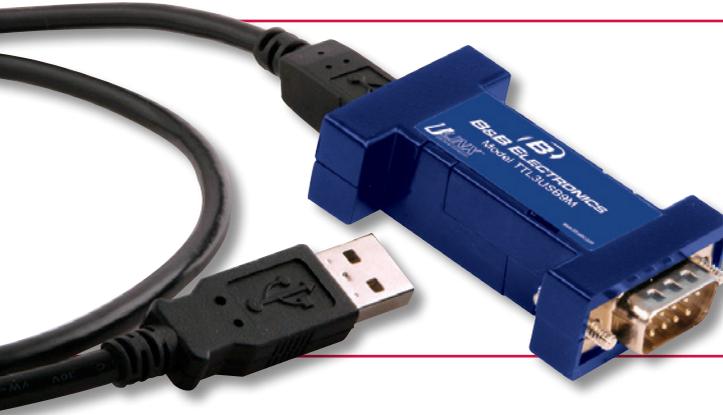


# USB to TTL Mini-Converters

TTL5USB9M & TTL3USB9M



## PRODUCT FEATURES

- Connect 5 & 3.3V TTL Devices to your USB Port
- Perfect for Field Service Applications
- Small – Fits easily into any laptop bag
- USB Port Powered
- USB 2.0 (12 Mbps) Compatible
- TTL Data rates up to 460.8 Kbps
- Supports Windows 98, ME, 2000, XP, Vista, 7 (32/64 bit), 8 (32/64 bit)

Universal Serial Bus (USB) has become the connectivity workhorse of today's PCs, replacing the familiar serial ports. However, many commercial and industrial devices still use the TTL interface. To connect these devices to modern PCs, you need a simple and reliable conversion solution. The TTL5USB9M and TTL3USB9M offer this solution in a space saving, USB Port powered package.

Simply install the drivers supplied on CD ROM and plug the converter into an available USB port on your computer or USB hub. The device will show up as an additional COM port in the Windows Device Manager which is fully compatible with your Windows applications. Choose the TTL5USB9M for 5V TTL and the TTL3USB9M for 3.3V TTL. Locked serial number versions are also available. A one meter USB cable is included.

## ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
TTL5USB9M	USB to 5V TTL Mini-Converter
TTL3USB9M	USB to 3.3V TTL Mini-Converter
TTL5USB9M-LS	USB to 5V TTL Mini-Converter (Locked Serial Number)
TTL3USB9M-LS	USB to 3.3V TTL Mini-converter (Locked Serial Number)

## ACCESSORIES

USBAMB-3F - 3 ft. (1 M) USB Cable (One Included)

## Locked Serial Numbers Explained

We configure our single-port USB to serial converters in two ways. In standard format, each product has a unique serial number. "Locked serial" format uses the same serial number that is associated with a model type.

If your converter will always be used with the same computer, the standard serialized model is all you need. If the converter is shared among several computers, like field service laptops, the locked serial number model lets you plug and play without having to worry about matching the two.

Description	Serialized	Locked Serial Number
Every unit is assigned a unique COM port	✓	-
Same type model numbers shares the same COM port	-	✓
Ideal applications	Fixed Locations	Field Service

When ordering Locked Serial Number versions, add a "-LS" to the item number. Serialized and Lock Serial Number versions sell for the same price.

# USB to TTL Mini-Converters

## TTL5USB9M & TTL3USB9M



### SPECIFICATIONS

#### SERIAL TECHNOLOGY

TTL	TD, RD, CTS, RTS, GND
Level	5V or 3.3V (See Ordering Information)
Connector	DB9 Male
Data Rate	Up to 460.8 Kbps

#### USB TECHNOLOGY

Connector	USB Type B Female
Standard	2.0 (Backward Compatible)
Data Rate	12 Mbps

#### POWER

Source	USB Port
Input Voltage	5 VDC
Consumption	~ 0.5 W (Low power device, draws less than 100 mA)

#### SOFTWARE

Driver CD	Windows 98, ME, 2000, XP, Vista, 7 (32/64 bit), 8 (32/64 bit)
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#### MECHANICAL

Dimensions	5.8 x 3.2 x 1.6 cm (2.3 x 1.3 x .6 in)
Enclosure	In-line mounted, plastic
Weight	0.23 lbs (104.3 g) with USB Cable

#### ENVIRONMENTAL

Operating Temp	32 to 158°F (0 to 70 °C)
Storage Temp	-40 to 185 °F (-40 to 85 °C)
Op Humidity	0 to 95 % (Non-condensing)
MTBF	

TTL5USB9M	1981564 hours
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TTL3USB9M	1981564 hours
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MTBF Method	Parts Count Reliability Prediction
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#### REGULATORY

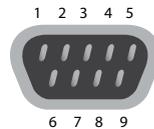
Approvals	FCC, CE
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#### CERTIFICATIONS

Test	Description		Test Level	Level
IEC 61000-4-2	ESD	Contact Air	±8kV ±15kV	±8kV ±15kV
IEC 61000-4-3	Radiated Immunity		3 v/m	3 v/m
IEC 61000-4-4	Burst (Fast Transient)	Serial USB	±500 ±500	±500 ±500
IEC 61000-4-6	Induced (Conductive) RFI	Serial USB	3 V RMS 3 V RMS	3 V RMS 3 V RMS
EN 55022/CISPR 22	Emissions		3 meters	Class B

#### PINOUT:

#### RS-232 DB9 MALE DTE CONNECTOR



PIN	DIRECTION	SIGNAL NAME
1	---	Not Used
2	Input	RD (Receive Data)
3	Output	TD (Transmit Data)
4	---	Not Used
5	N/A	SG (Signal Ground)
6	---	Not Used
7	Output	RTS (Request to Send)
8	Input	CTS (Clear to Send)
9	---	Not Used

### MECHANICAL DIAGRAM

