



User Manual

IQCWM16

16 x 1 CWDM Optical Mux/DeMUX

IQCWM10

8 x 1 CWDM Optical Mux/DeMUX with
Circulator

IQCWM09

8 x 1 CWDM Optical Mux/DeMUX with Express
Channel

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Contact Details

Customer Support

For details of our Regional Customer Support Offices please visit the Snell web site and navigate to Support/Customer Support Contacts.

<http://www.snellgroup.com/support/customer-support/customer-support/>

UK Office

The department is staffed from 9.00am to 5.30pm Monday to Friday (excluding UK public holidays).

Outside these times calls are diverted to voicemail for follow-up, the next working day.

Additional support is available outside these hours by purchasing a support contract details available from the above number during office hours, and via the Account Manager.

Customers with a support contract should call their personalized number, which can be found in their contract, and be ready to provide their contract number and details.

Contents

Information and Notices	2
Copyright and Disclaimer	2
Contact Details	2
Customer Support.....	2
UK Office	2
Module Description	4
Block Diagram.....	4
Rear Panel View	5
Order Codes	5
Feature Summary	6
Technical Profile	6
Inputs and Outputs	6
Specifications	6
Connections	7
Fiber Ports.....	7
Application IQCWM16.....	8
Application IQCWM10.....	9
Application IQCWM09.....	10

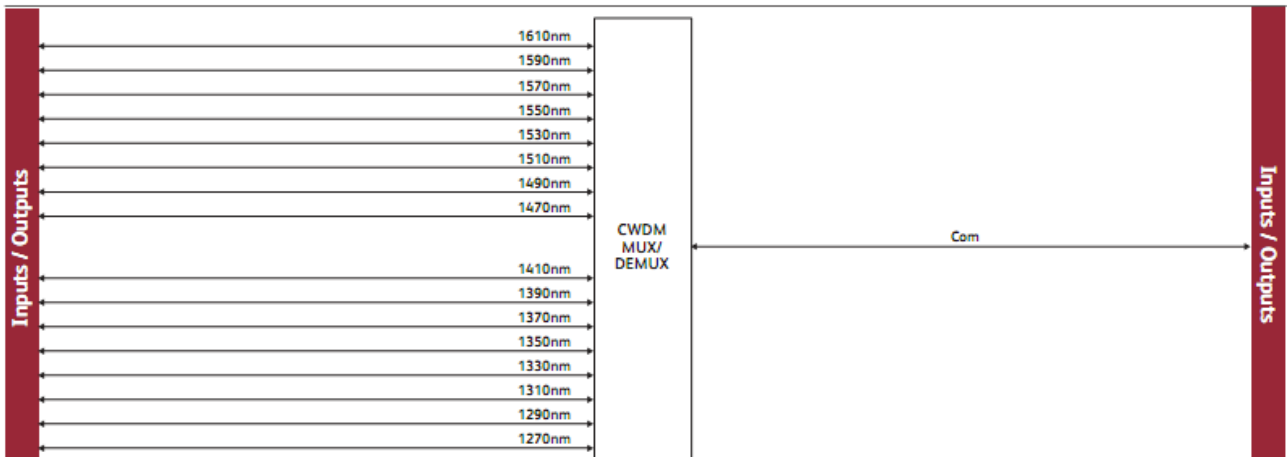
Module Description

The IQCWM16, IQCWM10, and IQCWM09 are high density optical **C**oarse **W**ave **D**ivision **M**ultiplexer/**D**eMultiplexer modules which occupy a single slot of an IQ modular frame. These CWDM optical modules are completely passive devices and there are no other active components on the fully assembled modules.

