Variable Fiber Optical Splitter/Coupler Array

(1x2, 2x2, SM, PM)

(Protected by U.S. patent 7,403,677B1 and pending patents)

Features

- High Speed
- High Reliability
- Low Loss
- Compact

Product Description

The Variable Fiber Optical Splitter splits an incoming optical signal among two output optical fibers with a continuously variable ratio controlled by a electrical input voltage from 0 to 5V. When the electrical control signal is removed, the splitter returns to a pre-determined ratio with a standard version of 100:0. The device is bidirectional, transmitting light in both direction simultaneously. The all-solid-state crystal design provides high reliability. The Variable Fiber Optic Splitter has passed Telcordia reliability qualification tests. It is designed to meet the most demanding requirements of ultra-high reliability, fast response time, and continuous operation.

The unit is mounted on a driving board having a control signal input SMA connector and a wall plug-in power supply. Available with several electronic driver having performance optimized for various repetition rate.

Performance Specifications

Variable Fiber Optical Splitter		Min	Typical	Max	Unit
Central Wavelength		450		2000	nm
Insertion Loss[1]	1260~1650nm		0.6	1	dB
	900~1260nm		0.8	1.3	dB
	760~900nm		1	1.5	dB
	650 -850		1.5	1.9	dB
	450-580		2	2.5	dB
Cross Talk at 100% splitter [2]		20	25	35	dB
Splitting Variation	Output 1	100~0			%
	Output 2	0~100			%
	Type		Continuous		
Response Time (Rise, Fall)				1000	Ns
Repetition Rate [3]		DC	20	1000	kHz
Polarization Dependent Loss			0.1	0.35	dB
IL Temperature Dependency			0.25	0.5	dB
Polarization Mode Dispersion			0.1	0.2	Ps
Return Loss		45	50	60	dB
Operating Temperature		-5		70	°C
Optical Power Handling [3]			300		mW
Storage Temperature		-40		85	°C
Package Dimension			65.8x8.5x8.4		mm

[1] Excluding connectors.
[2] Cross talk is measured at 5kHz, which may be degraded at the high repeat rate.
[3] High repetition rate (up to 100 kHz) is available.
[3] Defined at 1310/1550nm. For the shorter wavelength, the handling power may be reduced.

Applications

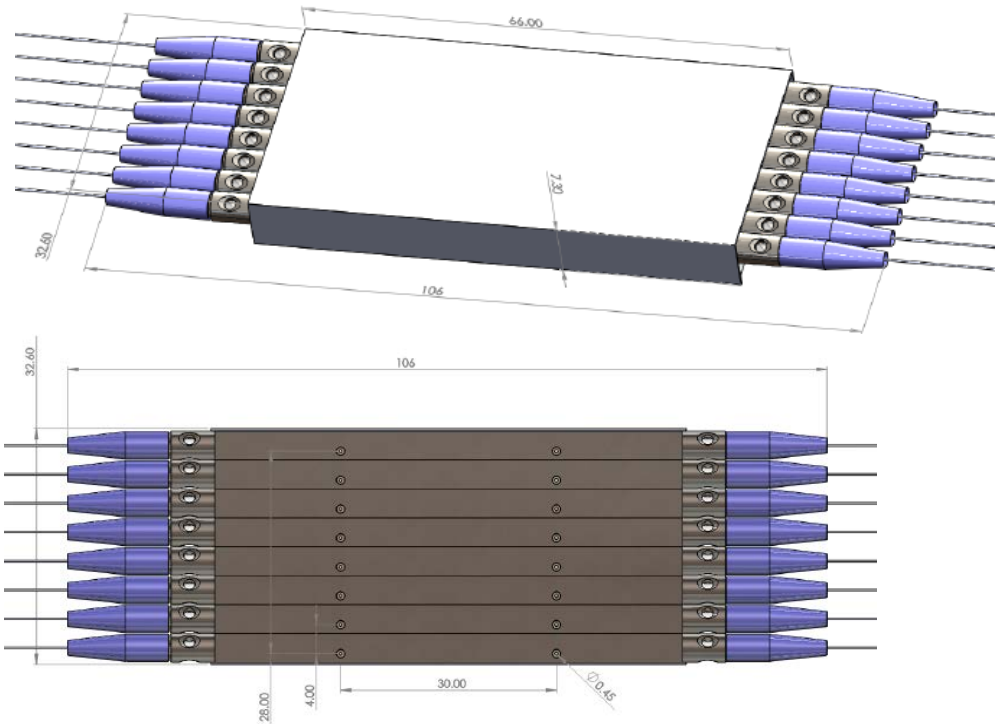
- Instrumentation
- Power balance
- Sensor

