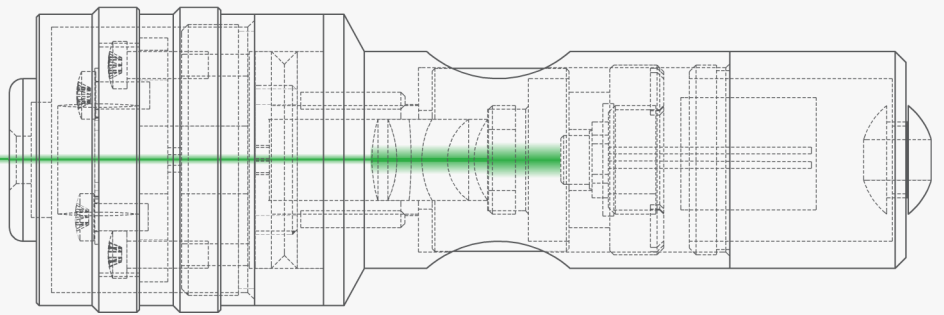


HUANIC[®]

Profession Creates Values

LASER

405nm 450nm 520nm 532nm 635nm 650nm 670nm 780nm 808nm 830nm 850nm 940nm 980nm



Huanic Corporation

About Huanic

Huanic Corporation specializes in R&D, manufacturing industrial Laser products including laser diode modules, laser instruments, laser outdoor devices, PCB, etc. Huanic also has a capability of manufacturing 6 million Laser modules annually. The R&D Team provides you not only the customized products but also the best laser optical solutions.

Huanic has been awarded the Quality System Certificate of ISO9001:2015. With the philosophy of "Profession Creates Values" and 20 years experience on designing and manufacturing laser modules, Huanic offers its customers with high quality products and best services which they can expect.

The rich manufacturing experiences, coupled with the professional technicians enable us to design and produce various laser systems to satisfy the customized applications. We also design special laser system, laser optical system, laser power supply and fixing bracket.

Based on the highly vertical integrated factory, we could manufacture customized products such as laser pointer, laser sights, laser flashlight and laser measurement instruments.



The Picture of Huannic



SMT surface mount production line

Micro arc oxidation



Vacuum coating machine



Ultra clean workshop



CNC machining center array



Product Categories

- ▶ Direct Diode Green Laser Module with Dot, Line and Cross beam
- ▶ DPSS Green Dot Laser Module with Dot, Line and Cross beam
- ▶ Red Laser Module with Dot, Line and Cross beam
- ▶ Blue Laser Module with Dot, Line and Cross beam
- ▶ Infrared Laser Module Series
- ▶ Modulated Laser Module Series
- ▶ Beam Expander Laser Module series
- ▶ Advanced Efficiency LED

- ▶ Laser Range Finder
- ▶ Laser Beam detector
- ▶ Laser Beam Receiver
- ▶ Laser Module for Intelligent Sweeper
- ▶ Cone Mirror Detecting System
- ▶ Optical Design for Laser Systems
- ▶ Circuitry Design for Laser System
- ▶ Laser Parallelism Detector System
- ▶ Multifunction Beam Detecting System
- ▶ Ground Laser Module Laser Positioning Device

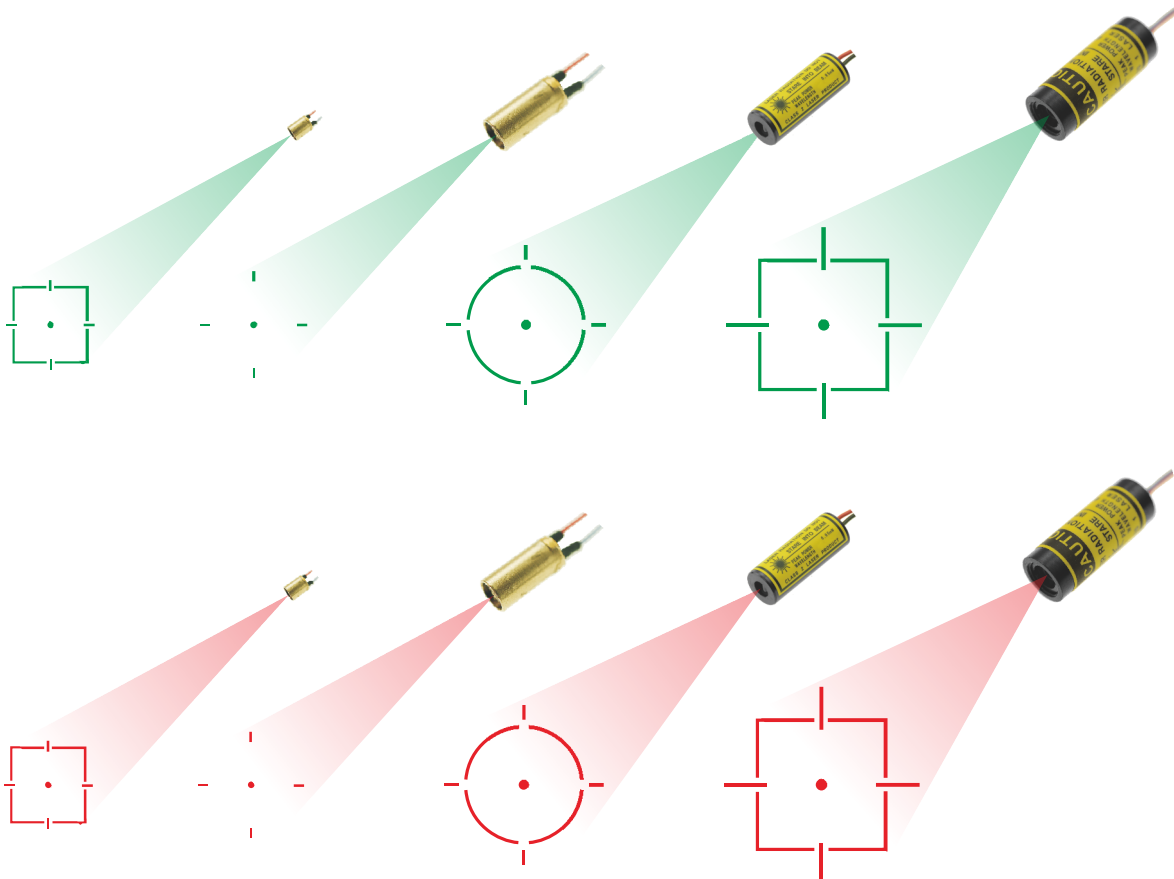
Advanced Efficient LED

We design and manufacture customized LED. We provide the varied module patterns LED. The size ranges from 5mm^2 to 10mm^2 .

