

CERIO Outdoor AP

35Km P2P Throughput Test Report of WDS mode

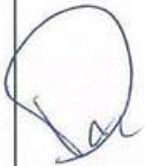
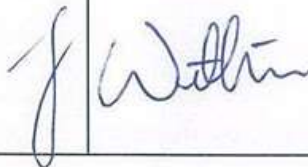
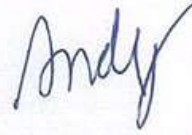

OW-200N2-X + Dual Dish Antenna [ANT-30AN-D2]



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1. Test Date and Personnel

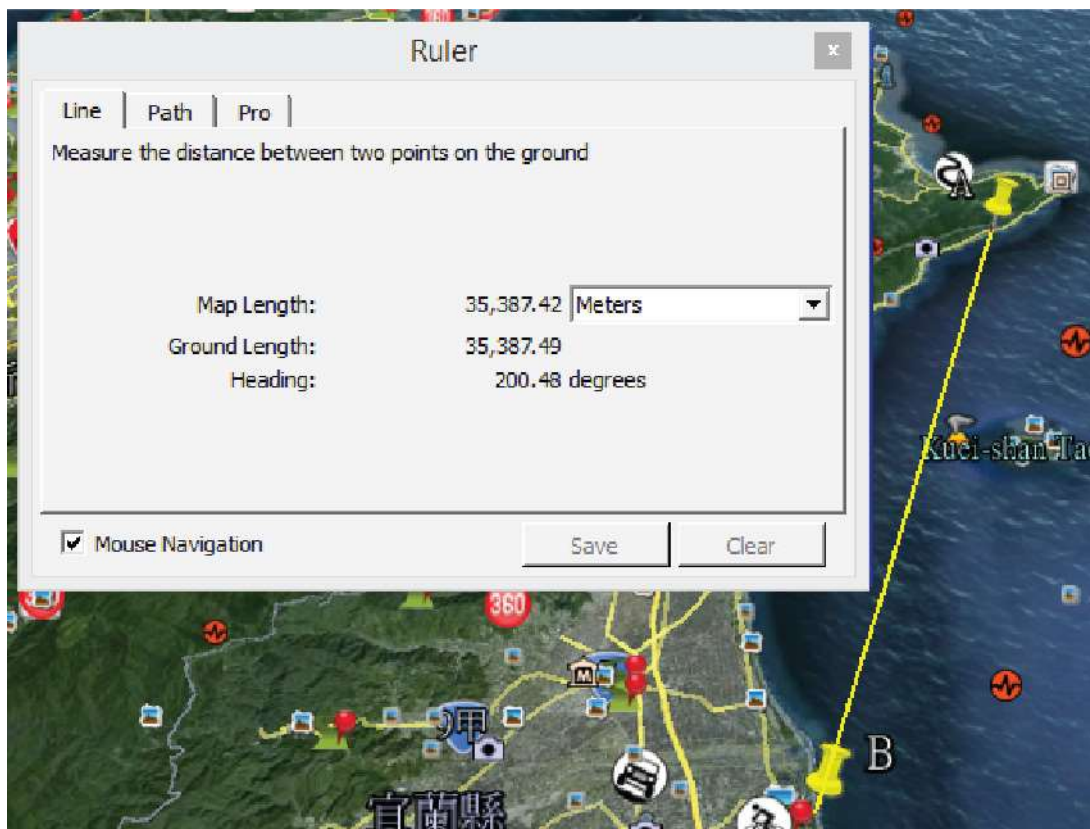
Test Date	2013/9/14			
TEST Personnel				
				

2. Test Distance / Location

The **A site** on Binhai Rd, Section 7. Northeast Coast (Coffee Shop)

The **B site** on Qingshui Beach

The distance from site A to site B site is approximately 35.38Km



Position 1 shows: Site A (northern location) to Site B (Qinghai Beach)



