

Industrial Internet Innovation Center (Shanghai) Co.,Ltd.

SRD TEST REPORT

PRODUCT	Bluetooth & WiFi 2.4G/5G Module
BRAND	WNC
MODEL	UWM-XP9098V2
APPLICANT	Wistron NeWeb Corporation
FCC ID	NKRUWM-XP9098V2
ISSUE DATE	March 5, 2024
STANDARD(S)	FCC Part15E

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1. Summary of Test Report

1.1 Test Standard(s)

No.	Test Standard	Title	Version
1	FCC Part15E	Title 47 of the Code of Federal Regulations; Chapter I Part 15 - Radio frequency devices	--

1.2 Reference Documents

No.	Test Standard	Title	Version
1	ANSI 63.10	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2013
2	KDB 789033 D02 General UNII Test Procedures New Rules v02r01	Information Infrastructure (U-NII) Devices - Part 15, Subpart E	--
3	KDB 662911 D01 Multiple Transmitter Output v02r01	Emissions Testing of Transmitters with Multiple Outputs in the Same Band	--

Note: KDB 789033 D02 General UNII Test Procedures New Rules v02r01 and KDB 662911 D01 Multiple Transmitter Output v02r01 are not A2LA certified.

1.3 Summary of Test Results

No.	Measurement Items	FCC Rules	Verdict
1	Duty Cycle	15.407(a)	Pass
2	Maximum Output Power	15.407(a)	Pass
3	Power Spectral Density	15.407(a)	Pass
4	99% Occupied Bandwidth	15.407(a)	Pass
5	Occupied 26dB Bandwidth	15.407(a)	Pass
6	Band edge compliance	15.209 & 15.407(b)	Pass
7	Transmitter spurious emissions radiated	15.209 & 15.407(b)	Pass
8	Frequency Stability	15.407(g)	Pass
9	Transmit Power Control	15.407(h)	N/A ^{Note 3}
10	AC Powerline Conducted Emission	15.207	Pass
11	Antenna requirement	15.203	Pass ^{Note 2}

Note 1:

The UWM-XP9098V2 manufactured by WNC (Kunshan) Corporation Company Limited is a new products for testing.

Industrial Internet Innovation Center (Shanghai) Co., Ltd. only performed test cases which identified with Pass/Fail/Inc result in section 1.3.

Industrial Internet Innovation Center (Shanghai) Co., Ltd. has verified that the compliance of the tested device specified in section 4 of this test report is successfully evaluated according to the procedure and

test methods as defined in type certification requirement listed in section 1 of this test report.

Note2:

5G RLAN used a FPC antenna with max Gain 2.47dBi that complied with 15.203 Requirements. EUT does not support CDD technology and the antennas are not correlated.

Note 3:

A TPC mechanism is not required for systems with an e.i.r.p. of less than 500 mW.

a. All the test data for each data were verified, but only the worst case was reported.

1.4 Data Provided by Applicant

No.	Item(s)	Data
1	Antenna gain of EUT	2.47 dBi

Note: The data of antenna gain is provided by the Antenna specification may affect the validity of the test results in this report, and the impact and consequences of this shall be undertaken by the customer.

2. General Information of The Laboratory

2.1 Testing Laboratory

Lab Name	Industrial Internet Innovation Center (Shanghai) Co.,Ltd.
Address	Building 4, No. 766, Jingang Road, Pudong, Shanghai, China
Telephone	021-68866880
FCC Registration No.	708870
FCC Designation No.	CN1364

2.2 Laboratory Environmental Requirements

Temperature	15°C~35°C
Relative Humidity	25%RH~75%RH
Atmospheric Pressure	86kPa~106kPa

2.3 Project Information

Project Manager	Xu Yuting
Test Date	December 06, 2023 to February 06, 2024

3. General Information of The Customer

3.1 Applicant

Company	Wistron NeWeb Corporation
Address	20 Park Avenue II, Hsinchu Science Park, Hsinchu 308, Taiwan, R.O.C
Telephone	+886 3-666-7799

