

PRODUCT ENGINEERING SPECIFICATION

Product Name: 12CH 100GHz DWDM Mux/Demux

Product Number: NDWDM-12-MD-2839 ITU-19

Product Description: 12 Channel DWDM Mux/Demux
Wavelength: 100GHz C28-C39
Connector: Input Port-SC/UPC
Output Port-LC/UPC, 1U 19" Rack

12CH 100GHz DWDM Mux&Demux 1U Rack

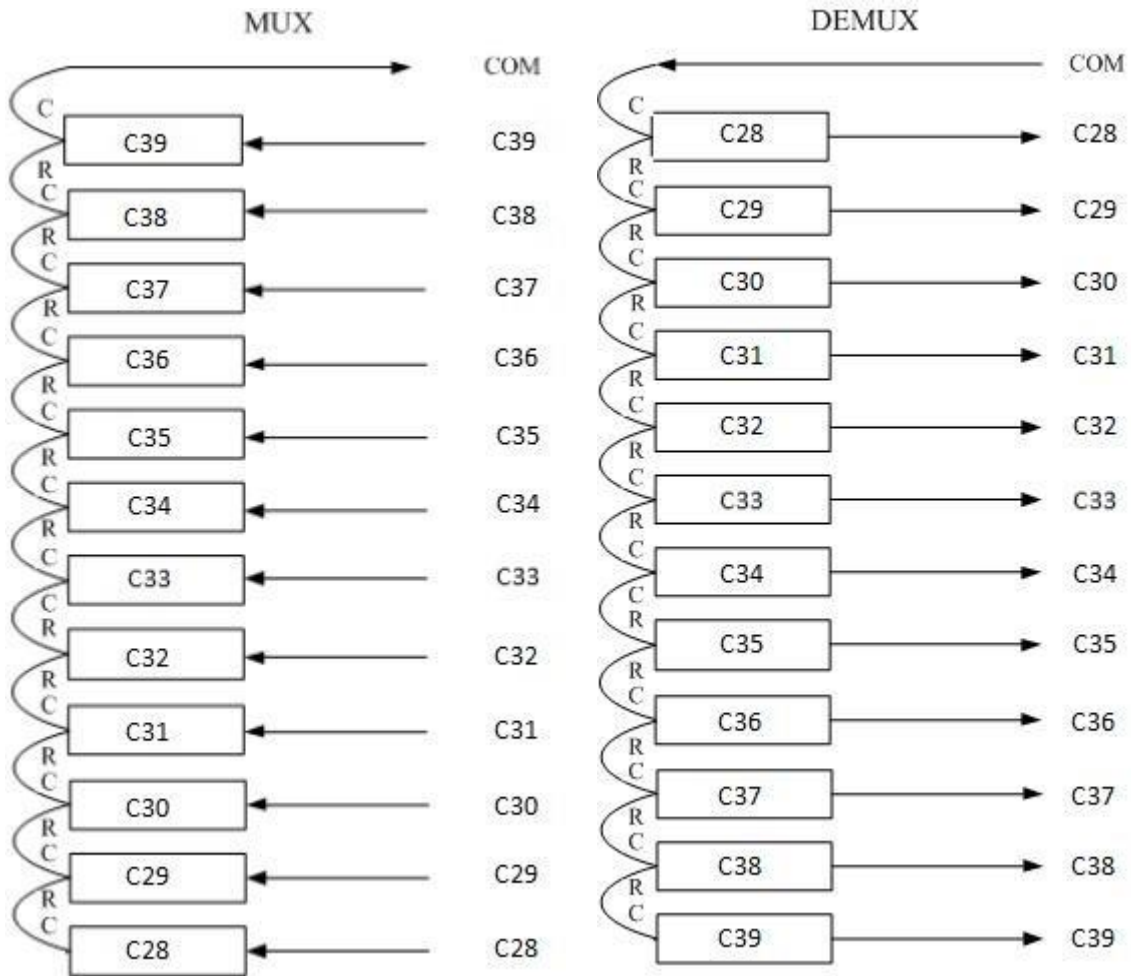
1. Product Description:

Description: 12CH 100GHz DWDM MUX and Demux, Fiber Type: SMF-28e, Dual Fiber, Wavelength Channel: C28-C39, Package: 1U 19" Rack, Connector: Input Port-SC/UPC; Output Port-LC/UPC.

