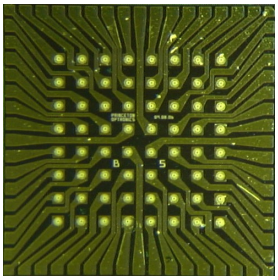
PRINCETON OPTRONICS



Addressable VCSEL Array
Part # AA64-BC-SM-W0975

- *8 x 8 individually addressable array (64 channels)*
- *Vertical-Cavity Surface-Emitting Laser technology*
- *>3mW single-fundamental-mode power at 980nm*
- *High-power, multimode version also available*
- *Custom wavelengths available (808-1064nm)*
- *Custom configurations & packaging options available*

Single-Mode (SM) and Multi-Mode (MM) Optical & Electrical Characteristics

PARAMETER	CONDITIONS	SM	MM	UNIT
CW Power, Pop	Iop, Ths	3	12	mW
Threshold current	Ths	0.25	1.7	mA
Operating current, Iop	Pop, Ths	4	14	mA
Operating voltage	Pop, Ths	2.2	2.5	V
Differential resistance	Pop, Ths	200	49	Ω
Slope efficiency	Ths	0.9	1.0	W/A
Conversion efficiency	Ths	40	45	%
Center wavelength	Pop, Ths	975	975	nm
SMSR (1)	Pop, Ths	-30	N/A	dB
Wavelength shift	Ths	0.065	0.065	nm/°C
Beam divergence (2)	Pop, Ths	16	18	°
Operating Temperature		0 to +80		°C
Storage Temperature		-40 to +80		°C

(1) Side-Mode Suppression Ratio
(2) Full-width $1/e^2$

Ordering information

AA64-BC-SM-W0975

Package type
BC=Die
PK=Packaged chip

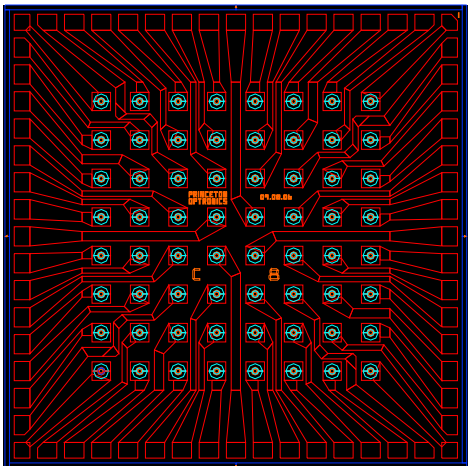
Wavelength (nm)

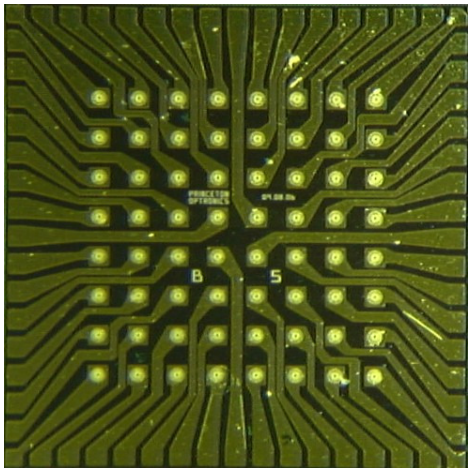
Single-mode (SM) / Multi-mode (MM)

Princeton Optronics, Inc. * 1 Electronics Drive * Mercerville, New Jersey 08619
Voice: (609) 584-9696 * Fax: (609) 584-2448 * E-mail: sales@princetonoptronics.com * www.princetonoptronics.com

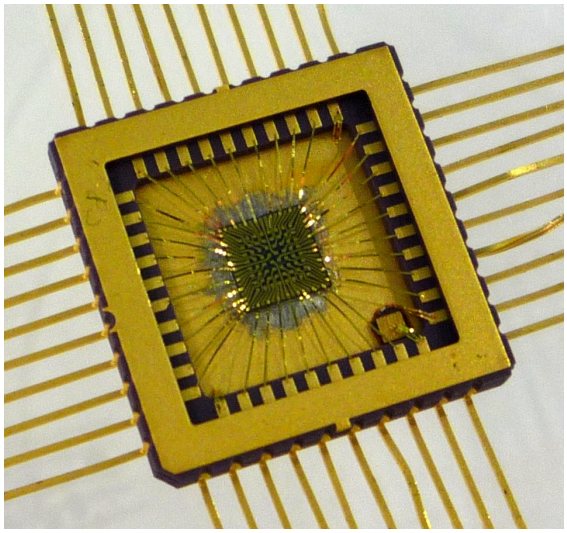
Mechanical Characteristics

3mm x 3mm chip, 64 elements on 250µm pitch





Example of packaged chip with optional temperature sensor



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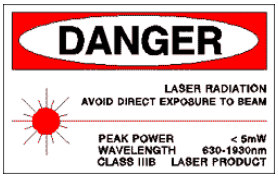
Laser diode product components are intended for use in a user-devised end system. However, these products are capable of emitting Class IIIB radiation. Extreme care must be exercised during their operation. Only persons familiar with the appropriate safety precautions should operate a laser product. 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 – 10/08

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