

● Introduction

The H.I.D. compatible module contains the 125KHz/FSK decoding circuits to read the H.I.D. compatible contactless cards or tags. We support various modules contains antenna with Wiegand / ABA / RS-232 interfaces easy to apply various utilization.

● Specifications

Dimension (L)x(W)x(H)mm	40 x 40 x 10
Net weight	22.4g±5%
Enclosure material	ABS
Card Type	H.I.D.
Operation frequency	125 KHz/FSK
Reading range	5±1cm
With internal antenna	●
Output format	Wiegand / ABA / RS-232
Transmission rate	9,600 bps , 8, N, 1
Power requirement	DC 5V,±5%
Standby current	40mA ± 5%
Operating current	40mA ± 5%
Operating temperature	-10℃ ~ 75℃
Storage temperature	-10℃ ~ 85℃
Humidity	10% ~ 90% RH, Non condensation



● Pin configuration

Pin No.	Description	Wiegand 26	ABA	RS-232
Pin 1	Zero Volts and Tuning Capacitor Ground	GND 0V	GND 0V	GND 0V
Pin 2	Strap to +5V	Reset Bar (N.C.)	Reset Bar (N.C.)	Reset Bar (N.C.)
Pin 3	To External Antenna and Tuning Capacitor	Antenna	Antenna	Antenna
Pin 4	To External Antenna	Antenna	Antenna	Antenna
Pin 5	Card Present output	No function	CLS	No function
Pin 6	Future	Future	Future	Future
Pin 7	Format Selector(+/-)	Strap to +5V	Strap to Pin 10	Strap to GND
Pin 8	Data 1	One Output*	Magstripe clock	Tx
Pin 9	Data 0	Zero Output*	Data*	Rx
Pin 10	3.1 kHz Logic	Beeper/LED	Beeper/LED	Beeper/LED
Pin 11	DC Voltage Supply	+5V	+5V	+5V

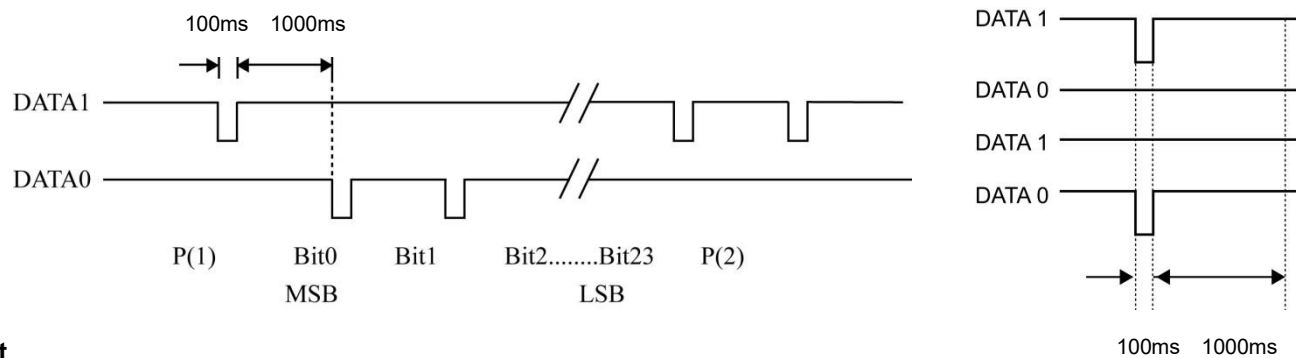
● Data formats

Wiegand 26 bit output

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
P	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	P
P	E	E	E	E	E	E	E	E	E	E	E	E													
													O	O	O	O	O	O	O	O	O	O	O	O	P
Even parity (E)													Odd parity (O)												

Wiegand Output

- (a) The output data is the last three bytes of card number (62E3086CED) 08H 6CH EDH
- (b) Bit=1 D0=1 D1=0 Bit =0 D0=0 D1=1
- (c) Output waveform



RS-232 output



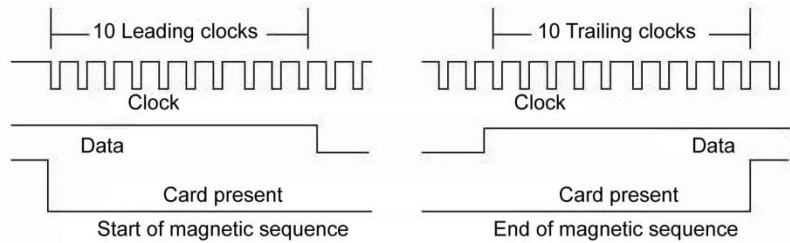
- (a) 9600 bps, N, 8, 1
- (b) PIN8: TX
- (c) PIN9: Rx
- (d) Example: Card number 0000A9DDD4
- (e) Each Byte output waveform

