VIAVI
MAP-Series Selection Guide

The VIAVI Multiple Application Platform (MAP) is an optical test and measurement platform optimized for cost-effective development and manufacturing of optical transmission techniques. The MAP chassis are the foundation to our entire portfolio of modules, enabling scalability and efficiency for manufacturing optical network elements. The cassettes are the building blocks and fall into two different families, the light test turn-key solutions and the light direct configurable solutions to meet each customer's exact needs.

The MAP series is the first photonic layer lab and manufacturing platform that complies with LAN Extensions for Instrumentation (LXI) by conforming to the required physical attributes, Ethernet connectivity, and interchangeable virtual instrument (IVI) drivers, which are intuitive and optimized for ease of use with popular Application Development Environments such as LabVIEW, Visual C++, Visual Basic, and LabWindows™.

The LightDirect™ family offers a wide range of foundational optical test modules that are used in simple bench test applications, or combined in larger, multi-modules customer driven automated test systems. These modules are characterized by their simple control interface and single function nature. Individually or together, they form the foundation of most optical test applications. VIAVI offers many modules, such as light sources, polarization scramblers, power meters, attenuators, switches, and spectrum analyzers.

Optical Sources and Amplifiers

Tunable Distributed Bragg Reflector Laser Sources

mTLG-C2 is a next-generation tunable laser that is ideal for DWDM testing that requires changing the wavelength on demand over the C- and L-band with 50 GHz spacing. Available in single, dual or quad configurations.

Board-band laser source

mBBS-C1 is a broadband source that provides 100mW of amplified spontaneous emission (ASE) output for stable and spectrally flattened C-and L-band sources. The source provides high spectral stability better than 0.02 dB.

General-Purpose light Source

mSRC-C2 is a general-purpose light source in these key fixed telecom wavelength bands: 850, 1300, 1310, 1490, 1550, 1625 nm. Available in three different emitter configurations, Fabry Perot (FP lasers), low power LEDs and Super Luminescent Diode (SLED) in multimode or single mode formats.

O-band Optical Amplifier

mSRC-C23000SA is a variant of the mSRC-C2 that behaves as a semiconductor O-band optical amplifier (SOA) with polarization-independent optical amplifier. It operates in a wide wavelength range with reasonable amplification.

Erbium Doped Fiber Amplifier

mEDFA-C1 is available in six configurations: C-Extended C-band pre-amplifier, dual pre-amplifier, booster, DWDM booster and maximum power and L-band booster. Features a low-noise figure, high output power and high gain.

Light**Direct**

Optical Signal Conditioning

Variable Optical Attenuator

mVOA-C1 is the industry's most compact modular solution. Available with one, two, or four variable optical attenuators (VOA) per module with or without an internal power meter or with output tap monitor. Enabling single-level control for receiver and amplifier testing.

Polarization Scrambler Controller

mPCX-C1 is a polarization scrambler that scrambles, controls and provides stabilization for applications such as temporal depolarization and 100G+ coherent interface testing. It offers six pre-defined scrambling patterns, random, Rayleigh distribution, ring, polar ring pattern, oscillating ring pattern, random ring pattern and one discrete user defined mode.


Passive Utility Device

mUTL-C1 is a passive utility module includes, couplers, splitters, mux/demux, band-pass filters and even blank modules for customer supplied components.

Multiport Tunable Filter

mTFX-C1 is a C- and L-band multiport tunable filter that simplifies test signal management for next-generation 100 G+ interface, sub-systems and system test. It combines variable attenuator, switch, power meter, and DWDM multiplexer functions to dramatically simplify photonic testing of coherent interfaces, amplifier, and DWDM systems.

