**CW532-020**

- Green DPSS Laser Module
- 532 nm, 20 mW
- Fix Collimated Acryl Lens
- Automatic Power Control
- 3 VDC Input Voltage
- IR Filter

**Description**

CW532-020 is a compact size fix collimated diode pumped solid state (DPSS) Nd:YVO4+KTP laser module with a typical emission wavelength of 532 nm, and an optical output power of typically 20 mW. It features automatic power control (APC) driving electronics, an IR filter to block residue IR radiation, and is designed for 3 VDC supply voltage. CW532-020 comes equipped with a coaxial power connector. A matching power supply and suitable heat sink is optionally available for quick setup and convenient operation (see page 3 for details).

**Maximum Ratings** \( (T_{\text{CASE}} = 25^\circ\text{C}) \)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Min.</th>
<th>Max.</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature</td>
<td>+15</td>
<td>+30</td>
<td>°C</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-20</td>
<td>+80</td>
<td>°C</td>
</tr>
</tbody>
</table>

**Electro-Optical Characteristics** \( (T_{\text{CASE}} = 25^\circ\text{C}) \)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Min.</th>
<th>Typ.</th>
<th>Max.</th>
<th>Unit</th>
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<tbody>
<tr>
<td>Peak Wavelength</td>
<td>531</td>
<td>532</td>
<td>533</td>
<td>nm</td>
</tr>
<tr>
<td>Radiated Power</td>
<td></td>
<td>20</td>
<td></td>
<td>mW</td>
</tr>
<tr>
<td>Beam diameter at aperture</td>
<td></td>
<td>1.5</td>
<td></td>
<td>mm</td>
</tr>
<tr>
<td>Transverse mode</td>
<td></td>
<td>TEM(_00)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warm up time</td>
<td></td>
<td>&lt;3</td>
<td></td>
<td>s</td>
</tr>
<tr>
<td>Beam divergence</td>
<td></td>
<td>0.8</td>
<td></td>
<td>mrad</td>
</tr>
<tr>
<td>Operating Current</td>
<td></td>
<td>250</td>
<td></td>
<td>mA</td>
</tr>
<tr>
<td>Supply Voltage</td>
<td>2.2</td>
<td>3</td>
<td>3.2</td>
<td>VDC</td>
</tr>
<tr>
<td>Material body</td>
<td></td>
<td>brass</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Material lens</td>
<td></td>
<td>acryl</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>Ø12 x 31 (49)</td>
<td>mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connector</td>
<td></td>
<td>IEC 60130-10, Type A, 5.5/2.1 mm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTTF</td>
<td>3000</td>
<td></td>
<td></td>
<td>h</td>
</tr>
</tbody>
</table>

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**NOTICE**

**LASER MODULE MUST BE COOLED**

**LASER RADIATION AVOID EXPOSURE TO BEAM CLASS 3B LASER PRODUCT**

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www.roithner-laser.com
Outline Dimensions

![Outline Dimensions Diagram]

All dimensions in mm

Electrical Connection

(IEC 60130-10, Type A, 5.5/2.1 mm)

![Electrical Connection Diagram]

Precautions

**Static Electricity:**
Precautions against electrostatic discharge (ESD) must be taken when handling or operating the module. Surge voltage or electrostatic discharge can result in complete failure of the laser diode.

**Heat Sinking:**
In order to maintain lifetime and stability of the laser diode it is essential to provide efficient heat management. For long time stable operation proper contact between laser module and heat sink is mandatory.

**Safety:**
This laser module emits highly concentrated visible light which can be hazardous to the human eye and skin. It is classified as CLASS 3B laser product according to IEC 60825-1 and 21 CFR Part 1040.10 Safety Standards. Actual laser light emitted and precautions necessary strongly depend on mode of operation.

![Safety Warning]

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Accessories

Laser Power Supply LPS31

- 110-230 VAC universal input voltage
- Small ripple (<80 mV)
- AC Europlug (CEE7/16)
- ON/OFF switch
- IEC 60130-10 Type A connector
- Output 3 VDC, max. 1 A

Heat Sink SQ50x34

- Aluminium, black anodized
- 50 x 50 x 34 mm
- 114 g
- Clamping mechanism

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