MEMS VOA

MEMS VOA is a precise and adjustable voltage-driven optical component. The key part of the component is MEMS chip; driving voltage produces electrostatic force to drive the micro-mirror on the chip, then to adjust output optical power. It has excellent features such as compact dimension, low power consumption, fast responding, anti-shock, low WDL as well as low PDL. It is successfully applied in military project. It meets reliability standard of Telcordia 1221.

MEMS VOA has 2 series: fast responding series and low voltage driving (LOWO) series. Each series has variable models like single wavelength, dual wavelength, and polarization-maintaining. We could also develop and produce other MEMS VOA as customers' requirement.

FASRE Series Specifications

	FASRE-1	FASRE-2	FASRE-3
Attenuation Range	20dB	30dB	40dB
Response Time ①	0.8ms	0.8ms	0.8ms
Attenuation Resolution	Continue	Continue	Continue
Insertion Loss ②	0.8dB	0.8dB	0.8dB
PDL ③	<0.2dB	<0.2dB	<0.2dB
WDL ③	<0.4dB	<0.4dB	<0.4dB
Operation Wavelength ④	S/C/L	S/C/L	S/C/L
Driving Power	<5μW	<5μW	<5μW
Driving Voltage ⑤	12V	14V	15V
Max Optical Power	500mW		
Package Size（Dia× L）	5.5mm×19mm		
Durability	>10E+9 Cycle		
Note： ①Full range ② Typical value ③@10dB ④ Wavelength near 1310 , 1060 is optional ⑤ Maximum voltage for full range			

肯耐國際股份有限公司
10627 台北市大安區忠孝東路四段 148 號 12 樓之 1 Add: 12F-1., No. 148, Sec. 4, Zhongxiao E. Rd., Taipei 10627, Taiwan Tel: (886-2) 6617-6112 Fax: (886-2) 8771-8345
www.kennine.com

Ordering Information: VOA－FASRE－A－B－C－D－E－F

A	B	C	D	E	F
Attenuation Range	Operation wavelength	Polarization status	Attenuation w/o voltage	Fiber type	Connect type
1：20dB 2：30dB 3：40dB	13：1310 15：1550 DU：1310&1550	PM：Maintain NM：Not Maintain	BR：Bright DK：Dark	BA：Bare Fiber LS：with Loose tube	OO:None FP: FC/PC FA: FC/APC SP: SC/PC SA: SC/APC STP: ST/PC STA: ST/APC X: Others

LOWO series Specifications

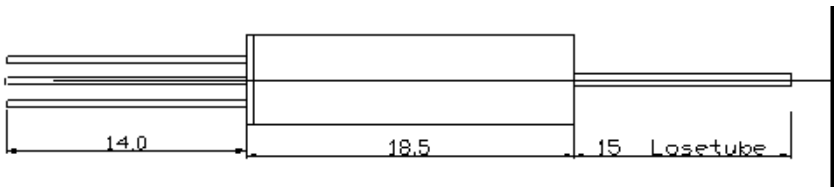
	LOWO-1	LOWO-2	LOWO-3
Attenuation Range	20dB	30dB	40dB
Response Time ①	5ms	5ms	5ms
Attenuation Resolution	Continue	Continue	Continue
Insertion Loss ②	0.8dB	0.8dB	0.8dB
PDL ③	<0.2dB	<0.2dB	<0.2dB
WDL ③	<0.4dB	<0.4dB	<0.4dB
Operation Wavelength ④	S/C/L	S/C/L	S/C/L
Driving Power	<5μW	<5μW	<5μW
Driving Voltage ⑤	6V	6V	8V
Max Optical Power	500mW		
Package Size（Dia× L）	5.5mm×19mm		
Durability	>10E+9 Cycle		
Note： ①Full range ② Typical value ③@10dB ④ Wavelength near 1310 , 1060 is optional ⑤ Maximum voltage for full range			

肯耐國際股份有限公司
10627 台北市大安區忠孝東路四段 148 號 12 樓之 1 Add: 12F-1., No. 148, Sec. 4, Zhongxiao E. Rd., Taipei 10627, Taiwan Tel: (886-2) 6617-6112 Fax: (886-2) 8771-8345
www.kennine.com

Ordering Information: VOA—LOWO—A—B—C—D—E—F

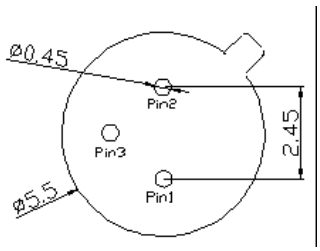
A	B	C	D	E	F
Attenuation Range	Operation wavelength	Polarization status	Attenuation w/o voltage	Fiber type	Connect type
1：20dB 2：30dB 3：40dB	13：1310 15：1550 DU：1310&1550	PM：Maintain NM：Not Maintain	BR：Bright DK：Dark	BA：Bare Fiber LS：with Loose tube	OO:None FP: FC/PC FA: FC/APC SP: SC/PC SA: SC/APC STP: ST/PC STA: ST/APC LP: LC/PC LA: LC/APC X: Others

Dimension



Electrics Connection

Pins	Electrics connection
1	Control signal (+)
2&3	Ground
Input Impendence >1MΩ	



Control Description

Pin 2 or (and) pin 3 connect to GND. Housing is also connect to GND. In peripheral circuit, an ESD component is connected in parallel between pin 1 and pin 2. When operating, a 5K resistance is used to connect to power supplier.