Vertical Diode Laser Stacks
cw, actively cooled, with collimation

Features:
• High optical output power of 72 W cw per bar after collimation
• 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)

Design 2104xxx26
210480326 (3 submounts)   210480826 (8 submounts)
210480426 (4 submounts)   210481026 (10 submounts)
210480526 (5 submounts)   210481226 (12 submounts)
210480626 (6 submounts)   210430626 (25 submounts)
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## Specifications (Start of Life)

### Product
JOLD-x-CAFN-xA, Designs 210480326 (3 submounts), 210480426 (4 submounts), 210480526 (5 submounts),
210480626 (6 submounts), 210480826 (8 submounts), 210481026 (10 submounts), 210481226 (12 submounts),
210430626 (25 submounts)

### Operation Mode
- cw, power modulation only between threshold and maximum current

### Maximum Optical Output Power
- 216, 288, 360, 432, 576, 720, 864, 1800 W

### Number of Submounts
- 3, 4, 5, 6, 8, 10, 12, 25

### Power per Submount after Collimation
- 72, 72, 72, 72, 72, 72, 72, 72 W

### Center Wavelength at 25 °C
- 807 nm

### Typical Spectral Bandwidth (FWHM)
- 3 nm

### Maximum Spectral Bandwidth (FWHM)
- 6 nm

### Center Wavelength Variation at 25 °C
- 3 nm

### Typical Slope
- 3.3 W/A

### Maximum Slope
- 6 W/A

### Typical Operation Current
- 85 A

### Maximum Operation Current
- 97 A

### Typical Threshold Current
- 19 A

### Maximum Threshold Current
- 22 A

### Typical Fast Axis Divergence (Full Power)
- < 0.5 °

### Typical Slow Axis Divergence FWHM
- 6 °

### Typical Slow Axis Divergence 86 %
- 6 °

### Typical Slow Divergence 95 %
- 7 °

### Operation Conditions
- Cleanroom class 100, non-condensing atmosphere
- Expected Lifetime > 10,000 h (constant current)

### Cooling:
- Number of Submounts
  - 3, 4, 5, 6, 8, 10, 12, 25
- Flow Rate
  - 1.3, 1.7, 2.0, 2.3, 3.0, 3.6, 4.3, 8.3 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 Safety and General User Information!

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

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**Design 210480526:**

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