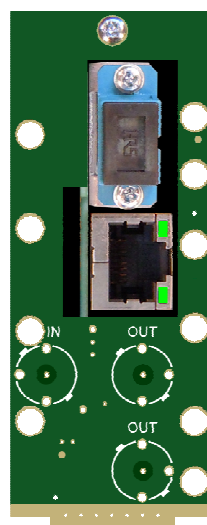
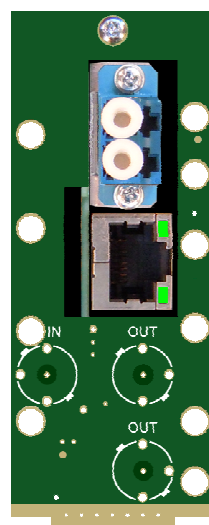
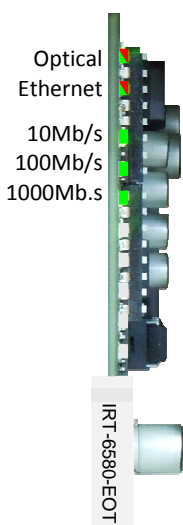
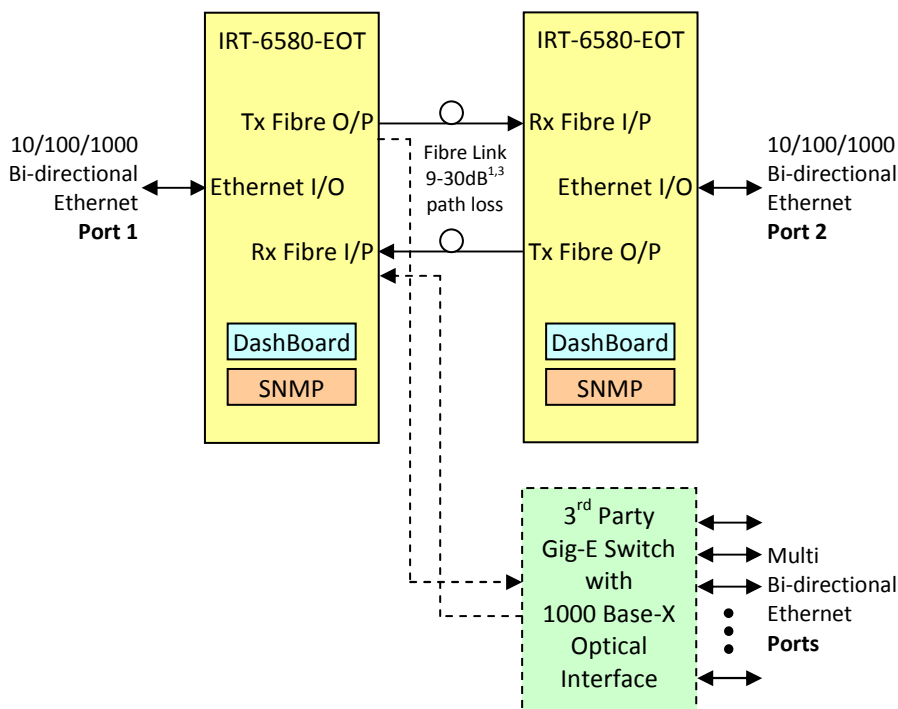


Ethernet to Optical Fibre Transceiver

FEATURES

- Suitable for 10/100/1000 Base-T Ethernet.
- Standard RJ-45 CAT-5 Ethernet connection.
- Supports Jumbo frames.
- 1000 Base-X optical interface.
- Path lengths up to 30dB¹ optical path loss using 9/125µm single mode fibre.
- Optional on-board WDM^{1,2} optical combiner for use on a single common fibre.
- DashBoard™ or SNMP software monitoring.

BLOCK DIAGRAM IRT-6580-EOT SIGNAL PATH



Standard Rear Assembly

WDM Rear Assembly

GENERAL

The IRT-6580-EOT transceiver module is designed principally for use as a 10/100/1000 Base-T Ethernet to fibre optic transmission link, using 9/125µm single mode fibre, with optical paths losses up to 30dB¹.

The IRT-6580-EOT conforms to the IEEE 802.3i, 802.3y and 802.3ab standards for Ethernet over CAT-5 cable, and the IEEE 802.3z (1000 Base-X) standard for Gigabit Ethernet over optical fibre.

The Ethernet port has automatic MDI/MDI-X detection, this detects whether the Ethernet interconnect cable is a straight through or cross over type and automatically switches itself to accommodate, and will automatically select the link speed of the connected network (10/100/1000 Mb/s).

The IRT-6580-EOT is also able to support Jumbo frames, which are Ethernet frames with more than 1500 bytes of payload data, up to a maximum frame size of 10,240 bytes.

A fibre transceiver is incorporated on the one card allowing bi-directional communication over a pair of LC/PC single mode fibre optic cables.

Optionally a 1310/1550nm WDM^{1,2} optical combiner can be fitted to allow for combined use on a single fibre.

As well as being able to be used as a pair for a point to point fibre link, the IRT-6580-EOT's fibre output is 1000 Base-X and can be directly interfaced into an Ethernet switch with an equivalent optical interface.

The IRT-6580-EOT is 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™ monitoring software is available as a free download.

- NOTE 1** With the WDM option fitted for combined use on a single fibre, optical path loss is reduced by approximately 2dB.
- 2** With the WDM option fitted, when operating as a pair, one IRT-6580-EOT must be fitted with a 1310nm transceiver and the other a 1550nm transceiver.
- 3** An optical attenuator is required for optical path losses <9dB.

Due to our policy of continuing development, these specifications are subject to change without notice.

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TECHNICAL SPECIFICATIONS

Ethernet:

Type	Standard IEEE 802.3i, 802.3y & 802.3ab
Data Rate	10/100/1000 Mb/s, automatic.
Maximum Frame Size	10,240 bytes.
Connector	RJ-45.

Optical:

Type	Standard 802.3z (1000 Base-X).
Data Rate	1000 Mb/s.
Optical Path Loss ^{4, 5}	9 to 30 dB.
Optical Fibre	Designed for use with 9/125µm single mode fibre.
Optical Wavelength	1310nm (standard); 1470nm, 1490nm, 1510nm, 1530nm, 1550nm, 1570nm, 1590nm, 1610nm available.
Optical Connectors	Dual LC/PC (standard); Single SC/PC (WDM version).
Optical Output	0 dBm +4.5/-0 dB DFB laser.
Optical Input	APD detector (standard), -9 to -30 dBm input level.

Power Requirements:

Voltage	+ 12 Vdc.
Power consumption	< 9 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 assembly.
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Ordering:

IRT-6580-EOT	Standard IRT-6580-EOT fitted with 1310nm laser, programmed with DashBoard™ control.
IRT-6580-EOT/xxxx	IRT-6580-EOT fitted with laser other than 1310nm where xxxx = wavelength required (e.g. IRT-6580-EOT/1550 is fitted with a 1550nm laser), programmed with DashBoard™ control.
IRT-6580-EOT/1310/WDM	IRT-6580-EOT fitted with WDM and 1310nm laser, programmed with DashBoard™ control.
IRT-6580-EOT/1550/WDM	IRT-6580-EOT fitted with WDM and 1550nm laser, programmed with DashBoard™ control.

NOTE:	4	Optical attenuator required for IRT-6580-EOT when optical path loss is less than 9dB.
	5	Optical path loss reduced by approximately 2dB when WDM option fitted.