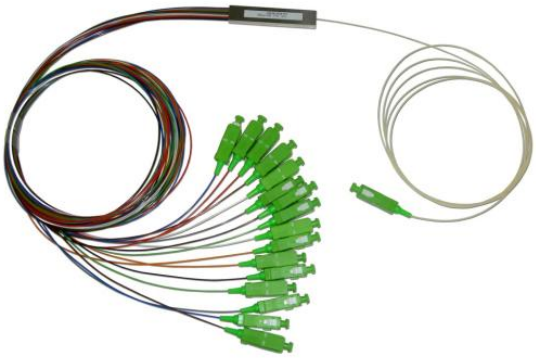
PLC Optical Splitter

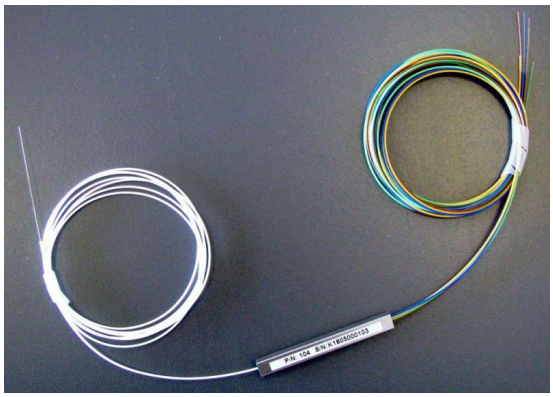
PLC (Planar Lightwave Circuits) splitters are developed using silica glass waveguide circuits and aligned fiber pigtails, integrated inside a miniature package. PLC splitters provide low-cost solution for optical signal distribution, with small form factor and superb reliability.

The PLCs devices have 1x4, 1x8, 1x16 and 1x32 standard configurations, as well as customized structures of 2x4, 2x32, and 2x64. These products meet or exceed Telcordia GR-1209-CORE and GR-1221-CORE reliability qualification requirement.



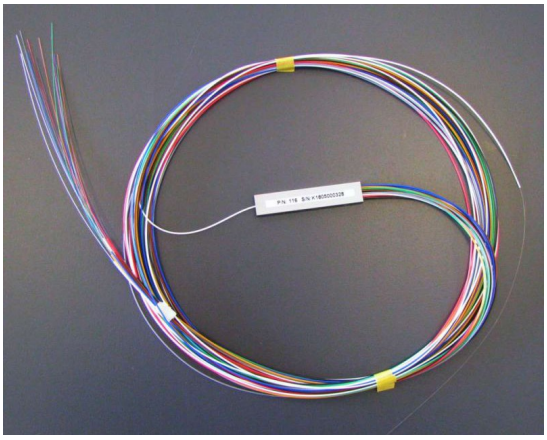
Features:

Low insertion loss
Various coupling ratio
high return loss and excellent uniformity.
Low Polarization dependent loss
Environmental stable
Operation wavelength: 1260nm to 1650nm
Operating Temperature:-40℃ to 85℃



Application:

FTTx systems
Optical LAN, Metro, WAN networks
Passive optical networks
CATV networks



Specification:

Table 1 – 1×N PLC optical splitter

Parameters	1×2	1×4	1×8	1×16	1×32	1×64	1×128
Operating wavelength (nm)	1260～1650						
Fiber type	G657A or other request						
Insertion Loss (dB) (Max.)	3.9	7.2	10.3	13.5	16.8	20.5	23.5
Uniformity(dB) (Max.)	0.6	0.6	0.8	1.0	1.5	1.8	2.0
Return Loss(dB) (Min.)	55	55	55	55	55	55	55
Temperature stability (-40～85 ℃)(dB) (Max.)	0.5	0.5	0.5	0.8	0.8	1.0	1.0
Polarization dependent loss (dB)(Max.)	0.2	0.2	0.3	0.3	0.3	0.4	0.4
Wavelength Dependent Loss (dB)(Max.)	0.5	0.5	0.5	0.8	0.8	0.8	1.2
Directivity (dB)(Min.)	55						
Operating Temperature (℃)	-40～85						
Storage temperature(℃)	-40～85						
Device package size (mm) (L×W×H) 0.25mm fiber	40×4×4			45×5×4	50×7×4	60×12×4	120x26x10
Micro Module Size (mm) (L×W×H) 0.9mm fiber	55×7×4			60×12×4	80×20×6	100x40x6	120x50x12
Module Box Dimensions (mm) (L×W×H) 2.0mm fiber	100×80×10			120×80×18		140×115×18	150x130x25

Note:

1. Specification without fiber optic connectors;
2. Each connector will add loss 0.2dB.

Table 2 – 2×N PLC Optical Splitter

Parameters	2×2	2×4	2×8	2×16	2×32	2×64	2×128
Operating wavelength (nm)	1260～1650						
Fiber type	G657A or other request						
Insertion Loss (dB) (Max.)	4.2	7.5	10.6	13.9	17.2	20.8	23.8
Uniformity(dB) (Max.)	0.8	1.0	1.2	1.5	1.8	2.0	2.0
Return Loss(dB) (Min.)	55	55	55	55	55	55	55
Temperature stability (-40～85 ℃)(dB) (Max.)	0.6	0.6	0.6	0.8	1.0	1.0	1.0
Polarization dependent loss (dB)(Max.)	0.2	0.2	0.3	0.3	0.4	0.4	0.4

Wavelength Dependent Loss (dB)(Max.)	0.6	0.6	0.6	0.8	1.0	1.0	1.2
Directivity (dB)(Min.)	55						
Operating Temperature (℃)	-40～85						
Storage temperature(℃)	-40～85						
Device package size (mm) (L×W×H) 0.25mm fiber	50×4×4			50×7×4		60×12×4	120x26x10
Micro Module Size (mm) (L×W×H) 0.9mm fiber	55×7×4	60×7×4		60×12×4	80×20×6	100x40x6	120x50x12
Module Box Dimensions (mm) (L×W×H) 2.0mm fiber	100×80×10			120×80×18		140×115×18	150x130x25

Note:

1. Specification without fiber optic connectors;
2. Each connector will add loss 0.2dB.