

4.56um High power consumption DFB-QCL Laser Module



Description

4.56um high 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 150mW.

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 Lock-in 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

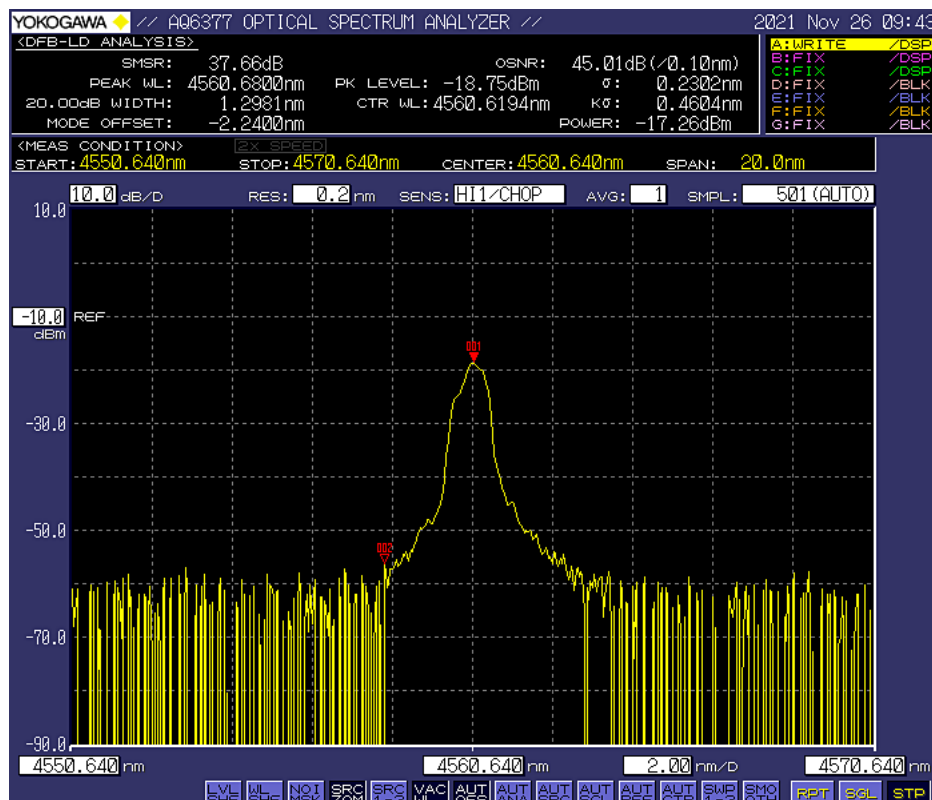
- TDLAS CO measurement system
- Light source for mid-infrared system

Specifications

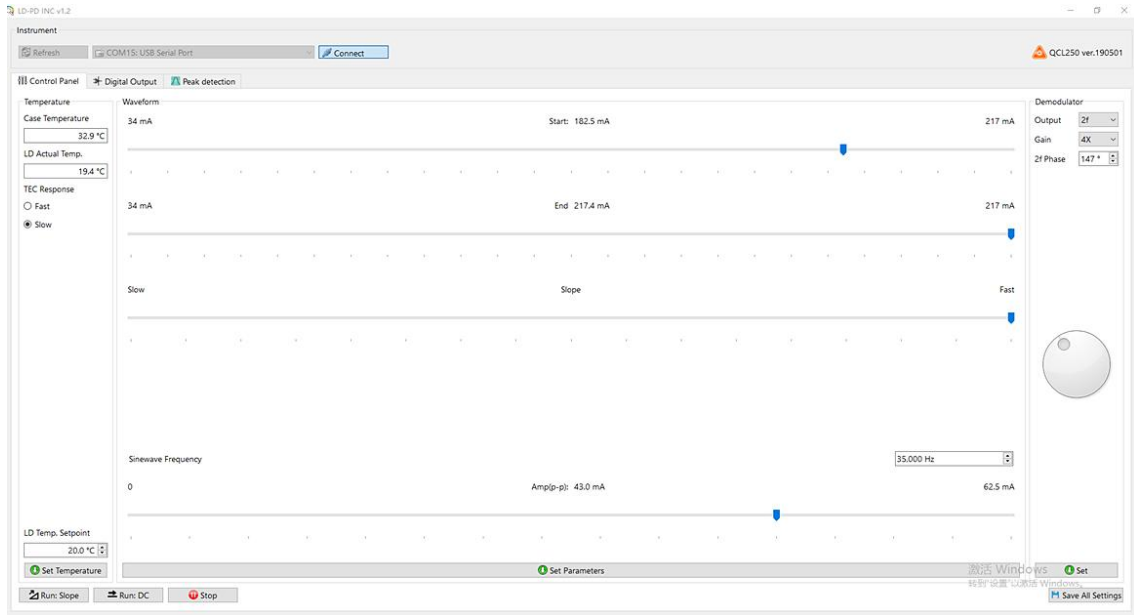
Product parameter

Parameters	unit	Specs		
		Min	Type	Max
		4.56um DFB-QCL		
Output power	mW		10	
Peak operating wavelength	um		4.56	
Spectrum Width(FWHM)	MHz		1MHz	
SMSR	dB	30		
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)		

