



AIRTRAC®-LP



Areté's AIRTRAC-LP is a ruggedized DPSS laser with >50 mJ pulse energy in a very compact, lightweight, and low-power configuration. The athermal design provides high laser pulse energy over the full operational temperature range with low beam divergence. The full system weighs less than 320 grams, establishing a new standard in size for lasers of this class.

Key Features

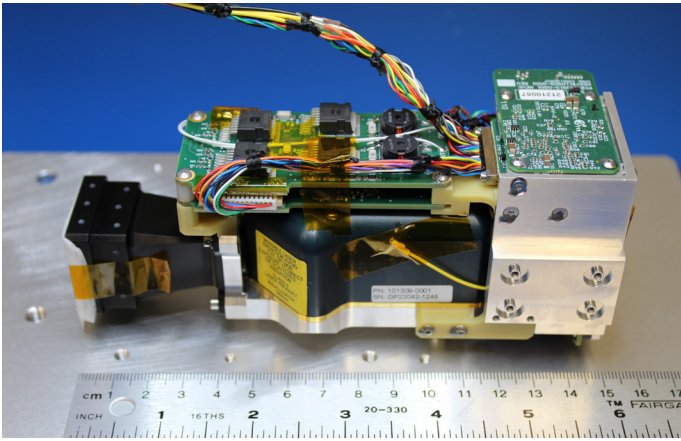
- Compact efficient athermal laser resonator
- Patented technology for increased efficiency and long life performance
- High energy with low beam divergence
- Dual energy mode
- No significant warm-up time
- Reduced heat-load
- Capable of continuous operation
- Shock & vibration hardened
- Customer-specific packaging available



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AIRTRAC®-LP Laser



AIRTRAC-LP with example custom packaging configuration



Incorporated into Marine Corp NGHTS handheld.

Parameter	Range			Comments
	Min	Typical	Max	
Weight	320 g			112500 AIRTRAC-LP Laser with Electronics (without a telescope)
Wavelength	1.064 um			
Output Energy per Pulse	50 mJ	55 mJ	70 mJ	The AIRTRAC has a dual energy mode capability (Low Energy 35 mJ)
Pulse Width	10 ns to 25 ns			
Beam Divergence	<250 urad			With a 6X Telescope*
Beam Jitter	<25 urad			< 1/10 beam divergence with a 6X telescope
Rep Rates	0 Hz to 25 Hz			
Pulse to Pulse Energy Stability	<10% typ			
Secondary Pulses	None			
Average Standby/Arm Power	<5 W			
Average Power Draw (total)	<10 W	<25 W	<42 W	Values taken at 24VDC and across pulse frequencies of 7Hz to 20Hz
Peak Current	2.5 A	2.8 A	3.5 A	Values taken at 24VDC and across pulse frequencies of 7Hz to 20Hz
Operational Temp Range	-32C to +70C			Verified energy across entire temperature range
Storage Temp Range	-40C to +85C			
Mechanical Vibration	Complies with MIL-STD-810G			Testing performed with MIL-STD 810G-Change 1, Method 514.7, Category 24
Thermal Shock	Complies with MIL-STD-810G			Testing performed with MIL-STD 810G, Method 503.6, Procedure I-B

* beam divergence will vary with the telescope magnification



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