3.2 Manufacturer

Company	WNC (Kunshan) Corporation Company Limited
Address	NO.88, Central Avenue, Comprehensive Free Trade Zone, Kunshan, Jiangsu, China
Telephone	+86-25-84821688 Ext: 6190

4. General Information of The Product

4.1 Product Description for Equipment under Test (EUT)

Product Name	Bluetooth & WiFi 2.4G/5G Module
Model name	UWM-XP9098V2
Date of Receipt	S07aa/S09aa: December 06, 2023
EUT ID*	S07aa/S09aa
SN/IMEI	S07aa: N7M5N3700B2J01 S09aa: N7M5N3700C4J01
Supported Radio Technology and Bands	BT 5.3 BR/EDR/BLE WLAN 802.11b/g/n/ac/ax WLAN 802.11a/n/ac/ax
Hardware Version	G02
Software Version	NA
FCC ID	NKRUWM-XP9098V2

NOTE1: EUT ID is the internal identification code of the laboratory.

NOTE2: Samples in the test report are provided by the customer. The test results are only applicable to the samples received by the laboratory.

4.2 Internal Identification of AE used during the test

AE ID*	Description	Model	SN/Remark
AE1	RF Cable	N/A	N/A
EA01	Connecting Cable	N/A	N/A
EB02	PCB Board	N/A	N/A
CA01	Adapter	ADS0271-B120200	N/A
UC01	Serial cable	N/A	For EUT debugging
UD01	Lan Cable	N/A	For EUT debugging
AE1	Notebook PC	N/A	For EUT debugging

NOTE1: AE ID is the internal identification code of the laboratory.

4.3 Additional Information

WLAN Frequency	U-NII-1: 5180-5240MHz U-NII-2A: 5260-5320MHz U-NII-2C: 5500MHz-5700MHz
Occupied Channel Bandwidth	20 MHz: 802.11 a/n/ac/ax 40 MHz: 802.11 n/ac/ax 80 MHz: 802.11 ac/ax
WLAN type of modulation	OFDM

Test frequency list:

UNII-1 and UNII-2A:

BW_20M	Channel	36	40	44	48	52	56	60	64
	Freq. (MHz)	5180	5200	5220	5240	5260	5280	5300	5320
BW_40M	Channel	38		46		54		62	
	Freq. (MHz)	5190		5230		5270		5310	
BW_80M	Channel	42				58			
	Freq. (MHz)	5210				5290			
BW_160M	Channel	50							
	Freq. (MHz)	5250							

UNII-2C:

BW_20M	Channel	100	104	108	112	116	120	124	128	132	136	140
	Freq. (MHz)	5500	5520	5540	5560	5580	5600	5620	5640	5660	5680	5700
BW_40M	Channel	102		110		118		126		134		/
	Freq. (MHz)	5510		5550		5590		5630		5670		/
BW_80M	Channel	106				122				/		
	Freq. (MHz)	5530				5610				/		
BW_160M	Channel	114								/		
	Freq. (MHz)	5570								/		

Note: "/" Represents empty

Note: This report is for WLAN UNII-1, UNII-2A and UNII-2C only.

5. Test Configuration Information

5.1 Laboratory Environmental Conditions

5.1.1 Permanent Facilities

Relative Humidity	Min. = 45 %, Max. = 55 %		
Atmospheric Pressure	101kPa		
Temperature	Normal	Minimum	Maximum
	25°C	-40°C	85°C
Working Voltage of EUT	Normal	Minimum	Maximum
	3.3, 1.8V	3.14, 1.71V	3.46, 1.89V

