QE12

12 x 12 mm, 0.7 µJ - 3.4 J

CE NIST Traceable WEEE/RoHS COMPLIANT

QE12LP-H-MB

QE12LP-S-MB

Key Features

1 **Modular Concept**
Increase the power capability of your detector : 2 different cooling modules

2 **Low Noise Level**
0.7 µJ for the MB coating

3 **Test Target Included**
With the MB models

4 **Available with Metallic Absorber**
High Repetition Rate (6000 Hz)

5 **Noise Reduction Stand**
Delrin post to reduce noise coming from exterior vibrations

6 **Smart Interface**
Containing all the calibration data

Diamond Configuration

See also

Accessories

» **QEA/QED Attenuators**
15 - 20% transmittance
400 nm - 2.5 µm : QEA
190 nm - 2.5 µm : QED

» **DB-15 to BNC Adaptor**
Make your QE Series detector compatible with your oscilloscope.

» **Pelican Carrying Case**
We offer a robust hard shell polymer carrying case.

QE12

SPECIFICATIONS

Models	QE12LP-S-MB	QE12LP-H-MB	QE12SP-S-MT	QE12SP-H-MT
Max Measurable Energy (with Attenuator)	3.5 J	3.5 J	1.6 J	1.6 J
Max Repetition Frequency	300 Hz	300 Hz	6000 Hz	6000 Hz

MEASUREMENT CAPABILITY	S-MB		H-MB		S-MT		H-MT	
Spectral Range	0.19 – 20 µm		0.19 – 20 µm		0.19 – 20 µm		0.19 – 20 µm	
Maximum Measurable Energy	Alone	Attenuator	Alone	Attenuator	Alone	Attenuator	Alone	Attenuator
1064 nm, 7 ns, 10 Hz [a]	0.85 J	3.5 J	0.85 J	3.5 J	0.70 J	1.60 J	0.70 J	1.60 J
266 nm, 7 ns, 10 Hz	0.70 J	0.81 J	0.70 J	0.81 J	0.10 J	0.25 J	0.10 J	0.25 J
Noise Equivalent Energy [b]	0.7 µJ		0.7 µJ		0.8 µJ		0.8 µJ	
Sensitivity [c, d]	60 V/J		60 V/J		100 V/J		100 V/J	
Max Repetition Frequency	300 Hz		300 Hz		6000 Hz		6000 Hz	
Maximum Pulse Width (typical)	400 µs *		400 µs *		10 µs		10 µs	
Rise Time (typical 0-100%)	550 µs		550 µs		20 µs		20 µs	
Calibration Uncertainty [e]	±3 %		±3 %		±3 %		±3 %	
Repeatability	<0.5 %		<0.5 %		<0.5 %		<0.5 %	

DAMAGE THRESHOLDS

Maximum Average Power	Alone	Attenuator	Alone	Attenuator	Alone	Attenuator	Alone	Attenuator
All Wavelengths	3 W	7.5 W	5 W	12.5 W	3 W	7.5 W	5 W	12.5 W
Maximum Energy Density	Alone	Attenuator	Alone	Attenuator	Alone	Attenuator	Alone	Attenuator
1064 nm, 7 ns, 10 Hz	0.6 J/cm²	7 J/cm²	0.6 J/cm²	7 J/cm²	0.50 J/cm²	2 J/cm²	0.50 J/cm²	2 J/cm²
532 nm, 7 ns, 10 Hz	0.6 J/cm²	5 J/cm²	0.6 J/cm²	5 J/cm²	0.07 J/cm²	0.35 J/cm²	0.07 J/cm²	0.35 J/cm²
266 nm, 7 ns, 10 Hz	0.5 J/cm²	1 J/cm²	0.5 J/cm²	1 J/cm²	0.07 J/cm²	0.30 J/cm²	0.07 J/cm²	0.30 J/cm²

Choice of Attenuator : QEA-12 (0.4 – 2.5 µm) or QED-12 (0.19 – 2.5 µm)

PHYSICAL CHARACTERISTICS

Effective Aperture (with Attenuator)	12 X 12 mm (9 X 9 mm)			
Absorber				
	Multi-Band	Multi-Band	Metallic	Metallic
Dimensions	36H x 36W x 14D mm	36H x 36W x 33D mm	36H x 36W x 14D mm	36H x 36W x 33D mm
Weight	87 g	117 g	87 g	117 g

ORDERING INFORMATION

Full Product Name	QE12LP-S-MB	QE12LP-H-MB	QE12SP-S-MT	QE12SP-H-MT
Product Number (including stand)	200508	200510	200511	200512

*Also available on special order: The Extra Long Pulse Series QE12-ELP-MB for pulse widths up to 2 msec, custom-tuned for rep. rate, sensitivity, and pulse width.

a. Increasing pulse width increases the maximum measurable energy.
b. Nominal value, actual value depends on electrical noise in the measurement system.
c. Load: 1 MΩ and ≤ 130 pF.
d. Maximum output voltage = sensitivity x maximum energy.
e. Excludes non-linearities.

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