



MAP Fabry-Perot Laser

(mFPL-A1)

The Multiple Application Platform (MAP) Fabry-Perot Laser Source (mFPL-A1) is optimized for the industry-leading Viavi Solutions MAP-200 platform. Based on the previous-generation Multiple Application Platform (MAP), the MAP-200 is the first photonic layer lab and manufacturing platform that is LAN Extensions for Instrumentation (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 configurability to meet specific application requirements in the smallest possible foot print.

The mFPL-A1 consists of a Fabry-Perot laser diode combined with a high performance laser driver circuitry for optimal wavelength and power stability. It features internal modulation capabilities and variable power control. Cassettes can be configured with two independent sources for maximum instrumentation density.

Key Features

- Dual independent sources available in a single cassette
- Single-mode (SM)/Multimode (MM) output
- Internal modulation
- Can be automated when used with MAP-200 LXI-compliant interfaces and IVI drivers

Applications

- Insertion loss (IL)
- Return loss (RL)
- Polarization dependent loss (PDL) tests
- Dense wavelength division multiplexing (DWDM) test

Compliance

- The MAP Fabry-Perot 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.



Single-mode (SM) Specifications

Parameter	980 nm	1310 nm	1480 nm	1550 nm	1625 nm	1650 nm
Peak wavelength	980 ±20 nm	1310 ±20 nm	1480 ±20 nm	1550 ±20 nm	1625 ±20 nm	1650 ±20 nm
Spectral width (FWHM)	<5 nm	<5 nm	<5 nm	<6 nm	<7 nm	<7 nm
Total power ^{1,2}	0 dBm	-3 dBm	-3 dBm	-3 dBm	-3 dBm	-3 dBm
Fiber type	Flexcor™	SMF-28	SMF-28	SMF-28	SMF-28	SMF-28
Modulation ³	0.2 to 20 kHz					
Stability (15 minutes) ^{1,2,4}	±0.005 dB					
Connector type	FC/PC, FC/APC					
Operating temperature	10 to 40°C					
Storage temperature	-30 to 60°C					
Dimensions (W x H x D)	4.06 x 13.26 x 37.03 cm (1.6 x 5.22 x 14.58 in)					
Weight	0.5 kg (1.1 lb)					

Multimode (MM) Specifications

Parameter	850 nm	1310 nm	1550 nm
Peak wavelength	850 ±20 nm	1310 ±20 nm	1550 ±20 nm
Spectral width (FWHM)	<8 nm	<8 nm	<8 nm
Total power ^{1,2}	-3 dBm	-6 dBm	-6 dBm
Modulation ³	0.2 to 20 kHz		
Stability (15 minutes) ^{1,2,4}	±0.01 dB		
Connector type	FC/PC, FC/APC		
Operating temperature	10 to 40°C		
Storage temperature	-30 to 60°C		
Dimensions (W x H x D)	4.06 x 13.26 x 37.03 cm (1.6 x 5.22 x 14.58 in)		
Weight	0.5 kg (1.1 lb)		

1. After 30 minute warm-up

2. Measured at constant temperature of 23 ±5°C

3. Modulation duty cycle is adjustable from 15% to 85%. Modulation depth is fixed at 100%

4. Measured at full power

Ordering Information

Description	Product Code
Base Options (Required, select one)	
Fabry-Perot mono-wavelength laser source	MFPL-A1100
Fabry-Perot bi-wavelength laser source	MFPL-A1200
Laser Wavelength Options (Required, select one or two)	
1650 nm wavelength	MWL1650A
1625 nm wavelength	MWL1625A
1550 nm wavelength	MWL1550A
1480 nm wavelength	MWL1480A
1310 nm wavelength	MWL1310A
980 nm wavelength	MWL0980A
850 nm wavelength	MWL0850A
Fiber Type Options (Required, select one)¹	
9/125 fiber type	M100
50/125 fiber type (850, 1310 and 1550 nm only)	M101
62.5/125 fiber type (850, 1310 and 1550 nm only)	M102
Flexcore fiber (980 nm only)	M104
Connector Options (Required, select one)	
FC/PC connector type	MFP
FC/APC connector type	MFA

1. SM and MM fiber type options cannot be combined in one module



Contact Us **+1 844 GO VIAVI**
(+1 844 468 4284)

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visit viavisolutions.com/contacts.

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