



ALTAIR Series

High repetition rate, High power femtosecond fiber laser



ALTAIR produces high average power with ultrashort femtosecond pulses (<100 fs onwards) at high repetition rate (40 MHz or 80 MHz) in a compact and robust format. ALTAIR is a fiber laser providing high stability and excellent beam quality.

Integrating state of the art high-power fiber amplifiers and pulse management, ALTAIR offers remarkable pulse quality at high average power with no maintenance required.

ALTAIR embeds perfectly into any kind of systems working in a 24/7 operating environment, year-wide. Its very reduced footprint, weight and capital investment make it the money-maker you need.



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KEY FEATURES

- Average power from hundreds of mW to 20W
- From <100 fs pulse duration.
- High repetition rate
- Excellent beam quality
- Low timing jitter
- Compact package, Rugged design, Plug-and-play
- Maintenance free

APPLICATIONS

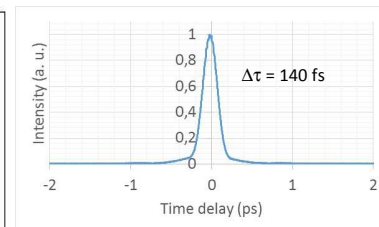
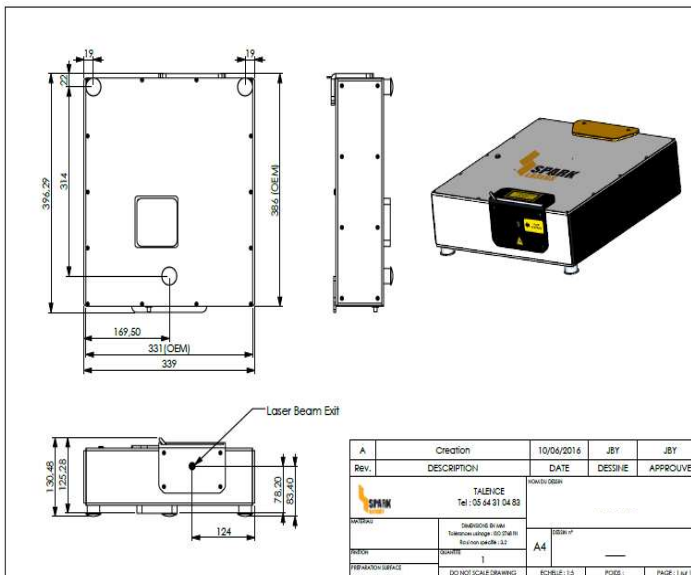
- Multiphoton microscopy
- Optogenetics
- Terahertz generation

OPTIONS

- GDD pre-compensation (-130 000fs²)
- SHG & THG upon request
- F-SYNC: Fine-tuning rep. rate synchronization

Technical Specifications*

| Model | ALTAIR Series | | | |
|--|--|----------|--------|-----|
| Average Power | < 2W | 5W | 10W | 20W |
| Wavelength | 1030 - 1050 nm | | | |
| Pulse duration | <100 fs | < 140 fs | | |
| Repetition rate | 20 - 80 MHz | 40 MHz | 80 MHz | |
| M ² | <1.2 | | | |
| Beam waist diameter | 1 mm | | | |
| Beam pointing | <25 μ rad/ $^{\circ}$ C | | | |
| Ellipticity | >0.9 | | | |
| Warm-up time | < 15 min | | | |
| Power stability | <1% RMS | | | |
| RMS noise | <1% RMS | | | |
| Polarization | Linear, >100:1 | | | |
| External Interfaces | High speed External synchronisation (USB, Sync. Out) | | | |
| Software interfaces | Intuitive GUI, DLL and Serial communication Protocol | | | |
| Laser head dimensions (mm ³) | 397 x 339 x 131 | | | |
| Laser controller dimensions | 19"/3U rack | | | |
| Standard umbilical length | 3 m | | | |
| Power consumption | 100 to 240 VAC < 400 W | | | |
| Cooling | Air cooled | | | |
| OPTIONS | GDD pre-compensation (-130 000fs ²) | | | |
| | SHG & THG upon request | | | |
| | F-SYNC: Fine-tuning PRF synchronization | | | |



CAUTION
 CLASS 4 LASER PRODUCT
 VISIBLE AND INVISIBLE LASER RADIATION
 AVOID EYE OR SKIN EXPOSURE TO DIRECTOR
 SCATTERED RADIATION

This information is subject to modifications without prior notice.

SPARK LASERS offers a 24-month warranty for all ALTAIR laser range.

For full details of this warranty coverage, please contact us at: info@spark-lasers.com or call: +33 564 310 484



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