Resp. 30 (citing Ex. 2001, 3–4).

The docket control order shows that the claim construction hearing is not scheduled until August 1, 2023, and that substantial deadlines for the parties related to claim construction are still upcoming. Ex. 2001, 3. *Fintiv* also directs us to consider whether "the petitioner filed the petition expeditiously." *Fintiv*, 11. While we are mindful of the investment of the parties to date, we find that, at this time, substantial work remains for the parties and no substantive orders related to the challenged patent have been

issued by the district court. Additionally, on the record before us the filing of the Petition was expeditious. We determine this factor weighs against exercising discretion to deny institution.

4. Factor 4 - Overlap between issues raised in the petition and in the parallel proceeding

"[I]f the petition includes the same or substantially the same claims, grounds, arguments, and evidence as presented in the parallel proceeding, this fact has favored denial." *Fintiv*, 12. "Conversely, if the petition includes materially different grounds, arguments, and/or evidence than those presented in the district court, this fact has tended to weigh against exercising discretion to deny institution under *NHK*." *Id.* at 12–13. A stipulation as in *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12 at 18–19 (PTAB Dec. 1, 2020) (precedential as to § II.A), if one is entered, would be highly relevant. "Consistent with *Sotera Wireless, Inc.*, the PTAB will not discretionarily deny institution in view of parallel district court litigation where a petitioner presents a stipulation not to pursue in a parallel proceeding the same grounds or any grounds that could have reasonably been raised before the PTAB." *Fintiv* Memo 3 (footnote omitted).

Petitioner offers, in the Petition, a stipulation that, if IPR is instituted, "it will not pursue in the Related Litigation any invalidity grounds against the Challenged Claims of the '520 patent that are the same as those raised in this Petition." Pet. 64. It later offers an additional stipulation that "if this IPR is instituted, Petitioner will not pursue an invalidity defense in the E.D. Texas litigation with respect to the claims of the '520 Patent in the instituted IPR based on (i) any of the same grounds in the instituted IPR or (ii) any prior art reference that forms the basis of any ground in the instituted IPR."

Prelim. Reply 1; Ex. 1110. Petitioner argues that this stipulation "leaves only meaningfully different prior art available for use in the E.D. Texas litigation." Prelim. Reply 3; *see* Ex. 3001 (Petitioner's email to the Board relating to its stipulation).

Patent Owner argues that, in the new stipulation, Petitioner only restricts itself from pursuing "in district court the same grounds or the specific references in those grounds," but "leaves Petitioner free to pursue related references that might have the same (or substantially the same) disclosure" as the references asserted here, such as continuations and foreign counterparts. Prelim. Sur-reply 1 (emphasis omitted). Patent Owner argues that Petitioner's stipulation has "no practical effect" and, because Petitioner has not offered a *Sotera* stipulation, factor 4 favors denial. *Id.* at 2.

While not a *Sotera* stipulation, Petitioner's stipulation appears to be similar to that in *Sand Revolution*. *Sand Revolution II, LLC v. Cont'l Intermodal Grp. Trucking LLC*, IPR2019-01393, Paper 24 at 11–12 (PTAB June 16, 2020) (informative) ("*Sand Revolution*") (finding that a stipulation not to pursue the same grounds in the parallel litigation "mitigates to some degree the concerns of duplicative efforts"). We recognize that *Sand Revolution*-type stipulations are narrower in scope than *Sotera*-type stipulations. However, Petitioner's stipulation still reduces potential overlap with the district court litigation. In *Sand Revolution*, such a stipulation weighed marginally in favor of not exercising discretion. *Sand Revolution*, 12.

Additionally, we note that we have not been apprised by either party whether, in fact, the same art and arguments are anticipated to be the subject of the district court litigation. *See Fintiv*, 12.

We determine this factor weighs marginally against exercising discretion to deny institution.

5. Factor 5 - Whether the petitioner and the defendant in the parallel proceeding are the same party

If the petitioner is unrelated to the defendant in the parallel proceeding, that might weigh against discretionary denial. *See Fintiv*, 13–14.

The parties agree that Petitioner is the defendant in the related district court litigation. Pet. 64; Prelim. Resp. 32.

As with *Fintiv* factor 2, therefore, this factor weighs marginally in favor of exercising our discretion to deny the Petition.

C. Conclusion

We have considered the circumstances and facts before us in view of the first five *Fintiv* factors. Because our analysis is fact-driven, no single factor is determinative of our conclusion. Considering these five *Fintiv* factors, we determine that they do not favor a discretionary denial. As we do not find that the first five *Fintiv* factors favor discretionary denial, we therefore do not make a determination regarding compelling merits under *Fintiv* factor 6, and our consideration ends with this conclusion. *CommScope*, 4–5.

III. REASONABLE LIKELIHOOD ANALYSIS

A. Legal Standards

"In an [*inter partes* review], the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable." *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review

petitions to identify "with particularity . . . the evidence that supports the grounds for the challenge to each claim")); *see also* 37 C.F.R. § 42.104(b) (requiring a petition for *inter partes* review to identify how the challenged claim is to be construed and where each element of the claim is found in the prior art patents or printed publications relied upon).

