

# QE12-MT

12 x 12 mm, 0.7  $\mu$ J - 3.9 J, tuned for high repetition rates



## 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

MIRO ALTITUDE



MAESTRO



U-LINK



M-LINK



S-LINK

## KEY FEATURES

- > **MODULAR CONCEPT**  
Increase the power capability of your detector:  
2 different cooling modules
- > **LOW NOISE LEVEL**
- > **NEW MODELS FOR HIGH REPETITION RATES**  
The QE12HR models are tuned for short pulses with  
high repetition rates (up to 10 kHz)

## ACCESSORIES



Stand with delrin post



DB15 to BNC adaptor



QE12 attenuator

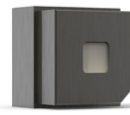





Pelican carrying case

# QE12-MT

## Specifications

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



	QE12SP-S-MT-D0	QE12SP-H-MT-D0	QE12HR-H-MT-D0
<b>MAX MEASURABLE ENERGY <sup>a</sup></b>	0.70 J	0.70 J	0.70 J
<b>MAX REPETITION FREQUENCY <sup>b,c</sup></b>	6 kHz	6 kHz	10 kHz
<b>APERTURE</b>	12 x 12 mm	12 x 12 mm	12 x 12 mm
<b>MEASUREMENT CAPABILITY</b>			
<b>Spectral range</b>	0.19 - 20 $\mu\text{m}$	0.19 - 20 $\mu\text{m}$	0.19 - 20 $\mu\text{m}$
<b>Calibrated spectral range <sup>d</sup></b>	0.248 - 2.1 $\mu\text{m}$	0.248 - 2.1 $\mu\text{m}$	0.248 - 2.1 $\mu\text{m}$
<b>Maximum measurable energy <sup>a</sup></b>			
1064 nm, 7 ns	0.70 J	0.70 J	0.70 J
266 nm, 7 ns	0.10 J	0.10 J	0.10 J
<b>Noise equivalent energy <sup>e</sup></b>	0.8 $\mu\text{J}$	0.8 $\mu\text{J}$	1 $\mu\text{J}$
<b>Max repetition frequency <sup>b,c</sup></b>	6 kHz	6 kHz	10 kHz
<b>Maximum pulse width (typical)</b>	10 $\mu\text{s}$	10 $\mu\text{s}$	4 $\mu\text{s}$
<b>Calibration uncertainty <sup>f</sup></b>	$\pm 3\%$	$\pm 3\%$	$\pm 3\%$
<b>Repeatability</b>	< 0.5%	< 0.5%	< 0.5%
<b>DAMAGE THRESHOLDS</b>			
<b>Maximum average power</b>	3 W	5 W	5W
<b>Maximum energy density</b>			
1064 nm, 7 ns, single shot	0.50 J/cm <sup>2</sup>	0.50 J/cm <sup>2</sup>	0.50 J/cm <sup>2</sup>
1064 nm, 7 ns, 10 Hz	0.50 J/cm <sup>2</sup>	0.50 J/cm <sup>2</sup>	0.50 J/cm <sup>2</sup>
532 nm, 7 ns, 10 Hz	0.07 J/cm <sup>2</sup>	0.07 J/cm <sup>2</sup>	0.07 J/cm <sup>2</sup>
266 nm, 7 ns, 10 Hz	0.07 J/cm <sup>2</sup>	0.07 J/cm <sup>2</sup>	0.07 J/cm <sup>2</sup>
<b>Maximum average power density <sup>g</sup></b>	10 W/cm <sup>2</sup>	10 W/cm <sup>2</sup>	10 W/cm <sup>2</sup>
<b>PHYSICAL CHARACTERISTICS</b>			
<b>Effective aperture</b>	12 x 12 mm	12 x 12 mm	12 x 12 mm
<b>Absorber</b>	MT	MT	MT
<b>Dimensions</b>	36H x 36W x 14D mm	36H x 36W x 33D mm	36H x 36W x 33D mm
<b>Weight</b>	87 g	117 g	117 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
<b>Compatible stand</b>	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. The maximum measurable energy depends on the display or PC interface used. If your laser is close to the maximum, contact us to check your specifications.
- 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  $\mu\text{m}$  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