

## 3.39um low power benchtop ICL-DFB tunable continuous light laser (TDLAS integrated control module) 5mW



### ● Product Description

This is a tunable continuous light laser developed by Idealphotonics. It has a narrow line width, high power, and low power consumption. It can meet the gas sensing test, especially for the test of hydrocarbons and other related gases. In addition, the benchtop ICL-DFB laser module integrates a driver and temperature control module. The temperature and operating current of the tuned laser can also be controlled by software, which can make the laser work stably and maintain the accuracy of the measured value. FPGA is also



added inside the laser module to facilitate the processing of the concentration of the measured gas.

## ● Product features

Continuous wave、 Single-mode spectrum、 Adjustable light source、 Low power consumption、 High-quality beam、 Narrow line width、 Software intelligent control、 Small structure

## ● Part Number

MP-ICL-3390-DFB-5-T

## ● Application area

TDLAS gas system measurement setup、 Mid-infrared system light source、 Mid-infrared device analysis

## ● Core parameters

Wavelength	Output Power	Spectral Width
3.39um	5mW	3MHz

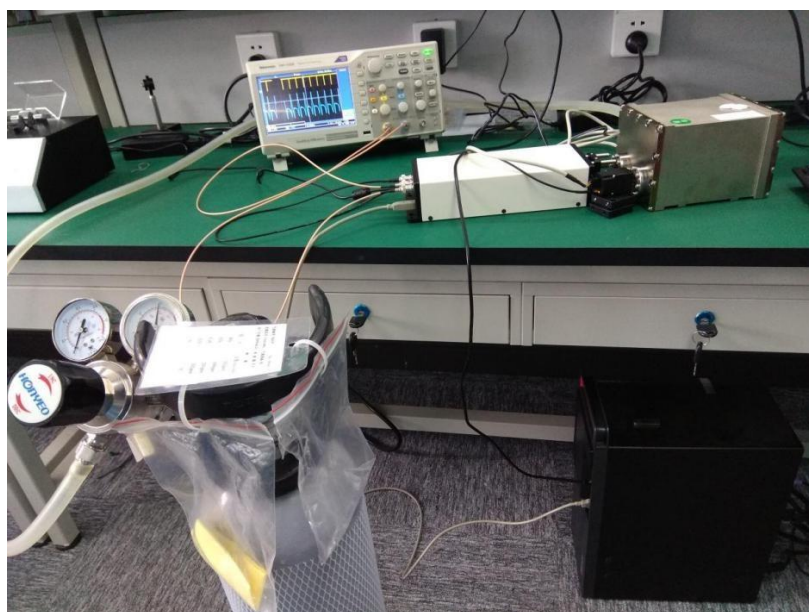
## ● General Parameters

Parameters

Parameter	Unit	Specs
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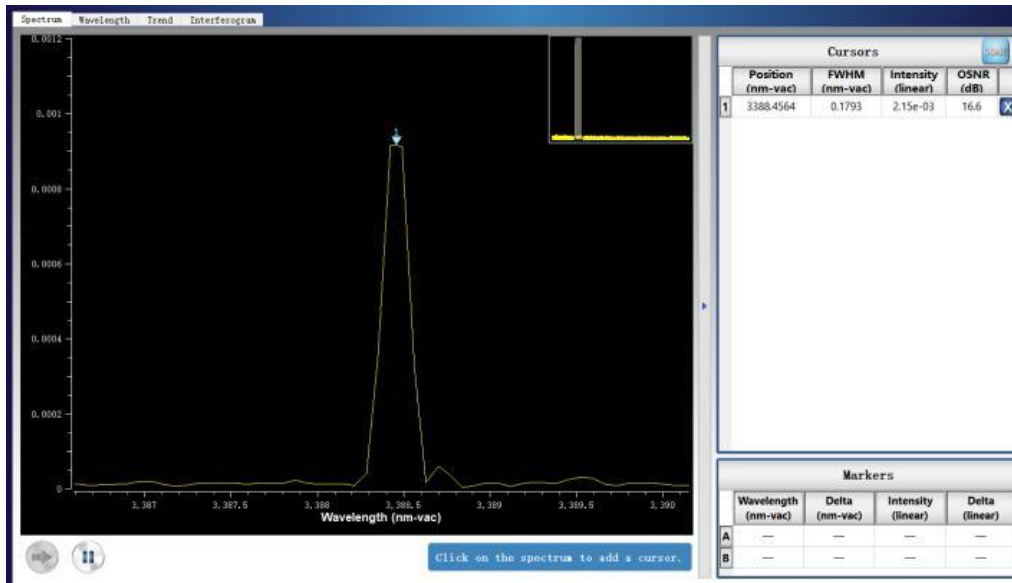