2. Specifications:

Parameter	Unit	Value
Channel Number	CH	12
Product Type	-	Mux and Demux
Fiber Number	-	2
Operation Wavelength	nm	C-Band
Channel Central Wavelength	nm	C28-C39
Channel Space	nm	0.8 (100GHz)
Channel Passband	nm	λ ITU \pm 0.11
Insertion Loss (Typ.)	dB	4.7
Insertion Loss (Max.)	dB	5.0
Uniformity	dB	\leq 0.5
Adjacent Channel Isolation	dB	\geq 25
Non-adjacent Channel Isolation	dB	\geq 30
Passband Ripple	dB	\leq 0.5
Return Loss	dB	\geq 45
Polarization Mode Dispersion (PMD)	ps	\leq 0.20
Polarization Dependent Loss (PDL)	dB	\leq 0.15
Power Handling	mW	<500
Connector Type	-	LC/UPC
Operation Temperature	$^{\circ}$ C	-20 ~ +85
Storage Temperature	$^{\circ}$ C	-40 ~ +85
Package Dimension	-	1U 19" Rack Chassis
<p>Note: The above parameter is without connector. If with connector, IL will increase by 0.3dB.</p>		

3. Optical Path Diagram



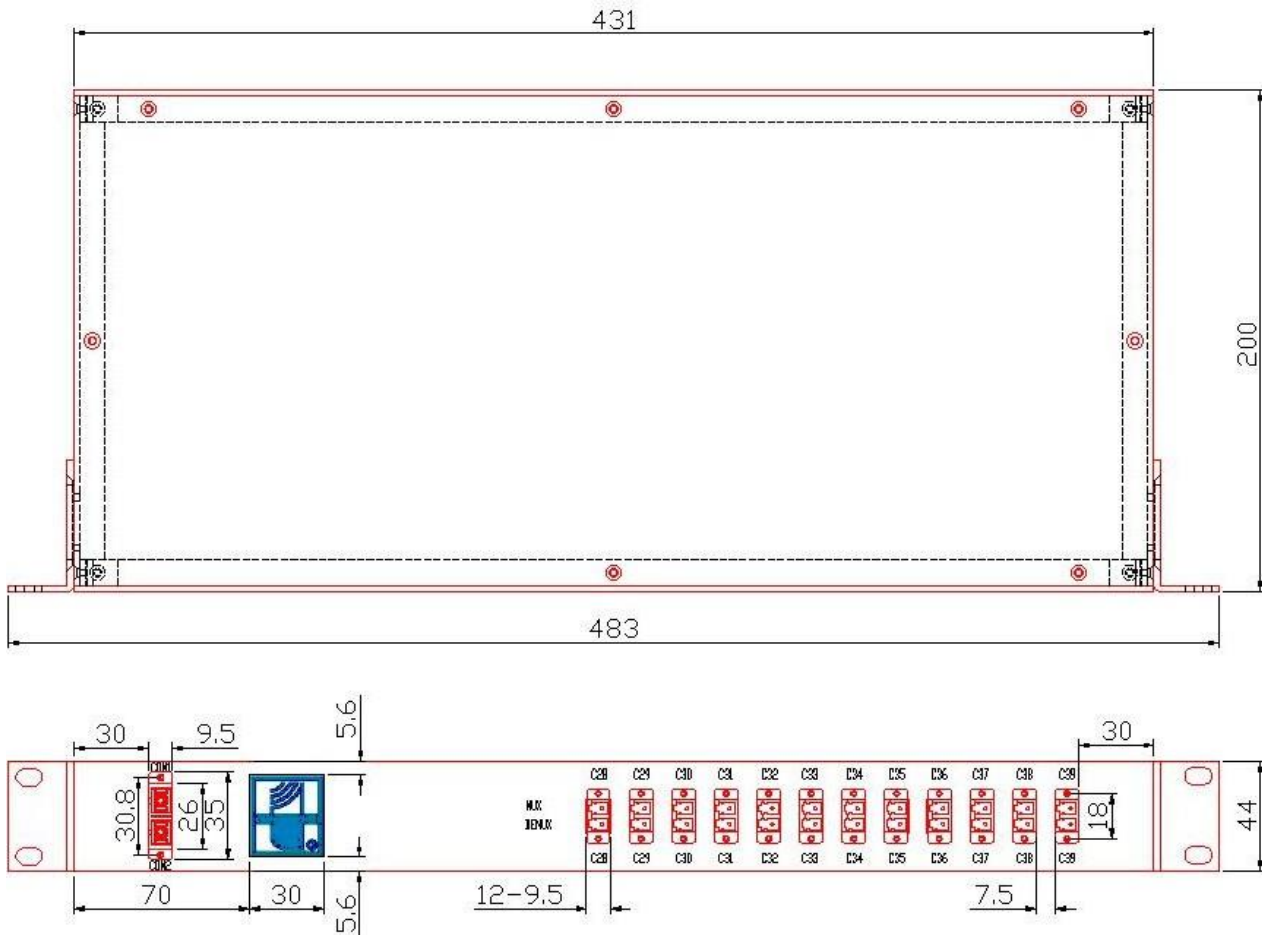
Part Number	Mux Wavelength	Demux Wavelength
NDWDM-12-MD-2839 ITU-19	C28:1554.94nm	C39:1546.12nm
	C29:1554.13nm	C38:1546.92nm
	C30:1553.33nm	C37:1547.72nm
	C31:1552.52nm	C36:1548.52nm
	C32:1551.72nm	C35:1549.32nm
	C33:1550.92nm	C34:1550.12nm
	C34:1550.12nm	C33:1550.92nm
	C35:1549.32nm	C32:1551.72nm
	C36:1548.52nm	C31:1552.52nm
	C37:1547.72nm	C30:1553.33nm
	C38:1546.92nm	C29:1554.13nm
	C39:1546.12nm	C28:1554.94nm

