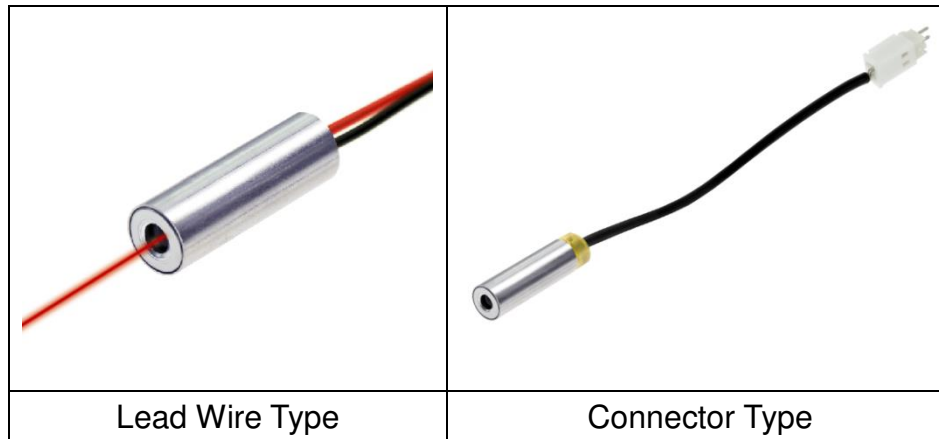


## Economical Laser

### VLM-635/650-03 Series



#### FEATURES:

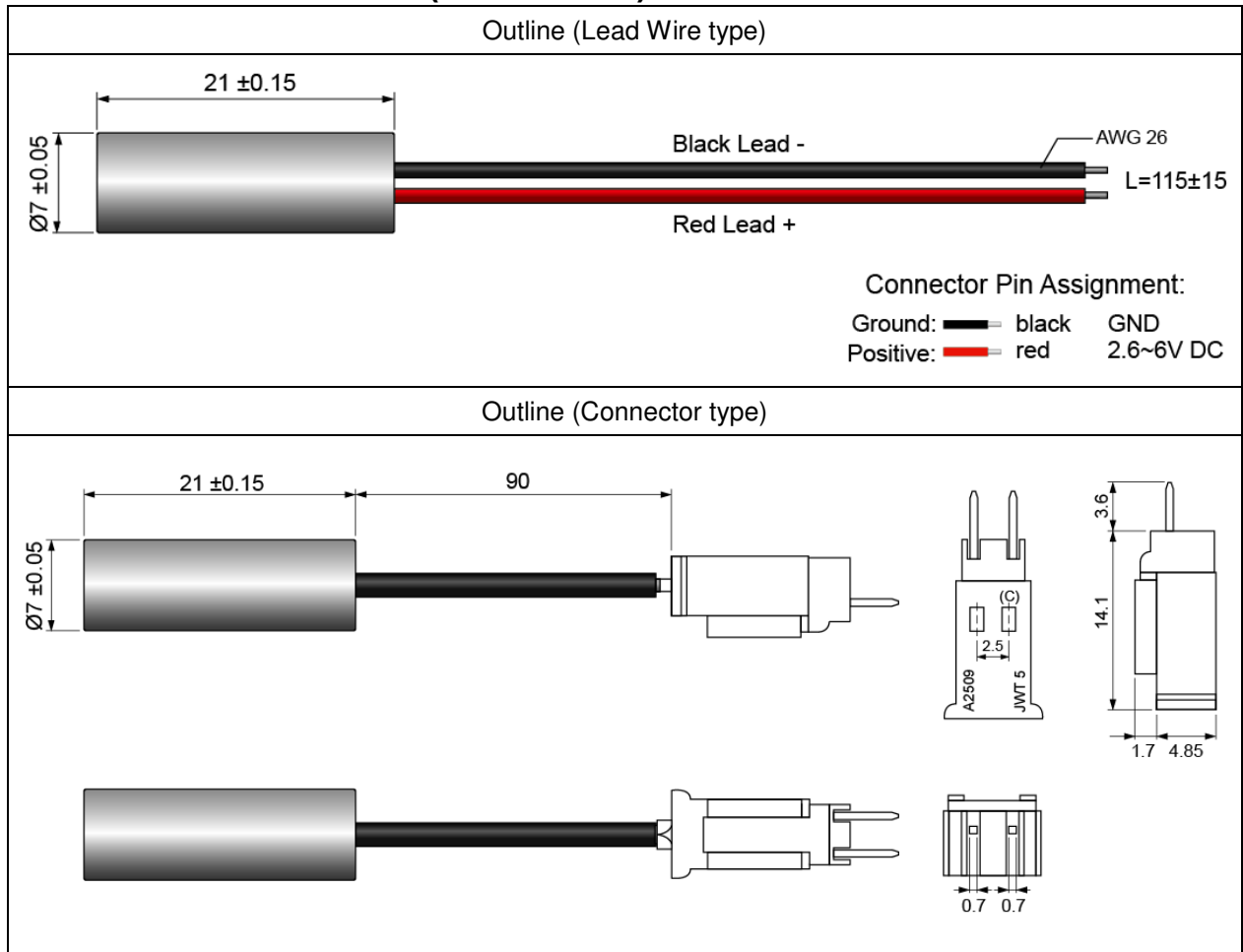
- Economical Red Dot Laser.
- Ideal for economical Laser Pointer solution.
- This module has integrated optic, laser diode, and APC driver circuit.
- APC Driver Circuit enables the Laser output power safe and constant.
- Aspherical plastic lens provides Dot Laser.
- Dimensions :  $\varnothing 7 \times 21$  mm ( $\varnothing 0.276" \times 0.827"$ ).
- Wavelength : 635 / 650 nm
- Laser power output : LPT - Class II – less than 1mW  
LPA - Class IIIa – less than 2.5mW.
- Beam Divergence (Half Angle) : 0.6 mRad
- 2.6~6 VDC operation.
- Connection type : Lead wire / Connector(A pair).

