

AONano Compact (ONE) Series Air - cooled

Industrial UV nanosecond laser

- Good heat dissipation structure
- PWF function
- TTL level signals & pulse width modulation signals
- Short pulse width, excellent beam quality



► Features & Benefits:

This is the upgraded version of our air-cooled AONano Compact-355 laser series. The all-in-one design makes the laser more compact and reduces the total weight. It saves space for installation on the customer side, lowers the integration cost and simplifies the installation process. The laser works reliably in the temperature range from 15°C to 35°C due to its industrial-leading thermal management system and heat dissipation structure.

Both 3W version and 5W version are available for this laser model. The typical repetition range is 30kHz to 150kHz. The pulse energy can be beyond 100μJ. The short pulse width (<15ns@50k), the excellent beam quality ($M^2 < 1.2$), and the great beam roundness (> 90%) enable this laser model a perfect candidate for various application areas, including consumer electronics material surface engraving, on-fly marking, glass internal writing, 3D printing and so on.



Package marking



3C marking



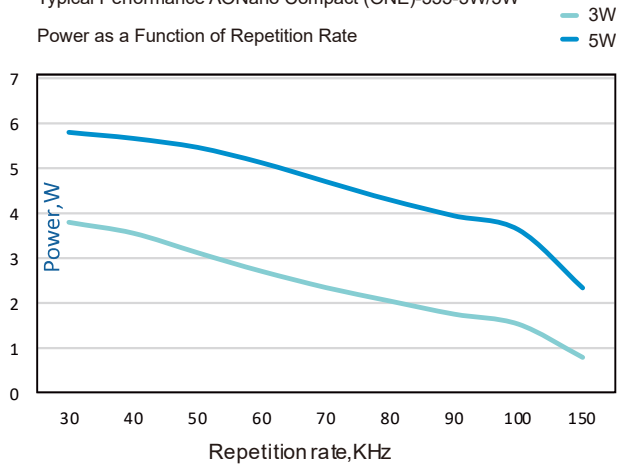
FPC/PCB marking



3D printing

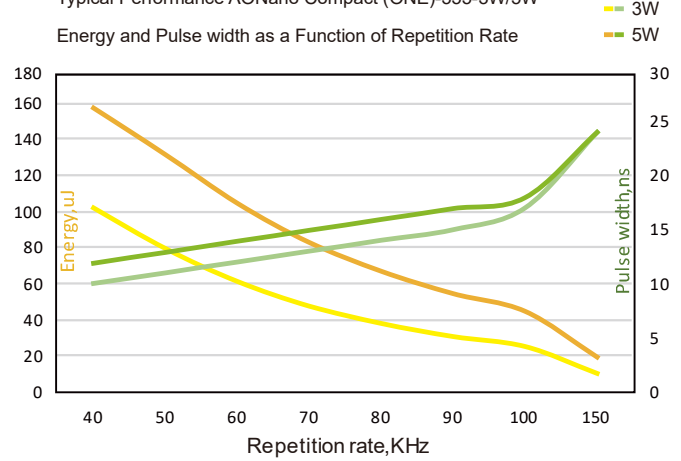
Typical Performance AONano Compact (ONE)-355-3W/5W

