

# UP52N-50S-QED-D0

Thermal detector for laser power measurement up to 50 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

32 mm thick

#### HIGH AVERAGE POWER

Measure up to 50 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)	50 W
Maximum average power (1 minute)	50 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 Ј
Noise equivalent energy $^2$	0.25 J
Minimum repetition period	9 s
Maximum pulse width	371 ms

- 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
- 5 65 .

# DAMAGE THRESHOLDS

Energy calibration uncertainty<sup>3</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
Aperture diameter	52 mm
Absorber	QED
Dimensions	89H x 89W x 32D mm
Weight	0.62 kg
ORDERING INFORMATION	
UP52N-50S-QED-D0	203880
UP52N-50S-QED-IDR-D0	205202
UP52N-50S-QED-INT-D0	205195
UP52N-50S-QED-BLU-D0	TBD

Maximum average power density<sup>1</sup>

100 kW/cm<sup>2</sup>

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