ALC-1240-80000-FM550.22 DOPPIA

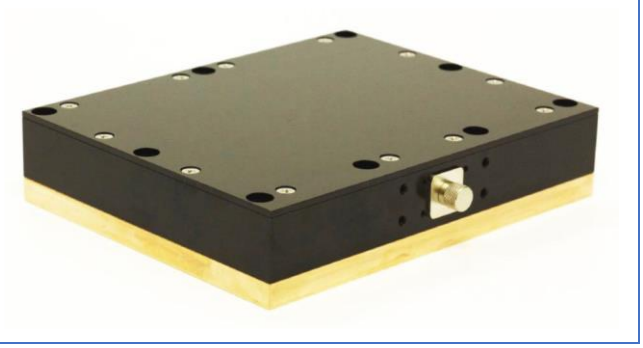
Overview

Main Features

The module is based on 2 laser subsets, with separate electrical connections, and a TEC per subset. Both subsets are coupled into the same fiber

- **1240 nm / 2x40 W = 80 W**
- **550 µm core fiber**
- **Detachable fiber**
- **2x Temperature sensor**
- **2x TEC**

DOPPIA Package



Typical Performance Characteristics

Parameter	Symbol	Laser Subset #1	Laser Subset #2	Unit
Operating temperature	T	20	20	°C
Operating power ex-fiber	P_{op}	40	40	W
Total output power ex-fiber	$2xP_{op}$	80		W
Center wavelength	λ	1240±15	1240±15	nm
Spectrum width, $1/e^2$	Δλ	<16	<16	nm
Wavelength-temperature coefficient	Δλ/ΔT	0.45	0.45	nm/°C
Linearized wavelength-current	Δλ/ΔI	0.25	0.25	nm/A
Threshold current	I_{th}	1.9	1.9	A
Differential efficiency	η_{ext}	3.4	3.4	W/A
Operating current	I_{op}	15	15	A
Operating voltage	V_{op}	8.1	8.1	V
Voltage (Subsets are connected in series)	$2xV_{op}$	16		V
Maximum current (10 seconds)	I_{max}	16	16	A
Detachable fiber connector		SMA		
Fiber core diameter	D_{fiber}	550		µm
Fiber NA		0.22		
Maximum TEC voltage	V_{TEC}	28	28	V
Maximum TEC current	I_{TEC}	15	15	A

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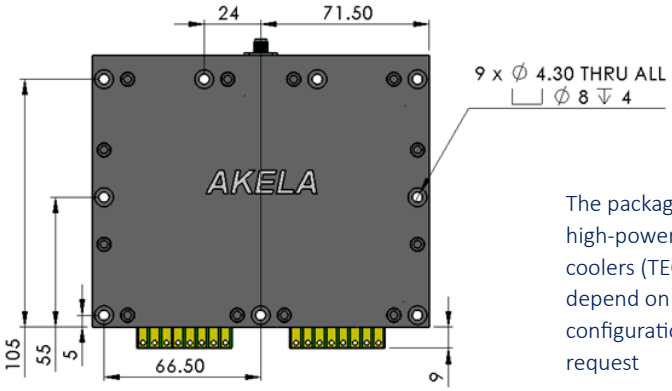
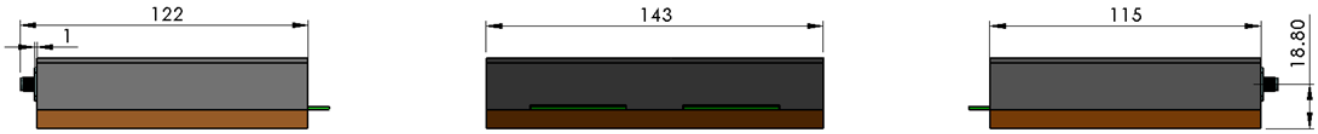
Dimensions and Pinout

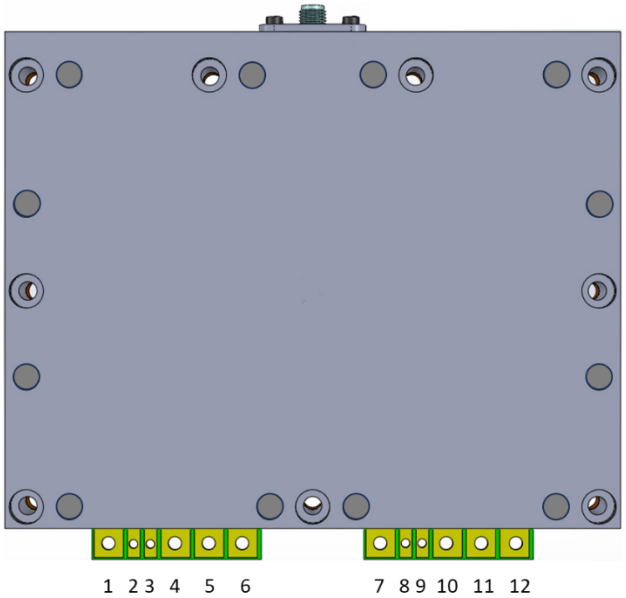
Mechanical Drawings



The package has two built-in high-power thermoelectric coolers (TECs). TEC specs depend on module configuration, available upon request



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	September 27, 2024	New format of the document	*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.