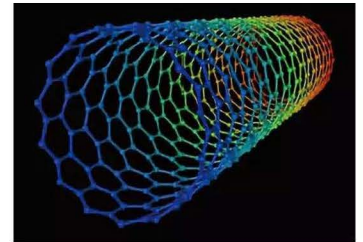
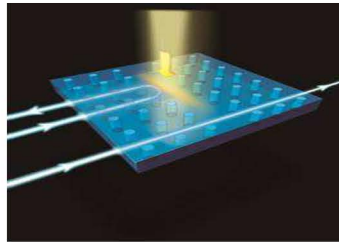


## 2 $\mu\text{m}$ Ultrafast Fiber Laser - Rainbow 2000

Rainbow 2000 Pro is a thulium-fiber based high-performance ultrafast fiber laser specifically designed for scientific users and has flexible parameters upon user requests. It has a center wavelength of  $1970 \pm 10$  nm, a pulse width of 200 fs (15 ps Optional), repetition rate of 80MHz, and an average output power of 200mW (4W Optional).

Rainbow 2000 Pro is based on SESAM passive locking technology and has an all-PM fiber structure. It uses NPI Lasers' proprietary optical switch packaging technology, and integrates with NPI Lasers' unique "Smart-Lock" processes to ensure long-term stability and reliability. The laser is an easy-to-use turn-key system, and can also be computer controlled.



### Key Features :

- Customizable wavelength
- Ps/Fs level
- Linearly polarization
- Diffraction limited beam

### Applications :

- Mid-IR Frequency Conversion
- Nonlinear optics
- Mid-IR spectroscopy
- Silicon photonics

### » Main Specification:

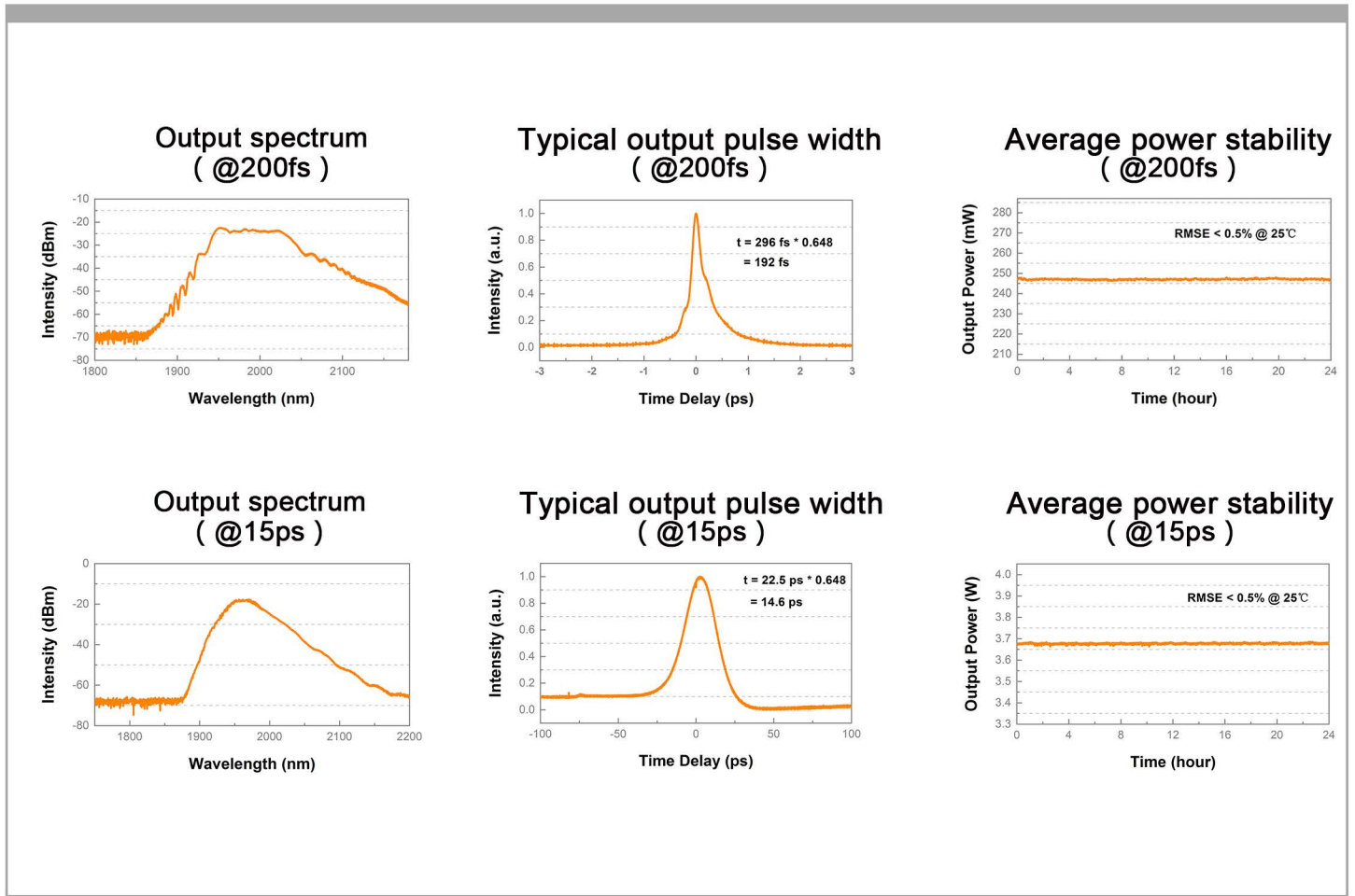
#### Laser Parameters

Operating Wavelength	nm	1970 $\pm$ 10
Pulse Width (FWHM)	fs	200 fs, 15 ps
Repetition Rate	MHz	80
Average Power	mW/W	200 mW ( 200 fs ) , 4 W ( 15 ps )
Average Power Stability	% RMS	<0.5 (24h@25 $^{\circ}$ C)
Single Pulse Energy	nJ	2.5 ( 200 fs ) , 50 ( 15 ps )
Polarization Extinction Ratio	dB	>20
Beam Quality		TEM00, M <sup>2</sup> <1.2
Output Mode		PM1550 Fiber,FC/APC Connector ( 200fs ) , Free-space ( 15ps )

#### Electrical, Environmental and Mechanical Parameters

Trigger Signal	V	1 V @50 Ohm
Power Consumption	Watt	<150
Supply Voltage	VAC	100-240 (50Hz/60Hz)
Operational Temperature Range	$^{\circ}$ C	10-45
Operational Humidity Range	%	20~80 (Non-condensing )
Storage Temperature Range	$^{\circ}$ C	0-50
Storage Humidity Range	%	20~80 ( Non-condensing )
Weight Laser Head	kg	17
Dimensions Laser Head	mm(L $\times$ W $\times$ H)	391 $\times$ 298 $\times$ 115
Cooling		Air-cooled

### Test Data :



### Machine Drawing

