



FCC RF Test Report

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT2659-1, XT2659-2
FCC ID : IHDT56AP9
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure
TEST DATE(S) : Nov. 30, 2025 ~ Dec. 11, 2025

We, Sporton International Inc. (ShenZhen), would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. (ShenZhen), the test report shall not be reproduced except in full.

Fly Liang

Approved by: Fly Liang



Sporton International Inc. (ShenZhen)

1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055

People's Republic of China



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR5N2011F	Rev. 01	Initial issue of report	Dec. 23, 2025

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit for U-NII-1/2A/2C	Limit for U-NII-3	Result	Remark
3.1	2.1049 & 15.403(i)	6dB, 26dB & 99% Bandwidth	-	6dB Bandwidth > 500kHz	Pass	-
3.2	15.407(a)	Maximum Conducted Output Power	≤ 24 dBm	≤ 30 dBm	Pass	-
3.3	15.407(b)	Unwanted Emissions	15.407(b) & 15.209(a)	15.407(b)(4)(i) & 15.209(a)	Pass	Under limit 3.18 dB at 5727.95 MHz
3.4	15.207	AC Conducted Emission	15.207(a)	15.207(a)	Pass	Under limit 12.20. dB at 0.79 MHz

Note: This is a variant report. The change note could be referred to the XT2659-1, XT2659-2_Operational Description of Product Equality Declaration which is exhibit separately. Based on the similarity between current and previous project, only the related test cases from original test report (Sporton Report Number FR420703F) were verified for the differences.

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacture who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section "Measurement Uncertainty"

Disclaimer:

The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.



1 General Description

1.1 Applicant

Motorola Mobility LLC

222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

1.2 Manufacturer

Motorola Mobility LLC

222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2659-1, XT2659-2
FCC ID	IHDT56AP9
IMEI Code	Conducted: 354410210014315-354410210014323 Conduction: 354410210014935 Radiation: 354410210014935/354410210014943 354410210014877/354410210014885
HW Version	DVT1
SW Version	WWS36.24
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5720 MHz 5745 MHz ~ 5825 MHz
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM) 802.11ax : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM / 1024QAM) 802.11be : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM / 1024QAM / 4096QAM)

Note:

1. The device support WLAN MIMO mode only.

2. For 802.11n HT20 / ac VHT20 and 802.11n HT40 / ac VHT40 mode, the testing has assessed only 802.11n HT20/ HT40 by referring to their higher conducted power.

1.5 Modification of EUT

No modifications are made to the EUT during all test items.

1.6 Testing Location

Sporton International Inc. (ShenZhen) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International Inc. (ShenZhen)		
Test Site Location	101, 1st Floor, Block B, Building 1, No. 2, Tengfeng 4th Road, Fenghuang Community, Fuyong Street, Baoan District, Shenzhen City, Guangdong Province 518103 People's Republic of China TEL: +86-755-86066985		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	TH01-SZ CO02-SZ 03CH04-SZ	CN1256	421272

1.7 Test Software

Item	Site	Manufacturer	Name	Version
1.	03CH04-SZ	AUDIX	E3	6.2009-8-24
2.	CO02-SZ	AUDIX	E3	6.120613b

1.8 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR Part 15 Subpart E
- ♦ FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ♦ ANSI C63.10-2020

Remark:



1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

1.9 Specification of Accessory

Specification of Accessory				
Battery 1	Brand Name	Motorola(ATL)	Model Name	SA11
Battery 2	Brand Name	Motorola(ATL)	Model Name	SA34
USB Cable 1	Brand Name	Motorola(SAIBAO)	Model Name	SC18D86731
USB Cable 2	Brand Name	Motorola(Luxshare)	Model Name	SC18E08103

2 Test Configuration of Equipment Under Test

- a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (X plane) were recorded in this report.
- b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq.(MHz)	Channel	Freq. (MHz)
5180-5240 MHz U-NII-1	36	5180	44	5220
	38*	5190	46*	5230
	40	5200	48	5240
	42 [#]	5210	50 ^{##}	5250
Frequency Band	Channel	Freq.(MHz)	Channel	Freq. (MHz)
5260-5320 MHz U-NII-2A	52	5260	60	5300
	54*	5270	62*	5310
	56	5280	64	5320
	58 [#]	5290	-	-
Frequency Band	Channel	Freq.(MHz)	Channel	Freq. (MHz)
5500-5720MHz U-NII-2C	100	5500	112	5560
	102*	5510	116	5580
	104	5520	132	5660
	106 [#]	5530	134*	5670
	108	5540	136	5680
	110*	5550	140	5700
Frequency Band	Channel	Freq.(MHz)	Channel	Freq. (MHz)
5745-5825 MHz U-NII-3	149	5745	157	5785
	151*	5755	159*	5795
	153	5765	161	5805
	155 [#]	5775	165	5825

Frequency Band	Channel	Freq.(MHz)	Channel	Freq. (MHz)
TDWR Channel	118*	5590	124	5620
	120	5600	126*	5630
	122 [#]	5610	128	5640
	-	-	114 ^{##}	5570

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
Straddle Channel	138 [#]	5690	144	5720
	142*	5710	-	-

Note:

1. The above Frequency and Channel in "*" are 40MHz bandwidth.
2. The above Frequency and Channel in "[#]" are 80MHz bandwidth.
3. The above Frequency and Channel in "^{##}" are 160MHz bandwidth.

2.2 Test Mode

Final test modes are considering the modulation and worse data rates as below table.