Power as a Function of Repetition Rate



Typical Performance AONano Compact (ONE)-355-3W/5W

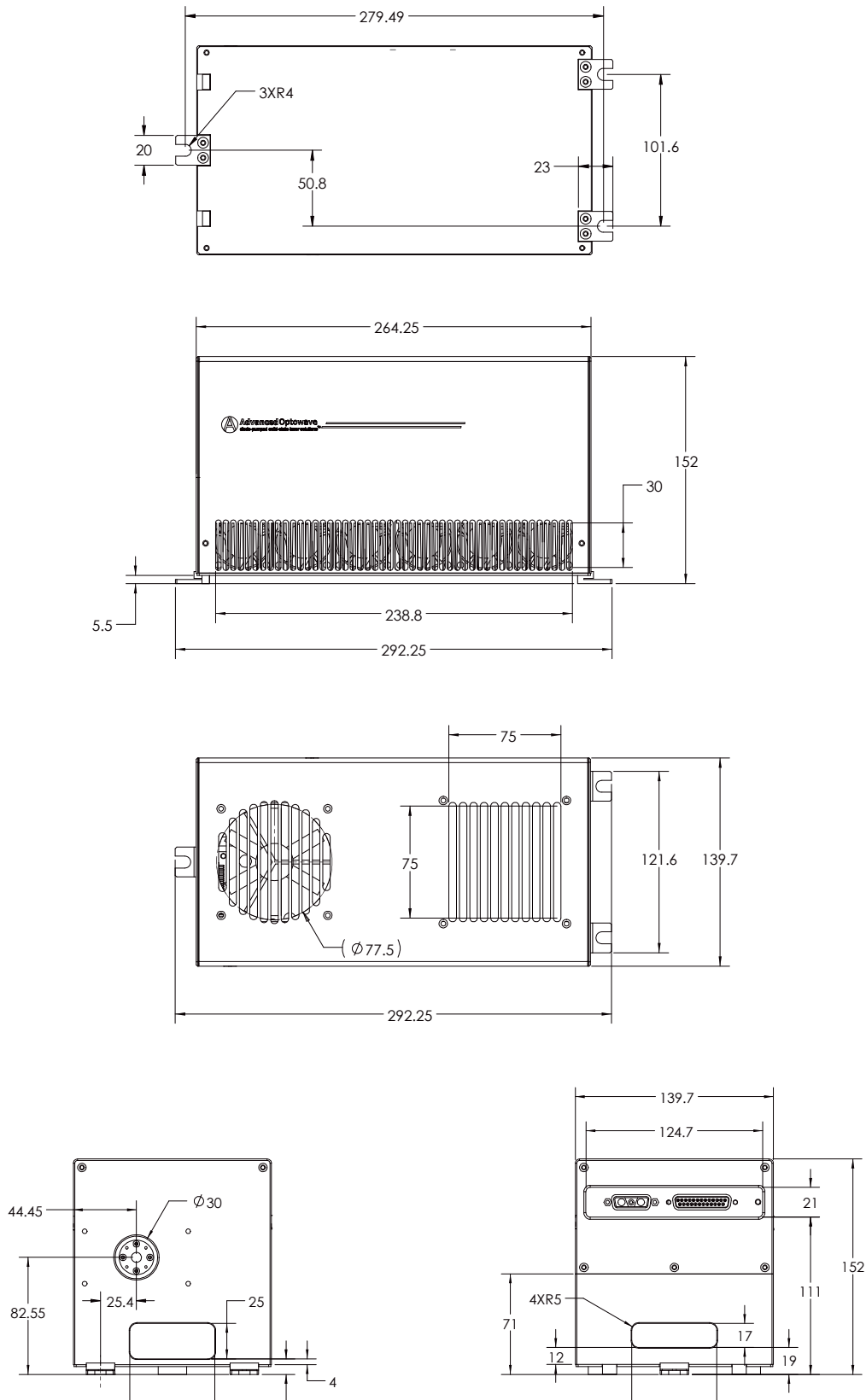
Energy and Pulse width as a Function of Repetition Rate



AONano Compact (ONE) 355		
Specification	3W-50K	5W-50K
Wavelength (nm)	355	
Average Power (Watts)	>3W@50KHz	>5W@50KHz
Energy (μJ)	>100	>166
Specified Repetition Rate(kHz)	50	
Repetition Rate (kHz)	30 ~ 150	
Pulse Width (ns)	<15	
Beam Quality (M')	< 1.2	
Beam Roundness (%)	> 90	
Beam Diameter (mm)	~0.45	
Beam Divergence (mRad)	< 1.5	
Point Stability (μrad/°C)	< 20	
Polarization Ratio	100:1 Linear, Horizontal	
Pulse-to-Pulse Stability (% RMS)	< 3	
Average Power Stability(% over12 hours)	< 3	
Cold Start Warm-Up (mins.)	< 40	
Standby Warm-Up (mins.)	< 10	
Operational Temperature Range (°C)	15-35°C	
Operation Humidity Range (%)	20 to 80, non-condensing	
Storage Temperature Range (°C)	-20 to 50	
Storage Humidity Range (%)	20 to 80, non-condensing	
Input Voltage (VDC)/Rated Power(W)	12/350	
Communication	RS232	
Cooling	Air	
Laser head (kg)	5.24	

AONano Compact (ONE) SERIES (air cooling)

AONano Compact (ONE) -355 (air cooling) Laser Size



AONano Compact (ONE) Series Water-Cooled

Industrial UV nanosecond laser

- ALL-in-one design for ease of integration
- Strong anti-interference ability
- One-button start function



► Features & Benefits:

This is the upgraded version of our water-cooled AONano Compact-355 laser series. The all-in-one design makes the laser more compact and reduces the total weight. It saves space for installation on the customer side, lowers the integration cost and simplifies the installation process. The newly added one-button start feature significantly reduces the operational procedure of the customer and consequently improves the user experience.

