CERIO OW-408 A1 5Ghz Outdoor Access Point 200Meter /500 Meter Throughput Test Report

Model No.

OW-408 A1 eXtreme Power Wave2 4x 11N/ac 2.4/5Ghz 2x2 Outdoor Access Point

1. Test Product model.

OW-408 A1 Outdoor Access Point built in 8dBi dual band Wide Coverage Directional Antenna

2. Introduction

The purpose of conducting this test was to determine the average throughput and signal stability of OW-408 A1 Outdoor Access Point built in 8dBi dual band Wide Coverage Directional Antenna at a distance of 200 Meter and 500 Meter. 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-408 A1 operating under 802.11ac standards.

3. Test Date and Personnel

Date：03/26/2021			
Test Personnel			
		3/26	Gary 3/26

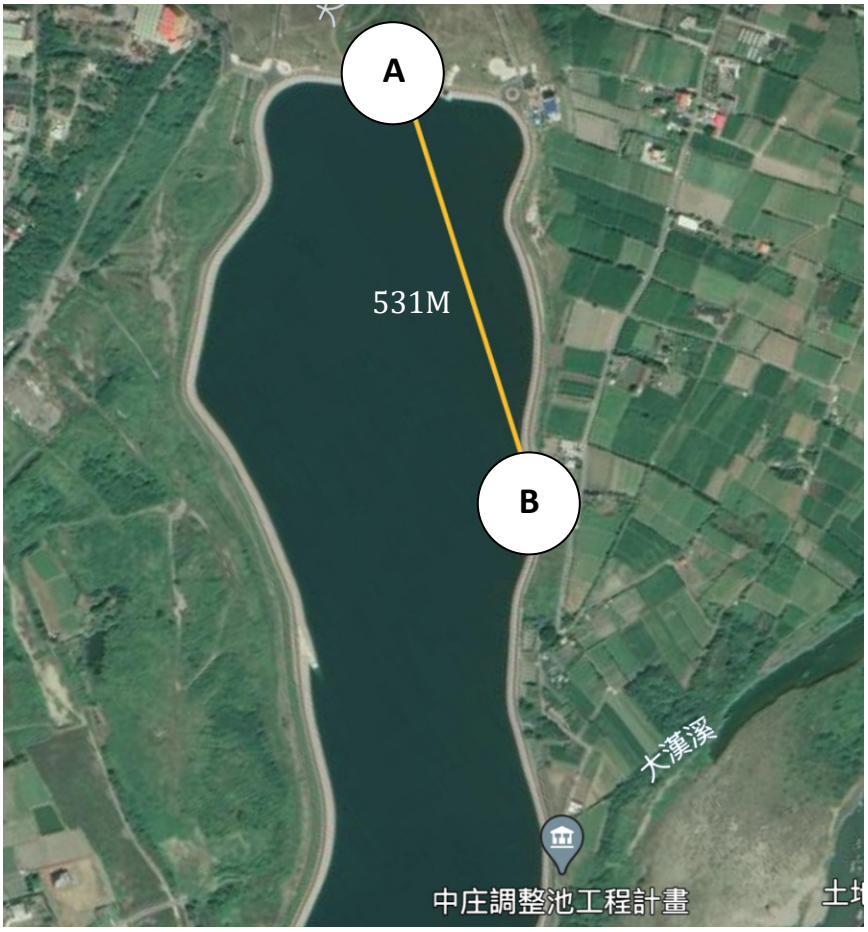
4. Test Environment

200 Meter location :Taoyuan Daxi_Zhongzhuang Adjustment Pool

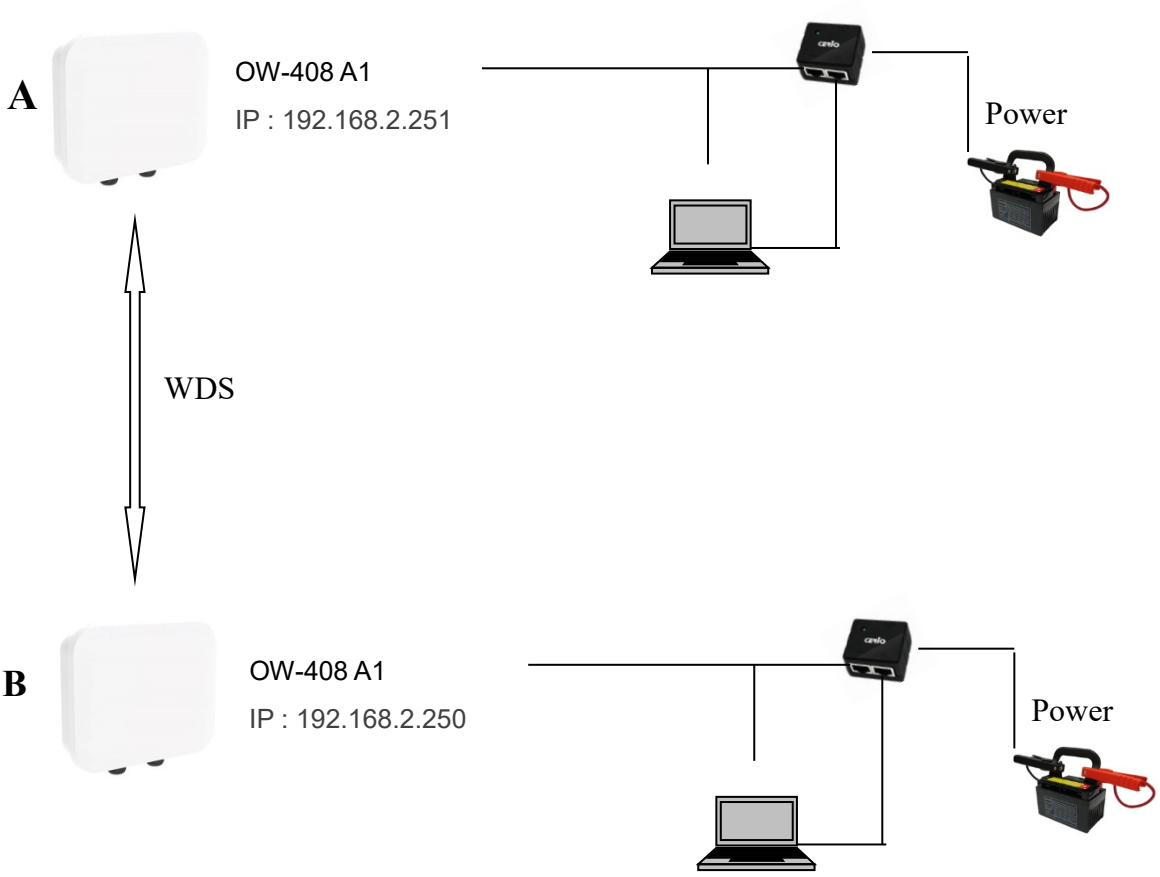
The distance from position A to position B is about 236 Meter, as determined by Google Earth.

500 Meter location :Taoyuan Daxi_Zhongzhuang Adjustment Pool

The distance from position A to position B is about 531 Meter, as determined by Google Earth.

