Data Sheet

VIAVI
Light Emitting Diode (LED) Source Module

Part of the MAP Series General Purpose mSRC-C2 family

Multiple Application Platform (MAP) broadband light sources featuring Light Emitting Diode laser (LED) are stabilized, low power, fixed wavelength modules, with output wavelengths at the two most commonly used multimode wavelengths – 850nm and 1300nm.

VIAVI offers a multiplexed and individual output low power LED as part of the general-purpose light sources (mSRC) in the MAP portfolio. The LEDs are offered at the common multimode wavelengths of 850nm and 1300nm. LED sources emit incoherent broadband light.

Functional Description

LED sources are used for testing of broadband multimode components. They have a slightly broader spectral width and lower output power than SLEDs and Fabry-Perot (FP) lasers. The incoherent nature of LED light sources avoids interference in short fibers with reflection present.

Mode fill is key for accurate measurement of multimode components and systems. An under or over-filled launch can give optimistic or pessimistic loss results that don't reflect the actual loss of a component or system. VIAVI low power LED sources have ±0.05 dB power stability and a fixed power level.

Key Features

- MM Individual Output or Multiplexed Output.
- Low temperature dependence
- ±0.05 dB optical power stability
- Fixed optical power

Applications

- Multimode loss testing with IEC compliant launch conditions
- Loss calibration
- Ideal source to calibrate optical receivers due to low temperature dependence and excellent stability

Compliance

- The MAP series mSRC-C2 module, when installed in a MAP chassis, complies to CE, CSA/ UL/IEC61010–1, LXI Class C requirements, meets the requirements of Class 1M in standard IEC 60825-1 (2014), and complies with 21 CFR 1040.1 except deviations per Laser Notice No. 50

INVISIBLE LASER RADIATION
DO NOT VIEW DIRECTLY WITH
OPTICAL INSTRUMENTS
CLASS 1M PRODUCT
(IEC 60825-1

An intuitive graphic user interface (GUI) is optimized for use in either a laboratory or a manufacturing environment. Efficient transition between summary and detailed views allows users to operate at a system level or access the full power of a module.
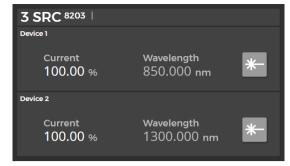
Options and Configurations

The VIAVI LED sources are offered in two variants with individual outputs or multiplexed outputs.

LED variant	Available Configurations
Individual Output	Individual 850/1300 nm output
Mux'd Output	Multiplexed 850/1300 nm output

Chassis and Modular Family

The VIAVI Multiple Application Platform (MAP) is a modular, rack mountable or benchtop, optical test and measurement platform with chassis' that can host 2, 3 or 8 application modules. The LightDirect family of modules are characterized by their simple control and single function nature. Individually or together they form the foundation of a diverse array of optical test applications. The web enabled multiuser interface is simple and intuitive. LXI compliant with a full suite of SCPI based automation drivers and PC based management tools, the VIAVI MAP is optimized for both the lab to manufacturing environments.

The mSRC is part of the LightDirect module family. Alongside the many other modules, such as optical attenuators, polarization scramblers, power meters, and spectrum analyzers, the MAP series is the ideal, modular platform for photonic system and module testing.

The mSRC-C2 is compatible with all current MAP-300 and MAP-200 chassis.

Specifications

For more information on this or other products and their availability, please contact your local VIAVI account manager or VIAVI directly at 1-844-GO-VIAVI (1-844-468-4284) or to reach the VIAVI office nearest you, visit viavisolutions.com/contacts.

Optical Parameter[1]	Standard MM Low Power LED		
Peak Wavelength[2]	850 nm	1300 nm	850/1300 nm Mux'd[3]
Wavelength Tolerance	±20 nm		
Spectral Width (FWHM)	>20 nm		
Spectral Ripple (RB=0.1 nm)	–		
Output Optical Power[4]	≥ –20 dBm		≥ - 25dBm
Optical Power Stability (15 minutes)[4]	±0.05 dB		
Optical Power Tuning Range	Fixed Output Power		
Output Launch Conditions	IEC 62614 Ed 1.0 July 2010		
Modulation[5]	0.15 to 2kHz		
Modulation Setting Resolution	1Hz		
Modulation Accuracy	±0.5Hz		
Fiber Type	OM3 MM fiber		

1. All measurements taken after a minimum of 30 minutes warm-up time.
2. Peak wavelength defined as per IEC 61280-1-3 2010 clause 3.1.3. Measured at room temperature.
3. Combined output power. Power measured with any one laser on full power at a time.
4. Measured at full power at controlled environment of ΔT = ±1°C, Constant Current mode with PC connector (MM) direct to power meter.
5. Modulation duty cycle is fixed at 50%. Modulation depth is fixed at 100%.

General Specifications

Parameter	Specification
Operating Temperature	10 to 40°C (50 to 104°F)
Storage Temperature	-30 to 60°C (-22 to 140°F)
Operating Humidity	Maximum 85% Relative Humidity, non-condensing from 10 to 40°C/50 to 104°F
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	1.3 kg (2.86 lb)

Ordering Information

Part Number	LED Single Mode Source	
MSRC-C21308LP-M101-MFP	Individual Output	850/1300nm Low power LED 50µm MMF EF compliant FC/PC
MSRC-C21308LPX-M101-MFP	Mux'd Output	850/1300nm Low power LED 50µm MMF EF compliant single output FC/PC

Accessories

Accessories (Optional)	Product and description	
Inspection and cleaning tool	CleanBlastPRO	The patented VIAVI Solutions® CleanBlast fiber end-face cleaning system provides a fast, effective, and cost-efficient solution for removing dirt and debris from connectors in most common applications. It is available in a benchtop and portable version
	FiberChek probe microscope	One-button FiberChek Probe delivers a reliable, fully autonomous, handheld inspection solution for every fiber technician.
	P5000i fiber microscope	Automated Fiber Inspection & Analysis Probe provides PASS/FAIL capability to PC, laptops, mobile devices and VIAVI test solutions.

A wider range of inspection tools are available at VIAVI. More information about the products and accessories can be accessed through our website at www.viavisolutions.com. For further assistant please contact your local VIAVI account manager or VIAVI directly at 1-844-GO-VIAVI (1-844-468-4284) or to reach the VIAVI office nearest you, visit viavisolutions.com/contacts.

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- 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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