

12. Frequency Stability Measurement

12.1. Block Diagram of Test Setup

Same as section 8.1

12.2. Limit of Frequency Stability

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 user's manual.

12.3. Test Procedures

(1) To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.

(2) The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10 dB lower than the measured peak value.

(3) The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

				Voltage	Э			
Test Mode	Ant.	Freq. (MHz)	Voltage (Vdc)	Temper ature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
			NV	NT	-13500.00	-2.606178	20	PASS
		5180	LV	NT	-13500.00	-2.606178	20	PASS
			HV	NT	-13800.00	-2.664093	20	PASS
			NV	NT	-13800.00	-2.653846	20	PASS
		5200	LV	NT	-14100.00	-2.711538	20	PASS
			HV	NT	-14100.00	-2.711538	20	PASS
			NV	NT	-13800.00	-2.633588	20	PASS
		5240	LV	NT	-14100.00	-2.690840	20	PASS
			HV	NT	-14100.00	-2.690840	20	PASS
			NV	NT	-14400.00	-2.737643	20	PASS
		5260	LV	NT	-14100.00	-2.680608	20	PASS
			HV	NT	-14100.00	-2.680608	20	PASS PASS
		5280	NV	NT	-14700.00	-2.784091	20	PASS
			LV	NT	-14100.00	-2.670455	20	PASS
			HV	NT	-14100.00	-2.670455	20	PASS
11A	Ant1		NV	NT	-14700.00	-2.763158	20	PASS
IIA	A Ant1	5320	LV	NT	-14100.00	-2.650376	20	PASS
			HV	NT	-14400.00	-2.706767	20	PASS
			NV	NT	-15300.00	-2.781818	20	PASS
		5500	LV	NT	-15300.00	-2.781818	20	PASS
			HV	NT	-15600.00	-2.836364	20	PASS
			NV	NT	-15300.00	-2.741935	20	PASS
		5580	LV	NT	-15000.00	-2.688172	20	PASS
			HV	NT	-15000.00	-2.688172	20	PASS
			NV	NT	-15900.00	-2.789474	20	PASS
		5700	LV	NT	-15300.00	-2.684211	20	PASS
			HV	NT	-15300.00	-2.684211	20	PASS
			NV	NT	-15900.00	-2.779720	20	PASS
		5720	LV	NT	-15000.00	-2.622378	20	PASS
			HV	NT	-15300.00	-2.674825	20	PASS
		5745	NV	NT	-16200.00	-2.819843	20	PASS
		5745	LV	NT	-15600.00	-2.715405	20	PASS

12.4. Test Result

	HV	NT	-15300.00	-2.663185	20	PASS
	NV	NT	-15000.00	-2.592913	20	PASS
5785	LV	NT	-15000.00	-2.592913	20	PASS
	HV	NT	-15300.00	-2.644771	20	PASS
	NV	NT	-15900.00	-2.729614	20	PASS
5825	LV	NT	-15300.00	-2.626609	20	PASS
	HV	NT	-15300.00	-2.626609	20	PASS

