

Introduction:

Fiberdyne Labs offers **DWDM modules** in a wide variety of formats. While Fiberdyne offers some models as "standard," we will also produce customized **DWDM modules**. Customization can include the number and selection of **DWDM channels**. Additionally, modules may include tap/monitoring capability and variable attenuation. These modules may be a number of standard form factors, such as LGX, FCH (Corning CCH compatible), ADC (Package A), and EIA-standard 19/23-inch rackmount.

DWDM is a proven technology, which offers flat channel bandwidth, flexible channel configuration, low insertion loss and high isolation. Fiberdyne Labs modules can be optically daisy-chained, to provide additional channels as bandwidth needs grow. Modules are available on the C & L bands, ITU 100GHz grid at channel spacing of 100GHz or 200GHz.



DWDM Module



Double 1x10 DWDM Module



Focus Box



ADC Module

100 GHz DWDM Specifications				
Channel Wavelength	Ref. ITU Grid			
Channel Spacing	100 GHz (0.8nm)			
Channel Passband (nm) @ - 0.5dB	0.3			
Number of Channels	2	4	8	16
Add/Drop Channel Insertion Loss (dB)*	<= 1.5	<= 2.1	<=3.0	<=4.0
Express Channel Insertion Loss (dB)*	<= 0.7	<= 1.2	<= 2.5	<= 3.5
Return Loss (dB)	>= 45			
Adjacent Channel Isolation (dB)	>= 25 (DeMux)			
Non-adjacent Channel Isolation (dB)	>= 40			
Wavelength Temperature Stability (nm/ ° C)	<= 0.002			
Insertion Loss Thermal Stability dB/ ° C	<= 0.005			
Channel Uniformity (dB)	<= 1.5			
Polarization Dependent Loss (dB)	<= 0.2			
Maximum Power Handling (mW)	250			
Operating Temperature (° C)	0 to 65			
Storage Temperature (° C)	-40 to 85			
*Note: Insertion Loss values do not include connector losses.				

200 GHz DWDM Specifications				
Channel Wavelength	Ref. ITU Grid			
Channel Spacing	200 GHz (1.6nm)			
Channel Passband (nm) @ - 0.5dB	0.6			
Channel Number	2	4	8	16
Add/Drop Channel Insertion Loss (dB)*	<= 1.5	<= 2.1	<=3.0	<=4.0
Express Channel Insertion Loss (dB)*	<= 0.7	<= 1.2	<= 2.5	<= 3.5
Return Loss (dB)	>= 45			
Adjacent Channel Isolation (dB)	>= 25 (DeMux)			
Non-adjacent Channel Isolation (dB)	>= 40			
Wavelength Temperature Stability (nm/ ° C)	<= 0.002			
Insertion Loss Thermal Stability dB/ ° C	<= 0.005			
Channel Uniformity (dB)	<= 1.5			
Polarization Dependent Loss (dB)	<= 0.2			
Maximum Power Handling (mW)	250			
Operating Temperature (° C)	0 to 65			
Storage Temperature (° C)	-40 to 85			
*Note: Insertion Loss values do not include connector losses.				

[Dense Wave Division Multiplexing \(DWDM\) ITU Grid](#)