MIMO Mode

Modulation	Data Rate
802.11ax HE40	MCS0
802.11be EHT40	MCS0

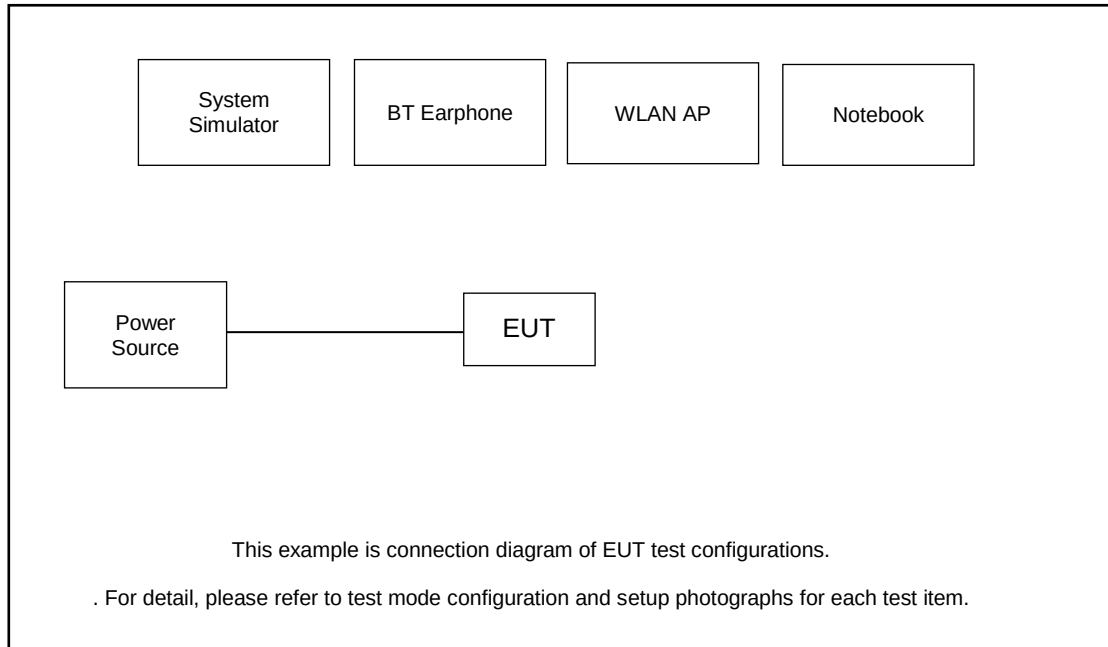
RSE Co-location mode

802.11be EHT40 CH134 5670MHz Tx + 802.11ax HE20 CH01 2412MHz + LTE Band 48 Link
 BLE 2Mbps CH39 2480MHz Tx + 802.11be EHT40 CH134 5670MHz Tx + LTE Band 48 Link

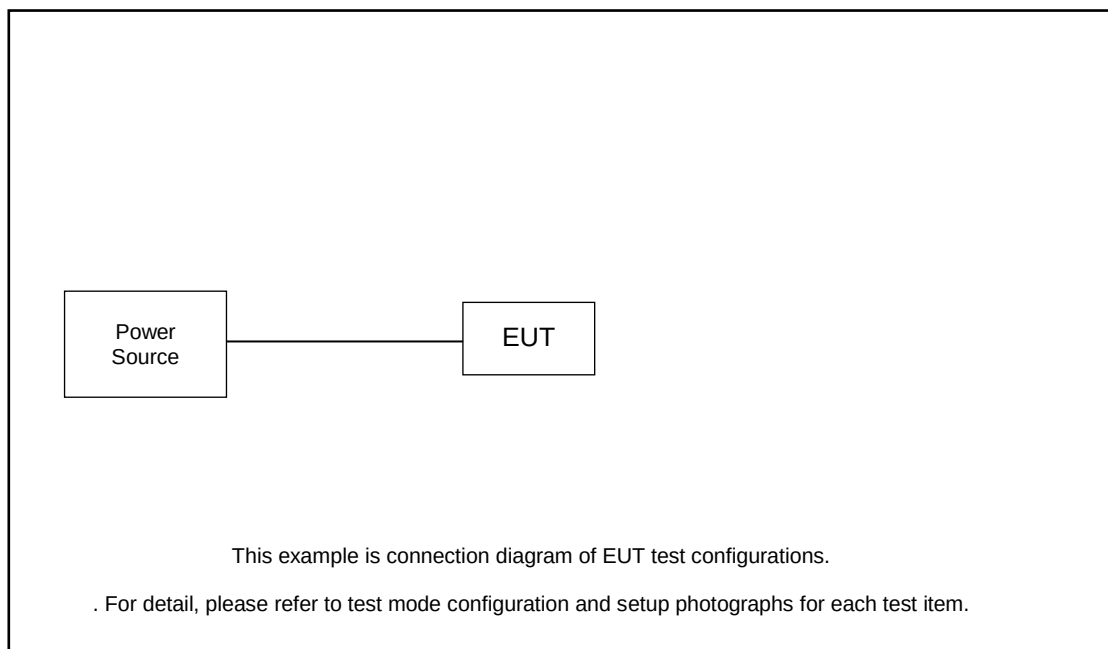
AC Conducted Emission	Mode 1 : GSM850 Idle + BT Link + WLAN Link(5G) + USB Cable 1(Charging from Adapter) + Battery
Remark: For Radiated Test Cases, The tests were performance with Adapter and USB Cable 1.	

2.3 Connection Diagram of Test System

AC Conducted Emission:



Radiated Emission:



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded,1.8m
2.	Notebook	DELL	Latiude 3400	N/A	N/A	Unshielded,1.8m
3.	Bluetooth Earphone	N/A	N/A	N/A	N/A	N/A
4.	WLAN AP	Dlink	DIR-820L	KA2IR820LA1	N/A	Unshielded,1.8m
5.	AC Adapter	Moto	N/A	N/A	N/A	N/A

2.5 EUT Operation Test Setup

For WLAN RF test items, an engineering test program was provided and enabled to make EUT continuously transmit.