A patent claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed subject matter 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. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved based on underlying factual determinations including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) when presented, objective evidence of nonobviousness, i.e., secondary considerations. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

Additionally, the obviousness inquiry typically requires an analysis of "whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue." *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (requiring "articulated reasoning with some rational underpinning to support the legal conclusion of obviousness")). Petitioner cannot satisfy its burden of proving obviousness by employing "mere conclusory statements," but "must instead articulate specific reasoning, based on evidence of record, to support the legal conclusion of obviousness." *In re Magnum Oil Tools Int'l, Ltd.*, 829 F.3d 1364, 1380 (Fed. Cir. 2016).

B. Level of Ordinary Skill in the Art

Petitioner contends that a person of ordinary skill in the art ("POSITA") would have had "(1) a bachelor's degree in computer science, computer engineering, electrical engineering, or a related field, and (2) one to two years of experience working with payment processing and/or digital authentication systems, including familiarity with short-range wireless technology." Pet. 6 (citing Ex. 1003 ¶¶ 39–44). According to Petitioner, "[g]raduate education could substitute for professional experience, or significant experience in the field could substitute for formal education." *Id.*

For purposes of the Preliminary Response, Patent Owner does not dispute Petitioner's definition of a POSITA. Prelim. Resp. 14.

For purposes of this Decision, we apply Petitioner's definition of a POSITA, which is consistent with the scope and content of the '520 Patent and the asserted prior art.

C. Claim Construction

In an *inter partes* review, we apply the same claim construction standard as would be used by a district court to construe a claim in a civil action involving the validity or infringement of a patent. 37 C.F.R. § 42.100(b). Under that standard, claim terms are given their ordinary and customary meaning, as would have been understood by a person of ordinary skill in the art at the time of the invention, in light of the language of the claims, the specification, and the prosecution history of record. *Id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–19 (Fed. Cir. 2005) (en banc); *Thorner v. Sony Comput. Entm't Am. LLC*, 669 F.3d 1362, 1365–66 (Fed. Cir. 2012). "The Board is required to construe 'only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy."

Realtime Data, LLC v. Iancu, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (quoting *Vivid Techs., Inc. v. Am. Sci. Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

The parties assert that claim construction is not required. Pet. 2–3; Prelim. Resp. 14. We determine that no express claim construction is necessary for purposes of this Decision.

D. Petitioner's References

1. Gill (Ex. 1010)

Gill discloses an ATM equipped with a contactless interface for interacting with an external apparatus, such as a mobile device. Ex. 1010, codes (54), (57). Figure 7 is reproduced below.

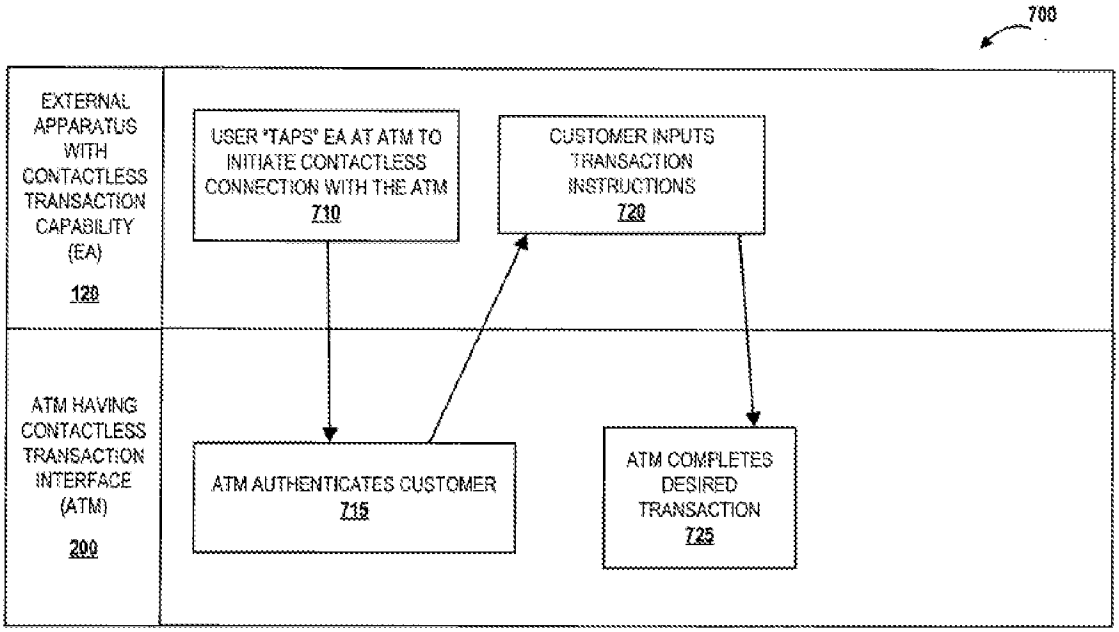

FIG. 7

Gill Figure 7 illustrates a method for contactless transmission from external apparatus 120 to ATM 200. Ex. 1010, 3:25–27, 13:52–55. At block 710, a customer initiates a contactless connection, such as a near field

