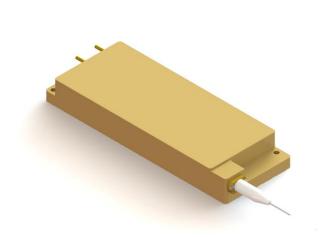


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## 976nm 330W High Power Fiber Coupled Diode Laser RPK976-A0-330.0W-22022-D



### Features:

- 976nm wavelength
- 330W output power
- 220µm fiber core diameter
- 0.22NA
- 1020nm-1200nm feedback protection

### Applications:

Fiber laser pumping

High Power Diode Laser Modules are manufactured by adopting specialized fiber-coupling techniques, resulting in volume products with a high efficiency, stability and superior beam quality. The products are achieved by transforming the asymmetric radiation from the laser diode chip into an output fiber with small core diameter by using special micro optics. Inspecting and burn-in procedures in every aspect come to a result to guarantee each product with the reliability, stability and long lifetime.

Our research staffs are constantly improving and innovating the processing technology in the producing process, based on the professional knowledge and experience accumulated in long-terms. We are also continuously developing new products to meet customers' specific needs.

High quality products with reasonable price is our always goal.



# 976nm 330W High Power Fiber Coupled Diode Laser RPK976-A0-330.0W-22022-D

| Specifications(25°C)        |                                      | Symbol            | Unit  | RPK976-330.0W-22022-D |         |         |
|-----------------------------|--------------------------------------|-------------------|-------|-----------------------|---------|---------|
|                             |                                      |                   |       | Minimum               | Typical | Maximum |
| Optical Data <sup>(1)</sup> | CW Output Power                      | Po                | W     | 330                   | -       | -       |
|                             | Center Wavelength                    | λ <sub>c</sub>    | nm    | 976±3                 |         |         |
|                             | Spectral Width (FWHM)                | Δλ                | nm    | -                     | 4       | 6       |
|                             | Wavelength Shift with Temperature    | △λ/△T             | nm/°C | -                     | 0.3     | -       |
|                             | Spot Ratio 0.17/0.22                 | NA                | %     | 90                    | -       | -       |
| Electrical Data             | Electrical-to-Optical Efficiency     | η                 | %     |                       | 50      | -       |
|                             | Threshold Current                    | I <sub>th</sub>   | A     | -                     | 1.4     | -       |
|                             | Operating Current                    | l <sub>op</sub>   | A     | -                     | 30      | 32      |
|                             | Operating Voltage                    | V <sub>op</sub>   | V     | -                     | 23      | 23.5    |
|                             | Slope Efficiency                     | η <sub>D</sub>    | W/A   | -                     | 12.2    | -       |
| Fiber Data                  | Core Diameter                        | D <sub>core</sub> | μm    | -                     | 220     | -       |
|                             | Cladding Diameter                    | D <sub>clad</sub> | μm    | -                     | 242     | -       |
|                             | Fiber Loose Tubing Diameter          | -                 | mm    | 0.9                   |         |         |
|                             | Numerical Aperture                   | N.A.              | -     | -                     | 0.22    | -       |
|                             | Total Fiber Length                   | -                 | m     | -                     | 2.0     | -       |
|                             | Bending Radius                       | -                 | mm    | 88                    | -       | -       |
|                             | Fiber Termination                    | -                 | -     | -                     | FF      | -       |
| Feedback Isolation          | Wavelength Range                     | λ                 | nm    | 1020-1200             |         |         |
|                             | Isolation                            | -                 | dB    | -                     | 30      | -       |
| Others                      | ESD                                  | -                 | V     | -                     | -       | 500     |
|                             | Storage Temperature <sup>(2)</sup>   | T <sub>st</sub>   | °C    | -20                   | -       | 70      |
|                             | Lead Soldering Temperature           | -                 | °C    | -                     | -       | 260     |
|                             | Lead Soldering Time                  | -                 | sec   | -                     | -       | 10      |
|                             | Operating Temperature <sup>(3)</sup> | T <sub>op</sub>   | °C    | 15                    | -       | 35      |
|                             | Relative Humidity                    | -                 | %     | 15                    | -       | 75      |

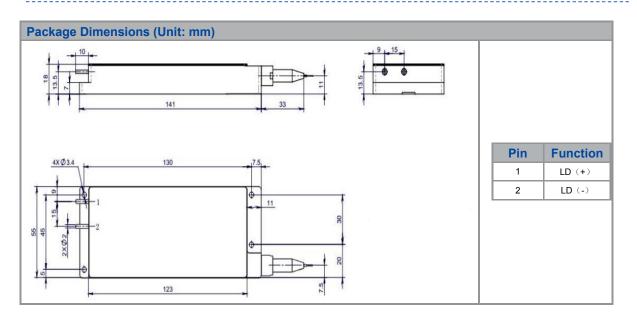
(1) Data measured under operation output at 330W@25°C.

(2) A non-condensing environment is required for operation and storage.

(3) Operating temperature defined by the package housing. Acceptable operating range is 15°C~35°C, but performance may vary.



## 976nm 330W High Power Fiber Coupled Diode Laser RPK976-A0-330.0W-22022-D



#### **OPERATING NOTES**

- Avoid eye and skin exposure to direct radiation during operation.
- ♦ ESD precautions must be taken during storage, transportation and operation.
- ♦ Please connect pins to wires by solder instead of using socket when operation current is higher than 6A. Soldering point should be close to the middle of the pins. Soldering temperature should be lower than 260°C and time shorter than 10 second.
- Make sure the fiber output end is properly cleaned before operation of laser. Follow safety protocols to avoid injury when handling and cutting the fiber.
- ♦ Use constant current power supply to avoid surge current during operation.
- ◆ Laser diode must be used according to the specifications.
- ◆ Laser diode must work with good cooling.
- ♦ Operation temperature ranges from 15°C to 35°C .
- ◆ Storage temperature ranges from -20°C to +70°C .