

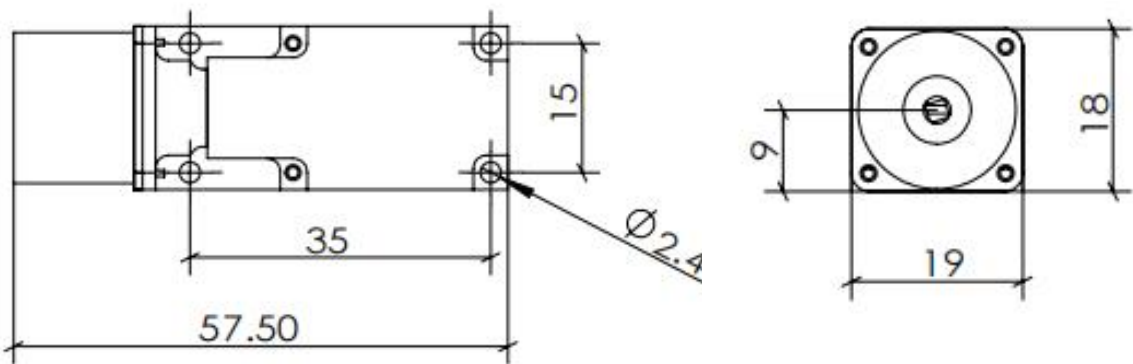


Y577D3000-19x18x58-40

Features

- DPSS Laser
- Compact Design
- High Stability
- Yellow Laser

Dimensions (Unit: mm)



| Specifications                                       |                     |                         |       |           |
|------------------------------------------------------|---------------------|-------------------------|-------|-----------|
| Model Number                                         |                     | Y577D3000-19x18x58-40   |       |           |
| Mechanical Specifications                            |                     | Min                     | Typ   | Max       |
| Laser Head                                           | Width x Height (mm) | -                       | 19X18 | 19.1x18.1 |
|                                                      | Length (mm)         | -                       | -     | 58        |
|                                                      | Weight (g)          | -                       | -     | 200       |
| Housing Material                                     |                     | Brass with gold-plating |       |           |
| Optical Specifications                               |                     | Min                     | Typ   | Max       |
| Wavelength (nm)                                      |                     | 574                     | 577   | 580       |
| Output Power (mW)                                    |                     | 1500                    | 2000  | -         |
| Power Stability at const. Temperature <sup>(1)</sup> |                     | -                       | 1%    | 3%        |
| Output Power Mode                                    |                     | CW                      |       |           |
| Laser Class                                          |                     | 4                       |       |           |

<sup>(1)</sup> after max. 3 minutes (RMS)

| <b>Beam Specifications</b>                            |                       | <b>Min</b>                                                                           | <b>Typ</b> | <b>Max</b> |
|-------------------------------------------------------|-----------------------|--------------------------------------------------------------------------------------|------------|------------|
| Beam Divergence (mrad) <sup>(1)</sup>                 |                       | -                                                                                    | 30         | 40         |
| Beam Waist (μm)                                       |                       | -                                                                                    | 300        | -          |
| Beam Alignment Tolerance                              | Position (Δr, mm)     | -                                                                                    | -          | 0.5        |
|                                                       | Off-axis Angle (mrad) | -                                                                                    | 35         | 60         |
| Beam Diameter at Output Window (mm)                   |                       | -                                                                                    | 0.5        |            |
| Beam Roundness                                        |                       | -                                                                                    | -          | -          |
| Beam Mode Longitude                                   |                       | Multi                                                                                |            |            |
| Beam Mode Transverse                                  |                       | Near TEM00                                                                           |            |            |
| Polarization Ratio (Linear)                           |                       | 100:1                                                                                | -          | -          |
| Residual IR                                           |                       | -                                                                                    | -          | 3%         |
| <b>Electrical Specifications</b>                      |                       | <b>Min</b>                                                                           | <b>Typ</b> | <b>Max</b> |
| Power Type                                            |                       | ACC                                                                                  |            |            |
| LD Voltage (DC, V)                                    |                       | 1.8                                                                                  | 2          | 2.3        |
| LD Operating Current (mA) at 2V                       |                       | -                                                                                    | 12,000     | 15,000     |
| Thermistor Constants                                  |                       | A = 2.231e <sup>-3</sup> B = 4.694e <sup>-5</sup><br>C = 0.884e <sup>-6</sup>        |            |            |
| Thermistor Resistance                                 |                       | 6.6KΩ@35°C    8.2KΩ@30°C<br>10.0KΩ@25°C    12.3KΩ@20°C<br>16.4KΩ@15°C    18.5KΩ@10°C |            |            |
| Power Consumption (W) at 25°C                         |                       | -                                                                                    | 24         | 37.5       |
| Housing Isolation                                     |                       | No                                                                                   |            |            |
| ESD protection                                        |                       | No                                                                                   |            |            |
| Wire Length (mm)                                      |                       | 200 (+/-50)                                                                          |            |            |
| Wire Type <sup>(3)</sup>                              |                       | 14AWG / 28AWG                                                                        |            |            |
| <b>Reliability</b>                                    |                       | <b>Min</b>                                                                           | <b>Typ</b> | <b>Max</b> |
| Operating Case Temperature Range (°C)) <sup>(3)</sup> |                       | T-1                                                                                  | T          | T+1        |
| Storage Temperature (°C)                              |                       | 0                                                                                    | -          | 40         |
| Environmental Humidity (RH, %)                        |                       | 5                                                                                    | -          | 85         |
| Lifetime (hours) (MTTF at 25°C)                       |                       | 5,000                                                                                | -          | -          |
| RoHS Compliance Declaration                           |                       | Yes                                                                                  |            |            |

