

# QE50-MB

50 x 50 mm, 10  $\mu$ J - 85 J



## KEY FEATURES

- > **MODULAR CONCEPT**  
Increase the power capability of your detector:  
2 different cooling modules
- > **LOW NOISE LEVEL**
- > **QED ATTENUATOR AVAILABLE**
  - Measure up to 5X higher energies
  - Available with optional calibration,  
all wavelengths between 532 & 1064 nm,  
or single wavelength
- > **TEST TARGET INCLUDED**

## OUTPUT OPTIONS

- > **SMART INTERFACE**  
Containing all the calibration data
- > **integra ALL-IN-ONE-METER**  
Connects directly to a PC  
Three models available:
  - USB output (-INT)
  - RS-232 output (-IDR)
  - USB with external trigger (-INE)

## COMPATIBLE DISPLAYS & PC INTERFACES



MIRO ALTITUDE



MAESTRO



U-LINK



M-LINK



S-LINK

## ACCESSORIES



Stand with delrin post



DB15 to BNC adaptor



QED-50 attenuator







Pelican carrying case

# QE50-MB

## Specifications



	QE50LP-S-MB	QE50LP-S-MB-QED	QE50LP-H-MB	QE50LP-H-MB-QED
<b>MAX MEASURABLE ENERGY <sup>a</sup></b>	15 J	85 J	15 J	85 J
<b>MAX REPETITION FREQUENCY</b>	200 Hz	200 Hz	200 Hz	200 Hz
<b>EFFECTIVE APERTURE</b>	50 x 50 mm	47 x 47 mm	50 x 50 mm	47 x 47 mm
<b>MEASUREMENT CAPABILITY</b>				
<b>Spectral range</b>	0.19 - 20 $\mu\text{m}$	0.3 - 2.1 $\mu\text{m}$	0.19 - 20 $\mu\text{m}$	0.3 - 2.1 $\mu\text{m}$
<b>Calibrated spectral range <sup>b</sup></b>	0.248 - 2.1 $\mu\text{m}$	0.308 - 2.1 $\mu\text{m}$	0.248 - 2.1 $\mu\text{m}$	0.308 - 2.1 $\mu\text{m}$
<b>Maximum measurable energy <sup>a</sup></b>				
1064 nm, 7 ns, 10 Hz	15 J	85 J	15 J	85 J
266 nm, 7 ns, 10 Hz	12.5 J	22 J	12.5 J	22 J
<b>Noise equivalent energy <sup>c</sup></b>	10 $\mu\text{J}$	20 $\mu\text{J}$	10 $\mu\text{J}$	20 $\mu\text{J}$
<b>Max repetition frequency</b>	200 Hz	200 Hz	200 Hz	200 Hz
<b>Maximum pulse width (typical) <sup>d</sup></b>	675 $\mu\text{s}$	675 $\mu\text{s}$	675 $\mu\text{s}$	675 $\mu\text{s}$
<b>Rise time (typical 0-100%)</b>	900 $\mu\text{s}$	900 $\mu\text{s}$	900 $\mu\text{s}$	900 $\mu\text{s}$
<b>Calibration uncertainty <sup>e</sup></b>	$\pm 3\%$	$\pm 3\%$	$\pm 3\%$	$\pm 3\%$
<b>Repeatability</b>	< 0.5%	< 0.5%	< 0.5%	< 0.5%
<b>DAMAGE THRESHOLDS</b>				
<b>Maximum average power</b>	10 W	25 W	20 W	45 W
<b>Maximum energy density</b>				
1064 nm, 7 ns, single shot	0.6 J/cm <sup>2</sup>	16 J/cm <sup>2</sup>	0.6 J/cm <sup>2</sup>	16 J/cm <sup>2</sup>
1064 nm, 7 ns, 10 Hz	0.6 J/cm <sup>2</sup>	8 J/cm <sup>2</sup>	0.6 J/cm <sup>2</sup>	8 J/cm <sup>2</sup>
532 nm, 7 ns, 10 Hz	0.6 J/cm <sup>2</sup>	6 J/cm <sup>2</sup>	0.6 J/cm <sup>2</sup>	6 J/cm <sup>2</sup>
266 nm, 7 ns, 10 Hz	0.5 J/cm <sup>2</sup>	1 J/cm <sup>2</sup>	0.5 J/cm <sup>2</sup>	1 J/cm <sup>2</sup>
<b>Maximum average power density <sup>f</sup></b>	10 W/cm <sup>2</sup>	600 W/cm <sup>2</sup>	10 W/cm <sup>2</sup>	600 W/cm <sup>2</sup>
<b>PHYSICAL CHARACTERISTICS</b>				
<b>Effective aperture</b>	50 x 50 mm	47 x 47 mm	50 x 50 mm	47 x 47 mm
<b>Absorber</b>	MB	QED	MB	QED
<b>Dimensions</b>	75H x 75W x 15D mm	75H x 75W x 19D mm	75H x 75W x 44D mm	75H x 75W x 49D mm
<b>Weight</b>	209 g	209 g	338 g	338 g
<b>ORDERING INFORMATION</b>				
<b>Available output options</b>	DB15, USB or RS-232	DB15, USB or RS-232	DB15, USB or RS-232	DB15, USB or RS-232
<b>Compatible stand</b>	STAND-D-233	STAND-D-233	STAND-D-233	STAND-D-233
<b>Product page</b>				

a. Not exceeding maximum average power. Increasing pulse width increases the maximum measurable energy.  
 b. Calibration at 2.1 to 2.5  $\mu\text{m}$  is available on special request.  
 c. Nominal value, actual value depends on electrical noise in the measurement system.  
 d. Also available on special order: ELP (extra-long pulse) version.  
 e. Excludes non-linearities.  
 f. At maximum power.

POWER DETECTORS

ENERGY DETECTORS

BEAM PROFILING

TERAHERTZ DETECTORS

DISPLAYS & PC INTERFACES

CUSTOM / OEM PRODUCTS