

OP760

Multichannel High-Speed Optical Power Meter



PRODUCT OVERVIEW

OptoTest's OP760 Multichannel Optical Power Meter is a cost-effective solution for manufacturers or anyone requiring high channel counts and measurements. Available with up to 24 individual optical power meters, the OP760 builds on the established reputation of OptoTest's OP710 Multichannel Optical Power Meter, offering enhancements including built-in USB and Ethernet communication, and simultaneous power measurements on all channels.

The OP760 is capable of faster than 20ms sampling time over the USB interface. Simultaneous optical power measurement capability enables users to instantly spot a port failure, making the OP760 an ideal instrument for demanding production and lab applications. The high-speed on-demand USB measurements allow for fast feedback to enable active optical alignment for fiber coupling and silicon photonics applications enabling automation of many manual alignment processes.

The OP760 is backward compatible with all software developed for the OP710, making it a drop-in upgrade to existing test systems, and can be easily integrated with custom test applications. Ethernet connectivity makes the OP760 accessible over a network for hassle-free integration into high volume production environments.

KEY FEATURES & BENEFITS

- **Individual Power Meters for Maximum Flexibility**

Up to 24 individual optical power meters can be built into each OP760 and are capable of measuring output power simultaneously. Our full range of InGaAs and Silicon detectors can be paired with any combination of connector types to readily accommodate any device under test, no matter the complexity.

- **Wide Operating Ranges and Spectrums**

The OP760 can be configured with both InGaAs and Silicon (Si) detectors, each with its own measurement range and wavelength spectrum. InGaAs detectors are capable of measurements from +6dBm to -72dBm at 830nm to 1700nm wavelengths. Si detectors are capable of measurements from +3 to -65dBm at 400 to 1100 nm wavelengths.

- **Fast Sampling Time**

Faster than 20ms sampling time for up to 24 channels over the USB interface for instantaneous response.

- **Industry Leading Accuracy**

Each detector built into the OP760 provides the precision for the most demanding test requirements. Accuracy for relative measurements is $\pm 0.02\text{dB}$ for signals varying a maximum of 5dB. The front panel display has a measurement resolution down to 0.001dB.

- **Comprehensive Multi-Function LCD Display and Controls**

The backlit multi-function display summarizes measurement status at a glance. Monitor a channel or quickly change channels and test parameters using the simple, intuitive front panel controls.

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KEY FEATURES & BENEFITS

- **Backward Compatible USB Interface**

The OP760 is an economical drop-in upgrade for existing multichannel optical power meters, such as the OP710, in an existing OptoTest measurement system, and can be used with OptoTest software including OPL-Max, OPL-CLX, and the SDK via the USB port on the instrument. This enables manufacturers and others to quickly enhance their measurement capabilities with little setup or downtime.

- **Universal Adapter Interface**

Our universal OPM adapter system readily accommodates industry standard connector types including FC, SC, LC, and ST, as well as universal adapters for 1.25mm and 2.5mm ferrules. This enables any combination of reference and receiving cables to be used for your test process. The OP760 can also be built with BNC ports to interface with OptoTest remote head detectors.

- **Designed for Maximum Versatility**

Paired with a light source and software, the OP760 is indispensable for mechanical and environmental optical deviation monitoring, splitter manufacturing, active optical alignment, transceiver and silicon wafer chip testing, parallel laser testing, and IL / RL testing of multiple connectors. Its simplicity and versatile design allow the OP760 to be readily adapted to your changing needs and test requirements.

SOFTWARE

An important step in building a test system using the OP760 is choosing the right software for the job. DLLs are available to easily integrate into existing processes, while OptoTest offers a range of software programs that take full advantage of the capabilities of the OP760.

All OptoTest software affords the following benefits to your test system:

- **Automation**

Every step of the test process is fully controlled by the software, making your testing experience simple, repeatable, and reliable.

- **Expandability**

Multiple units and different types of units can be controlled together to expand the functionality of your test system. For instance, you can control up to seven OP710 units at once or control an OP710 and multichannel OP940 together to create a high-channel count IL and RL test system.

- **Customization**

Test settings, pass/fail criteria, and result output are fully customizable to create a tailored experience that best fits your needs.



COMPATIBLE SOFTWARE

- **OPL-CLX** multifiber connectors with production applications with database integration
- **OPL-Max** multifiber connectors with production applications
- **OPL-Log** optical datalogging for temperature and humidity
- **OPL-7** measure the power output on all channels of the OP710
- **OPL-PowerRT** simultaneous insertion loss testing on multiple channels
- **SDK** create custom software and integrate into existing systems through the DLL library. (Labview®, Visual Studio® & Python® are examples of the most commonly used development packages.)

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PRODUCT SPECIFICATIONS

	1mm InGaAs	3mm Silicon
Sampling Speed	Better than 20ms	
Measurement Range	+6dBm to -72dBm at 1490nm	+3dBm to -65dBm at 980nm
Wavelength Spectrum	830nm to 1700nm	400nm to 1100nm
Relative Accuracy	±0.02dB	
Channel Count	Up to 24 in one enclosure	

Mainframe	OP760
Dimensions	42.5cm x 8.9cm x 20.3cm
Power Supply	Input: 90VAC ... 264VAC; 47Hz to 63Hz Output: 18V, 5A
Warm-up time	5-15 minutes
Operating Temperature	5°C to 40°C
Maximum Relative humidity*	95%

* For temperatures up to 31°C, decreasing linearly to 50% relative humidity at 40°C.

DETECTOR OPTIONS

Detector Size	Detector Specifications
IN1	1mm InGaAs detector with 5/8" Adapter
IN3	3mm InGaAs detector with 5/8" Adapter
IN5	5mm InGaAs detector with LAAD Adapter
IN10	10mm InGaAs detector with LAAD Adapter
HP	2mm High Power InGaAs detector with 5/8" Adapter
SI3	3mm Silicon detector with 5/8" Adapter
R	Electrical port for Remote Head Detector

APPLICATIONS

- Optical Alignment
- Silicon Photonics
- Optical Signal Monitoring
- Temp and Humidity Testing
Optical connector assemblies
- Transceiver testing
- Parallel laser burn in testing



CALIBRATION

This product can be calibrated in-house, on-site, or remotely.



TECH SUPPORT

Our team of experts is ready to assist you.



WARRANTY

OptoTest offers a three-year warranty on this product.



ISO CERTIFIED

Our Quality Management System is certified and in compliance with ISO 9001:2015.



MADE IN THE USA

We proudly design & manufacture our equipment in California, United States.

Product specifications and descriptions in this document are subject to change without notice.
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