

CERIO ANT-12A 5GHZ Outdoor Omni 12dBi with Cables Antenna 200M Throughput Test Report

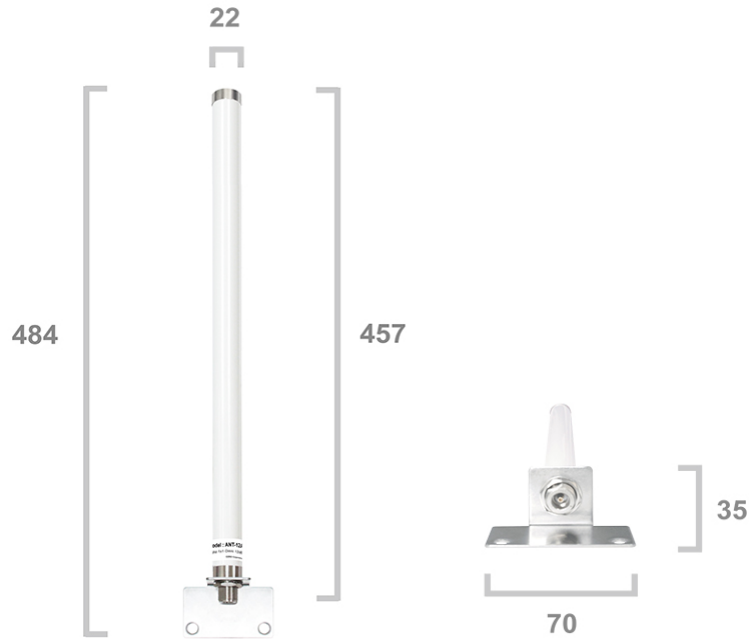


Model No.

ANT-12A 5GHZ Outdoor Omni 12dBi with Cables Antenna

1. Test Product model.


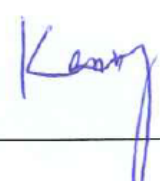
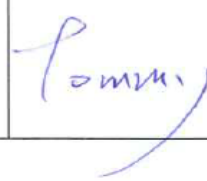
ANT-12A 5GHZ Outdoor Omni 12dBi with Cables Antenna



2. Introduction

The purpose of conducting this test was to determine the average throughput and signal stability of Cerio's ANT-12A 5GHZ Outdoor Omni 12dBi with Cables Antenna at a distance of 200M. 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-A3 operating under 802.11ac standards.

3. Test Date and Personnel

Date : 09/16/2019			
Test Personnel			
			

4. Test Environment

Location A: XinDian Sixin first Road, Yangbei Second Road

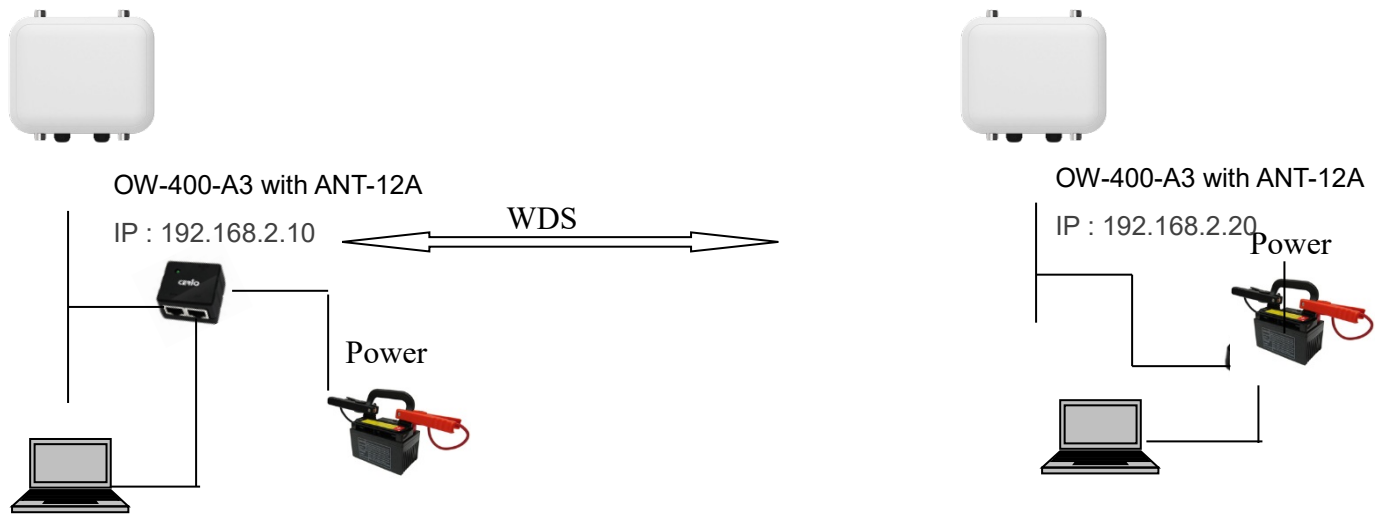
Location B: XinDian Sixin Second Road, Yangbei Second Road

