方全有限公司
Rapitech Enterprise Co.,Ltd.

連續式固態雷射
Continuous Solid-State Laser

Laser Quantum gem

Gem系列 綠光雷射

Gem 532nm High Spec OEM Laser

Typical Applications

- raman spectroscopy
- OEM integration
- fluorescence spectroscopy

The gem is a high specification, single transverse mode CW green laser. This is an extremely small laser for this specification. Combined with the highly compact and efficient smd6000 power supply, the gem is geared towards product integration for end-user applications.

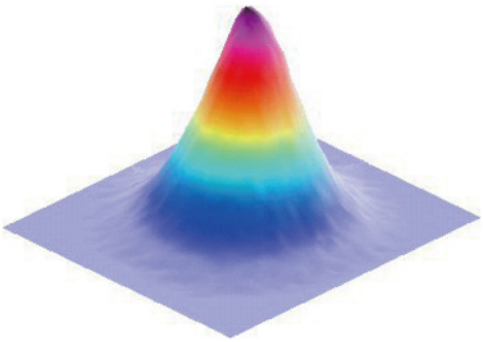
Specifications

power	25 - 600 mW
wavelength	532 nm
beam size	1 mm
ellipticity	<1.1
spatial mode	TEM_{00}
bandwidth	30 GHz
divergence	0.8 mrad
M-squared	< 1.1
power stability	< 2.0 % rms *1
RMS noise	< 2.0 %
noise bandwidth	1 Hz to 6 MHz
coherence length	1 cm
pointing stability	38 urad *2
polarisation ratio	100:1
polarisation direction	horizontal
beam angle	1 mrad *3
operating temperature	10 - 40 deg C
head weight	0.7 kg
umbilical length	1.5 m
warm-up time	10 min

*1. test duration 8 hrs
*2. measured over 36 hours at 22 to 28 deg C
*3. tolerance relative to head orientation

Features

extremely compact design
designed for OEM integration
zero stress,
permanently aligned cavity
hermetically sealed
OEM power supply
extended warranty available
single phase mains driven
diode 18,000 hours MTBF
direct modulation upto 30 kHz



The gem has a diffraction limited beam, fitting a near perfect gaussian profile in both directions.

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