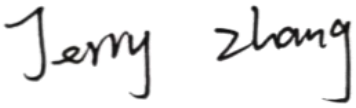
RF Test Report

Applicant:	Quectel Wireless Solutions Co., Ltd.
Address:	Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, 200233 China
Product:	Wi-Fi & Bluetooth Module
Model No.:	FGS061N
Brand Name:	QUECTEL
FCC ID:	XMR2024FGS061N
Standards:	FCC CFR47 Part 15E
Report No.:	PD20240082RF11
Issue Date:	2024/07/27
Test Result:	PASS *

* **Testing performed at Hefei Panwin Technology Co., Ltd. on the above equipment indicates the product meets the requirements of the relevant standards.**



Reviewed By: Jerry Zhang **Approved By:** Alec Yang

Hefei Panwin Technology Co., Ltd.

Floor 1, Zone E, Plant 2#, Mingzhu Industrial Park, No.106 Chuangxin Avenue, High-tech Zone, Hefei City, Anhui Province,China

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Revision History

Report No.	Version	Description	Issue Date	Note
PD20240082RF11	1	Initial Report	2024/07/27	Valid

CONTENTS

Summary of Test Results

No.	Test Case	FCC Rules	Verdict
1	Occupied Bandwidth Measurement	15.407(e)	PASS
2	Maximum Conducted Output Power Measurement	15.407(a)	PASS
3	Power Spectral Density Measurement	15.407(a)	PASS
4	Unwanted Emissions Measurement	15.407(b)	PASS
5	AC Conducted Emission Measurement	15.207	NA
6	Antenna Requirements	15.203 & 15.407(a)	PASS
7	Frequency Stability[Note1]	15.407(g)	NA

Date of Testing: 2024/06/06 to 2024/07/27
Date of Sample Received: 2024/06/05

■ The samples tested have been evaluated in accordance with the procedures given in the application standards in **Section 2.3** of this report and have been shown to comply with the applicable technical standards.

■ All indications of PASS/FAIL in this report are based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.

Note1: Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

1 General Information

1.1 Notes of the Test Report

This report is invalid without signature of auditor and approver or with any alterations. The report shall not be partially reproduced without written approval of the testing company. Entrusted test results are only responsible for incoming samples. If there is any objection to the testing report, it shall be raised to the testing company within 15 days from the date of receiving the report. In the test results, "NA" means "not applicable", and the test items marked with "Δ" are subcontracted projects.

1.2 Test Facility

A2LA (Certificate Number: 6849.01)

Hefei Panwin Technology Co., Ltd. has been accredited by American Association for Laboratory Accreditation to perform measurement.

FCC (Designation Number: CN1361, Test Firm Registration Number: 473156)

Hefei Panwin Technology Co., Ltd. has been accredited on the US Federal Communications Commission list of test facilities recognized to perform measurements.

1.3 Testing Laboratory

Company Name	Hefei Panwin Technology Co., Ltd.
Address	Floor 1, Zone E, Plant 2#, Mingzhu Industrial Park, No.106 Chuangxin Avenue, High-tech Zone, Hefei City, Anhui Province,China
Telephone	+86-0551-63811775
Post Code	230031

2 General Description of Equipment under Test

2.1 Details of Application

Applicant	Quectel Wireless Solutions Co., Ltd.
Applicant Address	Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, 200233 China
Manufacturer	Quectel Wireless Solutions Co., Ltd.
Manufacturer Address	Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, 200233 China

2.2 General Information

Product	Wi-Fi & Bluetooth Module
Model	FGS061N
SN	1. D1Y24E73E000276 2. D1Y24E73E000282
Hardware Version	R1.0
Software Version	/
Antenna Type	External Antenna
Max. Conducted Power	Wi-Fi 5G: 19.00dBm
WLAN Mode Supported:	802.11a 802.11n 20M/40M 802.11ac 20M/40M/80M 802.11ax 20M/40M/80M
Antenna Gain	5150MHz to 5250MHz: -0.70dBi 5250MHz to 5350MHz: -0.80dBi 5470MHz to 5725MHz: -1.20dBi 5725MHz to 5850MHz: -1.50dBi
Directional Gain	NA
Test Band	U-NII-1(5150MHz-5250MHz) U-NII-2A(5250MHz-5350MHz) U-NII-2C(5470MHz-5725MHz) U-NII-3(5725MHz-5850MHz)
Operating voltage	Typical 3.3Vdc
Modulation Type	802.11a/n: OFDM(BPSK / QPSK / 16QAM / 64QAM)

	802.11ac: OFDM(BPSK / QPSK / 16QAM / 64QAM / 256QAM) 802.11ax: OFDM, OFDMA(BPSK / QPSK / 16QAM / 64QAM / 256QAM/ 1024QAM)
Note: The declared of product specification for EUT and/or Antenna presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.	

2.3 Application 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 UN ll Test Procedures New Rules v02r01
- ANSI C63.10-2013

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.

3 Test Condition

3.1 Test Configuration

Test mode

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). The worst cases were recorded in this report.

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes (Z, X, Y axis), receiver antenna polarization (horizontal and vertical), the worst emission was found in Z position and the worst case was recorded.This report presents the data for the worst polarity.

Test Mode	Data Rate(Mbps)
802.11a	6
802.11n 20M	MCS0
802.11n 40M	MCS0
802.11ac 20M	MCS0
802.11ac 40M	MCS0
802.11ac 80M	MCS0
802.11ax 20M	MCS0
802.11ax 40M	MCS0
802.11ax 80M	MCS0

3.2 Wireless Technology and Frequency Range

Wireless Technology	Bandwidth		Channel	Frequency
Wi-Fi	U-NII-1	20MHz	36	5180 MHz
			40	5200 MHz
			44	5220 MHz
			48	5240 MHz
		40MHz	38	5190 MHz
			46	5230 MHz
		80MHz	42	5210 MHz
	U-NII-2A	20MHz	52	5260 MHz
			56	5280 MHz
			60	5300 MHz
			64	5320 MHz
		40MHz	54	5270 MHz
			62	5310 MHz
		80MHz	58	5290 MHz
	U-NII-2C	20MHz	100	5500 MHz
			104	5520 MHz
			108	5540 MHz
			112	5560 MHz
			116	5580 MHz
			132	5660 MHz
			136	5680 MHz
			140	5700 MHz
			144	5720 MHz
		40MHz	102	5510 MHz
			110	5550 MHz
			118	5590 MHz
			126	5630 MHz
			134	5670 MHz
			142	5710 MHz
		80MHz	106	5530 MHz
			122	5610 MHz
			138	5690 MHz
	U-NII-3	20MHz	149	5745 MHz
			153	5765 MHz
			157	5785 MHz
			161	5805 MHz

			165	5825 MHz
		40MHz	151	5755 MHz
			159	5795 MHz
		80MHz	155	5775 MHz
Does this device support TPC function?		☐ Yes		☑ No
Does this device support TDWR band?		☐ Yes		☑ No

