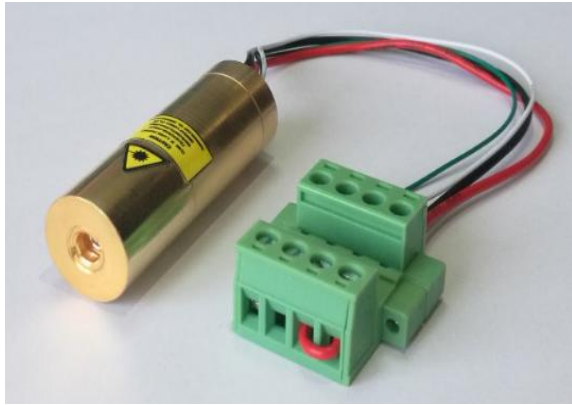


Green 555nm Laser Module

Wide Temperature Range

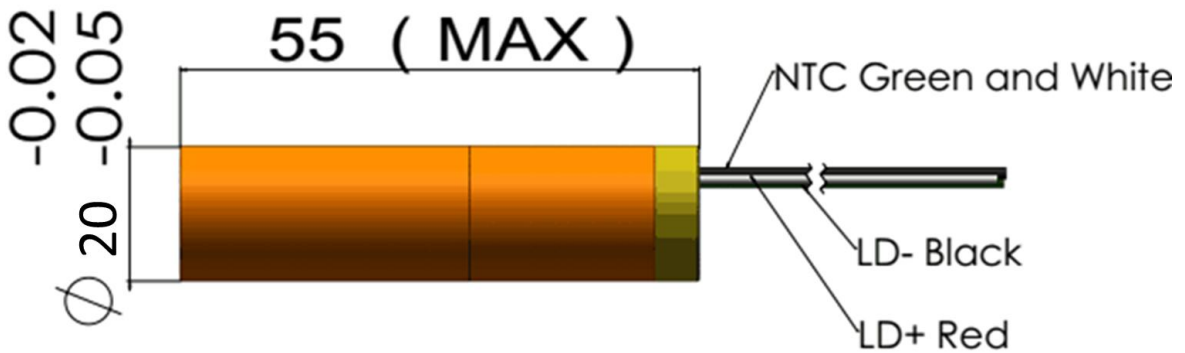


G555D1200-20x55-50

Features

- DPSS Laser
- Wide Temperature Range
- Fast Rise Time
- High Reliability

Dimensions (Unit: mm)



Specifications				
Model Number		G555D1200-20x55-50		
Mechanical Specifications		<i>Min</i>	<i>Typ</i>	<i>Max</i>
Laser Head	Diameter (mm)	19.95	20	20.05
	Length (mm)	-	-	55
	Weight (g)	-	-	200
Housing Material		Brass with gold-plating		
Optical Specifications		<i>Min</i>	<i>Typ</i>	<i>Max</i>
Wavelength (nm)		554	555	556
Output Power (mW) at T ⁽¹⁾ at 9.7A		1100	1200	-
Output Power (mW) from -30 to 50°C		800	-	-
Power Stability at const. Temperature ⁽²⁾		-	+/- 2%	+/- 5%
Output Power Mode		CW		
Laser Class		4		

