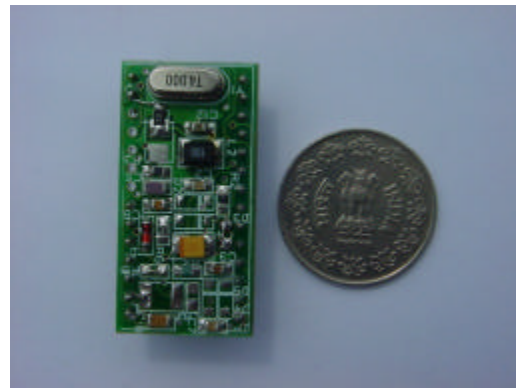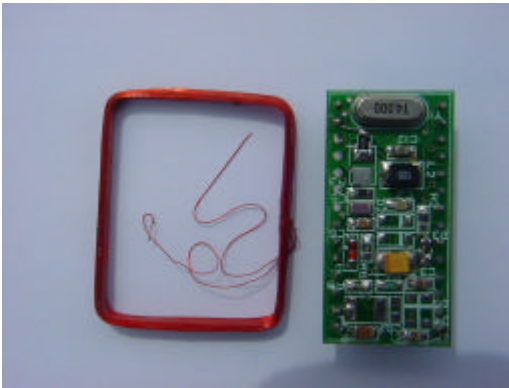# Radio Frequency Identification – RFID Reader Module Details

Sparr Electronics Limited - **SEL** is dedicated to providing products and services that enable companies to use **Radio frequency identification (RFID)** in a variety of ways including automatic identification and data capture (AIDC) solutions. We pride ourselves in providing customers with inexpensive RFID solutions that integrate well with other systems.

RFID Reader Module, are also called as interrogators. They convert radio waves returned from the RFID tag into a form that can be passed on to Controllers, which can make use of it. RFID tags and readers have to be tuned to the same frequency in order to communicate. RFID systems use many different frequencies, but the most common and widely used & supported by our Reader is 125 KHz.

The reader has been designed as a Plug & Play Module and can be plugged on a Standard 300 MIL-28 Pin IC socket form factor.

Functions

1. Supports reading of 64 Bit Manchester Encoded cards
2. Pins for External Antenna connection
3. Serial Interface (TTL)
4. Wiegand Interface also available
5. Customer application on request

Technical Data:

Frequency   : 125 kHz
Read Range   : up to 8 cm
Power supply   : 5V DC (± 5 %)
Current consumption max.   : 60 mA
Operating temperature   : -20 ... +65° C
Storing temperature   : -40 ... +75° C
Interface   : RS232 (TTL),Wiegand and others (on Demand)
Dimensions (l x w x h)   : 36 x 18 x 10 mm
Serial Interface Format   : 9600Baud, No Parity, 8 Data bits,1 Stop bit

Note: The TTL RS-232 Interface can not be connected directly to a PC COM port. Therefore the signal must be converted to RS 232 level for PC connection.

This Firmware has the following Functions:

 Read Tag-ID
 Send Tag-ID in ASCII Format through the Serial/ Wiegand Interface.

Sequence starts with Tag ID follows from Carriage-Return/Line-Feed (0Dh 0Ah),
Example: '041201938C<CR><LF>'

Applications:

Our readers can be used for Access control, Time & Attendance, Vending machines, industrial and other applications where Reading the data from the Card only is required

LAN Enabled RFID Reader – EAD RFID

EAD RFID is a combination of our Ethernet Adapter – EAD 01 and the RFID reader module. This unit contains our EAD 01 B Board level Serial to LAN converter, RFID module which can read the Tags and Built-in Antenna to pick up the RFID signal, a buzzer to indicate the successful reading of the card and a LED indication.

The Unit can additionally support Time Stamping function with Real Time Clock as an Option. This unit can store up to 20 K of Data in its memory until the Server or PC software polls to pick up the data. (With a 10 digit Tag and Time Stamp, up to 800 records)

We can also customize this product for System Integrators or Software developers to meet their software requirement.