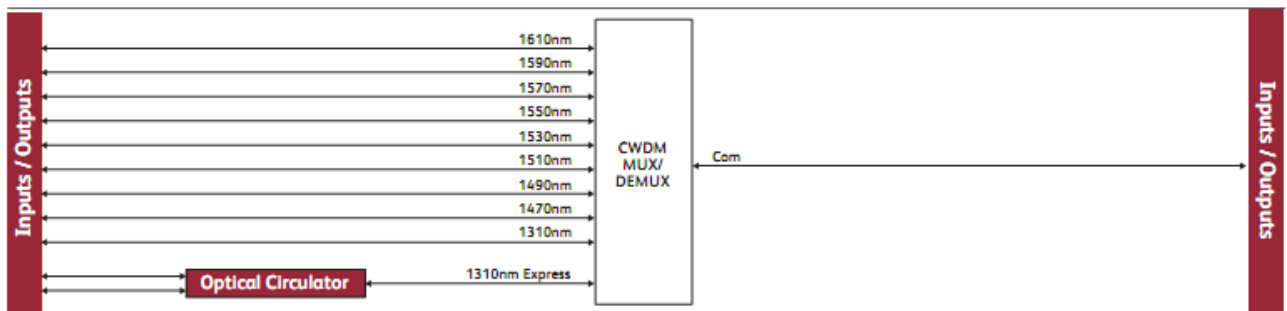
These modules facilitate up to 16 bi-directional signal paths on a single optical link.

