EM9916AE 125KHZ Reader User Menu

General Features

. 125KHz carrier frequency
. Reading of amplitude-modulated transponders
. Efficient tag management
. Easy to build up a control system
The card with EM format is needed

Brief Description

. An RFID reader system
. Include A 10-cm diameter square antenna coil
. An external DC 12V voltage that provides 0.2A current power supply is needed.

This reader is supplied in a PCB board containing RF circuits, an 8-bit microcontroller and data output connections. Its main functions are driving the antenna, sending demodulated data into microcontroller, checking the input data code and processing output data format.

The following is Data Connection of Reader:

Number	color	Name	Description
1	BLACK	GND	GND
2	RED	DC +12V	DC +12V POWER
3	GREY	OK_SD	NC
4	YELLOW	D0	WEIGAND 26 DATA0
5	GREEN	D1	WEIGAND 26 DATA1
6	WHITE	LED	LED Control line, the color of the light from red to green as LED pulled down.
7	BLUE	BEEP	Buzzer Control line, the buzzer beep as BEEP pulled down.
8	BROWN	RS232	Rs232 data line

The Output data format

1.Wiegand Format 26bit

Bit	0	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
Note	P	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	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

Note: E: Summed for even parity O: Summed for odd parity LSB: Normal 24
P: Parity (EVEN or ODD MSB: Normal 01 D: Data code for card: the data will use the last 24 data bits of card

SYMBOL	Parameter	Limits Min.	Limits Max.	Type	UNITS
THD	Hold Start data read delay time	0.5	2	0.55	mS
TDW	Data Pulse width time	20	100	48	μS
TIW	Data Pulse interval time	0.2	4	2	mS
TSN	Data Send delay time	5	-	80	mS
TCS	Hold and Start read time	40	120	100	mS
TA	Total scan time	100	-	-	mS

2. RS232 Interface format

This transceiver unit is designed as RS232–ready. Please follow these notes:
The connection of RS232 interface is ready in the PCB schematic, please refer to the instruction to connect.
Interface of a computer that accepts the RS232 data can use the Windows application software "Hyper Terminal" which defines the COM port and sets these data:
a. Data baud rate: 9600BPS b. Begin bit: 0 c. Parity check: NONE
d. Data bit: 8 bits e. Top bit: 1 f. Low control : HARDWARE.
RS232 interface software can transfer the 40 bits data (i.e., 64 bits excluding 9 bits header and 15 bits parity) into a 10 digits ASCII code.
For example:
B0–,B9–,B14–,B19–,B24–,B29,–,B34–,B39–,B44–,B49–,B54–,B59-B63,111111111,10001,01001,11000,00101,10100,01100,11101,00011,10010,01010,11010.Refer the data format table:

1	1	1	1		1	1	1	1	1
				ROW0=8	1	0	0	0	PD0=1
				ROW1=4	0	1	0	0	PD1=1
				ROW2=C	1	1	0	0	PD2=0
				ROW3=2	0	0	1	0	PD3=1
				ROW4=A	1	0	1	0	PD4=0
				ROW5=6	0	1	1	0	PD5=0
				ROW6=E	1	1	1	0	PD6=1
				ROW7=1	0	0	0	1	PD7=1
				ROW8=9	1	0	0	1	PD8=0
				ROW9=6	0	1	0	1	PD9=0
					PC1=1	PC1=1	PC2=0	PC3=1	0

From the RS232 interface in the computer will get the 11 digits ASCII code are: 38H、34H、43H 32H、41H、36H、45H、31H、39H、35H、0DH
Dimension: Reader measure: two levels 104.6mm×65.4mm(length×width)
Cable measure: 8 wires and the length is 25cm.
Warning: Don't contact OK_SD/D0/D1 with DC+12V or RS232 when power on.