The water-cooled design allows the laser to work reliably in various harsh and extreme environments and makes the laser to be the ideal candidate for the 7x24 non-stop production needs. The output power of 3W, 5W and 10W are available in the repetition range from 30 kHz to 150 kHz. The maximum pulse energy reaches 200 μ J. It is the perfect candidate for various application areas, including consumer electronics material surface engraving, on-fly marking, glass engraving, 3D printing and so on.



Package marking



3C marking

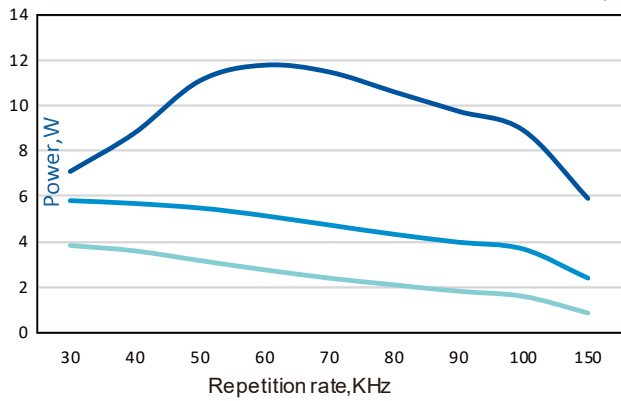


FPC/PCB marking

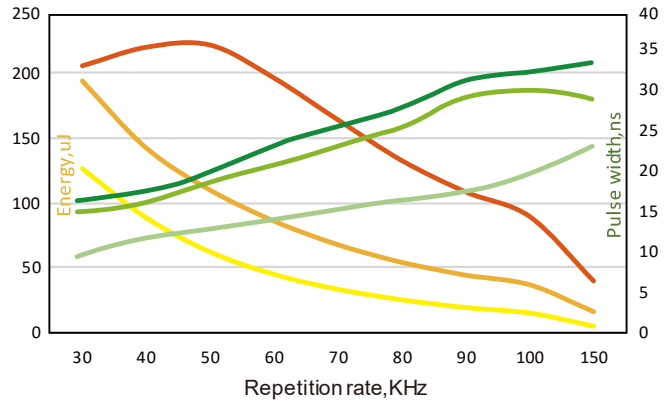


3D printing

Typical Performance AONano Compact(ONE)-355-3W/5W/10W
Power as a Function of Repetition Rate



Typical Performance AONano Compact(ONE)-355-3W/5W/10W
Energy and Pulse width as a Function of Repetition Rate



AONano Compact (ONE) 355			
Specification	3W-30K	5W-30K	10W-50K
Wavelength (nm)	355		
Average Power (Watts)	>3W@30KHz	>5W@30KHz	>10W@50KHz
Energy (μJ)	>100	>160	>200
Specified Repetition Rate(kHz)	30	30	50
Repetition Rate (kHz)	30 ~ 150		
Pulse Width (ns)	<15		<13
Beam Quality (M ²)	< 1.2		
Beam Roundness (%)	> 90		
Beam Diameter (mm)	~0.45		0.65
Beam Divergence (mRad)	< 1.5		
Point Stability (μrad/°C)	< 20		
Polarization Ratio	100:1 Linear, Horizontal		
Pulse-to-Pulse Stability (% RMS)	< 3		
Average Power Stability(% over12 hours)	< 3		
Cold Start Warm-Up (mins.)	< 40		
Standby Warm-Up (mins.)	< 10		
Operational Temperature Range (°C)	5-40°C		
Operation Humidity Range (%)	20 to 80, non-condensing		
Storage Temperature Range (°C)	- 20 to 50		
Storage Humidity Range (%)	20 to 80, non-condensing		
Input Voltage (VDC)/Rated Power(W)	24/350		24/450
Communication	RS232		
Cooling	Water		
Weight (kg)	4.9		6.5

AONano Compact (ONE) SERIES (water cooling)

AONano Compact(ONE) -355 (water cooling) Laser Size

