

# CERIO Outdoor AP 16KM Throughput Test Report

Model No.

**OW-200N2-X**

### 1. Test Product model.

OW-200N2-X



### 2. Introduction

The purpose of conducting this test was to determine the average throughput and signal stability of Cerio’s OW-200N2-X Outdoor Access Point at a distance of 16km. The test specifically measured point-to-point WDS connections set through Cerio’s CenOS 3.0 Software Bundle. The test was conducted between two units of OW-200N2-X operating under 802.11an standards.

### 3. Test Date and Personnel

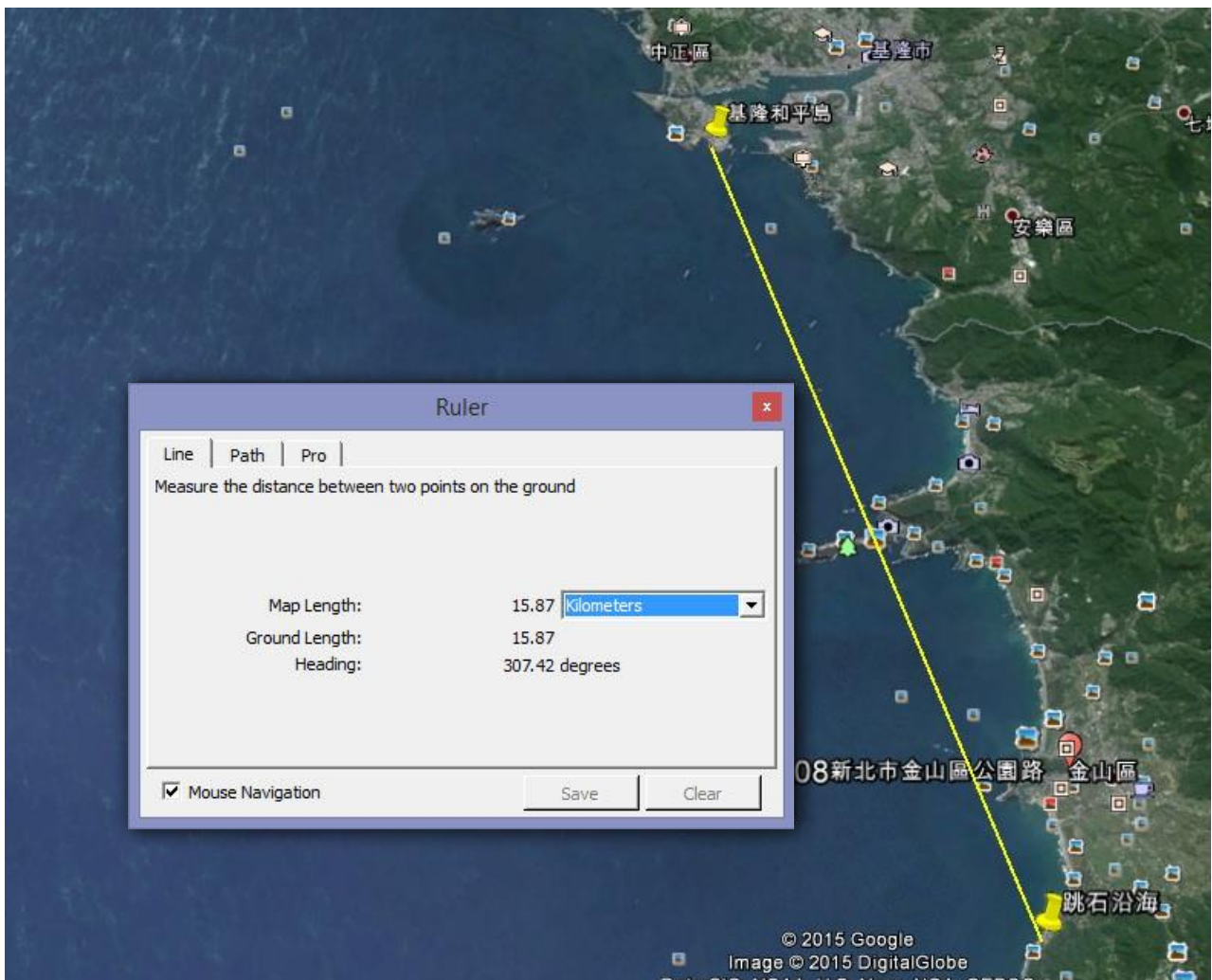
Date	2015 / 05 / 21			
Test Personnel				
<i>Andy</i>	<i>John</i>	<i>Ben</i>	<i>Qing</i>	

