

## Concentricity Laser Module / Precision Laser Module

### CLM-635-11 LPO / CLM-635-12 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 cable and cable switch are all included in a plastic carry case.

#### FEATURES:

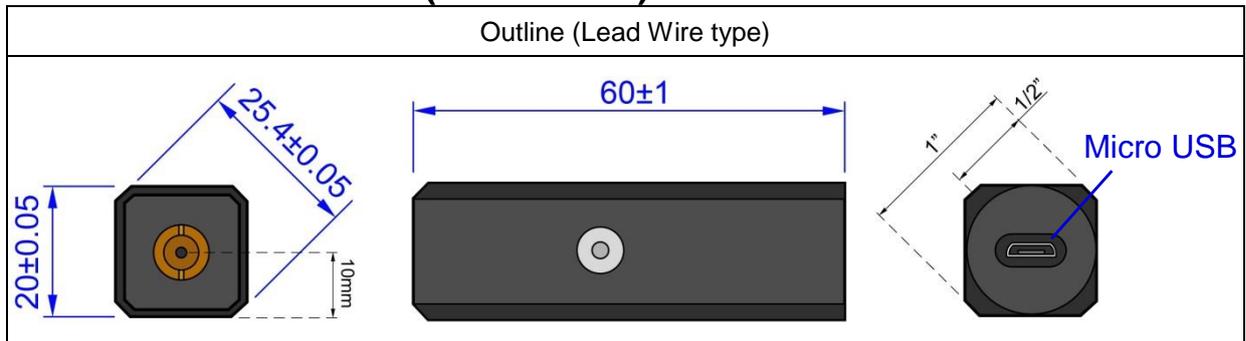
- Concentricity (beam point error): less than 1mm at 30 meters (10 second degree).
- Circular beam shape, aspect ratio 1:1.
- Class I / Class II eye safe laser product.
- Micro USB power connector.
- Battery pack, USB cable, USB cable switch included.
- Plastic carrying case.
- Dimensions : 20(W) x 20(H) x 60(L) mm (0.787" x 0.787" x 2.36")
- Wavelength : 630~645 nm
- Output power : CLM-635-11 LPO - Class I - less than 0.39mW.  
CLM-635-12 LPT - Class II - less than 1mW.
- Beam Divergence (Half Angle) : 0.15 mRad
- 3~6 VDC operation.
- Connection type : Micro USB

#### 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-635-11 LPO / CLM-635-12 LPT

### OUTLINE DIMENSIONS (UNITS: mm)



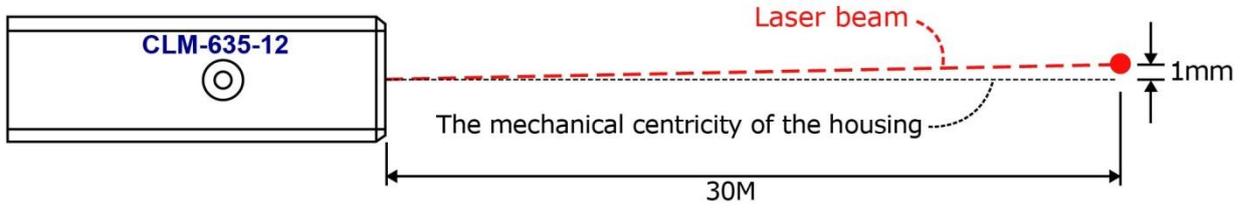
### SPECIFICATIONS

SPECIFICATIONS		CLM-635-11 LPO	CLM-635-12 LPT
1	Recommended working range	0~1M	1~30M or above
2	Concentricity(Beam point error)	1mm@30M (10 second degree)	
3	Dimensions	20(W) x 20(H) x 60(L) mm (0.79" x 0.79" x 2.36")	
4	Weight	53 g	
5	Operating voltage (Vop)	3~6 VDC	
6	Operating current (Iop)	Less than 50mA	
7	Optical output power (Po)	Less than 0.39mW	Less than 1mW
8	Laser class	Class I	Class II
9	Wavelength at peak emission ( $\lambda_p$ )	630~645nm	
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	Power supply connector	Micro USB (5V)	
21	Mean time to failure (MTTF) 25°C	10000hrs	
22	Accessories(included)	Battery pack, USB cable, USB cable switch	
23	Package	Plastic carrying case	

\* Operation temperature: it means within this temperature range, the laser spot/line will not be affected to change the spot size/line width. It can still work over this range, but the laser spot size or laser line width will be larger.