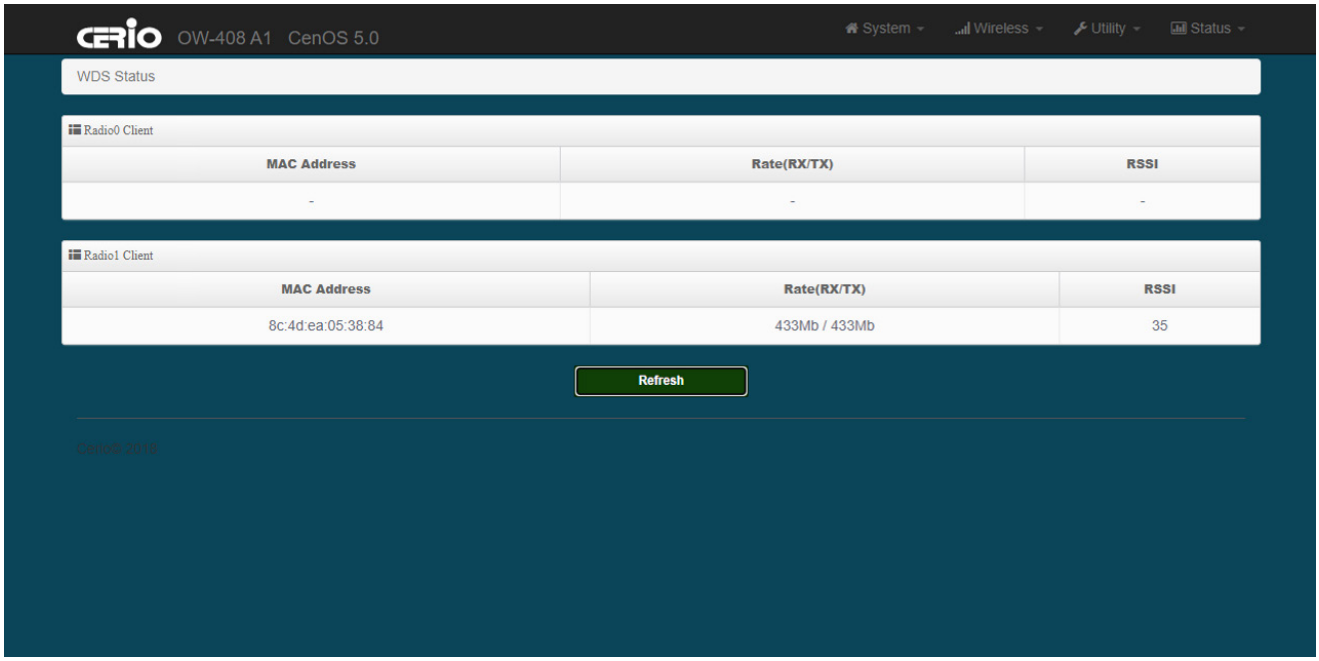


5. System Network Configuration

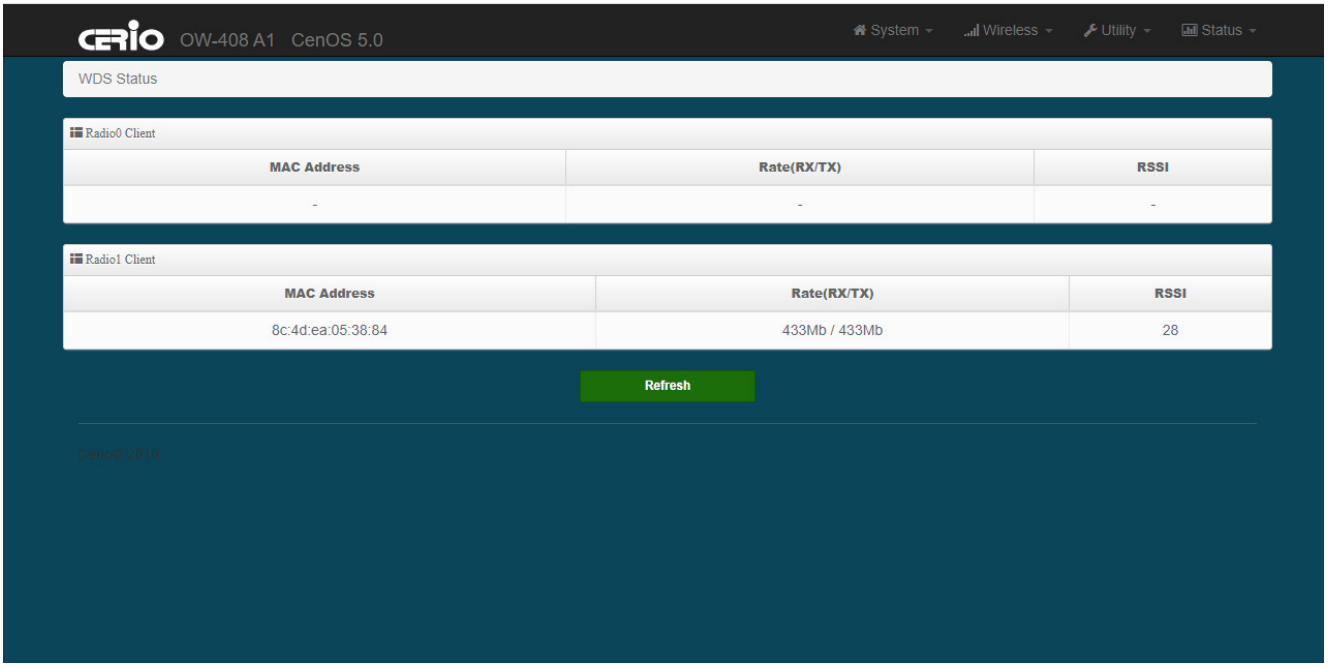


6. OW-408-A1 UI Screen

Rate(RX/TX)(433Mb/433Mb) with 200 Meter