For AC power line conducted emissions, the EUT was set to connect with the WLAN AP under large package sizes transmission.

2.6 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example :

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.53 dB and 10dB attenuator.

$$\begin{aligned}\text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)} \\ &= 4.53 + 10 = 14.53 \text{ (dB)}\end{aligned}$$

3 Test Result

3.1 6dB and 26dB and 99% Occupied Bandwidth Measurement

3.1.1 Description of 6dB and 26dB and 99% Occupied Bandwidth

The minimum 6 dB bandwidth shall be at least 500 kHz.

26dB and 99% Occupied bandwidth are reporting only.

3.1.2 Measuring Instruments

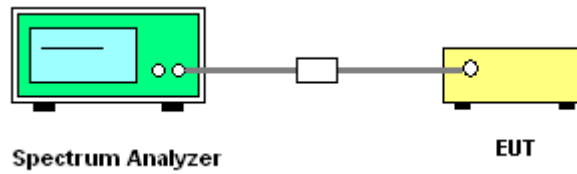
The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedures

- The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

☒	Section C) Bandwidth Measurement 1. Emission Bandwidth (EBW) and 99% OBW
	- Set RBW = approximately 1% of the emission bandwidth. - Set the VBW > RBW. - Detector = Peak. - Trace mode = max hold - Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%. - For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set to 1%~5% of the OBW and set the Video bandwidth (VBW) $\geq 3 \times$ RBW. - Measure and record the results in the test report.
☒	Section C) Bandwidth Measurement 2. Minimum Emission Bandwidth for the band 5.725 - 5.85 GHz
	- Set RBW = 100kHz. - Set the VBW $\geq 3 \times$ RBW. - Detector = Peak. - Trace mode = max hold - Measure the maximum width of the emission that is 6 dB down from the peak of the emission. - Measure and record the results in the test report.

3.1.4 Test Setup



3.1.5 Test Result of 6dB Bandwidth

Please refer to Appendix A.

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW.

For the 5.25–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log_{10} B$, where B is the 26 dB emission bandwidth in megahertz.

For the band 5.725–5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

For the 5.47–5.725 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or $11 + 10 \log_{10} B$, dBm. The maximum e.i.r.p. shall not exceed the lesser of 1.0 W or $17 + 10 \log_{10} B$, dBm. B is the 99% emission bandwidth in megahertz.

For Straddle Channel, According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, If the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Note that U-NII-2 band, devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

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3.2.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.2.3 Test Procedures

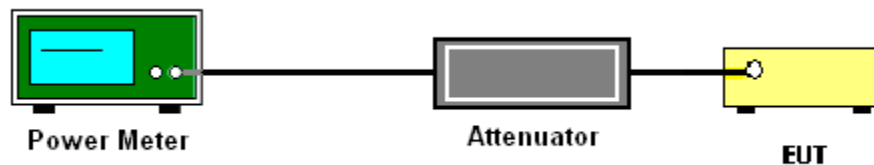
The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Method PM (Measurement using an RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, $10 \log(1/x)$, where x is the duty cycle.
4. For MIMO mode, the measure-and-sum technique should be used for measuring the in-band transmit power of a device.

For Straddle Channel, According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, If the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

3.2.4 Test Setup





3.2.5 Test Result of Maximum Conducted Output Power

FCC Band II															
Mod.	Data Rate	NTX	CH.	RU Config	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail	Power Setting
11a	6Mbps	2	52	Full	5260	0.04	0.04	18.14	18.81	21.50	23.98	-2.60	26.99	Pass	18.5
HT20	MCS0	2	52	Full	5260	0.00	0.01	18.09	18.90	21.52	23.98	-2.60	26.99	Pass	18.5
HT40	MCS0	2	54	Full	5270	0.02	0.00	18.17	18.77	21.49	23.98	-2.60	26.99	Pass	18
HE20	MCS0	2	52	Full	5260	0.00	0.00	18.33	18.85	21.61	23.98	-2.60	26.99	Pass	18.5
HE40	MCS0	2	54	Full	5270	0.02	0.02	18.15	18.78	21.49	23.98	-2.60	26.99	Pass	18

FCC Band II																	
Mod.	Data Rate	NTX	CH.	RU Config	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail	Power Setting
						Ant 7	Ant 5	Ant 7	Ant 5	SUM	Ant 7	Ant 5	Ant 7	Ant 5			
EHT20	MCS0	2	52	Full	5260	0.01	0.02	18.36	18.81	21.60	23.98		-2.60		26.99	Pass	18.5
EHT40	MCS0	2	54	Full	5270	0.02	0.00	18.02	18.73	21.40	23.98		-2.60		26.99	Pass	18

FCC Band III																	
Mod.	Data Rate	NTX	CH.	RU Config	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail	Power Setting
						Ant 7	Ant 5	Ant 7	Ant 5	SUM	Ant 7	Ant 5	Ant 7	Ant 5			
VHT80	MCS0	2	138	Full	5690	0.03	0.03	17.03	17.58	20.33	23.98		-2.70	26.99	Pass	17	
VHT160	MCS0	2	114	Full	5570	0.08	0.05	16.40	16.70	19.57	23.98		-2.70	26.99	Pass	16	
HE80	MCS0	2	138	Full	5690	0.00	0.00	17.18	17.59	20.40	23.98		-2.70	26.99	Pass	17	
HE160	MCS0	2	114	Full	5570	0.00	0.01	16.54	16.68	19.62	23.98		-2.70	26.99	Pass	16	

