

United States Patent Application
COMBINED DECLARATION AND POWER OF ATTORNEY

Title of Invention: **MOBILE APPARATUS WITH SMARTCARD CIRCUITRY
POWERED BY A MOBILE DEVICE**

As a below named inventor, I hereby declare that:

This declaration is directed to the attached application.

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 have reviewed and understand the contents of the application, including the claims.

I am aware of the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 C.F.R. §1.56

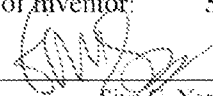
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Legal name of inventor: Siva G. Narendra

Signature:  _____
Siva G. Narendra

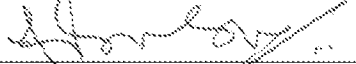
Date: Oct 9th 2012

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Legal name of inventor: Prabhakar Tadepalli

Signature: 
Prabhakar Tadepalli

Date: October 7th, 2012

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Legal name of inventor: Thomas N. Spitzer

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Date: 10/11/12

Legal name of inventor: Prabhakar Tadepalli

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Prabhakar Tadepalli

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1		115_001us4_4_Specification.pdf	128923	yes	33
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	Document Description	Start	End		
	Specification	1	29		
	Claims	30	32		
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Warnings:					
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2	Drawings-only black and white line drawings	115_001us4_4_dwgs.pdf	800447	no	16
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APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE

5

Field

The present invention relates generally to electronic devices, and more specifically to electronic devices that may perform transactions.

Background

10 Magnetic cards have many purposes. Examples include credit cards, debit cards, stored value cards, identification cards, access entry cards, and the like. Many of these cards have information stored in a magnetic stripe in a static manner. For example, a credit card may have a credit card number, a cardholder's name, and an issuing bank's name statically encoded in a magnetic strip. Likewise, an
15 identification card or access entry card may have statically encoded information that identifies an individual or allows access to a controlled access area. When the card is swiped through a magnetic card reader, the information is transferred to the magnetic card reader to perform a transaction, such as a financial transaction or identification transaction.

20

Brief Description of the Drawings

Figures 1, 2A, and 2B show intelligent electronic devices and electronic transaction cards;

Figure 3 shows a block diagram of an electronic transaction card;

25 Figure 4 shows an electronic transaction card in a magnetic card reader;

Figure 5 shows an intelligent electronic device and card in a card reader;

Figures 6-8 show adapters for use with electronic transaction cards;

Figures 9 and 10 show an electronic transaction card having a smartcard interface;

30 Figure 11 shows an adapter in combination with an electronic transaction card;

Figure 12 shows an adapter having an aperture to receive an electronic transaction card;

Figure 13 shows another adapter embodiment;

Figure 14 shows an electronic transaction card;

5 Figure 15 shows an electronic transaction card and adapter combination;

Figure 16 shows an example swallow-type card reader;

Figure 17 shows a combination electronic transaction card and adapter being swiped through a magnetic card reader;

Figure 18 shows a financial transaction card;

10 Figure 19 shows a memory card;

Figure 20 shows a block diagram of a combination memory card and electronic transaction card;

Figure 21 shows a diagram of how a card may be utilized;

Figure 22 shows a block diagram of a combination memory card and
15 electronic transaction card; and

Figure 23 shows a block diagram of a phone and a card.

Description of Embodiments

In the following detailed description, reference is made to the accompanying
20 drawings that show, by way of illustration, various embodiments of an invention. These embodiments are described in sufficient detail to enable those skilled in the art to practice the invention. It is to be understood that the various embodiments of the invention, although different, are not necessarily mutually exclusive. For example, a particular feature, structure, or characteristic described in connection
25 with one embodiment may be implemented within other embodiments without departing from the spirit and scope of the invention. In addition, it is to be understood that the location or arrangement of individual elements within each disclosed embodiment may be modified without departing from the spirit and scope of the invention. The following detailed description is, therefore, not to be taken in
30 a limiting sense, and the scope of the present invention is defined only by the

appended claims, appropriately interpreted, along with the full range of equivalents to which the claims are entitled. In the drawings, like numerals refer to the same or similar functionality throughout the several views.

Figure 1 shows an intelligent electronic device and an electronic transaction
5 card. Intelligent electronic device 102 is shown as a mobile phone in Figure 1, but this is not a limitation of the present invention. For example, intelligent electronic device 102 may be a personal digital assistant (PDA), a smartphone, a mobile phone, a handheld computer, or any other device capable of operating as described herein.

10 Intelligent electronic device 102 includes add-on slot 110. Add-on slot 110 is a slot capable of accepting electronic transaction card 104. For example, add-on slot 110 may have physical dimensions compatible with electronic transaction card 104, and may have a communications interface that operates using a protocol compatible with electronic transaction card 104. In some embodiments, electronic
15 transaction card 104 includes an identification number that provides a relationship to intelligent electronic device 102. For example, electronic transaction card 104 may include an ID number that provides a unique pairing relationship or a non-unique pairing relationship between electronic transaction card 104 and intelligent electronic device 102.

20 In some embodiments of the present invention, add-on slot 110 is a memory card slot designed to accept and communicate with memory cards. As used herein, the term “memory card slot” refers to any add-on slot capable of accepting a card having memory accessible by an intelligent electronic device such as that shown in Figure 1. For example, a memory card slot may be a proprietary card slot designed
25 to accept memory cards that adhere to a proprietary communications protocol. Also for example, a memory card slot may be compatible with an industry standard communications protocol, or may be compatible with a widely accepted communications protocol that is not necessarily formally documented as an industry standard. Examples include slots that are compatible with the Multimedia Memory
30 Card (MMC) protocol, Memory Stick DUO protocol, secure digital (SD) protocol,

and Smart Media protocol. The foregoing list is meant to be exemplary, and not exhaustive. Add-on slot 110 may be compatible with many memory card slot protocols other than those explicitly listed above without departing from the scope of the invention.

5 Electronic transaction card 104 includes electrical contacts 108 and stripe 106. Electrical contacts 108 are contacts that provide a communications interface to communicate with add-on slot 110. For example, electrical contacts 108 may provide connectivity compliant with a communications protocol for memory cards.

 Stripe 106 represents an area on an external face of electronic transaction
10 card 104 at which one or more time-varying magnetic fields emanate. For example, one or more time-varying magnetic fields may emanate from the location of stripe 106 to communicate with a magnetic card reader. In some embodiments, the time-varying magnetic field may emulate the time-varying magnetic field produced when a typical magnetic card is swiped through a magnetic card reader.
15 For example, a time-varying magnetic field produced at stripe 106 may emulate the swipe of a credit card, a debit card, or any other card having a magnetic stripe compatible with a magnetic card reader.

 In some embodiments of the present invention, stripe 106 may be a visible stripe on electronic transaction card 104. When stripe 106 is visible, it may be used
20 to indicate the location at which the time-varying magnetic field will emanate. In other embodiments of the present invention, stripe 106 may not be visible. For example, circuitry may be included within electronic transaction card 106 to produce the time-varying magnetic field and no visible indication may be present on an external face of electronic transaction card 104.

25 As used herein, the term “stripe” generally refers to a location on an electronic transaction card, whether a visible stripe exists or not. In this description, the term “stripe” may also be used to refer to a visible marking on a face of an electronic transaction card. Further, a “stripe” may include the functionality provided by one or more time-varying magnetic fields that emanate from the card.

For example, the term “stripe” may refer to multiple magnetic tracks, or multiple “stripes,” or emulation thereof.

Stripes, as described herein, may be compatible with one or more standards.

A stripe may be compatible with a standard by being in compliance with the
5 standard or by being partially in compliance with the standard. For example, stripe 106 may be compatible with an American National Standards Institute (ANSI) magnetic stripe standard, or an International Organization for Standardization (ISO) magnetic stripe standard. In addition, in some embodiments, a stripe may emulate more than one magnetic track, and the emulated tracks may or may not be offset
10 from the location specified in a standard. For example, one or more wires may be utilized to generate time-varying magnetic fields compatible with a standard, and the wires may be located at or near stripe 106 in a location different than the magnetic track offset described in an associated standard.

As used herein, the term “transaction” refers to any beneficial use of an
15 electronic transaction card. For example, any time stripe 106 emits a time-varying magnetic field to be read by a magnetic card reader or a hybrid smartcard reader, a transaction may take place. Transactions may include financial transactions, access control transactions, or any other type of transaction involving any of the electronic transaction card embodiments described herein. Further, as described in more detail
20 below, in some embodiments of the present invention, transactions may utilize smartcard interfaces on electronic transaction cards in addition to, or in lieu of, stripes that emit time-varying magnetic fields.

In operation, intelligent electronic device 102 may program electronic transaction card 104 for use in a transaction involving stripe 106. For example,
25 intelligent electronic device 102 may program electronic transaction card 104 to operate as a credit card, a debit card, or the like. Electronic transaction card 104 may then be used with a magnetic stripe or smartcard based merchant point-of-sale terminal to effect a transaction. Also for example, intelligent electronic device 102 may program electronic transaction card 104 to operate in any other environment
30 where stripe 106 may be beneficially utilized with a magnetic card reader.

Figure 2A shows intelligent electronic device 202 and electronic transaction card 220. Intelligent electronic device 202 includes add-on slot 210 to receive electronic transaction card 220. Intelligent electronic device 202 is shown having add-on slot on one side, but this is not a limitation of the present invention. For
5 example, add-on slot 210 may be located on top, bottom, or any other surface of intelligent electronic device 202. Also for example, an add-on slot may be created by a clamshell design when the shell is closed. In these embodiments, each side of the clamshell may incorporate a portion of the add-on slot such that the add-on slot is “open” when the clamshell is open.

10 Electronic transaction card 220 may have any form factor compliant with add-on slot 210. Electronic transaction card 220 is shown having a form factor with an aspect ratio different from that of electronic transaction card 104 (Figure 1). Electronic transaction card 220 includes stripe 222 and may have electrical contacts to interface with add-on slot 210. The electrical contacts may be on the back side of
15 electronic transaction card 220, recessed on an edge of electronic transaction card 220, or on the front side of electronic transaction card 220. In some embodiments, electronic transaction card 220 includes a “contactless” interface to add-on slot 210. For example, electronic transaction card 220 may include an interface to add-on slot 210 that communicates using electric or magnetic fields, infrared (IR) light, or
20 any other suitable communications mechanism.

Electronic transaction card 220 may have an area for imprinting. For example, as shown in Figure 2A, electronic transaction card 220 may have space for imprinting a brand (for a bank or otherwise), and a cardholder’s name. Further, electronic transaction card 220 may include space for a cardholder’s signature.
25 Electronic transaction card 220 may include any other information, coded or unencoded, visible or nonvisible, without departing from the scope of the present invention.

Intelligent electronic device 202 may include a mechanism to allow intelligent electronic device 202 to communicate with a wired or wireless network.
30 For example, intelligent electronic device 202 may include circuitry to communicate

with a cellular phone network. Note that in these embodiments, intelligent electronic device 202 may or may not be a phone. For example, intelligent electronic device 202 may be a cellular telephone with an add-on slot for use with an electronic transaction card. Also for example, intelligent electronic device may
5 be a non-telephonic device that has cellular network connectivity. Examples include personal digital assistants, and handheld devices dedicated to the use of electronic transaction cards. Further, intelligent electronic device 202 may be a non-telephonic device having wired or wireless connectivity to a network other than a cellular network, and in some embodiments, intelligent electronic device 202 may
10 be a device without network connectivity. Examples include, but are not limited to: Blackberry devices available from Research in Motion (RIM), music players such as MP3 players, cameras, and the like.

In operation, intelligent electronic device 202 may program electronic transaction card to perform a transaction. In some embodiments, communications
15 over a network may play a role in the transaction. For example, intelligent electronic device 202 may receive authorization for the transaction over a network. Also for example, intelligent electronic device 202 may program electronic transaction card 220 to perform a transaction, and then report the transaction to an entity using the network.

20 Electronic transaction card 220 may be utilized in financial transactions. For example, electronic transaction card 220 may be programmed to operate as a credit card or a stored value card. In these embodiments, electronic transaction card 220 may be programmed to emit one or more time-varying magnetic fields to emulate the swiping of a credit card or stored value card. In some of these embodiments,
25 electronic transaction card 220 may use one number repeatedly, or may use a different number for each transaction. For example, electronic transaction card 220 may be programmed to have one number, similar to how a credit card uses the same number repeatedly. Also for example, electronic transaction card 220 may be programmed to use a different number for each transaction. These numbers are
30 referred to herein as “single transaction account numbers” or “STANs.”

Single transaction account numbers may be generated by the card issuer or locally by either an intelligent electronic device or an electronic transaction card. Generation of STANs may be accomplished in any of several ways. For example, when an electronic transaction card is issued, the cardholder may receive several
5 pre-assigned single-use transaction numbers. The numbers may also have a pre-specified sequence. In some embodiments, this sequence may be known only to the issuing bank and the cardholder's intelligent electronic device and/or electronic transaction card. A card issuing bank may authorize payments based on the expected sequence of account numbers, and if out-of-sequence account numbers are
10 used, then the issuing bank may consider that transaction as a potentially fraudulent transaction. The issuing bank may also use this feature to track the merchant involved in the potentially fraudulent transaction.

According to another example, a pre-assigned sequence of STANs may be reset to the original starting number on the list depending on user input or other
15 triggers. In addition, the list of numbers may be periodically downloaded via a cellular phone network or other network connectivity.

Figure 2B shows intelligent electronic device 230 and electronic transaction card 240. Intelligent electronic device 230 is an example of a “wearable” device that is capable of communicating with an electronic transaction card. For example,
20 intelligent electronic device 230 is shown having the form factor of a wristwatch. Some embodiments of the present invention may have other wearable form factors. For example, a wearable intelligent electronic device may be worn in such a manner that it contacts human skin, or it may be worn on clothing. Any wearable intelligent electronic device may be employed without departing from the scope of the present
25 invention. Further, intelligent electronic device 230 may have any of the capabilities described herein.

Intelligent electronic device 230 may include an add-on slot to accept electronic transaction card 230. The add-on slot may be any of the add-on slot embodiments described herein. Electronic transaction card 240 may be any

electronic transaction card. For example, electronic transaction card 240 may be any electronic transaction card embodiment described herein.

Figure 3 shows a block diagram of an electronic transaction card. Electronic transaction card 300 is an electronic transaction card capable of communicating
5 with an intelligent electronic device, and capable of communicating with a magnetic card reader. For example, electronic transaction card 300 may be electronic transaction card 104 (Figure 1) or electronic transaction card 220 (Figure 2A).

Electronic transaction card 300 includes electrical contacts 302, intelligent electronic device (IED) interface 304, nonvolatile memory 306, processing device
10 308, volatile memory 310, magnetic field producing circuits 312, swipe sensor 314, and stripe 320.

Electrical contacts 302 correspond to electrical contacts 108 (Figure 1). IED interface 304 is coupled to electrical contacts 302 to provide a communications interface between electronic transaction card 300 and an intelligent electronic
15 device. For example, IED interface 304 may be an interface compatible with an add-on slot such as add-on slot 110 (Figure 1) or add-on slot 210 (Figure 2A).

Magnetic field producing circuit 312 includes one or more circuits to produce time-varying magnetic fields at or near the location of stripe 320. For example, one or more current carrying conductors may be excited to produce a
20 magnetic field, and the current may be varied in amplitude and reversed in polarity to cause the magnetic field to be time-varying. In some embodiments, the number of magnetic field producing circuits corresponds to the number of tracks being emulated for stripe 320. For example, stripe 320 may emulate two, three, four, or more magnetic tracks on a magnetic card such as a credit card. In these
25 embodiments, electronic transaction card 300 may include two, three, four, or more magnetic field producing circuits 312. Magnetic field producing circuits 312 may also include circuits to allow control of the time-varying magnetic field. For example, magnetic field producing circuits 312 may include voltage drivers, current drivers, registers to hold digital data, sequential circuits to translate the digital data
30 to magnetic fields, and the like.

Swipe sensor 314 senses when electronic transaction card 300 has been swiped in a magnetic card reader, and provides a swipe indication to processing device 308. The swipe sensor may be a mechanical switch, an electronic switch, or any other type of suitable switch. For example, a mechanical switch may get
5 pressed when electronic transaction card 300 is swiped. Also for example, an electrical sensor may include two or more contacts (not shown) that get shorted when swiped past a metal head within a card reader. Further, a Hall effect sensor or light-based sensor may be utilized. The present invention is not limited by the type of swipe sensor utilized. In some embodiments, swipe sensor 314 is omitted.

10 Processing device 308 represents a processor capable of communicating with the other blocks shown in electronic transaction card 300. For example, processing device 308 may be a microprocessor, a digital signal processor (DSP), a microcontroller, or the like. Further, processing device 308 may be formed from state machines or other sequential logic. In operation, processing device 308 may
15 read instructions from volatile memory 310 and/or nonvolatile memory 306 and perform actions in response thereto. For example, processing device 308 may execute program instructions that influence communications between electronic transaction card 300 and an intelligent electronic device, or between electronic transaction card 300 and a magnetic card reader.

20 Volatile memory 310 represents memory that may lose its state when power is removed from electronic transaction card 300. For example, volatile memory 310 may be static random access memory (SRAM). Volatile memory 308 may be utilized by processing device 308 when executing programs. For example, a program may be copied into volatile memory 308 prior to execution. Also for
25 example, processing device 308 may use volatile memory 308 to store data during the execution of a program.

Nonvolatile memory 306 represents memory that does not lose its state when power is removed from electronic transaction card 300. Nonvolatile memory 306 may be any suitable type of memory such as Flash memory with floating gate

transistor memory cells. Examples include NOR Flash memory, NAND Flash memory, and multibit/cell Flash memory.

Nonvolatile memory 306 may hold program instructions that are executable by processing device 308. For example, prior to being sold, a manufacturer or distributor may program nonvolatile memory 306 with program information to influence the operation of electronic transaction card 300. Also for example, an intelligent electronic device may provide program information to electronic transaction card 300 through IED interface 304.

Nonvolatile memory 306 may also hold program instructions that are executable by a processing device other than processing device 308. For example, a manufacturer, distributor, reseller, or other participant in the chain of commerce may program nonvolatile memory 306 with program information to be transferred to an intelligent electronic device. Information to be transferred may include device drivers, application software, or the like.

