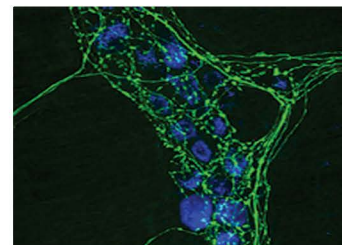
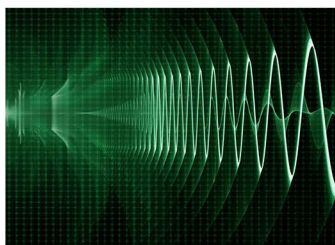


# 1.5 $\mu\text{m}$ High Power Ultrafast Fiber Laser - Rainbow 1550 HP

Rainbow 1550 HP femtosecond Er-fiber laser is the flagship of NPI Lasers' 1550 nm product series. It has an average output power exceeding 1 W, and a near diffraction-limited free space laser beam with sub-150 fs pulse width. The laser boasts 24-hour power stability within 0.5%, currently the highest standard in industry. Rainbow 1550 HP is ideal for applications such as THz-TDS (time-domain terahertz generation), non-linear optics, quantum optics, SHG/THG imaging and multi-photon imaging. It can meet a broad range of R&D requirements of the scientific community.



## Key Features :

- Long-Term Stable Operation
- High Pulse Energy
- Reliable Mode-Locking
- All-PM Solution

## Applications :

- Terahertz generation
- Quantum optics
- Two-photon polymerization
- Two-photon imaging

## » Main Specification:

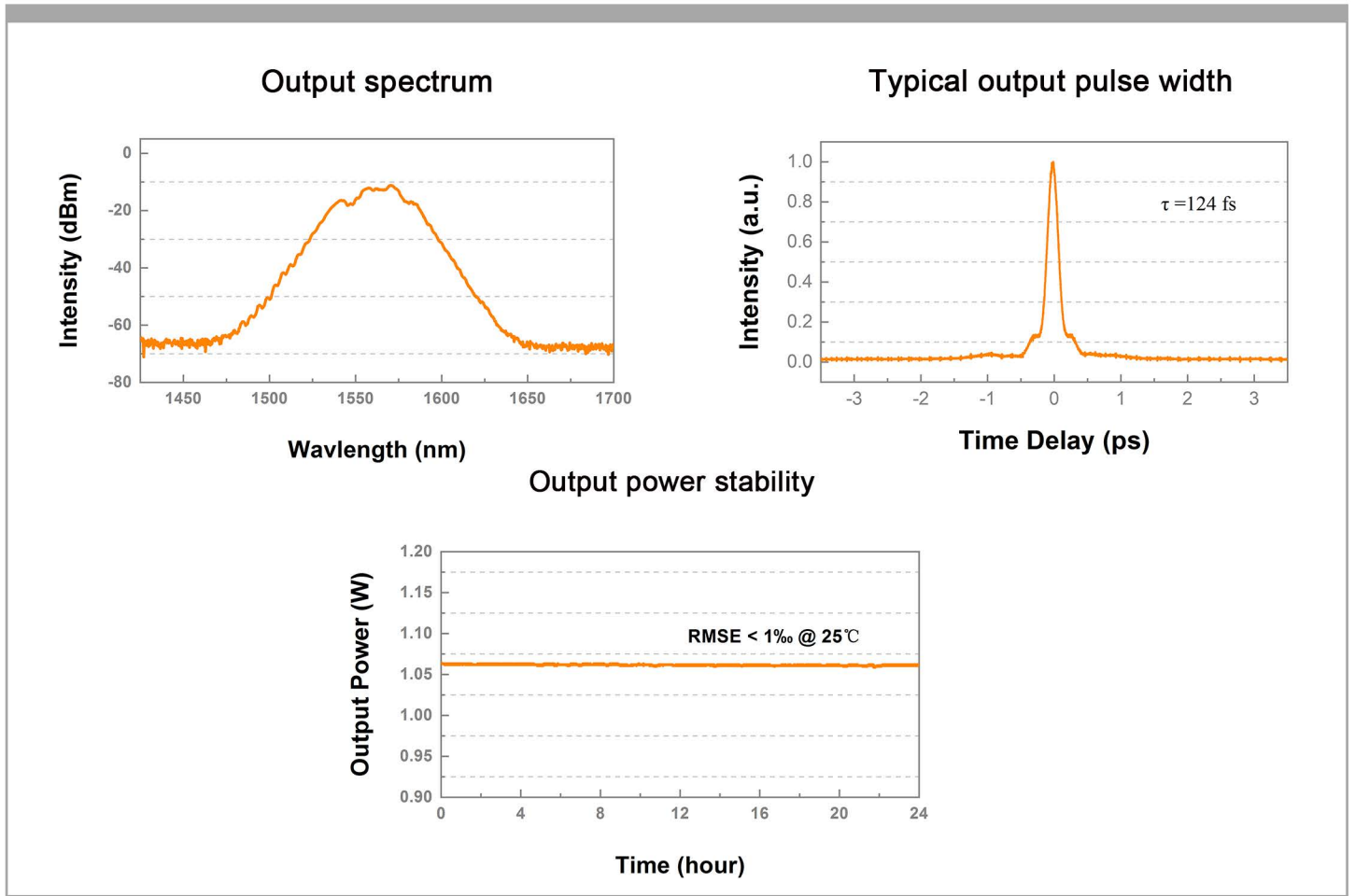
### Laser Parameters

Operating Wavelength	nm	1560 $\pm$ 10
Pulse Width (FWHM)	fs	<150
Repetition Rate	MHz	80
Average Power	W	>1
Average Power Stability	% RMS	<0.5 (24h@25°C)
Single Pulse Energy	nJ	>12.5
Polarization Extinction Ratio	dB	>20
Beam Quality		TEM00, M <sup>2</sup> <1.2
Output Mode		Free-space /Shutter

### 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	°C	10-45
Operational Humidity Range	%	20~80 ( Non-condensing )
Storage Temperature Range	°C	0-50
Storage Humidity Range	%	20~80 ( Non-condensing )
Weight Laser Head	kg	10
Dimensions Laser Head	mm(L×W×H)	445×300×134
Weight supply unit	kg	10
Dimensions supply unit	mm(L×W×H)	380×445×94
Cooling		Air-cooled

### Test Data :



### Machine Drawing

