

PLC Wafer



Description

Based on Planar Lightwave Circuit technologies, PLC splitter wafers are produced on the quartz substrate through a series of processes including CVD deposition, photo-masking, etching, etc. PLC splitter wafers can be designed for 1x2, 1x4, 1x8, 1x16, 1x32, 1x64 and 2xN. Splitter chips with high yield, quality and reliability, are made of PLC wafers through dicing and polishing.

Features

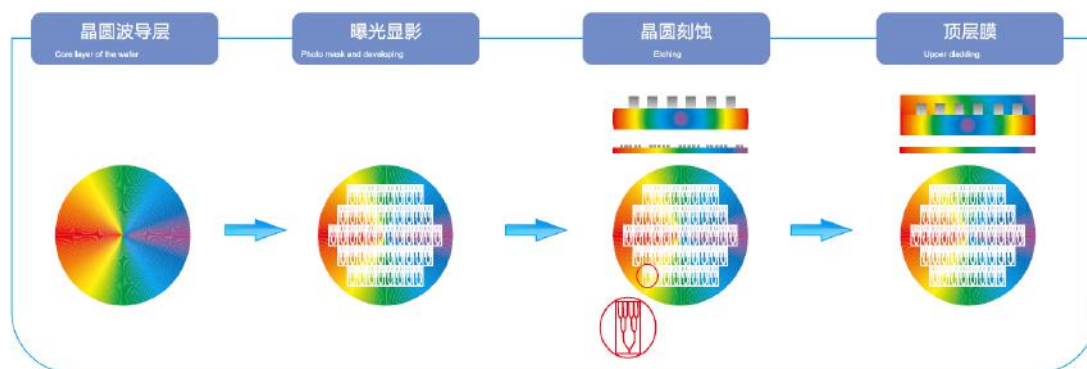
- 6 inches
- Low IL & PDL
- Excellent channel uniformity
- Wide operating wavelength: 1260-1650nm

Technology and Crafts

The processes for the PLC splitter wafers include CVD deposition on the substrate, photo-masking, developing, and etching to form the pattern of waveguide circuit, and finally an upper cladding film is deposited to protect the waveguide.

Applications

Optical communication networks, Telecom equipment, Three-Network-Integration systems, including Signal/power distribution, Fiber-To-The-Home (FTTH), Passive Optical Network (PON).



Optical Specifications

Parameter	Class	Unit	1x2	1x4	1x8	1x16	1x32	1x64
Operating Wavelength	-	nm	1260-1650					
Insertion Loss	P	dB	3.6	6.7	9.8	13.0	16.2	19.8
PDL	P	dB	0.15	0.15	0.2	0.25	0.25	0.3
Uniformity	P	dB	0.5	0.5	0.6	0.8	1.0	1.2
Return Loss	-	dB	-	≥55				
Directivity	-	dB	-	≥55				
Operating Temperature	-	°C	-	-40~+85				
Storage Temperature	-	°C	-	-40~+85				

Wafer Specifications

Item No.	Description	Specification
1	Diameter	6inch (150±0.5mm)
2	Directional Flat	47.5mm
3	Flatness	< 500μm
4	Material	Quartz