The wavelength is within $500\text{nm} \sim 700\text{nm}$, luminous angle $> 160^\circ$, maximum operating voltage DC 3.0V and starting current less than 1uA .

LED Module with customized projected pattern, technical features: low power consumption, clear pattern image, prefabricate changeable pattern.

We make high output power, energy uniform distribution and $3\text{-}45^\circ$ angle degree adjustment round dot LED module.



Direct Green Laser Module

Completely differing from the normal DPSS green 532nm laser, the new green laser beam comes directly from 520nm laser diode. It's a revolutionary product of Huanic Corporation! Same as the red laser diode module, our green laser module has features such as lower power consumption, better stability of output power (Within 3%), quicker activation, wider operating temperature range from $-4^{\circ}\text{F} \sim 140^{\circ}\text{F}$ ($-20^{\circ}\text{C} \sim 60^{\circ}\text{C}$), longer lifetime, and better quality. 360° laser module projecting a enclosed line cycle on same plane.

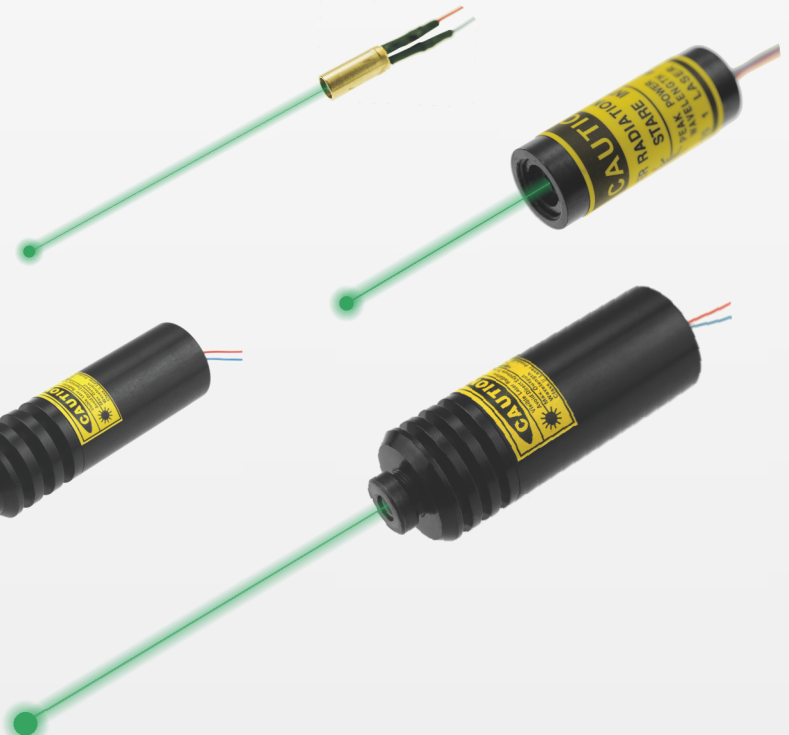
The new direct green laser can be made into any modules with same specifications as traditional red laser diode modules, thus offering customer with a better solution than DPSS green laser modules.

Different from traditional double DPSS 532nm green laser, the semi-conductor green diode laser is with more stabilized output power, wider working temperature range, quick and high frequency activation, meanwhile much smaller in size, and same as red diode laser, it could be applied to the sophisticated environment such as outdoor, industry, measurement fields.

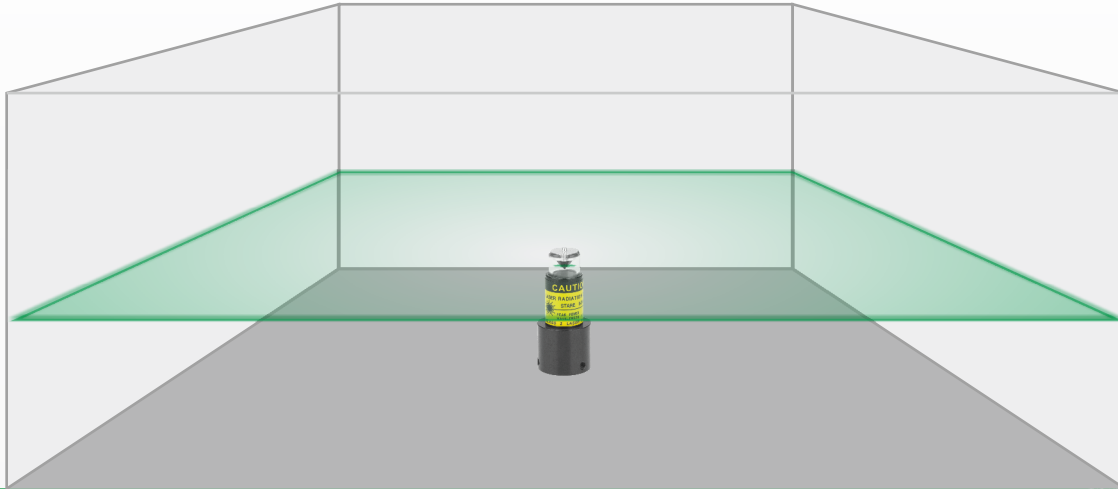
($\Phi 5 \times 12\text{mm}$)
MINI Direct Green Laser Module



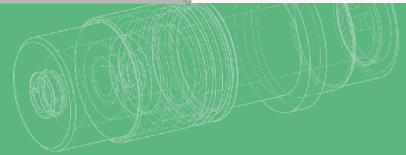
($\Phi 4 \times 9.15\text{mm}$)
Super MINI Direct Green Laser Module



