2.4Ghz Panel Antenna for ANT-10FD(10dBi) with WiFi6 Outdoor (OW-400 4N00) 0.67KM Distance PtP Throughput Test Report

1. Test Product model.

2. Introduction

The purpose of this test is to determine the average throughput and signal stability between the external wide-range 2.4Ghz signal antenna (ANT-10FD) and OW-400 4N00 at a distance of 670Meter. This test specifically measures point-to-point WDS connections set up with Cerio's CenOS 5.0 package. The test was carried out between two OW-400 4N00 devices operating according to the 802.11ax standard.

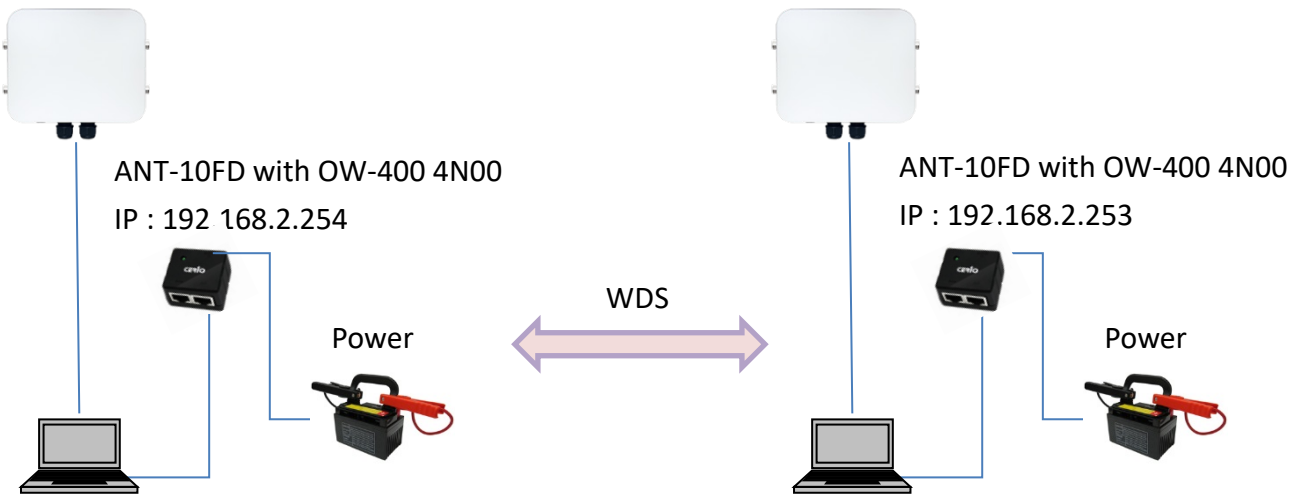
3. Test Date and Personnel

Date : 08/17/2023			
Test Persons			
	Mark		

4. Test Environment

Location A-SITE
Location B-SITE
The distance from Location A to Location B is roughly 670.61 m, determined by Google Earth.

