

Data Sheet

940nm 400mW VCSEL Moudle

Dogain Optoelectronic Technology(Suzhou)Co.,Ltd

PN: DG-VP-A940-400BS54A 模组

Rev. 1.0

Feb. 2026

Note:Customers represent that they have all the necessary expertise to createand implement their own safeguards that anticipate dangerous failures, monitor failures and their consequences,lessen the likelihood of dangerous failures and take appropriate remedial actions.

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Revision History			
Rev.	Effective Date	Revised By.	The Main Contents Revised.
A00	2026.02.26	Xiao bao Wan	Initial version released

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Product Introduction

Performance characteristics

- Wavelength: 940 nm
- Power: 320mW
- FOV: 130°

Absolution maximum ratings

Items	Values
Maximum reverse bias voltage	5 V
ESD threshold (Human body model)	1,000 V
Storage temperature range	-30 °C to 70 °C
Operation temperature range	-10 °C to 45 °C

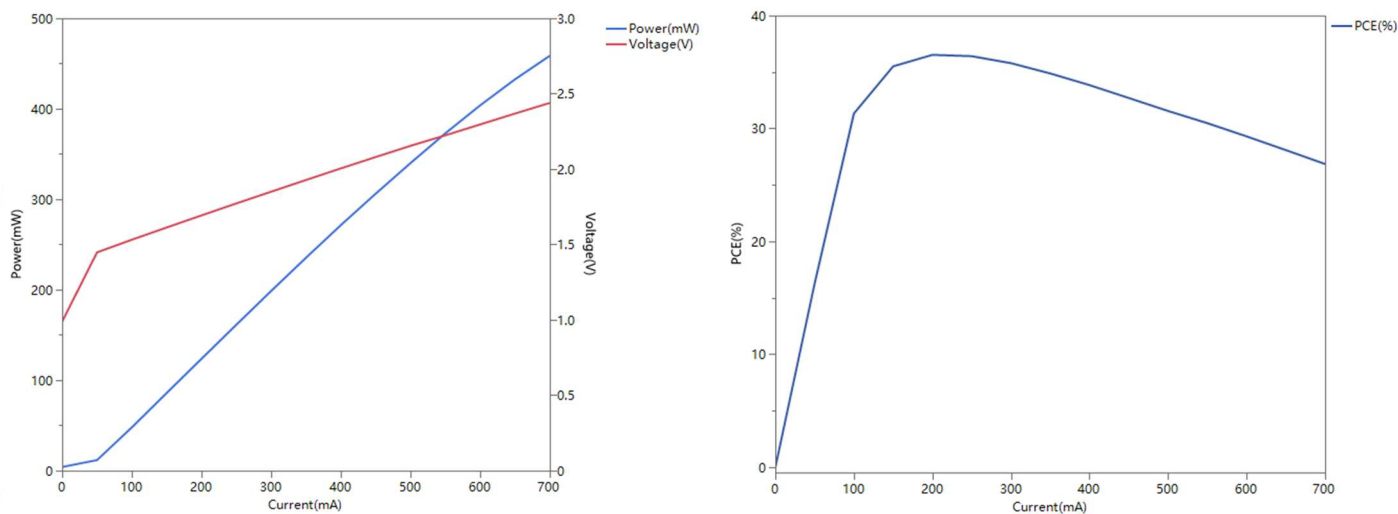
Electro-optical characteristics (25°C)

	Parameters	Symbol	Unit	Min	Typical	Max	Notes
Electrical	Threshold Current	I_{th}	mA	-	40	60	#1, #2
	Forward Bias Current	I_0	mA	-	500	-	
	Forward Voltage	V_0	V	-	2.2	-	#1
Optical	Output Power	P	mW	280	320		#1
	Central Wavelength	λ_p	nm	932	940	948	#1
	Field of View	θ (X)	°	120	130	140	#1, #3
	Average Line Width	ω	mm	-	3	-	#1, #4, #5
	BOW	/	mm	-2.5	0	2.5	#1, #4, #5
	Rotation Angle	α	°	-1.5	0	1.5	#1, #5
	Pitch Angle	β	°	-1.5	0	1.5	#1, #5
	Yaw Angle	γ	°	-4	0	4	#1, #5
Opto-electrical	Power Conversion Efficiency	PCE	%	-	31	-	#1

Notes:

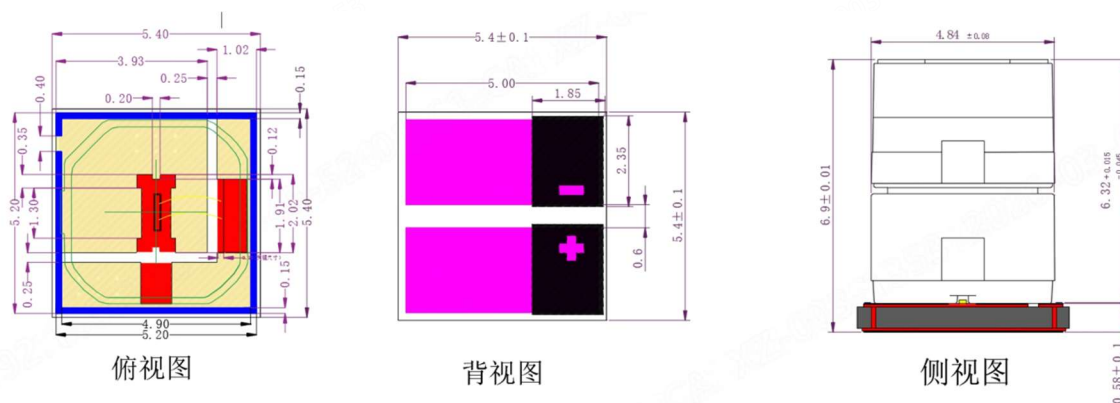
1. Tested under the following conditions: CW bias current, solder pad temperature: 25°C;
2. Linear regression between 200mA – 300 mA;
3. The range is from the left 10% of the maximum luminous intensity to the right one;
4. The threshold value is 10% of the maximum luminous intensity;
5. The position of light spot: 300mm from light source.

Electro-optic conversion curve



* All tests are under CW condition with gold pad temperature 25°C

Product Dimension(units:mm)



Overall size of the copper

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Eye safety and disclaimer

Security recommendations

Depending on the usage of the device, the module may emit highly concentrated invisible infrared light that is harmful to the human eye. Products containing these modules may be required to follow the safety precautions specified in IEC 60850-1 and IEC62471.

Product Disclaimer

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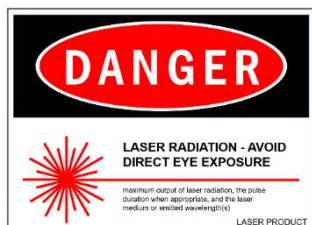
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Note:

No responsibility is assumed for the use of these products. The products can emit Class I~IV radiation and must be operated with extreme care. Avoid directly viewing the laser beam or exposure to specular reflections. Proper eye wear must be worn at all times when operating. VCSEL Chip in the modules are electrostatic-sensitive device and proper ESD protection is required for handling



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