

Ti-Light A New Generation of Ti:Sapphire Oscillators

ultrafast

TI-LIGHT FEATURES & BENEFITS

- Integrated *Colibri* CW Green Pump Source
- Tunable center wavelength
- Adjustable spectral bandwidth up to 100 nm
- Excellent long-term stability
- Compact footprint (24" x 12")

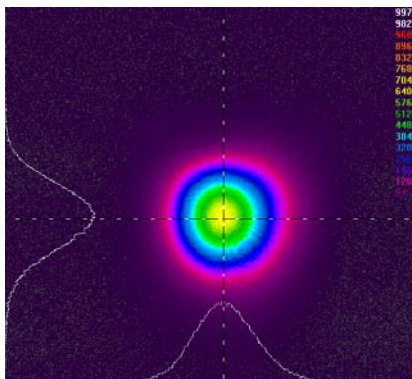


TI-LIGHT SPECIFICATIONS	
AVERAGE OUTPUT POWER	>200 mW
SPECTRAL BANDWIDTH	Up to 100 nm
PULSE DURATION	Near transform limited
TUNING RANGE	750 nm to 850 nm
REPETITION RATE	80±10 MHz
POLARIZATION	Horizontal
BEAM DIAMETER	~1 mm at output
BEAM DIVERGENCE	~ 1.4 mrad
SPATIAL MODE	TEM ₀₀

The Quantronix *Ti-Light* represents a new generation of Ti:Sapphire oscillators providing the unique combination of flexibility and stability. The *Colibri*, the Quantronix green CW pump laser, is integrated into this broadband mode-locked oscillator, thereby yielding a small footprint and excellent long-term operational stability.

Ti-Light delivers more than 200 mW of mode-locked average power. The central wavelength can be tuned continuously between 750 and 850 nm. The spectral bandwidth can be adjusted between 30 nm and 100 nm maintaining near transform limited pulse durations.

Given its exceptional reliability and flexibility, the *Ti-Light* oscillator is the optimal cornerstone for every ultrafast laboratory. It is well suited for seeding ultra-short pulse amplifiers (*Integra-C* and *Odin-M*). Possible applications for the *Ti-Light* (and amplified systems) include Optical Coherence Tomography, Material processing, molecular spectroscopy, THz generation, and high harmonic generation.



Mode-locked beam profile

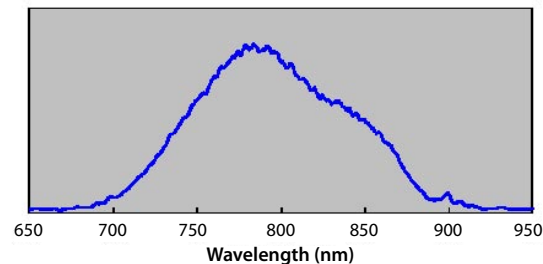
Ti-Light

MECHANICAL & UTILITIES REQUIREMENTS

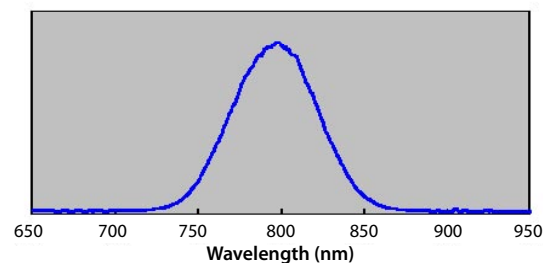
Size	Optical Head (LxWxH)	26.57 x 12.40 x 5.10 in 67.5 x 31.5 x 12.9 cm
	Power Supply (WxHxD)	19.00 x 7.00 x 20.30 in (48.3 x 17.8 x 51.6 cm)
Weight	Optical Head	60 lbs
	Power Supply	45 lbs. (20.5 kg)
Electrical Service	Single Phase	110-200 or 220-240 VAC± 10%, 50/60 Hz
	Typical Power Consumption	300 W
Control Interface	User Interface	Full Featured Front-Panel Control
	Serial Interface	RS-232
	Control Software	Windows-based <i>Laser Commander™</i> software
Umbilical Length		10.0 ft (3 m)
Environmental	Operating Temperature Range	15-35°C
	Storage Temperature Range	-20°C-50°C
	Relative Humidity	8-80%, non condensing

Ti-Light

Typical pulse spectrum (>100 nm)



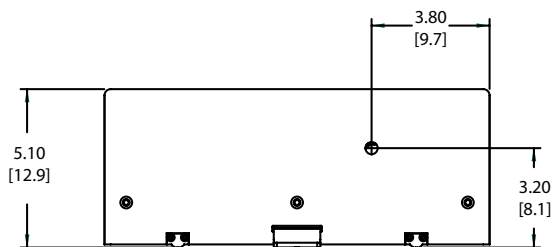
Typical pulse spectrum (>50 nm)



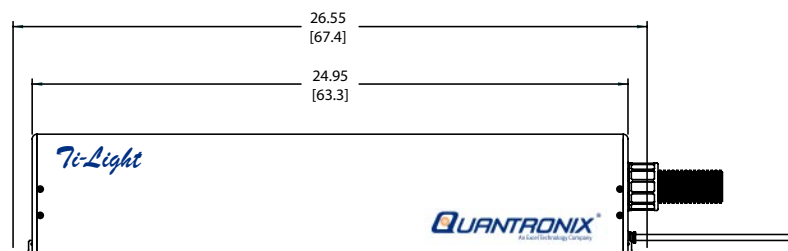
Ti-Light PHYSICAL LAYOUT

All dimensions are in inches (cm)

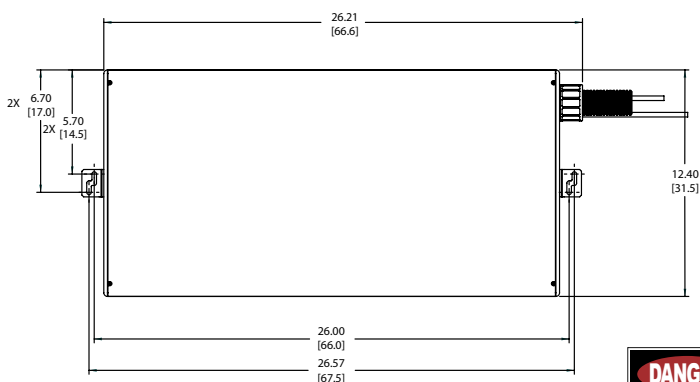
FRONT VIEW



SIDE VIEW



TOP VIEW



POWER SUPPLY



ISO 9001:2000



41 Research Way, East Setauket, NY 11733
TEL: (631) 784-6100, FAX: (631) 784-6101
www.quantronixlasers.com
EMAIL: qinfo@quantronixlasers.com