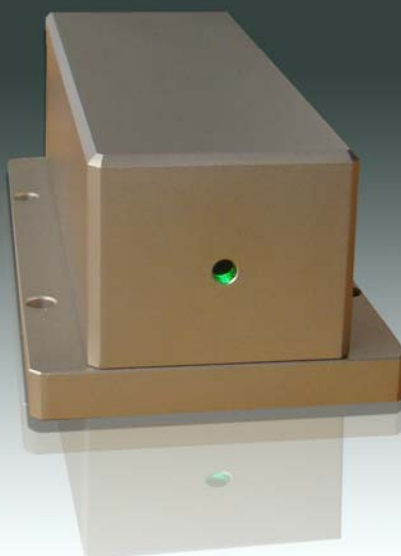


# Single Longitudinal Mode Green DPSS Laser

*Your Laser Solutions*  
Single Frequency Laser Technology



## Action532Q

AOTK Action532Q lasers are ultra compact, continuous wave, diode-pumped all-solid-state of 532nm laser. Single-longitudinal mode operation provides a narrow spectral bandwidth, low noise and long coherence length. The laser is designed and manufactured to ensure a high level of reliability.

The Action532Q lasers are intended for stand-alone use in laboratory environment or for integration as OEM component in equipment for many applications. Available output power upto 50mW.

Key Features	Applications
<ul style="list-style-type: none"><li>• Single-longitudinal Mode</li><li>• Ultra Low Noise</li><li>• Highest Reliability</li><li>• Narrow Spectral Bandwidth</li><li>• Excellent Beam Quality</li><li>• Long Lifetime</li></ul>	<ul style="list-style-type: none"><li>• Raman Spectroscopy</li><li>• Biotechnology</li><li>• Holography</li><li>• Confocal Microscope</li><li>• DNA Sequencing</li><li>• Flow Cytometry</li><li>• Cell Sorting</li><li>• Interference</li><li>• Photoluminescence</li><li>• Micro-material Processing</li><li>• Bio-instrument</li><li>• Precision Measurement</li><li>• Chip Inspection</li><li>• Physics Experiments</li></ul>

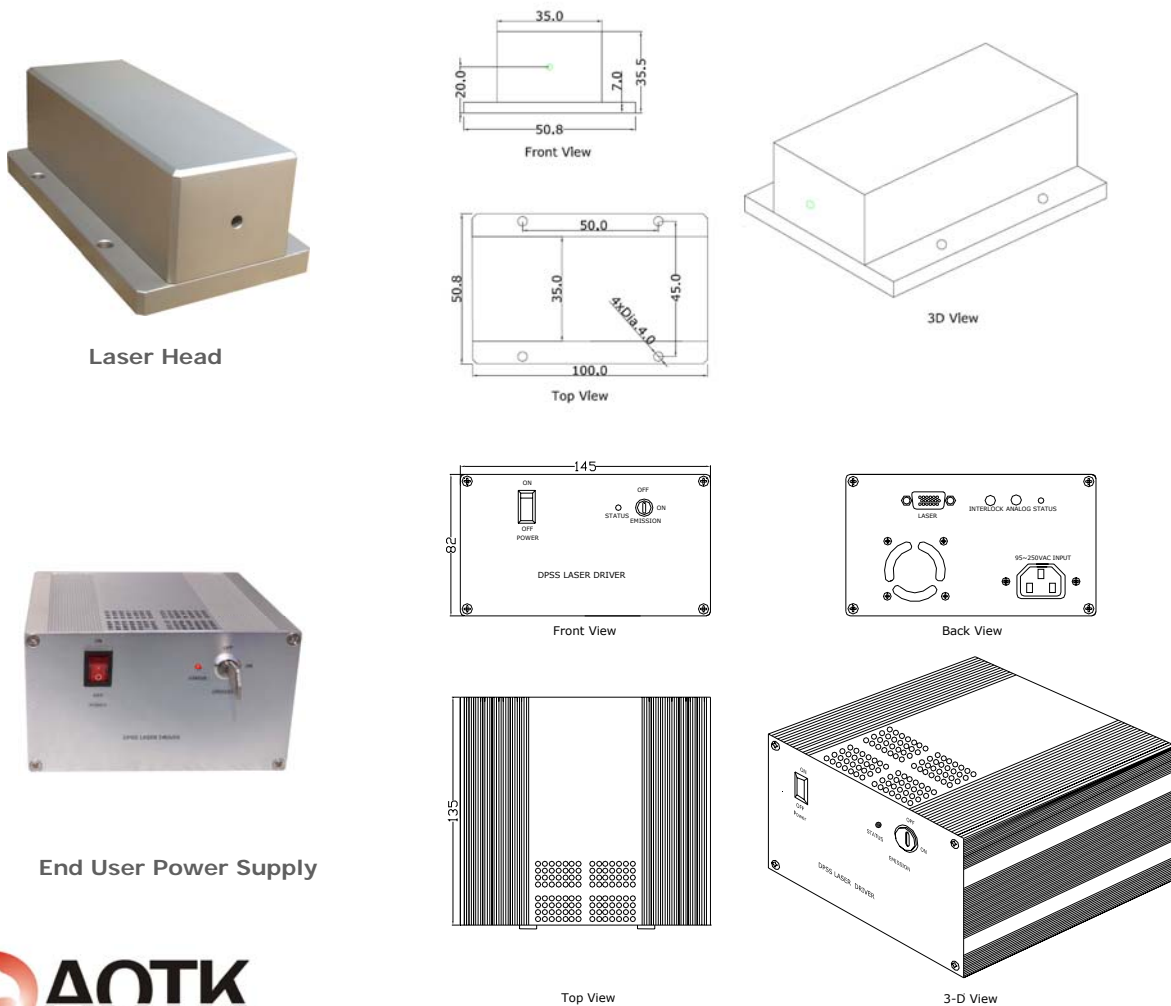
Specifications	
Wavelength	532 nm
Operating Mode	CW
Output Power	20, 50 mW
Spatial Mode	TEM <sub>00</sub>
Longitudinal Mode	Single
Mode Quality M <sup>2</sup>	< 1.05
Spectral Linewidth	< 30MHz
Coherent Length	> 100 m
Beam Diameter @ 1/e <sup>2</sup>	< 1.0 mm (Typical 0.8 mm)
Beam Divergence (full angle)	< 1.0 mrad
Circularity of Beam	> 95%
Pointing Stability (rms, over 3 hours and 25±2C°)	< 10 μrad

