

DIODE-PUMPED SOLID STATE LASER
Model LCM-DTL-374QT
SPECIFICATIONS

1. Wavelength	355 nm ($\pm 1\%$)
2. Wavelength Rejection (VBT)	532nm/1064 nm emissions <0.1% of UV
3. Rep Rate: External Triggering	200 Hz nominal (200-210 Hz allowable)
4. Active Q-Switch	Acoustic Optical Modulator (AOM)
5. Energy Stability – StdDev/Average (VBT) (at 200 Hz, 20 μ J nominal, 10 min)	<10%
Energy Stability – StdDev/Average (at 200 Hz, 20 μ J nominal, 1 hour)	<10%
6. Laser Pulse duration (measured at 1/2 Height)(VBT)	<7 ns and >3 ns (at 200 Hz nominal)
7. Average Pulse Energy (200 Hz nominal) (VBT)	20 \pm 10% μ J (5000 hours minimum)
8. Polarization – Linear, horizontal	>100:1, \pm 5 degrees to horizontal
9. Divergence (full angle at 50% intensity)	3.4 \pm .5 mrad
10. Output Sync Pulse(output signal):	
Pulse duration	2.5 μ s \pm 30%
Pulse amplitude	+5 V \pm 10% (R_{load} =50 Ohm)
Rise Time	<100 nsec
11. Laser Trigger to Opto Sync Out Time Delay(VBT)	300 ns \pm 200 ns
Laser Trigger to Opto Sync Out Jitter	FWHM < 8 ns
12. Laser Emission to Sync Out Pulse Time Jitter	< 5 ns
Laser Emission to Sync Out Pulse Time Delay	< 50 ns
13. External Trigger(Input signal)	
Pulse duration	>1 and < 20 μ sec
Pulse Amplitude	+5 V \pm 10%
Rise Time	<100 nsec
AC impedance	1 kOhms
14. Control connector allows to turn on / turn off pumping (remotely) by means of mechanical switch or by means of TTL-signal	
	0 – 1 V – pumping on
	3.5 – 5 V – pumping off
15. Environment, Operating Temp/Humidity Range	15-35 $^{\circ}$ C up to 80% non condensing
Max temp, power ON, no damage	45 $^{\circ}$ C
Shipping Temp/Humidity Range	-50 to +50 $^{\circ}$ C up to 80% humidity at 25 $^{\circ}$ C
(must be packed in the manufacturer package-see note 10 below for exact test conditions).	
16. Input Voltage	24 V \pm 2.4 V DC
Current consumption	< 4 A
17. Weight, Laser Head	<2.0 kg
Power Supply (including ferrites)	<1.6 kg
18. Size, Laser Head	55 x 90 x 299 mm
Power Supply	66 x 90 x 185 mm
19. Beam Profile	Gaussian
20. Beam Diameter (at 50% intensity)	>300 μ m, < 500 μ m as measured at the laser aperture
21. Focused spot size (VBT)	<70 μ m (see note 2 for test method)
22. Beam ellipticity (VBT)	<1.75:1 @ spot size 110 μ m
23. Beam Height (VBT)	33.5 mm \pm 0.5 mm
24. Output Beam Static alignment tolerance (VBT)	\pm .25 mm (see note 5)
25. Output Beam Angular Tolerance (VBT)	\pm 2.5 mrad
26. Output Beam pointing stability (std dev,1 hour)	< 100 μ rad
27. Power dissipation	
Laser Head	<60 Watts (base maintained<35 $^{\circ}$ C)
Power Supply	<40 Watts (base maintained<45 $^{\circ}$ C)
28. Shock and Vibration	10 G maximum
29. Warm Up time	<10 minutes
30. Compliance	CE