5.2 Test Equipments Utilized

5.2.1 Conducted Test System

No.	Name	Model	S/N	SW Version	HW Version	Manufacturer	Cal. Date	Cal. Interval
1	Test Software	TS1120	10727	V3.2.22	N/A	Tonscnd	N/A	N/A
2	Automatic control unit	JS0806-2	2218060623	N/A	N/A	Tonscnd	2023-05-06	1 Year
3	Wireless communication comprehensive tester	CMW500	164865	V3.8.12	N/A	R&S	2023-07-26	1 Year
4	Spectrum Analyzer	FSQ40	200063	V4.75	N/A	R&S	2023-10-16	1 Year
5	Analog Signal Generator	SMF	104770	V3.0.13.0-2.20.530.15.4	N/A	R&S	2023-10-16	1 year
6	Vector Signal Generator	SMCV100B	103691	V5.00.122.24	N/A	R&S	2023-07-27	1 Year
7	Programmable Power Supply	Keithley 2303	4039070	N/A	N/A	Keithley	2023-06-23	1 Year
8	Temperature box	B-TF-107C	BTF107C-201804107	N/A	N/A	Boyi	2023-06-28	1 Year
9	Network test unit AP	GT-AXE11000	N2IGOX401637KWF	V3.0.0.4.386_45940	N/A	ASUS	N/A	N/A
10	Vector Signal Generator	SMBV100A	257904	V4.15.125.49	N/A	R&S	2023-10-16	1 Year

5.2.2 Radiated Emission Test System

No	Name	Model	S/N	SW Version	HW Version	Manufacturer	Cal. Date	Cal. Interval
1	Universal Radio Communication Tester	CMU200	123126	V5.2.1	B12	R&S	2023-10-16	1 Year
2	Universal Radio Communication Tester	CMW500	104178	V3.7.20	1206.0600.00	R&S	2023-10-16	1 Year
3	EMI Test Receiver	ESU40	100307	V5.1-24-3	01	R&S	2022-12-19	1 Year
4	TRILOG Broadband Antenna	VULB9163	01345	N/A	N/A	Schwarzbeck	2023-03-23	1 Year
5	Double-ridged Waveguide Antenna	ETS-3117	00135890	N/A	N/A	ETS	2022-03-09	2 Years
6	EMI Test Software	EMC32 V10.35.02	N/A	N/A	N/A	R&S	N/A	N/A
7	Horn Antenna	3160-09	LM6321	N/A	N/A	R&S	2023-07-16	1 Year
8	Horn Antenna	3160-10	LM5942	N/A	N/A	R&S	2023-07-16	1 Year
9	Loop Antenna	AL-130R	121083	N/A	N/A	COM-POWER	2023/9/13	1 Year
10	Preamplifier	SCU08F1	8320024	N/A	N/A	R&S	2023/10/16	1 Year
11	Preamplifier	SCU18	10155	N/A	N/A	R&S	2023/10/16	1 Year
12	Preamplifier	SCU26	10025	N/A	N/A	R&S	2023/10/16	1 Year
13	Preamplifier	SCU40	10020	N/A	N/A	R&S	2023/10/16	1 Year
14	2-Line V-Network	ENV216	101380	N/A	N/A	R&S	2022-12-29 2023-12-19	1 Year
15	EMI Test Software	EMC32 V10.35.02	N/A	N/A	N/A	R&S	N/A	N/A
16	Test Receiver	ESCI	101235	V5.1-24-3	0	R&S	2022-12-29 2023-12-19	1 Year

5.2.3 Test Environment

Shielding Room1 (6.0 meters×3.0 meters×2.7 meters) did not exceed following limits along the conducted RF performance testing:

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	> 100 dB
Ground system resistance	< 0.5 Ω
Temperature	Min. = 15 °C, Max. = 35 °C

Control room did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 30 %, Max. = 60 %
Shielding effectiveness	> 100 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω

Fully-anechoic chamber1 (9.8 meters×6.7 meters×6.7 meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 25 %, Max. = 75 %
Shielding effectiveness	> 100 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω
VSWR	Between 0 and 6 dB, from 1GHz to 18GHz
Site Attenuation Deviation	Between -4 and 4 dB, 30MHz to 1GHz

