

# CHANGSHU DESHENG OPTICS ELECTRONICS CO,.LTD

## Machine Vision Line Laser Module

This series of line laser modules are designed with uniform power distribution, clear edges, high reliability, Products are widely used in various 2D/ 3D vision applications such as inspection equipment, machine vision, scanning, atmospheric survey, construction and processing, etc.



Desheng can provide customzied products for different wavelengths, different power line laser and compact dimensions and high reliable structure module for terrible environment applications



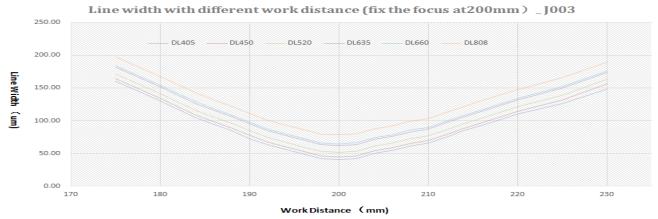
### ◆Machine Vision Line Laser Module

◆Technical Parameters		405-450nm	515-520nm	635-650nm	780-980nm
Optics	Wavelength $\lambda$ (nm)	$\pm 10$ nm	$\pm5 nm$	$\pm5$ nm	$\pm 10$ nm
	Power (mW)	0.1-200mW	0.1-80mW	0.1-180mW	0.1-500mW
	Light Type	Line			
	Fan Angle	$10^\circ \ /15^\circ \ /30^\circ \ /45^\circ \ /50^\circ \ /60^\circ \ /75^\circ \ /90^\circ \ /110^\circ$			
	Straightness	≤0.3%			
	Line Width (1/e2)	< 20um	< 30um	< 40um	< 60um
	Work Distance	< 200mm for normal module(Conventional)			
		provide laser modules with customized working distance			
	Focus	Fixed Focus			
	Luminance Uniformity	> 70%			
Electrical	Laser Driven Mode	CW/TTL			
	TTL Modulation (kHz)	15			
	Rise/Fall (µsec)	< 15			
	Work Voltage (V)	3-5V/12-24V	3-5V/12-24V	3-5V/12-24V	3-5V/12-24V
	Work Current(mA)	< 100mA	< 200mA	< 250mA	< 700mA
	Power Stability	<10%, -10° to 50° (48hours)			
	Electrical Connection	DC/XS12/M12/JST/MOLEX/Other			
	ESD Protection	Level 4			
Mechanical	Dimension(mm)	<b>Φ</b> 22×100 mm			
	Material	Black Aviation Aluminum			
Others	Working Temperature	-20 to 55° C(Conventional)			
	Storage Temperature	-40 to 70° C(Conventional)			
	Working Life	≥ 10000Hours			

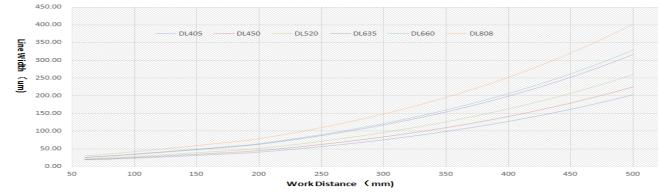


# Performance test

### Focusing and Depth-of-Field Performance



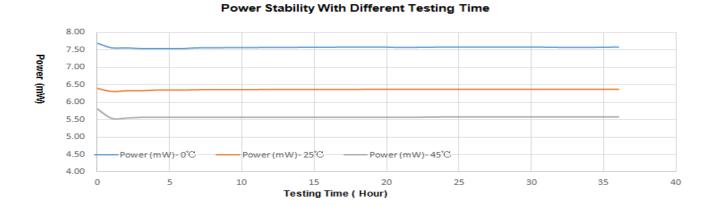




#### Power stability test

#### Power Stability With Different Testing Time (405nm) 8.00 7.50 7.00 Power (mW) 6.50 6.00 5.50 5.00 4.50 Power (mW)- 0°C Power (mW)- 25°C Power (mW)- 45°C 4.00 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80

Testing Time (Minute)



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