fiberTOOLS™

555B
1mm InGaAs Optical Power Meter

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

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 RIFOCS 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.

The multi-wavelength reference storage capability of the 555B optical power meter permits convenient insertion and link loss testing at different transmission windows if a 252A/252B dual LED source or 262A dual laser source is used.

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 indispensible tool for technicians and others working with light-based transmission systems.

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Ordering Information

One Snap-On Connector (SOC) adapter is included with the 555B optical power meter. Please specify the desired connector adapter type when ordering using the SOC 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

Part No.	Description
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 38000
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 TR
10ZP	H-P Versalink/Spectran V/Z-pin

Specifications[1]

Subject to change without notice

Detector type	1mm indium-gallium-arsenide (InGaAs)
Calibration wavelengths	850nm, 1300nm, 1310nm, and 1550nm
Power range	+3 to -60dBm
Linearity at 1310nm and 1550nm:	
±0.5dB	+3dBm to -3dBm
±0.05dB	-3dBm to -50dBm
±0.5dB	-50dBm to -60dBm
Absolute accuracy	±0.25dB at calibration conditions
Typical wavelength dependence:	
820 to 880nm	0.033dB/nm
975 to 985nm	0.02dB/nm
1270 to 1330nm	0.005dB/nm
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:	
Operating temp.	-15°C to +55°C
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.

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