FCC Band III																	
Mod.	Data Rate	NTX	CH.	RU Config	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail	Power Setting
						Ant 7	Ant 5	Ant 7	Ant 5	SUM	Ant 7	Ant 5	Ant 7	Ant 5			
EHT80	MCS0	2	138	Full	5690	0.02	0.02	17.33	17.60	20.47	23.98		-2.70	26.99	Pass	17	
EHT160	MCS0	2	114	Full	5570	0.02	0.01	16.35	16.39	19.38	23.98		-2.70	26.99	Pass	16	



Band IV																
Mod.	Data Rate	NTX	CH.	RU Config	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail	Power Setting
						Ant 7	Ant 5	Ant 7	Ant 5	SUM	Ant 7	Ant 5	Ant 7	Ant 5		
11a	6Mbps	2	149	Full	5745	0.04	0.04	17.99	18.21	21.11	30.00	-2.00		Pass	18.5	
HT20	MCS0	2	149	Full	5745	0.00	0.01	18.00	18.23	21.13	30.00	-2.00		Pass	18.5	
HT40	MCS0	2	151	Full	5755	0.02	0.00	18.12	18.25	21.20	30.00	-2.00		Pass	18	
VHT80	MCS0	2	155	Full	5775	0.03	0.03	16.99	17.14	20.08	30.00	-2.00		Pass	17	
HE20	MCS0	2	165	Full	5825	0.00	0.00	17.70	18.21	20.97	30.00	-2.00		Pass	18.5	
HE40	MCS0	2	151	Full	5755	0.02	0.02	18.05	18.38	21.23	30.00	-2.00		Pass	18	
HE80	MCS0	2	155	Full	5775	0.00	0.00	17.03	17.22	20.14	30.00	-2.00		Pass	17	

Band IV																
Mod.	Data Rate	NTX	CH.	RU Config	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail	Power Setting
						Ant 7	Ant 5	Ant 7	Ant 5	SUM	Ant 7	Ant 5	Ant 7	Ant 5		
EHT20	MCS0	2	149	Full	5745	0.01	0.02	18.11	18.35	21.24	30.00		-2.00		Pass	18.5
EHT40	MCS0	2	151	Full	5755	0.02	0.00	17.92	18.08	21.01	30.00		-2.00		Pass	18
EHT80	MCS0	2	155	Full	5775	0.02	0.02	17.13	17.42	20.28	30.00		-2.00		Pass	17



3.3 Unwanted Emissions Measurement

This section as specified in FCC Part 15.407(b) is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement. The unwanted emissions shall comply with 15.407(b)(1) to (6), and restricted bands per FCC Part 15.205.

3.3.1 Limit of Unwanted Emissions

- (1) For transmitters operating in the 5150-5250 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27dBm/MHz .

For transmitters operating in the 5250-5350 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27 dBm/MHz . Devices operating in the 5250-5350 MHz band that generate emissions in the 5150-5250 MHz band must meet all applicable technical requirements for operation in the 5150-5250 MHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5150-5250 MHz band.

For transmitters operating in the 5470-5600 MHz and 5650-5725MHz band: all emissions outside of the 5470-5600 MHz and 5650-5725MHz band shall not exceed an EIRP of -27 dBm/MHz .

- (2) For transmitters operating in the 5.725-5.85 GHz band:
- 15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

(3) Unwanted spurious emissions fallen in restricted bands shall comply with the general field strength limits as below table,

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

(4) EIRP (dBm)	Field Strength at 3m (dBμV/m)
- 27	68.2

Note: The following formula is used to convert the EIRP to field strength.

$$EIRP = E_{Meas} + 20\log (d_{Meas}) - 104.7$$

where

EIRP is the equivalent isotropically radiated power, in dBm

E_{Meas} is the field strength of the emission at the measurement distance, in dBμV/m

d_{Meas} is the measurement distance, in m

3.3.2 Measuring Instruments

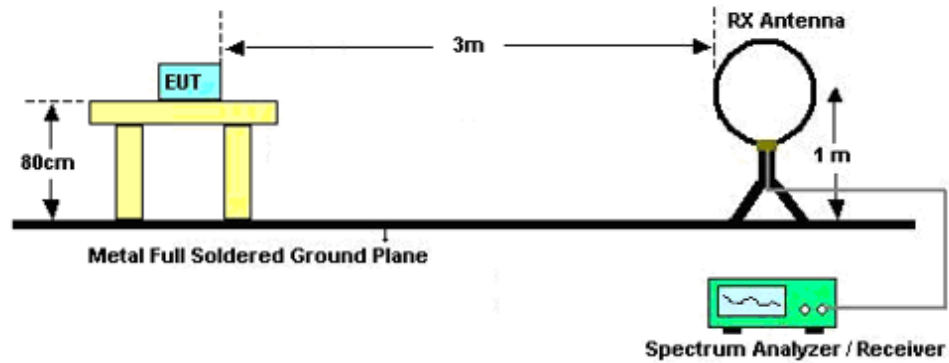
The measuring equipment is listed in the section 4 of this test report.

