QCL4763 - 4.763μm Low Power Benchtop DFB-QCL Mid-IR Quantum Cascade Laser 10mW (TDLAS Integrated Control Module)

Product Description

4.763μm low-power Benchtop DFB-QCL mid-infrared quantum cascade laser is a domestically advanced ultra-low power QCL developed by Idealphonotics in the first half of 2018. The tunable range is over 100nm, and the output power is greater than 10mW, which can meet the industrial needs of customers for testing gas sensors, etc. Our laser collimated output

has stable output power and high temperature and wavelength stability. It is several orders of magnitude higher than the stability of traditional high-power quantum cascade lasers, and can provide excellent test light sources for our customers in mid-infrared testing.

Product features

Low power consumption, high power、 Narrow line width、 Compact structure、 Software intelligent control、 Built-in FPGA

Part Number

MP-QCL-4763-DFB-10-T

Application area

TDLAS High-precision trace analysis of CO 、 Mid-infrared test light source、 Mid-infrared device analysis

Core parameters

Center wavelength	Output power
4763nm	10mW

General Parameters

Technical Parameters	unit	Technical indicators		
		Min . Value	Typical Value	Max. value
Output Power 1	mW	10	-	15
Peak operating wavelength 2	um	-	4.763	-
Spectral Width (FWHM)	MHZ	-	3	-
Output side mode suppression ratio (SMSR)	dB	20	-	-
Output Isolation 3	dB	-	30	-
Wavelength temperature coefficient	nm/℃		0.6	
Wavelength current coefficient	nm/mA		0.2	
Output power stability (15 minutes) 4	%	-	±0.5	±1.0
Output power stability (8 hours) 4	%	-	±1.0	±2.0
Output power adjustable range	%	0	-	100
Output power regulation mode		Software Control		
TEC stability	℃	-	±0.1	±0.2
TEC operating range	℃	0	30	50
Operating voltage	VAC	100	220	240
Electrical power consumption 5	W	-	-	2
Operating temperature	℃	0	-	55
Storage temperature	℃	- 20	-	65
Specifications and dimensions	mm	290(L)x108(W)x68(H)mm		

Technical indicators: 1. Output power is optional;

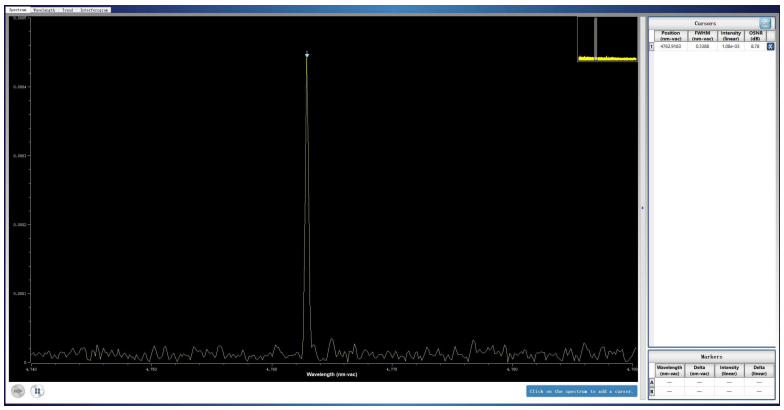
2. The peak operating wavelength can be specified;

3. The output power stability test condition is 25 degrees, after 30 minutes of preheating;

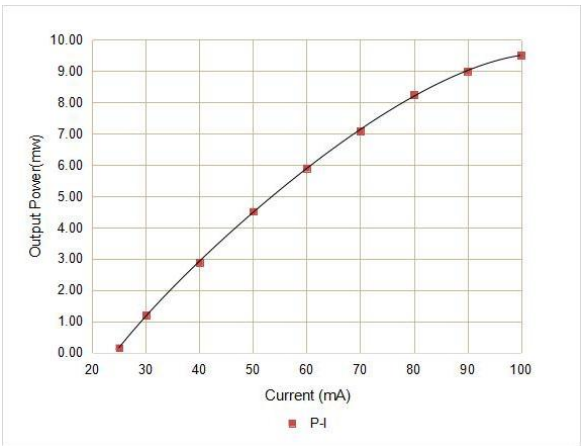
4. Max. power consumption refers to the overall power consumption under extreme working conditions.

Note: The maximum operating current of the laser is 100mA ; the operating temperature is 10-40 ℃.

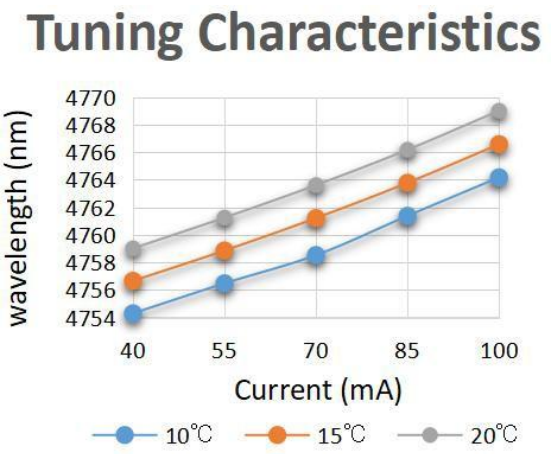
1. Spectrum (15℃, 80mA)



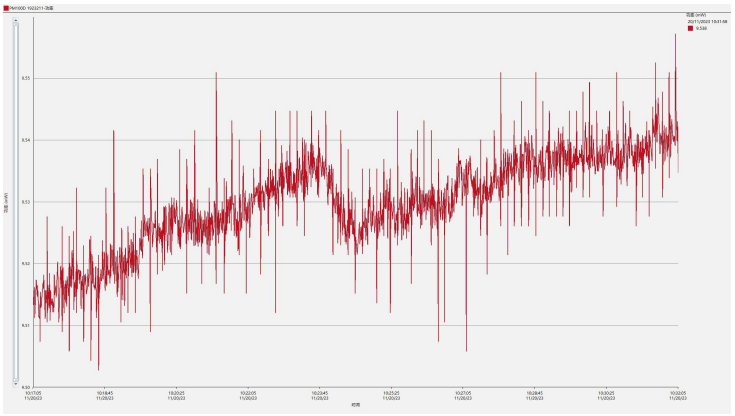
2. Power curve (25℃)



3. Wavelength Temperature Current Tuning Curve



4. Power stability (15°C, 100mA)



Ordering Info

MP-LDC(TDLAS)-MIR-QCL - W□□□□ -☆-△-XX

MP-LDC or TDLAS

LDC: Benchtop light source

TDLAS: Integrated Control Module

W□□□□: Wavelength

4600: 4600nm

4763: 4763nm

7400: 7400nm

10530: 10530nm

☆: Collimated output

1 : with

0 : Without

△: Laser type

FP: QCL-FP

DFB: QCL-DFB

XX : Output power

001=1mw

010=10mw

020=20mw

100=100mw

1000=1000mw