

## COMPACT RFID card reader module



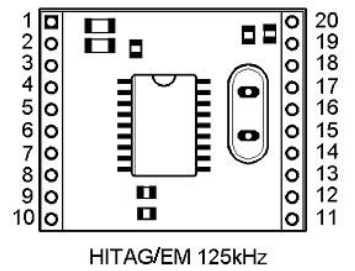
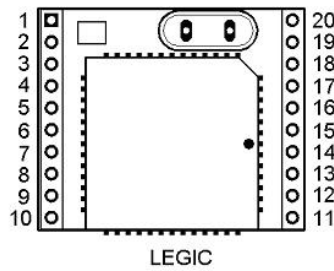
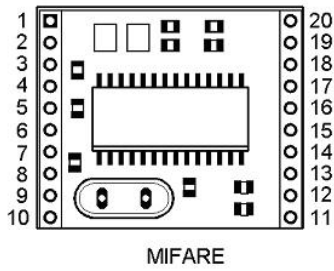
The COMPACT is an extremely compact proximity reader module with various data interfaces. COMPACT is available for both 125 kHz ( EM4102 and Hitag 1/2 ) and 13,56 MHz ( Mifare and Legic ). The module needs to be connected to an external antenna. A standard antenna is supplied with each module. COMPACT offers a read range of up to 10 cm for 125 kHz technology and up to 8 cm on 13,56 MHz. The COMPACT is available in a wide variety of data interfaces, such as Wiegand, Clock/Data, RS232, etc.

### Specifications :

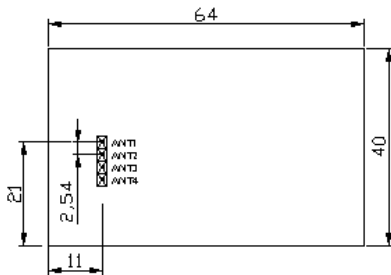
- Transponder technology supported :
  - COMPACT-EM : 125 kHz EM4102
  - COMPACT-HT : 125 kHz HITAG1/2/S
  - COMPACT-MF : 13.56 MHz MIFARE Classic 1k/4k
  - COMPACT-LG : 13.56 MHz LEGIC Prime
- Operating Frequency : 125 KHz or 13.56MHz
- Supply Voltage : DC 5V( ±5% )
- Antenna : external antenna ( standard antenna supplied with each module )
- Operating distance : up to 10 cm for 125 kHz applications  
up to 8 cm on 13,56 MHz  
( depending on antenna and transponder )
- Interface : Wiegand, Clock/Data, RS232 TTL or customer specific
- I/O ports : available for customer-specific requirements
- Dimensions: 25mm x 30mm x 15 mm (without antenna)

**Physical dimensions and mounting details :**

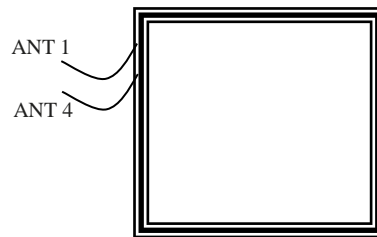
Module PCB :



Antenna PCB :



Wired antenna ( 125 kHz ) :



Wired antenna is connected between pins 1 & 2 on the module, either directly on the pins or on the soldering pad next to the pins.

## Connections :

PIN	MIFARE 13,56MHz	LEGIC 13,56MHz	HITAG/EM 125kHz	Antenna pcb
1	REC_ANT	NC	REC_ANT	ANT4
2	TX1_ANT	TX_ANT	TX1_ANT	ANT1
3	UB +5V	UB +5V	UB +5V	
4	GND_ANT	GND_ANT	GND_ANT	ANT2
5	TX2_ANT	GND	TX2_ANT	ANT3
6	GND	GND	GND	
7	TEST_PIN_OUT	TEST_PIN_OUT	TEST_PIN_OUT	
8	TEST_PIN_IN	TEST_PIN_IN	TEST_PIN_IN	
9	SDA DIGITAL I/O 5	SDA DIGITAL I/O 5	SDA DIGITAL I/O 5	
10	SCL DIGITAL I/O 6	SCL DIGITAL I/O 6	SCL DIGITAL I/O 6	
11	RX, DATA, D1	RX, DATA, D1	RX, DATA, D1	
12	TX, CLOCK, D0	TX, CLOCK, D0	TX, CLOCK, D0	
13	Card Load, Direction	Card Load, Direction	Card Load, Direction	
14	DIGITAL I/O 1	DIGITAL I/O 1	DIGITAL I/O 1	
15	/RESET	/RESET	/RESET	
16	DIGITAL I/O 2	DIGITAL I/O 2	DIGITAL I/O 2	
17	DIGITAL I/O 3	DIGITAL I/O 3	DIGITAL I/O 3	
18	DIGITAL I/O 4	DIGITAL I/O 4	DIGITAL I/O 4	
19	GND	GND	GND	
20	UB +5V	UB +5V	UB +5V	

### Note :

The function of the I/O pins depends on the firmware in the reader module. For customer-specific requirements, please forward your needs for further study.

Also the function of the data output pins (pin 11, 12 and 13) depends on the firmware. Please check the module version for correct information on this. Note that the output signals are always on TTL level. Eventual buffer circuits or level transformers must be connected externally.

For Clock/Data      pin 11 = Data      pin 12 = Clock      pin 13 = Card Load Signal  
(low for +/- 0.5 s for every newly detected tag)

For Wiegand      pin 11 = Data1      pin 12 =Data0      pin 13 = Card Load Signal  
(low for +/- 0.5 s for every newly detected tag)

For RS232(RS485)      pin 11 = RX      pin 12 =TX      pin 13 = Direction  
(controls DE signal for RS485 drivers )

## Declaration of Conformity :

ProxTech International bvba hereby confirms that the product COMPACT-xx is in accordance with the essential demands and other relevant stipulations of the directive 1999/5/EG.

A copy of the Declaration of Conformity can be obtained upon simple request by e-mail on [info@proxtech.com](mailto:info@proxtech.com).