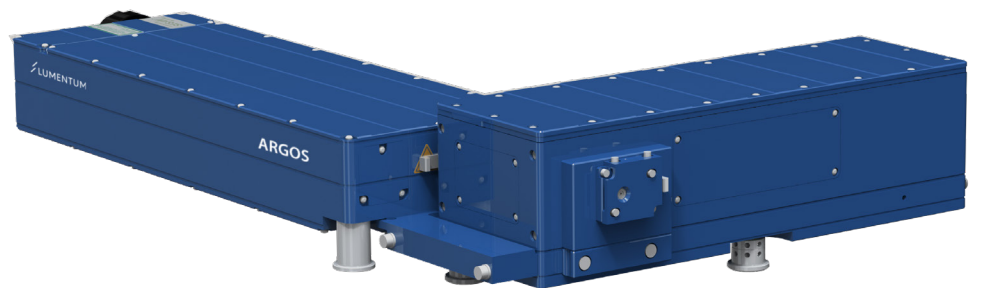


ARGOS High-Power Picosecond Laser

Customized systems based on
SESAM[®] technology



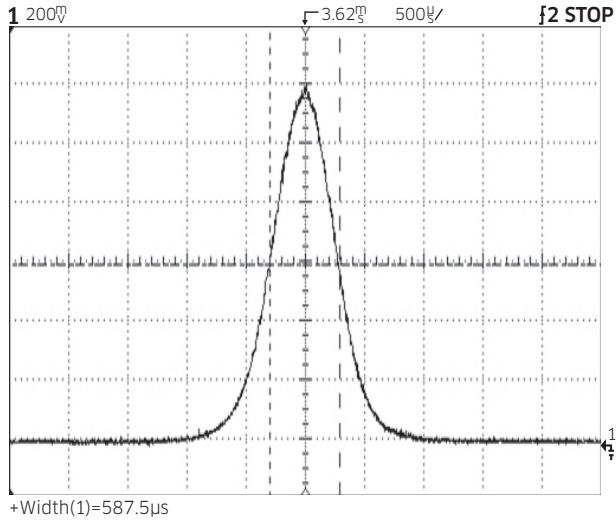
The ARGOS laser system provides cutting-edge performance that supports numerous applications, including semiconductor wafer inspection, metrology, research and development, and nonlinear optics. Built on the proven Cheetah-X platform, the Argos can be customized to support user-defined repetition rates.

Features

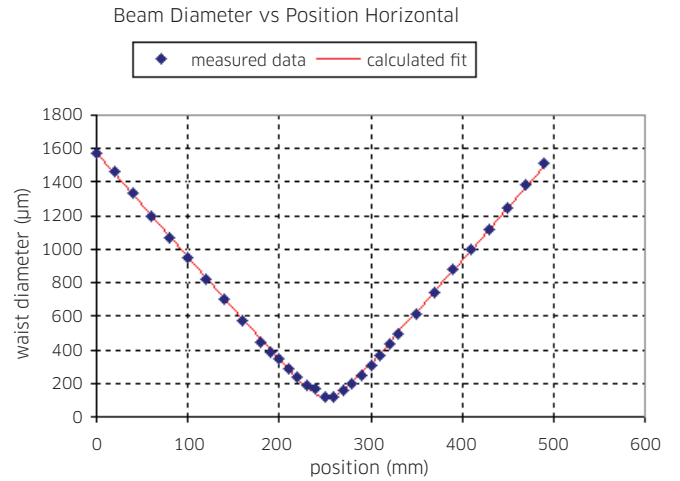
- Passively mode-locked DPSSL
- Closed-loop water cooling
- Turnkey operation
- Sealed laser head
- Low maintenance

