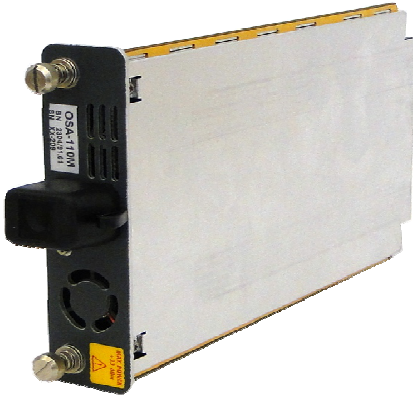




## T-BERD / MTS-6000, -6000A, and -8000 Platforms

### OSA-110M: Compact Full-band OSA



OSA-110M

#### Key Benefits • **Smallest and lightest full-band OSA**

- 25% smaller and lighter than smallest field OSA
- at no compromise of optical performance

#### • **Industries most economical OSA solution**

- 40% cheaper than average OSA-solutions
- ONE OSA covering all applications from CWDM to DWDM

#### • **Most user friendly operation**

- Easy on-button test with pass/fail analysis needs no training for experts and non skilled operators
- Same GUI for multiple applications on T-Berd/MTS platforms avoids extra training for OTDR, CD/PMD, fiber inspection

#### • **Speed up test time and be prepared for 40G/100G testing**

- scanning time of <1s for fast WDM measurements
- Future-proof signal analysis for 40/100G testing and new modulation formats

#### Applications

- **Deployment and maintenance of CWDM Access networks**
- **Installation and upgrade of DWDM Metro Core and Access networks**
- **Test of CATV, mobile backhaul and WDM PONs**
- **Verification of high speed 40G/100G interfaces**

#### Compact, Full-band Optical Spectrum Analyzer for testing xWDM networks

The optical spectrum analyzer (OSA) is the key instrument for testing any WDM links. Until now the OSA is known as a bulky and expensive instrument. Targeting at providing high performance test solutions, the compact OSA-110M represent JDSU's next generation of OSA modules for the field at unrivaled size, weight, and cost.

A new free space optics enables the design of a revolutionary small OSA module at the dimension and weight of a VHS cassette, representing a reduction of 75% in size and weight compared to JDSU's OSA-180 module, making it the smallest full-band OSA on the market.

The combination of a high optical resolution, together with the full-band measurement capability make the OSA-110M the ideal solution for testing xWDM systems during provisioning, maintenance and upgrade.

#### Key features

- full-band measurement capability between 1260 and 1640nm for measurements of all DWDM and CWDM bands
- sharp optical filter and high rejection ratio for accurate measurement of power, wavelength and OSNR in DWDM systems at channel spacing down to 50GHz.
- built-in wavelength calibrator guarantees measurements with high wavelength accuracy of  $\pm 0.05$  nm in the C+L-band, without the need of external calibration.
- new setup for testing 40G/100G interfaces according to ER4/LR4 standards

The compact OSA-110M module fits into the T-Berd/MTS-6000 and -6000A platforms, creating the smallest full-band OSA solution on the market. The module also fits into the T-Berd/MTS-8000 platform where it can be combined with OTDR-, CD/PMD-, and BER-tester modules, offering the widest portfolio for optical and digital testing.



**OSA-110M: Compact Full-band OSA (preliminary specifications)**

<i>Optical Specifications</i>			
<b>Modes</b>		<b>Power measurement</b>	
Analysis	WDM, Drift	Dynamic range <sup>(2)</sup>	-60 to +23 dBm
Display	Graph, WDM table, graph + table	Absolute accuracy <sup>(1, 3)</sup>	typ ± 0.6 dB
		Total safe power	+23 dBm
		Readout resolution	0.01 dB
<b>Spectral Measurement</b>		<b>Optical Measurement</b>	
Wavelength range	1260 to 1640 nm	Optical rejection ratio (ORR) <sup>(1)</sup>	
Abs. wavelength accuracy <sup>(1,4)</sup>	± 0.050 nm	at ± 0.2nm (for 50GHz ch-spacing)	typ 30 dBc
Wavelength reference	internal	at ± 0.4nm (for 100GHz ch-spacing)	typ 40 dBc
Resolution bandwidth(FWHM) <sup>(1)</sup>	typ 0.10 nm		
Readout resolution	10.001 nm	<b>WDM Measurement</b>	
Scanning time (including WDM analysis)		Channel spacing	50 to 200 GHz, CWDM
full band	<5 s	Max no. of channels	256
C-band	<1 s	Data signals	up to 1 Tbit/s
Measurement samples	111,000	Modulation formats	all formats supported
		e.g.: NRZ/RZ-OOK, DB, PSBT, CSRZ, DPSK, BPSK, QPSK, PM QPSK...	

(1) Typical for 1520 to 1565nm at 18° to 23°C  
 (2) Max. power per channel +15 dBm

(3) At -10dBm, including PDL  
 (4) Recommended period for recalibration is 2 years

<i>General Specifications</i>			
Optical port	universal SM-PC, universal SM-APC	Temperature	
Connectors	FC, SC, ST, LC, DIN	Operating	+5 to +50 °C / 41 to 122 °F
ORL	< 35 dB	Storage	-20 to +60 °C / -4 to 140 °F
Size (module)	122 x 235 x 26 mm / 4.8 x 9.3 x 1.0 in	Relative humidity	0 % to 95 % non-condensir
Weight(module)	0.6 kg / 1.3 lbs		

<i>Ordering</i>			
2304/91.02	OSA-110M, PC-version	Application software	
2304/91.12	OSA-110M, APC-version	EOFS100	Optical fiber trace software for post analysis
		EOFS200	Optical fiber trace software for cable acceptance test report generation

**Test & Measurement Regional Sales**

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