

OVA-100

Optical Variable Attenuator



Features

- Precise optical power
- ± 0.1 dB accuracy
- ± 0.01 dB repeatability
- 100 dB dynamic range
- Custom core sizes



Applications

- Manufacturing production testing
- Bit Error Rate Testing (BERT)
- Channel equalization



Compliance

- UL/CSA 61010
- IEC 61010
- FCC Part 15 (Class A)
- EN 61326 (Class A)

Product Overview

The Optical Variable Attenuator, OVA-100, enables precise optical power control featuring high accuracy and superior repeatability. It can be used as a benchtop or rackmount instrument.

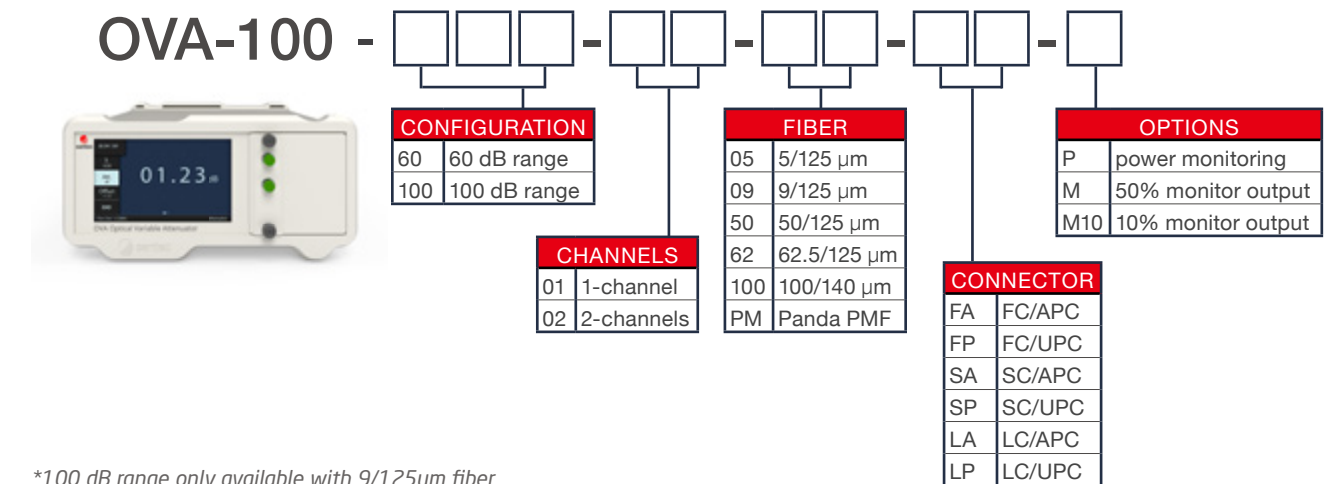
The OVA-100 is ideal for lab and production applications including power level adjustments in automated test systems, Bit Error Rate Testing (BERT) of transceivers, and channel equalization in WDM systems.

The OVA-100 offers ± 0.01 dB repeatability and a dynamic range of up to 100 dB (depending on the model configuration). The OVA can be controlled via the front panel touch screen, or remotely via USB and Ethernet.

OVA-100 operate from 1200-1700 nm for single-mode and 750-1700 nm for multimode. A power monitoring PD can be added to read the power output of the instrument. It can be used to auto adjust the attenuation for a constant customized power level.

Ordering Scheme & Instructions

1. Configure OVA Optical Variable Attenuator



*100 dB range only available with 9/125um fiber

2. Add Accessories

2U-Rack-Short-Ear

2U Rack Short Ear



2U-Rack-Long-Ear

2U Rack Long Ear Filler Plate



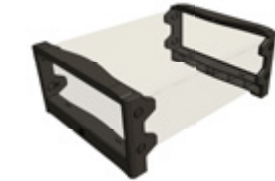
2U-Connector-Plate

2U Chassis Connector Plate



2U-Bezel

2U Rubber Bezels



OVA Optical / Electrical Specifications

Parameter	Specification			
	Single-mode		Multimode	Flexcore
Wavelength Range (nm)	1200-1700	1200-1700	750-1700	960-1080
Attenuation Range (dB)	100	60	60	60
Insertion Loss (dB) ^{1, 2, 3}	1.5	1.2	1.8	2.5
Power Monitoring Additional IL (dB)	1.0			
Power Monitoring Dynamic Range (dBm) ⁵	15 to -55			
Return Loss (dB)	60		35 ⁴	50
PDL (dB)	< 0.1		N/A	< 0.1
Repeatability (dB)	± 0.01			
Resolution (dB)	0.01			
Absolute Accuracy (dB)	± 0.1			
Maximum Optical Input Power (dBm)	23 (200 mW)			
Beam Block (dB)	> 100			
Calibration Period	N/A			
Remote Interface	Ethernet / USB			
Display	5" touchscreen			
Input Voltage	110 - 220 V AC, 50 - 60 Hz			
Power Consumption (VA)	60 maximum			

Notes:

¹ Excluding connectors and couplers.

² Single-mode measured at 1550 nm. 0.3 dB higher IL at 1310 nm.

³ Multimode measured at 850 nm. 0.3 dB lower IL at 1310 nm.

⁴ At 850 and 1350 nm.

⁵ At calibrated wavelength.

Mechanical / Environmental Specifications

Parameter	Specification
Unit Dimensions W x H x D (cm)	26 x 11 x 26
Shipping Box Dimensions W x H x D (cm)	37 x 25 x 38
Unit Weight (kg)	3
Total Shipment Weight (kg)	4
Operating Temperature (°C)	0 to 40
Storage Temperature (°C)	-40 to 70
Humidity (Non-condensing) (°C)	Maximum 95% RH from 0 to 40



In the Box

OVA-100 - Optical Variable Attenuator

- OVA-100
- USB A to USB B cable (1.5 m)
- Ethernet cable (1.5 m)



Santec Regional Sales Offices

SANTEC CORPORATION

5823 Ohkusa-Nenjozaka, Komaki,
Aichi, 485-0802, Japan
Tel: +81-568-79-3536 | Fax: +81-568-79-1718

Santec Europe Ltd.

99 Park Drive, Milton Park, Abingdon,
Oxfordshire, OX14 4RY, United Kingdom
Tel: +44-20-3176-1550

SANTEC U.S.A. CORPORATION

433 Hackensack Ave., Hackensack
NJ, 07601, USA. Toll Free: +1-800-SANTEC1 (726-8321)
Tel: +1-201-488-5505 | Fax: +1-201-488-7702

Santec (Shanghai) Corporation Limited

21F Room H, Hua Du Bldg., No.838 Zhangyang Road
Pudong District, Shanghai, 200122, China
Tel: +86-21-5836-1261 | Fax: +86-21-5836-1263

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