3.3 Equipment List

Conducted

Instrument	Manufacturer	Model	Asset No.	Cal. Interval	Cal. Due Date
Spectrum Analyzer	KEYSIGHT	N9020B	PWC0048	1 Year	2024/10/10
RF Control Unit	Tonseced	JS0806-2	PWC0055	/	/
Shielded Chamber	Maorui	MR543	PWC0041	3 Years	2026/08/26
Test Software	Tonseced	JS1120-3 V3.2.22	/	/	/

Radiated

Instrument	Manufacturer	Model	Asset No.	Cal. Interval	Cal. Due Date
EMI Test Receiver	R&S	ESR7	PWB0023	1 Year	2024/10/11
Spectrum Analyzer	R&S	FSV3044	PWB0024	1 Year	2024/10/11
Loop Antenna	R&S	HFH2-Z2E	PWB0026	1 Year	2024/10/21
TRILOG Broadband Antenna	Schwarzbeck	VULB9162	PWB0029	1 Year	2024/10/13
Double-Ridged Guide Antenna	ETS-Lindgren	3117	PWB0031	1 Year	2024/10/11
k Type Horn Antenna	Steatite Antennas	QMS-00880	PWB0035	1 Year	2024/10/17
Pre-Amplifier	R&S	OSP220 (OSP-B155G)	PWB0042	1 Year	2024/10/13
Anechoic Chamber	ETS.LINDGREN	Fact 3-2m	PWB0003	3 Years	2026/06/05
Pre-Amplifier	R&S	SCU18F	PWB0034	1 Year	2024/10/11
Pre-Amplifier	R&S	SCU40F1	PWB0036	1 Year	2024/10/11
Pre-Amplifier	COM-MW	DLNA8	PWB0094	1 Year	2024/11/08
Test Software	R&S	ELEKTRA 4.20.2	/	/	/

3.4 Support Equipment List

Equipment	Manufacturer	Description	Model	Serial Number
EVB	QUECTEL	/	/	/
Laptop	Lenovo	/	/	/
Adapter	Something High Electric (Xiamen) Gompany Inc.	Output:12V/5A	P60EB120500	/

3.5 Test Uncertainty

No.	Parameter	Uncertainty
1	Emission Bandwidth	1.9%
2	Occupied channel bandwidth	1.9%
3	Min emission bandwidth	1.9%
4	Unwanted Emissions Measurement	9kHz-7GHz: 1.21dB 7GHz-40GHz: 3.31dB
5	Radiated Band Edges and Spurious Emission	Below 1GHz: 4.88 dB Above 1GHz: 5.06 dB
6	Temperature	3 °C
7	Humidity	1.3 %
8	Supply voltages	0.006 V

4 Test Items Description

Ambient condition

Shielded Chamber

Temperature [°C]	21.4 to 24.7
Humidity [%RH]	43 to 62
Pressure [kPa]	99.9 to 101.9

Anechoic Chamber

Temperature [°C]	20.1 to 25.5
Humidity [%RH]	42 to 62
Pressure [kPa]	99.4 to 100.9

4.1 6dB and 26dB and 99% Occupied Bandwidth Measurement

4.1.1 6dB and 26dB and 99% Occupied Bandwidth Measurement

The minimum 6 dB bandwidth shall be at least 500 kHz

26dB and 99% Occupied bandwidth are reporting only.

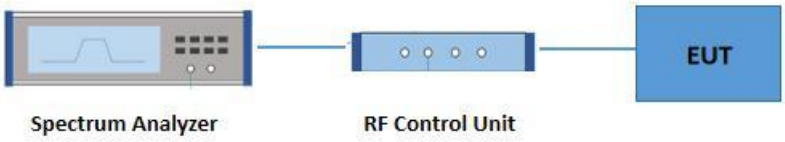
4.1.2 Measuring Instruments

The measuring equipment is listed in the section 3.3 of this test report.

4.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01Section C) Emission bandwidth.
2. For 6dB BW, Set RBW = 100kHz.
   For 26dB BW, Set RBW = approximately 1% of the emission bandwidth.
   For 99% OBW, Set RBW = 1% to 5% of the OBW.
3. For 26dB BW. Set the VBW > RBW.
   For 6dB BW & 99% OBW. Set the VBW ≥ 3 × RBW
4. Detector = Peak.
5. Trace mode = max hold
6. 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 measurements needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set1% to 5% of the OBW and set the Video bandwidth (VBW) ≥ 3* RBW.
8. Measure and record the results in the test report.

4.1.4 Test Setup



4.1.5 Test Results

See Appendix A.1.

4.2 Maximum Conducted Output Power Measurement

4.2.1 Limit of Maximum Conducted Output Power

<FCC 14 -30 CFR 15.407>

For the band 5.15–5.25 GHz.

(i) For an outdoor access point operating in the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. Fixed point-to-point U–NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U–NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For 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 provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(2)For the 5.25 – 5.35 GHz and 5.47 – 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 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(3)For the band 5.725–5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

4.2.2 Measuring Instruments

The measuring equipment is listed in the section 3.3 of this test report.

4.2.3 Test Procedures

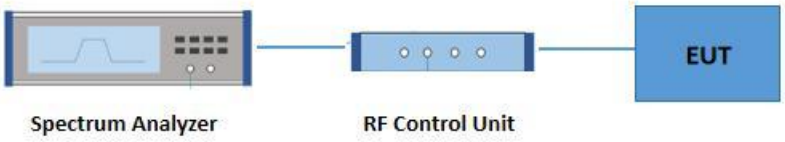
The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Method SA-2 (trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

1. Measure the duty cycle, x, of the transmitter output signal as described in II.B.
2. Set span to encompass the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
3. Set RBW = 1 MHz.
4. Set VBW ≥ 3 MHz.
5. Number of points in sweep ≥ 2 × span / RBW. (This ensures that bin-to-bin spacing is ≤ RBW/2, so that narrowband signals are not lost between frequency bins.)
6. Sweep time = auto.
7. Detector = power averaging (rms), if available. Otherwise, use sample detector mode.
8. Do not use sweep triggering. Allow the sweep to "free run."
9. Trace average at least 100 traces in power averaging (rms) mode; however, the number of traces to be averaged shall be increased above 100 as needed to ensure that the average accurately represents the true average over the on and off periods of the transmitter.
10. Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
11. Add 10 log (1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times (because the measurement represents an average over both the on and off times of the transmission). For example, add 10 log (1/0.25) = 6 dB if the duty cycle is 25%.

For Straddle Channel, According to KDB 789033 D02 General UNll 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-Nl-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

4.2.4 Test Setup



4.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.2.

4.3 Power Spectral Density Measurement

4.3.1 Limit of Power Spectral Density

Rule FCC Part 15.407(a)(1)/ Part 15.407(a)(2)/Part 15.407(a)(3

For an indoor access point operating in the band 5.15–5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band.

