

## UP16K-30H-QED-D0

Thermal detector for laser power measurement up to 30 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

59.3 mm thick

#### HIGH AVERAGE POWER

Measure up to 30 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)	30 W
Maximum average power (1 minute)	35 W
Noise equivalent power <sup>1</sup>	4 mW
Spectral range <sup>2</sup>	0.266 - 2.5 $\mu$ m
Typical rise time <sup>3</sup>	2.5 s
Power calibration uncertainty <sup>4</sup>	$\pm$ 2.5 %
Repeatability	$\pm$ 0.5 %

1. Nominal value, actual value depends on electrical noise in the measurement system.
2. For the calibrated spectral range, see the user manual.
3. With anticipation.
4. Including linearity with power.

### MEASUREMENT CAPABILITIES (ENERGY MODE)

Maximum measurable energy <sup>1</sup>	500 J
Noise equivalent energy <sup>2</sup>	0.06 J
Minimum repetition period	4 s
Maximum pulse width	61 ms
Energy calibration uncertainty <sup>3</sup>	$\pm$ 5 %

1. For 360  $\mu$ s 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

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

1. At 1064 nm, 10 W CW. May vary with wavelength and average power.
2. At 1064 nm, 7 ns, 10 Hz. Damage thresholds vary with pulse width. Use our Product Finder or contact Gentec-EO to know about damage thresholds for different pulse widths.

## PHYSICAL CHARACTERISTICS

Cooling	Convection (heatsink)
Aperture diameter	16 mm
Absorber	QED
Dimensions	50H x 50W x 59.2D mm
Weight	0.21 kg

## ORDERING INFORMATION

UP16K-30H-QED-D0	203877
UP16K-30H-QED-INT-D0	205193
UP16K-30H-QED-IDR-D0	205200
UP16K-30H-QED-BLU-D0	TBD

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](http://gentec-eo.com/contact-us)