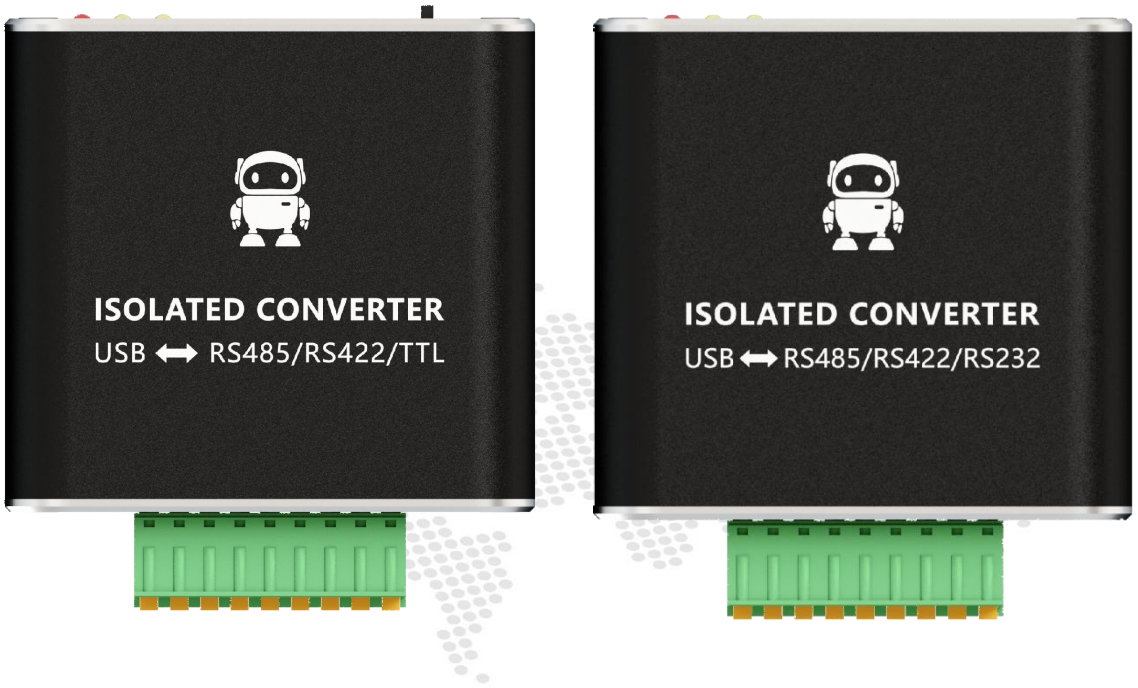
EBYTE

Chengdu Ebyte Electronic Technology Co.,Ltd

Wireless Modem

User Manual



E810-U16 & E810-U17 series Manual

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1.Product Introduction

The E810-U16 and E810-U17 series are high-performance, compact, fully isolated, multi-functional USB-to-serial adapters designed by Chengdu Ebate Electronics Technology Co., Ltd. for engineers, developers, and electronics enthusiasts. The E810-U16 series supports USB to RS485/RS422/TTL conversion and supports 1.8V, 2.5V, 3.3V, and 5V TTL level switching, offering excellent compatibility. The E810-U17 series supports USB to RS485/RS422/RS232 conversion.



1.1 Product Features

- Supports Type-C interface connection;
- It supports different interface types and baud rate ranges to meet different use cases and needs;
- It supports a maximum communication baud rate of 12Mbps to meet high-speed data transmission requirements (see parameter comparison for details).
- The E810-U16 series products support four TTL levels: 1.8V, 2.5V, 3.3V, and 5V, which can be quickly switched via a DIP switch.
- Supports indicator lights to show device power and communication status;
- Fully compatible with mainstream operating systems including Windows, Linux, and macOS;
- Supports signal and power isolation;
- Industrial-grade design, operating temperature: -40℃ ~ 85℃;