15 Presidential Way, Woburn, MA 01801 Tel:(781)935-1200 Fax:(781)935-2040

www.agiltron.com

Variable Fiberoptic Splitter Array

Mechanical Dimensions (mm)



*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

Driving Board Selection

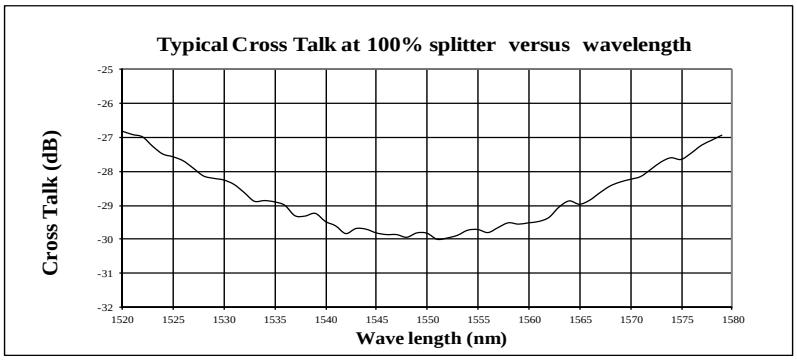
Maximum Repetition Rate	Part Number (P/N)
20kHz	
100kHz	

15 Presidential Way, Woburn, MA 01801 Tel:(781)935-1200 Fax:(781)935-2040

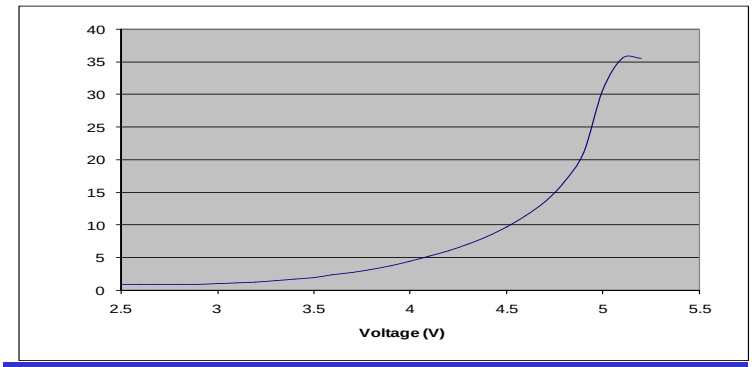
www.agiltron.com

Variable Fiberoptic Splitter Array

Wavelength Dependence



Typical Attenuation versus Voltage



Ordering Information

NSVS-	☐☐	☐	☐	☐	☐	☐	☐	☐
	Type	Wavelength	Repetition	Channel	Fiber Type		Fiber Length	Connector
	1x2=12 2x2=22	1060=1 2000=2 1310=3 1480=4 1550=5 1625=6 780=7 850=8 650=E 550=F 400=G 1565~1620=L Special=0	20Khz=2 100kHz = 3	1 2 3 4 5 6 7 8	SMF-28=1 HI1060=2 HI780=3 PM1550/400=4 PM1550/250=5 PM850=8 PM980=9 Special=0	Bare fiber=1 900um 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 LC Duplex=8 LC/APC=9 Special=0

15 Presidential Way, Woburn, MA 01801 Tel:(781)935-1200 Fax:(781)935-2040

www.agiltron.com