

7.16um low power consumption DFB-QCL Laser Module



Description

7.16um low power consumption table DFB-QCL Laser is a tunable CW laser developed by LD-PD Inc. The Wavelength tuning range can up to 30nm, Collimation output power more than 10mW.

This module can solve problems in areas such as Gas Sensing. Our DFB-QCL Laser module integrated temperature control, drive. We also build in our Lockin amplifier inside. This Software can also be used to control the working temperature and current of the laser, so that the laser can work steadily and maintain the accuracy of the measurement results. The FPGA is added inside the laser module to facilitate the processing of gas concentration measurement. 1f and 2f signal output is possible from BNC Interface and The gain value is optional for our customer.

Features

- Low power consumption, high power
- Lock-in Amplifier included
- High SMSR
- Software control
- Small size

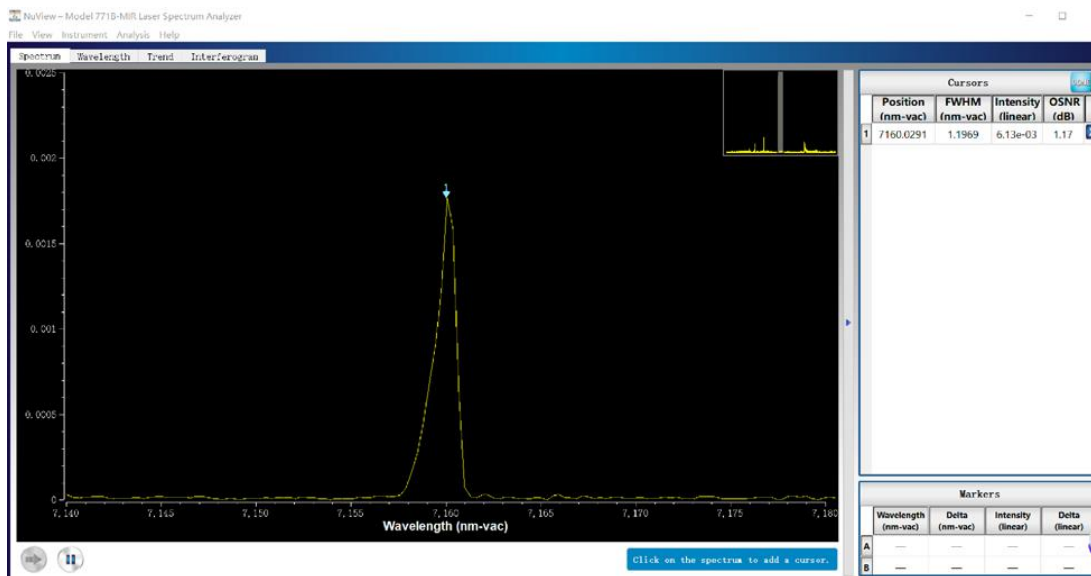
Application

- TDLAS NO measurement system
- Light source for mid-infrared system

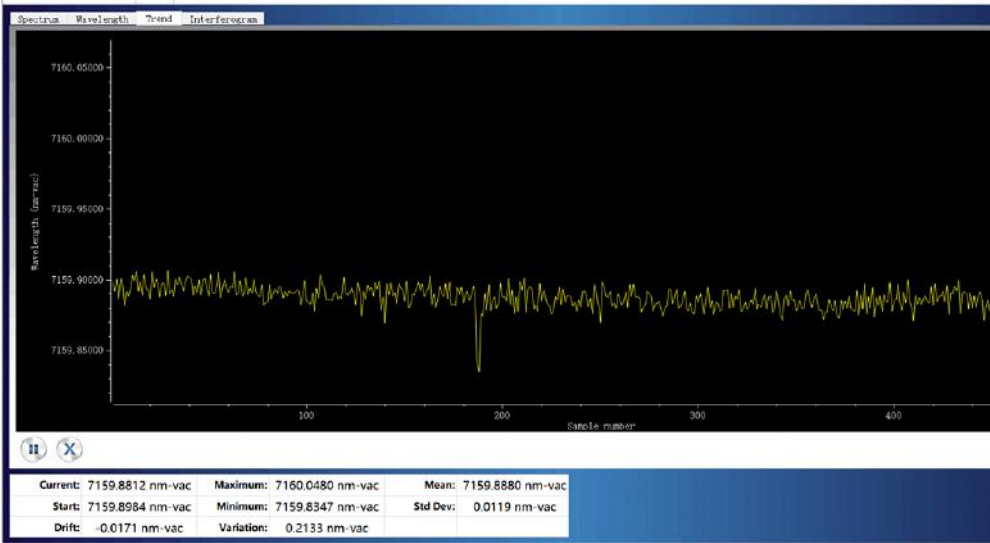
Product Parameter

Parameters	Unit	Specs		
		Min	Type	Max
		7.16um DFB-QCL		
Output power	mW		10	
Peak operating wavelength	um		7.16	
Spectrum Width (FWHM)	dB	20	38	
SMSR	dB	20		
Output ISO	dB		30	
Wavelength temperature coefficient	nm/°C		0.6	
Wavelength current coefficient	nm/mA		0.2	
Output power stability (8 hours)	%		±1	±4
Power Tuning Range	%	0		100
TEC Working temperature	°C	0		50
power supply voltage	VAC	100	220	240
Working temperature	°C	0		90
Storage temperature	°C	-40		85
size	mm	340(L) × 240(W) × 100(H)		