		Min.	Typ.	Max.
<b>Laser Output Power</b>	<b>mW</b>	<b>0.5</b>	<b>5</b>	<b>8</b>
<b>Peak Operating Wavelength</b>	<b>um</b>		<b>3.39</b>	
<b>Spectral Width (FWHM)</b>	<b>MHz</b>		<b>3</b>	
<b>Side Mode Suppression Ratio (SMSR)</b>	<b>dB</b>		<b>20</b>	<b>30</b>
<b>Wavelength Tuning Range</b>	<b>nm</b>	<b>6</b>	<b>10</b>	<b>25</b>
<b>Wavelength Temperature Coefficient</b>	<b>nm/°C</b>		<b>0.32</b>	
<b>Wavelength Current Coefficient</b>	<b>nm/mA</b>		<b>0.06</b>	
<b>Output Power Stability (8h)</b>	<b>%</b>		<b>±1</b>	<b>±4</b>
<b>Output Power Adjustable Range</b>	<b>%</b>	<b>0</b>		<b>100</b>
<b>Operating Current</b>	<b>mA</b>	<b>40</b>	<b>80</b>	<b>140</b>
<b>Threshold Current</b>	<b>mA</b>	<b>25</b>	<b>40</b>	<b>80</b>
<b>Operating Voltage</b>	<b>V</b>	<b>7</b>	<b>9</b>	<b>12</b>
<b>Chip Operating Temperature</b>	<b>°C</b>	<b>-20</b>	<b>10</b>	<b>40</b>
<b>Storage Temperature</b>	<b>°C</b>	<b>15</b>	<b>20</b>	<b>65</b>
<b>Dimensions</b>	<b>mm</b>	<b>340(L)×240(W)×100(H)</b>		