Rate(RX/TX)(433Mb/433Mb) with 500 Meter



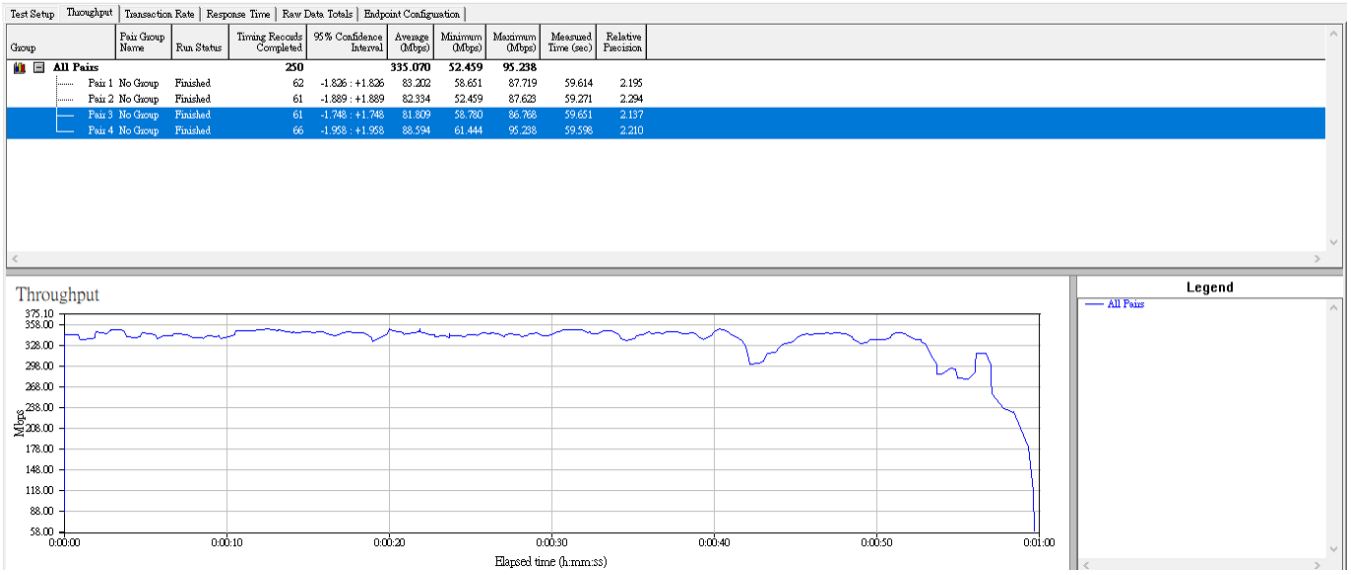
7. Throughput test

OW-408-A1 with built in 8dBi dual band Wide Coverage Directional Antenna

