

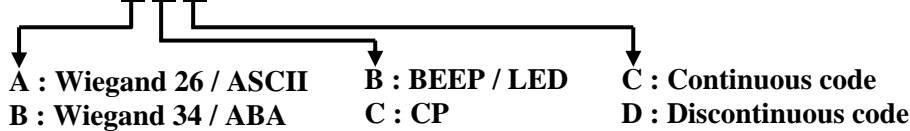
## HT51469 RFID Read Module

HT51469 is a RFID read module (13.56MHz) , this is only for HT4169 reading , the output format is base on Wiegand 26 、Wiegand 34 、RS232 or ABA and reading data will output from DATA0 and DATA1 。

### 一、Product spec :

Type	HT51469
Output format	Wiegand 26 、Wiegand 34 、RS232 、ABA
Size	24.9 (Length)×15.1(Height)×4.3(Thickness) m/m
Operation frequency	13.56MHz

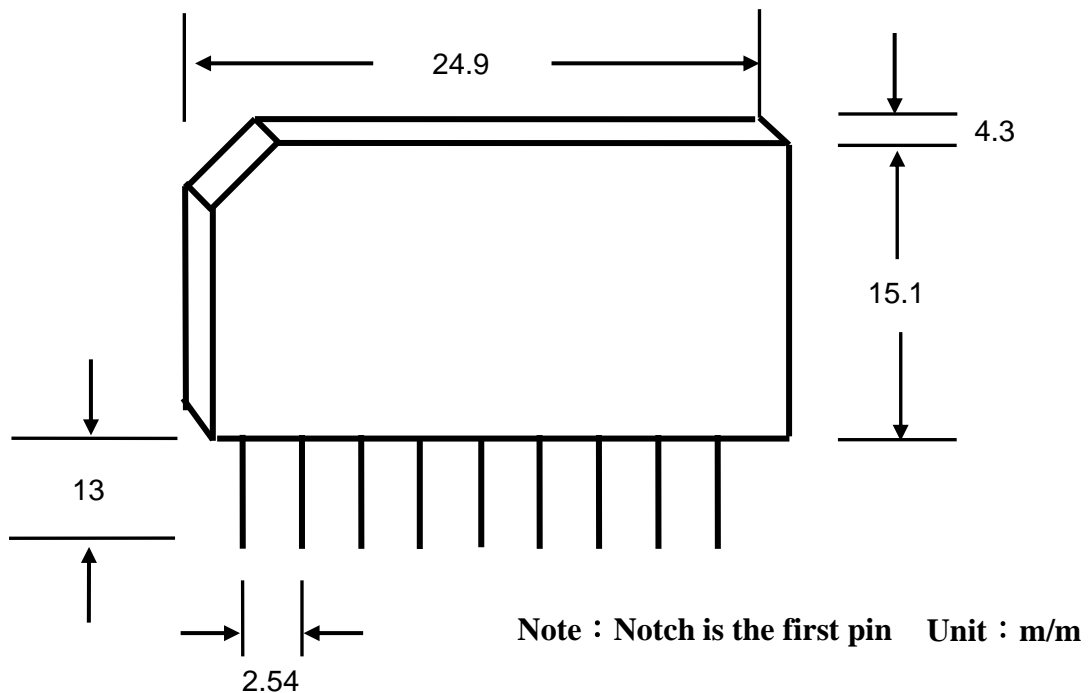
HT51469 X X X



### 二、Technology parameter :

Operation voltage	VCC=5V
Consumption current	25mA (5V) nominal
I/O output current	25mA sink/source
Operation temperature	- 40℃ ~ + 85℃
Storage temperature	- 40℃ ~ + 85℃
Storage humidity	5 ~ 95% RH

