

# UltraTune 3400

Femtum is proud to offer the first commercial ultrafast fiber laser in the mid-infrared. This compact, maintenance-free and tunable laser system is ideal for scientific applications, including spectroscopy and nonlinear optics.



## Technical Specifications

Optical <sup>1</sup>	Standard (3400-35) <sup>2</sup>
Central wavelength	3 - 3.4 $\mu\text{m}$
Bandwidth (FWHM)	> 40 nm
Average power	> 100 mW (> 500 mW @ 3400 nm)
Pulse energy	> 3.5 nJ (> 17 nJ @ 3400 nm)
Repetition rate	~ 35 MHz (> 50 MHz optional)
Peak power	~ 1 - > 50 kW
Pulse duration	< 500 fs
Beam diameter	~ 3 or 9 mm
M <sup>2</sup> (Average of X & Y)	< 1.3
Output polarization	Random
System specifications <sup>1</sup>	
Dimensions (W x H x D) <sup>1</sup>	19 x 5.5 x 20.5 in. (rack-mount, 3U)
Cooling	Air-cooled
Voltage	100/240 V AC, 50/60 Hz
Beam delivery	Free space or fiber output
Controller	Computer-controlled (ethernet com.)

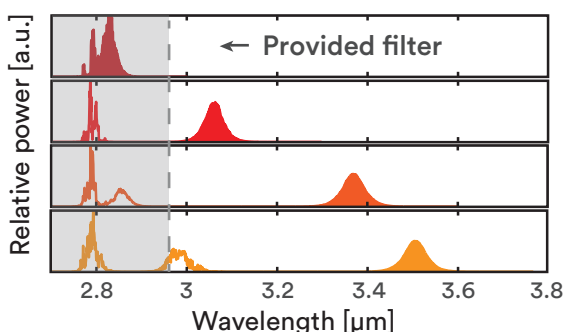
## KEY FEATURES

- Compact and turn-key laser system
- Automated mode locking
- Pulse duration < 500 fs
- High average power above 2800 nm
- Single-mode output

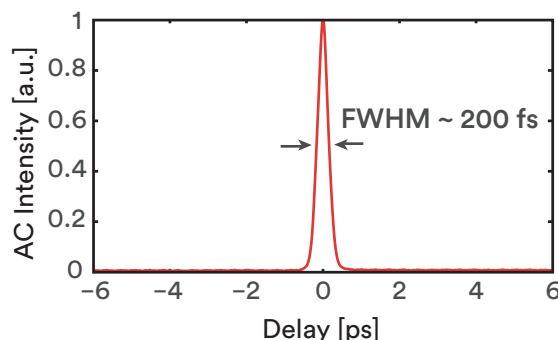
## APPLICATIONS

- Frequency combs
- Mid-infrared imaging
- Nonlinear frequency conversion
- Supercontinuum generation
- High-field physics

Typical spectra (linear scale)



Typical autocorrelation trace



<sup>1</sup>Specifications subject to change  
<sup>2</sup>Custom specification upon request