Dense Wavelength Division Multiplexing

ITU Grid: C-Band, 100 GHz Spacing

Channel (#)	Frequency (GHz)	Wavelength (nm)	Channel (#)	Frequency (GHz)	Wavelength (nm)
1	190100	1577.03	37	193700	1547.72
2	190200	1576.2	38	193800	1546.92
3	190300	1575.37	39	193900	1546.12
4	190400	1574.54	40	194000	1545.32
5	190500	1573.71	41	194100	1544.53
6	190600	1572.89	42	194200	1543.73
7	190700	1572.06	43	194300	1542.94
8	190800	1571.24	44	194400	1542.14
9	190900	1570.42	45	194500	1541.35
10	191000	1569.59	46	194600	1540.56
11	191100	1568.77	47	194700	1539.77
12	191200	1567.95	48	194800	1538.98
13	191300	1567.13	49	194900	1538.19
14	191400	1566.31	50	195000	1537.4
15	191500	1565.5	51	195100	1536.61
16	191600	1564.68	52	195200	1535.82
17	191700	1563.86	53	195300	1535.04
18	191800	1563.05	54	195400	1534.25
19	191900	1562.23	55	195500	1533.47
20	192000	1561.42	56	195600	1532.68
21	192100	1560.61	57	195700	1531.9
22	192200	1559.79	58	195800	1531.12
23	192300	1558.98	59	195900	1530.33
24	192400	1558.17	60	196000	1529.55
25	192500	1557.36	61	196100	1528.77
26	192600	1556.56	62	196200	1527.99
27	192700	1555.75	63	196300	1527.22
28	192800	1554.94	64	196400	1526.44
29	192900	1554.13	65	196500	1525.66
30	193000	1553.33	66	196600	1524.89
31	193100	1552.52	67	196700	1524.11
32	193200	1551.72	68	196800	1523.34
33	193300	1550.92	69	196900	1522.56
34	193400	1550.12	70	197000	1521.79
35	193500	1549.32	71	197100	1521.02
36	193600	1548.52	72	197200	1520.25
O Band	1260-1360	E Band	1360-1460	S Band	1460-1530
C Band	1530-1565	L Band	1565-1625	U Band	1625-1675

4. Outline Drawing:



5. Label Diagram:



6. Test Report:

The test report should be provided when the products are delivered. Following characteristic test data should be included:

- Insertion Loss
- Adjacent Channel Isolation
- Non-adjacent Channel Isolation
- PDL

7. Packaging:

Following items should be indicated on the outer packaging surface:

Product Name

Product Number

Serial Number (SN bar code)





3CH DWDM MUX/DEMUX Module Test Data Report

NOV03-09-MD-3038
210330016

Part Number	NOV03-09-MD-3038										
SN	210330016										
Channel Wavelength	C30-C38										
Polarization	->D11										
Central Wavelength(nm)	C30	C31	C32	C33	C34	C35	C36	C37	C38		
MUX	2.01	1.95	1.80	1.81	1.60	1.23	1.13	0.85	0.84		
DEMUX	0.90	0.92	0.92	1.11	1.47	1.43	1.62	1.76	1.81		
Insertion Loss (dB)											
Rotation Mode Dispersion	<=0.2										
Polarization Dependent Loss (dB)	<=0.15										
Adjacent Channel (dB)	>=25										
Isolation Non-Adj Channel (dB)	>=30										
Return Loss (dB)	>=45										
Passband Ripple (dB)	<=0.8										
Directivity (dB)	>=50										
Power Handling (mW)	<=500										
Fiber Type	SMF-28e 0.9mm Loose Tube										
Fiber Length (cm)	<=0.5										
Connector	LC/APC										
Operating Temperature (°C)	-20 ~ +85										
Storage Temperature (°C)	-40 ~ +85										
Package Dimension (mm)	1U 19" Rack										
Tested By	362									Date	2023/03/02
Inspected By	385									Date	2023/03/02

1pc/Box



Carton Size: 55x34x38cm

5set/Carton