Block Diagram

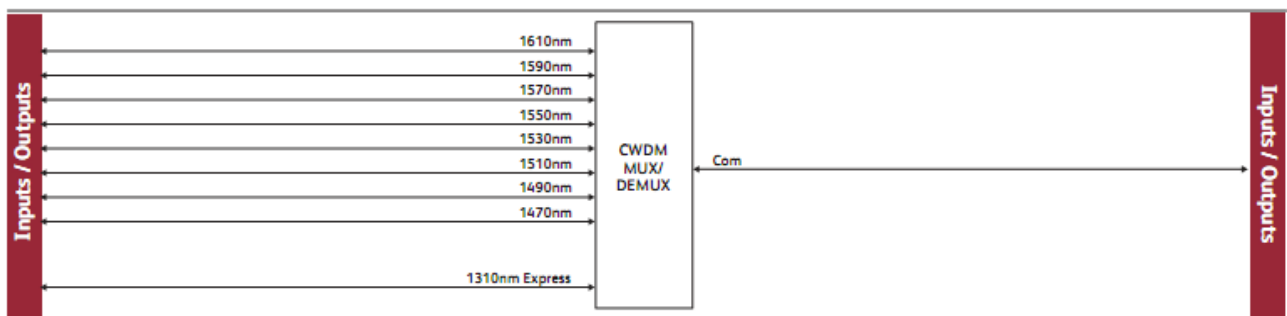
IQCWM16



IQCWM10

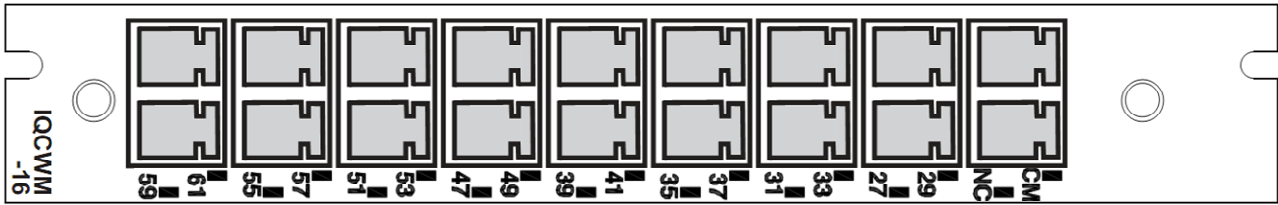


IQCWM09

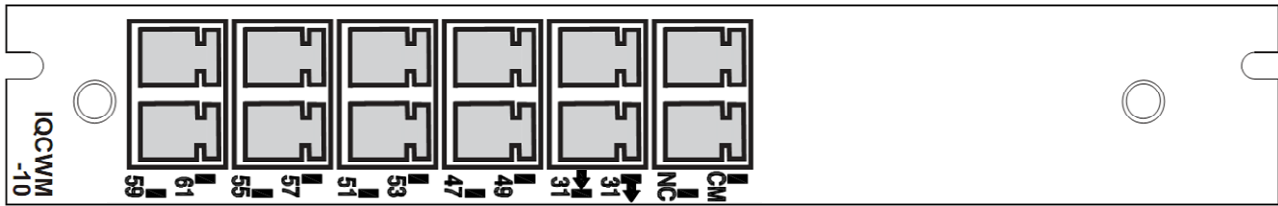


Rear Panel View

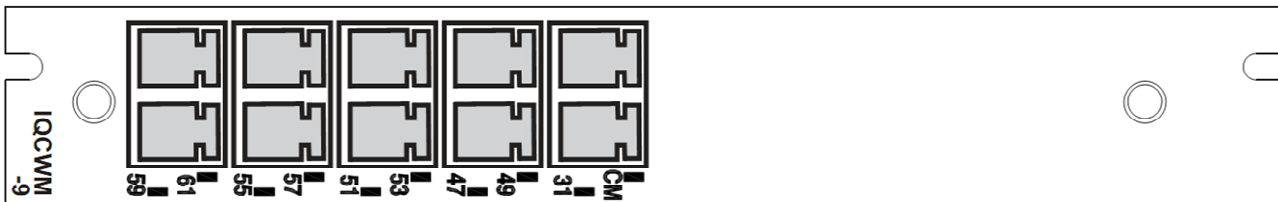
Single width 17-port Fiber CWDM module (**IQCWM1600-1A**)



Single width 11-port Fiber CWDM module (**IQCWM1000-1A**)



Single width 10-port Fiber CWDM module (**IQCWM0900-1A**)



Order Codes

Versions of the module cards available are:

- IQCWM1600-1A*** 17-port Fiber CWDM module. 17 bi-directional fiber connections (LC/PC). Common plus 1270, 1290, 1310, 1330, 1350, 1370, 1390, 1410, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610nm optical wavelengths.
- IQCWM1000-1A*** 11-port Fiber CWDM module. 1 in, 1 out and 9 bi-directional fiber connections (LC/PC). 1310nm Optical Circulator Channel input and output, Common plus 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610nm optical wavelengths.
- IQCWM0900-1A*** 10 port Fiber CWDM module. 10 bi-directional fiber connections (LC/PC). 1310nm Express Channel, Common plus 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610nm optical wavelengths.

Note: All modules are suitable for all IQ enclosures 1U, 3UA, and 3UB.

Feature Summary

- Up to 16 bi-directional fiber connections (LC/PC) for CWDM wavelengths 1270, 1290, 1310, 1330, 1350, 1370, 1390, 1410, 1470, 1490, 1510, 1530, 1550, 1570, 1590 and 1610nm.
- Single common fiber connection (LC/PC) carries all CWDM wavelengths.
- Access to express channel on IQCWM09 for wide-band lasers or link testing.
- Circulator to support full duplex communication channel in addition to video channels on IQCWM10.
- Supports all data rates for 1080p, HD and SD transport in all combinations.
- Can be located anywhere as passive operation required no power.

Technical Profile

Inputs and Outputs

Signal Inputs / Outputs

Optical ports	17 (IQCWM16) 11 (IQCWM10) 10 (IQCWM09)
Connector / format	LC/PC
Wavelengths	1270, 1290, 1310, 1330, 1350, 1370, 1390, 1410, 1470, 1490, 1510, 1530, 1550, 1570, 1590, 1610nm

