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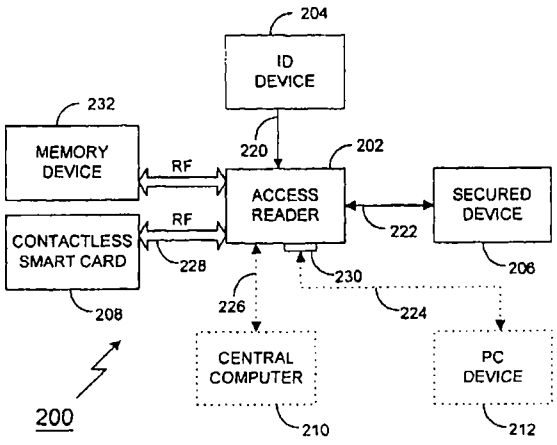
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[Continued on next page]

(54) Title: SMART CARD ACCESS CONTROL SYSTEM





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ACTION

(57) Abstract: An access control system securely transfers identification and transaction information between an access reader and a contactless smart card over a contactless radio frequency link via an RF modem. The access reader contains a programmable microcontroller, DC/DC converter, regulator, opto-isolators and LEDS, and an RF modem. The smart cards contain identification or transaction data as well as reader programming and de-programming software, which is protected by appropriate security keys. An access reader having the appropriate security keys performs a one to one verification of data stored in the smart card to data from an identification device coupled to the access reader. Upon verification of the validity of the smart card, the access reader transfers identification and transaction information over a data link to any external processor or controller which controls access to a secured area. Both the data format/protocol and operating state out of the access reader is programmable and configurable at any time. The access reader and access cards are compatible with any existing Wiegand, magnetic stripe, and serial based access control systems, and are configurable to emerging Biometric system designs.

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