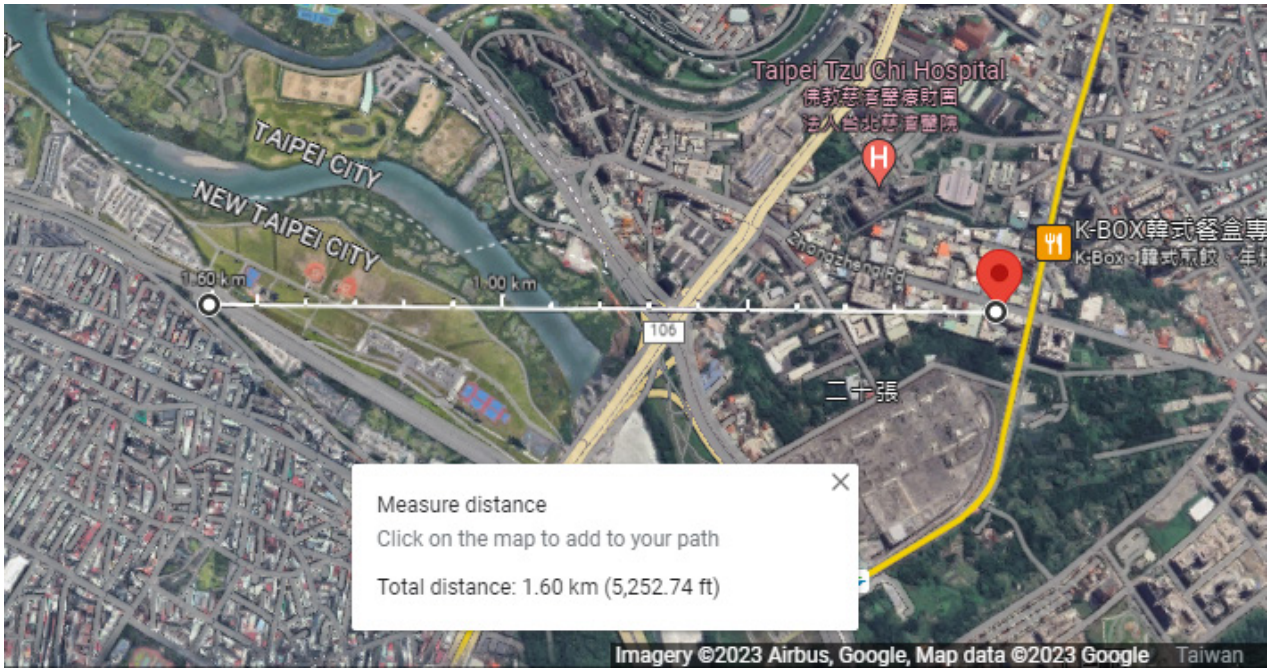
5G setting to AC1733 for OW-400 (2N10) with built-in 5GHz Patch Antenna (10dBi) 1.6KM Distance PtP Throughput Test Report



1. Test Product model.

OW-400 Series eXtreme High Power WiFi6 Dual-Radio Outdoor PoE Bridge/AP (+10dBi Patch ANT)

OW-400 (2N10)

2. Introduction

The purpose of conducting this test was to determine the average throughput and signal stability of Cerio's OW-400 (2N10) with built-in 5GHz Patch Antenna (10dBi) at a distance of 1600M. The test specifically measured point-to-point WDS connections set through Cerio's CenOS 5.0 Software Bundle. The test was conducted between two units of OW-400 (2N10) operating under 802.11ac standards.