5. System Network Configuration

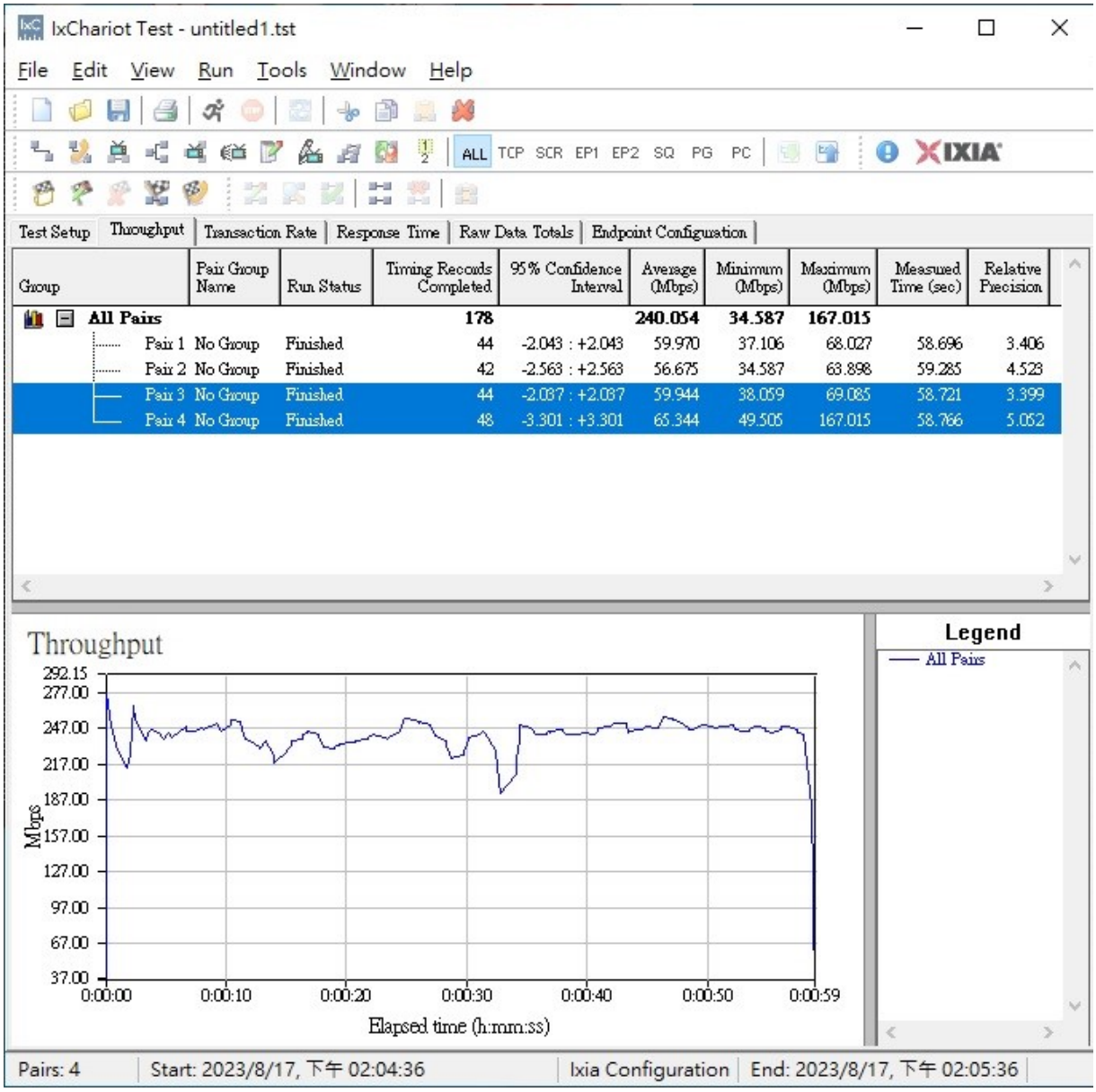


6. OW-400 4N00　UI Screen

Location A：MAC Address and WDS

Location B：MAC Address and WDS

Band Mode	Channel	Throughput	Antenna
802.11ax	10	240.054	ANT-10FD



7. TEST Tools

Test Equipment			
Notebook	HP 242 G1 x1 Lenovo X230 x1	System OS	Windows 10 (x64)
Power (battery)	ALPHALINE MF85D23R x2		
Inverter	DC to AC 350W Inverter x2		
Tripod	2		
PoE Injector	Gigabit Injector (FPOE-PE-60W) x2		
RJ-45 Cables	Cat.5e x 4		
RF Cables	LLMR-NNP-1M x2		
Test products	1. External type : (ANT-10FD) x2 2. eXtreme High Power WiFi6 Dual-Radio external-ANT Outdoor PoE Bridge/AP (OW-400 4N00)x2		
Test Software and setting information			
Application tools	Chariot Version 6.7		
Running time	60 sec		
software	CenOS 5.0 Layer2 Softcore Core Firmware version : Pme-CPE-CERIO V0.01		
Operation mode	Using Access Point mode with WDS function		
Radio and Channel	Radio 0 (2.4G) channel range : 1-11CH		

8. On-site status

Location A:

Location B:

Conclusion

In order to verify the performance of Cerio's latest 2x2 MIMO wide-range wireless antenna product ANT-10FD and enhance the product's capabilities, we conducted a long-distance throughput test on this antenna with an outdoor wireless access point, and used a An outdoor access model with an external antenna was tested point-to-point.

Based on the results of our 670M test of a 2.4Ghz external antenna (ANT-10FD) using the OW-400 4N00, we concluded that the wide range signal of the ANT-10FD makes it very easy to adjust the transmission direction (horizontal or level). Vertical) angle pointing is simple and easy, and finally can show its best and efficient data transmission up to 240Mbps.

The Cerio Outdoor Wireless Test has proven to be an invaluable reference tool for users planning to deploy our products in a variety of outdoor environments. Through this test, we have full confidence in our team's development and design capabilities.

Our extensive experience enables us to create quality wireless network hardware and software products that consistently meet our customers' needs and deliver superior products to our customers.