gentec-eo
PARTNERS for ACCURACY

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[1]	15 mW
Spectral range[2]	0.266 - 2.5 µm
Typical rise time[3]	4 s
Power calibration uncertainty[4]	±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[1]	1000 J
Noise equivalent energy[2]	0.25 J
Minimum repetition period	9 s
Maximum pulse width	371 ms
Energy calibration uncertainty[3]	±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[1]	100 kW/cm²
Maximum energy density[2]	8 J/cm²

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

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