For client devices in the 5.15–5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

For the 5.25-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any1 megahertz band.

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

For Straddle Channel, According to KDB 789033 D02 General UNll 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.

4.3.2 Measuring Instruments

The measuring equipment is listed in the section 3.3 of this test report.

4.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNll Test Procedures New Rules v02r01 Section F) Maximum power spectral density.

1.Measure the duty cycle.

2.Set span to encompass the entire emission bandwidth (EBW) of the signal.

3.Set RBW ≥ 1/T, where T is defined in II.B.I.a).

4.Set VBW ≥ 3 RBW.

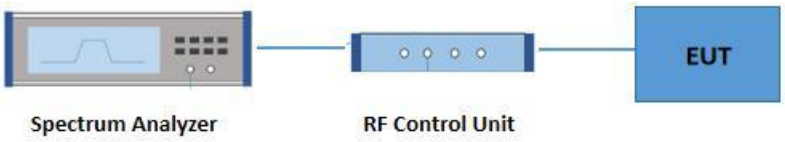
5.If measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10 log (500 kHz/RBW) to the measured result, whereas RBW (<500 kHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.

6.If measurement bandwidth of Maximum PSD is specified in 1 MHz, add 10 log (1MHz/RBW) to the measured result, whereas RBW (< 1 MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.

7. Care must be taken to ensure that the measurements are performed during a period of continuous

transmission or are corrected upward for duty cycle.

4.3.4 Test Setup



4.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.3.

4.4 Unwanted Emissions Measurement

This section is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

4.4.1 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 5470-5725 MHz band: all emissions outside of the 5470-5725MHz band shall not exceed an EIRP of -27 dBm/MHz.

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 15.6dBm/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.

(2) 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

EIRP (dBm)	Field Strength at 3m (dB μ V/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

4.4.2 Measuring Instruments

The measuring equipment is listed in the section 3.3 of this test report.

4.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNll Test Procedures New Rules v02r01 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 ≥ 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 ⩾ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
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.

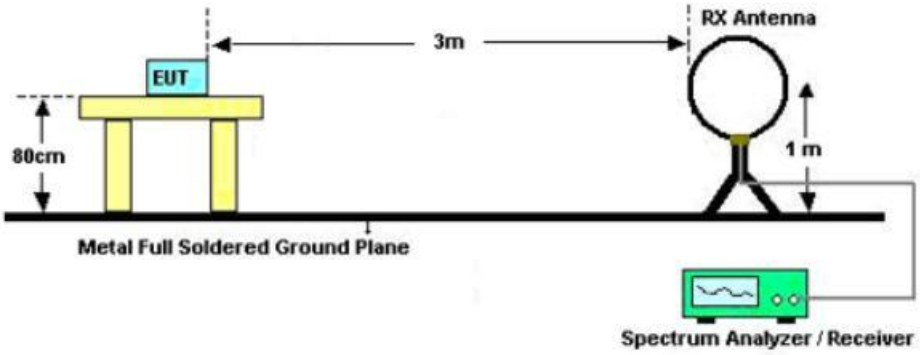
4.. The antenna is a broadband antenna and its height is adjusted between one meter and four.

meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.

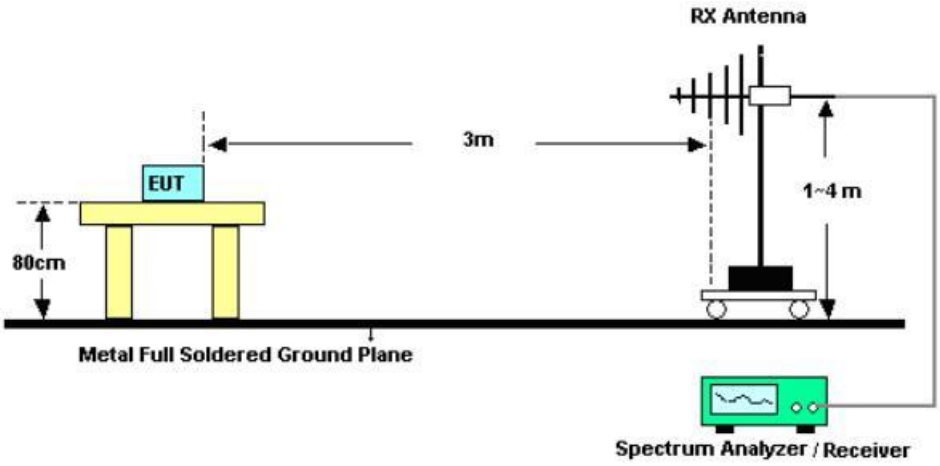
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, 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 peak 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.

4.4.4 Test Setup

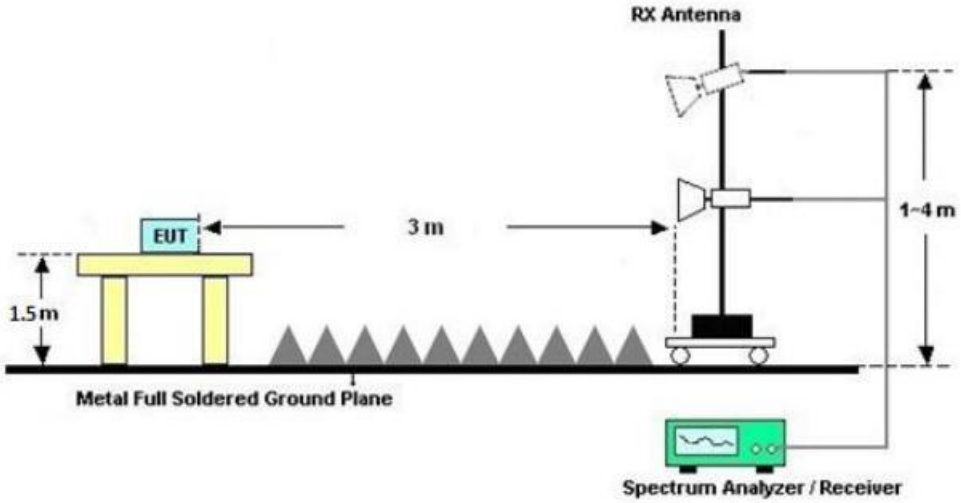
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



4.4.5Test 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.

4.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B.1.

4.4.7 Test Result of Radiated Spurious Emissions (30MHz - 10th Harmonic or 40GHz whichever is lower)

Please refer to Appendix B.1

4.4.8 Duty Cycle

Please refer to Appendix A.4.

4.5 AC Conducted Emission Measurement

4.5.1 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 (dBμV)	
	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.

