

Product Specifications Datasheet

Single Mode Fiber Coupler (SFC) Specifications

50/50 Coupling Ratio		Unit	Premium	Economy
Center Wavelength		nm	1310 or 1550	
Wavelength Bandwidth		nm	± 10	
Insertion Loss*	Max.	dB	3.4	3.6
Excess Loss*	Max.	dB	0.07	0.1
Uniformity	Max.	dB	0.6	1
Polarization Dependent Loss	Max.	dB	0.1	0.15
Directivity	Min.	dB	50	
Temperature Coefficient	Max.	dB / °C	0.002	
Operating Temperature Range**		°C	-40 to +85	
Storage Temperature Range**		°C	-50 to +85	
Package Dimensions		mm	3.0(OD) x 52(L)	

Coupling Ratio / Insertion Loss Conversion Table

Splitting Ratio	Insertion Loss (dB)	
	Premium	Economy
40 / 60	4.4 / 2.5	4.8 / 2.8
30 / 70	5.6 / 1.8	6.1 / 2.0
20 / 80	7.4 / 1.1	8.0 / 1.3
10 / 90	10.8 / 0.6	12.0 / 0.8
5 / 95	14.6 / 0.4	18.4 / 0.5
1 / 99	21.5 / 0.2	22.0 / 0.3

Wavelength Flattened Coupler (WFC) Specifications

50/50 Coupling Ratio		Unit	Premium	Economy
Center Wavelength		nm	1310 or 1550	
Wavelength Bandwidth		nm	± 40	
Insertion Loss*	Max.	dB	3.4	3.6
Excess Loss*	Max.	dB	0.07	0.1
Uniformity	Max.	dB	0.6	1.0
Polarization Dependent Loss	Max.	dB	0.1	0.15
Directivity	Min.	dB	50	
Temperature Coefficient	Max.	dB / °C	0.002	
Operating Temperature Range**		°C	-40 to +85	
Storage Temperature Range**		°C	-50 to +85	
Package Dimensions		mm	3.0(OD) x 52(L)	

Wavelength Independent Coupler (WIC) Specifications

50/50 Coupling Ratio		Unit	Premium	Economy
Center Wavelength		nm	1310 and 1550	
Wavelength Bandwidth		nm	± 10	
Insertion Loss*	Max.	dB	3.4	3.6
Excess Loss*	Max.	dB	0.07	0.1
Uniformity	Max.	dB	0.6	1
Polarization Dependent Loss	Max.	dB	0.1	0.15
Directivity	Min.	dB	50	
Temperature Coefficient	Max.	dB / °C	0.002	
Operating Temperature Range**		°C	-40 to +85	
Storage Temperature Range**		°C	-50 to +85	
Package Dimensions		mm	3.0(OD) x 52(L)	

Single Mode Wavelength Division Multiplexer (SWDM) Specifications

Parameters	Unit	Premium		Economy	
		1310	1550	1310	1550
Operating Wavelength	nm	1310 / 1550			
Insertion Loss*	Max. dB	0.3	0.3	0.5	0.5
Isolation	Min. dB	17	17	16	16
Wavelength Bandwidth	nm	±15			
Polarization Dependent Loss	Max. dB	0.1		0.15	0.2
Directivity	Min. dB	60			
Temperature Coefficient	Max. dB / °C	0.002			
Operating Temperature Range**		°C -40 to +85			
Storage Temperature Range**		°C -50 to +85			
Package Dimensions		mm 3.0(OD) x 52(L)			

Pump Wavelength Division Multiplexer (PWDM) Specifications

Parameters	Unit	Specification	
Operating Wavelength	nm	980/1550	1480/1550
Insertion Loss*	Max. dB	0.4	0.5
Isolation	Min. dB	22	14
Wavelength Bandwidth	nm	+/-10	+/-5
Polarization Dependent Loss	Max. dB	0.1	0.3
Directivity	Min. dB	50	
Temperature Coefficient	Max. dB / °C	0.003	
Operating Temperature Range**		°C -40 to +85	
Storage Temperature Range**		°C -50 to +85	
Package Dimensions		mm 3.0(OD) x 52(L)	

Quality Assurance and Reliability Test

Test Item	Specification
Mechanical Shock	5 times/direction, 6 directions, 500 G, 1 ms
Vibration	20G, 20~2,000 Hz min/cyc, 4 min/cyc, 4 cyc/min
Thermal Shock	0°C to 100°C, Dwell time 5 min, 15 cyc
High Temp. Storage (Dry)	85°C for 2,000 hrs
High Temp. Storage (Damp)	85°C / 75% RH for 100 hrs
Cyclic Moistures Resistance Test	85~95% at 75°C, Dwell time 3 to 16 hrs, 5 cyc
Low Temp. Storage	-40°C or min. for 2000 hrs
Temp. Cycling	-40°C to +70°C for 100 cyc

* Without connector

** -20 to +70°C for 2.4mm cable



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