3.3.3 Test Procedures

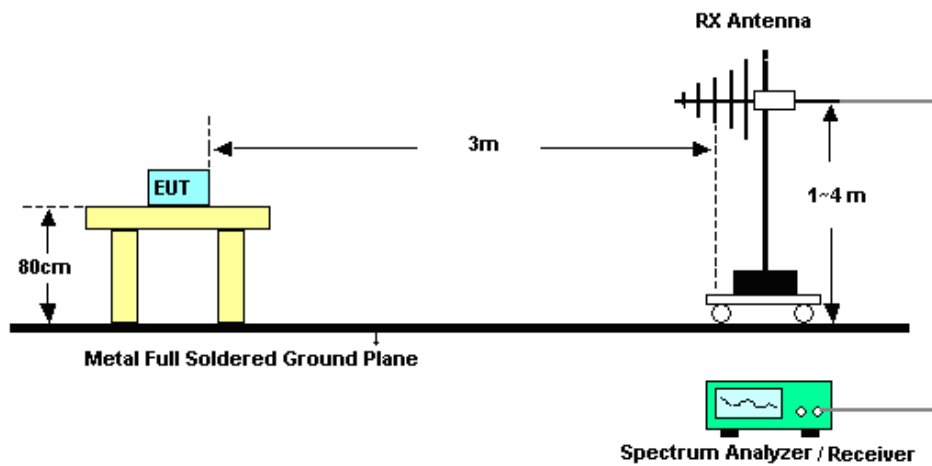
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.
Section G) Unwanted emissions measurement.
(1) Procedure for Unwanted Emissions Measurements Below 1000MHz
 - RBW = 120 kHz
 - VBW = 300 kHz
 - Detector = Peak
 - Trace mode = max hold(2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
 - RBW = 1 MHz
 - VBW $\geq$ 3 MHz
 - Detector = Peak
 - Sweep time = auto
 - Trace mode = max hold(3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
 - RBW = 1 MHz
 - VBW = 10 Hz, when duty cycle is no less than 98 percent.
 - VBW $\geq$ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on.
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.3.4 Test Setup

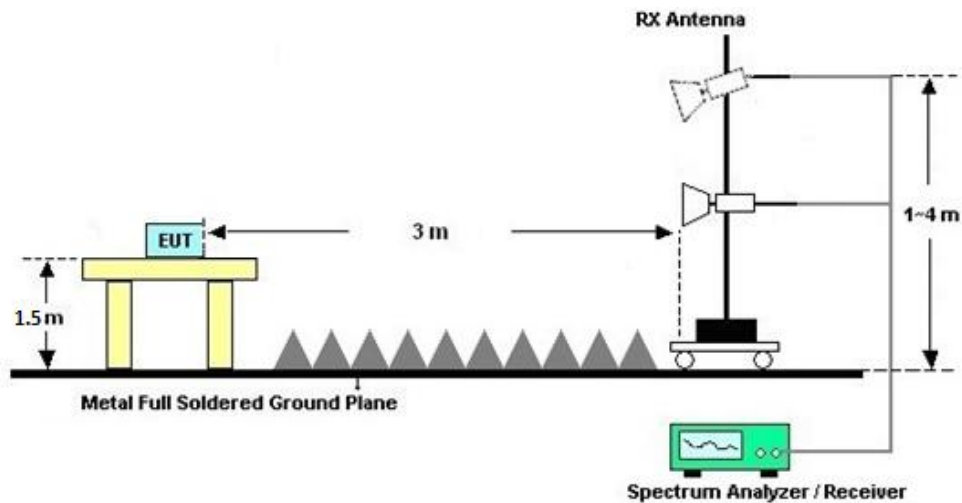
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz





3.3.5 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

3.3.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C.

3.3.7 Duty Cycle

Please refer to Appendix D.

3.3.8 Test Result of Radiated Spurious Emissions (30MHz ~ 10th Harmonic)

Please refer to Appendix C.

3.4 AC Conducted Emission Measurement

3.4.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

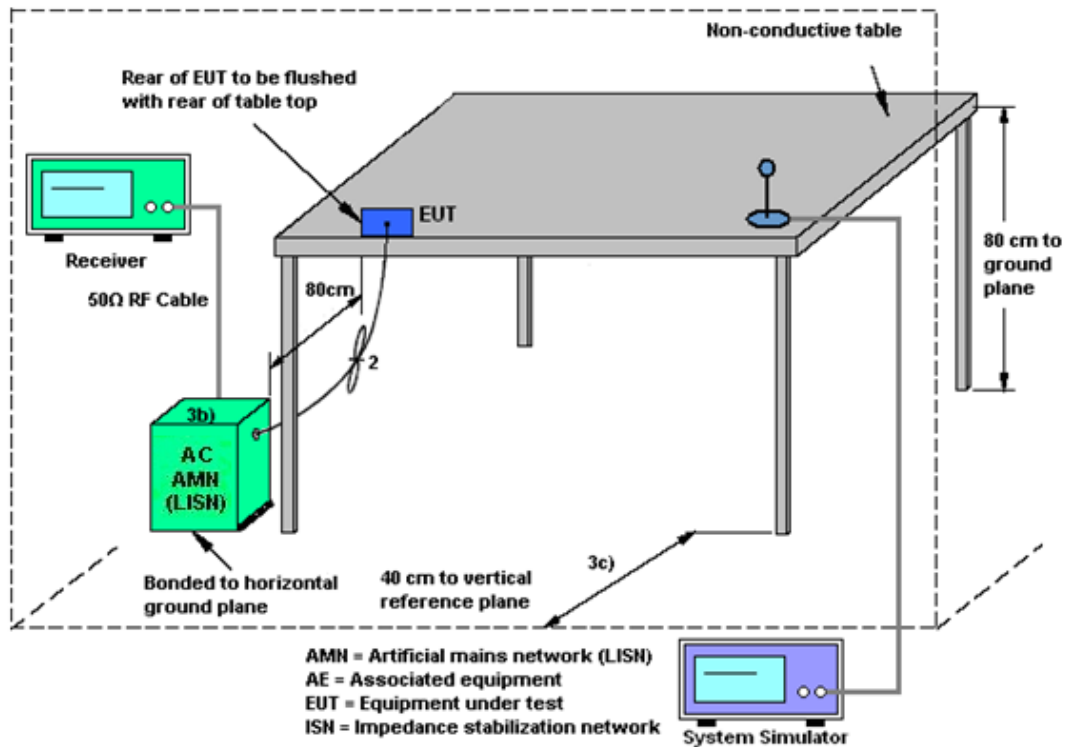
3.4.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.4.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.4.4 Test Setup



3.4.5 Test Result of AC Conducted Emission

Please refer to Appendix B.