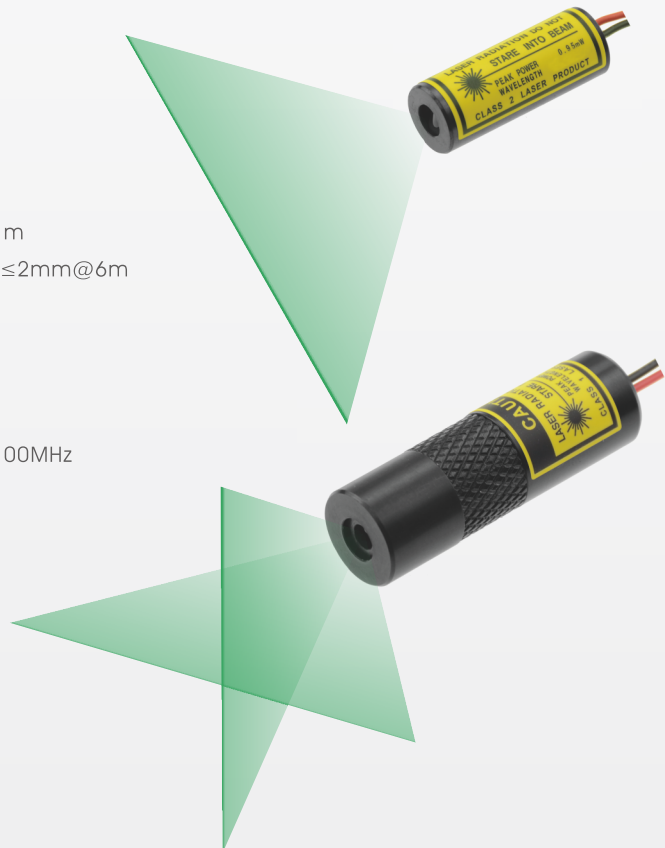
360° laser line



520nm



Output wavelength	: 520nm(± 10 nm)
Output power(Dot)	: ≤ 40 mW
Operating voltage	: DC2.1-24V
Operating current	: 8~160mA(7.5V)
Beam divergence	: 0.2-2mrad
Beam diameter(Dot)	: minimum diameter $\leq \phi 1$ mm@1m
Line thickness(Line/Cross)	: ≤ 0.5 mm@0.5m; ≤ 1 mm@2m; ≤ 2 mm@6m
Curvature(Line/Cross)	: ≤ 0.5 mm@5m
Verticality(Cross)	: $\leq \pm 0.5^\circ$
Fan angle(Line/Cross)	: 5° - 360° (Line), 5° - 90° (Cross)
Beam mode	: TEM ₀₀
Output mode	: CW/Modulation Frequency 0~100MHz
Optics	: aspheric optical glass lens
Operating temperature	: $-4^\circ\text{F} \sim 140^\circ\text{F}$ ($-20^\circ\text{C} \sim 60^\circ\text{C}$)
Storage temperature	: $-4^\circ\text{F} \sim 158^\circ\text{F}$ ($-20^\circ\text{C} \sim 70^\circ\text{C}$)
Stability	: $< 3\%$ @ $-4^\circ\text{F} \sim 140^\circ\text{F}$ ($-20^\circ\text{C} \sim 60^\circ\text{C}$)
Laser classification	: class1, 1M, 2, 2M, 3R, 3B



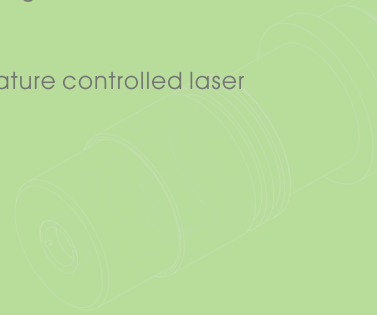
DPSS

Green Laser Module

Huanic DPSS green Laser module(532nm), using laser diode (808nm)pumped Nd :YV04, has all optical components arrayed in one housing and the module has features as anti-shock, dust free, output power range 0.4-300mW, Min. beam dot ≤ 1 mm, and fan angle 10° - 360° . The thickness for line laser is 0.5mm.

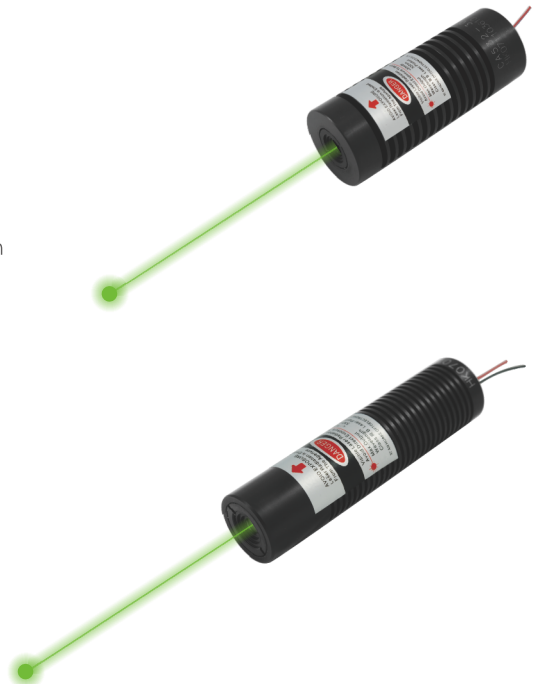
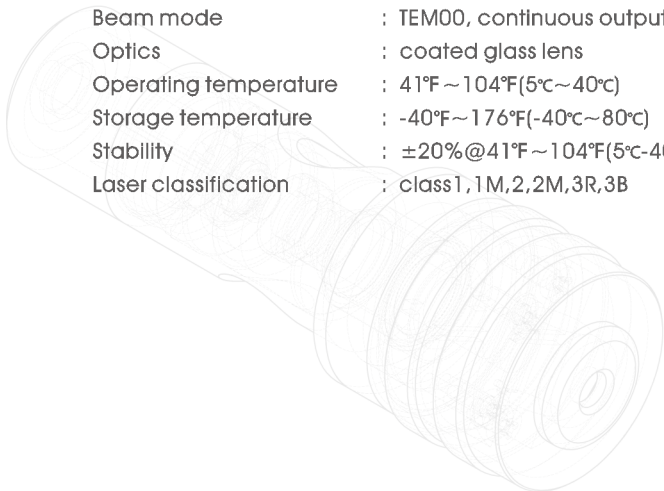
DPSS 532nm green laser with round dot beam, single wavelength, can be made into temperature controlled laser module which can have wider working temperature range.

360° laser module projecting a enclosed line cycle on same plane.