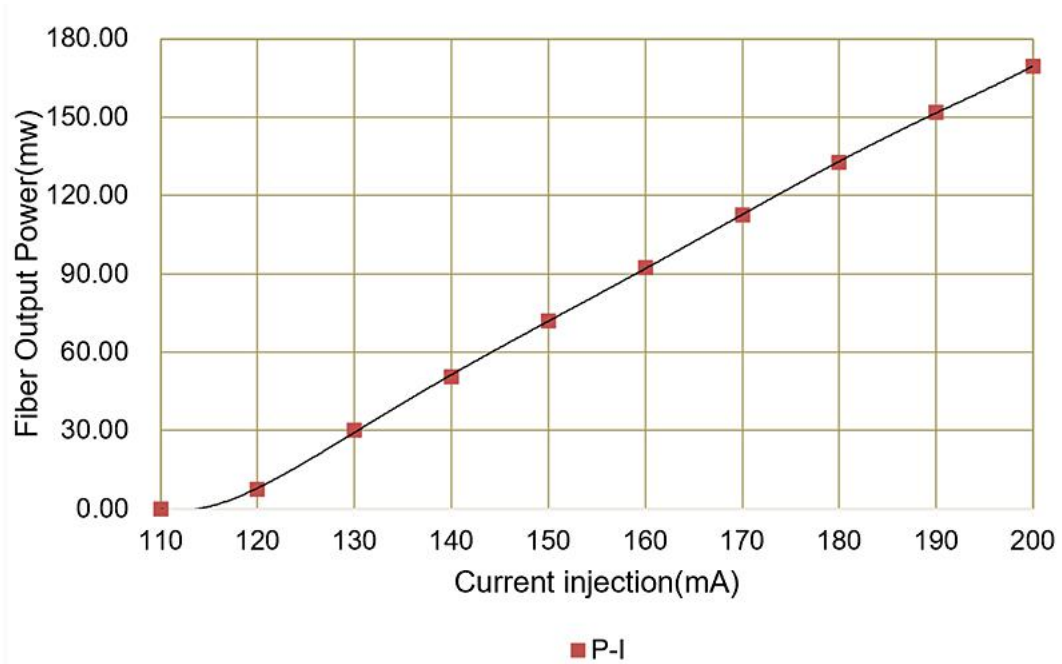
Spectrum



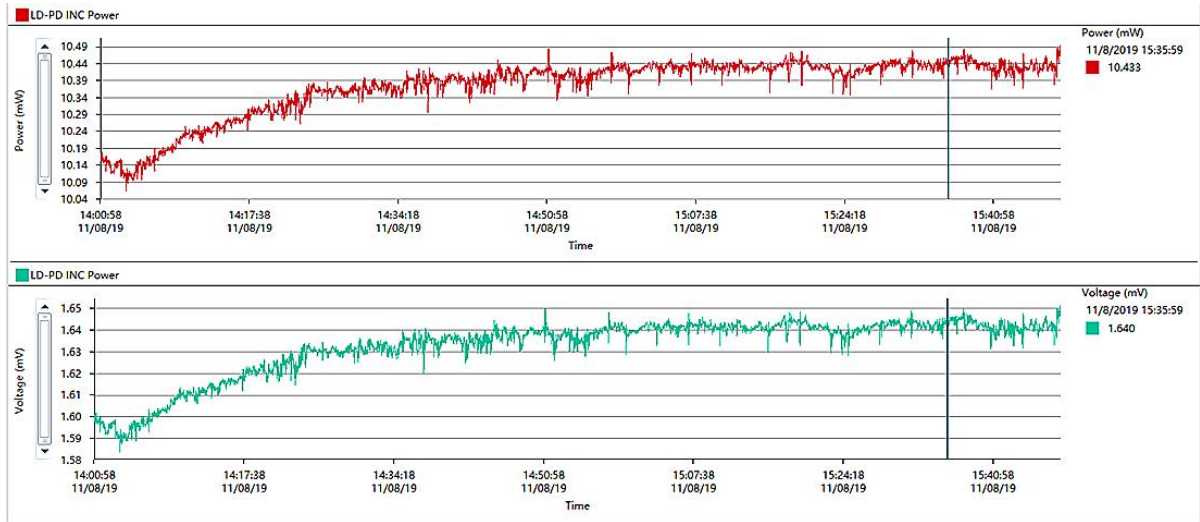
Control GUI



