

MC-RC302-232

v 1.0

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Power By MettaX

1. Product pictures:



This series is a low-cost, high-performance contactless card reader module for smart card system. Adopt 13.56MHz, Philips highly integrated read-write card chip MFRC *** as the special hardware circuit design of RF base station; support 3.56MHz high frequency Mifare One, compatible card. When a card approaches, the card reader module of the system will output the card number in the form of Weigand, TTL level or UART, and the user only needs to read it simply.

2. Product parameters:

Model	MC-RC302-232	Card reading type	IC card
Working frequency	13.56MHz	Sensing distance	3-7cm
Working voltage	DC+12V	Output format	WG26/34
Quiescent current	<30mA	Dynamic current	<35mA
Response speed	<0.2 Seconds	Card reading interval	<0.5 Seconds
Working temperature	-25°C~75°C	Working humidity	10%~90%
Size	86*86*20(mm)	Color	Grey
Expansion interface	RS232 expansion module	Connection distance	RS232≤10m
Built-in speaker	Buzzer	Waterproof and Dustproof Protection	Available
Built-in antenna	Yes	Electrostatic Discharge	15 KV

		Resistance	
Overcurrent/Overvoltage Protection	Yes	Case Material	PVC and Resin

3. Product features:

This series of card readers has the characteristics of high reception sensitivity, low working current, single DC power supply, low price, high performance stability and the following characteristics:

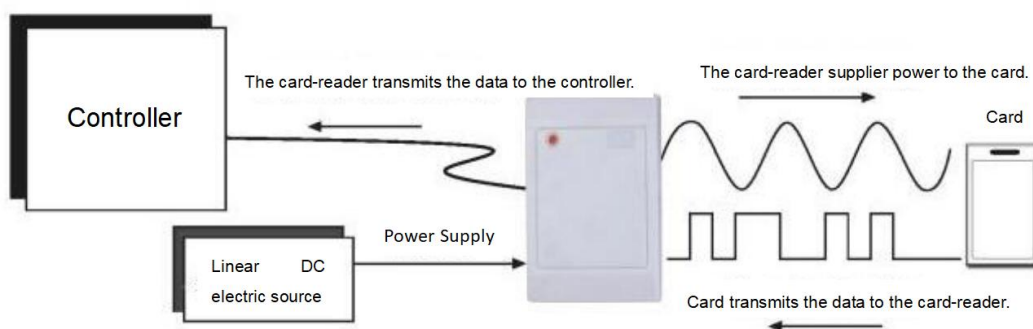
- Strong resistance to metal shield and card reader mutual interference ability.
- Advanced circuit design, surge protection, misconnection protection.
- Use of pure digital imported radio frequency base station chip, no-error code design.
- Intelligent sound and light control mode.
- The buzzer sound is clear and loud, and will not be disturbed.
- Transmission distance is long RS232 (10 m).
- The use of imported resin sealing, sealing type, indoor and outdoor use are appropriate.
- The output adopts glass discharge tube and semiconductor discharge circuit, using multi-stage lightning protection, resistant to 15KV electrostatic impact.
- According with the GB/T17626.4/IEC61000-4-4 electric fast transient pulse group.
- Shell material using PVC and spray plastic its inside can be filled with black resin glue (effective waterproof)
- Built-in 125 KHz copper winding antenna, buzzer, red (blue) green two-color LED.
- Transfer mode RS232 real-time transmission mode.

4. Definition of the card reader wiring harness:

Red	Black	Green	White
DC12V	GND	TX	RX

5. Working principle of the card reader:

When the card approaches the card reader, the red light turns to the green light and then turns to the red light, and the buzzer sounds once to indicate that the data is sent. For the same ID card, if the interval between two card readings is shorter than 500ms, the data is not sent. After reading the card, if the ID and IC card are still in the RF card area, the card reader will not give any prompt or send data. Different IDs and IC cards enter the RF card response area respectively, and the reader reads the cards continuously and outputs data.



6. Notes for the installation of the card reader:

1. The wiring sectional area of the card reader shall be $\geq 0.22 \text{ mm}^2$, and the CAT5 cable and CAT5E cable can be used. BEEPER (yellow) and LED (blue) can be omitted if the card reader is not required to distinguish between legitimate and illegitimate cards through sound and light feedback.

