QUANTIFI PHOTONICS™

Power

1410
OPTICAL POWER METER

PRELIMINARY SPECIFICATION SHEET

quantifiphotonics.com

Quantifi Photonics' Power 1410 optical power meter provides fast monitoring of signal power from -60 to +10 dBm and broad wavelength range of 1250 to 1650 nm.

It provides unrivalled channel density with up to 288 parallel channels in a single 1U rack-mountable instrument.

24 to 288 parallel channels

Customize your instrument with 24 to 288 parallel optical power meters for high-channel count applications.

Single logarithmic detector

Use of a logarithmic detector eliminates the gain jumps exhibited by power meters with multi-stage linear amplifiers. Generate consistent and reliable measurements at all power levels.

Data Logging Capability

Data logging of up to 1024 samples per channel, so you can capture transient events with ease.

Simple, intuitive operation with CohesionUI™

Control the Power1410 from our modern web-based user interface and view up to 288 channels simultaneously.

TARGET APPLICATIONS

- Fiber optic manufacturing test.
- Power measurement integration for automated test systems.
- Fiber optic laser test and characterization.
- General and versatile R&D and production tool.

HARDWARE TRIGGERING

Integrated hardware triggering

The Power 1410 has integrated hardware triggering capabilities that allow the user to synchronize a variety of instruments through the trigger input. This offers a number of advantages over more traditional software-initiated measurements.

- True parallel measurements of multiple devices under test (DUT) allows you to scale your manufacturing and decrease the test time per DUT.
- Extremely low latency allows you to capture fast events or measure your DUTs very quickly.
- Precise timing alignment between optical and electrical modules gives you control of trigger events to occur exactly when required.

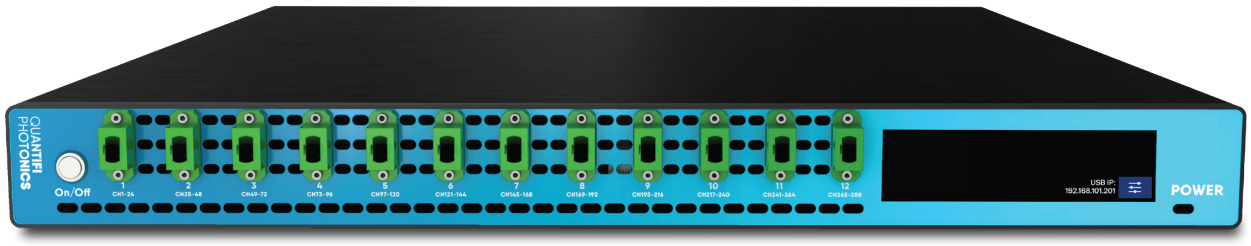
POWER 1410 TECHNICAL SPECIFICATIONS

General Specifications	EPIQ
Dimensions (HxWxD)	44.1 x 440 x 528 mm | 1.7 x 17.3 x 20.8 inches
Weight	~ 3 kg | ~6.6 lbs
Operating temperature range	5 °C to 45 °C | 41 °F to 113 °F
Storage temperature range	-40 °C to 70 °C | -40 °F to 158 °F

Model Number	1410
Number of channels	24, 48, 72, 96, 120, 144, 168, 192, 216, 240, 264, 288
Optical connectors	MTP Elite Male, key up, SMF Fiber, APC
Sensor	InGaAs
Wavelength range	1250 nm to 1650 nm
Power	- 60 dBm to + 10 dBm
Damage level	+ 12 dBm
Uncertainty [2,3,4]	± 0.29 dB (Typical) | ± 0.50 dB (Max)
Linearity [2,4]	± 0.1dB -40 to 0 dBm; ±0.2dB -50 to -40 dBm
Averaging time	100 µs to 10 s
Data logging capability	1 to 1024 samples per channel on 3 channels in each block of 24 channels. The channels with TRACE are configurable in software.
External trigger	Yes

