UHF860 EPC RFID Reader

INTRODUCTION

UHF860 is anew extended long range UHF EPC RFID reader featuring compact dimension and read range up to 5 meters performance. The unit will run with an antenna and making it particularly suited to the long range access control, car parking and through-wall reading applications for tracking systems.

FEATURES

- Flexibility and interoperability to configure item tracking applications such as warehouse logistics, Asset management or Pallet tracking.
- Configurable for European ETSI(865~869MHz) regulatory environments.
- Compliant to ISO 18000-6C, EPC Class1 Gen2.
- Weather resistance.
- User convenience.
- Easy to install.

SPECIFICATIONS

OPERATING

UHF860 Reference Standards	ISO 18000-6C , EPC Class1 Gen2
Frequency	867MHz
Output Power	Max 27dbm (0.5W)
Interface	RS232C interface : Default 115200 bps, (8,N,1) RS485 interface : Default 115200 bps, (8,N,1) Wiegand interface : Default Wiegand 26 Bits
Power Input	9 VDC , Standby Current 650 mA@9VDC, Limit Current 1.7A
Read range	Up to 5 meters tags and antenna dependent
Dimensions	Length : 114 mm / Width : 97 mm / Height : 21 mm (Include Terminal)
Weight	170 gm (Include Terminal)
Connectors	SMA : for Antenna (Female Reverse) 14 pin terminal 3.5 mm : VCC * 1 PIN NC * 1 PIN GND * 2 PIN RS232 Interface * 2 PIN RS485 Interface * 2 PIN DO * 2 PIN DI * 4 PIN

ENVIRONMENTAL

Temperature	Operating : -10 ℃ to 60 ℃ Storage : -20 ℃ to 70 ℃
Humidity	Operating : 10 % to 90 % noncondensing Storage : Up to 90% noncondensing

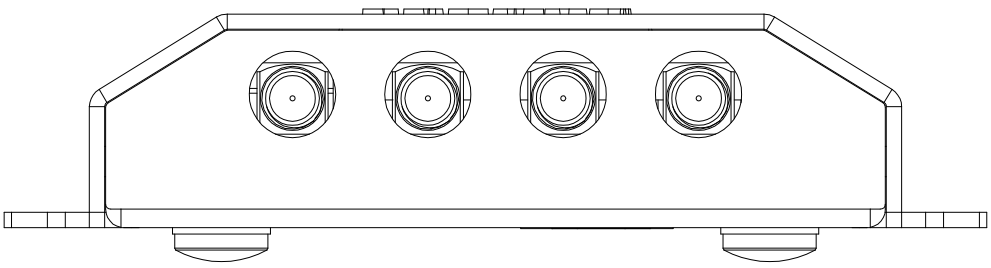
I/O Pin Assignment

VCC	Power
GND	Power Ground
TX	Transmitted Data
RX	Received Data
RS485 +	RS485 Differential Signal (+)
RS485 -	RS485 Differential Signal (-)
NC	NC
DI 1	Digital Input 1
DI 2	Digital Input 2
DI 3	Digital Input 3
DI 4	Digital Input 4
DO 1	Digital Output 1 / Wiegand Data 0
DO 2	Digital Output 2 / Wiegand Data 1
GND	Power Ground

LED Display Status

Status	Orange LED	Red LED	Green LED
Power ON	ON	OFF	ON
Standby	ON	OFF	ON
Read ok	ON	Blinking once	ON
Tag in the area (GUI mode)	ON	Blinking once	ON
Tag in the area (Standalone mode)	ON	Blinking continuously	ON
GUI Mode	ON	OFF	Blinking continuously
ISP Mode	ON	OFF	Blinking continuously

Antenna Channel



CH1	CH2	CH3	CH4

Data Structure (Serial ASCII)

STX (02 HEX)	DATA (28 Digital)	CR	LF	ETX (03 HEX)

The start character is factory defined as an 'STX' (02 HEX). This is followed by 28 Hex characters (for ISO18000-6C EPC Class1 Gen2)of data . The CR\LF characters serve to bring the received screen text back to the left hand side and on the line below after the data bytes have been sent. The 'ETX' (03 HEX) character denotes the end of the current transmission.

