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IRT Eurocard

Type OFM-4262

Fibre Optic Multiplexer/Demultiplexer

Designed and manufactured in Australia

**IRT can be found on the Internet at:
<http://www.irtelectronics.com>**

IRT Eurocard**Type OFM-4262****Fibre Optic Multiplexer/Demultiplexer****Revision History**

Revision	Date	By	Change Description	Applicable to:
0	03/05/2011	AL	Original Issue.	S/N \geq 1101001

IRT Eurocard
Type OFM-4262
Fibre Optic Multiplexer/Demultiplexer
Instruction Book

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This instruction book applies to units later than 1101001.

Operational Safety:

WARNING

Operation of electronic equipment involves the use of voltages and currents that may be dangerous to human life. Note that under certain conditions dangerous potentials may exist in some circuits when power controls are in the **OFF** position. Maintenance personnel should observe all safety regulations.

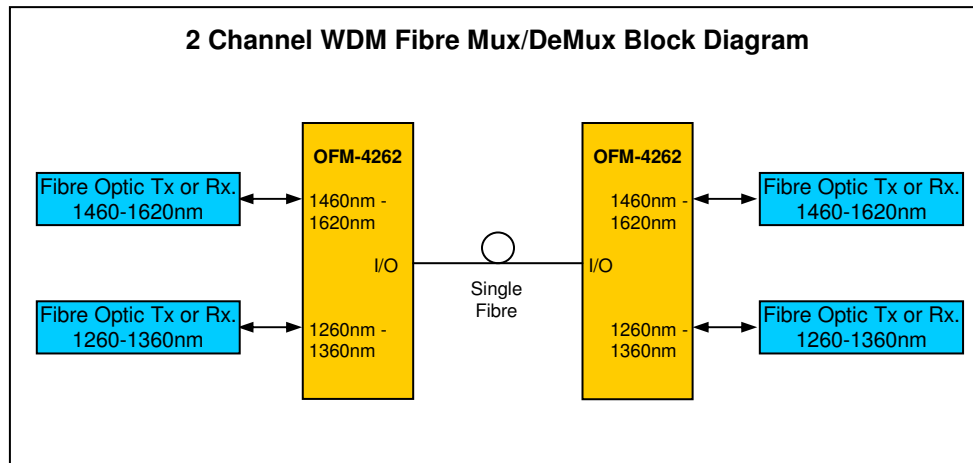
Do not make any adjustments inside equipment with power **ON** unless proper precautions are observed. All internal adjustments should only be made by suitably qualified personnel. All operational adjustments are available externally without the need for removing covers or use of extender cards.

IRT Eurocard

Type OFM-4262

Fibre Optic Multiplexer/Demultiplexer

General Description



The OFM-4262 is wave division optical wavelength division multiplexer / demultiplexer (WDM) for combining and separating two optical signals of 1260-1360nm (typically 1310nm) and 1460-1620nm (typically 1550nm) wavelengths for either uni-directional or bi-directional transmission on the one fibre.

With the high cost of hiring or installing additional dark fibre it makes economical sense to maximise the use of existing infrastructure.

Used in combination with IRT's extensive range of fibre transmitters / receivers and interface modules, a myriad of different signals types can be sent down the one fibre. With IRT's four channel fibre multiplexer/demultiplexer modules, for example, up to eight SDI signals can be sent down a single fibre. Or up to thirty two ASI signals can be sent when also used with IRT's ASI multiplexer/demultiplexer modules.

The OFM-4262 is designed to mount in IRT's 1RU or 4000 series 3RU frame.

Standard features:

- Two WDM optical wavelength inputs and outputs.
- Uni-directional or bi-directional operation.
- Low insertion loss.
- SC/PC type of optical connectors.

Technical Specifications

IRT Eurocard module Type OFM-4262

Type	WDM multiplexer / demultiplexer.
Wavelengths	1260-1360 nm & 1460-1620 nm.
Fibre	Single mode.
Connector type	SC/PC.
Insertion loss	< 0.5 dB @ 1550 nm. < 0.5 dB @ 1310 nm.
Isolation	> 20 dB.

Other

Temperature range	0 - 50° C ambient.
Mechanical	Suitable for mounting in IRT 19" 1RU or 4000 series 3RU rack chassis with input and output connections on the rear panel.
Finish	Front panel Rear assembly
	Grey background, black lettering & red IRT logo.
Dimensions	Common connection mounted on bracket from main PCB. 6 HP x 3 U x 220 mm IRT Eurocard.

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

Installation

Pre-installation:

Handling:

This equipment may contain or be connected to static sensitive devices and proper static free handling precautions should be observed.

Where individual circuit cards are stored, they should be placed in antistatic bags. Proper antistatic procedures should be followed when inserting or removing cards from these bags.

Power:

AC mains supply: Ensure that operating voltage of unit and local supply voltage match and that correct rating fuse is installed for local supply.

DC supply: Ensure that the correct polarity is observed and that DC supply voltage is maintained within the operating range specified.

Earthing:

The earth path is dependent on the type of frame selected. In every case particular care should be taken to ensure that the frame is connected to earth for safety reasons. See frame manual for details.