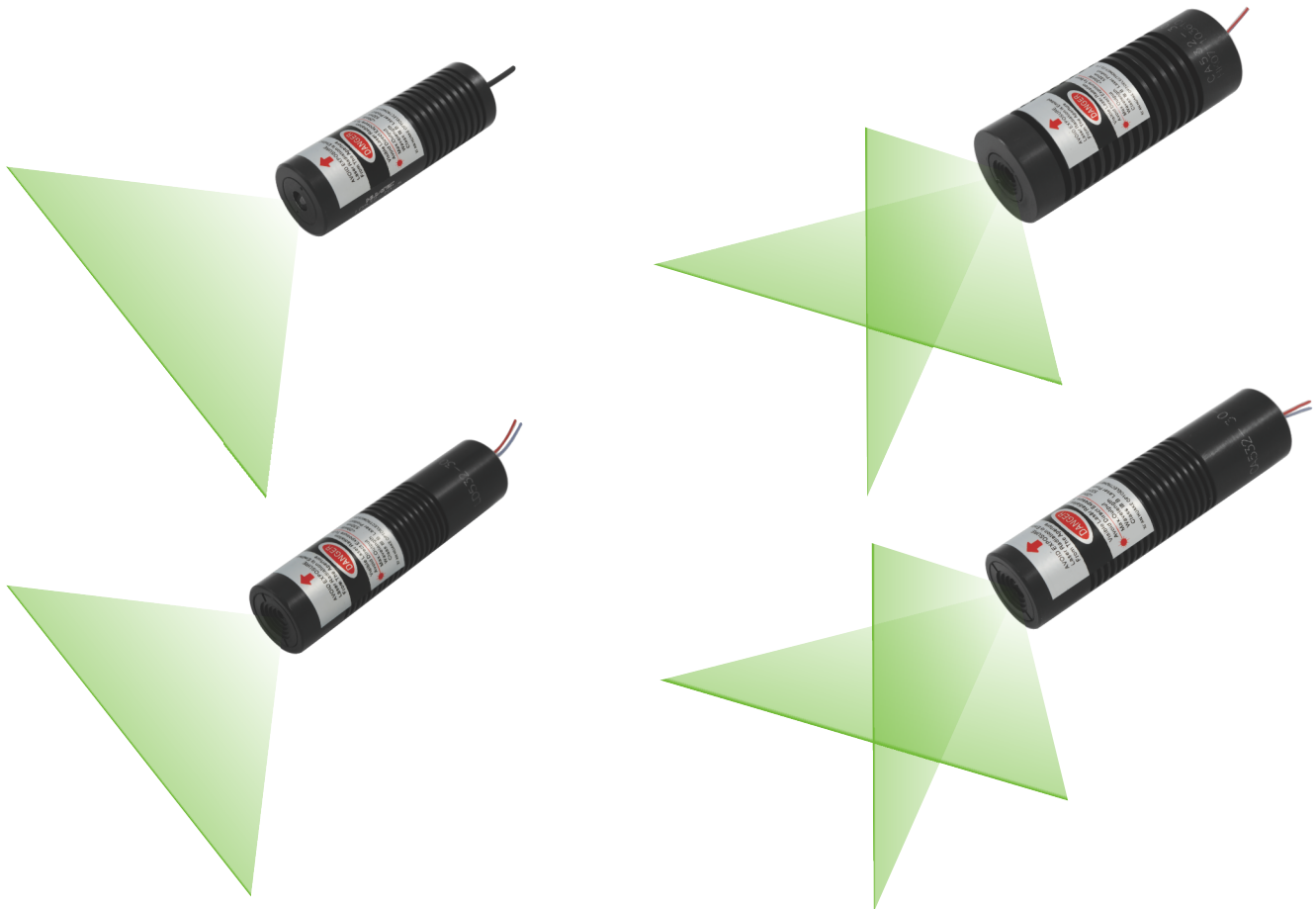
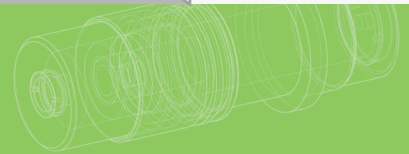
532nm

Output wavelength	: 532nm
Output power	: ≤ 300 mW
Operating voltage	: DC2.7-24V
Operating current	: ≤ 500 mA
Beam divergence	: 0.2-2mrad(Dot)
Beam diameter(Dot)	: minimum diameter: $\leq \phi 1$ mm@1m
Line thickness(Line/Cross)	: ≤ 0.5 mm@0.5m; ≤ 1 mm@2m; ≤ 2 mm@6m
Curvature(Line)	: ≤ 0.5 mm@5m
Verticality(Cross)	: $\leq \pm 0.5^{\circ}$
Fan angle	: 5° - 360° (Line), 5° - 90° (Cross)
Crystal	: Nd:YV04 and KTP
Beam mode	: TEM00, continuous output
Optics	: coated glass lens
Operating temperature	: $41^{\circ}\text{F} \sim 104^{\circ}\text{F}$ ($5^{\circ}\text{C} \sim 40^{\circ}\text{C}$)
Storage temperature	: $-40^{\circ}\text{F} \sim 176^{\circ}\text{F}$ ($-40^{\circ}\text{C} \sim 80^{\circ}\text{C}$)
Stability	: $\pm 20\%$ @ $41^{\circ}\text{F} \sim 104^{\circ}\text{F}$ ($5^{\circ}\text{C} \sim 40^{\circ}\text{C}$)
Laser classification	: class1, 1M, 2, 2M, 3R, 3B





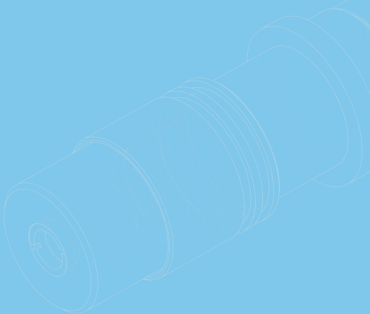
Beam Shape Options



Blue Laser Module

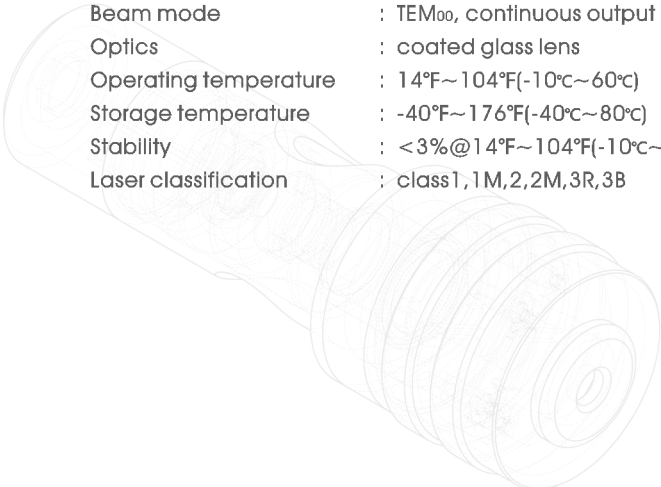
The newly developed blue laser module is an small laser module for industrial users. It uses 405nm/450nm laser diode with output power $\leq 120\text{mW}$ (405nm) / $\leq 50\text{mW}$ (450nm), drive circuit, built in glass lens , and wide fan angle (5° - 360°). The thickness of line can be 0.5mm at distance of 0.5m. It's small, compact, highly reliable, an anti-shock and dust free.