The distance from Location A to Location B is roughly 200.1M, determined by Google Earth. However, due to substantial differences in elevation, we estimate the distance to be approximately 200M.





5. System Network Configuration



6. OW-400-A3 UI Screen

WDS Status		
Radio0 Client		
MAC Address	Rate(RX/TX)	RSSI
-	-	-
Radio1 Client		
MAC Address	Rate(RX/TX)	RSSI
00:11:a3:1d:00:04	780Mb / 780Mb	44

MAC Address	
Radio 0	00:11:a3:1d:00:03
Radio 1	00:11:a3:1d:00:04
Radio 2	28:24:ff:ef:1f:17

WDS Client Setup					
Radio 0		Radio 1		Radio 2	
Enable	MAC Address	Enable	MAC Address	Enable	MAC Address
<input type="checkbox"/>		<input checked="" type="checkbox"/>	00:11:a3:1d:00:08	<input type="checkbox"/>	28:24:ff:ef:1e:98

WDS Status		
Radio0 Client		
MAC Address	Rate(RX/TX)	RSSI
-	-	-
Radio1 Client		
MAC Address	Rate(RX/TX)	RSSI
00:11:a3:1d:00:08	650Mb / 866Mb	43

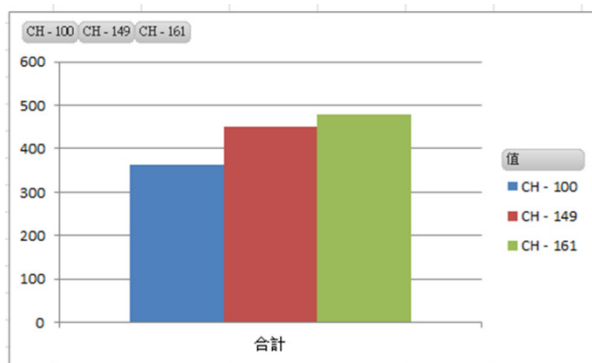
MAC Address	
Radio 0	00:11:a3:1d:00:07
Radio 1	00:11:a3:1d:00:08
Radio 2	28:24:ff:ef:1e:98

WDS Client Setup					
Radio 0		Radio 1		Radio 2	
Enable	MAC Address	Enable	MAC Address	Enable	MAC Address
<input type="checkbox"/>		<input checked="" type="checkbox"/>	00:11:a3:1d:00:04	<input type="checkbox"/>	28:24:ff:ef:1f:17

