

## UP52N-100H-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

106 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-443](#)

## SPECIFICATIONS

### MEASUREMENT CAPABILITIES

Maximum average power (continuous)	100 W
Maximum average power (1 minute)	100 W
Noise equivalent power <sup>1</sup>	15 mW
Spectral range <sup>2</sup>	0.266 - 2.5 $\mu\text{m}$
Typical rise time <sup>3</sup>	4 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>	1000 J
Noise equivalent energy <sup>2</sup>	0.25 J
Minimum repetition period	9 s
Maximum pulse width	371 ms
Energy calibration uncertainty <sup>3</sup>	$\pm 5\%$

1. For 360  $\mu\text{s}$  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. May vary with wavelength and pulse width.

## PHYSICAL CHARACTERISTICS

Cooling	Convection (heatsink)
Aperture diameter	52 mm
Absorber	QED
Dimensions	89H x 89W x 106D mm
Weight	0.93 kg

## ORDERING INFORMATION

UP52N-100H-QED-D0	203881
UP52N-100H-QED-BLU-D0	TBD
UP52N-100H-QED-IDR-D0	205203
UP52N-100H-QED-INT-D0	205196

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)