### 三、Dimension of module :

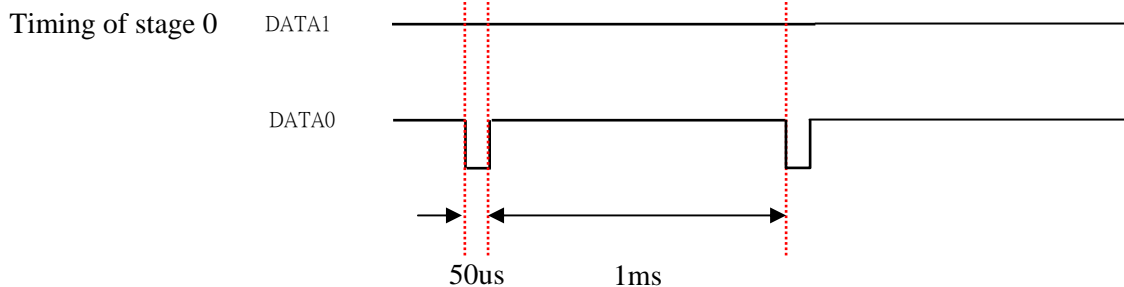
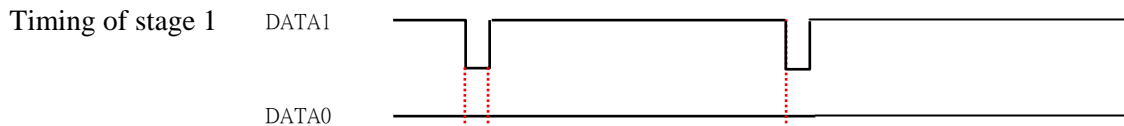
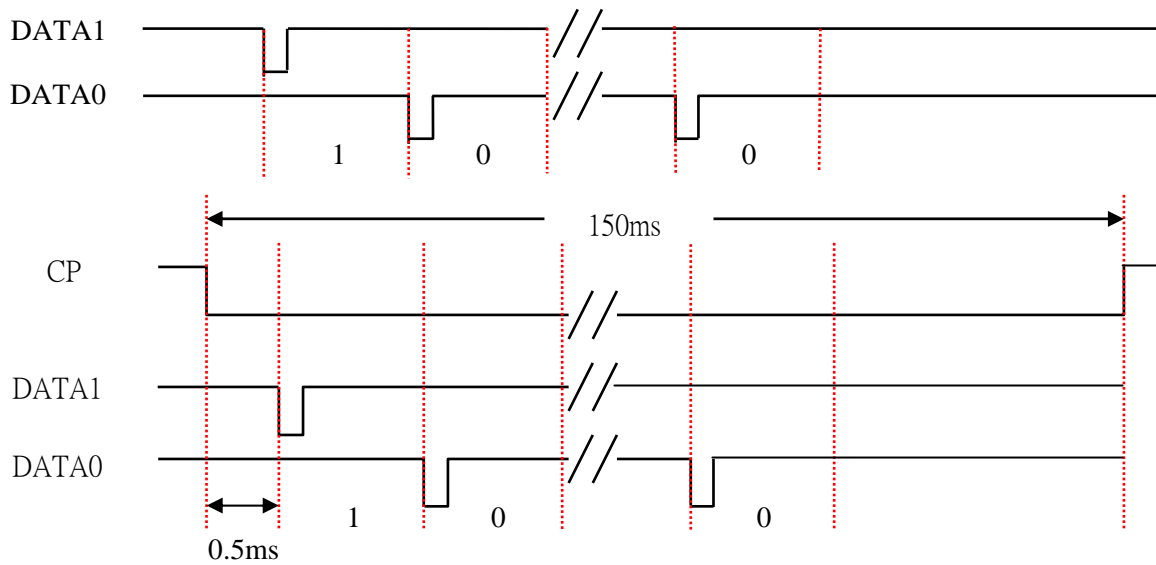


四、Pin assignment and electronic parameter :