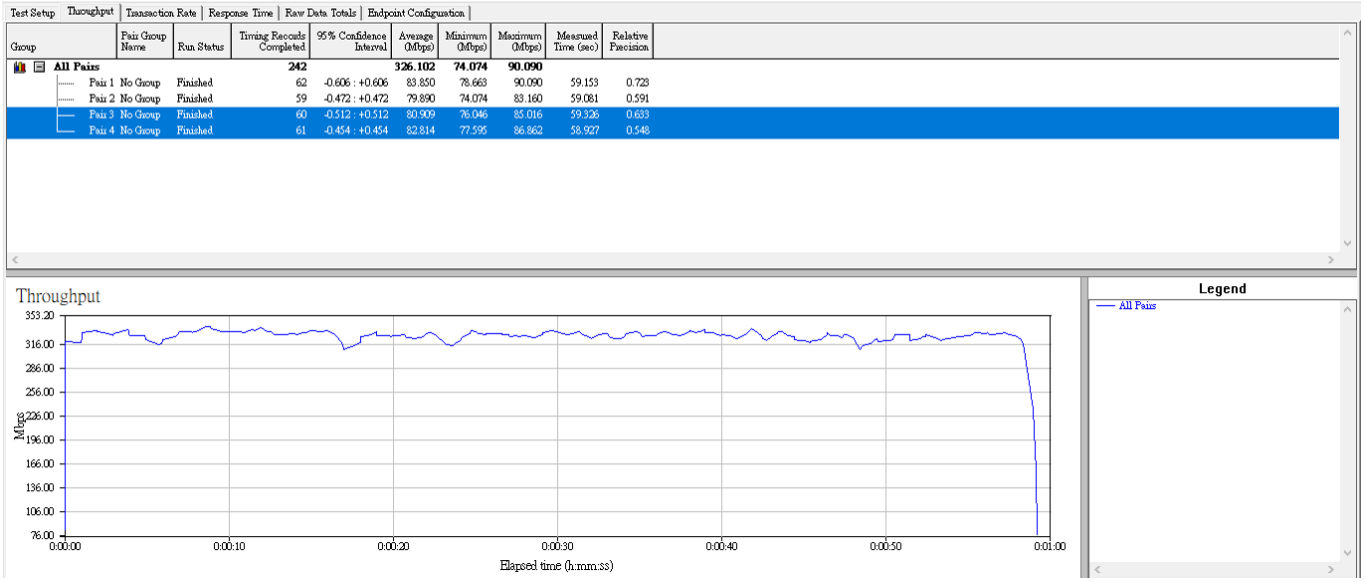
FW:V1.0.1

Connection object	Channel	RSSI	Throughput
A to B(200 Meter)	52	35	335.070
A to B(500 Meter)	52	28	326.102

