



gentec-eo
PARTNERS for ACCURACY



POWER & ENERGY METERS



BEAM PROFILING



THZ MEASUREMENT

COMPANY PROFILE

WHO WE ARE

A LONG HISTORY OF ACHIEVEMENTS



The history of Gentec-EO is punctuated by numerous innovations. As a former laser manufacturer, the company is very close to the needs of its customers. The first laser energy measurement products were developed by Gentec Inc. in 1972 for internal use, as the company manufactured the first high repetition rate TEA CO₂ lasers on the market place. Gentec Inc. was also the first to introduce pyroelectric joulemeters and to manufacture both pyroelectric and thermopile laser power and energy detectors. In the mid-1990's, the company introduced the WB series of detectors (now known as the UP-QED series), which are characterized by an average

power density damage threshold over 100 kW/cm² that is still unrivalled nowadays. Also, since it can measure up to more than 100 kW, the HP series of detectors is a market leader in the measurement of high power lasers.



In 2000, Gentec Electro-Optics Inc. was born from Gentec Inc. so it could dedicate all its efforts to the development of laser beam measurement devices. More recently, in 2010, the company came up with its MAESTRO, the first touch screen monitor of the market. During the same year, the acquisition of Spectrum Detector Inc. allowed the company to add, among others, measurement solutions to the new and rapidly expanding THz market, ultra-sensitive optical joulemeters (down to femtojoules), and pulse to pulse energy measurement devices for lasers with repetition rates up to 200 kHz.

OUR ESSENCE

RIGOR

Rigor in everything we do in order to deliver the accuracy you expect and the product you are looking for.

ADAPTABILITY

Adaptability is part of our everyday activity both in the way we approach a problem and in the way we solve it. We continuously adapt not only the modifications made to a product but also our work methods.

PARTNERSHIP

A spirit of partnership guarantees that our clients receive personalized assistance throughout the entire process, from purchase to product selection to product implementation.

OUR PROMISE

HIGH STANDARDS

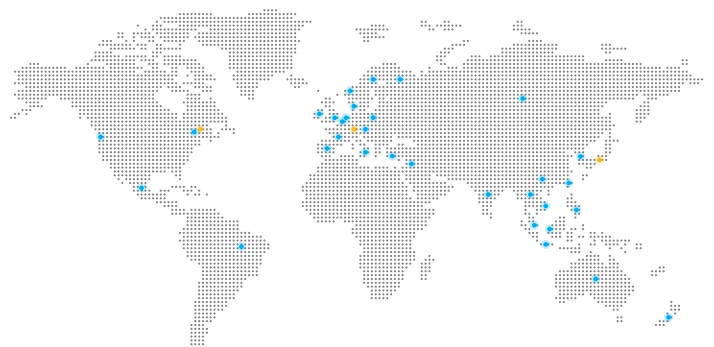
We meet high standards on a daily basis thanks to our focus on quality and the satisfaction of a well done job, with no half measures and no room for compromises.

CUSTOMIZATION

There is a large number of laser companies because there is an even larger number of applications. Our promise is to listen to your special demands and deliver the custom product you need.

WORLDWIDE PRESENCE

- Offices in the USA, Canada and Japan
- Calibration centers on 3 continents
- Products sold in over 50 countries



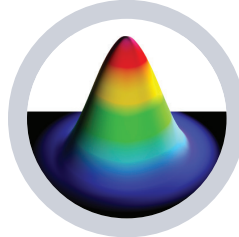
WHO WE ARE

OUR FIELDS OF EXPERTISE



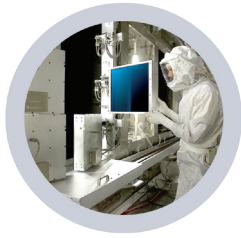
LASER POWER & ENERGY METERS

We have the most complete range of laser measurement products in the industry. Our energy detectors cover from just a few fJ to several kJ and our power detectors span a wide range, from a few pW to tens of kW.



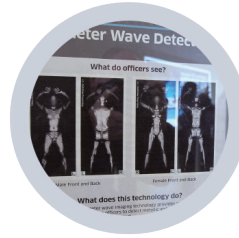
BEAM PROFILING

Measuring the power or energy of your laser is not always sufficient. If you need to know more about your beam diameter, intensity profile and divergence we have a full range of beam profilers, including cameras and scanning systems.



LARGE AREA CALORIMETERS

A Gentec-EO calorimeter is the only reliable solution available for the largest and highest energy laser beams. Through cooperation with several leading research facilities around the world, Gentec-EO has become the expert in manufacturing, calibrating and servicing high energy calorimeters.



THZ MEASUREMENT

We are proud to offer an extensive line of power and energy detectors for the terahertz spectrum. Our product line features easy plug-and-play solutions and complete application software.



CUSTOMIZED PRODUCTS & OEM APPLICATIONS

After more than 45 years in the laser beam measurement business, we have developed many customized solutions, sometimes for very unusual applications. Whether your project is big or small, do not hesitate to send us your requests, we will listen to your needs.



TRACEABLE CALIBRATION

At Gentec-EO we use only Gold Calibration standards, guaranteeing our customers the best accuracy on the market. We also offer our in-house calibration expertise to customers outside the laser market so do not hesitate to bring us all your calibration needs.

