



See page 36 for details

QE25

25 x 25 mm, 2 μ J - 23 J



KEY FEATURES

1. **MODULAR CONCEPT**
Increase the power capability of your detector:
2 different cooling modules
2. **LOW NOISE LEVEL**
2 μ J for the MT coating
3. **QED ATTENUATOR AVAILABLE**
 - Measure up to 5X higher energies
 - Available with optional calibration, all wavelengths between 532 & 1064 nm, or single wavelength
4. **AVAILABLE WITH METALLIC ABSORBER**
High Repetition Rate (6000 Hz)
5. **TEST TARGET INCLUDED**
With the MB models
6. **SMART INTERFACE**
Containing all the calibration data

AVAILABLE MODELS



QE25LP-S-MB
(Broadband-Convection)



QE25LP-H-MB
(Broadband-Heatsink)



QE25SP-S-MT
(Metallic-Convection)



QE25SP-H-MT
(Metallic-Heatsink)

ACCESSORIES



Stand with Delrin Post
(Model Number: 200428)



DB-15 to BNC Adaptor
(Model Number: 200036)



QED-25 Attenuator
(Model Number: 201199)



Pelican Carrying Case

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LONG PULSE JOULEMETER IN BURST MODE	202153

QE25

SPECIFICATIONS



*Also traceable to NRC-CNRC

	QE25LP-S-MB		QE25LP-H-MB		QE25SP-S-MT		QE25SP-H-MT	
MAX MEASURABLE ENERGY (WITH ATTENUATOR)	23 J		23 J		10 J		10 J	
MAX REPETITION FREQUENCY	300 Hz		300 Hz		6000 Hz		6000 Hz	
EFFECTIVE APERTURE	25 x 25 mm		25 x 25 mm		25 x 25 mm		25 x 25 mm	
MEASUREMENT CAPABILITY								
Spectral Range ^{*a}	0.19 – 20 μm		0.19 – 20 μm		0.19 – 20 μm ^b		0.19 – 20 μm ^b	
Maximum Measurable Energy ^c	Alone	Attenuator	Alone	Attenuator	Alone	Attenuator	Alone	Attenuator
1064 nm, 7 ns, 10 Hz ^d	3.8 J	23 J	3.8 J	23 J	3.0 J	10 J	3.0 J	10 J
266 nm, 7 ns, 10 Hz	3.1 J	4.8 J	3.1 J	4.8 J	0.44 J	1.45 J	0.44 J	1.45 J
Noise Equivalent Energy ^e	4 μJ		4 μJ		2 μJ		2 μJ	
Sensitivity ^{f,g}	10 V/J		10 V/J		20 V/J		20 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 ^h	±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	5 W	15 W	10 W	30 W	5 W	15 W	10 W	30 W
Maximum Energy Density	Alone	Attenuator	Alone	Attenuator	Alone	Attenuator	Alone	Attenuator
1064 nm, 7 ns, single shot	0.6 J/cm ²	16 J/cm ²	0.6 J/cm ²	16 J/cm ²	0.50 J/cm ²	4 J/cm ²	0.50 J/cm ²	4 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	0.50 J/cm ²	2 J/cm ²	0.50 J/cm ²	2 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	0.07 J/cm ²	0.35 J/cm ²	0.07 J/cm ²	0.35 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	0.07 J/cm ²	0.30 J/cm ²	0.07 J/cm ²	0.30 J/cm ²
Maximum Average Power Density	10 W/cm ²	600 W/cm ²	10 W/cm ² ⁱ	600 W/cm ²	10 W/cm ²	600 W/cm ²	10 W/cm ² ⁱ	600 W/cm ²
PHYSICAL CHARACTERISTICS								
Effective Aperture (with Attenuator)	25 X 25 mm (22 X 22 mm)							
Absorber	Multi-Band		Multi-Band		Metallic		Metallic	
Dimensions	50H x 50W x 14D mm		50H x 50W x 52.5D mm		50H x 50W x 14D mm		50H x 50W x 52.5D mm	
Weight	120 g		187 g		120 g		187 g	
ORDERING INFORMATION								
	Standard	With Attenuator ^j	Standard	With Attenuator ^j	Standard	With Attenuator ^j	Standard	With Attenuator ^j
Product Name	QE25LP-S-MB		QE25LP-H-MB		QE25SP-S-MT		QE25SP-H-MT	
Add Extension for Attenuator	-QED		-QED		-QED		-QED	
Product Number (Including stand)	200312	202184	200313	202185	200310	Call	200311	Call
INTEGRA Product Name	QE25LP-S-MB-INT		QE25LP-H-MB-INT		QE25SP-S-MT-INT		QE25SP-H-MT-INT	

* * Also available on special order: The Extra Long Pulse Series QE25ELP-MB for pulse widths up to 4 msec, custom-tuned for rep. rate, sensitivity, and pulse width.

* For the calibrated spectral range, see the user manual.

- a. 0.308 – 2.1 μm with QED Attenuator.
b. Detectors with the MT coating can be used within the range 0.19 to 20 μm, however the absorption in the IR wavelengths decreases significantly. This, in turn, reduces the sensitivity and increases the noise level. Nevertheless, each detector is individually scanned and the wavelength correction factor (PWC) is NIST traceable in the range of 248 nm to 2.5 μm.
c. Not exceeding Maximum Average Power.
d. Increasing pulse width increases the maximum measurable energy.
e. Nominal value, actual value depends on electrical noise in the measurement system.

- f. Load: 1 MΩ and ≤ 30 pF.
g. Maximum output voltage = sensitivity x maximum energy.
h. Excludes non-linearities.
i. At 5 W. Maximum Average Power Density is 10 W/cm² @ 10 W for -H versions.
j. When -QED extension is added, the QE + QED come as one unit with a combined calibration only. See the "QED Attenuator" page for more options on the calibration.

Specifications are subject to change without notice