				Temperature				
Test	Antenna	Frequency	Voltage	Temperature	Deviation	Deviation	Limit	Verdict
Mode	Antenna	(MHz)	(Vdc)	(°C)	(Hz)	(ppm)	(ppm)	verdict
			NV	-30	-13800.00	-2.664093	20	PASS
			NV	-20	-13800.00	-2.664093	20	PASS
			NV	-10	-13800.00	-2.664093	20	PASS
			NV	0	-13800.00	-2.664093	20	PASS
		5180	NV	10	-13800.00	-2.664093	20	PASS
			NV	20	-13800.00	-2.664093	20	PASS
			NV	30	-13800.00	-2.664093	20	PASS
			NV	40	-13800.00	-2.664093	20	PASS
			NV	50	-13800.00	-2.664093	20	PASS
			NV	-30	-14100.00	-2.711538	20	PASS
			NV	-20	-14100.00	-2.711538	20	PASS
			NV	-10	-14100.00	-2.711538	20	PASS
			NV	0	-14100.00	-2.711538	20	PASS
		5200	NV	10	-14100.00	-2.711538	20	PASS
			NV	20	-14100.00	-2.711538	20	PASS
			NV	30	-14100.00	-2.711538	20	PASS
			NV	40	-14100.00	-2.711538	20	PASS
			NV	50	-14100.00	-2.711538	20	PASS
			NV	-30	-14400.00	-2.748092	20	PASS
			NV	-20	-14400.00	-2.748092	20	PASS
			NV	-10	-14400.00	-2.748092	20	PASS
			NV	0	-14400.00	-2.748092	20	PASS
		5240	NV	10	-14400.00	-2.748092	20	PASS
		t1	NV	20	-14400.00	-2.748092	20	PASS
11A	Ant1		NV	30	-14400.00	-2.748092	20	PASS
			NV	40	-14400.00	-2.748092	20	PASS
			NV	50	-14400.00	-2.748092	20	PASS
			NV	-30	-14400.00	-2.737643	20	PASS
			NV	-20	-14100.00	-2.680608	20	PASS
			NV	-10	-15900.00	-3.022814	20	PASS
			NV	0	-14100.00	-2.680608	20	PASS
		5260	NV	10	-14100.00	-2.680608	20	PASS
			NV	20	-14100.00	-2.680608	20	PASS
			NV	30	-14100.00	-2.680608	20	PASS
			NV	40	-14100.00	-2.680608	20	PASS
			NV	50	-14100.00	-2.680608	20	PASS
			NV	-30	-13800.00	-2.613636	20	PASS
			NV	-20	-13800.00	-2.613636	20	PASS
		5280	NV	-10	-13800.00	-2.613636	20	PASS
			NV	0	-13800.00	-2.613636	20	PASS
			NV	10	-13800.00	-2.613636	20	PASS
			NV	20	-13800.00	-2.613636	20	PASS
			NV	30	-13800.00	-2.613636	20	PASS
			NV	40	-13800.00	-2.613636	20	PASS
			NV	50	-13800.00	-2.613636	20	PASS
			NV	-30	-14400.00	-2.706767	20	PASS
		5320	NV	-20	-14400.00	-2.706767	20	PASS
			NV	-10	-14400.00	-2.706767	20	PASS
			NV	0	-14400.00	-2.706767	20	PASS

