

DOCUMENT No.: SUMMF-20060419(E)

SPECIFICATION

PRODUCT NAME: MIFARE ONE CARD AND SONY FELICA CARD READER

MODEL: SUM1356AC

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REVISION HISTORY:

REVISION CONTENT	REVISION DATE	REVISOR	APPROVAL	REMARK

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1. APPLICATION SCOPE:

The module is used to read serial number of MIFARE ONE AND SONY FELICA card .

2. GENERAL DESCRIPTION

A high performance analog front end IC is introduced in the module, Combined with high speed and high performance AVR microcontroller, It can read TYPE-A(MIFARE ONE) and SONY FELICA card at the same time. It has small size, high performance, low cost, is widely used in access control, industrial control ,and etc.

The size of the module is 25mm(W)X40mm(L), There are two communication modes with other systems-- CMOS232 and TTL-232C. The module also has two switch input and three LED driving output(current limiting resistance is inside).

3. .FEATURE

Item	Description
Model name	SUM1356AC
Reading Card type	MIFARE ONE AND SONY FELICA
Operating frequency	13.56MHz \pm 7kHz
Reading distance	MIFARE ONE 40mm SONY FELICA 20mm(Standard)
Nominal voltage	DC5V \pm 0.25V
Nominal current	RF OFF 60mA(MAX) RF ON 150mA(MAX)
Operating temperature	-10°C ~ 60°C
Storage temperature	-30°C ~ 80°C
Dimension	25mm(W)X40mm(L)
Serial port	CMOS/TTL-232C Baud: 38400bps Communication mode: Asynchronous Data frame format: D=8,SP=1,P=N Check: BCC

4. DIMENSION

No.	Signal	Description
1	VCC	Operation voltage DC5V \pm 0.25V
2	GND	Ground
3	TXD	CMOS TXD
4	RXD	CMOS RXD
5		
6		
7		
8		
9		
10	LED	
11	BUZZER	

12	NC	
13	GND	
14	GND	
15	ANTENNA	Antenna driver
16	GND	
17	GND	
18	NC	

5. Dimension

The size of the module is 25mm(W)X40mm(L) .



6. SERIAL PORT CHARACTERISTIC CMOS SERIAL PORT

Symbol	Description	Min.	Typ.	Max.	Unit
VDD	Operation voltage	4.75	5	5.25	V
Vih	High level input	0.7Vdd		Vdd	V
Vil	Low level input	0.0		0.2Vdd	V
Ii	Input current Vi=Vcc Vi=GND			3 3	uA
Vol	Low level output			0.7	V
Voh	High level output	Vdd-1.0			V
Idd	Operation current	50		150	mA

7. Communication interface

Item	Description
Communication mode	Asynchronous
baud	38400bps
Data bits	8bit
Parity bit	0
Stop bits	1bit
Check	BCC, all data XOR operation in byte