

## BB-485SD9RJ

### Port Powered RS-232/RS-485 Converter



#### Features

- Extend RS-232 data signals up to 1.2 km (4000 ft)
- Convert RS-232 TD and RD to RS-485 signals
- Automatic Send Data Control - no software drivers necessary
- Baud rates up to 115.2 kbps
- Powered from RS-232 handshake lines - no power supply required

#### Introduction

This port-powered, two channel converter allows your computer to communicate longer distances by converting TD and RD RS-232 lines to RS-485 signals. RS-485 also provides multi-drop capability.

Model BB-485SD9RJ features Automatic Send Data Control which enables the driver when data is present on the RS-232 side. Control of the driver is automatic at speeds up to 115.2 kbps.

The unit is powered from the RS-232 data and handshake lines whether the lines are high or low. No handshake line change is necessary to control the data lines. The RS-485 driver is enabled with each bit of data. The RS-485 receiver is disabled when the driver is enabled and is enabled when the driver is disabled.

Model BB-485SD9RJ is suitable for field service, where a power supply would add clutter, or anywhere you need compact, easy-to-use, economically priced serial conversion.

#### Automatic Send Data Control Explained

As operating systems become more complex, it is increasingly difficult to control an RS-485 driver with standard software and the RTS line. This is especially true in Windows and multi-tasking operating systems. With Advantech's Automatic Send Data Control circuit, driver control is in the converter hardware, so you do not have to work with software at all.

The circuit monitors data flow and enables the driver during transmission and automatically disables it when no data is being sent. There is no need to rework software or install new drivers. Most Advantech RS-232 to RS-485 converters and RS-485 serial cards include Automatic Send Data Control.

#### Ordering Information

Model No.	RS-232 Connector	RS-485 Connector	Output
BB-485SD9RJ	DB9 Female	RJ11	RS-485 2-wire

#### Accessories – Sold Separately

BB-9PAMF6 - DB9 Male to DB9 Female Adapter Cable, 1.8 m (6 ft)

### Specifications

Serial Technology	
RS-232 Connector	DB9 female
RS-485 Connector	RJ11
Data Rate	115.2 kbps, maximum
Biasing Resistors	4.7k Ohms
Power	
Source	Port-powering from RS-232 handshake lines
Power Consumption	40 mA, maximum
Mechanical	
Enclosure	Plastic
Dimensions	7.3 x 3.2 x 1.6 cm (2.9 x 1.3 x 0.6 in)
Weight	81.6 gm (0.18 lb)
Meantime Between Failures (MTBF)	
MTBF	897656 hours
Calculation Method	MIL 217F Parts Count Reliability Prediction
Wiring Information	
Refer to Quick Start Guide for wiring information, including terminal and pin identification. Available on website.	

Environmental	
Operating Temperature	0 to +70 °C (+32 to +158 °F)
Storage Temperature	-40 to +85 °C (-40 to +185 °F)
Operating Humidity	80 to 95%, non-condensing
Regulatory – Approvals / Standards / Directives	
Approvals	FCC Part 15, CISPR, CE
CE - Directives	2014/30/EU – Electromagnetic Compatibility Directive (ECD) 2011-65/EU – amended by (EU) 2015/863 Reduction of Hazardous Substances Directive (RoHS) 2012/19/EU – Waste Electrical and Electronic Equipment (WEEE)
CE - Standards	EN 55032 Class B – Electromagnetic Compatibility of Multimedia Equipment – Emission Requirements EN 55024 - Information Technology Equipment - Immunity Characteristics – Limits and Methods of Measurement
Standards - other	EN 61000-6-3 + A1 – Generic Emission Standard for Residential, Commercial and Light-industrial Environments (Class B)

### Mechanical Diagram

