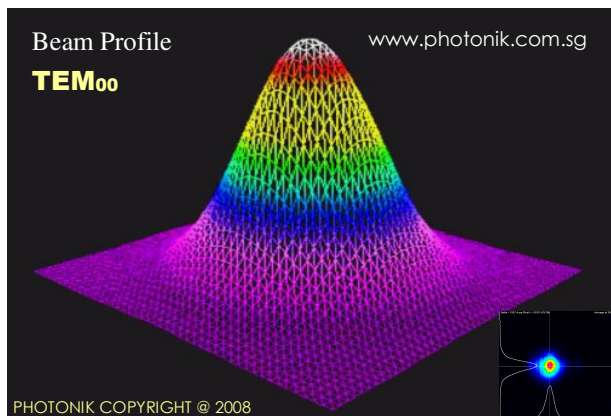
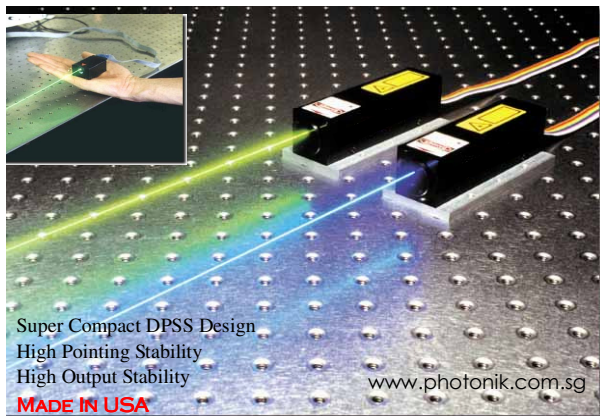


# Low Noise, High Stability Red Laser System (638/655/658/671/685nm) PRRL SERIES

Optional: single-longitudinal mode(SLM) version upon request



## TECHNICAL SPECIFICATION:

| PARAMETER   | UNIT | DATA/DESCRIPTIONS  |         |         |         |         |
|---|------|--|---------|---------|---------|---------|
|   |      | 638 ± 3  | 655 ± 3 | 658 ± 3 | 671 ± 2 | 685 ± 2 |
| Operation Center Wavelength                             | nm   | 638 ± 3  | 655 ± 3 | 658 ± 3 | 671 ± 2 | 685 ± 2 |
| Output Power(free-space)                                | mW   | 1 ~ 80   | 1 ~ 100 | 1 ~ 100 | 1 ~ 120 | 1 ~ 100 |
| <i>Option: SLM output version</i>                       | mW   | 30 max   | 100 max | 100 max | 120 max | 100 max |
| Transverse Mode   |      | TEM <sub>00</sub> ; M <sup>2</sup> < 1.1   |         |         |         |         |
| Beam Diameter (1/e <sup>2</sup> )                       | mm   | φ1.0 typ.<br><i>Options: SM(Nuferm 405-HP, 630-HP) or PM(Nuferm PM-630HP fiber-coupled output with collimator)(beam size upon request)</i>   |         |         |         |         |
| Beam Divergence   | mrad | 1.0 typ. (0.4mrad divergence/φ2.5mm beam size per order)   |         |         |         |         |
| Output Power Stability (RMS)                            |      | < 0.5% over 24-hrs   |         |         |         |         |
| Noise(RMS)  |      | < 0.5% @ 10 Hz ~ 20 MHz  |         |         |         |         |
| Beam Pointing Stability                                 | mrad | < 0.02   |         |         |         |         |
| Beam Polarization State                                 |      | Linear – polarization ratio: > 100:1<br>Vertical or horizontal polarization state upon request when placement of order   |         |         |         |         |
| Spectral Linewidth (FWHM)<br><i>Option: SLM version</i> |      | Several(3 ~ 10) longitudinal modes included, typ.<br>Single longitudinal mode, with coherence length > 5m, >10m, >20m, >25m (>50-m as an option for special order); Linewidth: < 0.0001nm typ. |         |         |         |         |
| Warm-up Time  | Sec  | < 30   |         |         |         |         |
| Operation Temperature Range                             | °C   | 10 ~ 35  |         |         |         |         |
| Power Consumption                                       | W    | 5.0 max.   |         |         |         |         |
| Power Supply  |      | 90 ~ 260 Vac/50 ~ 60Hz single-phase  |         |         |         |         |
| Physical Dimensions<br>Laser Head<br>Power Supply       | mm   | W30.0 x H30.0 x L120.0 (c/w 6.0mm base mount/adaptor)<br>W140.0 x H50.0 x D150.0 (5" x 2" x 6")  |         |         |         |         |

## ORDERING INFORMATION:

**P/N: PRRL-X-Y-Z-P-L**

**X:** output power;

**Y:** center wavelength;

**Z:** **N** = standard; **S** = single longitudinal mode(SLM) operation;

**P:** **H** = horizontal polarization; **V** = vertical polarization;

**L:** Number of minimal coherence length; Defined only for SLM version

\* for example. **PRRL-050-671-S-H-25** stands for 50mW, 671nm laser with SLM operation, horizontal polarization output and coherence length 25-meter minimum.

CLASS 3B LASER PRODUCTS; *RoHS Compliant*