LASER BEAM MEASUREMENT & BEAM PROFILING

gentec-e
PARTNERS for ACCURACY

OUR EXPERTISE: DESIGN AND MANUFACTURE LASER MEASUREMENT SOLUTIONS

POWER & ENERGY METERS

BEAM PROFILING

TERAHERTZ MEASUREMENT

PARTNERS FOR ACCURACY

- CUSTOMIZED PRODUCTS & OEM APPLICATIONS

- TRACEABLE CALIBRATION & HIGH STANDARDS

LASER POWER MEASUREMENT APPLICATIONS

LOW POWER
(below 1 W)

Bar-code readers

Semiconductor

Communications

MID POWER
(1 W to < 1 kW)

Additive manufacturing

Plastic welding

Engraving

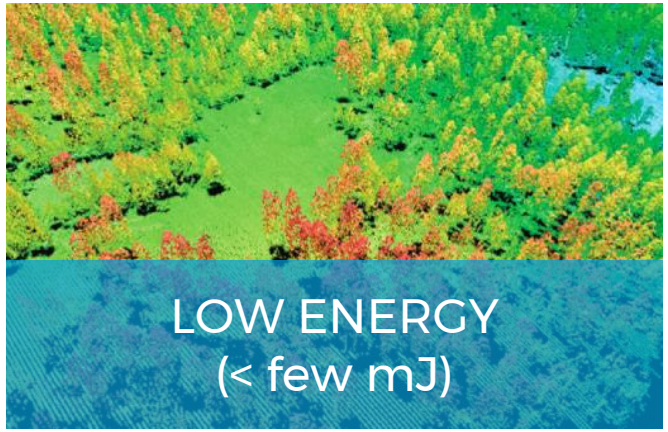
HIGH POWER
(> kW)

Metal welding/cutting

Directed energy

Battery manufacturing

LASER ENERGY MEASUREMENT APPLICATIONS

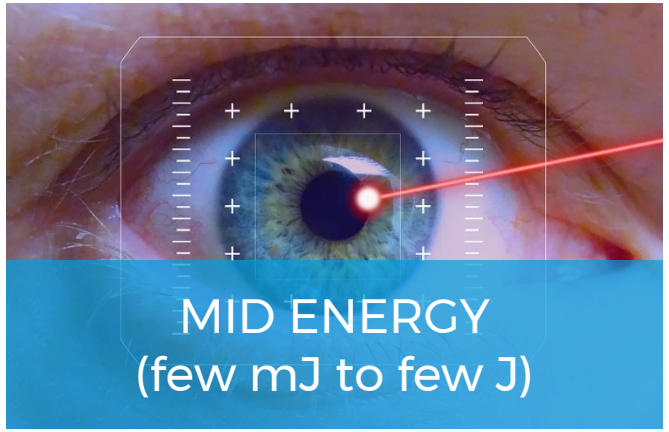


LOW ENERGY
(< few mJ)

Ranging

Telecommunications

Spectroscopy, cytometry, ...



MID ENERGY
(few mJ to few J)

Medical (eye surgery, dermatology, …)

Material processing

HIGH ENERGY
(J and kJ)

