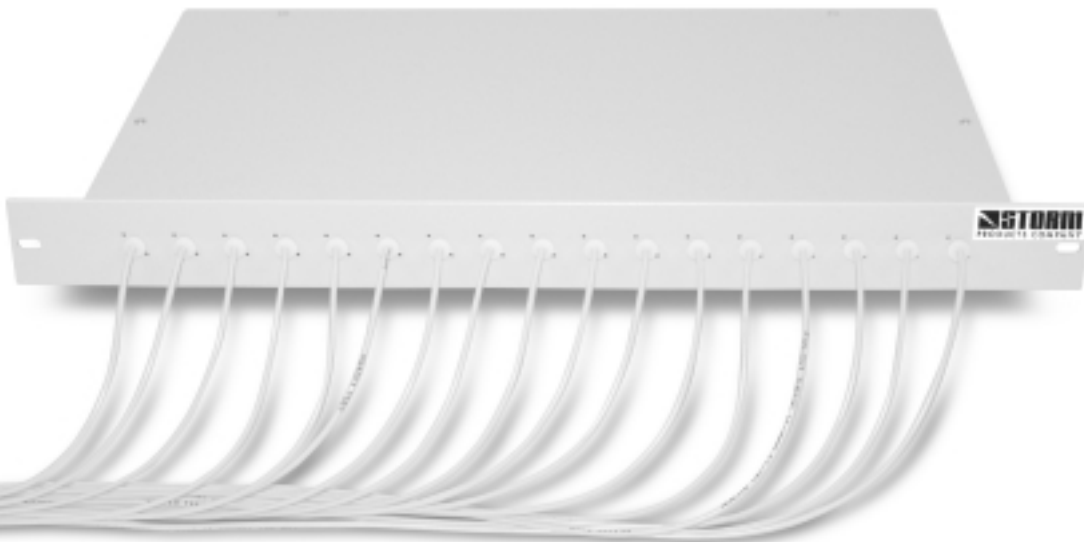


TREE COUPLER: Standard, Dual Window, and Wideband

PERFORMANCE HIGHLIGHTS

Tight Insertion Loss Tolerance
Wideband Operation
Environmentally Stable
Low Back Reflection



Tree couplers from Storm Products—Fiber Optics divide and/or combine light at discrete coupling ratios with minimum excess loss. Manufactured using Fused Biconical Taper technology, Storm's tree couplers provide exceptional characteristics for all applications demanding critical performance.

Our wideband tree couplers have a ± 40 nm bandwidth that offers excellent performance over the entire 1310 nm and/or 1550 nm operating window. Standard singlemode tree couplers operate in either the 1310 nm or 1550 nm wavelength range.

Storm's tree couplers can be tailored to meet your specific system requirements with your choice of coupling ratios, packaging, and connector terminations.



TREE COUPLERS: Standard, Dual Window, and Wideband

STANDARD TREE COUPLERS								
Port Configuration	1 (2) x 4		1 (2) x 8		1 (2) x 16		1 (2) x 32	
Operating Wavelength (nm)	1310 ± 10 or 1550 ± 10							
Grade	A	B	A	B	A	B	A	B
Insertion Loss (dB)	6.6	7.2	10	11.5	13.6	14.5	17.1	18.2
Typical Uniformity (dB)	0.7	1.7	1.1	2.5	1.7	3.5	2.2	4.3
Operating Temperature (°C)	-40 ~ +85*							
Storage Temperature (°C)	-55 ~ +85							
Packaging Options <i>(for different pigtail)</i>	1. Coated Fiber (250 μm)	F, H, I		G, H, I		H, I, J		J, K
	2. Buffered (900 μm)	F, H, I		G, H, I		H, I, J		J, K
	3. PVC Cable (3.0 mm)	F, H, I		G, H, I		H, I, J		J, K
	4. Adapter	H, I		J				K

WIDEBAND TREE COUPLERS								
Port Configuration	1 (2) x 4		1 (2) x 8		1 (2) x 16		1 (2) x 32	
Operating Wavelength (nm)	1310 ± 40 or 1550 ± 40							
Grade	A	B	A	B	A	B	A	B
Maximum Insertion Loss (dB) <i>(over temperature range -40 ~ +75°C at specified wavelength)</i>	7.0	7.4	10.6	11.5	14.0	15.3	18	19
Uniformity (dB) <i>(over temperature range -40 ~ +75°C at specified wavelength)</i>	0.8	1.2	1.4	3.0	2.4	3.8	2.6	5.0
Operating Temperature (°C)	-40 ~ +85*							
Storage Temperature (°C)	-55 ~ +85							
Packaging Options <i>(for different pigtail)</i>	1. Coated Fiber (250 μm)	F, H, I		G, H, I		H, I, J		J, K
	2. Buffered (900 μm)	F, H, I		G, H, I		H, I, J		J, K
	3. PVC Cable (3.0 mm)	F, H, I		G, H, I		H, I, J		J, K
	4. Adapter	H, I		J				K

