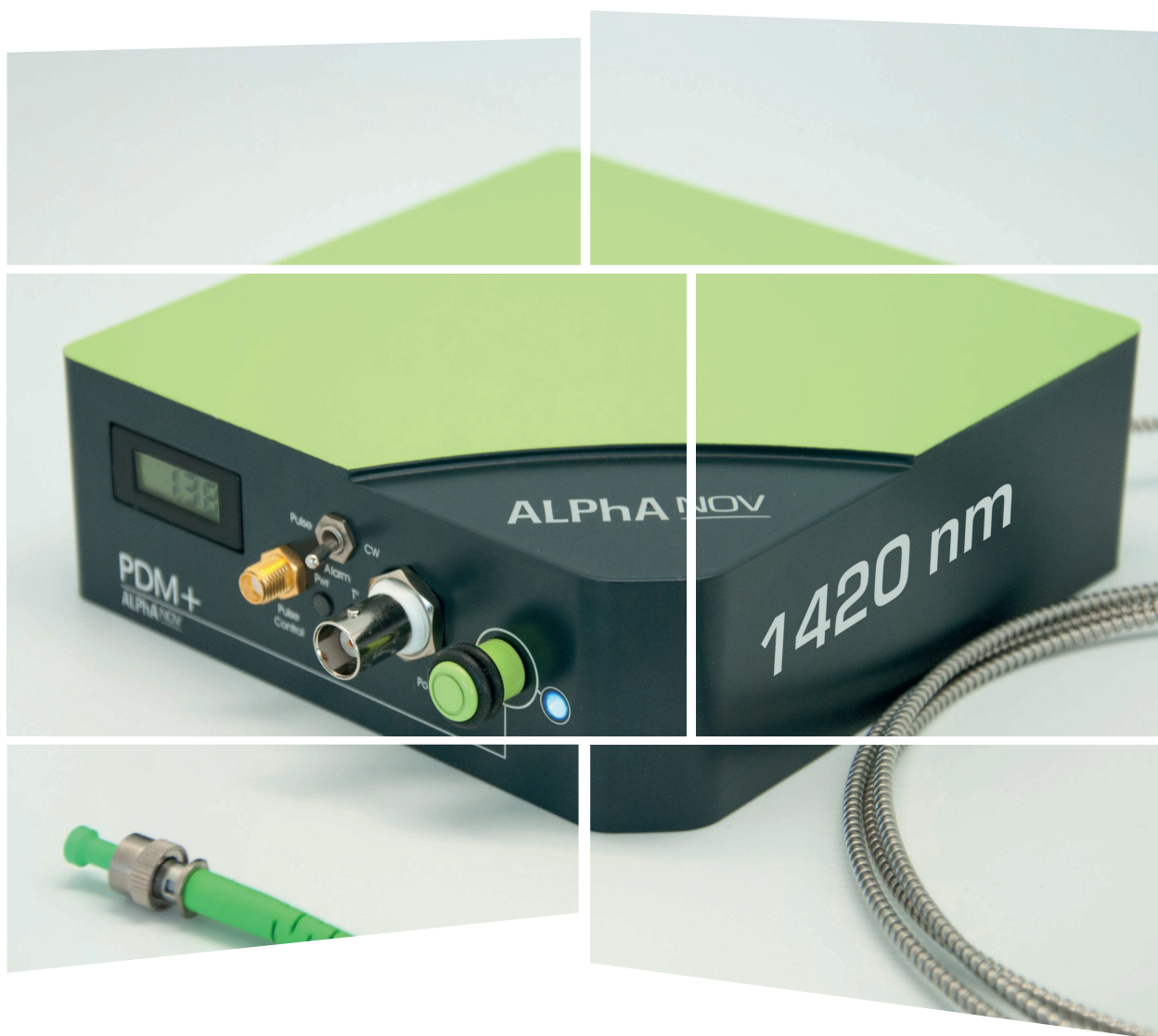


Thermal Laser Stimulation

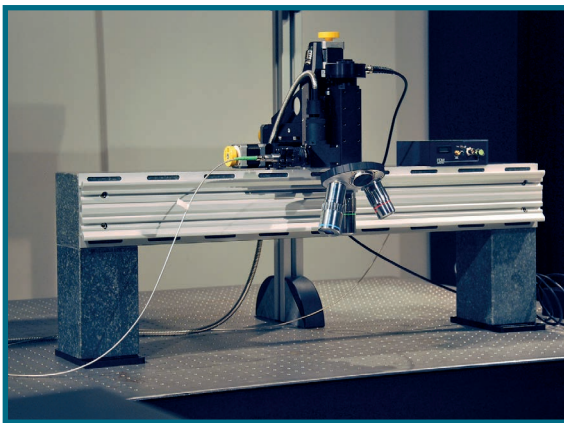


ALPhA NOV

Optics & Lasers Technology Center

Thermal Laser Stimulation

Thermal Laser Stimulation is a failure analysis technique allowing to localize and read out stored information in the memories of a chip (SRAM, BBRAM,...) by using a 1310 or 1420 nm laser.



Laser

	PDM - 1310	PDM - 1420
Wavelength	1310 nm	1420 nm
Continuous wave/ Peak Power	300 mW/1.2 W	350 mW/1.2 W
Pulse duration	from 3 ns to continuous wave	
Repetition rate	from single-shot to continuous wave	
Spot Size	down to 1 $\mu\text{m}^{(1)}$	
Command interface	TTL/LVTTL/ Software and DLLs	
Ouput	single-mode fiber	

(1) through an ALPhANOV microscope

Optical

Transmission typ.	>90% of transmission
Vision	High resolution IR camera
Lighting system	LED IR lighting system

Compatible with

- S-LMS laser fault injection station
- D-LMS laser fault injection station
- esDynamic software platform

Microscope positioning

Axes number	XYZ
Travel range	52 mm
Resolution	0.315 μm
Repeatability	+/- 0.8 μm
Max velocity	20 mm/s