

MORE LIGHT

JOLD-x-CAFN-xA

## Vertical diode laser stacks: cw, actively cooled, with collimation

### Designs

- 210480426 (4 submounts)
- 210480626 (6 submounts)
- 210480826 (8 submounts)
- 210481026 (10 submounts)
- 210481226 (12 submounts)

### Features

- High optical output power of 72 W cw per bar after collimation
- 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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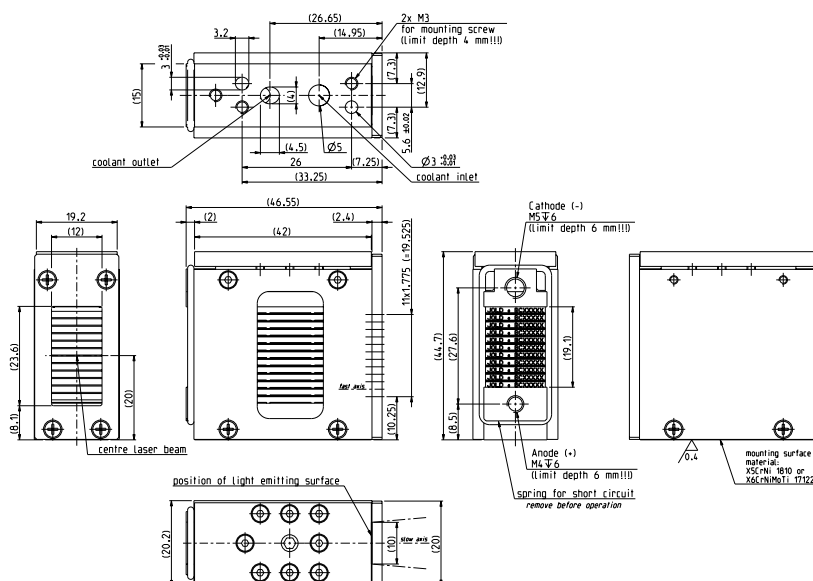
JOLD-x-CAFN-xA Designs 210480426 (4 submounts), 210480626 (6 submounts), 210480826 (8 submounts), 210481026 (10 submounts), 210481226 (12 submounts)

### Specifications (start of life)

Operation Mode	cw, power modulation only between threshold and maximum current										
Maximum Optical Output Power	288	432	576	720	864	288	432	576	720	864	W
Number of Submounts	4	6	8	10	12	4	6	8	10	12	
Power per Submount after Collimation	72	72	72	72	72	72	72	72	72	72	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	5	5	5	5	5	nm
Typical Operation Current	85	85	85	85	85	87	87	87	87	87	A
Maximum Operation Current	95	95	95	95	95	97	97	97	97	97	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	4.4	6.6	8.8	11.0	13.1	4.0	6.0	8.0	10.0	12.0	W/A
Minimum Slope	3.7	5.6	7.5	9.4	11.3	3.5	5.2	7.0	8.7	10.5	W/A
Maximum Operating Voltage	8	12	16	20	24	8	12	16	20	24	V
Fast Axis Divergence (Full Power)	< 0.5					< 0.5					°
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 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](http://www.jenoptik.com)



Design 210481226