

### Application

- LIDAR, etc.

### Features

- Fabry Perot Quantum Cascade Laser (QCL)
- Wavelength specified at 4.65µm
- Continuous wave (CW) operation and Pulsed operation
- Above 200 mW CW at 20°C
- Operating temperature range: 10°C to 35°C
- Mounted on a water-cooled heatsink

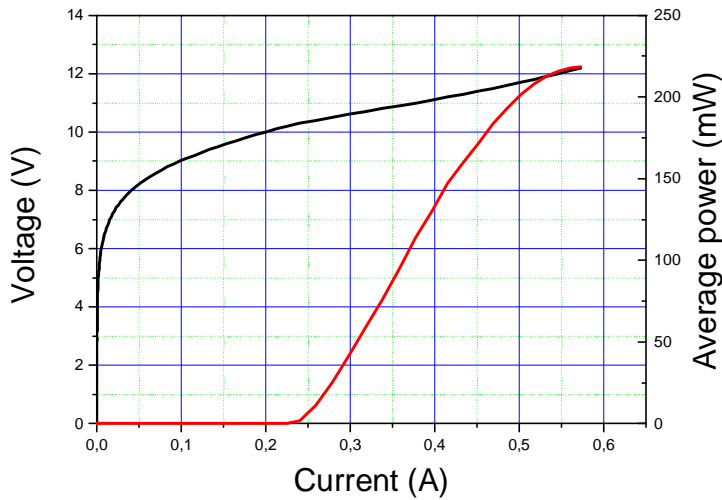
### Recommended operating conditions

Operating Parameters	Symbol	Unit	Min	Typ	Max
Temperatures	T	°C	10	20	35
Pulse Repetition Frequency	PRF	kHz	-	100	-
Pulse length	t <sub>pulse</sub>	ns	-	100	-
Duty Cycle	DCy	%	-	50	100

### Typical Laser characteristics

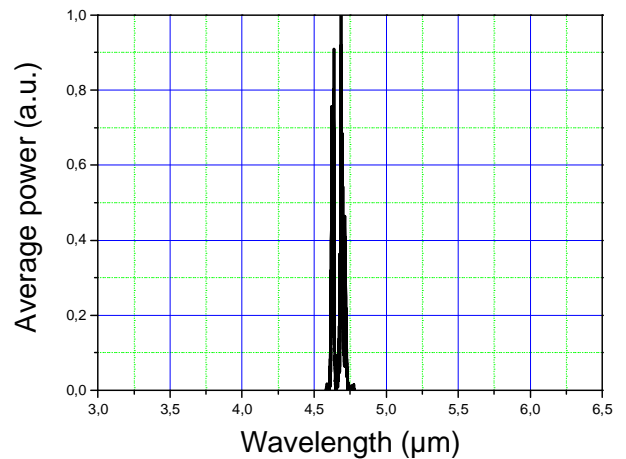
Parameters	Symbol	Unit	Typical Value
Reciprocal wavelength @ 20°C	n	cm <sup>-1</sup>	2150
Slope Efficiency	h <sub>d</sub>	mW/A	1000
Max peak output Power @ 20°C, CW	P <sub>opt</sub>	mW	200
Threshold Voltage (CW 20°C)	U <sub>th</sub>	V	10.4
Threshold Current (CW 20°C)	I <sub>th</sub>	A	0.25

Typical performance

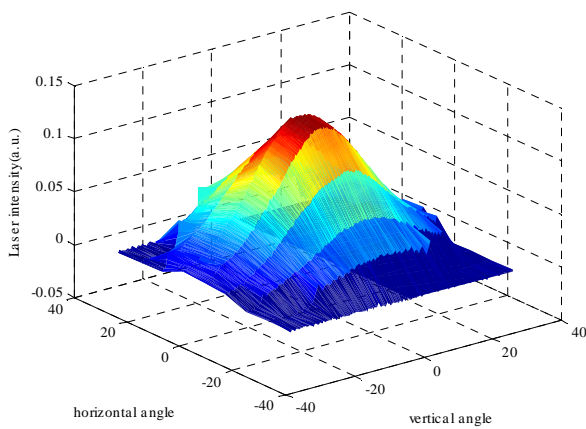


Continuous wave  
L(I) and V(I)

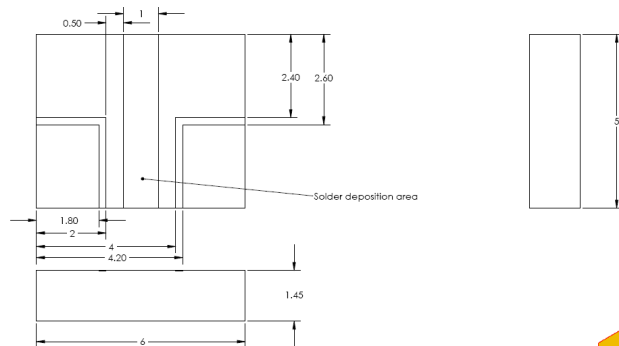
Continuous wave  
Spectrum



Continuous wave  
Far field : 50 x 40 degrees



Outline drawing



Notes: 1/ AlN (170W/mK) 1.45mm thick  
2/ Bottom surface full Au solderable  
3/ Top surface patterned Au finish wire bondable/solderable  
4/ material finish both sides AlN Ra: 100nm  
5/ Indicated area on top surface requires 3-5um predeposited Au80Sn20 solder



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