communication ("NFC") connection, with contactless interface of ATM 200 by tapping ATM 200 with external apparatus 120 or positioning external apparatus 120 in close proximity of ATM 200. *Id.* at 14:1–8. At block 715, ATM 200 authenticates the customer, which usually requires the customer to enter a PIN associated with the account. *Id.* at 14:9–13. At block 720, the customer inputs instructions to ATM 200 to execute the desired transaction, such as for example, withdrawing funds, depositing funds, transferring funds, balance checks, or ordering checks. *Id.* at 14:31–36. At block 725, ATM 200 completes the customer's desired transaction. *Id.* at 14:36–37.

2. Smith (Ex. 1011)

Smith discloses using a mobile device to conduct a contactless payment transaction. Ex. 1011 ¶¶ 2–6. Smith discloses processing financial transactions funded via mobile cloud accounts. *Id.* ¶¶ 15, 32, Fig. 1. According to Smith, a mobile device, such as a smart phone, stores mobile cloud account data, including a mobile cloud account number ("MCA") that is associated with a real account number ("RCA"). *Id.* ¶¶ 33, 34. The MCA enables the user to conduct a financial transaction without storing the RCA on the mobile device, thereby reducing the potential for fraud. *Id.* ¶¶ 32, 34.

Figure 6 is reproduced below.

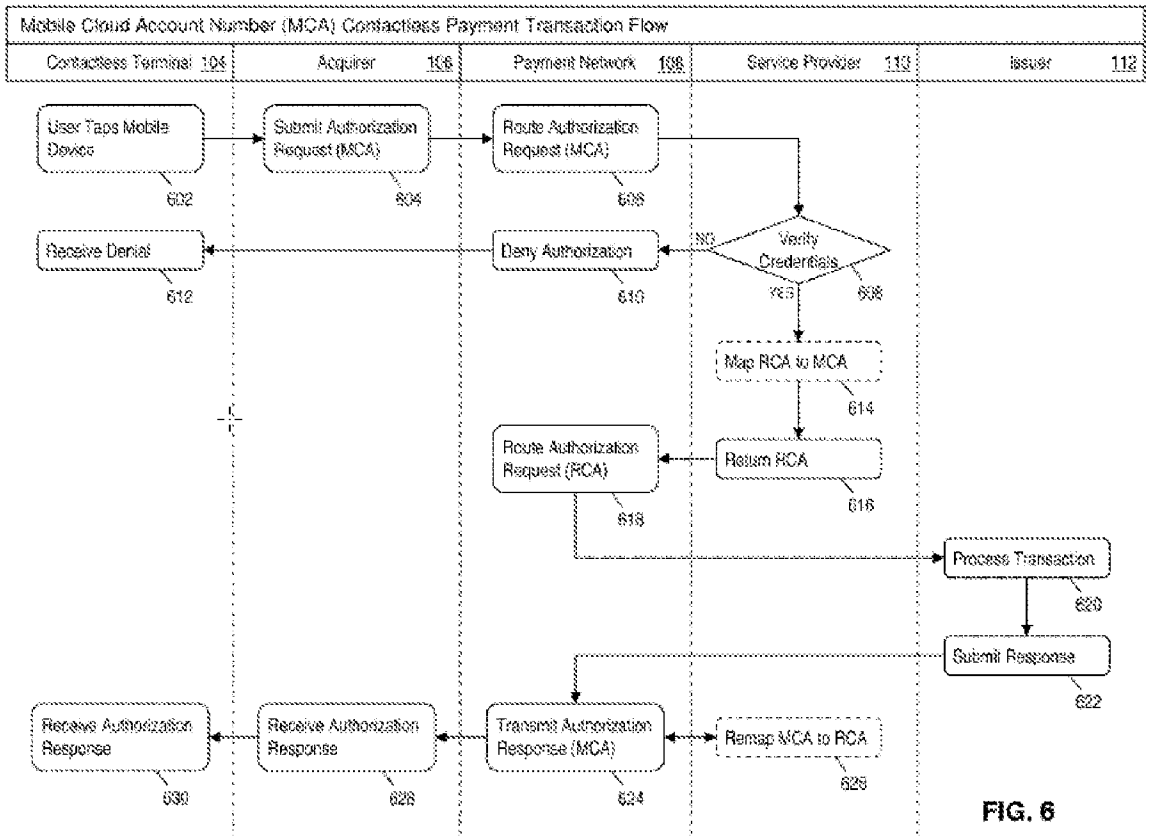

FIG. 6

Smith Figure 6 illustrates a method for processing a contactless payment transaction funded via a mobile cloud account. Ex. 1011 ¶¶ 20, 66. In step 602, payment credentials stored on a mobile device are transmitted via near field communication to contactless terminal 104. *Id.* ¶ 67. According to Smith, "[t]he payment credentials may include a payment cryptogram, such as an authorization request cryptogram or dynamic card validation code, generated based on at least a portion of the mobile cloud account data stored" in the mobile device. *Id.* The payment credentials may also include a personal identification number ("PIN") input by the user, either into the mobile device or the terminal. *Id.* ¶ 68. In step 604, contactless terminal 104 forwards the payment credentials, including the MCA and payment cryptogram, to acquirer 106, who then submits an authorization request to payment network 108. *Id.* ¶ 67.