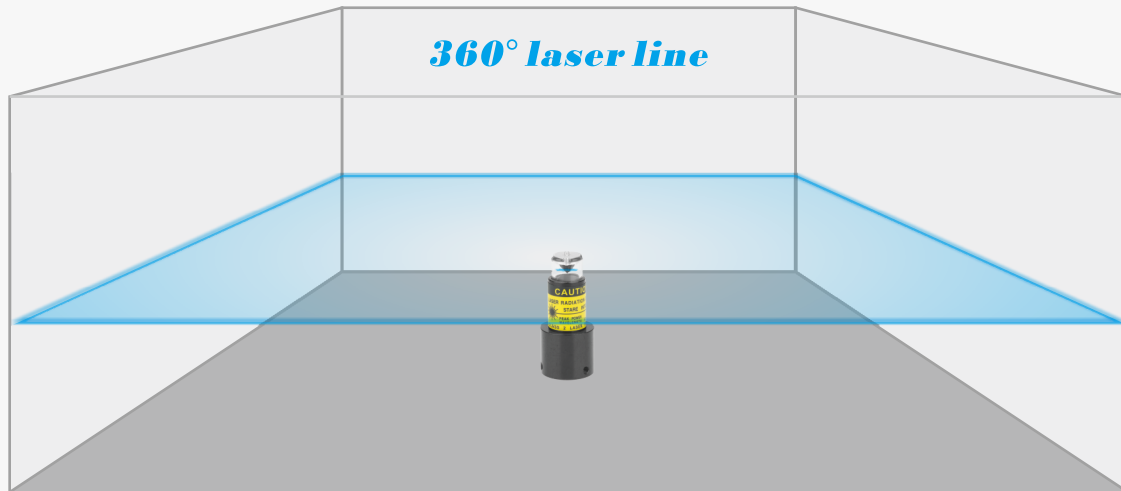
360° laser module projecting a enclosed line cycle on same plane.



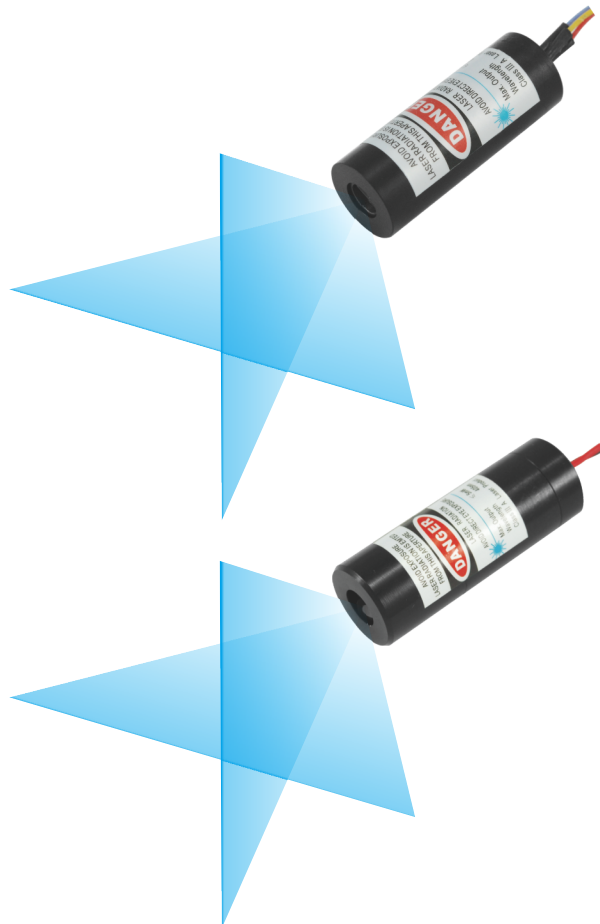
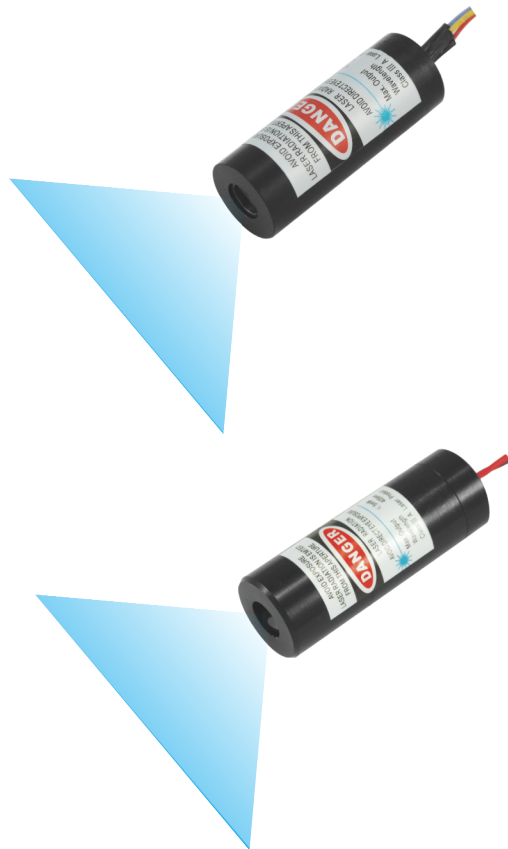
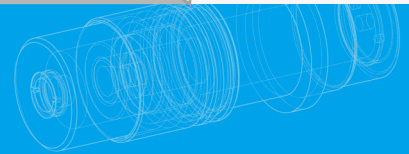
405nm 450nm

Output wavelength	: 405nm,450nm
Output power	: 405nm($\leq 120\text{mW}$) 450nm($\leq 50\text{mW}$)
Operating voltage	: DC3V-24V
Operating current	: $\leq 180\text{mA}$
Beam divergence	: 0.2-2mrad(Dot); 0.5-2mrad(Line)
Beam diameter (Dot)	: minimum diameter: $\leq \phi 1\text{mm}@1\text{m}$
Line thickness (Line/Cross)	: $\leq 0.5\text{mm}@0.5\text{m}$; $\leq 1\text{mm}@2\text{m}$; $\leq 2\text{mm}@6\text{m}$
Curvature (Line/Cross)	: $\leq 0.5\text{mm}@5\text{m}$
Verticality (Cross)	: $\leq \pm 0.5^{\circ}$
Fan angle	: 5° - 360° (Line), 5° - 90° (Cross)
Beam mode	: TEM ₀₀ , continuous output
Optics	: coated glass lens
Operating temperature	: $14^{\circ}\text{F}\sim 104^{\circ}\text{F}$ ($-10^{\circ}\text{C}\sim 60^{\circ}\text{C}$)
Storage temperature	: $-40^{\circ}\text{F}\sim 176^{\circ}\text{F}$ ($-40^{\circ}\text{C}\sim 80^{\circ}\text{C}$)
Stability	: $< 3\%@14^{\circ}\text{F}\sim 104^{\circ}\text{F}$ ($-10^{\circ}\text{C}\sim 60^{\circ}\text{C}$)
Laser classification	: class 1, 1M, 2, 2M, 3R, 3B