Applications

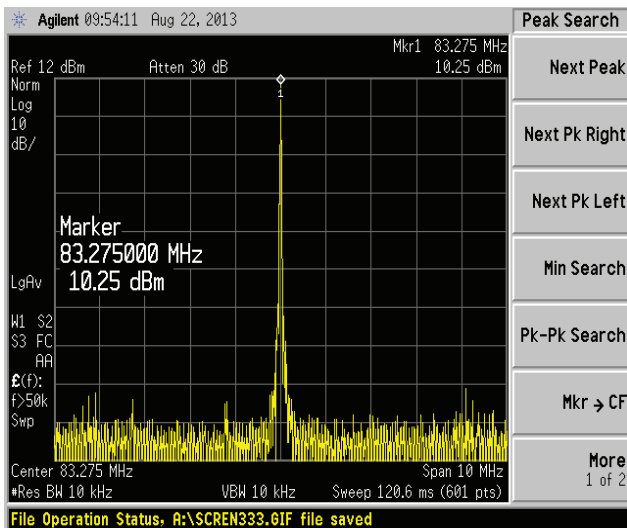
- Seeding amplifier
- High-energy physics
- Semiconductor wafer inspection
- OPO pumping
- Nonlinear optics



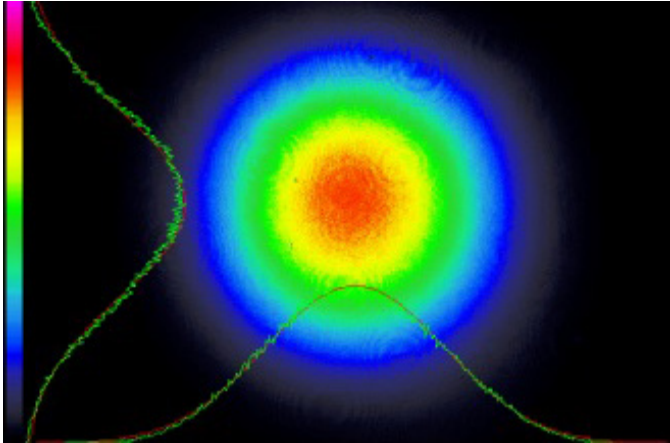
Auto-correlation measured from the IR beam with 11.8 ps pulse width



Second harmonic generation beam propagation through focus. Horizontal: $M^2 < 1.2$



Typical pulse train microwave spectrum centered at the laser repetition rate (span: 10 MHz, resolution: 10 kHz, vertical scale in dB)



Typical beam profile

Specifications

Parameter	ARGOS Laser Details
Output power	>40 W
Repetition rate	50 - 200 MHz
Pulse width	12 ps
Wavelength	1064 nm
Spatial mode	1.3 M ² (TEM ₀₀)
Turn-on time	20 min
Pointing stability	50 μrad/°C
Pulse energy stability (>1 kHz)	0.5% rms
Voltage	100 - 240 V AC
Frequency	50 - 60 Hz
Input power (single phase)	1500 VA

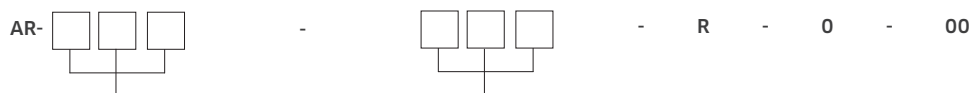
Laser Safety



Ordering Information

For more information on this or other products and their availability, please contact your local Lumentum account manager or Lumentum directly at customer.service@lumentum.com.

Laser Head



PRF	Code	Pulse Width	Code
Specify within the range of 50 - 200 MHz	xxx ¹	Specify within the range of 12 - 200 ps	xxx ²

Accessories

Description	Product Code
Chiller	
Air-water, US with 110 V AC	CH-M-A110
Air-water, European with 220 V AC	CH-M-A220
Water-Water, US with 110 V AC	CH-M-W110
Water-Water, European with 220 V AC	CH-M-W220

Notes:

1. Where 050 equals 50 MHz
2. Where 012 equals 12 ps
3. Requires an additional module
4. Includes 2-m umbilical cable
5. Includes 2-m chiller hose

Example of a Complete Order

AR-050-012-R-0-00 (50 MHz, 12 ps, infrared)⁵
 CH-M-A110 (Air-water chiller, US with 110 V AC)⁶



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