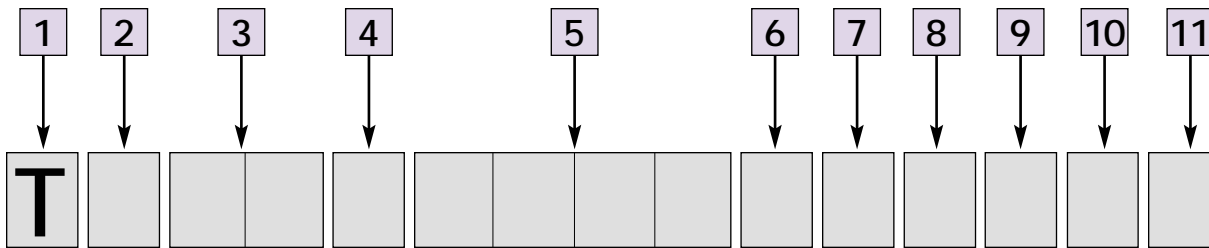
*Packaging options in part numbering section.
-20°C ~ +70°C for PVC cable.

DUAL WINDOW TREE COUPLERS								
Port Configuration	1 (2) x 4	1 (2) x 8	1 (2) x 16	1 (2) x 32				
Operating Wavelength (nm)	1310 ± 40 and 1550 ± 40							
Grade	A	B	A	B	A	B	A	B
Maximum Insertion Loss (dB) (over temperature range -40 ~ +75°C) (at specified wavelength)	7.2	7.6	11.0	11.7	14.5	15.5	18.5	20.0
Uniformity (dB) (over temperature range -40 ~ +75°C) (at specified wavelength)	0.9	1.4	2.1	3.2	2.6	4.0	3.0	6.0
Operating Temperature (°C)	-40 ~ +85*							
Storage Temperature (°C)	-55 ~ +85							
Packaging Options <i>(for different pigtailling)</i>	1. Coated Fiber (250 μm)	F, H, I	G, H, I	I, J	J, K			
	2. Buffered (900 μm)	F, H, I	G, H, I	I, J	J, K			
	3. PVC Cable (3.0 mm)	F, H, I	G, H, I	I, J	J, K			
	4. Adapter	H, I	J		K			

Packaging options in part numbering section.
* -20°C ~ +70°C for PVC cable.

THE PERFORMANCE OF THE COUPLERS HAS BEEN CAREFULLY DESIGNED TO MEET THE TOUGHEST TELCORDIA STANDARDS **TA-NWT-001221** IN THE TESTS OF:

- Optical Characteristics
 - Thermal Cycling
 - Salt Spray Erosion
 - Humidity Resistance
 - Vibration Test
 - Impact Resistant
 - Thermal Aging
 - Others
- High Temperature Storage Test 85°C for 5,000 hours
 - Low Temperature Storage Test -40°C for 5,000 hours
 - Damp Heat Test 75°C / 95% RH for 5,000 hours
 - Thermal Cycling Test -40°C / 75°C for 500 cycles
 - Fiber Pulling Test 0.23Kg for 25μm fiber and 900μm loose tube
1.36Kg for jacketed cable
 - Water Immersion Test 43°C, pH=5.5, 168 hours
 - Vibration Test 10~2,000Hz random 20G, 3 axis
 - Impact Test 8 drops, 1.8 meters high
 - Fiber Torsion Test 180° twist, both directions, 5N force



- 1** T (fixed), tree coupler with even split ratio
- 2** Grade: A or B
- 3** Wavelength: 13=1310 nm, 15=1550 nm or 35=1310/1550 nm
- 4** Type: N=narrow window (standard), W=wideband
- 5** Port Configuration: 1 x N or 2 x N (Example, 0108=1x8, 0208=2x8, 0216=2x16)
- 6** Package Style: See below.
- 7** Fiber Type: B=Bare, 9=900 μm, 3=3 mm cable or A=Adapters
- 8** Input Port Length in meters (1 meter increments)
- 9** Output Port Length in meters (1 meter increments)
- 10** Input Port Connector/Adapter
- 11** Output Port Connector/Adapter

Example: TA13NO104H311PT
Tree coupler, grade A, 1310 nm, narrow window, 1 x 4, package H, 3 mm cable, 1 meter input, 1 meter output, FC on input, SC on output.