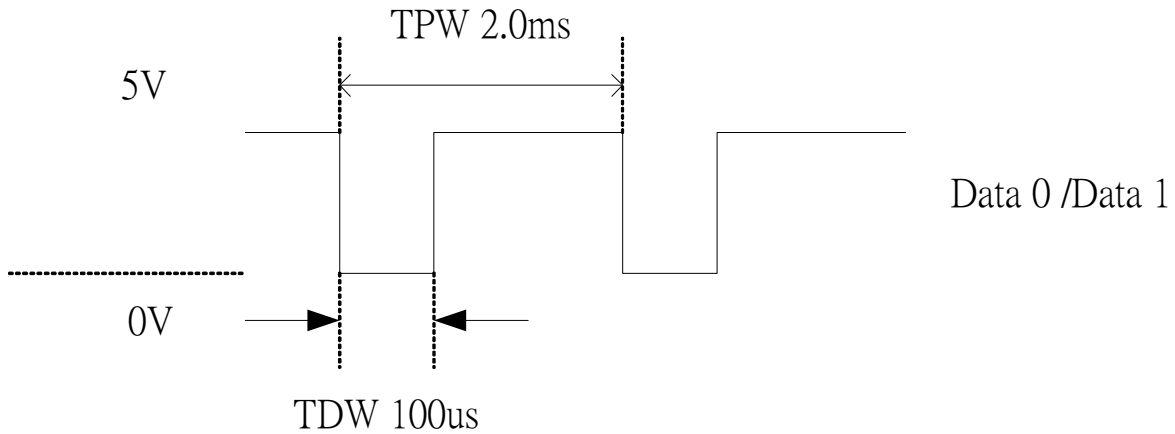
Data Structure (Wiegand Format-26 Bit ~ Maximum 114 Bits)

Bit 0	Bit 1~12	Bit 13~25	Bit 26
Parity	C	C	Parity
P	Even	-	P
	-	Odd	P
SUMMED FOR EVEN PARITY (E)		SUMMED FOR ODD PARITY (O)	

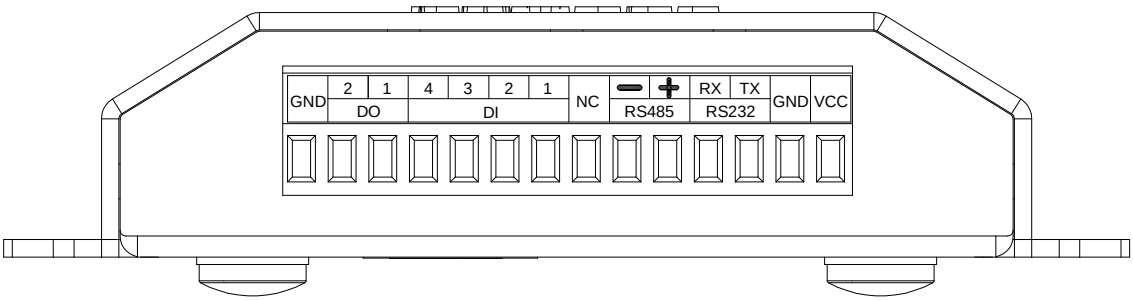
Note :

