

WB Series Modular Fibre Optic Interface System

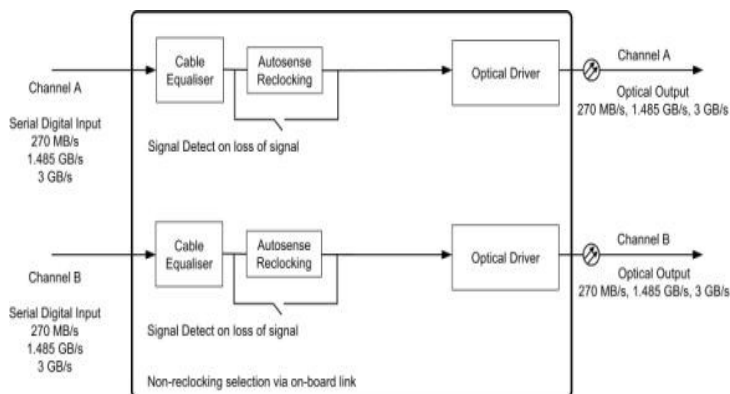


Description:

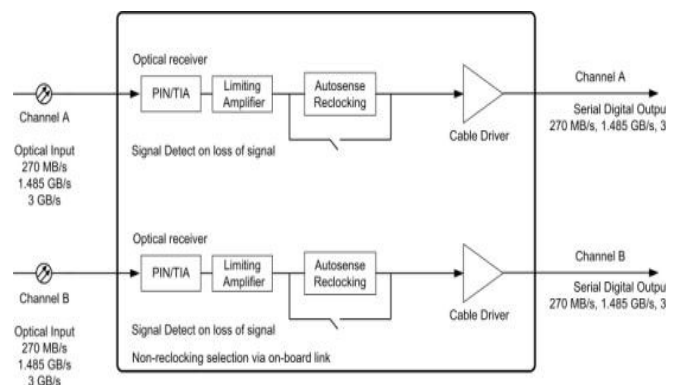
- The WB170 is an ultra-compact 19" rack-mount media converter designed to handle up to 32 independent 3G-SDI, HD-SDI, SD-SDI, and ASI signals over fibre. It's ideal for applications requiring high performance in limited space.
- Suitable for studio-to-CAR 3G/HD links, wall-mountable setups, integration with existing routing systems, remote ingest points, and cost-effective high-density fibre distribution.
- The frame accepts front-loading WB172 transmitter or receiver cards, as well as WB172-63 multi-format SFP cards for flexible configuration.
- WB172T cards auto-sense, equalise, and reclock each input before converting and transmitting over individual fibres. WB172R cards convert optical signals back to electrical SDI and ASI, also with signal reclocking.
- WB172 cards are available in multimode, singlemode, WDM, and CWDM variants for broad fibre compatibility.
- The WB172-63 and WB172-63TR modules offer two SFP cages each, enabling flexible conversion between formats such as Composite, HDMI, DVI, optical, and SDI.
- These units can also regenerate optical signals—for example, converting from multimode to singlemode fibre.

WB170 Schematic Diagram:

