

matrIQ-Power-1401

# matrIQ-Power™ 1400 Series Optical Power Meter

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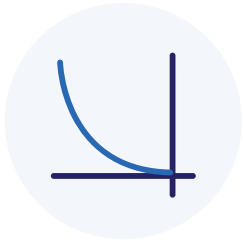
## SPEC SHEET

Coherent Solutions' matrIQ-Power 1400 Series optical power meter provides fast monitoring of signal power from -60 to +10 dBm and broad wavelength range of 750 to 1700 nm. With a logarithmic amplifier, it avoids gain-jumps faced by multi-stage linear amplifier power meters.

Its stackable, space-saving design and intuitive software controls make it a perfect choice for the optical lab or test bench.

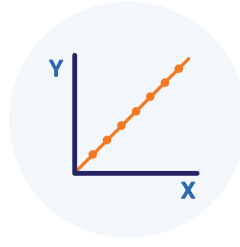
  
coherent  
solutions  
complexity made simple.

# Features



## Single logarithmic amplifier

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



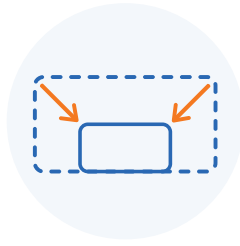
## Excellent measurement correlation with our optical PXI modules

Shared product architecture lets you validate your system and test requirements in the lab with matrIQ-Power, and scale up to high-volume automated production testing with the PowerPXIe module.



## Simple, intuitive operation with cohesionUI

cohesionUI makes it simple to control PowerPXIe from your PC or mobile device. Plus, large format view mode makes it easy to monitor your instrument even when working away from your desk.



## Compact and flexible form factor

Housed in a compact and robust metallic case, its small footprint helps you utilize your bench space.

# cohesionUI™

cohesionUI graphical user interface makes it simple to control PXIe instruments from your PC or mobile device. Its cutting edge design offers a sleek modern interface, cross device compatibility, customizable views and remote network access.

MATRIQ-POWER | SLOT 14
1401-4-FC CSL-184412 HW0.01FW0.10

CHANNEL 1	
POWER	-97.97 dBm
POWER OFFSET	1.00 dBm <span>⊖</span> <span>⊕</span>
AVERAGING TIME	1.000 s <span>⊖</span> <span>⊕</span>
WAVELENGTH	1547.000 nm <span>⊖</span> <span>⊕</span>

CHANNEL 2	
POWER	-82.74 dBm
POWER OFFSET	0.00 dBm <span>⊖</span> <span>⊕</span>
AVERAGING TIME	0.100 s <span>⊖</span> <span>⊕</span>
WAVELENGTH	1550.000 nm <span>⊖</span> <span>⊕</span>

CHANNEL 3	
POWER	-82.70 dBm
POWER OFFSET	0.00 dBm <span>⊖</span> <span>⊕</span>
AVERAGING TIME	0.100 s <span>⊖</span> <span>⊕</span>
WAVELENGTH	1550.000 nm <span>⊖</span> <span>⊕</span>

CHANNEL 4	
POWER	-88.83 dBm
POWER OFFSET	0.00 dBm <span>⊖</span> <span>⊕</span>
AVERAGING TIME	0.100 s <span>⊖</span> <span>⊕</span>
WAVELENGTH	1550.000 nm <span>⊖</span> <span>⊕</span>

matrIQ-Power 1401 4-channel power measurement control in cohesionUI

# Technical Specifications - Preliminary

General Specifications	matrIQ-Power
Bus connection	USB and Ethernet
Dimensions (H x W x D)	45 x 114 x 212 mm   1.7 x 4.5 x 8.3 inch
Weight	~ 1.1 kg   ~ 2.4 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	1401
Optical connector type	FC or SC
Number of channels	2 or 4
Wavelength range	750 nm to 1700 nm
Power	-60 dBm to +10 dBm
Sensor	InGaAs
Uncertainty <sup>2,3,5</sup>	± 0.29 dB (Typical)   ± 0.50 dB (Max)
Linearity <sup>2,5</sup>	± 0.1 dB, -40 to 0 dBm; ± 0.2 dB, -50 to -40 dBm
Return loss <sup>6</sup>	> 45 dB
Average time of monitor power meter	100 µs to 10 s
Data logging capability	Up to 1024 samples per channel on channel 1 and 2 only
Damage level	+12 dBm

## PRELIMINARY SPECS AS OF JULY 2019

### Notes:

1 Specifications are valid at 23 °C ± 3 °C.

2 +10 dBm to -40 dBm, 23 °C.

3 Excluding connectors.

4 < 10 dB attenuation.

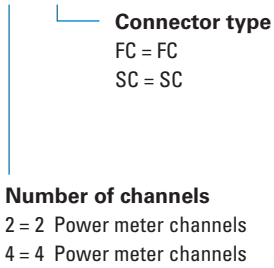
5 At calibration wavelengths.

6 Wavelength 1550 nm ± 30 nm, standard single-mode fiber, angled connector 8°, T=23 °C ± 5 °C.



# Ordering Information

PowerMatrIQ - 1401 - X - XX



## Product Warranty

This product comes with a 3 year warranty.

## About Coherent Solutions

Coherent Solutions is a world-leader in photonics test and measurement. Our portfolio of benchtop and modular test instruments is rapidly expanding to meet the needs of scientists, engineers and manufacturers around the world. No matter where you are, we'll work with you to solve complex problems with simple, intuitive solutions.

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

### Coherent Solutions Ltd

General enquiries: [sales@coherent-solutions.com](mailto:sales@coherent-solutions.com)

Technical support: [support@coherent-solutions.com](mailto:support@coherent-solutions.com)


Telephone: +64 9 478 4849

North America: +1-800-803-8872

**[www.coherent-solutions.com](http://www.coherent-solutions.com)**

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