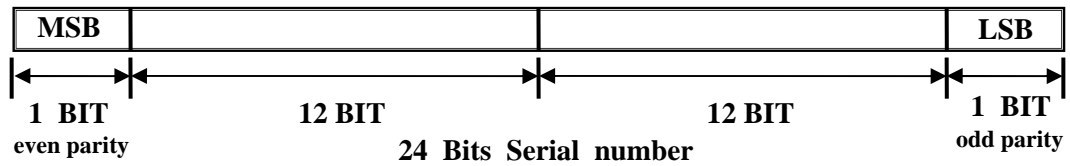
PIN	NAME	I/O	SYMBLE	MIN	TYP	MAX	DESCRIPTION
1	ANT-IN	I		-	20Vpp	-	13.56MHZ Ant.
2	ANT-OUT	O		Vcc-0.5V	Vcc	Vcc+0.5V	13.56MHZ Ant.
3	Wiegand 26/ASCII Wiegand 34/ABA	I	Vi-H Vi-L	Vcc-0.2V -	Vcc GND	Vcc+0.2V Vss+0.2V	HI:ASCII or ABA Low:Wiegand26 or Wiegand34
4	BEEP/LED CP	O					NORMAL=Low,ACTIVE=2.7KHZ NORMAL=Vcc,ACTIVE= Low Pulse 150ms
5	DATA1/CLK	O	Vo-H Vo-L	Vcc-0.2V -	Vcc GND	Vcc+0.2V Vss+0.2V	Digital data output
6	DATA0/DATA	O	Vo-H Vo-L	Vcc-0.2V -	Vcc GND	Vcc+0.2V Vss+0.2V	Digital data output
7	POWER	I	Vcc	3.5V-	5V	5.25V	VCC
8	GND						Digital Ground
9	VCC		Vcc	3.5V-	5V	5.25V	VCC

五、Wiegand code

1.Timing sequence

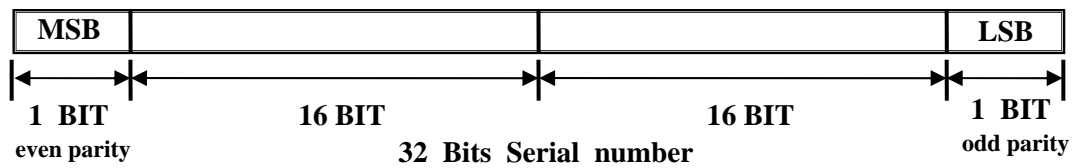


## 2. Format of data output



※ MSB will be send first ◦

※ MSB's 12 Bits is base on even parity , LSB's 12Bits is base on odd parity ◦



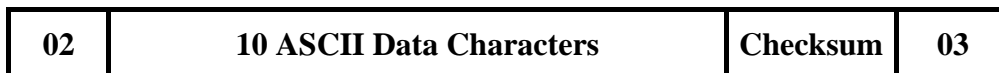
※ MSB will be send first ◦

※ MSB's 16 Bits is base on even parity , LSB's 16Bits is base on odd parity ◦

## 六、RS232 (ASCII)

### 1. Format of data output

- 9600bps , N , 8 , 2 ◦
- PIN5 : TX not anti-mutually output ◦
- PIN6 : TX anti-mutually output ◦
- CHECKSUM : 10 bytes data of card all do XOR calculation ◦