Payment network 108 routes the authorization request to service provider 110, who verifies the MCA and/or payment cryptogram or other credentials. *Id.* ¶¶ 69, 70, Fig. 6 (steps 606, 608). If the credentials are successfully verified, then service provider 110 maps the MCA to the corresponding RCA and returns the RCA to payment network 108, which routes the authorization request to issuer 112. *Id.* ¶ 71, Fig. 6 (steps 614, 616, 618). Issuer 112 processes the transaction and submits a response to payment network 108. *Id.* ¶ 72, Fig. 6 (steps 620, 622). After the RCA is remapped and replaced with the corresponding MCA, payment network 108 transmits the authorization response to acquirer 106, who forwards it to contactless terminal 104 for finalization of the transaction. *Id.* ¶ 73, Fig. 6 (steps 624, 626, 628, 630).

3. Kay (Ex. 1009)

Kay discloses a system and method for conducting a transaction at a financial transaction terminal using a mobile device as a user interface while communicating with the terminal. Ex. 1009, codes (54), (57), ¶ 4. According to Kay, when a mobile device receives a request to conduct a transaction at a financial transaction terminal, such as an ATM, the display of the mobile device presents a user interface labeled "Citi ATM" and presents options for "withdraw" and "deposit." *Id.* ¶ 40, Fig. 4B.

4. Gomez (Ex. 1005)

Gomez discloses a secure payment card that generates an authentication cryptogram, which is unique for each attempted use of the payment card to make a transaction and which expires within a short period of time thereafter. Ex. 1005, codes (54), (57), 1:58–63, 5:13–18, 5:48–57, Figs. 2, 9, 10. "The authentication cryptogram is based at least upon a seed

value stored within the payment card and a temporal signal value, such as the date/time of the attempted purchase, and is preferably valid for only a short lifetime after the date/time." *Id.* at 5:25–29; *see also id.* at 1:64–2:4, 14:36–17:12 (describing authentication cryptogram).

E. Petitioner's Challenges

1. Independent Claim 18

Petitioner contends that claim 18 would have been obvious based on Gill, Smith, and Kay, or alternatively, based on Gill, Smith, Kay, and Gomez. Pet. 1, 11–42, 51–56. Patent Owner opposes. Prelim. Resp. 15–26.

Petitioner contends that Gill discloses a method of using a mobile device to conduct a contactless transaction at an ATM and that it would have been obvious to modify Gill in view of Smith such that the mobile device conveys payment credentials to the ATM, including an MCA, a payment cryptogram, and a PIN. Pet. 11–12 (citing Ex. 1003 ¶¶ 419–422). Petitioner contends that "a POSITA would have sought to use payment credentials like Smith's in the combination with Gill (and Kay . . .) to realize predictable security improvements." Pet. 13 (citing Ex. 1003 ¶ 423). Petitioner additionally contends that "it would have been obvious to a POSITA to apply in the combination Kay's suggestion for a graphical user interface (GUI) on a mobile device, which would allow a user to select a particular type of transaction from a list of available types." Pet. 16 (citing Ex. 1003 ¶ 427). Petitioner further contends that "a POSITA would have been motivated to further modify the Gill-Smith-Kay combination . . . in view of Gomez such that the payment cryptogram would be generated using a temporal signal and cryptographic methods like those described in Gomez." Pet. 53 (citing Ex. 1003 ¶ 474).

Patent Owner argues that Petitioner's Gill-Smith-Kay combination fails to disclose a dynamically generated number, as required by limitation [18h]. Prelim. Resp. 15–17. Patent Owner additionally argues that Petitioner fails to show that it would have been obvious to combine Gill, Smith, and Kay and "it would not have been obvious for a POSITA to add the teachings of Gomez to the Gill-Smith-Kay combination." *Id.* at 17–22, 23–26.

Our analysis begins with the disputed issues.

a) Element [18h]

Claim element [18h] recites: "wherein the identification and authorizing information exchanged wirelessly between the electronic device and the ATM comprises: statically and dynamically generated limited-use number portions." Ex. 1001, 18:39–42.