Site A: Coffee Shop



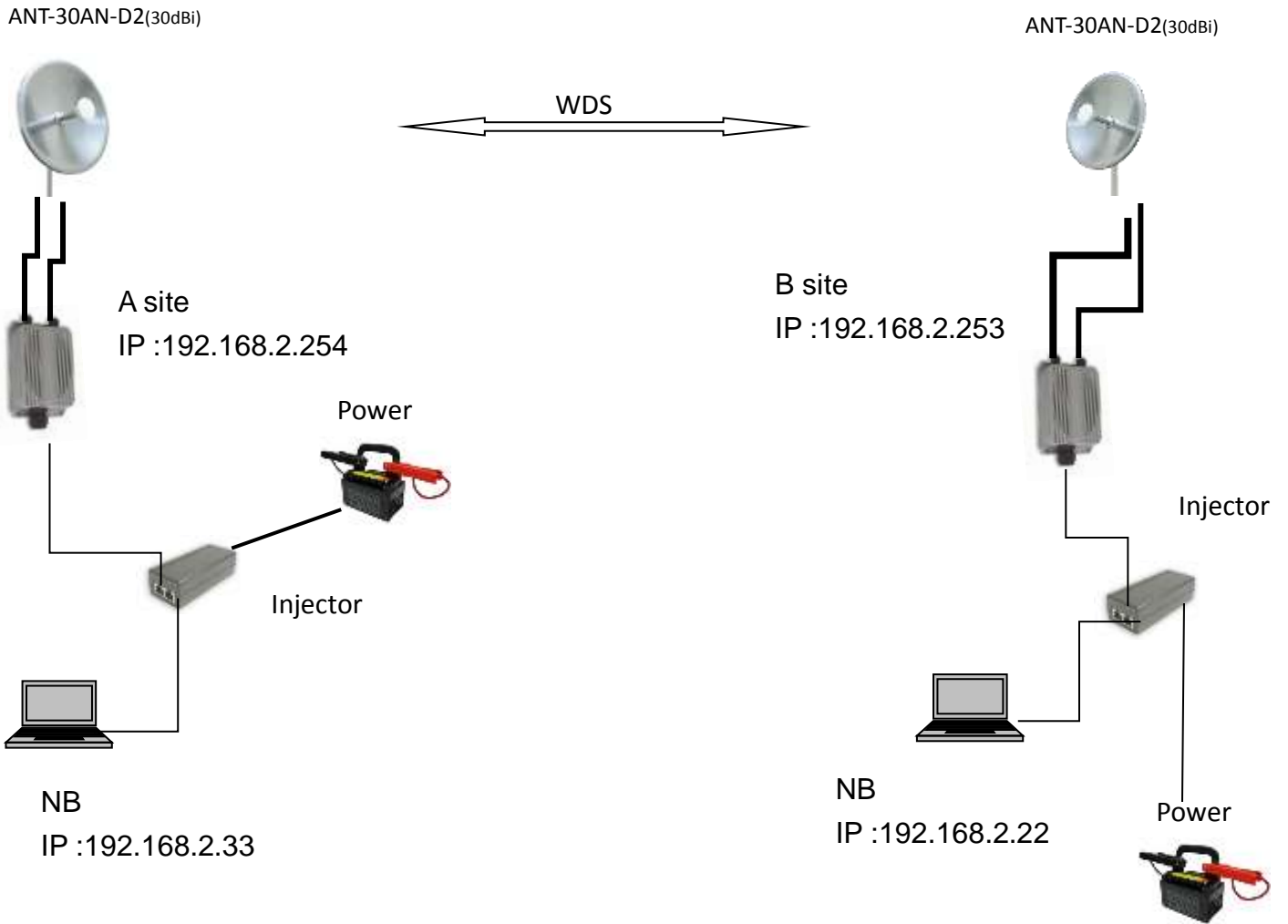
Position 2 shows: Site B (Qinghai Beach) to Site A (northern location: Coffee Shop)



Site B: Qinghai Beach



3. Network architecture



4. WDS Status (GUI)

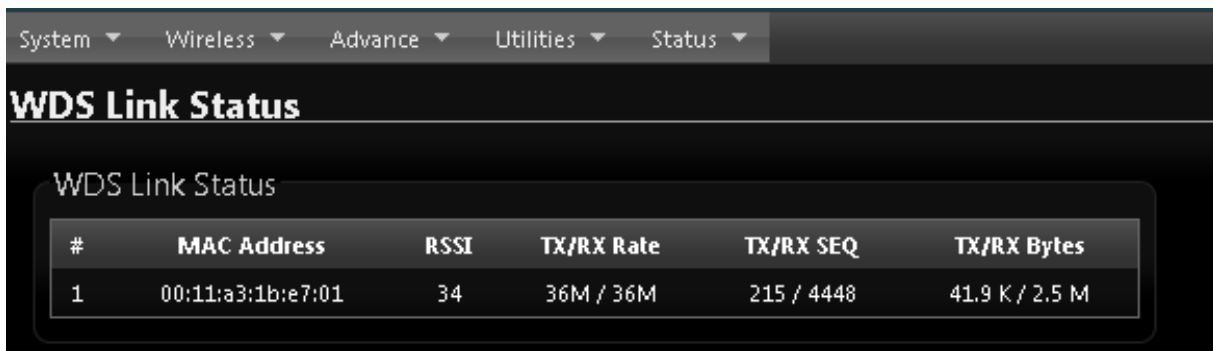
The WDS information by A site



The screenshot shows a web interface with a navigation menu at the top containing 'System', 'Wireless', 'Advance', 'Utilities', and 'Status'. Below the menu is a section titled 'WDS Link Status'. Inside this section, there is a table with the following data:

#	MAC Address	RSSI	TX/RX Rate	TX/RX SEQ	TX/RX Bytes
1	00:11:a3:1b:e7:09	34	36M / 36M	204 / 2336	79.5 K / 1.5 M

The WDS information by B site



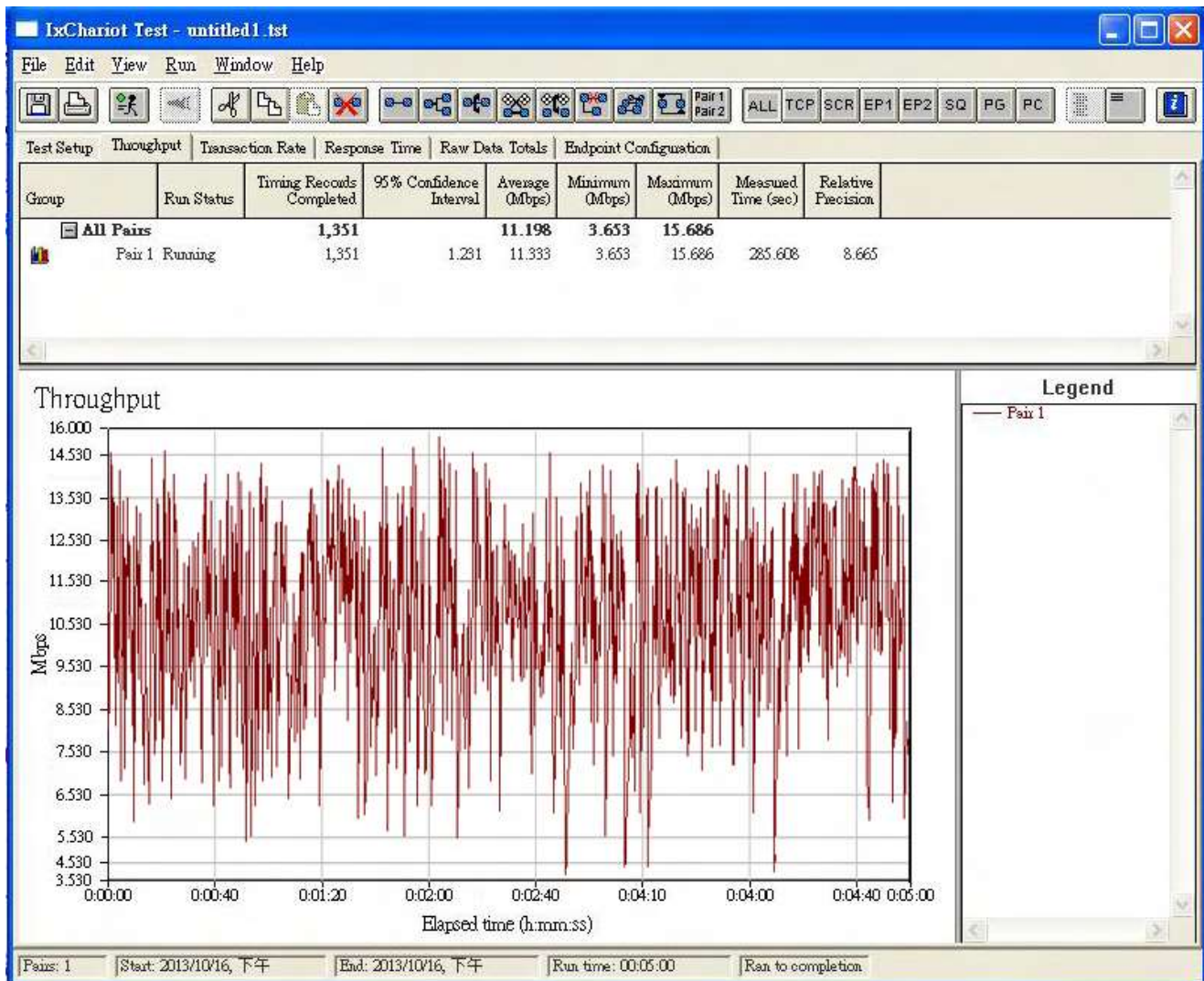
The screenshot shows a web interface with a navigation menu at the top containing 'System', 'Wireless', 'Advance', 'Utilities', and 'Status'. Below the menu is a section titled 'WDS Link Status'. Inside this section, there is a table with the following data:

