### **GENERAL DESCRIPTION**

RhombusMF6200A mini-reader 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

- External balance driven antenna supported;
- Maximum effective distance up to 80mm;
- Less than 200ms decoding time;
- Low power dissipation with single power supply;
- ABA Track2 (8H) interface;
- Support Mifare I compatible IC cards;

### CHARACTERISTICS

• Absolute Maximum Ratings

ITEM	SYMBOL	VALUE	UNIT
Power Supply	VCC	6	V
Operating Temp.	T <sub>OPR</sub>	0~+70	°C
Storage Temp.	T <sub>STR</sub>	-55~+125	°C

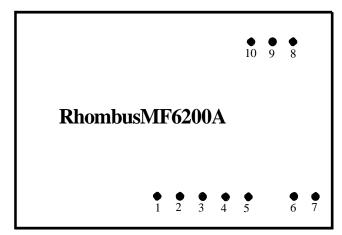
• Electrical and Mechanical Specification

Under  $T_A = 25^{\circ}C$ , VCC=+5V unless specified

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ITEM	SYMBOL	MIN	TYP	MAX	UNIT
Power Supply	VCC	4.5	5	5.5	V
Current Supply	I <sub>C</sub>		60	100	mΑ
Operation Freq.	F <sub>REQ</sub>		13.56		MHZ
Effective Distance <sup>*</sup>	DIS	0	50	80	mm
Decoding Time	T <sub>DEC</sub>		120	200	ms

• Effective Distance depends on tags, antenna and operating environment.

# **INTERFACE DESCRIPTION**



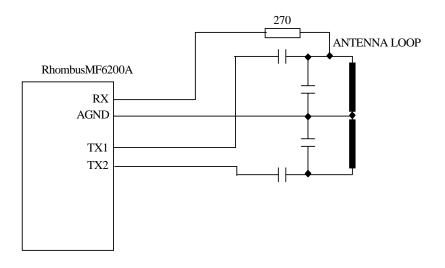
Bottom View

PIN No.	SYMBOL	DESCRIPTION
1	DATA	ABA Data output
2	CLK	ABA Clock output
3	CP	ABA Card Present output
4	TX1	Antenna Driver
5	TX2	Antenna Driver
6	AGND	Analog Ground. Internally connected to Digital Ground.
7	RX	Signal input
8	DGND	Digital Ground
9	DVCC	+5Vpower
10	NRST	Low level effective external Reset. <sup>*</sup>

• Normally keep unconnected

# **APPLICATION INFORMATION**

The following is a typical external antenna circuit for RhombusMF6200A:



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