THZ DETECTORS

integra See page 36 for details

UP55-HD

55 mm Ø, 45 mW - 2 500 W

600 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)



3-Port Fiber Cylinder with Adaptors and Plug



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



12V Power Supply (Model Number: 202199)



Fiber Adaptors and Connectors (FC, SC or SMA)



Pelican Carrying Case

SEE ALSO

HOW IT WORKS	202
CALIBRATION	6
TECHNICAL DRAWINGS	116
COMPATIBLE DISPLAYS & PC INTERFACES	
MAESTR0	18
TUNER	22
UNO	24
S-LINK	26
P-LINK	28
M-LINK	32
LIST OF ALL ACCESSORIES	206

UP55-HD



SPECIFICATIONS

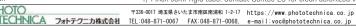
	UP55G-600F-HD	UP55M-700W-HD	UP55C-2.5KW-HD
MAX AVERAGE POWER (CONTINUOUS / 1 MINUTE)	600 W / 600 W	700 W ^f / 700 W ^f	2 500 W / 2 500 W
EFFECTIVE APERTURE	55 mm Ø	55 mm Ø	55 mm Ø
COOLING METHOD	Fan-Cooled	Water-Cooled	Water-Cooled
MEASUREMENT CAPABILITY			
Spectral Range *	0.19 – 20 μm	0.19 — 20 μm	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/cm ²	45 kW/cm ²	45 kW/cm ²
1064 nm, 500 W, CW	8 kW/cm ²	8 kW/cm ²	9 kW/cm ²
1064 nm, 2 500 W, CW			6 kW/cm ²
10.6 μm, 500 W, CW			4.5 kW/cm ²
10.6 μm, 1 500 W, CW			3.5 kW/cm ²
10.6 µm, 2 500 W, CW			3.0 kW/cm ²
Maximum Energy Density			
1064 nm, 360 μs, 5 Hz	9 J/cm ²	9 J/cm ²	9 J/cm ²
1064 nm, 7 ns, 10 Hz	1 J/cm ²	1 J/cm ²	1 J/cm ²
532 nm, 7 ns, 10 Hz	0.6 J/cm ²	0.6 J/cm ²	0.6 J/cm ²
266 nm, 7 ns, 10 Hz	0.3 J/cm ²	0.3 J/cm ²	0.3 J/cm ²
PHYSICAL CHARACTERISTICS	0.0 0/ 0111	0.0 0, 6111	0.0 0/0111
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	LIDEEC COOF LID DO	LIDEEM 700M LID DO	LIDEEC OF EVALUE DO
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	♦ NEW -BLU

For the calibrated spectral range, see the user manual.

a. Including immeanty with power.

E. For 360 µs pulses. Higher pulse energy possible for long pulses (ms), less for short pulses (ns).

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.





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.