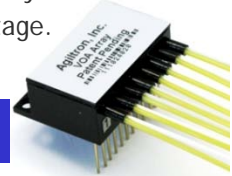


# 2~8 Channel etMEMS™ VOA Array

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

## Product Description

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



## Performance Specifications

2~8 Channel etMEMS™ VOA array	Specification	Unit
Operating Wavelength	1310±50; 1550±50	nm
Insertion Loss <sup>1</sup>	≤ 0.8	dB
Attenuation Dynamic Range	> 30	dB
Polarization Dependant Loss (0~20dB)	0.2typ.; 0.5max.	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)	≤ 5	ms
Return Loss ( Input / Output )	45min.	dB
Power Dissipation	40typ.	mW/Ch
Maximum Power Consumption <sup>2</sup>	≤ 1	W
Electric Input (DC)	5	V
Operating Temperature	-5 ~ +75	°C
Storage Temperature	-40 ~ +85	°C
Optical Power Handling <sup>3</sup>	≤ 250	mW/ch
Relative Humidity Range	0 ~ 85	%
Package Dimensions (see next page) <sup>4</sup>	L25.4 x W15 x H10 Or L53.0×W30.0×H8.0	mm
<sup>1</sup> Without connector <sup>2</sup> Including control circuit <sup>3</sup> Total power<1W, otherwise need consider heat sink. <sup>4</sup> Customer may request smaller box for fewer channels.		

## Features

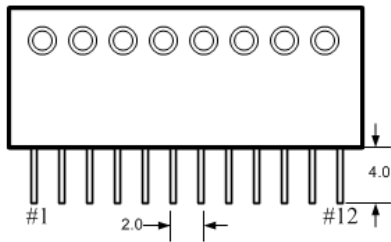
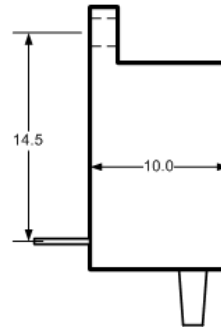
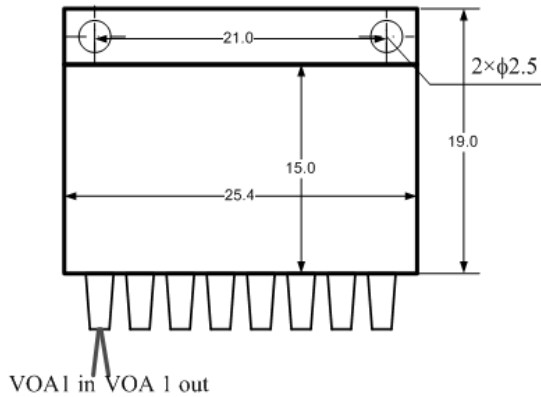
- Low Insertion Loss
- High Reliability
- Low Cost
- Low power consumption
- Super compact

## Applications

- Dynamic gain equalization
- Variable MUX/DeMUX
- Instrumentation

# 2~8 Channel etMEMS™ VOA Array

## Mechanical Dimensions-Package Type 1

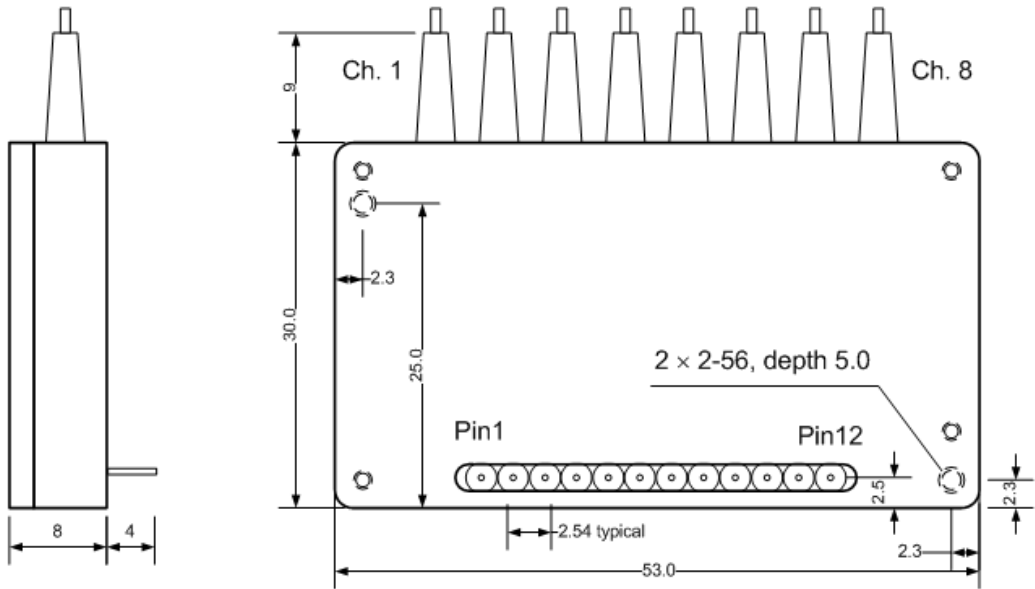


Pin 1	VOA 1 (0-5V)	Pin 7	VOA 5 (0-5V)
Pin 2	VOA 2 (0-5V)	Pin 8	VOA 6 (0-5V)
Pin 3	VOA 3 (0-5V)	Pin 9	VOA 7 (0-5V)
Pin 4	VOA 4 (0-5V)	Pin 10	VOA 8 (0-5V)
Pin 5	GND	Pin 11	GND
Pin 6	GND	Pin 12	5V power supply

All pin diameter = .45mm

# 2~8 Channel etMEMS™ VOA Array

## Mechanical Dimensions-Package Type 2



Pin 1	+5V PWR IN	Pin 7	VOA 5 (0-5V)
Pin 2	VOA 1 (0-5V)	Pin 8	GND
Pin 3	VOA 2 (0-5V)	Pin 9	VOA 6 (0-5V)
Pin 4	GND	Pin 10	VOA 7 (0-5V)
Pin 5	VOA 3 (0-5V)	Pin 11	GND
Pin 6	VOA 4 (0-5V)	Pin 12	VOA 8 (0-5V)

## Ordering Information

VOAA-	Type	Wavelength	Off State	Package	Fiber	Fiber Length	Connector	
0    □    □    □    □    □    □    □    □	8 channel =08 7 channel =07 6 channel =06 5 channel =05 4 channel =04 3 channel =03 2 channel =02	1310=3 1550 = 5 1260-1620= 8 Special = 0	Transparent=1 Opaque = 2	Type 1=1 Type 2=2 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