## **USB to TTL Miniature Converters**

TTL5USB9M, TTL5USB9M-LS, TTL3USB9M, TTL3USB9M-LS





#### **PRODUCT FEATURES**

- Connect 5 & 3.3V TTL Devices to Your USB Port
- TTL Data Rates Up to 460.8 Kbps
- Perfect for Field Service Applications
- Small Fits Easily Into Any Laptop Bag
- USB Port Powered
- USB 2.0 (12 Mbps) Compatible
- Supports Windows 98, ME, 2000, XP, Vista, 7 (32/64 bit), 8 (32/64 bit)
- Locked Serial Number model versions

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-C onverter (Locked Serial Number)

## **ACCESSORIES**

USBAMBM-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.

All product specifications are subject to change without notice.

TTL5USB9M & TTL3USB9M\_3316ds



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## **SPECIFICATIONS**

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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)		
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 Temperature	32 to 158 °F (0 to 70 °C)		
Storage Temperature	-40 to 185 °F (-40 to 85 °C)		
Operating Humidity	0 to 95% (Non-condensing)		
MTBF			
TTL5USB9M	1981564 hours		
TTL3USB9M	1981564 hours		
MTBF Method	Parts Count Reliability Prediction		
REGULATORY			
Approvals	FCC, CE		

CERTIFICATIONS	
2004/108/EC	Electromagnetic Compatibility Directive
2011/65/EU	Reduction of Hazardous Substances Directive
EN 55022: +AC	Information technology equipment - Class B RF Emissions
EN 61000-6-1	Generic immunity standard for residential, commercial and light-industrial environments
EN 61000-4-2	ESD Immunity
EN 61000-4-3: +A2	Radiated Immunity
EN 61000-4-4	EFT/Burst Immunity
EN 61000-4-6	RF Conducted Immunity

## **PINOUTS: 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**







