



Quantum Light Instruments



Who is QLI?

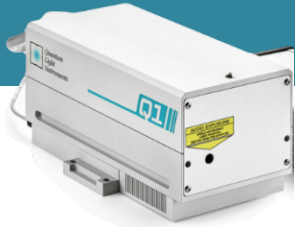


- Founded in 2014
- Headquartered in Vilnius, Lithuania
- Experts in designing and producing compact, air-cooled, Q-switched, diode-pumped solid-state lasers
- Key Strengths:
 - High pulse energy at relatively low pulse repetition rates
 - YLF and YAG crystal options
 - Wavelengths through the 5th harmonic
 - OPO and OPA development
 - Great products and support at an attractive price point

Our Products

Q1

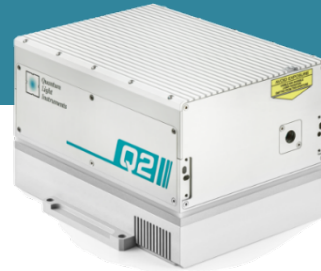
compact diode pumped
Q-switched laser



- Up to 45 mJ pulse energy
- Up to 0.5 W average output power
- < 10 ns pulse duration
- Variable pulse repetition rate
- Built-in sync pulse generator
- > 2 Gshot pump diode lifetime
- Options:
 - 2nd, 3rd, 4th or 5th harmonic generators
 - motorized attenuator for fundamental wavelength
 - pulse energy monitor with digital and analog readout
 - fiber coupled output

Q2

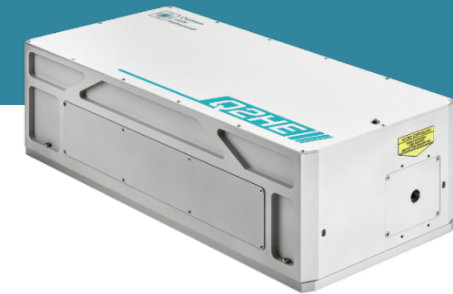
high peak power compact
Q-Switched laser



- Up to 80 mJ pulse energy
- Up to 2 W average power
- 1053 or 1064 nm output wavelength
- Up to 200 Hz pulse repetition rate
- Variable pulse repetition rate for 1053 nm models
- >2 Gshot lifetime of pump diodes
- Built-in sync pulse generator
- Remote monitoring and control via built-in Ethernet interface
- Options:
 - attachable 2nd harmonic generator.
 - 2nd, 3rd, 4th or 5th stand-alone harmonic generator.
 - attenuator for fundamental wavelength.
 - pulse energy monitor.

Q2HE

high energy air-cooled
Q-switched laser



- Up to 120 mJ pulse energy
- Up to 4 W average power
- 1053 or 1064 nm output wavelength
- Up to 100 Hz pulse repetition rate
- Variable pulse repetition rate for 1053 nm models
- >2 Gshot lifetime of pump diodes
- Built-in sync pulse generator
- Remote monitoring and control via built-in Ethernet interface
- Options:
 - attachable 2nd harmonic generator.
 - 2nd, 3rd, 4th or 5th stand-alone harmonic generator.
 - attenuator for fundamental wavelength.
 - pulse energy monitor.

Our Products

Q-SPARK

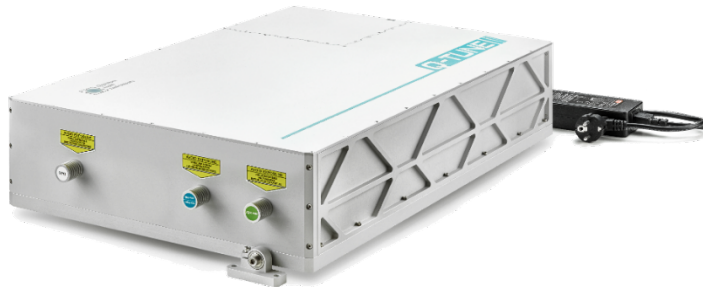
short pulse Q-switched laser



- Up to 10 mJ pulse energy at 1064 nm
- NEW! Short pulse duration down to 750 ps
- Up to 100 Hz repetition rate
- > 2 G shot lifetime of pump diodes
- Built-in sync pulse generator
- Remote monitoring and control via built-in Ethernet interface
- Options:
 - Optional build-in 2nd, 3rd or 4th harmonic generator
 - Optional attachable PC controlled motorized attenuator
 - Optional attachable pulse energy monitor
 - Optional fiber coupled output

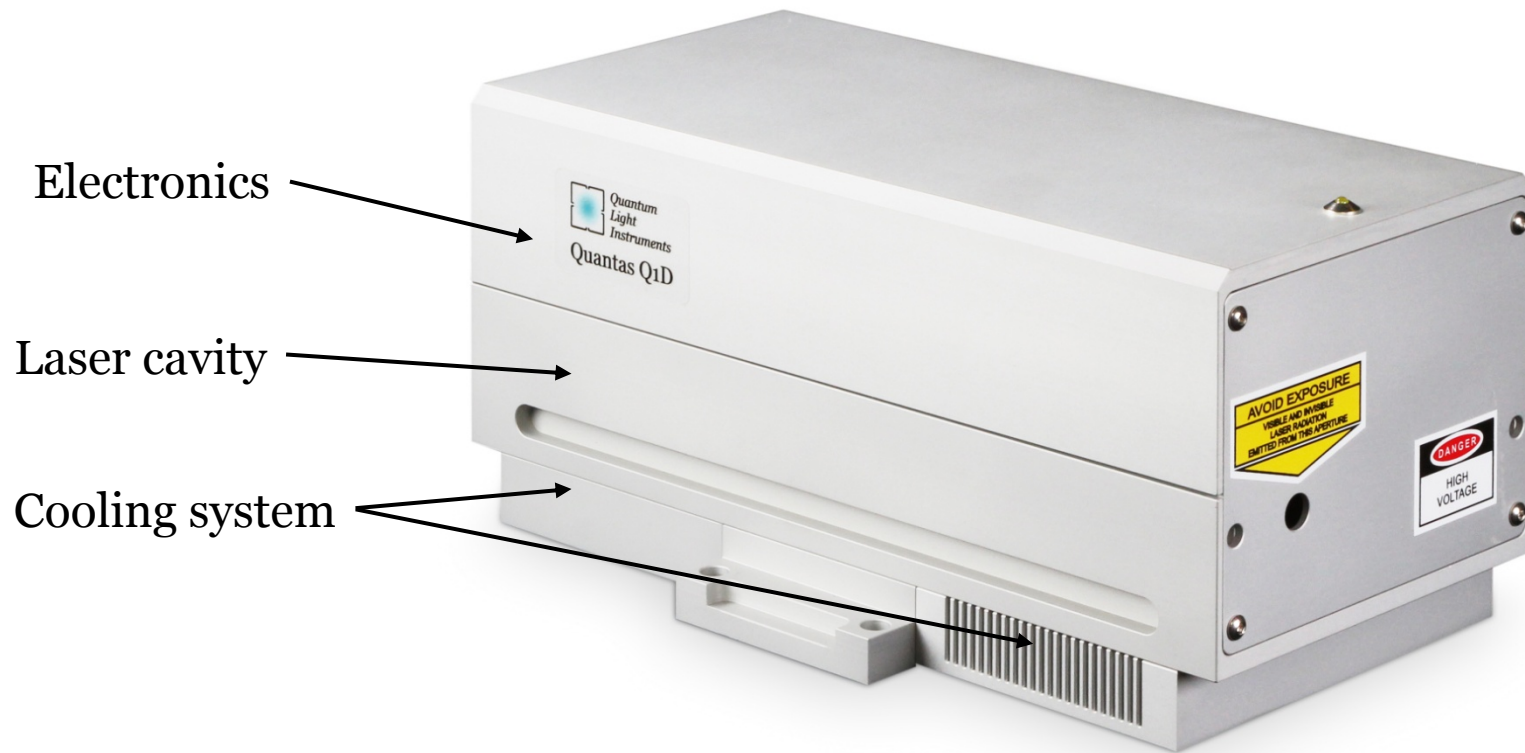
Q-TUNE

air-cooled, diode-pumped, tunable wavelength Q-switched laser



- Seamless Laser and Optical Parametric Oscillator (OPO) integration
- Hands-free, automated tuning from 210 to 2300 nm
- Up to 5 mJ pulse energy in visible range
- $<6 \text{ cm}^{-1}$ linewidth
- Truly variable up to 100 Hz pulse repetition rate: no performance change from single shot to maximum repetition rate
- Internal or external triggering modes
- Separate output ports for access to pump laser wavelengths
- Low power consumption – from < 50 to < 150 W depending on model
- Microprocessor controlled operation with self-optimization, self-calibration capability.
- >2 Gshot pump diode lifetime.

Similar design across all models for ease of use...



All QLI lasers are air-cooled (Water-free)

Applications

- Light Induced Breakdown Spectroscopy (LIBS)
- Laser ablation (marking, LCD repair etc.)
- Laser shock wave generation
- Time-of-Flight Spectroscopy (TOFS)
- Flash photolysis
- Pulsed Light Deposition (PLD)
- Remote sensing (LIDAR etc.)
- Laser designation (military)
- Ophthalmology (medical)
- Light Induced Fluorescence (LIF) Spectroscopy
- Matrix Assisted Laser Desorption/Ionization (MALDI)



What are our advantages?

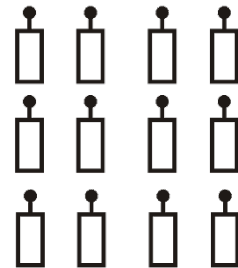
- Air-cooled laser design
- High energy, short nanosecond to sub-nanosecond pulses
- Low divergent, bell shaped beam improves user ability to focus the beam
- Efficient UV generation - Harmonics options down to 211 nm with >10% conversion efficiency
- Compact & lightweight – system only ~4.5 kg (Q1)
- Energy efficient - advantage for portable, multichannel systems
- Cost-effective - minimum redundant features
- No regular maintenance

The laser of choice for:



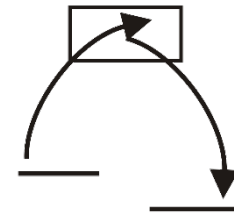
RELIABILITY

Reliability is our top priority. Our products are designed to require minimum maintenance and produce stable output in changing environmental conditions.



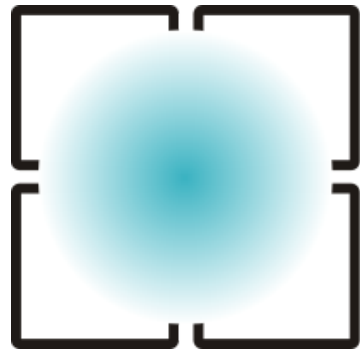
REPEATABILITY

High volume production design. No state-of-the-art components or assembly techniques results in repeatable day-to-day manufacturing.



MAINTAINABILITY

Modular design allows quick replacement of worn or faulty components.



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RPMC Lasers, Inc is proud to be an exclusive
North American source for QLI Lasers

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