ABA Track2 output

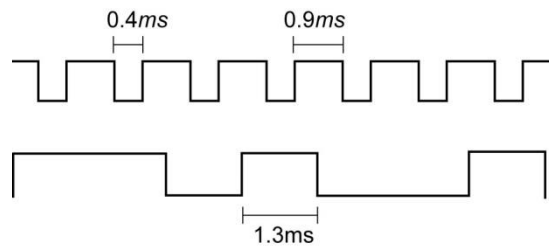
10 Leading zeros	SS	Data	ES	LCR	10 Ending zeros
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Leading zeros: 10 bits
SS: Start character of 11010
Data: Altogether 10 character, decimal system expression.
ES: End character of 11111
LRC: Longitudinal redundancy checks 5 bits.
Ending zeros:10 bits

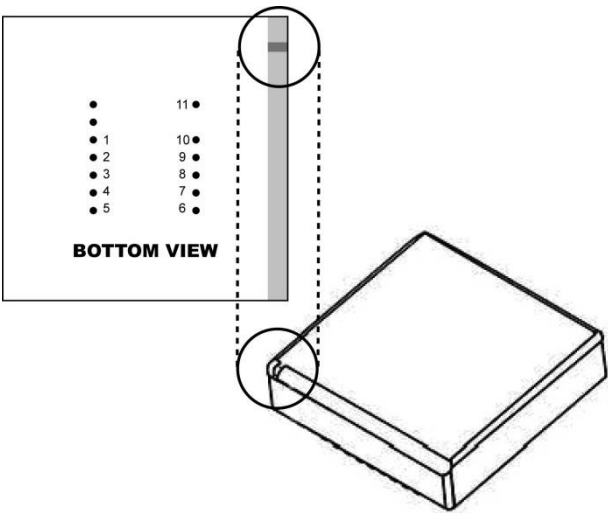
Start and end sequences for magnetic timing



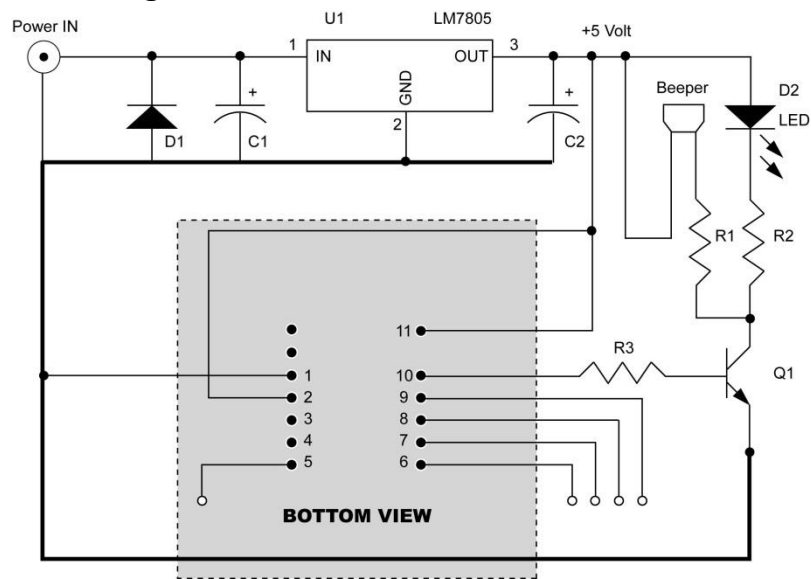
Data timings for magnetic emulation



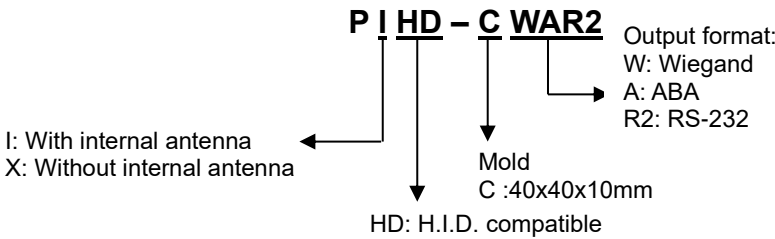
● Out looking



● Circuit diagram



● Ordering information



Specifications are subject to change without any notice for further