



# Mid Infrared Wide Spectrum Tunable Laser SuperTune QCL



**2023 V1**

For customized projects please Contact us:

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## Mid Infrared Wide Spectrum Tunable Laser – SuperTune QCL

SuperTune QCL is a wide spectrum continuous tunable laser customized by noble laser for infrared spectrum and infrared optical instrument applications. Ultra high stability optomechanical design, combined with unique 3-12 $\mu$ m wide spectrum coverage and wide spectrum tuning capability make it the most cost-effective semiconductor infrared tunable light source in the market. The center wavelength of the series is customized at 4-5 $\mu$ m band, the average power of up to 20mW can be obtained.

SuperTune QCL has a built-in wavelength monitoring module and uses a high-performance motor to achieve fine wavelength adjustment, which can be used independently without relying on an infrared spectrometer. The laser can be used in infrared material characterization, spectroscopy and nonlinear optics. The operating wavelength is 4-5 $\mu$ m for customized requirements outside the M-band, please drop us an email at [info@simtrum.com](mailto:info@simtrum.com) for professional Customized Systems/Solutions.



### Key Features

- Fast wavelength sweep
- High spatial resolution
- Excellent power stability
- Diffraction limited beam
- Turn-key system

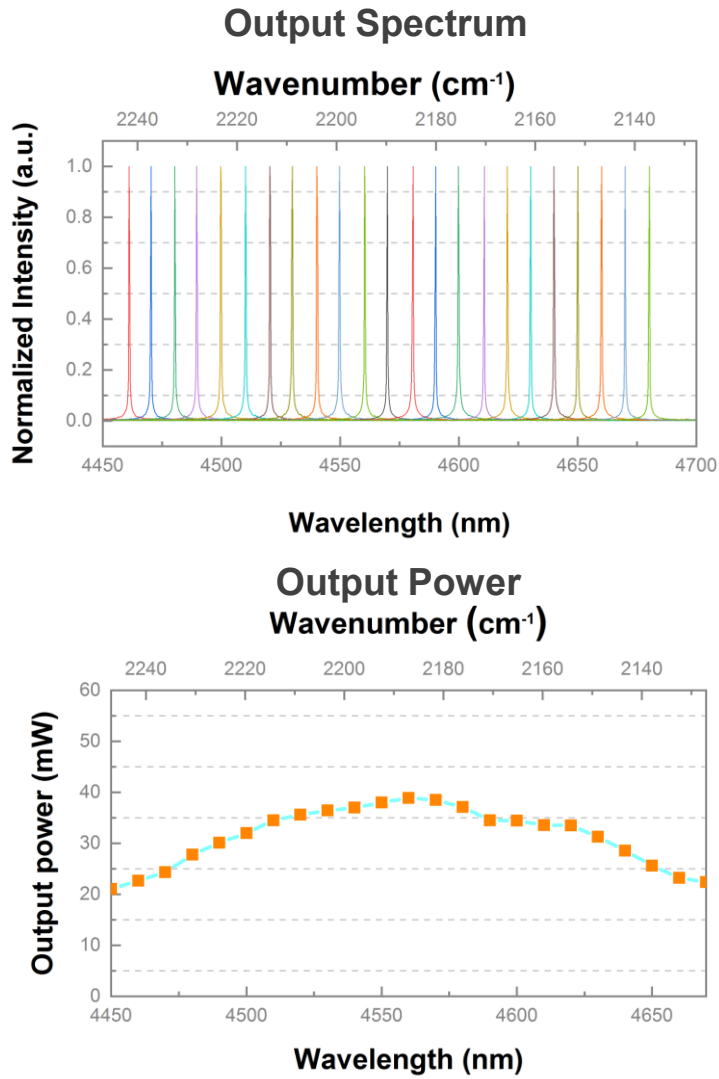
### Applications

- Infrared spectroscopy
- Device testing and measurement
- Gas molecular detection
- Infrared light scientific instrument
- Infrared excitation light source

## Main Specification

Laser Parameters		
Operating Wavelength	nm	4-5 $\mu$ m (3-12 $\mu$ m customizable)
Output Bandwidth	nm	< 0.1 nm
Average Power	mW	> 1 mW
Tuning Range	nm	>200 nm@4.55 $\mu$ m
Beam Quality		$M^2 < 1.5$
Output Mode		Free space output
Electrical, Environmental and Mechanical Parameters		
Supply Voltage	VAC	100 - 240
Operational Temperature Range	$^{\circ}$ C	15-35
Operational Humidity Range	%	20-80 ( Non-condensing )
Weight Laser Head	kg	17
Dimensions Laser Head	mm (LxWxH)	436 x 260 x 146 mm
Cooling		Air Cooling

## Test Data



## Machine Drawing