(1) Full Angle ( 1/e<sup>2</sup> )

(2) 20AWG for LD wires. 28AWG for NTC wires

(3) T is a NTC tempearture point from 15-35°C. When the laser works at different current, the corresponding optimal working temperature is different. Will provide test report for each module.

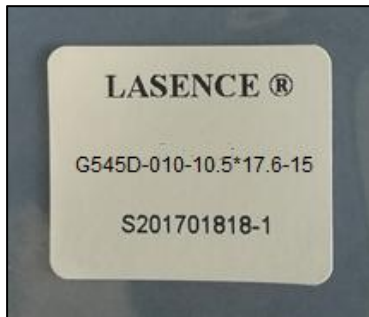
## Remarks

- Product ID for placing orders: Y577D3000-19x18x58-40
- Datasheet Version: 1
- No Photodiode
- Customer is responsible for suitable heat sinking
- Label on plastic bag (see picture of another product's label in picture 2):
  - LASENCE®
  - Y577D3000-19x18x58-40
  - Lasence Order Number - Module Number
  - Label Length: 30mm (+/-3mm); Width: 25mm (+/-3mm)
- Example of beam spot (see picture3)
- Laser Beam Warning Label on module housing (see picture 1)
- Laser Marking on module housing (see picture 2)

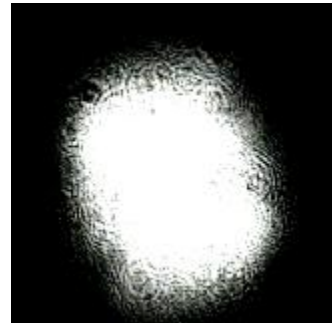
**Picture 1**



**Picture 2**

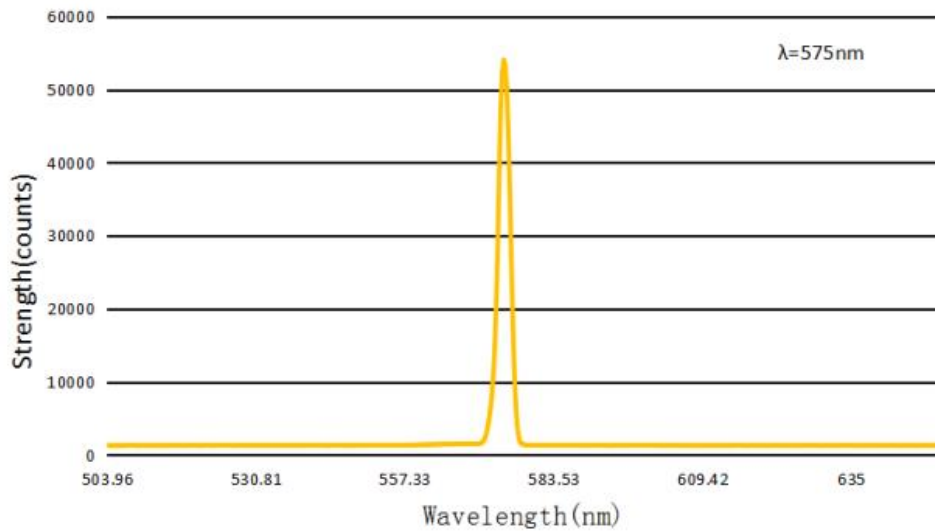


**Picture 3**



## Typical Output Performance (examples)

### 1) Wavelength



### 2) Power stability (4 hours power stability)

