# **GENERAL DESCRIPTION**

RhombusMF903—B 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 50mm;
- Less than 200ms decoding time;
- Low power dissipation with single power supply;
- RS485 interface and other format optional;
- Support Mifare I compatible IC cards and Mifare LITE;
- Built-in bi-color LED and buzzer;
- Beautiful shell designed.

## INTERFACE DESCRIPTION

NUMBER	COLOR	SYMBOL	DESCRIPTION		
1	Red	VCC	Positive Power Supply		
2	Black	GND	GND		
3	Green	R+	R+ output in RS485 interface		
4	White	R -	R - output in RS485 interface		

#### **CHARACTERISTICS**

## Absolute Maximum Ratings

ITEM	SYMBOL	VALUE	UNIT
Power Supply	VCC	15	V
Operating Temp.	T <sub>OPR</sub>	0~+70	$\mathbb{C}$
Storage Temp.	T <sub>STR</sub>	-55~+125	${\mathbb C}$

# Electrical and Mechanical Specification

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

ITEM	SYMBOL	MIN	TYP	MAX	UNIT
Power Supply	VCC	11	12	15	V
Current Supply	I <sub>C</sub>		70	110	mA
Operation Freq.	$F_RE$		13.56		MHZ
Effective Distance*	DIS	0	30	50	mm
Decoding Time	T <sub>DEC</sub>		120	200	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.