### **NANOPEAK 50**

#### **50W MOPA Nanosecond Pulsed Fiber Laser**





#### **Features & Benefits**

- Unique phosphosilicate gain fiber technology photodarkening-free performances guarantee long-term stability
- · Higher power faster processing
- Range of pulses for various applications offers flexibility and complete control
- Pulse waveform selection pulse widths from 4 to 200 ns
- Output turndown of 5% offers great flexibility
- Wide range of repetition rates allows maximum peak power and pulse energy for each waveform setting
- Excellent isolator design safe processing of any material
- Maximum pulse energy: 1 mJ
- Maximum peak power: 15 kW
- Compact and robust enhancing the ease of OEM integration
- Easy-to-use, Plug & Play design
- Maintenance-free
- 3-year standard warranty

### **Applications**

- · Laser marking and engraving
- Fine cutting
- · Laser layer removal

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## **Specifications**

| Optical                       |            |
|-------------------------------|------------|
| Mode of Operation             | Pulsed     |
| Polarization                  | Random     |
| Operating Wavelength (nm)     | 1064       |
| Nominal Output Power (W)      | 50.5 ± 1.0 |
| Power Stability (%)           | < 3        |
| Output Power Tuning Range (%) | 5 - 100    |
| Maximum Peak Power (kW)       | 15         |
| Maximum Peak Energy (mJ)      | 1.0        |
| Pulse Width Range (ns)        | 4 - 200    |
| Repetition Rate Range (kHz)   | 1.6 - 1000 |
| Beam Quality (M²)             | 1.6 ± 0.4  |
| Beam Diameter (mm)            | 7.5 ± 1.5  |
| CW Mode                       | No         |
| Red Aligment                  | Yes        |
| Laser on time (µs)            | 1          |

#### **Electrical**

| Operating Voltage (VDC) | 24 ± 1 |
|-------------------------|--------|
| Operating Current (A)   | 6 - 12 |

#### **Mechanical & Environmental**

| Dimensions (W x D x H mm)    | n) 364 x 273 x 84.5 |  |
|------------------------------|---------------------|--|
| Output Fiber Length (m)      | 2.0 - 2.5           |  |
| Output Cable Diameter (mm)   | 6 - 8               |  |
| Warm-Up Time                 | 10 sec.             |  |
| Operating Temperature (C°)   | 15 - 45             |  |
| Operating Humidity (%, rel.) | 10 - 95             |  |
| Cooling Method               | Air Cooled          |  |

#### **Pulse Repetition Rate (PRR)**

| Pulse Width (ns) | Minimum PRR<br>(kHz) | Maximum PRR<br>(kHz) | Central PRR<br>(kHz) |
|------------------|----------------------|----------------------|----------------------|
| 4                | 1.6                  | 1000                 | 1000                 |
| 8                | 1.6                  | 1000                 | 625                  |
| 14               | 1.6                  | 1000                 | 425                  |
| 20               | 1.6                  | 1000                 | 350                  |
| 30               | 1.6                  | 1000                 | 275                  |
| 50               | 1.6                  | 1000                 | 225                  |
| 100              | 1.6                  | 1000                 | 100                  |
| 200              | 1.6                  | 500                  | 50                   |

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## **Drawing**

