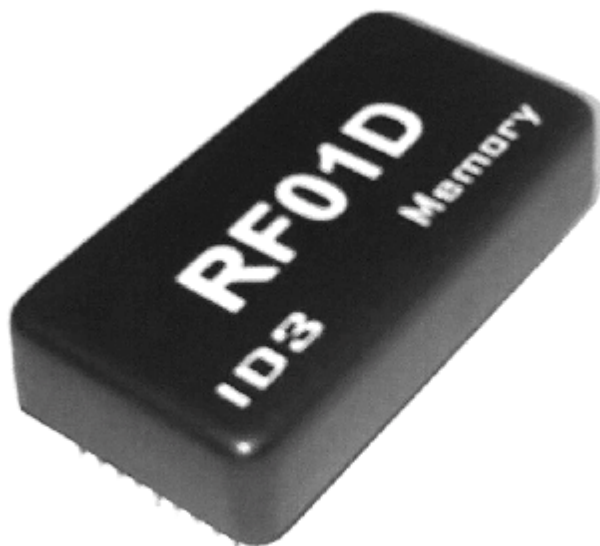# RF01D – ID3

125 kHz RFID card reader

With internal memory

&

Internal Antenna

DESCRIPTION:

This is a great little RFID Reader Module from Innovations, simillar to the ID models. If you need an inexpensive way to get started with RFID, this is a great little module. Just power the module, and it will read any RFID card within range.

FEATURES:

- Voltage supply DC5V

- Current consumption <50mA

- 125kHz read frequency

- EM4001‹4102 64-bit RFID tag compatible

- Four mode data output (HEX, decimal, decimal point, Card-ID)

- Internal memory for storage 250 cards.

- An output for the card around

- 9600bps TTL output

- 100mm read range

HARDWARE AND PIN NUMBERS:

RF01D-ID3 (bottom view)

If the module has an internal antenna, this A1 & A2 pins is not used

PIN FUNCTION DESCRIPTION:

Pin.no	Mnemonic	Function	RD01D-ID3	RD01D-ID3 [Memory]
1	VDD	Power supply voltage	4.7 to 5.5V	4.7 to 5.5V
2	CLOCK/RXD	Output / input	clock / RXD	clock / RXD
3	DATA/TXD	Output	data / TXD	data / TXD
4	AROUND	Output for Relay	see [Figure2]	see [Figure2]
5	SW1	Input	Not use	see [Table 3]
6	SW2	input	select mode 1	select mode 1
7	SW3	Input	select mode 2	select mode 2
8	SW4	Input	Not use	see [Table 3]
9	BUZZER	Buzzer output	see Figure3	see Figure3
10	GND	Power supply GND	GND	GND
11	ANTENNA1	* **If the module has an internal antenna, this two pins is not used**		
12	ANTENNA2			

Table 1 (PIN FUNCTION)

INPUT SELECTTION PINS RF01D-ID3:

SW1	SW2	SW3	SW4	OUTPUT DATA
NC	0	0	NC	**Ten-digit ID card1 decimal Basis (0010838980)** **0x30, 0x30, 0x31, 0x30, 0x38, 0x33, …. , 0x13 , 0x10 (Enter)**
NC	0	1	NC	**RF01D default HEX data (1E00A563C4☐)** **0x02 (start byte), 10 HEX data , 0x10 '&' 0x13 (Enter) , 0x03 (Stop byte)**
NC	1	0	NC	**ID card numbers with decimal-point basis (165.25540)** **0x31, 0x36, 0x35, 0x2E, 0x32, 0x35, …. , 0x13 , 0x10 (Enter)**
NC	1	1	NC	**Ten-digit ID card2 decimal Basis (0010904516)** **0x30, 0x30, 0x31, 0x30, 0x39, 0x30, …. , 0x13 , 0x10 (Enter)**

Table 2 (INPUT SELECTTION PINS RF01D-ID3)

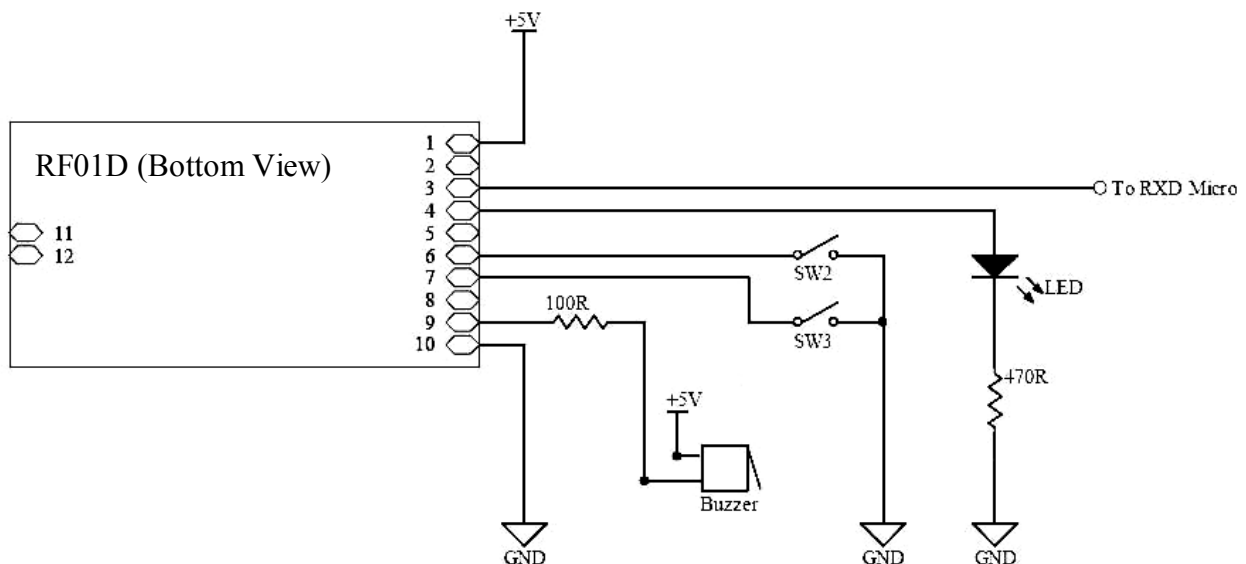## INPUT SELECTTION PINS RF01D-ID3 [Internal Memory]:

When the SW1 & SW4 pins is used in negative voltage, module has working in the memory mode

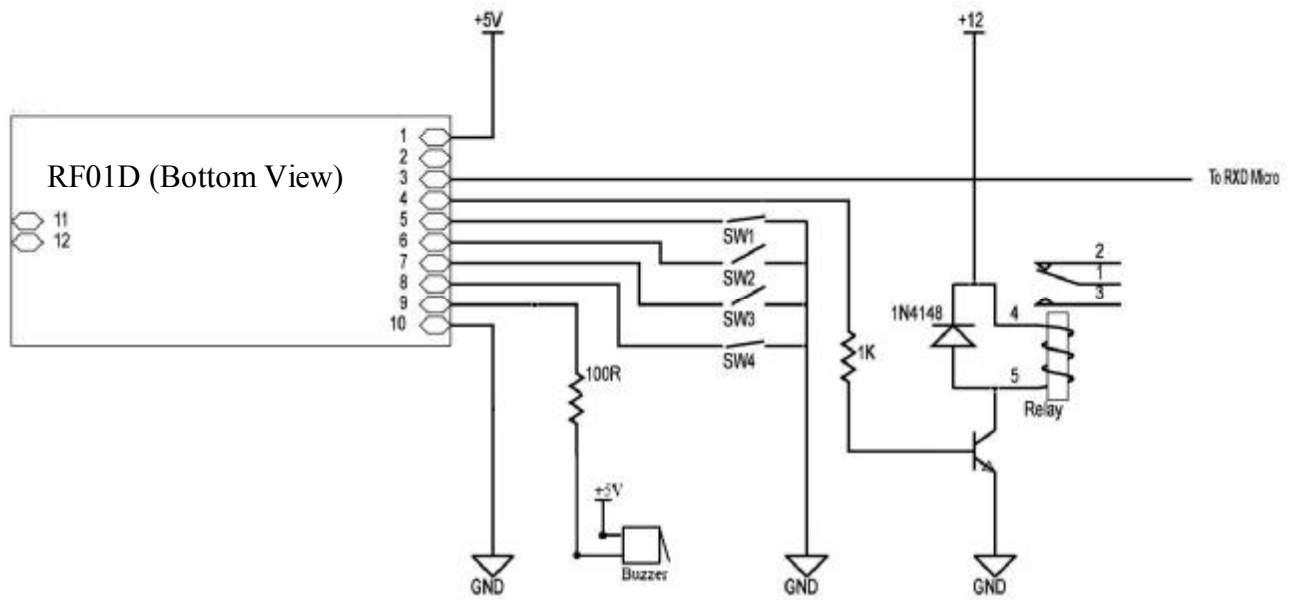And **Opening the relay when the card is identified [Figure2].**

SW1	SW2	SW3	SW4	OUTPUT DATA
NC	0	0	NC	**Ten-digit ID card1 decimal Basis (0010838980)** **0x30, 0x30, 0x31, 0x30, 0x38, 0x33, …. , 0x13 , 0x10 (Enter)**
NC	0	1	NC	**RF01D default HEX data (1E00A563C4☐)** **0x02 (start byte), 10 HEX data , 0x10 '&' 0x13 (Enter) , 0x03 (Stop byte)**
NC	1	0	NC	**ID card numbers with decimal-point basis (165.25540)** **0x31, 0x36, 0x35, 0x2E, 0x32, 0x35, …. , 0x13 , 0x10 (Enter)**
NC	1	1	NC	**Ten-digit ID card2 decimal Basis (0010904516)** **0x30, 0x30, 0x31, 0x30, 0x39, 0x30, …. , 0x13 , 0x10 (Enter)**
0	0	0	0	**working the memory mode** **And Print Ten-digit ID card1 decimal Basis (0010838980)**
0	0	1	0	**working the memory mode** **And Print RF01D default HEX data (1E00A563C4☐)**
0	1	0	0	**working the memory mode** **Print ID card numbers with decimal-point basis (165.25540)**
0	1	1	0	**working the memory mode** **And Print 0x30, 0x30, 0x31, 0x30, 0x39, 0x30, …. , 0x13 , 0x10 (Enter)**
0	X	X	1	**Saving Cards Into memory and sends the card data to serial port**
1	X	X	0	**Deleting Cards From memory and sends the card data to serial port**

Table 3 (INPUT SELECTTION PINS RF01D-ID3 [Memory])

[Figure1] TEST CIRCUIT RF01D – ID3 :

[Figure2] TEST CIRCUIT RF01D – ID3 [Memory]:

[Figure3] PAKAGE & PIN SIZE: