

PL2200

SERIES

Diode Pumped Picosecond Nd:YAG Lasers

FEATURES

- High energy at **kHz** rates
- All **solid state** design
- **Compact** size
- **Turn-key** operation
- **Perfect synchronization** with external devices
- **Low maintenance costs**
- **Low jitter** internal/external synchronization
- **PC** connection with **LabView** drivers
- **Remote** control keypad
- **532/355/266 nm** wavelengths available

APPLICATIONS

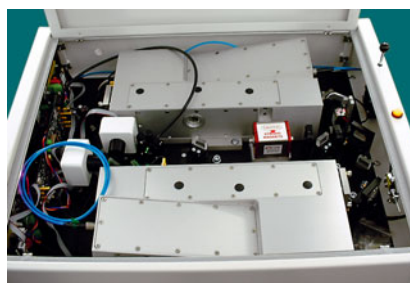
- Material processing
- OPG/OPA pumping
- Time resolved fluorescence, absorption, pump-probe spectroscopy
- Micromachining
- Laser tweezers
- Characterization of optical materials
- Your application is welcome...



High pulse energy, up to 1.5 kHz repetition rate and stable output specifications makes PL2200 series lasers excellent choice for many applications including material processing, nonlinear spectroscopies and other tasks.

PL2200 series available models:

- **Compact** model **PL2200** providing **> 50 μ J** energy ps pulses at **1.5 kHz** repetition rate
- **Powerful** version **PL2210** with diode pumped regenerative amplifier delivering up to **3 mJ** at **1 kHz**
- **Short pulse** version **PL2210JE**. **~20 ps** pulse duration at **1 kHz** repetition rate is available due to the unique and innovative PL2210JE design
- **Custom** systems



PL2200



PL2210

SPECIFICATIONS

MODEL	PL2200	PL2201	PL2210	PL2210JE
Max. output energy, mJ				
at 1064 nm	0.05	0.1	3.0	0.90
at 532 nm	0.02	0.04	1.3	0.35
at 355 nm	0.008	0.015	0.9	0.20
at 266 nm	–	0.01	0.6	0.15
Pulse energy stability (StDev), % ¹⁾				
at 1064 nm			1	
at 532 nm			2	
at 355 nm			3	
at 266 nm	–	4	4	4
Pulse duration (FWHM), ps	< 30	< 70	< 70	< 20
Pulse duration stability (StDev), % ²⁾			1	
Max. repetition rate, Hz	100–1500 ³⁾	100–1500 ³⁾	1000 ³⁾	2000
Spatial mode			TEM ₀₀	
Beam divergence, mrad ⁴⁾			< 1.6	
Beam diameter, mm	~ 1	~ 1	~ 3	~ 2
Optical pulse delay, ns ⁵⁾	100–300	100–300	200–300	200–300
Optical pulse jitter (StDev), ns ⁵⁾			< 0.25	
Contrast ratio (to residual pulse) ²⁾			> 200:1	
Polarization purity, linear ²⁾			> 100:1	
PHYSICAL CHARACTERISTICS				
Laser head size (W×H×L), mm	445×205×582 ⁶⁾	445×205×582	445×260×1020	446×243×1051
Electric cabinet size (W×H×L), mm	260×150×265	260×150×265	449×419×133	365×289×365
Re-circulating chiller size (W×H×L), mm	N/A	N/A	320×510×600	N/A
OPERATING REQUIREMENTS				
Relative humidity (non-condensing), %		5–80		
Operating ambient temperature, °C		15–30		
Voltage		200–240 VAC, single phase 50/60 Hz		
Powering, kW	< 0.3	< 0.3	< 1	< 0.6

¹⁾ When the ambient temperature fluctuations do not exceed 2 °C.
²⁾ At 1064 nm.

³⁾ Higher repetition rates available.
⁴⁾ Full angle at 1/e².
⁵⁾ With respect to sync-out pulse.

⁶⁾ Without harmonic units.

Specifications are subject to changes without advance notice.

RELATED PRODUCTS

Industrial Grade Picosecond Diode Pumped Laser PL10100 SERIES

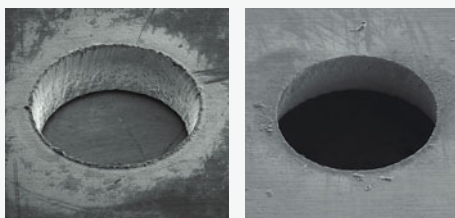
- Up to ~ 200 µJ high pulse energy
- Up to 100 kHz repetition rate
- Short pulse duration ~10 ps
- 10 W output power at 1064 nm

Nanosecond E/O Q-switched Diode Pumped Lasers NL640 SERIES

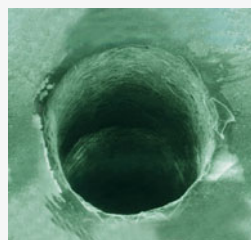
- 6 W output power at 40 kHz
- 6–14 ns pulse duration
- TEM₀₀ shape beam
- Extremely compact size
- Air cooled



MICROMACHINING SAMPLES



Hole made in 200 µm thickness stainless steel:
Inlet, diameter 570 µm Outlet, diameter 475 µm



200 µm through-out hole made in diamond



Requests for custom made products are welcome.



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