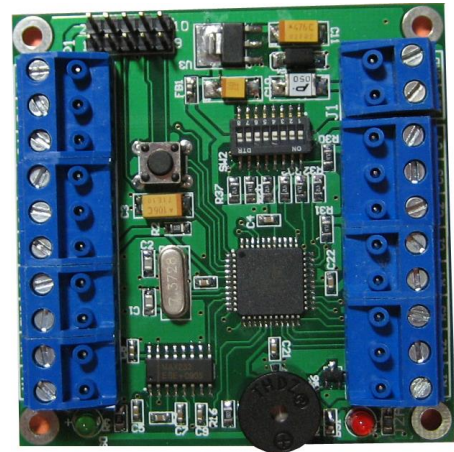


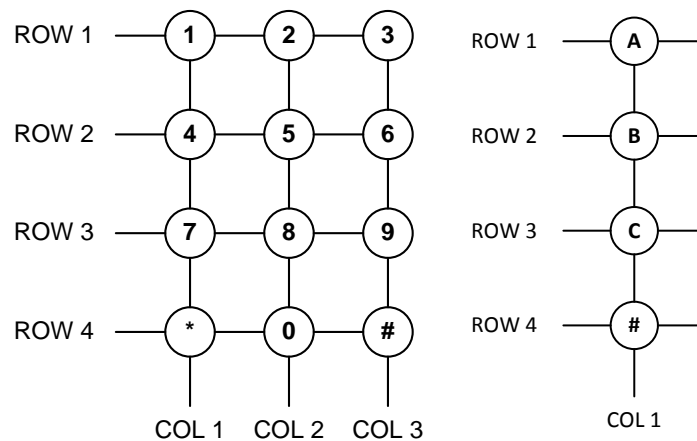
Keypad to Wiegand Converter

MA1403-26B is a Keypad to Wiegand converter. The converter supports 4x3 matrix keypads, or 4x1 keypads. When key press is detected, the key codes are accumulated until the '#' code is pressed. The accumulated digits, from 1 to 6 digits for 4x3 keypads, and from 1 to 12 digits for 4x1 keypads, is converted and output as a 26-bit Wiegand data. If the time elapsed between two key presses is longer than 5 seconds, the accumulated key codes are discarded.



1. Specification

1.1 Keypad Circuit Diagram

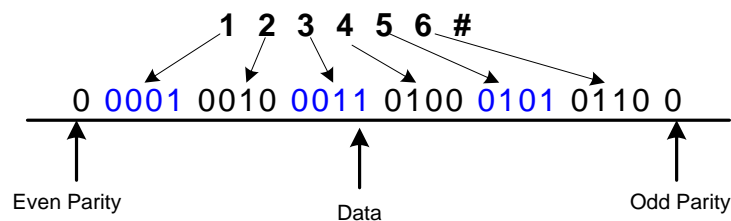


1.2 Conversion Format (4x3 keypads)

Key Code	Binary (4-bit)
'0'	0000
'1'	0001
'2'	0010
'3'	0011
'4'	0100
'5'	0101
'6'	0110
'7'	0111
'8'	1000
'9'	1001

6-Digit Key Press:

Wiegand Output (26-Bit):

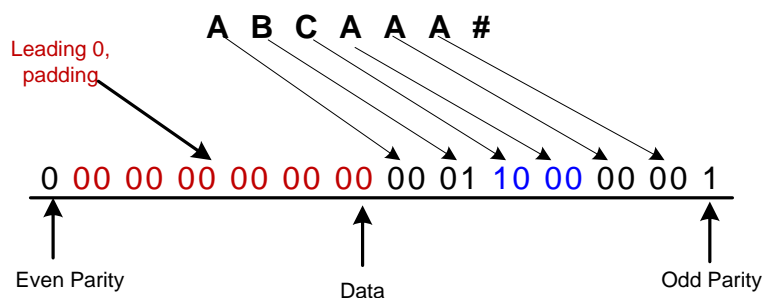


1.3 Conversion Format (4x1 keypads)

Key Code	Binary (4-bit)
'A'	00
'B'	01
'C'	10

6-Digit Key Press:

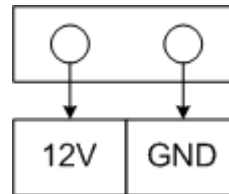
Wiegand Output (26-Bit):



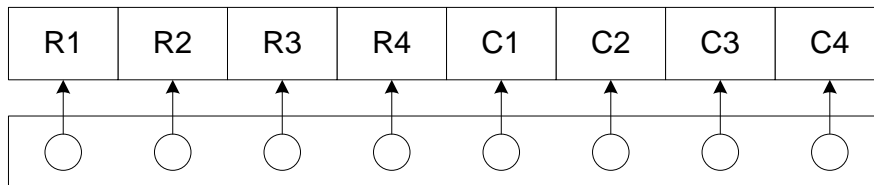
2. Connectors:

2.1 Connector J1

Connector J1 Port Assignment	
Designator	Description
12V	12V DC Power Supply In
GND	Power Supply Ground

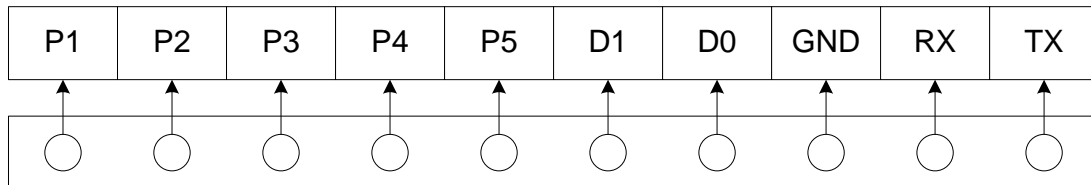


2.2 Connector J2A



Connector J2A Port Assignment	
Designator	Description
R1	Keypad row 1
R2	Keypad row 2
R3	Keypad row 3
R4	Keypad row 4
C1	Keypad column 1
C2	Keypad column 2
C3	Keypad column 3
C4	Keypad column 4

2.3 Connector J2B



Connector J2A Port Assignment	
Designator	Description
P1	General purpose port 1
P2	General purpose port 2
P3	General purpose port 3
P4	General purpose port 4
P5	General purpose port 5
D1	Wiegand Data 1
D0	Wiegand Data 0
GND	Ground
RX	RX data to terminal
TX	TX data from terminal

2.3.1 Alternate Function of General Purpose Port 1

When configured, port P1 can be used to drive externally connected LED. Please refer to Figure 1 for the connection diagram.

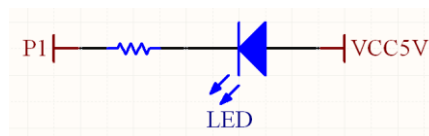


Figure 1

3. Mechanical Drawing

