

## SPECIFICATIONS<sup>1</sup>

### Optical Power Meter

#### OPM1

Wavelength Range: 800 to 1700 nm  
Calibrated Wavelengths: 850, 1310, 1490, 1550, 1625 nm  
Measurement Range  
850 nm: -60 to +10 dBm  
Other wavelengths: -70 to +10 dBm  
Damage Level: 20 dBm  
Total Accuracy:  $\pm 0.2$  dB<sup>2</sup>

#### OPM2

Wavelength Range: 1250 to 1630 nm  
Calibrated Wavelengths: 1310, 1490, 1550, 1625 nm  
Measurement Range: -50 to +27 dBm  
Damage Level: 36 dBm  
Total Accuracy:  $\pm 0.5$  dB typical

#### General

Resolution: 0.01 dB  
Detector: InGaAs  
Modulation Frequency Detection: 150 Hz to 10 kHz  
Wavelength Sensitivity over 30 nm  
850 nm: 0.3 dB  
Other wavelengths: 0.1 dB  
Display Unit: dBm, dB R, uW

#### Laser Source

Wavelength: 850 nm LED, 850/1310, 1310, 1310/1550, 1550/1625, 1550 nm  
Wavelength Tolerance:  $\pm 20$  nm  
Output Power  
850 nm: -25 to -20 dBm  
Other wavelengths: -10 to 0 dBm  
Repeatability:  $\pm 0.1$  dB  
Stability over time: 0.15 dB  
Stability over temperature: 0.5 dB (0°C to 50°C)  
Modulation Frequency: 270 Hz, 1 kHz, 2 kHz ( $\pm 1\%$  square wave)  
Spectral Width (FWHM)  
850 nm: 35 nm  
Other wavelengths: < 2.5 nm

#### Loss Test Set

Source  
Wavelength: 1310/1550, 1550/1625 nm  
Wavelength Tolerance:  $\pm 20$  nm  
Output Power: -10 to -2.5 dBm  
Stability over time: 0.15 dB  
Stability over temperature: 0.5 dB (0°C to 50°C)  
Modulation Frequency: 270 Hz, 1 kHz, 2 kHz ( $\pm 1\%$  square wave)  
Spectral Width (FWHM): < 2.5 nm  
Meter: Refer to Optical Power Meter (OPM1) above



The Optical Test Toolkit Module is part of a family of Plug-In Modules for the SunSet MTT and SunSet xDSL test sets

#### Autotest

Dynamic Range: 60 dB  
Accuracy:  $\pm 0.2$  dB (for  $0 < \text{Insertion Loss} \leq 45$  dB),  
 $\pm 0.35$  dB (for Insertion Loss > 45 dB)  
Stability over time:  $\pm 0.2$  dB  
Stability over temperature:  $\pm 0.25$  dB

#### Optical Return Loss Test (Software Option for Loss Test Set)

Wavelength: 1310/1550 nm, 1550/1625 nm  
Wavelength Tolerance:  $\pm 20$  nm  
Measurement Range: 0 to 70 dB  
Resolution: 0.05 dB  
Uncertainty<sup>3</sup>  
 $\pm 0.5$  dB (0-55 dB)  
 $\pm 1.5$  dB (55-65 dB)

#### Visual Fault Locator (Hardware Option)

Wavelength: 650 nm  
Spectral width at 20°C: 3 nm  
Output Power: 1 mW  
Modulation: CW, 2 Hz

#### Ports

Power Meter port  
Source, Loss Test, and ORL Test port  
VFL port

#### Notes:

1. Specification at room temperature 25°C.
2. For -60 to 0 dBm (OPM1).  
For power outside these ranges, the accuracy is better than  $\pm 1.0$  dB. Using FC/PC connectorized patchcord. For 850 nm, accuracy is  $\pm 0.5$  dB (at -50 to 0 dBm).
3. After averaging more than 10 consecutive measurements over 3 minutes. Right after reference zero calibration. Using APC connector in optimal optical condition.

## General

Module Size: 5.0" (W) x 3.5" (L) x 0.9" (H)  
[12.6 cm x 9 cm 2.2 cm]

Operating Temperature: 32°F to 122°F [0°C to 50°C]

Storage Temperature: -4°F to 140°F [-20°C to 60°C]

Relative Humidity: 0 to 95% noncondensing

## ORDERING INFORMATION

### Optical Power Meter

SSMTT-33OPM1XX Optical Power Meter

Range

850 nm: -60 to +10 dBm

Other wavelengths: -70 to +10 dBm

SSMTT-33OPM2XX Optical Power Meter

Range: -50 to +27 dBm

*Please select an optical connector:*

XX = FC

XX = SC

### Laser/Light Source

SSMTT-33LS1XXX LED Source (Multi mode)\*

Single Wavelength: 850 nm

SSMTT-33LS2XXX Laser Source (Multi mode)\*

Dual Wavelength: 850/1310 nm

SSMTT-33LS3XXX Laser Source (Single mode)\*

Single Wavelength: 1310 nm

SSMTT-33LS4XXX Laser Source (Single mode)\*

Dual Wavelength: 1310/1550 nm

SSMTT-33LS5XXX Laser Source (Single mode)\*

Dual Wavelength: 1550/1625 nm

SSMTT-33LS6XXX Laser Source (Single mode)\*

Single Wavelength: 1550 nm

*\*Check with factory for availability.*

*Please select an optical connector:*

XXX = FCA (FC/APC)

XXX = FCU (FC/UPC)

XXX = SCU (SC/UPC)

XXX = SCA (SC/APC)

### Loss Test Set

SSMTT-33LTS1XXX Loss Test Set

Source: 1310/1550 nm

Meter: -70 to +10 dBm

*Please select an optical connector:*

XXX = FCA (FC/APC)

XXX = SCA (SC/APC)

### Hardware Option

SSMTT-33-VFLXX VFL Hardware Option

(available for any SSMTT-33 module)

*Please select an optical connector:*

XX = FC

XX = SC

## Software Option

SSMTT-33ORL ORL Software Option

(to be ordered with SSMTT-33LTSXXXX)

## Recommended Cables

SA501 Optical Patch Cord FC-PC to FC-PC, 2 m

SA502 Optical Patch Cord FC-PC to SC, 2 m

SA503 Optical Patch Cord FC-PC to ST, 2 m

SA504 Optical Patch Cord FC-PC to FC-APC, 2 m



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