

# Optical Fiber Coupler

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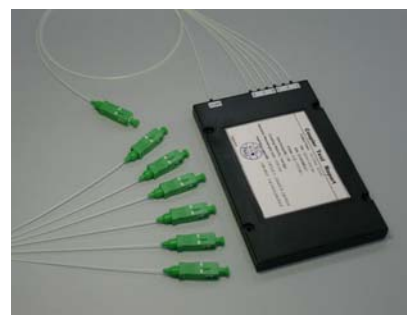
## Description

GET's Singlemode Couplers are manufactured by utilizing the ultra-reliable Fused Biconic Taper (FBT) technology in compliance with our stringent quality control procedures to achieve the performance of low insertion loss, excellent environmental stability and long-term reliability.



GET perfectly commercializes Singlemode Couplers to lead the market and efficiently customizes a variety of coupling ratios. GET offers flexible packaging techniques for numerous performance levels to maximize product compatibility with specific network needs.

Compliant with Telcordia Bellcore 1221 & 1209. GET couplers are subjected to thermal cycling, then tested for insertion loss, back reflection and bandpass.



## Features

- ❖ Low directivity
- ❖ Low insertion loss
- ❖ Low polarization sensitivity
- ❖ Flexible packaging
- ❖ Perfect environmental stability and reliability

## Applications

- ❖ Back reflection measurement
- ❖ Fiber optic sensors
- ❖ Fiber in the loop ( FITL )
- ❖ CATV & Video distribution
- ❖ LAN / WAN
- ❖ Long haul telecom

# Product specifications

## Single Mode Coupler

<b>Specification of Single Mode Coupler 1(2) ×2 Coupler</b>			
<b>Parameter</b>		<b>Specification</b>	
<b>Operation wavelength(nm)</b>		<b>1310 &amp; 1550 ± 40</b>	
<b>Port configuration</b>		<b>1×2 or 2×2</b>	
<b>Coupling ratio (%)</b>		<b>1:99 to 50:50</b>	
<b>Grade</b>		<b>Supreme</b>	<b>High</b>
<b>IL (dB,Max.)</b>	<b>50 / 50</b>	<b>3.6 / 3.6</b>	<b>3.9 / 3.9</b>
	<b>45 / 55</b>	<b>4.2 / 3.3</b>	<b>4.4 / 3.5</b>
	<b>40 / 60</b>	<b>4.7 / 2.8</b>	<b>5.0 / 2.9</b>
	<b>35 / 65</b>	<b>5.4 / 2.4</b>	<b>5.6 / 2.5</b>
	<b>33 / 67</b>	<b>5.6 / 2.2</b>	<b>5.9 / 2.3</b>
	<b>30 / 70</b>	<b>6.0 / 2.0</b>	<b>6.4 / 2.1</b>
	<b>25 / 75</b>	<b>7.1 / 1.7</b>	<b>7.4 / 1.8</b>
	<b>20 / 80</b>	<b>7.9 / 1.3</b>	<b>8.5 / 1.4</b>
	<b>15 / 85</b>	<b>9.8 / 1.0</b>	<b>10.4 / 1.1</b>
	<b>10 / 90</b>	<b>11.3 / 0.7</b>	<b>12.7 / 0.8</b>
	<b>5 / 95</b>	<b>15.1 / 0.4</b>	<b>16.2 / 0.5</b>
	<b>1 / 99</b>	<b>23.5 / 0.35</b>	<b>24.0 / 0.4</b>
<b>Excess loss (dB,Typ.)</b>		<b>0.1</b>	
<b>Max Uniformity (dB,50:50)</b>		<b>0.6</b>	<b>0.8</b>
<b>PDL (dB,Typ.)</b>		<b>0.15</b>	<b>0.2</b>
<b>Directivity (dB)</b>		<b>&gt;55</b>	
<b>Reflectance (dB)</b>		<b>&gt;55</b>	
<b>Operating Temp.(°C)</b>		<b>-40 ~ +75</b>	
<b>Storage Temp. (°C)</b>		<b>-55 ~ +85</b>	
<b>Package Size(mm)</b>		1. ∅ 3.0 x 54 for 250um Cable 2. ∅ 3.0 x 35 for 250um Cable 3. ∅ 3.6 x 65 for 0.9 Cable 4. 95 x 12 x 10 for ABS Case	
** The specifications listed above do not include the effect of connector loss. ** Connector Type: SC, FC, ST, SC/APC, FC/APC, LC, MU are available. **Specification values for devices with unbalanced split ratios are available upon request			

## Single Mode Star & Tree Coupler

Performance Specifications								
Operation wavelength (nm)	1310 & 1550 ± 40							
Coupling ratio (%)	Average							
Port configuration	1(n) x 4		1(n) x 8		1(n) x 16		1(n) x 32	
Grade	S	H	S	H	S	H	S	H
Max. insertion loss (dB)	7.2	7.4	10.8	11.0	14.4	14.8	17.5	18.5
Max.Uniformity (dB)	1.4		1.8		2.4		3.0	
Directivity (dB)	>55							
Reflectance (dB)	>55							
Operating temperature (°C)	-40~+75							
Storage temperature(°C)	-55~+85							
Dimensions (mm)	ABS box	100(L)x80(W)x10 (H)		140(L)x90(W)x10.7 (H)				
	Metal box	LGX Module 19" 1U Box		LGX Module 19" 1U Box		LGX Module 19" 1U Box 19" 2U Box		
** The specifications listed above do not include the effect of connector loss. ** Connector Type: SC, FC, ST, SC/APC, FC/APC, LC, MU are available. **Specification values for devices with unbalanced split ratios are available upon request.								

