Phone:0755-84870203,sales@highlightoptics.com,
www.highlightoptics.com

UP55-HD

55 mm Ø, 45 mW - 2 500 W

KEY FEATURES

1. **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

2. **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!

3. **UP55M-700W-HD - FAST AND COMPACT**
   A very compact detector that measures up to 700 W of continuous power.

4. **UP55C-2.5KW-HD - PERFORMANCE AND SPEED AT A LOW PRICE**
   Measures both very low and very high powers (up to 2 500W) with a fast response time. A compact and versatile detector that is more affordable than any other high power solution on the market.

5. **integra OPTIONS**
   - Standard: USB Output (-INT)
   - In Option: RS-232 Output (-IDR)

AVAILABLE MODELS


UP55G-600F-HD
(600W-Fan-Cooled)


UP55M-700W-HD
(700W-Water-Cooled)


UP55C-2.5KW-HD
(2500W-Water-Cooled)

ACCESSORIES


Stand with Steel Post
(Model Number: 201102)


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
(Model Number: 202199)


Pelican Carrying Case

SEE ALSO

UP55-HD

CE NIST* Traceable WEEE/RoHS COMPLIANT

*Also traceable to NRC-CNRC

SPECIFICATIONS

	UP55G-600F-HD	UP55M-700W-HD	UP55C-2.5KW-HD
MAX AVERAGE POWER (CONTINUOUS / 1 MINUTE)	600 W / 600 W	700 W [f] / 700 W [f]	2 500 W / 2 500 W
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
Noise Equivalent Power [a]	45 mW	45 mW	200 mW
Rise Time (nominal) [b]	2.8 sec	2 sec	3.5 sec
Sensitivity (typ into 100 kΩ load) [c]	0.03 mV/W	0.03 mV/W	8 µV/W
Calibration Uncertainty [d]	±2.5 %	±2.5 %	±2.5 %
Repeatability	±0.5 %	±0.5 %	±0.5 %
Energy Mode			
Sensitivity	0.008 mV/J	0.008 mV/J	---
Maximum Measurable Energy [e]	200 J	200 J	---
Noise Equivalent Energy [a]	0.25 J	0.25 J	---
Minimum Repetition Period	12 sec	12 sec	---
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, 2 500 W, CW	---	---	6 kW/cm²
10.6 µm, 500 W, CW	---	---	4.5 kW/cm²
10.6 µm, 1 500 W, CW	---	---	3.5 kW/cm²
10.6 µm, 2 500 W, CW	---	---	3.0 kW/cm²
Pulsed Laser Damage Thresholds	Max Energy Density		Peak Power Density
1064 nm, 360 µs, 5 Hz	9 J/cm²		25 kW/cm²
1064 nm, 7 ns, 10 Hz	1 J/cm²		143 MW/cm²
532 nm, 7 ns, 10 Hz	0.6 J/cm²		86 MW/cm²
266 nm, 7 ns, 10 Hz	0.3 J/cm²		43 MW/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 48D mm
Weight (head only)	2.75 kg	0.90 kg	1.95 kg
ORDERING INFORMATION			
Product Name	UP55G-600F-HD-D0	UP55M-700W-HD-D0	UP55C-2.5KW-HD-D0
Product Number (without stand)	201878	201908	202174
Add Extension for INTEGRA (USB)	-INT / 203197	-INT / 203199	-INT / 203195
Add Extension for BLU	-BLU / 203721	-BLU / 203724	

Specifications are subject to change without notice // Compatible stand: P/N 201102

* *For the calibrated spectral range, see the user manual.*

a. Nominal value, actual value depends on electrical noise in the measurement system.
b. With anticipation.
c. Maximum output voltage = sensitivity x maximum power.
d. Including linearity with power.
e. For 360 µs pulses. Higher pulse energy possible when customized for long pulses (ms), less for short pulses (ns).
f. Minimum cooling flow 3 liters/min, 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.