Fundamental research

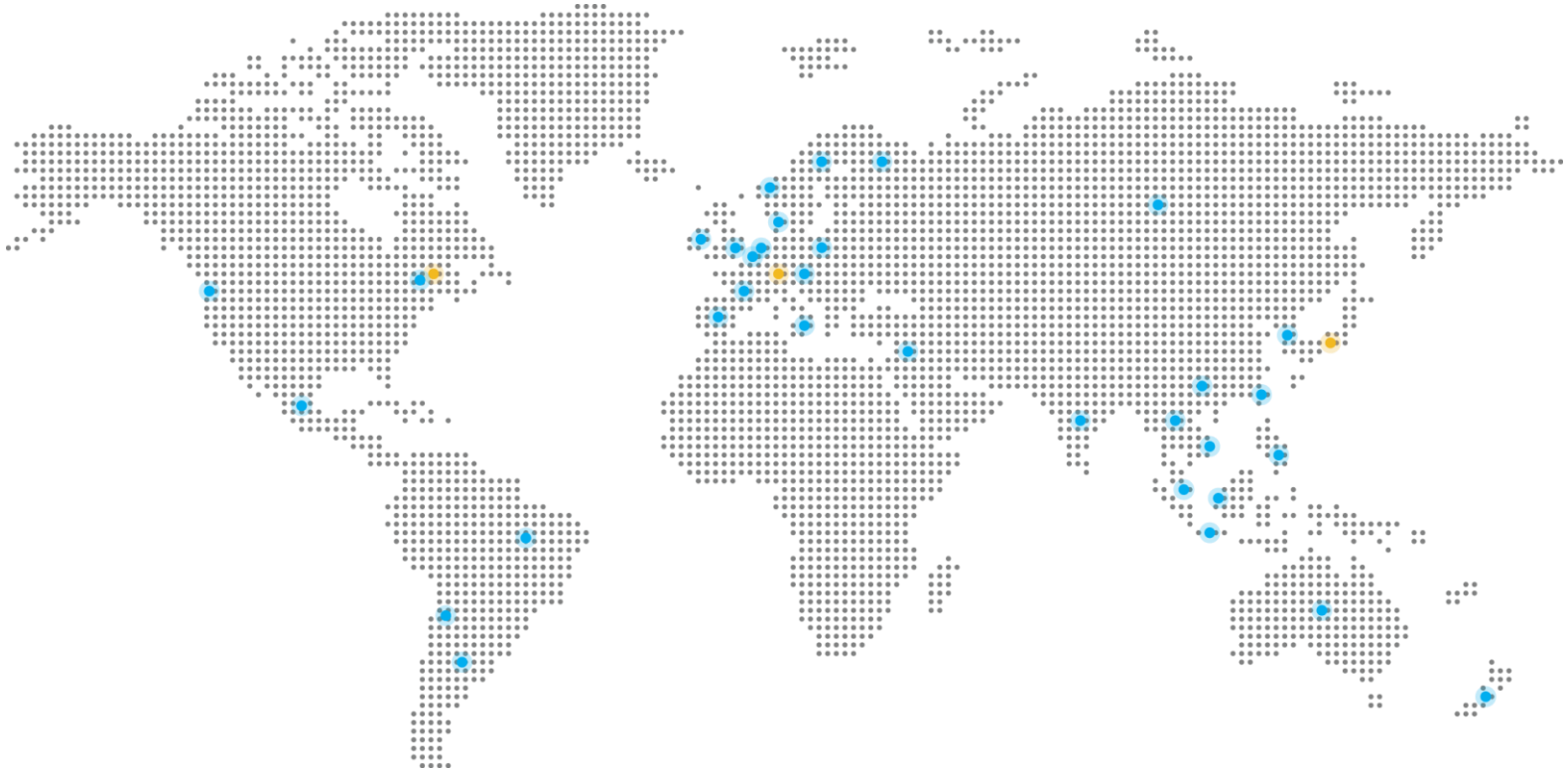
Inertial confinement (nuclear fusion)

LEADER IN LASER BEAM MEASUREMENT SINCE 1972

- 1959 Incorporation of Gentec Inc.
- 1970's TEA CO_2 lasers & pulse energy measurement
- 2000 Incorporation of Gentec-EO
- 2004 New thermopile & pyroelectric detector design for highest damage thresholds
- 2010 Creation of Gentec-EO USA
- 2012 > 25 kW capability
- 2017 Creation of Gentec-EO Japan
- 2019 ISO/IEC 17025:2017 accreditation
- 2019 BEAMAGE-M2
- 2022 High-precision, high-power (IS series)

WORLDWIDE PRESENCE

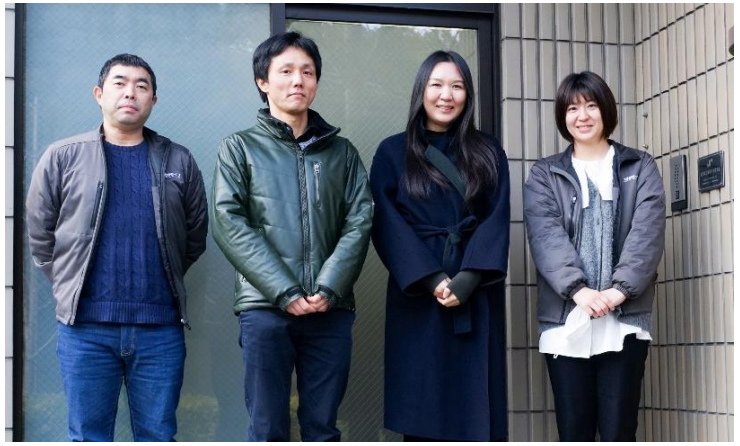
- OFFICES IN CANADA, USA AND JAPAN
- CALIBRATION CENTERS ON 3 CONTINENTS
- PRODUCTS SOLD IN OVER 50 COUNTRIES



THE GENTEC-EO FAMILY

>115 employees

- Research & Development (24%)
- Production (47%)
- Sales & Marketing (14%)
- Administration (15%)



Tokyo, Japan, 2022

Québec City, QC, 2018

Lake Oswego, OR, 2019

POWER MEASUREMENT SOLUTIONS

Water calorimetry (HP)

100 W – 100 kW

Thermopiles (XLP & UP)

300 µW – 2,5 kW

Pyroelectric (UM)

