

Port-Powered RS-232 to RS-422 Converter

Model BB-422LP25R

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PRODUCT FEATURES

- Extend RS-232 data signals up to 1.2 km (4,000 ft.)
- Converts RS-232 TD and RD to balanced RS-422 signals
- Baud rates up to 115.2 kbps
- Powered from RS-232 handshake lines - no power supply required

Model BB-422LP25R, RS-232 to RS-422 converter, converts unbalanced RS-232 signals to balanced RS-422 signals. The power used for this converter is derived from the Transmit Data line (pin 2) and the Handshake Control Lines (pins 4, 5, 6, 8, and 20). The converter can derive power from these lines when they are in the Positive or Negative voltage state. This permits the converter to be used in applications without regard to software control of the handshake lines.

If no handshake lines are available and all power must be derived from the Transmit Data line, the converter can drive limited cable lengths. A guide for this condition would be to drive only several hundred feet of transmission line and not to terminate the transmission line with a resistor of less than 1000 Ohms. When more handshake lines are available, longer lengths of cable can be driven. This converter has been tested at 115.2k baud with 1220 meters (4000 ft) of cable.

ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION	RS-232	RS-422
BB-422LP25R	RS-232 to RS-422 Converter	DB25 Female	DB25 Male

ACCESSORIES - sold separately

BB-232AMF5 - DB25 Male to DB25 Female, 1.8 m (6 ft)

BB-232AMM5 - DB25 Male to DB25 Male, 61.8 m (6 ft)

SPECIFICATIONS

SERIAL TECHNOLOGY	
Data Rate	115.2 kbps, maximum
RS-232 Connector	DB25 female (DCE device)
RS-422 Connector	DB25 male (EIA-530 pinouts)
Operation	RS-422, 4-wire
Signals	Converts 8 channels of RS-232 to RS-422
Biasing Resistors	4.7k Ohms
Termination	None
POWER	
Source	Port-powered from RS-232 handshake lines.
Power Input	7 - 12 VDC, Pin 12 (Gnd) and Pin 25 (+12)
MEANTIME BETWEEN FAILURES (MTBF)	
MTBF	562068 hours
MTBF Calc. Method	MIL 217F Parts Count Reliability Prediction

SPECIFICATIONS - continued

MECHANICAL	
Dimensions	5.4 x 6.2 x 1.5 cm (2.1 x 2.4 x 0.6 in)
ENVIRONMENTAL	
Operating Temperature	0 to +70 °C (+32 to +158 °F)
Storage Temperature	-40 to +85 °C (-40 to +185 °F)
Operating Humidity	0-95%, non-condensing
APPROVALS / CERTIFICATIONS	
FCC, CE	
CE - Directives	2014/30/EU – Electromagnetic Compatibility 2011/65/EU – amended by (EU) 2015/863 Reduction of Hazardous Substances (RoHS) 2012/19/EU – Waste Electrical and Electronic Equipment (WEEE)
CE - Standards	EN 55032 Class A – Electromagnetic Compatibility of Multimedia Equipment – Emission requirements EN 55024 – Information Technology Equipment – Immunity Characteristics – Limits and methods of measurement EN 61000-6-1 – Generic immunity standard for residential, commercial and light-industrial environments

All product specifications are subject to change without notice.
BB-422LP25R_3519ds

ADVANTECH

orders@advantech-bb.com
eSales@advantech-bb.com

Headquarters: 707 Dayton Rd, PO Box 1040 Ottawa, IL 61350 USA (815)433-5100 or (800)346-3119/Toll Free Fax (815)433-5104
European Office: Westlink Commercial Pk, Oranmore Co. Galway Ireland +353 91 792444 Fax +353 91 792445