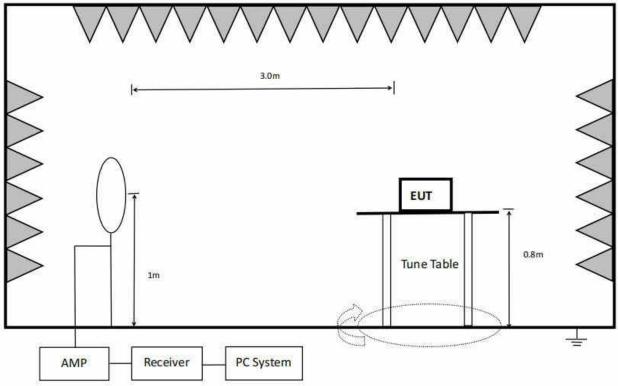
		NV	10	14400.00	0 706767	20	
		NV	10 20	-14400.00	-2.706767 -2.706767	20 20	PASS PASS
		NV	30	-14400.00	-2.706767	20	PASS
		NV	40				PASS
				-14100.00	-2.650376	20	
		NV	50	-14100.00	-2.650376	20	PASS
		NV	-30	-15300.00	-2.781818	20	PASS
		NV	-20	-15600.00	-2.836364	20	PASS
		NV	-10	-15600.00	-2.836364	20	PASS
		NV	0	-15300.00	-2.781818	20	PASS
	5500	NV	10	-15600.00	-2.836364	20	PASS
		NV	20	-15600.00	-2.836364	20	PASS
		NV	30	-15600.00	-2.836364	20	PASS
		NV	40	-15600.00	-2.836364	20	PASS
		NV	50	-15300.00	-2.781818	20	PASS
		NV	-30	-14700.00	-2.634409	20	PASS
		NV	-20	-15000.00	-2.688172	20	PASS
		NV	-10	-14700.00	-2.634409	20	PASS
		NV	0	-15000.00	-2.688172	20	PASS
	5580	NV	10	-15000.00	-2.688172	20	PASS
		NV	20	-15000.00	-2.688172	20	PASS
		NV	30	-15000.00	-2.688172	20	PASS
		NV	40	-15000.00	-2.688172	20	PASS
		NV	50	-14700.00	-2.634409	20	PASS
		NV	-30	-15300.00	-2.684211	20	PASS
		NV	-20	-15300.00	-2.684211	20	PASS
		NV	-10	-15300.00	-2.684211	20	PASS
		NV	0	-15000.00	-2.631579	20	PASS
	5700	NV	10	-15000.00	-2.631579	20	PASS
	5700	NV	20	-15300.00	-2.684211	20	PASS
		NV	30	-15300.00	-2.684211	20	PASS
		NV	40	-15300.00	-2.684211	20	PASS
		NV	50	-15000.00	-2.631579	20	PASS
		NV			-2.674825		PASS
			-30	-15300.00		20	
		NV	-20	-15300.00	-2.674825	20	PASS
		NV	-10	-15300.00	-2.674825 -2.674825	20	PASS
	5700	NV	0	-15300.00		20	PASS
	5720	NV	10	-15000.00	-2.622378	20	PASS
		NV	20	-15000.00	-2.622378	20	PASS
		NV	30	-15300.00	-2.674825	20	PASS
		NV	40	-15000.00	-2.622378	20	PASS
		NV	50	-15000.00	-2.622378	20	PASS
		NV	-30	-15300.00	-2.663185	20	PASS
		NV	-20	-15600.00	-2.715405	20	PASS
		NV	-10	-15600.00	-2.715405	20	PASS
		NV	0	-15600.00	-2.715405	20	PASS
	5745	NV	10	-15600.00	-2.715405	20	PASS
		NV	20	-15300.00	-2.663185	20	PASS
		NV	30	-15300.00	-2.663185	20	PASS
		NV	40	-15300.00	-2.663185	20	PASS
		NV	50	-15600.00	-2.715405	20	PASS
		NV	-30	-15000.00	-2.592913	20	PASS
		NV	-20	-15300.00	-2.644771	20	PASS
		NV	-10	-15300.00	-2.644771	20	PASS
		NV	0	-15300.00	-2.644771	20	PASS
	5785	NV	10	-15300.00	-2.644771	20	PASS
	0.00	NV	20	-15300.00	-2.644771	20	PASS
		NV	30	-15000.00	-2.592913	20	PASS
		NV	40	-15300.00	-2.644771	20	PASS
1			+0		-2.044///	<u> </u>	1 1 700
					-2 611771	20	DVCC
	5825	NV NV	50 -30	-15300.00 -15300.00	-2.644771 -2.626609	20 20	PASS PASS

	00	45000.00	0.070440	00	D AOO
NV	-20	-15600.00	-2.678112	20	PASS
NV	-10	-15600.00	-2.678112	20	PASS
NV	0	-15300.00	-2.626609	20	PASS
NV	10	-15300.00	-2.626609	20	PASS
NV	20	-15300.00	-2.626609	20	PASS
NV	30	-15600.00	-2.678112	20	PASS
NV	40	-15300.00	-2.626609	20	PASS
NV	50	-15600.00	-2.678112	20	PASS

