

ALC-0975-48000-FM365.22 SETIA

Overview

Main Features

- 975 nm / 48 W
- 365 μm core fiber
- Detachable fiber
- Compact footprint
- Fiber sensor (optional)
- Temperature sensor
- Power monitor (optional)
- Visible pointer (optional)

SETIA Package



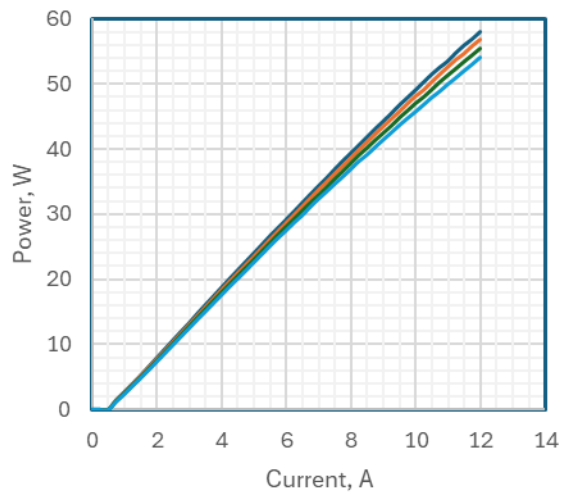
Typical Performance Characteristics

Parameter	Symbol	LD	Unit
Operating temperature	T	20	$^{\circ}\text{C}$
Operating power ex-fiber	P_{op}	48	W
Center wavelength	λ	975 ± 10	nm
Spectrum width, $1/e^2$	$\Delta\lambda$	<8	nm
Wavelength-temperature coefficient	$\Delta\lambda/\Delta T$	0.4	nm/ $^{\circ}\text{C}$
Linearized wavelength-current	$\Delta\lambda/\Delta I$	0.2	nm/A
Threshold current	I_{th}	0.5	A
Differential efficiency	η_{ext}	5.0	W/A
Operating current	I_{op}	10.0	A
Operating voltage	V_{op}	10.2	V
Maximum current (10 seconds)	I_{max}	12.0	A
Power monitor photodiode current	I_{mon}	>0.05	mA
Detachable fiber connector		SMA	
Fiber core diameter	D_{fiber}	365	μm
Fiber NA		0.22	

OPTIONAL POINTER: >1mW at $638 \pm 5\text{nm}$, 2.9V operating voltage, typical drive current <30mA

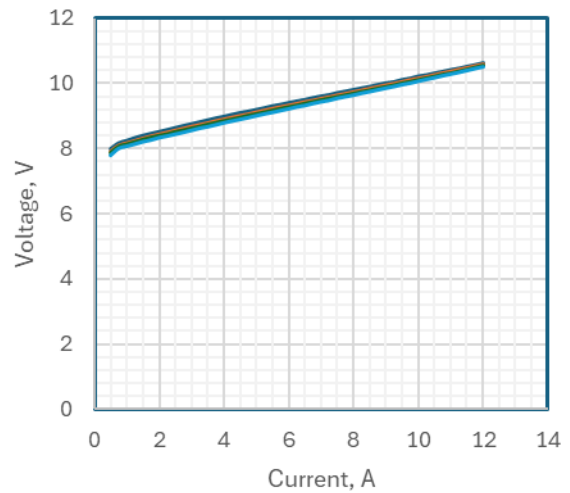
Electro-optical characteristics

P-I at different temperatures



P-I at (downward): 15°C-25 °C-35 °C-45 °C.

