



Chromacity®

1280

Femtosecond Pulse Fibre Laser



DESCRIPTION

The Chromacity 1280 is a unique air-cooled, compact, ultrafast fibre-based laser providing exceptional performance with turnkey operation. With outstanding pulse quality and power stability, the 1280 is an ideal laser source for use in probing semiconductors, and other material characterisation applications.

The 1280 laser is ultra-stable across temperature and time, offering repeatable pulse power, pulse-to-pulse and over extended periods of operation. The laser is designed to be installed remotely and does not require specialist expertise to operate.

The Chromacity 1280 laser comes with a laser head and a separate external power supply unit (PSU) providing flexible placement options.

The Chromacity 1280 is controlled using an intuitive web browser user interface, or via an RS-232 serial port, providing easy integration into OEM equipment, or remote operation on the bench in a typical laboratory environment.

The Chromacity 1280 can be fibre-coupled as an option, offering polarisation maintaining laser light with no degradation in pulse quality.

FEATURES

- 1280nm centre wavelength
- Pulse duration <250fs max.
- Average output power 50mW typ.
- Repetition rate 100MHz
- Peak power 2.9kW typ. (100MHz, 150fs, 50mW)
- Pulse energy 500pJ (100MHz, 150fs, 50mW)

APPLICATIONS

- Two-photon laser-assisted device alteration (2p LADA) in silicon integrated-circuits
- Materials characterisation
- Fundamental research
- Interrogating photonics integrated-circuits



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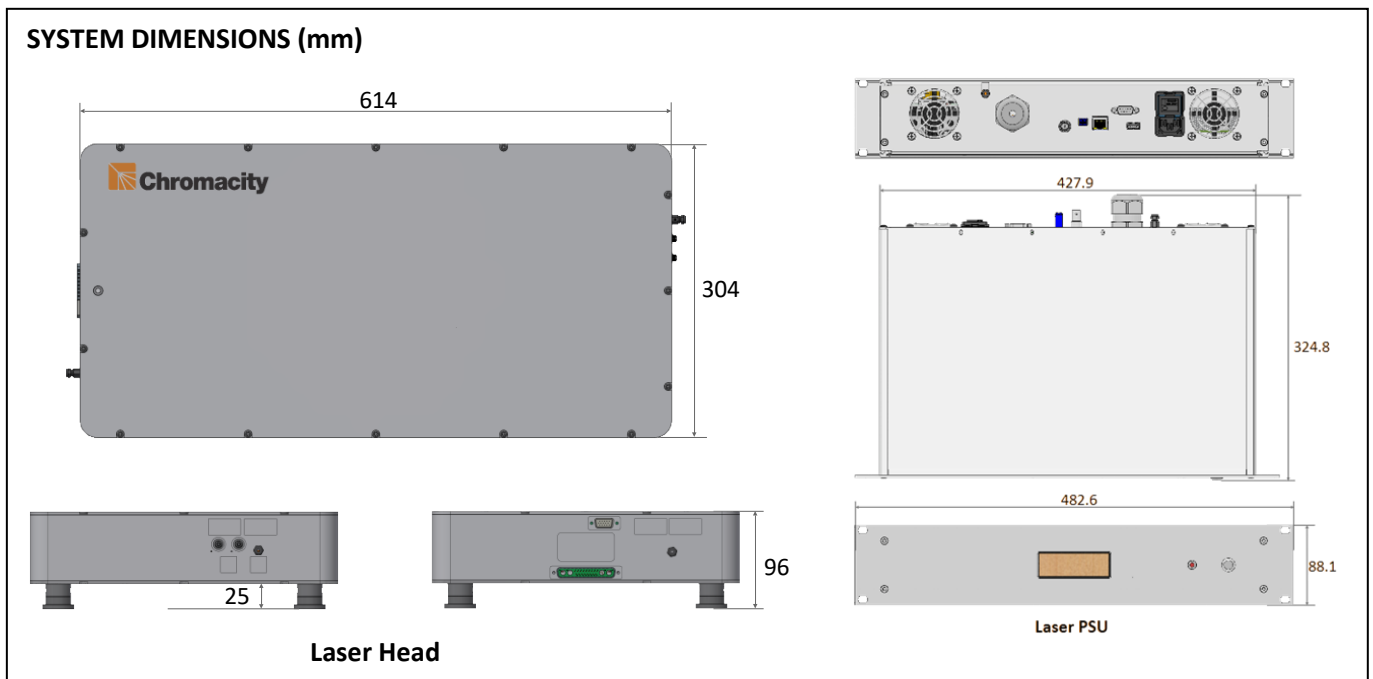
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SPECIFICATIONS

Parameter	Specification
Central Wavelength	1280nm, FWHM ~35nm
Pulse Width	<150fs typ. (<250fs max.)
Repetition Rate	100MHz
Average Power	50mW typ. (30mW typ. from fiber)
Spatial Beam Profile	Single mode
Pulse Energy	>40nJ (100MHz, 100fs, 4W)
Output Polarisation	Linear
Beam Quality (M^2)	<1.1, <1.2 max.
Beam Divergence	<0.8mrad typ.
Beam Diameter	1.2mm, ± 0.2 mm (at exit of laser)
Beam Ellipticity	>0.9 typ.
Beam Pointing Stability	<20 μ rad/ $^{\circ}$ C
Relative Intensity Noise (r.m.s. 6Hz – 3MHz)	<0.15% typ.
Long Term Power Stability	<0.5% (100h)
Laser Settings and Functions	Web browser via Wi-Fi, Ethernet or RS-232
Laser Diagnostics	Available from PC
Operating Temperature for Specified Performance	21 $^{\circ}$ C, $\pm 3^{\circ}$ C
System Options	Fiber delivery (polarisation maintaining)

SYSTEM DIMENSIONS (mm)



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