

# TEM-F-445/1-50mW



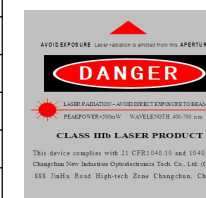
## BLUE DIODE LASER AT 445nm

It features TEM<sub>00</sub> mode, ultra compact design, long lifetime, cost-effectiveness and easy operation. They are used in measurement, communication, spectrum analysis, etc.

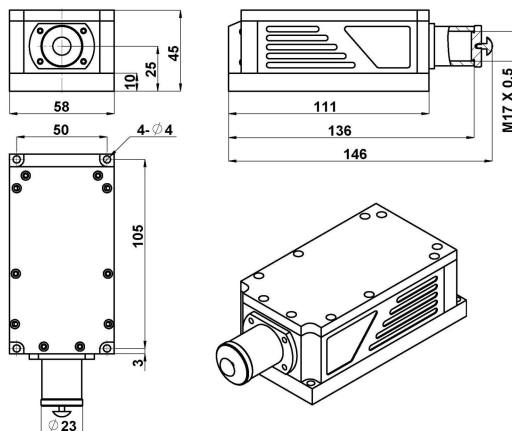


### SPECIFICATIONS

|                                                       |                                                                                  |
|-------------------------------------------------------|----------------------------------------------------------------------------------|
| Central wavelength (nm)                               | 445±10                                                                           |
| Operating mode                                        | CW                                                                               |
| Output power (mW) <sup>1</sup>                        | 1-50                                                                             |
| Power stability (rms, 4 hours ± 3°C)                  | <2%, <1%, <0.5%                                                                  |
| Transverse mode                                       | TEM <sub>00</sub>                                                                |
| Ellipticity                                           | >0.95                                                                            |
| M <sup>2</sup>                                        | <1.1                                                                             |
| Beam diameter at the aperture (1/e <sup>2</sup> , mm) | ~1.0                                                                             |
| Beam divergence, full angle (mrad)                    | <1.5                                                                             |
| Warm-up time (minutes)                                | <5                                                                               |
| Beam height from base plate (mm)                      | 25                                                                               |
| Operating temperature (°C)                            | 25±3                                                                             |
| Power supply (100-240VAC)                             | PSU-III-FDA/PSU-III-LED/PSU-A-D                                                  |
| Modulation option                                     | DC-1kHz, 1kHz-10kHz, 10kHz-30kHz, 30kHz-100kHz optional; TTL and Analog optional |
| Expected lifetime (hours)                             | >10000                                                                           |

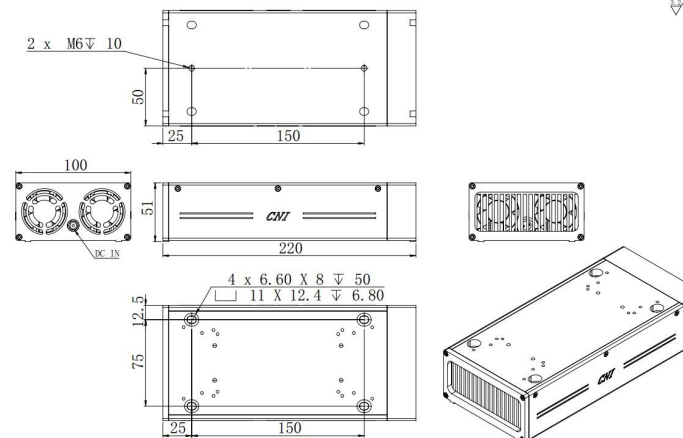


### LASER HEAD<sup>2</sup>



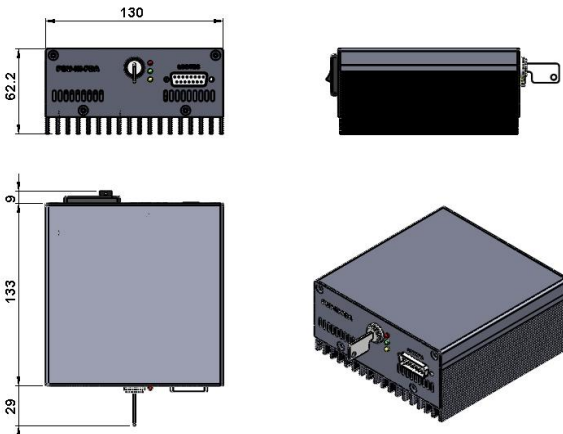
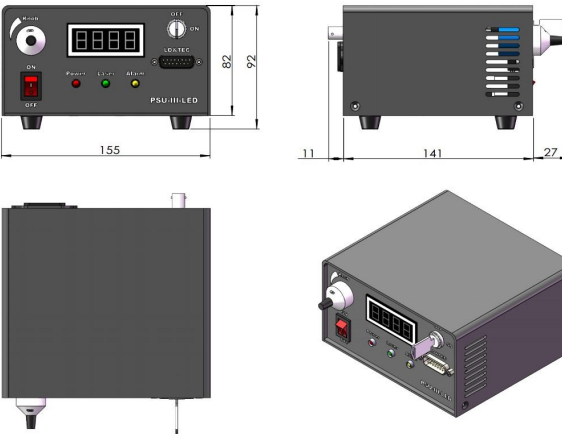
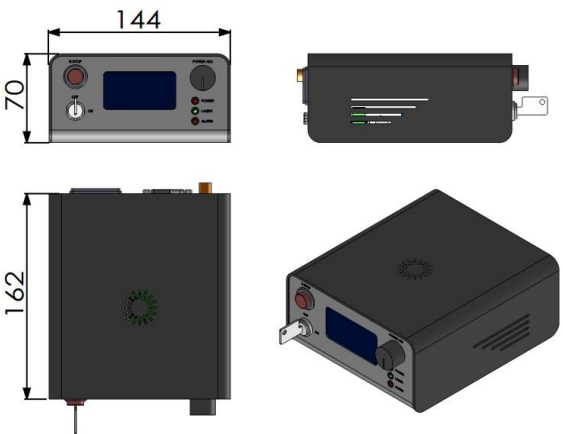
146 (L) × 58 (W) × 45 (H) mm<sup>3</sup>, 0.7kg

### HEATSINK (TC-06) optional



220 (L) × 100 (W) × 51 (H) mm<sup>3</sup>, 0.6kg

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| POWER SUPPLY (PSU-III-FDA) <sup>3</sup>                                                                                                                                 | POWER SUPPLY (PSU-III-LED) <sup>4</sup>                                                                                                                                | POWER SUPPLY (PSU-A-D) <sup>5</sup>                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p style="text-align: center;">171 (L) × 130 (W) × 62.2 (H) mm<sup>3</sup>, 1.2kg</p> |  <p style="text-align: center;">179 (L) × 155 (W) × 92 (H) mm<sup>3</sup>, 1.5kg</p> |  <p style="text-align: center;">162 (L) × 144 (W) × 70 (H) mm<sup>3</sup>, 1.0kg</p> |

1 Any power level can be selected in this range.

2 The laser head needs to be used on a heat sink with good heat dissipation.

3 Fixed output power; Modulation up to 30kHz.

4 Output power adjustable 10-100%; RS232 control optional; Modulation up to 30kHz.

5 Output power adjustable 10-100%; RS232 control optional; Modulation up to 100kHz.