FCC TEST REPORT

FCC ID: 2AOBQ-HIBYR6G3

Product	:	High Resolution Music Player
Model Name	:	HiBy R6III
Brand	:	HiBy
Report No.	:	PTC22112503802E-FC03

Prepared for

Dongguan SmartAction Technology Co.,Ltd

Room 1201，Lianjing Commercial Building, No.39, Hongwei 3rd Road, Nancheng District, Dongguan, Guangdong, China

Prepared by

Precise Testing & Certification Co., Ltd

Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China

1 TEST RESULT CERTIFICATION

Applicant's name	:	Dongguan SmartAction Technology Co.,Ltd
Address	:	Room 1201，Lianjing Commercial Building, No.39, Hongwei 3rd Road, Nancheng District, Dongguan, Guangdong, China
Manufacture's name	:	Dongguan SmartAction Technology Co.,Ltd
Address	:	Room 1201，Lianjing Commercial Building, No.39, Hongwei 3rd Road, Nancheng District, Dongguan, Guangdong, China
Product name	:	High Resolution Music Player
Model name	:	HiBy R6III
Standards	:	FCC CFR47 Part 15 Section 15.407
Test procedure	:	ANSI C63.10:2013
Test Date	:	Sep. 02, 2022 to Jan. 11, 2023
Date of Issue	:	Jan. 11, 2023
Test Result	:	Pass

This device described above has been tested by PTC, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.
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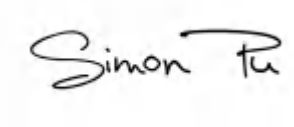
Test Engineer:



Simon Pu / Engineer

Technical Manager:

Ronnie Liu / Manager

Contents

2 Test Summary

Test Items	Test Requirement	Result
Conduct Emission	15.207	PASS
Radiated Spurious Emissions	15.205(a) 15.209 15.407(b)	PASS
Emission and Occupied Bandwidth	15.407(a)(e)	PASS
Maximum Peak Output Power	15.407(a)(1)	PASS
Power Spectral Density	15.407(a)	PASS
Frequency stability	15.407 (g)	PASS
Antenna Requirement	15.203	PASS

3 General Information

3.1 General Description of E.U.T.

Product Name	:	High Resolution Music Player
Model Name	:	HiBy R6III
Additional model	:	N/A
Specification	:	802.11a//n HT20/HT40/ac20/ac40/ac80
Operation Frequency	:	5G Wifi:5150-5250 MHz 5.8G Wifi:5725MHz~5850MHz
Number of Channel	:	4 channels for 802.11a/n20/ac20 5150-5250 MHz 5 channels for 802.11a/n20/ac20 5725MHz~5850MHz 2 channels for 802.11n40/ac40 5150-5250 MHz 2 channels for 802.11n40/ac40 5725MHz~5850MHz 1 channels for 802.11 ac80
Type of Modulation	:	DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n/a/ac
Antenna installation	:	PIFA Antenna
Antenna Gain	:	5G Wifi:2.6 dBi 5.8G Wifi: 2.8 dBi
Power supply	:	Li-ion Battery : 595490 Rated Voltage: 3.8V Capacity:4500mAh 17.1Wh
Hardware Version	:	V2.0
Software Version	:	V1.0

3.2 Channel List

The EUT has been tested under its typical operating condition.

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

Test of channel included the lowest and middle and highest frequency to perform the test, then record on this report.

Those data rates (802.11a: 6 Mbps; 802.11n (HT20): MCS0; 802.11ac: MCS0) were used for all test.

Pre-defined engineering program for regulatory testing used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

Frequency and Channel list for 802.11 a/N20/N40/AC20/AC40

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	46	5230	153	5765
38	5190	48	5240	157	5785
40	5200	149	5745	159	5795
44	5220	151	5755	161	5805
				165	5825

Frequency and Channel list for 802.11 ac80:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	155	5775	/	/

The maximum duty cycle as following table:

Test Mode	Duty Cycle(%)
802.11a	100%
802.11n/ac20	100%
802.11n/ac40	100%
802.11ac80	100%

3.3 Test Site

Precise Testing & Certification Co., Ltd

Address: Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China

FCC Registration Number: 790290

A2LA Certificate No.: 4408.01

IC Registration Number: 12191A

4 Equipment During Test

4.1 Equipments List

RF Conducted Test

Name of Equipment	Manufacturer	Model	Serial No.	Characteristics	Calibration Due	Calibration period
MXG Signal Analyzer	Agilent	N9020A	SER MY5111038	10Hz-30GHz	Aug. 21, 2023	1 year
Coaxial Cable	CDS	79254	46107086	10Hz-30GHz	Aug. 21, 2023	1 year
Power Meter	Anritsu	ML2495A	0949003	300MHz-40GHz	Aug. 21, 2023	1 year
Power Sensor	Anritsu	MA2411B	0917017	300MHz-40GHz	Aug. 21, 2023	1 year
Signal Analyzer 40GHZ	Rohde&Schwarz	FSV40	101456	10Hz-40GHz	Aug. 21, 2023	1 year

Remark: The temporary antenna connector is soldered on the PCB board in order to perform conducted tests and this temporary antenna connector is listed in the equipment list.

Name of Equipment	Manufacturer	Model	Serial No.	Characteristics	Calibration Due	Calibration period
EMI Test Receiver	Rohde&Schwarz	ESCI	101417	9KHz-3GHz	Aug. 21, 2023	1 year
Loop Antenna	Schwarzbeck	FMZB 1519	012	9 KHz -30MHz	Aug. 21, 2023	1 year
Bilog Antenna	SCHWARZBECK	VULB9160	9160-3355	25MHz-2GHz	Aug. 21, 2023	1 year
Preamplifier (low frequency)	SCHWARZBECK	BBV 9475	9745-0013	1MHz-1GHz	Aug. 21, 2023	1 year
Cable	Schwarzbeck	PLF-100	549489	9KHz-3GHz	Aug. 21, 2023	1 year
Spectrum Analyzer	Agilent	E4407B	MY45109572	9KHz-40GHz	Aug. 21, 2023	1 year
Horn Antenna	SCHWARZBECK	9120D	9120D-1246	1GHz-18GHz	Aug. 21, 2023	1 year
Power Amplifier	LUNAR EM	LNA1G18-40	J1010000008 1	1GHz-26.5GHz	Aug. 21, 2023	1 year

Horn Antenna	SCHWARZBECK	BBHA 9170	9170-181	14GHz-40GHz	Aug. 21, 2023	1 year
Amplifier	SCHWARZBECK	BBV 9721	9721-205	18GHz-40GHz	Aug. 21, 2023	1 year
Cable	H+S	CBL-26	N/A	1GHz-26.5GHz	Aug. 21, 2023	1 year
RF Cable	R&S	R204	R21X	1GHz-40GHz	Aug. 21, 2023	1 year

Conducted Emissions

Name of Equipment	Manufacturer	Model	Serial No.	Characteristics	Calibration Due	Calibration period
EMI Test Receiver	Rohde&Schwarz	ESCI	101417	9KHz-3GHz	Aug. 21, 2023	1 year
Artificial Mains Network	Rohde&Schwarz	ENV216	102453	9KHz-300MHz	Aug. 21, 2023	1 year
Artificial Mains Network	Rohde&Schwarz	ENV216	101342	9KHz-300MHz	Aug. 21, 2023	1 year

4.2 Measurement Uncertainty

Parameter	Uncertainty
RF output power, conducted	±1.0dB
Power Spectral Density, conducted	±2.2dB
Radio Frequency	± 1 x 10^{-6}
Bandwidth	± 1.5 x 10^{-6}
Time	±2%
Duty Cycle	±2%
Temperature	±1°C
Humidity	±5%
DC and low frequency voltages	±3%
Conducted Emissions (150kHz~30MHz)	±3.64dB
Radiated Emission(9kHz~30MHz)	±3.15dB
Radiated Emission(30MHz~1GHz)	±5.03dB
Radiated Emission(1GHz~18GHz)	±4.74dB
Radiated Emission(18GHz~40GHz)	±3.20dB

4.3 Description of Support Units

Equipment	Model No.	Series No.
Adapter	M200-C001BUS	N/A

5 Conducted Emission

Test Requirement:	:	FCC CFR 47 Part 15 Section 15.207
Test Method	:	ANSI C63.10: 2013
Test Result	:	PASS
Frequency Range	:	150kHz to 30MHz
Class/Severity	:	Class B

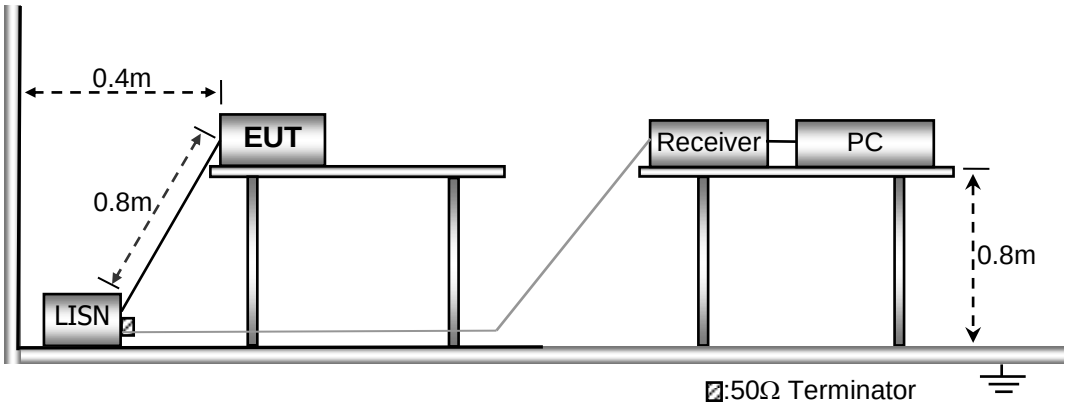
5.1 E.U.T. Operation

Operating Environment :

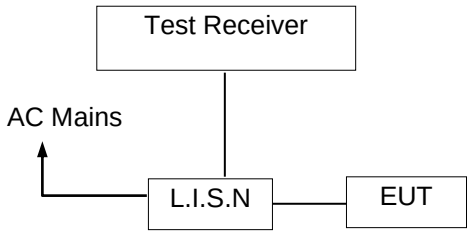
Temperature	:	23.9 °C
Humidity	:	51.4 % RH
Atmospheric Pressure	:	101.21kPa

5.2 EUT Setup

The conducted emission tests were performed using the setup accordance with the ANSI C63.10:2013.



5.3 Test SET-UP (Block Diagram of Configuration)



5.4 Measurement Procedure

1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured was complete.

5.5 Conducted Emission Limit

Conducted Emission

Frequency(MHz)	Quasi-peak	Average
0.15-0.5	66-56	56-46
0.5-5.0	56	46
5.0-30.0	60	50

Note:
1. The lower limit shall apply at the transition frequencies
2.The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

5.6 Measurement Description

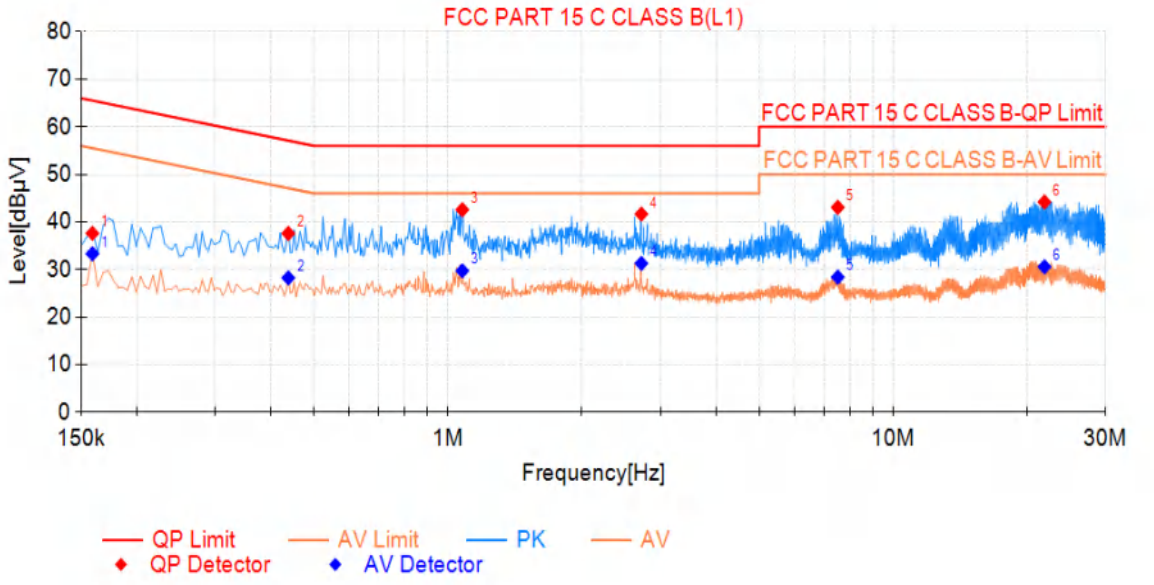
The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

5.7 Conducted Emission Test Result

Pass.

