

### Narrow linewidth high-power QCL laser

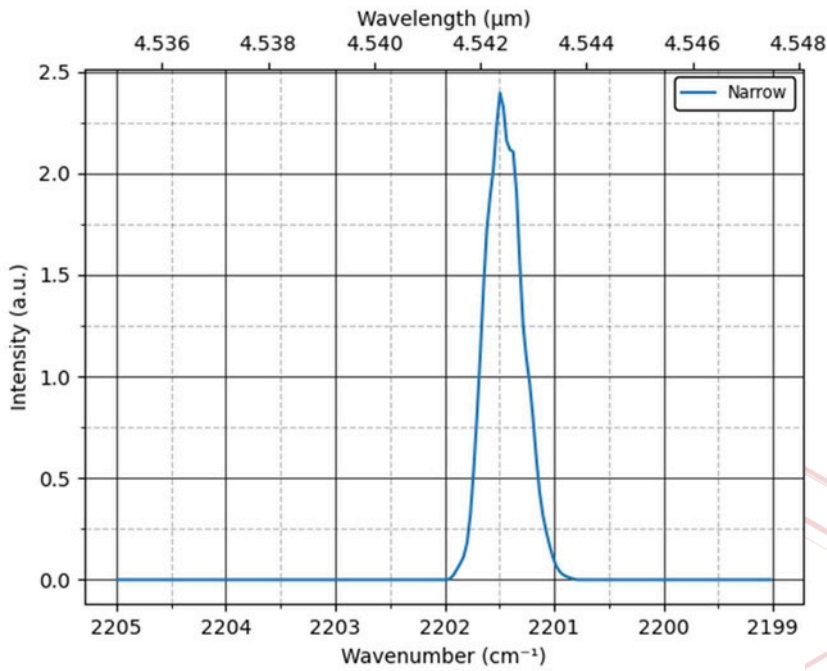


Figure 1:  
 Measurement of a spectrum of emission in CW operation (output power ~500mW). We see that most of the light is emitted within a ~2nm wide spectral band.

Prototype specification	CW version Typical values	Pulsed version Typical values
Mode of operation	CW operation	Pulsed only Pulse length: 100 – 500ns Duty cycle <10%
Wavelength <sup>(1)</sup>	~4.6μm	~4.0 or ~4.6μm
Power	>1W inside a 10 nm spectral band	>1W peak power Inside a 10 nm <sup>(2)</sup> spectral band
Packaging	HHL	HHL
Cooling	Water cooling recommended	Air-cooling is sufficient

(1) ~9μm wavelength is also available with different typical values, please talk to a mirSense representative. The central wavelength can be adjusted during production within the [3.9μm-4.1μm] or [4.5μm-4.7μm] or [9.2μm-9.5μm] spectral bands.

(2) In the case of pulsed operation, the linewidth will depend on the pulse length of the laser.

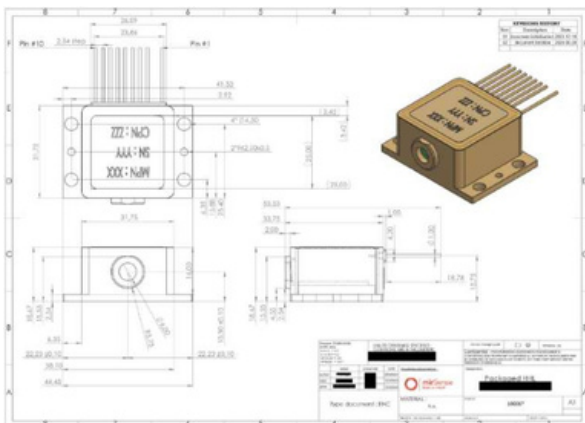


Figure 2:  
 HHL package dimensions