

## 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	lop, Ths	3	12	mW
Threshold current	Ths	0.25	1.7	mA
Operating current, lop	Pop, Ths	4	14	mA
Operating voltage	Pop, Ths	2.2	2.5	V
Differential resistance	Pop, Ths	200	49	$\Omega$
Slope efficiency	Ths	0.9	1.0	W/A
Conversion efficiency	Ths	40	45	%
Center wavelength	Pop, Ths	975	975	nm
SMSR <sup>(1)</sup>	Pop, Ths	-30	N/A	dB
Wavelength shift	Ths	0.065	0.065	nm/°C
Beam divergence <sup>(2)</sup>	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

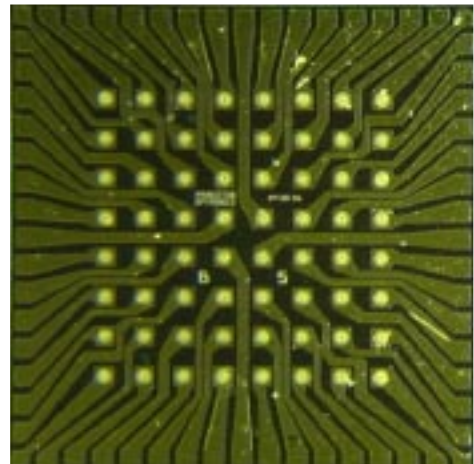
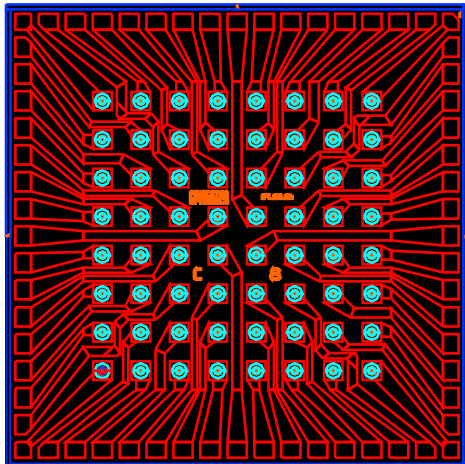
Package type  
BC=Die  
PK=Packaged chip

Wavelength (nm)

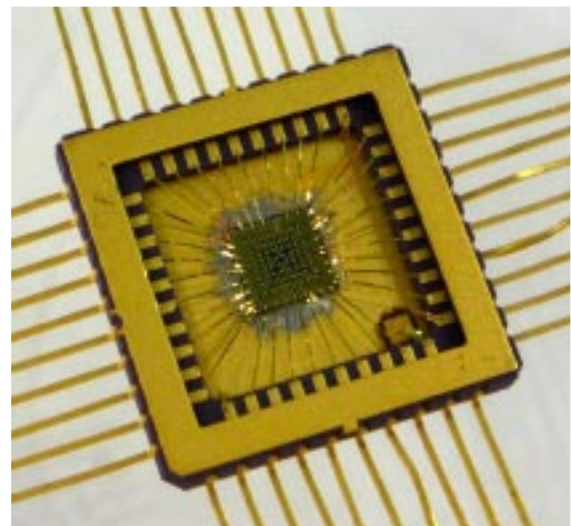
Single-mode (SM) / Multi-mode (MM)

## Mechanical Characteristics

3mm x 3mm chip, 64 elements on 250 $\mu$ m 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.



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