

## Concentricity Laser Module / Precision Laser Module

### CLM-520-11 LPO / CLM-520-12 LPT



Concentricity laser modules are designed for those who need to perform precision alignment task. Beam error is less than 1 mm at the distance of 30 meters with perfect circular dot. Accessories- Battery pack, 3 meters USB to Type C cable and cable switch are all included in a plastic carry case.

#### FEATURES:

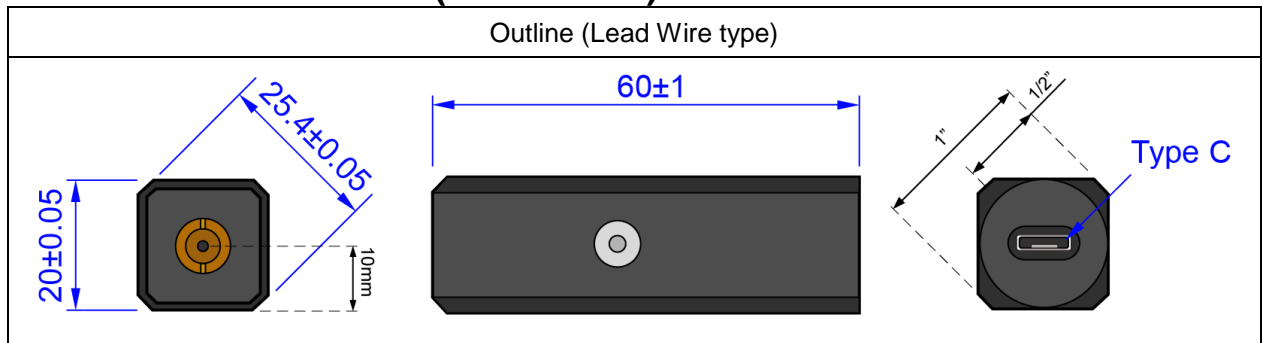
- Concentricity (beam point error): less than 1mm at 30 meters (10 second).
- Circular beam shape, aspect ratio 1:1.
- Class 1 / Class 2 eye safe laser product.
- Type C power connector.
- Battery pack, USB to Type C cable, Type C cable switch included.
- Plastic carrying case.
- Dimensions : 20(W) x 20(H) x 60(L) mm (0.787" x 0.787" x 2.36")
- Wavelength : 510~530 nm
- Output power : CLM-520-11 LPO - Class 1 - less than 0.39mW.  
CLM-520-12 LPT - Class 2 - less than 1mW.
- Beam Divergence (Half Angle) : 0.15 mRad
- 3~6 VDC operation.
- Connection type : Type C

#### APPLICATIONS: ideal for

- Aiming or position work.
- Concentricity test of rotating parts.
- Alignment of machine.
- Straightness test for all kinds of equipment, like carriages, crabs, etc.

## CLM-520-11 LPO / CLM-520-12 LPT

### OUTLINE DIMENSIONS (UNITS: mm)



### SPECIFICATIONS

| Model No. |   | CLM-520-11 LPO  | CLM-520-12 LPT |
|-----------|---|---|----------------|
| 1         | Recommended working range                   | 0~1M  | 1~30M or above |
| 2         | Concentricity(Beam point error)             | 1mm@30M (10 second)   |                |
| 3         | Dimensions                                  | 20(W) x 20(H) x 60(L) mm (0.79" x 0.79" x 2.36")  |                |
| 4         | Weight                                      | 53±1 g  |                |
| 5         | Operating voltage (Vop)                     | 3~6 VDC   |                |
| 6         | Operating current (Iop)                     | Less than 160mA   |                |
| 7         | Optical output power (Po)                   | Less than 0.39mW  | Less than 1mW  |
| 8         | Laser class                                 | Class 1   | Class 2        |
| 9         | Wavelength at peak emission ( $\lambda_p$ ) | 510~530nm   |                |
| 10        | Collimating lens                            | Aspherical glass lens   |                |
| 11        | Output Aperture                             | 0.8mm   | 3mm            |
| 12        | Beam shape                                  | Circular, aspect ratio 1:1  |                |
| 13        | Beam size                                   | AS TABLE A  | AS TABLE B     |
| 14        | Divergence (Half Angle)                     | 0.15 mRad   |                |
| 15        | Operating temp. range                       | -20°C ~+60°C  |                |
| 16        | Storage temp. range                         | -40°C ~+85°C  |                |
| 17        | Housing                                     | Hard anodized aluminum  |                |
| 18        | Housing Color                               | Black   |                |
| 19        | Potential of housing                        | Isolated  |                |
| 20        | Electrostatic discharge (ESD)               | 30KV / Arc protection   |                |
| 21        | Moisture sensitivity level (MSL)            | Level 1 - acc to JEDEC J-STD-020E.  |                |
| 22        | Protection circuit                          | Reversed supply circuit protection, over-current protection, surge protection, Short circuit protection |                |

