

DIAMOND

Fiber Optic Components

WDM

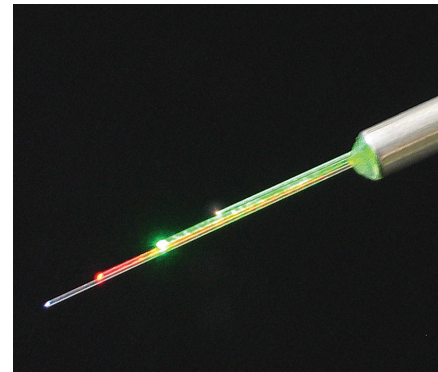
COUPLERS

SINGLEMODE COUPLER WDM 1310 nm and 1550 nm

GENERAL

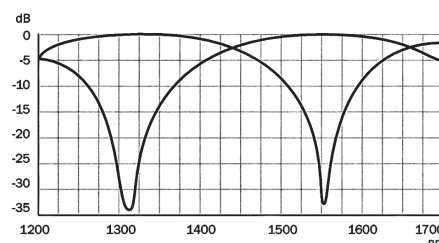
Wavelength Division Multiplexers or Demultiplexers (WDM) combine or separate two optical signals with different wavelengths. They are passive optical components for uni- or bidirectional operation. WDMs are manufactured on the basis of the FTB (Fused Biconical Taper) principle in singlemode technology. They are pure optical-fibre components.

W-WDM are multiplexer or demultiplexer which are used to combine or separate signals with wavelength from different optical windows.



FEATURES

- ▶ Low insertion loss and extremely low excess loss
- ▶ Multiplexing and demultiplexing of 1310 nm and 1550 nm
- ▶ High return loss, i.e. no reflections interfering with the transmitter in analogue systems
- ▶ High thermal, mechanical and environmental stability to meet the requirements of Telcordia GR-1209 and GR-1221
- ▶ Option of manufacture to customer specifications



Wavelength dependence of WDM with central wavelength 1310nm and 1550nm

APPLICATIONS

- ▶ Public and private fibre-optic networks
- ▶ Measurement systems and test equipment
- ▶ Option transmission and monitoring systems

DESIGNS

- ▶ Supplied in various housing sizes with bare fibre pigtails, loose buffered tube pigtails or reinforced cable pigtails
- ▶ High isolation WDM are available as coupler modules
- ▶ All Diamond connector standard types are available

AVAILABLE COUPLER TYPES

FIBER TYPE	PIGTAIL TYPE	CONFIGURATIONS	HOUSING TYPE	DIMENSIONS (mm)
9/125	9/125/250	1x2, 2x2	BG04	Ø 2,9 x 55
	9/125/250/900	1x2, 2x2	BG02	Ø 3,8 x 76
		1x2, 2x2	BG05	10 x 6 x 76
	9/125/250/900/2100....3000	1x2, 2x2	BG03	13 x 9,5 x 95
		1x2	BG06	12,8 x 9,2 x 80
	9/125/250/xxx/yyyy	up to 66 ports	BG10	92 x 9,5* x 155

* Height depends on configuration and pigtail type.
Other coupler types upon request

OPTICAL SPECIFICATIONS

(WAVELENGTH 1310 nm and 1550 nm)

OPTICAL PARAMETER

TYPE	NARROWBAND - WDM				WIDEBAND - WDM			
Standard WDM 1310/1550								
Wavelength range (nm)	1310 / 1550 ±20				1310 / 1550 ±40			
Housing options	BG 02, BG 03, BG 04, BG 05, BG 06							
Min. Isolation (dB)	15				10			
Max. Insertion Loss (dB)	0,7				0,8			
Min. Directivity (dB)	55 for 1x2, 60 for 2x2							
Min. Return Loss (dB)	55 for 1x2, 60 for 2x2							
Polarisation Dependent Loss * (dB)	typical 0,1							
High Isolation WDM 1310/1550								
Wavelength range (nm)	1310 / 1550				1310 / 1550			
Housing options	BG 10 and above							
Min. Isolation (dB)	15	30	40	50	10	18	25	30
Max. Insertion Loss (dB)	0,8	1,5	2,0	2,5	1,0	1,7	2,4	3,1
Min. Directivity (dB)	55							
Min. Return Loss (dB)	55							
Polarisation Dependent Loss * (dB)	typical 0,1							

* Insertion loss, maximum 0,2dB (measured by 1310nm and 1550nm)