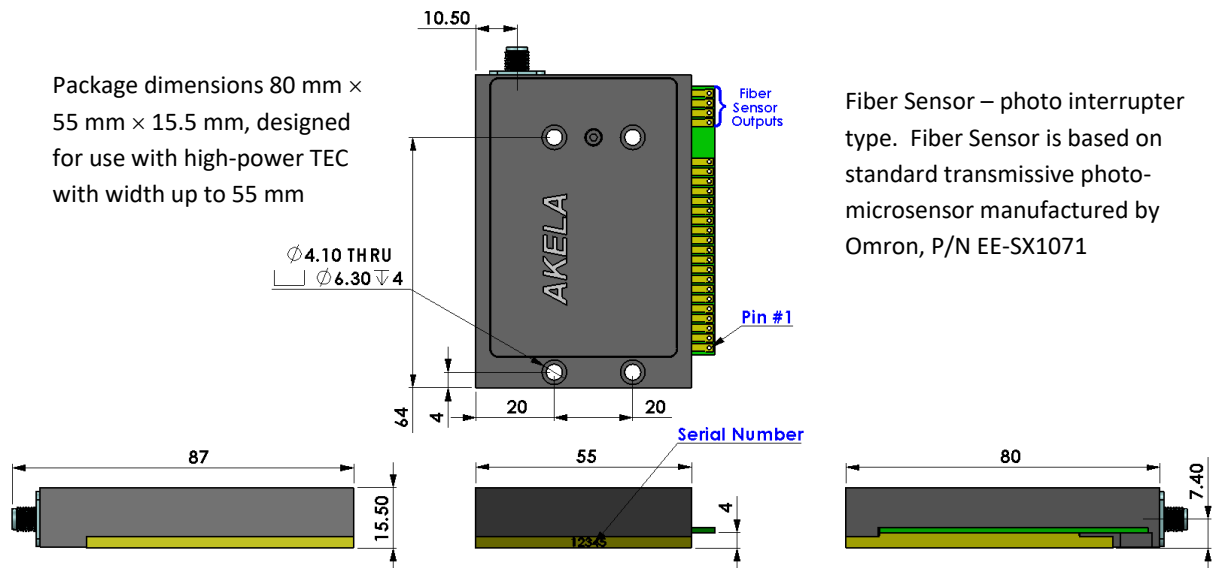
V-I at different temperatures



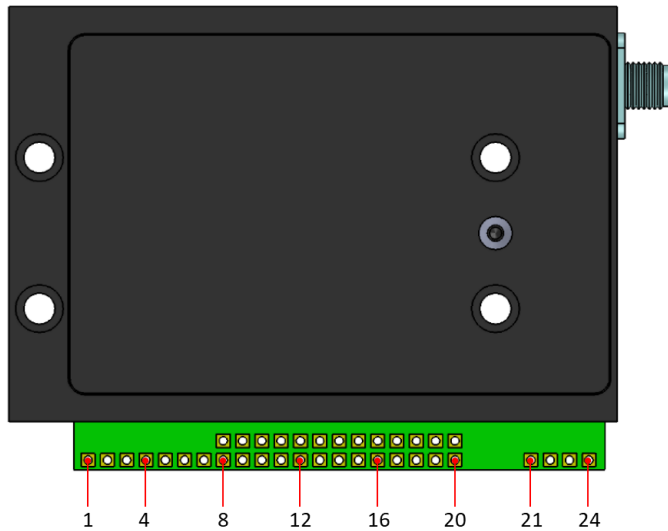
V-I at (downward): 15°C-25 °C-35 °C-45 °C.

Dimensions and Pinout

Mechanical Drawings



Pinout



Pin #	Function
1	Red pointer (+)
2	Red pointer (-)
3-7	Not used
8	Laser diode (+)
9-10	Not used
11 & 12	Thermistor outputs
13	Power monitor photodiode (+)
14-18	Not used
19	Laser diode (-)
20	Power monitor photodiode (-)
21	Fiber Sensor Phototransistor Collector
22	Fiber Sensor Phototransistor Emitter
23	Fiber Sensor LED Cathode
24	Fiber Sensor LED Anode

Document Revision History

Revision Number	Revision Date	Nature of Revision	Approved by
1	July 6, 2024	New document created based on test data acquired in 2018-2024	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.