Noise (0 Hz to 20 MHz)	< 0.1% rms
Power Stability (rms, over 24 hours)	< ±1%
Polarization Ratio (Liner, 45°)	> 100:1
Beam Height from the Base (mm)	20 mm
Warm-up Time	< 10 minutes
Expected Lifetime	>10,000 Hours

### Utility and Environmental Requirements

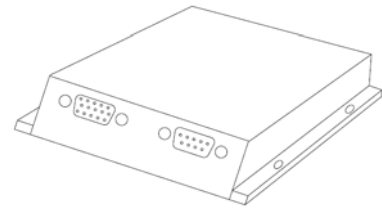
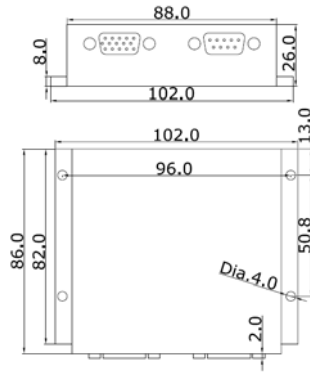
Operating Voltage	5VDC, 95-250VAC
Power Consumption	< 40W
Maximum Laser Head Baseplate Temperature for Conductive Cooling	40°C
Ambient Temperature Operating Range	10°C ~ 35°C
Storage Temperature	-20°C ~ +70°C
Dimensions (LxWxH)	
Laser Head	100 x 50.8 x 35.5 mm
Power Supply	145 x 135 x 82 mm (for End User Version) 102 x 88 x 26 mm (for OEM User Version)
Weights	
Laser Head	350 g
Power Supply	300 g (OEM Version ) 1200 g (End User Version)

### Dimension Diagram: Laser Head & Power Supply (mm)





OEM Power Supply



### Ordering information

Part No.	Output Power
Action532Q-0020	20 mW
Action532Q-0050	50 mW

**Note:**

Analog modulation (option): 0-2VDC

TTL modulation (option): 0-10KHz

### Warranty

AOTK offers a limited warranty for all laser systems. AOTK diode-pumped solid state lasers are warranted to be free of defects in materials and workmanship for 12 months from the date of shipment. For full details of this warranty coverage of further products information, please refer to the Service and Support section at [www.AOTK.com](http://www.AOTK.com), or contact your local Sales or Service representative.

**Laser safety and electrical safety:**

Caution! Visible and invisible laser radiation is extremely dangerous. Avoid eye or skin exposure to direct radiation or diffuse reflection. Most AOTK laser systems fall into class III or class IV laser classification. Most laser systems utilize different level AC and DC voltage in both laser head and power supply. All AOTK products are designed in a compact package.

### NOTES

1. Due to our continuous product improvement program, specifications may change without notice.
2. Specifications apply to operation at the wavelength noted.
3. All statements, technical information and recommendations related to the products herein are based upon information believed to be reliable or accuracy or completeness thereof is not guaranteed, and no responsibility is assumed for any inaccuracies. The user assumes all risks and liability whatsoever in connection with the use of a product or its application, AOTK reserves the right to change at any time of a product offered for sale herein. AOTK makes no representations that the products herein are free from any intellectual property claims of others. Please contact AOTK for more information.



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