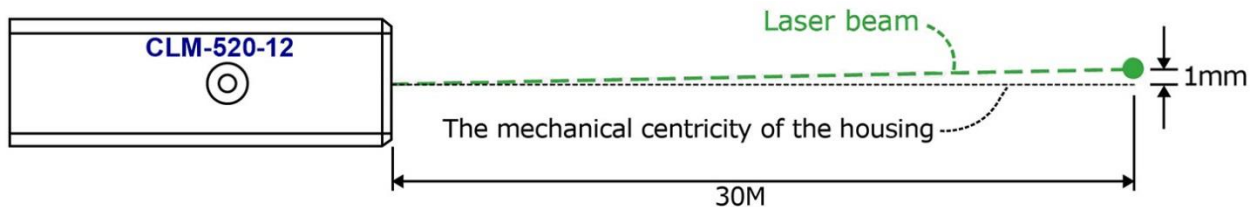
## CLM-520-11 LPO / CLM-520-12 LPT

|    |                                  |  |                          |
|----|----------------------------------|--|--------------------------|
| 23 | Vibration resistance             | 10 to 55Hz, 1.5mm amplitude for 2 hours each in X, Y and Z direction |                          |
| 24 | Standard                         | IEC60825:2014  |                          |
| 25 | Power supply connector           | Type C   |                          |
| 26 | Mean time to failure (MTTF) 25°C | 10000hrs   |                          |
| 27 | Accessories(included)            | Battery pack, USB to Type C cable, Type C cable switch               |                          |
| 28 | Package                          | Plastic carrying case  |                          |
| 29 | Application                      | Concentricity laser  |                          |
| 30 | Suggestion work distance         | 0~1 meters / 0~3 feet  | 1~30 meters / 3~100 feet |

**Please note that this is a high-accuracy instrument. Dropping it may cause a loss of accuracy and will void the warranty.**

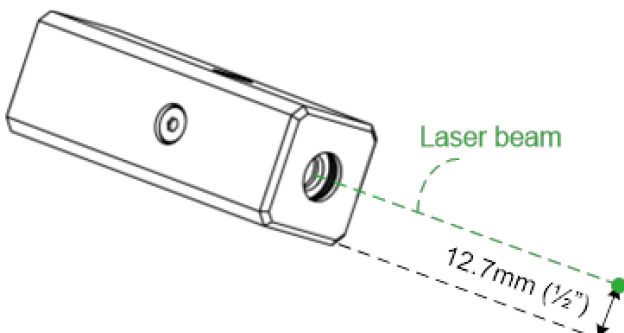
### Concentricity:

The laser beam error at a distance of 30M is less than 1mm from the mechanical center of the housing.



### Laser Beam Position:

Laser beam center to the surface of the housing is 10mm.