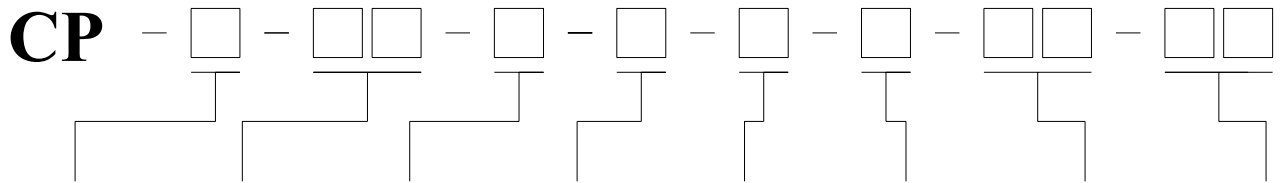
## Multi-Mode Coupler

<b>Specification of Multimode 1 (2) x 2 Coupler</b>			
<b>Parameter</b>		<b>Specification</b>	
<b>Operation wavelength(nm)</b>		<b>800 to 1600</b>	
<b>Port configuration</b>		<b>1x2 or 2x2</b>	
<b>Coupling ratio(%)</b>		<b>1:99 to 50:50</b>	
<b>Grade</b>		<b>Supreme</b>	<b>High</b>
<b>IL (dB, Max.)</b>	<b>50/50</b>	<b>3.9</b>	<b>4.3</b>
	<b>40/60</b>	<b>4.9/3.0</b>	<b>5.4/3.5</b>
	<b>30/70</b>	<b>6.3/2.2</b>	<b>6.7/2.7</b>
	<b>20/80</b>	<b>8.0/1.6</b>	<b>8.7/2.1</b>
	<b>10/90</b>	<b>11.3/1.1</b>	<b>12.2/1.6</b>
	<b>5/95</b>	<b>14.9/0.9</b>	<b>16.2/1.3</b>
	<b>1/99</b>	<b>22.1/0.7</b>	<b>22.7/1.0</b>
<b>Max. Excess loss (dB)</b>		<b>0.7</b>	<b>1.0</b>
<b>Max Uniformity (dB,50:50)</b>		<b>0.5</b>	<b>1.0</b>
<b>Thermal stability(dB)</b>		<b>±0.2</b>	<b>±0.3</b>
<b>Directivity(dB)</b>		<b>&gt;40</b>	
<b>Reflectance(dB)</b>		<b>&gt;40</b>	
<b>Operating temperature(°C)</b>		<b>-40~+75</b>	
<b>Storage temperature(°C)</b>		<b>-55~+85</b>	
<b>Package Size(mm)</b>		1. $\phi$ 3.0 x 54 for 250um Cable 2. $\phi$ 3.6 x 65 for 0.9 Cable 3. 95 x 12 x 10 for ABS Case	
** The specifications listed above do not include the effect of connector loss. ** Connector Type: SC, FC, ST, LC, MU are available. **Specification values for devices with unbalanced split ratios are available upon request.			

## Multi-Mode Star & Tree Coupler

Performance Specifications								
Operation wavelength (nm)	800 to 1600							
Coupling ratio (%)	Average							
Port configuration	1(n) x 4		1(n) x 8		1(n) x 16		1(n) x 32	
Grade	S	H	S	H	S	H	S	H
Max.insertion loss (dB)	7.8	8.8	11.5	12.5	15.5	16.5	18	19
Max.Uniformity (dB)	1.0		1.4		2.6		3.0	
Directivity (dB)	>40							
Reflectance (dB)	>40							
Operating temperature(°C)	-40~+75							
Storage temperature(°C)	-55~+85							
Dimensions (mm)	ABS box	100(L)x80(W)x10 (H)		140(L)x90(W)x10.7 (H)				
	Metal box	LGX Module 19" 1U Box		LGX Module 19" 1U box		LGX Module 19" 1U box 19" 2U box		
<p>** The specifications listed above do not include the effect of connector loss.</p> <p>** Connector Type: SC, FC, ST, LC, MU are available.</p> <p>**Specification values for devices with unbalanced split ratios are available upon request.</p>								

# Ordering Information



Grade :	Ports :	Cable Type :	Fiber length :	Wavelength :	Connector :	Coupling Ratio :	Package :
S=Super Grade H=High Grade	12=1x2 14=1x4 18=1x8 16=1x16 32=1x32 SP=Other	0=250um 1=900um 2=2.0mm 3=3.0mm	A=0.5meter 1= 1meter 2= 2meter 0= Other	1=1310nm 2=1550nm 3=Both	0=None 1=FC/PC 2=SC/PC 3=ST/PC 4=FC/APC 5=SC/APC 6=LC/PC 7=MU/PC 8=LC/APC 9=Other  not available for 250um cable	01=1/99 05=5/95 10=10/90 20=20/80 30=30/70 40=40/60 50=50/50 SP=Other	S1= \$ 3.0x54mm S2= \$ 3.0x35mm (Stainless steeltube) AB=ABS Case LX=LGX Module 1U=19" 1U 2U=19" 2U

## Special Requirements by Customer:



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