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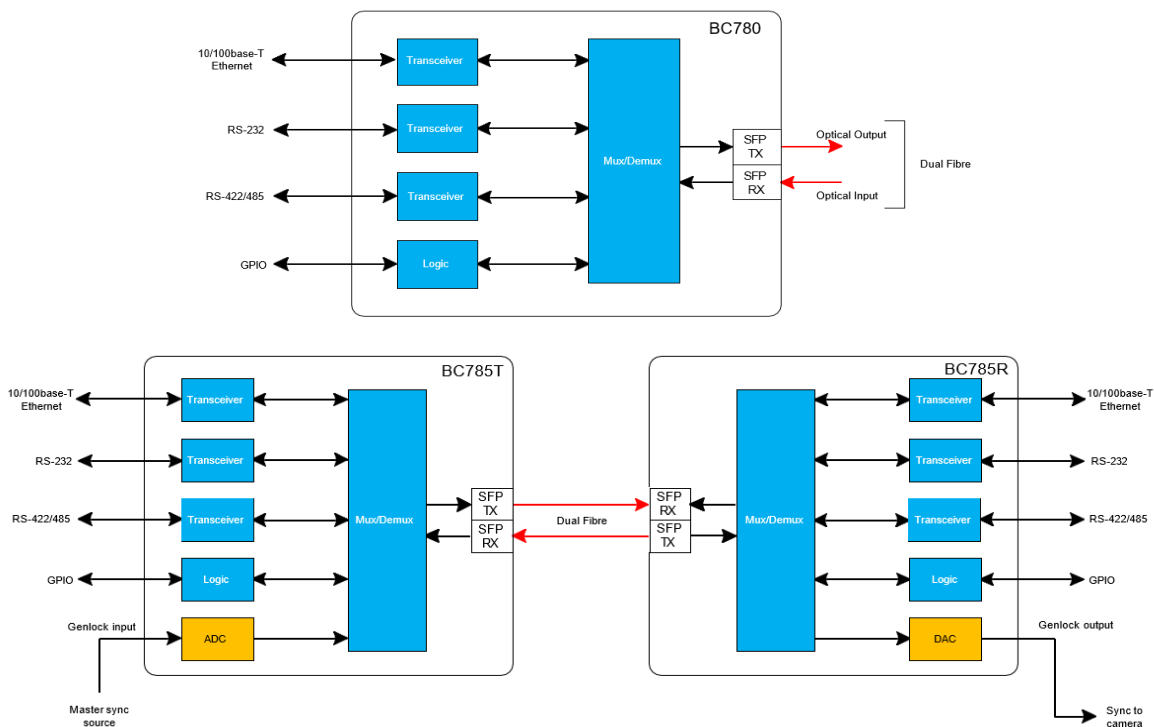
BC Series Modular Fibre Optic Interface System

Description:

- BC780: Optical-electrical transceiver for bidirectional transport of control signals over dual fibre
- Typical use: remote camera control at sports, festivals, large venues
- BC785T: Adds genlock transmitter subcard (controller end)
- BC785R: Adds genlock receiver subcard (camera end) for remote genlock lock
- Provide RJ45 Ethernet port (10/100base-T) for IP control data
- Include RS-232 I/O and switchable RS-422/RS-485 I/O for serial commands
- GPI input and output for additional control options
- Fibre link is bidirectional, supporting command acknowledgement and camera-generated data return
- Optical I/O via dual LC connector in SFP carrier; transmitter supports CWDM wavelengths (1270–1610 nm), receiver is wideband
- Status LED indicates valid fibre data reception
- Fully compatible with BC Series racks and enclosures
- Report status via built-in rack monitoring; enhanced SNP monitoring available with network cards (BM102, BM102i. BM103)

BC780 Schematic diagram:

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BC780, BC785T, BC785R

Electrical Inputs and Outputs

RS-232	Rx & Tx (unbalanced), max. 250 kbaud	
RS-422/RS-485 GPIO	Rx & Tx (balanced), full duplex, max. 10 Mbaud	15-pin Dsub connector (shared)
Ethernet	1 x input, 1 x output	
Genlock input (BC785T only)	10/100base-T	
Genlock output (BC785R only)		RJ45
Optical Inputs and Outputs	Analogue composite video, black & burst, tri-level sync	BNC (75 ohms)

Most specs determined by SFP fitted. Typical values given below.

Connector	2 x female LC
Wavelength	1270 − 1610 nm
Optical power output	-15 dBm @1310 nm multimode
	-6 dBm @ 1310 nm singlemode

Conformities

EMI/RFI	Complies with 89/336/EEC, EN55032B, EN61000-4-2
Electrical	Complies with EN61000-4-4FTB, EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4
Laser Safety	Complies with Class 1 laser product
RoHS & WEEE	Complies with Directive 2002/95/EC

Monitoring

Front panel	S/L: bi-colour LED indicating a valid and locked signal at optical receiver
External via BC100/BC160 frame	Bi-colour LED indicating lock status of optical input
External via BC100i/BC160i frame	On-screen lock status indication of optical input
External via BC100/BC100i/ BC160/BC160i frame with network card fitted	Bi-colour virtual LED per channel indicating lock status of optical input
SNMP monitoring (via BC100/ BC100i/BC160/BC160i frame with network card fitted)	Lock status of each optical input

General

Input Voltage	4 – 17 V
Power consumption	5 W
Depth	75 mm (60 mm excluding connectors)
Width	20 mm (4HP)
Height	129 mm (3RU)
Weight	100 g
Operating Temperature	-30 to +70 °C

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