

Multi-Channel VOA Array with Integrated Monitor

(integrated power control and power monitor module)



(patent pending)

DATASHEET

[Return to the Webpage](#)



The Multi-channel Variable Fiber Optical Attenuator with Integrated Power Monitor Module (VOA-TAPM) is designed to provide the precision control of a steady output optical power or attenuation independent of environmental variations or input laser instability. The input-tap and output-tap are integrated with VOAs in a compact module. The module eliminates laser power variations, such as PDL, WDL, TDL, etc., and is particularly suitable for continuous optical power regulation and transient optical suppression, as well as analog signal modulation applications. The module is a platform ready for customization with a control electronics option.

Features

- Highly Reliable
- Highly precise
- Low IL
- Large dynamic range

Applications

- Optical Power Control
- Optical Power Regulation
- Optical Power Balance
- Instrumentation



Specifications

Parameter	Min	Typical	Max	Unit
Central Wavelength	780~1100	1260~1360	1510~1620	nm
Channel Number	4	8		
Insertion Loss ^[1]		1.5		dB
Attenuation Range		30		dB
Control Voltage		3.5	5	V
ILPM (Input/Output) Accuracy		± 0.1		dB
Return Loss ^[2]	55			dB
Maximum Input Power			20	dBm
Minimum Detectable Power	-30			dBm
VOA Response Time	0.1		5	ms
Electrically Power Consumption/Channel			0.2	W
Resolution		Continuous		
Operating Temperature		-20 ~ 70		°C
Storage Temperature		-40 ~ 85		°C
Fiber Type		Corning SMF-28 or MMF or PMF		

Notes:

[1]. Measured without connector

[2] Noted as SM fiber

Legal notices: All product information is believed to be accurate and is subject to change without notice. Information contained herein shall legally bind Agiltron only if it is specifically incorporated into the terms and conditions of a sales agreement. Some specific combinations of options may not be available. The user assumes all risks and liability whatsoever in connection with the use of a product or its application.

Rev 05/12/26

[+1 781-935-1200](tel:+17819351200)

sales@agiltron.com

www.agiltron.com

Multi-Channel VOA Array with Integrated Monitor

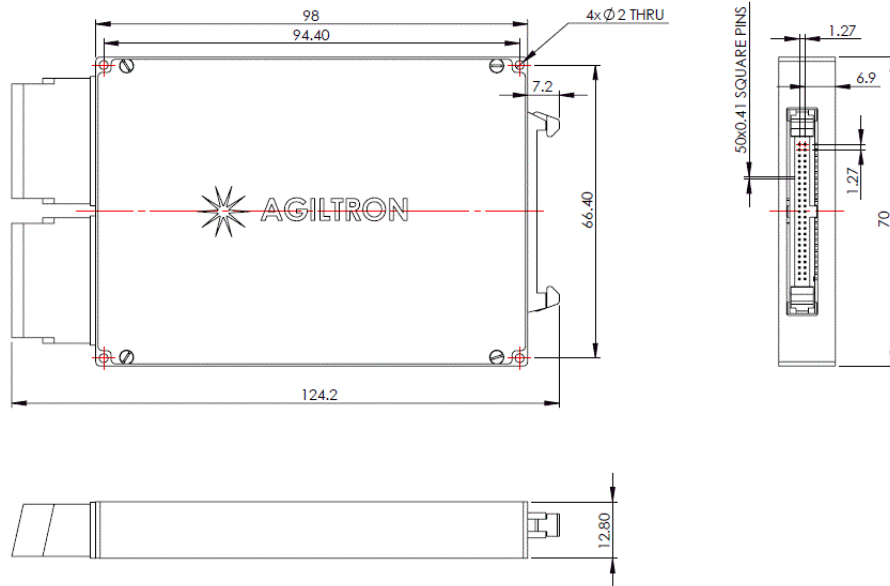
(integrated power control and power monitor module)



(patent pending)

