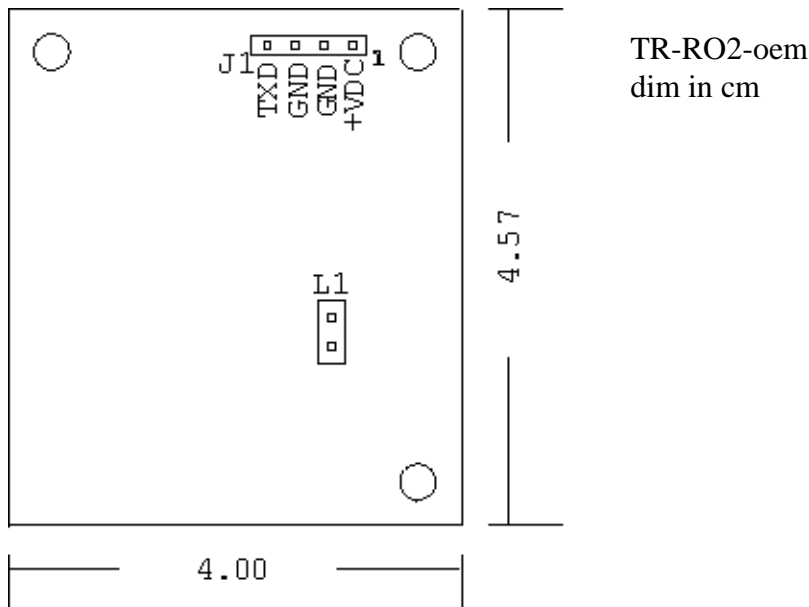


## TR-RO2-OEM

The TR-RO2-oem is a small, inexpensive and easy to use reader/decoder board for passive RF identification tags. It is intended for OEM applications. A power source and an antenna is all that is required to use the reader.



### Specifications

Function	Reader/decoder for 125 kHz ASK Manchester 64 bit RF identification tags
Interface	TTL/CMOS, 9600 baud, 8 data bits, no parity, 1 stop bit
Antenna type	1.62 mH coil (calculated, see note)
Read range	Antenna and tag dependent, practical maximum about 40 cm
Power requirements	9 – 12 VDC regulated, 60 mA
Dimensions	4 x 4.57 cm (1.8 x 1.6 inch)
Operating temperature	0 to +50 C
Connections	Standard: 4 pin .1 header (J1), 2 pin .2 header (L1) <i>see ordering info</i>

### Pinout:

J1	from left to right
+VDC	Positive power connection (+9 to +12)
GND	Negative (ground)
GND	Common Signal Ground
TXD	Serial TTL/CMOS output (9600 8N1)

L1	
	Antenna lead 1
	Antenna lead 2

## TR-RO2-oem *continued*

### **General Description**

The TR-RO2-oem board performs all functions necessary for a RFID reading station. It continuously powers, reads and decodes transponders that are within its reading range. When a transponder tag passes within range of the reader antenna, the RF magnetic field generated by the reader powers the tag. The tag then transmits its data. An LED flashes when a tag has been read. The reader board demodulates and decodes the data. The data is then sent as a packet using a two-wire TTL/CMOS interface. While the tag remains within reading range it will be continuously powered and the reader will continuously transmit its data.

### **Connections**

J1 is a 4 (or 5 pin) 0.100 inch spacing single row male header.

1. **+VDC**: Connect to positive side of power supply. A 9 to 12 VDC regulated supply is required. A 9 volt battery can also be used (positive + terminal). Although the board offers some protection be sure to check for proper polarity.
2. **GND**: Connect to ground (-) side of power supply.
3. **GND**: Connect to common ground of receiver.
4. **TXD**: Connect to RXD (receive) of terminal. It is used to serially transmit the data packet.

L1 is a 2 pin 0.200 inch spacing single row male header. It is used to connect the antenna.

*Further information on interfacing and data transmission can be found in the TR-RO1-oem datasheet.*

### **Ordering information**

#### **TR-RO2-OEM**

Board may be order without the headers and LED soldered on.

Contact us for other configurations.