125K-R-LR-232

125Khz (90-100)cm Long Range RFID Reader with RS232 interface

1. Introduction

125K-R-LR-232 is a low cost and high performance proximity reader for reading ID code from EM4100 or compatible read-only tags. It features an extended reading range up to 90-100 cm. It is ideally suited to be applied in automatic parking system, personal identification, access control and production control systems etc.

2. Features

- High sensitivity and reliable performance;
- Built-in transceiver antenna for max. performance ;
- Maximum effective distance up to 90-100cm
- Less than 100ms decoding time;
- Low power dissipation with single power supply;
- Built-in buzzer and LED ;

3. Specification

Power Requirements	Linear regulated 12VDC at 300mA typical, 500mA max.
Interface	RS232
Max. Read Range	90-100cm (with special 125Khz long range card) - 125K-LR-T2 (86x54x1.8)mm
Frequency	125Khz typical / EM4100 or compatible
RFID card requirement	High Q 125K long range Read only card
Audio/visual Indication	Built-in Buzzer and LED
Operating Temp.	0°C -70°C
Dimension	24 X 24 X4 (cm)

4. Interface Description

Color	Reader wires Description	PC 's com port (DB9)
Red	+12VDC To power supply	
Black	Power (-ve) To power supply	
Brown	TXD-Transmit	**Pin2**
White	GND	**Pin5**
Green	NC	
Gray	NC	
Blue	NC	
Yellow	NC	

5. Protocol

Band Rate : 9600,N,8,1

STX (02 HEX)	DATA (10 HEX)	CR	LF	ETX (03 HEX)

6. Trouble shooting

When powered up , the reader takes a self-test to ensure the best reading performance with the buzzer beeping continually. When the self-test ends, the buzzer will give out a long beep and enter the normal working mode.

If the buzzer continue beeping without stop for a long time, Pls turn off the power and check out the environment and power supply to ensure locating the reader in a good working condition.

In case of problems the following procedure should be followed:

Failure to finish self-test with the buzzer beeping continually or with a short reading distance.

1. Turn off the power
2. check the power input connections making sure that they are not reversed
3. check the power supply complying with the specifications
4. if the supply has a current limit, set this to > 500 mA
5. make sure to install the reader in a environment without large area conductors nearby or mounting on a conductive surface. In self-test state, do not apply any tags in the reader functional area;
6. Try to change the installment to another place to check if the trouble still exists.

Power supply requirement :

Linear regulated type external DC power supply

Voltage Output : + 12V DC +/- 5% at 2A typical