

# PASSIVE OPTICAL PRODUCTS



## Fused 1x2 (2x2) Splitters

Opterna High Performance Bidirectional Single Mode Splitters are used to split light from one fiber into two output fiber lines with ultra low loss. It also can be used to combine light from two fibers into one. It is a compact, fused, all fiber technology device. Manufactured using state-of-the-art Fused Bi-conical Taper process (FBT), they exhibit uniform performance over entire optical spectrum from 1260 to 1600nm with near zero loss. The epoxy-free optical path provides good power handling capability.

Opterna fused splitter uses highly reliable and specialized packaging technology, providing excellent thermal stability and long life. The advanced packing ensures very good stability under vibration and impact, making these splitters ideal for outdoor applications. Opterna splitters are available in both 1x2 and 2x2 configuration with different package and connector types to cater most applications.

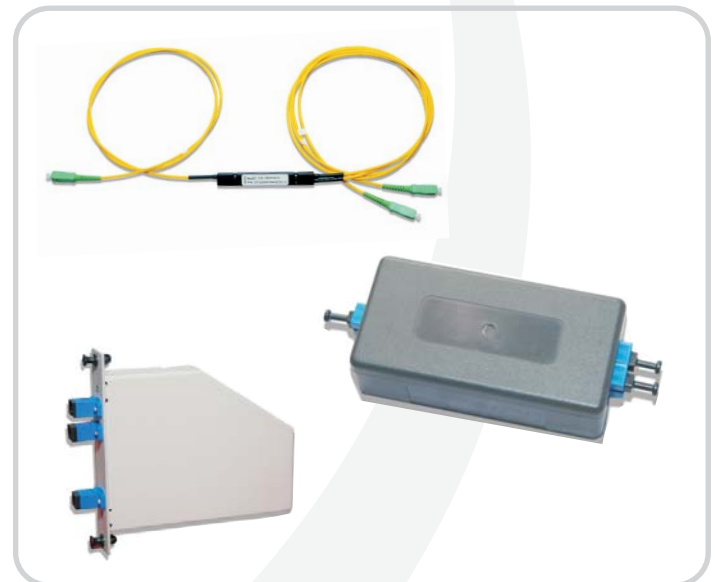
### Features & Advantages

- ☒ All fiber technology
- ☒ Bidirectional
- ☒ Triple Play
- ☒ Ultra broadband 1260 ~ 1600nm
- ☒ Extreme stability to thermal variations
- ☒ Tap coupler versions of any split ratio
- ☒ Near Zero Excess Loss
- ☒ Low Back Reflection
- ☒ Low Polarization Dependant Loss
- ☒ Excellent Uniformity
- ☒ Compact Packaging
- ☒ Designed to comply GR-1209-CORE and GR-1221-CORE
- ☒ 100% rigorous screening (rapid temperature cycling) and testing
- ☒ Variety of package and pigtail options
- ☒ Factory connectorization available
- ☒ Custom Packaging available



### Applications

- ☒ FTTX
- ☒ Telecommunication Networks
- ☒ CATV Networks
- ☒ Fiber Optic Sensors
- ☒ Optical Fiber Communication Systems



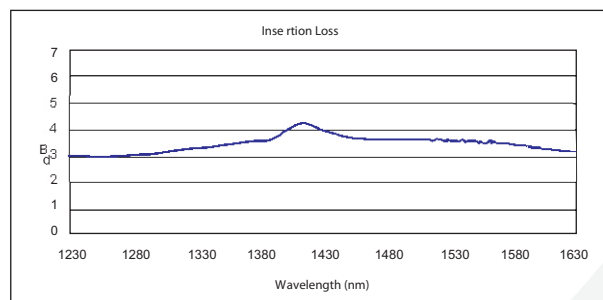
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### Specification