5.3 Measurement Uncertainty

Measurement Uncertainty of Conduction test

Measurement Items	Range	Confidence Level	Calculated Uncertainty
Emission Bandwidth	5150-5850MHz	95%	±1.9%
Maximum Conduct Output Power	5150-5850MHz	95%	± 1.18 dB
Power Spectral Density	5150-5850MHz	95%	±0.98 dB
Band Edge Measurements	5150-5850MHz	95%	±1.21dB
Unwanted Emissions Measurement	9kHz-40GHz	95%	9kHz-7GHz:±1.21dB 7GHz-40GHz: ±3.31dB

Frequency Stability	5150-5850MHz	95%	±1.9%
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Measurement Uncertainty of Radiation test

Measurement Items	Uncertainty(dB)
Radiated Emission 30MHz-1000MHz	±5.10
Radiated Emission 1000MHz-18000MHz	±5.66
Radiated Emission 18000MHz-40000MHz	±5.22
AC Powerline Conducted Emission	±4.38

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

6. Measurement Results

6.1. Duty Cycle

6.1.1. Measurement Limit and Method

Standard	Limit (dBm)
FCC 47 CFR Part 15.407(a)	NA

6.1.2. Test Procedure

The measurement method is made according to KDB 789033 B

Measurements of duty cycle and transmission duration shall be performed using one of the following techniques:

- a) A diode detector and an oscilloscope that together have sufficiently short response time to permit accurate measurements of the on and off times of the transmitted signal.
- b) The zero-span mode on a spectrum analyzer or EMI receiver, if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal. Set the center frequency of the instrument to the center frequency of the transmission, Set $RBW > EBW$ if possible; otherwise, set RBW to the largest available value. Set $VBW > RBW$. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are $> 50/T$, where T is defined in II.B.1.a), and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if $T < 16.7$ microseconds.)

6.1.3. Measurement Results

Test Mode	Antenna	Frequency [MHz]	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
11A	Ant1	5180	1.43	1.44	99.31
11A	Ant2	5180	1.43	1.45	98.62
11A	Ant1	5200	1.43	1.45	98.62
11A	Ant2	5200	1.43	1.45	98.62
11A	Ant1	5240	1.43	1.45	98.62
11A	Ant2	5240	1.43	1.45	98.62
11A	Ant1	5260	1.43	1.44	99.31
11A	Ant2	5260	1.43	1.45	98.62
11A	Ant1	5280	1.43	1.44	99.31
11A	Ant2	5280	1.44	1.45	99.31
11A	Ant1	5320	1.43	1.45	98.62
11A	Ant2	5320	1.43	1.44	99.31
11A	Ant1	5500	1.43	1.44	99.31

11A	Ant2	5500	1.43	1.45	98.62
11A	Ant1	5580	1.43	1.45	98.62
11A	Ant2	5580	1.43	1.45	98.62
11A	Ant1	5700	1.43	1.50	95.33
11A	Ant2	5700	1.43	1.45	98.62
11A-CDD	Ant1	5180	1.43	1.45	98.62
11A-CDD	Ant2	5180	1.43	1.45	98.62
11A-CDD	Ant1	5200	1.43	1.44	99.31
11A-CDD	Ant2	5200	1.43	1.45	98.62
11A-CDD	Ant1	5240	1.43	1.45	98.62
11A-CDD	Ant2	5240	1.43	1.50	95.33
11A-CDD	Ant1	5260	1.43	1.44	99.31
11A-CDD	Ant2	5260	1.43	1.45	98.62
11A-CDD	Ant1	5280	1.43	1.45	98.62
11A-CDD	Ant2	5280	1.43	1.44	99.31
11A-CDD	Ant1	5320	1.43	1.44	99.31
11A-CDD	Ant2	5320	1.43	1.45	98.62
11A-CDD	Ant1	5500	1.43	1.45	98.62
11A-CDD	Ant2	5500	1.43	1.45	98.62
11A-CDD	Ant1	5580	1.43	1.45	98.62
11A-CDD	Ant2	5580	1.43	1.45	98.62
11A-CDD	Ant1	5700	1.43	1.45	98.62
11A-CDD	Ant2	5700	1.43	1.45	98.62
11N20SISO	Ant1	5180	1.34	1.41	95.04
11N20SISO	Ant2	5180	1.34	1.36	98.53
11N20SISO	Ant1	5200	1.34	1.36	98.53
11N20SISO	Ant2	5200	1.34	1.36	98.53
11N20SISO	Ant1	5240	1.34	1.35	99.26
11N20SISO	Ant2	5240	1.34	1.36	98.53
11N20SISO	Ant1	5260	1.34	1.35	99.26
11N20SISO	Ant2	5260	1.34	1.36	98.53
11N20SISO	Ant1	5280	1.34	1.36	98.53
11N20SISO	Ant2	5280	1.34	1.36	98.53
11N20SISO	Ant1	5320	1.34	1.36	98.53
11N20SISO	Ant2	5320	1.34	1.36	98.53
11N20SISO	Ant1	5500	1.34	1.35	99.26
11N20SISO	Ant2	5500	1.34	1.36	98.53
11N20SISO	Ant1	5580	1.34	1.41	95.04
11N20SISO	Ant2	5580	1.34	1.35	99.26
11N20SISO	Ant1	5700	1.34	1.36	98.53
11N20SISO	Ant2	5700	1.34	1.35	99.26
11N20MIMO	Ant1	5180	0.70	0.71	98.59