DATASHEET

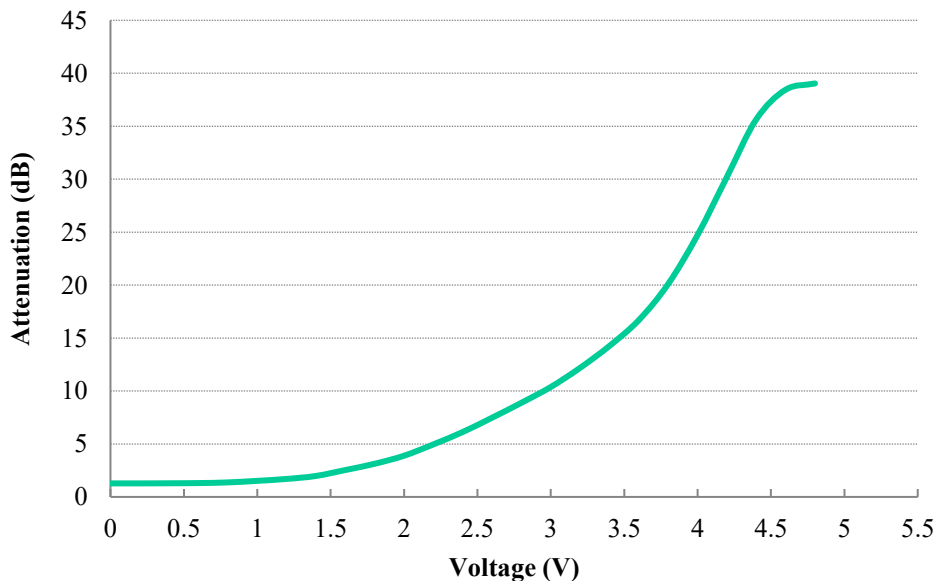
Mechanical Footprint Dimensions (Units: inch)



Note: Typical size for 4 Channel module only.

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

VOA Performance



P +1 781-935-1200

E sales@agiltron.com

W www.agiltron.com

Multi-Channel VOA Array with Integrated Monitor

(integrated power control and power monitor module)



(patent pending)

DATASHEET

Electric PIN Assignment

The connector J9 supports a 50 pin ribbon cable with 50 mil centers. Samtec EHF-125-01-L-D-RA-K or equivalent connector should be used.

The pin definition will be provided in the application note

Ordering Information (Part Number)

Prefix	ILPM	Channel number	Wavelength	Off State	Package Type	Fiber Type	Connector ^[1]
VTAP-	Input ILPM only = 10 Output ILPM only = 01 Input & Output ILPM = 11	Ex. 4 channels = 04	1060nm = 1 1260-1620 = 2 1310nm = 3 1410nm = 4 1550nm = 5 850nm = 8 Special = 0	Normally open = 1 Normally closed = 2	Standard = 1 Special = 0	Select below	None = 1 FC/PC = 2 FC/APC = 3 SC/PC = 4 SC/APC = 5 ST/PC = 6 LC/PC = 7 LC/APC = 8 LC/UPC = U Special = 0

[1]. The connector cannot be installed directly onto bare fiber, as it is prone to damage during shipping. However, the connector can be assembled on bare fiber if a 3 cm protective loose tube is added for reinforcement. The customer can remove this protective tube after testing. The optical power handling of a standard connector is less than 0.5 W for SM28 fiber and decreases further with smaller core fibers.

Fiber Type Selection Table:

1	SMF-28	34	PM1550	71	MM 50/125µm
02	SMF-28e	35	PM1950	72	MM 62.5µm
03	Corning XB	36	PM1310	73	MM 105/125µm
04	SM450	37	PM400	74	MM200 µm
05	SM1950	38	PM480	75	MM300 µm
06	SM600	39	PM630	76	MM400 µm
07	Hi780	40	PM850	77	MM600 µm
08	SM800	41	PM980	78	IRZS23
09	SM980	42	PM780	79	IRFS32
10	Hi1060	43	PM350	80	PCF
11	SM400	44	PM405	81	UV180nm
12		45	PM460	82	LMA-PM-10
13		46		83	MM 1mm

Multi-Channel VOA Array with Integrated Monitor

(integrated power control and power monitor module)



(patent pending)

DATASHEET

Typical Insertion Loss vs Wavelength (1240-1630nm)

1x2 MEMS Switch

