

Laser Modules TO-532-40TEC 532nm 40mW

Description of the Product

Our Laser is based on a DPSS green laser diode. The diode is a combination of Nd: YVO4 and KTP crystals, pumped by a 808 nm laser diode. The diode has a wedged glass window to suppress and prevents IR emission from the diode.

The DPSS has a narrow range operating temperature. This should be respected, as the nonlinear effect of the laser crystal is very sensitive to temperature. Two 10W TEC will provide up to 20 Watts of heating or cooling power allowing the laser output power and wavelength to be stabilized with very big accuracy. We ensure a thermal stability lower than 0.01°C.

The laser driver and the TEC elements ensure excellent laser emission stability. The laser is a single mode beam (DPSS diode) with much smaller divergence angle than standard semiconductor laser diode.

The product is compact and easy to integrate in any other OEM application. Each part of our laser has EU Declaration of Conformity (RoHS2).

Specifications

	Target	Unit
Wavelength	532	nm
Spectral bandwidth	45	MHz
Optical Output Power	40-50	mW
Operating Current (Max)	350	mA
Operating Voltage (Max)	2.0	V
Beam Divergence, Full Angle	15	mRad
Operating Temperature	20	°C

Laser Driver:

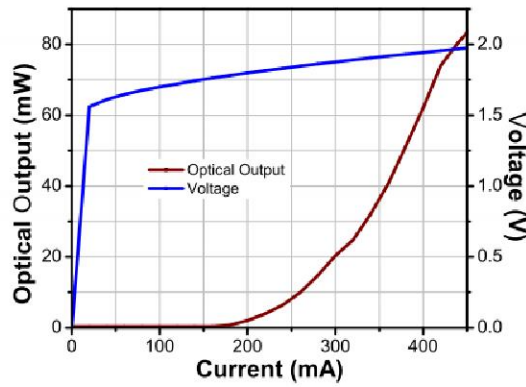
Control Range of Laser Current	0 to 1	A
Setting Accuracy / Repeatability	± 2 % typ. / ± 0.4 %	
Noise	< 10	µA
Drift	< 100	µA

TEC :

Control Range of TEC Current	-2 to +2	A
Control Range	- 20 to +80	°C
Setting Accuracy	± 2%	
Temperature Stability typ	< 0.01	°C
Max TEC Current	5	A
Max TEC Voltage	4	V
TEC Heating / Cooling Capacity	20	W

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Drawings



Drawings

