

# UP50-W


50 mm Ø, 5 mW - 85 W, 100 kW/cm<sup>2</sup>



## KEY FEATURES

- > **MODULAR CONCEPT**  
Increase the power capability of your detector:  
3 different cooling modules
- > **VERY HIGH DAMAGE THRESHOLD**  
100 kW/cm<sup>2</sup> in average power density
- > **VERY LARGE APERTURE**  
50 mm Ø effective aperture, perfect for large beams
- > **HIGHEST ENERGY READINGS IN THE SERIES**  
Measure single shot energy up to 500 J

## 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

# UP50-W

## Specifications

CE NIST\*  
Traceable   
\*Also traceable to NRC-CNRC



	UP50N-40S-W9-D0	UP50N-50H-W9-D0	UP50N-50F-W9-D0
<b>MAX AVERAGE POWER (CONTINUOUS / 1 MINUTE)</b>	40 W / 80 W	50 W / 85 W	50 W / 85 W
<b>EFFECTIVE APERTURE</b>	50 mm $\phi$	50 mm $\phi$	50 mm $\phi$
<b>COOLING METHOD</b>	Convection	Heatsink	Fan-cooled
<b>MEASUREMENT CAPABILITY</b>			
<b>Spectral range</b>	0.19 - 10.0 $\mu\text{m}$	0.19 - 10.0 $\mu\text{m}$	0.19 - 10.0 $\mu\text{m}$
<b>Calibrated spectral range <sup>a</sup></b>	0.248 - 2.1 $\mu\text{m}$	0.248 - 2.1 $\mu\text{m}$	0.248 - 2.1 $\mu\text{m}$
<b>Noise equivalent power <sup>b</sup></b>	5 mW	5 mW	5 mW
<b>Rise time (nominal) <sup>c</sup></b>	3.5 s	3.5 s	3.5 s
<b>Calibration uncertainty <sup>d</sup></b>	$\pm 2.5\%$	$\pm 2.5\%$	$\pm 2.5\%$
<b>Repeatability</b>	$\pm 0.5\%$	$\pm 0.5\%$	$\pm 0.5\%$
<b>Energy mode</b>			
<b>Maximum measurable energy <sup>e</sup></b>	500 J	500 J	500 J
<b>Noise equivalent energy <sup>b</sup></b>	0.25 J	0.25 J	0.25 J
<b>Minimum repetition period</b>	11.1 s	11.1 s	11.1 s
<b>Maximum pulse width</b>	467 ms	467 ms	467 ms
<b>Accuracy with energy calibration option</b>	$\pm 5\%$	$\pm 5\%$	$\pm 5\%$
<b>DAMAGE THRESHOLDS</b>			
<b>Maximum average power density <sup>f</sup></b>	100 kW/cm <sup>2</sup>	100 kW/cm <sup>2</sup>	100 kW/cm <sup>2</sup>
<b>Maximum energy density</b>			
<b>1064 nm, 150 <math>\mu\text{s}</math>, 5 Hz</b>	100 J/cm <sup>2</sup>	100 J/cm <sup>2</sup>	100 J/cm <sup>2</sup>
<b>1064 nm, 7 ns, 10 Hz</b>	1.1 J/cm <sup>2</sup>	1.1 J/cm <sup>2</sup>	1.1 J/cm <sup>2</sup>
<b>532 nm, 7 ns, 10 Hz</b>	1.1 J/cm <sup>2</sup>	1.1 J/cm <sup>2</sup>	1.1 J/cm <sup>2</sup>
<b>248 nm, 26 ns, 10 Hz</b>	0.7 J/cm <sup>2</sup>	0.7 J/cm <sup>2</sup>	0.7 J/cm <sup>2</sup>
<b>PHYSICAL CHARACTERISTICS</b>			
<b>Effective aperture</b>	50 mm $\phi$	50 mm $\phi$	50 mm $\phi$
<b>Absorber (high damage threshold)</b>	W9	W9	W9
<b>Dimensions</b>	89H x 89W x 32D mm	89H x 89W x 106D mm	89H x 89W x 116D mm
<b>Weight (head only)</b>	0.62 g	0.93 g	1.38 g
<b>ORDERING INFORMATION</b>			
<b>Available output options</b>	DB15, USB, RS-232 or Bluetooth	DB15, USB, RS-232 or Bluetooth	DB15, USB, RS-232 or Bluetooth
<b>Compatible stand</b>	STAND-S-443	STAND-S-443	STAND-S-443
<b>Product page</b>			

- a. Calibration at 2.1 to 2.5  $\mu\text{m}$  is 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  $\mu\text{s}$  pulses. Higher pulse energy possible for long pulses (ms), less for short pulses (ns).  
 f. At 1064 nm, 10 W CW.

Specifications are subject to change without notice