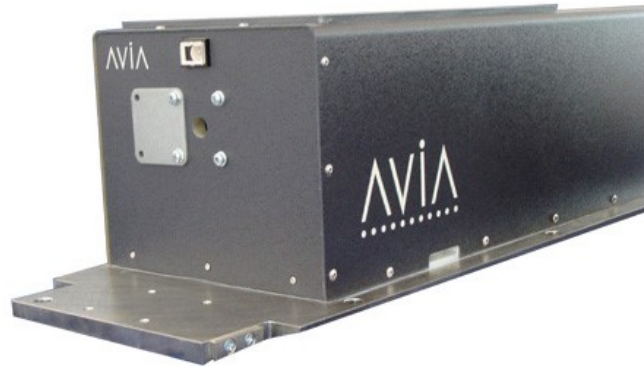


[355nm.com](#) > AVIA UV LASER

**AVIA Solid State Q-Switched UV Laser**

Coherent Avia 355-7, Avia 355-10, Avia 355-14, Avia 355-20

Laser Innovations offers sales, service and support for your Coherent AVIA Laser System. We service all of the 355nm AVIA Laser Systems as well as the 532nm and 266nm AVIA Laser Systems.



[Products & Services](#)

[Contact Us](#)

[AVIA 355-23](#)  
[AVIA 355-23-250](#)  
[AVIA 355-28](#)  
[AVIA 355-X](#)  
[DPSS](#)  
[JDSU Xcyte](#)  
[Laser Export](#)  
[Vanguard](#)

**Specifications:**

**AVIA LASER**

	<b>355-7<sup>1</sup></b>	<b>355-10<sup>1</sup></b>	<b>355-14<sup>2</sup></b>	<b>355-20<sup>2</sup></b>
Wavelength		354.7 nm		355 nm
Output Power	7W @ 60 kHz	10W @ 60 kHz	14W @ 100 kHz	≥ 20W @ 100 kHz ≥ 12W @ 150 kHz
Output Power Stability	< ±2% 1σ (average over 8 hours)			

**Pulse**

Repetition Rate Range				
Nominal	Single shot to 300 kHz		Single shot to 300 kHz	Single shot to 300 kHz
Optimized	60 kHz		100 kHz	100 kHz to 150 kHz
Pulse Width	< 35 ns up to 60 kHz		< 40 ns up to 100 kHz	< 40 ns @ 100 kHz < 50 ns @ 150 kHz
Pulse-to-Pulse Energy Stability	< 5% RMS 1σ (up to 80 kHz)		< 5% RMS 1σ (up to 100 kHz)	< 5% RMS 1σ @ 100 kHz < 10% RMS 1σ @ 150 kHz

**Beam**

Divergence, Full Angle <sup>4</sup>	< 0.3 mrad			
Spatial Mode <sup>4</sup>	TEM <sub>00</sub> (M <sup>2</sup> < 1.3)			
Pointing Stability/Drift <sup>3</sup>	< 25 μrad/°C			
Polarization Ratio <sup>4</sup>	> 100:1 Horizontal			
1/e <sup>2</sup> Beam Diameter <sup>4</sup>	3.5 mm ±10%			
Circularity	> 85%			
Bore-sight Accuracy (ref. mounting features on head)	±0.5 mm & ±5 mrad			

Beam Exit Location (XY ref. bottom/left baseplate)	4.0 x 5.0 in (101.6 x 127.0 mm)	5.0 x 9.87 in (127.0 x 250.7 mm)
---	------------------------------------	-------------------------------------

### Operating Conditions

Warm-up time (typical)		
Stand-By	< 15 min.	< 15 min.
Cold Start	< 40 min.	< 60 min.
Ambient Temperature		
During operation	+10°C to +30°C	+15°C to +35°C
Power off, short term	-25°C to +65°C	-25°C to +65°C
Relative Humidity (non-condensing)	10 to 80%	
Cooling - Power Supply	Air-Cooled	
Cooling - Laser Head	Water-cooled	Water-cooled
Flow Rate, recommended	1.5 to 2.0 gal/min (5.7 to 7.6 l/min)	1.5 to 2.0 gal/min (5.7 to 7.6 l/min)
Temperature, recommended	16°C to 20°C	
Heat Load (max)		
Power Supply	650W	400W
Laser Head	300W	800W

### Electrical

Voltage (auto-ranging)	100 to 240 VAC	
Single-Phase, 3-Wire		
Frequency (auto-ranging)	50 to 60 Hz	
Power Consumption	600 to 1200 W	800 to 1300 W

### Mechanical

Weight		
Laser Head	57 lb (26 kg)	110 lb (50 kg)
Power Supply	85 lb (39 kg)	55 lb (25 kg)
Umbilical		
Length	10 ft (3 m)	15 ft (5 m)
Diameter		
Bend Radius, min.	5 in (127 mm)	5 in (127 mm)
Dimensions, (LxWxH)	(Approximate for shipping)	
Laser Head (w/Umbilical)	40 x 11 x 12 in (101 x 28 x 31 cm)	
Power Supply	21 x 20 x 10 in (61 x 51 x 25 cm)	

<sup>1</sup> Measurements taken at maximum output power and 60 kHz, unless stated otherwise.

<sup>2</sup> Measurements taken at maximum output power and 100 kHz, unless stated otherwise.

<sup>3</sup> Reference to base plate temperature.

<sup>4</sup> Applies over Repetition Rate Range 50 to 70 kHz for Avia 355-7 and Avia 355-10.

Applies over Repetition Rate Range 100 to 120 kHz for Avia 355-14.

Applies over Repetition Rate Range 100 to 150 kHz for Avia 355-20.

*Specifications are for reference only and do not constitute warranty specifications on serviced lasers by Laser Innovations.*

[Home](#)   [Products & Services](#)   [Applications](#)   [About Us](#)   [Contact Us](#)  
[Avia 7-20W](#)   [Avia 23-28W](#)   [244nm.com](#)   [266nm.com](#)   [337nm.com](#)   [488nm.com](#)   [532nm.com](#)   [FAP-I](#)   [laserinnovations.com](#)  
[solidimaging.com](#)

**Laser Innovations; 1150 E. Main Street; Santa Paula, CA 93060**  
**Ph (805) 933-0015 Fax (805) 933-0042**

[information@laserinnovations.com](mailto:information@laserinnovations.com)  
 Copyright © 2009-2012 Laser Innovations. All rights reserved.  
[View Map](#)

The information on this page is from the Laser Innovations website ([www.355nm.com](http://www.355nm.com)) and is intended for the personal use of the customer only and may not be sold or transmitted to another party. We assume no responsibility for errors or omissions.

Please note: "COHERENT", "AVIA" and "VERDI" style logos found within the photographs of this website, of actual Coherent Laser brand laser systems, are registered trademarks of Coherent, Inc.

Please note: "Spectra-Physics", "Newport" and "Vanguard" style logos found within the photographs of this website, of actual Spectra-Physics Laser brand laser systems, are registered trademarks of Newport Corporation.

Please note: "JDSU", "LightWave" and "Xcyte" style logos found within the photographs of this website, of actual JDS Uniphase Laser brand laser systems, are registered trademarks of JDS Uniphase.

Please note: "DPSS Lasers, Inc.", "Liconix" and "3500" style logos found within the photographs of this website, of actual DPSS Laser brand laser systems, are registered trademarks of DPSS Lasers, Inc.

[Terms and Conditions of Sales](#)