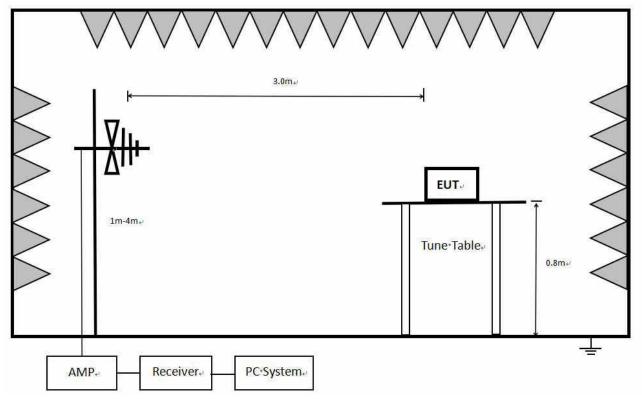
13. Radiated Emission

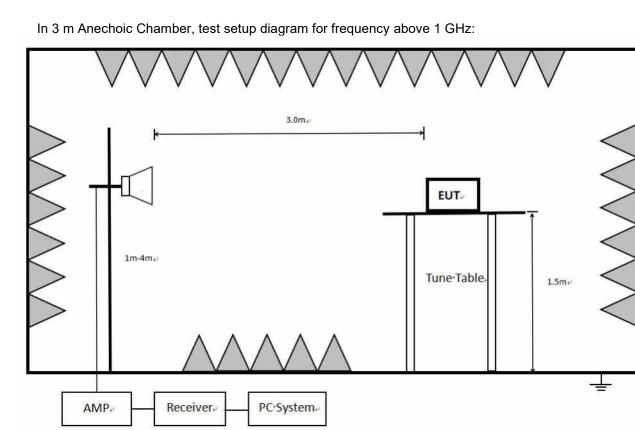
13.1. Block Diagram of Test Setup

In 3 m Anechoic Chamber, test setup diagram for 9 kHz - 30 MHz:



In 3 m Anechoic Chamber, test setup diagram for 30 MHz - 1 GHz:





Note: For harmonic emissions test an appropriate high pass filter was inserted in the input port of AMP.

13.2. Limit

(1) FCC 15.205 Restricted frequency band					
MHz	MHz	MHz	GHz		
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15		
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46		
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75		
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5		
4.1772&4.17775	37.5-38.25	1435-1626.5	9.0-9.2		
4.2072&4.20775	73-74.6	1645.5-1646.5	9.3-9.5		
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7		
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4		
6.31175-6.31225	123-138	2200-2300	14.47-14.5		
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2		
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4		
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12		
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0		
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8		
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5		
12.57675-12.57725	322-335.4	3600-4400	(2)		
13.36-13.41					

 1 Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz. $^2\text{Above 38.6}$

(2) FCC 15.209 Limit.

Frequency	Distance	Field strengths limit		
MHz	Meters	μV/m	dB(µV)/m	
0.009 ~ 0.490	300	2400/F(kHz)	67.6-20log(F)	
0.490 ~ 1.705	30	24000/F(kHz)	87.6-20log(F)	
1.705 ~ 30.0	30	30	29.54	
30 ~ 88	3	100	40.0	
88 ~ 216	3	150	43.5	
216 ~ 960	3	200	46.0	
960 ~ 1000	3	500	54.0	
Above 1000	3	74.0 dB(μV)/ι 54.0 dB(μV)/m	. ,	

(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm / MHz.

(2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm / MHz.

(3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/ MHz.

(4) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm / MHz.

(5) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209. Further, any U-NII devices using an AC power line are required to comply also with the conducted limits set forth in §15.207.

(6) The provisions of §15.205 apply to intentional radiators operating under this section.

-27 dBm/MHz Limit=95.2+EIRP (dBm)=95.2-27=68.2 dBµV/m

Note:

(1) The emission limits shown in the above table are based on measurements employing a CISPR QP detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000MHz.Radiated emissions limits in these three bands are based on measurements employing an average detector.

(2) At frequencies below 30MHz, measurement may be performed at a distance closer than that specified, and the limit at closer measurement distance can be extrapolated by below formula:

 $Limit_{3m}(dBuV/m) = Limit_{30m}(dBuV/m) + 40Log(30m/3m)$

(3) Limit for this EUT

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions or comply with 15.209 limits.

