

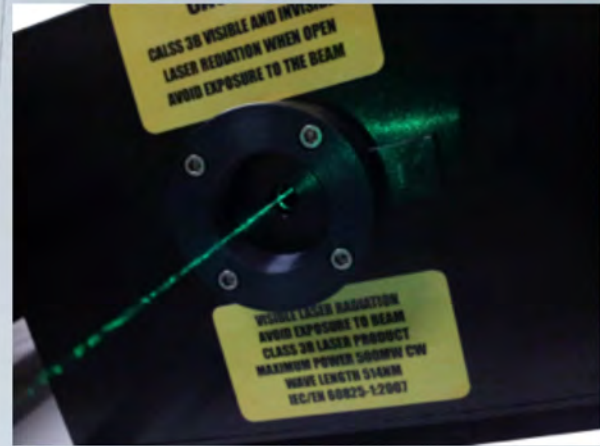


QUANTUMTECH

Compact laser module without Compromises for industrial integration and scientific applications

KEY FEATURES:

- Output powers up to 1W
- Excellent beam quality and stability
- Broad selection of wavelengths, fine-tunable
- Modulation up to 0.5 MHz / 100 MHz**
- Temperature-stabilized
- Highly cost-efficient



Wavelength	Max. output power
375 nm	20 mW**
405 nm	15, 75, 125, 175 mW
445 nm	15, 50, 250*, 450*, 1000* mW
450 nm	15, 75 mW
458 nm	15, 75 mW
473 nm	15, 50 mW
488 nm	20, 75 mW
515 nm	15, 50 mW
532 nm	15, 75, 125, 175, 300 mW
561 nm	15, 50 mW
625 nm	15*, 50* mW
635 nm	75 mW
638 nm	75, 125, 175 mW
642 nm	75, 125, 175 mW
660 nm	75, 125, 175, 250 mW
685 nm	15, 40 mW
705 nm	15, 40 mW
730 nm	15, 40 mW
785 nm	75 mW, 125 mW
808 nm	75 mW, 125 mW
830 nm	75 mW, 125 mW
852 nm	75 mW, 125 mW
905 nm	75 mW
915 nm	75, 125, 175, 250 mW
940 nm	75, 125, 175, 250 mW
976 nm	75, 125, 175, 250 mW
1064 nm	75, 125, 175, 300 mW

	Laser head
Beam diameter	473, 532 and 561 nm: round beam 1.2 mm others: 1.1 × 2.2 to 1.2 × 4.3 mm***
Divergence	< 0.9 mrad
Spatial beam mode	TEM ₀₀
Polarization	linear, > 100:1
Polarization angle	vertical ± 5°
Beam alignment	< 5 mrad and < 0.1 mm (compared to base mount)
Pointing stability	< 5 μrad/K
Noise	< 1 % RMS
Power stability	< 1 % (10 h)
Temperature accuracy	< 10 mK
Warm-up time	ready for use after 5 s, calibrated operation after 3 min
Drive mode	473, 532 and 561 nm: active power control others: active current control
Modulation modes	constant power, analog and digital external modulation
Control modes	power, temperature and modulation controllable via USB, optional remote control unit available
CDRH classification	3b
Dimensions	63.5 × 31.0 × 32.5 mm (technical drawing available on our website)
Weight	94.4 g (laser head)
Operating temperature	0 °C to 45 °C (non-condensing)
Storage temperature	-25 °C to 70 °C

* multi mode ** on request *** round beam option available

A specialized laser controller is required for providing power to the laser head and controlling the emission and temperature. For scientific applications and prototypes we recommend using our PowerController, which is included by default. For industrial integration we also offer a more compact PowerBox to be attached directly to the laser head.

MOUNTED LASER



Modulation input	Analog or digital 0 – 5 V DC
Digital interface	USB
Further control inputs	Interlock, key switch, mode switch
Cable length	80 cm
Power consumption	12 V DC, up to 2 A (Depending on laser output power)
AC adapter (included)	100 – 240 V AC, 50 – 60 Hz
Dimensions	120.0 × 170.0 × 350 mm
Weight	2.2kg



Modulation input	analog or digital 0 – 5 V DC
Digital interface	none (all parameters except output power are factory-calibrated)
Further control inputs	Interlock
Power consumption	12 – 36 V DC, up to 2 A (depending on laser output power)
Dimensions	39.0 × 31.0 × 32.5 mm (technical drawing available on our website)
Weight	68.8 g

For more details, please see the PowerBox data sheet.

Please contact us if your requirements are not matched by these specifications. Custom modifications are available for any quantities including single pieces. All specifications are subject to change without notice.

Options

- Wavelength (see below)
- Round beam
- Polarization > 1 : 10 000
- Fiber coupling
- Water cooling

- Remote control RC-1



Wavelength option

Provides an exceptionally stable single mode emission. Available for wavelengths of 405, 640, 660, 785 and 808 nm.

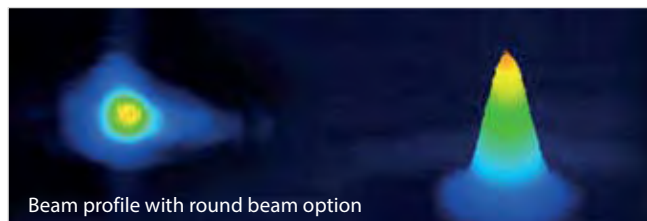
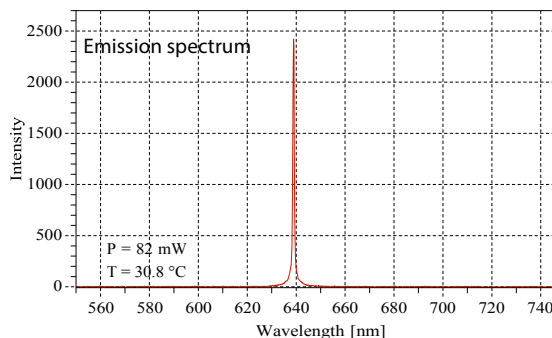
Wavelength stability	< 0.001 nm
Output power	up to 80 mW
Side mode suppression	> 35 dB (typ. 40 dB)
Single mode line width	< 50 MHz (typ. 25 MHz)
Coherence length	2.0 m
Beam diameter	1.2 mm
Beam quality M ²	< 1.2 (typ. 1.1)

Laser control software

All operating parameters can be monitored and controlled from a PC using the laser control software for Windows (included). In addition, the driver interface commands are described in detail in the manual, enabling users to control the N laser from their own custom application software.



Typical characteristics



HK QUANTUM TECH LTD.
Rm 502, Arion Centre
Queen's Road West

Tel.: 00852-28542008
Fax: 00852-28541913
sales@qtmtech.com