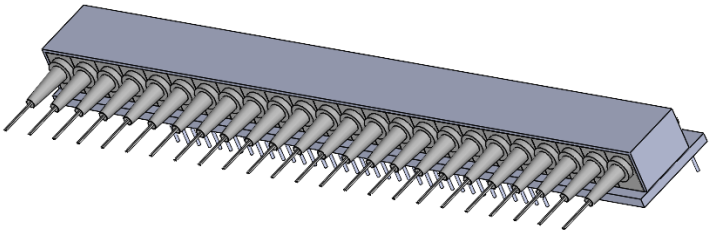
24 Channel MEMS VOA Array

(US patent 8,666,218 and other patents pending)

Product Description

The *et*MEMS™ series VOA is based on a micro-electro-mechanical mechanism featuring compact design, simple construction, easy direct drive, and excellent optical performance. The *et*MEMS™ series VOA is compliant with the Telcordia 1209 and 1221 reliability standards. The VOA is driven by directly applying an electrical voltage.



Features

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

Performance Specifications

24 Channel *et*MEMS™ VOA array	Specification	Unit
Operating Wavelength	1310±50; 1550±50	nm
Insertion Loss (without connector)	0.6typ.; 1.0max.	dB
Attenuation Dynamic Range	55	dB
Polarization Dependant Loss (0~20dB)	≤ 0.1	dB
Wavelength Dependant Loss (40nm band, 0~20dB)	0.45typ.; 0.8max.	dB
Polarization Mode Dispersion	≤ 0.05	ps
Optical Cross Talk	≥ 65	dB
Attenuation Resolution	Continuous	dB
Response Time (0~20dB)	5typ.; 10max	ms
Return Loss (Input / Output)	50	dB
Maximum Power Consumption	≤170	mW/Ch
Electric Power Input (DC)	5	V
Electrical Control Signal	0-4.5	V
Operating Temperature	-20 ~ +75	°C
Storage Temperature	-40 ~ +85	°C
Optical Power Handling[3]	300typ.; 500max	mW/ch
Relative Humidity Range	0 ~ 85	%
Package Dimensions (see next page)	L111.5 x W15 x H8.6	mm

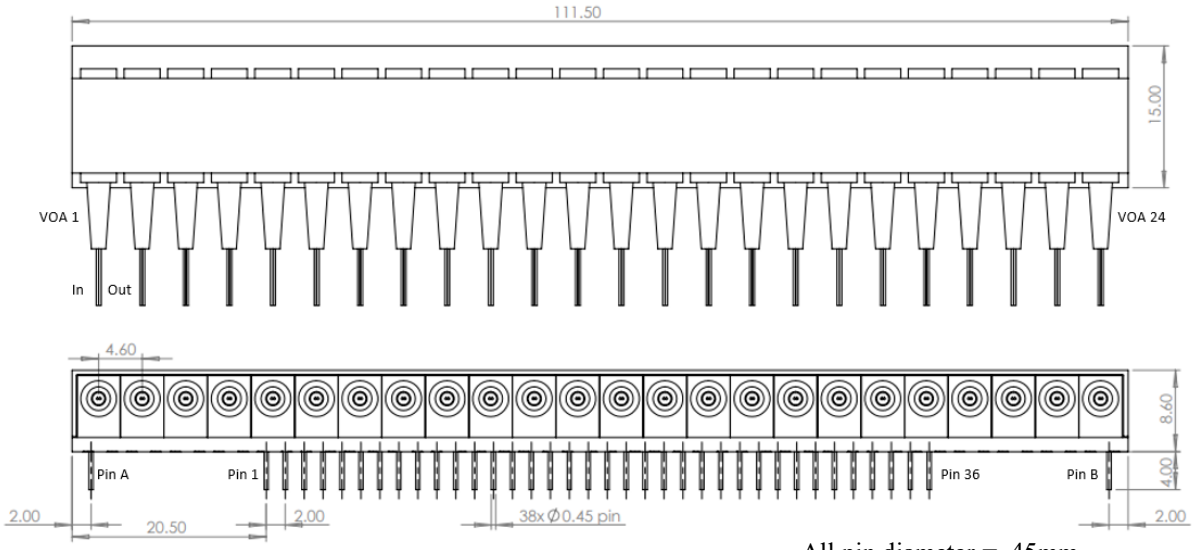
Applications

- Dynamic gain equalization
- Variable MUX/DeMUX
- Instrumentation

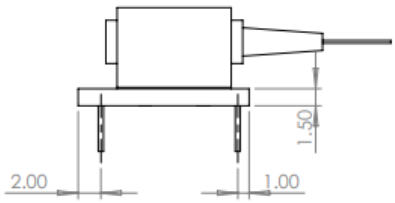
15 Presidential Way, Woburn, MA 01801 Tel: (781) 935-1200 Fax: (781) 935-2040

