

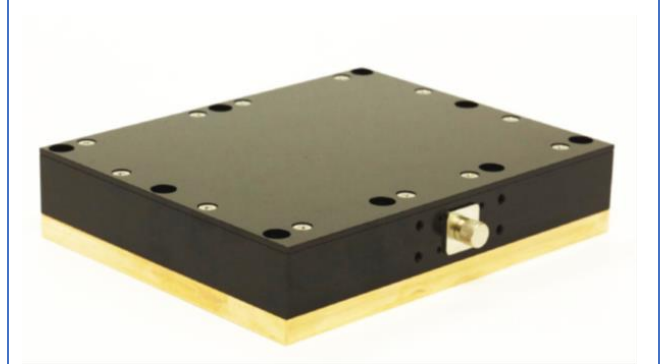
ALC-0808-75000-FM550.22 DOPPIA

Overview

Main Features

- 808 nm / 75 W
- 550 μm core fiber
- Detachable fiber
- Temperature sensor
- TE-cooling

DOPPIA Package

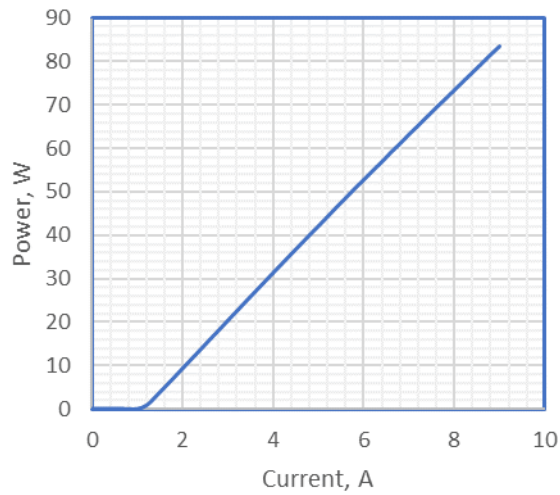


Typical Performance Characteristics

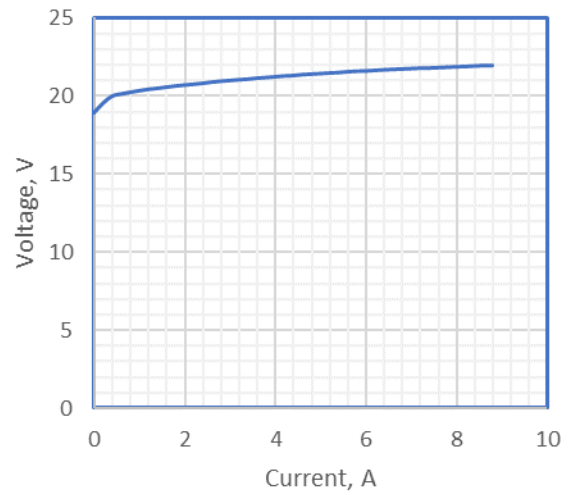
Parameter	Symbol	LD	Unit
Operating temperature	T	25	$^{\circ}\text{C}$
Temperature sensor setting	R_{therm}	10.0	kOhm
Operating power ex-fiber	P_{op}	75.0	W
Center wavelength	λ	808 \pm 10	nm
Spectrum width, 1/e ²	$\Delta\lambda$	<10	nm
Wavelength-temperature coefficient	$\Delta\lambda/\Delta T$	0.27	nm/ $^{\circ}\text{C}$
Linearized wavelength-current	$\Delta\lambda/\Delta I$	0.23	nm/A
Threshold current	I_{th}	1.2	A
Differential efficiency	η_{ext}	10.5	W/A
Operating current	I_{op}	8.3	A
Operating voltage	V_{op}	24 or 2x12	V
Maximum current (10 seconds)	I_{max}	10.0	A
Connector for detachable fiber		SMA	
Fiber core diameter	D_{fiber}	550	μm
Fiber NA		0.22	
Number of TE coolers per module		2	
Maximum current for one TEC	I_{TECmax}	15	A
Maximum voltage for one TEC	V_{TECmax}	28	V

Electro-optical characteristics

P-I at 25°C

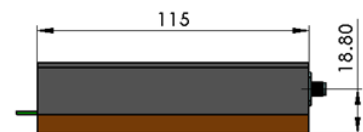
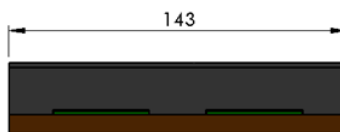
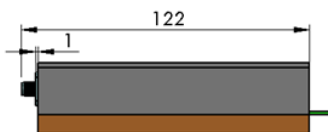
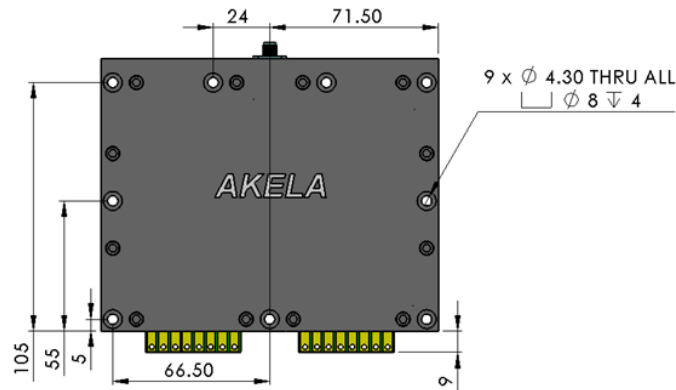


V-I at 25°C

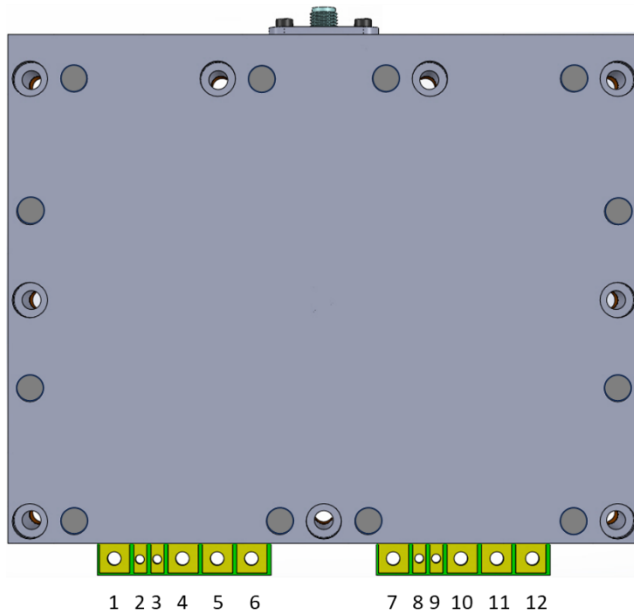


Dimensions and Pinout

Mechanical Drawings



Pinout



Pin #	Function
Subset #1	
1	Laser diode (+)
2	Thermistor
3	Thermistor
4	TEC (-)
5	TEC (+)
6	Laser diode (-)
Subset #2	
7	Laser diode (+)
8	Thermistor
9	Thermistor
10	TEC (-)
11	TEC (+)
12	Laser diode (-)

Document Revision History

Revision Number	Revision Date	Nature of Revision	Approved by
1	April 27, 2024	New document created, based on updated laser test data	M.M.



These components do not comply with the Federal Regulations (21 CFR Subchapter 1) as administered by the Center for Devices and Radiological health.

Purchaser acknowledges that his/her products must comply with these regulations before they can be sold.

Akela laser Corporation reserves right to change any specifications.