

MORE LIGHT

JOLD-x-CANN-xA

Vertical diode laser stacks: cw, actively cooled

Designs

- 210480424 (4 submounts)
- 210480624 (6 submounts)
- 210480824 (8 submounts)
- 210481024 (10 submounts)
- 210481224 (12 submounts)

Features

- High optical output power of 100 W cw per bar
- Wavelengths: 807, 938 and 976 nm
- High efficiency, low divergences
- Lifetime > 10,000 h, high reliability

Applications

- Pumping of solid-state lasers and fiber lasers
- Material processing
- Medical applications (e.g. hair removal)

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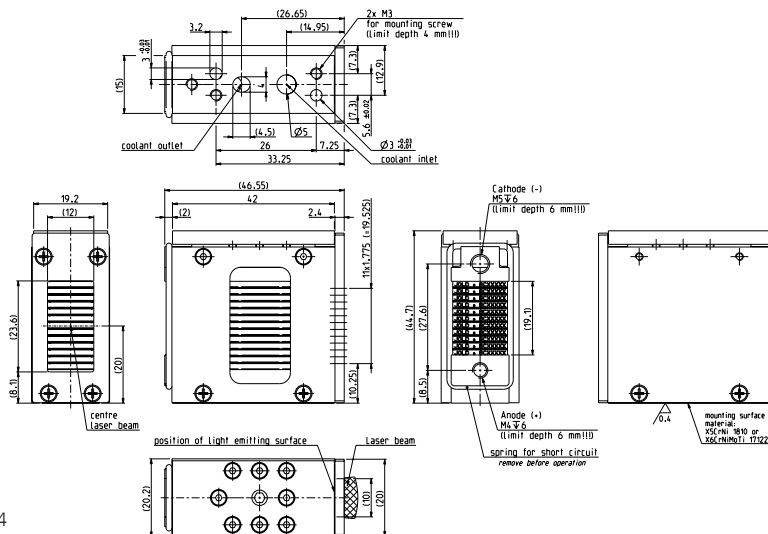
JOLD-x-CANN-xA Designs 210480424 (4 submounts), 210480624 (6 submounts), 210480824 (8 submounts), 210481024 (10 submounts), 210481224 (12 submounts)

Specifications (start of life)

Operation Mode	cw, power modulation only between threshold and maximum current											
Maximum Optical Output Power	320	480	640	800	960	400	600	800	1000	1200	W	
Number of Submounts	4	6	8	10	12	4	6	8	10	12		
Power per Submount	80	80	80	80	80	100	100	100	100	100	W	
Center Wavelength at 25 °C	807										938/976	nm
Center Wavelength Variation at 25 °C	3	3	3	3	3	5	5	5	5	5	nm	
Typical Spectral Bandwidth (FWHM)	3	3	3	3	3	3	3	3	3	3	nm	
Maximum Spectral Bandwidth (FWHM)	6	6	6	6	6	6	6	6	6	6	nm	
Typical Operation Current	85	85	85	85	85	105	105	105	105	105	A	
Maximum Operation Current	95	95	95	95	95	115	115	115	115	115	A	
Typical Threshold Current	19	19	19	19	19	15	15	15	15	15	A	
Maximum Threshold Current	22	22	22	22	22	18	18	18	18	18	A	
Typical Slope	4.9	7.3	8.5	12.2	14.6	4.5	6.7	8.9	11.2	13.4	W/A	
Minimum Slope	4.2	6.3	7.3	10.5	12.6	4.0	6.0	8.0	10.0	12.0	W/A	
Maximum Operating Voltage	8	12	16	20	24	8	12	16	20	24	V	
Typical Fast Axis Divergence FWHM	37	37	37	37	37	27	27	27	27	27	°	
Typical Fast Axis Divergence 86 %	48	48	48	48	48	34	34	34	34	34	°	
Typical Fast Axis Divergence 95 %	63	63	63	63	63	46	46	46	46	46	°	
Typical Slow Axis Divergence FWHM	6	6	6	6	6	6	6	6	6	6	°	
Typical Slow Axis Divergence 86 %	6	6	6	6	6	6	6	6	6	6	°	
Typical Slow Axis Divergence 95 %	7	7	7	7	7	7	7	7	7	7	°	
Operation Conditions	Cleanroom class ISO 5, non-condensing atmosphere											
Expected Lifetime	> 10,000 h (constant current)											
Cooling												
Number of Submounts	4	6	8	10	12							
Flow Rate	1.7	2.3	3.0	3.6	4.3						l/min	
Flow Rate Tolerance	± 10 %											
Water Temperature	15 ... 35 °C											
Maximum Inlet Pressure	400 kPa											
Pressure Drop	< 200 kPa											
Water Quality	Deionized 2 ... 6 µS/cm, mixed bed ion exchanger, particle filter < 25 µm (not included)											

See general user information!

Options on request: 915 nm; for additional designs or specifications please visit our website: www.jenoptik.com



Design 210481224