

8 Channel SD-SDI/ASI 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 $\geq 27\text{dB}$.
- DashBoard™ software monitoring and control.

APPLICATIONS

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

GENERAL

The IRT-6690-DDT 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 IRT-6690-DDR receiver performs the reverse operation and restores correct 270 Mb/s timing.

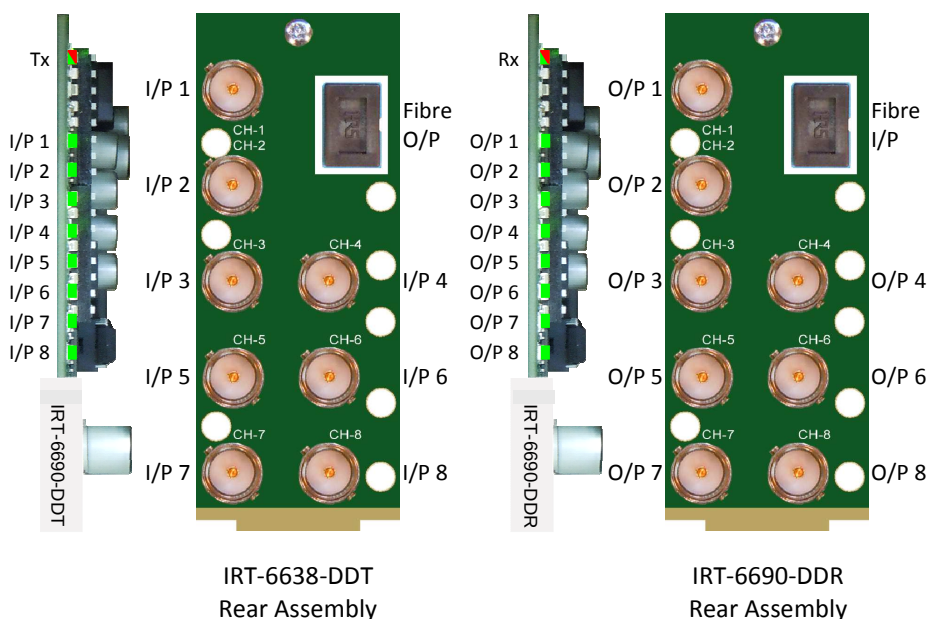
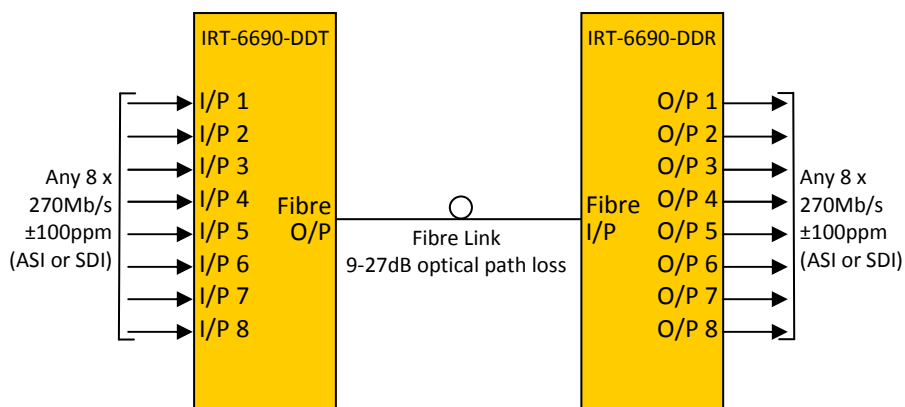
The IRT-6690-DDT/IRT-6690-DDR system is primarily designed for use with a 9/125µm single mode fibre and will allow an optical path loss up to 27dB.

The IRT-6690-DDT transmitter comes standard with a 1310nm DFB laser. Other CWDM wavelengths are available. The IRT-6690-DDR receiver comes standard with an APD detector.

The IRT-6690-DDT & IRT-6690-DDR are designed to fit the openGear® standard 2RU frames which allow a mixture of cards from various manufacturers to be mounted within the same frame.

The DashBoard™ control software is available as a free download.

BLOCK DIAGRAM IRT-6690-DDT & IRT-6690-DDR SIGNAL PATH



IRT-6690-DDT & IRT-6690-DDR

TECHNICAL SPECIFICATIONS

IRT-6690-DDT:

Inputs:

Type	8 x independent ASI or SD-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
------	-----------------------

IRT-6690-DDR:

Inputs:

Type	1 x 2.97 Gb/s optical.
------	------------------------

Outputs:

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

Optical:

IRT-6690-DDT optical output	0 dBm +4.5/-0 dB CWDM DFB laser,
IRT-6690-DDR optical input	APD detector (standard), -9 to -27 dBm input level.
Available wavelengths	CWDM DFB laser - 1270nm, 1290nm, 1310nm (standard), 1330nm, 1350nm, 1370nm, 1390nm, 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	1 x SC/PC (standard) on rear - direct connection to main card.

Power Requirements:

Voltage	+ 12 Vdc.
Power consumption	IRT-6690-DDT < 6.5 VA, IRT-6690-DDR < 6 VA.

Other:

Temperature range	0 - 50° C ambient.
Mechanical	Suitable for mounting in an openGear® 2RU rack chassis.
Dimensions (openGear® standard)	33.6 mm x 2U x 325 mm.

Supplied accessories	Rear connector assembly.
----------------------	--------------------------

Ordering	IRT-6690-DDT	IRT-6690-DDT, programmed with DashBoard™ control.
	IRT-6690-DDT/xxxx	IRT-6690-DDT, fitted with CWDM DFB laser other than 1310nm where xxxx = wavelength required. For example, IRT-6690-DDT/1550 is an IRT-6690-DDT fitted with a 1550nm laser.
	IRT-6690-DDR	IRT-6690-DDR fitted with APD detector, programmed with DashBoard™ control.
	IRT-6690-DDR/PIN	IRT-6690-DDR fitted with PIN detector, programmed with DashBoard™ control.
	Note: 1	Optical attenuator supplied for IRT-6690-DDR when optical path loss is less than 9dB for the APD detector and 3dB for the PIN detector.