

# UP16-QED


16 mm Ø, 4 mW - 100 W, volume absorber



## KEY FEATURES

- > **MODULAR CONCEPT**  
Increase the power capability of your detector:  
3 different cooling modules
- > **HIGH PEAK POWER VOLUME ABSORBER**  
Perfect for pulsed beams with high energy density
- > **COMPACT DESIGN**  
Only 24 mm thick (15S model)
- > **ENERGY MODE**  
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)






Pelican carrying case

# UPI6-QED

## Specifications

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



	UPI6K-15S-QED-D0	UPI6K-30H-QED-D0	UPI6K-100W-QED-D0
<b>MAX AVERAGE POWER (CONTINUOUS/1 MINUTE)</b>	15 W / 20 W	30 W / 35 W	100 W / 100 W
<b>EFFECTIVE APERTURE</b>	16 mm $\phi$	16 mm $\phi$	16 mm $\phi$
<b>COOLING METHOD</b>	Convection	Heatsink	Water-cooled
<b>MEASUREMENT CAPABILITY</b>			
<b>Spectral range</b>	0.266 - 2.5 $\mu\text{m}$	0.266 - 2.5 $\mu\text{m}$	0.266 - 2.5 $\mu\text{m}$
<b>Calibrated spectral range <sup>a</sup></b>	0.532 - 2.1 $\mu\text{m}$	0.532 - 2.1 $\mu\text{m}$	0.532 - 2.1 $\mu\text{m}$
<b>Noise equivalent power <sup>b</sup></b>	4 mW	4 mW	4 mW
<b>Rise time (nominal) <sup>c</sup></b>	2.5 s	2.5 s	2.5 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	500J	500 J
<b>Noise equivalent energy <sup>b</sup></b>	60 mJ	60 mJ	60 mJ
<b>Minimum repetition period</b>	4 s	4 s	4 s
<b>Maximum pulse width</b>	61 ms	61 ms	61 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, 360 <math>\mu\text{s}</math>, 5 Hz</b>	300 J/cm <sup>2</sup>	300 J/cm <sup>2</sup>	300 J/cm <sup>2</sup>
<b>1064 nm, 7 ns, 10 Hz</b>	8 J/cm <sup>2</sup>	8 J/cm <sup>2</sup>	8 J/cm <sup>2</sup>
<b>532 nm, 7 ns, 10 Hz</b>	6 J/cm <sup>2</sup>	6 J/cm <sup>2</sup>	6 J/cm <sup>2</sup>
<b>266 nm, 7 ns, 10 Hz</b>	1 J/cm <sup>2</sup>	1 J/cm <sup>2</sup>	1 J/cm <sup>2</sup>
<b>PHYSICAL CHARACTERISTICS</b>			
<b>Effective aperture</b>	16 mm $\phi$	16 mm $\phi$	16 mm $\phi$
<b>Absorber (volume absorber)</b>	QED	QED	QED
<b>Dimensions</b>	50H x 50W x 23.6D mm	50H x 50W x 59D mm	50H x 50W x 38D
<b>Weight (head only)</b>	0.16 kg	0.21 kg	0.24 kg
<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-233	STAND-S-233	STAND-S-233
<b>Product page</b>			

- a. Calibration at 21 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