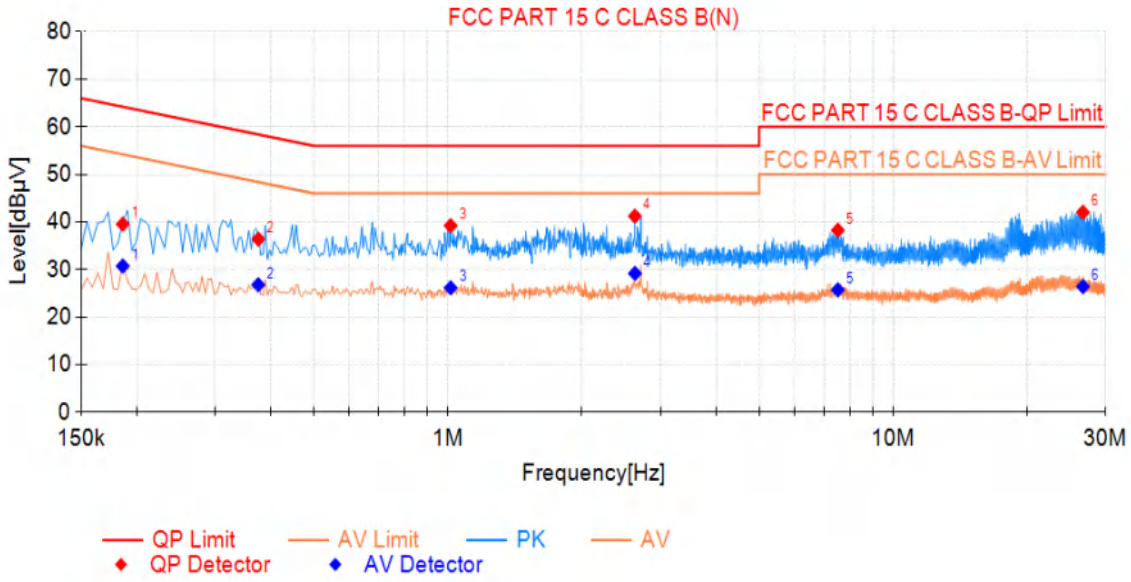
All the modulation modes were tested the data of the worst mode (AC 120V/60Hz, TX 802.11a 5180MHz) are recorded in the following pages and the others modulation methods do not exceed the limits.

Line-AC 120V/60Hz



Final Data List								
NO.	Freq. [MHz]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.159	37.62	65.52	27.90	33.33	55.52	22.19	PASS
2	0.438	37.59	57.10	19.51	28.26	47.10	18.84	PASS
3	1.077	42.58	56.00	13.42	29.74	46.00	16.26	PASS
4	2.720	41.67	56.00	14.33	31.31	46.00	14.69	PASS
5	7.512	43.07	60.00	16.93	28.41	50.00	21.59	PASS
6	21.867	44.20	60.00	15.80	30.59	50.00	19.41	PASS

Neutral-AC 120V/60Hz



Final Data List								
NO.	Freq. [MHz]	QP Value [dBµV]	QP Limit [dBµV]	QP Margin [dB]	AV Value [dBµV]	AV Limit [dBµV]	AV Margin [dB]	Verdict
1	0.186	39.56	64.21	24.65	30.75	54.21	23.46	PASS
2	0.375	36.41	58.39	21.98	26.81	48.39	21.58	PASS
3	1.014	39.22	56.00	16.78	26.17	46.00	19.83	PASS
4	2.630	41.23	56.00	14.77	29.19	46.00	16.81	PASS
5	7.512	38.26	60.00	21.74	25.73	50.00	24.27	PASS
6	26.687	42.03	60.00	17.97	26.44	50.00	23.56	PASS

6 Radiated Spurious Emissions

Test Requirement	:	FCC CFR47 Part 15 Section 15.209 & 15.407(b)
Test Method	:	ANSI C63.10:2013
Test Result	:	PASS
Measurement Distance	:	3m

Limit

(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:

(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.

(ii) Devices certified before March 2, 2017 with antenna gain greater than 10 dBi may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease by March 2, 2018. Devices certified before March 2, 2018 with antenna gain of 10 dBi or less may demonstrate compliance with the emission limits in §15.247(d), but manufacturing, marketing and importing of devices certified under this alternative must cease before March 2, 2020.

(5) The emission measurements shall be performed using a minimum resolution bandwidth of 1 MHz. A lower resolution bandwidth may be employed near the band edge, when necessary, provided the measured energy is integrated to show the total power over 1 MHz.

(6) Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209.

Further.

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

(8) When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the upper and lower frequency band edges as the design of the equipment permits.As per FCC §15.35(d): Unless otherwise specified, on any frequency or frequencies above 1000 MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function. Unless otherwise specified, measurements above 1000 MHz shall be performed using a minimum resolution bandwidth of 1MHz

As per FCC §15.209(a): Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Dist	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	2400/F(kHz)	300	10000 * 2400/F(kHz)	$20\log^{(2400/F(kHz))} + 80$
0.490 ~ 1.705	24000/F(kHz)	30	100 * 24000/F(kHz)	$20\log^{(24000/F(kHz))} + 40$
1.705 ~ 30	30	30	100 * 30	$20\log^{(30)} + 40$
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

6.1 EUT Operation

Operating Environment :

Temperature: : 24.5 °C

Humidity: : 52 % RH

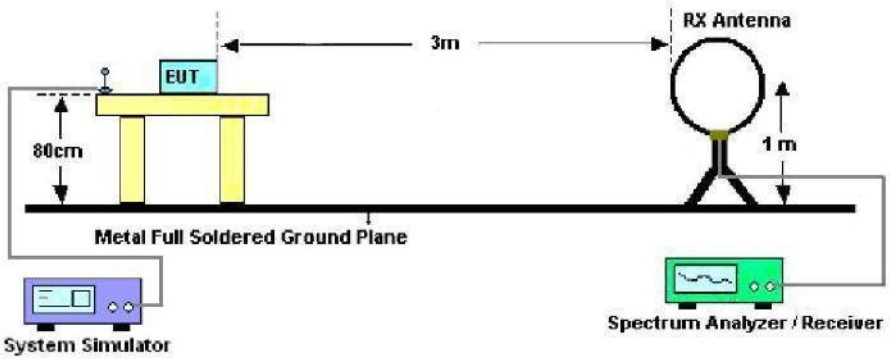
Atmospheric Pressure: : 101.3kPa

Test Voltage : AC 120V 60Hz

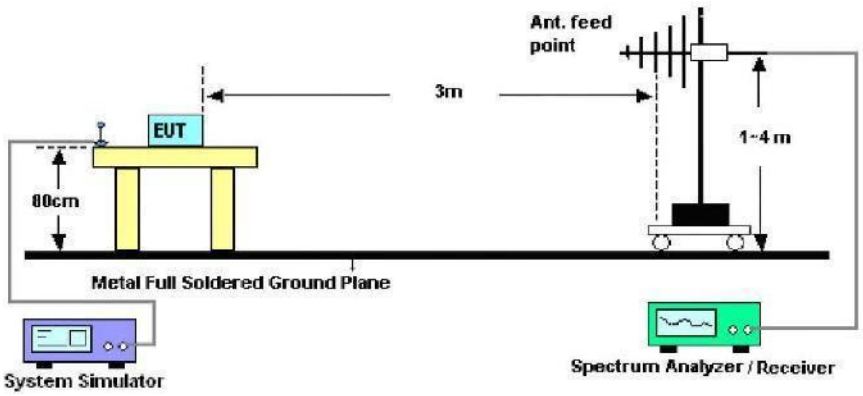
6.2 Test Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site

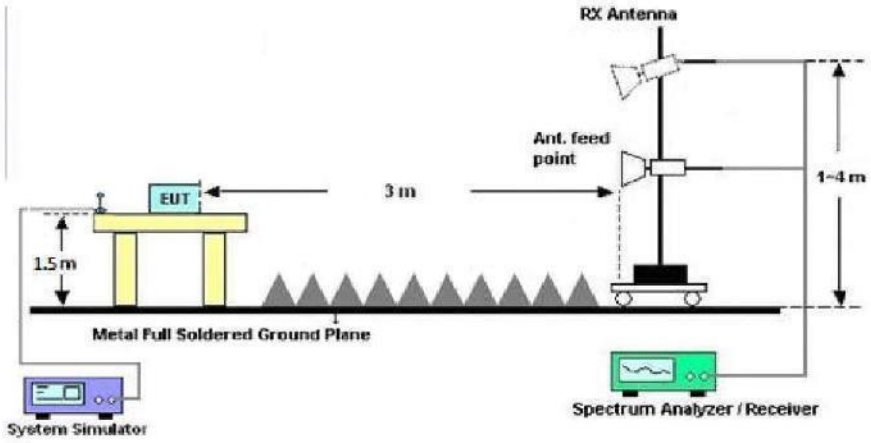
The test setup for emission measurement below 30MHz



The test setup for emission measurement from 30 MHz to 1 GHz.



The test setup for emission measurement above 1 GHz



6.3 Spectrum Analyzer Setup

	Frequency	Detector	RBW	VBW	Remark
Receiver Setup	Below 30MHz	--	10kHz	10kHz	--
	30MHz ~ 1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		RMS	1MHz	3MHz	Average Value

6.4 Test Procedure

1. Below 1000MHz, The EUT was placed on a turn table which is 0.8m above ground plane, And above 1000MHz, The EUT was placed on a styrofoam table which is 1.5m above ground plane.

2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.

3. EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions. The spectrum was investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.

5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

6. Repeat above procedures until the measurements for all frequencies are complete.

7. The radiation measurements are tested under 3-axes(X,Y,Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand), After pre-test, It was found that the worse radiation emission was get at the X position. So the data shown was the X position only.

8. The test above 1GHz must be use the fully anechoic room, and the test below 1GHz use the half anechoic room

6.5 Summary of Test Results

Test Frequency: 9KHz-30MHz

Freq. (MHz)	Ant.Pol. H/V	Emission Level (dBuV/m)	Limit 3m (dBuV/m)	Over (dB)
--	--	--	--	>20

Note:

The amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

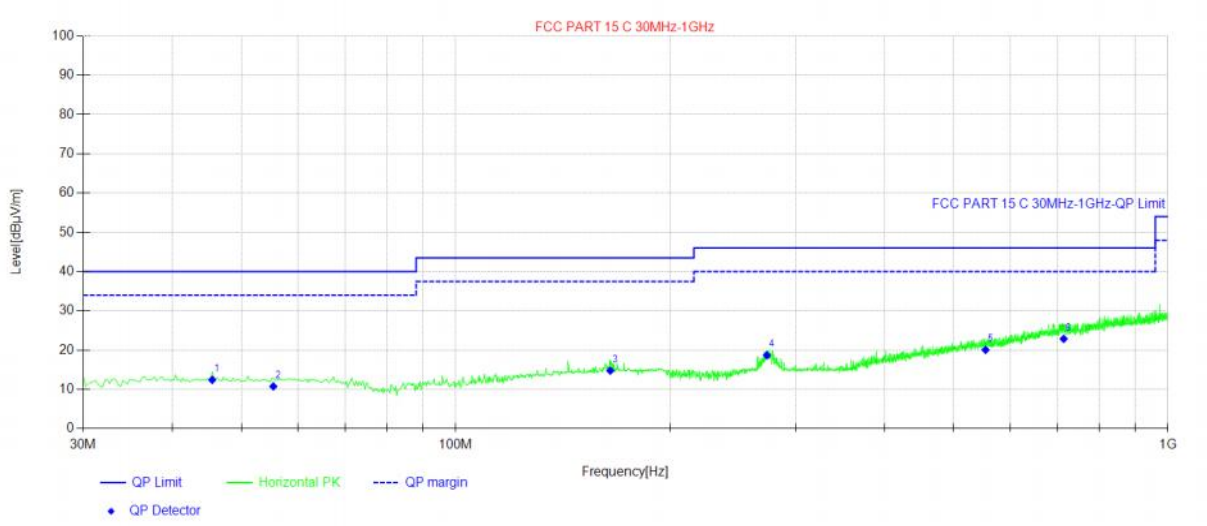
Distance extrapolation factor =40log(Specific distance/ test distance)(dB);
Limit line=Specific limits(dBuV) + distance extrapolation factor.

Test Frequency: 30MHz ~ 1GHz

All the modulation modes were tested the data of the worst mode (TX 802.11a Channel 36) are recorded in the following pages and the others modulation methods do not exceed the limits.

Please refer to the following test plots:

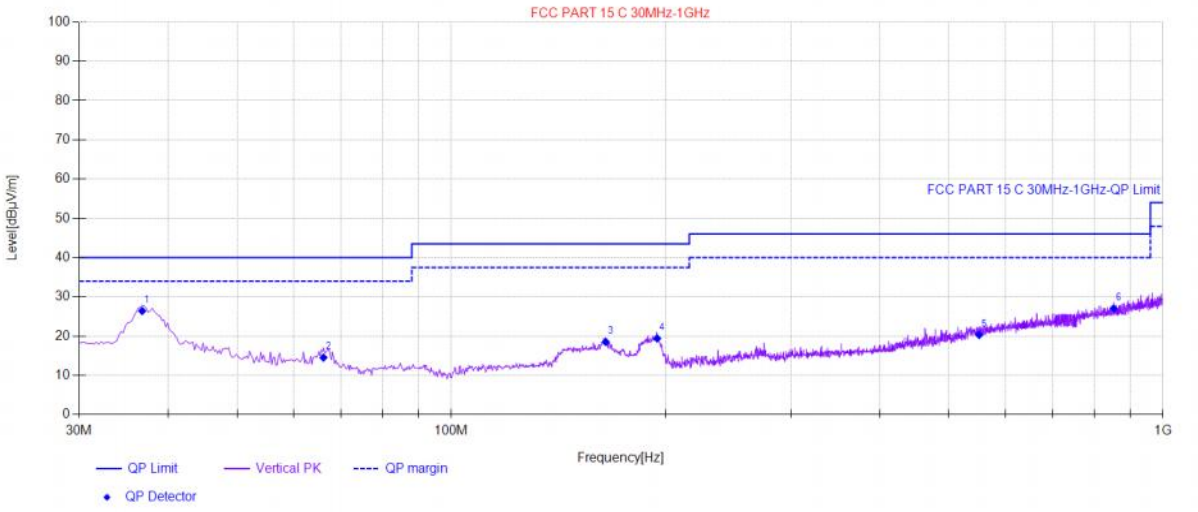
Antenna Polarization: Horizontal(CH36)



Final Data List[QP]							
NO.	Freq. [MHz]	QP Reading [dBµV/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Polarity
1	45.52	29.86	-17.44	12.42	40.00	27.58	Horizontal
2	55.46	28.67	-17.91	10.76	40.00	29.24	Horizontal
3	164.83	30.7	-15.92	14.78	43.50	28.72	Horizontal
4	273.47	34.93	-16.26	18.67	46.00	27.33	Horizontal
5	554.53	29.38	-9.32	20.06	46.00	25.94	Horizontal
6	713.85	29.18	-6.31	22.87	46.00	23.13	Horizontal

Remark:Emission Level=Reading+Cable Loss+ANT Factor-AMP Factor

Antenna Polarization: Vertical (CH36)



Final Data List[QP]							
NO.	Freq. [MHz]	QP Reading [dBµV/m]	Factor [dB]	QP Value [dBµV/m]	QP Limit [dBµV/m]	QP Margin [dB]	Polarity
1	36.79	44.52	-18.11	26.41	40.00	13.59	Vertical
2	66.13	33.25	-18.71	14.54	40.00	25.46	Vertical
3	164.83	34.43	-15.92	18.51	43.50	24.99	Vertical
4	194.66	37.84	-18.44	19.40	43.50	24.10	Vertical
5	551.62	29.67	-9.36	20.31	46.00	25.69	Vertical
6	852.56	30.6	-3.56	27.04	46.00	18.96	Vertical

Remark:Emission Level=Reading+Cable Loss+ANT Factor-AMP Factor
Note: only the worst case recorded in the report.

