Plastic Optical Fiber Couplers (Splitters)

Description

Fiber optic splitters are passive optical component with one or more input fibers for distributing optical signals into two or more output fibers. The optical light is passively split into multiple output signals (fibers), each containing light with identical properties to the original, except for reduced amplitude. The splitters passive design is bi-directional and operationally independent of wavelength, effected only by the physical properties of the POF fiber core.

Features

- Light, Compact Design
- Can be produced with multiple POF Cables sizes
- High Isolation
- Low Loss
- Excellent Temperature Stability
- Visible and IR Light Compatible
- Low cost
- Can be fabricated with custom fiber lengths and/or with terminations of any type

Maximum Ratings

(Ta=25 deg. C, based on a 1mm fiber cable)

Operating Temperature Range:	-55 to +85 deg. C
Storage Temperature Range:	-55 to + 85 deg. C
Fiber Bending Radius:	25mm
Fiber Tensile Strength:	5kg

POF Fiber (1mm) Characteristics (Ta=25 deg. C)

Parameter	Typical	Max.	Unit
Fiber Attenuation (650nm light)	.16	.18	dB/m
Fiber NA	.51		
Core Refractive Index	1.492		
Cladding Refractive Index	1.419		

Characteristics

Part Number	Ports	Splitting Ratio	Insertion Loss (Max)	Excess Loss (Max)
MIC-1X4	1X4	25:25:25:25	Port A to Port B 8.2dB Port A to Port C 8.2dB Port A to Port D 8.2dB Port A to Port E 8.2dB	Port A is 2.2 dB

- All legs are equal, with total unit length of 2 feet
- Input leg using Mitsubishi SH 8001 cable (2mm fiber)
- Output legs using Mitsubishi GHCP 4001 cable (1mm fiber)
- Housing is Stainless Steel