Optical Channel Monitor Modules

MTT-34CWDM, MTT-34DWDM

Data Sheet

The Optical Channel Monitor (OCM) module set is the first in its class to provide channel wavelength and power measurements in palm-sized modules. Designed for the installation and maintenance technician, use the OCM to monitor and troubleshoot either DWDM or CWDM networks. Power and wavelength drift monitoring and composite power measurements are standard features, providing a feature rich OCM at a fraction of the cost of a full optical spectrum analyzer (OSA).

The Optical Channel Monitor Modules are part of a family of Plug-In Modules for the SunSet MTT Test set

KEY FEATURES

- Monitor ITU-T 100 GHz DWDM Channels
- Monitor ITU-T G.694.2 CWDM Channels
- 50 dB Dynamic Range
- OSNR Measurement (-34D module only)
- Composite Power Measurements
- Wavelength and Drift Monitors

BENEFITS

- Portable design for easy site-to-site transport
- Reduce CAPEX with modular platform. Expand test functions with extensive list of plug and play modules, including: OTDRs, optical power meters, light sources, channel monitors, gigabit ethernet
- Simple configuration and measurement simplifies and shortens testing time

HIGHLIGHTS

- Half the cost and half the size of conventional OSAs
- Plot, Bar, Table display modes
- Wavelength or frequency plots
- One button complete spectral characterization
- Power offset for tap coupler power loss correction
- Save data as .csv files

APPLICATIONS

- CWDM and DWDM channel analysis
- Combine with SA545/555 to simultaneously monitor 1310 downstream and 1490 nm and 1550 nm upstream FTTx/PONs wavelengths
- RF over fiber monitoring

SPECIFICATIONS[1]

DWDM (SSMTT-34DWDM)

Wavelength Range: 1528.77 – 1604.88 nm
Channel Number: > 90
Channel Spacing: 100 GHz (0.8 nm)
Absolute Wavelength Accuracy[2]: ± 50 pm
Wavelength Resolution: 10 pm
Dynamic Range: 50 dB
Channel Power Accuracy[2]: ± 0.5 dB
Channel Power Repeatability: ± 0.3 dB
Power Resolution: 0.1 dB
Adjacent Channel Imbalance[2]: 12 dB
Non–Adjacent Channel Imbalance[2]: 15 dB
OSNR: 21.5 dB
OSNR Accuracy: ± 1.5 dB
Response Time: < 100 ms
Channel Input Power Measurement Range: –45 to +5 dBm
Maximum Composite Power: 20 dBm
Return Loss: > 40 dB
Sampling Points: 512
Display Mode: Table, Plot, Bar

CWDM (SSMTT-34CWDM)

Wavelength Range: 1260 – 1630 nm
Channel Number: 18 per ITU–T G.694.2
Channel Spacing: 20 nm
Absolute Wavelength Accuracy[2]: ± 1 nm
Spectral Resolution: 5 nm
Dynamic Range: 50 dB
Channel Power Accuracy[2]: ± 1 dB or better
Channel Power Repeatability: ± 0.3 dB
Power Resolution: 0.1 dB
Channel Imbalance[2]: 12 dB
Polarization Dependent Loss: 0.4 dB
Response Time: < 100 ms
Channel Input Power Measurement Range: –45 to +3 dBm
Maximum Composite Power: 20 dBm
Sampling Points: 256
Display Mode: Table, Plot, Bar

Note 1: At 25°C
Note 2: Specification applies to the Table display mode only

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: –22°F to 176°F [–30°C to 80°C]
Humidity: 5% to 85% noncondensing
Connector type: FC/UPC, SC/UPC

ORDERING INFORMATION

Test Module[3]

SSMTT-34CWDM-FCU	Optical Channel Monitor (CWDM) Module with FC/UPC Connector
SSMTT-34CWDM-SCU	Optical Channel Monitor (CWDM) Module with SC/UPC Connector
SSMTT-34DWDM-FCU	Optical Channel Monitor (DWDM) Module with FC/UPC Connector
SSMTT-34DWDM-SCU	Optical Channel Monitor (DWDM) Module with SC/UPC Connector

Note 3: Supported on SunSet-ACM+ and SunSet MTT-C chassis only

Optical Accessories

SA502	Optical Patch Cord, SMF, FCUPC to SCUPC, 2 m
SA511	Optical Patch Cord, SMF, SCUPC to SCUPC, 2 m
SA513	Optical Jumper, SMF, FCUPC to FCUPC, 1 ft
SA514	Optical Jumper, SMF, SCUPC to SCUPC, 1 ft
SA521	Optical Attenuator; FC, -10 dB
SA531	Optical Attenuator; SC, -10 dB
SA541	Optical Splitter; FC, 90/10
SA545	Optical Splitter; FC, 50/50
SA551	Optical Splitter; SC, 90/10
SA555	Optical Splitter; SC, 50/50