#	MAC Address	RSSI	TX/RX Rate	TX/RX SEQ	TX/RX Bytes
1	00:11:a3:1b:e7:01	34	36M / 36M	215 / 4448	41.9 K / 2.5 M

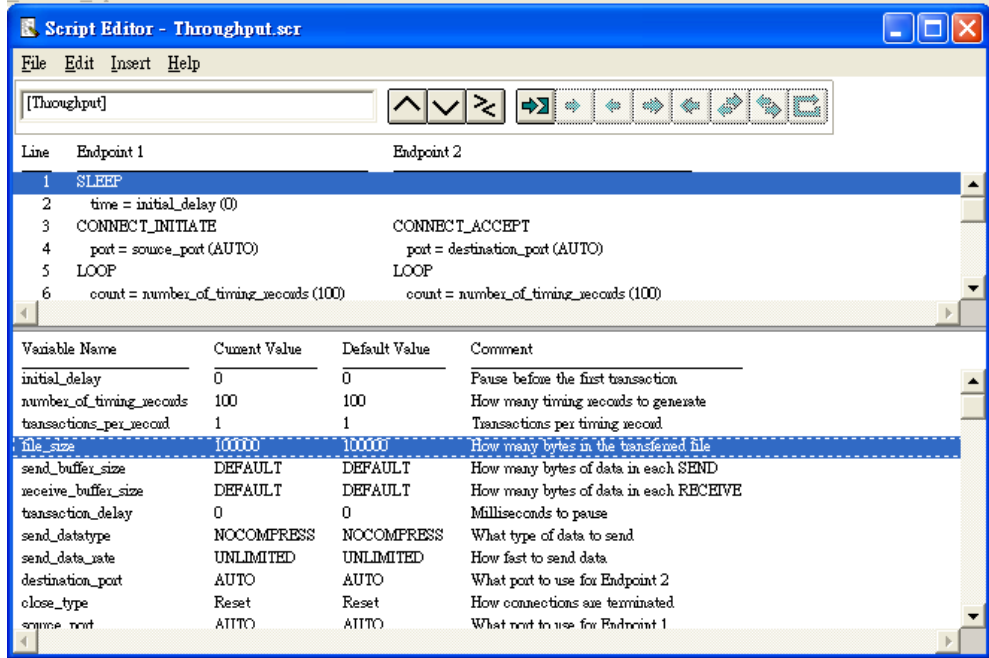
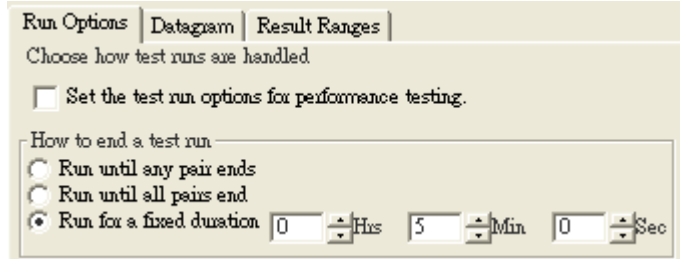
5. Throughput test