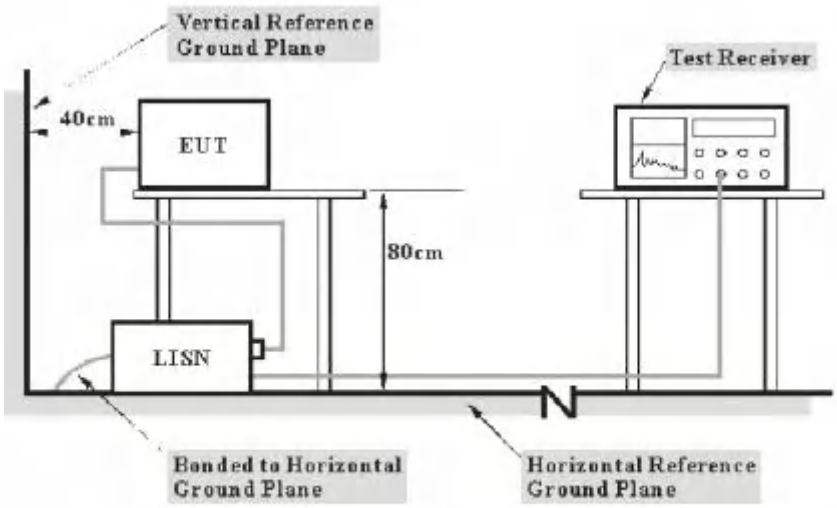
4.5.2 Measuring Instruments

The section 3.3 of List of Measuring Equipment of this test report is used for test.

4.5.3 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 (IF Bandwidth =9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

4.5.4 Test Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

4.5.5 Uncertainty Measurement

Where relevant,the following measurement uncertainty levels have been estimated for tests performed on the EUT. The listed uncertainties are the worst case uncertainty for the entire range of measurement. Please note that the uncertainty values are provided for informational purposes only and are not used in determining the PASS/FAIL results.

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

CASE	Uncertainty
Continuous Emission (AC port)	2.92 dB

4.5.6 Test Result

Remark: The product is DC powered, this test item is not applicable.

4.6 Antenna Requirements

4.6.1 Standard Applicable

15.203 requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(b) (4) requirement: The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and(b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6dBi.

4.6.2 Antenna Anti-Replacement Construction

The antenna is External on the main PCB and no consideration of replacement. The best case gain of the antenna is -0.70dBi.

Appendix A – Test Results of Conducted Test

A.1 6dB and 26dB and 99% Occupied Bandwidth Measurement

Test Result_26dB Bandwidth

Test Mode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	19.080	5170.320	5189.400	---	---
11A	Ant1	5220	19.200	5210.320	5229.520	---	---
11A	Ant1	5240	19.160	5230.480	5249.640	---	---
11A	Ant1	5260	19.480	5250.200	5269.680	---	---
11A	Ant1	5300	19.120	5290.480	5309.600	---	---
11A	Ant1	5320	19.280	5310.360	5329.640	---	---
11A	Ant1	5500	19.600	5490.480	5510.080	---	---
11A	Ant1	5580	19.720	5570.400	5590.120	---	---
11A	Ant1	5700	19.520	5690.280	5709.800	---	---
11A	Ant1	5720	19.560	5710.000	5729.560	---	---
11A	Ant1	5720_UNII-2C	15.000	5710.000	5725	---	---
11A	Ant1	5720_UNII-3	4.560	5725	5729.560	---	---
11A	Ant1	5745	19.680	5735.160	5754.840	---	---
11A	Ant1	5785	19.280	5775.400	5794.680	---	---
11A	Ant1	5825	19.320	5815.440	5834.760	---	---
11N20SISO	Ant1	5180	20.200	5169.640	5189.840	---	---
11N20SISO	Ant1	5220	22.840	5210.000	5232.840	---	---
11N20SISO	Ant1	5240	19.720	5230.040	5249.760	---	---
11N20SISO	Ant1	5260	19.760	5250.120	5269.880	---	---
11N20SISO	Ant1	5300	19.640	5290.160	5309.800	---	---
11N20SISO	Ant1	5320	19.360	5310.160	5329.520	---	---
11N20SISO	Ant1	5500	19.880	5490.160	5510.040	---	---
11N20SISO	Ant1	5580	19.840	5570.000	5589.840	---	---
11N20SISO	Ant1	5700	20.440	5690.000	5710.440	---	---
11N20SISO	Ant1	5720	20.080	5709.960	5730.040	---	---
11N20SISO	Ant1	5720_UNII-2C	15.04	5709.960	5725	---	---
11N20SISO	Ant1	5720_UNII-3	5.04	5725	5730.040	---	---
11N20SISO	Ant1	5745	19.520	5735.240	5754.760	---	---
11N20SISO	Ant1	5785	19.840	5775.120	5794.960	---	---
11N20SISO	Ant1	5825	20.080	5814.920	5835.000	---	---
11N40SISO	Ant1	5190	39.840	5170.080	5209.920	---	---
11N40SISO	Ant1	5230	39.360	5210.160	5249.520	---	---

11N40SISO	Ant1	5270	41.440	5247.920	5289.360	---	---
11N40SISO	Ant1	5310	39.680	5290.080	5329.760	---	---
11N40SISO	Ant1	5510	39.920	5489.920	5529.840	---	---
11N40SISO	Ant1	5550	39.760	5530.160	5569.920	---	---
11N40SISO	Ant1	5670	39.920	5650.000	5689.920	---	---
11N40SISO	Ant1	5710	40.480	5689.600	5730.080	---	---
11N40SISO	Ant1	5710_UNII-2C	35.4	5689.600	5725	---	---
11N40SISO	Ant1	5710_UNII-3	5.08	5725	5730.080	---	---
11N40SISO	Ant1	5755	39.920	5735.080	5775.000	---	---
11N40SISO	Ant1	5795	39.520	5775.240	5814.760	---	---
11AC20SISO	Ant1	5180	19.640	5170.120	5189.760	---	---
11AC20SISO	Ant1	5220	20.000	5210.240	5230.240	---	---
11AC20SISO	Ant1	5240	19.960	5230.080	5250.040	---	---
11AC20SISO	Ant1	5260	19.760	5250.000	5269.760	---	---
11AC20SISO	Ant1	5300	19.880	5290.000	5309.880	---	---
11AC20SISO	Ant1	5320	19.920	5310.040	5329.960	---	---
11AC20SISO	Ant1	5500	20.040	5490.080	5510.120	---	---
11AC20SISO	Ant1	5580	19.640	5570.240	5589.880	---	---
11AC20SISO	Ant1	5700	20.600	5690.080	5710.680	---	---
11AC20SISO	Ant1	5720	20.200	5709.960	5730.160	---	---
11AC20SISO	Ant1	5720_UNII-2C	15.04	5709.960	5725	---	---
11AC20SISO	Ant1	5720_UNII-3	5.16	5725	5730.160	---	---
11AC20SISO	Ant1	5745	19.560	5735.080	5754.640	---	---
11AC20SISO	Ant1	5785	19.800	5775.080	5794.880	---	---
11AC20SISO	Ant1	5825	19.560	5815.280	5834.840	---	---
11AC40SISO	Ant1	5190	47.760	5164.960	5212.720	---	---
11AC40SISO	Ant1	5230	40.320	5209.840	5250.160	---	---
11AC40SISO	Ant1	5270	40.080	5249.840	5289.920	---	---
11AC40SISO	Ant1	5310	39.520	5290.320	5329.840	---	---
11AC40SISO	Ant1	5510	39.600	5490.240	5529.840	---	---
11AC40SISO	Ant1	5550	39.680	5530.320	5570.000	---	---
11AC40SISO	Ant1	5670	39.440	5650.240	5689.680	---	---
11AC40SISO	Ant1	5710	39.840	5690.080	5729.920	---	---
11AC40SISO	Ant1	5710_UNII-2C	34.92	5690.080	5725	---	---
11AC40SISO	Ant1	5710_UNII-3	4.92	5725	5729.920	---	---
11AC40SISO	Ant1	5755	39.760	5735.080	5774.840	---	---
11AC40SISO	Ant1	5795	39.760	5775.080	5814.840	---	---
11AC80SISO	Ant1	5210	81.120	5169.360	5250.480	---	---
11AC80SISO	Ant1	5290	81.280	5249.200	5330.480	---	---