⁽¹⁾ see remarks in page 2 no# 4

⁽²⁾ after max. 10 minutes

Beam Specifications		Min	Typ	Max
Beam Divergence (mrad) ⁽¹⁾		-	50	60
Beam Alignment Tolerance	Position (Δr , mm)	-	-	0.5
	Off-axis Angle (mrad)	-	35	60
Beam Diameter at Output Window (mm)		-	0.8	
Beam Roundness		-	NA ⁽²⁾	-
Beam Mode Longitude		Multi		
Beam Mode Transverse		TEM ₁₀ ⁽²⁾		
Polarization Ratio (Linear)		100:1	-	-
M ²		-	-	50
Residual IR		-	-	1%
Electrical Specifications		Min	Typ	Max
Power Type		ACC		
LD Voltage (DC, V)		2	2.3	2.7
LD Operating Current (mA) at 2V		-	9,500	10,000
Thermistor Constants		A = 2.231e ⁻³ B = 4.694e ⁻⁵ C = 0.884e ⁻⁶		
Thermistor Resistance		6.6K Ω @35 $^{\circ}$ C 8.2K Ω @30 $^{\circ}$ C 10.0K Ω @25 $^{\circ}$ C 12.3K Ω @20 $^{\circ}$ C 16.4K Ω @15 $^{\circ}$ C 18.5K Ω @10 $^{\circ}$ C		
Power Consumption (W)		-	21.85	27
Housing Isolation		No		
ESD protection		No		
Wire Length (mm) ⁽³⁾		200 (+/-50)		
Wire Type ⁽³⁾		20AWG / 28AWG		
Reliability		Min	Typ	Max
Operating NTC Temperature Range ($^{\circ}$ C)		T+0.3	T ⁽⁴⁾	T-0.3
Rise Time (seconds) at 9.5A ⁽⁵⁾		-	3	5
Storage Temperature ($^{\circ}$ C)		0	-	40
Environmental Humidity (RH, %)		5	-	85
Lifetime (hours) (MTTF at T ⁽⁴⁾)		5,000	-	-
RoHS Compliance Declaration		Yes		

(1) Full Angle ($1/e^2$)

(2) See picture 5 on page 3 for example of beam spot

(3) Wire Length can be customized. 20AWG for LD wires. 28AWG for NTC wires.

(4) T is one optimum LD operating temperature between 25 to 30 $^{\circ}$ C reflected by NTC resistance and will be advised in each test report.

(5) to 50% of full Output Power. Dot (~10mW) can be seen after 0.2s if >1A

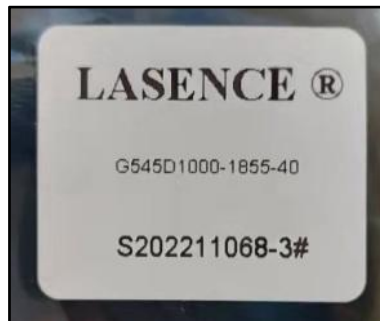
Remarks

- Product ID for placing orders: G555D1200-2055-50
- Datasheet Version: 1
- No Photodiode
- Customer is responsible for suitable heat sinking
- Label on plastic bag (see picture 2):
 - LASENCE®
 - G555D1200-2055-50
 - Lasence Order Number - Module Number
 - Label Length: 30mm (+/-3mm); Width: 25mm (+/-3mm)
- Anti-static protector for transportation (see picture 4)
- Example of beam spot (see picture 5)
- Laser Beam Warning Label on module housing (see picture 1)
- Laser Marking on module housing (see picture 3):
 - Lasence Material Code
 - Lasence Order Number - Module Number

Picture 1



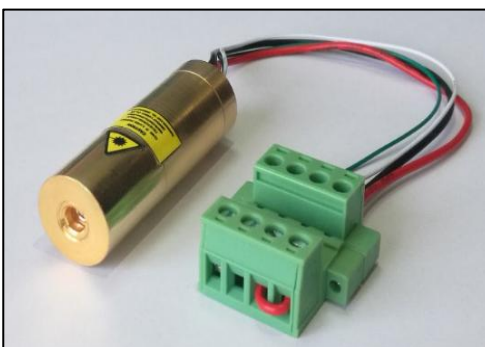
Picture 2



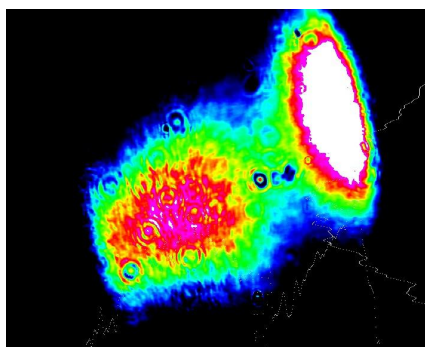
Picture 3



Picture 4



Picture 5



Typical Output Performance (examples)

1.) Power Stability at const. Temperature