1.2 Parameter comparison

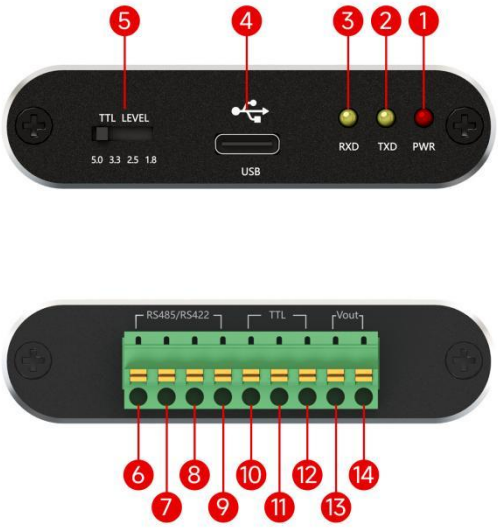
The specifications of the E810-U16 and E810-U17 series products are compared as follows:

	E810- U16	E810- U16C	E810- U16H	E810- U17	E810- U17C	E810- U17H
Interface type	Type-C , RS485, RS422, TTL			Type-C , RS485, RS422, RS232		
RS485 baud rate (bps)	300 ~ 3M	300 ~ 6 M	300 ~ 12M	300 ~ 3M	300 ~ 6 M	300 ~ 12M
RS422 baud rate (bps)	300 ~ 3M	300 ~ 6 M	300 ~ 12M	300 ~ 3M	300 ~ 6 M	300 ~ 12M
TTL baud rate (bps)	300 ~ 3M	300 ~ 6 M	300 ~ 12M	-	-	-
RS232 baud rate (bps)	-	-	-	300 ~ 460 K	300 ~ 460 K	300 ~ 460 K
Data bits	7, 8	5, 6, 7, 8	7, 8	7, 8	5, 6, 7, 8	7, 8
Stop bit	1, 2					
Check bit	NONE , ODD , EVEN , MARK , SPACK					
Operating temperature and humidity	-40 ~ +85℃, 5% ~ 95%RH (non-condensing)					
Storage temperature and humidity	-40 ~ +105℃, 5% ~ 95%RH (non-condensing)					
Product dimensions (mm)	68×78.3×18					

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1.3 Interface Description



E810- U16/ E810- U16C/ E810- U16H

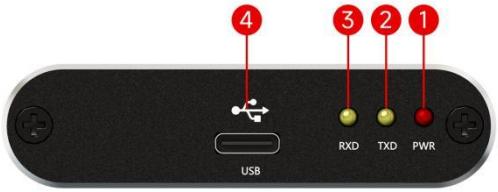
The hardware interface is described as follows:

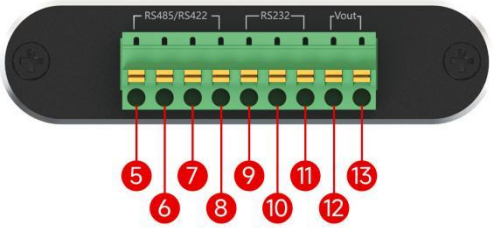
	pin	illustrate
1	PWR	The power indicator light (red) is normally on.
2	TXD	The data transmission indicator light (yellow) flashes when data is being transmitted.
3	RXD	The data reception indicator light (yellow) is flashing when data is being received.
4	USB	Standard Type-C interface, connects to computer
5	TTL LEVEL	TTL level selection: Select TTL level via DIP switch.
6	T+/A	RS422 T+ interface / RS485 A interface communicating via RS422 , it connects to the external R+ terminal; when communicating via RS485 , it connects to the external A terminal.
7	T-/B	RS422 T-interface / RS485 B-interface communicating via RS422 , it connects to the external R- terminal ; when communicating via RS485 , it connects to the external B terminal.
8	R+	RS422 R+ interface, for connecting to an external T+ terminal during RS422 communication .
9	R-	RS422 R-interface, for connecting to an external T- terminal during RS422 communication .
10	GND	TTL GND interface
11	T	The TTL TXD interface connects to an external RXD terminal during TTL communication.
12	R	The TTL RXD interface connects to an external TXD