Beam Shape Options

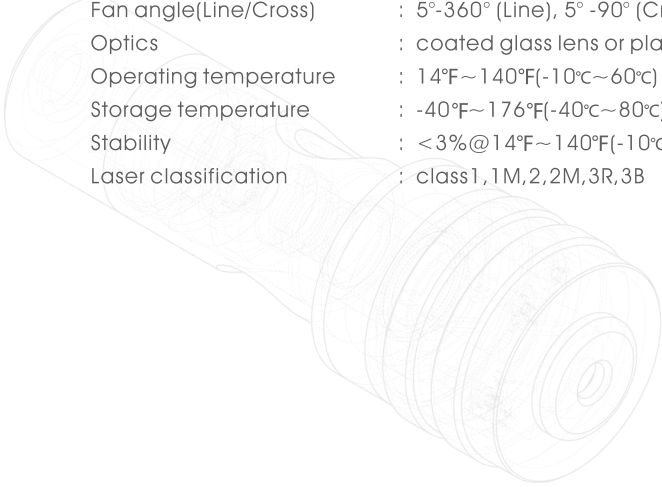


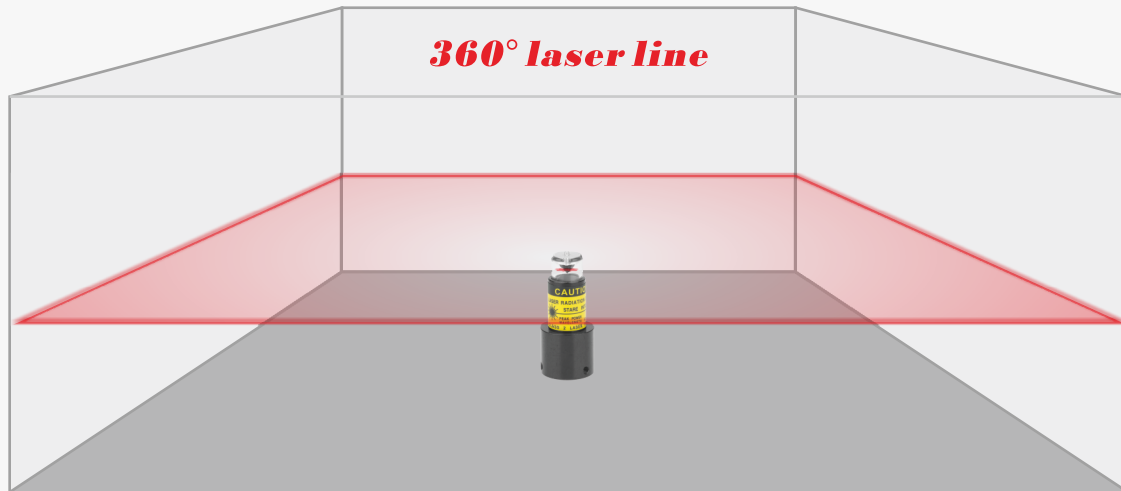
Red Laser Module

Huanic red laser diode module is compact and reliable. It's anti-shock, dust free, output power ranging from 635nm≤50mW、650nm≤80mW、670nm≤7mW, Min. beam dot≤1mm, fan angle 5°-360° and 0.5mm line thickness. Red diode laser module with compact size(Dia 4mm), wider working range 14°F~140°F(-10°C-60°C), high accuracy, can be applied to industry, measurement, medical, teaching field, customized design is available. 360° laser module projecting a enclosed line cycle on same plane.

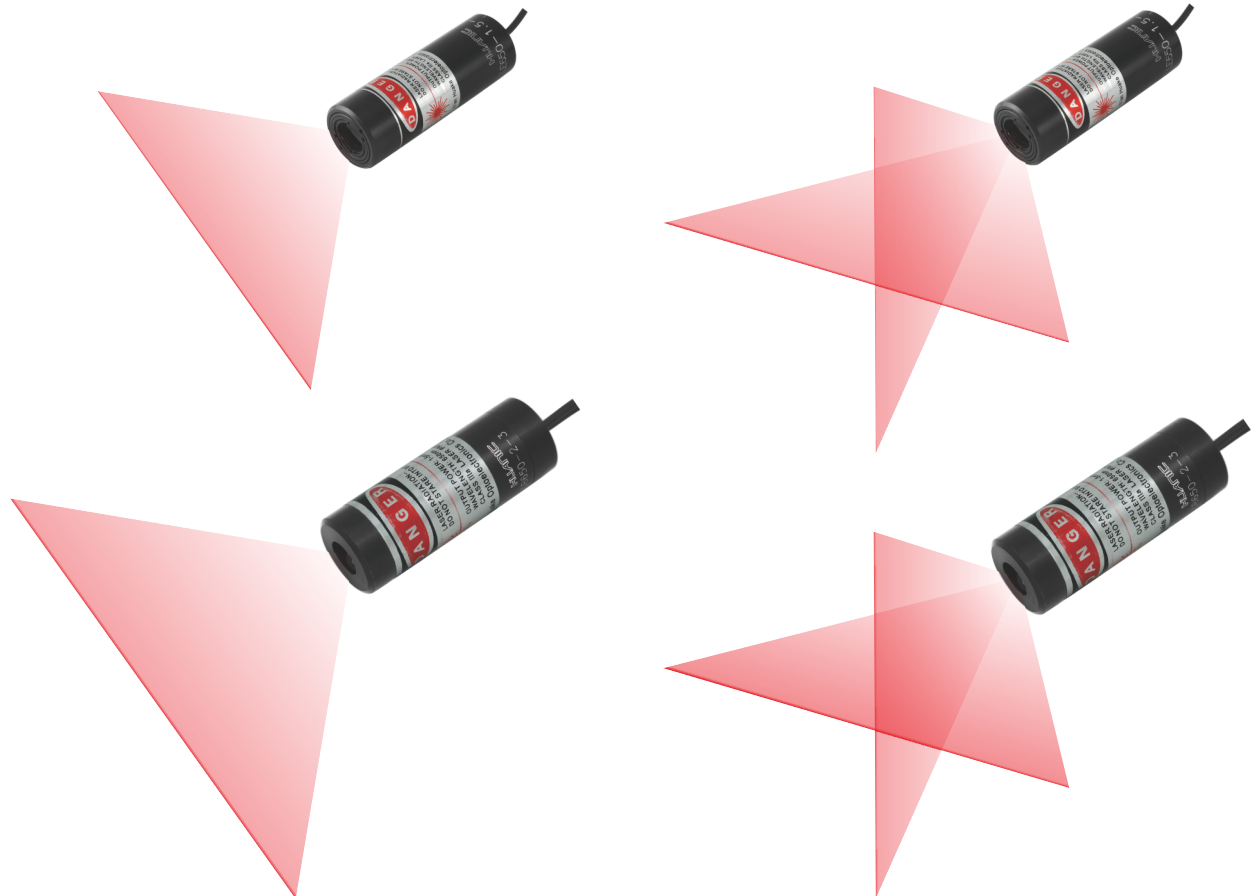
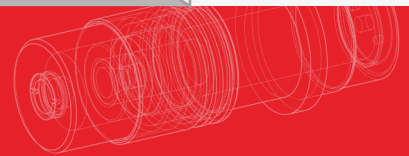
635nm 650nm 670nm

