

# QE65-MB

65 x 65 mm, 10 µJ - 200 J



## 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

## KEY FEATURES

- > **MODULAR CONCEPT**  
Increase the power capability of your detector:  
2 different cooling modules
- > **LARGE APERTURE**  
Effective aperture of 65 x 65 mm
- > **QED ATTENUATOR AVAILABLE**
  - Measure up to 5X higher energies
  - Available with optional calibration,  
all wavelengths between 532 & 1064 nm,  
or single wavelength
- > **LOW NOISE LEVEL**  
10 µJ for the MB coating
- > **TEST TARGET INCLUDED**  
With the MB models

## ACCESSORIES



Stand with delrin post  
(200428, For -S model)



Stand with delrin post  
(201284, For -H model)



DB15 to BNC adaptor



QED-65 attenuator



Pelican carrying case

# QE65-MB






## Specifications

CE NIST\*  
Traceable

 NIST  
Traceable

\*Also traceable to NRC-CNRC



	QE65LP-S-MB	QE65LP-S-MB-QED	QE65LP-H-MB	QE65LP-H-MB-QED	QE65ELP-H-MB
<b>MAX MEASURABLE ENERGY <sup>a</sup></b>	25 J	200 J	25 J	200 J	50 J
<b>MAX REPETITION FREQUENCY</b>	100 Hz	100 Hz	100 Hz	100 Hz	20 Hz
<b>EFFECTIVE APERTURE</b>	65 x 65 mm	62 x 62 mm	65 x 65 mm	62 x 62 mm	65 x 65 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 $\mu\text{m}$	0.19 - 20 $\mu\text{m}$
<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 $\mu\text{m}$	0.248 - 2.1 $\mu\text{m}$
<b>Maximum measurable energy <sup>a</sup></b>					
1064 nm, 150 $\mu\text{s}$ pulse, single shot	25 J	200 J	25 J	200 J	50 J
1064 nm, 7 ns, 10 Hz	25 J	125 J	25 J	125 J	25 J
266 nm, 7 ns, 10 Hz	20 J	35 J	20 J	35 J	20 J
<b>Noise equivalent energy <sup>c</sup></b>	10 $\mu\text{J}$	20 $\mu\text{J}$	10 $\mu\text{J}$	20 $\mu\text{J}$	20 $\mu\text{J}$
<b>Max repetition frequency</b>	100 Hz	100 Hz	100 Hz	100 Hz	20 Hz
<b>Maximum pulse width (typical) <sup>d</sup></b>	0.7 ms	0.7 ms	0.7 ms	0.7 ms	5 ms
<b>Rise time (typical 0-100%)</b>	1 ms	1 ms	1 ms	1 ms	6 ms
<b>Calibration uncertainty <sup>e</sup></b>	$\pm 3\%$	$\pm 3\%$	$\pm 3\%$	$\pm 3\%$	$\pm 3\%$
<b>Repeatability</b>	< 0.5%	< 0.5%	< 0.5%	< 0.5%	< 0.5%
<b>DAMAGE THRESHOLDS</b>					
<b>Maximum average power</b>	12 W	30 W	40 W	90 W	40 W
<b>Maximum energy density</b>					
1064 nm, 150 $\mu\text{s}$ , 10 Hz	1.2 J/cm <sup>2</sup>	14 J/cm <sup>2</sup>	1.2 J/cm <sup>2</sup>	14 J/cm <sup>2</sup>	1.2 J/cm <sup>2</sup>
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>	0.6 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>	0.6 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>	0.6 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>	0.5 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> <sup>h</sup>	600 W/cm <sup>2</sup>	10 W/cm <sup>2</sup>
<b>PHYSICAL CHARACTERISTICS</b>					
<b>Effective aperture</b>	65 x 65 mm	62 x 62 mm	65 x 65 mm	62 x 62 mm	65 x 65 mm
<b>Absorber</b>	MB	QED	MB	QED	MB
<b>Dimensions</b>	90H x 90W x 20D mm	90H x 90W x 24D mm	90H x 90W x 94D mm	90H x 90W x 98D mm	90H x 90W x 94D mm
<b>Weight</b>	440 g	440 g	900 g	900 g	900 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	DB15, USB or RS-232
<b>Compatible stand</b>	STAND-D-233	STAND-D-233	STAND-D-443	STAND-D-443	STAND-D-443
<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.

Specifications are subject to change without notice