Test Frequency: From 1GHz to 40GHz

Pre-scan all test modes

Only the worst case Main test data.

802.11a

Test Mode: 5180				Test channel: Lowest				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10360	47.37	35.22	5.36	31.25	56.70	68.2	-11.50	V
15540	42.23	35.96	7.85	30.63	55.41	68.2	-12.79	V
20720	43.48	39.12	8.56	34.95	56.21	68.2	-11.99	V
10360	48.24	34.12	5.36	31.25	56.47	68.2	-11.73	H
15540	42.24	36.52	7.85	30.63	55.98	68.2	-12.22	H
20720	42.69	40.01	8.56	34.95	56.31	68.2	-11.89	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10360	33.19	35.22	5.36	31.25	42.52	54	-11.48	V
15540	30.12	35.96	7.85	30.63	43.30	54	-10.70	V
20720	28.18	39.12	8.56	34.95	40.91	54	-13.09	V
10360	32.43	34.12	5.36	31.25	40.66	54	-13.34	H
15540	24.59	36.52	7.85	30.63	38.33	54	-15.67	H
20720	27.04	40.01	8.56	34.95	40.66	54	-13.34	H

802.11a

Test Mode:5200				Test channel: Middle				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10400	47.89	35.63	5.36	31.25	57.63	68.2	-10.57	V
15600	43.40	35.91	7.85	30.63	56.53	68.2	-11.67	V
20800	44.43	39.67	8.56	34.95	57.71	68.2	-10.49	V
10400	46.83	34.25	5.36	31.25	55.19	68.2	-13.01	H
15600	41.89	37.02	7.85	30.63	56.13	68.2	-12.07	H
20800	43.46	38.88	8.56	34.95	55.95	68.2	-12.25	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10400	33.82	35.63	5.36	31.25	43.56	54	-10.44	V
15600	29.13	35.91	7.85	30.63	42.26	54	-11.74	V
20800	29.60	39.67	8.56	34.95	42.88	54	-11.12	V
10400	33.09	34.25	5.36	31.25	41.45	54	-12.55	H
15600	29.27	37.02	7.85	30.63	43.51	54	-10.49	H
20800	29.93	38.88	8.56	34.95	42.42	54	-11.58	H

802.11a

Test Mode:5240				Test channel: High				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10480	45.61	34.68	5.36	31.25	54.40	68.2	-13.80	V
17520	43.15	36.52	7.85	30.63	56.89	68.2	-11.31	V
20960	44.38	38.77	8.56	34.95	56.76	68.2	-11.44	V
10480	47.14	33.99	5.36	31.25	55.24	68.2	-12.96	H
17520	45.29	36.84	7.85	30.63	59.35	68.2	-8.85	H
20960	46.34	39.93	8.56	34.95	59.88	68.2	-8.32	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10480	33.30	34.68	5.36	31.25	42.09	54	-11.91	V
17520	29.20	36.52	7.85	30.63	42.94	54	-11.06	V
20960	30.01	38.77	8.56	34.95	42.39	54	-11.61	V
10480	32.32	33.99	5.36	31.25	40.42	54	-13.58	H
17520	27.41	36.84	7.85	30.63	41.47	54	-12.53	H
20960	29.06	39.93	8.56	34.95	42.60	54	-11.40	H

802.11a

Test Mode: 5745				Test channel: Lowest				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11490	47.92	35.26	5.42	31.75	56.85	68.23	-11.38	V
17235	42.40	36.88	7.32	30.96	55.64	68.23	-12.59	V
22980	44.00	39.14	8.85	35.25	56.74	68.23	-11.49	V
11490	49.59	34.21	5.42	31.75	57.47	68.23	-10.76	H
17235	44.52	37.52	7.32	30.96	58.40	68.23	-9.83	H
22980	44.30	39.88	8.85	35.25	57.78	68.23	-10.45	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11490	32.43	35.26	5.42	31.75	41.36	54	-12.64	V
17235	29.79	36.88	7.32	30.96	43.03	54	-10.97	V
22980	29.78	39.14	8.85	35.25	42.52	54	-11.48	V
11490	31.40	34.21	5.42	31.75	39.28	54	-14.72	H
17235	29.09	37.52	7.32	30.96	42.97	54	-11.03	H
22980	29.12	39.88	8.85	35.25	42.60	54	-11.40	H

802.11a

Test Mode:5785				Test channel: Middle				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11570	48.77	35.26	5.42	31.75	57.70	68.23	-10.53	V
17355	44.21	36.88	7.32	30.96	57.45	68.23	-10.78	V
23140	45.29	39.14	8.85	35.25	58.03	68.23	-10.20	V
11570	48.40	34.21	5.42	31.75	56.28	68.23	-11.95	H
17355	42.25	37.52	7.32	30.96	56.13	68.23	-12.10	H
23140	43.07	39.88	8.85	35.25	56.55	68.23	-11.68	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11570	33.34	35.26	5.42	31.75	42.27	54	-11.73	V
17355	29.55	36.88	7.32	30.96	42.79	54	-11.21	V
23140	28.32	39.14	8.85	35.25	41.06	54	-12.94	V
11570	34.71	34.21	5.42	31.75	42.59	54	-11.41	H
17355	29.53	37.52	7.32	30.96	43.41	54	-10.59	H
23140	29.29	39.88	8.85	35.25	42.77	54	-11.23	H

802.11a

Test Mode:5825				Test channel: High				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11650	48.42	35.26	5.42	31.75	57.35	68.23	-10.88	V
17475	44.59	36.88	7.32	30.96	57.83	68.23	-10.40	V
23300	45.70	39.14	8.85	35.25	58.44	68.23	-9.79	V
11650	49.22	34.21	5.42	31.75	57.10	68.23	-11.13	H
17475	44.14	37.52	7.32	30.96	58.02	68.23	-10.21	H
23300	44.95	39.88	8.85	35.25	58.43	68.23	-9.80	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11650	34.69	34.96	5.42	31.75	43.32	54	-10.68	V
17475	28.79	36.74	7.32	30.96	41.89	54	-12.11	V
23300	30.08	39.14	8.85	35.25	42.82	54	-11.18	V
11650	33.42	34.02	5.42	31.75	41.11	54	-12.89	H
17475	28.75	36.57	7.32	30.96	41.68	54	-12.32	H
23300	28.35	39.88	8.85	35.25	41.83	54	-12.17	H

802.11n20

Test Mode: 5180				Test channel: Lowest				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10360	45.76	34.56	5.36	31.25	54.43	68.2	-13.77	V
15540	43.26	36.22	7.85	30.63	56.70	68.2	-11.50	V
20720	43.95	38.97	8.56	34.95	56.53	68.2	-11.67	V
10360	49.28	33.57	5.36	31.25	56.96	68.2	-11.24	H
15540	40.05	36.49	7.85	30.63	53.76	68.2	-14.44	H
20720	42.02	39.92	8.56	34.95	55.55	68.2	-12.65	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10360	32.41	34.56	5.36	31.25	41.08	54	-12.92	V
15540	29.37	36.22	7.85	30.63	42.81	54	-11.19	V
20720	28.21	38.97	8.56	34.95	40.79	54	-13.21	V
10360	32.19	33.57	5.36	31.25	39.87	54	-14.13	H
15540	27.03	36.49	7.85	30.63	40.74	54	-13.26	H
20720	27.99	39.92	8.56	34.95	41.52	54	-12.48	H

802.11n20

Test Mode:5200				Test channel: Middle				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10400	48.28	34.63	5.36	31.25	57.02	68.2	-11.18	V
15600	44.37	36.42	7.85	30.63	58.01	68.2	-10.19	V
20800	45.42	38.81	8.56	34.95	57.84	68.2	-10.36	V
10400	47.99	33.93	5.36	31.25	56.03	68.2	-12.17	H
15600	43.56	36.55	7.85	30.63	57.33	68.2	-10.87	H
20800	44.00	39.94	8.56	34.95	57.55	68.2	-10.65	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10400	32.75	34.63	5.36	31.25	41.49	54	-12.51	V
15600	28.79	36.42	7.85	30.63	42.43	54	-11.57	V
20800	29.12	38.81	8.56	34.95	41.54	54	-12.46	V
10400	33.54	33.93	5.36	31.25	41.58	54	-12.42	H
15600	28.60	36.55	7.85	30.63	42.37	54	-11.63	H
20800	29.76	39.94	8.56	34.95	43.31	54	-10.69	H

802.11n20

Test Mode:5240				Test channel: High				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10480	45.54	34.68	5.36	31.25	54.33	68.2	-13.87	V
17520	44.70	36.52	7.85	30.63	58.44	68.2	-9.76	V
20960	43.14	38.77	8.56	34.95	55.52	68.2	-12.68	V
10480	46.93	33.99	5.36	31.25	55.03	68.2	-13.17	H
17520	45.76	36.84	7.85	30.63	59.82	68.2	-8.38	H
20960	43.85	39.93	8.56	34.95	57.39	68.2	-10.81	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10480	31.37	34.68	5.36	31.25	40.16	54	-13.84	V
17520	27.62	36.52	7.85	30.63	41.36	54	-12.64	V
20960	28.10	38.77	8.56	34.95	40.48	54	-13.52	V
10480	30.83	33.99	5.36	31.25	38.93	54	-15.07	H
17520	27.52	36.84	7.85	30.63	41.58	54	-12.42	H
20960	29.50	39.93	8.56	34.95	43.04	54	-10.96	H

802.11n20

Test Mode: 5745				Test channel: Lowest				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11490	49.09	35.26	5.42	31.75	58.02	68.23	-10.21	V
17235	42.45	36.88	7.32	30.96	55.69	68.23	-12.54	V
22980	43.36	39.14	8.85	35.25	56.10	68.23	-12.13	V
11490	49.44	34.21	5.42	31.75	57.32	68.23	-10.91	H
17235	43.91	37.52	7.32	30.96	57.79	68.23	-10.44	H
22980	45.02	39.88	8.85	35.25	58.50	68.23	-9.73	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11490	33.93	35.26	5.42	31.75	42.86	54	-11.14	V
17235	30.16	36.88	7.32	30.96	43.40	54	-10.60	V
22980	29.51	39.14	8.85	35.25	42.25	54	-11.75	V
11490	33.21	34.21	5.42	31.75	41.09	54	-12.91	H
17235	28.73	37.52	7.32	30.96	42.61	54	-11.39	H
22980	29.37	39.88	8.85	35.25	42.85	54	-11.15	H

802.11n20

Test Mode:5785				Test channel: Middle				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11570	45.67	35.26	5.42	31.75	54.60	68.23	-13.63	V
17355	44.22	36.88	7.32	30.96	57.46	68.23	-10.77	V
23140	44.92	39.14	8.85	35.25	57.66	68.23	-10.57	V
11570	48.35	34.21	5.42	31.75	56.23	68.23	-12.00	H
17355	42.62	37.52	7.32	30.96	56.50	68.23	-11.73	H
23140	42.23	39.88	8.85	35.25	55.71	68.23	-12.52	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11570	33.78	35.26	5.42	31.75	42.71	54	-11.29	V
17355	30.17	36.88	7.32	30.96	43.41	54	-10.59	V
23140	29.31	39.14	8.85	35.25	42.05	54	-11.95	V
11570	33.66	34.21	5.42	31.75	41.54	54	-12.46	H
17355	30.08	37.52	7.32	30.96	43.96	54	-10.04	H
23140	29.20	39.88	8.85	35.25	42.68	54	-11.32	H

802.11n20

Test Mode:5825				Test channel: High				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11650	47.74	35.26	5.42	31.75	56.67	68.23	-11.56	V
17475	44.71	36.88	7.32	30.96	57.95	68.23	-10.28	V
23300	45.33	39.14	8.85	35.25	58.07	68.23	-10.16	V
11650	49.05	34.21	5.42	31.75	56.93	68.23	-11.30	H
17475	44.36	37.52	7.32	30.96	58.24	68.23	-9.99	H
23300	45.62	39.88	8.85	35.25	59.10	68.23	-9.13	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11650	35.71	35.26	5.42	31.75	44.64	54	-9.36	V
17475	29.22	36.88	7.32	30.96	42.46	54	-11.54	V
23300	27.82	39.14	8.85	35.25	40.56	54	-13.44	V
11650	33.07	34.21	5.42	31.75	40.95	54	-13.05	H
17475	28.73	37.52	7.32	30.96	42.61	54	-11.39	H
23300	29.05	39.88	8.85	35.25	42.53	54	-11.47	H

802.11ac20

Test Mode: 5180				Test channel: Lowest				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10360	47.10	35.22	5.36	31.25	56.43	68.2	-11.77	V
15540	41.84	35.96	7.85	30.63	55.02	68.2	-13.18	V
20720	43.30	39.12	8.56	34.95	56.03	68.2	-12.17	V
10360	48.33	34.12	5.36	31.25	56.56	68.2	-11.64	H
15540	42.27	36.52	7.85	30.63	56.01	68.2	-12.19	H
20720	42.67	40.01	8.56	34.95	56.29	68.2	-11.91	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10360	33.16	35.22	5.36	31.25	42.49	54	-11.51	V
15540	30.62	35.96	7.85	30.63	43.80	54	-10.20	V
20720	28.31	39.12	8.56	34.95	41.04	54	-12.96	V
10360	32.76	34.12	5.36	31.25	40.99	54	-13.01	H
15540	24.96	36.52	7.85	30.63	38.70	54	-15.30	H
20720	27.45	40.01	8.56	34.95	41.07	54	-12.93	H

