Thin-Film 1310/1550 High Isolation Wavelength Division Multiplexer

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

Specifications

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

Parameters		Specifications	Unit
Transmitted Band		1520-1610	nm
Reflected Band		1270-1350	nm
Passband Insertion Loss		$\leq$ 1.0	dB
Reflected band Insertion Loss		$\leq$ 1.0	dB
Insertion loss uniformity over Transmitted band		$\leq$ 0.3	dB
Insertion loss uniformity over Reflected band		$\leq$ 0.3	dB
Isolation in Transmission against Reflected band		$\geq$ 45	dB
Isolation in Reflection against Transmitted band		$\geq$ 45	dB
PDL in Transmission		$\leq$ 0.1	dB
PDL in Reflection		$\leq$ 0.2	dB
PMD		$\leq$ 0.1	ps
Return Loss		$\geq$ 50	dB
		$\geq$ 40	
Directivity		$\geq$ 55	dB
		$\geq$ 45	
Optical Power Handling		> 500	mW
Operating Temperature		0 to 70	^{o}C
Storage Temperature		-40 to 85	^{o}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 μm Loose Tube	ϕ 5.5 x 40 typical	

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Part number of WDM

Product Type

N=standard

H=high isolation

Wavelength (Reflection/Pass)

1315=1310/1550 nm *

1513=1550/1310 nm

1415=1480/1550 nm

1534=1550/1310+1490 nm *

3415=1310+1490/1550 nm

9815=980/1550 nm

8513=850/1310 nm *

Note: only * noted has high isolation version

Fiber Type

1 = SMF28

3 = BendBright single mode fiber

5 = MM 50/125 um

6 = MM 62.5/125 um

Fiber Jacket

A=250 μm bare fiber

B=900 μm loose tube

E=tight buffer

Package Type

S=single tube

N=module

G=LGX

Fiber Length

10=1.0 m

15=1.5 m

30=3.0 m

mn=m.n meters

Connectors

0=none	A=FC/PC
2=FC/UPC	B=SC/SPC
3=FC/APC	C=SC/PC
4=SC/UPC	D=ST/SPC
5=SC/APC	E=ST/PC
6=ST/UPC	F=LC/SPC
7=LC/UPC	G=LC/PC
9=FC/SPC	H=MU/UPC
	I=MU/PC
	J=LC/APC

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