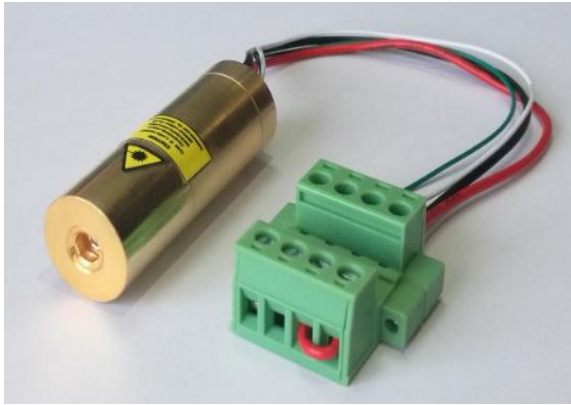


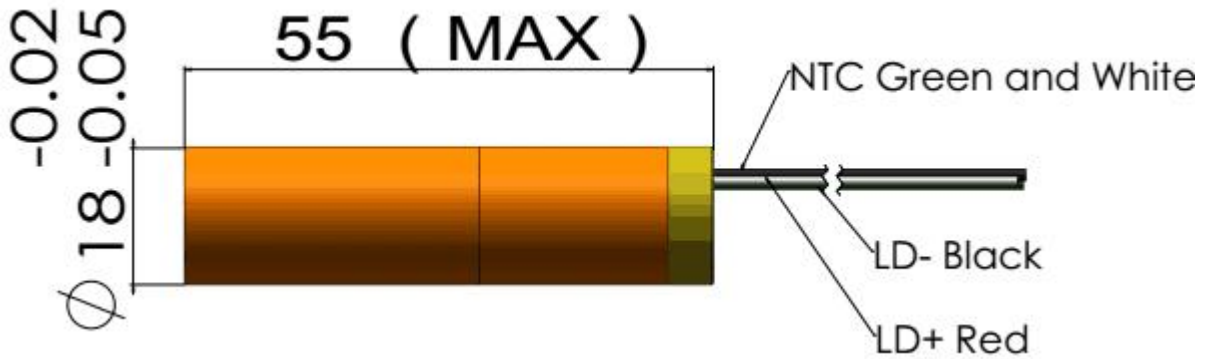
# Yellow 561nm Laser Module



**Y561D200-18x55-40**

- Features**
- DPSS Laser
  - Yellow Laser
  - High Reliability
  - with NTC

## Dimensions (Unit: mm)



| Specifications                                       |               |                         |            |            |
|--|---------------|-------------------------|------------|------------|
| Model Number   |               | Y561D200-18x55-40       |            |            |
| <b>Mechanical Specifications</b>                     |               | <i>Min</i>              | <i>Typ</i> | <i>Max</i> |
| Laser Head   | Diameter (mm) | 17.95                   | -          | 17.98      |
|  | Length (mm)   | -                       | -          | 55         |
|  | Weight (g)    | -                       | -          | 190        |
| Housing Material                                     |               | Brass with gold-plating |            |            |
| <b>Optical Specifications</b>                        |               | <i>Min</i>              | <i>Typ</i> | <i>Max</i> |
| Wavelength (nm)                                      |               | 559                     | 561        | 563        |
| Output Power (mW) at T <sup>(1)</sup> at 5.5A        |               | 200                     | 210        | -          |
| Output Power (mW) from -30 to 50°C                   |               | 100                     | -          | -          |
| Power Stability at const. Temperature <sup>(2)</sup> |               | -                       | +/- 5%     | +/- 10%    |
| Output Power Mode                                    |               | CW                      |            |            |
| Laser Class  |               | 3B                      |            |            |

<sup>(1)</sup> see remarks in page 2 no# 4

<sup>(2)</sup> after max. 3 minutes

| <b>Beam Specifications</b>            |                       | <b>Min</b>   | <b>Typ</b>       | <b>Max</b> |
|---------------------------------------|-----------------------|--|------------------|------------|
| Beam Divergence (mrad) <sup>(1)</sup> |                       | -  | 40               | 50         |
| Beam Waist (μm)                       |                       | -  | 230              | -          |
| 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                  |                       | Multi <sup>(2)</sup>   |                  |            |
| 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       |                       | -  | 4,500            | 5,500      |
| 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)                 |                       | -  | 5                | 6.9        |
| Housing Isolation                     |                       | No   |                  |            |
| ESD protection                        |                       | No   |                  |            |
| Wire Length (mm) <sup>(3)</sup>       |                       | 200 (+/-50)  |                  |            |
| Wire Type <sup>(3)</sup>              |                       | 20AWG / 28AWG  |                  |            |
| <b>Reliability</b>                    |                       | <b>Min</b>   | <b>Typ</b>       | <b>Max</b> |
| Operating NTC Temperature Range (°C)  |                       | T-0.3  | T <sup>(4)</sup> | T+0.3      |
| 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) See picture 5 on page 3 for example of beam spot

(3) Wire Length can be customized. 20AWG for LD wires. 28AWG for NTC wires.

(4) T is one optimum LD operating temperature between 15 to 35°C reflected by NTC resistance and will be advised in each test report.