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Test Receiver	R&S	ESR7	101404	9kHz~7GHz	Oct. 14, 2025	Nov. 30, 2025~ Dec. 11, 2025	Oct. 13, 2026	Radiation (03CH04-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY551502 13	10Hz~44GHz	Jul. 03, 2025	Nov. 30, 2025~ Dec. 11, 2025	Jul. 02, 2026	Radiation (03CH04-SZ)
Loop Antenna	R&S	HFH2-Z2E	101141	9kHz~30MHz	Dec. 28, 2024	Nov. 30, 2025~ Dec. 11, 2025	Dec. 27, 2025	Radiation (03CH04-SZ)
Bilog Antenna	TeseQ	CBL6111D	41909	30MHz~1GHz	Apr. 21, 2025	Nov. 30, 2025~ Dec. 11, 2025	Apr. 20, 2026	Radiation (03CH04-SZ)
Double Ridge Guide Antenna	ETS-Lindgren	Burgeon-3117	00240057	1GHz~18GHz	Jul. 03, 2025	Nov. 30, 2025~ Dec. 11, 2025	Jul. 02, 2026	Radiation (03CH04-SZ)
Horn Antenna	SCHWARZBECK	BBHA9170	9170#679	15GHz~40GHz	Jul. 04, 2025	Nov. 30, 2025~ Dec. 11, 2025	Jul. 03, 2026	Radiation (03CH04-SZ)
LF Amplifier	EM Electronics	EM330	060773	20MHz~3GHz	Apr. 02, 2025	Nov. 30, 2025~ Dec. 11, 2025	Apr. 01, 2026	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	AMF-7D-0010 1800-30-10P-R	1943528	1GHz~18GHz	Oct. 14, 2025	Nov. 30, 2025~ Dec. 11, 2025	Oct. 13, 2026	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz	Jul. 03, 2025	Nov. 30, 2025~ Dec. 11, 2025	Jul. 02, 2026	Radiation (03CH04-SZ)
Amplifier	Agilent Technologies	83017A	MY572801 36	500MHz~26.5G Hz	Jul. 03, 2025	Nov. 30, 2025~ Dec. 11, 2025	Jul. 02, 2026	Radiation (03CH04-SZ)
AC Power Source	APC	AFV-S-600B	F11905001 9	N/A	Oct. 14, 2025	Nov. 30, 2025~ Dec. 11, 2025	Oct. 13, 2026	Radiation (03CH04-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Nov. 30, 2025~ Dec. 11, 2025	NCR	Radiation (03CH04-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Nov. 30, 2025~ Dec. 11, 2025	NCR	Radiation (03CH04-SZ)
EMI Receiver	R&S	ESR7	102297	9kHz~7GHz;	Jul. 02, 2025	Dec. 06, 2025	Jul. 01, 2026	Conduction (CO02-SZ)
AC LISN	R&S	ENV216	101499	9kHz~30MHz	Jul. 03, 2025	Dec. 06, 2025	Jul. 02, 2026	Conduction (CO02-SZ)
AC Power Source	CHROMA	61601	616010002 470	100Vac~250Vac	Dec.25, 2024	Dec. 06, 2025	Dec. 24, 2025	Conduction (CO02-SZ)
Spectrum Analyzer	R&S	FSV40	101078	10Hz~40GHz	Apr. 02, 2025	Dec. 06, 2025	Apr. 01, 2026	Conducted (TH01-SZ)
Pulse Power Sensor	Anritsu	MA2411B	1339473	30MHz~40GHz	Dec. 25, 2024	Dec. 06, 2025	Dec. 24, 2025	Conducted (TH01-SZ)
Power Meter	Anritsu	ML2495A	1218010	50MHz Bandwidth	Oct. 13, 2025	Dec. 06, 2025	Oct. 12, 2026	Conducted (TH01-SZ)

NCR: No Calibration Required

5 Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.10. All the measurement uncertainty value were shown with a coverage $K=2$ to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

Uncertainty of Conducted Measurement

Test Item	Uncertainty
Conducted Spurious Emission & Bandedge	± 1.34 dB
Occupied Channel Bandwidth	± 0.012 MHz
Conducted Power	± 1.34 dB
Conducted Power Spectral Density	± 1.32 dB
Frequency	± 1.3 Hz

Uncertainty of AC Conducted Emission Measurement (0.15 MHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.5 dB
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.1 dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	4.8 dB
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Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.1 dB
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----- THE END -----



Appendix A. Conducted Test Results



Ambient Condition: 24~26 °C, 45~55 %RH

Test Date: 2025/12/6

Test Engineer: Wen Shiwei

Emission Bandwidth

Test Result

TestMode	Antenna	Freq(MHz)	26dB EBW [MHz]	FL[MHz]	FH[MHz]
11A-CDD	Ant7	5180	24.00	5168.10	5192.10
	Ant5	5180	26.50	5166.10	5192.60
	Ant7	5220	23.60	5208.30	5231.90
	Ant5	5220	23.50	5207.90	5231.40
	Ant7	5240	24.10	5228.00	5252.10
	Ant5	5240	23.70	5227.80	5251.50
	Ant7	5260	24.10	5248.00	5272.10
	Ant5	5260	23.70	5248.00	5271.70
	Ant7	5300	24.00	5288.00	5312.00
	Ant5	5300	31.70	5285.10	5316.80
	Ant7	5320	23.80	5308.10	5331.90
	Ant5	5320	23.80	5308.20	5332.00
	Ant7	5500	24.10	5487.90	5512.00
	Ant5	5500	23.90	5488.00	5511.90
	Ant7	5580	23.90	5568.00	5591.90
	Ant5	5580	24.00	5567.90	5591.90
	Ant7	5700	23.60	5688.00	5711.60
	Ant5	5700	23.60	5688.00	5711.60
	Ant7	5720	24.20	5707.80	5732.00
	Ant5	5720	23.70	5708.20	5731.90
	Ant7	5745	23.40	5733.40	5756.80
	Ant5	5745	24.10	5733.00	5757.10
	Ant7	5785	24.20	5772.90	5797.10
	Ant5	5785	23.00	5773.50	5796.50
	Ant7	5825	23.90	5812.80	5836.70
	Ant5	5825	23.20	5813.40	5836.60
11N20MIMO	Ant7	5180	24.30	5167.70	5192.00
	Ant5	5180	27.60	5168.00	5195.60
	Ant7	5220	24.10	5208.00	5232.10
	Ant5	5220	24.40	5207.70	5232.10
	Ant7	5240	24.40	5227.70	5252.10