11N20MIMO	Ant2	5180	0.69	0.71	97.18
11N20MIMO	Ant1	5200	0.69	0.70	98.57
11N20MIMO	Ant2	5200	0.70	0.71	98.59
11N20MIMO	Ant1	5240	0.70	0.71	98.59
11N20MIMO	Ant2	5240	0.69	0.71	97.18
11N20MIMO	Ant1	5260	0.69	0.71	97.18
11N20MIMO	Ant2	5260	0.69	0.71	97.18
11N20MIMO	Ant1	5280	0.70	0.71	98.59
11N20MIMO	Ant2	5280	0.69	0.70	98.57
11N20MIMO	Ant1	5320	0.69	0.70	98.57
11N20MIMO	Ant2	5320	0.70	0.76	92.11
11N20MIMO	Ant1	5500	0.69	0.71	97.18
11N20MIMO	Ant2	5500	0.70	0.71	98.59
11N20MIMO	Ant1	5580	0.69	0.71	97.18
11N20MIMO	Ant2	5580	0.69	0.71	97.18
11N20MIMO	Ant1	5700	0.70	0.71	98.59
11N20MIMO	Ant2	5700	0.69	0.71	97.18
11N40SISO	Ant1	5190	0.66	0.68	97.06
11N40SISO	Ant2	5190	0.67	0.73	91.78
11N40SISO	Ant1	5230	0.66	0.68	97.06
11N40SISO	Ant2	5230	0.67	0.68	98.53
11N40SISO	Ant1	5270	0.66	0.68	97.06
11N40SISO	Ant2	5270	0.67	0.68	98.53
11N40SISO	Ant1	5310	0.66	0.68	97.06
11N40SISO	Ant2	5310	0.66	0.73	90.41
11N40SISO	Ant1	5510	0.66	0.68	97.06
11N40SISO	Ant2	5510	0.67	0.68	98.53
11N40SISO	Ant1	5550	0.66	0.68	97.06
11N40SISO	Ant2	5550	0.66	0.68	97.06
11N40SISO	Ant1	5670	0.66	0.73	90.41
11N40SISO	Ant2	5670	0.66	0.68	97.06
11N40MIMO	Ant1	5190	0.36	0.38	94.74
11N40MIMO	Ant2	5190	0.36	0.37	97.30
11N40MIMO	Ant1	5230	0.36	0.37	97.30
11N40MIMO	Ant2	5230	0.36	0.37	97.30
11N40MIMO	Ant1	5270	0.35	0.37	94.59
11N40MIMO	Ant2	5270	0.36	0.37	97.30
11N40MIMO	Ant1	5310	0.35	0.37	94.59
11N40MIMO	Ant2	5310	0.36	0.37	97.30
11N40MIMO	Ant1	5510	0.36	0.38	94.74
11N40MIMO	Ant2	5510	0.35	0.37	94.59
11N40MIMO	Ant1	5550	0.36	0.38	94.74

