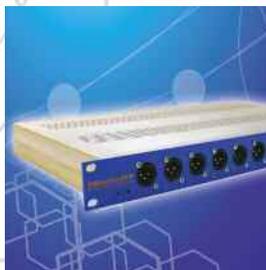


## Product Highlights



Broadcast Fibre Optic Solutions

**Bluebell Opticom designs and manufactures high quality fibre optic transmission equipment for the broadcast, telecommunications and satellite industries.**



We are a UK based, privately funded company, and have been designing and manufacturing fibre optic equipment since 1994.

We are specialists in "point to point" fibre technology for the broadcast television industries around the world. We pride ourselves on being a reliable and innovative supplier with an excellent quality to price ratio.

We have always maintained a flexible attitude and approach, often working with customers to provide an application specific solution on tight timescales.

**We have thousands of links in operational use for critical on-air applications and live events.** Some of our original links are still in active use many years after the scheduled replacement point.

Our products are used for the critical delivery of video, audio and data services at most premier live world-class sporting events.

These applications range from robust multiple outside broadcast links to complex optical infrastructure systems.

All products are supplied with a **5 year factory warranty** and are manufactured to **ISO9001:2008** standards. We work with a global network of Distributors, Dealers and Systems Integrators to provide sales, installation and engineering support wherever our customers are located.

The aim of this short brochure is to give an introduction to both our products and capabilities.

For further information please contact your local Distributor or visit our website, [www.bluebell.tv](http://www.bluebell.tv)

## Product Overview

The Bluebell product range is broadly divided between portable stand-alone devices, either compact single function devices or larger portable systems, and modular 19" rack based systems.

The **portable units are designed for Outside Broadcast** and range from small single channel entry level interfaces through to complex and ruggedised systems.

The **19" rack based systems offer** a wide range of transport options from a single composite link to a **complete optical backbone.**

## New Products

- BCX-760 10G ENG Camera Back Interface
- TDM-750 Remote SDI Camera Interface with 10/100 port
- BC365 12G-SDI Transmitter and Receiver card
- BC363 Multi-Format Interface\*
- BC364 Multi-Format Interface\*
- BC368 Multi-Format Interface\*
- BC623 Talkback and Data card
- BC723 Data card
- BC862 Dual port GbE card
  
- BN365 12G-SDI Transmitter and Receiver Module
- BN366 4 x 3G-SDI 4K Single and Dual Fibre Transport
- BN367 2 x 3G-SDI with Data and Talkback Audio Transport
- BN385 Remote Camera Interface with dual GbE ports
  
- WB323-63 High Density WB170 Multi-Format Interfaces
- BC364 Wavelength Management System
- ShaxX SMPTE Power Insertion System
- ShaxX-LITE
- ShaxX-DUAL

\*The latest Multi-Format Interfacing cards offer a range of options including distribution, format conversion, monitoring and Wavelength Management including CWDM.

The BC363, BC364 and BC368 also allow for the use of **intelligent SFPs with in-built signal processing.**



## Product Overview BC Series Modular Transport System

The BC Series is a compact and modular point to point fibre optic transport system for broadcast. The range is field proven with leading broadcasters and play-out centres around the world. Having supplied the industry since 1994 we believe that we are specialists in "point to point" fibre technology. The BC Series is the "often unseen" reliable backbone of many flagship broadcast infrastructures. The BC Series system is based around **modular cards** with a **very compact footprint**. Combined with the highest performance optical, video and audio components all international standards and certifications are met while still offering an excellent quality/price ratio.

The BC Series provides a complete range of fibre optic links for Studios, Master Control, Transmission and Outside Broadcast.

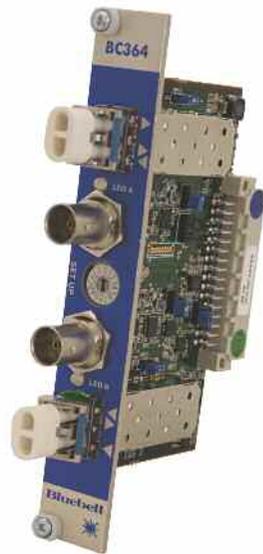
Systems can be provided to transport;

Video	12G-SDI, 4K, 3G-SDI, HD-SDI, SD-SDI and DVB-ASI Composite, B&B, Tri-Level HDMI/DVI
Audio	Analogue AES/EBU MADI
Data/GPI	RS232, RS422, RS485
Ethernet	10BaseT, 100BaseT, Gigabit

Using any or combinations of the following technologies;

- Time Division Multiplexing
- Coarse Wave Division Multiplexing
- Dense Wave Division Multiplexing
- Wave Division Multiplexing

Cards can be used to provide different solutions including **Drop/Insert/Add, Wavelength Management and Format Conversion** as well as CWDM.



