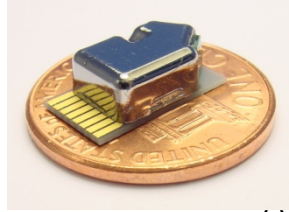


Spectralus[®] Atto Green Laser Source^(a) Models Atto-200-450-80^(b)



SPECIFICATIONS^(c)

Rev 1.1						
	Parameter	Symbol	Unit	Min	Typical	Max
1.0 Optical Performance						
a	Average Optical Output Power	P _o	mW		200	
c	Green Center Wavelength, Operating	λ _c	nm		532	
e	Beam Quality	M ²			3.0	
f	Beam Waist Diameter		micron		80	
g	Beam Divergence (at 1/e ² level)		mrad	15	25	35
h	Power Stability (RMS)		%	+/-20% over 2 hr over temp. range, +/-10% over 2 hr at fixed temp.		
i	Polarization			Linear ^(d) , >100:1		
j	IR Residual Power in Beam		mW			3
2.0 Electrical-Optical Performance						
a	Laser Operating Current (peak)	I _o	A		1.8	
b	Laser Operating Voltage	V _o	V		2.0	
d	Nominal Operating Mode		450Hz, 80% duty cycle or per model number ^(b)			
h	Peak Wall-plug Efficiency BOL ^(e)	PCE	%		7	
3.0 Thermal Performance						
a	Case Operating Temperature	T _o	°C	-20		50
b	Optimum Case Operating Temperature	T _o	°C		20	
4.0 Mechanical						
a	Length	L	mm		12.4	
b	Width	W	mm		6.8	
c	Height	H	mm		3.9	
d	Volume	V	cm ³		0.33	

- Protected under U.S. Patents 7,742,510 and 7,413,635. Other U.S. and international patents pending.
- The models Atto-p-f-dc are pre-set at the factory and are coded by the package type (Atto), power (p in mW), pulse repetition rate (f in Hz) and duty cycle (dc in %).
 Standard model: **Atto-200-450-80**
 Models with other frequencies and duty cycles may be supplied per customer request.
- All specifications are preliminary and are subject to change.
- Polarization is linear and is parallel to the package base.
- BOL: beginning of life
- Atto lasers can be supplied with a driver board powered by the wall outlet.
- See Atto package drawings on the next page.

LASER HEAD DIMENSIONS (in mm):

Atto Laser package and beam position (with monitor photodiode):

