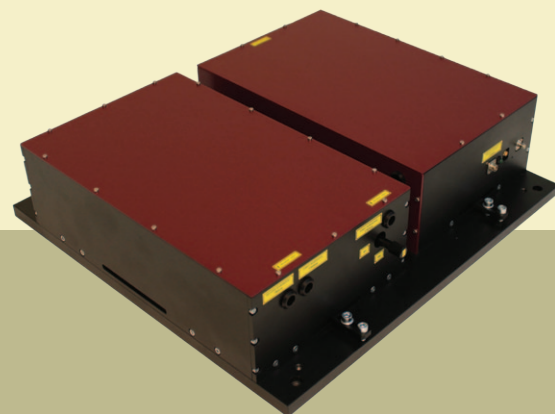## Femtosecond Fiber Lasers

The EFOA-SH-UB Multi-Output Laser

- Multi-Output Laser Source
- Three outputs:
  - 1560 nm (fs)
  - 780 nm (fs)
  - 1100-2000 nm (supercontinuum)
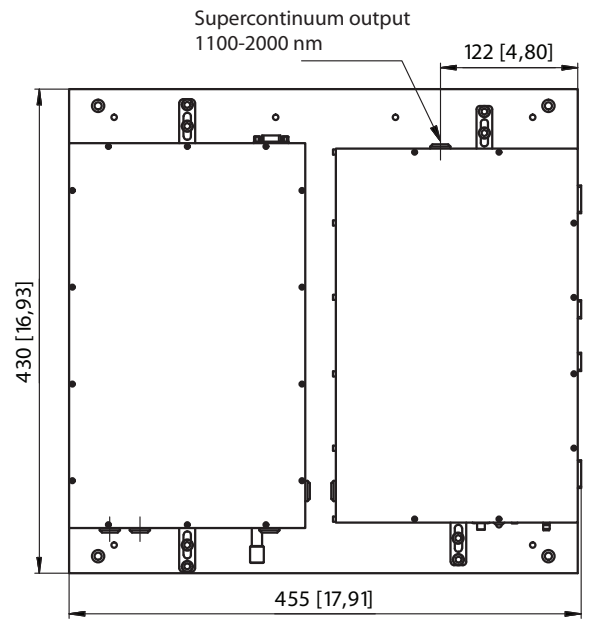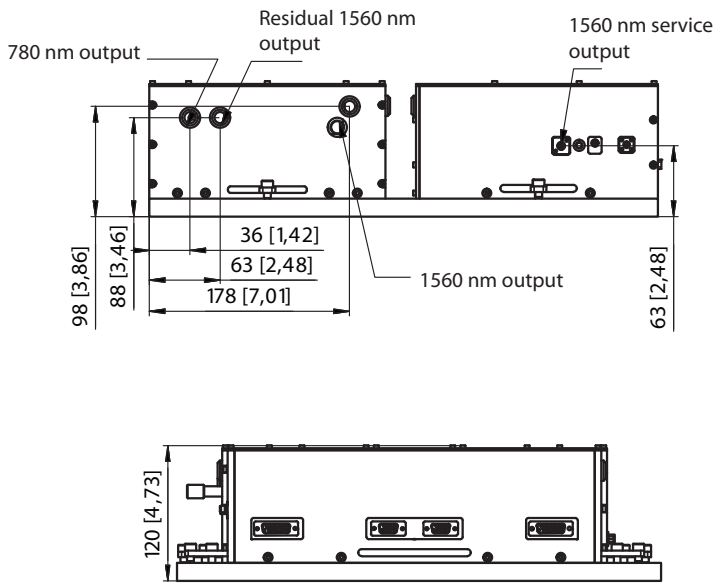- Turn-key
- Highly stable

EFOA-SH-UB

Product overview

The EFOA-SH-UB laser system combines several laser sources on one platform: the EFOA femtosecond mode-locked Yb-doped fiber laser (1560 nm output), a supercontinuum generator (1100-2000 nm output) and a second harmonic generator (780 nm). Simultaneous operation with all three wavelengths is possible along with switchable outputs mode.

The system is an indispensable basic tool for research laboratories as it combines a number of laser wavelengths in pulsed mode while maintaining compact size and ease of operation. The device finds its application in various physical, biological, medical areas and other natural sciences including such applications as: material processing, multiphoton microscopy, "pump-probe" spectroscopy, parametric generation and optical frequency metrology.

Femtosecond mode-locked lasers based on Er-doped fibers may be used as a more budget-friendly alternative to Ti:S and Cr:F femtosecond lasers. Fiber lasers do not require costly pump lasers that are used in traditional Ti:S femtosecond lasers.

EFOA-SH-UB technical specifications

EFOA-SH-UB	
1560 nm output	Central wavelength (fixed): 1560±10 nm Pulse width: <150 fs Output power: >150 mW Pulse repetition rate (fixed): 70±5 MHz Polarization: linear, horizontal
780 nm output (SH)	Central wavelength (fixed): 780±5 nm Pulse width: <150 fs Output power: >50 mW Spectrum width: >8 nm Polarization: linear, vertical
Supercontinuum output	Wavelength: 1100-2000 nm Output power: >130 mW
Service outputs	Fiber service output: 1560 nm, FC/APC (~1 mW) HF sync output: SMA connector Mode-lock status: SMA connector (3,5/0 V) and LED
Output power stability (24 hours), @780 nm	<1%
Power supply	110...220 VAC, 50/60 Hz
Operating temperature	22±5 °C
Dimensions, mm	
Laser head	430x455x120
Laser control unit	353x260x155
SH control unit	200x160x60

780 nm output

Residual 1560 nm output

1560 nm service output

Supercontinuum output 1100-2000 nm

122 [4,80]

98 [3,86]

88 [3,46]

36 [1,42]

63 [2,48]

178 [7,01]

1560 nm output

63 [2,48]

430 [16,93]

120 [4,73]

455 [17,91]

EFOA-SH-UB, mm [inches]