

VIAVI mHROSA-A1

MAP-200 Integrated Multi-Wavelength Wavemeter and High-Resolution Optical Spectrum Analyzer (OSA)

VIAVI brings next-generation innovation in wavelength testing to optical lab and manufacturing environments. The new MAP-based integrated multi-wavelength meter and high resolution OSA module (mHROSA) combines sub-GHz resolution performance and compact modularity in a single-slot cassette.

Supported in MAP-230B and MAP-280 mainframes, the mHROSA can take advantage of the wide array of other VIAVI MAP modules, such as power meters, attenuators, switches, sources, and a range of signal conditioning modules. It is a richly featured multi-wavelength meter and high-resolution OSA with analysis features that can be controlled through an easy-to-use GUI or the MAP-200 automation interface.

Based on coherent detection techniques, the mHROSA has no moving parts and it provides unprecedented frequency resolution to precisely report the power level and central frequencies of densely spaced optical signals as close as 2 GHz.

The ground-breaking mHROSA provides the ideal solution for both lab and manufacturing test systems, where reliability, compactness, and performance are critical.

Platform Compatibility

MAP-230B



3-slot mainframe

MAP-280/MAP-280R



8-slot mainframe

Key Benefits

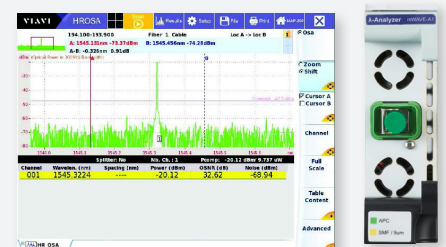
- Industry's first integrated multi-wavelength meter and high-resolution OSA for lab and production
- Enables sub-GHz resolution analysis of optical signals
- Supports 400 G Nyquist flexible grid WDM signal analysis
- MAP-based modular design enables process integration into more comprehensive optical devices
- A complement to the comprehensive MAP solution portfolio
- No moving parts

Key Features

- Sub-GHz wavelength resolution
- Extended C-band acquisition range
- Measures frequency, power level, and OSNR
- Continuous and averaging test modes
- Measures Side-mode suppression ratio

Applications

- DWDM transmission systems
- Optical sources
- Transponders and linecards
- Qualify 10/40/100/400 G components and systems
- Validate and deploy 100 G and 400 G flex-grid DWDM



Specifications (at 25°C over the entire frequency range)

Spectral	
Optical frequency (wavelength) range	191.1 – 196.25 THz
Absolute uncertainty of frequency (wavelength) ^{1, 2}	±370 MHz (±3 pm)
Minimum resolvable separation	2 GHz (16 pm)
Resolution bandwidth	300 MHz
Display resolution	0.0001 nm
Power	
Input power range ³	–60 to +10 dBm
Noise floor	–75 dBm
Max. total input power ⁴	+17 dBm
Close-in dynamic range	>40 dB at ±8 pm (±1 GHz) >50 dB at ±16 pm (±2 GHz)
Spurious-free dynamic range	>45 dB
Absolute uncertainty of power level ^{1, 5}	±0.5 dB
Power linearity ⁶	±0.4 dB
Polarization dependence	±0.2dB
Display resolution	±0.01 dB
Other	
Return loss	>50 dB
Measurement time ⁷	min 1.0 s
Fiber type	9/125 μm single-mode fiber
Connector type	FC/APC
Operating temperature	10 to 40°C
Storage temperature	–20 to +50°C
Humidity	Maximum 95% RH from +10 to +40°C noncondensing
Dimensions	4.06 x 13.26 x 37.03 cm
Weight	1.4 kg
Calibration period	1 year

1. Over the entire frequency range.
2. Average of five consecutive sweeps.
3. Power of unmodulated single-frequency laser or peak power of modulated signal in 300 MHz optical bandwidth.
4. Total power for all input signals.
5. At –20 dBm input power.
6. For input power from –10 to –40 dBm.
7. Over 50 GHz sweep range, no averaging.

Ordering Information

Description	Part Number
MAP-200 extended C-band integrated multi-wavelength meter and high-resolution optical spectrum analyzer	mHROSA-A1CB10

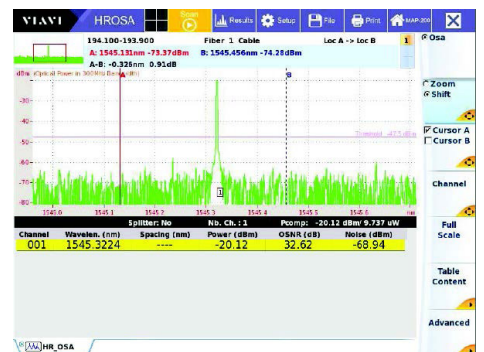


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HROSA GUI with graphing capability and analysis tools



Wavemeter GUI with tabulated wavelengths, powers, and low-resolution graph

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