

9xxnm, 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		9xx		
Center Wavelength Tolerance	nm	±3	±3		±3
Output Power per Bar ^{2, 5}	W	100	150		300
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		>1.10
Fast-Axis Divergence	degree	75	75		75
Slow-Axis Divergence	degree	<10	<10		<10
Wavelength Temp. Coefficient	nm/°C	0.31-0.38	0.31-0.38		0.31-0.38

Electrical Parameters ^{1, 5}					
Power Conversion Efficiency	%	>50	>50		>55
Threshold Current (I _{TH})	A	<15	<15		<22
Operating Current (I _{OP})	A	<120	<170		<300
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.

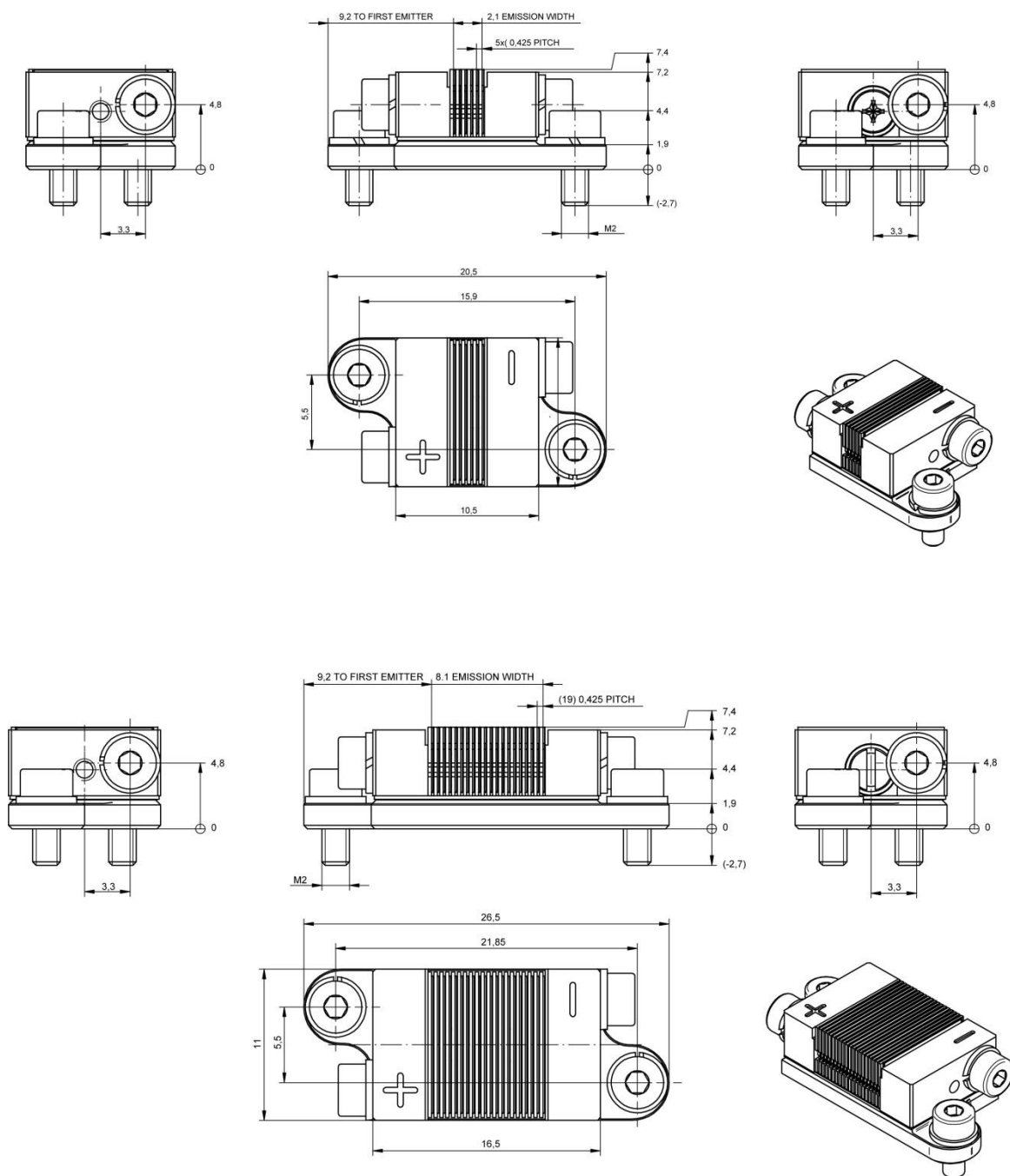
⁴A non-condensing environment is required for storage and operation below the ambient dew point.

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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