

### Features :

- ◆ 976±1nm wavelength
- ◆ 430W output power
- ◆ 200µm fiber core diameter
- ◆ 0.22 NA
- ◆ 1020nm~1200nm feedback protection

### Applications:

- ◆ Fiber Laser Pumping
- ◆ Scientific Research

## 976nm 430W Wavelength-Stabilized Fiber Coupled Diode Laser RPK976S-NZ-430.0W-20022-FF (Standard Product)

Specifications (25°C)		Symbol	Unit	RPK976S-NZ-430.0W-20022-FF		
				Minimum	Typical	Maximum
Optical Data <sup>(1)</sup>	CW Output Power	P <sub>O</sub>	W	430.0	-	-
	Center Wavelength	λ <sub>c</sub>	nm	976±1		
	Spectral Width (FWHM)	Δλ	nm	-	0.7	1.0
	Wavelength Shift with Temperature	Δλ/ΔT	nm/°C	-	0.02	-
	Wavelength Shift with Current	Δλ/ΔI	nm/A	-	0.03	-
Electrical Data	Electrical-to-Optical Efficiency	PE	%	-	49	-
	Threshold Current	I <sub>th</sub>	A	-	1.3	-
	Operating Current	I <sub>op</sub>	A	-	25.0	26.0
	Operating Voltage	V <sub>op</sub>	V	-	36.0	43.0
	Slope Efficiency	η	W/A	-	18.0	-
Fiber Data	Core Diameter	D <sub>core</sub>	µm	-	200	-
	Cladding Diameter	D <sub>clad</sub>	µm	-	220	-
	Numeric Aperture	NA	-	-	0.22	-
	Fiber Length	L <sub>f</sub>	m	-	2	-
	Fiber Loose Tubing Diameter	-	mm	0.9		
	Minimum Bending Radius	-	mm	88	-	-
	Fiber Termination	-	-	FC-Ferrule		
Feedback Isolation	Wavelength Range	-	nm	1020~1200		
	Isolation	-	dB	-	30	-
Others	ESD	V <sub>esd</sub>	V	-	-	500
	Storage Temperature <sup>(2)</sup>	T <sub>st</sub>	°C	-20	-	70
	Lead Soldering Temp	T <sub>is</sub>	°C	-	-	260
	Lead Soldering Time	t	sec	-	-	10
	Operating Case Temperature <sup>(3)</sup>	T <sub>op</sub>	°C	23	25	27
	Relative Humidity	RH	%	15	-	75

(1) Data measured under operation output at nominal output power@25°C.

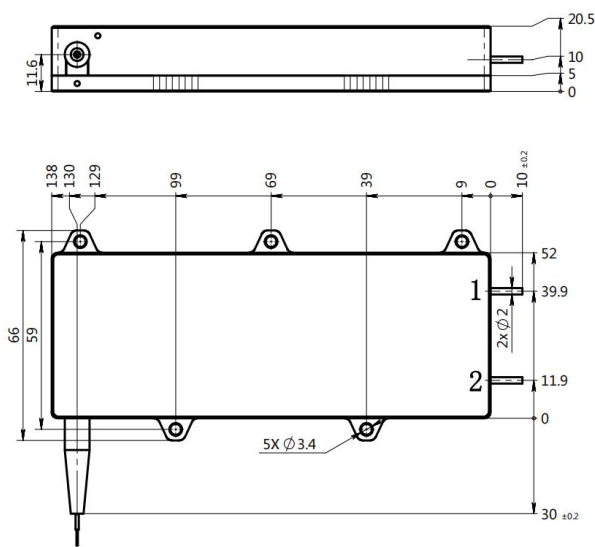
(2) A non-condensing environment is required for operation and storage.

(3) Operating temperature defined by the package case. Acceptable operating range is 23°C~27°C, but performance may vary.

(4) Wavelength-Stabilized : Percentage of power in band of 974.5nm to 977.5nm ≥90%.

## 976nm 430W Wavelength-Stabilized Fiber Coupled Diode Laser RPK976S-NZ-430.0W-20022-FF (Standard Product)

### Package Dimensions (mm)



Pin	Function
1	LD (+)
2	LD (-)

### OPERATING NOTES

- ◆ Avoid eye and skin exposure to direct radiation during operation.
- ◆ ESD precautions must be taken during transportation, storage, and operation. A short-circuit connection is required between pins during transportation and storage.
- ◆ For lasers with operating currents above 6A, connect leads by soldering. The soldering point should be as close to the middle of the pins as possible, with a temperature below 260°C and a soldering time of less than 10 seconds.
- ◆ Before operating the laser, ensure that the fiber output end is properly cleaned. Follow safety protocols when handling and cutting fiber to avoid injury.
- ◆ Use a constant current power supply and avoid surges during operation.
- ◆ Operate within the rated current and power levels.
- ◆ Ensure proper cooling during operation.
- ◆ The operating temperature range is 23°C to 27°C.
- ◆ The storage temperature range is -20°C to +70°C.



**Declaration:** information and specifications contained herein are deemed to be reliable and accurate. BWT Beijing Ltd.reserves the right to change, alter or modify the design and specifications of these products at any time without notice.