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With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## 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<br>Serial<br>Number |
|--|--------------------|----------------------------|
| Every unit is assigned a unique COM port         | ~                  | -                          |
| Same type model numbers shares the same COM port | -                  | ~                          |
| Ideal applications                               | Fixed<br>Locations | Field<br>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**

| SPECIFICATIONS    | SPECIFICATIONS  |  |  |
|-------------------|---|--|--|
| 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       | ~ 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-<br>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**



| 6 | 7 | 8 |  |
|---|---|---|--|

| 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**





