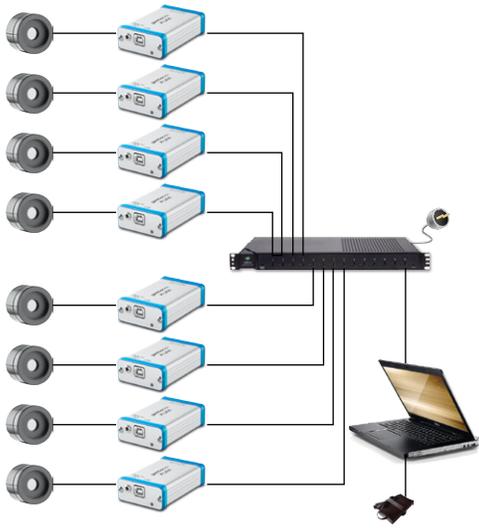


CUSTOM PRODUCTS



After 45 years of experience in the Laser Beam Measurement business, we have developed many customized solutions, sometimes for very unusual applications! This section is only a small portion of the projects we have accomplished for our customers, so do not hesitate to contact us with any special need you may have. We are always striving to find the perfect solution for your application!

CUSTOM PRODUCTS



OCTOLINK

OCTOLINK is our multichannel software that was specifically designed for the simultaneous measurement of a large set of power detectors. As its name indicates, OCTOLINK allows the measurement of up to 8 devices simultaneously, all on a combined control screen. Furthermore, this tool offers full flexibility on the functionalities, allowing to control, compare and collect data of multiple detectors in a simple but effective manner. The channels can be user-set, allowing a transparent integration in the existing systems. Pass-fail feature and complete data logging make OCTOLINK an ideal and inexpensive solution for long term power monitoring.

- MEASURE 8 DETECTORS SIMULTANEOUSLY
- USER-SETTABLE INTERFACE

6-ELEMENT DETECTOR BAR

Custom detector integration that monitors multiple lasers in a system. This detector bar included six independent power sensors, covered by protection windows with anti-reflective coating, presence sensors, on-board signal conditioning and acquisition to instantly measure power and communicate with the system through industrial serial protocol.

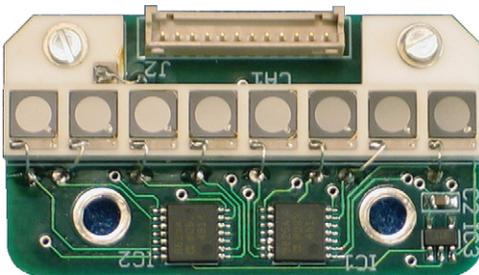
- 6 ELEMENTS ON ONE BOARD
- INSTANTANEOUS POWER MEASUREMENT OF ALL 6 ELEMENTS
- DETECTOR ELEMENTS PROTECTED BY WINDOWS WITH AR COATING

8-CHANNEL ARRAY FOR THZ TOMOGRAPHY

The 8 element Pyroelectric Array and electronics were designed for a Fiber Laser-based, multi-beam, THz Tomography project which was a joint venture between the Universities of Manchester, Southampton and Leeds in the UK.

The goal was to produce a high performance, low noise level, discrete array, capable of measuring 10 nW per channel in the 0.5 to 2 THz range.

- 8-CHANNEL PYROELECTRIC ARRAY
- 0.5 TO 2 THZ RANGE
- 10 nW PER CHANNEL



CUSTOM PRODUCTS

MONITORS

ENERGY DETECTORS

POWER DETECTORS

HIGH POWER SOLUTIONS

PHOTO DETECTORS

THZ DETECTORS

OEM DETECTORS

SPECIAL PRODUCTS

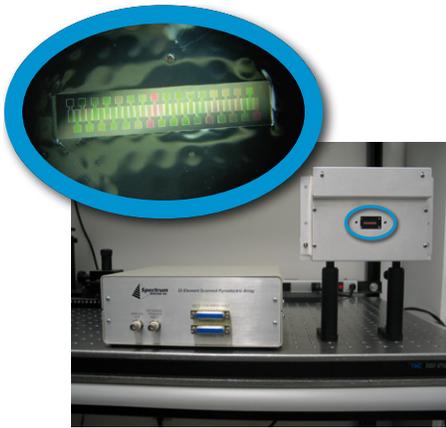
BEAM DIAGNOSTICS



OPTICAL TRAP DETECTORS

Don't Lose Your Photons Anymore.

The TRAP detectors have the Highest Efficiency Detectors in the Photonics World with a Quantum efficiency (QE) $\gg 99\%$. They also present incredible spatial uniformity, better than 0.02% . Their high QE and low calibration uncertainty ($< 0.5\%$) make them an excellent, standalone, calibration transfer standard. Heads are optimized for both CW or Pulsed Lasers and can be used for low divergence or collimated beams. Measure power from pW to mW when used with the TRAP-PREAMP amplifier that provides a direct digital readout.



32-CHANNEL THZ PYROELECTRIC ARRAY

The SDX-1105 is a 32-element Pyroelectric Array combined to a 32-channel multiplexing electronics that was designed for a THz Spectrometer Application. The system was designed to be able to measure a few nanojoules of energy from a pulsed THz source in the 0.1 to 20 THz region. As the Pyroelectric detectors are based on a thermal effect, the same device can be used with pulsed lasers from the DUV to FIR. The detector elements of the array are 1 mm tall by 0.5 mm wide and spaced on 0.5 mm centers.

TEMPERATURE-CONTROLLED POWER METERS

Temperature Controlled Power Sensors and Controller:

Each head is composed of a low noise detector, thermistor, TE cooler and heat sink to compensate for any temperature change

The Ultimate Choice in Measurement Stability:

Temperature control down to 0.05°C from 20 to 30°C gives a temperature coefficient $< 0.01\%$, thus a voltage output stable to 0.01%

2 Sizes Available for the TP Sensors:

- TP5-BL: 5 mm \varnothing pyroelectric sensor with organic black coating
- TP9-BL: 9 mm \varnothing pyroelectric sensor with organic black coating



CUSTOM PRODUCTS



PULSE BURST ENERGY METER

This pulse burst energy meter was developed for Candela Corporation for a new 2-Color Medical Laser System that required measuring the power in multiple pulses and displaying total and sub-pulse energy and pulse width of a laser running in a burst mode.

It was designed to measure a single pulse or up to eight pulses in a burst. The spectral range was 0.5 μm to 3.0 μm .

- MEASURES INDIVIDUAL PULSE ENERGIES IN A PULSE BURST

10-CHANNEL ENERGY METER

This Energy Meter was designed for use with Mid-IR and Far-IR lasers and could be used in pairs to create a 10-Channel Digital Joulemeter. The energy sensors were based on fast Pyroelectric Detectors outfitted with KRS5 windows. The microprocessor instrument featured a full speed USB2.0 output, LabView application software and USB Drivers. It also included a multiplexed analog output for use with an oscilloscope that allowed viewing of the relative energy of each channel.

- COMBINES 10 ENERGY MEASUREMENTS IN ONE APPLICATION



“HOLLOW” DETECTOR

This special calorimeter demonstrates the extent of Gentec-EO's customization capabilities. This product fulfills the requirements for the newest lasers for high energetic beam experimentation.

- High energy at low repetition rate for continuous measurement
- Femtosecond pulse
- Very large diameter with different shapes & sizes available
- Offers the flexibility to measure both power or energy
- Center hole option to let an electron beam through

- SHORT PULSES, HIGH ENERGIES
- VARIOUS SHAPES & SIZES