100 nW – 20 mW

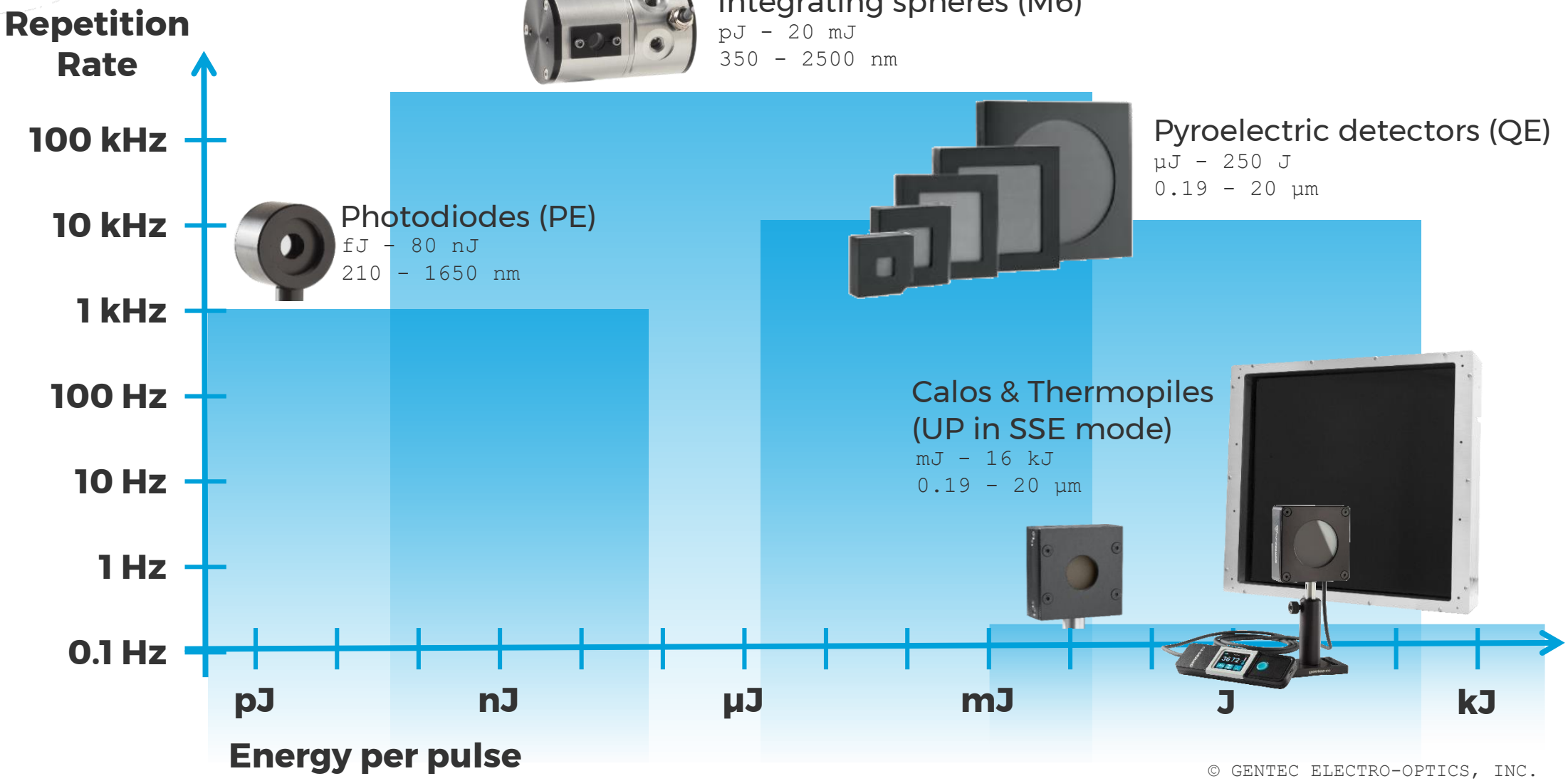
Photodiodes (PH)

200 pW – 750 mW

Precision high-power (IS)

20 µW - 1 kW

LASER ENERGY DETECTORS



LASER BEAM PROFILING
SPATIAL DISTRIBUTION OF LASER INTENSITY

MAIN SPECIFICATIONS

	BEAMAGE-4M	BEAMAGE-4M-IR	BEAMAGE-4M-FOCUS
Wavelength range			
Camera only	350 - 1150 nm	1495 - 1595 nm	350 - 1150 nm
With UG11-UV filter	250 - 370 nm	---	---
With B3-IR-Filter	1250 - 1350 nm	---	---
Pixel count	4.2 MPixels	4.2 MPixels	4.2 MPixels
H x V	2048 x 2048	2048 x 2048	2048 x 2048
Sensor size	11.3 x 11.3 mm	11.3 x 11.3 mm	20.5 x 20.5 mm
Frame rate (full frame)	6.2 fps	6.2 fps	6.2 fps

CUSTOM CALORIMETERS:
HIGH ENERGIES AND LARGE BEAMS

Preferred global supplier for laser measurement applied to nuclear fusion

Specifications	Calorimeter
Pulse width	fs to 15 sec
Aperture	10 to 450 mm
Energy	50 J to 16 kJ

CERTIFICATIONS

CE Marked

WEEE / RoHS COMPLIANT

ISO 9001:2008 CERTIFIED

ISO

ISO/IEC 17025:2017 ACCREDITED

READ THE LIGHT

LASER BEAM MEASUREMENT

MIRO by Gentec-EO

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