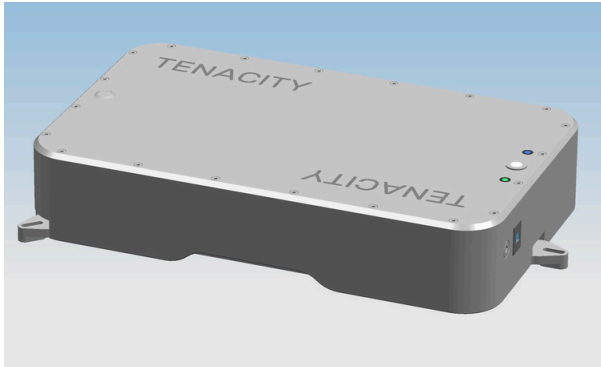


VIULASE

VIULASE GmbH

# TENACITY

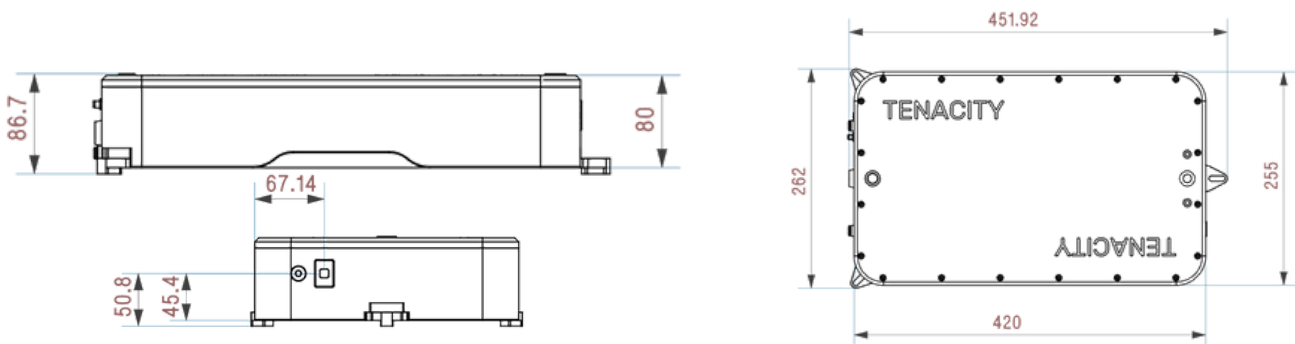
## Direct diode pumped Ti:sapphire ultrafast oscillator



**TENACITY** is a Ti:sapphire ultrafast laser deploying the newest direct diode pumping technology. By replacing bulky and expensive DPSS lasers with ultra-compact, low-cost laser diodes, TENACITY successfully delivers up to 500 mW output power from a monolithic compact laser head. Therefore, it is a perfect light source to bring femtosecond laser pulses in various cutting-edge applications.

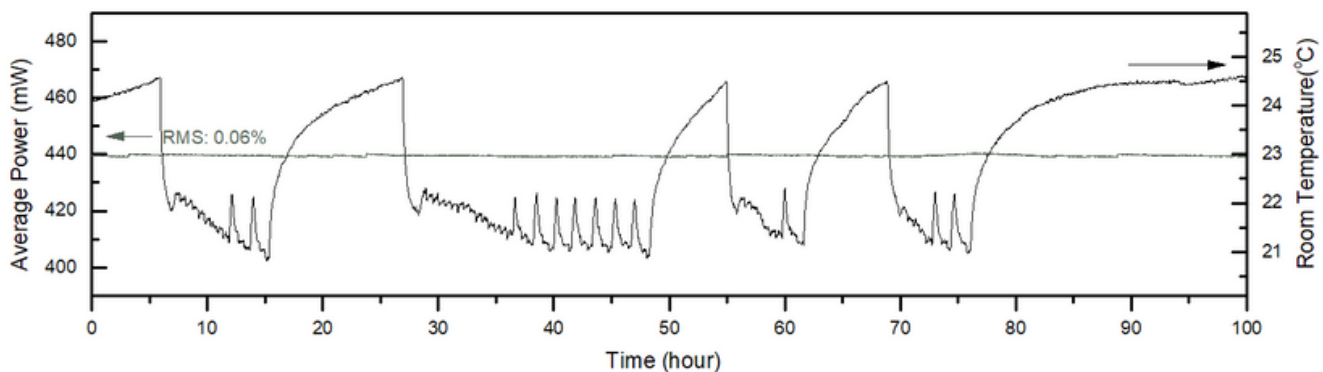
### SUPERIOR COMPACTNESS AND CONVENIENCE

Combining laser diodes with a dispersive mirror design, TENACITY manages to integrate the whole turn-key femtosecond laser into a single encasement slightly bigger than a shoebox, which greatly reduces the complication of your experimental setup. Since no additional controller unit is required, the system can easily be installed by the user as soon as it arrives at the lab.