11AC80SISO	Ant1	5530	80.960	5489.680	5570.640	---	---
11AC80SISO	Ant1	5690	81.120	5649.360	5730.480	---	---
11AC80SISO	Ant1	5690_UNII-2C	75.64	5649.360	5725	---	---
11AC80SISO	Ant1	5690_UNII-3	5.48	5725	5730.480	---	---
11AC80SISO	Ant1	5775	80.800	5734.680	5815.480	---	---
11AX20SISO	Ant1	5180	19.880	5170.120	5190.000	---	---
11AX20SISO	Ant1	5220	20.040	5210.080	5230.120	---	---
11AX20SISO	Ant1	5240	20.200	5229.880	5250.080	---	---
11AX20SISO	Ant1	5260	20.520	5249.640	5270.160	---	---
11AX20SISO	Ant1	5300	20.160	5289.880	5310.040	---	---
11AX20SISO	Ant1	5320	20.200	5309.720	5329.920	---	---
11AX20SISO	Ant1	5500	20.040	5490.040	5510.080	---	---
11AX20SISO	Ant1	5580	20.120	5569.880	5590.000	---	---
11AX20SISO	Ant1	5700	20.320	5689.800	5710.120	---	---
11AX20SISO	Ant1	5720	20.200	5709.720	5729.920	---	---
11AX20SISO	Ant1	5720_UNII-2C	15.28	5709.720	5725	---	---
11AX20SISO	Ant1	5720_UNII-3	4.92	5725	5729.920	---	---
11AX20SISO	Ant1	5745	19.960	5735.040	5755.000	---	---
11AX20SISO	Ant1	5785	19.920	5775.080	5795.000	---	---
11AX20SISO	Ant1	5825	19.920	5815.000	5834.920	---	---
11AX40SISO	Ant1	5190	39.360	5170.320	5209.680	---	---
11AX40SISO	Ant1	5230	39.920	5210.160	5250.080	---	---
11AX40SISO	Ant1	5270	40.000	5250.000	5290.000	---	---
11AX40SISO	Ant1	5310	39.520	5290.320	5329.840	---	---
11AX40SISO	Ant1	5510	39.760	5490.480	5530.240	---	---
11AX40SISO	Ant1	5550	41.840	5529.920	5571.760	---	---
11AX40SISO	Ant1	5670	39.840	5650.160	5690.000	---	---
11AX40SISO	Ant1	5710	39.760	5690.160	5729.920	---	---
11AX40SISO	Ant1	5710_UNII-2C	34.84	5690.160	5725	---	---
11AX40SISO	Ant1	5710_UNII-3	4.92	5725	5729.920	---	---
11AX40SISO	Ant1	5755	40.080	5734.760	5774.840	---	---
11AX40SISO	Ant1	5795	39.600	5775.320	5814.920	---	---
11AX80SISO	Ant1	5210	94.080	5155.920	5250.000	---	---
11AX80SISO	Ant1	5290	96.320	5233.520	5329.840	---	---
11AX80SISO	Ant1	5530	79.840	5490.160	5570.000	---	---
11AX80SISO	Ant1	5690	80.160	5650.000	5730.160	---	---
11AX80SISO	Ant1	5690_UNII-2C	75	5650.000	5725	---	---
11AX80SISO	Ant1	5690_UNII-3	5.16	5725	5730.160	---	---
11AX80SISO	Ant1	5775	80.320	5735.160	5815.480	---	---

Test Result_26dB Bandwidth for Part RU

Test Mode	Antenna	Frequency [MHz]	Ru Size	Ru Index	26db BW [MHz]	FL [MHz]	FH [MHz]	Limit [MHz]	Verdict
11AX20SISO	Ant1	5180	26Tone	RU0	16.080	5170.160	5186.240	---	---
11AX20SISO	Ant1	5180	52Tone	RU37	17.920	5170.000	5187.920	---	---
11AX20SISO	Ant1	5180	106Tone	RU53	17.800	5169.720	5187.520	---	---
11AX20SISO	Ant1	5220	26Tone	RU4	13.960	5213.520	5227.480	---	---
11AX20SISO	Ant1	5220	52Tone	RU39	15.720	5213.280	5229.000	---	---
11AX20SISO	Ant1	5220	106Tone	RU53	19.040	5209.880	5228.920	---	---
11AX20SISO	Ant1	5240	26Tone	RU8	18.040	5231.920	5249.960	---	---
11AX20SISO	Ant1	5240	52Tone	RU40	18.600	5231.560	5250.160	---	---
11AX20SISO	Ant1	5240	106Tone	RU54	17.280	5232.560	5249.840	---	---
11AX20SISO	Ant1	5260	26Tone	RU0	17.960	5249.960	5267.920	---	---
11AX20SISO	Ant1	5260	52Tone	RU37	15.880	5249.960	5265.840	---	---
11AX20SISO	Ant1	5260	106Tone	RU53	18.360	5249.920	5268.280	---	---
11AX20SISO	Ant1	5300	26Tone	RU4	17.200	5291.640	5308.840	---	---
11AX20SISO	Ant1	5300	52Tone	RU39	14.320	5292.720	5307.040	---	---
11AX20SISO	Ant1	5300	106Tone	RU53	19.120	5289.920	5309.040	---	---
11AX20SISO	Ant1	5320	26Tone	RU8	18.000	5312.120	5330.120	---	---
11AX20SISO	Ant1	5320	52Tone	RU40	17.800	5312.360	5330.160	---	---
11AX20SISO	Ant1	5320	106Tone	RU54	19.120	5310.920	5330.040	---	---
11AX20SISO	Ant1	5500	26Tone	RU0	17.680	5489.920	5507.600	---	---
11AX20SISO	Ant1	5500	52Tone	RU37	17.600	5490.080	5507.680	---	---
11AX20SISO	Ant1	5500	106Tone	RU53	18.280	5490.080	5508.360	---	---
11AX20SISO	Ant1	5580	26Tone	RU4	14.800	5571.640	5586.440	---	---
11AX20SISO	Ant1	5580	52Tone	RU39	16.760	5572.240	5589.000	---	---
11AX20SISO	Ant1	5580	106Tone	RU53	12.600	5570.040	5582.640	---	---
11AX20SISO	Ant1	5700	26Tone	RU8	18.120	5691.840	5709.960	---	---
11AX20SISO	Ant1	5700	52Tone	RU40	18.480	5691.360	5709.840	---	---
11AX20SISO	Ant1	5700	106Tone	RU54	17.600	5692.280	5709.880	---	---
11AX20SISO	Ant1	5745	26Tone	RU0	18.440	5735.120	5753.560	---	---
11AX20SISO	Ant1	5745	52Tone	RU37	16.240	5735.080	5751.320	---	---
11AX20SISO	Ant1	5745	106Tone	RU53	17.760	5734.920	5752.680	---	---
11AX20SISO	Ant1	5785	26Tone	RU4	17.480	5775.880	5793.360	---	---
11AX20SISO	Ant1	5785	52Tone	RU39	18.160	5775.840	5794.000	---	---
11AX20SISO	Ant1	5785	106Tone	RU53	19.120	5774.800	5793.920	---	---
11AX20SISO	Ant1	5825	26Tone	RU8	19.280	5816.000	5835.280	---	---
11AX20SISO	Ant1	5825	52Tone	RU40	17.960	5817.120	5835.080	---	---
11AX20SISO	Ant1	5825	106Tone	RU54	18.760	5816.360	5835.120	---	---