#### APPLICATIONS:

- Economical Red Dot Laser - Low cost solution for consumer grade positioning, measuring, pointing and laser sighting device.
- Wood processing.
- Metal processing.
- Stone processing.
- Textile industry.
- Food industry.
- Automotive industry.
- Medical science.

## VLM-635-03 Series

### OUTLINE DIMENSIONS (UNITS: mm)



### SPECIFICATIONS

SPECIFICATIONS		VLM-635-03			
		LPT	LPA	CPT	CPA
1	Dimensions	Ø7 x 21 mm (Ø0.276" x 0.827")			
2	Operating voltage (Vop)	2.6~6 VDC			
3	Operating current (Iop)	Less than 35mA	Less than 50mA	Less than 35mA	Less than 50mA
4	Laser power output	Less than 1mW	Less than 2.5mW	Less than 1mW	Less than 2.5mW
5	Laser class	Class II	Class IIIa	Class II	Class IIIa
6	Wavelength at peak emission (λp)	630~645nm			
7	Collimating lens	Aspherical plastic lens			
8	Output aperture	3mm			
9	Beam shape	Ellipse			
10	Spot size at 5M	4±1 mm			
11	Divergence (Half Angle)	0.6 mRad			

## VLM-635-03 Series

12	Beam alignment	Less than 3°	
13	Operating temp. range*	+15°C ~+30°C (Room Temperature)	
14	Storage temp. range	-20°C ~+65°C	
15	Housing material	Steel	
16	Potential housing**	VDD(+)	
17	Electrostatic discharge (ESD)	20KV	
18	Moisture sensitivity level (MSL)	Level 1 - acc to JEDEC J-STD-020E.	
19	Connection type	1007-26 AWG	2509 connector
20	Cable length	115±15mm	90±15mm
21	Mean time to failure (MTTF) 25°C	5000hrs	
22	Application	Economic type	
23	Suggestion work distance	1~10 meters / 3~40 feet	

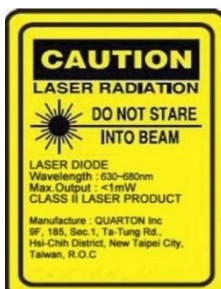
\* Operation temperature: it means within this temperature range, the laser spot/line will not be affected to change the spot size/line width. It can still work over this range, but the laser spot size or laser line width will be larger.

\*\* Laser module housing is an electrical positive surface, it is imperative that contact between the laser module and the machine be avoided. This is to prevent damage from the machine electrical leakage. Surge protected power supply to the laser module is strongly recommended.

