

555B | 1mm InGaAs Optical Power Meter

APPLICATIONS:

Insertion Loss and Link Loss Testing

The 555B 1mm InGaAs optical power meter is a rugged high quality general purpose instrument suitable for many fiber optic measurement applications.

Paired with a Tempo 250 Series LED source or 260 Series laser source, the 555B optical power meter is ideal for insertion loss testing of multimode and single-mode fiber optic cables and connectors. The 555B optical power meter can also be used for link loss testing of installed cable plants.

Output Power Measurements

The 555B optical power meter simplifies output power measurements of transmitters and other light sources. The four calibration wavelengths, InGaAs photodetector, and wide dynamic range make the 555B optical power meter suitable for measuring the output of both LED and laser based transmitters.

In addition, a broad range of Snap-On Connector (SOC) adapters for both industry standard fiber optic connectors, and many less common types, makes the 555B an indispensable tool for technicians and others working with light-based transmission systems.



FEATURES

- 1mm indium-gallium-arsenide (InGaAs) photodetector
- 850nm, 1300nm, 1310nm, and 1550nm N.I.S.T. traceable calibration wavelengths
- +3 to -60dBm measurement range
- Easy to use—three buttons control all functions
- 0.01dB measurement resolution
- Relative logarithmic dB and absolute logarithmic dBm units
- Multi-wavelength reference storage—stores and recalls reference power levels for faster, more efficient measurements
- Snap-On Connector (SOC) interface adapts to all industry standard fiber optic connectors and other less common types
- Long battery life—more than 100 hours of continuous operation
- User-selectable auto-shutoff
- AC power converter and adapter available for prolonged or benchtop use
- Rugged and Splashproof

KEY SPECIFICATIONS

Detector type	1mm InGaAs
Calibration wavelengths	850, 1300, 1310, and 1550nm
Calibration traceability	U.S. N.I.S.T.
Power range	+3 to -60dBm
Absolute accuracy	±0.25dB
Resolution	±0.01dB
Polarization dependence	<0.1dB

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SPECIFICATIONS: ¹

Detector type	1mm indium-gallium-arsenide (InGaAs)								
Calibration wavelengths	850nm, 1300nm, 1310nm, and 1550nm								
Power range	+3 to -60dBm								
Linearity:	<table><tr><td>±0.5dB</td><td>+3dBm to -3dBm</td></tr><tr><td>±0.05dB</td><td>-3dBm to -50dBm</td></tr><tr><td>±0.5dB</td><td>-50dBm to -60dBm</td></tr></table>	±0.5dB	+3dBm to -3dBm	±0.05dB	-3dBm to -50dBm	±0.5dB	-50dBm to -60dBm		
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±0.05dB	-3dBm to -50dBm								
±0.5dB	-50dBm to -60dBm								
Absolute accuracy	±0.25dB at calibration conditions								
Wavelength dependence:	<table><tr><td>820 to 880nm</td><td>0.033dB/nm</td></tr><tr><td>975 to 985nm</td><td>0.02dB/nm</td></tr><tr><td>1270 to 1330nm</td><td>0.005dB/nm</td></tr><tr><td>1500 to 1625nm</td><td>0.0024dB/nm</td></tr></table>	820 to 880nm	0.033dB/nm	975 to 985nm	0.02dB/nm	1270 to 1330nm	0.005dB/nm	1500 to 1625nm	0.0024dB/nm
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1500 to 1625nm	0.0024dB/nm								
Polarization dependence	< 0.1dB								
Resolution	±0.01dB								
Power requirements	Two AA-size 1.5V alkaline batteries provide approx. 100 hours of continuous operation								
Connector interface	Snap-On Connector (SOC) interface								
Environmental:	<table><tr><td>Operating temp.</td><td>-15°C to +55°C</td></tr><tr><td>Storage temp.</td><td>-35°C to +70°C</td></tr><tr><td>Humidity</td><td>0 to 95% RH, non-condensing</td></tr></table>	Operating temp.	-15°C to +55°C	Storage temp.	-35°C to +70°C	Humidity	0 to 95% RH, non-condensing		
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Storage temp.	-35°C to +70°C								
Humidity	0 to 95% RH, non-condensing								
Dimensions	7.2 x 14.2 x 3.5 cm (2.8 x 5.6 x 1.4 in.)								
Weight	250g (8.9 oz)								

¹ Within specified ambient environment of +20°C to +25°C.

ORDERING INFORMATION

User will need to purchase a Snap-On Connector (SOC) adapter for use of the instrument. Please specify the desired connector adapter type when ordering (see Adapter Table below). Additional SOC adapters may also be ordered separately.

Part No.	Description
555B	555B optical power meter
90AC	AC power converter

SOC Adapter Table

Adapter Code	Connector Type
1001	Blank
1010	DIN 47256
1020	NTT/FC-PC
1030	AT&T/ST-PC
1038	MIL-T-29504 optical termini
1040	HMS-10 (2.5mm)
1047	Mini-BNC
1050	Diamond HMS-0 (3.5mm)
1057	Stratos 430/Holtek 3800
1062	NTT/SC-PC
1081	Radiall VFO
1086	Diamond HMS-10A (SMA-2.5)
1087	SMA-905/906
10E0	Radiall EC
10E2	Diamond E-2000
10TB	Simplex TOSLINK/Spectran J-pin
10TD	TR/TX set, duplex TOSLINK/ Spectran J-pin
10TR	Duplex TOSLINK TX
10TX	Duplex TOSLINK
10ZP	H-P Versalink/Spectran V/Z-pin