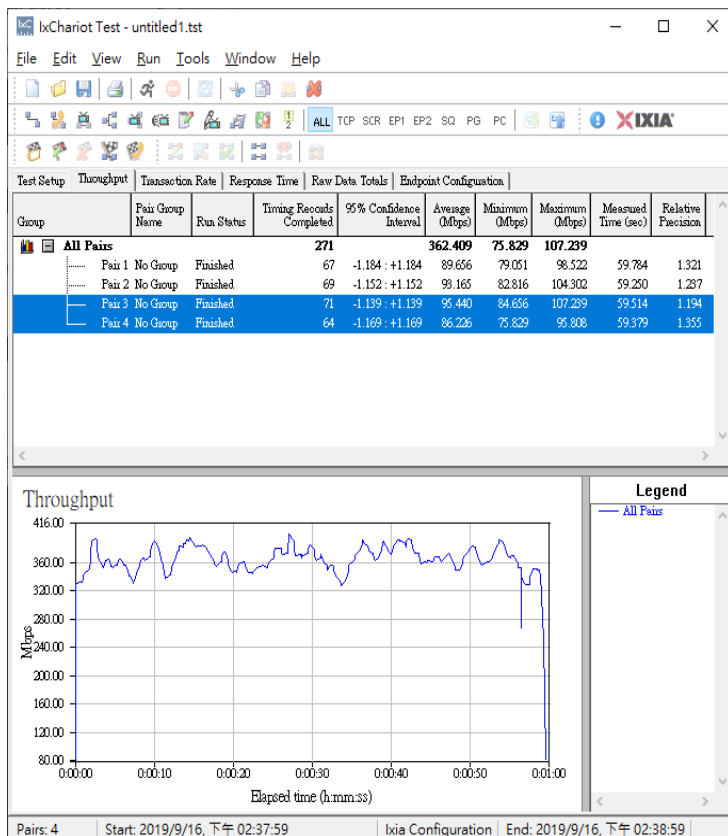
7. Throughput test

OW-400-A3 with ANT-12A

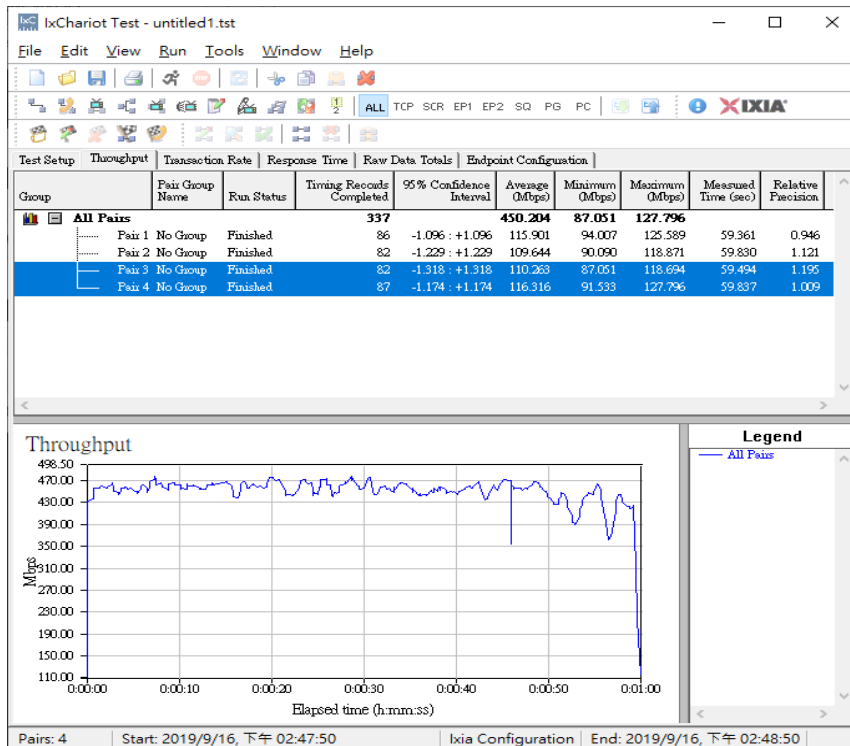
Band	Channel	Throughput
5G	100	362.409
	149	450.204
	161	478.706



