

## Three Window Coupler (TWC)



### Overview:

Three-window coupler (TWC) is newly developed by LightComm. Built by asymmetric coupling technique, TWC operating bandwidth is expanding to 1310nm, 1490nm and 1550nm three communication windows. The TWC has the same coupling ratio on 1310, 1490 and 1550nm communication windows, with low excess loss and low PDL. TWC are widely used for communication systems, CATV, FTTH, where multiple optical signals pass through single fiber.

### Features:

- \* Low excess loss
- \* Low PDL
- \* Three operating windows
- \* High stability and reliability

### Applications:

- \* Optical communication systems
- \* CATV
- \* FTTH

**Specification:**

Parameter		Grade	P	A
Operating wavelength (nm)			1310, 1490 and 1550	
Operating bandwidth (nm)			1310 ± 40, 1490 ± 10 and 1550 ± 40	
Typical excess loss (dB)			0.07	0.1
Insertion loss (dB)	50/50		< 3.8	< 3.8
	40/60		< 4.7/2.7	< 4.9/2.9
	30/70		< 6.0/1.9	< 6.3/2.1
	20/80		< 7.9/1.2	< 8.4/1.4
	10/90		< 11.3/0.65	< 12.0/0.3
	5/95		< 14.6/0.4	< 15.5/0.5
	2/98		< 18.8/0.3	< 19.5/0.4
	1/99		< 22.5/0.25	< 23.5/0.35
PDL (dB)			< 0.15	< 0.2
Directivity (dB)			> 55	
Operating temperature (°C)			- 40 ~ +85	

\*Other specifications can be made on customer request.

**Package Information:**

Configuration	1×2 or 2×2		
Fiber lead length	1 meter, others on request		
Fiber type	250 μm bare fiber	900 μm loose tube	900 μm/2mm/ 3mm loose tube
Dimensions (φ × L)	φ 3.0mm × 54mm	φ 3.0mm × 70mm	90mm × 14mm × 3.5mm
	φ 2.4mm × 42mm	φ 3.0mm × 54mm	

\*Other package dimensions can be made on customer request.

**Ordering Information:**

TWC-X-XXX-XXXX--XX/XX-X--X--XX/XXX--XX\*XX