802.11ac20

Test Mode:5200				Test channel: Middle				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10400	47.92	35.63	5.36	31.25	57.66	68.2	-10.54	V
15600	43.49	35.91	7.85	30.63	56.62	68.2	-11.58	V
20800	44.29	39.67	8.56	34.95	57.57	68.2	-10.63	V
10400	46.59	34.25	5.36	31.25	54.95	68.2	-13.25	H
15600	42.27	37.02	7.85	30.63	56.51	68.2	-11.69	H
20800	43.49	38.88	8.56	34.95	55.98	68.2	-12.22	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10400	33.52	35.63	5.36	31.25	43.26	54	-10.74	V
15600	28.62	35.91	7.85	30.63	41.75	54	-12.25	V
20800	29.81	39.67	8.56	34.95	43.09	54	-10.91	V
10400	33.33	34.25	5.36	31.25	41.69	54	-12.31	H
15600	28.93	37.02	7.85	30.63	43.17	54	-10.83	H
20800	30.17	38.88	8.56	34.95	42.66	54	-11.34	H

802.11ac20

Test Mode:5240				Test channel: High				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10480	45.74	34.68	5.36	31.25	54.53	68.2	-13.67	V
17520	43.28	36.52	7.85	30.63	57.02	68.2	-11.18	V
20960	43.97	38.77	8.56	34.95	56.35	68.2	-11.85	V
10480	46.85	33.99	5.36	31.25	54.95	68.2	-13.25	H
17520	45.22	36.84	7.85	30.63	59.28	68.2	-8.92	H
20960	46.24	39.93	8.56	34.95	59.78	68.2	-8.42	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10480	33.53	34.68	5.36	31.25	42.32	54	-11.68	V
17520	29.00	36.52	7.85	30.63	42.74	54	-11.26	V
20960	29.90	38.77	8.56	34.95	42.28	54	-11.72	V
10480	31.99	33.99	5.36	31.25	40.09	54	-13.91	H
17520	27.30	36.84	7.85	30.63	41.36	54	-12.64	H
20960	29.17	39.93	8.56	34.95	42.71	54	-11.29	H

802.11ac20

Test Mode: 5745				Test channel: Lowest				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11490	47.67	35.26	5.42	31.75	56.60	68.23	-11.63	V
17235	42.44	36.88	7.32	30.96	55.68	68.23	-12.55	V
22980	43.69	39.14	8.85	35.25	56.43	68.23	-11.80	V
11490	49.72	34.21	5.42	31.75	57.60	68.23	-10.63	H
17235	44.16	37.52	7.32	30.96	58.04	68.23	-10.19	H
22980	44.43	39.88	8.85	35.25	57.91	68.23	-10.32	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11490	32.41	35.26	5.42	31.75	41.34	54	-12.66	V
17235	29.84	36.88	7.32	30.96	43.08	54	-10.92	V
22980	29.77	39.14	8.85	35.25	42.51	54	-11.49	V
11490	31.79	34.21	5.42	31.75	39.67	54	-14.33	H
17235	28.94	37.52	7.32	30.96	42.82	54	-11.18	H
22980	29.06	39.88	8.85	35.25	42.54	54	-11.46	H

802.11ac20

Test Mode:5785				Test channel: Middle				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11570	48.51	35.26	5.42	31.75	57.44	68.23	-10.79	V
17355	44.34	36.88	7.32	30.96	57.58	68.23	-10.65	V
23140	45.04	39.14	8.85	35.25	57.78	68.23	-10.45	V
11570	48.60	34.21	5.42	31.75	56.48	68.23	-11.75	H
17355	42.10	37.52	7.32	30.96	55.98	68.23	-12.25	H
23140	43.05	39.88	8.85	35.25	56.53	68.23	-11.70	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11570	32.99	35.26	5.42	31.75	41.92	54	-12.08	V
17355	29.79	36.88	7.32	30.96	43.03	54	-10.97	V
23140	28.44	39.14	8.85	35.25	41.18	54	-12.82	V
11570	34.90	34.21	5.42	31.75	42.78	54	-11.22	H
17355	29.57	37.52	7.32	30.96	43.45	54	-10.55	H
23140	29.64	39.88	8.85	35.25	43.12	54	-10.88	H

802.11ac20

Test Mode:5825				Test channel: High				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11650	48.71	35.26	5.42	31.75	57.64	68.23	-10.59	V
17475	44.81	36.88	7.32	30.96	58.05	68.23	-10.18	V
23300	45.71	39.14	8.85	35.25	58.45	68.23	-9.78	V
11650	49.31	34.21	5.42	31.75	57.19	68.23	-11.04	H
17475	44.54	37.52	7.32	30.96	58.42	68.23	-9.81	H
23300	44.73	39.88	8.85	35.25	58.21	68.23	-10.02	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11650	34.81	35.26	5.42	31.75	43.74	54	-10.26	V
17475	28.83	36.88	7.32	30.96	42.07	54	-11.93	V
23300	29.85	39.14	8.85	35.25	42.59	54	-11.41	V
11650	33.96	34.21	5.42	31.75	41.84	54	-12.16	H
17475	28.43	37.52	7.32	30.96	42.31	54	-11.69	H
23300	28.22	39.88	8.85	35.25	41.70	54	-12.30	H

802.11n40

Test Mode:5190				Test channel: High				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10380	47.70	35.26	5.42	31.75	56.63	68.2	-11.57	V
15570	44.69	36.88	7.32	30.96	57.93	68.2	-10.27	V
20760	45.29	39.14	8.85	35.25	58.03	68.2	-10.17	V
10380	49.34	34.21	5.42	31.75	57.22	68.2	-10.98	H
15570	44.74	37.52	7.32	30.96	58.62	68.2	-9.58	H
20760	45.40	39.88	8.85	35.25	58.88	68.2	-9.32	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10380	35.68	35.26	5.42	31.75	44.61	54	-9.39	V
15570	28.78	36.88	7.32	30.96	42.02	54	-11.98	V
20760	28.03	39.14	8.85	35.25	40.77	54	-13.23	V
10380	32.89	34.21	5.42	31.75	40.77	54	-13.23	H
15570	28.31	37.52	7.32	30.96	42.19	54	-11.81	H
20760	28.98	39.88	8.85	35.25	42.46	54	-11.54	H

802.11n40

Test Mode:5230				Test channel: High				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10460	47.63	35.26	5.42	31.75	56.56	68.2	-11.64	V
15690	44.58	36.88	7.32	30.96	57.82	68.2	-10.38	V
20920	45.04	39.14	8.85	35.25	57.78	68.2	-10.42	V
10460	48.91	34.21	5.42	31.75	56.79	68.2	-11.41	H
15690	44.79	37.52	7.32	30.96	58.67	68.2	-9.53	H
20920	45.34	39.88	8.85	35.25	58.82	68.2	-9.38	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10460	35.40	35.26	5.42	31.75	44.33	54	-9.67	V
15690	29.11	36.88	7.32	30.96	42.35	54	-11.65	V
20920	27.60	39.14	8.85	35.25	40.34	54	-13.66	V
10460	32.96	34.21	5.42	31.75	40.84	54	-13.16	H
15690	28.63	37.52	7.32	30.96	42.51	54	-11.49	H
20920	28.74	39.88	8.85	35.25	42.22	54	-11.78	H

802.11ac40

Test Mode:5190				Test channel:LOW				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10380	47.40	35.26	5.42	31.75	56.33	68.2	-11.87	V
15570	44.41	36.88	7.32	30.96	57.65	68.2	-10.55	V
20760	44.80	39.14	8.85	35.25	57.54	68.2	-10.66	V
10380	49.22	34.21	5.42	31.75	57.10	68.2	-11.10	H
15570	44.66	37.52	7.32	30.96	58.54	68.2	-9.66	H
20760	45.19	39.88	8.85	35.25	58.67	68.2	-9.53	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10380	35.75	35.26	5.42	31.75	44.68	54	-9.32	V
15570	29.26	36.88	7.32	30.96	42.50	54	-11.50	V
20760	27.60	39.14	8.85	35.25	40.34	54	-13.66	V
10380	33.27	34.21	5.42	31.75	41.15	54	-12.85	H
15570	28.64	37.52	7.32	30.96	42.52	54	-11.48	H
20760	28.88	39.88	8.85	35.25	42.36	54	-11.64	H

802.11ac40

Test Mode:5230				Test channel: High				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10460	47.86	35.26	5.42	31.75	56.79	68.2	-11.41	V
15690	44.23	36.88	7.32	30.96	57.47	68.2	-10.73	V
20920	44.95	39.14	8.85	35.25	57.69	68.2	-10.51	V
10460	49.12	34.21	5.42	31.75	57.00	68.2	-11.20	H
15690	44.82	37.52	7.32	30.96	58.70	68.2	-9.50	H
20920	45.34	39.88	8.85	35.25	58.82	68.2	-9.38	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10460	35.82	35.26	5.42	31.75	44.75	54	-9.25	V
15690	29.00	36.88	7.32	30.96	42.24	54	-11.76	V
20920	27.91	39.14	8.85	35.25	40.65	54	-13.35	V
10460	33.15	34.21	5.42	31.75	41.03	54	-12.97	H
15690	28.44	37.52	7.32	30.96	42.32	54	-11.68	H
20920	29.31	39.88	8.85	35.25	42.79	54	-11.21	H

Band 4 – 802.11n(HT40)								
Test Mode:5755				Test channel: Lowest channel				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11,510	37.87	35.29	5.45	31.75	46.86	74	-27.14	V
11,510	38.29	33.95	5.39	31.75	45.88	74	-28.12	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11,510	31.82	35.29	5.45	31.75	40.81	54	-13.19	V
11,510	32.04	33.95	5.39	31.75	39.63	54	-14.37	H
Test Mode: 5795				Test channel: Highest channel				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11,590	37.13	34.22	5.43	31.75	45.03	74	-28.97	V
11,590	30.17	34.22	5.43	31.75	38.07	74	-35.93	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11,590	31.06	34.22	5.43	31.75	38.96	54	-15.04	V
11,590	29.10	34.22	5.43	31.75	37.00	54	-17.00	H
Remark: The emission levels of other frequencies are very lower than the limit and not show in test report.								

Band 4 – 802.11ac(HT40)								
Test Mode:5755				Test channel: Lowest channel				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11,510	37.82	35.29	5.45	31.75	46.81	74	-27.19	V
11,510	38.05	33.95	5.39	31.75	45.64	74	-28.36	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11,510	32.28	35.29	5.45	31.75	41.27	54	-12.73	V
11,510	32.10	33.95	5.39	31.75	39.69	54	-14.31	H
Test Mode: 5795				Test channel: Highest channel				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11,590	36.96	34.22	5.43	31.75	44.86	74	-29.14	V
11,590	30.30	34.22	5.43	31.75	38.20	74	-35.80	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11,590	30.82	34.22	5.43	31.75	38.72	54	-15.28	V
11,590	29.08	34.22	5.43	31.75	36.98	54	-17.02	H
Remark: The emission levels of other frequencies are very lower than the limit and not show in test report.								

Band 1 802.11ac HT80

Test Mode:5210				Test channel: Middle channel				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10420	47.84	34.72	5.38	31.75	56.19	68.2	-12.01	V
10420	49.13	33.95	5.39	31.75	56.72	68.2	-11.48	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
10420	35.52	34.72	5.38	31.75	43.87	54	-10.13	V
10420	32.73	33.95	5.39	31.75	40.32	54	-13.68	H
Remark: The emission levels of other frequencies are very lower than the limit and not show in test report.								

Band 4 802.11ac HT80

Test Mode:5775				Test channel: middle channel				
Peak Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11,550	50.0	35.18	5.39	31.75	58.82	74	-15.18	V
11,550	49.8	35.18	5.39	31.75	58.62	74	-15.38	H
Average Value								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	Pol.
11,550	35.9	35.18	5.39	31.75	44.72	54	-9.28	V
11,550	32.18	35.18	5.39	31.75	41	54	-13	H
Remark: The emission levels of other frequencies are very lower than the limit and not show in test report.								