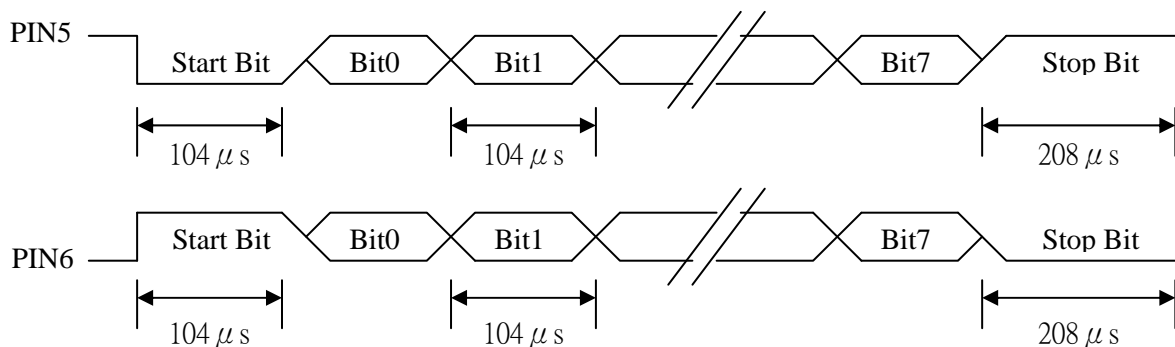


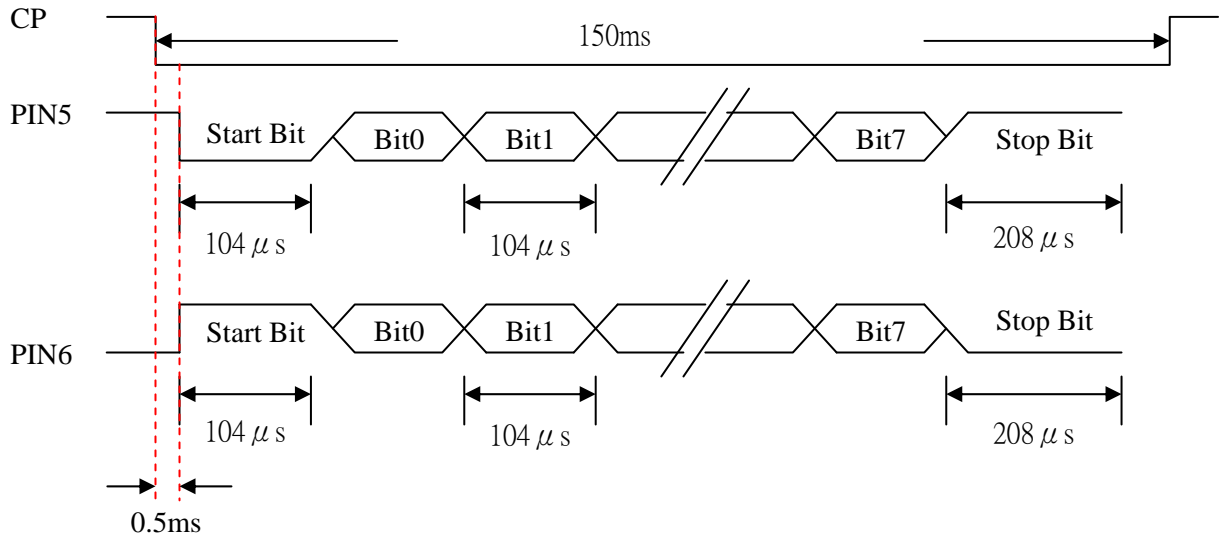
For example : The number of card is 63C2076BEC ◦

