

# Chromacity 1040

Ultrashort pulses at 1040 nm



The **Chromacity 1040** is an air-cooled, compact ultrafast laser.

## 01 Applications

- Multi-photon and SHG microscopy
- Light sheet microscopy
- Time resolved experiments - TCSPC/FLIM
- Optogenetics imaging
- THz generation
- Supercontinuum generation
- Pump source for non-linear optics (OPO, SHG, THG)

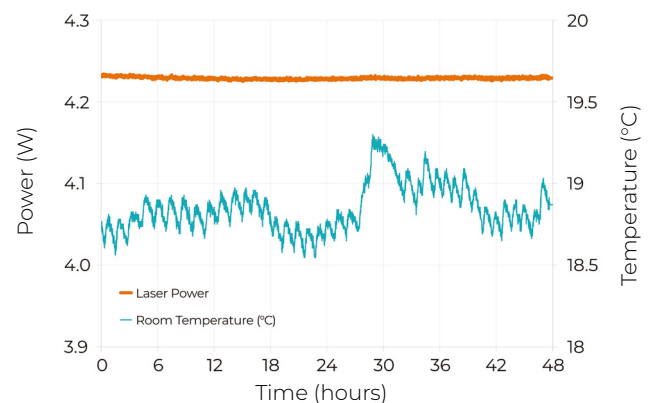
## 02 Technical Overview

- Up to 4 W average power (500 kW peak power)
- Pulse duration: < 150 fs (Chirped output pulse option also available)
- 100 MHz repetition frequency (other repetition frequencies are available)

## 03 Features & Benefits

- Compact air-cooled systems
- Remote installation capability
- Plug & Play functionality
- Simple OEM integration
- Fiber delivery capability
- Competitive price point

## 04 Stable Performance



Chromacity Active Power Stabilization (APS) scheme: 48h rms = 0.03%,  $\Delta T = 0.75^\circ\text{C}$

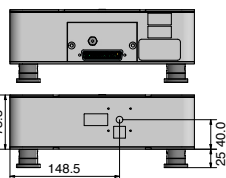
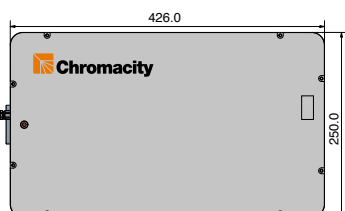
# Chromacity 1040

Ultrashort pulses at 1040 nm

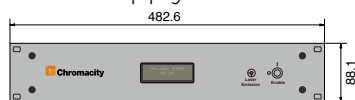
| Specifications              | Low power   | Medium power | High power |
|-----------------------------|---|--------------|------------|
| <b>Output power</b>         | Up to 500 mW  | 2.5 W        | > 3.5 W    |
| <b>Wavelength</b>           | 1030 nm   | 1040 nm      | 1040 nm    |
| <b>Pulse energy</b>         | 5 nJ  | 25 nJ        | > 35 nJ    |
| <b>Pulse duration</b>       | < 150 fs  |              |            |
| <b>Repetition frequency</b> | 100 MHz   |              |            |
| <b>Beam parameters</b>      | Free space, $M^2 < 1.2$ , Linearly polarized<br>Divergence < 2 mrad                     |              |            |
| <b>Beam diameter</b>        | 1.1 mm (+/- 0.2 mm)   |              |            |
| <b>Control Interface</b>    | Web browser interface. Ethernet & serial port (RS232) also available.                   |              |            |
| <b>Electrical</b>           | Voltage 110 – 240 V AC, Frequency 50 – 60 Hz, Power 80 W                                |              |            |
| <b>Dimensions</b>           | 426 x 250 x 108 mm (laser head)<br>483 x 285 x 88 mm (control unit – 19" 2U rack mount) |              |            |

## System Dimensions (mm)

Laser head

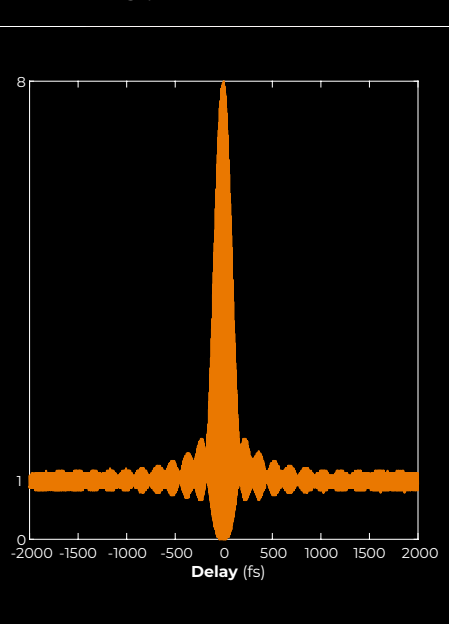


Power supply

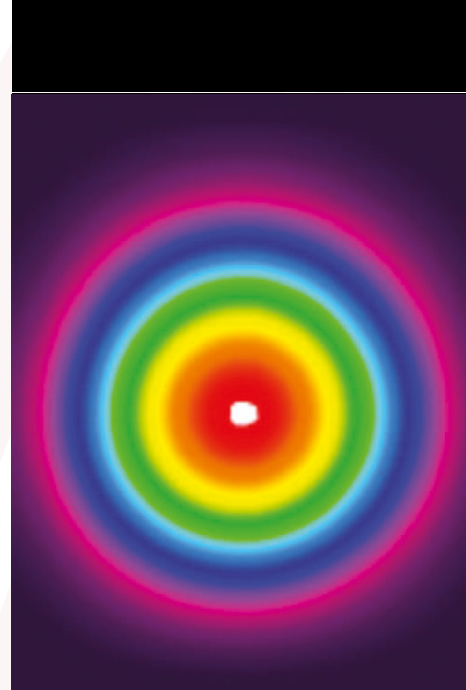


## Autocorrelation Measurement

Indicating pulse duration of 130 fs



## Beam Profile



Customized specifications are often requested – please get in touch if you have a specific requirement.  
Chromacity follows a policy of continuous improvement, hence specifications are subject to change without notice.

Learn how our ultrafast lasers can enable you to discover more.  
For more information, email: [sales@chromacitylasers.com](mailto:sales@chromacitylasers.com)

**DANGER - INVISIBLE LASER RADIATION**  
AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION  
CLASS 4 LASER PRODUCT



Discover More  
[chromacitylasers.com](http://chromacitylasers.com)