



1×5 Asymmetric PLC Fiber Splitter

Technical Datasheet



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Product Overview

The **1×5 Asymmetric PLC Splitter** is a premium optical power management device engineered to split a single optical input into five outputs with non-uniform power distribution. Output 1 handles the main trunk line, while Outputs 2 through 5 distribute the remaining tap power evenly. This product line supports a massive array of market splitting ratios, making it ideal for FTTH daisy-chaining and linear optical networks.

Technical Specifications

Parameter	Specifications	Notes
Operating Wavelength	1260 ~ 1650 nm	Full band broadband compatibility
Fiber Type	G.657.A1 / G.657.A2	Excellent bend-insensitive performance
Directivity	≥ 55 dB	
Return Loss	≥ 50 dB (UPC) / ≥ 55 dB (APC)	
Polarization Dependent Loss (PDL)	≤ 0.25 dB	Max value across all bands
Wavelength Dependent Loss (WDL)	≤ 0.30 dB	
Operating / Storage Temperature	-40 ~ +85 °C	Industrial grade ruggedness



Optical Performance & Splitting Configurations

💡 Product Metric Notes:

In the 1x5 unequal splitting design, CH 1 extracts the majority of the main-line energy, while the remaining energy is evenly distributed among the four channels CH 2 through CH 5. The following calculations are based entirely on this "1+4" configuration.

Configuration Profile	CH 1 Ratio	CH 2 ~ CH 5 Ratio (Each)	Max IL (CH 1)	Max IL (CH 2~5)
Profile 5/95	5 %	23.75 % × 4	≤ 14.60 dB	≤ 7.20 dB
Profile 50/50	50 %	12.50 % × 4	≤ 3.80 dB	≤ 10.20 dB
Profile 60/40	60 %	10.00 % × 4	≤ 2.80 dB	≤ 11.20 dB
Profile 67/33	67 %	8.25 % × 4	≤ 2.40 dB	≤ 12.00 dB
Profile 70/30	70 %	7.50 % × 4	≤ 2.20 dB	≤ 12.80 dB
Profile 75/25	75 %	6.25 % × 4	≤ 1.85 dB	≤ 13.50 dB
Profile 80/20	80 %	5.00 % × 4	≤ 1.50 dB	≤ 14.80 dB
Profile 85/15	85 %	3.75 % × 4	≤ 1.20 dB	≤ 16.20 dB
Profile 90/10	90 %	2.50 % × 4	≤ 0.85 dB	≤ 18.20 dB
Profile Custom	Custom	Custom	Based on ratio	Based on ratio

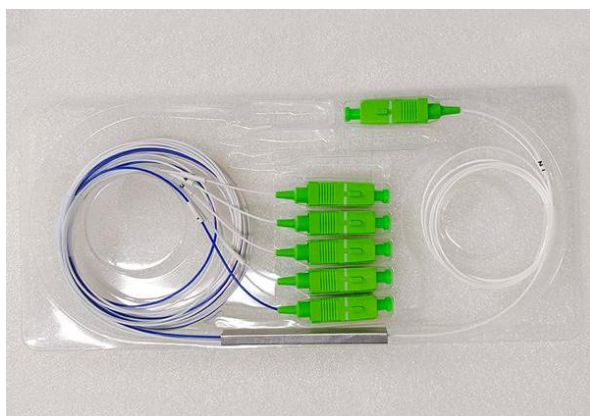
**Note: All listed insertion losses (IL) are measured at room temperature and include broadband wavelength variations, but exclude connector losses (add ~0.2 dB per connector interface).*



Mechanical Dimensions & Enclosures

⚡ Steel Tube / Mini Module Type

- **Dimensions:** 60 × 7 × 4 mm
- **Best For:** Splice trays, fiber joint closures, tight-space terminal boxes.
- **Fiber Options:** 250μm bare fiber or 0.9mm loose tubes.



ABS Box Type

- **Dimensions:** 100 × 26 × 10 mm
- **Best For:** Optical distribution frames (ODF), cross-connect cabinets, wall-mount boxes.
- **Fiber Options:** 2.0mm or 3.0mm ruggedized pigtails.





LGX Box Type

- **Dimensions:** 130x100x25 mm
- **Best For:** Optical distribution frames (ODF), cross-connect cabinets, wall-mount boxes, fiber distribution boxes..
- **Fiber Options:** 0.9mm, 2.0mm or 3.0mm ruggedized pigtails.



1×5 Ordering Information

PLC	-	1X5	-	Ratio Profile	-	Package	-	Fiber Dia.	-	Length	-	Connector
		105		5/95		ST=Steel Tube		25=250um		10=1.0m		SCU=SC/UPC
				50/50		60x7x4 mm		09= 0.9mm		15=1.5m		SCA=SC/APC
				60/40		ABS=ABS Box		20=2.0mm		20=2.0m		FCU=FC/UPC
				67/33		100x26x10 mm		30=3.0mm		XX=custom		FCA=FC/APC
				70/30						length		LCU=LC/UPC
				75/25								LCA=LC/APC
				80/20								N=No connector
				85/15								
				90/10								
				CC(Custom Profile)								



Contact Information

Shenzhen Yingda Photonic Co., Ltd.

- **Website:** <https://ydfiberoptic.com>
- **Email:** sales@ydfiberoptic.com
- **WhatsApp/Tel:** +86-1868898406
- **Factory Address:** 5F, China Zhenhua Production Center, Heping Road No. 64, Longhua, Shenzhen, China 518109