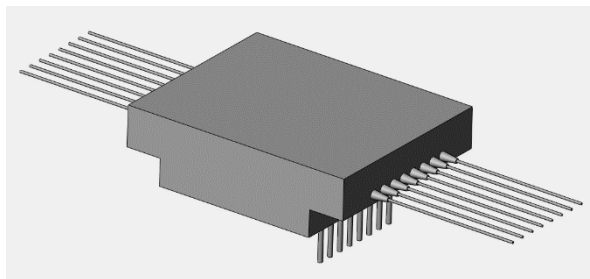


MEMS VOA Array Single Mode (8, 16, 24 Channels)

(Patent pending)

Product Description

The **Fiber-Fiber™** series VOA is based on fiber to fiber coupling with a micro-electro-mechanical shutter in between, featuring low loss, broadband, high power, compact size, low cost, easy drive, and excellent optical performance. The **Fiber-Fiber™** series VOA is compliant with the Telcordia 1209 and 1221 reliability standards. The VOA is driven by directly applying a low electrical voltage.



Features

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

Performance Specifications

Fiber-Fiber™ series VOA	Min	Typical	Max	Unit
Wavelength	1200		2000	nm
Band Width	Broad band without coating			
Insertion Loss ^[1]		0.3	0.8	dB
Temperature Dependent Loss ^[2]	@10dB	0.5	1.0	dB
	@20dB	0.8	1.2	dB
Attenuation Resolution	Continuous			
Attenuation Range		25	35 ^[3]	dB
Return Loss		45	50 ^[3]	dB
Response Time		3	6	ms
Power Handling		500	800	mW
Driving Voltage ^[4]		3.5	5	VDC
Power Consumption ^[4]		80	120	mW
Reliability	Telcordia 1209 and 1221			
Operating Temperature		-5 ~ 70		°C
Storage Temperature		-40 ~ 85		°C
Fiber Type	SMF-28			
Package Dimension	See drawing below			

Notes:

[1]: Excluding connectors

[2]: Reference to room temperature

[3]: Special order with high charge

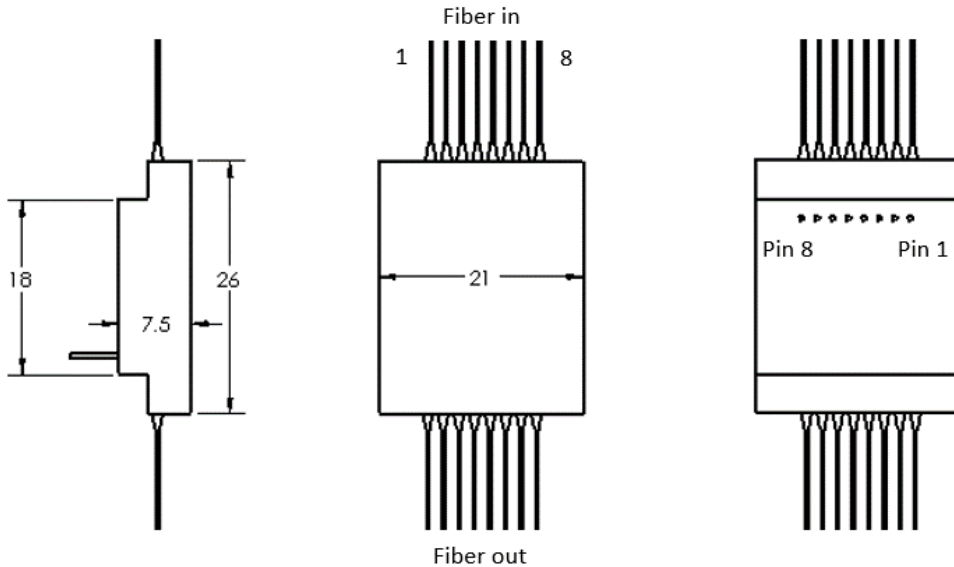
[4]: For full dynamic range, other drive voltage available

