

QE50-MB

50 x 50 mm, 10 μ 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

CE NIST*
Traceable 
*Also traceable to NRC-CNRC



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

- a. Not exceeding maximum average power. Increasing pulse width increases the maximum measurable energy.
b. Calibration at 2.1 to 25 μm 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

QE50-MT

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- > **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
- > **HIGH REPETITION RATE**
Measure each pulse at up to 4000 Hz

OUTPUT OPTIONS

- > **SMART DB15 CONNECTOR**
Contains 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



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Specifications

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	QE50SP-S-MT-D0	QE50SP-H-MT-D0
MAX MEASURABLE ENERGY^a	13 J	13 J
MAX REPETITION FREQUENCY^{b,c}	4000 Hz	4000 Hz
EFFECTIVE APERTURE	50 x 50 mm	50 x 50 mm
MEASUREMENT CAPABILITY		
Spectral range	0.19 - 20 μm	0.19 - 20 μm
Calibrated spectral range^d	0.248 - 2.1 μm	0.248 - 2.1 μm
Maximum measurable energy^a		
1064 nm, 7 ns, 10 Hz	13 J	13 J
266 nm, 7 ns, 10 Hz	1.8 J	1.8 J
Noise equivalent energy^e	10 μJ	10 μJ
Max repetition frequency^{b,c}	4000 Hz	4000 Hz
Maximum pulse width (typical)	10 μs	10 μs
Rise time (typical 0-100%)	20 μs	20 μs
Calibration uncertainty^f	± 3%	± 3%
Repeatability	< 0.5%	< 0.5%
DAMAGE THRESHOLDS		
Maximum average power	10W	20W
Maximum energy density		
1064 nm, 7 ns, single shot	0.50 J/cm ²	0.50 J/cm ²
1064 nm, 7 ns, 10 Hz	0.50 J/cm ²	0.50 J/cm ²
532 nm, 7 ns, 10 Hz	0.07 J/cm ²	0.07 J/cm ²
266 nm, 7 ns, 10 Hz	0.07 J/cm ²	0.07 J/cm ²
Maximum average power density^g	10 W/cm ²	10 W/cm ²
PHYSICAL CHARACTERISTICS		
Effective aperture	50 x 50 mm	50 x 50 mm
Absorber	MB	MB
Dimensions	75H x 75W x 15D mm	75H x 75W x 44D mm
Weight	209 g	338 g
ORDERING INFORMATION		
Available output options	DB15, USB or RS-232	DB15, USB or RS-232
Compatible stand	STAND-D-233	STAND-D-233
Product page		

- a. Not exceeding maximum average power. Increasing pulse width increases the maximum measurable energy.
 b. With the IDR version, measured values are sampled when the repetition rate is > 200 Hz.
 c. Maximum 52 kHz with INT version.
 d. Calibration at 2.1 to 2.5 μm is available on special request.
 e. Nominal value, actual value depends on electrical noise in the measurement system.
 f. Excludes non-linearities.
 g. At maximum power.

Specifications are subject to change without notice