



Multi-Channel CWDM Module

www.Optiworks.com

This document proposes the specification of Coarse Wavelength Division Multiplexers and Demultiplexers.

Specifications

(All parameters are referenced without connectors. Typical connector loss 0.25 dB/pair)

Parameters	Specification	Unit
Center Wavelength	1271, 1291, 1311, 1331, 1351, 1371, 1391, 1411, 1431, 1471, 1491, 1511, 1531, 1551, 1571, 1591, 1611	nm
Nominal Channel Spacing	20	nm
Channel Passband	$\lambda_c \pm 6.5\text{nm}$	nm
Passband Ripple	≤ 0.5	dB
Insertion Loss	≤ 1.8 (4-ch) ≤ 2.8 (8-ch) ≤ 3.8 (16-ch)	dB
Uniformity	≤ 1.0	dB
Isolation (adjacent channel)	≥ 30	dB
Isolation (non-adjacent channel)	≥ 45	dB
Insertion Loss Temperature Sensitivity	≤ 0.008	dB/°C
Polarization Dependent Loss	≤ 0.1	dB
Polarization Mode Dispersion	≤ 0.1	ps
Return Loss (at Mux/DeMux channels)	≤ 45	dB
Directivity	≤ 55	dB
Maximum Power Handling	300	mW
Operating Temperature	-5 to 65	°C
Storage Temperature	-40 to 85	°C
Package Dimension	P0 (1-ch): $\varnothing 5.50 \times 35 / \varnothing 5.50 \times 40$ P1 (4-ch): 100 (L) x 80 (W) x 8 (H)* P2 (8/16-ch): 120 (L) x 90 (W) x 8 (H)*	mm

*LGX style enclosures also available. See Section 8 for details.

1. Part number of CWDMs

C	M	F																
---	---	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Product Type

M=Mux
D=Demux

Channels

01=1-Channel
04=4-Channel
08=8-Channel
16=16-Channel

Fiber Jacket

A=250 μm bare fiber
B=900 μm loose tube
C=3 mm jacket
D=2 mm jacket
E=tight buffer

Fiber Length

10=1.0 m
15=1.5 m
30=3.0 m
mn=m.n meters

Connectors

0=none	A=FC/PC
2=FC/UPC	B=SC/SPC
3=FC/APC	C=SC/PC
4=SC/UPC	D=ST/SPC
5=SC/APC	E=ST/PC
6=ST/UPC	F=LC/SPC
7=LC/UPC	G=LC/PC
9=FC/SPC	H=MU/UPC
	I=MU/PC
	J=LC/APC

**Start Channel
(Short Wvl)**

E0=1271 00=1471
E1=1291 01=1491
E2=1311 02=1511
E3=1331 03=1531
E4=1351 04=1551
E5=1371 05=1571
E6=1391 06=1591
E7=1411 07=1611
E8=1431
E9=1451

**End Channel
(Long Wvl)**

E0=1271 00=1471
E1=1291 01=1491
E2=1311 02=1511
E3=1331 03=1531
E4=1351 04=1551
E5=1371 05=1571
E6=1391 06=1591
E7=1411 07=1611
E8=1431
E9=1451

Package Type

0= No SS Tube
S= Single
N= Module
G= LGX
M= Mini

2. size reference

NA

3. RoHS appliance. GR-1209-Core, GR-1221-Core Generic Requirement and test standard.

Disclaimer: INFORMATION IN THIS DOCUMENT IS PROVIDED IN CONNECTION WITH OPTIWORKS PRODUCTS. NO LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE, TO ANY INTELLECTUAL PROPERTY RIGHTS IS GRANTED BY THIS

DOCUMENT. EXCEPT AS PROVIDED IN OPTIWORKS TERMS AND CONDITIONS OF SALE FOR SUCH PRODUCTS, OPTIWORKS ASSUMES NO LIABILITY WHATSOEVER AND DISCLAIMS ANY EXPRESS, IMPLIED OR STATUTORY WARRANTY RELATING TO ITS PRODUCTS INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. IN NO EVENT SHALL OPTIWORKS BE LIABLE FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, PUNITIVE, SPECIAL OR INCIDENTAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS AND PROFITS, BUSINESS INTERRUPTION, OR LOSS OF INFORMATION) ARISING OUT OF THE USE OR INABILITY TO USE THIS DOCUMENT. Optiworks makes no representations or warranties with respect to the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. Unless specifically provided otherwise, Optiworks products are not intended, authorized, or warranted for use as components in medical applications, or applications intended to support or sustain life.

“Optiworks” and the Optiworks logo are registered trademarks of Optiworks Technologies Co., Ltd. Other names, terms and product names may be trademarks of others.

© 2016 Optiworks Technologies Co., Ltd. All rights reserved.

Optiworks Technologies Co., Ltd.

USA

OptiWorks, Inc. 47211 Bayside Pkwy.

Fremont, CA 94538

510-770-8266/510-770-8291

sales@optiworks.com**China - Kunshan**

Optiworks(Kunshan)Co.,Ltd.

NO.168Nanhe Road, ETDZ

Kunshan 215300. PRC

Tel: +86 (512) 57630880-23305

contact@optiworks.com

China - Shanghai

Optiworks(Shanghai)Co.,Ltd.

Room 810-811, Changchun Business Building No.953QinZhou North Road.

Shanghai, 200233 PRC

Tel: +86 (21) 6485-8787

contact@optiworks.com