Product Data Sheet

Bluebell BC323 Fibre Optic Transceivers

Description

The BC323 is a Transceiver module for the conversion of an 3G-SDI, HD-SDI, SD-SDI and ASI signals into fibre optical cable, and another separate fibre signal to electrical signal.. Each incoming signal is auto-sensed and then equalised and reclocked prior to conversion and transmission down a separate single optical fibre/BNC.

Each BC323 Transceiver is housed in a compact robust enclosure and is designed for outside broadcast and special events as well as studios. Power is provided via the optional PS12 unit supplied separately. The PS12 has an IEC mains inlet allowing easy adoption into standard equipment bays. The BC323 Transceiver has a 4 pin XLR allowing power from a variety of external DC sources in the range 4.5 to 17 V. The BC323's are extremely compact dual channel fibre optic converters that are perfectly suited to provide interference free transmission and for extending the range of electrical signals, particularly HD-SDI and 3G-SDI signals. Each channel can operate in non-reclocking mode and handles data rates from 50 Mb/s to 3 Gb/s. The BC323 Transceiver is available in singlemode, WDM and CWDM variants to suit any fibre application. The BC323 Transceiver can also be used to interface to any of the standard Bluebell cards and enclosures.

Product	SKU
BLUEBELL BC323TR FIBRE OPTIC TRANSMITTER	BLU-323TR
BLUEBELL BC323TR/M FIBRE OPTIC TRANSCEIVER	BLU-323TRM

Key Benefits

- Optical <-> electrical transceiver 3G-SDI, HD-SDI, SD-SDI, ASI
- Handles data rates from 50 Mb/s to 3 Gb/s
- Signal reclockers
- 4 pin XLR power connection
- Singlemode, WDM and CWDM variants available
- Compact and robust enclosure

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Technical Specification

Bluebell BC323 Fibre Optic Transceivers Specification	
Electrical Input	**Optical Output**
Standards: SMPTE 424M, SMPTE 292M, SMPTE 259M, SMPTE 297M, DVB-ASI	**Connector:** 1 x female LC as standard per channel
Equalisation: Automatic to 100 m @ 3 Gb/s	**Wavelength:** 1310 nm, 1550 nm
Automatic to 200 m @ 1.485 Gb/s	**Optical Power:** -2 dBm @ 1310 nm (typical)
Automatic to 300 m @ 270 Mb/s	-2 dBm @ 1510 nm (typical)
Equaliser and reclocking can be bypassed to support data rates down to 50 Mb/s	0 dBm @ CWDM (typical)
Connector: 1 x 75 Ohm BNC per IEC 60169-8 Amendment 2 pc	**General module specifications**
Return Loss: > 15 dB @ 1.485 Gb/s	**LxWxH:** 92mm x 64mm x 30mm Excluding connectors
Format: Reclocked (with bypass to support data rates down to 50 Mb/s)	**Weight:** 100g
Electrical Output	**Operating Temp:** -30 to +70 °C
Standards: SMPTE 424M, SMPTE 292M, SMPTE 259M, SMPTE 297M, DVB-ASI	**Power:** 2W
Automatic rate selection for 3G-SDI, HD-SDI and SD-SDI data rates.	**Voltage:** 4.5 to 17 V dc
Connector: 1 x 75 Ohm BNC per IEC 60169-8 Amendment 2	**Signal detect:** LED on for loss of signal
Return Loss: > 15 dB @ 1.485 Gb/s	**Conformance**
Polarity: 1 x Non inverting, 1 x inverting output	**EMI/RFI:** Complies with 89/336/EEC
Signal Level: 800 mV +/- 10%	**Electrical:** Complies with EN 61000-6-1, EN61000-6-2
DC Offset: 0 +/- 0.5 V	**Laser Safety:** Complies with Class 1 laser product 24 CFR 1040.10 & 1040.11
Jitter: <0.15 UI line equalised	**RoHS:** Complies with Directive 2002/95/EC
Format: Reclocked (with bypass to support data rates down to 50 Mb/s)	**Warranty:** 5 years

Ordering Information

BC323TR: 3G/SDI, HD/SDI Fibre Optic Transceiver Module, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SD. **No Optics Fitted.** Includes PS12 power supply.

BC323TR/M: Multimode Dual Channel 3G/SDI, HD/SDI Fibre Optic Transceiver Module, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI (850nm). Fitted with LC connectors. PS12 power supply ordered separately.