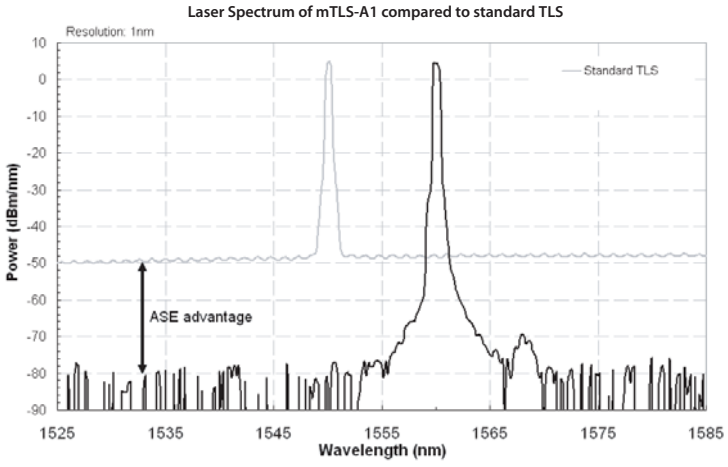
MAP Tunable Laser
(mTLS-A1)

Key Features

- Low ASE
- >110 nm of tunable range over C+L-band
- +8 dBm peak output power
- Polarization maintaining fiber (PMF) output
- Tuning speed up to 100 nm/s
- Mode-hop-free



Applications

- Dense wavelength division multiplexer (DWDM) transmission testing
- Optical amplifier testing
- Fiber characterization
- Transmitter and receiver testing

Safety Information

- The MAP Tunable Laser Source, when installed in a MAP chassis, complies to CE, CSA/UL/IEC61010-1, LXI Class C requirements, meets the requirements of Class 3B in standard IEC 60825-1 (2002), and complies with 21 CFR 1040.1 except deviations per Laser Notice No. 50, July 2001.

INVISIBLE LASER RADIATION
AVOID EXPOSURE TO BEAM
CLASS 3B LASER PRODUCT
(IEC 60825-1, 2002)
MAX. 500 mw, 700-1680 nm

The Multiple Application Platform (MAP) Tunable Laser Source (mTLS-A1) is optimized for the industry-leading JDSU MAP-200 platform. Based on the previous-generation MAP, the MAP-200 is the first photonic layer lab and manufacturing platform that is LAN Extensions for Instrunmentation (LXI)-compliant by conforming to the required physical attributes, Ethernet connectivity, and interchangeable virtual instrument (IVI) drivers. The MAP-200 platform is optimized for density and maximum ability for configuration to meet specific application requirements in the smallest possible foot print.

The MAP Tunable Laser Source is a low amplified spontaneous emission (ASE) external cavity tunable diode laser that offers exceptional speed, accuracy, and flexibility at a competitive price, making it the ideal source for advanced fiber-optic systems and component testing.

The wide wavelength range enables testing over the entire C+L-band range with a single source, while its high speed, mode-hop-free sweeping not only reduces testing time but permits process testing and alignment of components during manufacturing.

As with all MAP products, the MAP Tunable Laser Source may be seamlessly integrated with the extensive family of MAP products which enables complete custom solutions to be rapidly assembled and expanded as needed.

Specifications

Parameter	Specification
Wavelength	
Range	1519 to 1630 nm, C+L-band
Accuracy[1,2,3]	±15 pm enhanced accuracy mode[4], ±60 pm regular mode
Stability[1,2]	±3 pm (typical) (1 hr), ±10 pm (24 hrs)
Repeatability[1,2]	±3 pm (typical) enhanced accuracy mode[4]
Resolution[1,2]	1 pm
Tuning speed	1 to 100 nm/s
Power	
Maximum power	
Over wavelength range	+5.0 dBm (>6.0 dBm typical)
Peak	+8.0 dBm
Stability[1,2]	0.01 dB (1 hr)
Resolution	0.001 dB
Flatness while scanning[4]	0.6 dB over wavelength range
Flatness while stepping	±0.05 dB
Spectral properties	
Line width, coherence control off	<150 kHz
Side mode supperession ratio (SMSR)	45 dB
Signal-to-ASE ratio	See spectral plot (Figure 1)
Relative intensity noise (RIN)	–140 dB/Hz
Fiber/connector type	PMF/APC connector
Fiber extinction ratio	>20 dB
Recommended calibration period	1 yr
Operating temperature	15 to 35°C
Storage temperature	–20 to 50°C
Dimensions (W x H x D)	8.1 x 13.26 x 37.03 cm (3.19 x 5.22 x 14.58 in)
Weight	3.8 kg (8.38 lb)

1. Measured at 25°C ±1°C
2. After 1 hour warm-up
3. Valid for one month after calibration or user wavelength offset setting within ±4°C
4. Fixed power of 3 dBm

Ordering Information

Product Code	Description
Base Options (Required)	
MTLS-A1000	Tunable Laser Source
Connector Options (Required)	
MFA	FC/APC connector type

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