Electronic transaction card 300 may include one or more power sources (not shown). For example, electronic transaction card 300 may include a battery or a capacitor such as a supercapacitor. In some embodiments, a rechargeable battery may be included. The rechargeable battery may accept a charge from an add-on slot in an intelligent electronic device. In some embodiments, a capacitor may accept a charge from an intelligent electronic device. The capacitor may provide power to electronic transaction card 300 for enough time to perform a transaction. Further, the capacitor may be sized to ensure that a transaction may only be performed during a limited time period after removing the electronic transaction card from an add-on slot, thereby ensuring that a stolen card may not be used repeatedly without the cardholder's consent. Also in some embodiments, electronic transaction card 300 may be programmed to go dormant if a transaction is not performed within a limited time period after removing the card from an intelligent electronic device.

Electronic transaction card 300 may include one or more integrated circuits. For example, processing device 308 may be on one integrated circuit die, and the memories may be on another integrated circuit die. In some embodiments, all active

devices are included on a single integrated circuit die. In some embodiments, various integrated circuit dice are mounted on a common substrate to provide a high level of integration using separate dice. Any amount of circuit integration may be practiced without departing from the scope of the present invention.

5 Electronic transaction card 300 has dimensions “*a*” and “*b*.” In some embodiments of the present invention, stripe 320 has a length that is substantially equal to *a*, and in some embodiments, stripe 320 has a length less than *a*. Further, in some embodiments, *a* is less than the stripe length of a standard credit card (approximately three and three eighths inches), and in some embodiments, *a* is
10 much less than the stripe length of a standard credit card. For example, in some embodiments, *a* is less than 75% the length of a standard credit card stripe. Further, in some embodiments, *a* is less than 50% the length of a standard credit card stripe. In still further embodiments, *a* is less than 25% the length of a standard credit card stripe.

15 In some embodiments, dimensions *a* and *b* are substantially equal to the dimensions of a memory card. For example, dimensions *a* and *b* may conform to the dimensions of an MMC memory card, a Memory Stick PRO DUO memory card, or other memory card. Further, in some embodiments, electronic transaction card 300 has a thickness compatible with a magnetic card reader.

20 Figure 4 shows an electronic transaction card and a card reader. Electronic transaction card 410 is a card having a stripe compatible with a magnetic card reader. For example, electronic transaction card 410 may be electronic transaction card 104 (Figure 1), electronic transaction card 220 (Figure 2A), electronic transaction card 300 (Figure 3), or any other electronic transaction card described
25 herein. Magnetic card reader 420 is a card reader compatible with magnetic cards. For example, magnetic card reader 420 may operate as part of a merchant point-of-sale terminal, an access control device, or the like. When a magnetic card is swiped through magnetic card reader 420, one or more time-varying magnetic fields are produced relative to the location of a magnetic read head (not shown) in magnetic
30 card reader 420.

In the operation depicted in Figure 4, electronic transaction card 410 is swiped through magnetic card reader 420. During the swiping operation, electronic transaction card 420 produces one or more time-varying magnetic fields to emulate the swiping of a magnetic card. For example, a swipe sensor within electronic
5 transaction card 410 may detect the swiping action depicted in Figure 4, and a magnetic field producing circuit may generate one or more time-varying magnetic fields as electronic transaction card 410 passes by a magnetic read head in magnetic card reader 420.

Figure 5 shows an intelligent electronic device, an electronic transaction
10 card, and a magnetic card reader. Electronic transaction card 510 is shown being swiped through magnetic card reader 520 while attached to intelligent electronic device 500. The operation depicted in Figure 5 represents a transaction occurring while electronic transaction card 510 is coupled to an add-on slot of intelligent electronic device 500.

15 Figure 6 shows an adapter for use with an electronic transaction card. Adapter 600 includes a body portion having dimensions “ w ” and “ l ”, and a receiving portion shown at 610. Adapter 600 is useful to receive an electronic transaction card at receiving portion 610 to provide a larger card having the functionality of an electronic transaction card. For example, in some embodiments
20 of the present invention, dimensions w and l are compatible with swallow-type magnetic card readers, and a combination of adapter 600 an electronic transaction card may be compatible with such readers.

Receiving portion 610 may include an interface compatible with a connector on an electronic transaction card. For example, an electronic transaction card may
25 have an interface that is compatible with both an add-on slot of an electronic transaction device and receiving portion 610 of adapter 600.

Figure 7 shows adapter 600 having an electronic transaction card 710 coupled thereto. Electronic transaction card 710 includes a stripe capable of emitting one or more time-varying magnetic fields as described above. The
30 combination of electronic transaction card 710 and adapter 600 allow the

functionality of electronic transaction card 710 to be useful in the larger form factor of adapter 600.

In some embodiments, adapter 600 includes active or passive circuitry in support of the operation of electronic transaction card 710. For example, adapter
5 600 may include electrical contacts, a battery, an integrated circuit, or other circuits. Also for example, adapter 600 may include one or more swipe sensors to provide a swiping indication to electronic transaction card 710.

Figure 8 shows an adapter having a smartcard interface 810. In
embodiments represented by Figure 8, an adapter may be utilized to perform a
10 transaction involving a smartcard reader while utilizing an electronic transaction card. For example, an electronic transaction card may be coupled to adapter 800 at receiving portion 820, and the electronic transaction card may provide data useful for a smartcard transaction.

Figure 9 shows an electronic transaction card having a smartcard interface.
15 Electronic transaction card 900 includes electrical contacts 908 and 910. Electrical contacts 908 are similar to electrical contacts 108 (Figure 1). For example, electrical contacts 908 may be compatible with an add-on slot of an intelligent electronic device such as intelligent electronic device 102 (Figure 1). Electrical contacts 910 are arranged to provide the communications interface to a smartcard
20 reader.

In some embodiments, electronic transaction card 900 includes a smartcard interface as well as a stripe to produce the time-varying magnetic field. For example, as shown in figure 10, the backside of electronic transaction card 900 may include stripe1010. The various electronic transaction cards described herein may
25 include a stripe, a smartcard interface, or a combination thereof.

Figure 11 shows an adapter in combination with an electronic transaction card. Adapter 1100 is shown having electronic transaction card 900 coupled in a recessed portion on a side having dimension w . In some embodiments, this configuration places electrical contacts 910 at a location expected by smartcard
30 readers.

Figure 12 shows an adapter having an aperture to receive an electronic transaction card. Adapter 1200 includes aperture 1210 to receive an electronic transaction card. In some embodiments, aperture 1210 passes completely through adapter 1200, and in other embodiments, aperture 1210 is a recessed portion on the face of adapter 1200. Adapter 1200 may receive electronic transaction cards having a stripe, a smartcard interface, or a combination of the two.

Figure 13 shows an adapter having a body portion 1300, a recessed portion 1310, and stripe 1320. Recessed portion 1310 may receive an electronic transaction card as described above with respect to Figures 6-7. Further, stripe 1320 may be utilized to communicate with a magnetic card reader. For example, adapter 1300 may include a magnetic field producing circuit such as magnetic field producing circuit 312 (Figure 3) to produce a time-varying magnetic field. In operation, an electronic transaction card may be coupled to adapter 1300 at recessed portion 1310, and provide transaction information to be used by stripe 1320 for a transaction with a magnetic card reader. In some embodiments, an electronic transaction card having neither a stripe nor a smartcard interface may be coupled to adapter 1300 at recessed portion 1310 to effect a transaction using stripe 1320.

The various adapters shown in the previous figures may have recessed portions, apertures, or stripes anywhere on the adapter without departing from the scope of the present invention. For example, in some embodiments, a recessed portion may be on the side of the adapter having a smaller dimension, and in other embodiments a recessed portion may be on the side of the adapter having a larger dimension. Also for example, in some embodiments, a stripe may be on the side of the adapter having a smaller dimension, and in other embodiments a stripe may be on the side of the adapter having a larger dimension.

Figure 14 shows an electronic transaction card. Electronic transaction card 1400 includes stripe 1410 and add-on slot compatible portion 1402. Add-on slot compatible portion 1402 includes electrical contacts 1408 to communicate with an add-on slot in an intelligent electronic device. For example, add-on slot compatible

portion 1402 may be physically and electrically compatible with add-on slot 110 (Figure 1) or add-on slot 210 (Figure 2A).

Electronic transaction card 1400 may include any of the circuits, features, or functionality described herein. For example, electronic transaction card 1400 may
5 include magnetic field producing circuits, swipe sensors, processing devices, volatile and nonvolatile memory, various interfaces, and electrical contacts.

Electronic transaction card 1400 is shown having stripe 1410 along an edge having dimension “*l*.” In some embodiments, electronic transaction card 1400 may have stripe 1410 along an edge other than that shown in Figure 14.

10 In operation, electronic transaction card 1400 may be left coupled to an electronic transaction device when being swiped through a magnetic card reader, similar to the operation shown in Figure 5. Further, electronic transaction card 1400 may be removed from an intelligent electronic device prior to being swept through a magnetic card reader, similar to the operation shown in Figure 4.

15 Figure 15 shows an electronic transaction card and an adapter in combination. The combination of electronic transaction card 1400 and adapter 1500 form a card having dimensions “*w*” and “*l*” as described above with reference to previous figures. The resulting card may be suitable for swallow-type magnetic card readers.

20 Figure 16 shows a combination electronic transaction card and adapter 1610 being inserted into a swallow-type magnetic card reader. As shown in Figure 16, the swallow-type magnetic card reader is part of an automated teller machine (ATM), but this is not a limitation of the present invention. For example, the swallow-type reader may be part of a point-of-sale device, an access entry device, or
25 any other type of device capable of incorporating a swallow-type magnetic card reader.

Figure 17 shows a combination electronic transaction card and adapter being swiped through a magnetic card reader. Adapter 1710 and electronic transaction card 1720 are shown being swiped through magnetic card reader 1730. Electronic
30 transaction card 1720 may be any of the electronic transaction card embodiments

described herein. For example, electronic transaction card 1720 may include a stripe, a smartcard interface, or a combination of the two. Although adapter 1710 is shown as an adapter having a recessed portion on one side, the combination adapter/card in Figure 17 represents any of the adapter/ card combinations described
5 herein. For example, adapter 1710 may be any of adapters 600 (Figures 6,7), adapter 800 (Figure 8), adapter 1100 (Figure 11), adapter 1200 (Figure 12), adapter 1300 (Figure 13), or adapter 1500 (Figure 15).

Figure 18 shows a financial transaction card. Financial transaction card 1800 includes stripe 1802, financial card circuits 1804, memory card emulation
10 circuitry 1806, and memory card compatible interface 1808. Financial transaction card 1800 is an example of a financial card that might be issued by a bank or other financial institution. For example, financial transaction card 1800 might be a debit card, a credit card, a stored value card, or other card issued for the purposes of financial transactions.

15 Financial card circuits 1804 interact with stripe 1802 to produce time-varying magnetic fields compatible with a magnetic card reader. For example, financial card circuits 1804 and stripe 1802 may provide financial transaction data to a point-of-sale terminal. Financial transaction card 1800 also includes memory card emulation circuitry 1806 to emulate the operation of a memory card. The
20 combination of memory card emulation circuitry 1806 and memory card compatible interface 1808 allow financial transaction card 1800 to perform as a memory card. For example, memory card compatible interface 1808 may be compatible with a memory card interface in an add-on slot of an intelligent electronic device.

Figure 19 shows a memory card. Memory card 1900 includes memory card
25 compatible interface 1930, memory card circuits 1920, financial card emulation circuitry 1910, and stripe 1902. Memory card 1900 is an example of a card that may be fabricated and sold by a memory card manufacturer or a manufacturer that is in the business of selling electronic peripheral devices. By including financial card emulation circuitry 1910 and stripe 1902 in memory card 1900, the manufacturer of
30 memory card 1900 may add features desired by consumers. For example, the

combination of stripe 1902 and financial card emulation circuitry 1910 may emulate the operation of a financial card such as a credit card, debit card, stored value card, or the like.

Figure 20 shows a block diagram of a combination memory card and
5 electronic transaction card. Card 2000 includes memory 2010, processing element 2020, magnetic/smartcard circuitry 2030, card reader interface 2040, memory card circuitry 2050, and memory card slot compatible interface 2060. Processing element 2020 may be any processing element suitable to communicate with memory 2010 and the other blocks shown in Figure 20. Magnetic/smartcard circuitry 2030
10 may include circuits to produce time-varying magnetic fields or signals compatible with a smart card reader. Card reader interface 2040 may include a stripe as described above, or may include electrical contacts compatible with a smartcard reader. Memory card circuitry 2050 may be any type of memory circuitry accessible by an intelligent electronic device. The intelligent electronic device may
15 access memory card circuitry 2050 through memory card slot compatible interface 2060.

Memory 2010 is shown having card software 2012 and application software 2014. In some embodiments, card 2000 is sold or distributed having both card software 2012 and application software 2014 in memory 2010. For example,
20 memory 2010 may be nonvolatile memory having card software 2012 for execution by processing element 2020. Also for example, memory 2010 may have application software 2014 meant to be installed on a device other than card 2000. Application software 2014 may include drivers, user interface software, single transaction account number (STAN) generation software, or any other software that may be
25 installed on a device other than card 2000.

Application software 2014 may operate in any of multiple languages on multiple operating systems. For example, application software 2014 may provide a user interface in any regional language. Also for example, application software 2014 may run on any operating system (OS).

Figure 21 shows a block diagram of how card 2000 (Figure 20) may be utilized. A card issuer 2110 may issue card 2000 to a cardholder 2130. As issued by card issuer 2110, card 2000 may include card software and application software as shown in Figure 21. Cardholder 2130 may couple card 2000 with intelligent
5 electronic device 2140 and install application software on the intelligent electronic device. For example, intelligent electronic device 2140 may be a mobile phone capable of executing application software, and card 2000 may supply application software to be installed on the mobile phone. Also for example, intelligent electronic device 2140 may be a non-telephonic device such as a personal digital
10 assistant (PDA), or other dedicated hardware, capable of receiving card 2000 in an add-on slot.

Figure 22 shows a block diagram of a combination memory card and electronic transaction card. Card 2200 includes processing element 2020, magnetic/smartcard circuitry 2030, card reader interface 2040, memory card
15 circuitry 2050, and memory card slot compatible interface 2060, all of which are described above with reference to Figure 20. Card 2200 also includes nonvolatile memory 2210 and volatile memory 2220. As shown in Figure 22, nonvolatile memory 2210 includes card software 2212 to be executed by processing element 2020. Also as shown in Figure 22, card 2200 includes volatile memory 2220 having
20 financial transaction data 2222 held therein. Financial transaction data 2222 may be programmed into volatile memory 2220 by processing alignment 2020 in response to communications from an intelligent electronic device coupled to memory card slot compatible interface 2060. For example, a mobile phone executing single transaction account number generation software may provide a single transaction
25 account number as financial transaction data that gets stored in volatile memory 2220 in preparation for a transaction. In other embodiments, financial transaction data 2222 represents two, three, four, or more time-varying magnetic fields to be generated by the combination of magnetic/smartcard circuitry 2030 and card reader interface 2040.

Figure 23 shows a block diagram of a phone and a card. Phone 2310 may be a cellular telephone, and card 2350 may be any of the electronic transaction card embodiments described herein. Phone 2310 includes display 2312, processor 2314, single transaction account number (STAN) generation software 2316, and authentication software 2318. Card 2350 includes processor 2352, card software 2354, financial transaction data 2356, and point-of-sale (POS) interface 2358.

Single transaction account number generation software 2316 may be installed on the phone 2310 when card 2350 is inserted in a memory slot. For example, referring now back to Figures 20 and 21, STAN generation software 2316 may correspond to application software 2014. Authentication software 2318 may only allow authorized users access to phone 2310 and/or card 2350.

In operation, a user interacting with phone 2310 may gain access to features by satisfying requirements of authentication software 2318. Using STAN generation software 2316, a user may generate financial transaction data 2356 which is held on card 2350 in preparation for a transaction. Card 2350 may then interact with a card reader using point-of-sale interface 2358 to effect a transaction. This transaction may be effected with card 2350 coupled to phone 2310 or decoupled from phone 2310. Further, the transaction using card 2350 may be effected while card 2350 is coupled to any of the adapter embodiments described herein.

The following paragraphs provide further disclosure of various invention embodiments. Each embodiment is fully defined by the recitation of the corresponding paragraph, and no other elements are to be considered essential for that particular embodiment. The embodiments include:

- A. An apparatus comprising:
 - a stripe to communicate with a magnetic card reader; and
 - an interface to communicate with an intelligent electronic device;
 - wherein the apparatus has dimensions smaller than a credit card.

A1. The apparatus of A wherein the stripe includes circuitry to produce at least one time-varying magnetic field.

A2. The apparatus of A wherein the interface is compatible with an add-on slot
5 in the intelligent electronic device.

A3. The apparatus of A2 wherein the interface comprises a memory card interface.

10 A4. The apparatus of A further comprising a processing element coupled to the interface and to the stripe.

A5. The apparatus of A4 further comprising a memory element to hold programming information for the stripe.

15

A6. The apparatus of A4 further comprising an embedded swipe sensor to sense when the stripe is swiped through a magnetic card reader.

A7. The apparatus of A further comprising nonvolatile memory accessible by the
20 intelligent electronic device.

B. A financial card comprising:

a point-of-sale compatible electronic transaction stripe;

a memory card compatible interface; and

25 memory card emulation circuitry coupled to the memory card compatible interface.

C. A memory card comprising:

a memory card compatible interface;

30 a point-of-sale compatible electronic transaction stripe; and

financial card emulation circuitry coupled to the point-of-sale compatible electronic transaction stripe.

D. A financial card apparatus comprising:

- 5 a point-of-sale compatible portion having a stripe to communicate with a point-of-sale transaction device; and
a memory card compatible portion having at least one electrical contact to communicate with a memory card slot in an intelligent electronic device.

10 E. A memory card comprising:

a memory card interface operable to couple the memory card to an intelligent electronic device;
a nonvolatile memory device accessible through the memory card interface;
and

15 a stripe operable to communicate with a magnetic card reader.