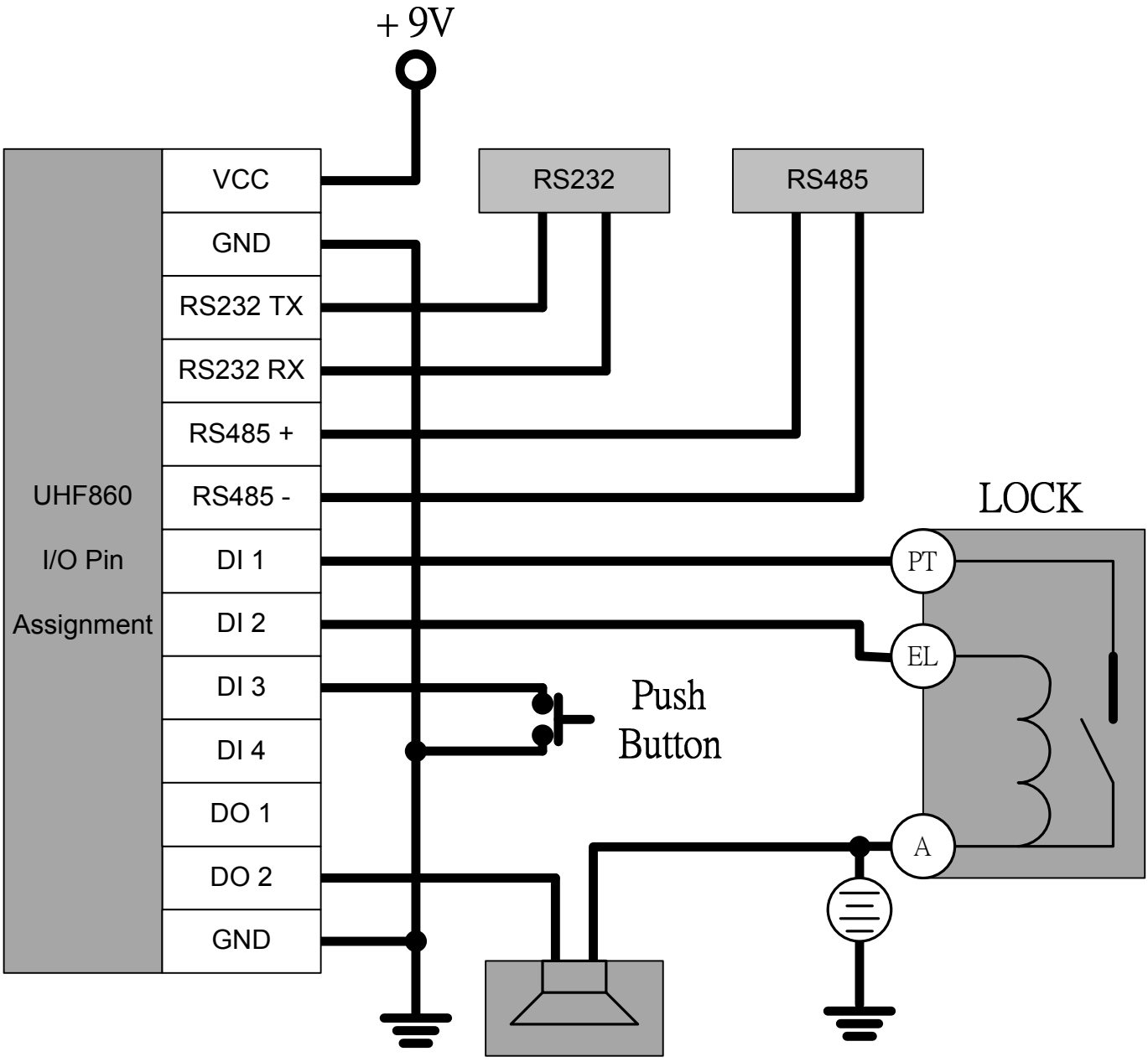
P	Parity (Even or Odd) Start Bit and Stop Bit
C	Card Data
SYRDSSW1-W26	Site bits from Card (24 bits Card Data)
MSB	Normal 01
LSB	Normal 24

Wiegand Data Timing Specification
Pulse Interval (TPW)=2.0mS +/- 3%
Pulse Width (TDW)=100uS +/- 3%

