Multichannel Backreflection Meter

Key Features

- **No deadzone**
- **SM and MM models available**
- **Measurements at 850, 1310, 1490, 1550 or 1625 nm**
- **Integrated switch included in the calibration**
- **Multidisplay mode**
- **Industry leading backreflection range**

Applications

- SM fiber connector and component testing
- Ribbon fiber measurements
- MM fiber connector testing
- Complies with IEC 61300-3-6, IEC 61300-3-4

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.

CLASS 1 LASER PRODUCT
(IEC 60825-1, 2002)

The JDSU Multichannel Backreflection Meter performs a wide range of single-mode (SM) or multimode (MM) backreflection and loss measurement functions, ranging from single component testing to automated multifiber testing. The primary functions of high sensitivity backreflection measurements and power measurements can be augmented by adding multiple output ports and multiple internal light sources.

The meter is available with 1, 4, 12 or 24 output ports. A multidisplay mode lets the viewer see multiple test results at a glance.

The meter is used for single fiber and ribbon fiber connector measurements. The use of hybrid jumpers allow a quick change of the connector type without limiting the backreflection range. The meter is also available with 2 or 3 internal sources for measurements at 850, 1310, 1490, 1550 or 1625 nm.

The 3-mm InGaAs detector is particularly useful for high sensitivity single fiber applications. The 5-mm Ge detector is an economical solution for measurements of ribbon fiber connectors and can accurately measure connectors with up to 8 MM and 12 SM fibers. The large surface 10-mm InGaAs detector is ideal for measurements of larger fiber count ribbon connectors, and can be used with wavelengths extending in the L-band. One FC detector adapter is supplied with the unit, and other adapters, such as MTP/MPO or MU for ribbon fiber connector types, are also available.

The meter is supplied with one calibrated hybrid jumper for calibration purposes and one hybrid test jumper for measurement purposes. Both jumpers are equipped with an FC/APC connector on one end (for the output port of the meter) and an FC/PC connector on the other end. Uncalibrated hybrid jumpers for measurements with other connector types are also available.

2

Specifications

Parameter	Single-mode (SM)			Multimode (MM)		
Operating wavelengths	1310, 1490, 1550, 1625 ± 10 nm			850, 1310, 1550 ± 20 nm		
Outputs	1, 4, 12 or 24					
Detector type	3 mm InGaAs	5 mm Ge[8]	10 mm InGaAs	3 mm InGaAs	5 mm Ge[8]	10 mm InGaAs
Power range[1]	0 to -80 dBm	0 to -40 dBm	-5 to -40 dBm	0 to -60 dBm	0 to -40 dBm	0 to -40 dBm
Relative power accuracy[5, 9]	± 0.15 dB[6]	± 0.15 dB[6]	± 0.15 dB[6]	± 0.15 dB[7]	± 0.15 dB[7]	± 0.15 dB[7]
Relative power accuracy (5 dB range)[5, 9]	± 0.05 dB[6]	± 0.05 dB[6]	± 0.05 dB[6]	± 0.15 dB[7]	± 0.15 dB[7]	± 0.15 dB[7]
Backreflection range[1, 2, 9]	0 to -75 dB	0 to -75 dB	0 to -75 dB	0 to -40 dB	0 to -40 dB	0 to -40 dB
Relative backreflection accuracy[3, 9]	± 0.4 dB[4]	± 0.4 dB[4]	± 0.4 dB[4]	± 0.7 dB	± 0.7 dB	± 0.7 dB
Relative backreflection accuracy (5 dB range)[3, 9]	± 0.3 dB[4]	± 0.3 dB[4]	± 0.3 dB[4]	± 0.7 dB	± 0.7 dB	± 0.7 dB
Absolute power accuracy	± 0.25 dB typical at -10 dBm					
Backreflection resolution	0.1 dB					
Power resolution	0.01 dB					
Input voltage	100 to 240 V AC, 50 to 60 Hz					
Power consumption	80 V A maximum					
Chassis size						
1-output	3 U x 364 mm x 147.1 mm					
4/12/24-output	3 U x 471 mm x 147.1 mm					
Remote interface	RS-232					

1. Depending on the measurement setup, measurements with lower levels are possible at reduced accuracy.
2. 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.
3. Following the user-calibration procedure at the recommended interval.
4. For a typical application, add ± 0.4 dB for readings between -60 and -67 dB. Add ± 0.8 dB for readings between -67 and -72 dB. Add ± 1.5 dB for readings between -72 and -75 dB.
5. Immediately after performing a dark measurement.
6. Add ± 0.1 dB in the last 10 dB of the range.
7. Add ± 0.1 dB in the last 5 dB of the range.
8. 5 mm Ge detector can accurately measure ribbon fiber connectors with up to 8 MM or 12 SM fibers at wavelengths up to 1600 nm.
9. Measured at ambient temperature ± 3 °C.

Ordering Information

For more information on this or other products and their availability, please contact your local JDSU account manager or JDSU directly at 1-800-498-JDSU (5378) in North America and +800-5378-JDSU worldwide or via email at sales@jdsu.com.

Sample Part Number: RX3070+1122FA7
1310/1550nm, 12 output channels, 5mm Ge detector, 9/125um fiber

RX30n0+1xxyFAz

Wavelength

Code n	*Source Wavelength (nm)*
1	850
3	1310
5	1550
9	850/1310
7	1310/1550
E	1310/1550/1625
G	850/1310/1550
K	1310/1490/1550
L	1490/1550/1625

Channels

Code xx	*Number of Output Channels*
01	1 output channel
04	4 output channels (Only available with SM models)
12	12 output channels
24	24 output channels

Detector Type

Code y	
1	3 mm InGaAs
2	5 mm Ge (Only available with 12 and 24 output channels)
3	10 mm InGaAs (Only available with 12 and 24 output channels)

Connector Type

Code	
FA	FC/APC

Fiber Type (µm)

Code z	
7	9/125
1	50/125
2	62.5/125

Optional Accessories

For additional accessories refer to SWS, MAP, and RX Accessories datasheet.

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