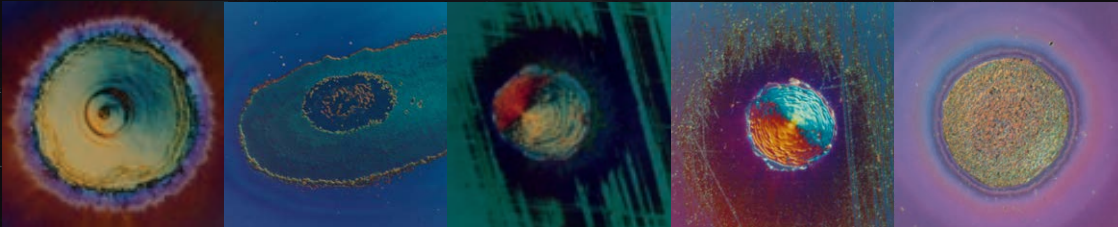


# LASER DAMAGE TESTING



Laser Durability Certification • Laser Damage Threshold • Optical Density • Transmission vs. Fluence • Specialty Testing

INDEPENDENT  
REPEATABLE  
RELIABLE  
OVERNIGHT

TESTING  
AT THE SPEED  
OF LIGHT!™



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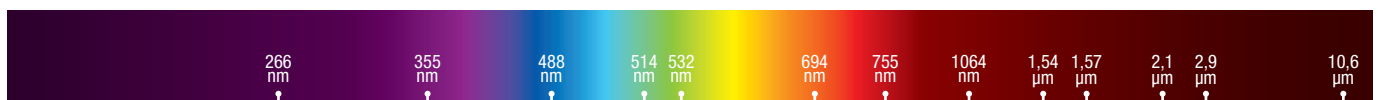


# When it absolutely, positively has to be destroyed overnight!™

TRUST,  
BUT VERIFY

**Quantel** is the original independent laser damage test lab. Since 1985, **Quantel** has been providing manufactures and optical users worldwide with industry leading laser damage testing. *Laser Damage Testing Services* are ideal for providing repeatable results you can believe in for your real-world applications.

**Quantel** provides a full range of NIST traceable laser exposure test services with wavelengths from UV to Far-IR. Our independent laser damage test labs are designed and well equipped to meet international ISO standards. When you need to know ASAP, we understand and offer a 24 hour turnaround service for standard tests. We are committed to quality and have been ISO compliant since 1997.



#### Laser Damage Threshold:

“Damage” is usually defined as any permanent laser-induced change which is observable at high magnification with Nomarski or dark field measurement. Quantel provides destructive testing in compliance with ISO 11254 specifications at a variety of wavelength and pulse widths from ns to CW.

#### Laser Durability Certification:

This test is used to verify optic durability to a requested specification. Several test sites (usually chosen on a uniform grid and sampling a representative surface area) are exposed to laser radiation at a specified fluence, repetition rate, pulse duration, spot size and minimum number of pulses per site. Damage at any site constitutes “failure” in this test.

#### Optical Density:

This test measures the ratio of incident to transmitted fluence (or irradiance) under customer specified exposure conditions. Quantel has facilities to perform such testing under realistic temperature and humidity conditions.

#### Transmission vs. Fluence:

Some optics, such as optical power limiters, have a nonlinear transmission response with exposed fluence level. This test generates the plot describing this optic characteristic. Such specialized exposure tests are performed to customer requirements.

#### Specialty Testing:

Let us put our decades of experience to work for you by providing custom testing to suit your unique requirements. As an example, a lifetime test is an extended version of the certification test when durability must be demonstrated over a prolonged operating period.



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