Output wavelength	: 635nm,650nm,670nm
Output power(Dot)	: 635nm(≤50mW); 650nm(≤80mW); 670nm(≤7mW)
Operating voltage	: DC2.7-24V
Operating current	: ≤120mA
Beam divergence	: 0.2-1.5mrad
Beam diameter(Dot)	: minimum diameter: ≤Φ1mm@1m
Line thickness(Line/Cross)	: ≤0.5mm@0.5m; ≤1mm@2m; ≤2mm@6m
Curvature(Line/Cross)	: ≤0.5mm@5m
Verticality(Cross)	: ≤±0.5°
Fan angle(Line/Cross)	: 5°-360° (Line), 5°-90° (Cross)
Optics	: coated glass lens or plastic lens
Operating temperature	: 14°F~140°F(-10°C~60°C)
Storage temperature	: -40°F~176°F(-40°C~80°C)
Stability	: <3%@14°F~140°F(-10°C~60°C)
Laser classification	: class1, 1M, 2, 2M, 3R, 3B





Beam Shape Options



Infrared Laser Module

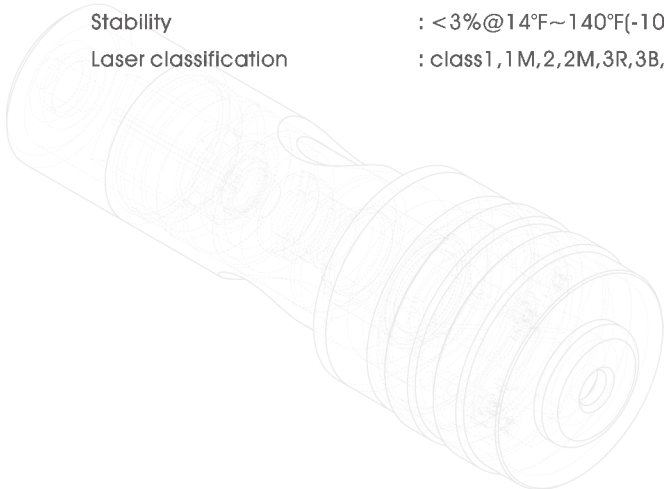
Huanic offers 6 different wavelengths infrared laser modules with output power $\leq 4000\text{mW}$. The beam shape can be dot or lines and the beam divergence is between $0.2 - 50 \text{ mrad}$. The operating temperature range is from $-40^{\circ}\text{F} \sim 140^{\circ}\text{F} (-10^{\circ}\text{C} \text{ to } 60^{\circ}\text{C})$.

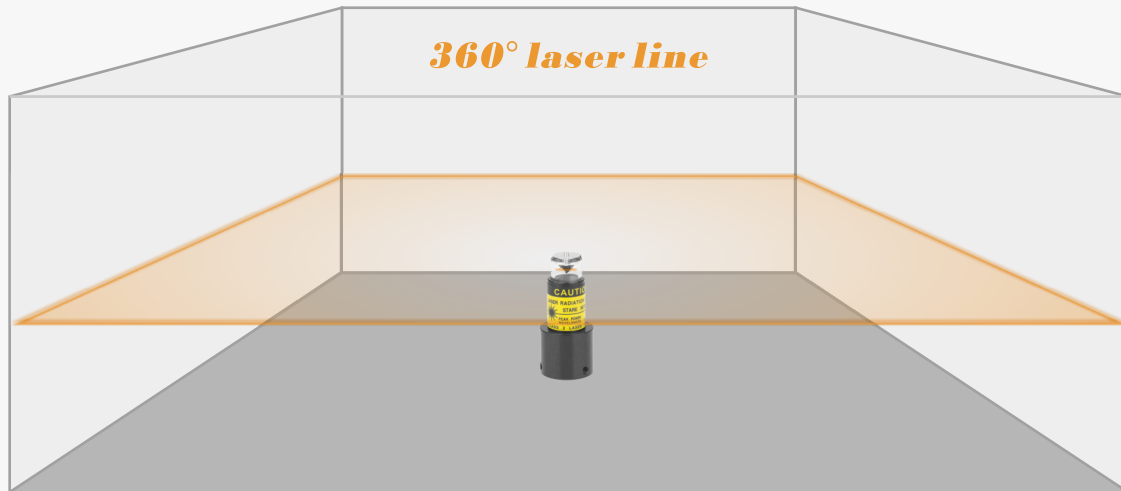
Besides dot, line products, it can be used as infrared pointing and illumination device.

360° laser module projecting a enclosed line cycle on same plane.