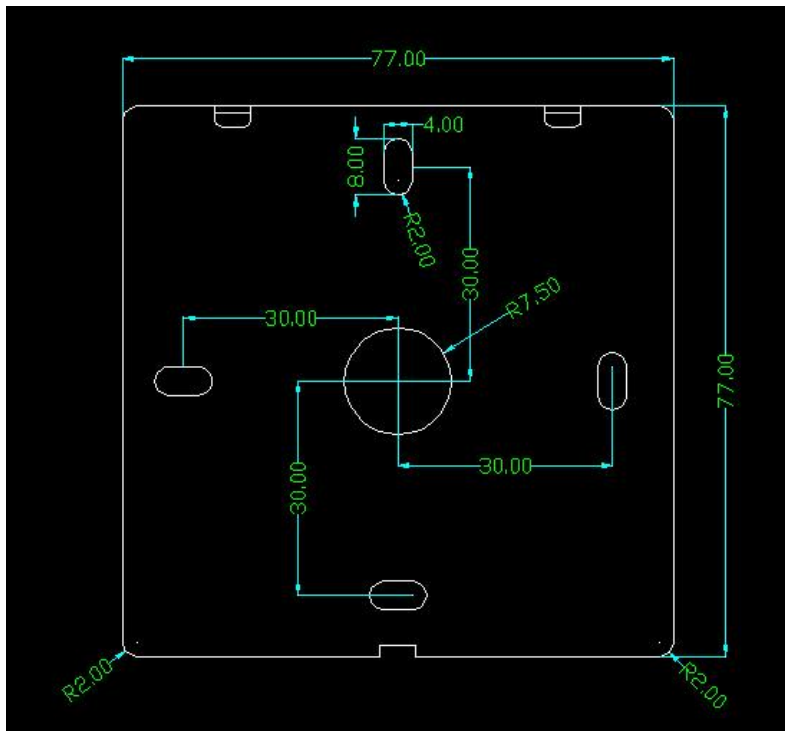
2. The distance between the card reader and the controller should not exceed 100 meters, and it is recommended to be within 80 meters. If the distance between the card reader and the controller is more than 50 meters, please lay two more wires between the card reader and the controller to supply power to the card reader, which are connected to + 12 V and GND at the corresponding ends of the card reader and the controller.

3. The card reader should not be installed on the metal surface, so that the distance of card reading will be attenuated, and even the card reader will not be able to read the card. If it must be installed on a metal surface, hollow out the metal surface under the card reader and raise the card reader by 1 ~ 2cm.

4.The horizontal distance between the two card readers is ≥ 30 CM (avoid back-to-back installation). If the distance between the two card readers is too close, the two card readers will not read the card or read the card at the same time.

