Model:UT-2112

RS-232 9 Bits Full Signal Isolated Converter

Datasheet

UTEK TECHNOLOGY (SHENZHEN) CO., LTD.

Add: Floor 8-10, Building 7, Skyworth Innovation Valley, No. 8, Tangtou No.1 Road, Shiyan Street, Shiyan Old Street, Bao 'an District, Shenzhen

Tel：+86-755-81202008

Fax：+86-755-27886083

Http：www.uotek.com

1. Overview

UT-2112 is a RS-232 optoelectronic isolator. It adopts advanced optoelectronic isolation technology, maximally protects RS-232 serial interface devices from hash environment damage, such as ground loop circuit voltage, surge, lightning, ESD, hot-plug and electromagnetic interference, etc. The damage of RS-232 port is related to communication hardware. The reasons 90% are converged on above mentioned. For example, device A connects device B with RS-232 port, if the voltage difference of ground line between A and B is up to 50V (usually up to 80V), RS-232 port will not working normal; the isolated voltage of RS-232 port will reach 2,500Vrms instantly, together with 500VDC peak voltage difference; it also soaks in ESD and electromagnetic interference, so as to protect RS-232 port. The optoelectronic isolation technology is fully isolating the electrical devices and ground loop circuit on both sides; it converts the electrical signal to optic signal, then transmits the signal to another side, finally converts it back to electrical signal. This protects the communication device from ground loop circuit and surge interference, which greatly improve the reliability and stability of the communication system.

2. Major Functions & Features

- Supports RS-232 9 Bits optoelectronic isolator

3. Technical Parameters

- Standards: EIA RS-232, CCITT V.24 asynchronous protocol
- Connector: DB9 on both sides
- Transmission mode: Asynchronous, full-duplex, full transparent
- Isolated voltage: 2,500Vrms impulse or 500VDC
- Baud rate: 300BPS-115,200BPS
- Input voltage: DC9V-48V
- Dimension: 113x55x25mm
- Weight：150g
- Operating temperature：-40 ~ 85℃, Relative humidity 5% to 95%

4. Hardware definition and initial settings

RS-232C DTE Pin assignment

DB9 female type (PIN)	RS-232C Signal

1	GND
2	Sending data SOUT (TXD)
3	Receiving data SIN (RXD)
4	Data terminal preparation DTR
5	Signal ground GND
6	Data device preparation DSR
7	Request to be sent RTS
8	Clear send CTS
9	Ringing instructions RI

RS-232C DCE Pin assignment

DB9 Pin type (PIN)	RS-232C Signal
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3	Receiving data SOUT (TXD)
4	Data terminal preparation DTR
5	Signal ground GND
6	Data device preparation DSR
7	Request to be sent RTS
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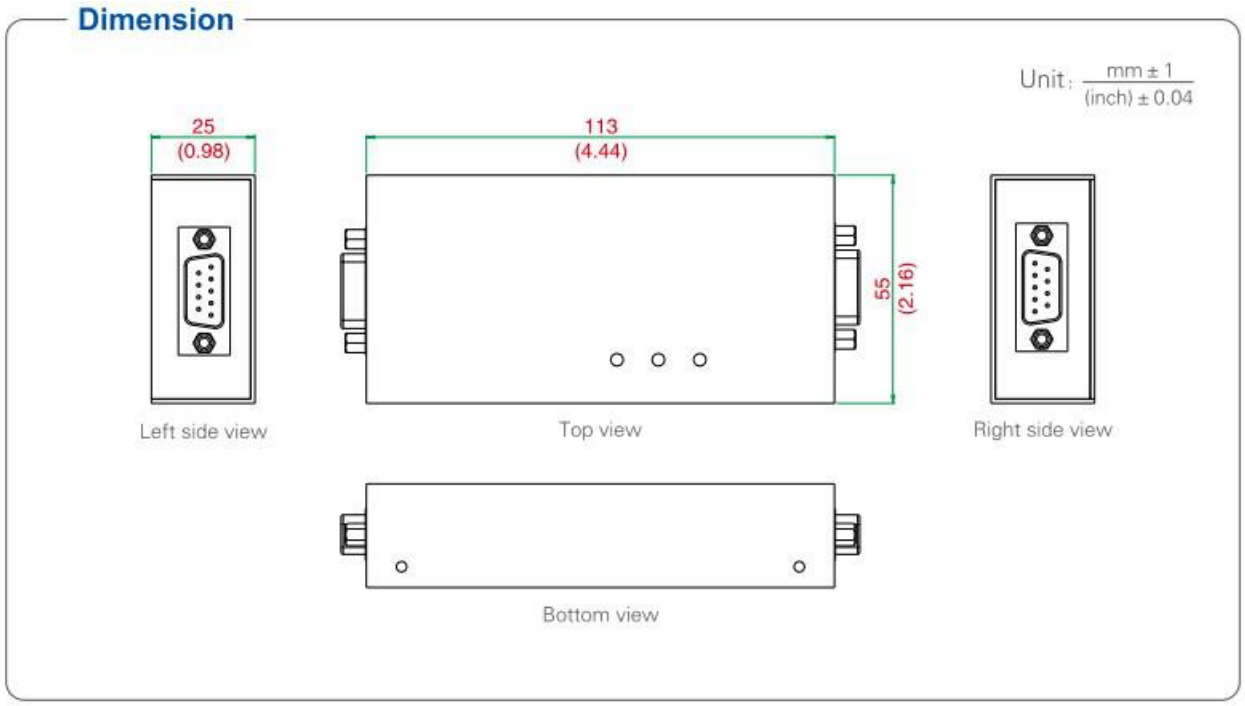
9	Ringing instructions RI

5. Product view（Appearance）

6.Structure Dimensions



Ordering

Model	Signal/Port		Protection	Baudrate	Environment			Power	
	RS-232	RS-232			Temperature		Humidity		
	DB9 female	DB9 male	RS-232		-25/70℃	-40/85℃	5-95%	Port-Powered	External Power
UT-2112	✓	✓	±15KV ESD	300bps-115.2kbps		✓	✓	✓	9-48VDC

Accessaries: Power adapter/serial cable