PHOTONWARES

NanoSpeed™ 1x4 PM Fiberoptic Power Splitter

(Protected by U.S. patents 7,403,677B1; 6,757,101B2; and pending patents)

Product Description

The NS Series 1x4 solid-state fiber-optic splitter splits the optical power among four outputs with any power splitting ratio. The input is polarization maintaining (PM) fiber and the outputs are four single mode or PM fibers. This is achieved using patent pending non-mechanical configurations with solid-state all-crystal designs, which eliminates the need for mechanical movement and organic materials, offering the ultra-long lifetime. The NS fiber-optic switch is designed to meet the most demanding switching requirements of fast response time, and continuous switching operation. The switch is bidirectional.
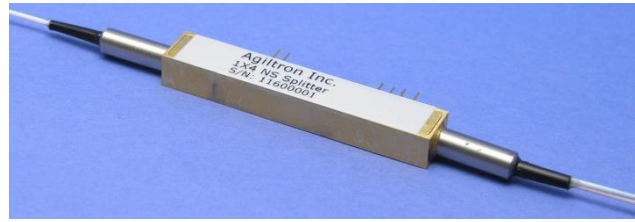
Features

- High Reliability
- Fast Speed
- Low Insertion Loss
- Compact Size
- Low Cost

Applications

- Configurable multi-channel EDFA module
- Instrumentation

Performance Specifications

| NS Series 1x4 Power Splitter	Min	Typical	Max	Unit
Central Wavelength	1260		1650	nm
Insertion Loss [1]		0.8	1.3	dB
Cross Talk [2]	17	22		dB
Polarization Dependent Loss		0.15	0.35	dB
IL Temperature Dependency		0.25	0.5	dB
Return Loss	45	50	60	dB
Response Time (Rise, Fall)	30		1000	ns
Repetition Rate	DC	5	100 [3]	kHz
Operating Temperature	-5		70	ºC
Optical Power Handling		300	500	mW
Storage Temperature	-40		85	ºC

1. Excluding connectors.
2. Define @ 100% splitting rate
3. Driver kit is recommended for high operation frequency.

NanoSpeedTM 1x4 Fiberoptic Power Splitter

Mechanical Dimensions (mm)
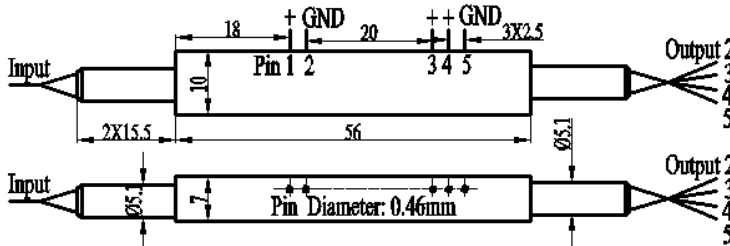
*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

Status Definition

Status [4]	Pin Group1		Pin Group2		Pin Group3	
	1	2	3	5	4	5
Input->output2	GND	GND	GND	GND	GND	GND
Input->output3	High[5]	GND	GND	GND	GND	GND
Input->output4	GND	GND	GND	GND	High	GND
Input->output5	High	GND	High	GND	GND	GND

[4]: The status is shown as 100% splitter from default, but could be at any ratio by applying the different driving voltage and its combinations
[5]: High = V_π w/o driver, or ~5V of TTL with driver

Ordering Information

NSSP-	1 4				1				
	Type	Wavelength	Configuration	Package	Fiber Type		Fiber Length	Connector	
	1x4=14	1310=3 1550=5 Special=0	Input: PM fiber Output: SM fiber = 1 Input: PM fiber Output: PM fiber = 2		PM for IN SM for out =1 Input: PM fiber Output: PM fiber = 2 Special=0	Bare fiber=1 900um loose tube=3 Special=0	0.25m=1 0.5m=2 1.0 m=3 Special=0	None=1 FC/PC=2 FC/APC= 3 SC/PC=4 SC/APC=5 ST/PC=6 LC/PC=7 Duplex LC=8 LC/APC=9 Special=0	