

ASI / SD-SDI 8 Channel MUX Fibre Optic Link

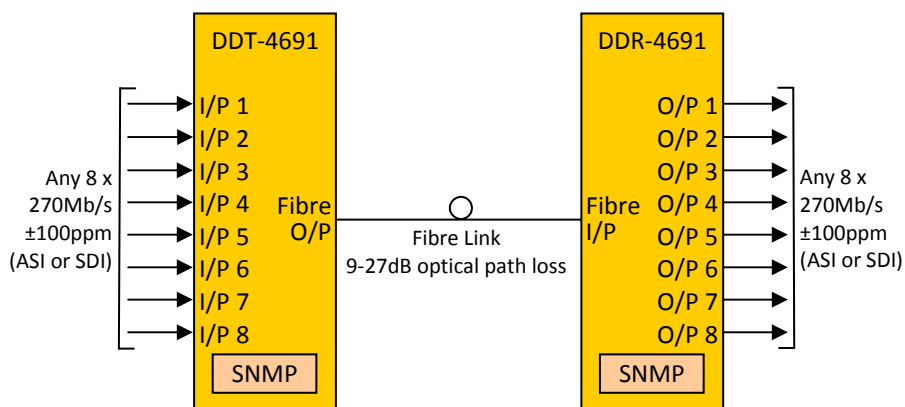
FEATURES

- 270 Mb/s type signals, such as ASI and SDI, capability.
- Automatic cable equalisation for up to 300m on each input.
- Optical path loss ≥ 27 dB.
- External urgent and non-urgent alarms for system monitoring.
- SNMP monitoring module built in.

APPLICATIONS

- Multichannel digital on a single fibre.
- Upgrade capacity of existing fibre.
- Maintain timing between related signals by ensuring same path transmission delay.

BLOCK DIAGRAM DDT-4691 & DDR-4691 SIGNAL PATH



GENERAL

The DDT-4691 accepts up to eight 270 Mb/s input signals which may be ASI, SDI or a mixture of each type. The signals need not be phase or frequency synchronous.

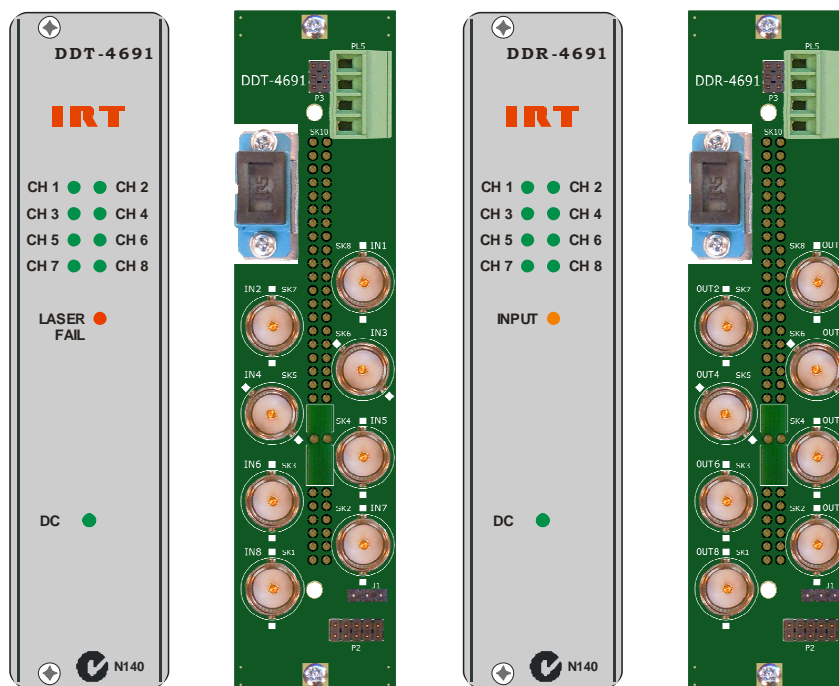
The signals are multiplexed into a single 2.97 Gb/s stream and transmitted optically via a single mode fibre. The DDR-4691 receiver performs the reverse operation and restores correct 270 Mb/s timing.

The DDT-4691/DDR-4691 system is primarily designed for use with a 9/125 μ m single mode fibre and will allow an optical path loss up to 27dB.

The DDT-4691 transmitter comes standard with a 1310nm DFB laser. Other CWDM wavelengths are available. The DDR-4691 receiver comes standard with an APD detector.

SNMP (Simple Network Management Protocol) is available for monitoring and control when used in an IRT frame fitted with SNMP capability. Channels can be individually enabled or disabled via SNMP.

The modules are designed to fit IRT's standard Eurocard frames as well as IRT's 4000 series frame for use with IRT's SNMP system and may be used alongside any other of IRT's analogue or digital Eurocards.



TECHNICAL SPECIFICATIONS

DDT-4691:

Inputs:

Type	8 x independent ASI or SDI.
Equalisation	Automatic for up to 300 m of Belden 8281 or equivalent cable.
Connectors	BNC 75Ω.

Outputs:

Type	1 x 2.97 Gb/s optical.
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Alarms:

Major	O/C relay for loss of power, or LASER fail.
Minor	O/C relay if no channels are present.

DDR-4691:

Inputs:

Type	1 x 2.97 Gb/s optical.
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Outputs:

Type	8 x independent ASI or SDI.
Connectors	BNC 75Ω.

Alarms:

Major	O/C relay for loss of power, or optical input fail.
Minor	O/C relay if no channels are present

Optical:

DDT-4691 optical output	0 dBm +4.5/-0 dB CWDM DFB laser.
DDR-4691 optical input	APD detector (standard), -9 to -27 dBm input level.
Available wavelengths	CWDM DFB laser - 1270nm, 1290nm, 1310nm (standard), 1330nm, 1350nm, 1410nm, 1430nm, 1450nm, 1470nm, 1490nm, 1510nm, 1530nm, 1550nm, 1570nm, 1590nm & 1610nm.
Optical path loss ¹	9 to 27 dB APD detector (standard), or 3 to 18 dB PIN detector.
Optical fibre	Designed for use with 9/125 µm single mode fibre.
Optical connectors	SC/PC (standard).

Power requirement:

Voltage	28 Vac CT (14-0-14) or ±16 Vdc.
Consumption	DDT-4691 < 6.5 VA, DDR-4691 < 6 VA.

Other:

Temperature range	0 - 50° C ambient
Mechanical	Suitable for mounting in IRT 19" rack chassis with all connections at the rear.
Finish:	Grey background, black lettering & red IRT logo.
Front panel	Detachable silk-screened PCB with direct mount connectors to Eurocard and external signals.
Rear assembly	
Dimensions	6 HP x 3 U x 220 mm IRT Eurocard.

Note:	1	Optical attenuator supplied for DDR-4691 when optical path loss is less than 9dB.
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