236 Meter 5G Channel 52 Throughput test



521 Meter 5G Channel 52 Throughput test

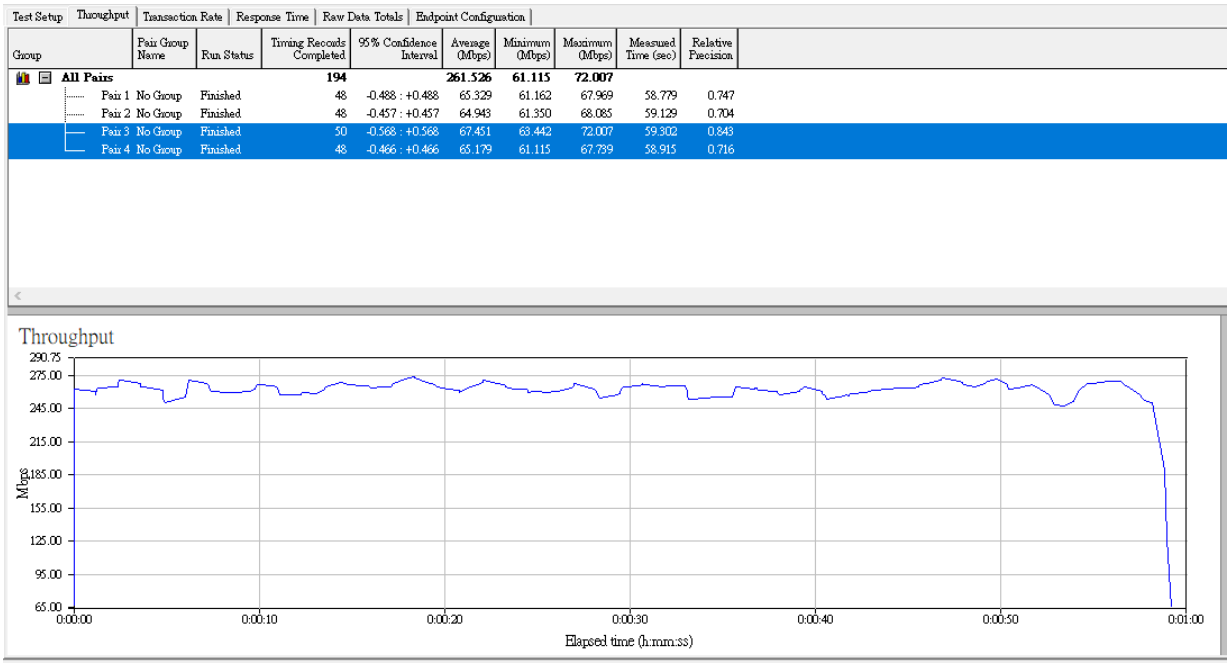


FW:V1.0.7

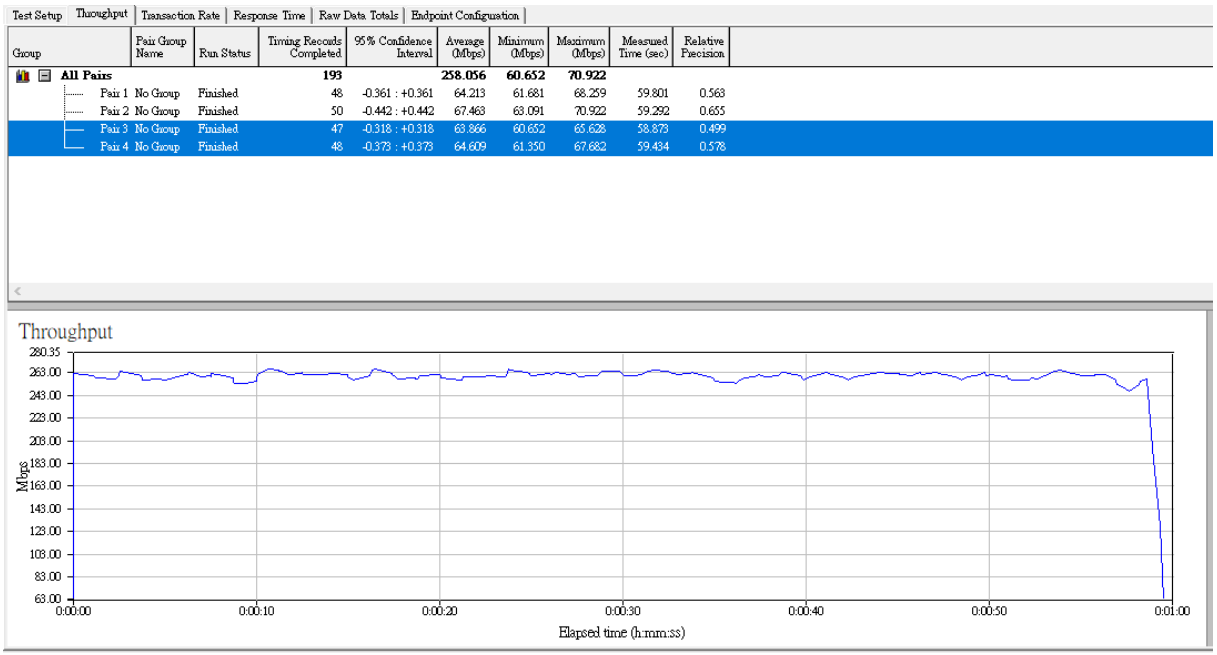
Connection object	Channel	RSSI	Throughput

A to B(500 Meter)	52	28	261.526
A to B(500 Meter)	100	28	258.056
A to B(500 Meter)	161	20	84.33

