RS232-to-Wiegand Bidirectional Dual Wiegand Port Converter (MA1505)

MaCaPS MA1505 is a RS232-to-Wiegand Bidirectional Dual Wiegand Port converter. The converter can automatically convert Wiegand input from 3-bit up to 42-bit to a formatted ASCII string. When the formatted ASCII string is used as input to the RS232 port of another MA1405 unit, the formatted ASCII string is reconverted to Wiegand format output.

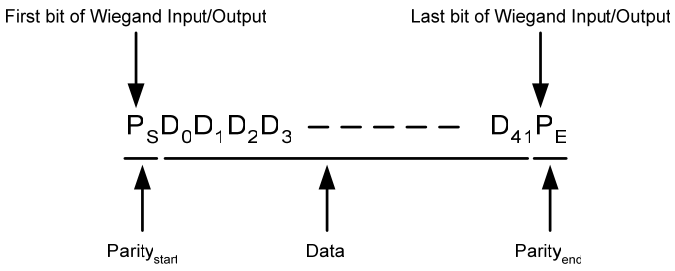
1 Specification:

1.1 Communications:

9600 BPS ASYNC, 8 bits, 1 Stop, No Parity.

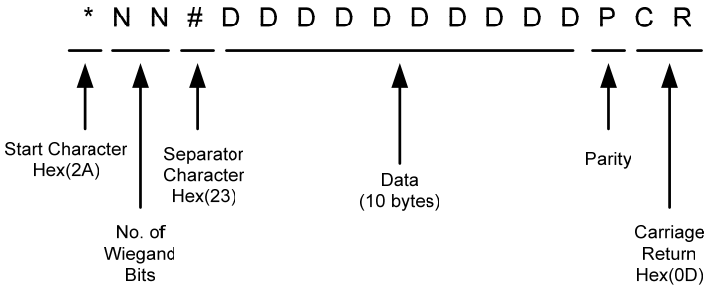
1.2 Wiegand Input/Output Format

The format of the Wiegand bit stream is shown as follows:



1.3 RS232 Input/Output Format

The format of the RS232 is in the form of 16-byte ASCII string (In Hex format) as follow:

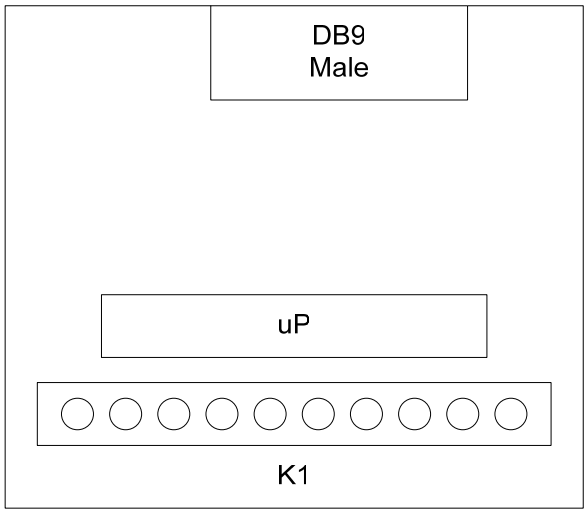


The **Parity Character P** is decoded as follows:

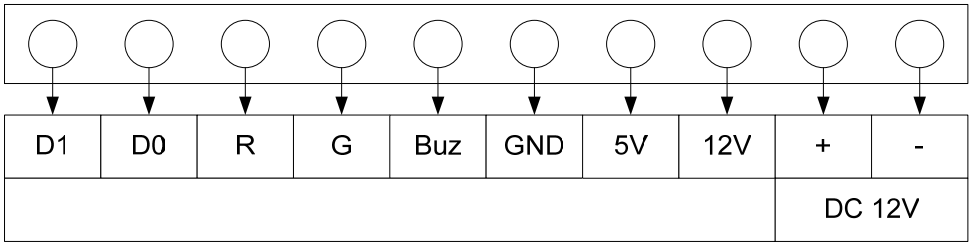
RS232 Side	Wiegand Side	
P	**P_S**	**P_E**
0	0	0
1	0	1
2	1	0
3	1	1

2 Pin Connectors:

The schematic of the MA1405 is shown in the following figure.



2.1 Connector K1



D1: Wiegand Data 1 (Wiegand In Port)
D0: Wiegand Data 0 (Wiegand In Port)
R: Wiegand Data 1 (Wiegand Out Port)
G: Wiegand Data 0 (Wiegand Out Port)
GND: Ground
5V: 5V DC output
12V: 12V DC output
+: Power Supply +12V In
-: Power Supply Ground

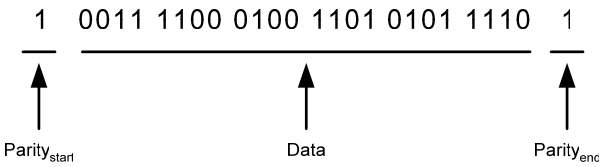
2.2 DB 9 Male

1. DCD Unused
2. TX data from converter
3. RX data from terminal
4. DTR Unused
5. Ground
6. DSR Unused
7. RTS Unused
8. CTS Unused

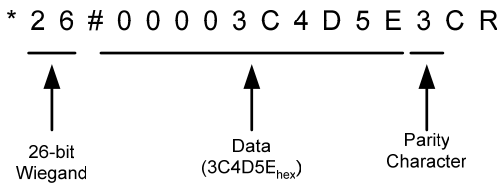
3 Example

3.1 Wiegand-to-RS232

Input: Wiegand (26-bit)



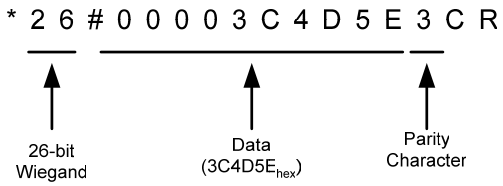
Output: 16-byte ASCII string from RS232 port



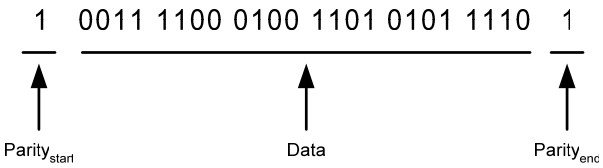
3.2 RS232-to-Wiegand

This is a reversed process of Wiegand-to-RS232

Input: 16-byte ASCII string to RS232 port



Output: Wiegand (26-bit)



* All specifications are subject to change without any notice.