Note:

1. The testing has been conformed to 10*5825MHz=58250MHz.

2. All other emissions more than 30dB below the limit.

3. Factor = Antenna Factor + Cable Loss – Pre-amplifier.
Emission Level = Reading + Factor
Margin=Emission Level-Limit

4. X-Axis, Y-Axis and Z-Axis were investigated. The results above show only the worst case.

Undesirable emission

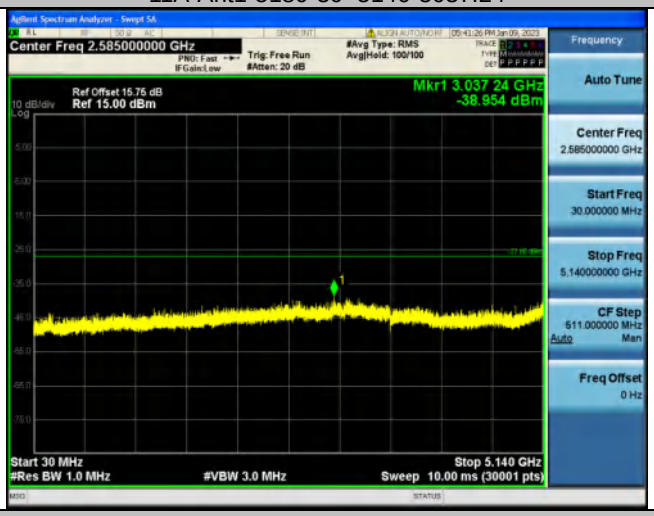
TestMode	Antenna	Frequency[MHz]	FreqRange [MHz]	Max. Fre [MHz]	Max. Level [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	30~5140	3037.24	-38.95	≤-27	PASS
11A	Ant1	5180	5360~40000	25728.29	-28.72	≤-27	PASS
11A	Ant1	5240	30~5140	3162.43	-39.04	≤-27	PASS
11A	Ant1	5240	5360~40000	25780.23	-28.26	≤-27	PASS
11A	Ant1	5745	30~5650	2724.42	-34.6	≤-27	PASS
11A	Ant1	5745	5925~40000	25671.57	-29.44	≤-27	PASS
11A	Ant1	5785	30~5650	3164.65	-33.5	≤-27	PASS
11A	Ant1	5785	5925~40000	25779.06	-30.45	≤-27	PASS
11A	Ant1	5200	30~5140	3292.05	-39.07	≤-27	PASS
11A	Ant1	5200	5360~40000	25769.41	-28.14	≤-27	PASS
11A	Ant1	5825	30~5650	3296.16	-34.27	≤-27	PASS
11A	Ant1	5825	5925~40000	25746.74	-29.98	≤-27	PASS
11N20SISO	Ant1	5180	30~5140	5127.91	-39.33	≤-27	PASS
11N20SISO	Ant1	5180	5360~40000	25752.09	-27.93	≤-27	PASS
11N20SISO	Ant1	5200	30~5140	1922.06	-34.75	≤-27	PASS
11N20SISO	Ant1	5200	5360~40000	25807.64	-28.06	≤-27	PASS
11N20SISO	Ant1	5240	30~5140	3059.04	-38.91	≤-27	PASS
11N20SISO	Ant1	5240	5360~40000	25721.8	-27.54	≤-27	PASS
11N20SISO	Ant1	5745	30~5650	5103.92	-33.99	≤-27	PASS
11N20SISO	Ant1	5745	5925~40000	25722.15	-29.86	≤-27	PASS
11N20SISO	Ant1	5785	30~5650	3063.3	-34.87	≤-27	PASS
11N20SISO	Ant1	5785	5925~40000	25680.71	-30.53	≤-27	PASS
11N20SISO	Ant1	5825	30~5650	3031.83	-33.96	≤-27	PASS
11N20SISO	Ant1	5825	5925~40000	25746.74	-30.52	≤-27	PASS
11N40SISO	Ant1	5190	30~5140	5138.13	-29.57	≤-27	PASS
11N40SISO	Ant1	5190	5360~40000	25796.82	-28.1	≤-27	PASS
11N40SISO	Ant1	5230	30~5140	5138.47	-38.48	≤-27	PASS
11N40SISO	Ant1	5230	5360~40000	25811.96	-27.61	≤-27	PASS
11N40SISO	Ant1	5755	30~5650	3225.16	-34.53	≤-27	PASS
11N40SISO	Ant1	5755	5925~40000	25720.75	-31.27	≤-27	PASS
11N40SISO	Ant1	5795	30~5650	3466.82	-34.2	≤-27	PASS
11N40SISO	Ant1	5795	5925~40000	25697.57	-30.57	≤-27	PASS
11AC20SISO	Ant1	5180	30~5140	3497.99	-35.86	≤-27	PASS
11AC20SISO	Ant1	5180	5360~40000	25757.14	-28.29	≤-27	PASS
11AC20SISO	Ant1	5200	30~5140	3023.95	-39.58	≤-27	PASS
11AC20SISO	Ant1	5200	5360~40000	25658.32	-28.65	≤-27	PASS
11AC20SISO	Ant1	5240	30~5140	3156.47	-38.92	≤-27	PASS

11AC20SISO	Ant1	5240	5360~40000	25754.26	-27.89	≤-27	PASS
11AC20SISO	Ant1	5745	30~5650	3052.06	-34.89	≤-27	PASS
11AC20SISO	Ant1	5745	5925~40000	25785.38	-30.46	≤-27	PASS
11AC20SISO	Ant1	5785	30~5650	2421.5	-32.99	≤-27	PASS
11AC20SISO	Ant1	5785	5925~40000	25746.74	-30.43	≤-27	PASS
11AC20SISO	Ant1	5825	30~5650	3279.48	-33.75	≤-27	PASS
11AC20SISO	Ant1	5825	5925~40000	25759.39	-31.16	≤-27	PASS
11AC40SISO	Ant1	5190	30~5140	2647.68	-35.07	≤-27	PASS
11AC40SISO	Ant1	5190	5360~40000	25780.95	-28.54	≤-27	PASS
11AC40SISO	Ant1	5230	30~5140	2424.38	-31.41	≤-27	PASS
11AC40SISO	Ant1	5230	5360~40000	25746.32	-27.6	≤-27	PASS
11AC40SISO	Ant1	5755	30~5650	3061.05	-34.26	≤-27	PASS
11AC40SISO	Ant1	5755	5925~40000	25656.82	-30.30	≤-27	PASS
11AC40SISO	Ant1	5795	30~5650	3078.85	-33.97	≤-27	PASS
11AC40SISO	Ant1	5795	5925~40000	25748.85	-30.61	≤-27	PASS
11AC80SISO	Ant1	5210	30~5140	5138.81	-35.77	≤-27	PASS
11AC80SISO	Ant1	5210	5360~40000	25652.55	-28.46	≤-27	PASS
11AC80SISO	Ant1	5775	30~5650	3098.33	-34.1	≤-27	PASS
11AC80SISO	Ant1	5775	5925~40000	25744.63	-30.35	≤-27	PASS

Remark: The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. And above 27GHz of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported. The lowest, middle and highest channels are tested to verify the spurious emissions and band edge measurement data.

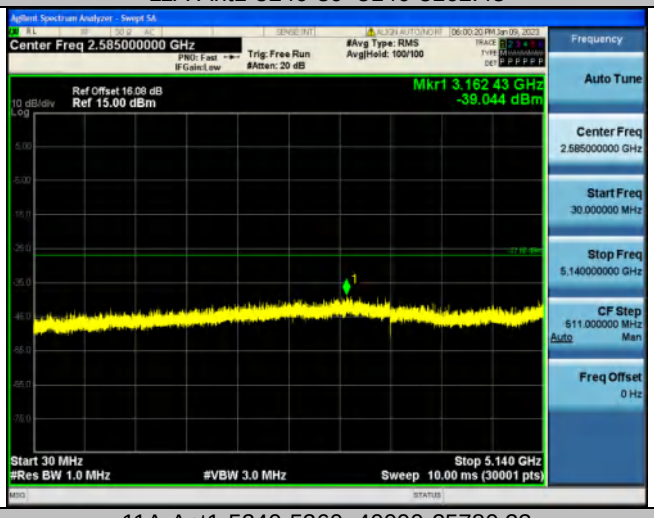
Test Graphs:

11A-Ant1-5180-30~5140-3037.24

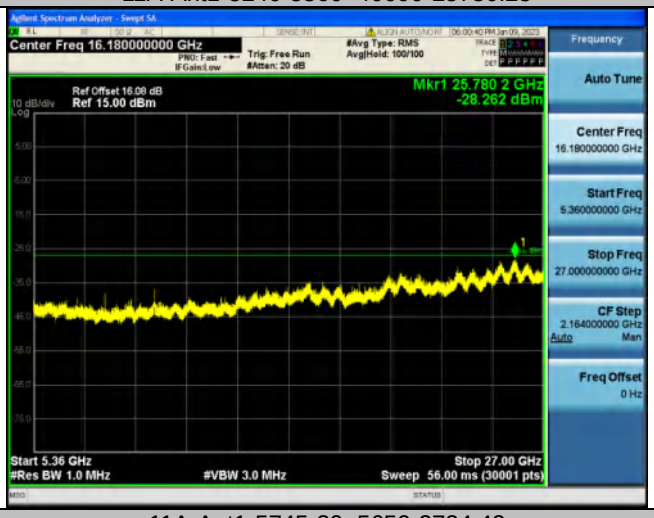


11A-Ant1-5180-5360~40000-25728.29

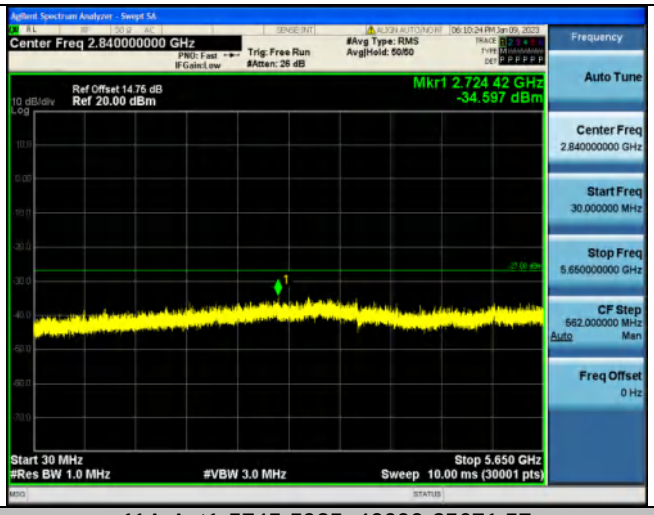
11A-Ant1-5240-30~5140-3162.43



11A-Ant1-5240-5360~40000-25780.23

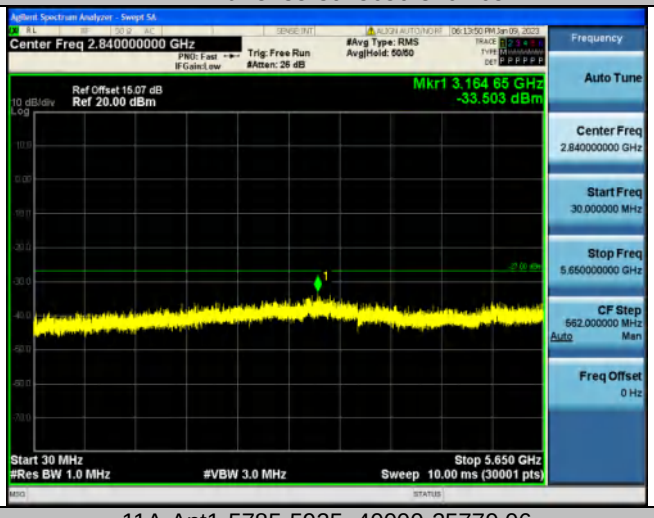


11A-Ant1-5745-30~5650-2724.42



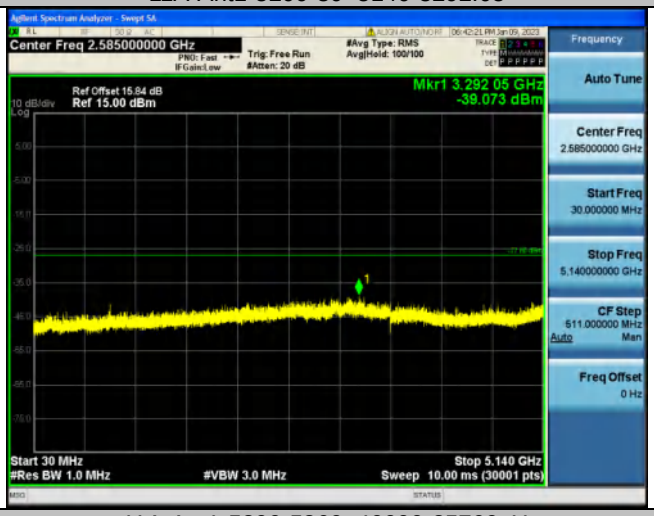
11A-Ant1-5745-5925~40000-25671.57

11A-Ant1-5785-30~5650-3164.65

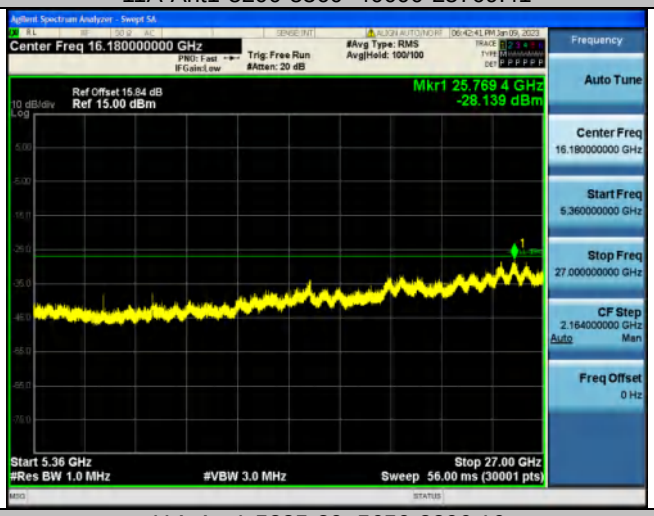


11A-Ant1-5785-5925~40000-25779.06

11A-Ant1-5200-30~5140-3292.05



11A-Ant1-5200-5360~40000-25769.41



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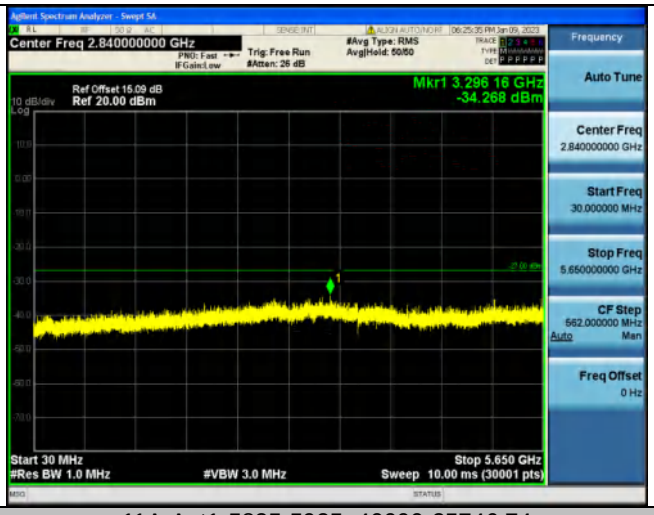