VERTICAL INTEGRATION

FROM R&D



TO MANUFACTURING



TO CALIBRATION

NIST
Traceable

OUR PRODUCTS

DISPLAYS & PC INTERFACES

DISPLAYS



MAESTRO

Display for all detectors
Touchscreen controls



TUNER

Display for power detectors
Super-fast tuning needle



UNO

Display for power detectors
Economic model

PC INTERFACES



U-LINK & S-LINK

PC interface for all detectors
1 or 2 channels
USB, RS-232 or Ethernet output



INTEGRA

Integrated PC interface
Available with all detectors
USB or RS-232 output



BLU

Integrated wireless interface
Available with power detectors
Connect to smartphone, tablet or PC

ENERGY DETECTORS

ALL ENERGY LEVELS

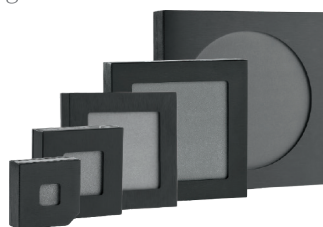
Available with
 integra



QE-B

50 nJ - 4 mJ
8 mm
Very low noise level

Available with
 integra



QE

0.7 μ J - 250 J
12, 25, 50, 65 and 95 mm

ULTRAFAST



MACH6

200 kHz pulse-to-pulse
The fastest on the market!

OUR PRODUCTS

POWER DETECTORS

LOW POWER

Available with
 integra



XLP12

0.5 μ W - 3 W
 12 mm \varnothing

MID TO HIGH POWER

Available with
 integra  blu



UP-H

1 mW - 2,500 W
 10, 12, 17, 19, 25 and 55 mm \varnothing

MODULAR DESIGN

Vast selection of off-the-shelf solutions designed to fit your measurement needs:

- **Aperture size**
Fits with your beam size
- **Cooling method:**
Adapted to your power level
- **Absorber material:**
Suitable for your power & energy density
- **Output module:**
Selected for your data acquisition system

HIGH DAMAGE TRESHOLDS

Available with
 integra 



UP-W

1 mW - 50 W
 19 and 50 mm \varnothing
 100 kW/cm²

Available with
 integra 



UP-QED

4 mW - 300 W
 16 and 52 mm \varnothing
 100 kW/cm², 300 J/cm²

NEW

POCKET-SIZE



PRONTO-250 & PRONTO-250-PLUS

10 mW - 250 W
 Instantaneous measurements
 Touchscreen controls

HIGH POWER SOLUTIONS

HIGH POWER

Available with




HP

3 W - 15,000 W
 60, 100 and 125 mm



SUPER HP

Up to 100,000 W
 Custom size, up to 400 mm

PORTABLE



PRONTO & PRONTO-IPL

0.1 W - 10,000 W / 2 J - 350 J
 55 mm \varnothing

OUR PRODUCTS

PHOTODETECTORS

POWER & ENERGY

Available with




PH & PE

60 pW - 750 mW / 8 fJ - 150 nJ
 3, 5 and 10 mm Ø
 Si, Ge and InGaAs sensors
 Attenuators available

INTEGRATING SPHERE

Available with




IS

1 µW - 9 W
 12 mm Ø
 Integrating sphere with Si sensor

POCKET-SIZE



PRONTO-Si

0.3 nW - 800 mW
 Integrated slide-in attenuator
 Touchscreen controls

THZ DETECTORS

THERMAL



THZ-D

1 µW - 3 W
 Works with our displays and PC interfaces

PYROS



THZ-I-BNC

1 nW - 200 mW
 Integrated module



THZ-B

THz pyroelectric detectors
 and PC interface

OEM DETECTORS

4 LEVELS OF INTEGRATION



Sensor only

Thermal sensor disk
 External PCB available

Detector only

Complete sensor head with cooling
 Analog signal output

Detector with PCB

Complete sensor head with cooling
 Digital signal output

All-in-one detector + meter

Complete measurement system
 Digital signal output

CUSTOMIZE: Dimensions, mounting holes, cable length, connectors, serial commands... Simply tell us what you need!

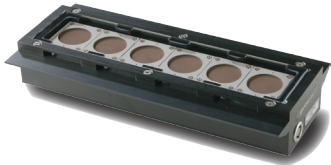
OUR PRODUCTS

SPECIAL PRODUCTS

CUSTOM SYSTEMS

BEAM POSITIONING

DISCRETE PYROS



Multiple-element detector bar

Instantaneous measurements of all the elements



QUAD

Measure, track and align your beam in real time



Discrete or hybrid pyroelectric detectors

Small T05/T08 packages
Evaluation test box available

CALORIMETERS

FOR HIGH ENERGY LASER EXPERIMENTS



Photo courtesy of Lawrence Livermore National Laboratory

Preferred supplier

We work with the leading research facilities around the world



State-of-the-art

We offer a wide range of materials and surface coatings for all applications

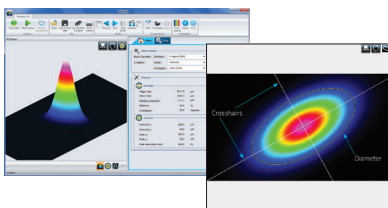


Customized

Any desired shape and size, as large as 420 x 427 mm and up to 16,000 Joules

BEAM DIAGNOSTICS

USB3.0 BEAM PROFILING CAMERAS



Intuitive software

Easy to navigate interface with many displays and control features: 2D, 3D and XY displays, background subtraction function, Gaussian fit, M^2 calculation and more



BEAMAGE

Up to 4.2 Mpixels
5.5 μm pixels
Available for Vis-NIR or IR
Up to 20.5 x 20.5 mm

NEW



BEAMAGE-M2

Automated laser beam quality measurement
50 mm apertures
Flexible & intuitive software



WWW.GENTEC-EO.COM

LEADER IN LASER BEAM MEASUREMENT **SINCE 1972**

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