11AX40SISO	Ant1	5190	242Tone	RU61	36.000	5169.840	5205.840	---	---
11AX40SISO	Ant1	5230	242Tone	RU62	26.320	5223.680	5250.000	---	---
11AX40SISO	Ant1	5270	242Tone	RU61	35.920	5250.240	5286.160	---	---
11AX40SISO	Ant1	5310	242Tone	RU62	34.960	5295.920	5330.880	---	---
11AX40SISO	Ant1	5510	242Tone	RU61	28.720	5489.760	5518.480	---	---
11AX40SISO	Ant1	5550	242Tone	RU62	39.680	5534.720	5574.400	---	---
11AX40SISO	Ant1	5670	242Tone	RU62	36.400	5653.600	5690.000	---	---
11AX40SISO	Ant1	5755	242Tone	RU61	35.840	5734.920	5770.760	---	---
11AX40SISO	Ant1	5795	242Tone	RU62	33.680	5780.920	5814.600	---	---
11AX80SISO	Ant1	5210	484Tone	RU65	79.680	5170.000	5249.680	---	---
11AX80SISO	Ant1	5290	484Tone	RU66	80.000	5250.160	5330.160	---	---
11AX80SISO	Ant1	5530	484Tone	RU65	79.680	5490.160	5569.840	---	---
11AX80SISO	Ant1	5775	484Tone	RU65	79.360	5735.000	5814.360	---	---

Test Result_6dB Bandwidth

U-NII-3

Test Mode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	16.320	5736.800	5753.120	0.5	PASS
11A	Ant1	5785	16.320	5776.800	5793.120	0.5	PASS
11A	Ant1	5825	16.480	5816.760	5833.240	0.5	PASS
11N20SISO	Ant1	5745	17.520	5736.240	5753.760	0.5	PASS
11N20SISO	Ant1	5785	17.520	5776.200	5793.720	0.5	PASS
11N20SISO	Ant1	5825	17.600	5816.160	5833.760	0.5	PASS
11N40SISO	Ant1	5755	35.360	5737.400	5772.760	0.5	PASS
11N40SISO	Ant1	5795	35.200	5777.400	5812.600	0.5	PASS
11AC20SISO	Ant1	5745	17.560	5736.160	5753.720	0.5	PASS
11AC20SISO	Ant1	5785	17.600	5776.160	5793.760	0.5	PASS
11AC20SISO	Ant1	5825	17.320	5816.400	5833.720	0.5	PASS
11AC40SISO	Ant1	5755	35.600	5737.240	5772.840	0.5	PASS
11AC40SISO	Ant1	5795	35.360	5777.400	5812.760	0.5	PASS
11AC80SISO	Ant1	5775	76.000	5737.080	5813.080	0.5	PASS
11AX20SISO	Ant1	5745	18.480	5735.640	5754.120	0.5	PASS
11AX20SISO	Ant1	5785	18.240	5775.800	5794.040	0.5	PASS
11AX20SISO	Ant1	5825	17.440	5816.400	5833.840	0.5	PASS
11AX40SISO	Ant1	5755	36.320	5737.160	5773.480	0.5	PASS
11AX40SISO	Ant1	5795	36.080	5776.680	5812.760	0.5	PASS
11AX80SISO	Ant1	5775	77.760	5736.120	5813.880	0.5	PASS

Test Result_99% Bandwidth

Test Mode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	16.809	5171.6066	5188.4156	---	---
11A	Ant1	5220	16.786	5211.5314	5228.3174	---	---
11A	Ant1	5240	16.733	5231.5924	5248.3254	---	---
11A	Ant1	5260	16.733	5251.6028	5268.3358	---	---
11A	Ant1	5300	16.825	5291.5977	5308.4227	---	---
11A	Ant1	5320	16.707	5311.6516	5328.3586	---	---
11A	Ant1	5500	16.993	5491.4636	5508.4566	---	---
11A	Ant1	5580	16.780	5571.5711	5588.3511	---	---
11A	Ant1	5700	16.862	5691.4876	5708.3496	---	---
11A	Ant1	5720	16.812	5711.4918	5728.3038	---	---
11A	Ant1	5720_UNII-2C	13.508	5711.4918	5725	---	---
11A	Ant1	5720_UNII-3	3.304	5725	5728.3038	---	---
11A	Ant1	5745	16.764	5736.5832	5753.3472	---	---
11A	Ant1	5785	16.754	5776.6306	5793.3846	---	---
11A	Ant1	5825	16.763	5816.6408	5833.4038	---	---
11N20SISO	Ant1	5180	17.768	5171.0869	5188.8549	---	---
11N20SISO	Ant1	5220	17.763	5211.0887	5228.8517	---	---
11N20SISO	Ant1	5240	17.797	5231.0564	5248.8534	---	---
11N20SISO	Ant1	5260	17.768	5251.0765	5268.8445	---	---
11N20SISO	Ant1	5300	17.773	5291.1084	5308.8814	---	---
11N20SISO	Ant1	5320	17.710	5311.1102	5328.8202	---	---
11N20SISO	Ant1	5500	17.777	5491.0851	5508.8621	---	---
11N20SISO	Ant1	5580	17.777	5571.1140	5588.8910	---	---
11N20SISO	Ant1	5700	17.802	5691.0795	5708.8815	---	---
11N20SISO	Ant1	5720	17.824	5711.0295	5728.8535	---	---
11N20SISO	Ant1	5720_UNII-2C	13.971	5711.0295	5725	---	---
11N20SISO	Ant1	5720_UNII-3	3.854	5725	5728.8535	---	---
11N20SISO	Ant1	5745	17.779	5736.1196	5753.8986	---	---
11N20SISO	Ant1	5785	17.790	5776.0692	5793.8592	---	---
11N20SISO	Ant1	5825	17.745	5816.1069	5833.8519	---	---
11N40SISO	Ant1	5190	36.321	5171.8418	5208.1628	---	---
11N40SISO	Ant1	5230	36.211	5211.8684	5248.0794	---	---
11N40SISO	Ant1	5270	36.230	5251.8620	5288.0920	---	---
11N40SISO	Ant1	5310	36.237	5291.8770	5328.1140	---	---
11N40SISO	Ant1	5510	36.250	5491.9340	5528.1840	---	---
11N40SISO	Ant1	5550	36.225	5531.9318	5568.1568	---	---
11N40SISO	Ant1	5670	36.147	5651.9142	5688.0612	---	---