	Ant5	5240	24.50	5227.90	5252.40
	Ant7	5260	24.70	5247.60	5272.30
	Ant5	5260	25.10	5247.70	5272.80
	Ant7	5300	24.90	5287.70	5312.60
	Ant5	5300	33.80	5281.70	5315.50
	Ant7	5320	23.90	5308.00	5331.90
	Ant5	5320	24.00	5307.90	5331.90
	Ant7	5500	24.60	5487.70	5512.30
	Ant5	5500	25.00	5487.40	5512.40
	Ant7	5580	24.70	5567.70	5592.40
	Ant5	5580	24.00	5567.90	5591.90
	Ant7	5700	24.30	5687.60	5711.90
	Ant5	5700	24.50	5687.50	5712.00
	Ant7	5720	23.90	5708.00	5731.90
	Ant5	5720	24.30	5707.80	5732.10
	Ant7	5745	24.60	5732.80	5757.40
	Ant5	5745	24.40	5732.80	5757.20
	Ant7	5785	24.10	5772.90	5797.00
	Ant5	5785	24.50	5772.90	5797.40
	Ant7	5825	24.50	5812.40	5836.90
	Ant5	5825	24.10	5813.10	5837.20
11N40MIMO	Ant7	5190	47.20	5166.60	5213.80
	Ant5	5190	46.20	5167.00	5213.20
	Ant7	5230	45.60	5207.20	5252.80
	Ant5	5230	46.80	5207.00	5253.80
	Ant7	5270	45.80	5247.20	5293.00
	Ant5	5270	69.80	5223.80	5293.60
	Ant7	5310	46.00	5286.60	5332.60
	Ant5	5310	49.60	5284.00	5333.60
	Ant7	5510	47.40	5486.00	5533.40
	Ant5	5510	46.00	5486.80	5532.80
	Ant7	5550	47.00	5526.60	5573.60
	Ant5	5550	47.80	5525.80	5573.60
	Ant7	5670	46.00	5646.80	5692.80
	Ant5	5670	48.20	5646.20	5694.40
	Ant7	5710	46.40	5686.40	5732.80
	Ant5	5710	46.20	5687.00	5733.20
	Ant7	5755	46.40	5731.40	5777.80



	Ant5	5755	46.80	5731.00	5777.80
	Ant7	5795	46.00	5772.20	5818.20
	Ant5	5795	46.20	5771.60	5817.80
11AC80MIMO	Ant7	5210	89.20	5165.60	5254.80
	Ant5	5210	90.40	5165.20	5255.60
	Ant7	5290	93.20	5245.20	5338.40
	Ant5	5290	90.00	5245.20	5335.20
	Ant7	5530	90.80	5484.80	5575.60
	Ant5	5530	92.40	5484.40	5576.80
	Ant7	5610	92.80	5565.20	5658.00
	Ant5	5610	88.80	5566.40	5655.20
	Ant7	5690	90.40	5644.80	5735.20
	Ant5	5690	92.80	5642.80	5735.60
	Ant7	5775	96.40	5728.20	5824.60
	Ant5	5775	90.80	5729.80	5820.60
11AC160MIMO	Ant7	5250	183.20	5162.00	5345.20
	Ant5	5250	176.00	5162.80	5338.80
	Ant7	5570	180.00	5482.00	5662.00
	Ant5	5570	177.60	5481.20	5658.80
11AX20MIMO	Ant7	5180	23.30	5168.20	5191.50
	Ant5	5180	24.10	5167.90	5192.00
	Ant7	5220	23.90	5208.10	5232.00
	Ant5	5220	23.90	5208.10	5232.00
	Ant7	5240	23.90	5228.00	5251.90
	Ant5	5240	23.60	5228.10	5251.70
	Ant7	5260	23.10	5248.40	5271.50
	Ant5	5260	23.40	5248.30	5271.70
	Ant7	5300	23.70	5287.90	5311.60
	Ant5	5300	27.00	5288.00	5315.00
	Ant7	5320	23.70	5308.30	5332.00
	Ant5	5320	23.80	5307.90	5331.70
	Ant7	5500	23.60	5488.20	5511.80
	Ant5	5500	24.30	5487.80	5512.10
	Ant7	5580	23.50	5568.30	5591.80
	Ant5	5580	23.40	5568.30	5591.70
	Ant7	5700	23.50	5688.20	5711.70
	Ant5	5700	23.60	5688.20	5711.80
	Ant7	5720	23.50	5708.10	5731.60



