

# Diamond 650 Read Only Card Reader specifications

## Firmware v3.02

Date 21<sup>st</sup> May 2008  
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### Overview

The contactless card reader, referred to as the 'reader' or 'controller' hereafter is intended to fulfil the sole function of scanning for cards and reading the 'serial number' from any card entering the field. The serial number is then returned to the host device via the RS232 interface.

### Cards/tags supported

Mifare 1K  
Mifare 4K  
Mifare Desfire  
Mifare Plus  
Mifare Ultralight  
Innovision Jewel  
Innovision Topaz

### Communication

The controller communicates using RS232 at 9600 baud, no parity, 8 data bits and 1 stop bit. No flow control or handshaking is employed. USB devices will create a virtual com port for this purpose, but can also be addressed directly via the Bus-Mode interface. For further details regarding USB operation, refer to the MT650 USB notes.

### Operation

The reader requires and accepts no instructions from the host device. When power is applied, it scans continuously for smartcards. When a card enters the field, the serial number of the card is returned in ASCII format to the host, followed by a <CR> character. The card will then be ignored for as long as it remains within the field and for a few seconds thereafter.

The output data is in the form of 10 ASCII digits representing a 10 digit decimal number, eg:

0001765121<CR>

### Note

Certain card schemes are recognised by the reader, notably SCASC, NSCP and various schemes using the MTT format. In these cases, the number returned by the reader is the card number assigned by the card scheme, which may be up to 16 digits in length.