

Precision points for reference in underwater photos

The **MantaRay** is a parallel beam laser designed for ROV and subsea systems.

This laser projects two parallel beams that appear as green dots in images that are used to get distance and scale of underwater objects. It is lightweight, easily integrated with a subsea camera using a simple attachment, and is accurate to 5m distance. SubC LEDs and lasers are plug-and-play when coupled with the **Rayfin camera**.



Specifications		MantaRay Parallel Laser
Laser Specs	Parallelism	10cm ± 10mm @ 5m distance
	Output Power	>5 mW
	Wavelength	532nm (green)
	Class	3B (avoid direct exposure - laser protective eyewear required)
Electrical	Power	7.2 W
	Protection	Short circuit, over voltage, reverse voltage, ESD
	Min./Max. Temperature	-2°C - +20°C
	Voltage	7 - 32.5 Vdc
	Control	5-24 V inverse TTL modulation
Mechanical	Material	Sapphire, Grade 5 Titanium
	Depth Rating	6000m
	Weight (in air)	700g
	Weight (in water)	400g

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Titanium and sapphire construction

6000m

6000m depth rating



532nm, 5mW, Class 3B laser

TTL Operation

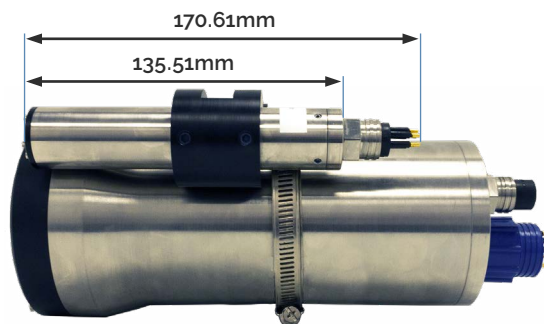
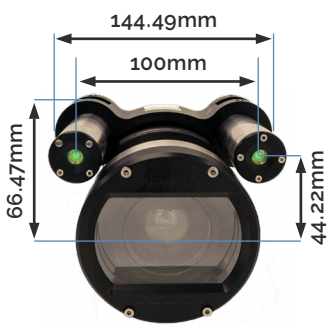
- The laser is enabled by default when power is applied and also when GND is applied to pin 3.
- When 5 - 24V DC is applied to pin 3, the output is disabled.

Included

- Calibrated delrin mount for 89mm diameter camera.
- Titanium hose clamps for attachment.
- Y-splice MCBH5M to 2x MCBH5F cable with locking sleeves.



Image credit: NOAA Pelagic Expedition



Pin #	MCBH5M
1	GND
2	PWR
3	Inverse TTL Enabled
4	N/C
5	N/C