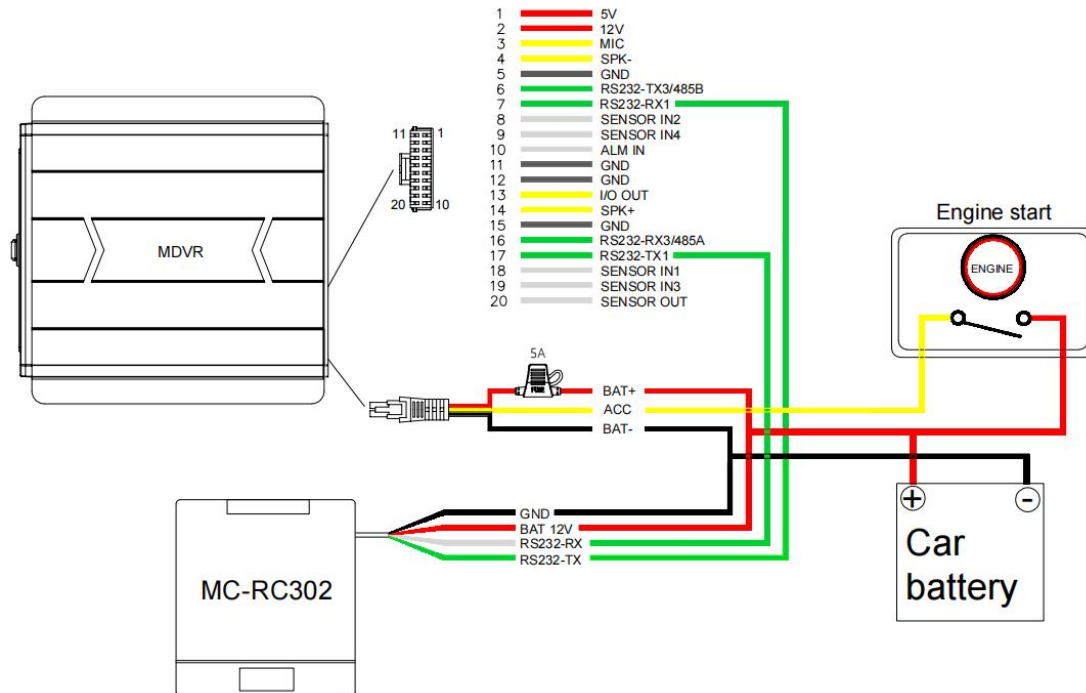
5.The installation height of the card reader is recommended to be about 145cm from the ground, and the height can be increased or decreased appropriately according to the customer's usage habits.

6.Installation size chart:



7. Installation process of card reader and Dashcam host:

- (1) Corresponding access device 232-RX / 232-TX line, 12V power line and GND line;



- (2) In peripheral management-serial port management, select card reader R21C, port rate: 9600, data bit: 8, stop bit: 1, check bit: no.

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COM1

peripheral

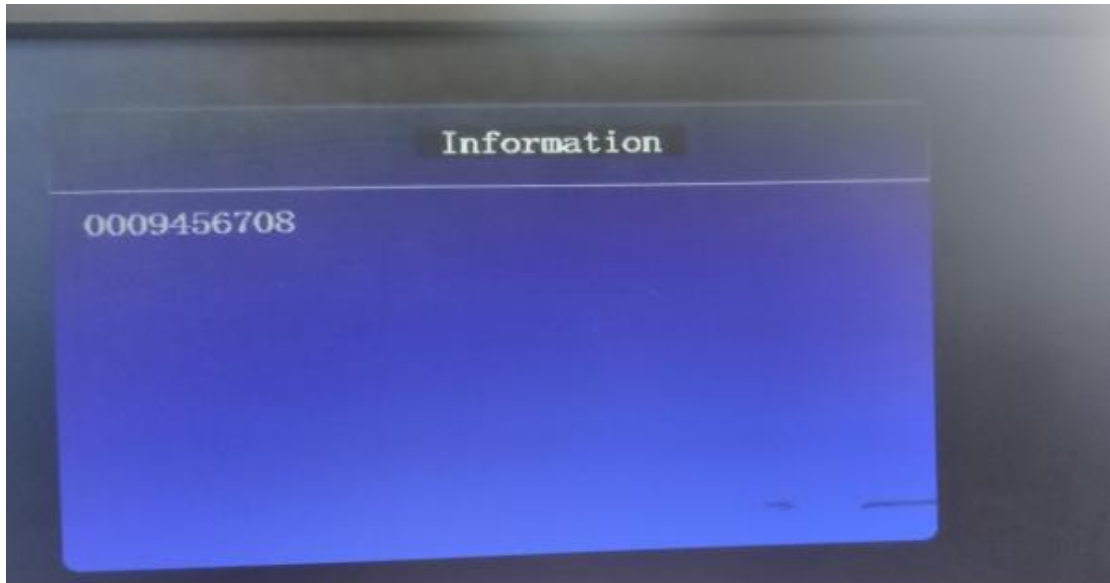
Function	R21CCard	>
Type	232	>
Baud Rate	9600	>
Data Bit	8	>
Stop Bit	1	>
Parity	None	>

Save

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(3) Card card test

- ① Device display: when the pop-up message (card number) appears in the preview screen, it represents the success of the card swiping;



② Platform display: the card number information of the current device can be read in the platform, which represents the success of the card.