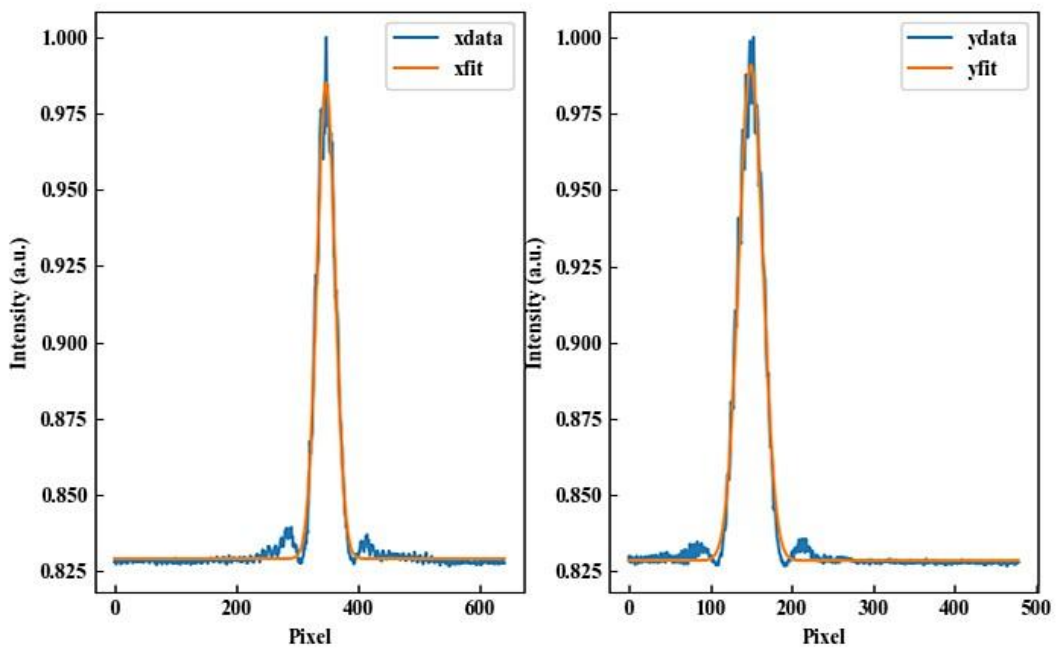
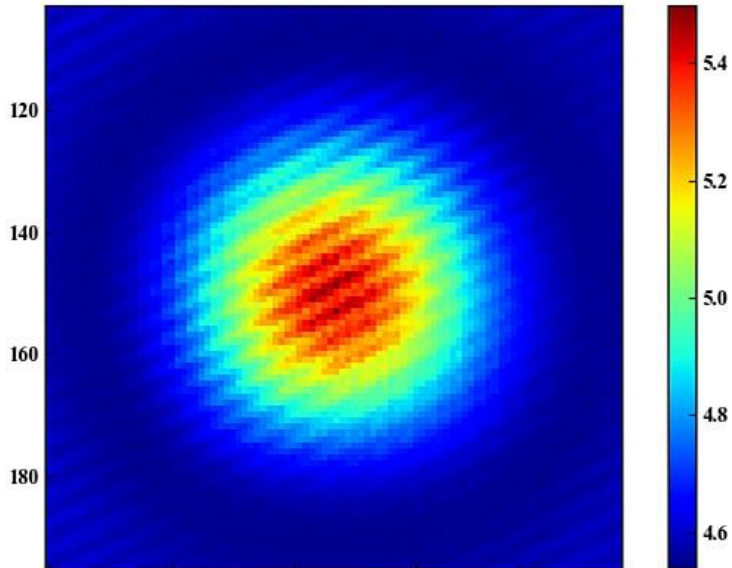
Wavelength temperature tuning curve



