



# DWDM (Mux-Demux) passive

**PART NUMBER: DMPDWxxxxxxxx**

## DESCRIPTION

The number of optic channels in these systems is more than 8 channels, the distance between the channels is very narrow and less than 1.6nm. Manufacturing such systems with precision, high wavelength and very narrow distance between channels requires high technology in supplying optical resources and equipment. Such systems with 16 to 40 channels and 1.6nm and 0.8 nm channel distance were made in mid 1990s.

Building systems with more channels and consequently less distance has proceeded as at the end of 1990s, systems with 64 to 160 channels with 0.4nm and 0.2nm distance were tested.

For the purpose of consistency and to determine the wavelength of the channels in these systems, the ITU-TG.694.1 recommendation has determined the central wavelengths per the inter-channel distance of 0.8nm, 0.8nm, 0.2nm and 0.1nm; and for the purpose of compatibility, the companies that produce the optical resources and apparatuses follow this standard.

It should be noted that the 0.8nm distance is equivalent to 100GHz, 0.4nm equivalent to 50GHz, 0.2nm equivalent to 25GHz and 0.1nm is equivalent to 12.5GHz.

In addition, in this recommendation, the 193.1 THz frequency is equivalent to 1552.52nm. The range of using these systems has been divided into the two Bands C and Bands L; where Band C includes 1530~1565nm; and Band L includes 1620~1565 nm. Of course, the advantage of the DWDM systems is their capability in transporting very long distances on the fiber (several thousand kilometers), large number of channels (many hundred channels) as well as supporting big bit rates such as 10Gbps and 40Gbps.

Part number structure			
Number of wavelength and wavelength in use	Part number	Number of wavelength and wavelength in use	Part number
(32-29) DWDM 4+1	DMPDW401029032	(48-21) DWDM 28+1 DeMux	DMPDWD29021048
(34-29) DWDM 6+1	DMPDW601029034	(52-21) DWDM 32+1 Mux	DMPDWM33021052
(36-29) DWDM 8+1	DMPDW801029036	(52-21) DWDM 32+1 DeMux	DMPDWD33021052
(27-20) DWDM 8+1	DMPDW801020027	(59-20) DWDM 40 Mux	DMPDWM40020059
(36-27) DWDM 10+1	DMPDW101027036	(59-20) DWDM 40 DeMux	DMPDWD40020059
(36-21) DWDM 16+1	DMPDW161021036	(60-21) DWDM 40 Mux	DMPDWM40021060
(42-27) DWDM 16+1	DMPDW161027042	(60-21) DWDM 40 DeMux	DMPDWD40021061
(38-21) DWDM 18+1	DMPDW181021038	(60-13) DWDM 96 Mux	DMPDWM96013060
(44-21) DWDM 24+1 Mux	DMPDWM25021044	(60-13) DWDM 96 DeMux	DMPDWD96013060
(44-21) DWDM 24+1 DeMux	DMPDWD25021044	(61-14) DWDM 96 Mux	DMPDWM96014061

**Optical WDM Data sheet****DWDM-16CH-MUX/DEMUX****part number: DMPDW161021036**

Parameter	DMPDWxxxxxxxx									
Operating Wavelength(nm)	MUX	ch21	ch22	ch23	ch24	ch25	ch26	ch27	ch28	ch29
Insertion Loss(dB)	<3.8	0.83	0.93	1.02	1.11	1.21	1.09	1.26	1.24	1.33
Operating Wavelength(nm)		ch30	ch31	ch32	ch33	ch34	ch35	ch36	exp	
Insertion Loss(dB)	<3.8	1.4	1.87	1.83	2.07	2.15	2.5	2.24	2.4	
Operating Wavelength(nm)	Demux	ch21	ch22	ch23	ch24	ch25	ch26	ch27	ch28	ch29
Insertion Loss(dB)	<3.8	2.4	2.23	2.62	2.05	1.93	1.77	1.64	1.67	1.38
Operating Wavelength(nm)		ch30	ch31	ch32	ch33	ch34	ch35	ch36	exp	
Insertion Loss(dB)	<3.8	1.39	1.46	1.02	0.75	0.68	0.66	0.41	2.14	
Channel Ripple(dB)	<0.3									
Polarization Dependent Loss(dB)	<0.10									
PMD (ps)	<0.10									
Isolation	Adjacent(dB)	>30								
	Non-adjacent(dB)	>45								
Express Isolation(dB)	>15									
Directivity(dB)	>50									
Return Loss(dB)	>45									
Fiber length(m)	0.5									
Fiber Type	SMF-28e with 900um Loose Tube									
connector	LC/UPC									
Operating Temperature(centigrade)	-20~+70									
Storage Temperature(centigrade)	-40~+85									
Package Dimension(mm)	140*115*18									