Applications

- Dynamic gain equalization
- Variable MUX/DeMUX
- Instrumentation

8~24 Channel *Fiber-Fiber*[™] VOA Array

Mechanical Dimensions-Package Type 1

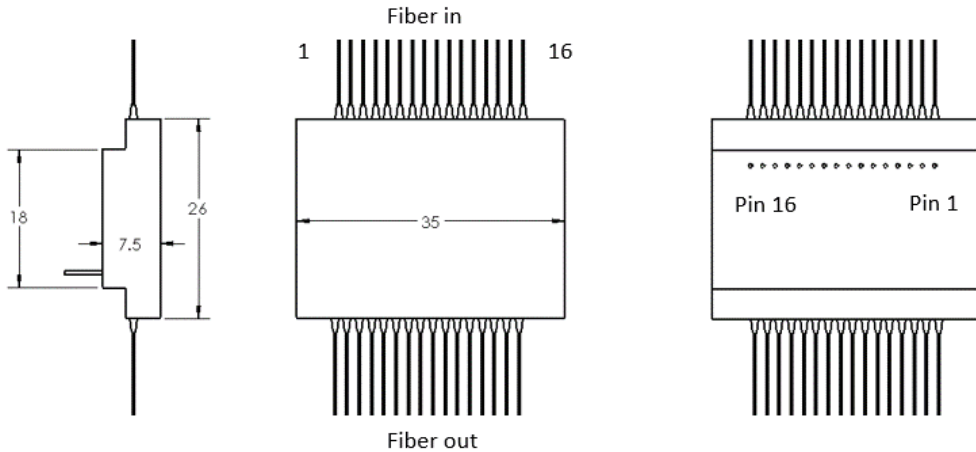


Electrical Driving information

Pin No.	Definition	Voltage(V)	Pin No.	Definition	Voltage(V)
1	VOA 1	0 ~ 5	5	VOA 5	0 ~ 5
2	VOA 2	0 ~ 5	6	VOA 6	0 ~ 5
3	VOA 3	0 ~ 5	7	VOA7	0 ~ 5
4	VOA 4	0 ~ 5	8	VOA 8	0 ~ 5

8~24 Channel *Fiber-Fiber*[™] VOA Array

Mechanical Dimensions-Package Type 2

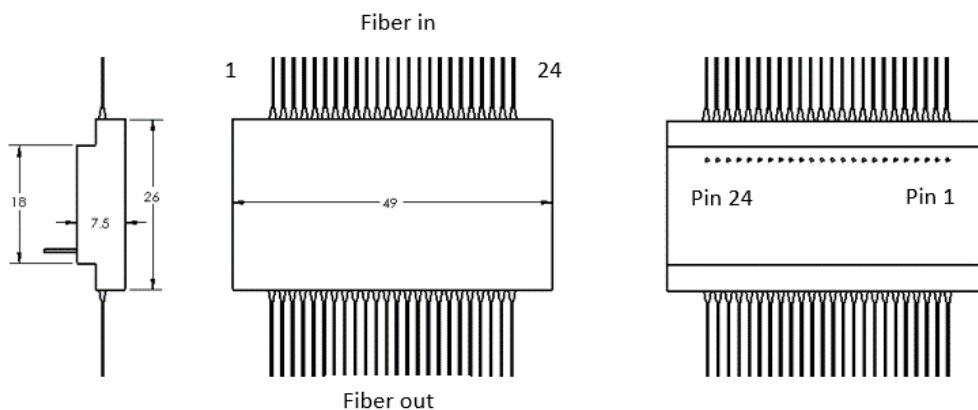


Electrical Driving Information

Pin No.	Definition	Voltage(V)	Pin No.	Definition	Voltage(V)
1	VOA 1	0 ~ 5	9	VOA 9	0 ~ 5
2	VOA 2	0 ~ 5	10	VOA 10	0 ~ 5
3	VOA 3	0 ~ 5	11	VOA 11	0 ~ 5
4	VOA 4	0 ~ 5	12	VOA 12	0 ~ 5
5	VOA 5	0 ~ 5	13	VOA 13	0 ~ 5
6	VOA 6	0 ~ 5	14	VOA 14	0 ~ 5
7	VOA 7	0 ~ 5	15	VOA 15	0 ~ 5
8	VOA 8	0 ~ 5	16	VOA 16	0 ~ 5

8~24 Channel *Fiber-Fiber*TM VOA Array

Mechanical Dimensions-Package Type 3



Electrical Driving Information

Pin No.	Definition	Voltage(V)	Pin No,	Definition	Voltage(V)
1	VOA 1	0 ~ 5	13	VOA 13	0 ~ 5
2	VOA 2	0 ~ 5	14	VOA 14	0 ~ 5
3	VOA 3	0 ~ 5	15	VOA 15	0 ~ 5
4	VOA 4	0 ~ 5	16	VOA 16	0 ~ 5
5	VOA 5	0 ~ 5	17	VOA 17	0 ~ 5
6	VOA 6	0 ~ 5	18	VOA 18	0 ~ 5
7	VOA 7	0 ~ 5	19	VOA 19	0 ~ 5
8	VOA 8	0 ~ 5	20	VOA 20	0 ~ 5
9	VOA 9	0 ~ 5	21	VOA 21	0 ~ 5
10	VOA 10	0 ~ 5	22	VOA 22	0 ~ 5
11	VOA 11	0 ~ 5	23	VOA 23	0 ~ 5
12	VOA 12	0 ~ 5	24	VOA 24	0 ~ 5

8~24 Channel *Fiber-Fiber*[™] VOA Array

Ordering Information

VOAA-	☐ ☐	0	☐	☐	☐	☐	☐	☐
	Type	Wavelength	Off State	Package	Fiber		Fiber Length	Connector
	8 channel =08 16 channel =16 24 channel =24		Transparent=1 Opaque = 2	Standard=1 Special=0	SMF-28 =1 Special = 0	Bare fiber=1 900um loose 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 Special = 0