# USB to RS-232 Mini-Converters

232USB9M, 232USB9M-LS





#### **PRODUCT FEATURES**

- Connect RS-232 Devices to Your USB Port
- · Perfect for Field Service Applications
- · Compact, Space Saving Size
- USB Port Powered
- USB 2.0 (12 Mbps) Compatible
- RS-232 Data Rates Up to 921.6 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 RS-232 interface.

To connect these devices to modern PCs, you need a simple and reliable conversion solution. The 232USB9Mx offers 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. Locked serial number version is also available. A USB cable is included.

# **ORDERING INFORMATION**

MODEL NUMBER	DESCRIPTION
232USB9M	USB to RS-232 Mini-Converter
232USB9M-LS	USB to RS-232 Mini-Converter (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	-	V
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. 232USB9M 3316ds



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## **SPECIFICATIONS**

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SERIAL TECHNOLOGY	
RS-232	TD, RD, DCD, DTR, GND, SDR, RTS, CTS, RI
Connector	DB9 Male (DTE)
Data Rate	Up to 921.6 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	$\sim 0.5 \ W$ (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 Temp	32 to 158°F (0 to70 C°)
Storage Temp	-40 to 185 °F (-40 to 85 C°)
Op Humidity	0 to 95 % (Non-condensing)
MTBF	1946086 hours
MTBF Method	MIL 217F 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 equpment - 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**



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PIN	DIRECTION	SIGNAL NAME
1	Input	DCD (Receive Line Signal Detector)
2	Input	RD (Receive Data)
3	Output	TD (Transmit Data)
4	Output	DTR (DTE Ready)
5	N/A	SG (Signal Ground)
6	Input	DSR (DCE Ready)
7	Output	RTS (Request to Send)
8	Input	CTS (Clear to Send)
9	Input	RI (Ring Indicator)

## **MECHANICAL DIAGRAM**





