



## Ultrafast Laser - Specifications

	UFL 1040-8	UFL 1040-16	UFL 1040-30
<b>Output Characteristics</b>			
Wavelength	1040 nm ±5 nm		
Output Power	>8 W	>16 W	>30 W
Pulse Energy	>40 µJ at 200 kHz	>120 µJ at 100 kHz	>120 µJ at 250 kHz
Wavelength	520 ±3 nm	520 ±3 nm	520 ±3 nm
Output Power	>4 W at 200 kHz	>6 W at 100 kHz >8 W at 200 kHz	>15 W at 250 kHz
Max Pulse Energy	>20 µJ at 200 kHz	>60 µJ at 100 kHz >40 µJ at 200 kHz	>60 µJ at 250 kHz
Repetition Rates	200 kHz or 1 MHz	100 kHz, 200 kHz or 1 MHz	250 kHz or 1 MHz
Pulse Width	<400 fs		
Pulse Width Tunability	NA	<400 fs to 10 ps at 1040 nm <400 fs to 2 ps at 520 nm	
Power Stability	<1% rms over 100 hours		
Pulse-to-Pulse Stability	<2% rms		
Spatial Mode	TEM <sub>nn</sub> (M <sup>2</sup> <1.2)		
Beam Characteristics			
Beam Diameter	2.0 ±0.4 mm		
Beam Divergence, full angle	<1 mrad at 1040 nm; <0.5 mrad at 520 nm		
Pre-Pulse Contrast Ratio	>250:1		
Polarization	Vertical	Horizontal	
<b>Environmental Specifications</b>			
Operating Temperature	18–30°C (64–86°F)		
Relative Humidity	<65%, non-condensing		
<b>Cooling Requirements</b>			
Laser Head	Water cooled		
Power Supply	Air cooled		
Utility Requirements			
Laser Head	24 VDC		
Laser Controller (including chiller)	100-240 V, 50/60 Hz		
Current	<15 A		
<b>Laser Head</b>			
<b>Physical Characteristics</b>			
Dimensions (L x W x H)	29.1 x 12.2 x 5.2 in (740 x 310 x 133 mm)	32.5 x 14 x 6.5 in (875 x 340 x 160 mm)	
Weight	99 lb (45 kg)	155 lb (70 kg)	
<b>Rack with Power Supply and Chiller</b>			
<b>Physical Characteristics</b>			
Dimensions (L x W x H)	19.0 x 15.8 x 10.5 in (484 x 400 x 267 mm)	23.6 x 22.0 x 29.4 in (600 x 560 x 746 mm)	
Weight	68 lb (31 kg)	176 lb (80 kg)	

Foot notes:

1. Due to our continuous product improvement program, specifications may change without notice.
2. UFL are Class IV - High Power Lasers, whose beam are, by definition, a safety and fire hazard. Take precautions to prevent exposure to the direct and reflected beams. Diffuse as well as specular reflections can cause severe skin or eye damage.
3. fs = femtosecond; ps = picosecond