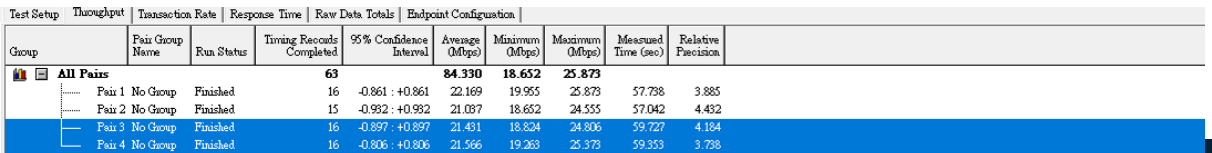
521 Meter 5G Channel 52 Throughput test



521 Meter 5G Channel 100 Throughput test



521 Meter 5G Channel 161 Throughput test



8. Test Tools and other information

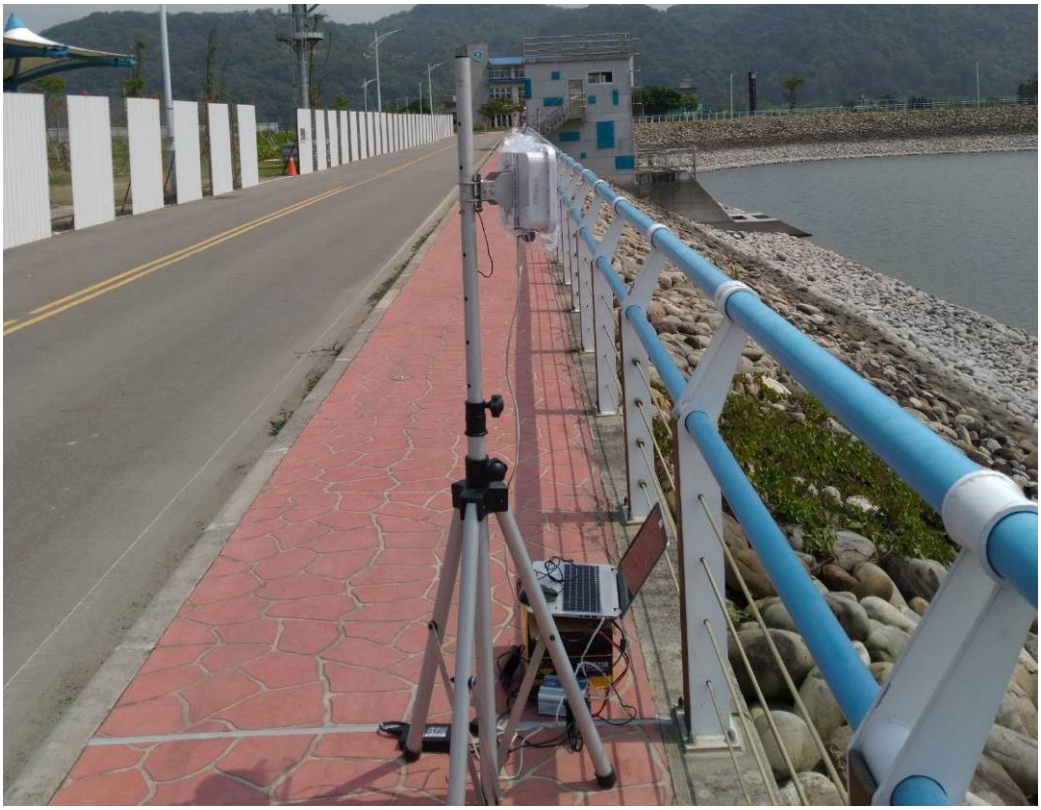
Test Equipment

Notebook	HP 242 G1 x1 HP 15-j031TX 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-PE03GE-30W) x2		
RJ-45 Cables	Cat.5e x 4		
Antenna	OW-408 A1 Outdoor Access Point built in 8dBi dual band Wide Coverage Directional Antenna x2		
Test products	EXtreme Power Wave2 4x 11N/ac 2.4/5Ghz 2x2 Outdoor Access Point(OW-408 A1)x2		
Test Software and setting information			
Application tools	Chariot Version 6.7		
Running time	60 sec		
software	CenOS 5.0 with MAN-MESH Softcore Core Firmware version : v1.0.1&v1.0.7		
Operation mode	Using Access Point mode		
Radio and Channel	Radio 1 (5G) test channel: 52-161		

9. On-site status:

Location A:

Taoyuan Daxi_Zhongzhuang Adjustment Pool



Location B:

Taoyuan Daxi_Zhongzhuang Adjustment Pool

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 8dBi dual-polarization directional antennas..

According to the results of our OW-408-A1 with built in 8dBi dual band Wide Coverage Directional Antenna 200 Meter /500 Meter tests, we conclude that our transmission performance is extremely stable, with significant throughput levels at long distance connections. Users can also use 48V PoE Bridge to power a subsequent device such as an IP Camera or additional Access Point. 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, remote surveillance centers)

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.