F. A memory card comprising:

a memory card slot interface; and
circuitry for producing a time-varying magnetic field compatible with a
20 magnetic card reader.

F1. The memory card of F wherein the circuitry is configured to produce a plurality of time-varying magnetic fields compatible with a point-of-sale transaction device.

25

G. An apparatus comprising:

means for communicating through a memory card slot in an intelligent electronic device;

means for producing at least one time-varying magnetic field to represent
30 financial transaction data; and

means for storing the financial transaction data.

H. A card comprising:

a memory card compatible interface;

5 a smartcard compatible interface; and

a stripe to produce at least one time-varying magnetic field compatible with a magnetic card reader.

I. A memory card compatible with a memory card slot in a mobile phone, the

10 memory card including nonvolatile memory accessible by the mobile phone, a point-of-sale interface to communicate with a point-of-sale terminal, and volatile memory to hold financial transaction data.

I1. The memory card of I wherein the point-of-sale interface comprises circuitry

15 to produce at least one time-varying magnetic field.

I2. The memory card of I1 further including a processing device coupled to the nonvolatile memory, volatile memory, and point-of-sale interface.

20 J. An electronic financial transaction device having a thickness compatible with a point-of-sale card reader, a width less than a credit card width, a length less than a credit card length, an electronically programmable stripe situated along the length, and at least one electrical contact to provide an interface to an intelligent electronic device.

25

J1. The electronic financial transaction device of J wherein the at least one electrical contact comprises a memory card interface compatible with a memory card slot in the intelligent electronic device.

J2. The electronic financial transaction device of J wherein the electronically programmable stripe includes a circuit to emulate a magnetic stripe in a credit card.

J3. The electronic financial transaction device of J2 further comprising a swipe
5 sensor to detect when the electronic financial device is swiped through a point-of-sale terminal.

K. A card comprising:
means for storing financial transaction data;
10 means for communicating with a memory card slot in an intelligent electronic device; and
means for creating a time-varying magnetic field that represents the financial transaction data.

15 K1. The card of K wherein the means for storing financial transaction data comprises volatile memory.

K2. The card of K wherein the financial transaction data comprises a single transaction account number.

20

K3. The card of K further comprising a processing device coupled to read the financial transaction data and influence the operation of the means for creating a time-varying magnetic field.

25 L. An adapter for use with any of A-K, the adapter comprising:
a body portion having exterior dimensions larger than dimensions of A-G;
and
a receiving portion to receive any of A-G, wherein the receiving portion is located on the body portion to expose any of A-G for use in magnetic card reader
30 transactions.

M. An apparatus comprising a body portion with dimensions compatible with a swallow-type magnetic card reader, wherein the body portion includes a memory card compatible area to receive a memory card with magnetic stripe functionality.

5

M1. The apparatus of M further comprising a smartcard interface.

M2. The apparatus of M further comprising at least one electrical component coupled to the memory card compatible area portion to interface to the memory
10 card.

M3. The apparatus of M wherein the memory card compatible area comprises a recessed portion of at least one side of the apparatus.

15 M4. The apparatus of M wherein memory card compatible area comprises at least one metallic contact on a periphery of an aperture in the apparatus.

N. A financial card to be used with a magnetic card reader at a point-of-sale, the financial card including a memory card interface to allow the financial card to be
20 inserted in a memory card slot of a mobile phone, and including a stripe compatible with the magnetic card reader, wherein the stripe is shorter than a magnetic credit card stripe.

O. A card compatible with a magnetic card reader and compatible with a
25 memory slot in an intelligent electronic device, the card including software to be installed on the intelligent electronic device.

O1. The card of O wherein the software includes a module for single transaction account number generation.

30

O2. The card of O1 wherein the software is configured to run on a mobile phone.

O3. The card of O wherein the card comprises:

a memory slot compatible portion; and

5 a magnetic card reader compatible portion.

O4. The card of O3 wherein the magnetic card reader compatible portion comprises circuitry to produce at least one time-varying magnetic field for use in a financial transaction.

10

P. A card comprising:

a memory card interface mechanically compatible with a memory card slot in an intelligent electronic device;

a processing device coupled to the memory card interface; and

15 circuitry to produce a time-varying magnetic field compatible with a point-of-sale device.

Q. A card comprising:

a memory card interface electrically compatible with a memory card slot in

20 an intelligent electronic device;

a processing device coupled to the memory card interface; and

circuitry to produce a time-varying magnetic field compatible with a point-of-sale device.

25 Q1. Any of the cards of P-Q further comprising nonvolatile memory exposed through the memory card interface.

Q2. Any of the cards of P-Q further comprising volatile memory to hold financial transaction information.

30

- Q3. Any of the cards of P-Q further comprising a software component that when executed by the processing device causes the circuitry to produce at least one time-varying magnetic field representing the financial transaction information.
- 5 Q4. Any of the cards of P-Q further comprising a visible stripe at which the at least one time-varying magnetic field emanates.
- Q5. Any of the cards of P-Q further comprising a battery.
- 10 Q6. Any of the cards of P-Q further comprising a capacitor to provide power to the card.
- Q7. The card of Q wherein the card has a size substantially equivalent to a credit card.
- 15 R. A credit card sized adapter to receive any of the cards of P-Q.
- R1. The adapter of R wherein the credit card sized adapter includes a smartcard interface.
- 20 R2. The adapter of R wherein the adapter includes a first edge having a width and a second edge having a length, wherein the second edge includes a recessed portion to accept the card.
- 25 R3. The adapter of R wherein the credit card sized adapter includes a first edge having a width and a second edge having a length, wherein the first edge includes a recessed portion to accept the card.
- S. A combination financial card and memory card apparatus comprising:
- 30 electrical contacts to provide an interface to a mobile phone;

a transaction stripe to produce at least one time-varying magnetic field representing transaction information;
a processing device; and
a software component to receive the transaction information from the mobile
5 phone;
wherein the electrical contacts are provided on a physical portion of the combination financial card and memory card apparatus having dimensions compatible with a memory card slot.

10 S1. The combination financial card and memory card apparatus of S further comprises an application software component to be installed on the mobile phone.

T. In combination:
a memory card having a transaction stripe compatible with a magnetic card
15 reader; and
a credit card sized adapter to receive the memory card and to expose the transaction stripe for use in magnetic card reader transactions.

U. In combination:
20 a memory card having an interface compatible with a memory card slot in a mobile phone and a smartcard interface; and
a credit card sized adapter to receive the memory card and to expose the smartcard interface for use in smartcard transactions.

25 V. A financial transaction system comprising:
a mobile phone having a memory card slot;
a memory card compatible with the memory card slot, wherein the memory card includes circuitry to transmit financial transaction data to a point-of-sale device; and

a software component to produce single transaction account numbers for use as financial transaction data.

W. A system comprising:

- 5 a wearable intelligent electronic device having a card slot; and
a card comprising a card slot interface and circuitry for producing a time-varying magnetic field compatible with a magnetic card reader.

Although the present invention has been described in conjunction with
10 certain embodiments, it is to be understood that modifications and variations may be resorted to without departing from the spirit and scope of the invention as those skilled in the art readily understand. Such modifications and variations are considered to be within the scope of the invention and the appended claims.

What is claimed is:

1. An apparatus with a compatible interface in a mobile phone, the apparatus
5 including smartcard circuitry accessible by the mobile phone, the smartcard
circuitry including a point-of-sale interface to communicate with a point-of-sale
terminal, wherein the point-of-sale interface receives power from the mobile phone.
2. The apparatus of claim 1 wherein the point-of-sale interface comprises
10 circuitry to produce at least one time-varying magnetic field.
3. The apparatus of claim 2 further comprising memory accessible by the
mobile phone.
- 15 4. The apparatus of claim 1 wherein the point-of-sale interface includes
circuitry compatible with a hybrid smartcard reader.
5. The apparatus of claim 1 further comprising memory accessible by the
mobile phone.
20
6. The apparatus of claim 1 further including software to be installed on the
mobile phone.
7. An apparatus for performing a financial transaction comprising:
25 means for communicating through a compatible interface in an intelligent
electronic device;
means for producing at least one time-varying magnetic field to represent
financial transaction data, wherein the means for producing receives power from the
intelligent electronic device; and
30 means for storing the financial transaction data.

8. The apparatus of claim 7 further including software to be installed on the intelligent electronic device.

5 9. The apparatus of claim 8 wherein the software is configured to run on a mobile phone.

10. The apparatus of claim 7 further comprising nonvolatile memory accessible through the means for communicating through a compatible interface.

10

11. The apparatus of claim 7 wherein the means for producing at least one time-varying magnetic field includes circuitry compatible with a hybrid smartcard reader.

12. The apparatus of claim 7 wherein the means for producing at least one time-
15 varying magnetic field includes smartcard circuitry.

13. The apparatus of claim 7 wherein the means for communicating through a compatible interface comprises a capacitor to be charged and to power the means for producing at least one time-varying magnetic field.

20

14. An apparatus comprising:
first interface compatible with a second interface in a mobile phone; and
circuitry powered by the first interface for producing a signal compatible
with a card reader.

25

15. The apparatus of claim 14 further comprising nonvolatile memory accessible via the first interface.

16. The apparatus of claim 14 wherein the circuitry for producing a signal compatible with a card reader includes circuitry compatible with a hybrid smartcard reader.

5 17. The apparatus of claim 14 wherein the circuitry for producing a signal compatible with a card reader includes smartcard circuitry.

18. The apparatus of claim 14 further comprising software to be transferred to a device other than the apparatus.

10

19. The apparatus of claim 14 further comprising a capacitor to be charged by the first interface and to supply power to the apparatus.

20. The apparatus of claim 14 further comprising a battery to be charged by the
15 first interface and to supply power to the apparatus.

Abstract of Disclosure

An electronic transaction card communicates with an add-on slot of an
5 intelligent electronic device. The add-on slot may be a memory card slot. The
intelligent electronic device may be a mobile phone or other device with or without
network connectivity. The electronic transaction card may have magnetic field
producing circuitry compatible with magnetic card readers, smartcard circuitry,
other point-of-sale interfaces, or any combination thereof.

