



Fiber-Coupled Module

LiOM S6/7

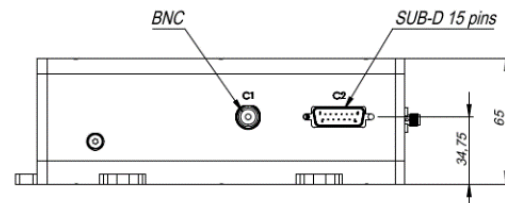
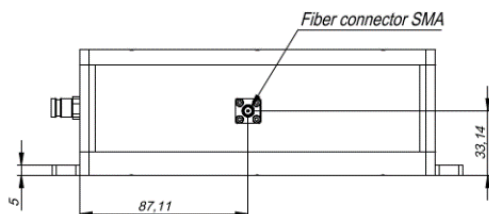
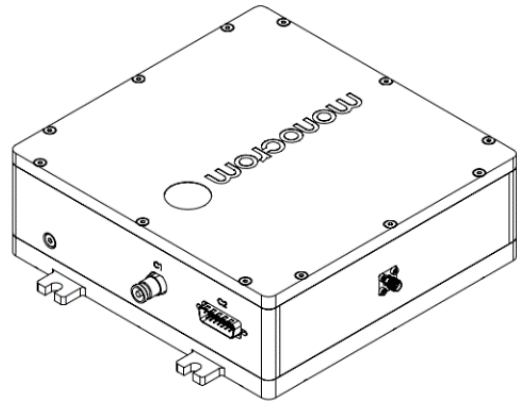
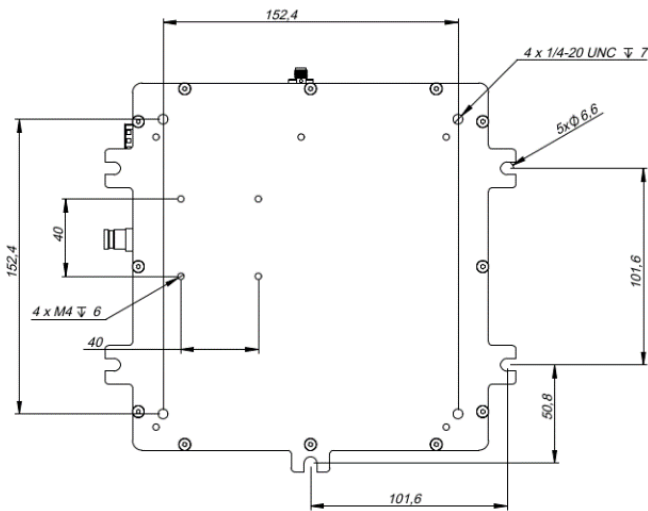
Features:

- Long lifetime
- High reliability
- Low thermal resistance
- Wide operational temperature up to 65 °C

Suitable for:

- Illumination
- Industrial
- LiDAR
- Range finding

Outline LiOM S6/7 (*)



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Product specification are subject to change without notice.
For complete details, please contact your local MONOCROM sales representative.

UNE EN ISO 9001:2015

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Laser parameters ^(1,2,3)		LiOM S6	LiOM S7
Type	fiber-coupled module		
Wavelength ⁽⁴⁾ [nm]	905 ± 5		
Spectral width (FWHM) [nm]	< 10		
Output power from fiber QCW [W]	500	1000	
Slope efficiency [W/A]	~12	~24	
Repetition rate [kHz]	up to 10		
Pulse length [ns]	100		
Max duty cycle [%]	0.1		
Electrical parameters			
Driver electronics	included		
Operating current [A]	< 2.5	< 4.5	
Voltage @ connectors ⁽⁵⁾ [V]	15 – 24		
Charging Voltage[V] (optional)	0 – 100		
Electrical connection	SUB-D-13W3		
Trigger connection	SMA		
Trigger input	5 V TTL @ 50 Ohms		
Trigger signal duration	> 100 ns (500 ns are recommended)		
Optical fiber ⁽⁶⁾			
Fiber core diameter [μm]	600 (1000)	1000 (1500)	
Numerical aperture	0.22		
Fiber collimator	optional		
Clear aperture [mm]	optional		
Beam diameter ⁽⁷⁾ [mm]	optional		
Residual divergence ⁽⁸⁾ [°] / [mrad]	optional		
Fiber length [m]	2 – 3		
Detachable fiber connector	HP-SMA 905		
Other parameters			
Operating temperature [°C]	non-condensing to 65		
Storage temperature [°C]	between -10 and 75		
Recommended heat sink capacity [W]	30		
Recommended heat sink temperature [°C]	20 ±2		
Lifetime [h]	> 2 10 ⁴		
Laser class product (EN-60825)	4		

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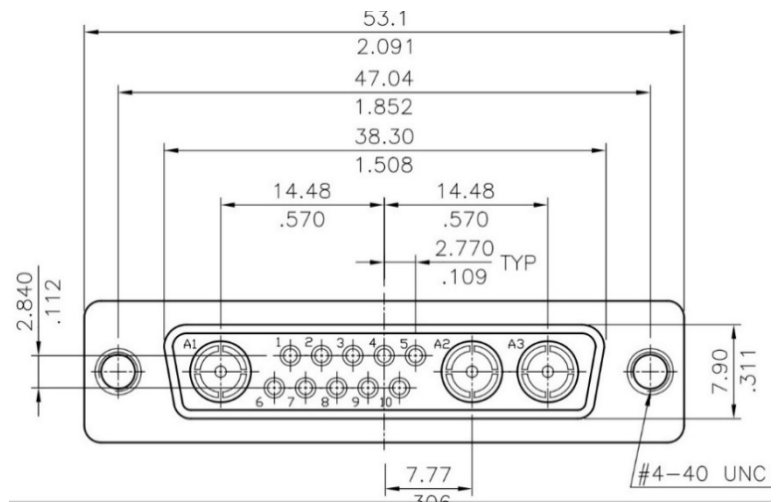
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Pin layout for electrical connections between laser head and electronics

SUB-D-13W3	
Pin number	Description
A1	Power LD driver (coax.) 15 V / 4.5 A
A2	Power TEC (coax.)
A3	Trigger/Modulation IN
1	Laser ON/OFF
2	GND
3	10 kOhm NTC vs. ground (B = 3620)
4	GND
5	LD NTC +
6	LD NTC -
7	HV supply monitor (40 mV/V)
8	Current supply monitor (20 A/V)
9	PD+
10	PD-



(*) Outline only for reference. Dimensions may be different than stated here.

- Specifications at 20 °C, at the beginning of the lifetime.
- If any other requirements are needed, please contact us.
- QCW: with integrated driver electronics: Duty cycle below 0.2%. Repetition rate, pulse length and injection current are influencing each other.
- Other wavelengths are also available up on request.
- Voltage from the power supply must be higher, as due to high current there will be a voltage drop in the cables.
- Other specifications on request. Fiber core, fiber length and fiber connector can be adapted to customers' demands.
- Beam diameter is determined via $1/e^2$ value.
- Divergence is determined via FWHM value.

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