

Data Sheet

VIAVI

T-BERD[®]/MTS-6000A and -8000 Platforms

OSA-610B High-Resolution OSA for 400 G
Flex-Grid/Nyquist DWDM

The innovative VIAVI Solutions High-Resolution Optical Spectrum Analyzer (OSA-610B) test solution for T-BERD/MTS-8000 (V2) and -6000A mainframes can fully analyze the optical performance of current 10/40/100 G and future 400 G and higher optical transmission signals.

Based on coherent detection techniques, it provides unprecedented frequency resolution to precisely characterize optical signals (power level and frequency) and to analyze details never seen with previous field OSAs.

This is the industry's first solution that brings lab-type performance to a field-form-factor for testing future high-speed DWDM systems.

Platform Compatibility

T-BERD/MTS-6000A

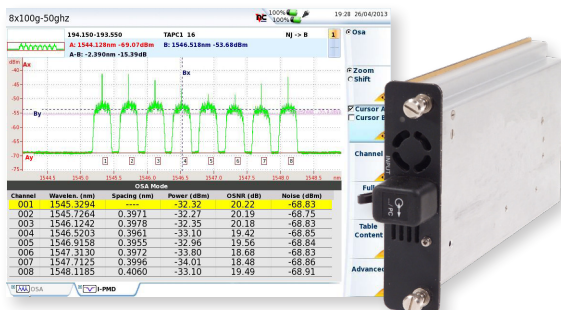


Compact network test platform for network installation and maintenance

T-BERD/MTS-8000 (V2)



Scalable platform for multiple-layer and multiple-protocol testing



Key Benefits

- Industry's first field OSA that fully analyzes 400 G Nyquist WDM signals
- It separates and analyzes narrow guard-bands in compressed super-channels enabling 400 G deployments
- The smallest and lightest high-performance 400 G ready OSA available
- Field optimized, rugged and durable design with no moving parts

Key Features

- Extended C-band acquisition range
- Measures frequency, power level, and OSNR
- Patented design (US patent 8,693,512) provides industry leading optical performance in resolution bandwidth, noise floor wavelength accuracy
- Can measure side-mode suppression ratio

Applications

- Qualify 10/40/100/400 G components and systems
- Validate and deploy 100 G and 400 G Flex-Grid DWDM
- Characterize and verify center wavelength of optical transmitters
- Qualify Flex-Grid wavelength selective switches and ROADMs with a high granularity (3.125 GHz and below)

Specifications (typical at 25°C)

Optical Interfaces	
Input	SMF9/125 µm single-mode fiber
Interchangeable optical connectors	FC, SC, DIN
General	
Weight	500 g (1.1 lb)
Dimensions (w × h × d)	213 x 124 x 32 mm (8.38 x 4.88 x 1.26 in)
Environmental	
Temperature	
Operating	0°C to +40°C (32°F to 104°F)
Storage	-20°C to +60°C (-4°F to 140°F)
Humidity	95% without condensing
EMI/ESD	CE compliant
EOSA610	
Optical frequency (wavelength) range	196.65 - 190.7 THz (1524.5 - 1572.06 nm)
Absolute uncertainty of frequency (wavelength) ^{1,2}	±370 MHz (±3 pm)
Frequency resolution	300 MHz (2.4 pm)
Minimum signal separation	2 GHz (16 pm)
Input power range (in 300 MHz bandwidth) ³	-65 dBm to +10 dBm
Max. safe total input power ⁴	+17 dBm
Close-in dynamic range	>40 dB at ±8 pm (±1 GHz) >50 dB at ±16 pm (±2 GHz)
Noise floor	-84 dBm
Spurious-free dynamic range	>45 dB
Absolute uncertainty of power level ^{1,2,5}	±0.5 dB
Display resolution	0.01 dB
Return loss	>50 dB
Measurement time ⁶	minimum 1 s (per channel)
Measurement statistics	Delta wavelength, delta power, delta OSNR

1. Over the entire frequency range. Coarse mode disabled
2. Average of 5 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. Over 50 GHz sweep range, no averaging

Ordering Information

Description	Part Number
High-resolution spectrum analysis module with extended C band - PC	EOSA610B-PC
High-resolution spectrum analysis module with extended C band - APC	EOSA610B-APC

VIAVI Care Support Plans




Increase your productivity for up to 5 years with optional VIAVI Care Support Plans:

- Maximize your time with on-demand training, priority technical application support and rapid service.
- Maintain your equipment for peak performance at a low, predictable cost.

Plan availability depends on product and region. Not all plans are available for each product or in every region. To find out which VIAVI Care Support Plan options are available for this product in your region, contact your local representative or visit: viavisolutions.com/viavicareplan

Features

*5-year plans only

Plan	Objective	Technical Assistance	Factory Repair	Priority Service	Self-paced Training	5 Year Battery and Bag Coverage	Factory Calibration	Accessory Coverage	Express Loaner
 BronzeCare	Technician Efficiency	Premium	✓	✓	✓				
 SilverCare	Maintenance & Measurement Accuracy	Premium	✓	✓	✓	✓*	✓		
 MaxCare	High Availability	Premium	✓	✓	✓	✓*	✓	✓	✓



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