13.3. Test Procedure

Below 30 MHz:

The setting of the spectrum Analyzer

RBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
VBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
Sweep	Auto
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013

2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80 cm meter above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of 1 meter height antenna tower.

5. The radiated emission limits are based on measurements employing a CISPR guasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

6. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the guasi-peak detector and reported.

7. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30m open field site. Therefore, sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KdB 414788.

I ne setting of the spectrum Analyzer					
RBW	120 kHz				
VBW	300 kHz				
Sweep	Auto				
Trace	Max hold				

Below 1 GHz and above 30 MHz:

The setting of the spectrum Analyzer

1. The testing follows the guidelines in ANSI C63.10-2013.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 80 cm above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement below 1GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the guasi-peak detector and reported.

RBW	1 MHz
VBW	PEAK: 3 MHz AVG: see note 6
Sweep	Auto
Detector	Peak
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013.

2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

3. The EUT was placed on a turntable with 1.5m above ground.

4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.

5. For measurement above 1GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.

6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for AVG measurements. For the Duty Cycle please refer to clause 8.1.ON TIME AND DUTY CYCLE.

7. Restriction band: Investigated frequency range from 5.15-5.25 GHz, 5250-5350 GHz, 5470-5725 GHz, 5.725-5.85 GHz.

All restriction band should comply with 15.209, other emission should be at least 20 dB below the fundamental.

Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

Note 2: The EUT does not support simultaneous transmission.

Note 3: The EUT was fully exercised with external accessories during the test. In the case of multiple accessory external ports, an external accessory shall be connected to one of each type of port.

13.4. Test Result

PASS. (See below detailed test result)

All the emissions except fundamental emission from 9kHz to 40GHz were comply with 15.209 limit.

Note1: According exploratory test, the emission levels are 20 dB below the limit detected from 9 kHz to 30 MHz and 18 GHz to 40 GHz, so the final test was performed with frequency range from 30 MHz to 18 GHz and recorded in below.

Note2: For emissions below 1 GHz, according exploratory explorer test, when change Tx mode and channel, have no distinct influence on emissions level, so for emissions below 1 GHz, the final test was only performed with EUT working in 11n20 mode.

Note3: For below test data, when the limit tabular marked "/" means this frequency point is the fundamental emission and no need comply with this limit.

Note 4: As specified in 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in 15.407(b)(4)). However, an out-of-band emission that complies with both the average and peak limits of 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz peak emission limit

Note 5: For emissions Above 1 GHz, all mode have been tested, 11n20 mode is worse case and recorded in report.

13.5. Original Test Data

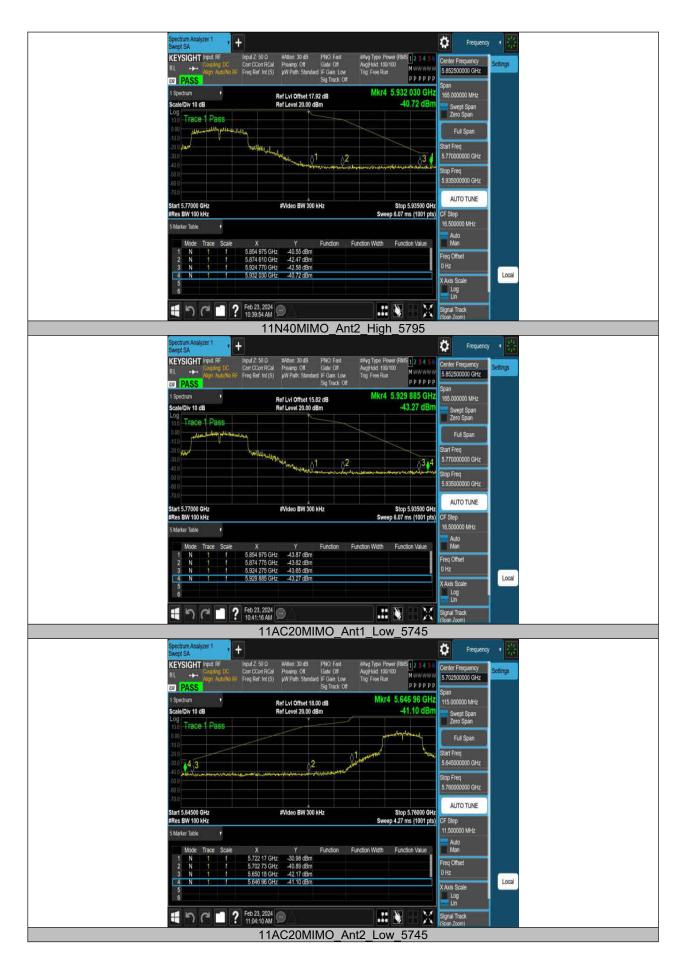
Below 1 GHz and above 30 MHz test data Refer to appendix A Above 1 GHz test data Refer to appendix B









