SIDUS Solutions

SS182MKII / SS184MKII — Dark Saber

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Manufacturer / system supplier: SIDUS Solutions

Document type: manufacturer specification

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Applies to the named models and revision only. Housing, interface and performance differences must follow the individual model tables. Source discrepancies are recorded on the ROVITEC product pages; request the approved specification before integration.

Original manufacturer source

https://www.sidus-solutions.com/wp-content/uploads/2025/12/SS182MKII_184MKII_DarkSaber_LED_Strobe_Laser_Specifications_2025.pdf

Manufacturer pages follow unchanged. Local distribution copy.

SIDUS

SS182MKII / SS184MKII ~ DarkSaber LED Light, Laser, and Strobe



The SS182 MKII DARK SABER with LED light, laser, and strobe is specifically designed for lighting applications on inspection systems and other operations where illumination and the ability to scale an image are required. *This integrated subsea product enables the laser, LED light, and strobe to work in tandem, delivering crisp video images with remote control.*

Subsea Video

The SS182mkII provides outstanding brightness and warm color for subsea videos, and its adjustable green *laser with LED light* and projector offers the perfect illumination solutions for a vast number of applications. Subsea applications up to 13,123ft / 4,000m standard and 19,685ft / 6,000m optionally; the SS182mkll also features housing options. It features safe operations in the air with intelligent thermal management and is 35% lighter than the previous version.

Lighting & Strobe Functions

Light functions (including strobing) can be controlled remotely via analog, control through digital inputs, over a serial communication port, and while being synced to a digital still camera. The SS182mkII is field configurable, allowing the operator to satisfy exact operational needs.

11,000 Lumens LED Light - High Intensity Strobe - Adjustable Line Laser 5-100mW

- Micro controlled with flickerless constant current
- No Acoustic Noise = No effects on nearby sonars
- Depth rated 3000m Aluminum / 6000m Titanium
- Color Temperature: 4000 Kelvin (5700 Kelvin available)
- Color Rendering Index (CRI): 70
- Multiple lights can be controlled by a single serial port
- Light functions, including strobing, can be controlled remotely via analog, digital inputs, over a serial communication port or while being synchronized to a digital still camera.

OPTICAL SPECIFICATIONS:

	SS182MKII	SS184MKII
Light Type	High Brightness White LED	
Light Intensity	Typical: 11,182 Lumens Minimum: 10,800 Lumens Strobe: 12,000-14,000 Lumens, 1-100ms	
Color Temperature	4,000 Kelvin (5700 also available)	
Color Rendering Index (CRI)	70	
Beam Angle	Projection Angle, FWHM, Typical: 80 degrees	
Efficacy	182 Lumens per watt @ 10° intensity 127 Lumens per watt @ Full intensity	
Laser	Split Laser Optional 520unm direct green 5-100 milliwatts max (adjustable) Horizontal or Vertical Line Lens Spot laser Optional	

ENVIRONMENTAL SPECIFICATIONS:

	SS182MKII	SS184MKII
Operating Depth	3,000 meters (13,123 feet)	6,000 meters (13,123 feet) (deeper depth upon request)
Housing	6061 Aluminum, Hard Black Anodized	6AL – 4V Titanium

Operating Temperature	-20°C to 60°C (-4°F to 140°F)
Storage Temperature	-25°C to 85°C (-13°F to 185°F)
Window	Sapphire (Acrylic Optional)

ELECTRICAL SPECIFICATIONS:

	SS182MKII	SS184MKII
Voltage	20~36VDC	
Power	90W Max	
LED Drive	DC Constant current, no flicker, no acoustic noise	
LED Life	50,000 Hours Minimum	
Thermal Protection	Automatic, 60°C Max in Air	
Analog Control	From 0 volts up to 40VDC (configurable) 1 power cycle	
Digital Control	Serial Ports: RS232 or RS485 Digital inputs	
Strobe Light Output	0 to 14,000 Lumens : 1 to 100ms Trigger : Rising or Falling Edge Delay of Trigger : 1ms Rise Time, to full brightness : 70us	

MECHANICAL SPECIFICATIONS:

	SS182MKII	SS184MKII
Housing	Anodized Aluminum	Titanium
Dimensions (w/o connector)	4.77” [121.15mm] length x 4.00” [101.6mm] diameter	
Weight in Air	2.55 lbs [1.16 kg]	3.58
Weight in Water	1.83 lbs [0.83 kg]	2.86
Port	Sapphire (Acrylic Optional)	
Default Connector	MCBH-8MP	

CONNECTOR PIN OUTS:

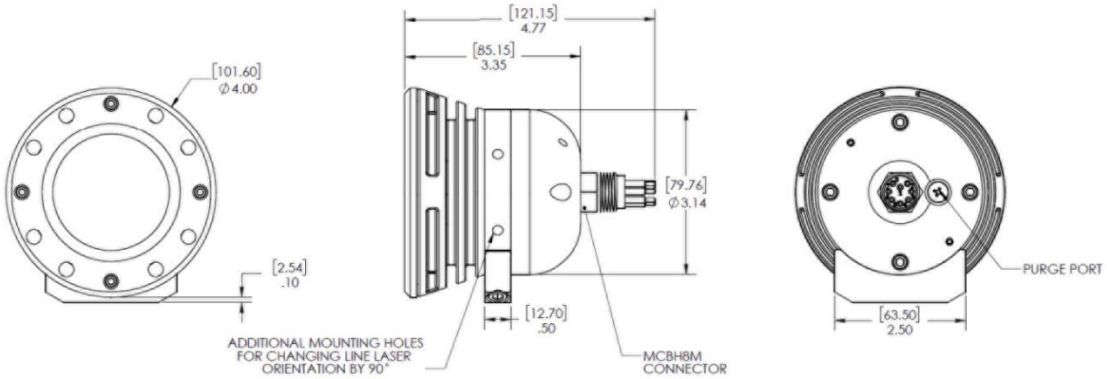
Standard Connector Pinout – MCBH-8M

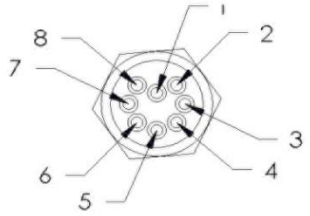
1. PWR-COM
2. +24VDC
3. RX/RS485A-
4. TX / RS458B+
5. DIG_CTRL 1
6. DIG_CTRL 2
7. ANA-IN1
8. 3V3

DESIGN:

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Caution: Laser light is bright and blinding. DOT NOT shine at aircraft or vehicles at any distance.





BULKHEAD CONNECTOR
(FACE VIEW)
MCBH-8M

CONNECTOR PINOUT—MCBH-8M

PIN 1	PWR-COM	PIN 5	DIG_CTRL 1
PIN 2	+24VDC	PIN 6	DIG_CTRL 2
PIN 3	RX/RS485A-	PIN 7	ANA-IN1
PIN 4	TX/RS485B+	PIN 8	3V3

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