## 4. Test Environment

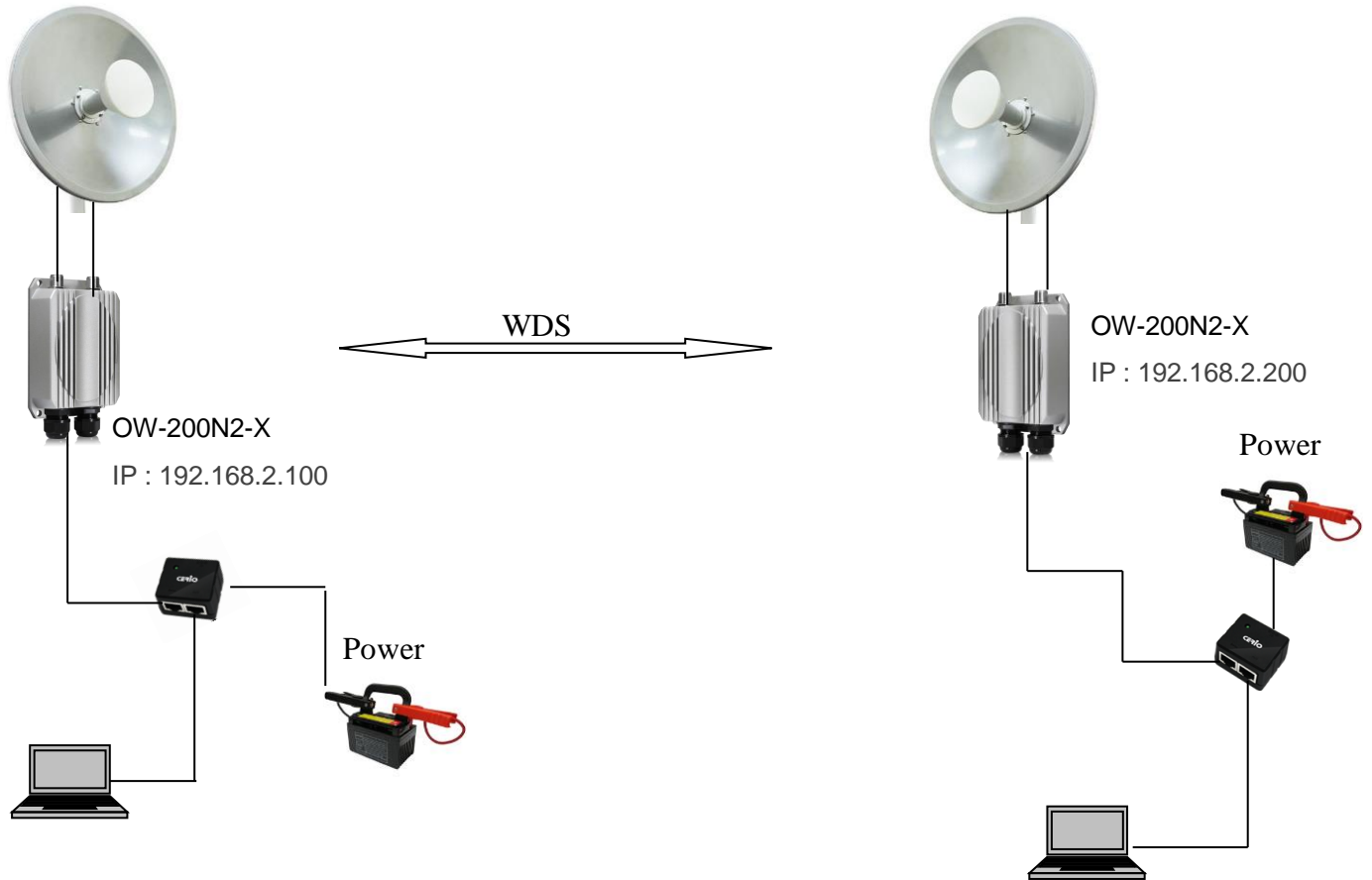
Location A: Hepingdao Coast Park

Location B: Jinshan Stone Coast

The distance from Location A and Location B is approximately 16km, with slight increases in elevation.



## 5. System Network Configuration



## 6. OW-200N2-X User Interface

The screenshot shows the user interface for the OW-200N2-X unit. The browser address bar displays "http://192.168.2.100/#". The page title is "WDS Link Status". Below the title, there is a table showing the WDS Link Status.

#	MAC Address	RSSI	TX/RX Rate	TX/RX SEQ	TX/RX Bytes
1	8c:4d:ea:04:ba:e9	58	216M / 243M	35459 / 4864	185.2 M / 1607.1 M

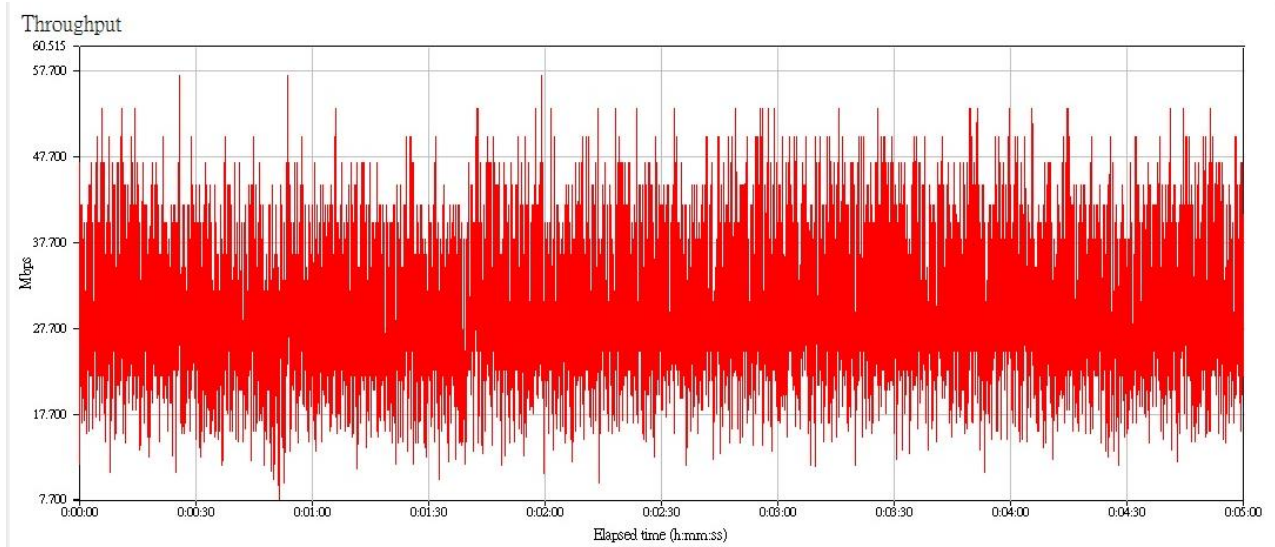
#	MAC Address	RSSI	TX/RX Rate	TX/RX SEQ	TX/RX Bytes
1	8c:4d:ea:04:9a:16	56	243M / 243M	307 / 43072	58.5 K / 1.7 M