	Ant5	5720	24.00	5708.30	5732.30
	Ant7	5745	23.90	5733.10	5757.00
	Ant5	5745	23.80	5733.00	5756.80
	Ant7	5785	23.80	5773.00	5796.80
	Ant5	5785	23.30	5773.60	5796.90
	Ant7	5825	23.20	5813.40	5836.60
	Ant5	5825	23.60	5813.10	5836.70
11AX40MIMO	Ant7	5190	45.40	5167.00	5212.40
	Ant5	5190	45.80	5167.60	5213.40
	Ant7	5230	45.60	5207.60	5253.20
	Ant5	5230	46.20	5207.00	5253.20
	Ant7	5270	45.80	5246.80	5292.60
	Ant5	5270	46.20	5247.40	5293.60
	Ant7	5310	45.40	5287.60	5333.00
	Ant5	5310	52.20	5280.60	5332.80
	Ant7	5510	44.00	5487.20	5531.20
	Ant5	5510	45.20	5487.00	5532.20
	Ant7	5550	44.20	5528.20	5572.40
	Ant5	5550	43.40	5528.40	5571.80
	Ant7	5670	44.40	5647.60	5692.00
	Ant5	5670	46.40	5646.80	5693.20
	Ant7	5710	44.40	5688.00	5732.40
	Ant5	5710	44.80	5687.60	5732.40
	Ant7	5755	45.20	5732.80	5778.00
	Ant5	5755	45.00	5732.80	5777.80
	Ant7	5795	44.00	5772.80	5816.80
	Ant5	5795	45.00	5772.00	5817.00
11AX80MIMO	Ant7	5210	91.20	5164.00	5255.20
	Ant5	5210	89.60	5164.40	5254.00
	Ant7	5290	86.00	5248.00	5334.00
	Ant5	5290	105.20	5242.80	5348.00
	Ant7	5530	88.00	5486.80	5574.80
	Ant5	5530	88.80	5485.60	5574.40
	Ant7	5610	85.60	5568.40	5654.00
	Ant5	5610	89.60	5565.20	5654.80
	Ant7	5690	88.80	5646.40	5735.20
	Ant5	5690	90.40	5644.80	5735.20
	Ant7	5775	86.00	5732.20	5818.20



	Ant5	5775	88.00	5730.60	5818.60
11AX160MIMO	Ant7	5250	177.60	5162.00	5339.60
	Ant5	5250	176.00	5162.80	5338.80
	Ant7	5570	176.80	5483.60	5660.40
	Ant5	5570	177.60	5481.20	5658.80
11BE20MIMO	Ant7	5180	24.00	5168.10	5192.10
	Ant5	5180	24.00	5168.00	5192.00
	Ant7	5220	23.20	5208.30	5231.50
	Ant5	5220	24.40	5207.70	5232.10
	Ant7	5240	23.80	5228.10	5251.90
	Ant5	5240	24.30	5228.10	5252.40
	Ant7	5260	23.80	5248.10	5271.90
	Ant5	5260	24.40	5247.50	5271.90
	Ant7	5300	24.10	5288.00	5312.10
	Ant5	5300	27.60	5285.00	5312.60
	Ant7	5320	23.90	5307.90	5331.80
	Ant5	5320	23.90	5308.20	5332.10
	Ant7	5500	23.60	5488.20	5511.80
	Ant5	5500	24.80	5487.20	5512.00
	Ant7	5580	23.80	5568.20	5592.00
	Ant5	5580	24.00	5568.30	5592.30
	Ant7	5700	23.30	5688.10	5711.40
	Ant5	5700	24.80	5687.30	5712.10
	Ant7	5720	24.00	5708.30	5732.30
	Ant5	5720	24.50	5707.90	5732.40
	Ant7	5745	23.20	5733.60	5756.80
	Ant5	5745	24.90	5732.20	5757.10
	Ant7	5785	23.50	5773.30	5796.80
	Ant5	5785	24.90	5772.20	5797.10
	Ant7	5825	23.70	5813.20	5836.90
	Ant5	5825	24.00	5812.50	5836.50
11BE40MIMO	Ant7	5190	46.40	5166.60	5213.00
	Ant5	5190	44.00	5168.20	5212.20
	Ant7	5230	44.60	5208.00	5252.60
	Ant5	5230	44.40	5207.80	5252.20
	Ant7	5270	45.20	5246.80	5292.00
	Ant5	5270	62.60	5232.60	5295.20
	Ant7	5310	44.80	5288.20	5333.00



	Ant5	5310	47.00	5286.00	5333.00
	Ant7	5510	45.00	5487.60	5532.60
	Ant5	5510	45.60	5486.60	5532.20
	Ant7	5550	44.60	5527.80	5572.40
	Ant5	5550	58.80	5513.60	5572.40
	Ant7	5670	43.80	5648.00	5691.80
	Ant5	5670	45.20	5647.00	5692.20
	Ant7	5710	45.20	5687.40	5732.60
	Ant5	5710	44.40	5688.00	5732.40
	Ant7	5755	44.40	5732.20	5776.60
	Ant5	5755	45.20	5732.40	5777.60
	Ant7	5795	44.20	5773.00	5817.20
	Ant5	5795	44.40	5772.40	5816.80
	Ant7	5210	92.00	5162.80	5254.80
11BE80MIMO	Ant5	5210	86.80	5166.40	5253.20
	Ant7	5290	91.60	5242.80	5334.40
	Ant5	5290	90.00	5245.60	5335.60
	Ant7	5530	86.40	5487.60	5574.00
	Ant5	5530	90.00	5484.80	5574.80
	Ant7	5610	88.80	5566.00	5654.80
	Ant5	5610	87.60	5565.20	5652.80
	Ant7	5690	87.20	5644.80	5732.00
	Ant5	5690	94.80	5642.00	5736.80
	Ant7	5775	90.00	5728.20	5818.20
	Ant5	5775	88.40	5730.60	5819.00
	Ant7	5250	180.00	5162.00	5342.00
11BE160MIMO	Ant5	5250	174.40	5163.60	5338.00
	Ant7	5570	180.00	5482.00	5662.00
	Ant5	5570	177.60	5482.00	5659.60



Test Graphs