Output value : 36H 、 33H 、 43H 、 32H 、 30H 、 37H 、 36H 、 42H 、 45H 、 43H ◦

Checksum : (63H) XOR (C2H) XOR (07H) XOR (6BH) XOR (ECH) = 21H ◦

### 2. Timing sequence





## 七、ABA TRACK2

### 1. Format of data output

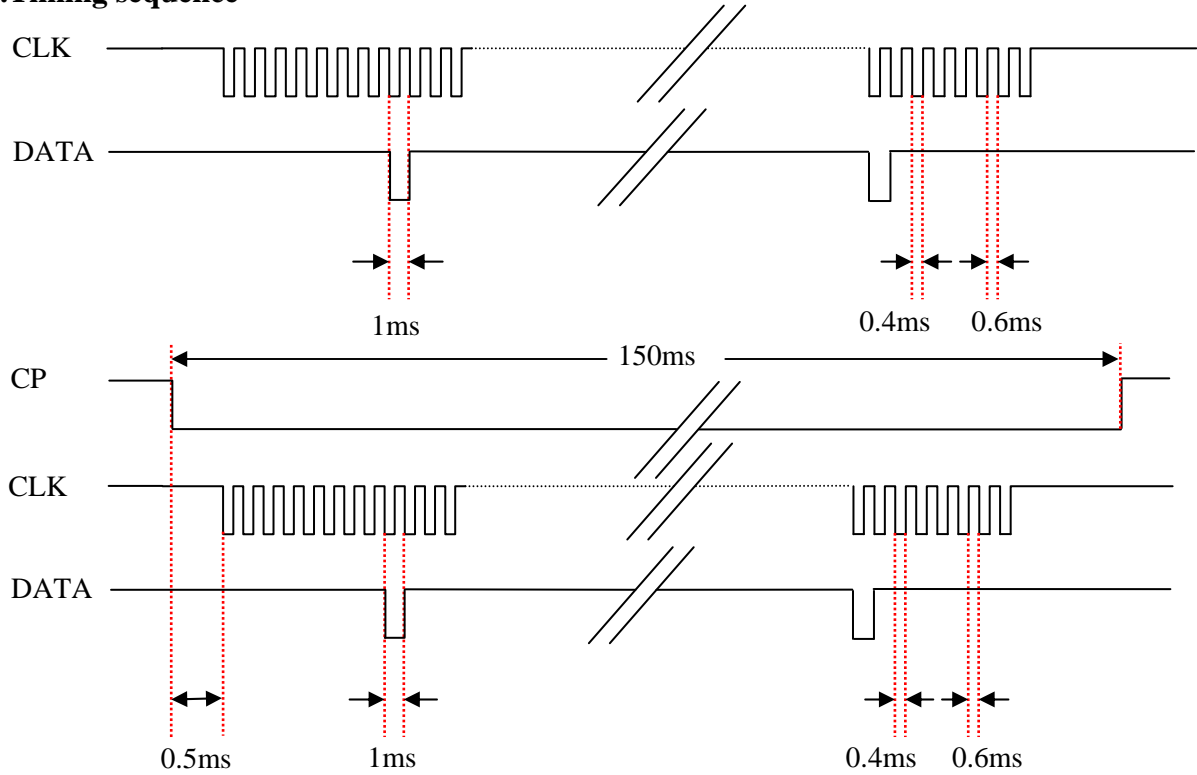
- a. The quantity of leading zeros is 10 ◦
- b. Start code : B ( 11010 , low level is on the front , sequence is 1248P ) ◦
- c. Card number : 0000000000-9999999999 ( 10 decimal digit ) ◦
- d. End code : F ( 11111 , low level is on the front , sequence is 1248P ) ◦
- e. LRC parity code : ( BCC ) ◦
- f. The quantity of trailing zeros is 5 ◦
- g. There is included odd parity in every element ◦
- h. All datas are reverse output , the meaning is that “0” is high level and “1” is low level ◦

Leading zero 10 BITS	Start code B	Card number 10 BYTES	End code F	BCC 5 BITS	Trailing zero 5 BITS
-------------------------	-----------------	-------------------------	---------------	---------------	-------------------------

For example : The number of card is 0000507369 ◦

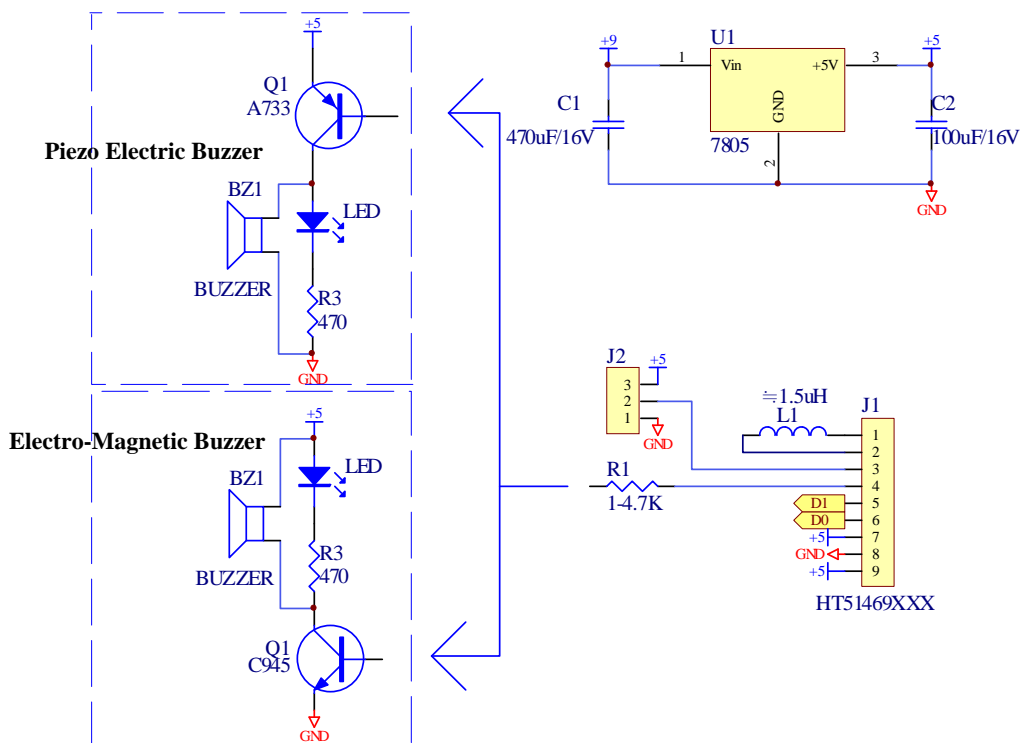
ABA Data	B0	B1	B2	B3	P (odd parity)
Start code	1	1	0	1	0
The 1'st number of Card	0	0	0	0	1
The 2'nd number of Card	0	0	0	0	1
The 3'rd number of Card	0	0	0	0	1
The 4'th number of Card	0	0	0	0	1
The 5'th number of Card	1	0	1	0	1
The 6'th number of Card	0	0	0	0	1
The 7'th number of Card	1	1	1	0	0
The 8'th number of Card	1	1	0	0	1
The 9'th number of Card	0	1	1	0	1
The 10'th number of Card	1	0	0	1	1
End code	1	1	1	1	1
BCC	0	1	0	1	1