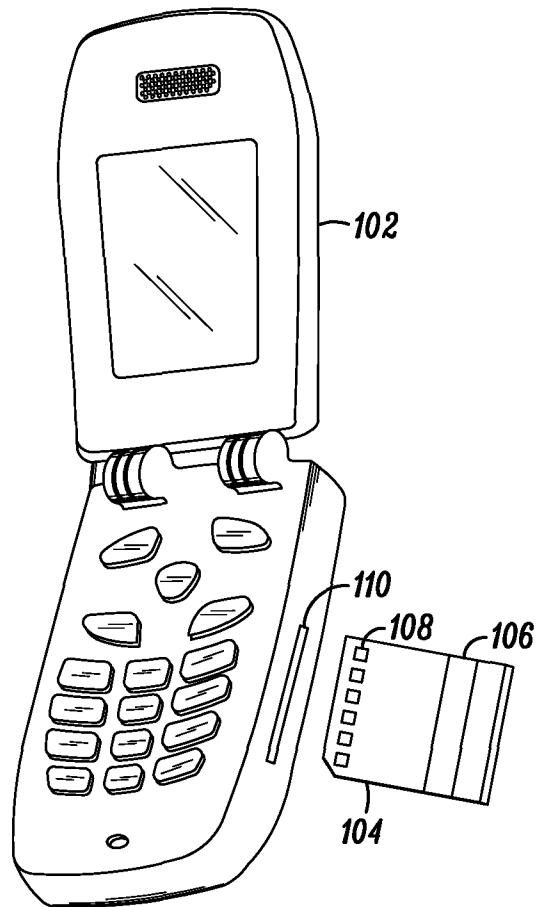


FIG. 1

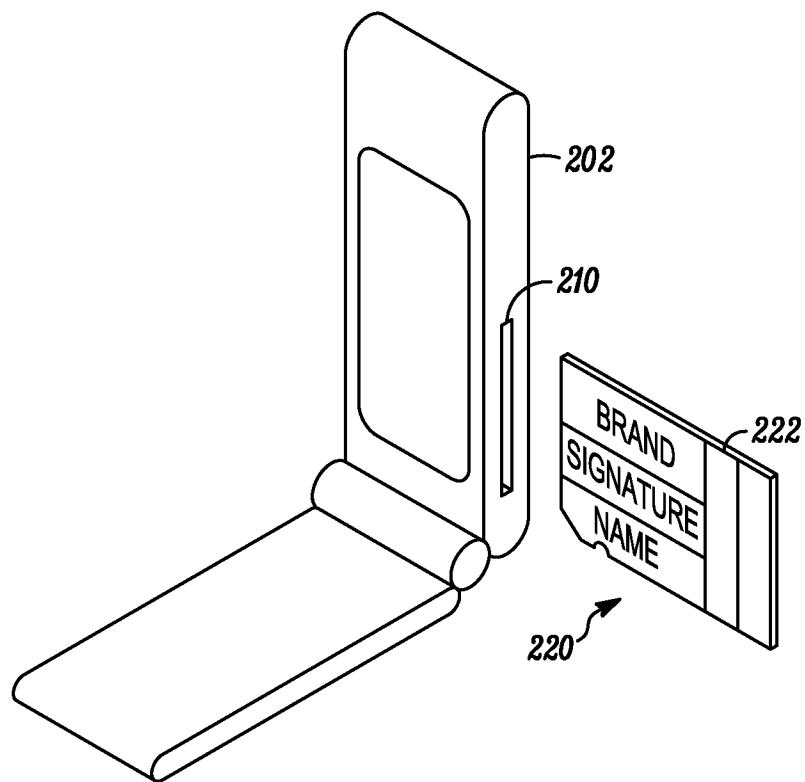


FIG. 2A

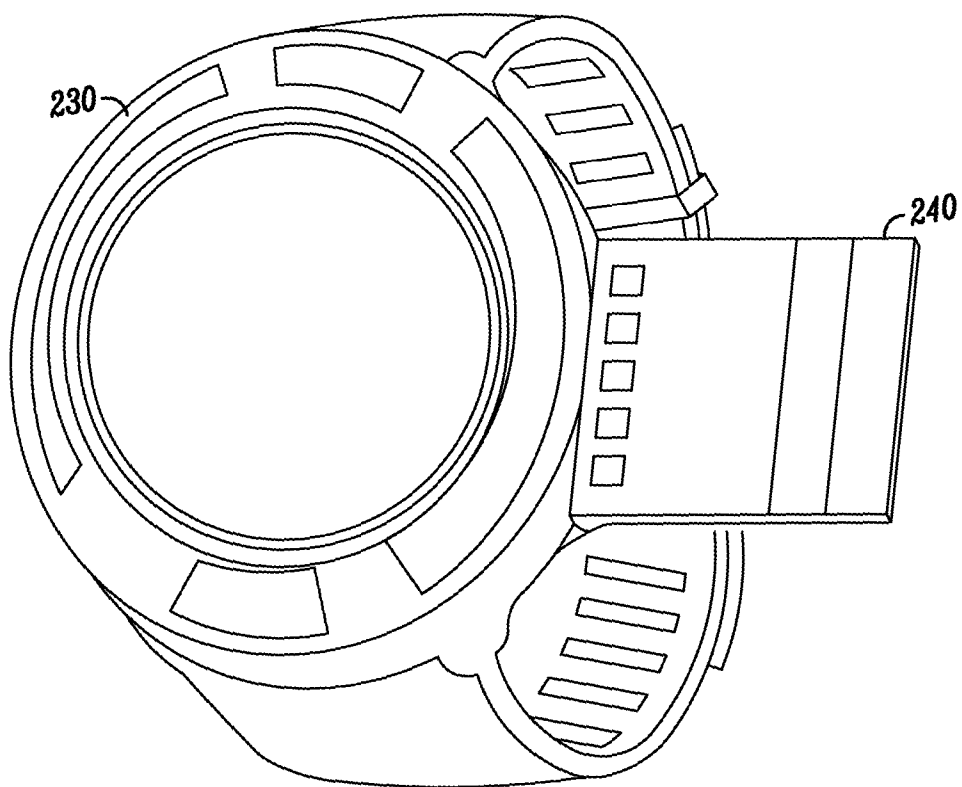


FIG. 2B

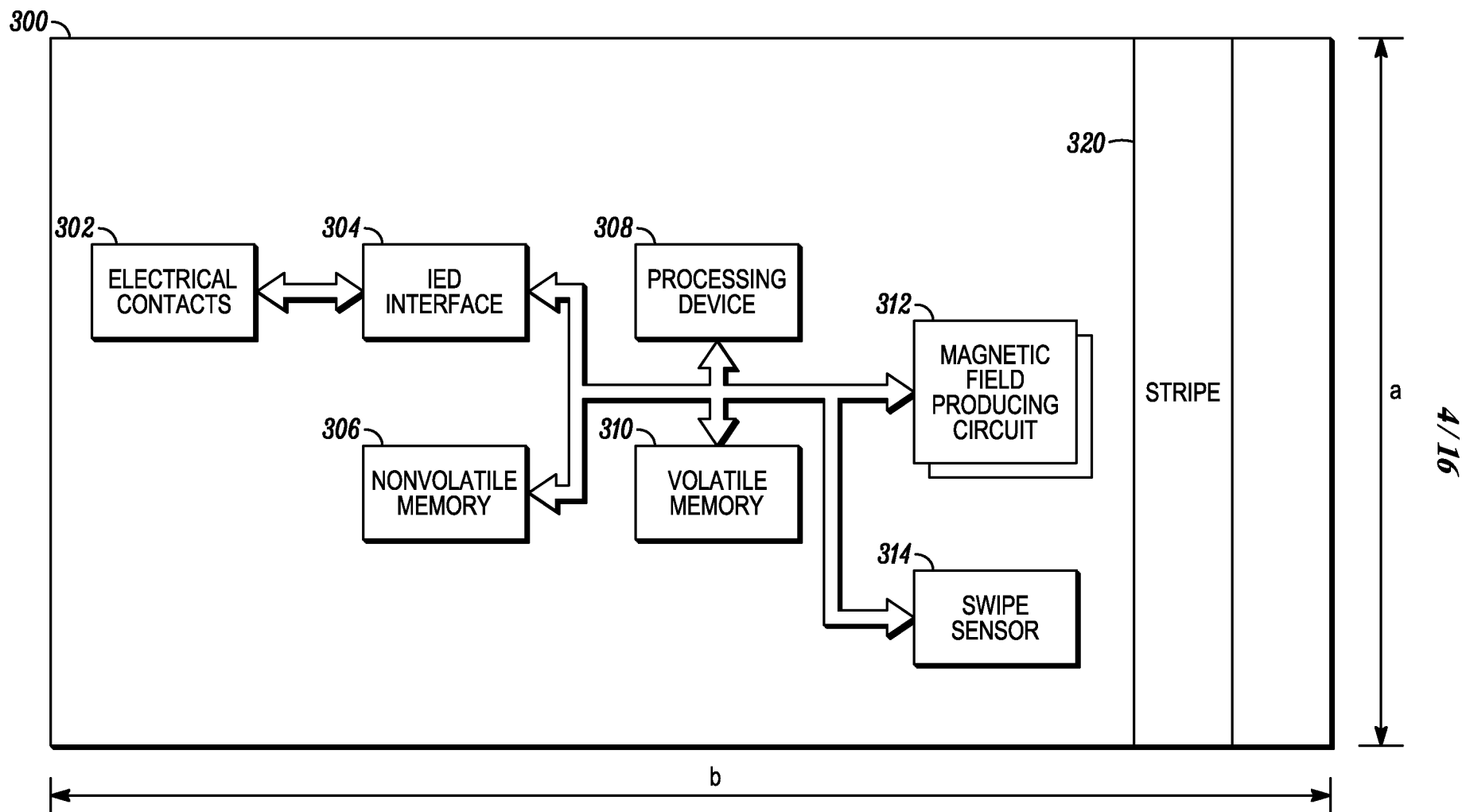


FIG. 3

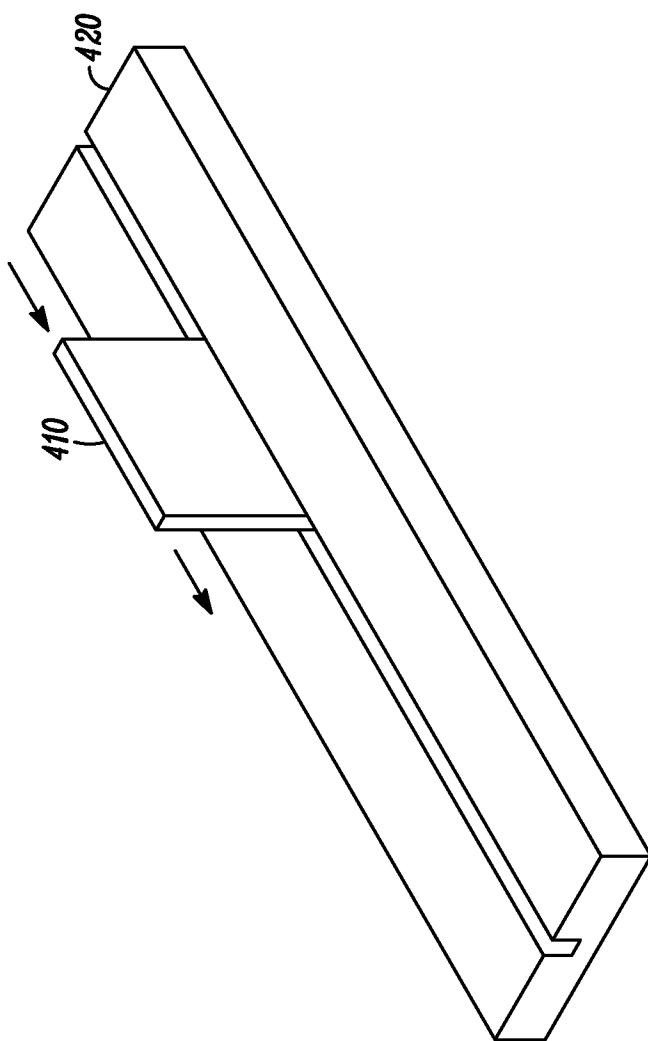


FIG. 4

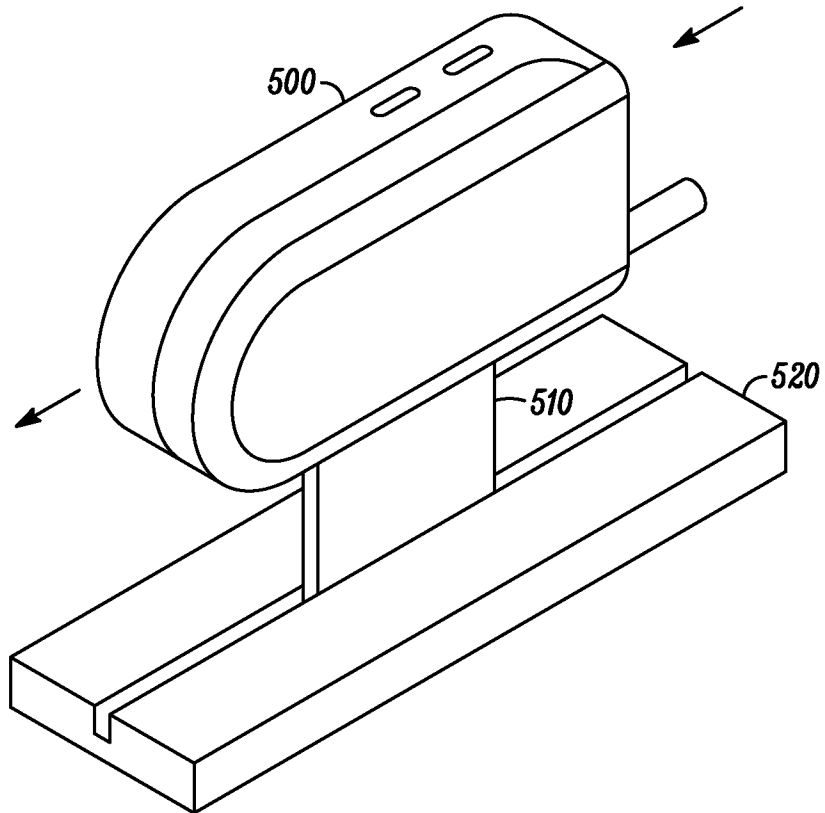


FIG. 5

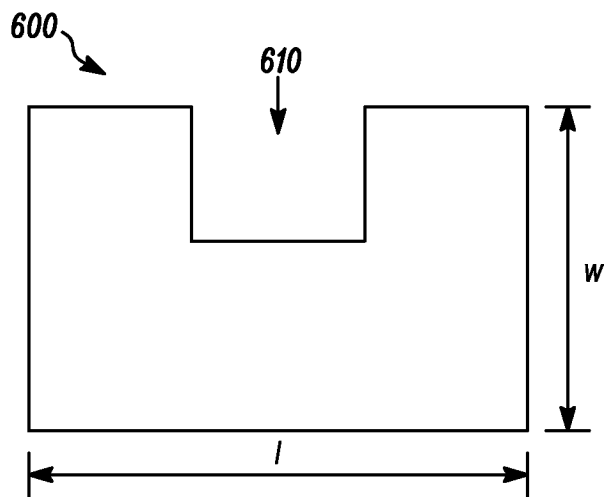


FIG. 6

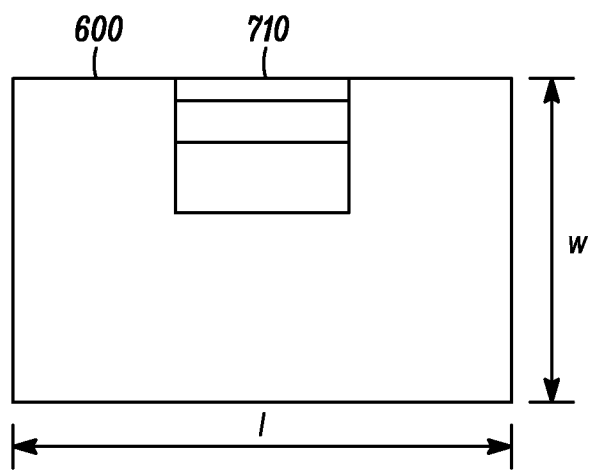


FIG. 7

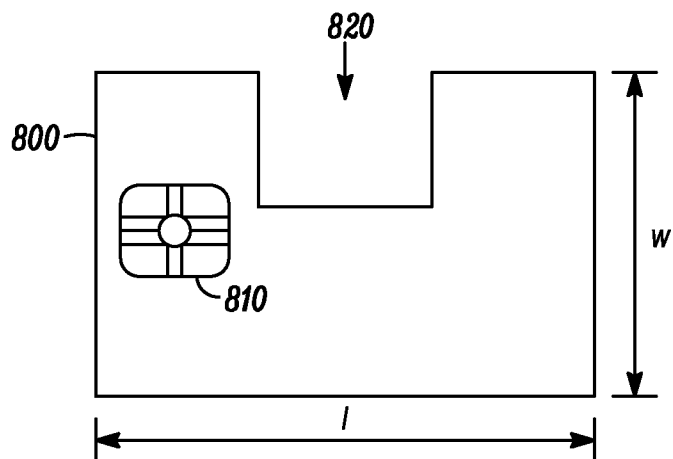


FIG. 8

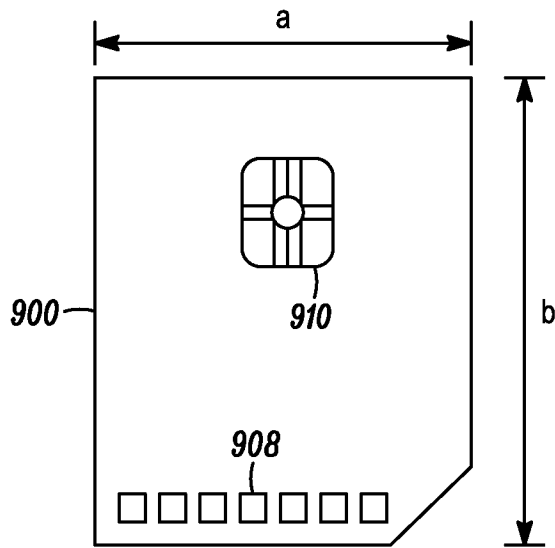


FIG. 9

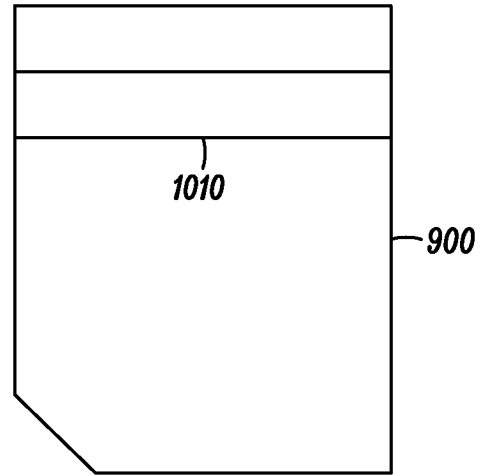


FIG. 10

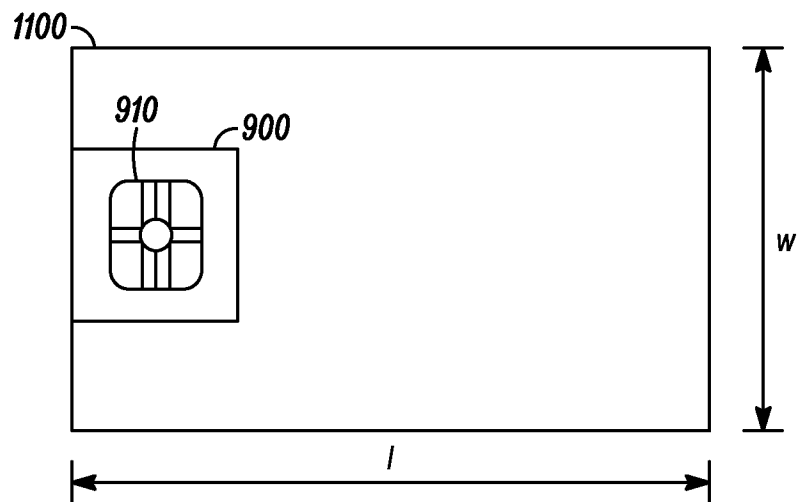


FIG. 11

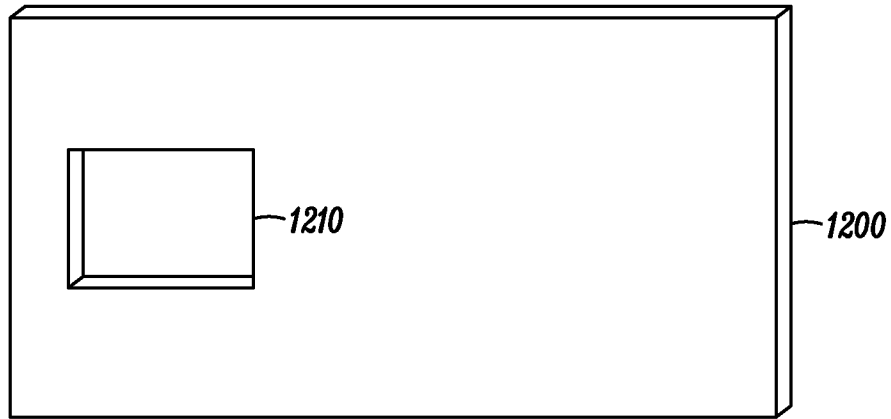


FIG. 12

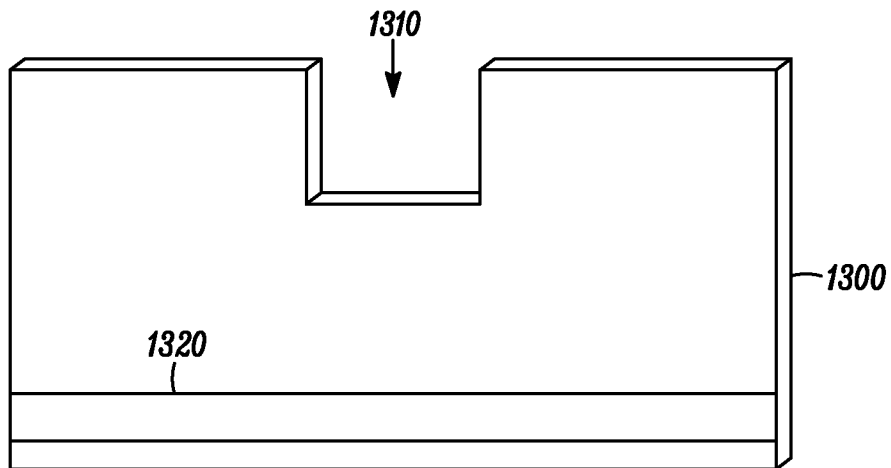


FIG. 13

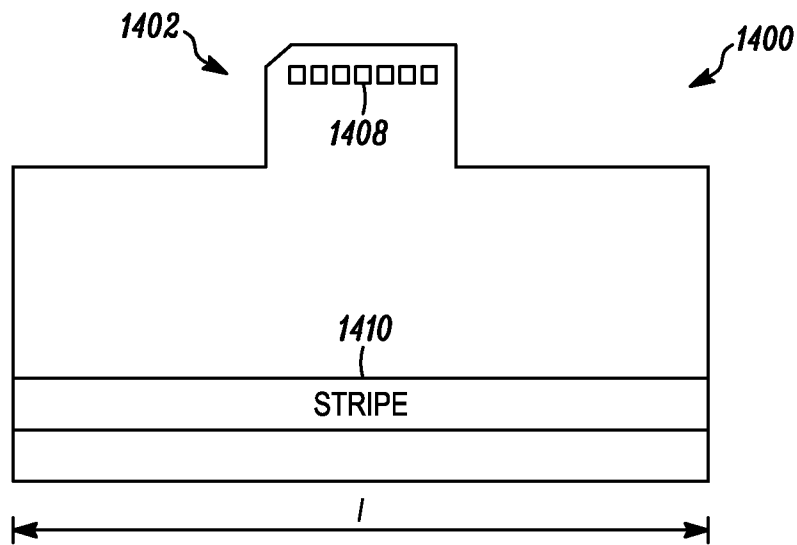


FIG. 14

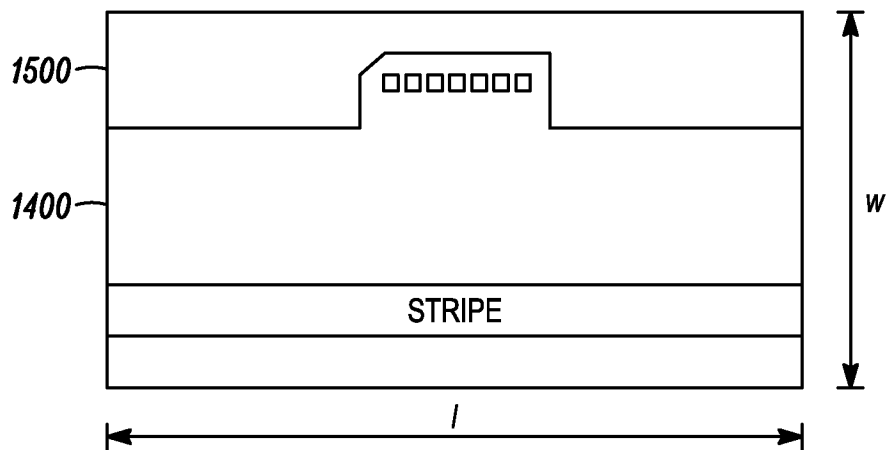


FIG. 15

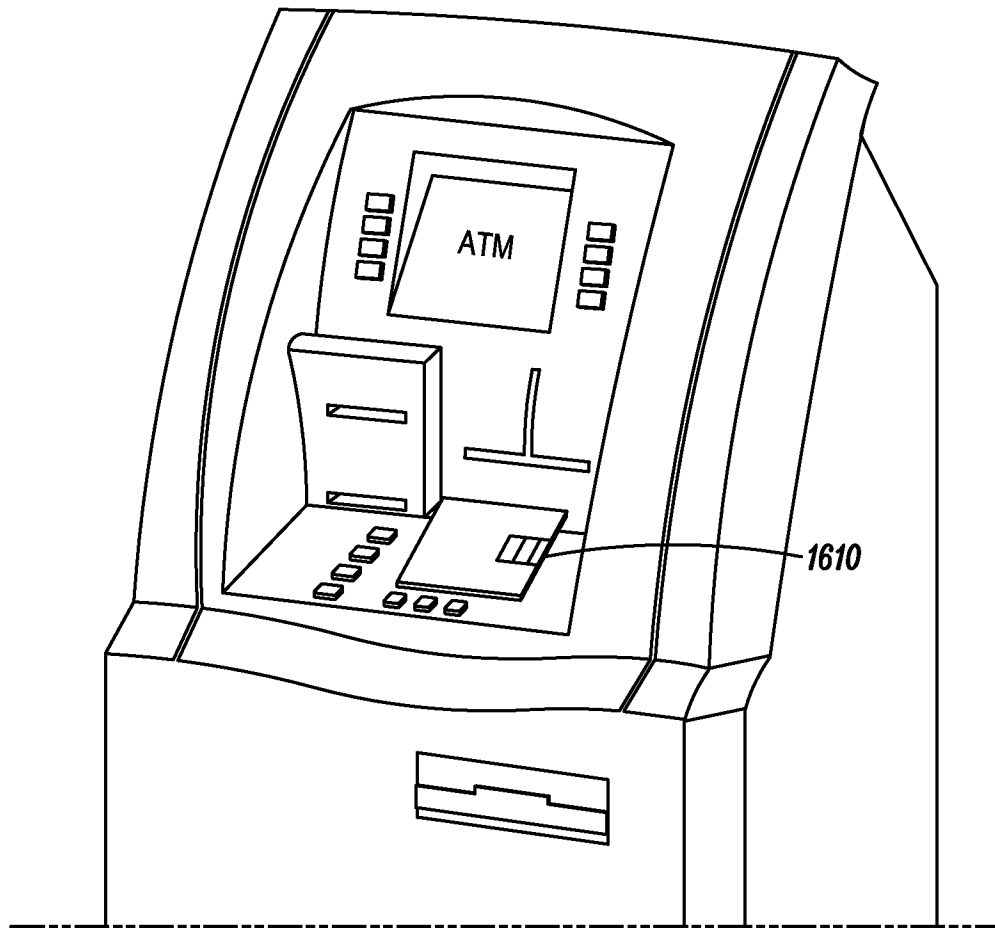


FIG. 16

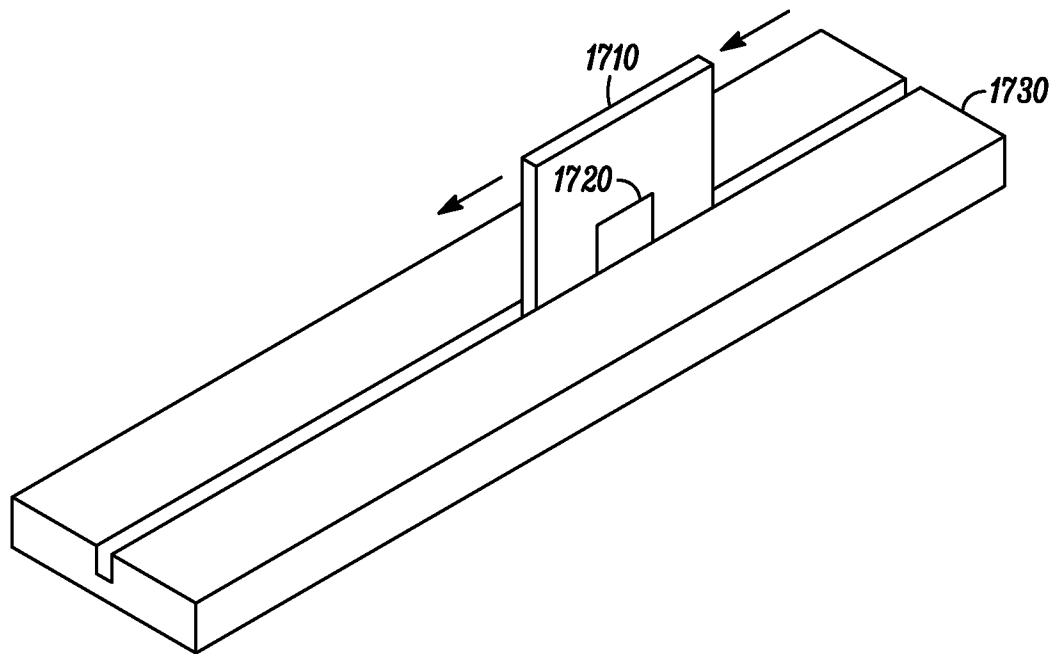


FIG. 17

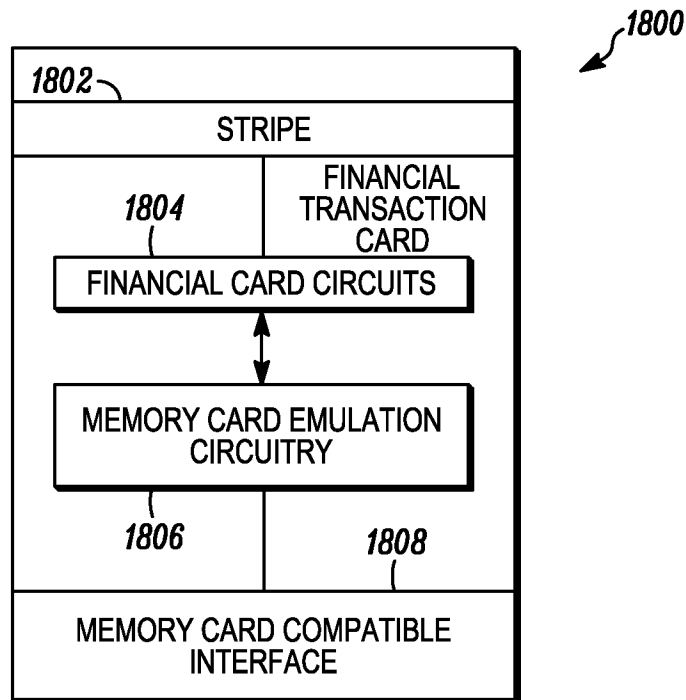


FIG. 18

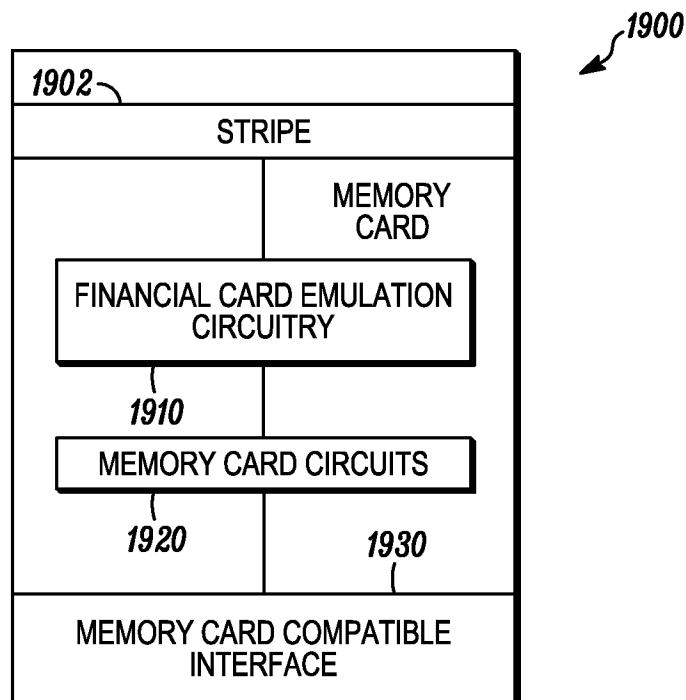


FIG. 19

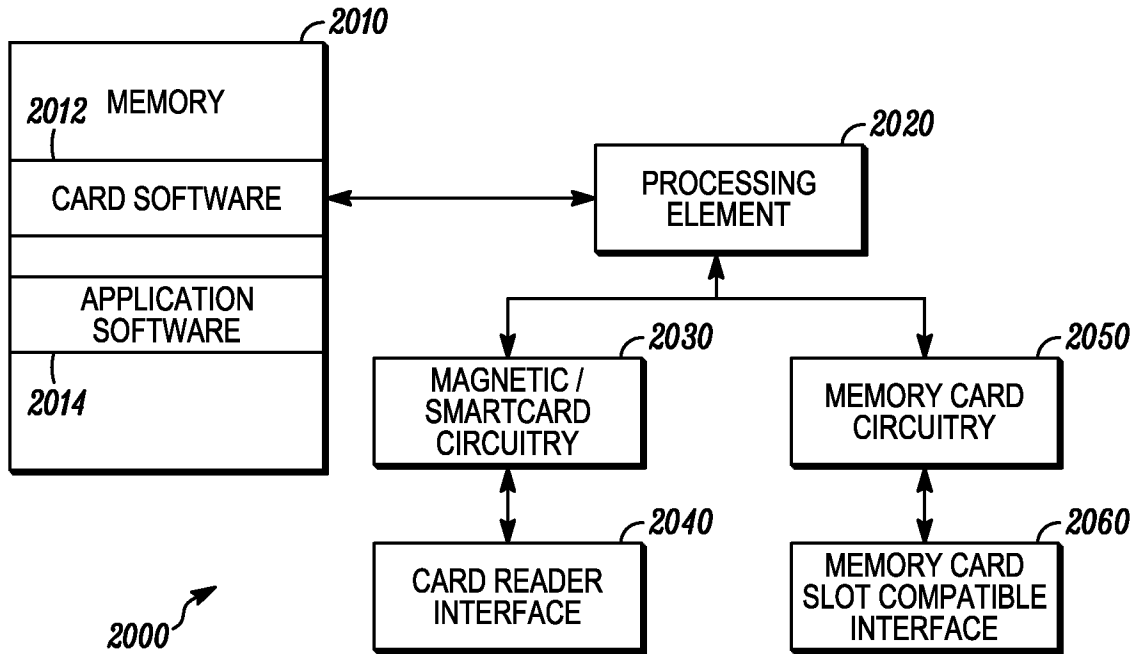


FIG. 20

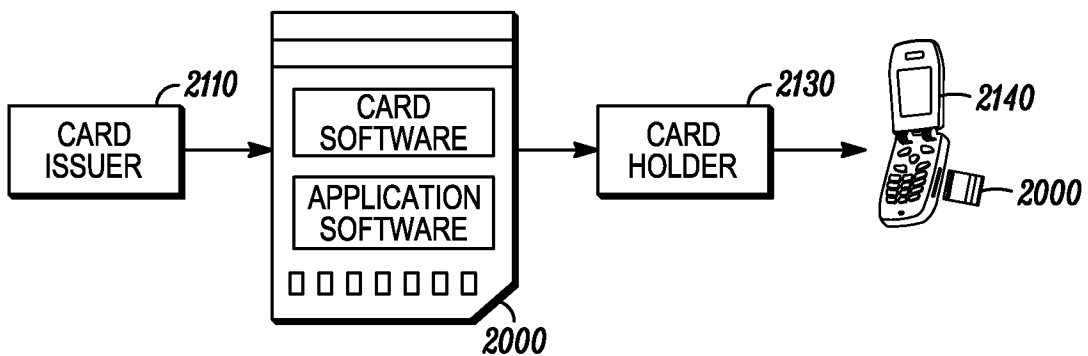


FIG. 21

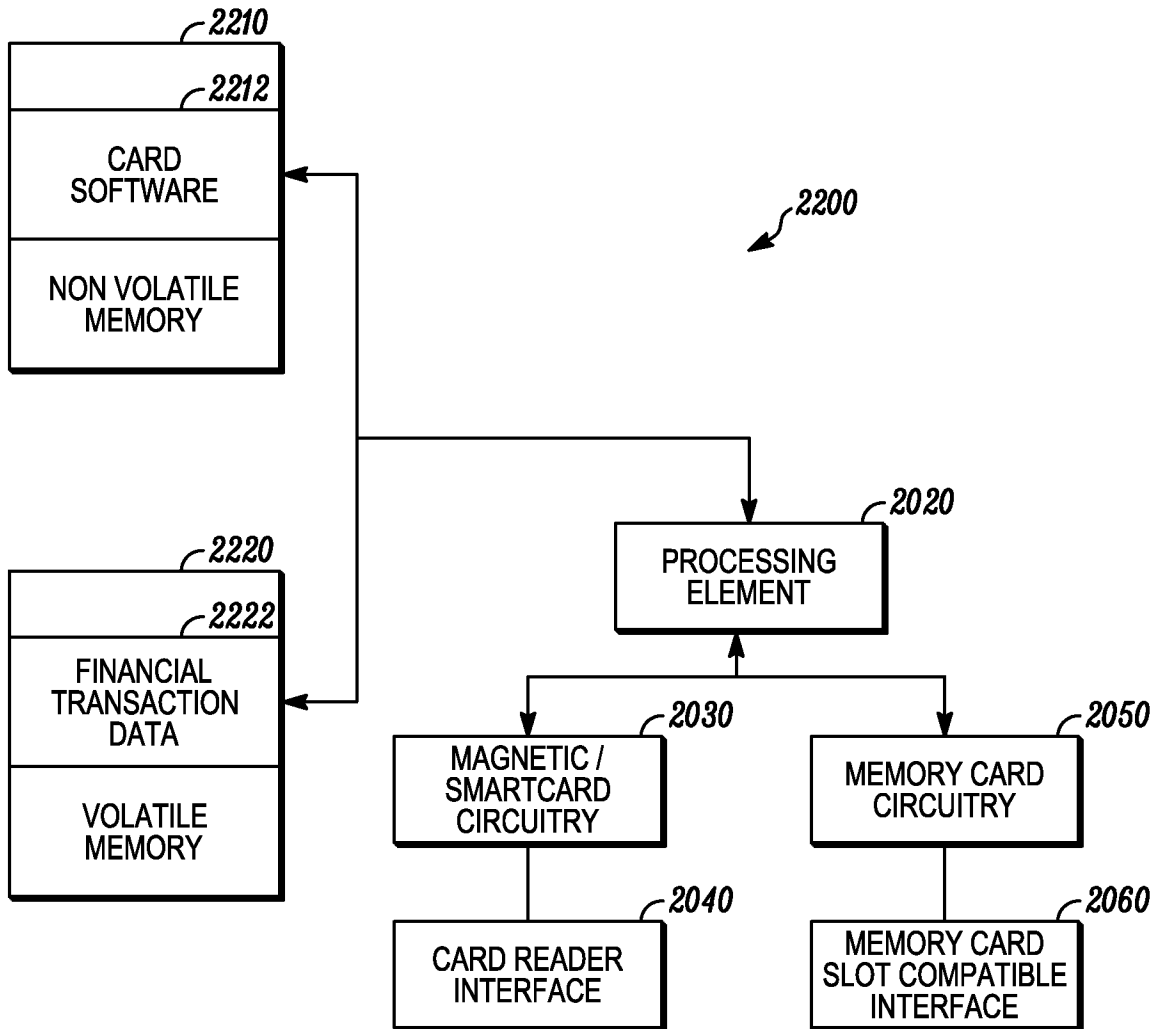


FIG. 22

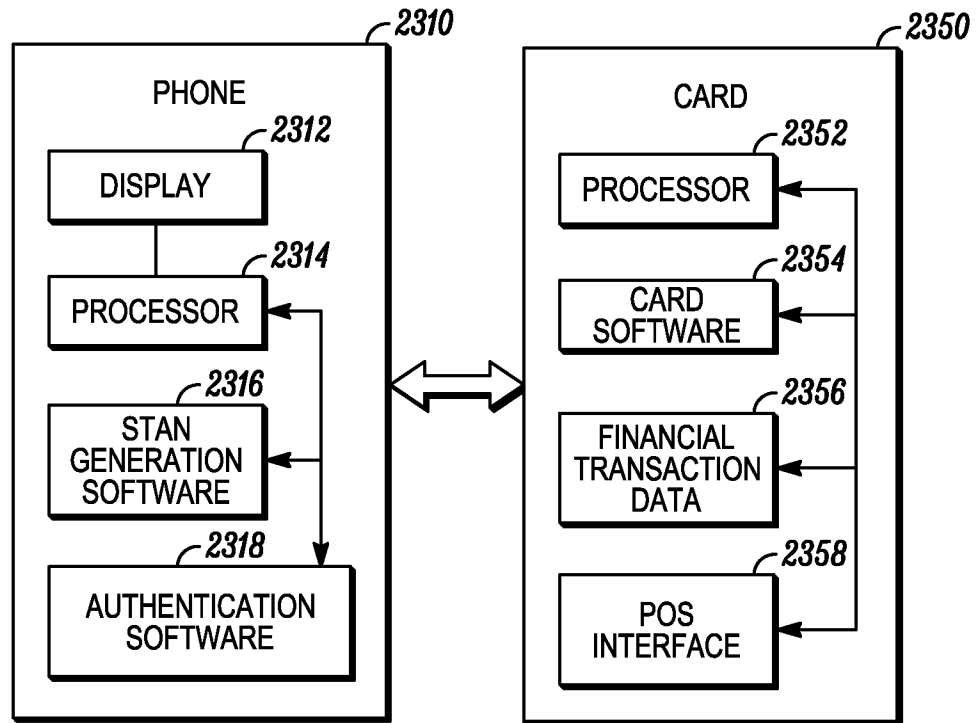


FIG. 23

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Application Data Sheet 37 CFR 1.76		Attorney Docket Number	115.001US4.4
		Application Number	
Title of Invention	APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE 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. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.			