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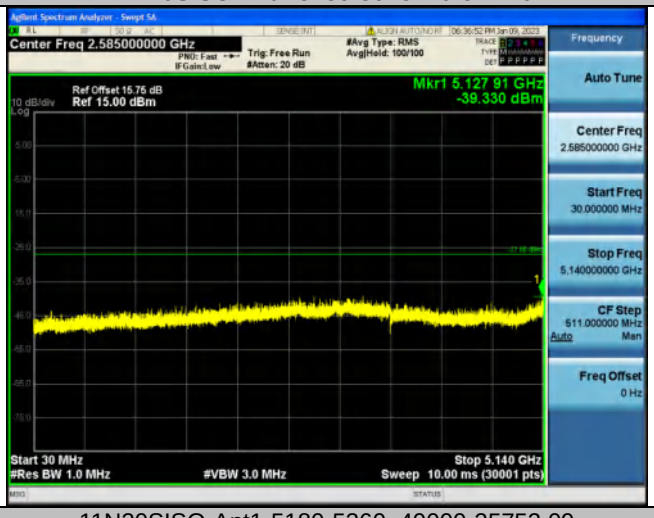
11N20SISO-Ant1-5180-30~5140-5127.91



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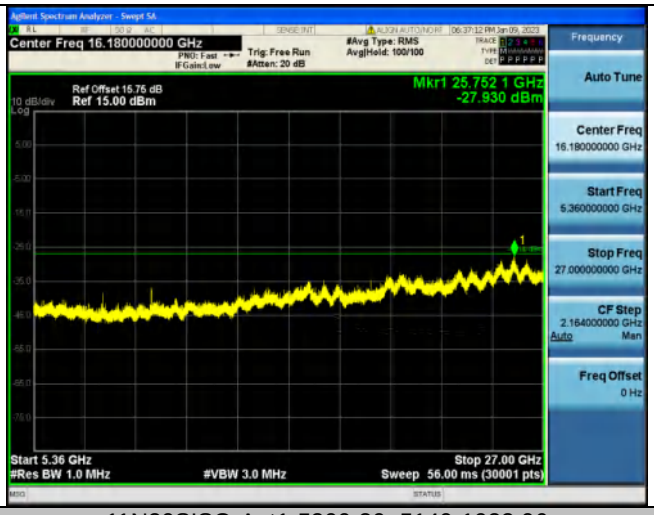

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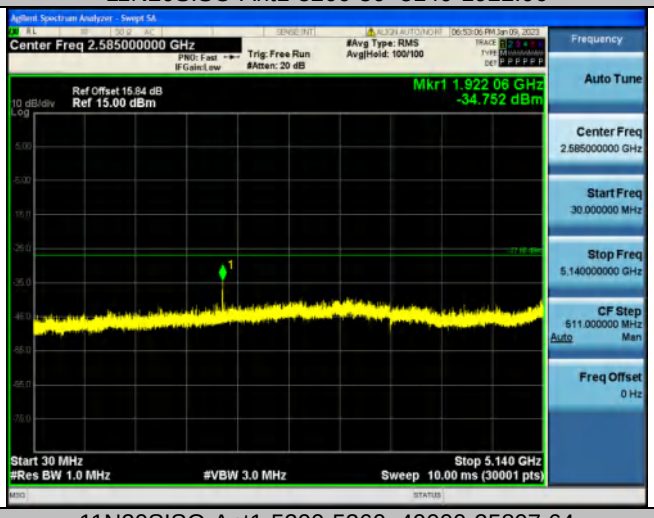

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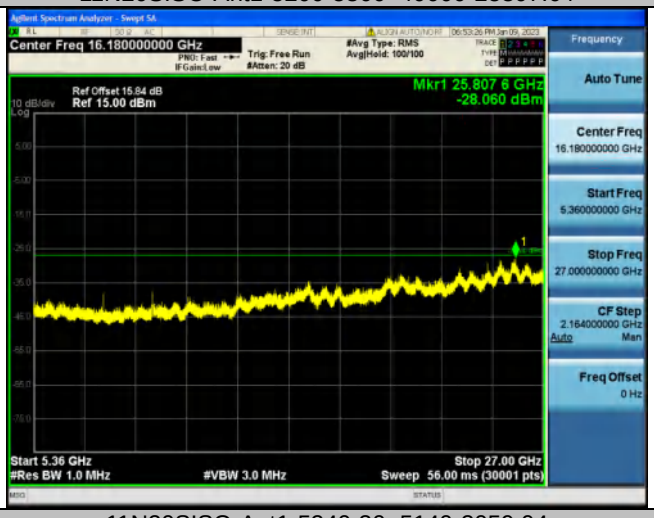

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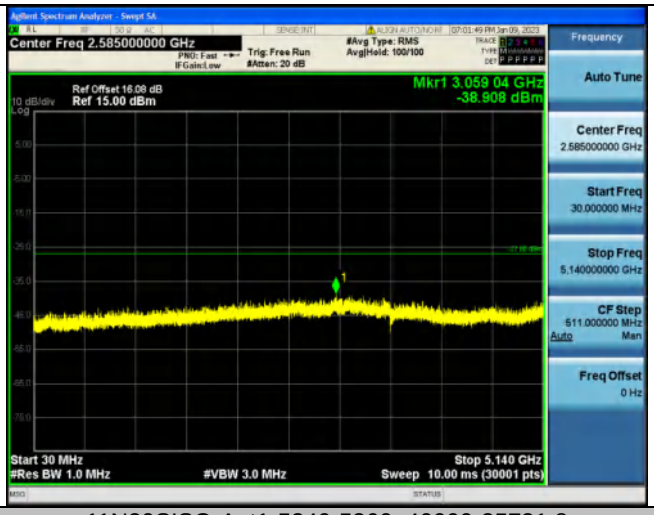

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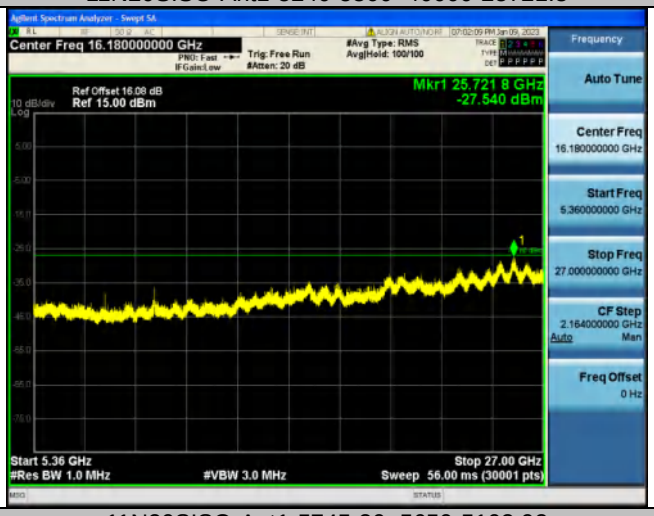

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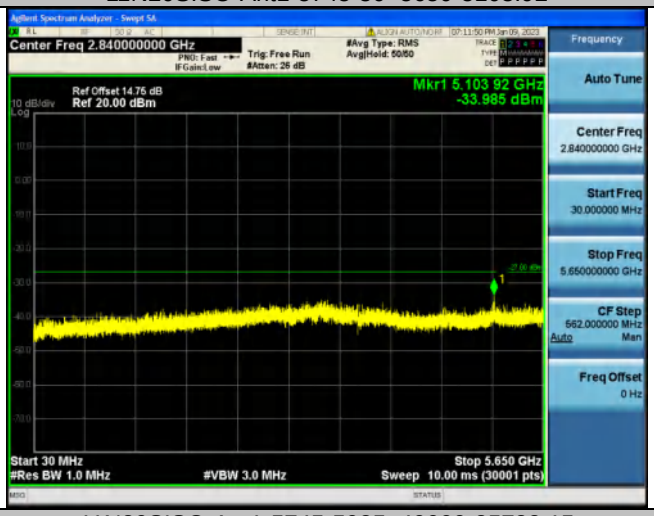

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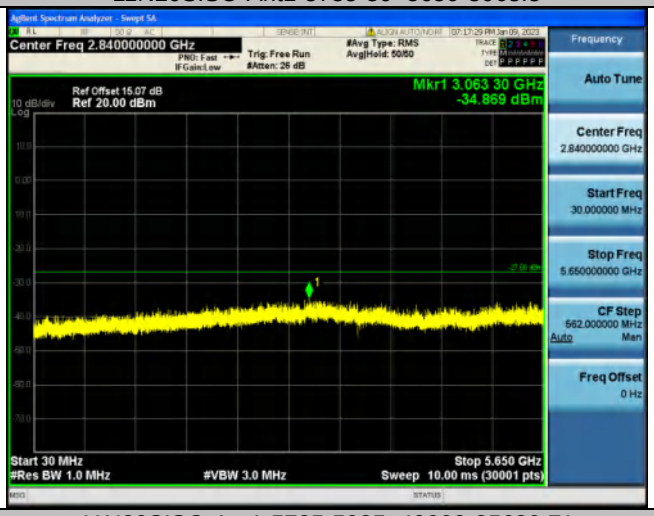

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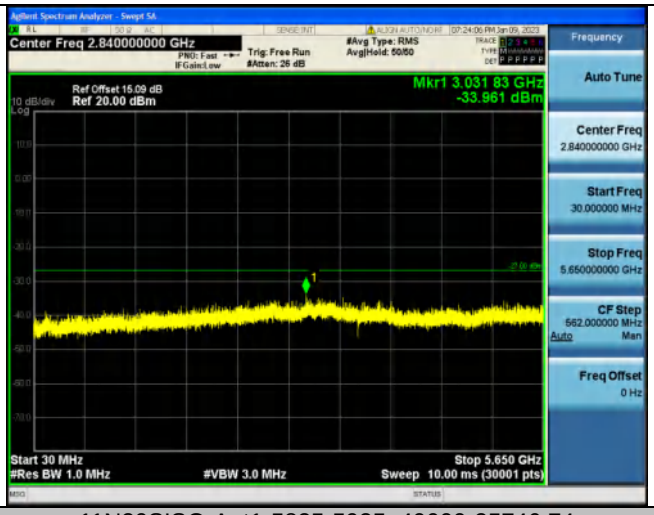

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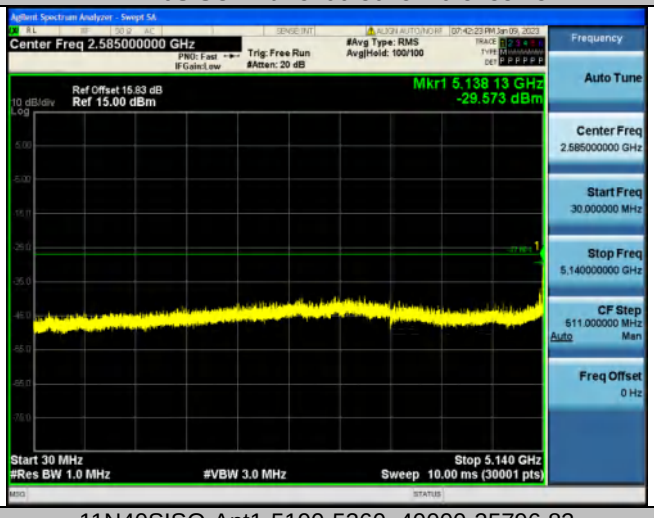
11N40SISO-Ant1-5190-30~5140-5138.13



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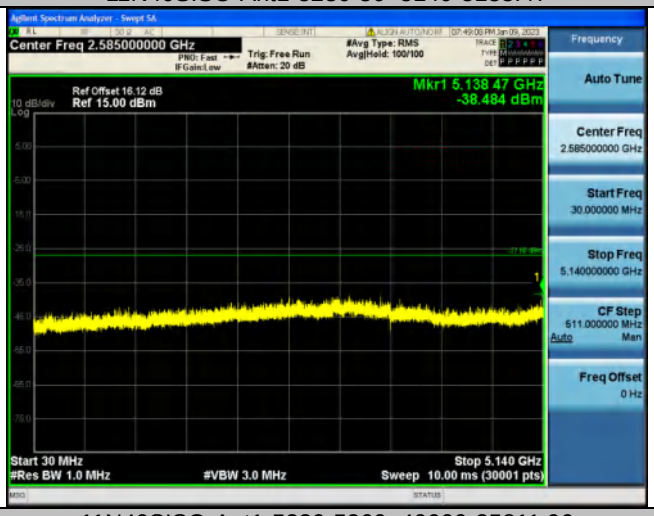
11N40SISO-Ant1-5230-30~5140-5138.47



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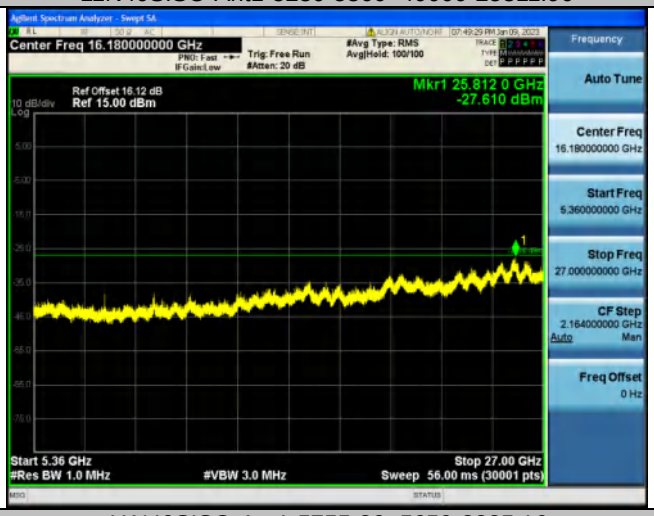
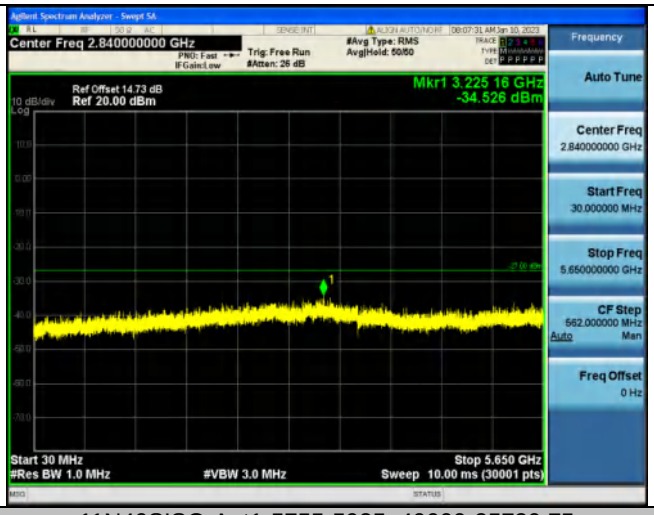