### OUTSTANDING STABILITY AND DURABILITY

Given its highly robust opto-mechanical and electronic design, TENACITY represents the next-generation femtosecond Ti:sapphire laser with outstanding passive stability and durability. Furthermore, ongoing active output power stabilization guarantees short and long-term stabilities.



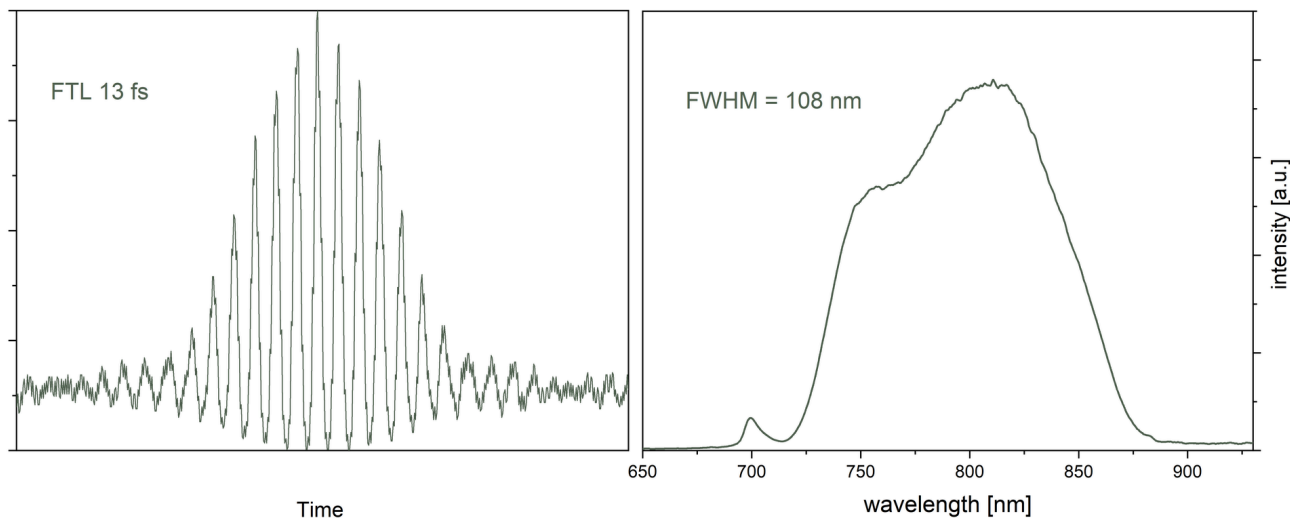
Long-term spectral and power passive stabilities in non-regulated environmental condition

TENACITY is an ideal femtosecond laser for a plethora of scientific applications, such as biomedical imaging, THz generation/detection, amplifier seeding, etc.

Please don't hesitate to contact us for any further information. We will be happy to discuss how we can best satisfy your needs.

# TENACITY

## TYPICAL PERFORMANCES:



Typical autocorrelation and spectrum measurement of a 13 fs pulse

## SPECIFICATIONS:

Due to our continuous product improvement program, specifications may change without notice. All above-mentioned specifications apply to standard wavelength and standard repetition rate. Please contact us for non-standard requirements. The typical performances may not be taken as guaranteed or warranted specifications.

	TENACITY Pro	TENACITY HP	TENACITY	TENACITY Eco
Central Wavelength <sup>1</sup>	800 ± 10 nm			
Bandwidth (FWHM)	> 55 nm	> 30 nm	> 30 nm	> 15 nm
Pulse duration <sup>2</sup>	< 15 fs	< 30 fs	< 30 fs	< 50 fs
Power <sup>3</sup>	> 400 mW	> 600 mW	> 400 mW	> 350 mW
Pulse energy	5 nJ	7.5 nJ	5 nJ	4.38 nJ
Peak power	333.3 kW	250 kW	156 kW	87.5 kW
Repetition rate <sup>1</sup>	80 ± 1 MHz			
Repetition rate stabilization	Optional			
Optical noise (10 Hz - 100 kHz)	< 0.1%			
Power stability (rms for 24 h)	< 0.5 %			
Beam diameter (1/e <sup>2</sup> at the exit)	< 2 mm			
Polarization	> 100 : 1 (horizontal)			
Monolithic design	Yes			

<sup>1</sup> for different values, please contact the factory

<sup>2</sup> with optional external compression, for different values please contact us

<sup>3</sup> for higher power, please contact us

VIULASE GmbH is a company in Vienna, Austria dedicated in developing the next generation ultrafast laser systems. It was founded by a team with decades of experience in this field. We believe that ultrafast laser technology shall go beyond scientific research bringing benefit to everyone's prosperity and well-being. Our mission is to make highly sophisticated light devices accessible to everybody aiming to harness the power of light.