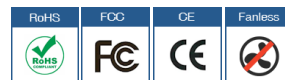


CTUS-039

USB Type-C to RS-485/422 Converter

Features:

- Operating Temperature: -40°C to 85°C
- 600 W Surge Protection and ± 15 kV ESD Protection
- Baud Rate: 300 - 921,600 bps



Introduction:

The CTUS-039 converter features a universal USB to RS-485/422 converter that operates without an external power supply. Fully compatible with USB, RS-485, and RS-422 standards, it converts single-ended USB signals into balanced differential RS-485 or RS-422 signals.

High-speed transmission is ensured by extremely low inter-electrode capacitance. The converter utilizes RJ-45 and DB9 male connectors and features a unique I/O circuit with zero-delay automatic transceiver switching. This allows the device to control data flow direction automatically without handshake signals (such as RTS or DTR). Additionally, the converter supports plug-and-play full-duplex (RS-422) and half-duplex (RS-485) modes without the need for jumper settings.

For added reliability, each wire is equipped with surge protection to guard against voltage spikes.

Specification:

Electrical & Interface Standards

Standard	Complies with USB 1.0, 1.1, 2.0, 3.1 and EIA RS-485, RS-422 standards.
USB Signals	VCC, DATA+, DATA-, GND, FG
RS-485 Signals	T/R+, T/R-, GND
RS-422 Signals	T/R+, T/R-, RXD+, RXD-, GND
Interface Protection	600 W Surge Protection, ± 15 kV ESD Protection

Data Communication Performance

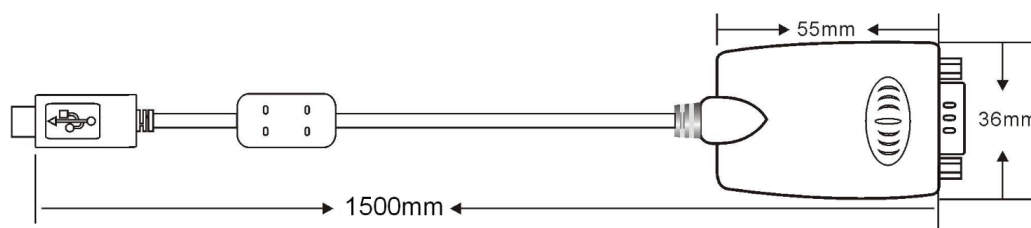
Baud Rate	300 - 921,600 bps
Operating Modes	Asynchronous, Point-to-point or Point-to-multipoint; 2-wire Half-duplex (RS-485), 4-wire Full-duplex (RS-422)
Direction Control	Integrated Automatic Data Direction Control Technology (ADDC)
Node Support	Supports connection of up to 32 RS-485 or RS-422 devices in Point-to-multipoint mode.
Transmission Distance	RS-485/422 Port: Up to 1,200m (at 9,600 bps), USB: 5m

Physical & Mechanical Specifications

Connectors	USB Type-C Male (USB), DB9 Male Connector (RS-485/422)
Housing	Screw-fixed Plastic Housing
Transmission Medium	Twisted-pair (UTP) or Shielded Cable (STP)
LED Indicators	Dedicated LEDs for Transmit (TXD) and Receive (RXD) status monitoring.
Dimensions (L × W × H)	55 mm × 36 mm × 18 mm

Cable Length	1.5 meters (1500 mm)
Environmental & System Requirements	
Operating Temperature	-40°C to 85°C
Relative Humidity	5% to 95% (non-condensing)
Power Supply	Operates without an external power supply (USB bus-powered).
OS Support	Win 2000/2003/2008/2012/XP/Vista/7/8/8.1/10/CE/Mac/Linux
Standards & Certifications	
EMC	
EMI	
EMS	
Safety	

Dimension Drawing:



Ordering Information:

CTUS-039	USB Type-C to RS-485/422 Converter, Screw-fixed Plastic Housing, 1.5 m Cable, Baud Rate: 300 - 921,600 bps, Supports connection of up to 32 RS-485 or RS-422 devices, Transmission Distance: RS-485/422 Port up to 1,200 m(at 9,600 bps), USB 5 m, Operating Temperature: -40°C to 85°C.
Other Models Are Available upon Request	