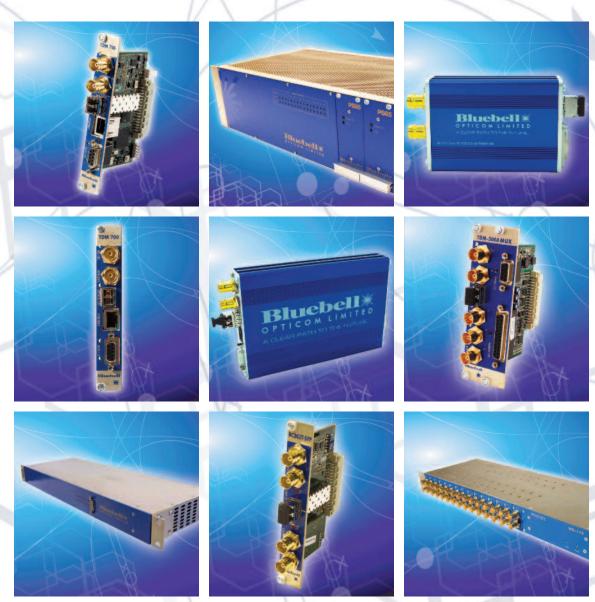


## Infrastructure Applications



Broadcast Fibre Optic Solutions www.bluebell.tv

# Products

PART NUMBER DESCRIPTION		DESCRIPTION	3G	HD	SD	Video	AES	AA	Data	UTP	Tally/ GPI	Rack	Stand Alone
Universal Chassis and Power Supplies BC-100 19" 3RU Chassis for up to 15 BC Series Cards													
BC-160		19" 1RU Chassis for up to 6 BC Series Cards.											
BC-160P		19" 1RU Chassis for up to 6 Passive BC Series Cards.											
BC110		Single Slot Chassis with Universal Mains Power Supply											х
BC120		Triple Slot Chassis with Universal Mains Power Supply											x
	1RU Transport System											Ų.	
WB170-1RU WB172T/S/13/13	\A/B170D/C	19" 1RU Chassis for up to 28 3G-SDI links Dual Channel 3G/HD/SD-SDI High Density Fibre Optic Links	< 2 >									X	
Modular BC Series		bull challing 30/110/30 30/111gh behally Tible Oplic links											
	tiplexing HD-SDI, Video, A	udio and Data Multiplexina											
TDM-300T	TDM-300R	Video multiplexing card.		1 >	3 >							x	×
TDM-300TA	TDM-300RA	Video, audio and data multiplexing card.		1 >	3 >			8 >	1 >			х	х
TDM-710CE		HD-SDI module with composite video, data + tally		1 >		< 1			< 2 >		< 1 >		x
TDM-700CE	TD44 71 00	HD-SDI module with composite video, ethernet, data + tally								< 1 >			х
TDM-710C TDM-700C	TDM-710B TDM-700B	HD-SDI cards with composite video, data + tally HD-SDI cards with composite video, ethernet, data + tally								- 1 -			
	ansmitters and Receivers	Tib objection with composite video, effectivel, and it fally				7.			7-1	` ' '	7.7	^	^
BC360T	BC360R	Single Channel 3G-SDI Fibre Optic Link	> 1									х	x
BC362T	BC362R	Dual Channel 3G-SDI Fibre Optic Link	> 2									х	x
BC360	BC360IB	Bi-directional 3G-SDI, HD-SDI Fibre Optic Link										х	
BC360IBT BC362IBT	BC360IBR BC362IBR	Single Channel 3G-SDI Fibre Optic Link Dual Channel 3G-SDI Fibre Optic Link											
	available - Contact the Sales Office		-									^	^
- '	ansmitters and Receivers wi												
BC450T	BC450R	3G-SDI Optical Link with 8 x Analogue Audio Channels	> 1					> 8				х	x
BC460T	BC460R	3G-SDI Optical Link with 4 x AES Audio Channels	> 1				> 4					х	х
	Transmitters and Receivers												
BC300T	BC300R	Dual Channel SD-SDI/ASI Fibre Optic Link			> 2							х	х
	ifiers and Converters	1 :- F LIDCDI CDI I ACI di adia anno 18:											
BC350 BC12-ADC		1 in, 5 out reclocking HD-SDI, SDI and ASI distribution amplifier Component or Composite Analogue to SD-SDI converter											
BC12-DAC		HD-SDI/SD-SDI to Component or Composite Analogue converter											x
BC500 Composite	Video, Audio and data												
BC500T	BC500R	Composite Video + 2 x Line Level Analogue Audio Link				> 1		> 2				х	x
BC500T/S/A/232		Composite Video + 1 x Analogue Audio + 1 x RS232 Link				> 1		> 1	> 1			х	x
	2 BC500R/S/232/422	Composite Video + 1 x RS232 + 1 x RS422 Link				> 1			> 2			х	x
BC551 HD-SDI, Au		C:     20 (CD)						٠.					
BC551AT/S BC551DT/S	BC551AR/S BC551DR/S	Singlemode 3G/SDI, HD/SDI Fibre Optic Link with reverse audio channel Singlemode 3G/SDI, HD/SDI Fibre Optic Link with reverse data channel						< 1	-1				
		Singlemade 30/3bi, Fib/3bi Fible Oplic Link Will Tevelse data channel	- '						`'			^	^
Audio & Data Con BC030T/S	BC030R/S	Single Fibre 2 x Balanced Line Level Analogue Audio Link						> 2				x	×
