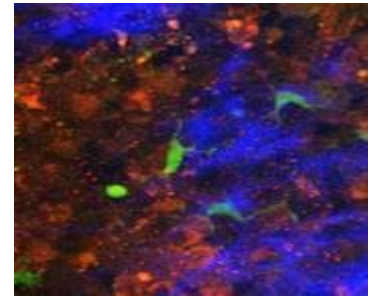


ALCOR 1064-5 W



1064 nm / <130 fs PULSES / HIGHEST POWER / HIGH REPETITION RATE

ULTRA-COMPACT, POWERFUL FEMTOSECOND LASER FOR TWO-PHOTON EXCITATION

ALCOR 1064-5W offers femtosecond pulses at high average power with a fixed wavelength at 1064 nm in an ultra compact, robust footprint whilst being air-cooled. SPARK LASERS has especially designed and developed this high power laser for larger surface imaging for Multiphoton microscopy instrumentation. This laser source embeds industrial grade components for OEM integration working with 24/7 operations. Its design and accuracies allow it to inject its beam directly within all microscopes for large span of applications. ALCOR 1064-5W is so stable it can even be mounted in all imaginable positions and environments.

The ALCOR 1064-5W is the ideal fit for applications needing high power, large surface treatment with unequalled performances with >60 nJ of pulse energy and >480 kW of peak power allowing higher brilliance and contrast for two-photon excitation of calcium indicators such as red opsins (RCaMP, tdTomato, and others).

This higher power ALCOR keeps offering a wide tunability range for GDD precompensation (whether negative or positive) .

The laser can be optionally equipped with XSight fully integrated electronics for fine and fast analog power modulation through GUI or TTL signal including gating.

SPARK LASERS is leading the market with ALCOR that has been answering market's needs by offering single wavelength, designed for microscopy, advanced features, maintenance-free, with best-in-class cost of ownership vs. performance.

TECHNICAL SPECIFICATIONS*

| | ALCOR | ALCOR XSight |
|-----------------------------|--|--------------|
| AVERAGE POWER | 5W | >4W |
| WAVELENGTH | 1064 nm | |
| PULSE DURATION | <130 fs (with standard GDD precompensation from 0 down to - 60 000 fs ² (OTHERS OPTIONAL)) | |
| REPETITION RATE | Fixed 80 MHz (OTHER OPTIONAL) | |
| M ² | <1.3 | |
| OUTPUT BEAM DIAMETER | 1.5 mm | 1.5 mm |
| MODULATION | N/A | TTL & ANALOG |
| ELLIPTICITY | > 0.9 | |
| POWER ADJUSTMENT | Alignment mode or Full power | 0 to 100 % |
| WARM-UP TIME | < 5 min | |
| POWER OUTPUT | FREE SPACE | |
| POWER STABILITY & RMS NOISE | < 1% RMS | < 1% |
| POLARIZATION | linear, > 95% | |

ELECTRICAL

| | | |
|---------------------|--|--|
| EXTERNAL INTERFACES | High speed external synchronisation (Sync. Out), communication through USB, RS 232, TCP/IP with remote control for fast intervention | |
| SOFTWARE INTERFACES | Intuitive GUI, Serial communication protocol | |
| POWER CONSUMPTION | 100 to 240 VAC, < 150 W | |

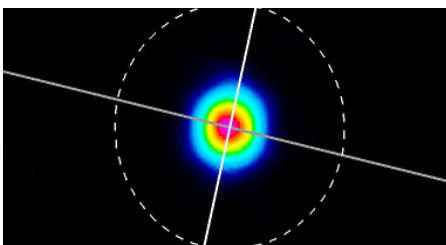
MECHANICAL

| | | |
|--------------------------------------|---|---|
| LASER HEAD DIMENSIONS & WEIGHT | 252 x 151 x 91 mm ³ < 5 kg (with collimated beam) | 387 x 151 x 91 mm ³ < 7 kg (with collimated beam) |
| LASER CONTROLLER DIMENSIONS & WEIGHT | 19"/3U rack – 7,5 kg | |
| STANDARD UMBILICAL LENGTH | 3 m | |
| COOLING | Air cooled | |

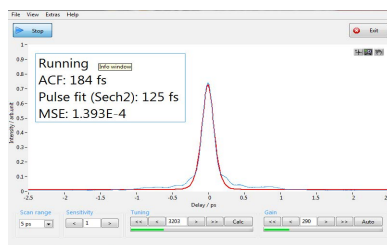
OPTIONS

| | |
|-----------------------------------|---|
| CUSTOM PULSE REPETITION FREQUENCY | 40 MHz or others (with same pulse energy) |
| CUSTOM PULSE DURATION | Any other pulse duration available upon request |

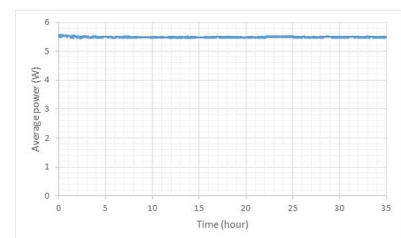
DIMENSIONS & PERFORMANCE



BEAM PROFILE



AUTOCORRELATION TRACE



AVERAGE POWER STABILITY



* This information is subject to modifications without prior notice.

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