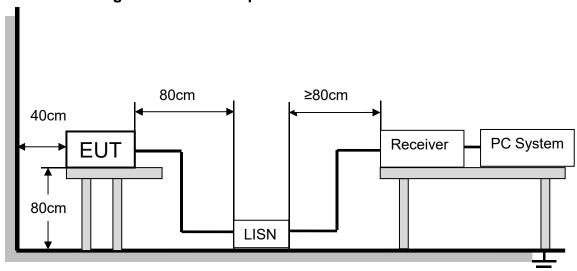












14. AC Power Line Conducted Emissions

14.1. Block Diagram of Test Setup

The EUT is put on a table of non-conducting material that is 80 cm high. The vertical conducting wall of shielding is located 40 cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through an Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013.Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9 kHz.

The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

14.2. Limits

Please refer to CFR 47 FCC §15.207 (a).

Frequency (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note 1: * Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.

14.3. Test Procedure

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

Configuration EUT to simulate typical usage as described in clause 2.4 and test equipment as described in clause 10.2 of this report.

All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30 MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in clause 2.4 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were recorded for reference of the final test.

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest emissions.

Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

The bandwidth of test receiver is set at 9 kHz.

14.4. Test Result

Pass. (See below detailed test result)

Note1: All emissions not reported below are too low against the prescribed limits.

Note2: Pre-test AC conducted emission at both voltage AC 120V/60Hz and AC 240V/50Hz, recorded worse case.

14.5. Original Test Data

AC Power Line Conducted Emission Test Data Refer to appendix C

15. Dynamic Frequency Selection

15.1. Applicability of DFS Requirements

A U-NII network will employ a DFS function to detect signals from radar systems and to avoid co-channel operation with these systems. This applies to the 5250-5350 MHz and/or 5470-5725 MHz bands.

Within the context of the operation of the DFS function, a U-NII device will operate in either Master Mode or Client Mode. U-NII devices operating in Client Mode can only operate in a network controlled by a U-NII device operating in Master Mode.

	Operational Mode			
Requirement	□Master	⊠Client Without Radar Detection	□Client with Radar Detection	
Non-Occupancy Period	Yes	Not required	Yes	
DFS Detection Threshold	Yes	Not required	Yes	
Channel Availability Check Time	Yes	Not required	Not required	
U-NII Detection Bandwidth	Yes	Not required	Yes	

Table 1: Applicability of DFS Requirements Prior to Use of a Channel

Table 2: Applicability of DFS requirements during normal operation

	Operational Mode		
Requirement	☐Master Device or Client with Radar Detection	⊠Client Without Radar Detection	
DFS Detection Threshold	Yes	Not required	
Channel Closing Transmission Time	Yes	Yes	
Channel Move Time	Yes	Yes	
U-NII Detection Bandwidth	Yes	Not required	

Additional requirements for devices with multiple bandwidth modes	□Master Device or Client with Radar Detection	⊠Client Without Radar Detection		
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required		
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link		
All other tests	Any single BW mode	Not required		
Note: Frequencies selected for statistical performance check should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and				

the channel center frequency.