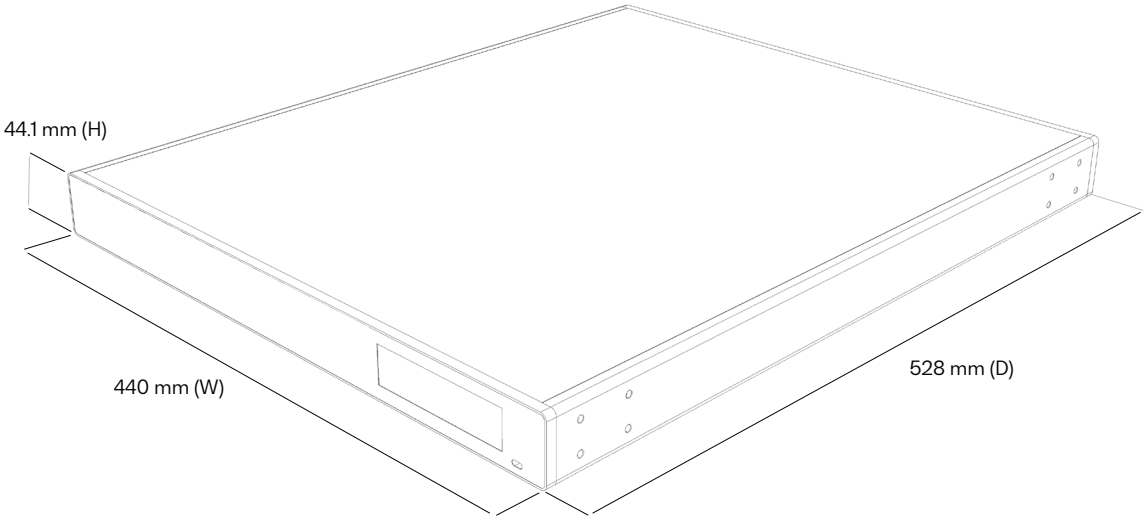
Notes

1. Specifications are valid at 23 °C ± 3 °C.
2. +10 dBm to -40 dBm, 23 °C.
3. Excluding connectors.
4. At calibration wavelengths.
5. Wavelength 1550 nm ± 30 nm, standard single-mode fiber, angled connector 8°, T=23 °C ± 5 °C.

