

# ALC-0940-45000-FM365.22 SETIA

## Overview

### Main Features

- 940 nm / 45 W
- 365  $\mu\text{m}$  core fiber
- Detachable fiber
- Compact footprint
- Fiber sensor (optional)
- Temperature sensor
- Power monitor (optional)
- Visible pointer (optional)

### SETIA Package



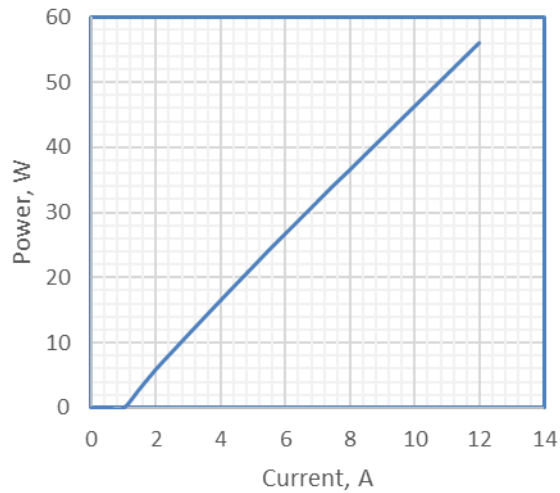
## Typical Performance Characteristics

Parameter	Symbol	LD	Unit
Operating temperature	T	20	$^{\circ}\text{C}$
Operating power ex-fiber	P <sub>op</sub>	45	W
Center wavelength	$\lambda$	940 $\pm$ 10	nm
Spectrum width, 1/e <sup>2</sup>	$\Delta\lambda$	<8	nm
Wavelength-temperature coefficient	$\Delta\lambda/\Delta T$	0.35	nm/ $^{\circ}\text{C}$
Linearized wavelength-current	$\Delta\lambda/\Delta I$	----	nm/A
Threshold current	I <sub>th</sub>	0.9	A
Differential efficiency	$\eta_{\text{ext}}$	5.3	W/A
Operating current	I <sub>op</sub>	10.0	A
Operating voltage	V <sub>op</sub>	9.7	V
Maximum current (10 seconds)	I <sub>max</sub>	12.0	A
Power monitor photodiode current	I <sub>mon</sub>	>0.05	mA
Detachable fiber connector		SMA	
Fiber core diameter	D <sub>fiber</sub>	365	$\mu\text{m}$
Fiber NA		0.22	

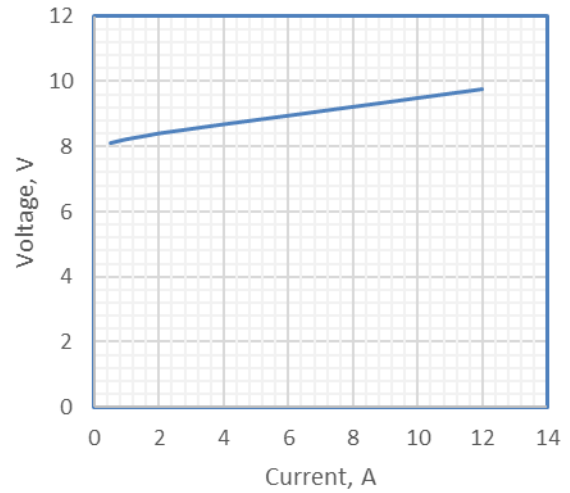
OPTIONAL POINTER: >1mW at 638 $\pm$ 5nm, 2.9V operating voltage, typical drive current <30mA

## Electro-optical characteristics

P-I at 20°C

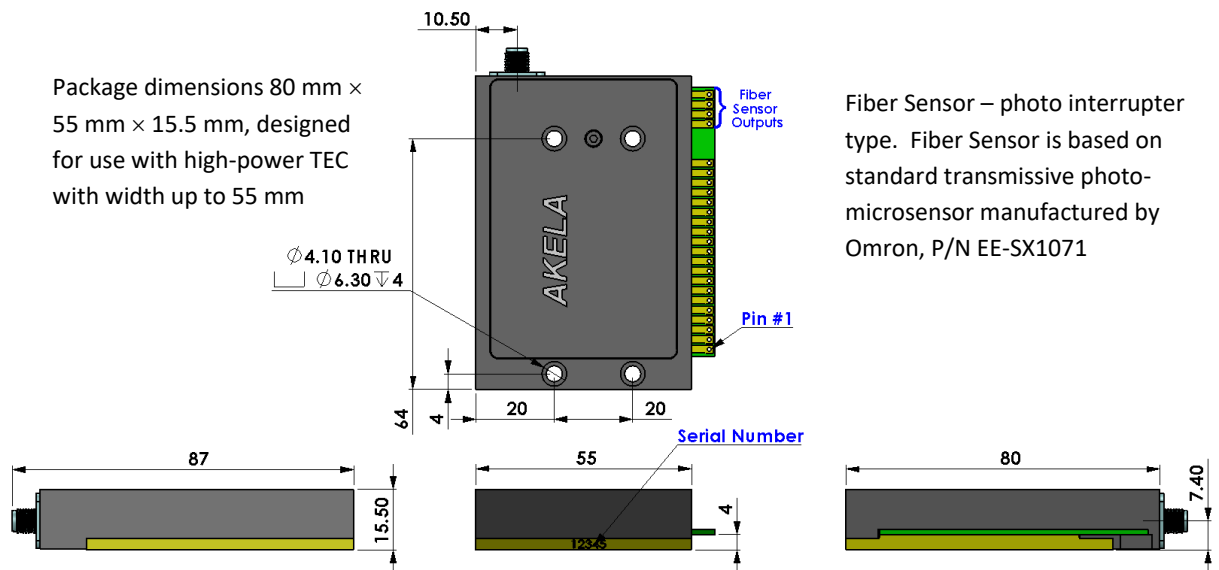


V-I at 20°C

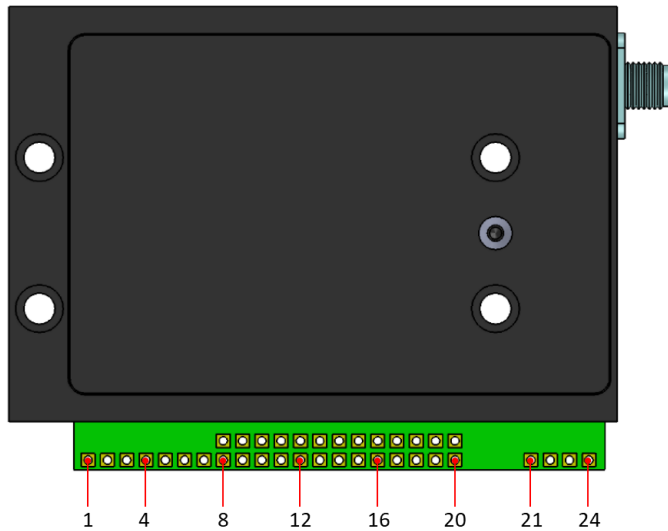


## Dimensions and Pinout

### 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.