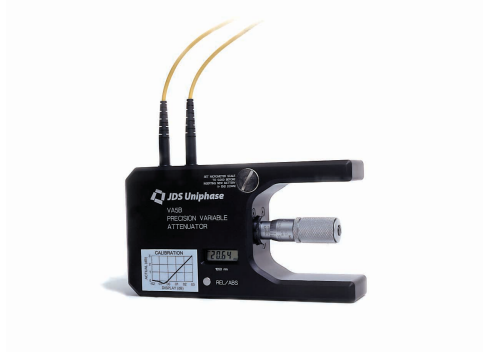


## Product Bulletin



JDS Uniphase precision variable attenuators provide precise, repeatable, and manual control of light levels for field system testing as well as for test and development in laboratory applications. Both series use micrometer control for high-resolution attenuation of 50-70 dB with calibration wavelengths of 830, 1300, or 1550 nm. Using our ultra-linear attenuator prism and highly reliable microlens technology, they provide highly accurate, continuously variable attenuation with low insertion loss and an excellent return loss of > 60 dB. Each model is available in both single-mode and multimode versions. Single-mode models are available with our analog option and feature > 60 dB return loss and low spectral ripple for CATV AM systems.

These attenuators are battery-powered for portability and convenient use in the field when high precision is required.

The VA5B attenuator features 3 mm cable pigtailed that are supplied bare or with the customer's choice of connector type. The VA6B attenuator features a panel-mounted PC or APC universal connector adapter (UCA), which supports FC/PC, SC/PC, and ST/PC or FC/APC and SC/APC connector types.

## Manual Precision Variable Attenuators (VA5B and VA6B Series)

### Key Features & Benefits

- Highly precise attenuation
- 0.01 dB resolution
- Low insertion loss
- Return loss > 60 dB
- Long battery life
- Portable for field use
- Universal connector adapter

### Applications

- Precise optical power control
- Receiver testing
- Field system testing
- Power meter linearity checks

**Manual Precision  
Variable Attenuators  
(VA5B and VA6B Series) | 2**

**Specifications**

PARAMETER		830 nm	1300 nm	1550 nm
Operating wavelength range <sup>1</sup>	single-mode (SM)	750-1000 nm	1200-1700 nm	1200-1700 nm
	multimode (MM)	750-700 nm	750-1700 nm	1200-1700 nm
Attenuation range <sup>2</sup>	SM	40 dB	60 dB	60 dB
	MM	70 dB	50 dB	60 dB
Attenuation	resolution <sup>2</sup>	0.01 dB		
	repeatability	0.02 dB		
	accuracy <sup>2,3,4</sup>	± 0.1 dB or ± 0.02 dB/dB, whichever is greater		
Insertion loss <sup>2,5,6</sup>		≤ 1.5 dB		
Return loss <sup>3</sup>	SM	> 45 dB		
	SM, analog	> 60 dB		
	MM, 50/125 μm	> 35 dB		
	MM, other	> 30 dB		
Maximum optical input power		200 mW		
Recalibration period (recommended)		2 years		
Polarization dependent loss <sup>3</sup>		≤ 0.08 dB		
Connectors	VA5B	pigtail mounted		
	VA6B	bulkhead mounted universal PC or APC		
Operating temperature		0-50 °C		
Storage temperature		- 40-60 °C		
Humidity		maximum 95 % up to 40 °C, 60 % above 40 °C		

1. Recommended wavelength range for acceptable insertion loss and attenuation slope.
2. At calibration wavelength.
3. Except below 3 dB attenuation, measured with a laser source.
4. At constant temperature.
5. Not including connectors, if installed.
6. Including bulkhead mounted UCAs, the VA6B unit has an insertion loss of ≤ 2.5 dB.

**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: VA5B71+1KFP0**

VA  B   +1

CODE	PORT TYPE
5	Pigtails
6	UCA bulkheads

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

CODE	CALIBRATED WAVELENGTHS (nm)
9	830
3	1300
1	1550

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

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

CODE	CARRY CASE
0	Without
1	With



JDS Uniphase Corporation  
570 West Hunt Club Road  
Nepean (Ottawa), Ontario  
K2G 5W8 Canada

Tel 613 727-1303  
Fax 613 727-8284  
instruments@jdsuniphase.com  
www.jdsuniphase.com

All information contained herein is believed to be accurate and is subject to change without notice. No responsibility is assumed for its use. JDS Uniphase Corporation, its subsidiaries and affiliates, or manufacturer, reserve the right to make changes, without notice, to product design, product components, and product manufacturing methods. Some specific combinations of options may not be available. Please contact JDS Uniphase for more information. ©JDS Uniphase Corporation. All rights reserved.