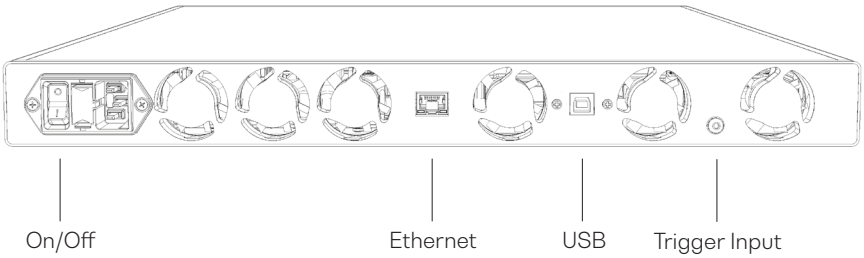


Power-1410-288-MTP-EPIQ

Instrument dimensions

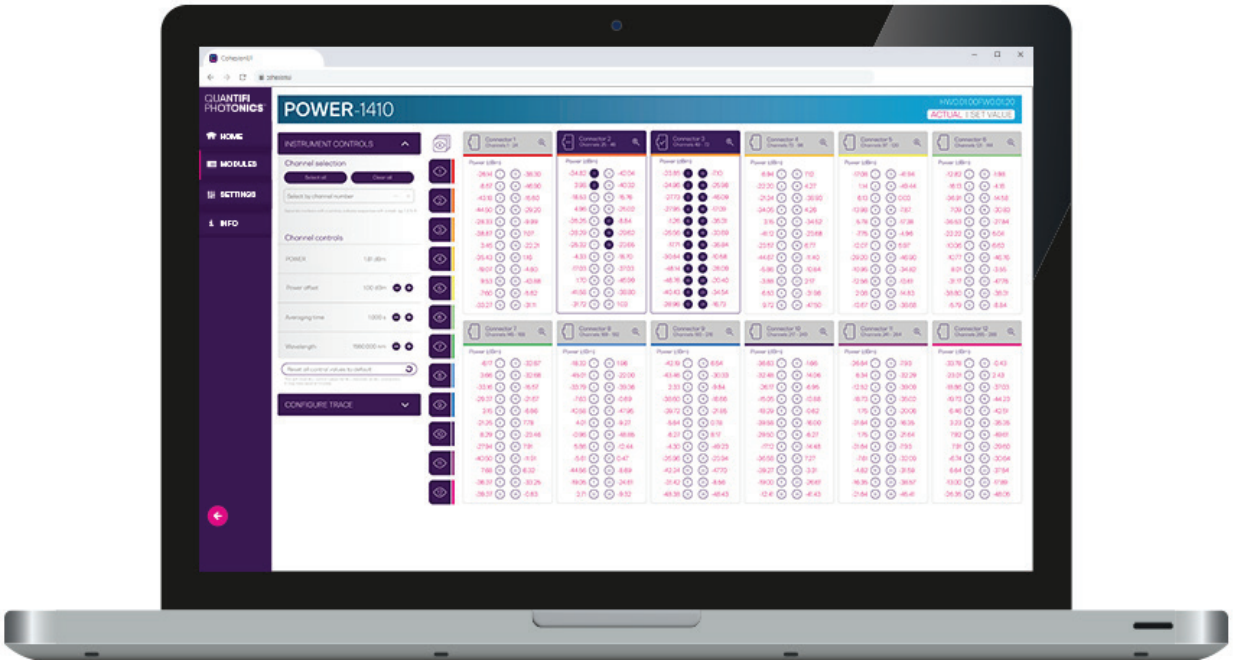


Rear panel connections

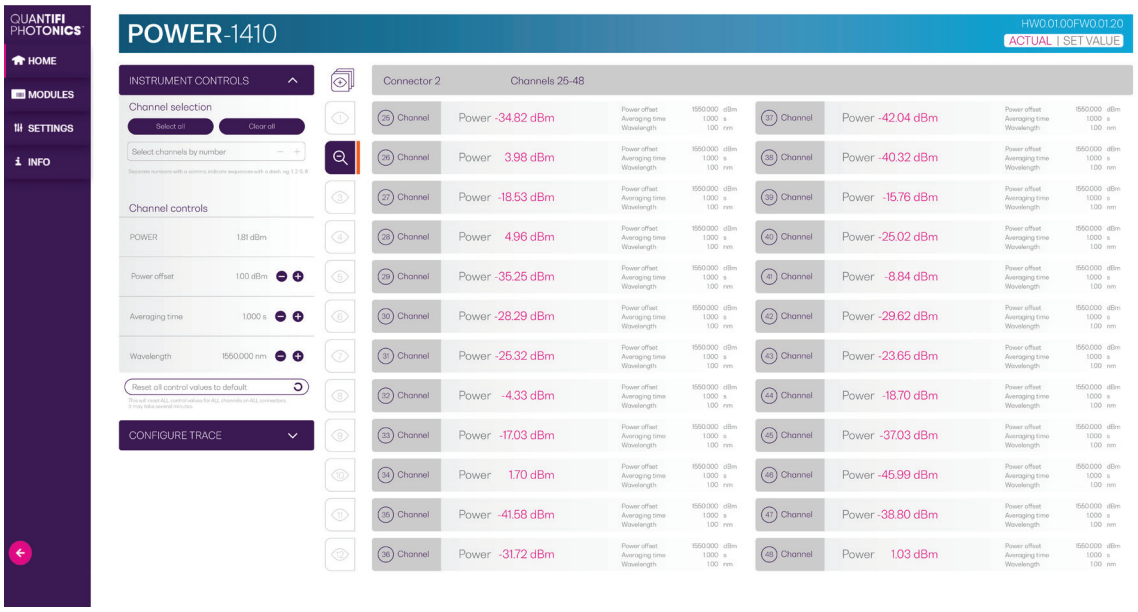


Simple, Intuitive Control with COHESION**UI**™

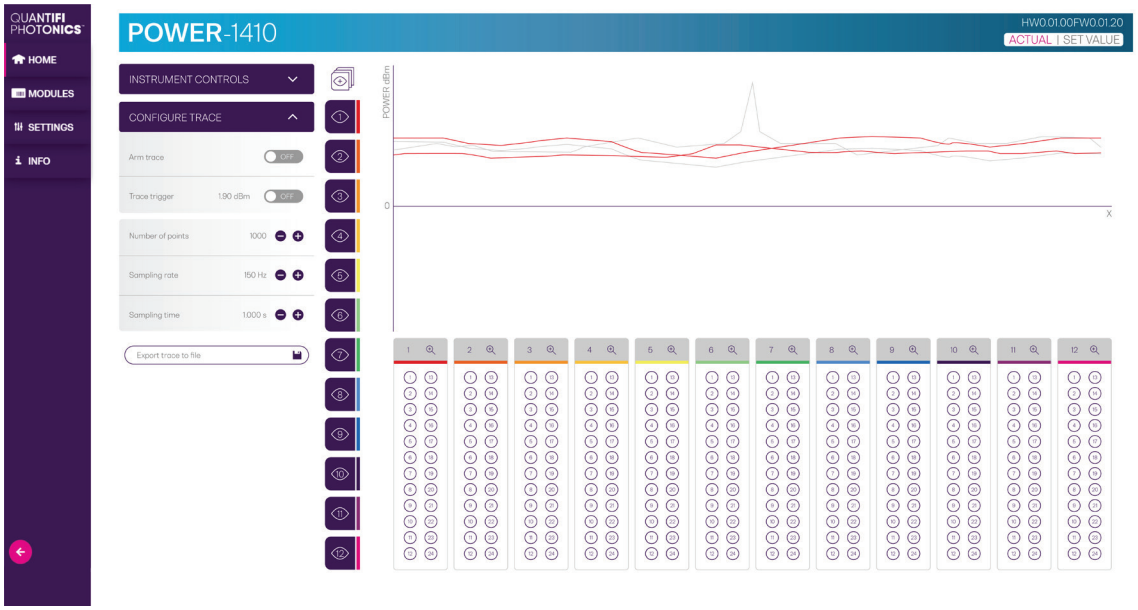
COHESION**UI** makes it simple to control our instruments from a PC. Its cutting-edge design offers a sleek modern interface, customizable views and remote network access.



CohesionUI displaying 288 simultaneous optical power measurements.



CohesionUI displaying a a single connector with 24 optical power measurements.



CohesionUI displaying channel traces.

ORDERING INFORMATION

POWER - **1410 - X - XX - EPIQ**

Connector type
MA24, MTP-24, APC, Elite

Number of power meter channels
24, 48, 72, 96, 120, 144, 168, 192, 216, 240, 264, 288

WARRANTY INFORMATION

This product comes with a standard 1 year warranty.

EXTENDED WARRANTIES AND CALIBRATION PLANS

With an **extended warranty and calibration plan** you'll spend more time focused on your priorities and less time worrying about maintenance.

Your choice: add a **3 or 5 year extended warranty** when you buy.

Guarantee performance

Ensure your equipment is operating at the best it can be for reliable and accurate results.

Lower cost of ownership

Lock in savings and maximise your testing budget with a lower base cost of ownership.

Peace of mind

Spend less time worrying about maintenance and more on generating results.

CALIBRATION PLANS FOR ADDITIONAL DISCOUNTS

Order a **calibration plan** when purchasing your Quantifi Photonics instruments and get additional discounts.

10% Discount On calibrations ordered at the time of purchase.

25% Discount Add on an extended warranty and receive a 25% discount on calibrations.

