CCS-I Series
Integrated Cool & Control Module

ALPhA NOV
Optics & Lasers Technology Center

www.alphanov.com
Laser diode source and control modules with integrated laser diode, user adjustable current / temperature control and pulsed or CW (Continuous Wave) modes of operation.

Key features
- ALPhANOV integrates laser diodes which are sourced from industry leading manufacturers and offer proven reliability and performance. Current/temperature control circuits and safety limits are pre-set and optimized to ensure the highest level of performance in pulsed or CW mode.
- Laser diodes with driving current up to 1.2 A in both CW or pulse regime and TEC current up to 3.8 V/1.5 A can be integrated.
- Min. pulse duration: ≤1.5 ns, <1 ns Jitter, up to 4 MHz repetition rate.
- Compatible with ALPhANOV HPP technology (High Pulse Performance) with ultra low Jitter, 250 MHz maximum frequency, 3500 mA maximum current and low noise adjustable CW Offset current under pulse.
- All versions are delivered with adapted protected fiber with high grade optical connector.
- All version can be controlled either through USB link or through an analog signals or with a manual knob.
- Most versions show fast delivery for immediate customer use.

Key applications
- Laser development
- Laser alignment
- Nondestructive control
- Telemetry
- Doppler measurements
- Metrology

Other wavelength available in Pulse & CW regime: 845, 1310, 1480, 1550, 1950 etc.

Technical Specifications

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<tbody>
<tr>
<td>CW only</td>
<td>808±5</td>
<td>0.2 (typical)</td>
<td>250</td>
<td>-</td>
<td>Low current (LC)</td>
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<tr>
<td>980 nm</td>
<td>CW only</td>
<td>976±1</td>
<td>500 or 1000</td>
<td>-</td>
<td>Low current (&gt; 500 mW) or HC (1000 mW)</td>
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<tr>
<td>1030 or 1064 nm PM-DFB</td>
<td>Pulse &amp; CW</td>
<td>1030±2 or 1064±2</td>
<td>&lt; 0.2</td>
<td>200</td>
<td>Low current (LC)</td>
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<tr>
<td>1064 nm Bragg close to the chip</td>
<td>Pulse &amp; CW</td>
<td>1064±2</td>
<td>&lt; 0.3</td>
<td>300</td>
<td>950</td>
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<tr>
<td>1060 nm seeder</td>
<td>Pulse &amp; CW</td>
<td>1060±10</td>
<td>&lt; 2.0</td>
<td>420</td>
<td>800</td>
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<tr>
<td>1420 or 1450 or 1500 nm PM-FBG</td>
<td>Pulse &amp; CW</td>
<td>1450 or 1450 or 1500 ±0.5</td>
<td>&lt; 2.0</td>
<td>350</td>
<td>350</td>
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Electrical
- Operating voltage: 12-15 Vdc (OEM) 110/220V AC/DC converter included
- Input impedance: 50 Ω

Mechanical
- Noise curve for low current (LC) and high current (HC) version
- Dimensions: 45 x 129.8 x 147.5 mm
- Tolerance: ISO 2768 fH
- Ra if not specified: 3.2