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		
	Siva	G.	Narendra			
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service						
City	Portland	State/Province	OR	Country of Residence ⁱ	US	
Mailing Address of Inventor:						
Address 1		7180 SW 84th Ave.				
Address 2						
City	Portland	State/Province	OR			
Postal Code	97223	Country ⁱ	US			
Inventor 2					Remove	
Legal Name						
Prefix	Given Name	Middle Name	Family Name	Suffix		
	Thomas	N.	Spitzer			
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service						
City	Portland	State/Province	OR	Country of Residence ⁱ	US	
Mailing Address of Inventor:						
Address 1		2642 SW Bucharest Ct.				
Address 2						
City	Portland	State/Province	OR			
Postal Code	97225	Country ⁱ	US			
Inventor 3					Remove	
Legal Name						
Prefix	Given Name	Middle Name	Family Name	Suffix		
	Prabhakar		Tadepalli			
Residence Information (Select One) ☐ US Residency ☒ Non US Residency ☐ Active US Military Service						

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	115.001US4.4
		Application Number	
Title of Invention	APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE		

City	Bangalore	Country of Residence	IN
------	-----------	----------------------	----

Mailing Address of Inventor:

Address 1	Villa #A186, Prestige Ozone		
Address 2	Varthar Whitefield Road		
City	Bangalore	State/Province	
Postal Code	560066	Country	IN
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button.			

Add

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below. For further information see 37 CFR 1.33(a).	
☐ An Address is being provided for the correspondence Information of this application.	
Customer Number	35781
Email Address	Dana LeMoine <dlemoine@lemoinepatent.com> Add Email Remove Email

Application Information:

Title of the Invention	APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE		
Attorney Docket Number	115.001US4.4	Small Entity Status Claimed	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Suggested Class (if any)		Sub Class (if any)	
Suggested Technology Center (if any)			
Total Number of Drawing Sheets (if any)	16	Suggested Figure for Publication (if any)	23

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)
☐ Request Not to Publish. I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application has not and will not be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	115.001US4.4
		Application Number	
Title of Invention	APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE		

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

Please Select One:	☒ Customer Number	☐ US Patent Practitioner	☐ Limited Recognition (37 CFR 11.9)
Customer Number	35781		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, or 365(c) or indicate National Stage entry from a PCT application. Providing this 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.

Prior Application Status	Pending		Remove		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)		
	Continuation of	13304663	2011-11-27		
Prior Application Status	Patented		Remove		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
13304663	Continuation of	13114434	2011-05-24	8091786	2012-01-10
Prior Application Status	Patented		Remove		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
13114434	Continuation of	12941410	2010-11-08	7954715	2011-06-07
Prior Application Status	Patented		Remove		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
12941410	Continuation of	12539369	2009-08-11	7828214	2010-11-09
Prior Application Status	Patented		Remove		
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
12539369	Continuation of	11063291	2005-02-22	7581678	2009-09-01
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.					Add

Foreign Priority Information:

This section allows for the applicant to claim benefit of foreign priority and to identify any prior foreign application for which priority is not claimed. 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(a).

Remove			
Application Number	Country i	Filing Date (YYYY-MM-DD)	Priority Claimed
			☒ Yes ☐ No

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	115.001US4.4
	Application Number	
Title of Invention	APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE	

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button.

Add

Authorization to Permit Access:

☒ Authorization to Permit Access to the Instant Application by the Participating Offices
If checked, the undersigned hereby grants the USPTO authority to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the World Intellectual Property Office (WIPO), and any other intellectual property offices in which a foreign application claiming priority to the instant patent application is filed access to the instant patent application. See 37 CFR 1.14(c) and (h). This box should not be checked if the applicant does not wish the EPO, JPO, KIPO, WIPO, or other intellectual property office in which a foreign application claiming priority to the instant patent application is filed to have access to the instant patent application. In accordance with 37 CFR 1.14(h)(3), access will be provided to a copy of the instant patent application with respect to: 1) the instant patent application-as-filed; 2) any foreign application to which the instant patent application claims priority under 35 U.S.C. 119(a)-(d) if a copy of the foreign application that satisfies the certified copy requirement of 37 CFR 1.55 has been filed in the instant patent application; and 3) any U.S. application-as-filed from which benefit is sought in the instant patent application. In accordance with 37 CFR 1.14(c), access may be provided to information concerning the date of filing this Authorization.

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	
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. Remove	
☐ Assignee	☐ Legal Representative under 35 U.S.C. 117
☐ 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 Assignee is an Organization check here. ☒	

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	115.001US4.4
		Application Number	
Title of Invention	APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE		

Organization Name			
Mailing Address Information:			
Address 1			
Address 2			
City		State/Province	
Country i		Postal Code	
Phone Number		Fax Number	
Email Address			
Additional Applicant Data may be generated within this form by selecting the Add button. Add			

Signature:Remove

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications					
Signature	/Dana B. LeMoine/			Date (YYYY-MM-DD)	2012-10-12
First Name	Dana	Last Name	LeMoine	Registration Number	40062
Additional Signature may be generated within this form by selecting the Add button. Add					

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

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

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
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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 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.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 13/651,365				
APPLICATION AS FILED - PART I										
(Column 1)		(Column 2)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY				
FOR	NUMBER FILED	NUMBER EXTRA	RATE(\$)	FEE(\$)		RATE(\$)	FEE(\$)			
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	390			
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A			N/A	620			
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	250			
TOTAL CLAIMS (37 CFR 1.16(j))	20	minus 20 = *			OR	x 62 =	0.00			
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3	minus 3 = *				x 250 =	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		TOTAL	1260			
APPLICATION AS AMENDED - PART II										
(Column 1)		(Column 2)		(Column 3)		SMALL ENTITY		OR OTHER THAN SMALL ENTITY		
AMENDMENT A		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	x	=	OR	x	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x	=	OR	x	=
	Application Size Fee (37 CFR 1.16(s))							OR		
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	
AMENDMENT B		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)
	Total (37 CFR 1.16(i))	*	Minus	**	=	x	=	OR	x	=
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x	=	OR	x	=
	Application Size Fee (37 CFR 1.16(s))							OR		
	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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www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
13/651,365	10/12/2012	2876	1260	115.001US4.4	20	3

CONFIRMATION NO. 9238

35781

Tyfone, Inc.
Patent Dept.
5520 SW Macadam Avenue
Suite 250
Portland, OR 97239

FILING RECEIPT



OC000000057389197

Date Mailed: 11/05/2012

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)

Siva G. Narendra, Portland, OR;
Thomas N. Spitzer, Portland, OR;
Prabhakar Tadepalli, Bangalore, INDIA;

Applicant(s)

Siva G. Narendra, Portland, OR;
Thomas N. Spitzer, Portland, OR;
Prabhakar Tadepalli, Bangalore, INDIA;

Power of Attorney: The patent practitioners associated with Customer Number 35781

Domestic Priority data as claimed by applicant

This application is a CON of 13/304,663 11/27/2011
which is a CON of 13/114,434 05/24/2011 PAT 8091786
which is a CON of 12/941,410 11/08/2010 PAT 7954715
which is a CON of 12/539,369 08/11/2009 PAT 7828214
which is a CON of 11/063,291 02/22/2005 PAT 7581678

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

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If Required, Foreign Filing License Granted: 11/01/2012

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 13/651,365**

Projected Publication Date: 02/14/2013

Non-Publication Request: No

Early Publication Request: No

Title

APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE

Preliminary Class

235

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 (1-866-999-4158).

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Title 37, Code of Federal Regulations, 5.11 & 5.15

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NOT GRANTED

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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/651,365	10/12/2012	Siva G. Narendra	115.001US4.4	9238
35781	7590	01/18/2013		
Tyfone, Inc. Patent Dept. 5520 SW Macadam Avenue Suite 250 Portland, OR 97239			EXAMINER FRECH, KARL D	
			ART UNIT 2887	PAPER NUMBER
			NOTIFICATION DATE 01/18/2013	DELIVERY MODE ELECTRONIC

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

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

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

dlemoine@lemoinepatent.com
jennykathman@gmail.com

Office Action Summary	Application No. 13/651,365	Applicant(s) NARENDRA ET AL.	
	Examiner KARL D. FRECH	Art Unit 2887	

-- 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 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, 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 ____.
- 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) 1-20 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) 1-20 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 10/12/12 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).
- a) ☐ All b) ☐ Some * c) ☐ None of:
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/08)
Paper No(s)/Mail Date ____.
- 3) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 4) ☐ Other: ____.

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-20 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 8,091,786.

Although the conflicting claims are not identical, they are not patentably distinct from each other because:

4. Regarding current claims 1-6, the currently claimed elements are identically recited in the Patent '786 corresponding claims 1-6 except that where in the current claims recite "an apparatus" the Patent '786 claims recite "an add-on card". The narrower "add-on card" anticipates the broader "apparatus". Further, these two corresponding elements are likewise specified in the respective specifications.

5. Regarding current claims 6-13, the currently claimed elements are identically recited in the Patent '786 corresponding claims 6-13 except that where in the current claims recite "a compatible interface" the Patent '786 claims recite "an add on slot". The narrower "add-on slot" anticipates the broader "compatible interface". Further, these two corresponding elements are likewise specified in the respective specifications.

6. Regarding current claims 14-20, the currently claimed elements are identically recited in the Patent '786 corresponding claims 14-20 except that where in the current claims recited "an apparatus" and "first interface compatible with a second interface" the Patent '786 corresponding claims 14-20 recite "an electronic transaction card" and "an add-on slot interface compatible with an add-on slot". The narrower "electronic

Art Unit: 2887

transaction card” and “add-on slot interface compatible with an add-on slot” anticipate the broader “apparatus” and “first interface compatible with a second interface”.

Further, these corresponding elements are likewise specified in the respective specifications.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KARL D. FRECH whose telephone number is (571)272-2390. The examiner can normally be reached on maxi-flex.

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.

/KARL D FRECH/
Primary Examiner, Art Unit 2887

Notice of References Cited	Application/Control No. 13/651,365	Applicant(s)/Patent Under Reexamination NARENDRA ET AL.	
	Examiner KARL D. FRECH	Art Unit 2887	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-8,091,786	01-2012	Narendra et al.	235/451
	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	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.

Search Notes

Application/Control No.

13/651,365

Examiner

KARL D. FRECH

Applicant(s)/Patent under
Reexamination

NARENDRA ET AL.

Art Unit

2887

SEARCHED

Class	Subclass	Date	Examiner
235	380 375 382 492 487 493 451 379	1/14/2013	KDF
235	472.01	1/14/2013	KDF
235	472.02	1/14/2013	KDF
235	472.03	1/14/2013	KDF

INTERFERENCE SEARCHED

Class	Subclass	Date	Examiner

**SEARCH NOTES
(INCLUDING SEARCH STRATEGY)**

	DATE	EXMR
brs search history attached	1/14/2013	KDF



UNITED STATES PATENT AND TRADEMARK OFFICE

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

BIB DATA SHEET

CONFIRMATION NO. 9238

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
13/651,365	10/12/2012	235	2887	115.001US4.4
RULE				
APPLICANTS Siva G. Narendra, Portland, OR; Thomas N. Spitzer, Portland, OR; Prabhakar Tadepalli, Bangalore, INDIA;				
** CONTINUING DATA ***** This application is a CON of 13/304,663 11/27/2011 which is a CON of 13/114,434 05/24/2011 PAT 8,091,786 which is a CON of 12/941,410 11/08/2010 PAT 7,954,715 which is a CON of 12/539,369 08/11/2009 PAT 7,828,214 which is a CON of 11/063,291 02/22/2005 PAT 7,581,678				
** FOREIGN APPLICATIONS *****				
** IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** 11/01/2012				
Foreign Priority claimed ☐ Yes ☒ No 35 USC 119(a-d) conditions met ☐ Yes ☒ No Verified and Acknowledged <u>/KARL D FRECH/</u> Examiner's Signature	☐ Met after Allowance Initials	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS
		OR	16	20
INDEPENDENT CLAIMS				
3				
ADDRESS Tyfone, Inc. Patent Dept. 5520 SW Macadam Avenue Suite 250 Portland, OR 97239 UNITED STATES				
TITLE APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE				
FILING FEE RECEIVED 1260	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	☐ All Fees		
		☐ 1.16 Fees (Filing)		
		☐ 1.17 Fees (Processing Ext. of time)		
		☐ 1.18 Fees (Issue)		
		☐ Other _____		
		☐ Credit		

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	9253	POS same ((mobile cell cellular) near3 (telephone phone))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/01/14 09:21
L2	23188	time same (vary varying) same (magnetic near2 field)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/01/14 09:21
L3	80	1 and 2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2013/01/14 09:22

1/ 14/ 2013 9:22:29 AM
C:\ Users\ kfrech\ Documents\ EAST\ Workspaces\ ijl.ksp

Index of Claims



Application/Control No.

13/651,365

Examiner

KARL D. FRECH

Applicant(s)/Patent under Reexamination

NARENDRA ET AL.

Art Unit

2887

✓	Rejected
=	Allowed

—	(Through numeral) Cancelled
÷	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date									
Final	Original	1/14/13									
	1	✓									
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Tyfone, Inc.
Patent Dept.
5520 SW Macadam Avenue
Suite 250
Portland, OR 97239



**Courtesy Reminder for
Application Serial No: 13/651,365**

Attorney Docket No: 115.001US4.4

Customer Number: 35781

Date of Electronic Notification: 01/18/2013

This is a courtesy reminder that new correspondence is available for this application. If you have not done so already, please review the correspondence. The official date of notification of the outgoing correspondence will be indicated on the form PTOL-90 accompanying the correspondence.

An email notification regarding the correspondence was sent to the following email address(es) associated with your customer number:

dlemoine@lemoinepatent.com
jennykathman@gmail.com

To view your correspondence online or update your email addresses, please visit us anytime at <https://sportal.uspto.gov/secure/myportal/privatepair>. If you have any questions, please email the Electronic Business Center (EBC) at EBC@uspto.gov or call 1-866-217-9197.

S/N 13/651,365

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Siva G. Narendra et al.	Examiner:	Karl D. Frech
Serial No.:	13/651,365	Group Art Unit:	2887
Filed:	October 12, 2012	Docket No.:	115.001US4.4
Title:	APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE		

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

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

Applicants have reviewed the Office Action mailed on January 18, 2013. Please amend the above-identified patent application as follows.

IN THE CLAIMS

Please amend the claims as follows:

1. (Original) An apparatus with a compatible interface in a mobile phone, the apparatus including smartcard circuitry accessible by the mobile phone, the smartcard circuitry including a point-of-sale interface to communicate with a point-of-sale terminal, wherein the point-of-sale interface receives power from the mobile phone.
2. (Original) The apparatus of claim 1 wherein the point-of-sale interface comprises circuitry to produce at least one time-varying magnetic field.
3. (Original) The apparatus of claim 2 further comprising memory accessible by the mobile phone.
4. (Original) The apparatus of claim 1 wherein the point-of-sale interface includes circuitry compatible with a hybrid smartcard reader.
5. (Original) The apparatus of claim 1 further comprising memory accessible by the mobile phone.
6. (Original) The apparatus of claim 1 further including software to be installed on the mobile phone.
7. (Original) An apparatus for performing a financial transaction comprising:
 - means for communicating through a compatible interface in an intelligent electronic device;
 - means for producing at least one time-varying magnetic field to represent financial transaction data, wherein the means for producing receives power from the intelligent electronic device; and
 - means for storing the financial transaction data.

8. (Original) The apparatus of claim 7 further including software to be installed on the intelligent electronic device.

9. (Original) The apparatus of claim 8 wherein the software is configured to run on a mobile phone.

10. (Original) The apparatus of claim 7 further comprising nonvolatile memory accessible through the means for communicating through a compatible interface.

11. (Original) The apparatus of claim 7 wherein the means for producing at least one time-varying magnetic field includes circuitry compatible with a hybrid smartcard reader.

12. (Original) The apparatus of claim 7 wherein the means for producing at least one time-varying magnetic field includes smartcard circuitry.

13. (Original) The apparatus of claim 7 wherein the means for communicating through a compatible interface comprises a capacitor to be charged and to power the means for producing at least one time-varying magnetic field.

14. (Original) An apparatus comprising:

first interface compatible with a second interface in a mobile phone; and
circuitry powered by the first interface for producing a signal compatible with a card reader.

15. (Original) The apparatus of claim 14 further comprising nonvolatile memory accessible via the first interface.

16. (Original) The apparatus of claim 14 wherein the circuitry for producing a signal compatible with a card reader includes circuitry compatible with a hybrid smartcard reader.

17. (Original) The apparatus of claim 14 wherein the circuitry for producing a signal compatible with a card reader includes smartcard circuitry.

18. (Original) The apparatus of claim 14 further comprising software to be transferred to a device other than the apparatus.

19. (Original) The apparatus of claim 14 further comprising a capacitor to be charged by the first interface and to supply power to the apparatus.

20. (Original) The apparatus of claim 14 further comprising a battery to be charged by the first interface and to supply power to the apparatus.

REMARKS

Applicants have reviewed and considered the Office Action mailed on January 18, 2013, and the references cited therewith. No claims are amended, canceled, or added; as a result, claims 1-20 are now pending in this application.

Nonstatutory Obviousness-type Double Patenting Rejection of the Claims

Claims 1-20 were rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of U.S. Patent No. 8,091,786. A terminal disclaimer is being filed concurrently herewith to overcome this rejection.

Conclusion

Applicants respectfully submit that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (952-473-8800) to facilitate prosecution of this application.

Respectfully submitted,

SIVA G. NARENDRA ET AL.

By their Representatives,

LeMoine Patent Services, PLLC

Customer 35781

Telephone Number: 952-473-8800

Date January 30, 2013

By /Dana B. LeMoine/

Dana B. LeMoine

Reg. No. 40062

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.

**TERMINAL DISCLAIMER TO OBIATE A DOUBLE PATENTING
REJECTION OVER A "PRIOR" PATENT**Docket Number (Optional)
115.001US4.4

In re Application of: Narendra et al.

Application No.: 13/651,365

Filed: October 12, 2012

For: APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE

The owner*, Tyfone, Inc., of 100 percent interest in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term **prior patent** No. 8,091,786 as the term of said prior patent is defined in 35 U.S.C. 154 and 173, and as the term of said **prior patent** is presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the **prior patent** are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term as defined in 35 U.S.C. 154 and 173 of the **prior patent**, "as the term of said **prior patent** is presently shortened by any terminal disclaimer," in the event that said **prior 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 presently shortened by any terminal disclaimer.