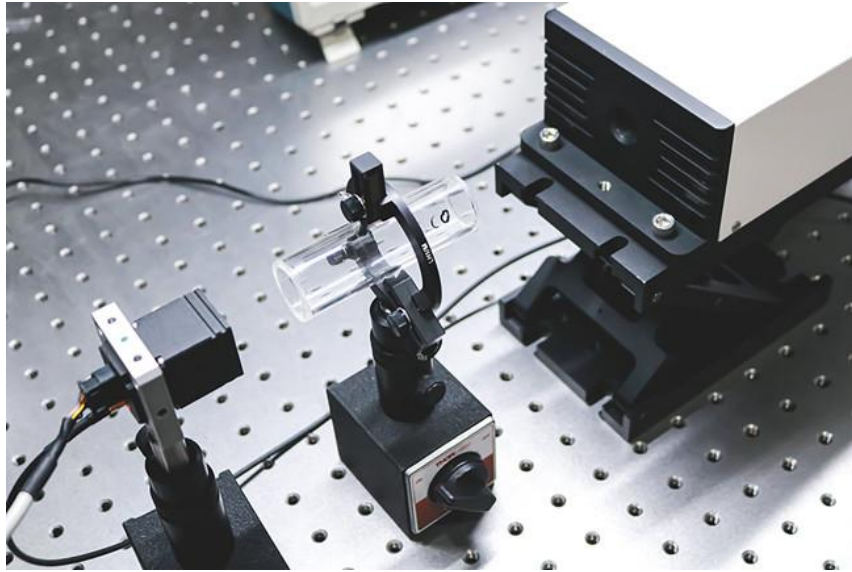
Power stability curve



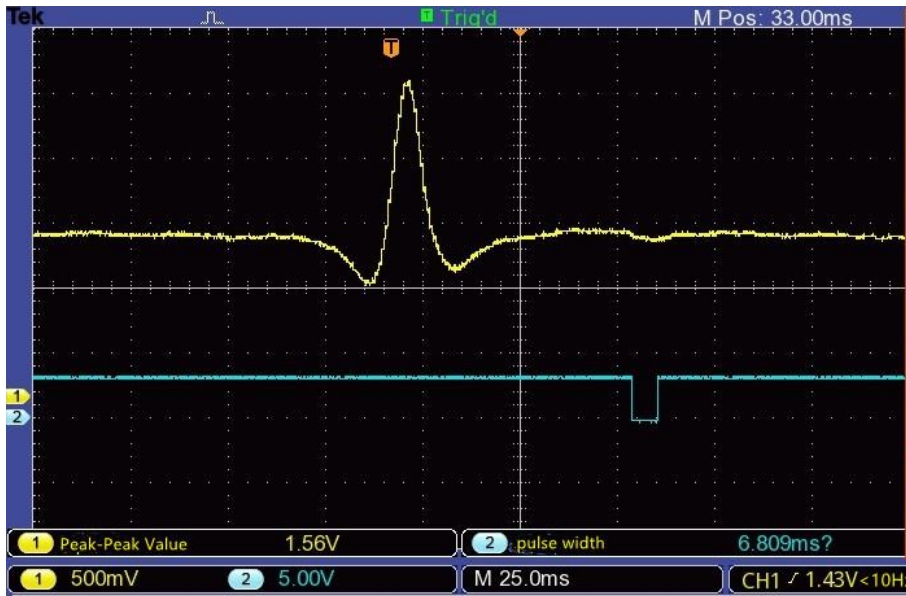
Beam Profile



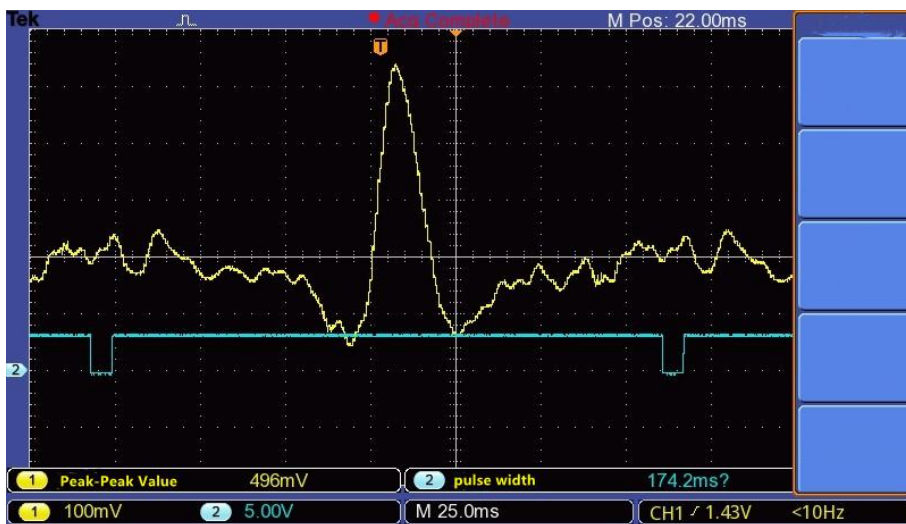
TDLAS for Short Optical path (Optical path@10cm 10% and 200ppm CO)



Peak to Peak Value (10% CO) 1.56V



200ppm



Ordering Info**MIR-QCL- W□□□□ -☆-△-XX**

W□□□□:Wavelength

4560: 4560nm

5260: 5260nm

7400: 7400nm

☆ :Collimating output

1: With

0: Without

△:Type of laser

FP: QCL-FP

DFB: QCL-DFB

XX: output power

010=10mw

100=100mw