Petitioner contends that, based on Smith, it would have been obvious for the wireless exchange of information between a mobile device and an ATM to include transmission of an MCA and a payment cryptogram from a mobile device to a terminal. Pet. 38–39 (citing Ex. 1003 ¶ 457; Ex. 1011 ¶¶ 51, 67, Fig. 6). Petitioner contends that Smith's MCA is a statically generated limited-use number portion and that Smith's payment cryptogram would have been understood to be a dynamically generated limited-use number portion. Pet. 39–41 (citing Ex. 1003 ¶¶ 458–460; Ex. 1011 ¶¶ 34, 40, 70–72, 63, 67, 86, 96, 97, 103, Fig. 6).

Patent Owner argues that "Smith fails to disclose that the payment cryptogram is (i) 'dynamically generated' and (ii) a 'limited-use number.'" Prelim. Resp. 16–17.

Based on the preliminary record, we find sufficient evidentiary support for Petitioner's contention for claim element [18h]. For example, Smith discloses that "[t]he payment credentials may include a payment cryptogram, such as an authorization request cryptogram or dynamic card validation code." Ex. 1010 ¶ 67. Petitioner also submits Dr. Shamos' testimony.

> The significance of the cryptogram having a dynamic, limited-use would have been apparent to a POSITA, as it was commonly understood that updating the cryptogram on a frequent basis (e.g., with each transaction) protects against the risk of payment credentials (including the MCA and cryptogram) from a prior transaction being re-used by an illicit actor to conduct a fraudulent transaction with the same credentials.

Ex. 1003 ¶ 459 (citing Ex. 1005, 1:58–63, 5:15–16, 7:41–43, 8:6–9, 3:36–39 [*sic*, 8:36–39], 14:3–4, Figs. 3, 4; Ex. 1012,[7] code (57), ¶¶ 98–106, Fig. 6; Ex. 1032[8] ¶ 29).

According to Patent Owner, Petitioner "concedes that Smith does not enable its disclosure of a 'dynamic card validation code.'" Prelim. Resp. 16 (citing Pet. 52). We disagree. As part of its rationale for adding Gomez to the combination of Gill, Smith, and Kay, Petitioner asserts, "Smith does not expressly disclose many details as to how the payment cryptogram would be made to change across transactions or how the cryptogram would be calculated." Pet. 52. Petitioner also asserts that "the use of dynamic cryptograms in electronic transaction systems had been known for many years before the Critical Date of the '520 Patent." *Id.* Our reviewing court instructs that "prior art patents and publications enjoy a presumption of

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[7] US 2012/0317035, published December 13, 2012 ("Royyuru").

[8] US 2005/0043997, published February 24, 2005 ("Sahota").

enablement, and the patentee/applicant has the burden to prove nonenablement for such prior art." *Apple Inc. v. Corephotonics, Ltd.*, 861 F. App'x 443, 450 (Fed. Cir. 2021). At this stage of the proceeding, Patent Owner has not met its burden to show nonenablement for Smith.

Based on the preliminary record, we find sufficient support for Petitioner's contention that Smith's payment cryptogram is generated for each transaction. *Compare* Pet. 40, *with* Prelim. Resp. 17 (disputing this contention). Smith discloses that the payment credentials are transmitted to the ATM after a transaction is initiated by tapping the ATM with the mobile device. Ex. 1011 ¶ 67, Fig. 6. In addition, Dr. Shamos testifies that "updating the cryptogram on a frequent basis (e.g., with each transaction) protects against the risk" of reuse of the payment credentials to conduct a fraudulent transaction. Ex. 1003 ¶ 459.

b) Reason to Combine Gill and Smith

Petitioner contends that a POSITA would have sought to improve the security of Gill's contactless mobile phone ATM transaction by requiring submission of payment credentials, including an MCA and a payment cryptogram, as taught by Smith. Pet. 13–16 (citing Ex. 1003 ¶¶ 423–426; Ex. 1010, 1:34–36, 4:35–55; Ex. 1011 ¶¶ 7, 29, 34, 40, 67, 70). Patent Owner argues that Gill teaches away from Petitioner's combination by distinguishing ATM transactions from POS transactions, that a POSITA would not add an additional layer of security to Gill's ATM transaction, and that there are no gaps in Gill that would cause a POSITA to look to Smith. Prelim. Resp. 18–22.

For purposes of institution, we find that Petitioner asserts a sufficient rationale for combining Gill and Smith, as summarized above, and that

Petitioner's rationale is sufficiently supported by the cited prior art and the Shamos Declaration.

On this record, we do not find that Gill teaches away from Petitioner's proposed combination. "A reference 'teaches away' when it 'suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant.'" *Santarus, Inc. v. Par Pharm., Inc.*, 694 F.3d 1344, 1354 (Fed. Cir. 2012) (quoting *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1165 (Fed. Cir. 2006); *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994)). Gill states that "an ATM transaction is vastly different than a simple POS payment transaction." Ex. 1010, 4:56–58. In our preliminary view, however, Gill does not teach away from combining an ATM transaction with features of a POS transaction because that is exactly what Gill teaches. On this record, it appears that Gill's statements distinguishing ATM transactions from POS transactions would have been recognized as a description of the state of the art before Gill's system. It appears that Gill makes these distinctions as self-serving support for patentability of the disclosed system, which combines an ATM transaction with features of a POS transaction, namely contactless transmission from an external apparatus to the ATM. *See id.* at 4:35–38 ("As a general matter, automated teller machine (ATM) users have not enjoyed the benefits of contactless transactions, while numerous point-of-sale (POS) contactless payment terminals have been made available.").

