

UP16K-100W-QED-D0

Thermal detector for laser power measurement up to 100 W.



PRODUCT FAMILY KEY FEATURES

MODULAR CONCEPT

Increase the power capability of your detector: 4 different cooling modules

HIGH PEAK POWER DIFFUSING ABSORBER

Perfect for pulsed beams with high energy density

COMPACT DESIGN

36 mm thick

HIGH AVERAGE POWER

Measure up to 100 W of continuous power

SMART INTERFACE

Containing all the calibration data

AWARD-WINNING TECHNOLOGY

The UP-QED laser power detectors for extremely high density lasers were recognized among the most innovative photonics technologies for the 2021 Laser Focus World Innovators Awards, as a Gold honoree.



COMPATIBLE STAND

STAND-S-233

SPECIFICATIONS

MEASUREMENT CAPABILITIES

0 W
0 W
mW
μm
2.5 s
2.5 %
).5 %
5 2

- 1. Minimum cooling flow 0.5 liters/min, water temperature \leq 22°C, 1/8 NPT compression fittings for 1/4 inch semi-rigid tube. Contact Gentec-EO for clean deionized water cooling module option.
- 22°C, 1/8 NPT compression fittings for 1/4 inch semi-rigid tube. Contact Gentec-EO for clean deionized water cooling module option.
- Nominal value, actual value depends on electrical noise in the measurement system.
- 4. For the calibrated spectral range, see the user manual.
- 5. With anticipation.
- 6. Including linearity with power.

MEASUREMENT CAPABILITIES (ENERGY MODE)

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Maximum measurable energy ¹	500 J
Noise equivalent energy ²	0.06 J
Minimum repetition period	4 s
Maximum pulse width	61 ms
Energy calibration uncertainty ³	±5 %

1. For 360 µs pulses. Higher pulse energy possible for long pulses (ms), less for short pulses (ns).

- $2.\ Nominal\ value, actual\ value\ depends\ on\ electrical\ noise\ in\ the\ measurement\ system.$
- 3. When single-shot energy calibration is purchased

DAMAGE THRESHOLDS

DAMAGE TIRESHOLDS	
Maximum average power density ¹	100 kW/cm²
Maximum energy density ²	8 J/cm²
1. At 1064 nm, 10 W CW. May vary with wavelength and average power. 2. At 1064 nm, 7 ns, 10 Hz. May vary with wavelength and pulse width.	
PHYSICAL CHARACTERISTICS	
Cooling	Water
Aperture diameter	16 mm
Absorber	QED
Dimensions	50H x 50W x 38D mm
Weight	0.24 kg
ORDERING INFORMATION	
UP16K-100W-QED-D0	203879
UP16K-100W-QED-BLU-D0	TBD
UP16K-100W-QED-IDR-D0	205201
UP16K-100W-QED-INT-D0	205194

Specifications are subject to change without notice. Refer to the user manual for complete specifications.

INTERESTED IN THIS PRODUCT?



Find your local sales representative at gentec-eo.com/contact-us