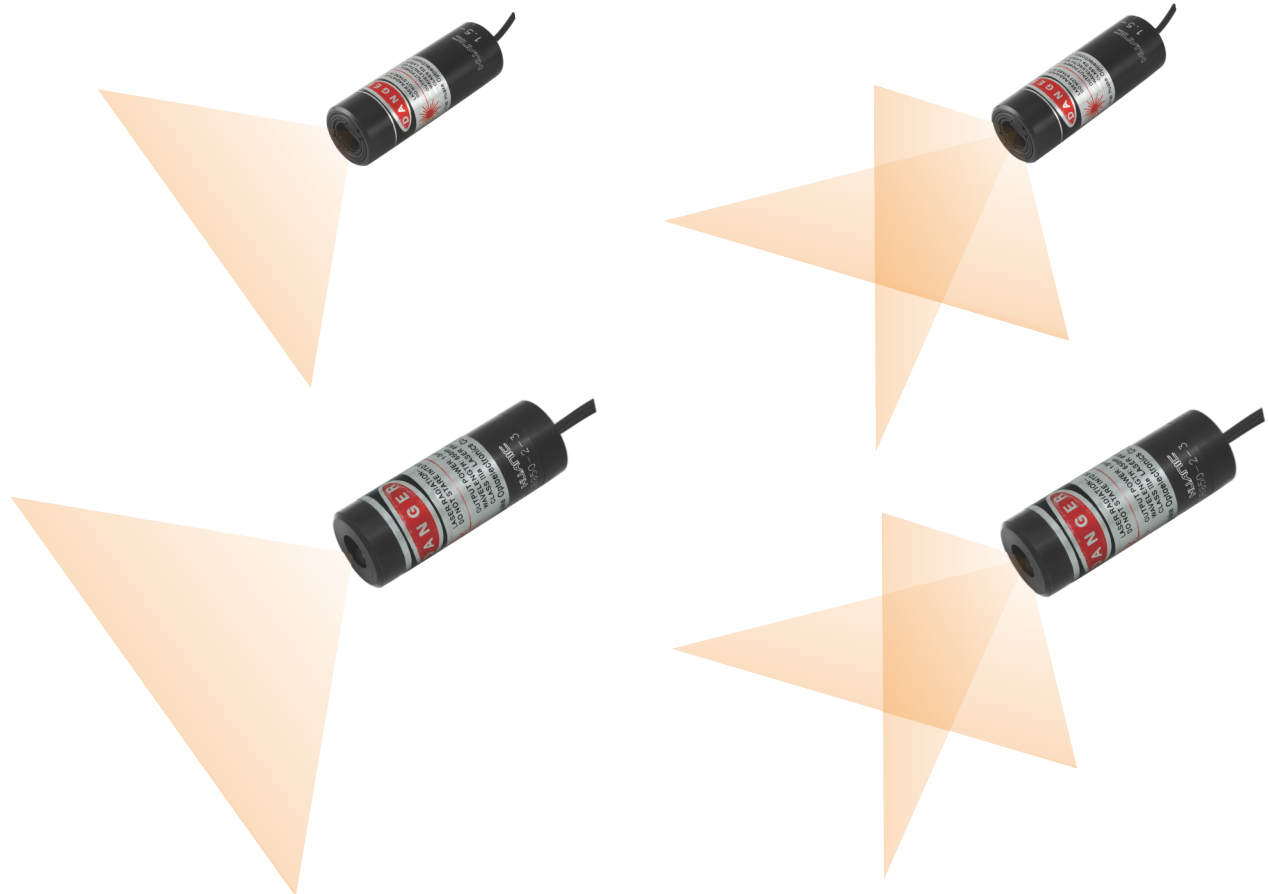
780nm 808nm 830nm 850nm 940nm 980nm

Output wavelength	: 780nm,808nm,830nm,850nm,940nm,980nm
Output power	: 780nm($\leq 30\text{mW}$); 808nm($\leq 4000\text{mW}$); 830nm($\leq 150\text{mW}$) : 850nm($\leq 150\text{mW}$); 940nm($\leq 150\text{mW}$); 980nm($\leq 160\text{mW}$)
Operating voltage	: DC2.7-24V
Operating current	: $\leq 5\text{A}$
Beam divergence	: $0.2-50\text{mrad}$
Fan angle(Line/Cross)	: $5^{\circ}-360^{\circ}$ (Line)@TEM ₀₀ , $5^{\circ}-90^{\circ}$ (Cross)@TEM ₀₀
Optics	: coated glass lens or plastic lens
Operating temperature	: $14^{\circ}\text{F} \sim 140^{\circ}\text{F} (-10^{\circ}\text{C} \sim 60^{\circ}\text{C})$
Storage temperature	: $-40^{\circ}\text{F} \sim 176^{\circ}\text{F} (-40^{\circ}\text{C} \sim 80^{\circ}\text{C})$
Stability	: $<3\%$ @ $14^{\circ}\text{F} \sim 140^{\circ}\text{F} (-10^{\circ}\text{C} \sim 60^{\circ}\text{C})$
Laser classification	: class1,1M,2,2M,3R,3B,4





Beam Shape Options



Beam Expander Laser Module

Beam expander laser module , highly collimated round beam, energy uniform distribution, customized beam angle divergence adjustable.

Output wavelength	: 405nm, 450nm, 520nm, 532nm 635nm, 650nm, 670nm
Output power	: 405nm($\leq 12\text{mW}$); 450nm($\leq 12\text{mW}$); 520nm($\leq 12\text{mW}$); 532nm($\leq 12\text{mW}$); 635nm($\leq 12\text{mW}$); 650nm($\leq 12\text{mW}$); 670nm($\leq 2\text{mW}$)
Operating voltage	: DC2.7-24V
Output aperture	: $\Phi 15$; $\Phi 20$; $\Phi 30$; $\Phi 50$; $\Phi 60$; $\Phi 75$; $\Phi 90\text{mm}$
Beam divergence	: 0.2-0.4mrad
Optics	: coated glass lens
Laser classification	: class1, 1M, 2, 2M, 3R, 3B



Modulated Laser Module

Modulated laser module is for customer with special requirement such as signal acquisition, LF optical communication, 0-500KHz modulation frequency.

Output wavelength	: 405nm,450nm,520nm,532nm,635nm,650nm,670nm,780nm,808nm,850nm,980nm
Output power	: 405nm($\leq 100\text{mW}$); 450nm($\leq 50\text{mW}$); 520nm($\leq 20\text{mW}$); 532nm($\leq 300\text{mW}$); 635nm($\leq 50\text{mW}$); 650nm($\leq 60\text{mW}$); 670nm($\leq 6\text{mW}$); 780nm($\leq 30\text{mW}$); 808nm($\leq 4000\text{mW}$); 850nm($\leq 60\text{mW}$); 940nm($\leq 60\text{mW}$); 980nm($\leq 200\text{mW}$)
Beam shapes	: Dot,Line
Operating voltage	: DC5V
Beam divergence	: 0.3-1.5mrad
Beam diameter(dot)	: minimum diameter $\leq \phi 1\text{mm}$
Line thickness(line)	: $\leq 0.5\text{mm}@0.5\text{m}$; $\leq 1\text{mm}@3\text{m}$;
Modulate frequency	: $\leq 1.5\text{mm}@6\text{m}$
Port	: 0-500KHz
Modulated signal	: TTL
Optics	: self-signal or external-signal coated glass lens
Operating temperature	: 14°F~104°F(-10°C~40°C)
Storage temperature	: -40°F~176°F(-40°C~80°C)
Laser classification	: class1,1M,2,2M,3R,3B,4



Distance measurement of
sweeping machine



Laser hair removal machine



laser demarcation device



Laser thermometer



Outdoors Rescue



Optical teaching aids