Parameter	Narrow band Single Window		Wide band Single Window		Narrow band Single Window		Wide band Dual Window	
Operating Wavelength	1310±20nm or 1550±20nm or 1585±20nm		1310±40nm or 1550±40nm or 1530-1610nm (for DWDM)		1310±20nm and 1550±20nm		1310&1550(±40nm) or 1260- 1360 & 1480-1580nm	
Grade	Premium	Standard	Premium	Standard	Premium	Standard	Premium	Standard
Excess Loss : Typical	0.1 dB	0.2 dB	0.1 dB	0.2 dB	0.1 dB	0.2 dB	0.1 dB	0.2 dB
Insertion Loss : Maximum	† (Loss of high power port/ Loss of low power port)*							
50/50	3.4 dB	3.6 dB	3.4 dB	3.6 dB	3.6 dB	3.8 dB	3.6 dB*	3.8 dB*
55/45	3.0/3.9 dB	3.2/ 4.1 dB	3.0/ 3.9 dB	3.2/ 4.1 dB	3.1/ 4.0 dB	3.3/ 4.2 dB	3.2/ 4.1 dB	3.4/ 4.3 dB
60/40	2.5/ 4.4 dB	2.7/ 4.6 dB	2.5/ 4.4 dB	2.7/ 4.6 dB	2.6/ 4.6 dB	2.8/ 4.8 dB	2.7/ 4.7 dB	2.9/ 4.9 dB
65/35	2.1/ 5.1 dB	2.3/ 5.3 dB	2.1/ 5.1 dB	2.3/ 5.3 dB	2.2/ 5.2 dB	2.4/ 5.4 dB	2.3/ 5.3 dB	2.5/ 5.5 dB
70/30	1.8/ 5.6 dB	2.0/ 5.8 dB	1.8/ 5.6 dB	2.0/ 5.8 dB	1.9/ 5.8 dB	2.1/ 6.0 dB	2.0/ 6.0 dB	2.2/ 6.2 dB
75/25	1.7/ 6.5 dB	1.9/ 6.7 dB	1.7/ 6.5 dB	1.9/ 6.7 dB	1.7/ 6.6 dB	1.9/ 6.8 dB	1.8/ 6.8 dB	2.0/ 7.0 dB
80/20	1.2/ 7.5 dB	1.4/ 7.7 dB	1.2/ 7.5 dB	1.4/ 7.7 dB	1.3/ 7.6 dB	1.4/ 7.8 dB	1.3/ 7.8 dB	1.5/ 8.0 dB
85/15	1/ 8.8 dB	1.2/ 9.0 dB	1/ 8.8 dB	1.2/ 9.0 dB	1.0/ 9.0 dB	1.1/ 9.2 dB	1.0/ 9.2 dB	1.2/ 9.4 dB
90/10	0.7/ 10.8 dB	0.8/ 11.0 dB	0.8/ 11.0 dB	0.9/ 11.5 dB	0.8/ 11.1 dB	0.9/ 11.6 dB	0.8/ 11.0 dB	0.9/ 11.5 dB
95/5	0.4/ 13.8 dB	0.5/ 14.0 dB	0.5/ 14.0 dB	0.6/ 14.5 dB	0.5/ 14.2 dB	0.6/ 14.7 dB	0.5/ 14.0 dB	0.6/ 14.2 dB
98/2	0.3/ 18.0 dB	0.3/ 18.5 dB	0.35/ 18.5 dB	0.4/ 19.0 dB	0.35/ 18.7 dB	0.4/ 19.2 dB	0.3/ 18.5 dB	0.4/ 18.7 dB
99/1	0.2/ 21.5 dB	0.3/ 22.0 dB	0.3/ 22.1 dB	0.4/ 22.5 dB	0.3/ 22.4 dB	0.4/ 22.8 dB	0.3/ 22.0 dB	0.35/ 22.3 dB
Uniformity, max (for 50/50)	0.6 dB	0.8 dB	0.6 dB	0.8 dB	0.7 dB	0.8 dB	0.8 dB*	1.0 dB*
PDL max	0.2 dB							
Directivity	≥50 dB							
Operating Temperature	-40 to +85 °C							
Fiber Type	Corning SMF-28							
Dimensions, LD	2.9 mm (dia) x 51 mm (L), bare fiber							
,MD	3.05mm (dia) x 65mm (L), 900um hytel tubing							
,HD	Plastic Housing, 96.5mm(l) x 12mm (b) x 10mm (t),mm jacketed cable							

