



HEALTHY PHOTON

Model : HPQCL-Q™

Standard Quantum Cascade Laser Head



Date	Version	Note
27/01/2019	V1.0	-
20/02/2020	V1.1	Test Report Added



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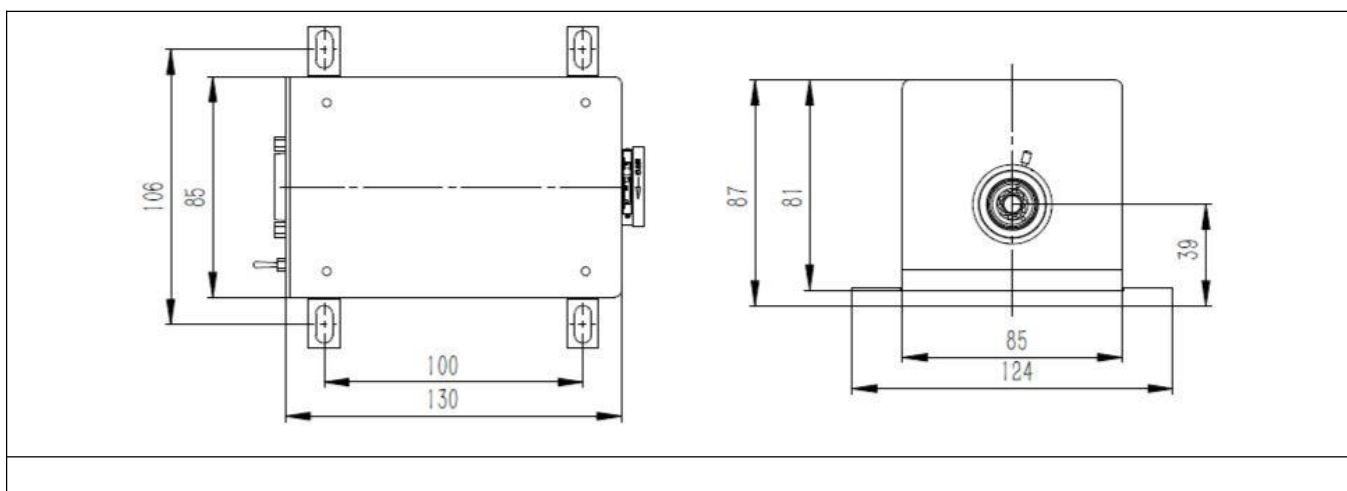
1. Introduction

Healthy Photon launched the newly designed HPQCL-Q™ laser mount, which integrates a high-quality QC laser chip, Peltier cooler, low-noise cooling fan, output beam collimating lens, and coaxial auxiliary alignment red light. A compact QCL-based spectroscopic system can be built based on this laser mount with our QC750-Touch™ QCL driver. On the other hand, we can customize our product for a user-selected QCL chip based on the chip parameters.

2. Product Description

- Compatible with HHL package
- Output collimated beam with extremely low optical interference fringes and red light for easy optical adjustment
- Integrated semiconductor TEC temperature control and low-noise air fan with 20W heat dissipation capability, ensuring constant chip temperature
- Output optical power can reach up to 100 mW
- Compatible with QC750-Touch™ QCL driver
- Cables and connectors included

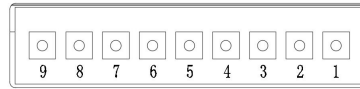
3. Mechanical Dimensions (Unit: mm)





4. Pin Assignments

FAN RLED- VDD SEN- SEN+ TEC- TEC+ LD+ LD-



pin assignments



Connection with QC750-Touch™

PIN	DESCRIPTION
1	Laser cathode
2	Laser anode
3	TEC (+)
4	TEC (-)
5	Thermistor, 10 k Ω /20 k Ω
6	Thermistor, 10 k Ω /20 k Ω
7	+5V, RedBeam (+)\Fan (+)
8	RedBeam (-)
9	Fan (-)