11N40MIMO	Ant2	5550	0.36	0.37	97.30
11N40MIMO	Ant1	5670	0.36	0.42	85.71
11N40MIMO	Ant2	5670	0.35	0.37	94.59
11AC20SISO	Ant1	5180	1.35	1.37	98.54
11AC20SISO	Ant2	5180	1.35	1.41	95.74
11AC20SISO	Ant1	5200	1.35	1.37	98.54
11AC20SISO	Ant2	5200	1.34	1.36	98.53
11AC20SISO	Ant1	5240	1.35	1.37	98.54
11AC20SISO	Ant2	5240	1.35	1.37	98.54
11AC20SISO	Ant1	5260	1.35	1.41	95.74
11AC20SISO	Ant2	5260	1.34	1.36	98.53
11AC20SISO	Ant1	5280	1.35	1.37	98.54
11AC20SISO	Ant2	5280	1.35	1.37	98.54
11AC20SISO	Ant1	5320	1.35	1.36	99.26
11AC20SISO	Ant2	5320	1.35	1.36	99.26
11AC20SISO	Ant1	5500	1.34	1.36	98.53
11AC20SISO	Ant2	5500	1.35	1.42	95.07
11AC20SISO	Ant1	5580	1.35	1.37	98.54
11AC20SISO	Ant2	5580	1.35	1.36	99.26
11AC20SISO	Ant1	5700	1.35	1.36	99.26
11AC20SISO	Ant2	5700	1.34	1.36	98.53
11AC20MIMO	Ant1	5180	0.70	0.72	97.22
11AC20MIMO	Ant2	5180	0.70	0.77	90.91
11AC20MIMO	Ant1	5200	0.70	0.71	98.59
11AC20MIMO	Ant2	5200	0.70	0.71	98.59
11AC20MIMO	Ant1	5240	0.70	0.72	97.22
11AC20MIMO	Ant2	5240	0.70	0.71	98.59
11AC20MIMO	Ant1	5260	0.70	0.71	98.59
11AC20MIMO	Ant2	5260	0.70	0.72	97.22
11AC20MIMO	Ant1	5280	0.70	0.71	98.59
11AC20MIMO	Ant2	5280	0.70	0.76	92.11
11AC20MIMO	Ant1	5320	0.70	0.71	98.59
11AC20MIMO	Ant2	5320	0.70	0.71	98.59
11AC20MIMO	Ant1	5500	0.70	0.76	92.11
11AC20MIMO	Ant2	5500	0.70	0.72	97.22
11AC20MIMO	Ant1	5580	0.70	0.71	98.59
11AC20MIMO	Ant2	5580	0.70	0.72	97.22
11AC20MIMO	Ant1	5700	0.70	0.72	97.22
11AC20MIMO	Ant2	5700	0.70	0.72	97.22
11AC40SISO	Ant1	5190	0.68	0.69	98.55
11AC40SISO	Ant2	5190	0.67	0.69	97.10
11AC40SISO	Ant1	5230	0.68	0.69	98.55

