

Product Bulletin



The JDS Uniphase manual variable optical attenuators are compact, portable instruments for field system testing as well as test and development in laboratory applications. They provide continuously variable attenuation range of up to 65 dB with calibration wavelengths of 830/1300 nm or 1300/1550 nm. Attenuation is set manually from the front panel at a 0.1 dB resolution. Unlike programmable attenuators, the attenuation level is maintained when the power is turned on or off. The attenuators use JDS Uniphase's ultra-linear attenuator prism and highly reliable microlens technology to produce accurate attenuation settings with low insertion loss and excellent return loss.

The display features a large-scale LCD readout, and the unit is powered by a long-lasting 9 V lithium battery for handheld operation in the field. Input and output ports are equipped with rear panel-mounted connector bulkheads, and all major connector types as well as the optional universal connector adapter (UCA) are available.

Manual Variable Optical Attenuators (VA4 Series)

Key Features & Benefits

- Precision attenuation
- Two calibration wavelengths
- Low insertion loss
- Return loss > 60 dB
- Very long battery life
- Portable for field use
- Optional universal connector adapter

Applications

- Optical power control
- Receiver testing
- Field system testing
- Power meter linearity checks

Specifications

PARAMETER	1300/1550 nm	830/1300 nm
Attenuation range	65/60 dB	50/40 dB
Maximum insertion loss ^{1,2}		
single-mode (SM)	≤ 3.0 dB	≤ 7.0 dB
multimode (MM), 50/125 μm	≤ 3.2 dB	≤ 4.2 dB
MM, other	≤ 3.9 dB	≤ 4.9 dB
Return loss ³		
SM, analog	> 60 dB	
MM, 50/125 μm	> 35 dB	
Maximum optical input power	200 mW	
Attenuation accuracy ²	± 0.5 dB	
Display resolution	0.1 dB	
Repeatability ²	± 0.1 dB	
Polarization dependent loss ²	≤ 0.1 dB	
Recalibration period (recommended)	2 years	
Battery lifetime ^{4,5,6}	> 6000 hours	
Dimensions (W x H x D)	11.5 x 6 x 12.5 cm	
Weight	0.82 kg	
Operating temperature	0-50 °C	
Storage temperature	- 40-60 °C	
Humidity	maximum 95 % RH from 0-50 °C	

- Including 0.5 dB for each connector.
- Measured at 25 °C using unpolarized light at either calibration wavelength.
- Excluding connectors.
- With continuous display use.
- A "Low Battery" message is displayed when battery replacement is required.
- 9 V lithium battery.

Ordering Information

Indicate your requirements by selecting one option from each configuration table. Print the corresponding codes in the available boxes to form your part number.

For more information on this or other products and their availability, contact your local JDS Uniphase sales representative or JDS Uniphase directly.

Sample Order: VA47K+1ASU20

VA4 +1

CODE	FIBER TYPE (μm)
1	50/125
2	62.5/125
4	100/140
7	9/125

CODE	CONNECTOR TYPE
FP	FC/HPC
FA	FC/APC
SC	SC/HPC
SU	SC/APC
SP	ST/HPC
NC	No connector

CODE	CARRY CASE
0	Without
1	With

CODE	CALIBRATED WAVELENGTHS (nm)
G	830/1300
K	1300/1550

CODE	RETURN LOSS
K	Low MM
A	Analog (> 60 dB) SM

CODE	PORT TYPE (ON FRONT)
2	Bulkheads
4	Pigtails
8	UCA bulkheads

