

ALC-665-06500-FM400.22 QUINTA

Overview

Main Features

- 665 nm / 6.5 W
- 400 μm core fiber
- Detachable fiber
- Compact footprint
- Fiber sensor (optional)
- Temperature sensor
- Power monitor (optional)
- Visible pointer (optional)

QUINTA Package



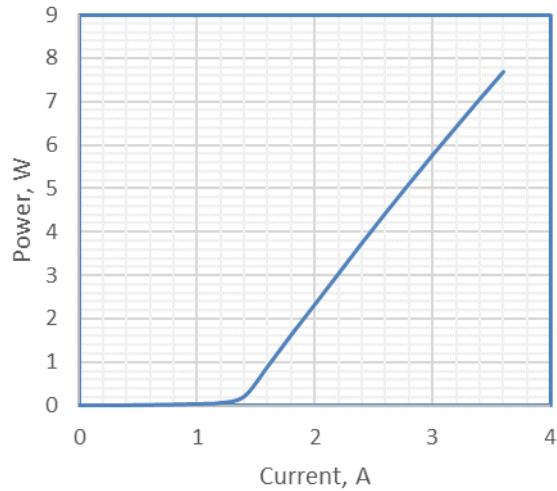
Typical Performance Characteristics

Parameter	Symbol	LD	Unit
Operating temperature	T	20	$^{\circ}\text{C}$
Operating power ex-fiber	P_{op}	6.5	W
Center wavelength	λ	665 ± 7	nm
Spectrum width, $1/e^2$	$\Delta\lambda$	<5	nm
Wavelength-temperature coefficient	$\Delta\lambda/\Delta T$	0.2	nm/ $^{\circ}\text{C}$
Linearized wavelength-current	$\Delta\lambda/\Delta I$	---	nm/I
Threshold current	I_{th}	1.35	A
Differential efficiency	η_{ext}	3.5	W/A
Operating current	I_{op}	3.2	A
Operating voltage	V_{op}	8.3	V
Maximum current (10 seconds)	I_{max}	3.6	A
Power monitor photodiode	I_{mon}	>0.05	mA
Detachable fiber connector		SMA	
Fiber core diameter	D_{fiber}	400	μm
Fiber NA		0.22	

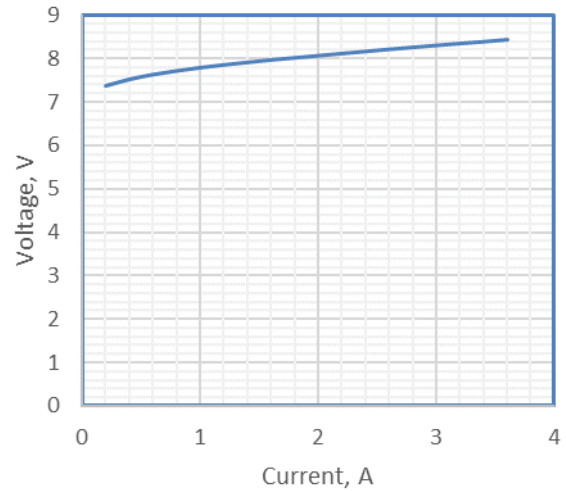
OPTIONAL POINTER: >1mW at $638 \pm 5\text{nm}$, 2.9V operating voltage, typical drive current <30mA