Check either box 1 or 2 below, if appropriate.

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.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2. ☒ The undersigned is an attorney or agent of record. Reg. No. 40,062

/Dana B. LeMoine/

Signature

January 30, 2013

Date

Dana B. LeMoine

Typed or printed name

(952)473-8800

Telephone Number

- ☒ Terminal disclaimer fee under 37 CFR 1.20(d) included.

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.

*Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner).
Form PTO/SB/96 may be used for making this certification. See MPEP § 324.

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.**

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.

Electronic Patent Application Fee Transmittal

Application Number:	13651365			
Filing Date:	12-Oct-2012			
Title of Invention:	APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE			
First Named Inventor/Applicant Name:	Siva G. Narendra			
Filer:	Dana B. LeMoine			
Attorney Docket Number:	115.001US4.4			
Filed as Large Entity				
Utility under 35 USC 111(a) Filing Fees				
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	1814	1	160	160
Total in USD (\$)				160

Electronic Acknowledgement Receipt

EFS ID:	14827481
Application Number:	13651365
International Application Number:	
Confirmation Number:	9238
Title of Invention:	APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE
First Named Inventor/Applicant Name:	Siva G. Narendra
Customer Number:	35781
Filer:	Dana B. LeMoine
Filer Authorized By:	
Attorney Docket Number:	115.001US4.4
Receipt Date:	30-JAN-2013
Filing Date:	12-OCT-2012
Time Stamp:	11:14:00
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$ 160
RAM confirmation Number	8718
Deposit Account	
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1	Amendment/Req. Reconsideration-After Non-Final Reject	115_001us4_4_oar1.pdf	90081 b82b8d17a46a6ecc5bd7799fed512906418 518ce	no	6
Warnings:					
Information:					
2	Terminal Disclaimer Filed	115_001US4_4_TerminalDisclai mer.pdf	212961 d46a4a25ff661044edd15f40de119f1aa984 15b5	no	2
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	30226 409844e4495ba7ad0d9b3c9ef6b054b7c77 1f212	no	2
Warnings:					
Information:					
Total Files Size (in bytes):			333268		
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. <u>New Applications Under 35 U.S.C. 111</u> 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.					

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.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875					Application or Docket Number 13/651,365		Filing Date 10/12/2012		☐ To be Mailed	
APPLICATION AS FILED – PART I										
(Column 1)			(Column 2)			SMALL ENTITY ☐ OR		OTHER THAN SMALL ENTITY		
FOR	NUMBER FILED	NUMBER EXTRA	RATE (\$)	FEE (\$)	OR	RATE (\$)	FEE (\$)			
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A				
☐ SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A			N/A				
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A				
TOTAL CLAIMS (37 CFR 1.16(j))	minus 20 =	*	X \$	=	OR	X \$	=			
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X \$	=		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 \$250 (\$125 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.										
APPLICATION AS AMENDED – PART II										
(Column 1)			(Column 2)			SMALL ENTITY OR		OTHER THAN SMALL ENTITY		
AMENDMENT	01/30/2013	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	RATE (\$)	ADDITIONAL FEE (\$)	
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	=	0		X \$62=	0	
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	=	0		X \$250=	0	
☐ Application Size Fee (37 CFR 1.16(s))										
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))										
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	0	
(Column 1)			(Column 2)			SMALL ENTITY OR		OTHER THAN SMALL ENTITY		
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)	OR	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		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 number found in the appropriate box in column 1.										

Legal Instrument Examiner:
/EFREM WARREN/

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

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

Application Number 	Application/Control No. 13/651,365	Applicant(s)/Patent under Reexamination NARENDRA ET AL.	
Document Code - DISQ		Internal Document – DO NOT MAIL	

TERMINAL DISCLAIMER	☒ APPROVED	☐ DISAPPROVED
Date Filed : 1/30/13	This patent is subject to a Terminal Disclaimer	

Approved/Disapproved by:

Felicia D. Roberts

8,091,786



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
13/651,365	10/12/2012	Siva G. Narendra	115.001US4.4

CONFIRMATION NO. 9238

PUBLICATION NOTICE



OC000000059317296

35781
Tyfone, Inc.
Patent Dept.
5520 SW Macadam Avenue
Suite 250
Portland, OR 97239

Title: APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE

Publication No. US-2013-0037611-A1

Publication Date: 02/14/2013

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 Office of Public Records. The Office of Public Records can be reached by telephone at (703) 308-9726 or (800) 972-6382, by facsimile at (703) 305-8759, by mail addressed to the United States Patent and Trademark Office, Office of Public Records, 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 <http://pair.uspto.gov/>. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

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

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



UNITED STATES PATENT AND TRADEMARK OFFICE

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

NOTICE OF ALLOWANCE AND FEE(S) DUE

35781 7590 02/21/2013
Tyfone, Inc.
Patent Dept.
5520 SW Macadam Avenue
Suite 250
Portland, OR 97239

EXAMINER

FRECH, KARL D

ART UNIT

PAPER NUMBER

2887

DATE MAILED: 02/21/2013

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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13/651,365

10/12/2012

Siva G. Narendra

115.001US4.4

9238

TITLE OF INVENTION: APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1770	\$300	\$0	\$2070	05/21/2013

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 SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

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: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (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)

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.

35781 7590 02/21/2013
 Tyfone, Inc.
 Patent Dept.
 5520 SW Macadam Avenue
 Suite 250
 Portland, OR 97239

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 facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

13/651,365 10/12/2012 Siva G. Narendra 115.001US4.4 9238

TITLE OF INVENTION: APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1770	\$300	\$0	\$2070	05/21/2013

EXAMINER	ART UNIT	CLASS-SUBCLASS
FRECH, KARL D	2887	235-451000

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 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
 (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. 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. The following fee(s) are submitted:

- ☐ Issue Fee
☐ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information 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 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, 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.

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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/651,365	10/12/2012	Siva G. Narendra	115.001US4.4	9238
35781	7590	02/21/2013	EXAMINER	
Tyfone, Inc. Patent Dept. 5520 SW Macadam Avenue Suite 250 Portland, OR 97239			FRECH, KARL D	
			ART UNIT	PAPER NUMBER
			2887	
DATE MAILED: 02/21/2013				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

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 Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

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.	Applicant(s)	
	13/651,365	NARENDRA ET AL.	
	Examiner	Art Unit	
	KARL D. FRECH	2887	

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

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the terminal disclaimer filed 1/30/13.
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 1-20. 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).
 - 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 a reply 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)

- | | |
|--|---|
| <ol style="list-style-type: none"> 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 ____. | <ol style="list-style-type: none"> 5. ☐ Examiner's Amendment/Comment 6. ☒ Examiner's Statement of Reasons for Allowance 7. ☐ Other ____. |
|--|---|

1. Claims 1-20 are allowed.
2. The following is an examiner's statement of reasons for allowance: the terminal disclaimer filed 1/30/13 is approved and deemed sufficient to overcome the previously issued double patenting rejection.

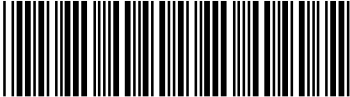
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KARL D. FRECH whose telephone number is (571)272-2390. The examiner can normally be reached on maxi-flex.

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.

/KARL D FRECH/
Primary Examiner, Art Unit 2887

Issue Classification 	Application/Control No.		Applicant(s)/Patent under Reexamination	
	13/651,365		NARENDRA ET AL.	
	Examiner		Art Unit	
	KARL D. FRECH		2887	

ISSUE CLASSIFICATION											
ORIGINAL					CROSS REFERENCE(S)						
CLASS		SUBCLASS			CLASS	SUBCLASS (ONE SUBCLASS PER BLOCK)					
235		451			235	487	380				
INTERNATIONAL CLASSIFICATION											
G	0	6	K	7/08							
				/							
				/							
				/							
				/							
----- (Assistant Examiner) (Date)					/Karl D Frech/ 2/9/13 (Primary Examiner) (Date)					Total Claims Allowed: 20	
(Legal Instruments Examiner) (Date)										O.G. Print Claim(s) 1	

☒ Claims renumbered in the same order as presented by applicant										☐ CPA		☒ T.D.		☐ R.1.47	
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1		31		61		91		121		151		181		
2	2		32		62		92		122		152		182		
3	3		33		63		93		123		153		183		
4	4		34		64		94		124		154		184		
5	5		35		65		95		125		155		185		
6	6		36		66		96		126		156		186		
7	7		37		67		97		127		157		187		
8	8		38		68		98		128		158		188		
9	9		39		69		99		129		159		189		
10	10		40		70		100		130		160		190		
11	11		41		71		101		131		161		191		
12	12		42		72		102		132		162		192		
13	13		43		73		103		133		163		193		
14	14		44		74		104		134		164		194		
15	15		45		75		105		135		165		195		
16	16		46		76		106		136		166		196		
17	17		47		77		107		137		167		197		
18	18		48		78		108		138		168		198		
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	27		57		87		117		147		177		207		
	28		58		88		118		148		178		208		
	29		59		89		119		149		179		209		
	30		60		90		120		150		180		210		

Search Notes

Application/Control No.

13/651,365

Examiner

KARL D. FRECH

Applicant(s)/Patent under
Reexamination

NARENDRA ET AL.

Art Unit

2887

SEARCHED

Class	Subclass	Date	Examiner
235	380 375 382 492 487 493 451 379	2/9/2013	KDF
235	472.01	2/9/2013	KDF
235	472.02	2/9/2013	KDF
235	472.03	2/9/2013	KDF

INTERFERENCE SEARCHED

Class	Subclass	Date	Examiner
same as	above	2/9/2013	KDF

**SEARCH NOTES
(INCLUDING SEARCH STRATEGY)**

	DATE	EXMR
search updated	2/9/2013	KDF

Index of Claims



Application/Control No.

13/651,365

Examiner

KARL D. FRECH

Applicant(s)/Patent under Reexamination

NARENDRA ET AL.

Art Unit

2887

✓	Rejected
=	Allowed

—	(Through numeral) Cancelled
÷	Restricted

N	Non-Elected
I	Interference

A	Appeal
O	Objected

Claim		Date									
Final	Original	2/9/13									
1	1	=									
2	2	=									
3	3	=									
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PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: **Mail** **Mail Stop ISSUE FEE**
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (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)

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.

35781 7590 02/21/2013
Tyfone, Inc.
Patent Dept.
5520 SW Macadam Avenue
Suite 250
Portland, OR 97239

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 facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

Jenny Kathman	(Depositor's name)
/Jenny Kathman/	(Signature)
February 26, 2013	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

13/651,365 10/12/2012 Siva G. Narendra 115.001US4.4 9238

TITLE OF INVENTION: APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1770	\$300	\$0	\$2070	05/21/2013

EXAMINER	ART UNIT	CLASS-SUBCLASS
FRECH, KARL D	2887	235-451000

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 03-02 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 Dana LeMoine
2 LeMoine Patent Services, PLLC
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 has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Tyfone, Inc.

Portland, OR

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☒ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☒ Issue Fee
☒ Publication Fee (No small entity discount permitted)
☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
☐ Payment by credit card. Form PTO-2038 is attached.
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature /Dana B. LeMoine/

Date February 26, 2013

Typed or printed name Dana B. LeMoine

Registration No. 40,062

This collection of information 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 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, 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.

Electronic Patent Application Fee Transmittal				
Application Number:		13651365		
Filing Date:		12-Oct-2012		
Title of Invention:		APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE		
First Named Inventor/Applicant Name:		Siva G. Narendra		
Filer:		Dana B. LeMoine/Jenny Kathman		
Attorney Docket Number:		115.001US4.4		
Filed as Large Entity				
Utility under 35 USC 111(a) Filing Fees				
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	1501	1	1770	1770
Publ. Fee- early, voluntary, or normal	1504	1	300	300

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Miscellaneous:				
Total in USD (\$)				2070

Electronic Acknowledgement Receipt

EFS ID:	15047844
Application Number:	13651365
International Application Number:	
Confirmation Number:	9238
Title of Invention:	APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE
First Named Inventor/Applicant Name:	Siva G. Narendra
Customer Number:	35781
Filer:	Dana B. LeMoine/Jenny Kathman
Filer Authorized By:	Dana B. LeMoine
Attorney Docket Number:	115.001US4.4
Receipt Date:	26-FEB-2013
Filing Date:	12-OCT-2012
Time Stamp:	22:05:29
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	\$ 2070
RAM confirmation Number	9299
Deposit Account	
Authorized User	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1	Issue Fee Payment (PTO-85B)	115_001US4_4_IFEE.pdf	201925 e8c84ed276c70fdbb4549c2f921ef59679f8b9b5	no	1
Warnings:					
Information:					
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Warnings:					
Information:					
Total Files Size (in bytes):			233996		
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. <u>New Applications Under 35 U.S.C. 111</u> 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.					



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.
13/651,365	03/26/2013	8403219	115.001US4.4	9238

35781 7590 03/06/2013
Tyfone, Inc.
Patent Dept.
5520 SW Macadam Avenue
Suite 250
Portland, OR 97239

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):

Siva G. Narendra, Portland, OR;
Thomas N. Spitzer, Portland, OR;
Prabhakar Tadepalli, Bangalore, INDIA;

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.

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6233870

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	RELEASE OF SECURITY INTEREST	
CONVEYING PARTY DATA		
Name		Execution Date
RPX CORPORATION		07/27/2020
RECEIVING PARTY DATA		
Name:	TYFONE, INC.	
Street Address:	5331 SW MACADAM AVENUE	
City:	PORTLAND	
State/Country:	OREGON	
Postal Code:	97239	
PROPERTY NUMBERS Total: 109		
Property Type	Number	
Patent Number:	7581678	
Patent Number:	7828214	
Patent Number:	7954715	
Patent Number:	7954716	
Patent Number:	8091786	
Patent Number:	8573494	
Patent Number:	8408463	
Patent Number:	8403219	
Patent Number:	7954717	
Patent Number:	8083145	
Patent Number:	8474718	
Patent Number:	8136732	
Patent Number:	9004361	
Patent Number:	9092708	
Patent Number:	9202156	
Patent Number:	9208423	
Patent Number:	9251453	
Patent Number:	9626611	
Patent Number:	9715649	
Patent Number:	10185909	

Property Type	Number
Patent Number:	7805615
Patent Number:	8477940
Patent Number:	8189788
Patent Number:	7364092
Patent Number:	7991158
Application Number:	13104962
Patent Number:	9741027
Patent Number:	7961101
Patent Number:	8072331
Patent Number:	8410936
Patent Number:	8814053
Application Number:	12188382
Patent Number:	8231061
Patent Number:	8745709
Patent Number:	9055029
Patent Number:	9148405
Application Number:	14850297
Patent Number:	8451122
Patent Number:	8866614
Patent Number:	8937549
Patent Number:	9122965
Patent Number:	9117152
Patent Number:	9483722
Patent Number:	9489608
Patent Number:	9390359
Patent Number:	9904887
Patent Number:	8843062
Application Number:	14464888
Application Number:	13295902
Patent Number:	8949974
Application Number:	13591210
Patent Number:	9087184
Application Number:	13470163
Application Number:	13531342
Application Number:	14289884
Application Number:	13630342
Patent Number:	9077794
Patent Number:	9166281

Property Type	Number
Patent Number:	9281633
Patent Number:	9520684
Patent Number:	9195974
PCT Number:	US1423514
Application Number:	13802492
Patent Number:	9177310
Application Number:	13802510
Patent Number:	9230282
Patent Number:	9959532
Patent Number:	9959533
Patent Number:	9959534
Application Number:	13802523
Application Number:	13842871
Patent Number:	9143938
Patent Number:	9215592
Patent Number:	9319881
Patent Number:	9906365
PCT Number:	US1423533
Patent Number:	9781598
Application Number:	13843628
Patent Number:	9231945
Patent Number:	9436165
Patent Number:	9563892
Patent Number:	9659295
Patent Number:	9448543
Patent Number:	9576281
Patent Number:	9183371
Patent Number:	9154500
Application Number:	13844216
Application Number:	13844255
Application Number:	13844301
Application Number:	13844339
Application Number:	14741493
Application Number:	13842937
Application Number:	13843065
Patent Number:	9207650
Patent Number:	9113329
Application Number:	14047023

Property Type	Number
Application Number:	14047024
Patent Number:	9483723
Patent Number:	9715650
Patent Number:	9208424
Patent Number:	9159014
Application Number:	14105776
Application Number:	14244845
Patent Number:	9317723
Patent Number:	9373010
Patent Number:	9317796
Patent Number:	9495628
Application Number:	15290672
Application Number:	14044636

CORRESPONDENCE DATA

Fax Number: (503)972-3873

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 503-221-1440

Email: trademark@tonkon.com

Correspondent Name: TONKON TORP LLP

Address Line 1: 888 SW FIFTH AVE., SUITE 1600

Address Line 4: PORTLAND, OREGON 97204

ATTORNEY DOCKET NUMBER:	38636-00015
NAME OF SUBMITTER:	CHRISTOPHER D. ERICKSON
SIGNATURE:	/Christopher D. Erickson/
DATE SIGNED:	08/04/2020
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 5

source=Tyfone Form Release of Security Interest from RPX (for Tyfone) FINAL 20200727 (DA Sig)#page1.tif
source=Tyfone Form Release of Security Interest from RPX (for Tyfone) FINAL 20200727 (DA Sig)#page2.tif
source=Tyfone Form Release of Security Interest from RPX (for Tyfone) FINAL 20200727 (DA Sig)#page3.tif
source=Tyfone Form Release of Security Interest from RPX (for Tyfone) FINAL 20200727 (DA Sig)#page4.tif
source=Tyfone Form Release of Security Interest from RPX (for Tyfone) FINAL 20200727 (DA Sig)#page5.tif

RELEASE OF SECURITY INTEREST (TERMINATION STATEMENT)

This Release of Security Interest (this "Release"), dated and effective as of July 27, 2020 (the "Effective Date"), is made by RPX Corporation ("Lender") in favor of Tyfone, Inc. ("Borrower").

RECITALS

A. Pursuant to the Loan and Security Agreement dated May 15, 2015 (the "Loan and Security Agreement"), Borrower granted to Lender a security interest in the Patent Collateral (as defined in the Loan and Security Agreement).

