

## CW Single Mode Laser / CW-SM-Q-1030-15-0.9-HHL-L

CW Single Mode Lasers (or CW-DFB lasers) are able to emit a single wavelength at a time. They can be tuned within a range that can reach up to 10 cm<sup>-1</sup>; there exists a variety of modulation schemes which can be used for different purposes. Single Mode Lasers are mostly used for spectroscopy. To be operated in continuous-wave (CW).

Specifications for CW-SM-Q-1030-15-0.9-HHL-L	
Laser type	QCL quantum-cascade laser
Laser Far-field	TM00
Operating mode	CW continuous wave
Emission type	SM singlemode
Target frequency [cm <sup>-1</sup> ]	1030.0 ± 0.0
Avg optical power [mW]	15.0
Full Tuning [cm <sup>-1</sup> ]	0.9
Temperature Reachable Range [cm <sup>-1</sup> ]	3.0
Is Centered	No
Package Interface	HHL-L
Heatsink temperature max [°C]	20
Fabrication time [days]	10

Definitions	
Laser far-field	Spatial mode of the laser in the far field.
Operating mode	Operating mode of the driver electronics.
Emission type	Spectral behavior of the laser.
Target frequency [cm <sup>-1</sup> ]	Target single-mode emission frequency.
Avg optical power [mW]	Average optical power at target emission frequency.
Full Tuning [cm <sup>-1</sup> ]	Emission tuning range accessible by changing the current while keeping the temperature fixed.
Temperature Reachable Range [cm <sup>-1</sup> ]	Emission tuning range from threshold at lowest temperature to maximum current at maximum temperature.
Package interface	Laser packaging: either on ceramic submount, or on copper submount, or in specific housing.
Heatsink temperature [°C]	Maximum temperature of the heatsink on which the package will be fixed.