5. Test Report*

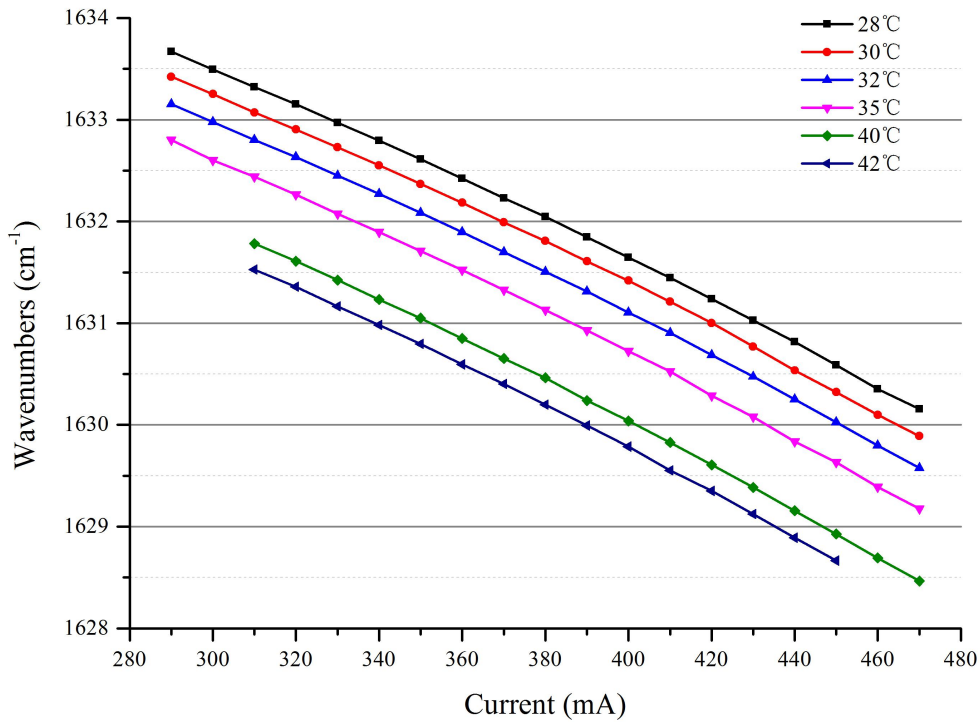


Figure 1. Wavenumber VS Current & Temperature

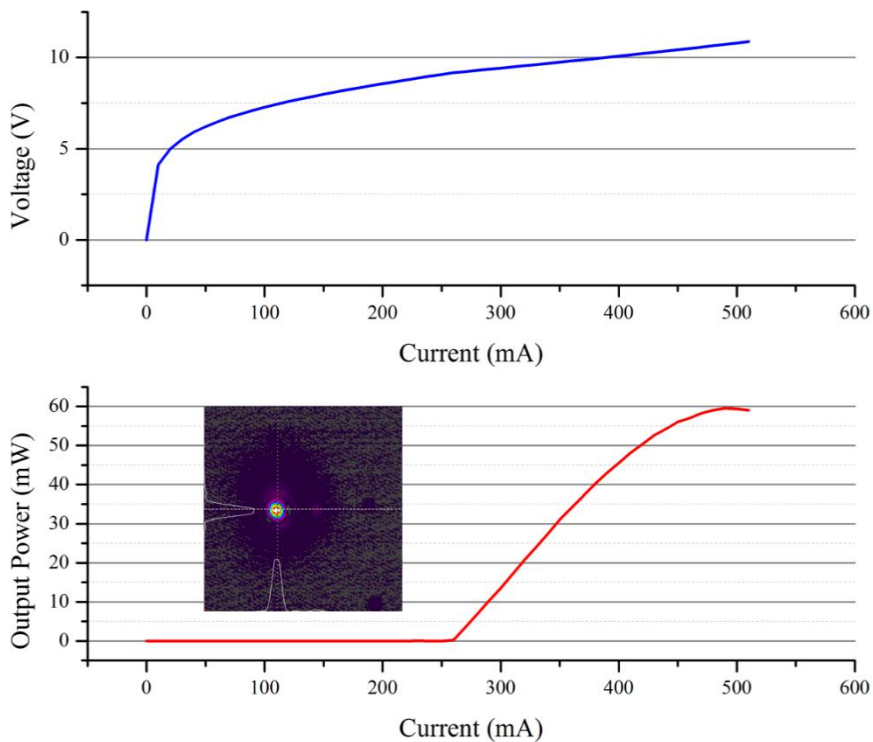


Figure 2. LIV and Beam Quality

*Note: This is an example test report. The QCL chip used is manufactured by Thorlabs Inc. Chips from other manufactures are available upon customer request.