

MCRN2 RFID Reader/Writer Module

MCRN2 R 2.0
Aug. 01, 2024

Key Features

Frequency	13.56 MHz
Interfaces	RS232/RS485, USB, BLE/Wi-Fi
Standards	ISO14443A/B, ISO15693
Supported Cards & Transponders	MIFARE® DESFire/Plus MIFARE® Classic/Ultralight NTAG I-Code
Antennas	Internal or external
Power supply	+7V to +60V DC or USB Bus



1 DESCRIPTION

The MCRN2 RFID reader is a versatile and reliable device, designed for applications requiring serial and USB interfaces. It supports baud rates of up to 230k, ensuring fast and efficient communication. The reader operates within a wide voltage range and can be integrated into +12V or +24V systems, making it suitable for various industrial environments. Its robust design and flexible connectivity options make the MCRN2 an ideal choice for both simple and complex RFID systems. The powerful internal antenna can read cards/tags up to 80mm away, and the USB interface can optionally run in Keyboard Emulation mode.

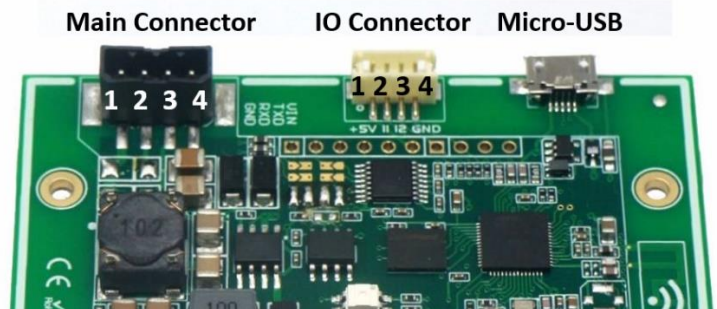
2 ELECTRICAL

SYMBOL	PARAMETER	MIN	TYP	MAX	UNIT
VIN	Input Voltage	+7	+12	+60	V
IIN	Input Current (VIN=+12V)	-	100	200	mA
VR	Maximum Reverse Voltage	-	+58	-	V
TA	Ambient Temperature Range	-30	-	+85	°C
VTVS	TVS Clamping Voltage	-	+64	-	V
RS485-VOD	Differential Output (RL=54Ω)	+1.5	+2	+3.3	V
RS485-A/B	Input Voltages	-8V	-	+13	V
RS485-A/B	Output Voltages	-	+3.3	-	V
RS232 Receiver	Input Voltages	-30	-	+30	V
RS232 Transmitter	Output Voltages	±5	±5.2	-	V
ESD Performance					
RS485-A/B	IEC 61000-4-2 (ESD) ±15kV (air), ±8kV (contact)				
RS232	IEC 61000-4-2 (ESD) ±15kV (air), ±8kV (contact)				
USB	ESD Protection for 2 high-speed I/O channels and VDD IEC 61000-4-2 (ESD) ±15kV (air), ±8kV (contact)				
MTBF	IEC 61000-4-4 (EFT) 40A (5/50ns), IEC 61000-4-5 (Lightning) 12A (8/20μs) 500.000h				

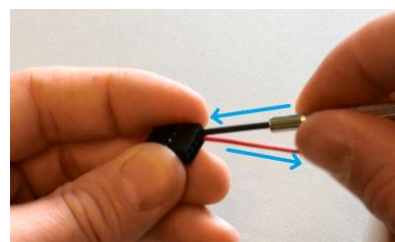
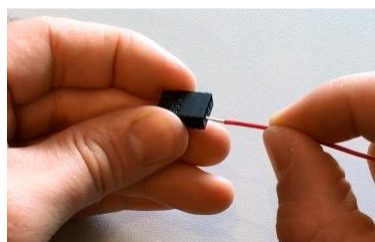
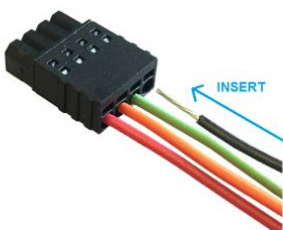
3 CONNECTOR PINOUT

