### **GENERAL DESCRIPTION**

RhombusMF908—C transceiver unit is designed for reading the Serial Number of the Mifare I compatible IC cards and is a major component in RFID(Radio Frequency Identification) reader system It can be applied in office/home security, personal identification, access control, anti-forgery and production control systems etc.

## **FEATURES**

- Built-in transceiver antenna;
- Maximum effective distance up to 75mm;
- Less than 200ms decoding time;
- Low power dissipation with single power supply;
- ABA Track2 (8H) interface;
- Support Mifare I compatible IC cards;
- Built-in bi-color LED and buzzer;

## INTERFACE DESCRIPTION

| NUMBER | COLOR | SYMBOL | DESCRIPTION                         |  |  |  |
|--------|-------|--------|-------------------------------------|--|--|--|
| 1      | Red   | VCC    | Positive Power Supply               |  |  |  |
| 2      | Black | GND    | GND                                 |  |  |  |
| 3      | Green | DATA   | Output as DATA in ABA               |  |  |  |
| 4      | White | CLK    | Output as CLK in ABA                |  |  |  |
| 5      | Brown | С      | Output as CARD PRESENT in ABA       |  |  |  |
| 6      | Blue  | LED    | Input, internally pulled up to +5V. |  |  |  |
|        |       |        | Connected to                        |  |  |  |
| 7      | Grey  | BUZ    | Input, internally pulled up to +5V. |  |  |  |
|        |       |        | Connected to                        |  |  |  |

### **CHARACTERISTICS**

Absolute Maximum Ratings

| ITEM            | SYMBOL           | VALUE   | UNIT          |
|-----------------|------------------|---------|---------------|
| Power Supply    | VCC              | 15      | V             |
| Operating Temp. | T <sub>OPR</sub> | 0~+7    | ${\mathbb C}$ |
| Storage Temp.   | T <sub>STR</sub> | -55~+12 | $^{\circ}$    |

# Electrical and Mechanical Specification

Under  $T_A = 25^{\circ}C$ , VCC= +12V unless specified

| ITEM                | SYMBOL           | MIN | TYP   | MAX | UNIT |
|---------------------|------------------|-----|-------|-----|------|
| Power Supply        | VCC              | 10  | 12    | 15  | V    |
| Current Supply      | I <sub>C</sub>   |     | 80    | 12  | mA   |
| Operation Freq.     | $F_RE$           |     | 13.56 |     | MHZ  |
| Effective Distance* | DIS              | 0   | 50    | 75  | mm   |
| Decoding Time       | T <sub>DEC</sub> |     | 12    | 20  | ms   |

Effective Distance depends on tags and operating environment.

Note: Rhombus' products must work with linear regulated power supply, and other kinds of power supply are prohibited.