Product Overview

(Refer to Block Diagram Exhibit)

The proximity reader is a device that transmits a low level low frequency signal and responds to a signal from an access control card held within a short distance of the face of the device. The device consists of a plastic enclosure that houses a reader digital interface board and one of 2 3rd party transmitters. The housing measures approximately 6 x 6 x 2 inches. The transmitter and antenna characteristics will be covered by a separate, confidential 3rd party input.

The Proximity to Wiegand Converter provides energy by an Inductive Loop or Ferrite Antenna to power the Proximity Card or SmartCard at a distance of about one inch. The Card sends data back to the Converter. This Converter sends logic data to the Printed Circuit Board (PCB) manufactured by the Applicant. This data is in Wiegand Format. A logic "1" is signaled by a short pulse on the Data 1 line; a logic "0" is signaled by a short pulse on the Data 0 line. These pulses are nominally 10 µS minimum, and typically are 100 µS.

The data received from the Access Card is buffered in the Random Access Memory (RAM) in the single-chip microcomputer. The UART receives polling signals through the serial-channel connection to the Access Control Panel. When the polling signal received matches the data set at the Address Switch, the Microcomputer sends any new card data (or Keypad data) to the Access Control Panel. The serial-channel is asynchronous, operating at 9600 baud, signaling through twisted-pair, shielded cable.

There are other product versions that use Wiegand and Magstripe card modules, and do not use RF Technology.

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