Patent Owner argues that Petitioner "fails to explain why a POSITA would find Gill's security verification step insufficient such as to warrant combining it with Smith which would require a significantly a more complicated payment network." Prelim. Resp. 20. Similarly, Patent Owner argues that "Gill has no 'gap'; rather, Gill describes a complete set of

information needed to initiate an ATM transaction, and as such, there would have been no reason for a POSITA to look to a POS reference like Smith." *Id.* at 21–22. Patent Owner's arguments raise factual issues about whether a POSITA would have had a reason to make the combination proposed by Petitioner. *Henny Penny Corp. v. Frymaster LLC*, 938 F.3d 1324, 1331 (Fed. Cir. 2019) ("Whether a skilled artisan would have been motivated to combine prior art references is . . . a question of fact.").

Patent Owner is correct insofar as Gill already addresses security by requiring the customer to enter a PIN in order to conduct an ATM transaction. Ex. 1010, 5:13–20, 13:47–51,14:9–13, Fig. 6 (block 614), Fig. 7 (block 715). Patent Owner also appears to be correct that Petitioner's combination would require a more complicated payment network than is disclosed by Gill in order to validate Smith's cryptogram. *See, e.g.,* Ex. 1011 ¶ 62 ("The service provider 110 may receive the MCA and perform cryptography to validate the MCA using methods apparent to persons having skill in the relevant art.").

Even if true, however, Patent Owner's asserted facts would not preclude a determination of obviousness. Petitioner is not required to show that its proposed combination of Gill and Smith would have been an "an 'improvement' in a categorical sense." *Intel Corp. v. PACT XPP Schweiz AG*, 61 F.4th 1373, 1380–81 (Fed. Cir. 2023) (holding that the Board improperly rejected *KSR*'s known-technique rationale when it reasoned that Kabemoto "already addresses" the prior art problem and that it "fail[ed] to see why" a POSITA would regard Bauman's technique as an obvious improvement to Kabemoto).

Although a more complicated payment network may be a drawback of Petitioner's proposed combination, "[t]he relevant inquiry is whether or not

a person having ordinary skill in the art would be motivated to combine references despite drawbacks that the combination might present." *Arctic Cat Inc. v. Polaris Indus., Inc.*, 795 F. App'x 827, 833 (Fed. Cir. 2019); *see also Winner Int'l Royalty Corp. v. Wang*, 202 F.3d 1340, 1349 n. 8 (Fed. Cir. 2000) ("The fact that the motivating benefit comes at the expense of another benefit, however, should not nullify its use as a basis to modify the disclosure of one reference with the teachings of another."). At the trial stage, we "must weigh the benefits and drawbacks of the modification against each other, to determine whether there would be a motivation to combine." *Arctic Cat*, 795 F. App'x at 833; *Winner*, 202 F.3d at 1349 n.8; *see also Henny Penny*, 938 F.3d at 1332 (holding that a reasonable fact finder could have found that the "tradeoffs" of Petitioner's combination, including additional complexity, "yield an unappetizing combination," especially because the primary reference "already teaches a sensor that measures other indicia of oil quality").

At this juncture, we merely determine that Petitioner has articulated a sufficient rationale for combining the references, and it is reasonably likely that Petitioner's position will prevail.

c) Reason to Add Gomez to Gill, Smith, and Kay

Petitioner contends that a POSITA would have relied on Gomez to provide additional details about how to generate the payment cryptogram described by Smith. Pet. 51–53 (citing Ex. 1003 ¶¶ 474–477; Ex. 1005, 1:58–2:1, 2:14–17, 2:21–25, 5:43–47, 7:17–27, 8:42–9:11, 13:63–14:2). According to Petitioner,

> The cryptogram in the resulting combination with Gomez could be formed, for instance, by combining at least a portion of the mobile cloud account data stored on the mobile device (as taught

> in Smith) with a temporal signal (as taught in Gomez), hashing the combined data, and encoding the output of the hash function in a manner suitable for transmission in a contactless connection between the mobile device and the ATM. . . . A POSITA would have sought to use a dynamically changing temporal signal in calculation of the cryptogram (along with a cryptographic technique such as hashing) to ensure that the cryptogram produced in each transaction would vary from prior cryptograms in an unpredictable manner, thereby frustrating the ability of illicit actors to exploit an MCA and cryptograms from prior transactions to later consummate a fraudulent transaction.

Pet. 53–54 (citing Ex. 1003 ¶¶ 474, 478; Ex. 1005, 1:58–63, 2:21–25, 5:43–47, 13:63–14:2).