B. Subsequent to the effective date of the Loan and Security Agreement, Lender recorded the Loan and Security Agreement with the United States Patent and Trademark Office ("USPTO") and with the State of Oregon, evidencing its security interest in the Patent Collateral, including but not limited to those patents and patent applications listed on Exhibit 1 to this Release.

C. Lender did not record the Loan and Security Agreement with any other authority of office other than ones mentioned in Recital B.

D. Borrower has fully paid the Obligations that were secured by the security interest in the Patent Collateral under the Loan and Security Agreement, and Lender desires to release fully its security interests in the Patent Collateral pursuant to this Release.

TERMS AND CONDITIONS

In consideration of the mutual promises and undertakings set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and with the intention of being legally bound hereby, Lender hereby: (a) releases the security interest in the Patent Collateral; and (b) authorizes the recordation of this Release with the USPTO, the State of Oregon, and any other authority or office as may be necessary to effectuate this Release.

Lender agrees to cooperate with Borrower and to execute, acknowledge and deliver such further releases, termination statements, assignments and other assurances pursuant to this Release, as may be reasonably requested by Borrower in order to effectuate the complete release of Lender's security interest in the Patent Collateral.

IN WITNESS WHEREOF, Lender has executed this Release as of the Effective Date:

RPX Corporation

By: David Anderson

Name: David Anderson

Title: CFO

EXHIBIT 1

Title	App. No.	Pub. No.	Pat. No.	Issue Date
ELECTRONIC TRANSACTION CARD	11/063,291	20060186209	7581678	9/1/2009
MOBILE PHONE WITH ELECTRONIC TRANSACTION CARD	12/539,369	20090298540	7828214	11/9/2010
MOBILE DEVICE WITH TRANSACTION CARD IN ADD-ON SLOT	12/941,410	20110053644	7954715	6/7/2011
ELECTRONIC TRANSACTION CARD POWERED BY MOBILE DEVICE	12/962,937	20110073665	7954716	6/7/2011
ADD-ON CARD WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE	13/114,434	20110220726	8091786	1/10/2012
APPARATUS FOR SECURE FINANCIAL TRANSACTIONS	13/304,663	20120067964	8573494	11/5/2013
MOBILE DEVICE ADD-ON APPARATUS FOR FINANCIAL TRANSACTIONS	13/370,291	20120138675	8408463	4/2/2013
APPARATUS WITH SMARTCARD CIRCUITRY POWERED BY A MOBILE DEVICE	13/651,365	20130037611	8403219	3/26/2013
PROVISIONING ELECTRONIC TRANSACTION CARD IN MOBILE DEVICE	12/962,953	20110077052	7954717	6/7/2011
PROVISIONING AN ADD-ON APPARATUS WITH SMARTCARD CIRCUITRY FOR ENABLING TRANSACTIONS	13/114,473	20110223972	8083145	12/27/2011
METHOD FOR PROVISIONING AN APPARATUS CONNECTED CONTACTLESS TO A MOBILE DEVICE	13/426,500	20120178433	8474718	7/2/2013
ELECTRONIC TRANSACTION CARD WITH CONTACTLESS INTERFACE	13/184,240	20110272469	8136732	3/20/2012
WEARABLE DEVICE TRANSACTION SYSTEM	13/592,323	20130168453	9004361	4/14/2015
WEARABLE DEVICE WITH TIME-VARYING MAGNETIC FIELD	14/680,684	20150213350	9092708	7/28/2015
MOBILE DEVICE WITH TIME-VARYING MAGNETIC FIELD	14/747,770	20150294208	9202156	12/1/2015
MOBILE DEVICE WITH TIME-VARYING MAGNETIC FIELD AND SINGLE TRANSACTION ACCOUNT NUMBERS	14/833,113	20150363684	9208423	12/8/2015
WEARABLE DEVICE WITH TIME-VARYING MAGNETIC FIELD AND SINGLE TRANSACTION ACCOUNT NUMBERS	14/866,998	20160019450	9251453	2/2/2016
PROVISIONING MOBILE DEVICE WITH TIME-VARYING MAGNETIC FIELD	14/929,297	20160055405	9626611	4/18/2017
DEVICE WITH CURRENT CARRYING CONDUCTOR TO PRODUCE TIME-VARYING MAGNETIC FIELD	14/948,325	20160086073	9715649	7/25/2017
WEARABLE DEVICE WITH CURRENT CARRYING CONDUCTOR TO PRODUCE TIME-VARYING MAGNETIC FIELD	15/658,208	20170323188	10185909	1/22/2019
ASYMMETRIC CRYPTOGRAPHY WITH USER AUTHENTICATION	11/182,520	20070016798	7805615	9/28/2010
SYMMETRIC CRYPTOGRAPHY WITH USER AUTHENTICATION	11/182,099	20070014407	8477940	7/2/2013
HYBRID SYMMETRIC/ASYMMETRIC CRYPTOGRAPHY WITH USER AUTHENTICATION	11/182,920	20070014408	8189788	5/29/2012
ELECTRONIC STRIPE CARDS	11/488,400	20070023532	7364092	4/29/2008
SECURE MESSAGING	11/895,637	20080279381	7991158	8/2/2011
MEMORY CARD HAVING ONE OR MORE SECURE ELEMENTS ACCESSED WITH HIDDEN COMMANDS	13/104,962	20110271044		
MEMORY CARD BASED CONTACTLESS DEVICES	12/002,317	20090152361	9741027	8/22/2017
SMALL RFID CARD WITH INTEGRATED INDUCTIVE ELEMENT	12/188,346	20100033307	7961101	6/14/2011
MOBILE PAYMENT DEVICE	13/081,775	20110180610	8072331	12/6/2011
CONTACTLESS CARD THAT RECEIVES POWER FROM HOST DEVICE	13/311,247	20120305653	8410936	4/2/2013

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MOBILE PAYMENT DEVICE WITH SMALL INDUCTIVE DEVICE POWERED BY A HOST DEVICE	13/657,846	20130043317	8814053	8/26/2014
POWER NEGOTIATION FOR SMALL RFID CARD	12/188,382	20100033310		
CONTACTLESS DEVICE WITH MINIATURIZED ANTENNA	12/710,560	20100213265	8231061	7/31/2012
MULTIFACTOR AUTHENTICATION SERVICE	13/036,774	20120222099	8745709	6/3/2014
TOKEN BASED MULTIFACTOR AUTHENTICATION	14/289,901	20140282859	9055029	6/9/2015
CLIENT DEVICE TOKEN BASED MULTIFACTOR AUTHENTICATION	14/608,073	20150143457	9148405	9/29/2015
SMARTCARD BASED MULTIFACTOR BANKING AUTHENTICATION	14/850,297	20150381613		
SMARTCARD PERFORMANCE ENHANCEMENT CIRCUITS AND SYSTEMS	13/038,341	20110171996	8451122	5/28/2013
ACTIVE CIRCUIT FOR RFID	13/871,849	20130233931	8866614	10/21/2014
ENHANCED INTEGRATED CIRCUIT WITH SMARTCARD CONTROLLER	14/460,647	20140353390	8937549	1/20/2015
13.56 MHZ ENHANCEMENT CIRCUIT FOR SMARTCARD CONTROLLER	14/517,495	20150034727	9122965	9/1/2015
13.56 MHZ ENHANCEMENT CIRCUIT FOR SMARTMX SMARTCARD CONTROLLER	14/517,567	20150034728	9117152	8/25/2015
AMPLIFIER AND TRANSMISSION SOLUTION FOR 13.56MHZ RADIO COUPLED TO SMARTCARD CONTROLLER	14/517,575	20150038194	9483722	11/1/2016
AMPLIFIER AND TRANSMISSION SOLUTION FOR 13.56MHZ RADIO COUPLED TO SMARTMX SMARTCARD CONTROLLER	14/517,585	20150038195	9489608	11/8/2016
MOBILE DEVICE WITH A CONTACTLESS SMARTCARD DEVICE AND ACTIVE LOAD MODULATION	14/542,440	20150069139	9390359	7/12/2016
COMPUTING DEVICE WITH NFC AND ACTIVE LOAD MODULATION	15/338,436	20170046609	9904887	2/27/2018
COUPLING AREA ENHANCEMENT APPARATUS, SYSTEM, AND METHOD	13/097,167	20120276963	8843062	9/23/2014
MOBILE DEVICE WITH COUPLING AREA ENHANCEMENT	14/464,888	20140354503		
MOBILE DEVICE POWER MANAGEMENT	13/295,902	20130122804		
MOBILE DEVICE WITH PASSWORD PROTECTED DESKTOP SCREEN	13/470,139	20130305351	8949974	2/3/2015
APPLICATION WITH DEVICE SPECIFIC USER INTERFACE	13/591,210	20130303084		
MOBILE DEVICE WITH DESKTOP SCREEN INDICATORS	13/591,213	20130305352	9087184	7/21/2015
INSTALLING APPLICATIONS TO PASSWORD PROTECTED DESKTOP SCREENS ON A MOBILE DEVICE	13/470,163	20130305240		
METHOD AND APPARATUS FOR SECURE CONSOLIDATION OF CLOUD SERVICES	13/531,342	20130347075		
SECURE ELEMENT APPARATUS WITH MEMORY	14/289,884	20140273970		
MOBILE DEVICE WITH REVEAL OF DYNAMIC CONTENT	13/630,342	20140095315		
LIGHTNING CONNECTOR ACCESSORY DEVICE	13/629,595	20140087789	9077794	7/7/2015
OFFSET PCB LIGHTNING CONNECTOR ACCESSORY DEVICE	14/729,268	20150270601	9166281	10/20/2015
MICROUSB ACCESSORY DEVICE WITH ANTENNA	14/843,336	20150380874	9281633	3/8/2016
MICROUSB LIGHTNING DEVICE WITH OFFSET CIRCUIT BOARD	15/053,806	20160181737	9520684	12/13/2016
DYNAMIC IDENTITY REPRESENTATION IN MOBILE DEVICES	14/044,636	20150095222		
REMOTE DEPOSIT CAPTURE COMPATIBLE CHECK IMAGE GENERATION	13/802,481	20140270461	9195974	11/24/2015
MOBILE REMOTE DEPOSIT CAPTURE	PCT/US14/23514	WO 2014/159412		
REMOTE DEPOSIT CAPTURE COMPATIBLE CHECK IMAGE GENERATION IN RESPONSE TO MOTION OF A MOBILE DEVICE	13/802,492	20140279480		
MOBILE DEVICE AND APPLICATION FOR REMOTE DEPOSIT OF CHECK IMAGES RECEIVED FROM PAYORS	13/802,498	20140270462	9177310	11/3/2015

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MOBILE DEVICE AND APPLICATION FOR REMOTE DEPOSIT OF CHECK IMAGES SECURELY RECEIVED FROM PAYORS	13/802,510	20140279481		
REMOTE DEPOSIT CAPTURE SYSTEM WITH CHECK IMAGE GENERATION AND STORAGE	13/802,516	20140270463	9230282	1/5/2016
SECURE ELEMENT AUTHENTICATION FOR REMOTE DEPOSIT CAPTURE COMPATIBLE CHECK IMAGE GENERATION	14/979,974	20160110697	9959532	5/1/2018
SECURE ELEMENT AUTHENTICATION FOR REMOTE DEPOSIT OF CHECK IMAGES RECEIVED FROM PAYORS	14/982,904	20160117648	9959533	5/1/2018
REMOTE DEPOSIT CAPTURE SYSTEM WITH SECURE ELEMENT AUTHENTICATION FOR CHECK IMAGE GENERATION AND STORAGE	14/983,166	20160132848	9959534	5/1/2018
REMOTE DEPOSIT CAPTURE SYSTEM WITH CHECK IMAGE STORAGE	13/802,523	20140279482		
PERSONAL DIGITAL IDENTITY DEVICE	13/842,871	20140273959		
PERSONAL DIGITAL IDENTITY DEVICE RESPONSIVE TO USER INTERACTION	13/843,000	20140270173	9143938	9/22/2015
CONFIGURABLE PERSONAL DIGITAL IDENTITY DEVICE RESPONSIVE TO USER INTERACTION	13/843,091	20140281565	9215592	12/15/2015
PERSONAL DIGITAL IDENTITY DEVICE WITH FINGERPRINT SENSOR	13/843,402	20140273961	9319881	4/19/2016
PERSONAL DIGITAL IDENTITY DEVICE WITH FINGERPRINT SENSOR AND CHALLENGE-RESPONSE KEY	15/069,548	20160197727	9906365	2/27/2018
PERSONAL DIGITAL IDENTITY DEVICE	PCT/US14/23533	WO 2014/150535		
PERSONAL DIGITAL IDENTITY DEVICE WITH FINGERPRINT SENSOR RESPONSIVE TO USER INTERACTION	13/843,529	20140266601	9781598	10/3/2017
CONFIGURABLE PERSONAL DIGITAL IDENTITY DEVICE WITH FINGERPRINT SENSOR RESPONSIVE TO USER INTERACTION	13/843,628	20140266602		
PERSONAL DIGITAL IDENTITY DEVICE WITH MOTION SENSOR	13/843,694	20140281566	9231945	1/5/2016
PERSONAL DIGITAL IDENTITY DEVICE WITH MOTION SENSOR RESPONSIVE TO USER INTERACTION	13/843,831	20140266597	9436165	9/6/2016
PERSONAL DIGITAL IDENTITY CARD WITH MOTION SENSOR RESPONSIVE TO USER INTERACTION	15/237,624	20160358166	9563892	2/7/2017
PERSONAL DIGITAL IDENTITY DEVICE WITH NEAR FIELD AND NON NEAR FIELD RADIOS FOR ACCESS CONTROL	15/249,081	20160366591	9659295	5/23/2017
CONFIGURABLE PERSONAL DIGITAL IDENTITY DEVICE WITH MOTION SENSOR RESPONSIVE TO USER INTERACTION	13/843,988	20140266598	9448543	9/20/2016
CONFIGURABLE PERSONAL DIGITAL IDENTITY CARD WITH MOTION SENSOR RESPONSIVE TO USER INTERACTION	15/237,735	20160358148	9576281	2/21/2017
PERSONAL DIGITAL IDENTITY DEVICE WITH MICROPHONE	13/844,141	20140282987	9183371	11/10/2015
PERSONAL DIGITAL IDENTITY DEVICE WITH MICROPHONE RESPONSIVE TO USER INTERACTION	13/844,183	20140266605	9154500	10/6/2015
CONFIGURABLE PERSONAL DIGITAL IDENTITY DEVICE WITH MICROPHONE RESPONSIVE TO USER INTERACTION	13/844,216	20140266606		
PERSONAL DIGITAL IDENTITY DEVICE WITH IMAGER	13/844,255	20140270175		
PERSONAL DIGITAL IDENTITY DEVICE WITH IMAGER RESPONSIVE TO USER INTERACTION	13/844,301	20140266603		
CONFIGURABLE PERSONAL DIGITAL IDENTITY DEVICE WITH IMAGER RESPONSIVE TO USER INTERACTION	13/844,339	20140266599	9086689	7/21/2015
CONFIGURABLE PERSONAL DIGITAL IDENTITY DEVICE WITH AUTHENTICATION USING IMAGE RECEIVED OVER RADIO LINK	14/741,493	20150317468	9734319	8/15/2017
PERSONAL DIGITAL IDENTITY DEVICE WITH USER AUTHENTICATION FACTOR CAPTURED IN MOBILE DEVICE	13/842,937	20140273960		
PERSONAL DIGITAL IDENTITY DEVICE RESPONSIVE TO USER INTERACTION WITH USER AUTHENTICATION FACTOR CAPTURED IN MOBILE DEVICE	13/843,065	20140270174		

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CONFIGURABLE PERSONAL DIGITAL IDENTITY DEVICE RESPONSIVE TO USER INTERACTION WITH USER AUTHENTICATION FACTOR CAPTURED IN MOBILE DEVICE	13/843,181	20140266596	9207650	12/8/2015
MOBILE DEVICE LEARNING MODE FOR SECURE IDENTIFICATION	14/083,208	20150140966	9113329	8/18/2015
LIGHT SEQUENCE OUT-OF-BAND BLUETOOTH PAIRING	14/047,023	20150098706		
AUDIO SEQUENCE OUT-OF-BAND BLUETOOTH PAIRING	14/047,024	20150099466		
PASSIVE CONTROL SECURE TRANSACTION CARD	14/047,005	20150097037	9483723	11/1/2016
DUAL COIL TRANSACTION CARD	15/337,675	20170046608	9715650	7/25/2017
ACTIVE CONTROL SECURE TRANSACTION CARD	14/047,006	20150097038	9208424	12/8/2015
ACTIVE CONTROL SECURE TRANSACTION CARD WITH TUNED COIL	14/047,007	20150097039	9159014	10/13/2015
URL MAPPING TO NON-HYPERLINKED CODE	14/105,776	20150172368		
PASSIVE RF TAG WITH MULTIPLE CONDUCTIVE COILS	14/244,845	20150286847		
PASSIVE RF TAG WITH POWER CYCLING	14/244,852	20150286848	9317723	4/19/2016
PASSIVE RFID TAG COIL ALIGNMENT AND COMMUNICATION	15/075,486	20160203348	9373010	6/21/2016
RF PROBE ALIGNMENT WITH PASSIVE TAG	14/244,853	20150286850	9317796	4/19/2016
PASSIVE RF TAG WITH ADIABATIC CIRCUITS	14/244,855	20150286918	9495628	11/15/2016
FINE GRAIN RECONFIGURABLE BUILDING BLOCK FOR IC PROTECTION AND OBFUSCATION	15/290,672	20180102908		

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13/651,365	10/12/2012	Siva G. Narendra	115.001US4.4	187483

Acknowledgement of Change to Small Entity Status

The entity status change request below filed through Private PAIR on 04/13/2023 has been accepted.

CERTIFICATIONS:

Change of Entity Status:

× Applicant asserting small entity status. See 37 CFR 1.27.

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.

This portion must be completed by the signatory or signatories making the entity status change in accordance with 37 CFR 1.4(d)(4).

Signature:	/Usman Mughal/
Name:	Usman Mughal
Registration Number:	62887