Main Connector	RS232 Mode	RS485 Mode
1	GND - Ground	GND - Ground
2	RX Input	B
3	TX Output	A
4	+VIN (+7 to +60 VDC)	+VIN (+7 to +60 VDC)

IO Connector	LED Mode	Output Mode	IIC Mode
1	+5VDC	+5VDC	+5VDC
2	LED1 cathode input	Output1	SCL - Clock
3	LED2 cathode input	Output2	SDA - Data
4	GND - Ground	GND	GND

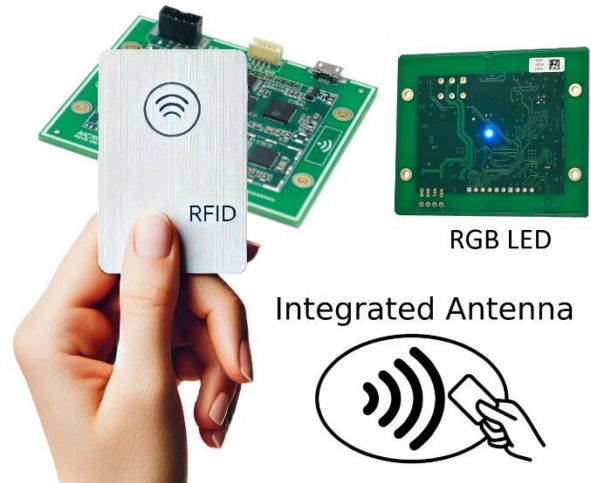


Fast and easy connection



4 FEATURES

- RS232/485 up to 230K Baud
- USB 2.0 in HID or Keyboard Emulation mode
- Optional Wi-Fi/BLE interface
- Optional MDB-Interface
- Tricolor RGB LED indicator
- Full NFC support
- Integrated or external antenna
- 2 x GPIOs and Buzzer
- Bootloader for firmware update
- Power over USB
- +7V to +60V DC power supply (optional +5V version)
- 100mA @ +12V current consumption
- -30 to +85 °C ambient Temperature

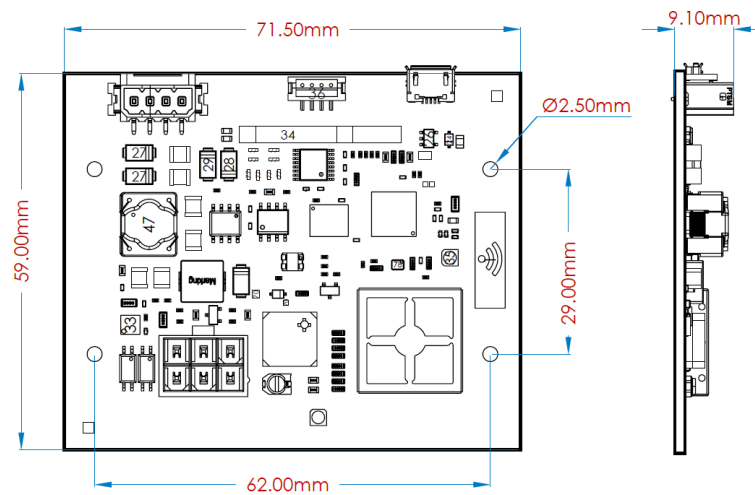


Integrated Antenna



5 DIMENSIONS

59 x 71.5 x 9.10 mm



6 ORDERING CODES

ARTICLE NR:	RS485	RS232	USB	Wi-Fi/BLE	Int. ANT	MDB
MCRN2-1110	X		X	* opt.	X	
MCRN2-1100		X	X	* opt.	X	
MCRN2-MDB		X	X	* opt.	X	X

