

CUSTOM DESIGN EXAMPLES

Specifications



After over 50 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!

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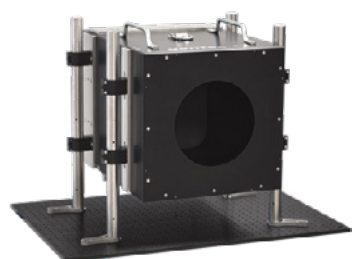
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EXTREMELY HIGH POWER, LOW BACK-REFLECTIONS

When working at extremely high average power, even a low % of back-reflections can be dangerous. To manage the back-reflections and provide a safer working environment, we can equip your high-power detector with a water-cooled "TUBE" extension.

This custom project example can measure up to 100 kW of average power continuously, and less than 4 % of the incident radiation is backscattered.

- CUSTOM-DESIGNED HIGH-POWER DETECTOR

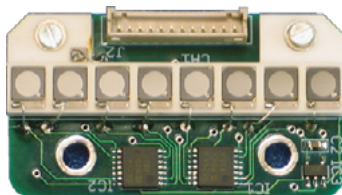


"10 PW PORTABLE BLACK HOLE"

Gentec-EO is the only supplier able to manufacture beam dumps able to withstand the tremendous peak power of a 10-petawatt laser, in a high vacuum environment.

By working closely with our client, we have designed the only existing beam dump that can fulfill the task of capturing and dissipating the energy contained in the single pulses of the ELI-NP end-of-line laser beams. Furthermore, this product was designed to be operated without external cooling, which simplifies its installation and makes it usable in a wide range of applications.

- UNRIVALED DAMAGE THRESHOLDS: UP TO 200 J/CM² FOR fs PULSES
- EXTREMELY LOW BACK-REFLECTIONS: < 0.02 %



8-CHANNEL ARRAY FOR THz TOMOGRAPHY

This eight-element, pyroelectric detector array was designed for use in a THz tomography system. It was used to analyze high pressure flames by measuring absorption in the water spectral bands, using THz radiation in the 0.5 to 2 THz region.

The detector elements are 3 mm diameter, accurately spaced on 5 mm centers. Its high responsivity and very low noise level allow precise detection of weak signals.

- 8-CHANNEL PYROELECTRIC ARRAY
- 0.5 TO 2 THz RANGE
- HIGH VOLTAGE RESPONSIVITY