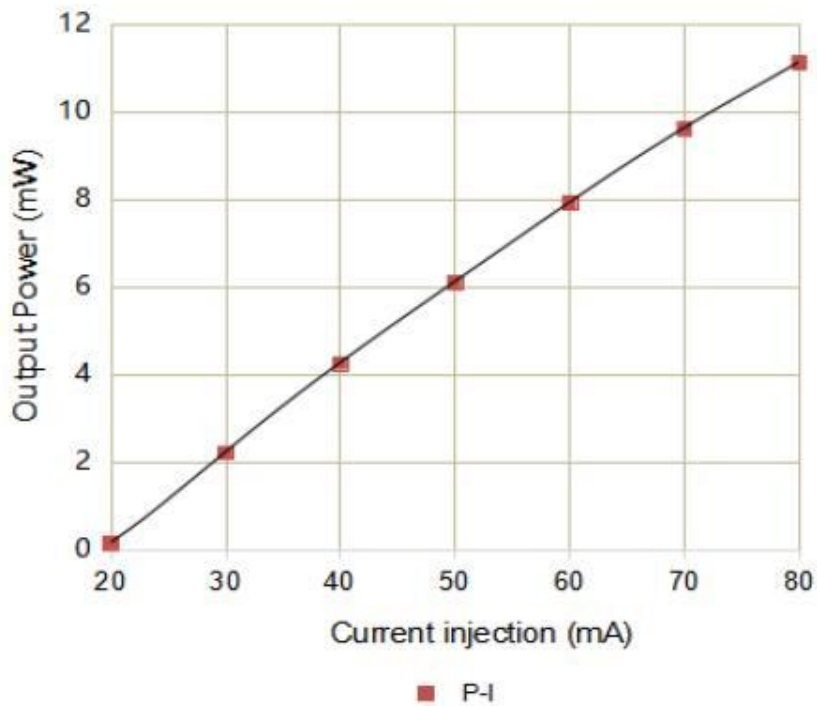




## Spectrum (15°C, 80mA)

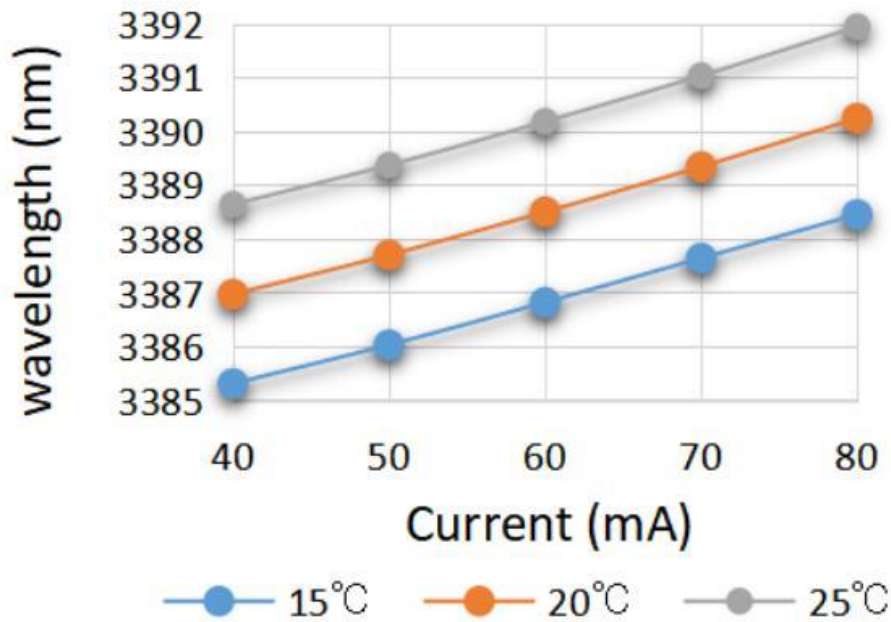


## Power Curve (15°C)

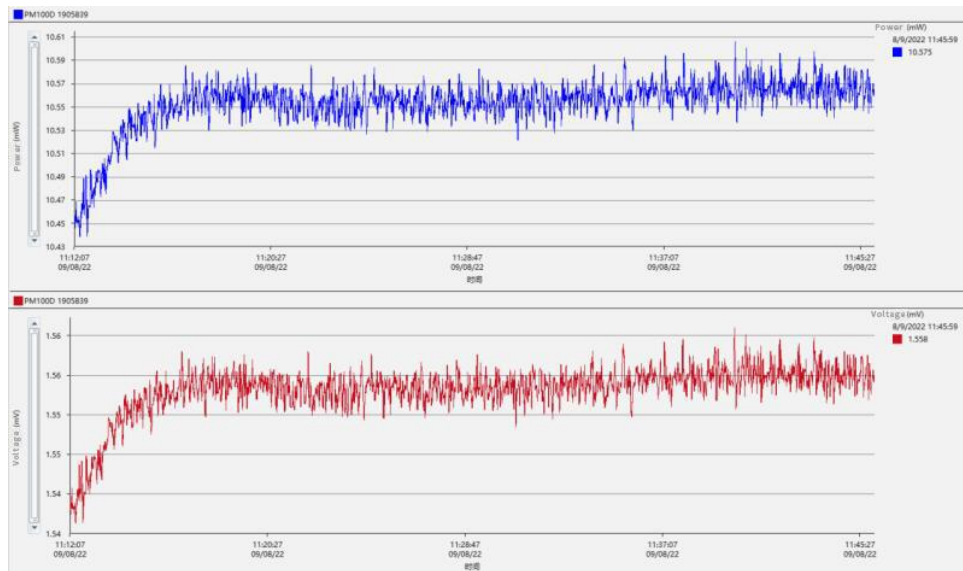


## Wavelength Tuning Curve

# Tuning Characteristics

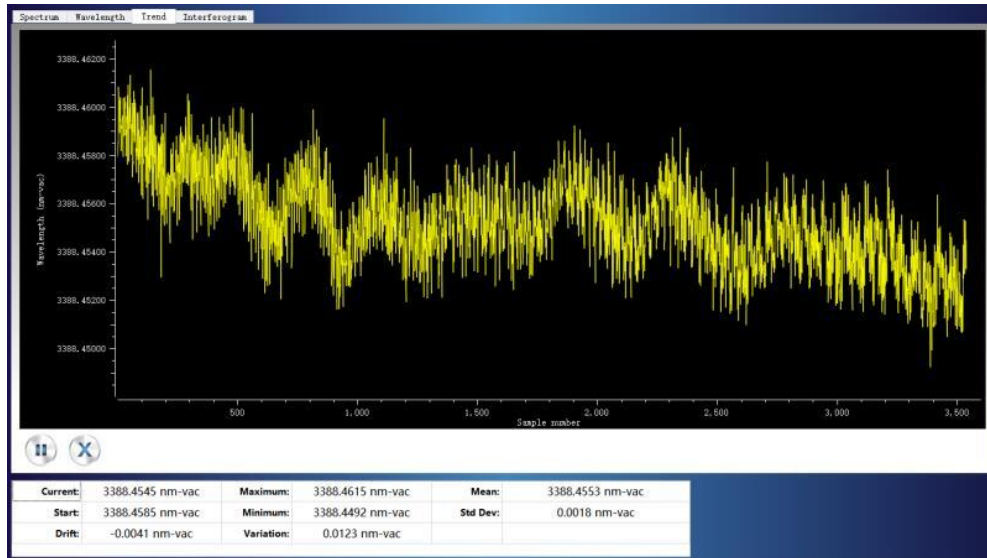


