gentec-e PARTNERS for ACCURACY

LASER COMPONENTS®

UP55-HD

55 mm Ø, 45 mW - 2500 W

KEY FEATURES

- **HIGH DENSITY ABSORBER**
  The HD absorber is the strongest on the market for use at high powers, presenting both high average power handling and high power density capabilities
- **UP55G-600F-HD - NO NEED FOR WATER COOLING**
  Unique on the market, measure 600 W of continuous power WITHOUT THE NEED FOR WATER COOLING. Just plug the fan and you are ready to go!
- **UP55M-700W-HD - FAST AND COMPACT**
  A very compact detector that measures up to 700 W of continuous power.
- **UP55C-2.5KW-HD - PERFORMANCE AND SPEED AT A LOW PRICE**
  Measures both very low and very high powers (up to 2500W) with a fast response time. A compact and versatile detector that is more affordable than any other high power solution on the market.

OUTPUT OPTIONS

- **SMART DB15 CONNECTOR**
  Contains all the calibration data
- **integra ALL-IN-ONE-METER**
  Connects directly to a PC
  Two models available:
  - USB output (-INT)
  - RS-232 output (-IDR)
- **BLU WIRELESS METER**
  Connects via Bluetooth® to a smartphone, tablet or PC

COMPATIBLE DISPLAYS & PC INTERFACES


MIRO ALTITUDE


MAESTRO


TUNER


UNO


U-LINK and P-LINK


S-LINK and M-LINK

ACCESSORIES


Stand with steel post


Extension cables (4, 15, 20 or 25 m)


Fiber adaptors and connectors (FC, SC or SMA)


3-Port fiber cylinder with adaptors and plug


12V power supply


Pelican carrying case

Germany and Other Countries
Laser Components Germany GmbH
Tel: +49 8142 2864–0
Fax: +49 8142 2864–11
info@lasercomponents.com
www.lasercomponents.com

France
Laser Components S.A.S.
Tel: +33 1 39 59 52 25
Fax: +33 1 39 59 53 50
info@lasercomponents.fr
www.lasercomponents.fr

Nordic Countries
Laser Components Nordic AB
Tel: +46 31 703 71 73
Fax: +46 31 703 71 01
info@lasercomponents.se
www.lasercomponents.se

LASER COMPONENTS®

UP55-HD
Specifications

CE NIST* Traceable

*Also traceable to NRC-CNRC



	UP55G-600F-HD-D0	UP55M-700W-HD-D0	UP55C-2.5KW-HD-D0
MAX AVERAGE POWER (CONTINUOUS / 1 MINUTE)	600 W / 600 W	700 W [f] / 700 W [f]	2500 W [f] / 2500 W [f]
EFFECTIVE APERTURE	55 mm Ø	55 mm Ø	55 mm Ø
COOLING METHOD	Fan-cooled	Water-cooled	Water-cooled
MEASUREMENT CAPABILITY			
Spectral range	0.19 - 20 µm	0.19 - 20 µm	0.19 - 20 µm
Calibrated spectral range [a]	0.248 - 2.1 µm	0.248 - 2.1 µm	0.248 - 2.1 µm
Noise equivalent power [b]	45 mW	45 mW	200 mW
Rise time (nominal) [c]	2.8 s	2.8 s	3.5 s
Calibration uncertainty [d]	± 2.5%	± 2.5%	± 2.5%
Repeatability	±0.5%	±0.5%	±0.5%
Energy mode			
Maximum measurable energy [d]	200 J	200 J	---
Noise equivalent energy [b]	0.25 J	0.25 J	---
Minimum repetition period	12 s	12 s	---
Maximum pulse width	430 ms	430 ms	---
Accuracy with energy calibration option	± 5%	± 5%	---
DAMAGE THRESHOLDS			
Maximum average power density			
1064 nm, 10 W, CW	45 kW/cm²	45 kW/cm²	45 kW/cm²
1064 nm, 500 W, CW	8 kW/cm²	8 kW/cm²	9 kW/cm²
1064 nm, 2500 W, CW	---	---	6 kW/cm²
10.6 µm, 500 W, CW	---	---	4.5 kW/cm²
10.6 µm, 1500 W, CW	---	---	3.5 kW/cm²
10.6 µm, 2500 W, CW	---	---	3.0 kW/cm²
Maximum energy density			
1064 nm, 360 µs, 5 Hz	9 J/cm²	9 J/cm²	9 J/cm²
1064 nm, 7 ns, 10 Hz	1 J/cm²	1 J/cm²	1 J/cm²
532 nm, 7 ns, 10 Hz	0.6 J/cm²	0.6 J/cm²	0.6 J/cm²
266 nm, 7 ns, 10 Hz	0.3 J/cm²	0.3 J/cm²	0.3 J/cm²
PHYSICAL CHARACTERISTICS			
Effective aperture	55 mm Ø	55 mm Ø	55 mm Ø
Absorber (high damage threshold)	HD	HD	HD
Dimensions	120H x 120W x 135D mm	89H x 89W x 40D mm	116H x 116W x 37D mm
Weight (head only)	2.75 kg	0.90 kg	3.3 kg
ORDERING INFORMATION			
Available output options	DB15, USB, RS-232 or Bluetooth	DB15, USB, RS-232 or Bluetooth	DB15, USB, RS-232 or Bluetooth
Compatible stand	STAND-S-443-C	STAND-S-443-C	STAND-S-443-C
Product page			

a. Calibrations at 2.1 to 2.5 µm and 10.6 µm are available on special request.
b. Nominal value, actual value depends on electrical noise in the measurement system.
c. With anticipation.
d. Including linearity with power.
e. For 360 µs pulses. Higher pulse energy possible for long pulses (ms), less for short pulses (ns).
f. Minimum cooling flow 1.5 l/m (UP55M-700W-HD) or 3 l/m (UP55C-2.5KW-HD), water temperature ≤22°C, 1/8 NPT compression fittings for 1/4 inch semi-rigid tube. Contact Gentec-EO for clean deionized water cooling module option.

Specifications are subject to change without notice

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France
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Tel: +33 1 39 59 52 25
Fax: +33 1 39 59 53 50
info@lasercomponents.fr
www.lasercomponents.fr

Nordic Countries
Laser Components Nordic AB
Tel: +46 31 703 71 73
Fax: +46 31 703 71 01
info@lasercomponents.se
www.lasercomponents.se