BC030T/S/D	BCO3OR/S/D	Single Fibre Dual Unidirectional RS232 Link							> 2			х	x
BCO40T/S/D	BCO40R/S/D	Single Fibre Dual Unidirectional RS422 Link							> 2			х	х
BC050T/S/D	BCO50R/S/D	Single Fibre Unidirectional 1 x RS232 + 1 x RS422 Link							> 2			х	x
<b>Audio Converters</b>													
BC620T	BC620R	Fibre Optic Link for 8 x Analogue Audio Channels					. 4	> 8					
BC630T	BC630R	Fibre Optic Link for 4 x AES Audio Channels					> 4					^	•
Data BC720		Multichannel GPI and Multiformat Data Transceiver Card.							< 4 >		< 4 >	×	×
BC730T	BC730R	6 x Contact Closure Fibre Optic Link										х	
BC800		10/100BaseT Ethernet to Fibre Converter Card								< 1 >		х	x
BC850		1000BaseT Ethernet to Fibre Converter Card								< 1 >		х	x
Audio Transceiver	'S												
BC700 BC710		Dual Fibre Duplex Multirate AES Digital Audio Transceiver Card 4-Wire Comms Talkback to Optical Transceiver Card					< 2 >	-2-					
RF/L Band Conver	utous.	4-VVIIe Commis landack to Optical fransceiver Card						~ ~				^	^
BC920T	BC920R	L-Band Fibre Optic Link										х	x
Wave Division Mu	ultiplexing Products												
BC2	BC2/M	Wave Division Multiplexer Two Channel Device										х	x
Coarse Wave Divi	ision Multiplexing Products	·											
BC-4		4-Channel CWDM Card-Wavelengths to suit ITU grid spacing										х	x
BC-8		8-Channel CWDM Card-Wavelengths to suit ITU grid spacing										х	x
Splitters and Swit	ches												
BC2x1SW BCSPLIT		2 input, 1 output Optical Switch 1 input, 2 output Optical Splitter											
BCSPLIT1xn		1 input, a output Optical Splitter - contact Sales for options											
	R AFS Digial Audio Multiple	xing Transmitters and Receivers in 1RU frame											
BB600T	BB600R	12-Channel Balanced Analogue Audio Fibre Optic Link XLR Inputs						> 12				х	
BB610T	BB610R	6-Channel AES Digital Audio Fibre Optic Link BNC Inputs					> 6					х	
BB610T	BB610R	6-Channel AES Digital Audio Fibre Optic Link XLR Inputs					> 6					х	
Field Depoloyable	Products												
BBOX QUAD3G	DC212D	4 channel 3G-SDI, HD-SDI, SD-SDI multiplexer - SMPTE or tactical											X
BC313T BC323T	BC313R BC323R	Single Channel 3G/SDI, HD/SDI Fibre Optic Link Dual Channel 3G/SDI, HD/SDI Fibre Optic Link											
BC323TR	_ 502011	Bi-directional 3G/SDI, HD/SDI Fibre Optic Link	<1>										x
BC550AT/S	BC550AR/S	Singlemode 3G/SDI, HD/SDI Fibre Optic Link with reverse audio channel	> 1					< 1					×
BC550DT/S	BC550DR/S	Singlemode 3G/SDI, HD/SDI Fibre Optic Link with reverse data channel	> 1						< 1				х
SHAX	SHAX <sub>X</sub> (with power insertion)	SMPTE Hybrid Alternative Extension Kit - allows fibre enabled cameras to be connected to the CCU over standard networks.											v
\$000													
SOCX		SMPTE Hybrid Optical Cable Extender											
Optical 21 Flightegre		Ruggedieded aluminium flight case housing a Physical Ferre											v
PROBE-BASE3	Optical 3U Flightcase PROBE-BASE6	Ruggedisded aluminium flight case housing a Bluebell frame A ruggedized portable fibre optic system ideally suited to OB, ENG											^
	<del></del>	and SNG applications.											х
Cables and Drums	s												
We also supply a wid	le range of fibre cables available in	n a variety of fibre counts, connector types and lengths.											х