11AC40SISO	Ant2	5230	0.67	0.69	97.10
11AC40SISO	Ant1	5270	0.68	0.69	98.55
11AC40SISO	Ant2	5270	0.67	0.68	98.53
11AC40SISO	Ant1	5310	0.67	0.68	98.53
11AC40SISO	Ant2	5310	0.67	0.69	97.10
11AC40SISO	Ant1	5510	0.67	0.69	97.10
11AC40SISO	Ant2	5510	0.67	0.69	97.10
11AC40SISO	Ant1	5550	0.67	0.69	97.10
11AC40SISO	Ant2	5550	0.67	0.69	97.10
11AC40SISO	Ant1	5670	0.67	0.68	98.53
11AC40SISO	Ant2	5670	0.68	0.69	98.55
11AC40MIMO	Ant1	5190	0.36	0.38	94.74
11AC40MIMO	Ant2	5190	0.36	0.38	94.74
11AC40MIMO	Ant1	5230	0.36	0.42	85.71
11AC40MIMO	Ant2	5230	0.36	0.42	85.71
11AC40MIMO	Ant1	5270	0.36	0.38	94.74
11AC40MIMO	Ant2	5270	0.36	0.38	94.74
11AC40MIMO	Ant1	5310	0.36	0.37	97.30
11AC40MIMO	Ant2	5310	0.36	0.38	94.74
11AC40MIMO	Ant1	5510	0.36	0.38	94.74
11AC40MIMO	Ant2	5510	0.36	0.38	94.74
11AC40MIMO	Ant1	5550	0.36	0.38	94.74
11AC40MIMO	Ant2	5550	0.35	0.37	94.59
11AC40MIMO	Ant1	5670	0.36	0.37	97.30
11AC40MIMO	Ant2	5670	0.36	0.37	97.30
11AC80SISO	Ant1	5210	0.33	0.34	97.06
11AC80SISO	Ant2	5210	0.33	0.34	97.06
11AC80SISO	Ant1	5290	0.33	0.35	94.29
11AC80SISO	Ant2	5290	0.34	0.35	97.14
11AC80SISO	Ant1	5530	0.33	0.35	94.29
11AC80SISO	Ant2	5530	0.34	0.35	97.14
11AC80SISO	Ant1	5610	0.33	0.34	97.06
11AC80SISO	Ant2	5610	0.33	0.34	97.06
11AC80MIMO	Ant1	5210	0.19	0.20	95.00
11AC80MIMO	Ant2	5210	0.19	0.21	90.48
11AC80MIMO	Ant1	5290	0.19	0.21	90.48
11AC80MIMO	Ant2	5290	0.19	0.21	90.48
11AC80MIMO	Ant1	5530	0.19	0.21	90.48
11AC80MIMO	Ant2	5530	0.19	0.20	95.00
11AC80MIMO	Ant1	5610	0.20	0.21	95.24
11AC80MIMO	Ant2	5610	0.19	0.21	90.48
11AX20SISO	Ant1	5180	1.05	1.06	99.06

11AX20SISO	Ant2	5180	1.05	1.11	94.59
11AX20SISO	Ant1	5200	1.05	1.06	99.06
11AX20SISO	Ant2	5200	1.04	1.10	94.55
11AX20SISO	Ant1	5240	1.04	1.06	98.11
11AX20SISO	Ant2	5240	1.05	1.06	99.06
11AX20SISO	Ant1	5260	1.04	1.11	93.69
11AX20SISO	Ant2	5260	1.04	1.11	93.69
11AX20SISO	Ant1	5280	1.04	1.06	98.11
11AX20SISO	Ant2	5280	1.04	1.11	93.69
11AX20SISO	Ant1	5320	1.05	1.11	94.59
11AX20SISO	Ant2	5320	1.04	1.06	98.11
11AX20SISO	Ant1	5500	1.04	1.06	98.11
11AX20SISO	Ant2	5500	1.04	1.06	98.11
11AX20SISO	Ant1	5580	1.04	1.06	98.11
11AX20SISO	Ant2	5580	1.05	1.06	99.06
11AX20SISO	Ant1	5700	1.05	1.06	99.06
11AX20SISO	Ant2	5700	1.04	1.06	98.11
11AX20MIMO	Ant1	5180	0.56	0.57	98.25
11AX20MIMO	Ant2	5180	0.55	0.57	96.49
11AX20MIMO	Ant1	5200	0.56	0.62	90.32
11AX20MIMO	Ant2	5200	0.56	0.57	98.25
11AX20MIMO	Ant1	5240	0.56	0.57	98.25
11AX20MIMO	Ant2	5240	0.56	0.57	98.25
11AX20MIMO	Ant1	5260	0.55	0.62	88.71
11AX20MIMO	Ant2	5260	0.56	0.57	98.25
11AX20MIMO	Ant1	5280	0.56	0.57	98.25
11AX20MIMO	Ant2	5280	0.56	0.57	98.25
11AX20MIMO	Ant1	5320	0.55	0.57	96.49
11AX20MIMO	Ant2	5320	0.56	0.57	98.25
11AX20MIMO	Ant1	5500	0.56	0.57	98.25
11AX20MIMO	Ant2	5500	0.56	0.57	98.25
11AX20MIMO	Ant1	5580	0.56	0.57	98.25
11AX20MIMO	Ant2	5580	0.55	0.57	96.49
11AX20MIMO	Ant1	5700	0.56	0.57	98.25
11AX20MIMO	Ant2	5700	0.56	0.57	98.25
11AX40SISO	Ant1	5190	0.55	0.57	96.49
11AX40SISO	Ant2	5190	0.56	0.57	98.25
11AX40SISO	Ant1	5230	0.55	0.56	98.21
11AX40SISO	Ant2	5230	0.55	0.56	98.21
11AX40SISO	Ant1	5270	0.55	0.57	96.49
11AX40SISO	Ant2	5270	0.55	0.56	98.21
11AX40SISO	Ant1	5310	0.55	0.57	96.49

