

WB Series Modular Fibre Optic Interface System



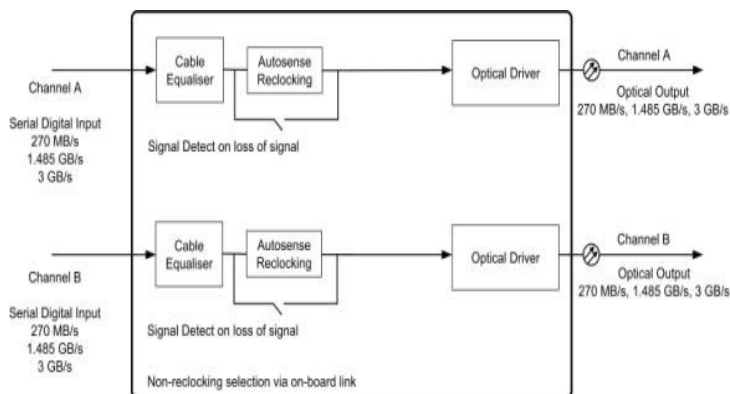
Description:

- 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

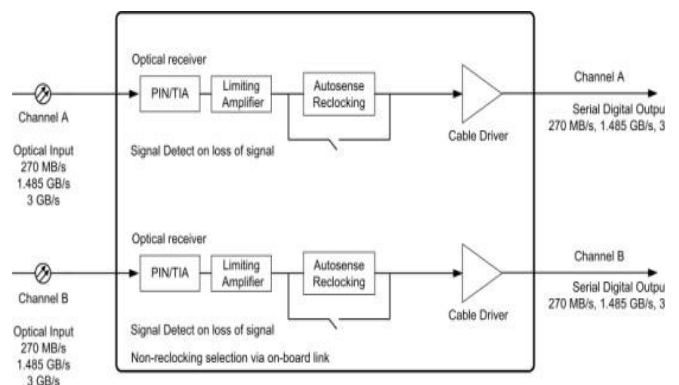
Compact 3G 1RU Transport

Schematic Diagram WB172T

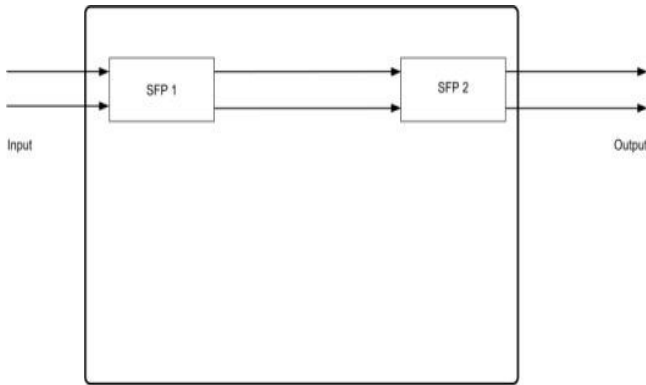


SDI and Multi Format Interface

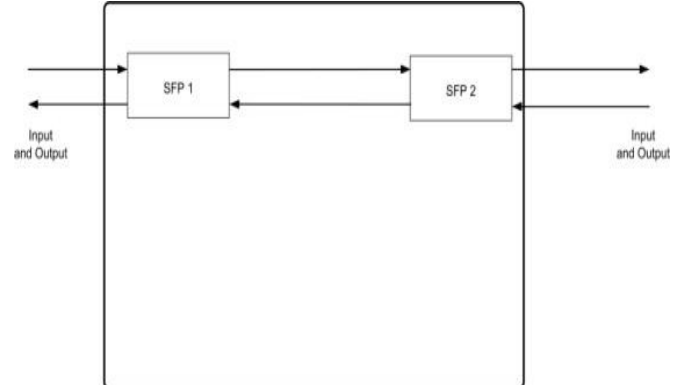
Schematic Diagram WB172R



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/S/13/13	Singlemode Dual Channel 3G/SDI, HD/SDI Fibre Optic Transmitter Card, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI (1310nm). Fitted with LC connectors.
WB172T/S/13/15	Singlemode Dual Channel 3G/SDI, HD/SDI Fibre Optic Transmitter Card, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI (1310nm and 1550nm). Fitted with LC connectors.
WB172T/S/CWDM	Singlemode Dual Channel 3G/SDI, HD/SDI Fibre Optic Transmitter Card, Auto-Sensing for SDI, ASI, HD/SDI and 3G/SDI. (Dedicated CWDM Tuned Laser, Wavelength to suit ITU Grid Spacing - see CWDM Ordering Matrix). LC connectors as standard.
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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