



OPM 5 Optical Power Meter

OPM 5 series optical power meters may be used to measure optical power in premises, telco, or broadband fiber optic networks. When used with an LED or laser light source, the OPM 5 can also measure the attenuation (insertion loss) of multimode or single-mode cables. The OPM 5 stores reference settings for each calibration wavelength. An easy to read LCD display shows optical power (dBm or μ W) or insertion loss (dB) and the calibration wavelength (nm).

Power or insertion loss measurements may be stored in internal non-volatile memory with the press of a key. A serial cable to transfer results to your PC and Windows® software to view, print, and archive test results are provided with all models. The optical input port accepts Noyes thread-on style connector adapter caps.

Adapter caps are required and must be ordered separately. The OPM 5 is fully N.I.S.T. traceable and runs on a standard 9-volt alkaline battery.

features

- 660, 780, 850, 980, 1300, 1310, 1480, 1550, 1625 nm
- Short wavelength (Si), premises (Ge) and broadband (InGaAs) models
- High-power (+26 dBm) model
- Displays power (dBm or μ W) or insertion loss (dB)
- Stores test results for up to 500 fibers
- Windows® software to view, print, and archive results
- N.I.S.T traceable

specifications

Optical Specifications	OPM 5-2C	OPM 5-3C	OPM 5-4C
Calibrated wavelengths (nm)	850, 1300, 1310, 1550	850, 1300, 1310, 1550, 1625	850, 980, 1310, 1480, 1550, 1625
Detector type	Germanium (Ge)	InGaAs	Filtered InGaAs
Measurement range (dBm)	+6 to -60	+6 to -70	+26 to -50
Accuracy (dB)*	\pm 0.25	\pm 0.25	\pm 0.25
Measurement units	dB, dBm, μ W	dB, dBm, μ W	dB, dBm, μ W

General Specifications

Power	Typical 60 hours with 9V battery, optional AC adapter
Adapter caps	order separately (ST, SC, FC, and others available)
Operating temperature	-10 to 50°C
Relative humidity	0 to 95% (non-condensing)
Storage temperature	-30 to 60°C
Size (H x W x D)	5.5 x 3.2 x 1.5 in (14.0 x 8.1 x 3.8 cm)
Weight	0.58 lb (0.26 kg)

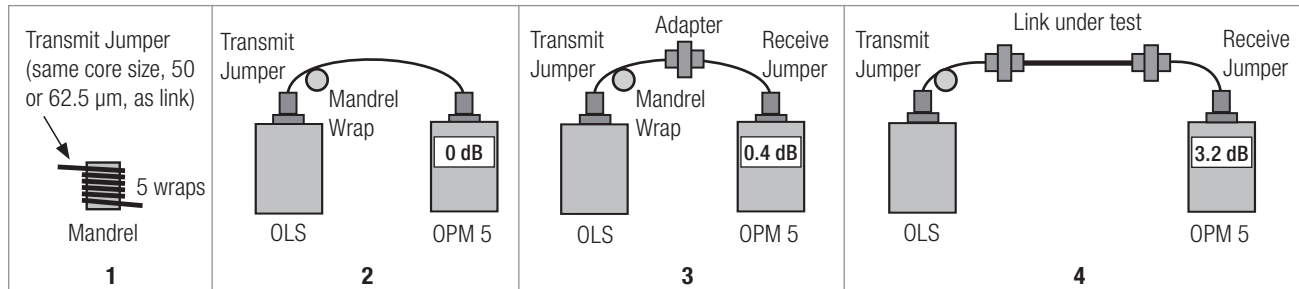
*Accuracy measured at 25°C and -10 dBm per N.I.S.T. standards.
All specifications at 25°C

ordering information

All OPM 5 models come with a carry case, serial transfer cable, WinTest software, 9 volt battery, manual, and protective rubber boot. Optical light sources and optical power meters can be packaged together as a kit.

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loss testing with the OPM 5



1 Attach Mandrel (multimode links only)

When testing multimode fiber links using an overfilled LED source, always wrap the transmit jumper 5 times around the proper diameter mandrel. This is specified by TIA/EIA-568-B and will improve insertion loss measurement repeatability and accuracy.

Do NOT use mandrels on multimode receive jumpers or single-mode jumpers.

Note: The transmit and receive jumpers must use same fiber type (50 or 62.5 μm) as link under test.

2 Set Reference (One Jumper Method)

Connect the output of the OLS directly to the input of the OPM5. Then press and hold the Set Ref (set reference) key until the word "HELD" appears. When you release the Set Ref key the OPM5 should display "0 dB" (± 0.05 dB) indicating that the power measured at output of the transmit jumper has been recorded as the reference level for your insertion loss measurements.

3 Check Jumpers

Disconnect the transmit jumper from the OPM5 (be sure NOT to remove the end of the jumper

connected to the OLS). Attach the receive jumper to the OPM5. Mate the free ends of the transmit and receive jumpers. Verify that the insertion loss of this mated connector pair is well under 0.75 dB, the maximum allowed by the TIA. Noyes recommends that the loss of your mated test jumpers be ± 0.4 dB. If not, clean both jumpers and repeat steps 2 and 3.

4 Test Links

Connect the OLS and OPM5 to opposite ends of the first link to be tested. Store the insertion loss measured by pressing the STORE key.

accessories

adapter caps

8800-00-0224	1.25mm Universal
8800-00-0214	2.5mm Universal
8800-00-0200	FC
8800-00-0209	SC
8800-00-0202	ST
8800-00-0221	E-2000
8800-00-0204	Biconic
8800-00-0203	SMA
8800-00-0225	LC Simplex/Duplex
8800-00-0219	Backplane SC
8800-00-0212	Radial PFO/VFO

8800-00-0210	ESCON
8800-00-0211	DIN 47256
8800-00-0205	FDDI
8800-00-0201	D4
8800-00-0223	1000 μm
8800-00-0226	MU Simplex
8800-00-0230	MT-RJ (A side only)
8800-00-0231	MT-RJ (A side or B side)
8800-00-0232	Nickle Silver 2.5mm
8800-00-0236	Backplane 1.25
8800-00-0240	Hughes 1.6mm