Light **Direct**

Optical Signal Switching and Routing
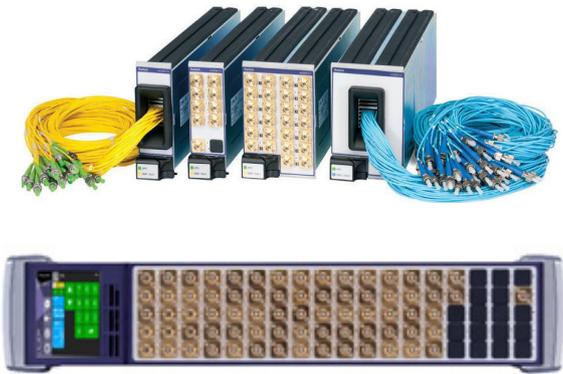
Optical Switch Solutions

mOSW-C1/mISW are the industry's gold standard for loss and repeatability. With over 80 variations available, there is a configuration ideally suited to all applications. Switches range from 1x4 to 1x64 with options for internal power monitoring, direction monitoring, and power trim. Available in modular plug-in or 19-inch tray.

Cross Connect Optical Switch

mOSX-C1 is a cross connect optical switch that provides high performance and reliability. Available as a 16- or 32-port common connection (CC) cassette, the mOSX supports any-to-any port combinations up to the total number of ports on the cassette. It also supports MxN combinations.

Polatis Switch

The Polatis range of optical matrix switches are high-performance, fully non-blocking all-optical matrix switches, available with port counts from 4x4 up to 192x192. They are designed to meet the highest performance, security and reliability needs of mission-critical applications with low optical loss, compact size, low power requirements and fast switching speeds.

Optical Power and Spectral Measurements

Optical Power Meter

mOPM-C1 optical power meters are available with one, two, or four power heads per module with four unique performance ranges. There are versions available for all applications. Models with 110 dBm dynamic range are complimented by versions that support 26 dBm input power. Features accuracy, high linearity and extremely low PDL. A remote head power meter version is also available.

High-Resolution Optical Spectrum Analyzer

mHROSA-A1 is a high-resolution optical spectrum analyzer that combines sub-GHz resolution performance and compact modularity in a single slot cassette.

The LightTest™ family are application specific, integrated test solutions that leverage the power of the MAP Series Super-Application or PC based software. Built with specialized MAP modules or assemblies of LightDirect modules, LightTest solutions are typically used in bench test applications but can also be combined in larger, multi-modules customer driven automated test systems.

Passive Connector Test Solutions

VIAVI Solutions passive component/connector test solution (PCT) consists of a powerful family of modules, software, and peripherals for testing IL, RL, physical length, and polarity of optical connectivity products. Leveraging the modularity and connectivity of the VIAVI MAP platforms, the PCT can be configured for R&D, production, or qualification test environments and can address all key fiber types from single mode through OM1 and OM4.

Single Fiber Insertion Loss and Return Loss Test System

The **PCT-rm** is a MAP-220 based Single mode Insertion Loss (IL) and Return Loss (RL) test meter for single fiber connector applications. Part of the MAP-Series PCT solution family, it features fully EF-compliant multimode Insertion Loss test meters with connector adapters that can be configured for all connectivity applications to ensure maximized productivity.

Swept Wavelength System

mSWS-C1 are swept wavelength test solutions for manufacturing and new device development of passive DWDM devices, ROADMs & Circuit Packs. Provides full characterization of wavelength.

Optical Component Environmental Test Systems

At the core of **OCETS Plus** is a pair of custom-grade programmable switches (1xN configuration). OCETS switches are specified to higher levels of IL repeatability and background RL than analogue-grade switches. Therefore, the implementation of an OCETS Plus system represents an improvement over the capability of any in-house system that utilizes analogue-grade switches.

Accessories

Accessories (Optional)	Product and description	
Fiber Inspection Tools	FVAi/FVDi Benchtop Microscopes	Benchtop inspection microscope with automated PASS/FAIL and an integrated 3.5 in LCD video display.
	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. The PCT application offers an inspection pass/fail.
Replacement Parts	Mating sleeves	AC500;FC/PC-FC/PC Universal Connector Adapter
		AC501;FC/PC-SC/PC Universal Connector Adapter
		AC502;FC/APC-FC/APC Universal Connector Adapter
		AC503;FC/APC-SC/APC Universal Connector Adapter
Detector Adaptors	A complete range of single ferrule, duplex, and bare fiber power meter adaptor are available at VIAVI including MPO, FC, LC and Integrating spheres. Refer to the AC adaptor selection guide for more information.	

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.

Power meter adaptors

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