## Backreflection Meter

The JDS Uniphase Backreflection Meter is a portable, directdisplay instrument used for the convenient measurement of backreflection, insertion loss, and power of connectors, components, and systems. With a single output port, the meter is ideal for jumper manufacturers.

The meter can be equipped with one or two built-in laser sources. Sources available are: 850, 1310 and 1550 nm for multimode meters, and 980, 1310, 1480, 1490, 1550, 1625, and 1650 nm for single-mode meters.

The use of an FC/APC ultra-low backreflection connector on the output port enables the use of hybrid jumpers to accommodate measurements with various connector types without compromising the backreflection measurement range. When a device under test (DUT) is connected to the jumper and the DUT output is terminated, the backreflection of the DUT is displayed. The meter's superior optics are very stable at low backreflection levels. Insertion loss and power can be measured to - 80 dBm.

Other features include compensation for extraneous backreflection, user-adjustable calibration, an internal rechargeable battery for field portability, a transit carrying case, and a convenient foot pedal for data logging to a computer or serial printer via the instrument's serial port.

### Safety Information

Complies to CE requirements plus UL3101-1 and CAN/CSA-C22.2 No. 1010.1

Meets the requirements of Class 1 in standard IEC 60825-1(2002) and complies with 21CFR1040.10 except deviations per Laser Notice No. 50, July 2001.





#### **Key Features & Benefits**

Wide wavelength range

Insertion loss and backreflection capability

Typical backreflection power sensitivity of - 75 dB

Insertion loss and power measurements to - 80 dBm

Convenient foot pedal for data logging

Multiple connector test system (MCTS) application software

Direct display of measured backreflection, power, or insertion loss

Compensation for extraneous backreflection for accurate backreflection measurements

Calibration can be verified using calibrated reference jumpers

User-calibration mode

Transit case for safer and easier portability

### **Applications**

Connector backreflection/loss testing Component testing Installation verification Quality assurance acceptance testing

## **Backreflection Meter**

## Specifications

PARAMETER	SINGLE-MODE		MULTIMODE
	(5/125 µm)	(9/125 μm)	(50/125 μm and 62.5/125 μm)
Operating wavelengths	980 ± 10 nm	1310, 1480, 1490, 1550, 1625, 1650 ± 10 nm	850, 1310, 1550 ± 20 nm
Backreflection range	0 to - 65 dB1	0 to - 75 dB	0 to - 40 dB1
Relative accuracy - backreflection	± 0.4 dB <sup>2</sup>		± 0.7 dB <sup>3</sup>
Detector type	2 mm InGaAs		3 mm InGaAs
Power range	0 to - 80 dBm		0 to - 60 dBm
Absolute power accuracy	± 0.25 dB (typical) at - 10 dB <sup>4,5</sup>		± 0.25 dBm (typical) at - 10 dBm⁵
Relative accuracy - power	± 0.05 dB (< 5 dB loss), ± 0.15 dB (> 5 dB loss) <sup>4</sup>		± 0.15 dB <sup>5,6</sup>
Remote interface	RS232 (GPIB optional)		
Input voltage	100 - 240 V AC, 50 - 60 Hz		
Power consumption	30 VA maximum		
Display	16 character LCD		
Dimensions (W x H x D)	26 x 11 x 26 cm		
Weight	4 kg		
Operating temperature	0 to 40 °C		
Storage temperature	- 40 to 70 °C		
Humidity	Maximum 95% RH from 0 to 40 °C		

1. Reduced backreflection accuracy in the last 10 dB of range based on termination effectiveness. Depending on the measurement setup, measurements with lower levels are possible at reduced accuracy.

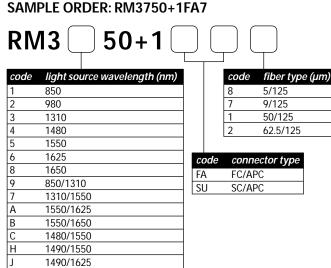
2. For a typical application add  $\pm$  0.4 dB for readings between - 60 and - 67

- 3. Following the user-calibration procedure at the recommended interval. For simple reflections, such as flat-end connectors.
- 4. Add  $\pm$  0.1 dB between 70 and 80 dBm.
- 5. Immediately after performing a dark measurement. Not including the 1650 nm source.
- dB. Add  $\pm$  0.8 dB for readings between 67 and 72 dB. Add  $\pm$  1.5 dB for readings between 72 and 75 dB. 6. Add  $\pm$  0.1 dB between 0-3 dBm and between - 35 and - 40 dBm.

## 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.



# connector type

All statements, technical information and recommendations related to the products herein are based upon information believed to be reliable or accurate. However, the accuracy or completeness thereof is not guaranteed, and no responsibility is assumed for any inaccuracies. The user assumes all risks and liability whatsever in connection with the use of a product of its application. JDS Uniphase reserves the right to change at any time without notice the design, specifications function, fit or form of its products described herein, including withdrawal at any time of a product offered for sale herein. JDS Uniphase makes no representations that the products herein are free from any intellectual property claims of others. Please contact JDS Uniphase for more information. JDS Uniphase and the JDS Uniphase logo are trademarks of JDS Uniphase Corporation. Other trademarks are the property of their respective holders. 2004 © JDS Uniphase Corporation. All rights reserved. Planted and an another of the second offered for a sale herein and and an another trademarks are the property of their respective holders. 2004 © JDS Uniphase Corporation. All rights reserved.

North America toll-free: 1-800-498-JDSU (5378) Worldwide toll-free: +1 800-5378-JDSU www.jdsu.com INSTRUMENTATION LITERATURE REQUEST instruments@jdsu.com

