



Single-frequency, short pulse amplified microchip lasers

- Tailorable pulse duration from 50 ps to nanosecond
- Repetition rate up to 200 kHz with external trigger-in
- μ J-level pulse energies with single-frequency spectrum
- Integrated electronics with free-space or fiber coupled output
- Compact, air or conduction cooled OEM design

Specifications	CP32 – 532 nm MOPA	CP64 – 1064 nm MOPA
Wavelength	532.2 nm +/- 0.2 nm	1064.4 nm +/- 0.3 nm
Spectral width	< 0.06 nm	< 0.10 nm
Pulse duration (+/- 20 ps) (factory set)	50–200 ps	60–250 ps
Pulse repetition rate, tunable ¹	single pulse to 200 kHz	single pulse to 200 kHz
Maximum pulse energy ²	up to 5 μ J	up to 10 μ J
Maximum average power ²	up to 200 mW	up to 500 mW
Average power stability, 1 h (Std. Dev) ³	< 1 %	< 1 %
Average power stability, 12 h (Std. Dev) ³	< 2 %	< 2 %
Timing jitter, typical ³	\leq 500 ns	\leq 500 ns
Pulse intensity variation	+/- 2 %	+/- 2 %
M ² value (ISO 11146)	\leq 1.3	\leq 1.3
Polarization	Linear (1:100)	Linear (1:100)
Optical output	Free-space / Fiber coupled	Free-space
Trigger-out signal	Optical (free-space or fiber)	Optical (free-space or fiber)
Trigger-in signal ⁴ , TTL	up to 100 kHz	up to 100 kHz
Trigger-in delay to output pulse ⁴	< 8 μ s	< 8 μ s
Warm-up time	< 5 min	< 5 min
Cooling	Air or conduction cooling	Air or conduction cooling
Dimensions	140 x 95 x 75 mm	140 x 95 x 75 mm
Warranty	1 year	1 year
Country of Origin	Finland	Finland

¹ Tuning range depends on other laser parameters and may be limited to e.g. 50-150 kHz or single pulse to 10 kHz

² Maximum pulse energy and average power depend on the pulse repetition rate.

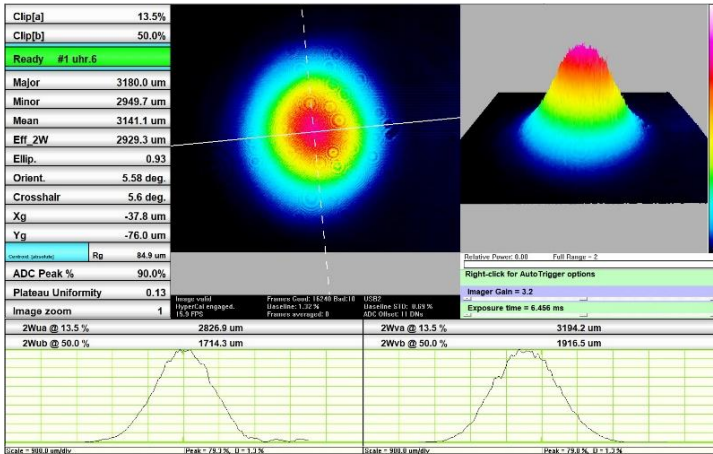
³ Typical stability values and may depend on other laser specifications.

Pulse-to-pulse timing jitter depends on pulse repetition rate. For exact timing, please utilize optical trigger out

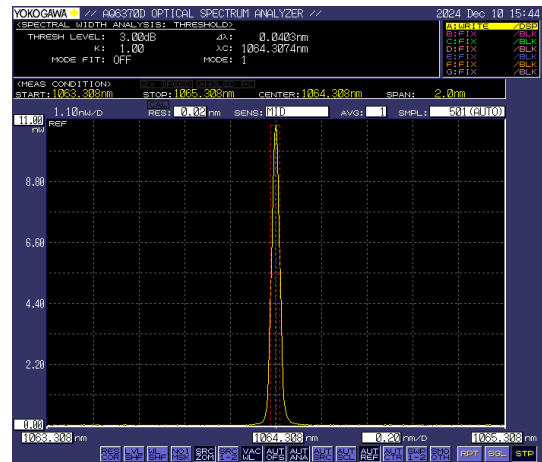
⁴ Trigger-In signal requirements: \geq 10 μ s period, 3-5 V TTL. Delay to output pulse depends on pulse repetition rate. Contact us for more specifications.

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Typical Beam Profile

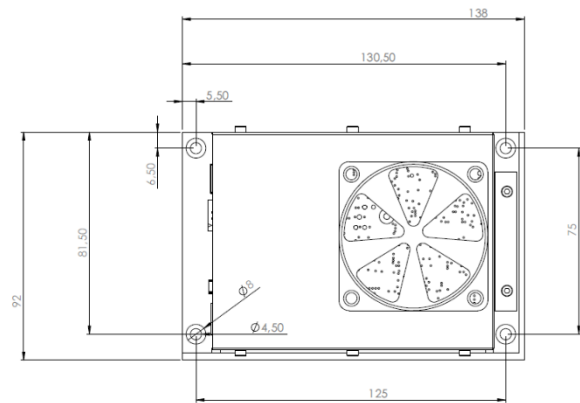
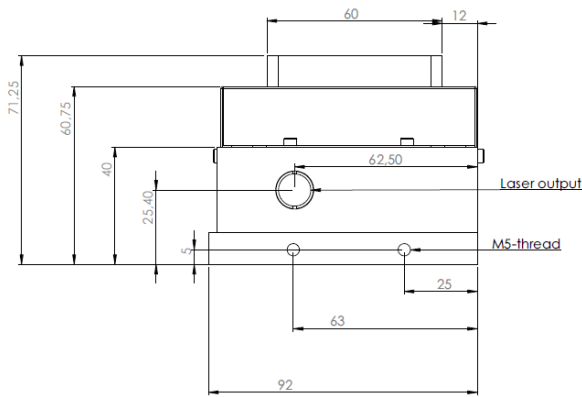


Typical Spectral Output (fundamental)



Mechanical Dimensions

All dimensions are in millimeters. More information on mechanical dimensions and optical and electrical interfaces in CP Laser Dimensions and Interfaces document.



Power Supply

XP Power, VES120PS12, 12VDC, 10 A

<https://www.xppower.com/product/VES120-Series>

Safety

Always use protective goggles for 532 nm, 1064 nm and 808 nm.



For more information, please contact us: info@picophotonics.com

v2.2

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