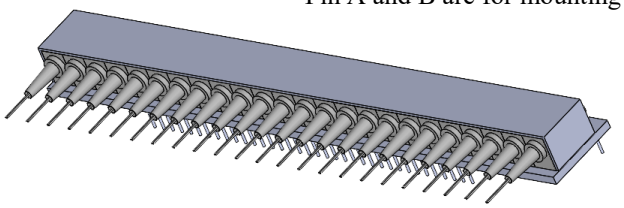
www.agiltron.com

Mechanical Dimensions



All pin diameter = .45mm
Pin A and B are for mounting





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

Electrical Driving Instruction

Pin No.	Electronic Drive	VOA No.
1	0~5V	1
2	0~5V	2
3	0~5V	3
4	0~5V	4
5	GND	
6	GND	

Pin No.	Electronic Drive	VOA No.
7	0~5V	5
8	0~5V	6
9	0~5V	7
10	0~5V	8
11	GND	
12	GND	

Pin No.	Electronic Drive	VOA No.
13	0~5V	9
14	0~5V	10
15	0~5V	11
16	0~5V	12
17	GND	
18	GND	

Pin No.	Electronic Drive	VOA No.
19	0~5V	13
20	0~5V	14
21	0~5V	15
22	0~5V	16
23	GND	
24	GND	

Pin No.	Electronic Drive	VOA No.
25	0~5V	17
26	0~5V	18
27	0~5V	19
28	0~5V	20
29	GND	
30	GND	

Pin No.	Electronic Drive	VOA No.
31	0~5V	21
32	0~5V	22
33	0~5V	23
34	0~5V	24
35	GND	
36	5V Power Supply	

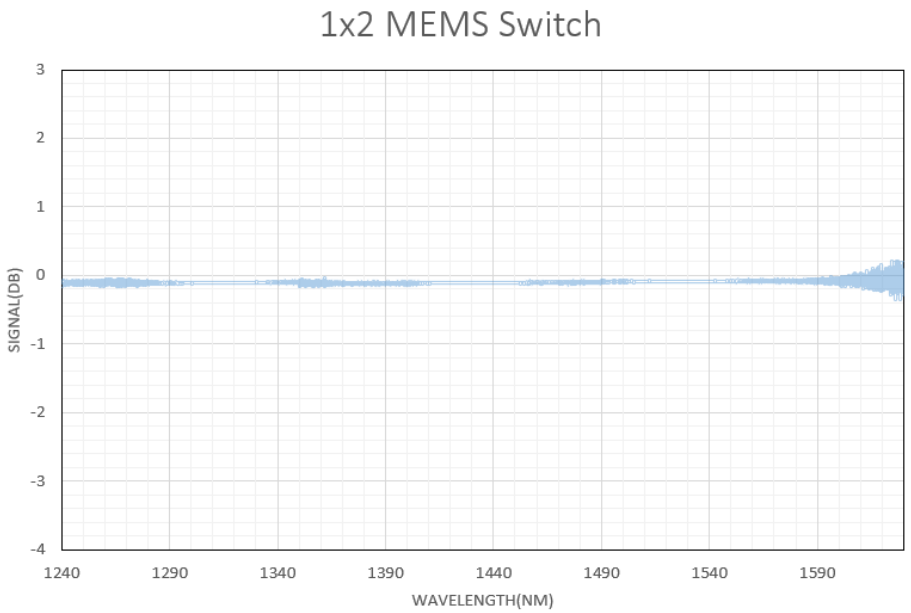
15 Presidential Way, Woburn, MA 01801 Tel: (781) 935-1200 Fax: (781) 935-2040
www.agiltron.com

Ordering Information

	2 4	☐	☐	2	☐	☐	☐	☐
Prefix	**Type**	**Wavelength**	**Off State**	**Package**	**Fiber**	**Fiber Cover**	**Fiber Length**	**Connector**
VOAA-		1260~1620 = B 1550 = 5 1310 = 3 Special = 0	Transparent = 1 Opaque = 2	Special = 0	SMF-28 = 1 Special = 0	900 um tube = 3 Bare fiber = 1 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

NOTE:
"transparent" means no attenuation without applying a controlling voltage, the **"opaque"** means the highest attenuation without applying a controlling voltage.

Typical Insertion Loss vs Wavelength (1240-1630nm)



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