



## UP52N-150F-QED-D0

Thermal detector for laser power measurement up to 150 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

116 mm thick

#### HIGH AVERAGE POWER

Measure up to 150 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)	150 W
Maximum average power (1 minute)	150 W
Noise equivalent power <sup>1</sup>	15 mW
Spectral range <sup>2</sup>	0.266 - 2.5 μm
Typical rise time <sup>3</sup>	4 s
Power calibration uncertainty <sup>4</sup>	±2.5 %
Repeatability	±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>	±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



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>
<div>1. At 1064 nm, 10 W CW. May vary with wavelength and average power.</div> <div>2. At 1064 nm, 7 ns, 10 Hz. May vary with wavelength and pulse width.</div>	
PHYSICAL CHARACTERISTICS	
Cooling	Fan
Aperture diameter	52 mm
Absorber	QED
Dimensions	92H x 92W x 117D mm
Weight	1.41 kg
ORDERING INFORMATION	
UP52N-150F-QED-D0	203882
UP52N-150F-QED-BLU-D0	TBD
UP52N-150F-QED-IDR-D0	205204
UP52N-150F-QED-INT-D0	205197

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)