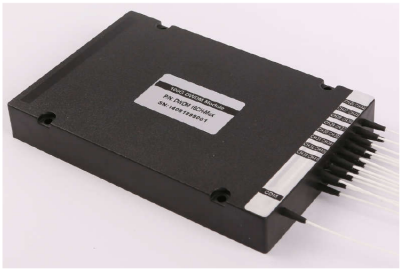
SFW-D Dense Wavelength Division Multiplexer (DWDM)

Description:

SFW-D series dense wavelength division multiplexer and demultiplexer (DWDM) modules are reliable solutions to multiservice applications. They multiply the capacity of existing singlemode fibers, based on 100 or 200 GHz channel spacing. The SFW-D are available in a variety of packaging options for standard configurations of 4, 8, 16, 32 and 40 channels. Custom devices can be configured to meet customer demands concerning channel counts, wavelength plan and packaging requirements.



Features:

- Wide channel bandwidth
- High adjacent channel isolation
- Low polarization dependent loss and chromatic dispersion
- Customer solutions

Specifications:

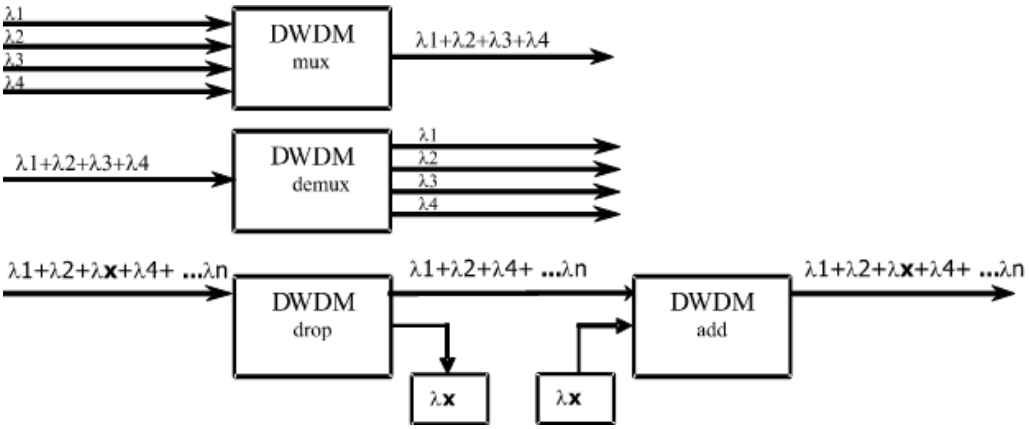
Channel wavelength, nm	ITU 100 GHz Grid				
Channel spacing, GHz	100				
Pass bandwidth (@ -0.5 dB), nm	> 0.3				
Channel ripple, dB	< 0.5				
Channel number	4	8	16	32	40
Insertion Loss, dB (typ)	1.6	2.6	3.8	4.8	5.2
Insertion Loss, dB (max)	1.8	3.0	4.5	5.5	6.0
Channel uniformity, dB	≤ 0.6	≤ 1.0	≤ 1.5	≤ 1.0	≤ 1.0
PDL, dB	≤ 0.10	≤ 0.10	≤ 0.20	≤ 0.20	≤ 0.20
PMD, ps	≤ 0.10	≤ 0.10	≤ 0.20	≤ 0.20	≤ 0.30
Isolation – adjacent channel, dB	≥ 30 dB				
Isolation – non adjacent channel, dB	≥ 40 dB				
Maximum optical power, mW	≤ 300				
Return loss	≥ 45 dB				
Directivity	≥ 50 dB				
Operating temperature, °C	-5 to +75				
Storage temperature, °C	-40 to +85				
Reliability	Telcordia GR-1209, GR-1221				

Packaging variants:

SFW-D1-4M+4D-30-MCNP-NSC

SFW-D1-4M-30-CAPM-NE2P

Block diagram of typical applications:



Application:

- Metro and long haul mux/demux
- OADM network nodes
- Original equipment manufacturer (OEM) applications

Ordering code:

SFW - DX-XX - XX - XXX - AAA

DX		**XX**	
Channel spacing		**Type**	
D1	100 GHz	**4M**	4 Channels mux
		4D	4 Channels demux
		6M	6 Channels mux
On request:		**6D**	6 Channels demux
D2	200 Ghz	**8M**	8 Channels mux
		8D	8 Channels demux
		AD	Add/Drop

Number of first channel according to ITU Grid
Or on request

Package version I (Basic type)	
FP4	0.9 mm fiber, ABS box 120x80x18 mm
Package version II (Optional)	
CAPM	OPTOKON cassette (up to 6 channels)
CAPD	OPTOKON double cassette (8 channels)
XXX =>	Part number of relevant ODF (e.g. **MCNP, TMVJ, MCPJ**)

AAA – Input and output connectors

Standard connector types:

Code	Description
UPC	FC/UPC
NPC	FC/APC (2.05 standard)
USC	SC/USC
NSC	SC/APC
NE2S	LSH (E2000)/APC standard
NE2P	LSH (E2000)/APC premium
ULC	LC/UPC
NLC	LC/APC
NC	No connectors

Note: Standard fiber / Cable length = 1 m

ITU Grid Channels (100 GHz Spacing)

Channel	Frequency (THz)	Wavelength (nm)	Channel	Frequency (THz)	Wavelength (nm)	Channel	Frequency (THz)	Wavelength (nm)
1	190,100	1577.03	26	192,600	1556.55	51	195,100	1536.61
2	190,200	1576.20	27	192,700	1555.75	52	195,200	1535.82
3	190,300	1575.37	28	192,800	1554.94	53	195,300	1535.04
4	190,400	1574.54	29	192,900	1554.13	54	195,400	1534.25
5	190,500	1573.71	30	193,000	1553.33	55	195,500	1533.47
6	190,600	1572.89	31	193,100	1552.52	56	195,600	1532.68
7	190,700	1572.06	32	193,200	1551.72	57	195,700	1531.90
8	190,800	1571.24	33	193,300	1550.92	58	195,800	1531.12
9	190,900	1570.42	34	193,400	1550.12	59	195,900	1530.33
10	191,000	1569.59	35	193,500	1549.32	60	196,000	1529.55
11	191,100	1568.77	36	193,600	1548.51	61	196,100	1528.77
12	191,200	1567.95	37	193,700	1547.72	62	196,200	1527.99
13	191,300	1567.13	38	193,800	1546.92	63	196,300	1527.22
14	191,400	1566.31	39	193,900	1546.12	64	196,400	1526.44
15	191,500	1565.50	40	194,000	1545.32	65	196,500	1525.66
16	191,600	1564.68	41	194,100	1544.53	66	196,600	1524.89
17	191,700	1563.86	42	194,200	1543.73	67	196,700	1524.11
18	191,800	1563.05	43	194,300	1542.94	68	196,800	1523.34
19	191,900	1562.23	44	194,400	1542.14	69	196,900	1522.56
20	192,000	1561.42	45	194,500	1541.35	70	197,000	1521.79
21	192,100	1560.61	46	194,600	1540.56	71	197,100	1521.02
22	192,200	1559.79	47	194,700	1539.77	72	197,200	1520.25
23	192,300	1558.98	48	194,800	1538.98	73	197,300	1519.48
24	192,400	1558.17	49	194,900	1538.19			
25	192,500	1557.36	50	195,000	1537.40			