Specifications

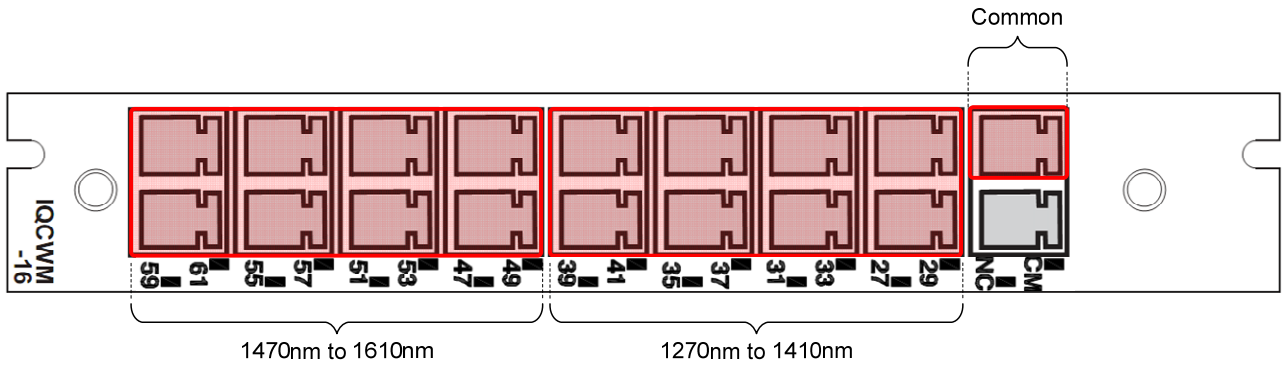
Electrical	Passive
Connector / format	LC/PC
Insertion Loss	<5.0 dB typical (IQCWM16) <2.6 dB typical (IQCWM09/IQCWM10) <3.5 dB typical (IQCWM10 circulator ports)
Pass band	+/-6.5nm
Pass band Flatness	<=0.5 dB
Adjacent Channel Isolation (demux)	>30 dB
Polarization Dependent Loss	<0.25 dB
Return Loss	>45 dB
Power Handling	300mW

Connections

Fiber Ports

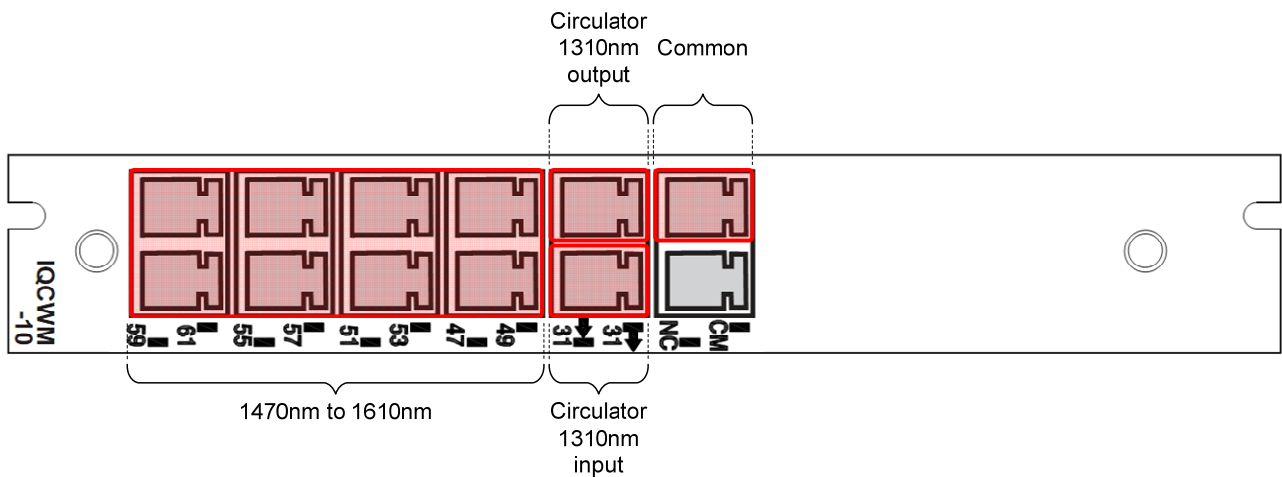
IQCWM1600-1A

Fiber port connections from the unit are made via the 17 LC/PC connectors.



