# **ANTARES** SERIES





<10 PS / QCW / NARROW LINEWIDTH

# **COMPACT PICOSECOND FIBER LASER**

## FOR BIOPHOTONICS

ANTARES is a picosecond, quasi-continuous wave laser with a high repetition rate up to 80 MHz and a narrow linewidth, in a very compact and robust format.

This laser series offers average powers 1W up to 40W at 1030 nm or 1064 nm (upon request) and can be doubled or tripled in the harmonics to answer even the most challenging industrial and scientific applications.

ANTARES is ideally suited for applications such CARS and spectroscopy application.

#### **CORE SPECIFICATIONS**

/ High repetition rate: 80 MHz / High power: 1W to 40W

/ < 10 ps

#### **USABILITY**

/ Compact, robust & air cooled fiber laser

/ Plug'n play : < 5 min set up, sync. out

/ Intuitive user interface

#### **APPLICATIONS**

/ OPO pumping

/ CARS spectroscopy

/ Fluorescence Lifetime Imaging

#### **CUSTOMER CARE**

/ 24-month warranty

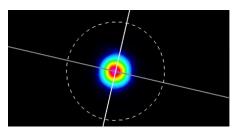
/ Worldwide technical support

/ Laser customization

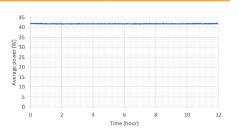
## **TECHNICAL SPECIFICATIONS\***

	ANTARES IR-1	ANTARES IR-5	ANTARES IR-20	ANTARES IR-40
AVERAGE POWER	1W	5W	20W	40W
WAVELENGTH	1030 nm (other optional)			
SPECTRAL WIDTH	> 2,5 nm (narrower optional)			
PULSE DURATION	< 10 ps			
REPETITION RATE	80 MHz (other optional)			
$M^2$	< 1.2			
BEAM WAIST DIAMETER	1 mm			
BEAM POINTING STABILITY	< 25 µrad/°C			
ELLIPTICITY	> 0.9			
WARM-UP TIME	< 5 min			
POWER STABILITY	< 1% RMS			
RMS NOISE	< 1%			
POLARIZATION	linear, > 100:1			
ELECTRICAL				
EXTERNAL INTERFACES	High speed external synchronisation (Synch. Out), communication through USB, RS 232, TCP/IP			
SOFTWARE INTERFACES	Intuitive GUI, Serial communication protocol			
POWER CONSUMPTION	100 to 240 VAC, < 400 W			
MECHANICAL				
LASER HEAD DIMENSIONS & WEIGHT	397 x 339 x 131 mm³ – 13 kg			
LASER CONTROLLER DIMENSIONS & WEIGHT	19"/3U rack — 7,5 kg			
STANDARD UMBILICAL LENGTH	3 m			
TECHNICAL DRAWINGS FOR DOWNLOAD	ANTARES IR / ANTARES DUAL OUTPUT			
COOLING	Air cooled			
OPTIONS				
F-SYNC	Fine-tuning PRF synchronization +/- 1 Mhz around a fixed central frequency. Can synchronize with any 3rd party master device. Electronic setting.			
CUSTOM PRIMARY WAVELENGTH	1064 nm			
ADDITIONAL WAVELENGTH	515 nm or 532 nm, 343 nm or 355 nm			
CUSTOM PULSE REPETITION FREQUENCY	40 MHz, 20 MHz			
EXTERNAL AOM	for power modulation			
ULTRA NARROW SPECTRAL LINEWIDTH	anywhere below < 2.5 nm			

#### **PERFORMANCE**



 $\Delta \tau_{ac} = 12.3 \text{ ps} \\ \Delta \tau_{ac} = 12.3 \text{ ps} \\ \Delta \tau_{sceh2} = 8 \text{ ps} \\ 0.2 \\ 0.2 \\ 0.3 \\ 0.3 \\ 0.4 \\ 0.2 \\ 0.3 \\ 0.3 \\ 0.4 \\ 0.2 \\ 0.3 \\ 0.3 \\ 0.3 \\ 0.4 \\ 0.4 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0.5 \\ 0$ 



BEAM PROFILE AUTOCORRELATION TRACE

AVERAGE POWER STABILITY







<sup>\*</sup> This information is subject to modifications without prior notice.