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		terminal during TTL communication.
13	-	Power output negative
14	+	Power supply output is positive; output voltage: DC 5V; maximum output current: 150mA





E810- U17/ E810- U17C/ E810- U17H

The hardware interface is described as follows:

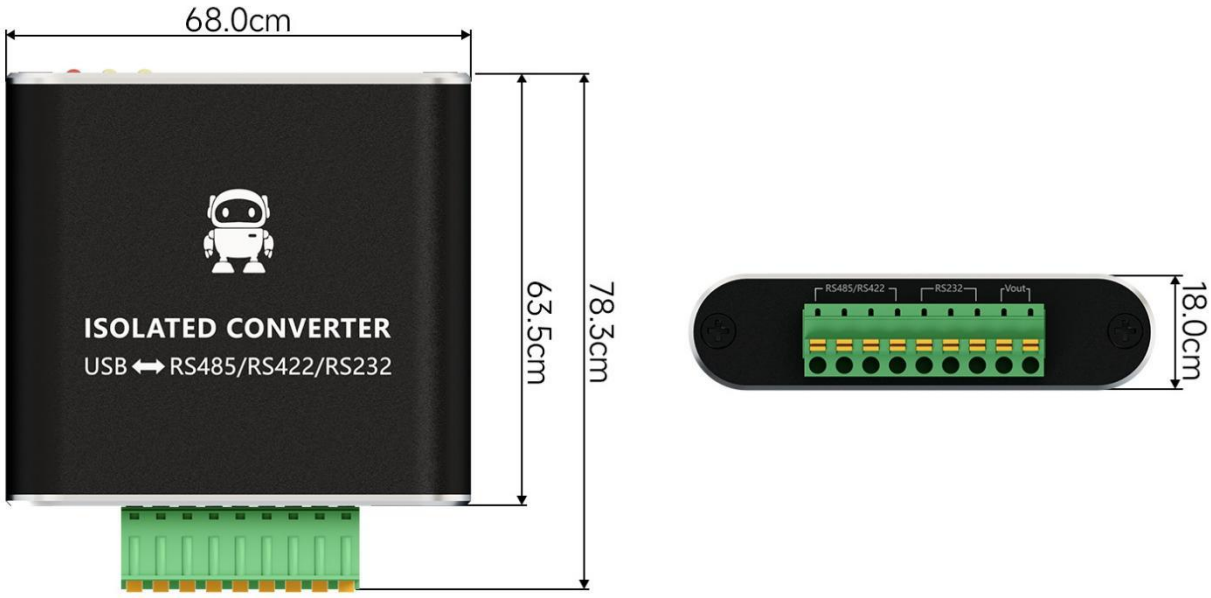
	pin	illustrate
1	PWR	The power indicator light (red) is normally on.
2	TXD	The data transmission indicator light (yellow) flashes when data is being transmitted.
3	RXD	The data reception indicator light (yellow) is flashing when data is being received.
4	USB	Standard Type-C interface, connects to computer
5	T+/A	RS42 2 T+ interface / RS485 A interface communicating via RS422 , it connects to the external R+ terminal; when communicating via RS485 , it connects to the external A terminal.
6	T-/B	RS42 2 T-interface / RS485 B-interface communicating via RS422 , it connects to the external R- terminal ; when communicating via RS485 , it connects to the external B terminal.
7	R+	RS42 2 R+ interface, for connecting to an external T+ terminal during RS422 communication .
8	R-	RS42 2 R-interface, for connecting to an external T- terminal during RS422 communication .
9	GND	RS232 GND interface
10	T	RS232 TXD interface, connected to external RXD terminal for TTL communication.