## 7. Throughput test

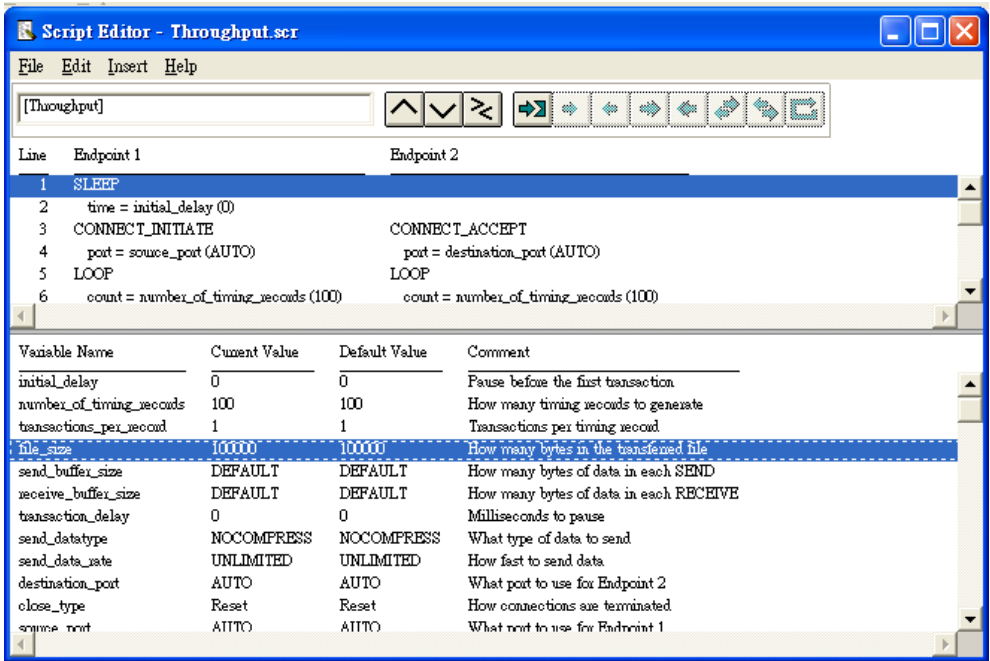
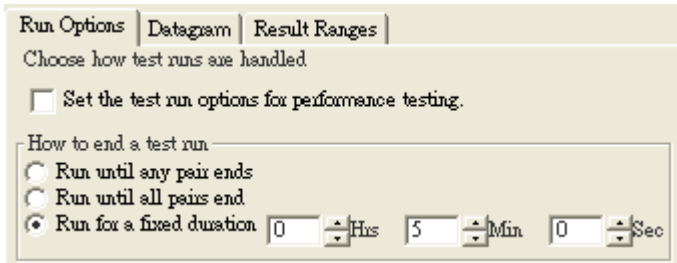
OW-200N2-X

	Average(Mbps)	Minimum (Mbps)	Maximum(Mbps)
Throughput	27.944	7.767	57.143

Test Setup	Throughput	Transaction Rate	Response Time	Raw Data Totals	Endpoint Configuration					
Group	Pair Group Name	Run Status	Timing Records Completed	95% Confidence Interval	Average (Mbps)	Minimum (Mbps)	Maximum (Mbps)	Measured Time (sec)	Relative Precision	
<input checked="" type="checkbox"/> All Pairs			<b>10,478</b>		<b>27.944</b>	<b>7.767</b>	<b>57.143</b>			
	Pair 1 No Group	Finished: Warning(s)	10,478	-0.162 : +0.162	28.434	7.767	57.143	294.802	0.571	



### 8. TEST Tools

TEST Equipment	
Notebook	HP Pavilion dv4 x2
Power	350W x 2
Tripod	3
Antenna	5GHz 2x2 Outdoor Directional Dish 25dBi Antenna
Test products	OW-200N2-X 500mW
TEST Software	
Chariot Version 6.7	
Run	

### 9 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 external

5Ghz 25dBi Directional Dish Antennas.

From the results of our OW-200N2-X 16km 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: Remote mountainous areas, long distance network extensions, long distance backhaul, remote surveillance centers)

This test demonstrates confidence in our team's ability to provide quality performance and design. Our unsurpassed experienced creating quality wireless networking hardware and software products allows us to consistently meet user demands and satisfy consumer through our wealth of knowledge and product design.