11N40SISO	Ant1	5710	36.250	5691.8493	5728.0993	---	---
11N40SISO	Ant1	5710_UNII-2C	33.151	5691.8493	5725	---	---
11N40SISO	Ant1	5710_UNII-3	3.099	5725	5728.0993	---	---
11N40SISO	Ant1	5755	36.222	5736.8662	5773.0882	---	---
11N40SISO	Ant1	5795	36.150	5776.8858	5813.0358	---	---
11AC20SISO	Ant1	5180	17.759	5171.0950	5188.8540	---	---
11AC20SISO	Ant1	5220	17.730	5211.0964	5228.8264	---	---
11AC20SISO	Ant1	5240	17.798	5231.0889	5248.8869	---	---
11AC20SISO	Ant1	5260	17.778	5251.0656	5268.8436	---	---
11AC20SISO	Ant1	5300	17.786	5291.1048	5308.8908	---	---
11AC20SISO	Ant1	5320	17.776	5311.1078	5328.8838	---	---
11AC20SISO	Ant1	5500	17.808	5491.1043	5508.9123	---	---
11AC20SISO	Ant1	5580	17.759	5571.1173	5588.8763	---	---
11AC20SISO	Ant1	5700	17.779	5691.0504	5708.8294	---	---
11AC20SISO	Ant1	5720	17.814	5711.0570	5728.8710	---	---
11AC20SISO	Ant1	5720_UNII-2C	13.943	5711.0570	5725	---	---
11AC20SISO	Ant1	5720_UNII-3	3.871	5725	5728.8710	---	---
11AC20SISO	Ant1	5745	17.772	5736.0791	5753.8511	---	---
11AC20SISO	Ant1	5785	17.738	5776.1153	5793.8533	---	---
11AC20SISO	Ant1	5825	17.741	5816.1127	5833.8537	---	---
11AC40SISO	Ant1	5190	36.262	5171.8646	5208.1266	---	---
11AC40SISO	Ant1	5230	36.293	5211.8169	5248.1099	---	---
11AC40SISO	Ant1	5270	36.254	5251.8343	5288.0883	---	---
11AC40SISO	Ant1	5310	36.239	5291.8709	5328.1099	---	---
11AC40SISO	Ant1	5510	36.206	5491.8870	5528.0930	---	---
11AC40SISO	Ant1	5550	36.276	5531.8535	5568.1295	---	---
11AC40SISO	Ant1	5670	36.264	5651.8418	5688.1058	---	---
11AC40SISO	Ant1	5710	36.222	5691.8819	5728.1039	---	---
11AC40SISO	Ant1	5710_UNII-2C	33.118	5691.8819	5725	---	---
11AC40SISO	Ant1	5710_UNII-3	3.104	5725	5728.1039	---	---
11AC40SISO	Ant1	5755	36.288	5736.8233	5773.1113	---	---
11AC40SISO	Ant1	5795	36.217	5776.8724	5813.0894	---	---
11AC80SISO	Ant1	5210	75.994	5172.0200	5248.0140	---	---
11AC80SISO	Ant1	5290	76.244	5251.9056	5328.1496	---	---
11AC80SISO	Ant1	5530	76.203	5492.0002	5568.2032	---	---
11AC80SISO	Ant1	5690	76.158	5651.8234	5727.9814	---	---
11AC80SISO	Ant1	5690_UNII-2C	73.177	5651.8234	5725	---	---
11AC80SISO	Ant1	5690_UNII-3	2.981	5725	5727.9814	---	---
11AC80SISO	Ant1	5775	76.283	5736.7789	5813.0619	---	---

11AX20SISO	Ant1	5180	18.911	5170.5204	5189.4314	---	---
11AX20SISO	Ant1	5220	18.817	5210.5483	5229.3653	---	---
11AX20SISO	Ant1	5240	18.842	5230.5512	5249.3932	---	---
11AX20SISO	Ant1	5260	18.816	5250.5670	5269.3830	---	---
11AX20SISO	Ant1	5300	18.833	5290.5789	5309.4119	---	---
11AX20SISO	Ant1	5320	18.864	5310.5110	5329.3750	---	---
11AX20SISO	Ant1	5500	18.848	5490.5212	5509.3692	---	---
11AX20SISO	Ant1	5580	18.855	5570.5530	5589.4080	---	---
11AX20SISO	Ant1	5700	18.758	5690.6047	5709.3627	---	---
11AX20SISO	Ant1	5720	18.822	5710.5658	5729.3878	---	---
11AX20SISO	Ant1	5720_UNII-2C	14.434	5710.5658	5725	---	---
11AX20SISO	Ant1	5720_UNII-3	4.388	5725	5729.3878	---	---
11AX20SISO	Ant1	5745	18.786	5735.5888	5754.3748	---	---
11AX20SISO	Ant1	5785	18.822	5775.5475	5794.3695	---	---
11AX20SISO	Ant1	5825	18.780	5815.6255	5834.4055	---	---
11AX40SISO	Ant1	5190	37.585	5171.1944	5208.7794	---	---
11AX40SISO	Ant1	5230	37.622	5211.1610	5248.7830	---	---
11AX40SISO	Ant1	5270	37.581	5251.1681	5288.7491	---	---
11AX40SISO	Ant1	5310	37.647	5291.1454	5328.7924	---	---
11AX40SISO	Ant1	5510	37.627	5491.1135	5528.7405	---	---
11AX40SISO	Ant1	5550	37.532	5531.2411	5568.7731	---	---
11AX40SISO	Ant1	5670	37.650	5651.1675	5688.8175	---	---
11AX40SISO	Ant1	5710	37.644	5691.1831	5728.8271	---	---
11AX40SISO	Ant1	5710_UNII-2C	33.817	5691.1831	5725	---	---
11AX40SISO	Ant1	5710_UNII-3	3.827	5725	5728.8271	---	---
11AX40SISO	Ant1	5755	37.624	5736.1541	5773.7781	---	---
11AX40SISO	Ant1	5795	37.613	5776.1753	5813.7883	---	---
11AX80SISO	Ant1	5210	78.006	5170.9990	5249.0050	---	---
11AX80SISO	Ant1	5290	77.803	5251.0392	5328.8422	---	---
11AX80SISO	Ant1	5530	77.844	5491.0559	5568.8999	---	---
11AX80SISO	Ant1	5690	77.772	5651.0691	5728.8411	---	---
11AX80SISO	Ant1	5690_UNII-2C	73.931	5651.0691	5725	---	---
11AX80SISO	Ant1	5690_UNII-3	3.841	5725	5728.8411	---	---
11AX80SISO	Ant1	5775	77.954	5736.0744	5814.0284	---	---

