



Features:

- ◆ 445nm wavelength
- ◆ 40W output power
- ◆ Spatial laser output
- ◆ Polarization Beam Combined

Applications:

- ◆ Laser engraving
- ◆ Scientific research

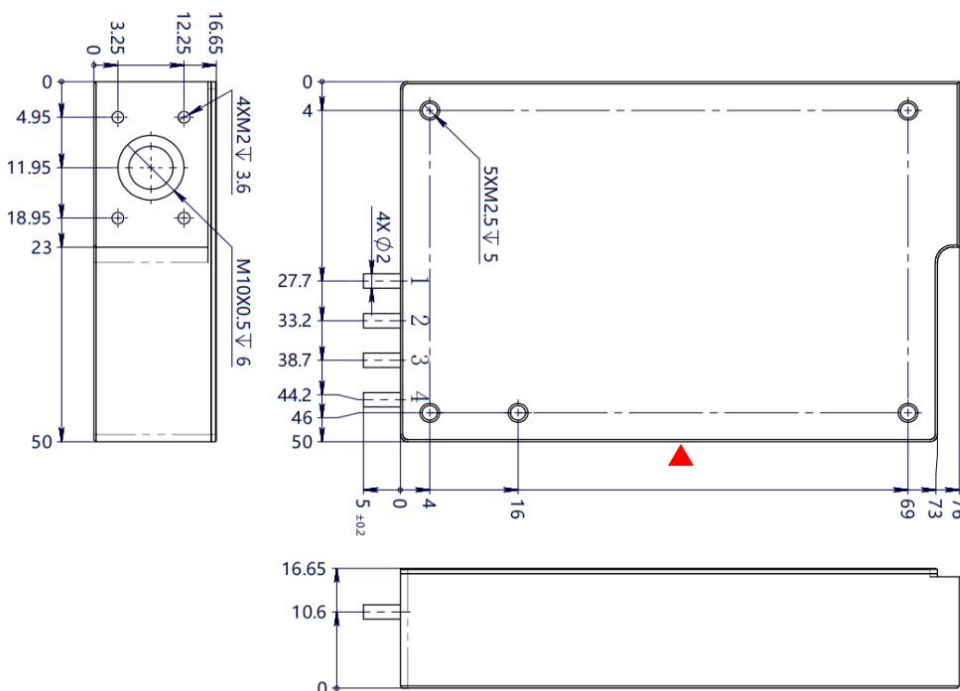
445nm Spatial Light Output Blue Laser
RPK445HS4WN V01

Specifications (25°C)	Symbol	Unit	RPK445HS4WN-40.00W55		
			Minimum	Typical	Maximum
Optical Data ⁽¹⁾					
Output Power@3.8A	P _{bol}	W	38	40	48
Center Wavelength	λ _c	nm	445±20		
Spectral Width (FWHM)	Δλ	nm	-	6	-
Wavelength Shift with Temperature	Δλ/ΔT	nm/°C	-	0.1	-
Wavelength Shift with Current	Δλ/ΔA	nm/A	-	1.3	-
Focus length	L	mm	55		
Spot Size @ Focal plane @0.4A	-	μm	-	180*150	-
Electrical Data ⁽¹⁾					
Electrical-to-Optical Efficiency	PE	%	-	31	-
Operating Current	I _{bol}	A	-	3.6	3.8
Threshold Current	I _{th}	A	-	0.3	-
Operating Voltage(2 modules)	V _{op}	V	-	18*2	20*2
Slope Efficiency	η	W/A	-	12.5	-
Others					
ESD	V _{esd}	V	-	-	500
Storage Temperature ⁽²⁾	T _{st}	°C	-20		70
Lead Soldering Temp	T _{ls}	°C	-	-	260
Lead Soldering Time	t	sec	-	-	10
Operating Temperature ⁽³⁾	T _{op}	°C	15	-	35

(1) Tested at 25°C cold plate temperature.
(2) A non-condensing environment is required for operation and storage.
(3) The temperature of the housing sidewall should be ≤ 50 °C, but performance may vary.
(4) Reduced lifetime if used above nominal operating conditions.

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Package Dimensions (mm)



Pin	Description
1	LD Module1 (+)
2	LD Module1 (-)
3	LD Module2 (+)
4	LD Module2 (-)

OPERATING NOTES

- ◆ Please follow the standard safety procedures for IEC Class 4 lasers, Avoid eye and skin exposure to direct radiation during operation.
- ◆ ESD precautions must be taken during storage, transportation and operation. Short-circuit is required between pins during storage and transportation.
- ◆ to the middle of the pins. Soldering temperature should be lower than 260°C and time shorter than 10 second.
- ◆ The laser may be damaged by excessive drive current, stable power supply should be used to avoid surge current.
- ◆ The laser should be operated according to the specifications, maximum optical power should not be exceeded.
- ◆ Laser diode must work with good cooling.
- ◆ Ensure the end of the window be free of dust and contamination before operation