PACKAGING OPTIONS

F	Box 100 x 80 x 10 mm
G	Box 140 x 90 x 10 mm
H	Enclosure Module (4 rack space)
I	Enclosure Module 154 x 110 x 16 mm
J	Rack Mount Enclosure 485 x 255 x 45 mm (1 rack space)
K	Rack Mount Enclosure 485 x 255 x 90 mm (2 rack space)

CONNECTOR/ADAPTER CODES

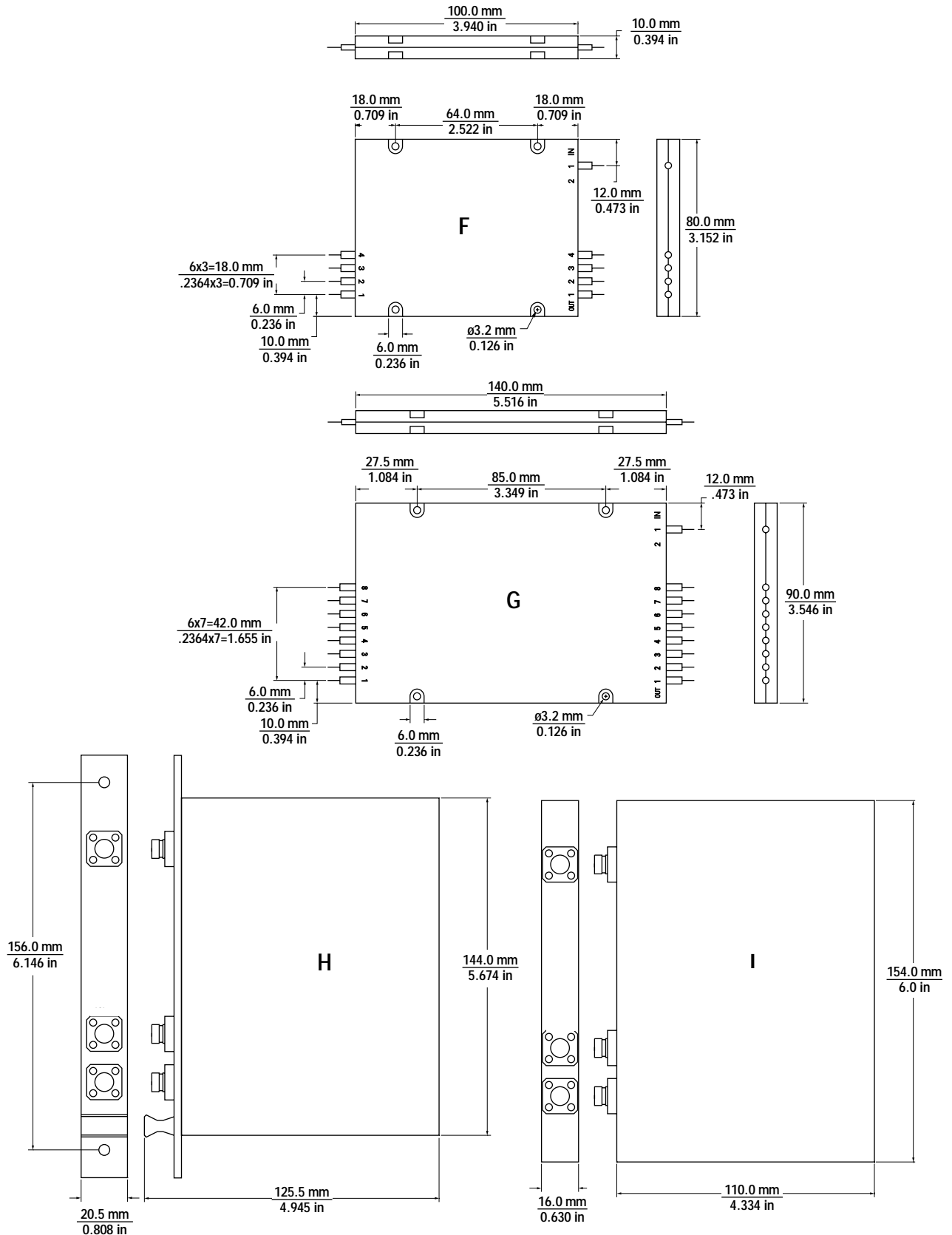
TYPE	
LC	L
LC Duplex w/ clips	M
LC 90° Boot	D
SC	T
SC Duplex w/ Clips	B
SC (APC)	Q
SC 90° Boot	C
FC	P
FC (APC)	U
ST Compatible	R
NO CONNECTOR	0 (zero)

PART NUMBERING EXAMPLE

TREE COUPLER: Standard, Dual Window, and Wideband

Call Toll Free
877.342.3773

PACKAGING INFORMATION



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