Test Graphs

26dB Occupied Bandwidth

11A-Ant1-5180	11A-Ant1-5220
	
11A-Ant1-5240	11A-Ant1-5260
	
11A-Ant1-5300	11A-Ant1-5320
	
11A-Ant1-5500	11A-Ant1-5580
	
11A-Ant1-5700	11A-Ant1-5720

11A-Ant1-5745

11A-Ant1-5785

11A-Ant1-5825

11N20SISO-Ant1-5180

11N20SISO-Ant1-5220

11N20SISO-Ant1-5240

11N20SISO-Ant1-5260

11N20SISO-Ant1-5300

11N20SISO-Ant1-5320

11N20SISO-Ant1-5500

11N20SISO-Ant1-5580

11N20SISO-Ant1-5700

11N20SISO-Ant1-5720

11N20SISO-Ant1-5745

11N20SISO-Ant1-5785

11N20SISO-Ant1-5825

11N40SISO-Ant1-5190

11N40SISO-Ant1-5230

11N40SISO-Ant1-5270

11N40SISO-Ant1-5310

11N40SISO-Ant1-5510

11N40SISO-Ant1-5550

11N40SISO-Ant1-5670

11N40SISO-Ant1-5710

11N40SISO-Ant1-5755

11N40SISO-Ant1-5795

11AC20SISO-Ant1-5180

11AC20SISO-Ant1-5220

11AC20SISO-Ant1-5240

11AC20SISO-Ant1-5260

11AC20SISO-Ant1-5300

11AC20SISO-Ant1-5320

11AC20SISO-Ant1-5500

11AC20SISO-Ant1-5580

11AC20SISO-Ant1-5700

11AC20SISO-Ant1-5720

11AC20SISO-Ant1-5745

11AC20SISO-Ant1-5785

11AC20SISO-Ant1-5825

11AC40SISO-Ant1-5190

11AC40SISO-Ant1-5230

11AC40SISO-Ant1-5270

11AC40SISO-Ant1-5310

11AC40SISO-Ant1-5510

11AC40SISO-Ant1-5550

11AC40SISO-Ant1-5670

11AC40SISO-Ant1-5710

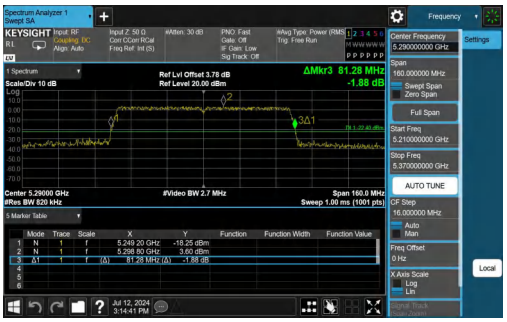
11AC40SISO-Ant1-5755

11AC40SISO-Ant1-5795

11AC80SISO-Ant1-5210

11AC80SISO-Ant1-5290

11AC80SISO-Ant1-5530



11AC80SISO-Ant1-5690

11AC80SISO-Ant1-5775

11AX20SISO-Ant1-5180

11AX20SISO-Ant1-5220

11AX20SISO-Ant1-5240

11AX20SISO-Ant1-5260

11AX20SISO-Ant1-5300

11AX20SISO-Ant1-5320

11AX20SISO-Ant1-5500

11AX20SISO-Ant1-5580

11AX20SISO-Ant1-5700

11AX20SISO-Ant1-5720

11AX20SISO-Ant1-5745

11AX20SISO-Ant1-5785

11AX20SISO-Ant1-5825

11AX40SISO-Ant1-5190

11AX40SISO-Ant1-5230

11AX40SISO-Ant1-5270

11AX40SISO-Ant1-5310

11AX40SISO-Ant1-5510

11AX40SISO-Ant1-5550

11AX40SISO-Ant1-5670

11AX40SISO-Ant1-5710

11AX40SISO-Ant1-5755

11AX40SISO-Ant1-5795

11AX80SISO-Ant1-5210

11AX80SISO-Ant1-5290

11AX80SISO-Ant1-5530

	
11AX80SISO-Ant1-5690	11AX80SISO-Ant1-5775
	

26dB Occupied Bandwidth_AX Part RU

11AX20SISO-Ant1-5180-26Tone-RU0	11AX20SISO-Ant1-5180-52Tone-RU37
	
11AX20SISO-Ant1-5180-106Tone-RU53	11AX20SISO-Ant1-5220-26Tone-RU4
	
11AX20SISO-Ant1-5220-52Tone-RU39	11AX20SISO-Ant1-5220-106Tone-RU53

11AX20SISO-Ant1-5240-26Tone-RU8

11AX20SISO-Ant1-5240-52Tone-RU40

11AX20SISO-Ant1-5240-106Tone-RU54

11AX20SISO-Ant1-5260-26Tone-RU0

11AX20SISO-Ant1-5260-52Tone-RU37

11AX20SISO-Ant1-5260-106Tone-RU53

11AX20SISO-Ant1-5300-26Tone-RU4

11AX20SISO-Ant1-5300-52Tone-RU39

11AX20SISO-Ant1-5300-106Tone-RU53

11AX20SISO-Ant1-5320-26Tone-RU8

11AX20SISO-Ant1-5320-52Tone-RU40

11AX20SISO-Ant1-5320-106Tone-RU54

11AX20SISO-Ant1-5500-26Tone-RU0

11AX20SISO-Ant1-5500-52Tone-RU37

11AX20SISO-Ant1-5500-106Tone-RU53

11AX20SISO-Ant1-5580-26Tone-RU4

11AX20SISO-Ant1-5580-52Tone-RU39

11AX20SISO-Ant1-5580-106Tone-RU53

11AX20SISO-Ant1-5700-26Tone-RU8

11AX20SISO-Ant1-5700-52Tone-RU40

11AX20SISO-Ant1-5700-106Tone-RU54

11AX20SISO-Ant1-5745-26Tone-RU0

11AX20SISO-Ant1-5745-52Tone-RU37

11AX20SISO-Ant1-5745-106Tone-RU53