# 400mW 1060nm / 1070nm High Power Laser Diode Module

# LC96A10x0-20R



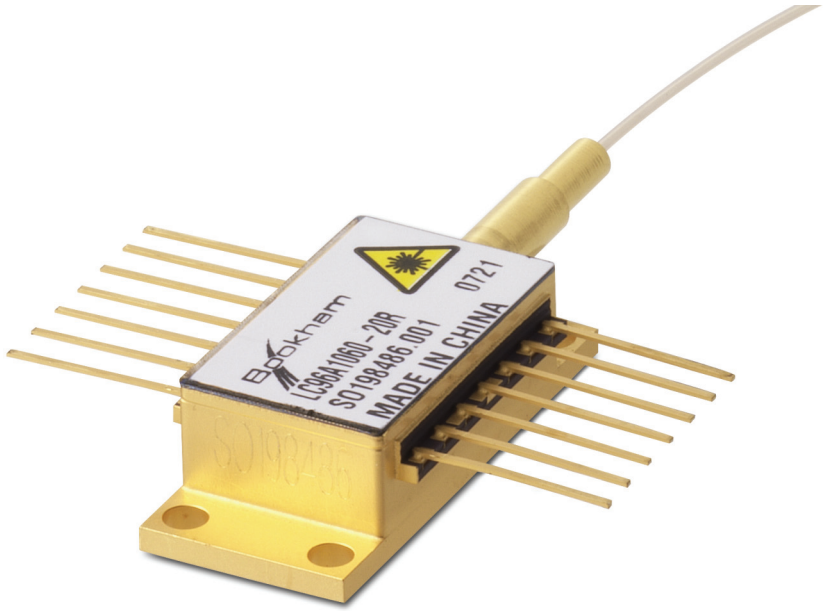
The Bookham LC96A10x0-20R high power single-mode laser module has been designed as light source for fiber laser applications. Processes and techniques of coupling the fiber to the laser allow high output powers that are very stable with both time and temperature. Devices are available with kink free output powers to 400mW.

**Features:**

- High output power, up to 400mW kink free
- 1060nm or 1070nm wavelength
- Polarization maintaining single-mode fiber pigtail
- Internal thermoelectric heatpump and monitor photodiode
- Hermetically sealed 14-pin butterfly package
- RoHS compliant

**Applications:**

- Fiber lasers
- Pumping and printing applications



## Characteristics

Conditions unless otherwise stated: Case temperature -20 to +75°C
Submount temperature 25°C
Monitor diode bias -5 V
CW operation



| Parameter | Min | Typ | Max | Unit |
|---|---|---|---|---|
| Threshold Current ($I_{th}$) | 10 | 40 | 70 | mA |
| Operating Power at 750mA | 350 | 400 | | mW |
| Forward Voltage ($V_f$) | | 2 | 2.5 | V |
| Peak Wavelength ($\lambda_f$)<br>LC96A1060-20R<br>LC96A1070-20R | <br>1055<br>1065 | <br>1060<br>1070 | <br>1065<br>1078 | nm |
| Monitor Detector Responsivity | 0.3 | 1.0 | | µA/mW |
| Monitor Dark Current | | | 10 | nA |
| Thermistor Resistance (at 25°C) | 9.5 | 10 | 10.5 | kΩ |
| Heatpump Current ($\Delta T$ = 50°C, $I_f = I_{f\,max}$) | | | 1.5 | A |
| Heatpump Voltage ($\Delta T$ = 50°C, $I_f = I_{f\,max}$) | | | 3.0 | V |

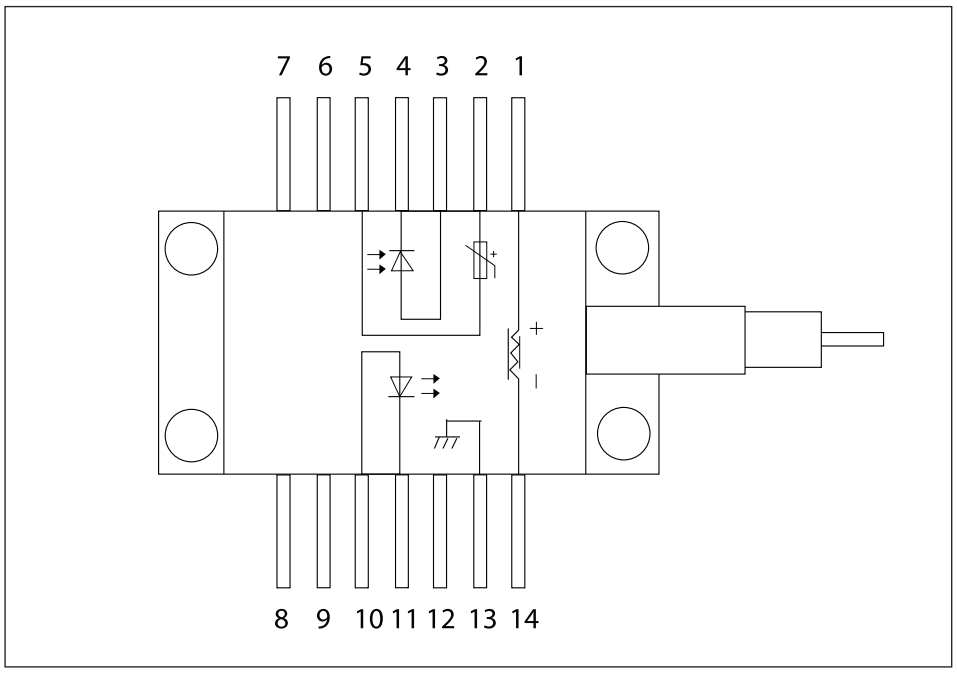
## Absolute Ratings

| Parameter | Min | Max | Unit |
|---|---|---|---|
| Storage Temperature | -40 | 85 | °C |
| Laser Forward Current (10s max) | | 1000 | mA |
| Laser Reverse Voltage | | 2 | V |
| Heatpump Current | | 2.2 | A |
| Lead Soldering Temperature (10s max) | | 260 | °C |
| Fiber Bend Radius | 30 | | mm |

## Connections



| Pin # | Description | Pin # | Description |
|---|---|---|---|
| 1 | Peltier cooler (+) | 8 | Not connected |
| 2 | Thermistor | 9 | Not connected |
| 3 | Monitor anode (-) | 10 | Laser anode (+) |
| 4 | Monitor cathode (+) | 11 | Laser cathode (-) |
| 5 | Thermistor | 12 | Not connected |
| 6 | Not connected | 13 | Case ground |
| 7 | Not connected | 14 | Peltier cooler (-) |



## RoHS Compliance

Bookham is fully committed to environment protection and sustainable development and has set in place a comprehensive program for removing polluting and hazardous substances from all of its products. The relevant evidence of RoHS compliance is held as part of our controlled documentation for each of our compliant products. RoHS compliance parts are available to order, please refer to the ordering information section for further details.



**Ordering Information:**

| | |
|---|---|
| LC96A1060-20R | 400mW 1060nm High Power Laser Diode Module |
| LC96A1070-20R | 400mW 1070nm High Power Laser Diode Module |

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**Important Notice**

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REFERENCE IEC 60825-1 Edition 1.2


This product complies with 21CFR 1040.10