PHOTONTEC BERLIN

PRODUCT SPECIFICATIONS

450nm Fiber Coupled Laser Diode

Features

- 10W output power
- 105µm fiber core
- Thermistor, photodidoe, aiming beam

Applications

- Copper laser welding
- Additive manufacturing
- Semiconductor manfufacturing

Model		**M450±10-100-F105/22-V5W-AP**		
Optical*	**Unit**	**Min**	**Typical**	**Max**
Output power (exit fiber)	W		100	
Centroid wavelength	nm	440	450	460
Spectral width (FWHM)	Nm		6.0	
Number of diode submodule	-		2	
Fiber Pigtail				
Core diameter	µm	102	1ß5	108
Numerical aperture	-	0.20	0.22	0.24
Length	m	1		5
Connector	-		SMA905	
Electric*				
Threshold current	A		0.35	0.40
Operating current	A		3.0	3.8
Operating voltage	V		65.0	70.0
Slope efficiency	W/A		20.0	
Power conversion efficiency	%	22.0	25.0	
Accessories				
Thermistor resistance at 25°C	kΩ		10	
Aimbing beam wavelength	nm		650±10	
Absolute Ratings				
Operating (water) temperature	°C		20±2	
Operating humidity	%		< 75	
Storage temperature	°C		-20 – +80	
Storage humidity	%		90	

* Measured on 20°C cooling water

Compliance with Regulatory Requirements: This industrial laser is an OEM version of a laser diode. As such, it is intended only for integration into other equipment. This laser does not comply with IEC and CDRH requirements. The customer is responsible for IEC and CDRH certifications of the system that incorporates this industrial laser.

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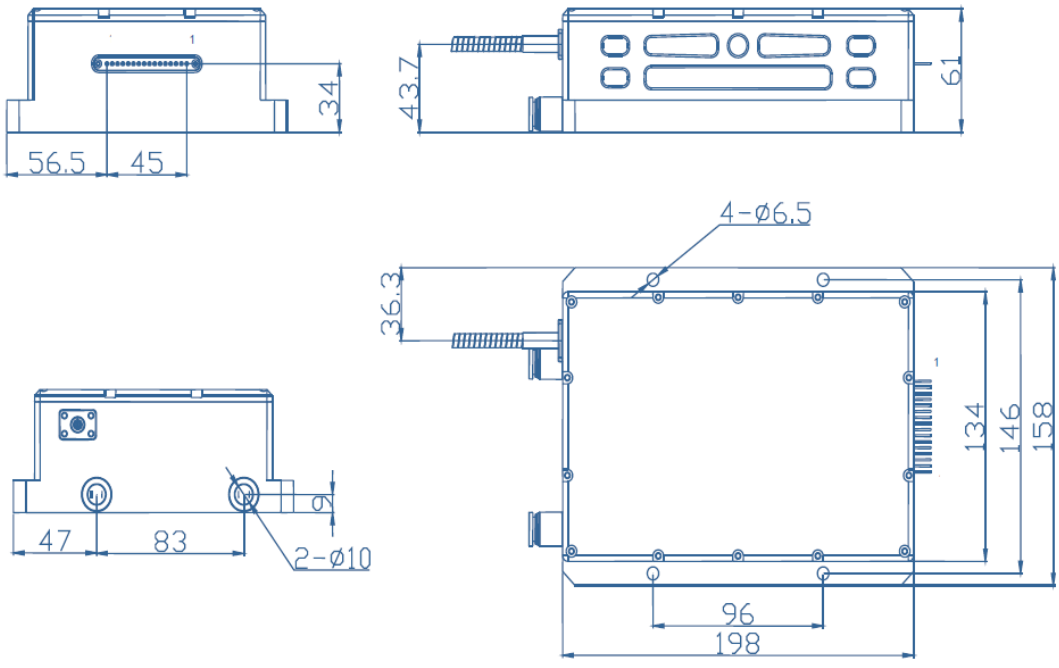
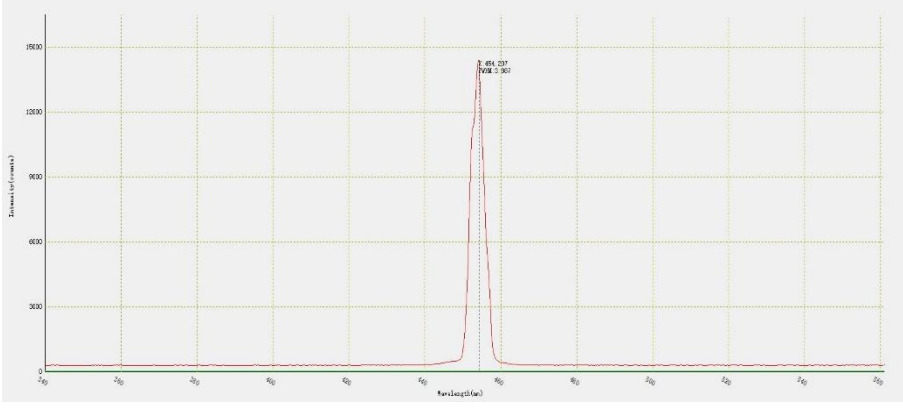


1	LD 1 Anode	9	Red pilot +5VDC
2	LD 1 Cathode	10	Red pilot GND
3	LD 2 Anode	11	Thermistor
4	LD 2 Cathode	12	Thermistor
5	NC	13	NC
6	NC	14	NC
7	NC	15	PD Cathode
8	NC	16	PD Anode



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