

MORE LIGHT

JOLD-x-CAFN-xA

## Vertical diode laser stacks: cw, actively cooled, with collimation, 807 nm

### Designs

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

### Features

- High optical output power of 45 W cw per bar after collimation
- Wavelength: 807 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, with collimation, 807 nm JOLD-x-CAFN-xA

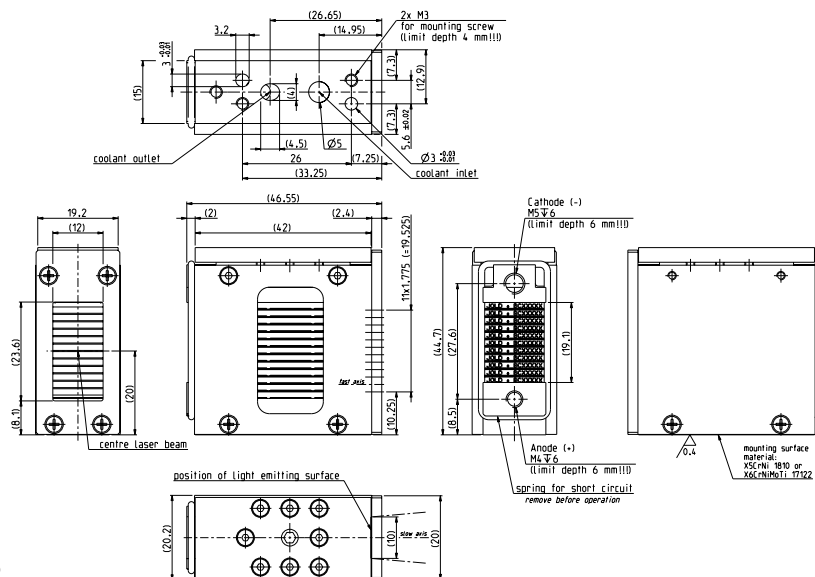
JOLD-x-CAFN-xA Designs 210480426 (4 submounts), 210480626 (6 submounts), 210480826 (8 submounts), 210481026 (10 submounts), 210481226 (12 submounts)

## Specifications (start of life)

Operation Mode	cw, power modulation only between threshold and maximum current					
Maximum Optical Output Power	180	270	360	450	540	W
Number of Submounts	4	6	8	10	12	
Power per Submount after Collimation	45	45	45	45	45	W
Center Wavelength at 25 °C	807	807	807	807	807	nm
Center Wavelength Variation at 25 °C	3	3	3	3	3	nm
Typical Spectral Bandwidth (FWHM)	3	3	3	3	3	nm
Maximum Spectral Bandwidth (FWHM)	4	4	4	4	4	nm
Typical Operation Current	56	56	56	56	56	A
Maximum Operation Current	60	60	60	60	60	A
Typical Threshold Current	14	14	14	14	14	A
Maximum Threshold Current	18	18	18	18	18	A
Typical Slope	4.3	6.5	8.6	10.8	12.9	W/A
Minimum Slope	3.9	5.8	7.8	9.7	11.7	W/A
Maximum Operating Voltage	8	12	16	20	24	V
Fast Axis Divergence (Full Power)	< 0.5					°
Typical Slow Axis Divergence FWHM	5	5	5	5	5	°
Typical Slow Axis Divergence 86 %	5	5	5	5	5	°
Typical Slow Axis Divergence 95 %	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