## BCX-760 Series 10G Ethernet Point-to-Point Fibre Link

The BCX-760 Series 10G Ethernet point-to-point fibre link, is a camera-back interface that allows easy connection and signal transport between a camera and an OB truck or a base station. BCX-760 interfaces map signals presented at the back of the camera onto a 10G Ethernet point-to-point link, ensuring safe, robust, interference-immune, high-quality transport over much longer distances than have been possible before.

A single, lightweight fibre cable eases rigging, and customers can link multiple cameras over the same cable using Bluebell's muxing and Wavelength-Management systems.



## Wavelength-Management System With Remote Monitoring

The Bluebell Multi-Format Interface takes in multiple optical signals from both Cameras and CCUs and multiplexes them onto a single SMPTE or tactical fibre cable.

This functionality, coupled with Bluebell's ShaxX power-insertion technology, is what makes compact multi-camera multiplexing possible. In this application, the BC364 is packaged with the ShaxX-LITE in a flight case to easily facilitate multiple broadcast SDI camera systems in a fly away system. Remote monitoring capabilities make it easy and convenient to oversee the system from a distance via a network connection.



## WB170 Converter System for Compact, 1-RU 3G-SDI, HD-SDI, SD-SDI, and ASI Transport

The WB170 is an ultra-compact, 19-inch rack-mount media converter for converting up to 32 independent SDI or ASI signals onto fibre. The WB170 can be populated with WB172 transmitter or receiver cards inserted in the front of the frame.

The new WB172-63 card adds format conversion and HDMI monitoring within the WB170 frame. A compact, rack-based multi-format converter for use with a wide range of broadcast signals. The WB172-63 card offers a cost-effective range of options such as distribution, format conversion, monitoring, and wavelength management including CWDM.



## TDM-750 Remote SDI Camera Interface with 10/100 port

The TDM-750 system is designed to provide a compact, rugged and cost effective optical link between a remote POV (Point of View) Camera and Control Room. The link provides an HD-SDI feed from the camera and 10/100 connectivity for full control of the POV. The TDM-750 is ideally suited for the growing range of remote cameras used in Concert Halls, AV and Government Meeting Chambers.



## BC623 Talkback and Data card

The BC623 is designed as a fibre link between intercom systems and provides bidirectional audio and serial data links. The card is complimented by a compact stand-alone interface, BN623, where a rack based system is not required.



BC623

BC862

## BC862 Dual port GbE card

The BC862 is a dual port copper twisted pair to fibre optic media converter for conversion between copper twisted pair and fibre optic.

## SMPTE Power Insertion System ShaxX ShaxX-LITE ShaxX-DUAL

We now offer an expanding range of units to insert power into a SMPTE Hybrid cable and provide power and full connectivity between camera and CCU including single, dual and rack mount options.

**Combined with the BC364 wavelength manager a fully modular and monitored system is available.**



## BN366 4 x 3G-SDI 4K Single and Dual Fibre Transport

Expanding upon the successful BlueNano range the BN366 is designed for the cost effective transport of 4K UHD signals over fibre. Based around field proven technology the compact units provide the transport of 4 x 3G-SDI signals over a dual fibre link.



## BN367 2 x 3G-SDI with Data and Talkback Audio Transport

The BN367 is designed for the cost effective transport of signals to/from a remote camera position over fibre. Using rugged connectors the units provide the transport of SDI, audio and duplex data signals over a dual fibre link. The BN367 is ideally suited for use with a range of ultra slow motion POV cameras.



## BN385 Remote Camera Interface with dual GbE ports

The BN385 is designed for the cost effective transport of 3G-SDI and GbE signals over fibre. The interface is ideally suited for links to robotic/POV cameras, and a typical application would use one of the HD paths for PGM video, the other for viewfinder overlay/menus, and the GigE link for both camera control and pan-tilt-zoom operation. The BN385 features two 3G-SDI paths from the camera position with an optional genlock return, plus a dual-port GigE link on a single singlemode fibre with optional dual-fibre operation.



# Broadcast Specialists

www.bluebell.tv

**A complete range of broadcast quality fibre optic links designed for studios, master control, transmission and outside broadcast applications covering :**

## **Video**

12G-SDI, 4K, 3G and HD  
Standard Definition  
DVB-ASI  
Composite

## **Audio**

Analogue  
AES/EBU

## **Data**

RS232, RS422, RS485

## **GPI**

## **Ethernet**

10Base, 100Base, Gigabit

## **Wave Division Multiplexing**

## **Coarse Wave Division Multiplexing**

## **Time Division Multiplexing**

## **Dense Wave Division Multiplexing**

For information on our complete range please see our website or contact the Sales Office below or your local Distributor.

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