OW-200N2-X + ANT-30AN-D2

	Average(Mbps)	Minimum (Mbps)	Maximum(Mbps)
Throughput	11.198	3.653	15.686



6. TEST Tools

TEST Equipment																																																					
Notebook	<table border="1"> <tr> <td>HP Pavilion dv4 x1 RAM : 4G CPU : Intel Core Duo 2.4GHz OS : Windows XP sp3</td> <td>COMPAQ x1 RAM : 3G CPU : P6300 2.27GH OS : Windows XP sp3</td> </tr> </table>	HP Pavilion dv4 x1 RAM : 4G CPU : Intel Core Duo 2.4GHz OS : Windows XP sp3	COMPAQ x1 RAM : 3G CPU : P6300 2.27GH OS : Windows XP sp3																																																		
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Tripod	3																																																				
Antenna	ANT-30AN-D2 5GHz 2x2 Directional Dish 30dBi Antenna x2																																																				
Test products	OW-200N2-X 1000mW 11Na 300Mbps Outdoor Bridge x2																																																				
TEST Software																																																					
Chariot Version 5.4	 <p>The screenshot shows the Chariot Script Editor interface. At the top, there's a menu bar (File, Edit, Insert, Help) and a toolbar with navigation icons. Below that is a script editor window titled 'Script Editor - Throughput.scr' containing a script with the following lines:</p> <pre> 1 SLEEP 2 time = initial_delay (0) 3 CONNECT_INITIATE CONNECT_ACCEPT 4 port = source_port (AUTO) port = destination_port (AUTO) 5 LOOP LOOP 6 count = number_of_timing_records (100) count = number_of_timing_records (100) </pre> <p>Below the script is a table of variables:</p> <table border="1"> <thead> <tr> <th>Variable Name</th> <th>Current Value</th> <th>Default Value</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>initial_delay</td> <td>0</td> <td>0</td> <td>Pause before the first transaction</td> </tr> <tr> <td>number_of_timing_records</td> <td>100</td> <td>100</td> <td>How many timing records to generate</td> </tr> <tr> <td>transactions_per_record</td> <td>1</td> <td>1</td> <td>Transactions per timing record</td> </tr> <tr> <td>file_size</td> <td>100000</td> <td>100000</td> <td>How many bytes in the transferred file</td> </tr> <tr> <td>send_buffer_size</td> <td>DEFAULT</td> <td>DEFAULT</td> <td>How many bytes of data in each SEND</td> </tr> <tr> <td>receive_buffer_size</td> <td>DEFAULT</td> <td>DEFAULT</td> <td>How many bytes of data in each RECEIVE</td> </tr> <tr> <td>transaction_delay</td> <td>0</td> <td>0</td> <td>Milliseconds to pause</td> </tr> <tr> <td>send_datatype</td> <td>NOCOMPRESS</td> <td>NOCOMPRESS</td> <td>What type of data to send</td> </tr> <tr> <td>send_data_rate</td> <td>UNLIMITED</td> <td>UNLIMITED</td> <td>How fast to send data</td> </tr> <tr> <td>destination_port</td> <td>AUTO</td> <td>AUTO</td> <td>What port to use for Endpoint 2</td> </tr> <tr> <td>close_type</td> <td>Reset</td> <td>Reset</td> <td>How connections are terminated</td> </tr> <tr> <td>source_port</td> <td>AUTO</td> <td>AUTO</td> <td>What port to use for Endpoint 1</td> </tr> </tbody> </table>	Variable Name	Current Value	Default Value	Comment	initial_delay	0	0	Pause before the first transaction	number_of_timing_records	100	100	How many timing records to generate	transactions_per_record	1	1	Transactions per timing record	file_size	100000	100000	How many bytes in the transferred file	send_buffer_size	DEFAULT	DEFAULT	How many bytes of data in each SEND	receive_buffer_size	DEFAULT	DEFAULT	How many bytes of data in each RECEIVE	transaction_delay	0	0	Milliseconds to pause	send_datatype	NOCOMPRESS	NOCOMPRESS	What type of data to send	send_data_rate	UNLIMITED	UNLIMITED	How fast to send data	destination_port	AUTO	AUTO	What port to use for Endpoint 2	close_type	Reset	Reset	How connections are terminated	source_port	AUTO	AUTO	What port to use for Endpoint 1
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Run	 <p>The screenshot shows the 'Run Options' dialog box in Chariot. It has three tabs: 'Run Options', 'Datagram', and 'Result Ranges'. The 'Run Options' tab is active. It contains the following options:</p> <ul style="list-style-type: none"> Choose how test runs are handled: <ul style="list-style-type: none"> <input type="checkbox"/> Set the test run options for performance testing. How to end a test run: <ul style="list-style-type: none"> <input type="radio"/> Run until any pair ends <input type="radio"/> Run until all pairs end <input checked="" type="radio"/> Run for a fixed duration: 0 His, 5 Min, 0 Sec 																																																				

7. On the scene status

A site



B site



8. Conclusion

We returned to the same testing site we used to test our older generation model to conduct distance testing of our new OW-200N2-X outdoor access point model. Our new generation of outdoor access points utilizes a new chipset model with higher CPU memory. Our findings concluded that our new OW-200N2-X 500mW provided higher RF power and transmission stability during environmental testing.

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.