11N40SISO-Ant1-5755-30~5650-3225.16



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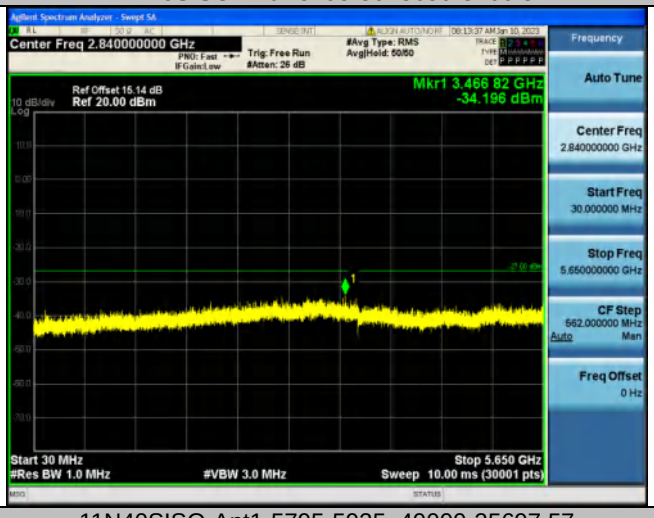
11N40SISO-Ant1-5795-30~5650-3466.82



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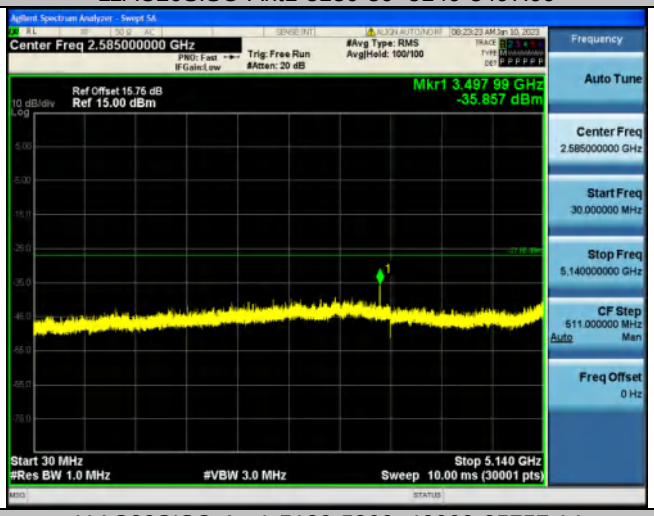
11AC20SISO-Ant1-5180-30~5140-3497.99



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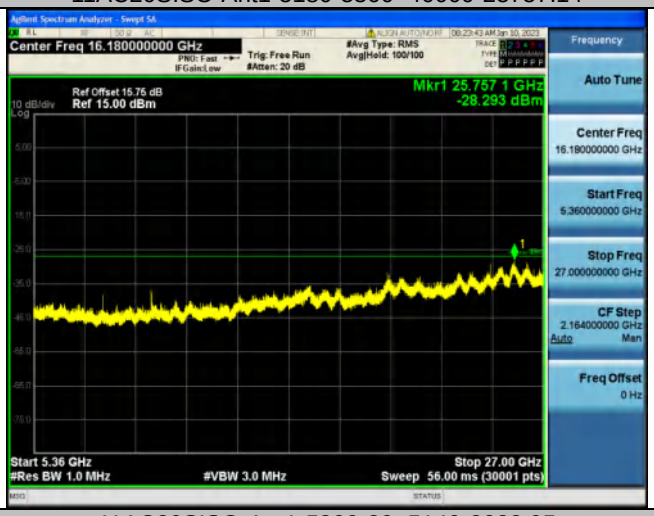
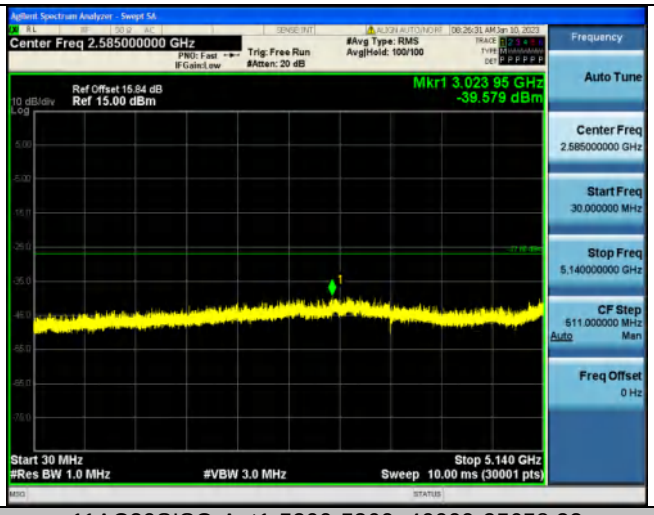


11AC20SISO-Ant1-5200-30~5140-3023.95



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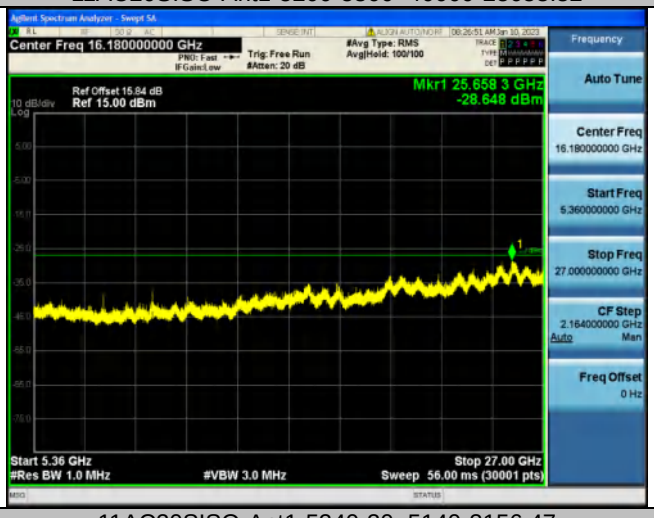

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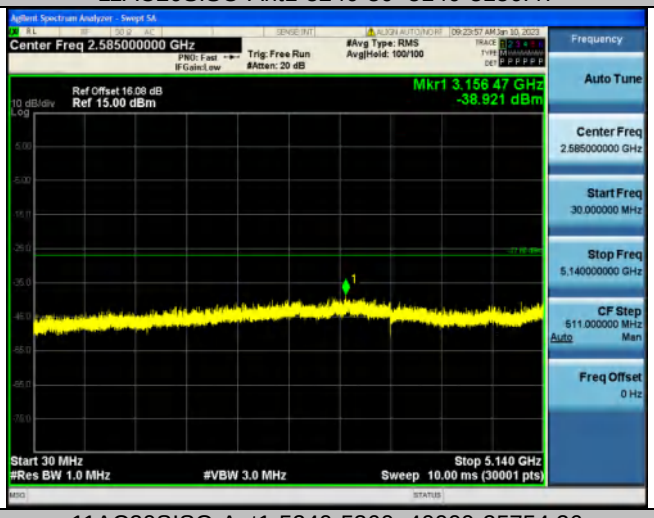

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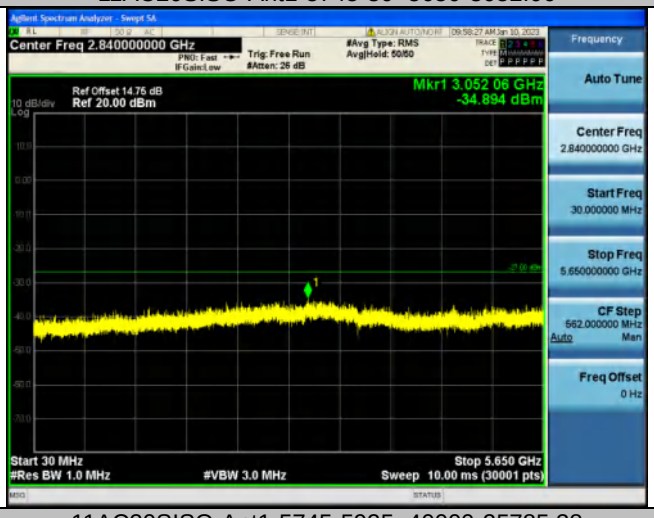
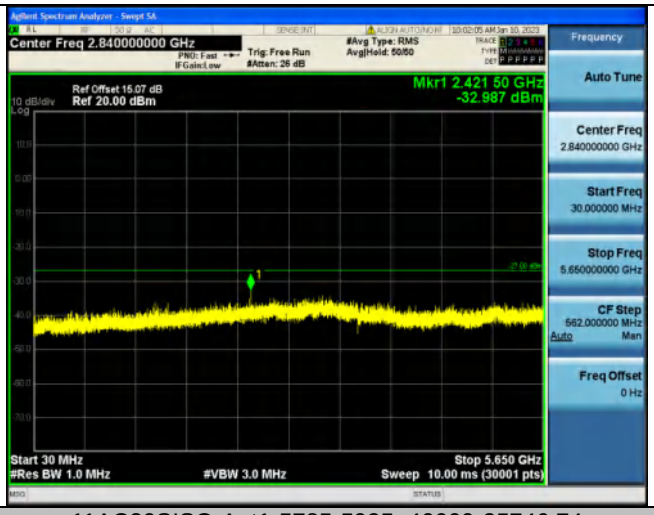
11AC20SISO-Ant1-5745-30~5650-3052.06



11AC20SISO-Ant1-5745-5925~40000-25785.38

11AC20SISO-Ant1-5785-30~5650-2421.5



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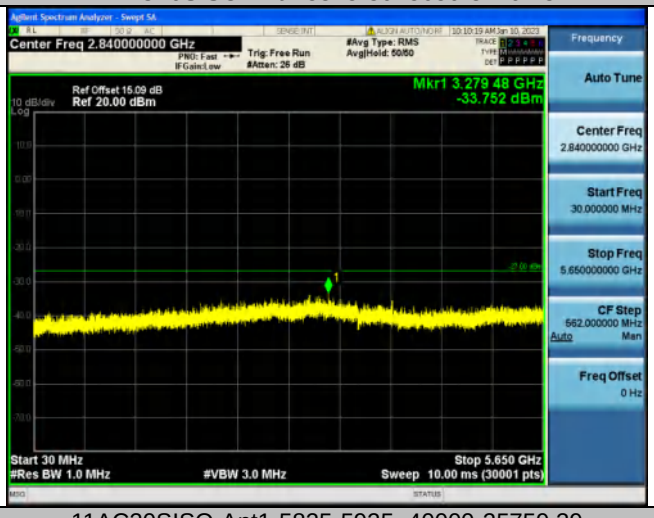
11AC20SISO-Ant1-5825-30~5650-3279.48



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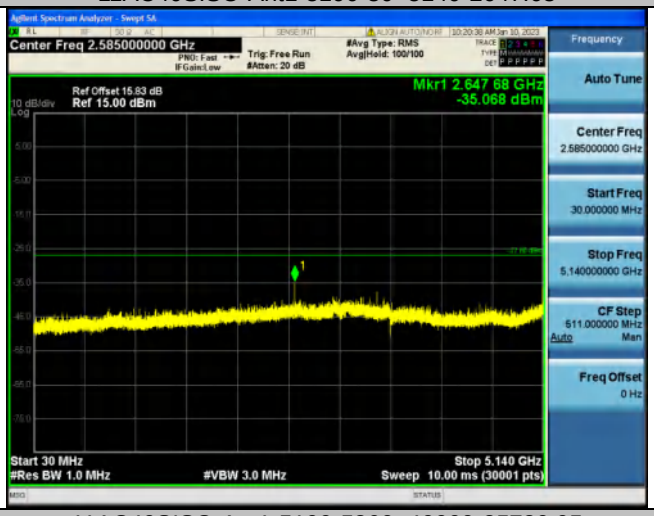
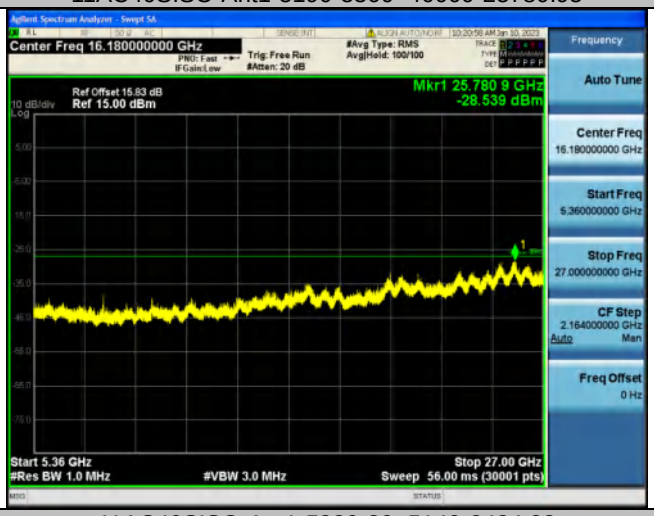
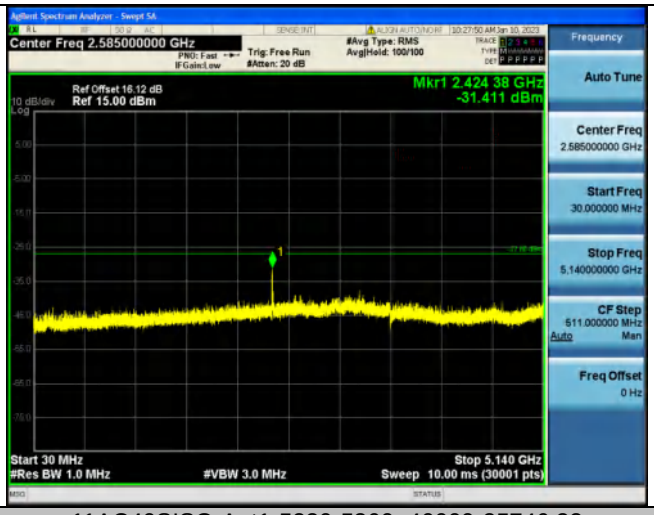
11AC40SISO-Ant1-5190-30~5140-2647.68



