

# T-BERD®/MTS-6000A and -8000 Platforms

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



### 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
- From the lab to the field — True 400 G lab performance in a field-ready tester

### Key Features

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

The innovative JDSU High-Resolution Optical Spectrum Analyzer (OSA-610) 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.

### Applications

- Qualify 10/40/100/400 G components and systems
- Validate and deploy 100 G and 400 G Flex-Grid DWDM
- Qualify Nyquist WDM 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

**Specifications (Technical at 25°C)**
**Optical interfaces**

Input	SMF9/125 μm single-mode fiber
Interchangeable optical connectors	FC, SC, DIN, LC

**General**

Weight	approx. 500 g (1.1 lb)
Dimensions (W x H x D)	213 x 124 x 32 mm (8.38 x 4.88 x 1.26 in)

**Environmental**

Temperature range	
Operating	0 to +40°C (32 to 104°F)
Storage	-20 to +60°C (-4 to 140°F)
Humidity	95% noncondensing
EMI/ESD	CE compliant

**EOSA610**

Optical frequency (wavelength) range	196.4 – 191.1 THz (1526.44 – 1568.77 nm)
Absolute uncertainty of frequency (wavelength) <sup>1,2</sup>	±370 MHz (±3 pm)
Frequency (wavelength) resolution	300 MHz (2.4 pm)
Minimum signal separation	2 GHz (16 pm)
Input power range (in 300 MHz bandwidth) <sup>3</sup>	-60 to +10 dBm
Max. safe total input power <sup>4</sup>	+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 <sup>5</sup>	±0.5 dB
Display resolution	0.01 dB
Return loss	>50 dB
Measurement time <sup>6</sup>	min 1.0 s
Measurement statistics	Delta wavelength, delta power, delta OSNR

1. Over the entire frequency range
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	EOSA610

**Network and Service Enablement Regional Sales**

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