### Infrastructure Products

Bluebell manufactures a wide range of optical interfaces for the Broadcast Studio and Transmission markets. Our products are used for the critical delivery of video, audio and data services by leading Broadcasters and service providers around the world. Applications range from simple Studio links to a complete optical infrastructure system. Some key products are highlighted below;

#### Modular broadcast fibre optic solutions

The BC Series is a cost effective and flexible modular system designed to accommodate the growing number of broadcast signals that need to be transported over fibre optic cable. With nearly 100 cards in the range, all standard video, audio and data formats can be accommodated with alarm and monitoring via GPI or Ethernet/SNMP. Multiple signals can be electrically multiplexed together as a single wavelength and up to 16 wavelengths can then be multiplexed onto a single fibre using CWDM. Optical splitters and switches provide redundancy for mission critical situations.

Our equipment supports

- 3G-SDI, HD-SDI, SD-SDI, DVB-ASI
- 10/100/1000 BaseT Ethernet
- Broadcast Quality PAL/NTSC
- Data and RE
- AES/EBU and analogue audio

#### TDM-700

Part of a growing range of Time Division Multiplexing cards, the TDM-700 provides a very effective optical link when HD-SDI, genlock and serial control data is needed in one compact package. The TDM-700 can be used to cost effectively link remote video servers and slow motion controllers. An Ethernet link also provides control and configuration of remote IP based devices. The TDM-700 also finds application integrating POV cameras into the main broadcast facility.





#### BC362

An extremely cost effective dual channel 3G-SDI fibre link that provides reclocking, loop thru inputs and dual outputs. This card often provides the backbone of a Broadcaster's optical infrastructure.

#### BC450/460

These cards provide embedding and de-embedding into the 3G-SDI stream of AES and analogue audio signals. BC450 analogue embedders can be combined with BC460 AES de-embedders and vice versa.

#### BC620/630

These cards provide audio only transport for 8 channels of analogue audio or 4 channels of AES-EBU. They can also be used to provide links with analogue inputs and AES outputs or vice versa. They are well suited to systems where the audio and video are kept separate.



#### BC2 WDM

Wave Division Multiplexing allows 2 independent wavelengths to be carried on a single fibre. It can often be the most cost effective way to double the capacity of an existing fibre network.



#### BC4, BC8 CWDM

Coarse Wave Division Multiplexing allows up to 16 independent wavelengths corresponding to the ITU Recommendations to be carried on a single fibre. Particularly useful when signals need to be carried over leased lines between different sites.

