

## 3.45um Low Power Benchtop ICL-DFB Tunable Continuous Wave Laser (Benchtop Light Source) 5mW



### ● Product Description

This is a tunable continuous wave laser developed by Idealphotonics . It features a narrow linewidth, high power, and low power consumption, making it ideal for gas sensing applications, especially for testing hydrocarbons and other related gases. The benchtop ICL-DFB laser module integrates a driver and temperature control module. It also supports software control for tuning the temperature and operating current of the laser, ensuring stable operation and maintaining measurement accuracy.



Additionally, the laser module incorporates an FPGA, which facilitates the processing of gas concentration measurements.

## ● Product features

Continuous wave、 Single-mode spectrum、 Tunable light source、 Low power consumption、 High-quality beam Narrow linewidth、 Software intelligent control、 Compact size

## ● Part Number

MP-ICL-3450-DFB-5-B

## ● Application area

TDLAS HCL and formaldehyde, methane, and other gas system measurement setup、 Mid-infrared system light source、 Mid-infrared device analysis

## ● Core parameters

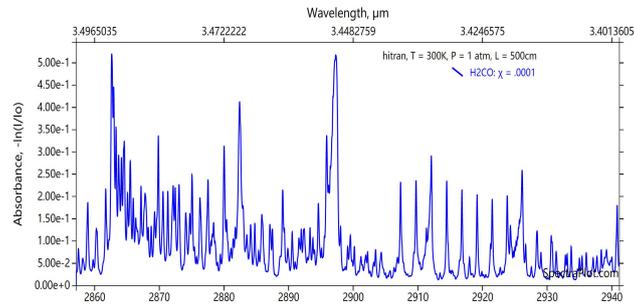
Wavelength	Output Power	Spectral Width
3.45um	5mW	3MHz

## ● General Parameters

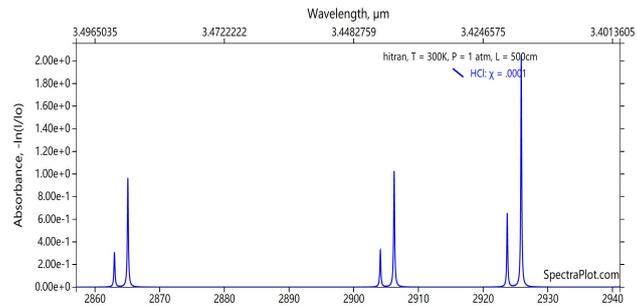
### Parameters

Parameters	Unit	Technical Specs		
		Min.	Typ.	Max.
Laser Output Power	mW	0.5	5	8
Peak Operating Wavelength	um		3.45	
Spectral Width (FWHM)	MHz		3	
Output Side Mode Suppression Ratio (SMSR)	dB		20	30
Wavelength Tuning Range	nm	6	10	25
Wavelength Temperature Coefficient	nm/°C		0.32	
Wavelength Current Coefficient	nm/mA		0.06	
Output Power Stability (8h)	%		±1	±4
Output Power Adjustment Range	%	0		100
Operating Current	mA	40	80	140
Threshold Current	mA	25	40	80
Operating Voltage	V	7	9	12
Chip Operating Temperature	°C	-20	10	40
Storage Temperature	°C	15	20	65
Dimensions	mm	340(L) × 240(W) × 100(H)		

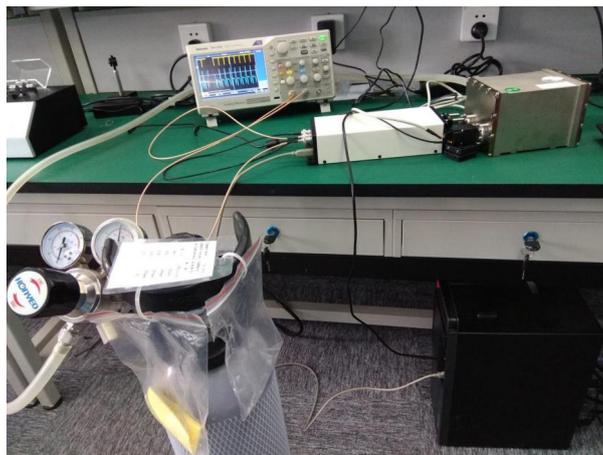
## Formaldehyde Absorption Spectrum



## HCL Absorption Spectrum

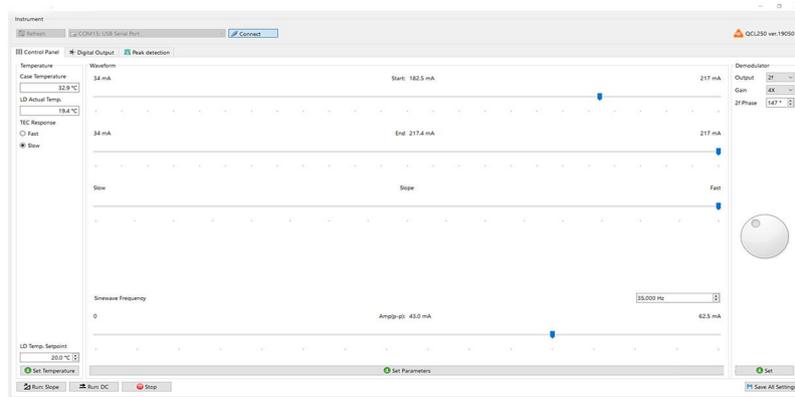


## System Setup Diagram





## Control Software



## Ordering info

**MP-ICL-3450-3-DFB-05**

**Center Wavelength:**

**3450: 3.45  $\mu$ m**

**Bandwidth:**

**3: 3MHz**

**Output Power:**

**05: 5mW**