

## Green Line Laser Module

| Specifications                   | Model Number | VLM-520-27 series   | VLM-520-28 LPT  | VLM-520-37 series  | VLM-520-55 series   | VLM-520-56 series   | VLM-520-57 series (TTL)   |
|----------------------------------|--------------|---|---|--|---|---|---|
|                                  |              |  |  |  |  |  |      |
| Dimensions                       |              | Ø12.5 x 30 mm   | Ø9 x 33 mm  | (W)14 x (H)14 x (L)26 mm   | Ø10 x 38 mm   | Ø10 x 40 mm   | Ø10 x 40 mm   |
| Operating voltage                |              | 7~10 VDC  | 7~10 VDC  | 7~10 VDC   | 3~6 VDC   | 3~6 VDC   | 3~6 VDC   |
| Operating current                |              | Less than 80mA / 100mA  | Less than 100mA   | Less than 80mA / 120mA   | Less than 200mA   | Less than 80mA / 180mA  | Less than 80mA / 180mA  |
| Optical power                    |              | 4~5mW / 9~10mW  | Less than 4.5mW   | 4~5mW / 9~10mW   | 4~5mW / 9~10mW  | Less than 10mW / 30mW   | Less than 10mW / 30mW   |
| Laser power output               |              | Less than 0.39mW / 1mW  | Less than 0.39mW  | Less than 0.39mW / 1mW   | Less than 0.39mW / 1mW  | Less than 0.39mW / 1mW  | Less than 0.39mW / 1mW  |
| Laser class                      |              | Class 1M / Class 2M   | Class 1M  | Class 1M / Class 2M  | Class 1M / Class 2M   | Class 1M / Class 2M   | Class 1M / Class 2M   |
| Wavelength                       |              | 505~530nm   | 510~530nm   | 505~530nm  | 510~530nm   | 515~530nm   | 515~530nm   |
| Collimating lens                 |              | Plastic lens  | Plastic lens  | Glass lens   | Glass lens  | Glass lens  | Glass lens  |
| Line lens                        |              | Plastic lens  | Plastic lens  | Glass lens   | Glass lens  | Glass lens  | Glass lens  |
| Beam shape                       |              | Line  | Line  | Line   | Line  | Line  | Line  |
| Laser Line width                 |              | Less than 3.5mm at 10M  | 1.2mm at 1M   | 2±1mm at 5M<br>4±1mm at 10M  | 3±0.5mm at 5M<br>6±0.5mm at 10M   | Less than 1mm   | Less than 1mm   |
| Laser line accuracy              |              | 40" (±1mm @5M)  | 80" (+/- 2mm @5M)   | 20" (± 1mm @10m)   | 40"(±1mm@5M)  | 40"(±1mm@5M)  | 40"(±1mm@5M)  |
| Emitting angle                   |              | More than 90°   | More than 60°   | More than 120°   | More than 90°   | 5°, 10°, 15°, 20°, 30°, 45°, 60°, 110°  | 5°, 10°, 15°, 20°, 30°, 45°, 60°, 110°  |
| Operating temp. range            |              | +15°C ~+30°C  | +15°C ~+30°C  | -20°C ~ +50°C  | -20°C ~+65°C  | -20°C ~+60°C  | -20°C ~+60°C  |
| Storage temp. range              |              | -20°C ~+65°C  | -20°C ~+65°C  | -40°C ~ +70°C  | -20°C ~+85°C  | -20°C ~+85°C  | -20°C ~+85°C  |
| Housing material                 |              | Brass   | Brass   | Aluminum   | Aluminum  | Stainless steel   | Stainless steel   |
| Potential of housing             |              | VDD(+)  | VDD(+)  | Insulated  | Insulated   | Insulated   | Insulated   |
| Electrostatic discharge (ESD)    |              | 30KV  | 30KV  | 30KV   | 30KV  | 30KV  | 30KV  |
| Moisture sensitivity level (MSL) |              | Level 1 - acc to JEDEC J-STD-020E.  | Level 1 - acc to JEDEC J-STD-020E.  | Level 1 - acc to JEDEC J-STD-020E.   | Level 1 - acc to JEDEC J-STD-020E.  | Level 1 - acc to JEDEC J-STD-020E.  | Level 1 - acc to JEDEC J-STD-020E.  |
| Wire type                        |              | 1007-26AWG  | 1007-26AWG  | 1007-26AWG   | 1007-26AWG  | 2464 2-WIRE CABLE 26 AWG  | 2464 2-WIRE CABLE 26 AWG  |
| Cable length                     |              | 115±15mm  | 115±15mm  | 115±15mm   | 115±15mm  | 330±30mm  | 330±30mm  |
| Mean time to failure (MTTF) 25°C |              | 10000hrs  | 10000hrs  | 10000hrs   | 10000hrs  | 10000hrs  | 10000hrs  |
| Application                      |              | General industrial alignment  | Economic 3D scanner   | Precision industrial alignment   | Precision industrial alignment  | Precision fine line for Automation, Machine vision and Medical                      | Precision fine line for Automation, Machine vision and Medical with modulation function |
| Suggestion work distance         |              | Above 2 meters  | 0.3~1.8 meters / 1~6 feet   | 1~20 meters / 3~60 feet  | 1~20 meters / 3~60 feet   | 0~1.2 meters / 0~4 feet   | 0~1.2 meters / 0~4 feet   |