

CK INSTRUMENT QUALITY LASER MODULE

with Beam Pointing Stability



The instrument quality CK laser module has been designed for your most demanding scientific and analytical applications. Created with an industry standard footprint in mind, the CK specifically addresses the needs of high-end OEM applications requiring superior optical quality and ultra-stable wavelength & output powers. The CK features an onboard microprocessor allowing for advanced user control and monitoring, as well as a precision current source and ultra-stable temperature control. Beam circulation is also available.



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- Beam pointing stability < 5 μ Rad/°C
- Stable output power
- Onboard microprocessor
- Adjustable focus
- USB & RS-232 communications

Optional Features

- Analog modulation, or TTL digital modulation
- Circularized or standard elliptical beam

Applications

- Laser-induced fluorescence
- Data storage
- Flow cytometry
- Spectroscopy
- Holography

The instrumental quality CK laser module has been designed specifically to address the needs of high-end OEM applications requiring superior optical quality and ultra-stable wavelength and output powers.

The CK features an onboard microprocessor allowing for advanced integration and user control. Additionally, the CK contains a precision current source and ultra-stable temperature control.

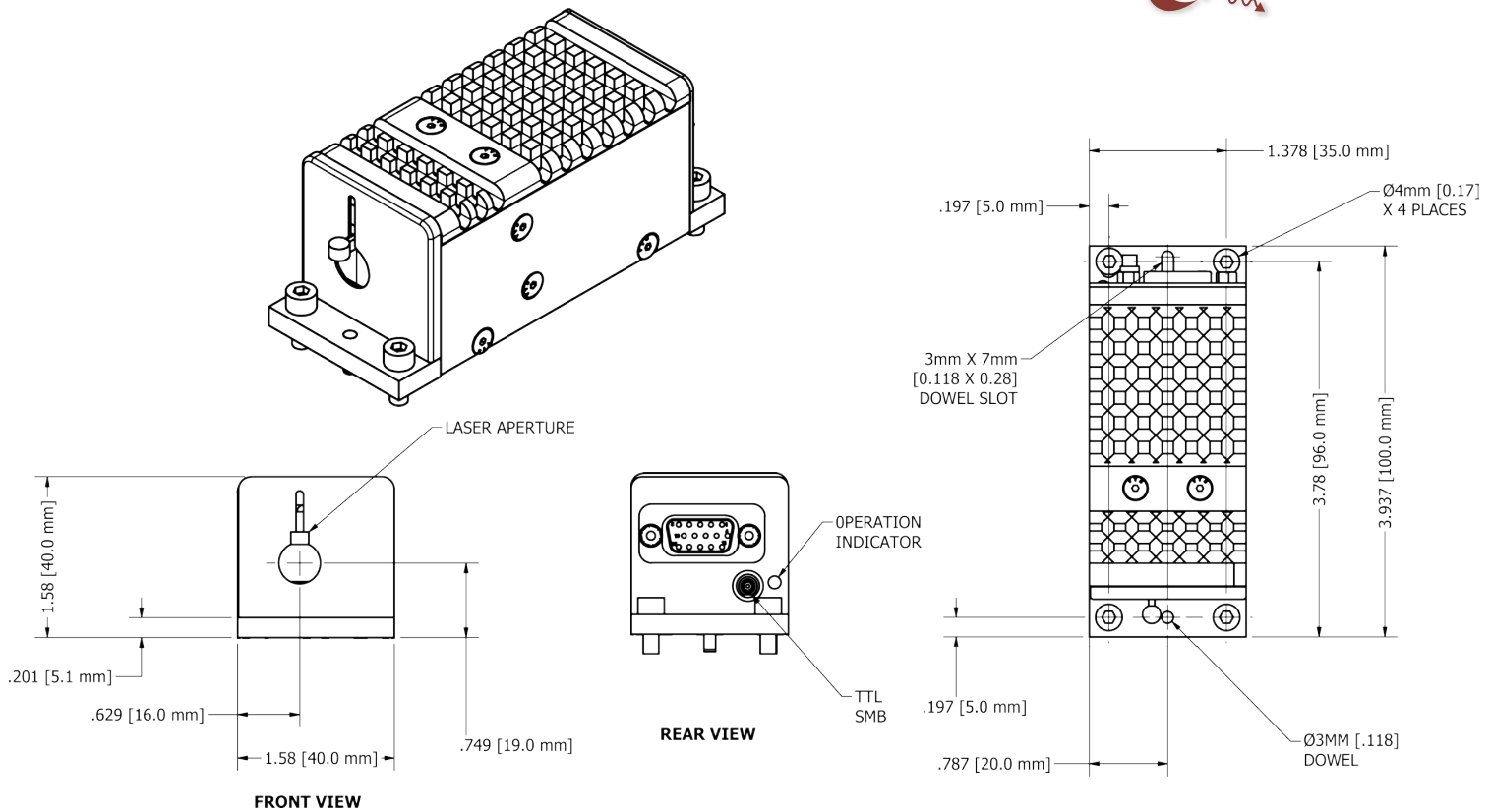
To promote stability of wavelength and output powers, a precision current source as well as a precision temperature control has been incorporated in the module. The low operating voltage helps to create less heat waste increasing diode lifetime, efficiency, and reliability.

The mechanical design of the CK allows users to replace more expensive lasers without sacrificing performance.

Specifications

| | CK(375-50)G35 | CK(405-100)G35 | CK(450-50)G35 | CK(488-50)G35 | CK(635-15)G36 | CK(640-40)G16 |
|---------------------------------------|---------------|----------------|---------------|---------------|---------------|---------------|
| Wavelength | 375 | 405 | 450 | 488 | 635 | 640 |
| Output Power (mW) | 50 | 100 | 50 | 50 | 15 | 40 |
| Beam Size @ Exit [mm ²] | 1.04x2.60 | 1.05x2.34 | 0.89x2.54 | 1.19x2.86 | 1.06x3.96 | 1.18x2.47 |
| Divergence [mrad] | 0.47x0.24 | 0.49x0.23 | 0.65x0.23 | 0.53x0.22 | 0.78x0.49 | 0.70x0.36 |
| Typical Supply Voltage (VDC) | 8 | 8 | 8 | 8 | 5 | 5 |
| Typical Supply Current (ADC) | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| Typical LD Temperature Stability (C°) | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 |
| Noise RMS (10Hz-100MHz) % | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Power Stability (8h APC mode) % | 1 | 1 | 1 | 1 | 1 | 1 |
| Beam Pointing Stability (per C) | <5 μ Rad | <5 μ Rad | <5 μ Rad | <5 μ Rad | <5 μ Rad | <5 μ Rad |
| Polarization | Linear | Linear | Linear | Linear | Linear | Linear |
| Polarization Ratio at Full Power | >100:1 | >100:1 | >100:1 | >100:1 | >100:1 | >100:1 |
| Dimensions (mm) | 40x40x100 | 40x40x100 | 40x40x100 | 40x40x100 | 40x40x100 | 40x40x100 |
| Weight (lbs) | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 |
| Warranty | 1 year | 1 year | 1 year | 1 year | 1 year | 1 year |

* Additional Specifications on Page 3



Specifications

| | CK(643-90)G16 | CK(660-50)G36 | CK(660-100)G16 | CK(685-40)G16 | CK(730-50)G36 | CK(783-40)G36 |
|---------------------------------------|---------------|---------------|----------------|---------------|---------------|---------------|
| Wavelength | 643 | 660 | 660 | 685 | 730 | 783 |
| Output Power (mW) | 90 | 50 | 100 | 40 | 50 | 40 |
| Beam Size @ Exit [mm ²] | 1.18x2.47 | 1.33x1.86 | 1.18x2.00 | 1.06x2.48 | 1.20x2.40 | 1.21x2.15 |
| Divergence [mrad] | 0.70x0.36 | 0.64x0.46 | 0.72x0.43 | 0.83x0.37 | 0.78x0.29 | 0.83x0.47 |
| Typical Supply Voltage (VDC) | 5 | 5 | 5 | 5 | 5 | 5 |
| Typical Supply Current (ADC) | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| Typical LD Temperature Stability (C°) | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 |
| Noise RMS (10Hz-100MHz) % | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Power Stability (8h APC mode) % | 1 | 1 | 1 | 1 | 1 | 1 |
| Beam Pointing Stability (per C) | <5µRad | <5µRad | <5µRad | <5µRad | <5µRad | <5µRad |
| Polarization | Linear | Linear | Linear | Linear | Linear | Linear |
| Polarization Ratio at Full Power | >100:1 | >100:1 | >100:1 | >100:1 | >100:1 | >100:1 |
| Dimensions (mm) | 40x40x100 | 40x40x100 | 40x40x100 | 40x40x100 | 40x40x100 | 40x40x100 |
| Weight (lbs) | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 |
| Warranty | 1 year | 1 year | 1 year | 1 year | 1 year | 1 year |