11AX40SISO	Ant2	5310	0.55	0.57	96.49
11AX40SISO	Ant1	5510	0.55	0.57	96.49
11AX40SISO	Ant2	5510	0.55	0.57	96.49
11AX40SISO	Ant1	5550	0.55	0.57	96.49
11AX40SISO	Ant2	5550	0.55	0.57	96.49
11AX40SISO	Ant1	5670	0.55	0.57	96.49
11AX40SISO	Ant2	5670	0.55	0.57	96.49
11AX40MIMO	Ant1	5190	0.31	0.32	96.88
11AX40MIMO	Ant2	5190	0.31	0.32	96.88
11AX40MIMO	Ant1	5230	0.30	0.32	93.75
11AX40MIMO	Ant2	5230	0.31	0.32	96.88
11AX40MIMO	Ant1	5270	0.31	0.33	93.94
11AX40MIMO	Ant2	5270	0.31	0.32	96.88
11AX40MIMO	Ant1	5310	0.31	0.32	96.88
11AX40MIMO	Ant2	5310	0.30	0.32	93.75
11AX40MIMO	Ant1	5510	0.30	0.32	93.75
11AX40MIMO	Ant2	5510	0.30	0.32	93.75
11AX40MIMO	Ant1	5550	0.30	0.32	93.75
11AX40MIMO	Ant2	5550	0.31	0.33	93.94
11AX40MIMO	Ant1	5670	0.30	0.32	93.75
11AX40MIMO	Ant2	5670	0.31	0.37	83.78
11AX80SISO	Ant1	5210	0.29	0.31	93.55
11AX80SISO	Ant2	5210	0.29	0.31	93.55
11AX80SISO	Ant1	5290	0.29	0.31	93.55
11AX80SISO	Ant2	5290	0.29	0.31	93.55
11AX80SISO	Ant1	5530	0.30	0.31	96.77
11AX80SISO	Ant2	5530	0.29	0.36	80.56
11AX80SISO	Ant1	5610	0.30	0.31	96.77
11AX80SISO	Ant2	5610	0.30	0.31	96.77
11AX80MIMO	Ant1	5210	0.18	0.19	94.74
11AX80MIMO	Ant2	5210	0.18	0.20	90.00
11AX80MIMO	Ant1	5290	0.18	0.20	90.00
11AX80MIMO	Ant2	5290	0.18	0.20	90.00
11AX80MIMO	Ant1	5530	0.17	0.19	89.47
11AX80MIMO	Ant2	5530	0.18	0.20	90.00
11AX80MIMO	Ant1	5610	0.18	0.20	90.00
11AX80MIMO	Ant2	5610	0.18	0.19	94.74

Test Graphs

















































