

MEMS VOA Fiber-Fiber™ (Multimode)

(Protected by US Patent 10752492B2)

Product Description

The **Fiber-Fiber™** series VOA is based on direct fiber to fiber coupling with a micro-electro-mechanical shutter in between, featuring ultra-broadband without coating, compact size, easy to drive, and compatible with all types of fiber with an outer diameter of 125 μm. The **Fiber-Fiber™** series VOA is compliant with the Telcordia 1209 and 1221 reliability standards. The VOA is driven by directly applying an electrical voltage below 4.5V.



Features

- Low Insertion Loss
- High Reliability
- Low Cost
- Low power consumption
- Super compact

Performance Specifications

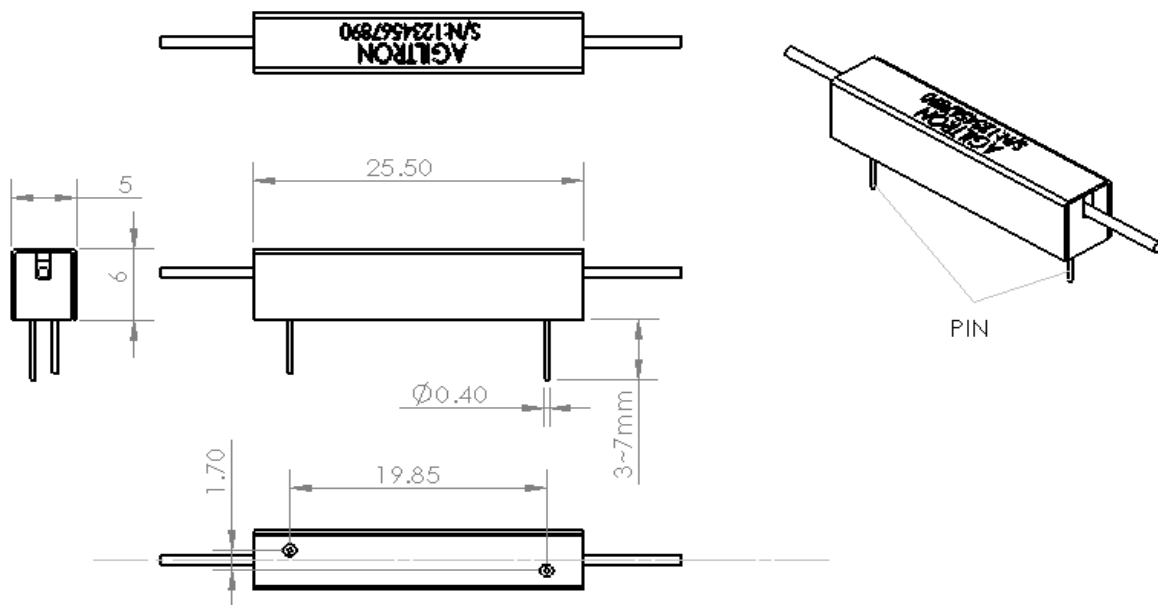
Fiber-Fiber™ series VOA		Min	Typical	Max	Unit
Wavelength		300		2000	nm
Band Width		Transmission is the same as the intrinsic fiber			
Insertion Loss ^[1]			0.8	1.2	dB
Attenuation Resolution			Continuous		dB
Attenuation Range	Core<60 μm		35	50	dB
	Core ~ 105 μm		25	35	dB
Return Loss			30	40	dB
Response Time		5	15	30	ms
Optical Power Handling (CW)			300	500	mW
Driving Voltage (full range)			3.5	5	VDC
Power Consumption ^[2]			80	220	mW
Reliability		Telcordia 1209 and 1221			
Operating Temperature			-5 ~ 70		°C
Storage Temperature			-40 ~ 85		°C
Fiber Type			50/125, 62.5/125,		
Package Dimension			See drawing below		mm

Notes:
 [2] Measure with CPR<20 laser/LED source and excluding connectors
 [3] At full range

Applications

- Dynamic gain equalization
- Variable MUX/DeMUX
- Instrumentation

Mechanical Dimensions-Package



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

Electrical Driving Information

Pin No.	Definition	Voltage(V)	Pin No.	Definition	Voltage(V)
1	VOA	0 ~ 4.7	2	VOA	0

no polarity, electrostatic insensitive

Ordering Information

FVOA-	☐ ☐	☐	☐	☐ ☐	☐	☐	☐
	Configuration	Type	Test Wavelength*	Fiber type		Fiber Length	Connector
	Standard = 11 Special=00	Normally Open=1 Special=0	488 = 4 532 = 5 630 = 6 780 = 7 850 = 8 980 = 9 1060 = 1 1310 = 3 1550 = C 2000 = 2 Special = 0	Pick from below table	Bare fiber=1 900um tube=3 Special=0	0.25m=1 0.5m=2 1.0m=3 Special=0	None=1 FC/PC=2 FC/APC=3 SC/PC=4 SC/APC=5 ST/PC=6 LC=7 Duplex LC=8 MTP = 9 Special=0

*The device is ultra-broadband limited by the fiber transmission. However, we only test at one selected wavelength to save cost. If customer needs to test at several wavelengths, the selection is special =0 with added cost.

01	SM-28	31	PM1550	61	OM1
02	SMF-28e	32	PM1950	62	OM2
03	Corning XB	33	PM1310	63	OM3
04	SM450	34	PM400	64	OM4
05	SM2000	35	PM480	65	GIF50
06	SM600	36	PM630	66	GIF625
07	Hi780	37	PM780		
08	SM800	38	PM850	71	FG50LGA
09	Hi980	39	PM980	75	FG105LCA
10	Hi1060	43		76	
11	SM200	44		77	
12	Draka BBE	45		78	