

# PICOSECOND LASER FOR QUANTUM DOT EXCITATION

The **PICUS Q** is housed in a standard 19" enclosure and is made for easy integration into your setup / device.

Fiber-coupled outputs allow flexible pulse delivery offside an optical table. The **PICUS Q** is based on Refined`s proprietary fiber technology that has proven its hands-off performance and stability in biomedical research labs around the world.

# **READY FOR INTEGRATION**

- Standard 19" housing
- Comfortable fiber delivery

# EFFICIENT QUANTUM DOT PUMPING

- Repetition rate of 80 MHz
- Above 100 mW at your wavelength

## ULTRA STABLE

- Pulse to pulse coherence > 98 % visibility
- Active center wavelength stabilization

#### **Applications**

Quantum dot pumping Single-photon sources Material sciences

REFINED

# **Product Specifications**

#### Optical

Tuning range	770 – 980 nm
Pulse to pulse coherence	>98%visibility
Average power	> 100 mW
Repetition rate	80 MHz
Pulse duration	7-15 ps
Spectral bandwidth	Typ. 1nm
Output fiber	Aeroguide-15-PM
Output fiber termination	FC/APC
Polarization	linear, 100:1

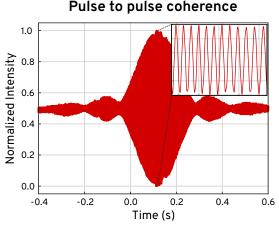
#### Electrical

Interfaces	Communication through USB or RS232 Clock/Reprate out for external synchronisation
Software interfaces	GUI and custom serial API, e.g., via Python & Matlab

#### **Mechanical**

Laser head dimension	44x49x13 cm <sup>3</sup>
Laser controller dimension	44x45x13 cm <sup>3</sup>
Cooling	Air-cooled
Weight	25 kg
Standard umbilical length	1.8 m

# Typical performance



Central WL (nm) 919.8 Std. deviation = 0.01 nm 919.6 919.4 919.2 Power (mW) 130 Std. deviation = 0.32 mW

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Stability

40

Time (h)

Pulse to pulse coherence

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120

110

100

0

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The product is constantly being improved, therefore the specifications are subject to change without notice. May 2023 Rev. 3.1



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