\*other coupling ratios are also available  
 †All insertion loss are excluding connector loss

### Spectral Response Chart

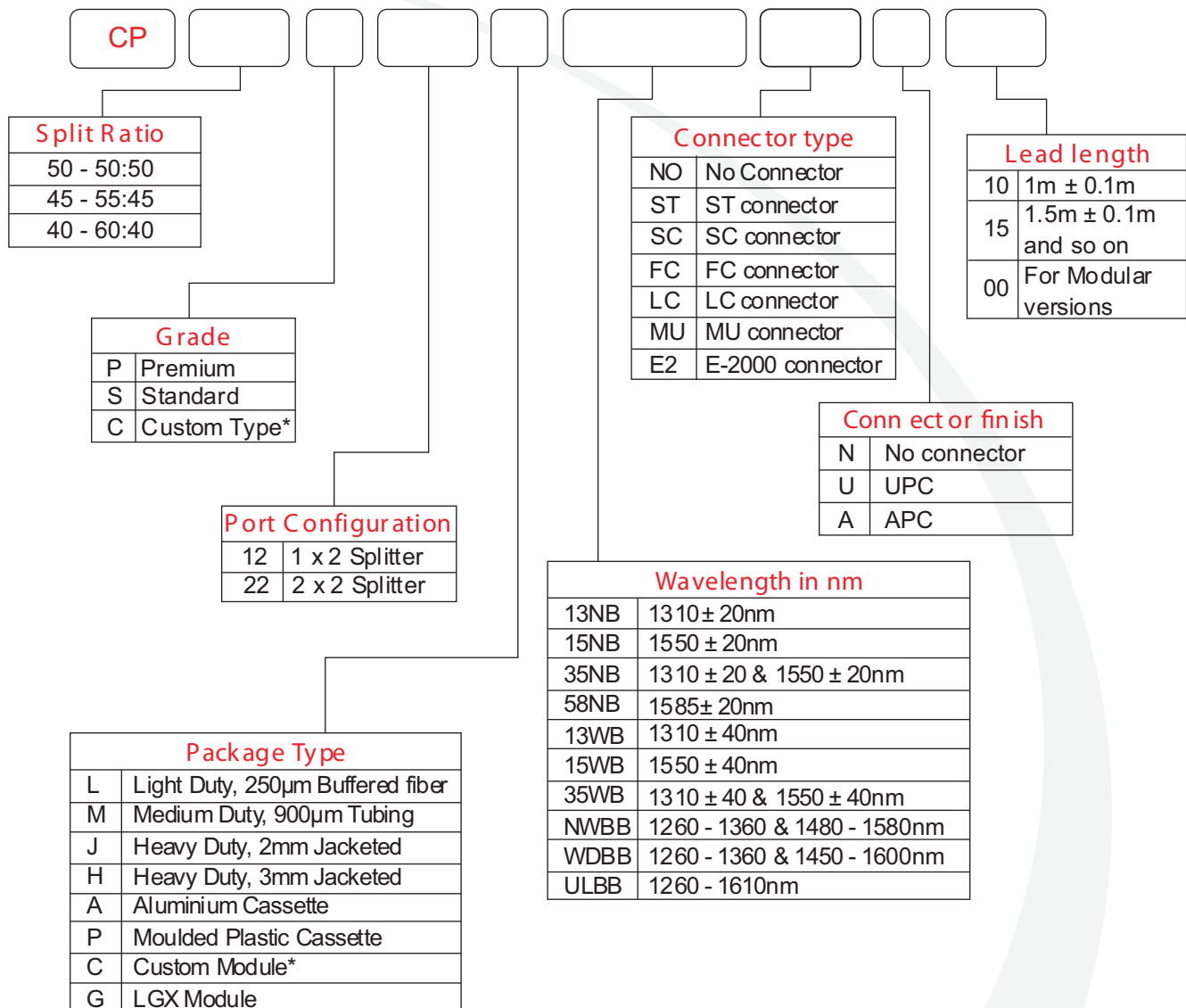


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### Ordering Information



\* For special products other than the configurations mentioned above a custom part number will be assigned