

Acoustic Detection Equipment Test Record Sheet						
Drone Acoustic Localization		Simultaneous Detection of 5 UAVs		Single Array Supports 16 Targets		
Device Name	Acoustic Detection Equipment		LS8118F	NO		
Testing Environment	June 11, 2026; Temperature: 24~29° C; Relative Humidity: 30%-46%; Wind: Force 2~4 (Light Breeze); Weather: Sunny / Cloudy / Light Rain; Ambient Noise: 40~50 dB SPL.					
Test UAV	DJI AIR2、AIR3、Mavic3、AVATA1、AVATA2					
Test Engineer				Software/Firmware Version		
NO	Test Category	UAV Type	Detection Range at 10~20 m Altitude	Detection Range at 100 m Flight Altitude	Is the UAV Model Displayed Correctly	Remark
1	Range Test	AIR2 (Medium Speed12-15 m/s)	Horizontal Distance: 170m	Horizontal Distance: 230m Line-of-Sight Distance: 251m	No	
2		AIR3 (Medium Speed12-15 m/s)	Horizontal Distance: 150m	Horizontal Distance: 160m Line-of-Sight Distance: 190m	No	
3		Mavic3 (Medium Speed12-15 m/s)	Horizontal Distance: 180m	Horizontal Distance: 190m Line-of-Sight Distance: 215m	No	
4		AVATA1 (Medium Speed10-20 m/s)	Horizontal Distance: 380m	Horizontal Distance: 500m Line-of-Sight Distance: 510	No	
5		AVATA2 (Medium Speed10-20 m/s)	Horizontal Distance: 240m	Horizontal Distance: 280m Line-of-Sight Distance: 300m	No	
6						
7	Flight Direction Comparison Test	UAV Type	Detection Range - Inbound Flight (High Speed)	Detection Range - Outbound Flight (High Speed)		
8		AIR3	Altitude: 100m Horizontal Distance: 260m Line-of-Sight Distance: 280m	Altitude: 100m Horizontal Distance: 260m Line-of-Sight Distance: 280m	/	Headwind and Tailwind Related
9	Identification Accuracy and Detection Range Test at Different Flight Speeds	UAV Type	Constant Low Speed (6-8m/s)	Constant Medium Speed (12-15 m/s)	Constant High Speed (16-21m/s)	Remark
10		AIR3	Horizontal Distance: 130m	Horizontal Distance: 160m	Horizontal Distance: 230m	
11						
12	Detection Angle / Coverage Range	UAV Type	Max Detection Range (Medium Speed)	Max Coverage Angle		
13		AIR3	Horizontal Distance: 150m	120°		
14						
15						
Test Conclusion	The system detects UAVs primarily through rotor acoustic signatures. DJI consumer drones equipped with low-noise two-blade propellers and low-KV motors generally exhibit shorter detection ranges, while FPV drones with higher-KV motors and higher propeller speeds can typically be detected at distances of around 1 km. Detection range is affected by environmental conditions, with higher humidity and headwind conditions generally contributing to improved detection performance.					
Tester Signature:		Reviewer Signature: Jimmy			Test Date	2026/6/11