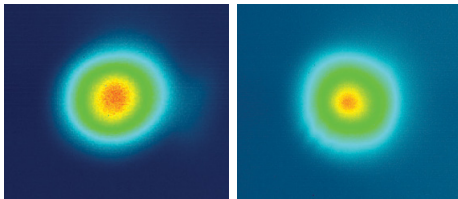


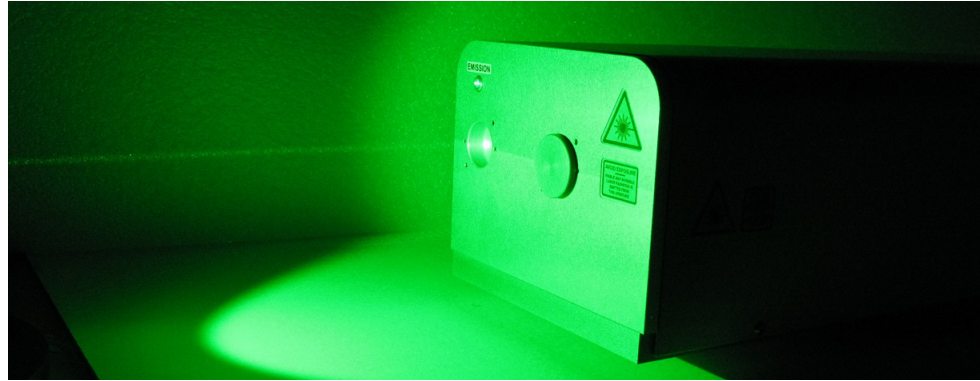
# LD60-532

**High Repetition Rate DPSS Nd:YAG Laser**  
**60W Total Output at 532nm**



Near field beam profile at 10kHz  
60W, 532nm

Far field beam profile at 10kHz  
60W, 532nm



The **LD60-532** is a robust Q-switched CW intracavity doubled Nd:YAG laser, highly suited to a wide range of industrial and research applications.

Litron's latest DPSS technology gives maintenance free long lifetime operation and low cost of ownership ensuring a fast return on investment.

The Invar rail around which the system is constructed imparts exceptional mechanical and thermal properties to ensure excellent stability and repeatable processing.

A sealed head enclosure ensures continuous reliable operation, making the LD60-532 ideal for high volume industrial applications in demanding environments.

The LD60-532 is designed with state of the art power supply and control features which can be supplied as either a stand-alone turnkey system or easily integrated into industrial OEM equipment.

## APPLICATIONS

- **Silicon Annealing**
- **Silicon Drilling**
- **Diamond Cutting**
- **Thin Film Patterning**
- **Micromachining**
- **Photovoltaic Processing**
- **LIDAR**
- **Spectroscopy**
- **Ti:Sa Pumping**

## KEY FEATURES

### **532nm laser head giving**

- **60W at 10kHz**
- **Repetition rates up to 50kHz with individual pulses**
- **Diode lifetime >10,000 hrs**
- **Ultra stable output (<0.2% RMS)**
- **Circular homogenous beam profile**
- **Optimised for high brightness**
- **Fibre delivered beam option**

## SYSTEM BENEFITS INCLUDE

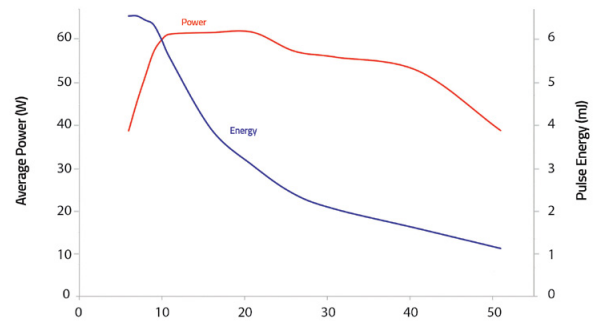
- **Industrially stable Invar rail**
- **Fully integrated power supply and chiller**
- **RS232 interface with GUI software included**
- **Ruggedised laser head for harsh environments**
- **Worldwide warranty and service**
- **Dual head option - 120W output**

