

# 557B | 3 x 3.5mm Si Optical Meter

## APPLICATIONS:

### Insertion Loss and Link Loss Testing

The 557B 3 x 3.5 mm Si optical power meter is a general purpose instrument suitable for conducting fiber optic measurements on systems and networks based on a single-mode, multimode, plastic, and large core glass optical fibers. The 635, 780, and 850nm calibration wavelengths are optimized for fiber optic systems incorporating near-infrared and visible light sources.

### Output Power Measurements

Three calibration wavelengths, a large area Si photodetector, and a wide dynamic range make the 557B optical power meter ideal for measuring the output of near-infrared and visible light sources, and other devices.

In addition, a broad range of Snap-On Connector adapters for both industry standard fiber optic connectors, and many less common types, makes the 557B an indispensable tool for the local area network technician, and others working with short-wavelength fiber optic systems.



## FEATURES:

- 635nm, 780nm, and 850nm N.I.S.T. traceable calibration wavelengths
- +3 to -60dBm measurement range
- Easy to use—three buttons control all functions
- Multi-function display summarizes all measurement data
- 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
- Splashproof

## KEY SPECIFICATIONS

Detector type	3 x 3.5mm Si
Calibration wavelengths	635, 780, and 850nm
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: <sup>1</sup>

Detector type	3 x 3.5mm silicon (Si)						
Calibration wavelengths	635nm, 780nm, and 850nm						
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
±0.5dB	+3dBm to -3dBm						
±0.05dB	-3dBm to -50dBm						
±0.5dB	-50dBm to -60dBm						
Absolute accuracy	±0.25dB at calibration conditions						
Wavelength dependence:	<table> <tr> <td>600 to 660nm</td> <td>0.30dB</td> </tr> <tr> <td>820 to 880nm</td> <td>0.25dB</td> </tr> <tr> <td>975 to 985nm</td> <td>0.15dB</td> </tr> </table>	600 to 660nm	0.30dB	820 to 880nm	0.25dB	975 to 985nm	0.15dB
600 to 660nm	0.30dB						
820 to 880nm	0.25dB						
975 to 985nm	0.15dB						
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)						

<sup>1</sup> 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
557B	557B 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

