

MBR5 | Multi-Output Backreflection Meter



Product Description

The MBR5 Multi-Output Backreflection Meter is an instrument developed with extremely stable optics for precise measurement of backreflection, insertion loss and power. Available with 4, 12, 24, 48 or 72, output channels, the MBR5 is a practical choice for both single fiber and multi fiber testing.

The MBR5 features up to four built-in laser sources at wavelengths of 850, 1300, 1310, 1490, 1550, 1625 and 1650 nm (depending on fiber type), and can be configured for single-mode or multimode measurements.

An intuitive display and keypad simplifies the collection and management of measurement data allowing quick access to the test results from various channels. The meter may be controlled through remote interface (GPIB, RS232, or USB*) or locally via the user-friendly front panel keypad and display.

The MBR5 achieves ultra-stable backreflection measurements at very low values with accuracy typically at ± 0.4 dB and measurement sensitivity is to -80 dB. In addition, the cavity option is particularly useful for multi-fiber connectors with large fiber counts. The MBR5 can be used with our GMS software to help automate short and long term testing. All our MBR5 meters come standard with our GMS Software at no additional cost. The multimode option of the MBR5 meets IEC-61280-4-1 Encircled Flux Standard.

*USB interface via-USB-DB9 adapter

KEY FEATURES

- Stable BR measurements at low values
- Up to 72 output channels
- IL and BR measurements
- Up to 4 internal lasers

APPLICATIONS

- Component testing
- Ribbon fiber testing
- Simultaneous testing with multiple connector types
- Incoming inspection
- QA testing

COMPLIANCE

- MM meets IEC 61280-4-1 Encircled Flux Standard
- UL/CSA 61010
- IEC 61010
- IEC 60825-1 Class 1
- FCC Part 15 (Class A)
- EN 61326 (Class A)

IN THE BOX

- MBR5 Meter
- AC power cord
- Calibration Certificate
- Calibrated Jumper
- Hybrid Test Jumper
- Detector Cap
- FC Detector Adapter
- MW3 Mandrel Wrap

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Ordering Scheme

Single-Mode Version

MBR5- [] [] - [] [] [] [] - [] -09FA []

OUTPUT CHANNELS	
4-channel	04
12-channel	12
24-channel	24
48-channel	48

LASER 1	
No Laser	0
1310 nm	3

LASER 3	
No Laser	0
1550 nm	5

LASER 2	
No Laser	0
1490 nm	4

LASER 4	
No Laser	0
1625 nm	6
1650 nm	7

DETECTOR TYPE	
2 mm InGaAs	2
5 mm Ge	5
Cavity	C

DETECTOR	
Front Panel Leave Blank	
Remote Head	R

- Up to four lasers may be selected for the single-mode version

Multimode Version

MBR5- [] [] -8300- [] - [] [] [] [] [] []

OUTPUT CHANNELS	
4-channel	04
12-channel	12
24-channel	24
48-channel	48
72-channel	72

DETECTOR TYPE	
5 mm Ge	5
Cavity	C

FIBER TYPE	
50/125 μm	50
62.5/125 μm	62

CONNECTOR TYPE	
FC/APC	FA

DETECTOR	
Front Panel Leave Blank	
Remote Head	R

- The standard multimode version contains two lasers at 850 and 1300 nm. Other wavelengths are available upon request.

Additional accessories See Page 44



Specifications

OPTICAL/ELECTRICAL SPECIFICATIONS		
Parameter	Specification	
	Single-mode	Multimode
Fiber Type (µm)	(9/125)	(50/125 or 62.5/125)
Encircled Flux Standard	N/A	IEC-61280-4-1
Operating Wavelengths (nm)	1310 / 1490 / 1550 / 1625 / 1650	850 / 1300
Backreflection Range (dB)	0 to -80	0 to -60
Backreflection Accuracy (dB) ^{1,2}	± 0.4	
Detector Type	2 mm InGaAs / 5mm Ge / Cavity	
Power Range (dBm)	0 to -80 / 0 to -60 / 0 to -40	
Absolute Power Accuracy (dB) ³	± 0.25	
Relative Power Accuracy (dB)	± 0.05 (< 5 dB loss)	
	± 0.15 (> 5 dB loss)	
Remote Interface	GPIB / RS232 / USB ⁴	
Input Voltage	100 - 240 V AC, 50 - 60 Hz	
Power Consumption (VA)	80 maximum	
Display	4 lines, 16 character per line, LCD	

Notes:

¹ Add 0.1 dB to the spec for every 1dB below -60dB (single-mode).

² Add 0.1dB to the spec for every 1dB below -45dB (multimode).

³ Measured at -10 dBm.

⁴ SB interface via USB-DB9 adapter.

MECHANICAL / ENVIRONMENTAL SPECIFICATIONS	
Parameter	Specification
Unit Dimensions W x H x D (cm)	36 x 15 x 34
Shipping Box Dimensions W x H x D (cm)	43 x 27 x 47
Unit Weight (kg)	7
Total Shipment Weight (kg)	8
Operating Temperature (°C)	0 to 40
Storage Temperature (°C)	-40 to 60
Humidity (Non-condensing) (°C)	Maximum 95% RH from 0 to 40

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