# TECHNICAL DATA LD60-532

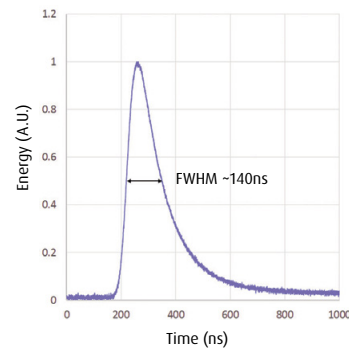
Model	LD60-532
<b>Total output power (W)</b>	<b>60</b>
Repetition rate (kHz)	5-50
Output energy at 10kHz, 532nm (mJ)	6.0
<b>Parameters at 10kHz</b>	
Pulse to pulse stability RMS (%)	<0.2
Beam diameter (mm) <sup>(1)</sup>	5
Beam divergence (mrad) <sup>(2)</sup>	<4
Beam circularity (%)	>85
Pulse width (ns)	<150
Pointing stability (µrad)	<25
Long term stability (%rms)	1
Polarisation	Horizontal
<b>SYSTEM</b>	
<b>Operation</b>	
Control <sup>(3)</sup>	LUCi/RS232
Q-switch trigger and sync	TTL
<b>Services</b>	
Voltage (VAC)	220-250
Frequency (Hz)	50 or 60
Power	Single Phase
Ambient (°C) <sup>(4)</sup>	5-35
Power supply and integrated chiller	19" 18U Rack
Umbilical length (m)	3
Warm up time from cold start (mins)	<20
<b>Weights</b>	
Head (kg)	45
PSU including chiller (kg)	140

- (1) Beam diameter is achieved with output telescope. Standard diameters quoted. Other diameters are available on request.
- (2) At specified beam diameter.
- (3) Full software suite and programming tools supplied.
- (4) 0-80% non condensing atmosphere, laser head only.

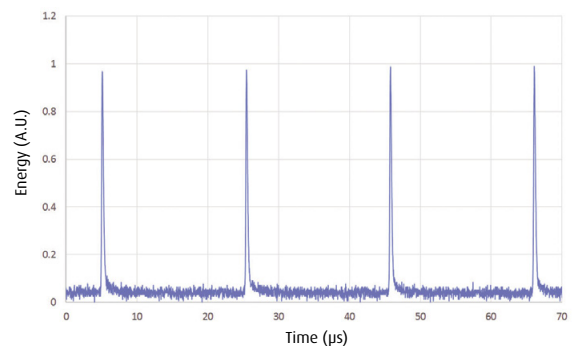
LD60-532 Performance curves at 532nm



LD60-532 Pulse shape at 10kHz

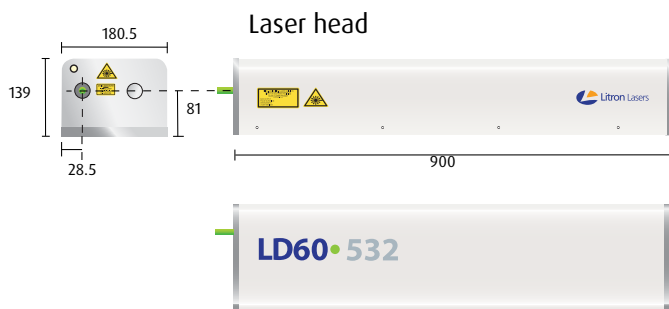


LD60-532 at 50kHz. Plot shows individual pulses with <400ns pulse duration

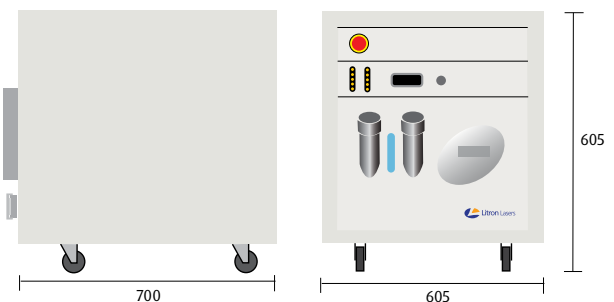


## MECHANICAL DATA

All dimensions shown in mm



## Fully integrated rack-mounted PSU and chiller



Our policy is to improve the design and specification of our products. The details given in this document are not to be regarded as binding.



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