Patent Owner argues that a POSITA would not have been motivated to add a third layer of security by adding Gomez to the Gill-Smith-Kay combination, that Gomez, like Smith, is directed to a POS payment system that is vastly different from Gill's ATM payment system, and that Gomez is directed to a smart payment card in a traditional format, whereas the Gill, Smith, and Kay are all directed to mobile device payment systems. Prelim. Resp. 23–26.

For purposes of institution, we find that Petitioner asserts a sufficient rationale for adding Gomez to the combination of Gill, Smith, and Kay, as summarized above, and that Petitioner's rationale is sufficiently supported by the cited prior art and the Shamos Declaration.

On this record, Patent Owner's argument about adding a third layer of security (Prelim. Resp. 23) does not seem particularly pertinent to Petitioner's obviousness rationale, which relies on Gomez to provide details about how Smith's cryptogram would be generated. Pet. 51–54. For the reasons discussed above, we do not find that Gill teaches away from combining an ATM transaction with features of a POS transaction. *Cf.*

Prelim. Resp. 25 (arguing that Gill teaches away from the combination of Gill and Gomez). Patent Owner is correct that Gomez is directed to a payment card, rather than a smartphone, as in Gill, Smith, and Kay. Prelim. Resp. 25 (citing Ex. 1005, 5:32–34, 5:64–6:2). Gomez's payment card is not, however, a "traditional card," as argued by Patent Owner. *Id.* Gomez's payment card has a processor, and Petitioner relies upon functionality performed by the processor, namely computing a cryptogram based on a temporal signal. Ex. 1005, 2:59–64, 10:33–57; Pet. 52–53 (citing Ex. 1005, 1:58–2:1, 2:14–17, 2:21–25, 5:43–47, 7:17–27, 8:42–9:11, 13:63–14:2). On this record, there is sufficient support for Petitioner's contention that a POSITA would have implemented Gomez's cryptogram generation technique with a smartphone, as in Gill, Smith, and Kay. Pet. 51–55.

d) Remaining Issues

At this stage, Patent Owner does not dispute Petitioner's contention that a POSITA would have had a reason to combine Kay's GUI with a mobile device for conducting a contactless transaction at an ATM, as taught by the combination of Gill and Smith. Pet. 16–20 (citing Ex. 1003 ¶¶ 427–430; Ex. 1009 ¶¶ 38–52, Figs. 3, 4A–4F; Ex. 1010, 4:1–3, 5:14–16, 9:15–25, 10:42–46, 13:9–17, 14:31–36, 17:56–62, Figs. 5, 7). We determine that Petitioner's showing is sufficient for purposes of institution.

At this stage, Patent Owner does not dispute Petitioner's contention that the combination of Gill, Smith, and Kay teaches or suggests the preamble and elements [18a]–[18g] and [18i] of claim 18. Pet. 20–38, 41–42. Patent Owner also does not dispute Petitioner's contention that the combination of Gill, Smith, Kay, and Gomez teaches or suggests the

limitations of claim 18. Pet. 55–56. We determine that Petitioner's showing for independent claim 18 is sufficient for purposes of institution.

2. Dependent Claims 19–24

Claims 19–24 depend from claim 18. Petitioner contends that the additional limitations of dependent claims 19–21 and 24 are taught by the combination of Gill, Smith, and Kay, and the additional limitations of dependent claims 22 and 23 are taught by by the combination of Gill, Smith, Kay, and Gomez. Pet. 42–48, 56–60. Patent Owner does not present arguments for dependent claims 19–24 separate from its arguments for independent claim 18. *See* Prelim. Resp. 22, 26 (addressing dependent claims and relying on the arguments presented for claim 18).

IV. CONCLUSION

For the above reasons, we determine that Petitioner establishes a reasonable likelihood that it would prevail in showing that at least one of claims 18–24 of the '520 Patent is unpatentable. Accordingly, we institute an *inter partes* review of all challenged claims on all grounds asserted against those claims in the Petition. 37 C.F.R. §§ 42.107(e), 42.108(a); *see* Guidance on the Impact of SAS on AIA Trial Proceedings (April 26, 2018);[9] *see also SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018).

[9] Available at https://www.uspto.gov/patents-application-process/patent-trial-and-appeal-board/trials/guidance-impact-sas-aia-trial.

V. ORDER

It is

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 18–24 of the ’520 Patent is instituted commencing on the entry date of this Decision; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4, notice is hereby given of the institution of trial.

For PETITIONER:

W. Karl Renner
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Paper No. 24
Entered: November 21, 2023

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
Petitioner,

v.

CARDWARE INC.,
Patent Owner.

IPR2023-00196 (Patent 10,810,579 B2)
IPR2023-00211 (Patent 10,339,520 B2)
IPR2023-00314 (Patent 10,628,820 B2)
PGR2023-00012 (Patent 11,328,286 B2)
PGR2023-00013 (Patent 11,328,286 B2)[1]

Before ELIZABETH M. ROESEL, SHARON FENICK, and IFTIKHAR AHMED, *Administrative Patent Judges*.

FENICK, *Administrative Patent Judge*.

