



**Thin-Film 1550/1310
Wavelength Division Multiplexer**

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This document proposes the specification of the Thin-Film Wavelength Division Multiplexer that transmits light at 1310 nm and reflects light at 1550 nm.

1. Specifications

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

Parameters		Specifications	Unit
Transmitted Band		1270-1350	nm
Reflected Band		1520-1610	nm
Passband Insertion Loss		≤ 0.7	dB
Reflected band Insertion Loss		≤ 0.5	dB
Insertion loss uniformity over Transmitted band		≤ 0.2	dB
Insertion loss uniformity over Reflected band		≤ 0.2	dB
Isolation in Transmission against Reflected Band		≥ 35	dB
Isolation in Reflection against Transmitted Band		≥ 18	dB
PDL		≤ 0.1	dB
PMD		≤ 0.1	ps
Return Loss	Single-mode	≥ 50	dB
	Multi-mode	≥ 40	
Directivity	Single-mode	≥ 55	dB
	Multi-mode	≥ 45	
Optical Power Handling		> 500	mW
Operating Temperature		0 to 70	°C
Storage Temperature		-40 to 85	°C
Fiber Type		SMF 28, Multimode 62.5/125, or Multimode 50/125	
Package Dimension (excluding strain relief)	Bare Fiber	ϕ 5.5 x 35 typical	mm
	900 μ m Loose Tube	ϕ 5.5 x 40 typical	

2. Part number of WDM

W	M	M								N			
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<u>Product Type</u>	<u>Wavelength (Reflection/Pass)</u>	<u>Fiber Type</u>	<u>Package Type</u>	<u>Connectors</u>
N=standard	1315=1310/1550 nm *	1 = SMF28	S=single tube	0=none A=FC/PC
H=high isolation	1513=1550/1310 nm	5 = MM 50/125 um	N=module	2=FC/UPC B=SC/SPC
	1415=1480/1550 nm	6 = MM 62.5/125 um	G=LGX	3=FC/APC C=SC/PC
	1534=1550/1310+1490 nm *	7 = For WMMN9815		4=SC/UPC D=ST/SPC
	3415=1310+1490/1550 nm			5=SC/APC E=ST/PC
	9815=980/1550 nm			6=ST/UPC F=LC/SPC
	8513=850/1310 nm *			7=LC/UPC G=LC/PC
	Note: only * noted has high isolation			9=FC/SPC H=MU/UPC
	version		<u>Fiber Jacket</u>	I=MU/PC
			A=250 μm bare fiber	J=LC/APC
			B=900 μm loose tube	
			E=tight buffer	

Fiber Length

10=1.0 m

15=1.5 m

30=3.0 m

3. size reference

NA

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

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