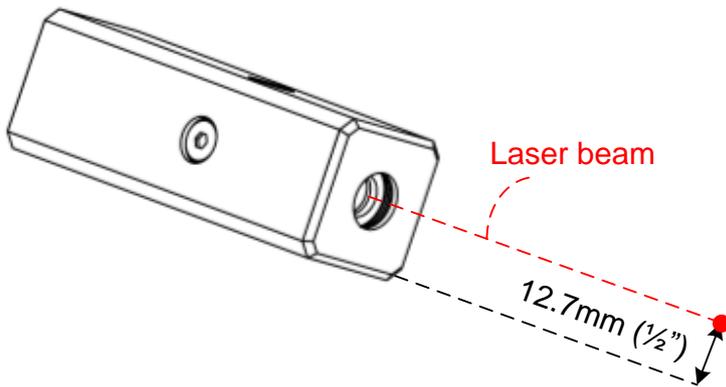
## Concentricity:

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



## Laser Beam Position:

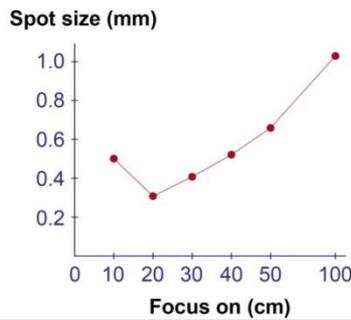
Laser beam center to the surface of the housing is 10mm.



## Circular beam shape:

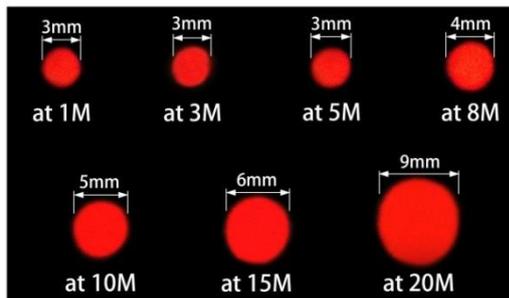
Aspect ratio 1:1

TABLE A:



CLM-635-11 LPO

TABLE B:



CLM-635-12 LPT

## CLM-635-11 LPO / CLM-635-12 LPT



## Accessories:

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

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

USB Output Voltage: 5V DC

Color: Black



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### CLM-USBSW - USB Cable Switch

Length: 28cm

Color: Black



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### CLM-UM3M - USB to micro USB Cable

Length: 3 meters

Color: Black



## CLM-635-11 LPO / CLM-635-12 LPT

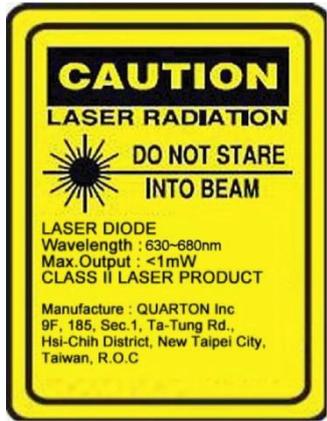
### ORDER CODE

Order Code	Wavelength	Laser Power Output	Laser Class	Connection Type
CLM-635-11 LPO	635 nm	Less than 0.39mW	Class I	Micro USB
CLM-635-12 LPT	635 nm	Less than 1mW	Class II	Micro USB

### SAFETY LABEL



CLM-635-11 LPO



CLM-635-12 LPT