

USPTL4 & USOPTL4

USB to RS-422/485 Converters

PRODUCT INFORMATION

B&B ELECTRONICS

- ✓ **2 kV Isolation (USOPTL4)**
- ✓ **ESD Protection – 4 kV Contact, 8 kV Air**
- ✓ **High Retention USB Connector – 3.4 Lbs-Force**
- ✓ **USB 2.0 Full Speed Compatible (12 Mbps)**
- ✓ **RS-422/485 Data Rates up to 921.6 kbps**
- ✓ **USB Bus Powered**



This compact, isolated USB to RS-422/485 converter allows you to add a serial port to your USB only PC. The isolated version, USOPTL4, comes with two kilovolts of isolation and will protect your PC from hazardous ground loops. The compact size makes it perfect for field service use but it is also great for instrumentation and laboratory applications. Full speed (12 Mbps) USB 2.0 support allows connectivity with modern computer technology.

The serial port is a removable terminal block making wiring easy. It can handle standard RS-422/485 data rates up to 921.6 kbps.

Each unit comes with 1 meter USB cable and a driver disk. Drivers support Windows platforms up to Windows 7 in 32 and 64 bit implementations.

The converter comes in two formats - Standard and "Locked Serial Number." With the standard format, each unit has a unique USB serial number. The "Locked Serial Number" format uses the same USB serial number for all units with the same model number. The version you select depends on your application. **Standard** - every unit is assigned a unique COM port and a driver must be installed for each unit, ideal application: fixed locations. **Locked Serial Number** – Units with the same model number shares the same COM port. The driver only needs to be installed once for each model number. Ideal application: field service.

Our unique "high retention" USB connectors ensure your cable stays tight. No need for expensive proprietary cables that lock you in to a single vendor. They meet Class 1 Division 2 pull force requirements – 15 Newtons or 3.4 pounds-force – with a standard off the shelf cable.

Specifications

Serial Technology

RS-422	TDA(-), TDB(+), RDA(-), RDB(+), GND
RS-485 4-Wire	TDA(-), TDB(+), RDA(-), RDB(+), GND
RS-485 2-Wire Connector	Data A(-), Data B(+), GND
Data Rate	921.6 kbps
Isolation	2 kV (USOPTL4)

USB Technology

USB Compatibility	1.1 and 2.0 (at full speed)
Speed	12 Mbps (Full)
Connector	Type B – High Retention
Operating System	Windows 2000, XP (32/64 bit) Vista (32/64 bit), 7 (32/64 bit) 2003 & 2008 Server (32/64 bit)

Power

Source	USB Bus Powered
Power Consumption	Low Power Device (Less than 100 mA)

Indicators

TD / RD (RS-232)	Red LED
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Mechanical

Dimensions	3.5 x 1.7 x 0.8 in (89 x 43 x 21 mm)
Enclosure	IP 30, Plastic
Weight	6.7 oz (191 g)
MTBF	159,037 hours
MTBF Calc. Method	MIL 217F Parts Count Reliability

Environmental

Operating Temperature	0 to 70°C
Storage Temperature	-40 to 85°C
Operating Humidity	0 to 95% Non-condensing

Ordering Information

USPTL4	USB to RS-422/485 Converter
USPTL4-LS	USB to RS-422/485 Converter "Locked Serial Number"
USOPTL4	USB to Isolated RS-422/485 Converter
USOPTL4-LS	USB to Isolated RS-422/485 Converter "Locked Serial Number"

Approvals / Certifications			
Emissions	FCC Class B, CISPR Class B (EN55022:2006)		
CE	EN61000-6-1:2007	Generic Standards for Residential, Commercial and Light-Industrial Environments	
	EN61000-4-2:2008	(ESD)	+/-4kV Contact, +/-8kV Air
	EN61000-4-3:2006	(RI)	3V/m, 80-1000MHz; 1V/m, 1.3 to 2.7 GHz
	EN61000-4-4:2004	(EFT Burst)	+/-500 V
	EN61000-4-6:2005	(CI)	3 VRMS, 0.15 to 80 MHz