TERMINATION
Due to Settlement After Institution of Trial and
Granting-in-Part Joint Motion to File Settlement Agreement
as Business Confidential Information
35 U.S.C. § 317; 37 U.S.C. § 327; 37 C.F.R. § 42.7

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[1] This Order addresses issues that are the same in each of the identified proceedings. We exercise our discretion to issue one Order to be filed in each proceeding. The parties are not authorized to use this style heading in subsequent papers.

I. INTRODUCTION

With the Board's authorization, Petitioner and Patent Owner (collectively, "the Parties") filed a joint motion to terminate in each of the above-captioned proceedings. Paper 21 ("Joint Motion").[2] Along with the Joint Motion, the Parties filed a copy of a settlement and license agreement (Ex. 2004, "Settlement Agreement") and a joint request that the Settlement Agreement be treated as business confidential information and be kept separate from the files of the patents involved in the above-captioned proceedings. Paper 22 ("Joint Request").

II. DISCUSSION

In the Joint Motion, the Parties represent that the Settlement Agreement resolves their disputes involving the patents at issue in the above-captioned proceedings. Joint Motion 1–2. The Parties also represent that "there are no other collateral agreements or understandings, oral or written, between the parties made in connection with, or in contemplation of, the termination of the present proceeding, and Ex. 2004 represents a true and accurate copy of the agreement." *Id.* at 1.

We instituted trial in each of the above-captioned *inter partes* review and post-grant review proceedings, but we have not yet decided the merits of the proceedings, and final written decisions have not been entered. Notwithstanding that the proceedings have moved beyond the preliminary

[2] The relevant papers and exhibits filed in the above-captioned proceedings are substantively the same. We cite to the record in IPR2023-00196, unless otherwise indicated.

stage, the Parties have shown adequately that termination of the proceedings is appropriate. Under these circumstances, we determine that good cause exists to terminate the proceedings.

In the Joint Request, the Parties request that the Settlement Agreement be treated as business confidential information and be kept separate from the files of the patents involved in the above-captioned proceedings. Joint Request 1.

We grant this much of the Joint Request. After reviewing the Settlement Agreement between Petitioner and Patent Owner, we find that the Settlement Agreement contains confidential business information regarding the terms of settlement. We determine that good cause exists to treat the Settlement Agreement as business confidential information pursuant to 37 C.F.R. § 42.74(c).

The Parties further

> request that the Board order that in the event a person or entity makes a written request, as stated in 37 C.F.R. § 42.74(c)(1)-(2), for access to the settlement agreement, that any such written request be served upon the parties on the day the written request is provided to the Board.

Id. We deny this portion of the Joint Request, which is not supported by the statute or the rule and not consistent with the Board's practice.

This Order does not constitute a final written decision pursuant to 35 U.S.C. § 318(a) or § 328(a).

III. ORDER

Accordingly, it is:

ORDERED that the Joint Motions to terminate (IPR2023-00196, Paper 21; IPR2023-00211, Paper 22; IPR2023-00314, Paper 16; PGR2023-00012, Paper 17; PGR2023-00013, Paper 17) are *granted*, and IPR2023-00196, IPR2023-00211, IPR2023-00314, PGR2023-00012, and PGR2023-00013 are *terminated*; and

FURTHER ORDERED that the Joint Requests to treat the Settlement Agreement as business confidential information (IPR2023-00196, Paper 22; IPR2023-00211, Paper 23; IPR2023-00314, Paper 17; PGR2023-00012, Paper 18; PGR2023-00013, Paper 18) are *granted-in-part*, in the manner described above, and the Settlement Agreement (IPR2023-00196, Ex. 2004; IPR2023-00211, Ex. 2004; IPR2023-00314, Ex. 2004; PGR2023-00012, Ex. 2038; PGR2023-00013, Ex. 2036) shall be kept separate from the files of U.S. Patent Nos. 10,810,579 B2, 10,339,520 B2, 10,628,820 B2, 11,328,286 B2, and 11,328,286 B2, and made available only to Federal Government agencies on written request, or to any person on a showing of good cause, pursuant to 37 C.F.R. § 42.74(c).

IPR2023-00196 (Patent 10,810,579 B2)
IPR2023-00211 (Patent 10,339,520 B2)
IPR2023-00314 (Patent 10,628,820 B2)
PGR2023-00012 (Patent 11,328,286 B2)
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ACKNOWLEDGEMENT OF LOSS OF ENTITLEMENT TO ENTITY STATUS DISCOUNT

APPLICATION #	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET #	REQUEST ID
15/701,261	09/11/2017	David WYATT		267392

The entity status change request below filed through Patent Center on 08/29/2024 has been accepted.

Certifications

APPLICANT CHANGING TO REGULAR UNDISCOUNTED FEE STATUS

Signature

I certify, in accordance with 37 CFR 1.4(d)(4), that I am one of the signatories making the entity status change.

Signature	**Name**	**Registration #**
/Anthony C. Murabito/	Anthony Murabito	35295