### ORDER CODE

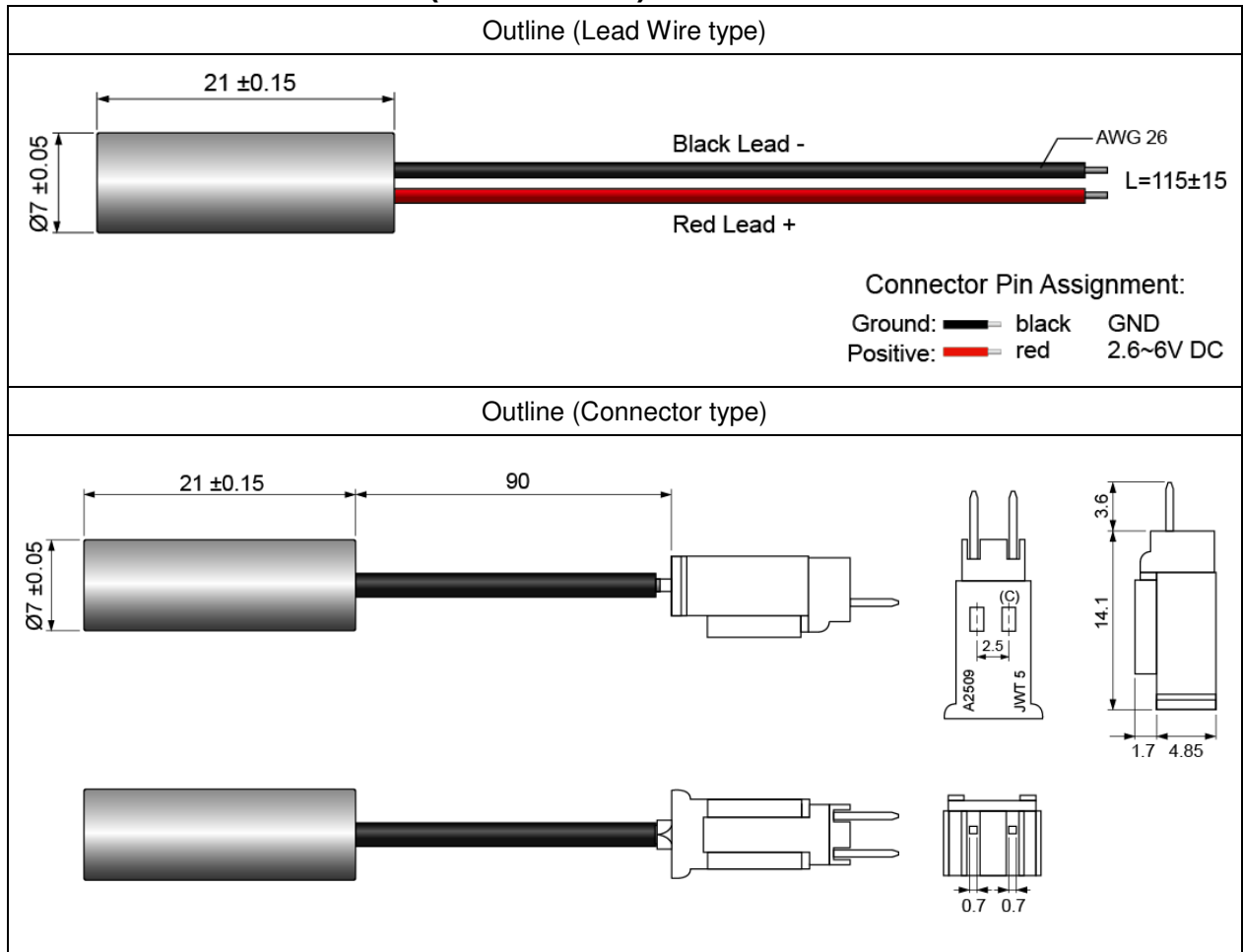
Order Code	Wavelength	Laser Power Output	Laser Class	Connection Type
VLM-635-03 LPA	635 nm	Less than 2.5mW	Class IIIa	Lead Wire
VLM-635-03 LPT	635 nm	Less than 1mW	Class II	Lead Wire
VLM-635-03 CPA	635 nm	Less than 2.5mW	Class IIIa	Connector
VLM-635-03 CPT	635 nm	Less than 1mW	Class II	Connector

### SAFETY LABEL



## VLM-650-03 Series

### OUTLINE DIMENSIONS (UNITS: mm)



### SPECIFICATIONS

SPECIFICATIONS		VLM-650-03			
		LPT	LPA	CPT	CPA
1	Dimensions	Ø7 x 21 mm (Ø0.276" x 0.827")			
2	Operating voltage (Vop)	2.6~6 VDC			
3	Operating current (Iop)	Less than 35mA	Less than 50mA	Less than 35mA	Less than 50mA
4	Laser power output	Less than 1mW	Less than 2.5mW	Less than 1mW	Less than 2.5mW
5	Laser class	Class II	Class IIIa	Class II	Class IIIa
6	Wavelength at peak emission (λp)	645~665nm			
7	Collimating lens	Aspherical plastic lens			
8	Output aperture	3mm			
9	Beam shape	Ellipse			
10	Spot size at 5M	4±1 mm			
11	Divergence (Half Angle)	0.6 mRad			

## VLM-650-03 Series

12	Beam alignment	Less than 3°	
13	Operating temp. range*	+15°C ~+30°C (Room Temperature)	
14	Storage temp. range	-20°C ~+65°C	
15	Housing material	Steel	
16	Potential housing**	VDD(+)	
17	Electrostatic discharge (ESD)	20KV	
18	Moisture sensitivity level (MSL)	Level 1 - acc to JEDEC J-STD-020E.	
19	Connection type	1007-26 AWG	2509 connector
20	Cable length	115±15mm	90±15mm
21	Mean time to failure (MTTF) 25°C	5000hrs	
22	Application	Economic type	
23	Suggestion work distance	1~10 meters / 3~40 feet	

\* 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.

\*\* Laser module housing is an electrical positive surface, it is imperative that contact between the laser module and the machine be avoided. This is to prevent damage from the machine electrical leakage. Surge protected power supply to the laser module is strongly recommended.

### ORDER CODE

Order Code	Wavelength	Laser Power Output	Laser Class	Connection Type
VLM-650-03 LPA	650 nm	Less than 2.5mW	Class IIIa	Lead Wire
VLM-650-03 LPT	650 nm	Less than 1mW	Class II	Lead Wire
VLM-650-03 CPA	650 nm	Less than 2.5mW	Class IIIa	Connector
VLM-650-03 CPT	650 nm	Less than 1mW	Class II	Connector

### SAFETY LABEL