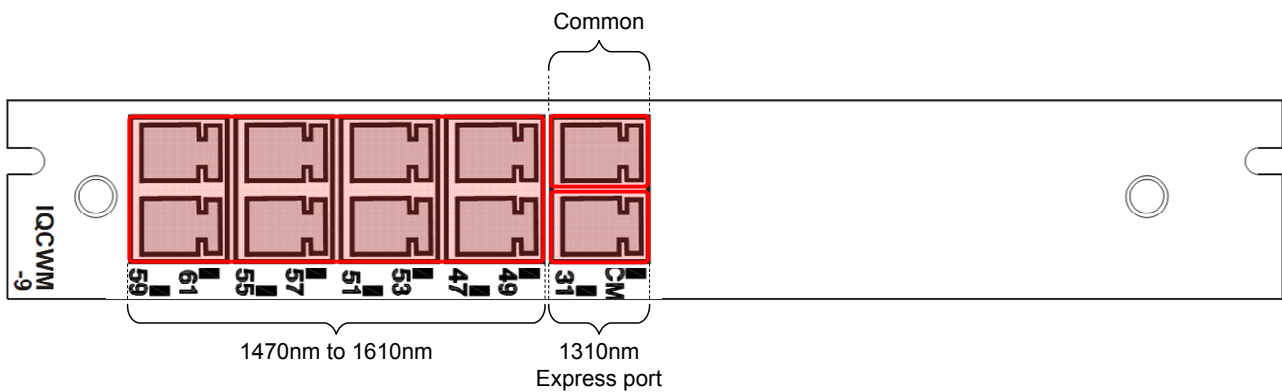
IQCWM1000-1A

Fiber port connections from the unit are made via the 11 LC/PC connectors.