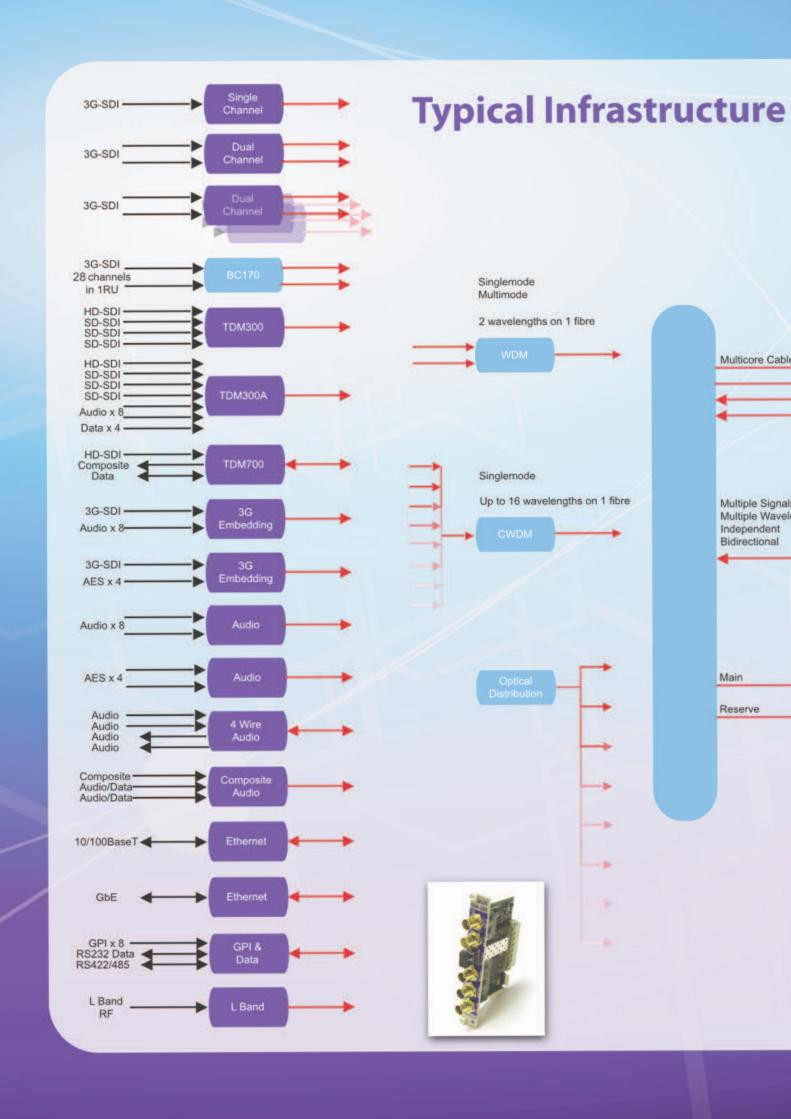
#### Splitters and Switches

We provide a range of passive splitters to distribute optical feeds around a facility. These can be provided with different number of outputs and optical levels. The BC2x1 optical switch also allows two signals to be diversely routed with a switch to the reserve feed occurring if the main feed is lost or damaged.

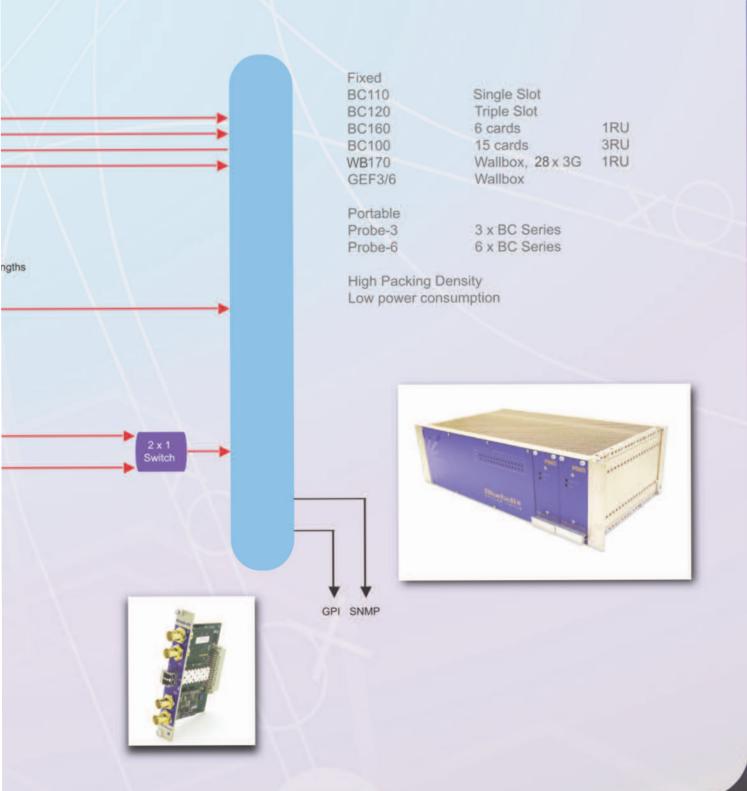
#### WB170 Modular 1RU High Density Media Converter

The WB170 is designed as an ultra compact 19" rack-mount media converter for the conversion of up to 28 independent 3G-SDI signals within 1RU. The WB170 fits applications where space is at a premium but no compromises on the broadcast performance can be accepted. It is ideal for linking Studios to a CAR or adding fibre interfacing to an existing routing system. When used with the BC-160P to house a range of CWDM modules, very compact high density links can be achieved, ideal for linking between sites.

Any of the Bluebell remote stand alone products can be interfaced to the 19" rack based frames.



## **Applications for Bluebell Fibre Products**



### Broadcast Specialists

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

Bluebell Opticom Ltd is a UK based, privately funded company, and has 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 daily operational use for key on-air applications and live events. Our customers include leading Broadcasters, Play-Out Centres and service providers, supported through a network of professional Distributors and Partners around the world.

Our products are also used for the critical delivery of video, audio and data services at most premier live world-class sporting events. The applications range from robust multiple outside broadcast links to complete and complex optical infrastructure systems.

All products are supplied with a 5 year factory warranty and are manufactured to ISO 9000 standards. All products are lead-free and RoHS/WEEE compliant.

Our equipment supports

- 3G-SDI, HD-SDI, SD-SDI, DVB-ASI
- Broadcast Quality PAL/NTSC
- AES/EBU and analogue audio
- 10/100/1000 BaseT Ethernet
- Data and RF

Local Contact

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