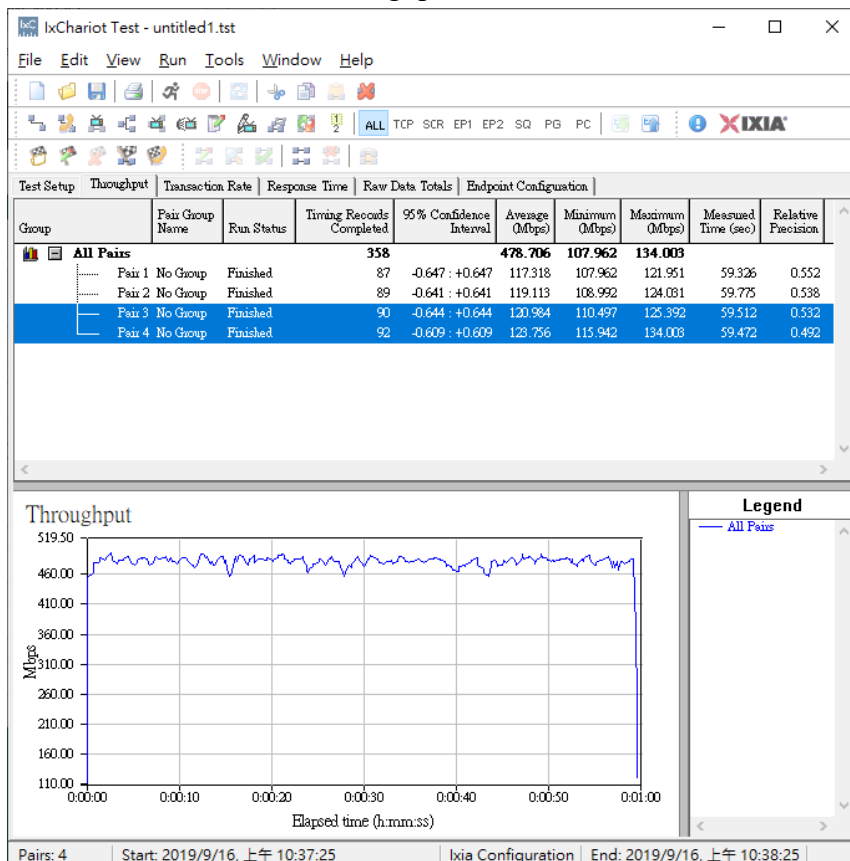
200M 5G Channel 100 Throughput test



200M 5G Channel 149 Throughput test



200M 5G Channel 161 Throughput test



8. TEST Tools

TEST Equipment																																																						
Notebook	HP Pavilion dv4 x2																																																					
Power	350W x 2																																																					
Tripod	3																																																					
Antenna	ANT-12A 5GHZ Outdoor Omni 12dBi with Cables Antenna																																																					
Test products	OW-400 A3 500mW																																																					
TEST Software																																																						
Chariot Version 6.7	<div><div>Script Editor - Throughput.scr</div><div><div>File Edit Insert Help</div><div>[Throughput]</div><div><div>Line</div><div>Endpoint 1</div><div>Endpoint 2</div></div><div><div>1</div><div>SLEEP</div><div></div></div><div><div>2</div><div>time = initial_delay (0)</div><div></div></div><div><div>3</div><div>CONNECT_INITIATE</div><div>CONNECT_ACCEPT</div></div><div><div>4</div><div>port = source_port (AUTO)</div><div>port = destination_port (AUTO)</div></div><div><div>5</div><div>LOOP</div><div>LOOP</div></div><div><div>6</div><div>count = number_of_timing_records (100)</div><div>count = number_of_timing_records (100)</div></div></div><div><table><tr><th>Variable Name</th><th>Current Value</th><th>Default Value</th><th>Comment</th></tr><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_data_type</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></table></div></div>		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_data_type	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
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_data_type	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																																																			
Run	<div><div>Run Options Datagram Result Ranges</div><div>Choose how test runs are handled</div><div><input type="checkbox"/> Set the test run options for performance testing.</div><div>How to end a test run</div><div><div><input type="radio"/> Run until any pair ends</div><div><input type="radio"/> Run until all pairs end</div><div><input checked="" type="radio"/> Run for a fixed duration</div></div><div><div>0</div><div>His</div><div>5</div><div>Min</div><div>0</div><div>Sec</div></div></div>																																																					

9. On-site status:

Location A:

XinDian Sixin first Road, Yangbei Second Road



Location B:
XinDian Sixin Second Road, Yangbei Second Road





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-A3 with ANT-12A 200M 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.