

An Integrated Solution

The VFJ contactless card reader, CCR-171, which allows longer reading distance, is the upgraded version of former CCR-101 contactless card reader. It combines both the reader and antenna in one small package. The unit utilises the MIFARE[®] technology as part of its integrated solution. The CCR-171 also provides both audio and visual feedback with an integrated buzzer and three LED indicators, and an optional keypad. Since the unit is water-resistant it is suited ideally to outside locations sheltered from the direct elements.

Flexibility

The optional keypad of CCR-171 provides those users with the additional security of having to both enter a PIN and present the card. The device also comes with a list of both factory-fitted and field installable options, such as a keypad or a power supply unit.

Connectability

The CCR-171 comes with a standard RS232 serial interface. Applications are typically developed in a PC environment to control the reader using Application Programming Interface (API) developed by VFJ. VFJ can provide a range of utilities to customers to help them develop applications, format cards, etc.

Applications

Because the CCR-171 is attached to PC to handle specific customer requirements, and complies to ISO/IEC 14443 type A standards, it can be applied across a wide range of industries, including:

- Electronic purse to purchase goods and services
- Health card systems
- Customer loyalty programs
- Toll payments
- Security and access control



Ordering

CCR-171 Series 17X Contactless Card Reader
(Bottom entry for cables)

Factory Fitted Options

KBD-101 Keypad (3 x 4)

Field Installable Options

SPC-100 12V Power supply

Technical Specification

General Parameters

- Power input: +12VDC \pm 2%, 500mA, regulated, max 50mV ripple
- Protection: reverse polarity and over-voltage protection (fuse)
- Operational temperature range: 0°C to +50°C
- Storage temperature range: -20°C to +75°C
- Humidity range: 10% to 90%
- Dimensions: 165 x 115 x 35mm
- Weight: 540 grams (excluding mounting brackets)

General Features

- Built-in Mifare[®] MFRC500 Module with integrated, shielded internal antenna
- Up to 70 mm card read/write operation range (with selected cards)
- Interface for up to four indicators (eg. red, yellow, green, buzzer) with on, off and blink control
- Battery backed real time clock with voltage monitoring circuitry
- Unique device identification
- RS232 serial communication port (up to 38400 baud, 8 data bits, even/odd/no parity)
- High level physical security to protect card access keys
- 3 x 4 keypad (0, 1, ..., 9, * and # keys, optional)
- Wall or desktop mounting with tamper resistant screws

Hardware Core

- Freescale MC68HC11A1 micro-controller running at 9.8304 MHz
- 128 Kb flash EEPROM, 32 Kb SRAM for system and application code and data
- Custom designed Field Programmable Gate Array (FPGA) to control hardware
- Multilayered PCB with SMT construction

Software

- Multi-tasking real-time kernel
- High level contactless card access commands
- Reliable communication protocol
- Windows 9x/NT/ME/XP development tools and libraries (DLLs)
- Card security control and management tools