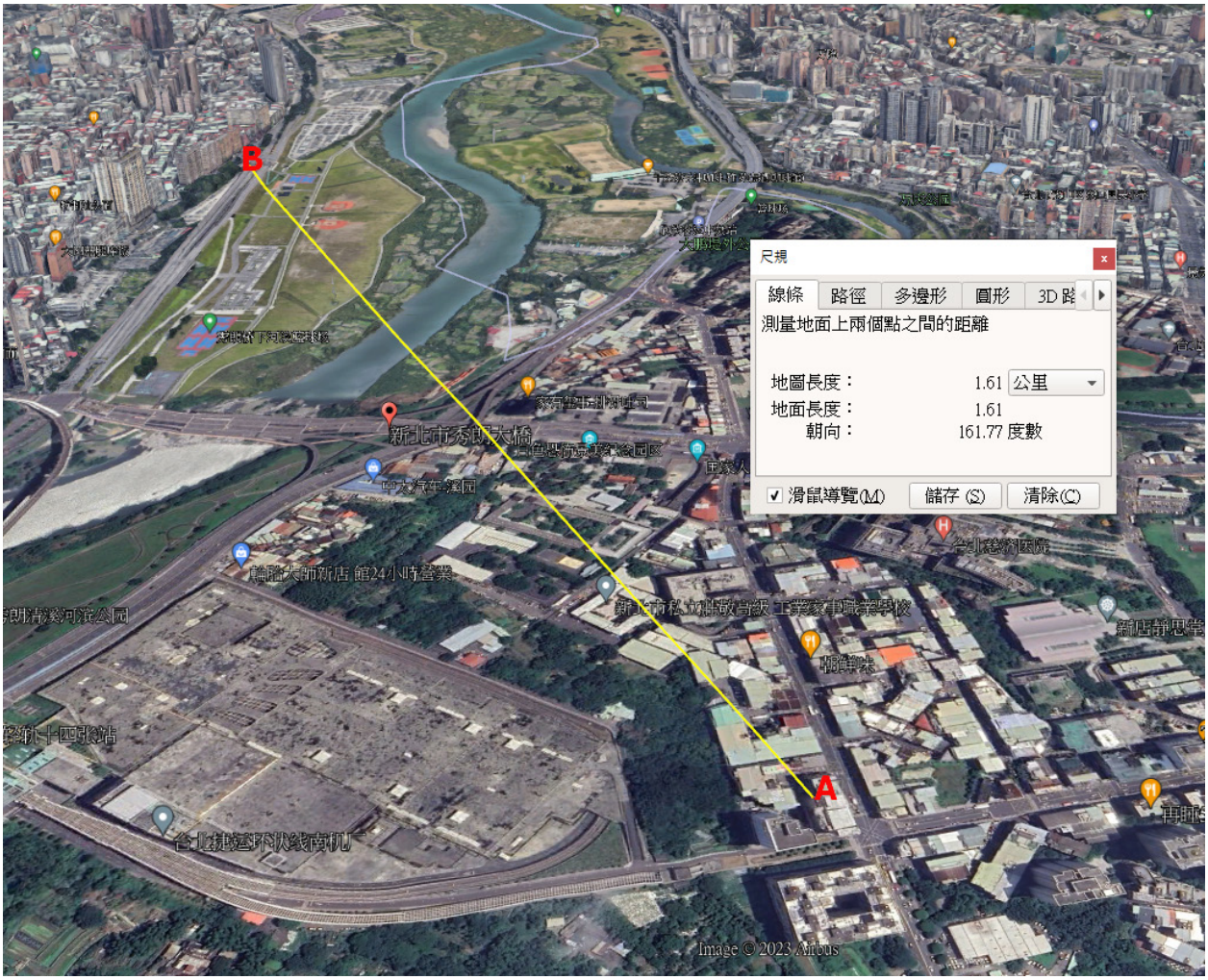
3. Test Date and Personnel

Date : 06/28/2023			
Test Persons			

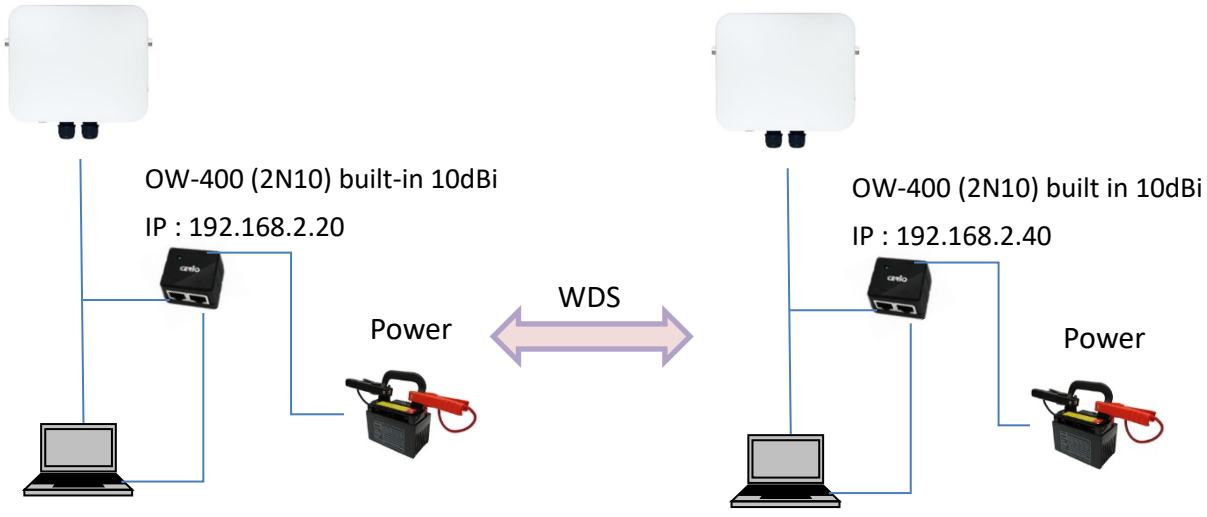
4. Test Environment

Location A: XinDian Cerio office building top floor.
Location B: Yonghe Xinbeihuanhe Expy at pedestrian bridge.

