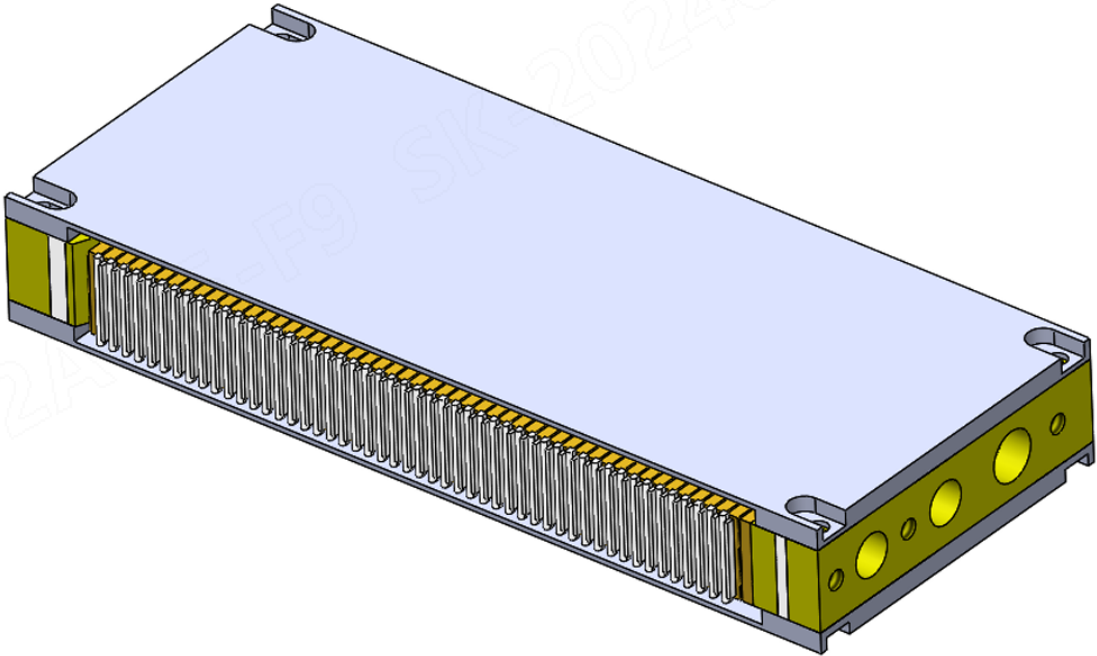


PN: DG-VSC50-Q15KW-808-Y

QCW 15KW Collimated Wavelength 808nm

Micro-Channel Water Cooled 50Bars Diode Laser



Version	Change Items	Released Date
Rev 1	Initial	2026.01.06

主要特性 Key Features:

- 金锡焊料封装 / Indium packaging
- 高可靠性 / High reliability
- 长脉宽 / Long pulse-width operation

应用领域 Application:

- 科研泵浦 / Research&Pump

光学参数 ¹ / Optical Parameters ¹		DG-VSC50- Q15KW-808-Y	DG-VSC25- Q15KW-976-Y	DG-VSC50- Q15KW-780-Y
输出峰值功率/Output Peak Power	W	15000	17500	15000
单 bar 功率/Peak Power per bar	W	300	700	300
Bar 条数量/ Number of Bars	-	50	50	50
Bar 条间距/ Bar Pitch	mm	1.8	1.8	1.8
中心波长/Center Wavelength	nm	808	976	780
中心波长范围/Center Wavelength Tolerance	nm	±3	±5	±5
光谱宽度/Spectral Width(FWHM)	nm	≤4	≤7	≤5
快轴发散角/F-Axis Divergence Angle (FWHM) ²	°	0.5	0.5	0.5
慢轴发散角/S-Axis Divergence Angle (FWHM)	°	8~12	8~12	8~12
偏振模式/Polarization Mode	-	TE	TE	TE
电学性能/Electrical Parameters				
电光转换效率/Conversion Efficiency	%	≥50	≥45	≥50
斜率效率/Slope Efficiency	W/A	≥1.1	≥1	≥1.1
阈值电流/Threshold Current	A	≤35	≤35	≤35
工作电流/Operating Current	A	≤270	≤680	≤300
工作电压/Operation Voltage	V	100	100	100
热学性能/Thermal Parameters				
工作温度 ³ /Operating Temperature Range ³	°C	20~30	20~30	20~30
存储温度/Storage Temperature Range	°C	0 to55	0 to55	0 to55
工作模式 ⁴ /Operation Condition ⁴				
脉冲宽度/ Pulse Width	us	200	200	200
占空比/ Duty Cycle	%	8	4	8
工作条件/Operation Condition				
冷却水流量/ Flow Rate	L/min/Bar	0.3~0.4	0.3~0.4	0.3~0.4
冷却水要求/Cooling Water	-	DI water	DI water	DI water
水压/Cooling Pressure	Mpa	≤0.38	≤0.38	≤0.38
过滤器规格/ Filter	um	20	20	20

¹ 在热沉 25 摄氏度下测得。Tested at 25°C heat sink.

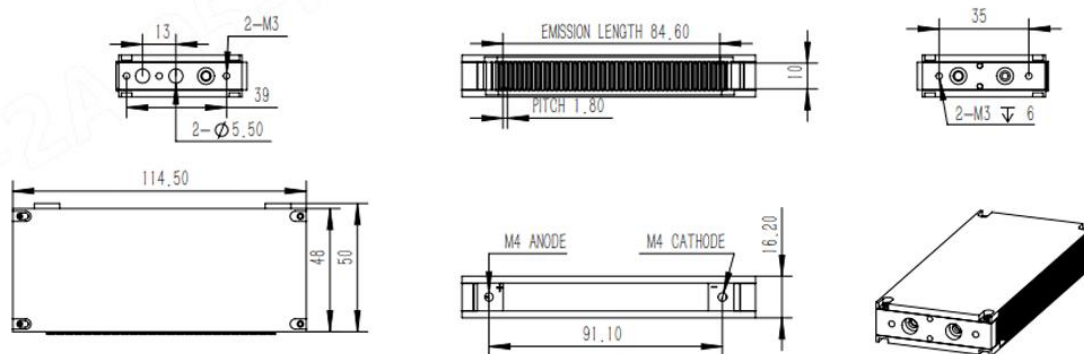
² 可根据客户定制。Others available upon request.

³ 激光波长会随热沉工作温度变化产生漂移。Laser wavelength would shift when heat sink operating temperature is changed.

⁴ 超规格使用会导致激光器寿命下降。Reduced lifetime if used above nominal operating condition.

外形尺寸/ Dimension

DG-VSC50-Q15KW-808-Y :



Customized dimension available upon request

使用说明 Application Notes:

- 叠阵输出激光是不可见光，使用时须遵守 IEC 四级激光标准安全规范，避免激光直接或间接照射眼睛；
The laser beam is invisible, please follow the standard safety procedures for IEC Class 4 lasers, avoid eyes exposure to radiation;
- 静电击穿导致半导体激光器失效，激光器安装人员须经过培训，操作时须佩戴防静电手腕带，工作台需接地；在供电连接头与激光器连接前，正负极应处于短接状态；
ESD cause diode laser failure, The operator should be trained, wearing ESD grounding straps and the work surface should be grounded. The positive and negative poles shall be connected before the power supply is connected with the laser;
- 电流过冲可能损坏激光器，驱动电源须稳定无过冲。
The current overshoot may damage the laser, and the driving power must be stable without overshoot.

