

Arktis Laser Product Datasheet

LWL-0532 Lamp-Pumped Q-Switched DPSS Laser System



Series Specifications:

| | |
|--------------------|----------------------|
| Nominal Wavelength | 532 nm |
| Output Type | Q-Switched |
| Laser Source Type | Lamp-Pumped Solid St |

Overview:

The LWL-0532 Series of Lamp-Pumped Solid-State Q-Switched Lasers offer extremely high pulse energies in the range of 30mJ to 150mJ. The laser uses an embedded EOM to control the pulse frequency at a fixed rate of 10 Hz. The pulses themselves are extremely short, between 8-10 ns in duration.

Laserglow products are currently being used by some of the world's top universities and other prominent research facilities.

Key Features:

- EOM Q-switch generates short, powerful pulses
- Closed-loop water cooling system
- Runs on standard AC power (85 - 264 V, 47 - 63 Hz)
- FDA/CDRH Compliant Class IV enclosure

Package Includes:

- Laser Head
- Driver/Power Supply
- Water chiller

Specifications:

This spec sheet has been generated specifically for part number U53-LT, per your request, and data for the entire series is also displayed for your reference. The specs which are specific to U53-LT have been highlighted below in **red + bold**.


| | | |
|--|------------------------------------|-----------------------------|
| Output Power (mW) | 2, 25, 100, >300 | >4500 |
| Single Pulse Energy (μJ) | 2, 25, 100, 30000 | 450,000 |
| Optimal Pulse Frequency (Hz) | 10 | 10 |
| Output Power Stability (%RMS/4h) | <1, <3, <5 | <3 |
| Central Wavelength (nm) | 532 | |
| Wavelength Tolerance (+/- nm) | 1 | |
| Divergence (mrad, full angle) | <1.5, <3 | <3 |
| Beam Dimensions (mm, 1/e ²) | 3, 6 | 8 |
| Warm-up Time (minutes) | 15 | |
| Avg. Pulse Duration (ns) | 10 | |
| Approximate Peak Power (W) | | 45,000,000 |
| Operating Temperature Range (°C) | 15 to 35 | |
| Max. TTL Modulation Freq. (Hz) | 10 | 10 |
| Modulation Input Signal | 0-5 VDC | 0-5 VDC |
| Max. Power Input Duty Cycle | 100% | 100% |
| Standard Warranty (months) | 12 | 12 |
| MTTF (operational hours) | | 10000 |
| Weight of Product or Laser Head (kg) | 14 | |
| Beam Height from Base Plate (mm) | 75 | 80 |
| Dimensions of Product or Laser Head (mm) | 568 (l) x 150 (w) x 130 (h) | 600 (l) x 245 (w) x 130 (h) |

CW: All specifications are based on performance at full output power and after the specified warmup period. Output characteristics may change if the laser is run at a different power level.

Q-Switched: Specifications are based on the laser pulsing at the specified design frequency. Output characteristics may change if the laser is run at a different frequency.

Power Supply Options:

These lasers are available with several different power supply options. The model that you have selected is highlighted below, and any other options are shown for easy reference.

| | | |
|---|--------------------------|------------------------------------|
| | Power Supply Type: | FL |
| FDA-Compliant Driver  | Input Power | 85v to 264v |
| | Power Supply Weight (kg) | 15 |
| | Dimensions (mm) | 480 (l) x 465 (w) x 135 (h) |

*Power supply may not be exactly as shown, see dimensional drawings on next 2 pages.

*Dimensions for fiber-integrated (I_) include laser head packaged inside.

Regulatory Classification:

The model you have selected (U53-LT) requires the following safety label(s):



Accessories:

The most popular accessories for model U53-LT are shown below. For additional details regarding these or other accessories please see our website or contact us directly.

| Part Number | Description | |
|-------------|-------------|--|
|-------------|-------------|--|

FOR MORE INFORMATION PLEASE CONTACT:

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E&OE: Data included in this sheet may be subject to change without notice.

Please confirm critical specifications with our staff prior to ordering.