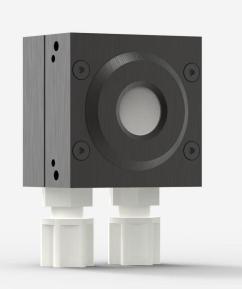




UP16K-100W-QED-D0

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

Maximum average power (continuous) ¹	100 W
Maximum average power (1 minute) ²	100 W
Noise equivalent power ³	4 mW
Spectral range ⁴	0.266 - 2.5 μm
Typical rise time ⁵	2.5 s
Power calibration uncertainty ⁶	±2.5 %
Repeatability	±0.5 %

- 1. Minimum cooling flow 0.5 liters/min, water temperature ≤ 22°C, 1/8 NPT compression fittings for 1/4 inch semi-rigid tube. Contact Gentec-EO for clean deionized water cooling module
- 2. Minimum cooling flow 0.5 liters/min, water temperature ≤ 22°C, 1/8 NPT compression fittings for 1/4 inch semi-rigid tube. Contact Gentec-EO for clean deionized water cooling module option.
- 3. 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)

Maximum measurable energy ^l	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).





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TBD

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

DAMAGE THRESHOLDS

UP16K-100W-QED-D0

UP16K-100W-QED-BLU-D0

UP16K-100W-QED-IDR-D0

UP16K-100W-QED-INT-D0

Maximum average power density ¹	100 kW/cm ²
Maximum energy density ²	8 J/cm ²
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	

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

INTERESTED IN THIS PRODUCT?

GET A QUOTE

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