Laser spectrum



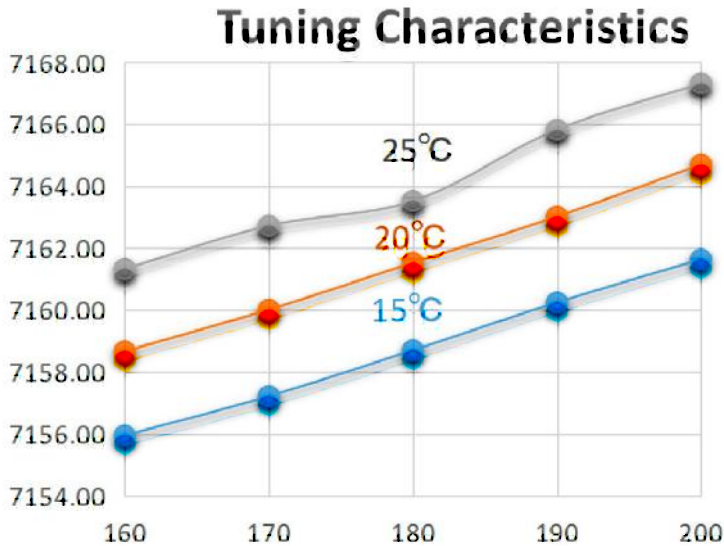
wavelength Stability



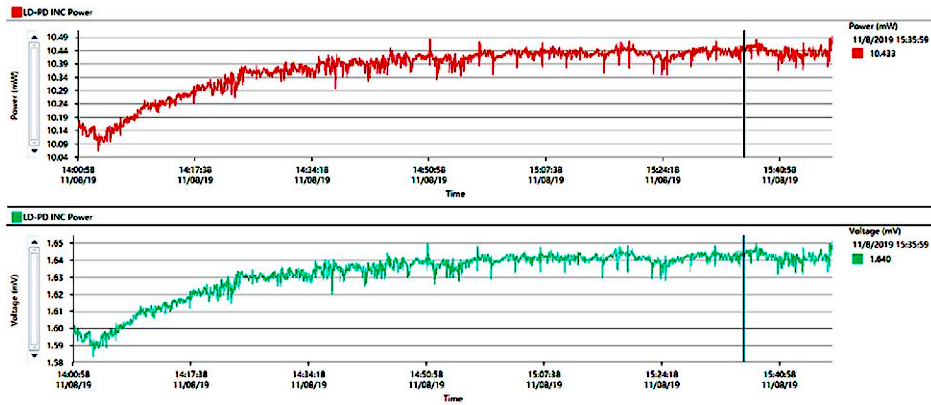
Control GUI



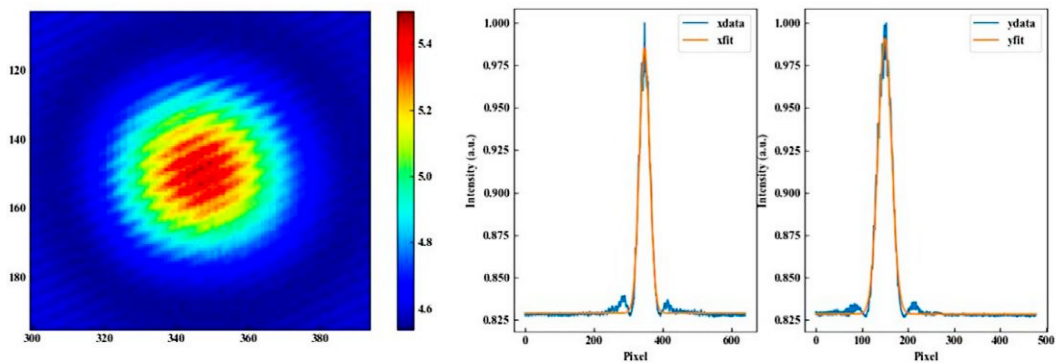
Wavelength temperature tuning curve



Power stability curve



QCL Light source Beam profile testing



Camera Pixel size = 5 μ m, Beam Diameter@320 μ m

Ordering Info

W□□□□: Wavelength

5260: 5260nm

7160: 7160nm

7400: 7400nm

☆: Collimating output

1: With

0: Without

△: Type of laser

FP: QCL-FP

DFB: QCL-DFB

XX: output power

010=10mw

100=100mw