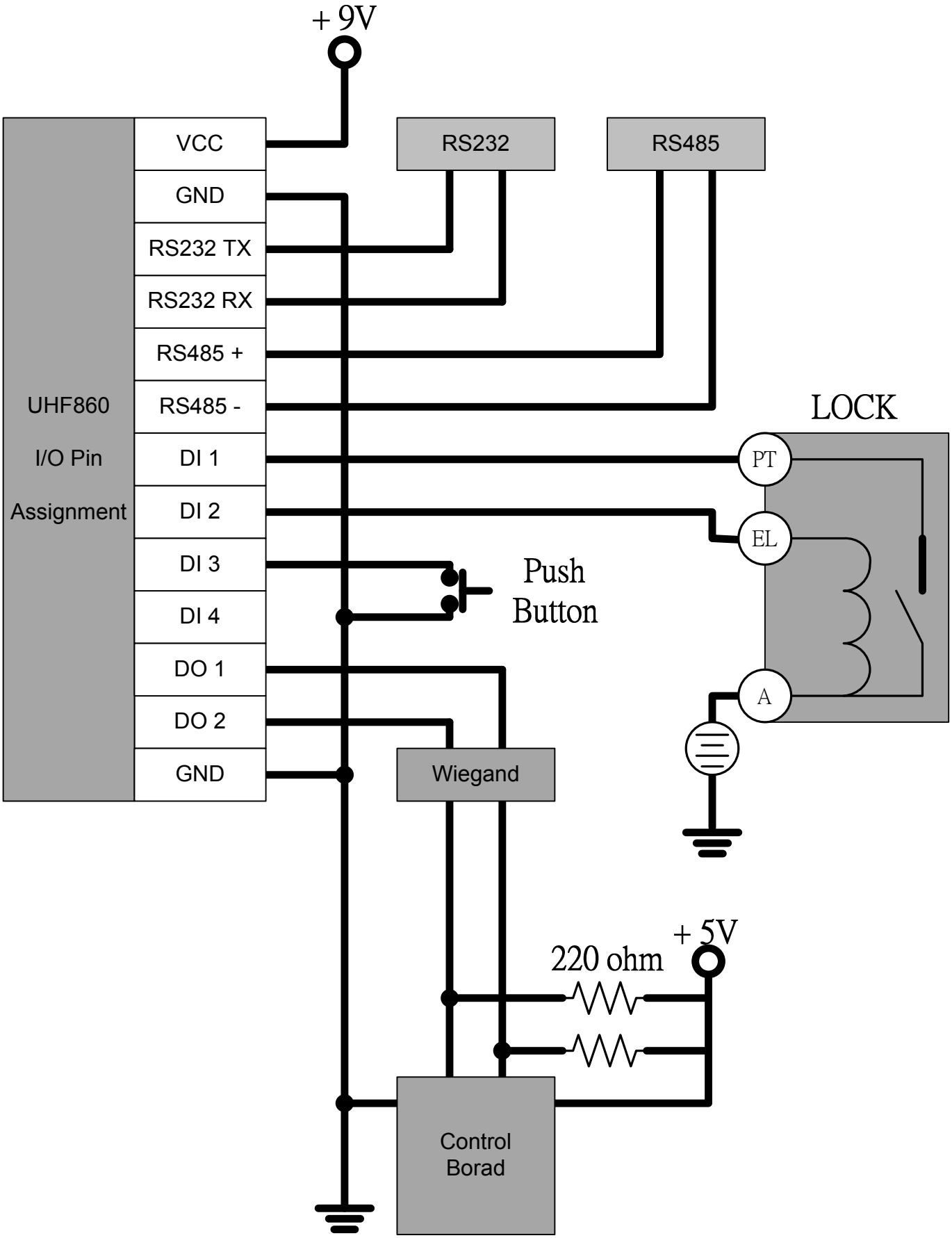


Application 1





Application 2



Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:
. Reorient or relocate the receiving antenna.
. Increase the separation between the equipment and receiver.
. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
. Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.