## Circular beam shape:

Aspect ratio 1:1

TABLE A:

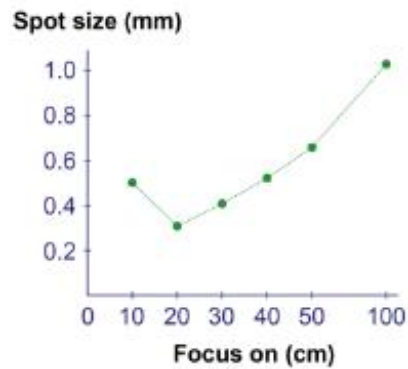
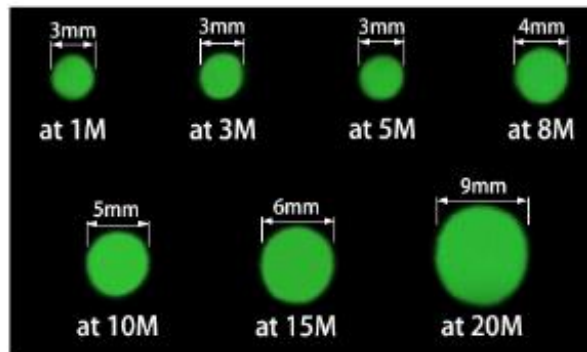


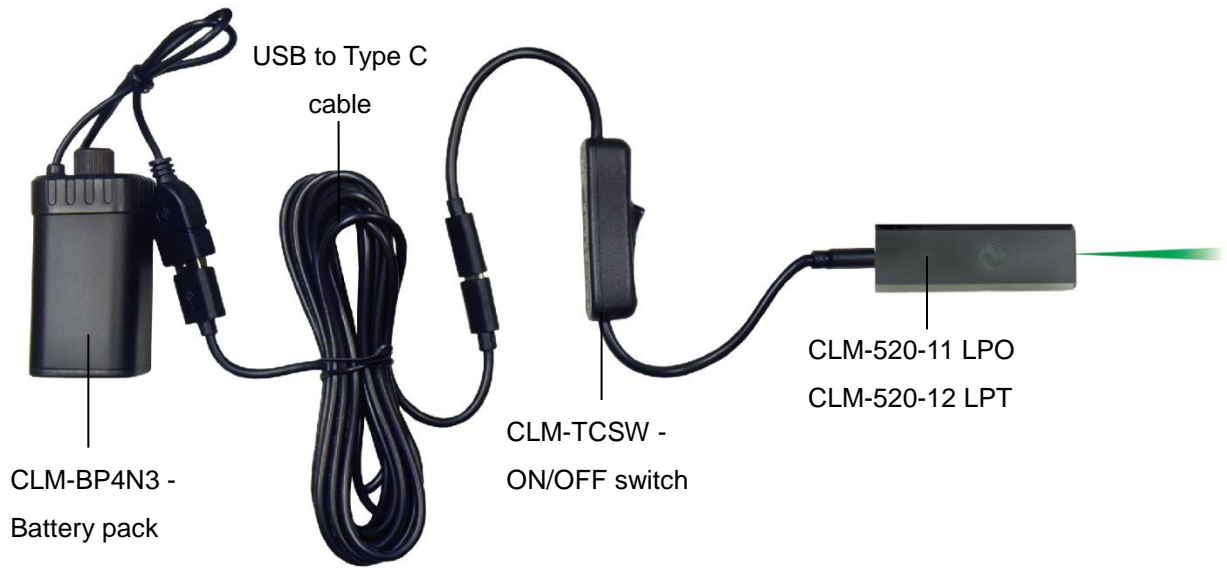
TABLE B:



CLM-520-12 LPT



## CLM-520-11 LPO / CLM-520-12 LPT



### Accessories:

**CLM-BP4N3** - Battery pack (4\* AA batteries)

\*\*\* AA Batteries are **NOT** included in package.

USB Output Voltage: 5V DC

Color: Black



**CLM-TCSW** – Type C Cable Switch

Length: 32cm

Color: Black



## CLM-520-11 LPO / CLM-520-12 LPT

USB to Type C Cable

Length: 3 meters

Color: Black



### ORDER CODE

| Order Code     | Wavelength | Laser Power Output | Laser Class | Connection Type |
|----------------|------------|--------------------|-------------|-----------------|
| CLM-520-11 LPO | 520 nm     | Less than 0.39mW   | Class 1     | Type C          |
| CLM-520-12 LPT | 520 nm     | Less than 1mW      | Class 2     | Type C          |

### SAFETY LABEL

**CLASS I LASER PRODUCT**  
This product complies with 21CFR  
Chapter 1, subchapter J.

CLM-520-11 LPO



CLM-520-12 LPT