**2. Timing sequence**

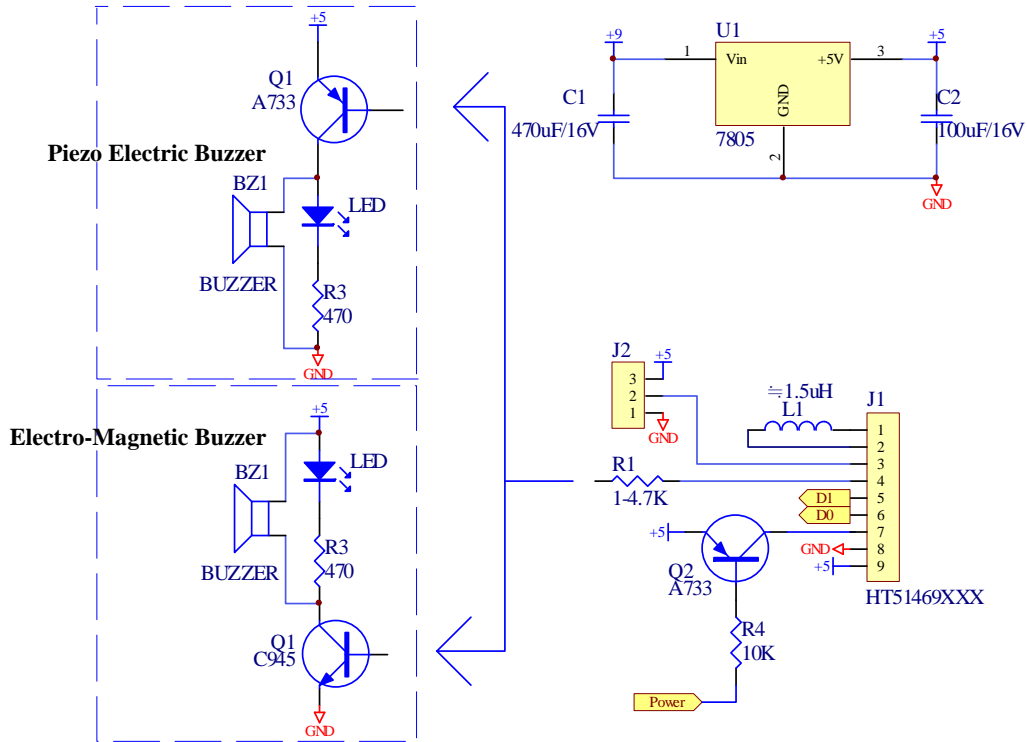


**八、 Application circuit for reference**

**1. Standard circuit**



**Note : The third pin must be connected to VCC or GND .**

**2. power saving circuit**


**Note : The third pin must be connected to VCC or GND .**