The distance from Location A to Location B is roughly 1600.88m, determined by Google Earth.

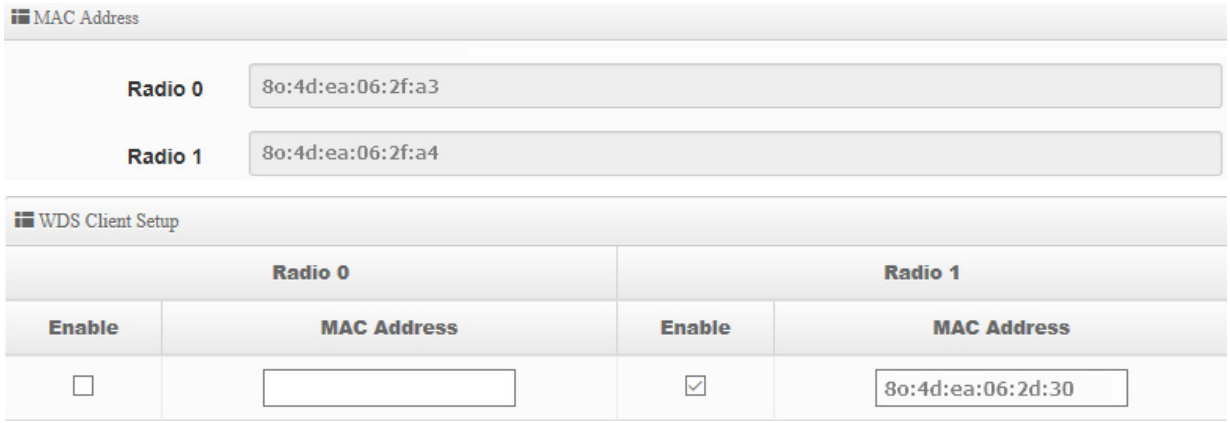


5. System Network Configuration

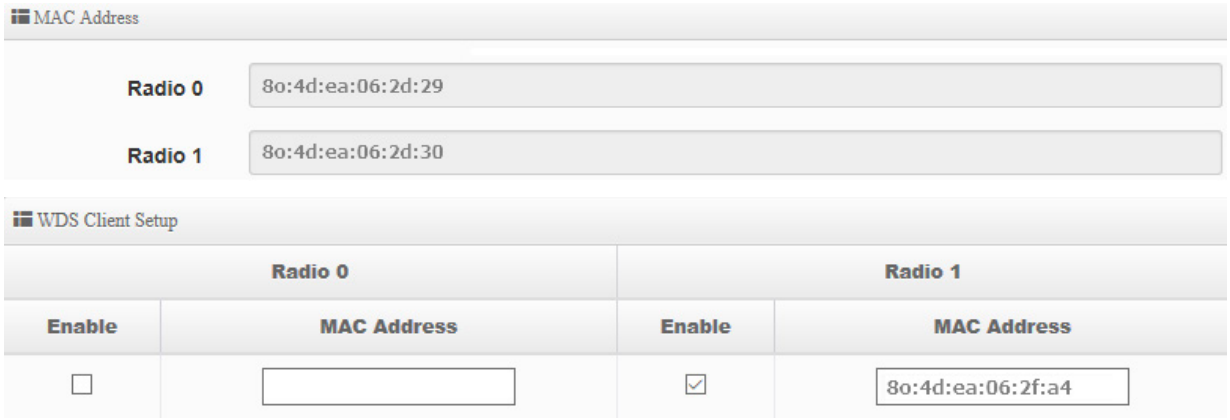


6. OW-400 (2N10) UI Screen

Location A：MAC Address

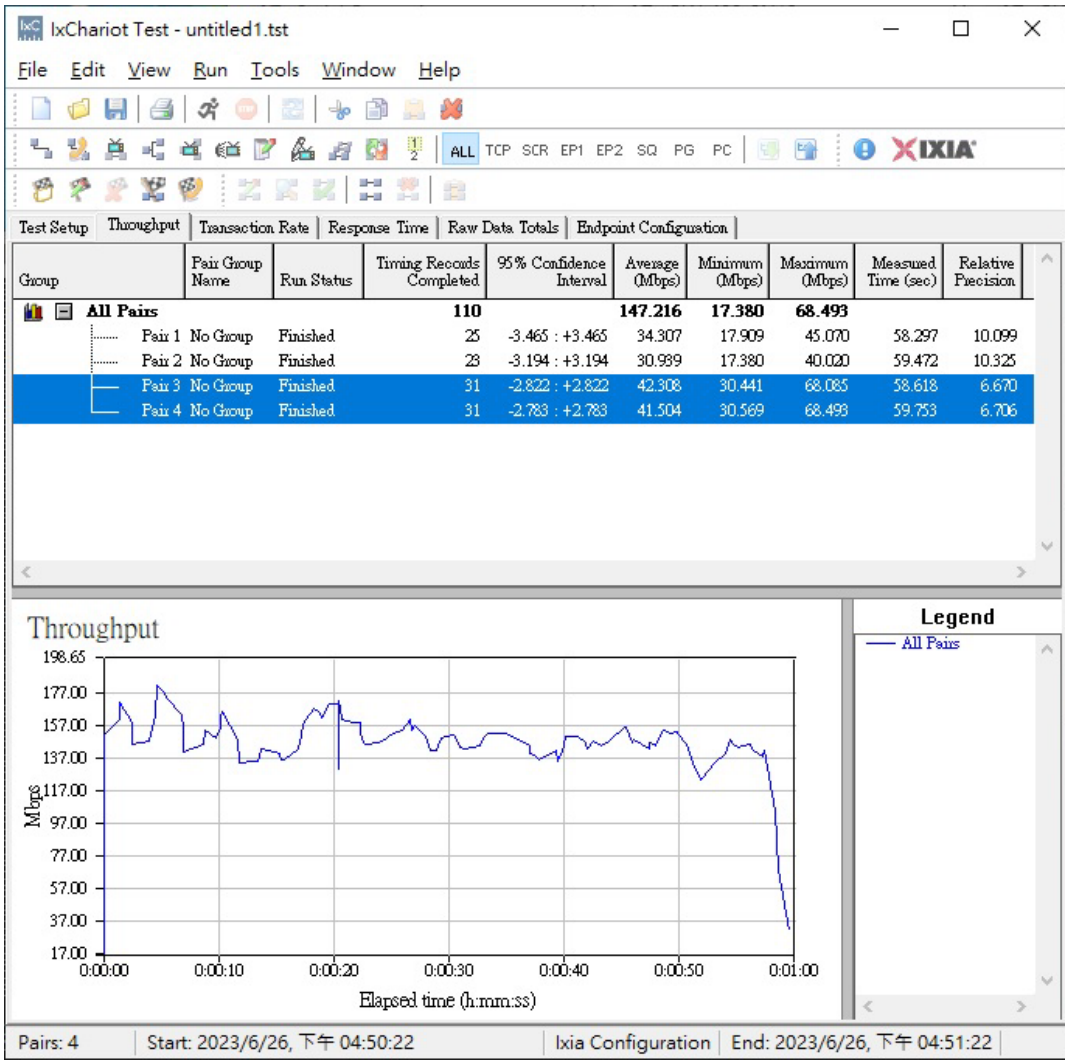


Location B：MAC Address



7. Throughput test

Band Mode	Channel	Throughput	Antenna
802.11ac	36	147.216	Built-in 10dBi



8. 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 (PoE-PE-60W) x2		
RJ-45 Cables	Cat.5e x 4		
Antenna	Built-in 10dbi Patch Antenna		
Test products	OW-400 Series eXtreme High Power WiFi6 Dual-Radio Outdoor PoE Bridge/AP (+10dBi Patch ANT) 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/Bandwidth /Channel	Radio1 (5G 2X2) / VHT160 / CH36		

9. On-site status

Location A: XinDian Cerio office building top floor. （ 新店 智鼎資訊 辦公室 ）

Location B: Yonghe Xinbeihuanhe Expy at pedestrian bridge.

Conclusion

In order to verify our Cerio wireless product performance and instill consumer confidence, we conducted long distance throughput testing for our outdoor wireless access points. We conducted point-to-point testing using our Outdoor Access Point models with built-in dual-polarization directional antennas.

According to the results of our OW-400 (2N10) with built-in 5GHz Antenna (10dBi) 1600M tests, we conclude that our transmission performance is extremely stable, with significant throughput levels at long distance connections.

Our outdoor wireless testing proves to be a very valuable reference tool for users planning on deploying our products in a variety of outdoor environments. (Examples: long distance network extensions, long distance backhaul)

In term of this test, we demonstrate confidence in our team’s ability to provide impeccable quality performance and extraordinary design. Our sophisticated experience allows us to create quality wireless networking hardware and software products. We will consistently meet customers' demands and provide our clients exceptional product.