Over time and with regular use, all optical parts and connectors require re-calibration and maintenance to guarantee accurate and reliable performance. We recommend Quantifi Photonics optical instruments are re-calibrated every 12 months. With an instrument calibration performed by Quantifi Photonics technicians you receive:

- Comprehensive calibration to factory specifications
- End-to-end inspection to ensure all instrument functions are working and connectors are clean
- Firmware, software and documentation updates
- Certificate of calibration which includes detailed test results

How to do I **secure my extended warranty or calibration plan**?

Contact your Quantifi Photonics sales representative or email **sales@quantifiphotonics.com**

Extended warranties and calibration plans must be ordered at the time of purchase and are available only for Quantifi Photonics' products. The 25% calibration discount only applies to calibrations while the product is covered by the extended warranty period.

Our portfolio of optical and electrical test modules is rapidly expanding to meet a wide range of customer requirements and applications.

Tunable Laser Sources
Versatile telecom laser sources with full tunability across C or L bands. Narrow 100 kHz linewidth, up to 16.5 dBm of power, optional whisper mode to disable frequency dither.

Erbium-Doped Fiber Amplifier (EDFA)
High power Erbium-Doped Fiber Amplifier for signal power amplification in C and L bands with various control modes, including automatic gain control.

Fixed Wavelength Laser Sources
Highly customizable DFB or FP laser sources available in a wide range of wavelengths and powers. Models support SMF, MMF and PMF.

Variable Optical Attenuator (VOA)
Fast attenuation speed with low insertion loss and built-in power monitoring. Operates in fixed attenuation or constant output power modes. Models support SMF, MMF and PMF.

Optical Power Meters
Fast terminating or inline monitoring of optical signal power from -60 to +10 dBm across 750 – 1700 nm wavelengths. Model with logarithmic analog output for applications such as silicon photonics fiber alignment.

Optical Spectrum Analyzer (OSA)
Low cost, fast spectral measurement in a compact module with built-in analysis including SMSR, OSNR and spectral width. Targeted wavelengths for specific applications in O band, C band and L band.

Optical-to-Electrical Converter
High bandwidth, broadband O-to-E converter. Available in a range of configurations; choose from 1 or 2 channels, AC or DC coupling and various conversion gain and operating wavelength ranges.

Bit Error Rate Tester (BERT)
2 or 4-channel Pulse Pattern Generator and Error Detector at rates up to 29 Gbps for the design, characterization and production of optical transceivers and opto-electrical components.

Pulse Pattern Generator (PPG)
4 channel Pulse Pattern Generator from 0.3 to 30 Gbps for high-density multichannel applications. With integrated clock synthesizer and programmable de-emphasis and CTLE processor.

Optical Switch
Proven reliability and fast switching time. Wide variety of switch onfigurations: 1x4, 1x16, 16x16 and more. Models support SMF, MMF and PMF.

Polarization Controller & Scrambler
High-speed automated polarization control with broad wavelength coverage from 1260nm to 1650nm, low insertion loss and back reflection. Full remote control via intuitive GUI, LabVIEW or SCPI.

Photonic Doppler Velocimeter (PDV)
Purpose-built module for Photonic Doppler Velocimetry (PDV). A circulator, two VOAs and a passive coupler all built into one compact module.

Passive Component Integration
Integrate passive optical components of your choice such as WDM couplers, splitters, band-pass filters, PM beamsplitters and circulators. Models support SMF, MMF and PMF.

Passive Component Storage
Protect and store your own passive fiber optic components such as splitters, connector adaptor patchcords, WDM couplers, and isolators in one handy module.

Test. Measure. Solve.™

Quantifi Photonics is transforming the world of photonics test and measurement. Our portfolio of optical and electrical test instruments is rapidly expanding to meet the needs of engineers and scientists around the globe. From enabling ground-breaking experiments to driving highly efficient production testing, you'll find us working with customers to solve complex problems with experience and innovation.

To find out more, get in touch with us today.

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