

Multi-chip VCSEL Array Module kW-class (QCW) for End Pumping of Solid-State Lasers Part # PQCW-EP-800-W0808

- Vertical-Cavity Surface-Emitting Laser technology
- Uniform pumping & reliable operation
- Simple packaging
- Four 200W QCW chips mounted together for a minimum total QCW power of 800W
- 808nm wavelength, 250μs operation
- Custom wavelengths available (780-1100nm)
- Applications: End pumping of Nd:YAG laser (QCW)



Optical & Electrical Characteristics (1)

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
QCW Output Power	250A, 20C	800	825		W
Threshold current	20C		20	30	Α
Operating current	800W, 20C		200	250	Α
Operating voltage	800W, 20C		11	20	V
Differential resistance	20C		22	30	$m\Omega$
Center wavelength	800W, 20C	802	808	811	nm
Spectral width (FWHM)	800W, 20C	-	1	3	nm
Wavelength shift	20C	0.060	0.065	0.070	nm/°C
Divergence (half angle)	800W, 20C		0.15	0.2	rad

(1) Optical & electrical characteristics specified under 250 μ s/20Hz QCW operation. Other operating conditions, such as 100 μ s/10Hz for example can be used.

Copyright © 2011 Princeton Optronics, Inc. All Rights Reserved.

Princeton Optronics reserves the right to change product design and specifications at any time without notice.

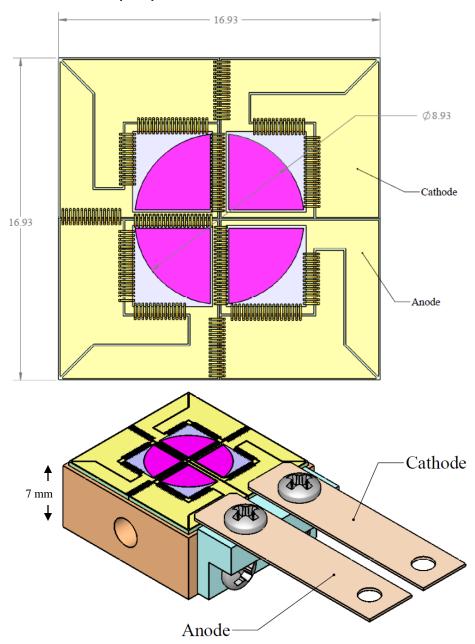
No license is granted by implication or otherwise under any patents or patent right of Princeton Optronics. No responsibility is assumed for the use of these products, nor for any infringement on the rights of others resulting from the use of these products Laser diode product components are intended for use in a user-devised end system. However, these products are capable of emitting Class IV radiation. Extreme care must be exercised during their operation. Only persons familiar with the appropriate safety precautions should operate a laser product. Directly viewing the laser beam or exposure to specular reflections must be avoided. Serious injury may result if any part of the body is exposed to the beam. The eye is extremely sensitive to the infrared radiation and therefore, proper eye-wear must be worn at all times. Use of optical instruments with these products may increase eye hazard. Always wear eye protection when operating.





REV. A - 02/11

Module Dimensions (mm)



Copyright © 2011 Princeton Optronics, Inc. All Rights Reserved.

Princeton Optronics reserves the right to change product design and specifications at any time without notice.

No license is granted by implication or otherwise under any patents or patent right of Princeton Optronics. No responsibility is assumed for the use of these products, nor for any infringement on the rights of others resulting from the use of these products Laser diode product components are intended for use in a user-devised end system. However, these products are capable of emitting Class IV radiation. Extreme care must be exercised during their operation. Only persons familiar with the appropriate safety precautions should operate a laser product. Directly viewing the laser beam or exposure to specular reflections must be avoided. Serious injury may result if any part of the body is exposed to the beam. The eye is extremely sensitive to the infrared radiation and therefore, proper eye-wear must be worn at all times. Use of optical instruments with these products may increase eye hazard. Always wear eye protection when operating.





REV. A - 02/11