

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 modeling, 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](#).



| Specifications | | Skate Line Laser | Skate Grid Laser |
|--------------------|------------------------------|---|--------------------------------|
| Laser Specs | Uniformity | =/- 20% (related to average power, within 80% of the line) | Dot spacing 24mm @ 1m distance |
| | Pattern Type | 53.6° - line | 17.1° - 10 x 10 dot grid |
| | Focus (Depth of Field) | 0.1m - 5m *SubC can adjust the focus at factory | |
| | Output Power | 100 (mW-max.) | 70 (mW-max.) |
| | Wavelength | 520nm (green) | |
| | Class | 3B (avoid direct exposure - laser protective eyewear required) | |
| 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 | |
| | Weight (in air) | 0.59kg | |
| | Weight (in water) | 0.4kg | |
| | Operating Temperature | -20°C - +30°C | |
| | Storage Temperature | -20°C - +50°C | |
| TTL Specs | 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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Titanium and sapphire construction

6000m

6000m depth rating



520nm, 100mW, Class 3B laser

Skate Laser (Custom Options)

Line (Solid)



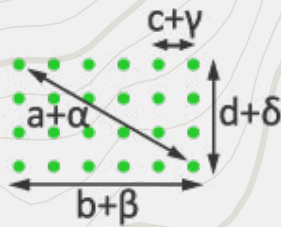
Line (Dot)



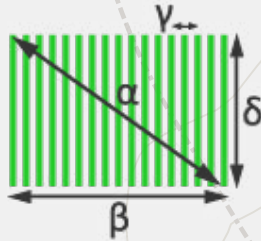
Cross (Solid)



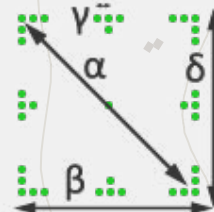
Grid (Dot Matrix)



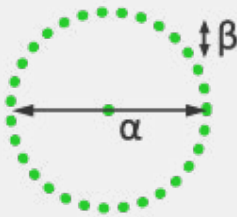
Parallel Lines (Solid)



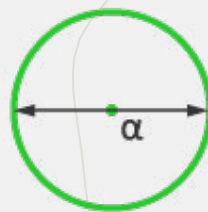
View Finder (Dots)



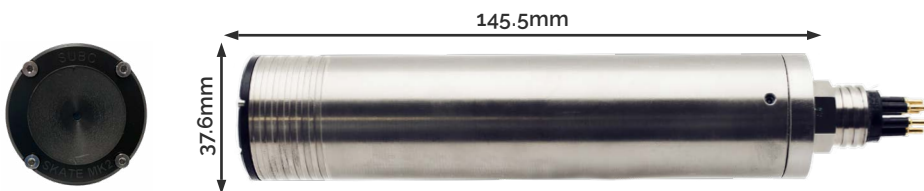
Circle (Dots)



Circle (Solid)



Single Dot



| 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](#).