



Product Data Sheet

Bluebell BN324 Fibre Optic Interface

Description



The BN324 Series is a range of compact, stand-alone fibre interfaces, which are primarily intended for video OB applications up to 4K format. They allow SDI video signals meeting SD, HD, 3G, 6G or 12G standards to be transmitted over fibre-optic cable.

There are four variants comprising the range:

BN324T transmitter – two independent channels, dual SDI inputs to dual fibre outputs

BN324R receiver – two independent channels, dual fibre inputs to dual SDI outputs

BN324TR transceiver – two independent channels: channel A is configured as a transmitter, and channel B as a receiver

BN324A “adaptive” variant – may be supplied with an SFP module of the customer’s choice, or with an empty SFP cage. It allows users to fit SFP modules of their own choice to suit different applications. Depending on the type of SFP module, the BN324A will automatically configure itself as a dual transmitter, a dual receiver, or a transceiver.

Product	SKU
BLUEBELL BN324R/S/12G FIBER OPTIC INTERFACE	BLU-324RS12G
BLUEBELL BN324TR/S/12G FIBER OPTIC INTERFACE	BLU-324TRS12G
BLUEBELL BN324T/12G/S/CWDM FIBER OPTIC INTERFACE	BLU-324T12GSCWDM
BLUEBELL BN324T/S/12G/13/13 FIBER OPTIC INTERFACE	BLU-324TS12G1313

Key Benefits

- Dual input to dual output conversion of 12G-SDI, 3G-SDI, HD-SDI, SD-SDI, ASI
- Handles data rates from 50 Mb/s to 12 Gb/s
- Signal reclockers
- 4 pin XLR power connection
- CWDM variants available
- Compact and robust enclosure



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Technical Specification

Bluebell BN324 Fibre Optic Interface Specification	
Electrical Input	<-4dB to 12GHz
Connector: 75 Ohm BNC per IEC 60169-8 Amendment 2	Standards: SMPTE ST 2082, SMPTE ST 2081, SMPTE ST 424, SMPTE ST 292, SMPTE ST 259, DVB-ASI
Return Loss: <-15dB to 1.485GHz	Polarity: Non-inverting
<-10dB to 3GHz	Signal Level: 800 mV +/- 10%
<-7dB to 6GHz	DC Offset: 0 +/- 0.5 V
<-4dB to 12GHz	Optical Input*
Standards: SMPTE ST 2082, SMPTE ST 2081, SMPTE ST 424, SMPTE ST 292, SMPTE ST 259, DVB-ASI	Connector: LC/PC
Polarity: Non-inverting	Wavelength: 1260-1620 nm
Equalisation: Automatic rate detection and cable equalisation	Standards: SMPTE ST 297
70m @ 11.88Gbps	Sensitivity @12G: -13dBm (max)
90m @ 5.94Gbps	Sensitivity @<=6G: -14dBm (max)
170m @ 2.97Gbps	Receiver Overload: -2dBm (min)
240m @ 1.485Gbps	Optical Output*
400m @ 270Mbps	Connector: LC/PC
Electrical Output	Standards: SMPTE ST 297
Connector: 75 Ohm BNC per IEC 60169-8 Amendment 2	Power: 1 to -5 dBm
Return Loss: <-15dB to 1.485GHz	Conformities
<-10dB to 3GHz	Laser Safety: Class 1 Laser compliant according to IEC-60825
<-7dB to 6GHz	RoHS & WEEE: Complies with RoHS Directive 2011/65/EU, WEEE Directive 2012/19/EU

* Specifications determined by SFP fitted. Typical values shown



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Power	General
Connector: XLR4	Dimensions (HxWxD): 30 x 64 x 92mm (Excluding connectors)
Voltage: 5-17VDC	Weight: 100g
Power *: 3W typ	Operating Temperature*: 0 to +70°C

* Specifications determined by SFP fitted. Typical values shown

Ordering Information

BN324R/S/12G: Singlemode Dual Channel 12G/SDI, 3G/SDI, HD/SDI Fibre Optic Receiver Module with Dual Outputs, Auto-Sensing for SDI, ASI, HD/SDI, 3G/SDI and 12G/SDI. Fitted with LC connectors. Includes PS12 power supply.

BN324TR/S/12G: Singlemode 12G/SDI, 3G/SDI, HD/SDI Fibre Optic Transceiver Module 12G/SDI/3G/SDI. Fitted with LC connectors. Includes PS12 power supply.

BN324T/12G/S/CWDM: Singlemode Dual Channel 12G/SDI, 3G/SDI, HD/SDI Fibre Optic Transmitter Module, Auto-Sensing for SDI, ASI, HD/SDI, 3G/SDI and 12G/SDI (CWDM). Fitted with LC connectors. Includes PS12 power supply.

BN324T/S/12G/13/13: Singlemode Dual Channel 12G/SDI, 3G/SDI, HD/SDI Fibre Optic Transmitter Module, Auto-Sensing for SDI, ASI, HD/SDI, 3G/SDI and 12G/SDI (2 x 1310nm). Fitted with LC connectors. Includes PS12 power supply.