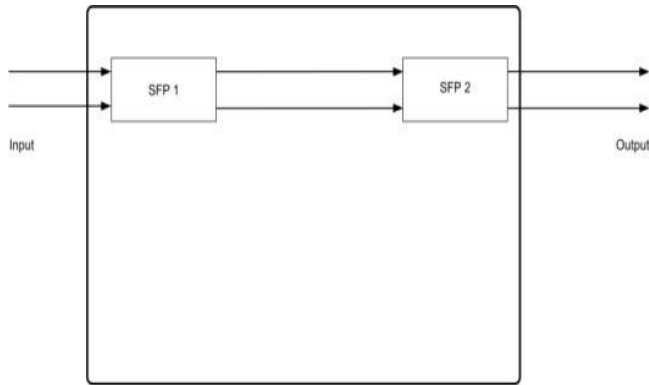
Schematic Diagram WB172T



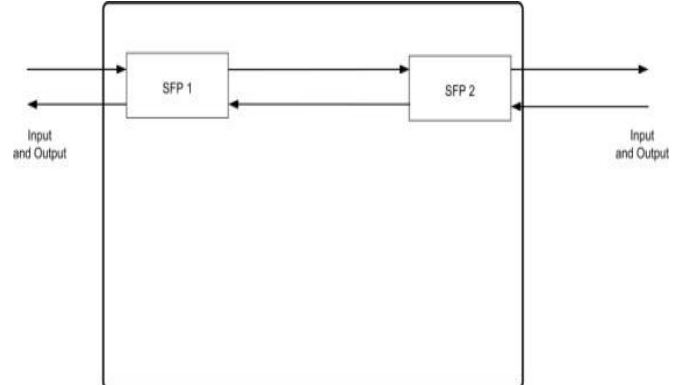
Schematic Diagram WB172R



Schematic Diagram WB172-63



Schematic Diagram WB172-63TR



Specifications

WB172T	
Electrical Input	
Standards	SMPTE 424M, SMPTE 292M, SMPTE 259M, SMPTE 297M, DVB-ASI
Equalisation	Automatic to 100 m @ 3 Gb/s Automatic to 200 m @ 1.485 Gb/s Automatic to 300 m @ 270 Mb/s Equaliser and reclocking can be bypassed to support data rates down to 50 Mb/s
Connector	1 x 75 Ohm BNC per IEC 60169-8 Amendment 2 per channel
Format	Reclocked (with bypass to support data rates down to 50 Mb/s) NB: factory default unless specified is set to reclocking
Optical Output	
Connector	1 x female LC as standard per channel Wavelength 1310 nm, 1550 nm, CWDM See Ordering Information
Optical Power	-2 dBm @ 1310 nm (typical) -2 dBm @ 1510 nm (typical) 0 dBm @ CWDM (typical)
General WB170 frame specifications	
Depth	150 mm
Width	445 mm
Height	44.5 mm (1RU)
Weight	2.5 kg fully loaded
Operating Temp	-30 to +70 °C
Voltage range	90 to 260 V ac 50/60 Hz
Power	2.5 W per card
Signal detect	LED on for signal loss
No. of slots	16 slots, 1 per WB172

WB172R	
Optical Input	
Connector	1 x female LC as standard per channel
Wavelength	1270-1610 nm See Ordering Information for multimode and singlemode variants
Sensitivity	> -25.0 dBm @ 3 Gb/s > -25.5 dBm @ 1.485 Gb/s > -26.0 dBm @ 270 Mb/s
Max I/P Power	> -1 dBm
Data rate	50 Mb/s to 3 Gb/s
Electrical Output	
Standards	SMPTE 424M, SMPTE 292M, SMPTE 259M, SMPTE 297M, DVB-ASI Automatic rate selection for 3G-SDI, HD-SDI and SD-SDI data rates.
Connector	1 x 75 Ohm BNC per IEC 60169-8 Amendment 2 per channel
Return Loss	> 15 dB @ 1.485 Gb/s Polarity 1 x Non inverting per channel
Signal level	800 mV +/- 10%
DC Offset	0 +/- 0.5 V
Jitter	<0.15 UI line equalized
Format	Reclocked (with bypass to support data rates down to 50 Mb/s) NB: factory default unless specified is set to reclocking
Conformance	
EMI/RFI	Complies with 89/336/EEC, EN55022B, EN61000-4-2, EN61000-4-4-(Level 2), EN61000-4-4FTB, EN61000-4-5, EN61000-4-11
Electrical	Complies with EN61000-6-1, EN61000-6-2, EN61000-6-3, EN61000-6-4
Laser safety	Dependent on SFP fitted. Complies with Class 1 laser product
RoHS	Complies with Directive 2002/95/EC
Warranty	5 Years

Ordering Information

WB172T/M	Multimode Dual Channel 3G/HD/SD-SDI Fibre Optic Transmitter Card, Auto-Sensing for SD-SDI, ASI, HD-SDI and 3G-SDI. Fitted with LC connectors.
WB172R/S	Singlemode Dual Channel 3G/SDI, HD/SDI Fibre Optic Receiver Card, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI. Fitted with LC connectors.
WB172R/M	Multimode Dual Channel 3G/HD/SD-SDI Fibre Optic Receiver Card, Auto-Sensing for SD-SDI, ASI, HD-SDI and 3G-SDI. Fitted with LC connectors.
Universal Chassis and Power Supplies	
WB170-V2	19" 1RU Chassis for up to 16 WB172 Cards and supplied with dual redundant power supplies as standard. Configured with 1 x internal PSU connected via IEC input and 1 x external PS60 12V supply via 4 pin XLR inlet. 1 x PS60 external in-line unit supplied as standard - connects to 4 pin XLR inlet. IEC Mains Leads not supplied.
WB172-63	Multi-format Dual Channel Interface. Base unit only - requires an input and output Video non-MSA SFP from recommended list. Base Units - No Optics Fitted
WB172-63TR	Multi-format Transceiver Interface. Base unit only - requires an input and output MSA or non-MSA SFP from recommended list. Base Units – No Optics Fitted
Universal Chassis and Power Supplies	
WB170-V2	19" 1RU Chassis for up to 16 WB172 Cards and supplied with dual redundant power supplies as standard. Configured with 1 x internal PSU connected via IEC input and 1 x external PS60 12V supply via 4 pin XLR inlet. 1 x PS60 external in-line unit supplied as standard - connects to 4 pin XLR inlet. IEC Mains Leads not supplied.



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