Electro-optical characteristics

P-I at 20 °C



V-I at 20 °C

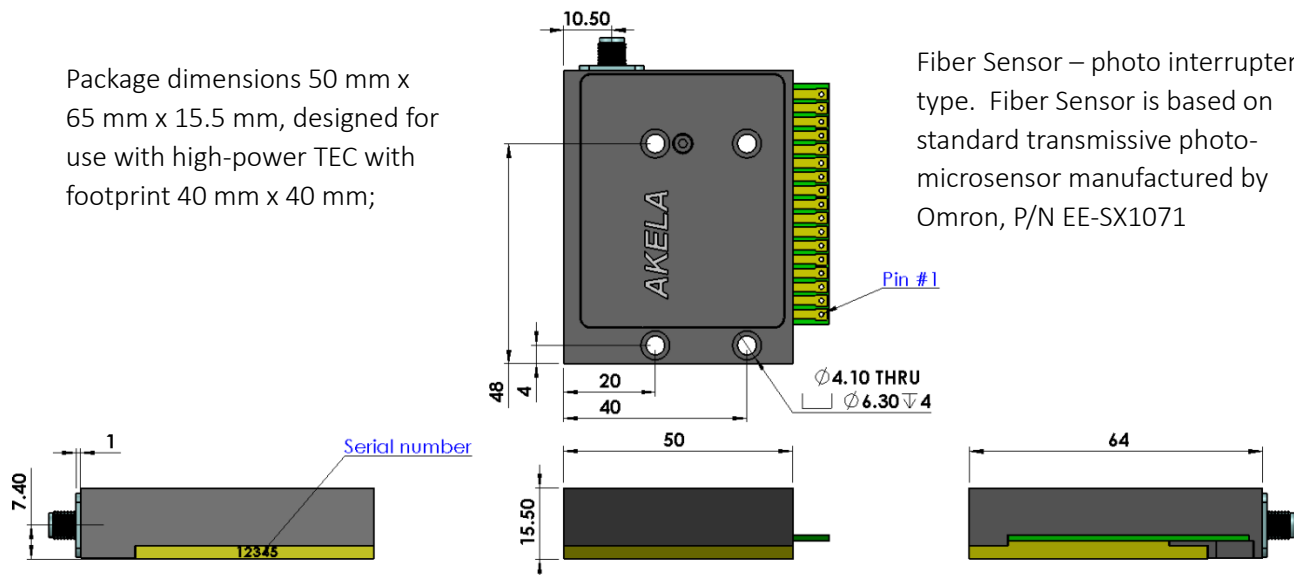


Dimensions and Pinout

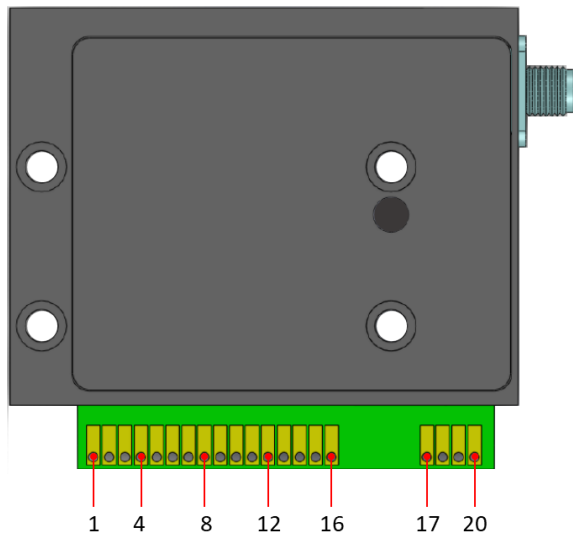
Mechanical Drawings

Package dimensions 50 mm x 65 mm x 15.5 mm, designed for use with high-power TEC with footprint 40 mm x 40 mm;

Fiber Sensor – photo interrupter type. Fiber Sensor is based on standard transmissive photo-microsensor manufactured by Omron, P/N EE-SX1071

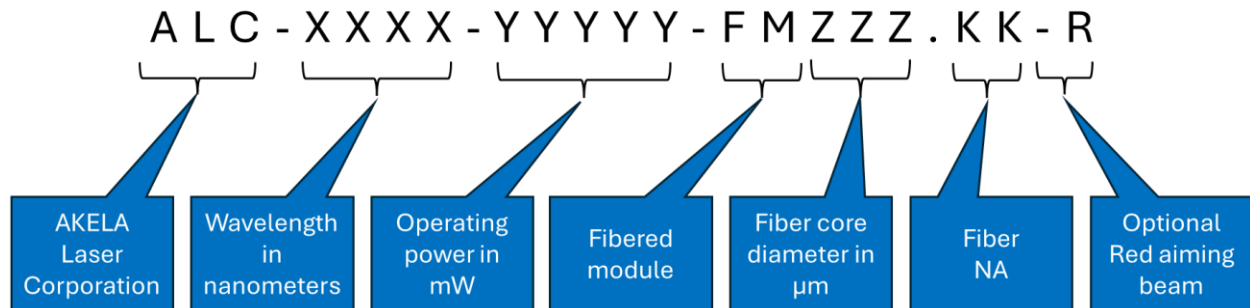


Pinout



Pin #	Function
1	Red pointer (+) <i>optional</i>
2	Red pointer (-) <i>optional</i>
3 – 8	Not used
9 and 10	Laser Diode (+)
11 and 12	Thermistor outputs
13	Power Monitor PD (+)
14 and 15	Laser Diode (-)
16	Power Monitor PD (-)
17	Fiber Sensor Phototransistor Collector
18	Fiber Sensor Phototransistor Emitter
19	Fiber Sensor LED Cathode
20	Fiber Sensor LED Anode

Part Number Notation



Document Revision History

Revision Number	Revision Date	Nature of Revision	Approved by
1	April 7, 2024	New document created	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.