## Power Stability (15°C, 80mA)



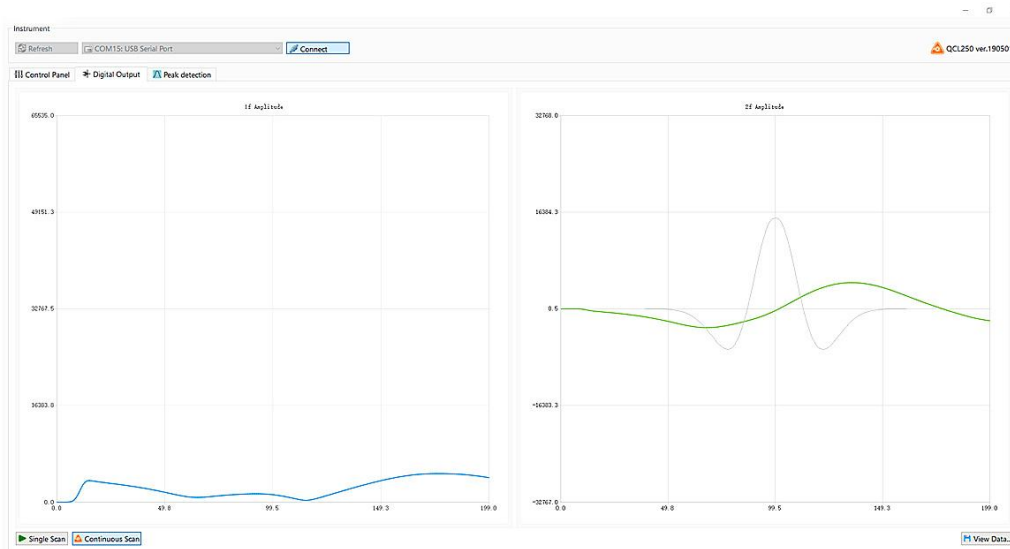


## Wavelength Stability (15°C, 80mA)

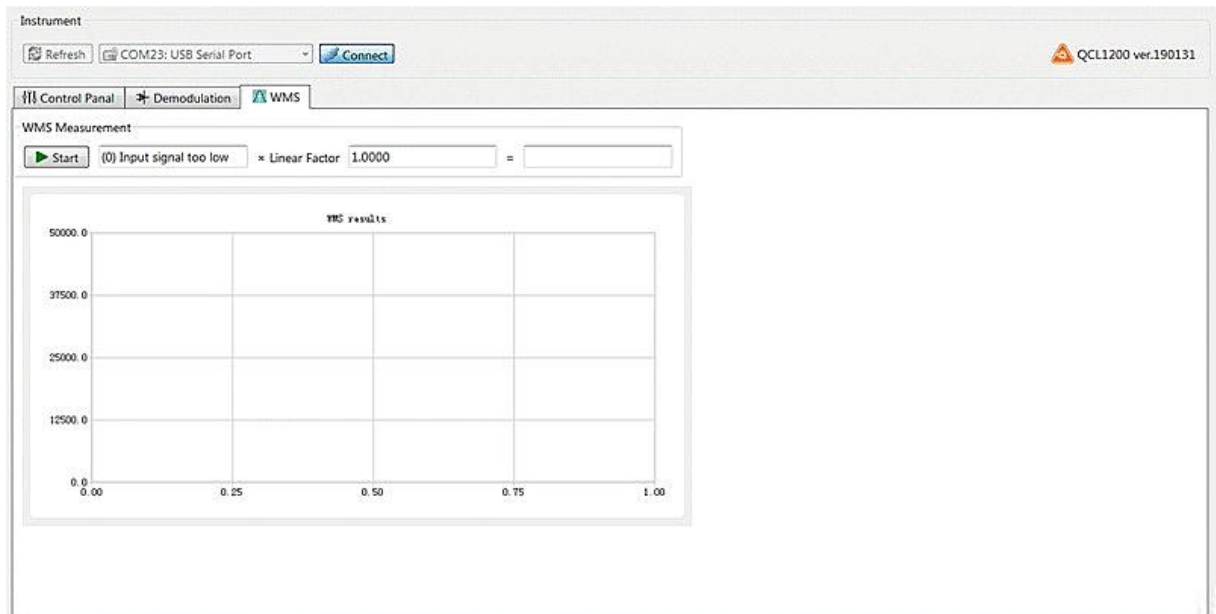


## Control Software

## 2F Signal Acquisition Interface

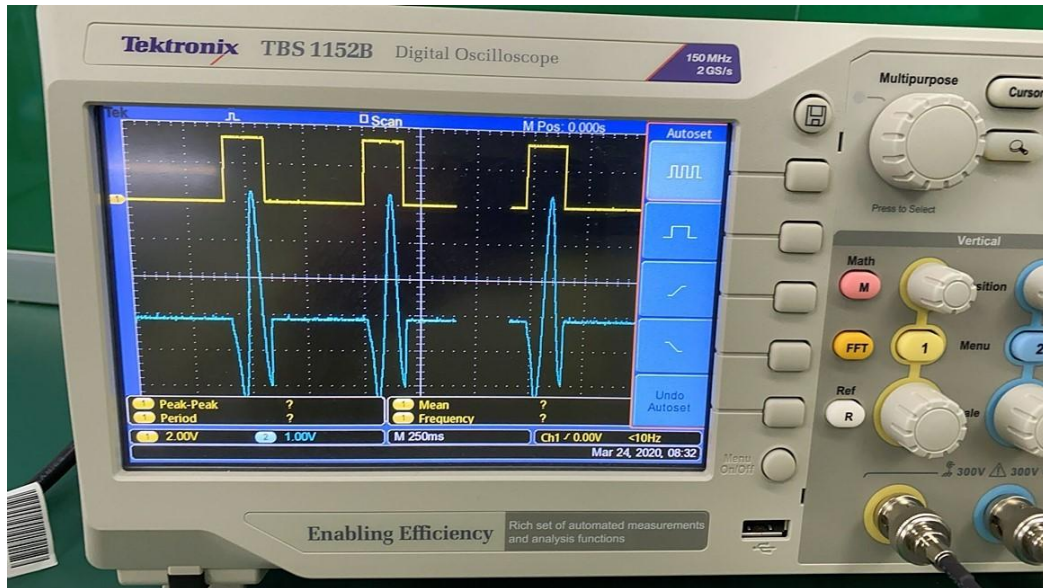


## Algorithm Calibration Interface





# Modulation Signal Linearity Test (Oscilloscope Voltage Signal Effect Diagram)



## Ordering info

MP-ICL-3390-3-DFB-05

Central Wavelength:

3390: 3.39um

Bandwidth:

3: 3MHz

Output Power:

05: 5mW