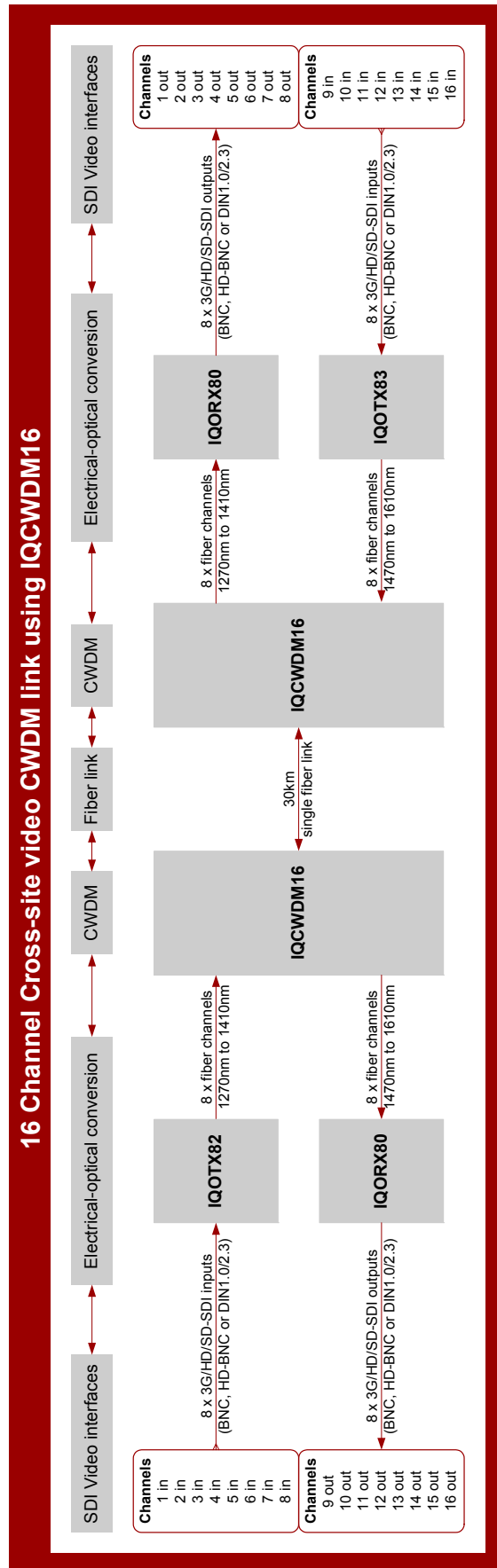
IQCWM0900-1A

Fiber port connections from the unit are made via the 10 LC/PC connectors.



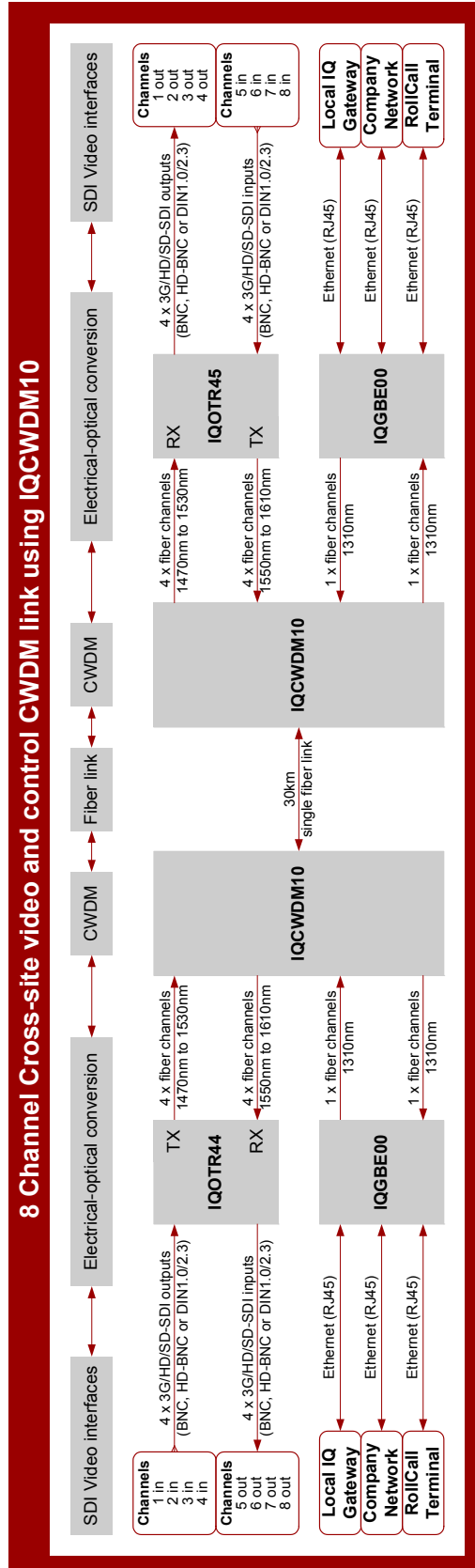
Application IQCWM16

Multiple bi-directional fiber links can be combined on a single fiber using CWDM technology as shown in the following system example.



Application IQCWM10

The IQCWM10 facilitates an 8-way bi-directional CWDM link and the extension of networking and other communication mediums over the same single fiber link. This example system incorporates the IQGBE00 which is a 4-port unmanaged Ethernet switch. There are three electrical ports to connect to various Ethernet networks and equipment and an Ethernet over fiber port to interface to the IQCWM10.



Application IQCWM09

The IQCWM09 facilitates an 8-way bi-directional CWDM link and this can be expanded further via the expansion port. This example system illustrates a typical 8 video channel cross-site link. The expansion port is available for testing the link through Optical Time-Domain Reflectometry (OTDR) or for use with low cost wide-band laser equipment.

