

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)

# Vertical diode laser stacks | cw, actively cooled

## JOLD-x-CANN-xA

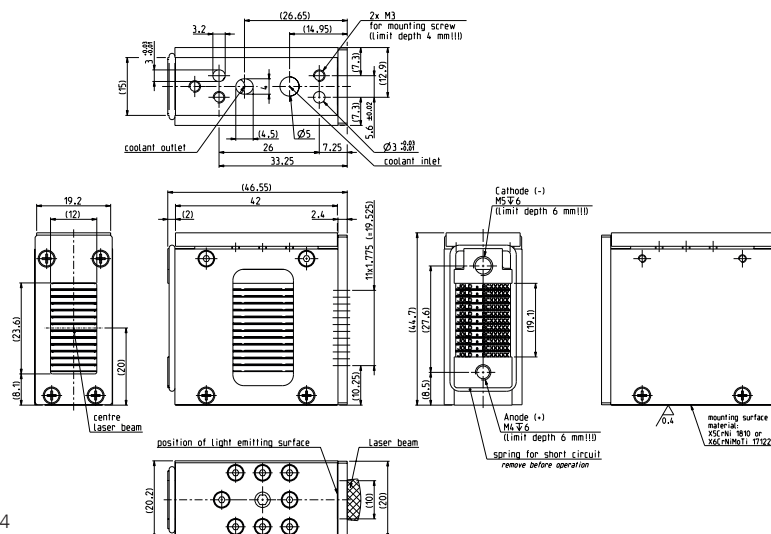
JOLD-x-CANN-xA Designs 210480424 (4 submounts), 210480624 (6 submounts), 210480824 (8 submounts), 210481024 (10 submounts), 210481224 (12 submounts)

### 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)											
<b>Cooling</b>												
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 5 ... 10 µS/cm, regulated mixed-bed ion exchange system in bypass, particle filter < 15 µm (not included)											

### See general user information!

Options on request: 915 nm; for additional designs or specifications please visit our website: [www.jenoptik.com](http://www.jenoptik.com)



Design 210481224