Signal earth: For safety reasons a connection is made between signal earth and chassis earth. No attempt should be made to break this connection.

Installation in frame or chassis:

See details in separate manual for selected frame type.

Fibre Connections:

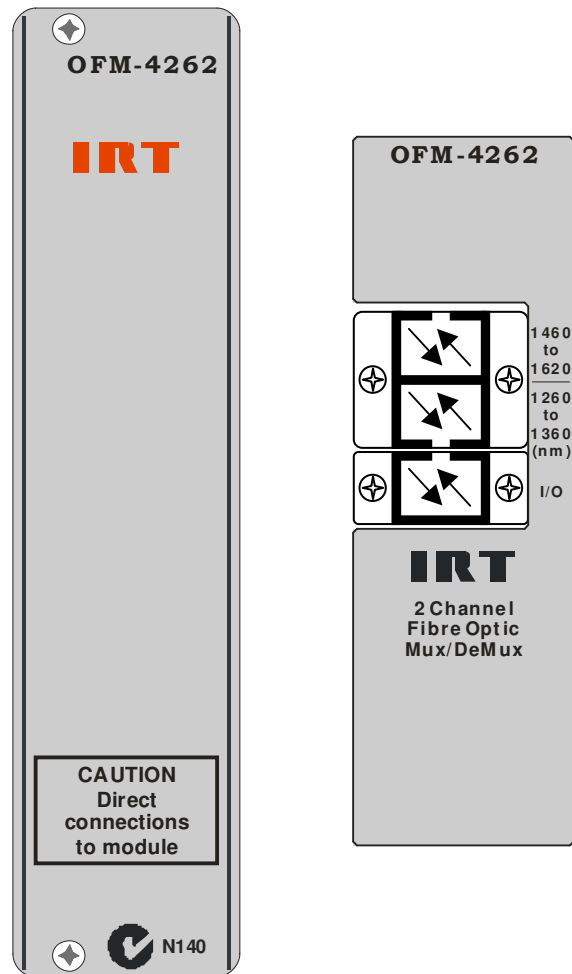
The OFM-4262 is used for combining 1260-1360nm (typically 1310nm) and 1460-1620nm (typically 1550nm) wavelengths for either uni-directional or bi-directional signal transmissions on a single single-mode optic fibre. Two units are required – one at each end of the fibre link.

Standard fibre connections are SC/PC type (blue). The fibre link plugs into the lower “I/O” port on the rear of the unit. At the transmit end a laser transmitter with a wavelength of typically 1310nm plugs into the 1260-1360nm port. At the receive end the receiver corresponding to the 1310nm transmitter plugs into the 1260-1360nm port of the second OFM-4262. Likewise a laser transmitter with a wavelength of typically 1550nm plugs into the 1460-1620nm port at its transmit end, and its corresponding receiver plugs into the 1460-1620nm port at the receive end.

For uni-directional signal transmission the two laser transmitters are at one end of the link and the two receivers are at the other end of the link. For bi-directional signal transmission there is a laser transmitter at each end of the link and their corresponding receivers at the opposite ends of the link.

Front & rear panel connector diagrams

The following front panel and rear assembly drawings are not to scale and are intended to show connection order and approximate layout only.



Maintenance & Storage

Maintenance:

No regular maintenance is required.

Care however should be taken to ensure that all connectors are kept clean and free from contamination of any kind. This is especially important in fibre optic equipment where cleanliness of optical connections is critical to performance.

Storage:

If the equipment is not to be used for an extended period, it is recommended the whole unit be placed in a sealed plastic bag to prevent dust contamination. In areas of high humidity a suitably sized bag of silica gel should be included to deter corrosion.

Where individual circuit cards are stored, they should be placed in antistatic bags. Proper antistatic procedures should be followed when inserting or removing cards from these bags.

Warranty & Service

Equipment is covered by a limited warranty period of three years from date of first delivery unless contrary conditions apply under a particular contract of supply. For situations when “No **Fault Found**” for repairs, a minimum charge of 1 hour’s labour, at IRT’s current labour charge rate, will apply, whether the equipment is within the warranty period or not.

Equipment warranty is limited to faults attributable to defects in original design or manufacture. Warranty on components shall be extended by IRT only to the extent obtainable from the component supplier.

Equipment return:

Before arranging service, ensure that the fault is in the unit to be serviced and not in associated equipment. If possible, confirm this by substitution.

Before returning equipment contact should be made with IRT or your local agent to determine whether the equipment can be serviced in the field or should be returned for repair.

The equipment should be properly packed for return observing antistatic procedures.

The following information should accompany the unit to be returned:

1. A fault report should be included indicating the nature of the fault
2. The operating conditions under which the fault initially occurred.
3. Any additional information, which may be of assistance in fault location and remedy.
4. A contact name and telephone and fax numbers.
5. Details of payment method for items not covered by warranty.
6. Full return address.
7. For situations when “No **Fault Found**” for repairs, a minimum charge of 1 hour’s labour will apply, whether the equipment is within the warranty period or not. Contact IRT for current hourly rate.

Please note that all freight charges are the responsibility of the customer.

The equipment should be returned **to the agent who originally supplied the equipment** or, where this is not possible, to IRT direct as follows.

Equipment Service
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