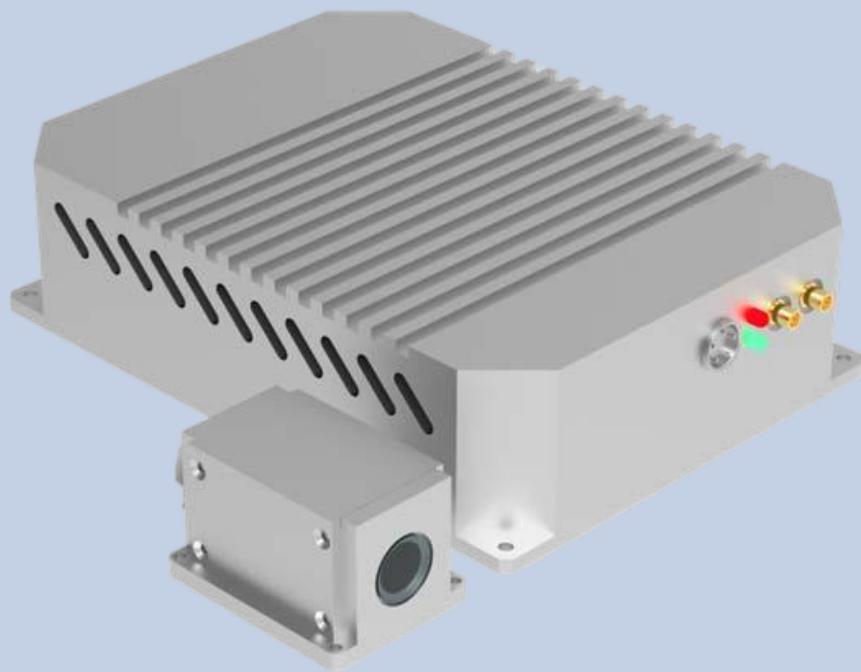


ErFemto-780 Elite



One Platform Many Possibilities

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Unlocking NIR Femtosecond Potential: Compact Engine for THz and Precision Metrology

The ErFemto-780 Elite Series utilizes automatic mode-locking and low-noise fiber amplification technology, converting 1560nm fundamental light into 780nm femtosecond pulses via a high-efficiency frequency doubling module.

Achieving miniaturized optoelectronic design, it ensures ultrashort pulses of <100fs through high-precision dispersion compensation, making it an ideal alternative to complex solid-state lasers as a seed source or standalone light source.

Core Highlights & Positioning

A modular, industrial-grade stable 780nm near-infrared femtosecond fiber laser designed for Terahertz (THz) research and two-photon experiments.

- **Ultrashort Pulse Performance:** Pulse duration < 100fs, spectral bandwidth >9nm, delivering high temporal resolution.
- **Dual-Wavelength Synchronization:** Supports synchronized output of 780nm and 1560nm (optional), offering versatility.
- **Highly Integrated Modular Design:** Compact all-in-one design including SHG module, easy for system integration.
- **High Pulse Contrast:** Excellent signal-to-noise ratio, ideal for precision spectroscopy.

Applications

- THz Time-Domain Spectroscopy
- Laser Ranging
- Micro-nano 3D Printing
- Seed Source for Fiber/Solid-State Lasers

Interfaces & Operation

- Equipped with RS232 interface for remote PC control.
- Provides TTL synchronization output port for easy syncing with detection equipment.

Environmental Requirements

Operating Temperature: 18 - 32 °C

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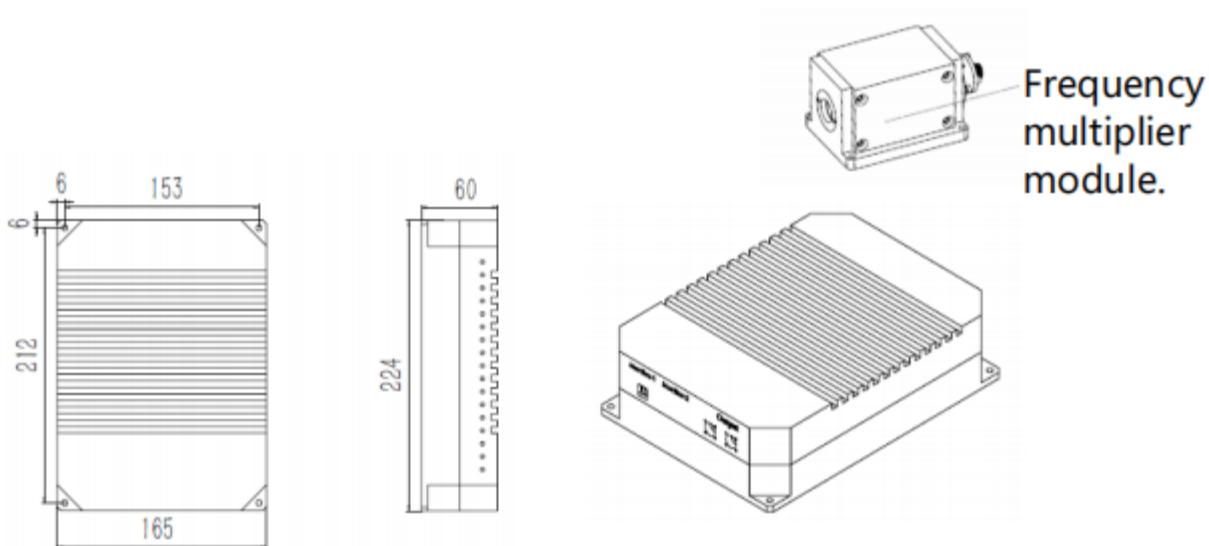


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Detailed Technical Specifications of ErFemto-780 Elite

Parameter	ErFemto-780 Elite 10	ErFemto-780 Elite 20	ErFemto-780 Elite 40	ErFemto-780 Elite 60
Central Wavelength	780 nm	780 nm	780 nm	780 nm
Pulse Duration	< 100 fs	< 100 fs	< 100 fs	< 100 fs
Repetition Rate	80 MHz (Standard)	80 MHz (Standard)	80 MHz (Standard)	80 MHz (Standard)
Average Power	10 mW	20 mW	40 mW	60 mW
Pulse Energy	0.12 nJ	0.25 nJ	0.50 nJ	0.75 nJ
Spectral Bandwidth	> 9 nm	> 9 nm	> 9 nm	> 9 nm
Polarization Extinction Ratio	Linear, > 15 dB			
Power Stability (RMS)	< 1%	< 1%	< 1%	< 1%
Output Type	Free space, beam diameter 1 mm			
Voltage	12V	12V	12V	12V
Laser Module Size	190 x 135 x 50 mm³	224 x 165 x 60 mm³	224 x 165 x 60 mm³	224 x 165 x 60 mm³
SHG Module Size	69.5 x 52 x 44 mm ³			

Mechanical Dimensions of ErFemto-780 Elite40



📩 Get in touch with our team to explore configurations, request a quote, or learn more about customized solutions tailored to your needs.

Let us help you move science forward — faster and smarter.

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