

Dimmable green laser | 3D modelling | Metrology

The Skate Laser is a precision subsea laser designed for subsea applications that require a high-quality image reference such as 3D modelling, machine vision, pipeline inspections, or marine species measurements.

It is available in various patterns and beam angles, including solid line beam or dotted grid pattern. SubC LEDs and lasers are plug-and-play when coupled with the [Rayfin camera](#). This laser is qualified for shipping within the USA, Canada and internationally.



Specifications		Skate Line Laser	Skate Grid Laser
Laser	Uniformity	=/- 20% (related to average power, within 80% of the line)	
	Pattern Type	53.6° - line	17.1° - 10 x 10 dot grid
	Focus (Depth of Field)	0.1m - 5m <i>SubC can adjust the focus (depth of field) at factory</i>	
	Laser Power for Classification	10mW peak	4.5mW peak
	Wavelength	520nm ± 10nm (green)	
	Class	3R (avoid direct eye exposure)	
Electrical	Input Voltage	17-30 Vdc (OV cutoff > 30 Vdc)	
	Power Consumption	3W	
	Serial Control	RS485 @ 9600	
	Diode Temperature Protection	Auto dimming after 47.5°C diode temperature and cutoff at 49.5°C	
Mechanical	Material	Sapphire, Grade 5 Titanium	
	Depth Rating	6000m	
	Diameter	Ø 37.6mm	
	Length without connector	145.5mm	
	Weight (in air)	0.59kg	
	Weight (in water)	0.4kg	
	Operating Temperature	-20°C - +30°C	
	Storage Temperature	-20°C - +50°C	
TTL	TTL Control	Can work both inverted and non-inverted TTL depending on the setting. The default is inverted TTL. If no TTL is present, the laser defaults ON.	
	TTL Max. Frequency	Up to 100 KHz	
	TTL Low	0-1.5 Vdc	
	TTL High	1.5-5 Vdc	

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LASER RADIATION AVOID DIRECT EYE EXPOSURE

Maximum output of line laser radiation: 10mW peak
Maximum output of grid laser radiation: 4.5mW peak
Emitted wavelength: 520nm ± 10nm



Skate Mk2 Laser



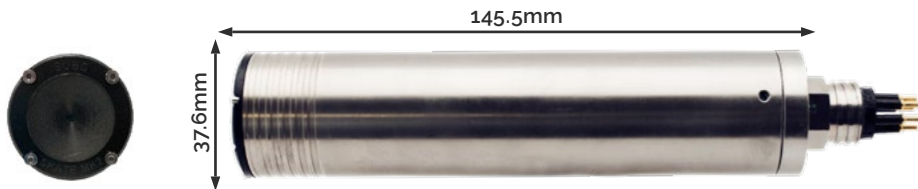
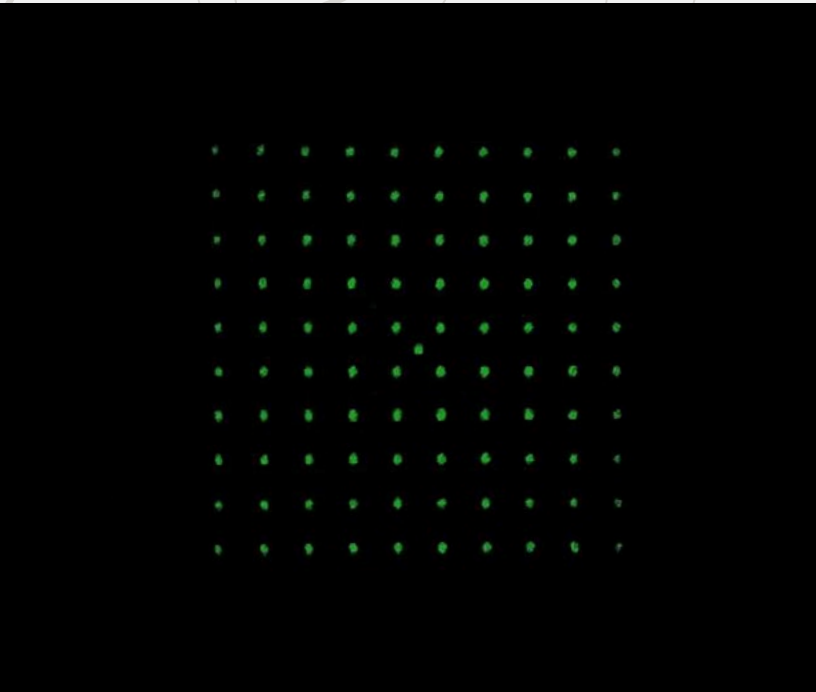
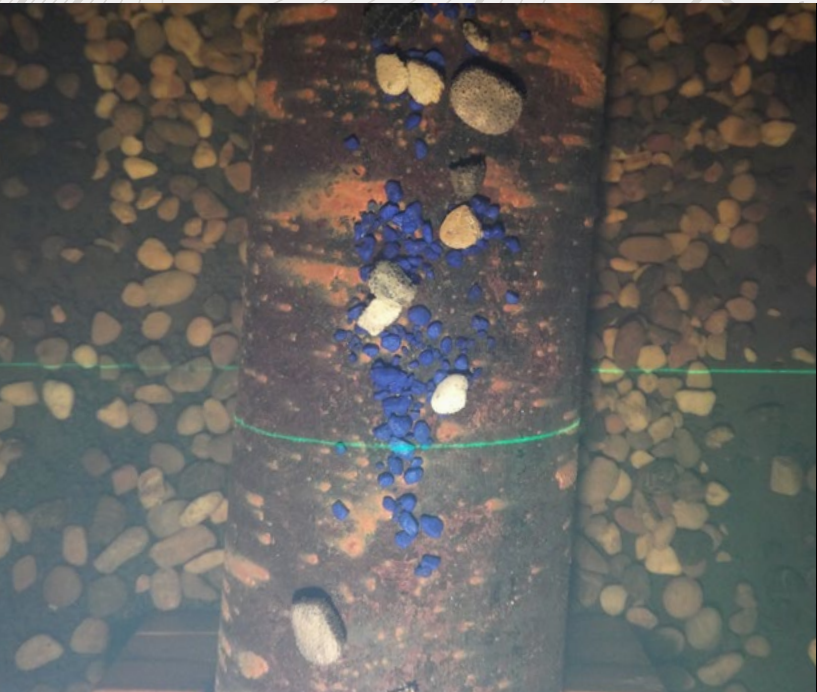
Titanium and sapphire construction

6000m

6000m depth rating



520nm, Class 3R laser



Pin #	MCBH5M Titanium
1	GND
2	17 - 30 Vdc
3	TTL Modulation
4	RS-485 B(-)
5	RS-485 A(+)



SubC is here to help you plan your next project.

Our equipment is available for direct purchase or rental.
To speak with an expert or schedule a demo please [contact us](#).

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