

808nm, Conduction-Cooled, QCW, Uncollimated Vertical Diode Laser Stack

Features

- Low vertical height
- Compact size
- Also available in AuSn solder technology



Device Specification

Optical Parameters ¹	Units	QCW		
Center Wavelength Range ³	nm		808	
Center Wavelength Tolerance	nm	±3	±3	±3
Output Power per Bar ^{2, 5}	W	100	150	250
Number of Bars ³	#	6 to 20	6 to 20	6 to 20
Bar-to-Bar Spacing	mm	>0.4	>0.4	>0.4
Spectral Width (FWHM)	nm	<5	<5	<5
Slope Efficiency per Bar	W/A	>1.00	>1.00	>1.25
Fast-Axis Divergence	degree	70	70	70
Slow-Axis Divergence	degree	<12	<12	<10
Wavelength Temp. Coefficient	nm/°C	0.27	0.27	0.27

Electrical Parameters ^{1, 5}				
Power Conversion Efficiency	%	>50	>50	>55
Threshold Current (I_{TH})	A	<15	<15	<30
Operating Current (I_{OP})	A	<120	<170	<250
Operating Voltage per Bar (V_{OP})	V	<2	<2	<2

Thermal Parameters				
Operating Temperature Range ^{3,4}	°C	+20 to +45	+20 to +45	+20 to +45
Storage Temperature Range ⁴	°C	0 to +55	0 to +55	0 to +55
Recommended Heatsink Capacity per Bar	W	>20	>20	>30

¹Data at 20°C cold plate temperature, unless otherwise stated.

²Reduced lifetime if used above nominal operating conditions.

³Others available upon request.

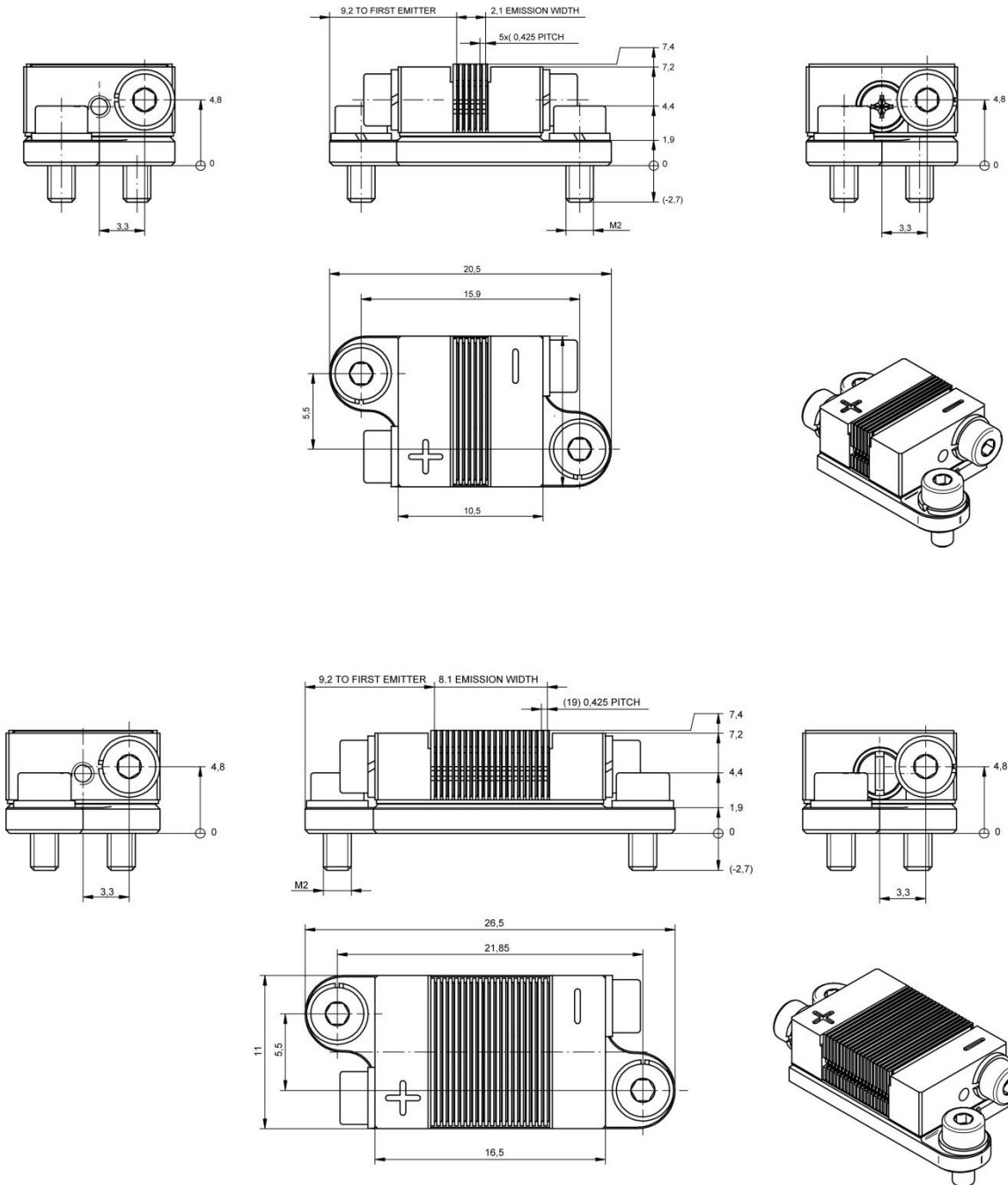
⁴A non-condensing environment is required for storage and operation below the ambient dew point.

⁵QCW, <2% Duty Cycle, <500µsec.

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Package Dimension

Examples of back-plane cooled QCW Vertical Diode Laser Stack with 1x6 and 1x20 diode lasers bars. Consult DILAS for other package dimensions.



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