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11	R	RS232 RXD interface, connected to an external TXD terminal for TTL communication.
12	-	Power output negative
13	+	Power supply output is positive; output voltage: DC 5V; maximum output current: 150mA

1.4 Dimensional Drawing



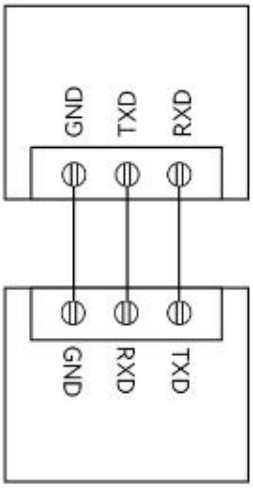
Note: The E810-U16 and E810-U17 series products have the same dimensions.

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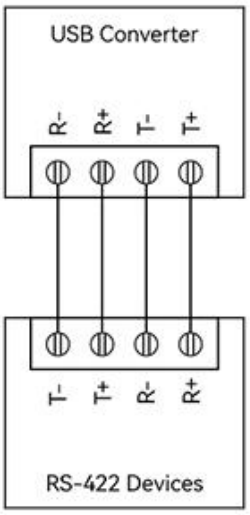
2.Communication Connection Diagram

2.1 USB to RS232/TTL

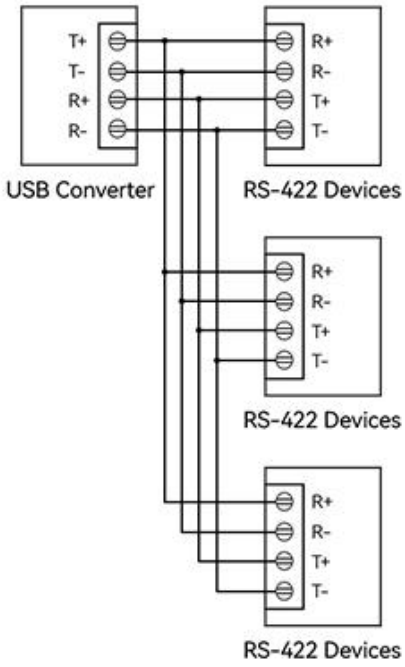


2.2 USB to RS422 communication

1、RS-422 point-to-point/four-wire full duplex



2、RS-422 point-to-multipoint/four-wire full duplex

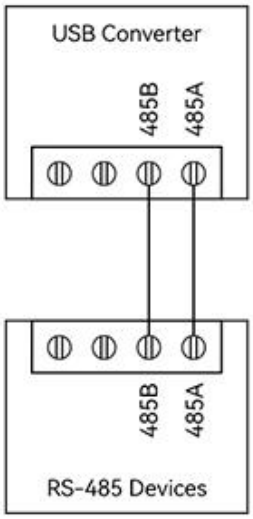


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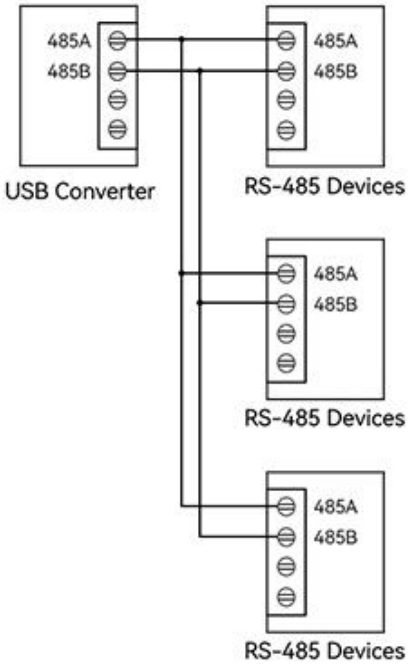
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2.3 USB to RS485 communication

1、RS-485 point-to-point/two-wire half-duplex



2、RS-485 point-to-multipoint/two-wire half-duplex



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Revision History

Version	Revision Date	Revision Notes	maintainer
1.0	2026-04-23	Initial version	ZYD

About Us

Sales Hotline : 4000-330-990

Official website: www.ebyte.com

Company Address: Building B5, No. 199, West District Avenue, High -tech West Zone, Chengdu, Sichuan Province

成都亿佰特电子科技有限公司
Chengdu Ebyte Electronic Technology Co.,Ltd.

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