11AC40SISO-Ant1-5190-5360~40000-25780.95



11AC40SISO-Ant1-5230-30~5140-2424.38



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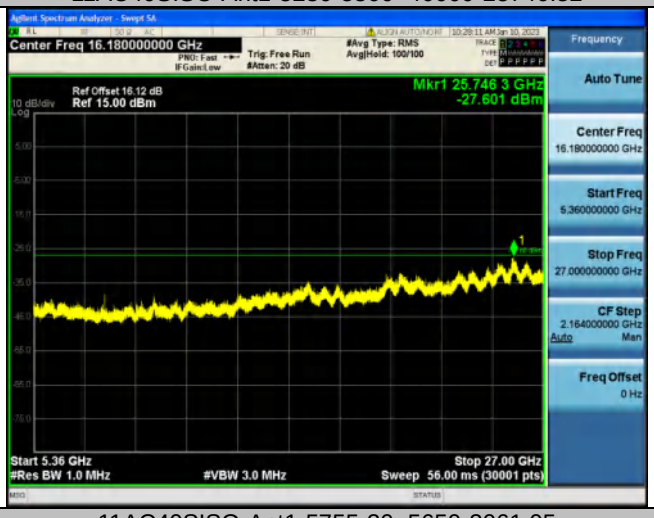
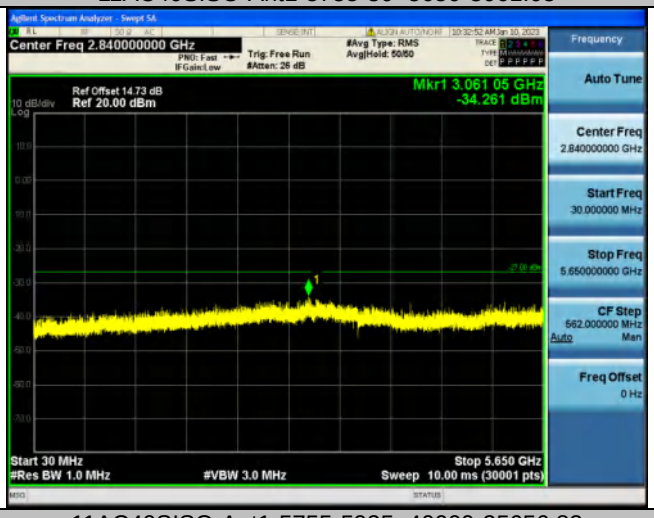
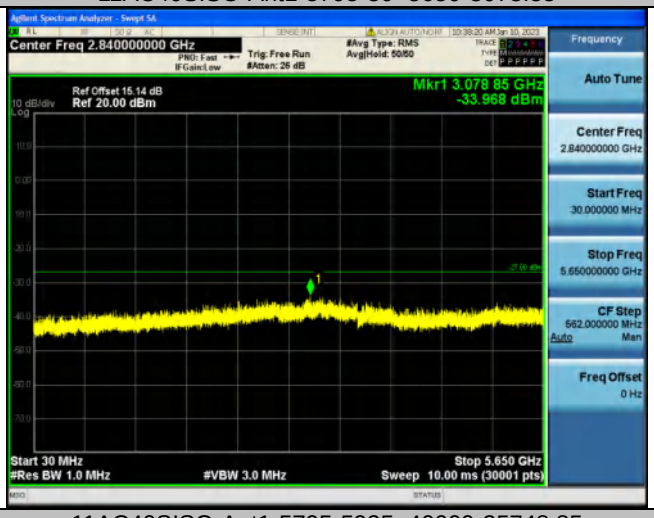


11AC40SISO-Ant1-5755-30~5650-3061.05



11AC40SISO-Ant1-5755-5925~40000-25656.82

11AC40SISO-Ant1-5795-30~5650-3078.85



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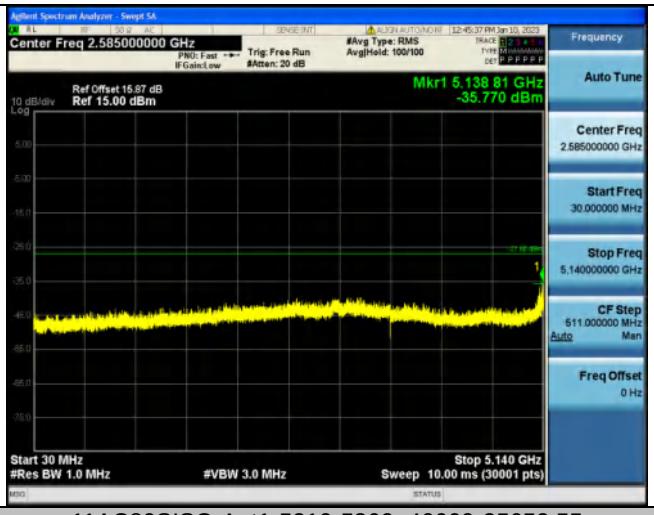
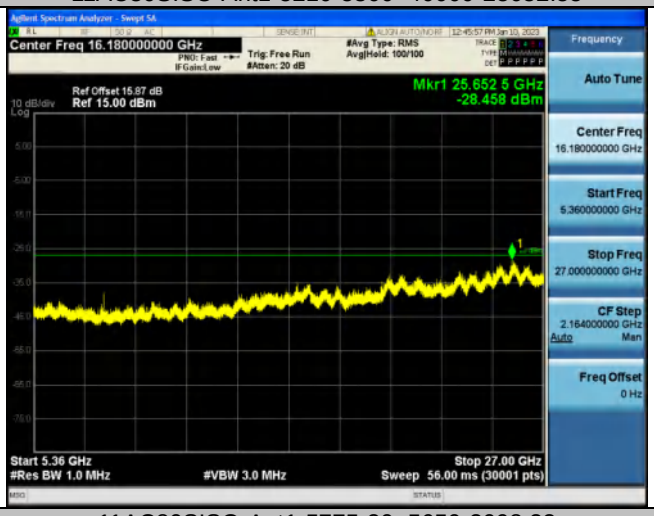
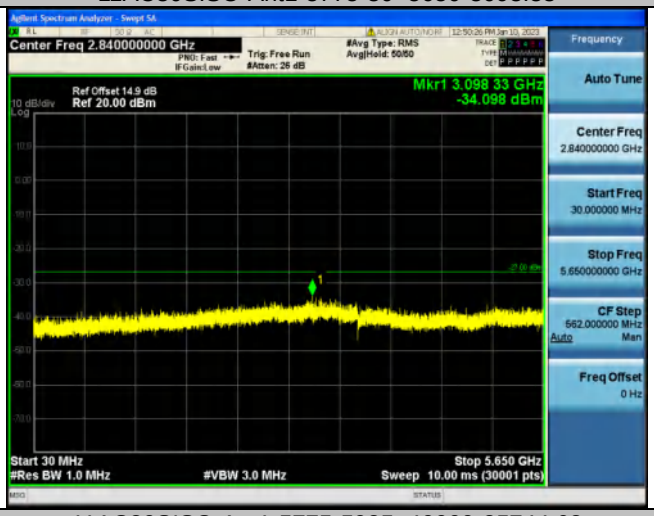
11AC80SISO-Ant1-5210-30~5140-5138.81



11AC80SISO-Ant1-5210-5360~40000-25652.55



11AC80SISO-Ant1-5775-30~5650-3098.33



11AC80SISO-Ant1-5775-5925~40000-25744.63


Agilent Spectrum Analyzer - Swept SA
Start Freq 5.930000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 20 dB
#Avg Type: RMS
Avg|Hold: 50/100
02:29:30 PM Jan 10, 2023
Ref Offset 14.73 dB
10 dB/div
Log
Ref 20.00 dBm
Mkr1 25.736 GHz
-30.349 dBm
Start 5.93 GHz
#Res BW 1.0 MHz
#VBW 3.0 MHz
Stop 27.00 GHz
Sweep 52.73 ms (1001 pts)
Frequency
Auto Tune
Center Freq
16.465000000 GHz
Start Freq
5.930000000 GHz
Stop Freq
27.000000000 GHz
CF Step
2.107000000 GHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

6.6 Band edge measurements

Test Result:

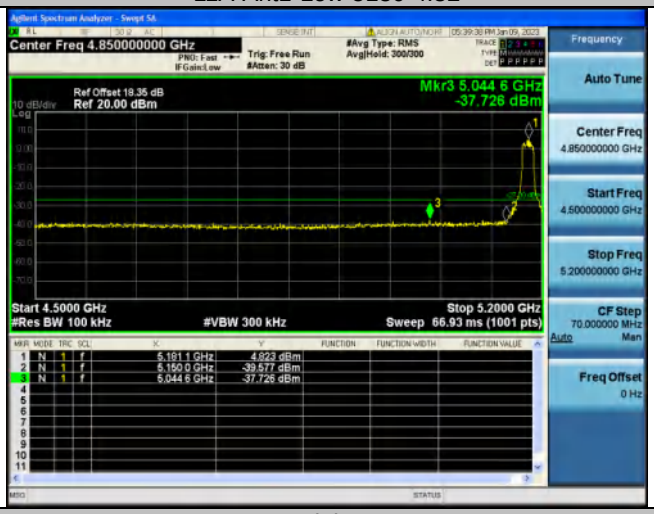
TestMode	Antenna	ChName	Frequency[MHz]	Result[dBm]	Limit[dBm]	Verdict
11A	Ant1	Low	5180	-37.73	≤-27	PASS
11A	Ant1	High	5240	-38.97	≤-27	PASS
11N20SISO	Ant1	Low	5180	-38.53	≤-27	PASS
11N20SISO	Ant1	High	5240	-39.19	≤-27	PASS
11N40SISO	Ant1	Low	5190	-37.03	≤-27	PASS
11N40SISO	Ant1	High	5230	-38.74	≤-27	PASS
11AC20SISO	Ant1	Low	5180	-38.44	≤-27	PASS
11AC20SISO	Ant1	High	5240	-38.95	≤-27	PASS
11AC40SISO	Ant1	Low	5190	-37.86	≤-27	PASS
11AC40SISO	Ant1	High	5230	-39.32	≤-27	PASS
11AC80SISO	Ant1	Low	5210	-37.88	≤-27	PASS
11AC80SISO	Ant1	High	5210	-39.55	≤-27	PASS

TestMode	Antenna	ChName	Frequency[MHz]	FreqRange [MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	Low	5745	5720~5725	-38.44	≤23.42	PASS
11A	Ant1	Low	5745	5700~5720	-39.37	≤10.18	PASS
11A	Ant1	Low	5745	5650~5700	-40.07	≤-2.45	PASS
11A	Ant1	Low	5745	5760~5650	-41.65	≤-27	PASS
11A	Ant1	High	5825	5850~5855	-40.1	≤17.03	PASS
11A	Ant1	High	5825	5855~5875	-39.24	≤13.95	PASS
11A	Ant1	High	5825	5875~5925	-39.49	≤-16.27	PASS
11A	Ant1	High	5825	5925~5935	-40.12	≤-27	PASS
11N20SISO	Ant1	Low	5745	5720~5725	-37.3	≤26.30	PASS
11N20SISO	Ant1	Low	5745	5700~5720	-40.07	≤10.22	PASS
11N20SISO	Ant1	Low	5745	5650~5700	-40.4	≤0.28	PASS
11N20SISO	Ant1	Low	5745	5760~5650	-39.56	≤-27	PASS
11N20SISO	Ant1	High	5825	5850~5855	-39.31	≤17.33	PASS
11N20SISO	Ant1	High	5825	5855~5875	-40.32	≤12.97	PASS
11N20SISO	Ant1	High	5825	5875~5925	-39.28	≤-25.16	PASS
11N20SISO	Ant1	High	5825	5925~5935	-40.09	≤-27	PASS
11N40SISO	Ant1	Low	5755	5720~5725	-36.36	≤16.04	PASS
11N40SISO	Ant1	Low	5755	5700~5720	-36.54	≤15.47	PASS
11N40SISO	Ant1	Low	5755	5650~5700	-40.03	≤7.36	PASS
11N40SISO	Ant1	Low	5755	5780~5650	-41.91	≤-27	PASS
11N40SISO	Ant1	High	5795	5850~5855	-40.38	≤25.06	PASS
11N40SISO	Ant1	High	5795	5855~5875	-40.11	≤10.82	PASS
11N40SISO	Ant1	High	5795	5875~5925	-39.4	≤0.18	PASS
11N40SISO	Ant1	High	5795	5925~5935	-39.72	≤-27	PASS
11AC20SISO	Ant1	Low	5745	5720~5725	-37.11	≤23.42	PASS
11AC20SISO	Ant1	Low	5745	5700~5720	-39.96	≤14.69	PASS
11AC20SISO	Ant1	Low	5745	5650~5700	-40.61	≤-16.06	PASS
11AC20SISO	Ant1	Low	5745	5760~5650	-40.03	≤-27	PASS
11AC20SISO	Ant1	High	5825	5850~5855	-40.48	≤19.49	PASS
11AC20SISO	Ant1	High	5825	5855~5875	-39.36	≤15.01	PASS
11AC20SISO	Ant1	High	5825	5875~5925	-39.7	≤-6.28	PASS
11AC20SISO	Ant1	High	5825	5925~5935	-39.27	≤-27	PASS
11AC40SISO	Ant1	Low	5755	5720~5725	-40.27	≤16.66	PASS
11AC40SISO	Ant1	Low	5755	5700~5720	-40.14	≤14.60	PASS

11AC40SISO	Ant1	Low	5755	5650~5700	-40.79	≤-26.90	PASS
11AC40SISO	Ant1	Low	5755	5780~5650	-41.52	≤-27	PASS
11AC40SISO	Ant1	High	5795	5850~5855	-39.87	≤25.81	PASS
11AC40SISO	Ant1	High	5795	5855~5875	-40.04	≤10.78	PASS
11AC40SISO	Ant1	High	5795	5875~5925	-39.09	≤9.10	PASS
11AC40SISO	Ant1	High	5795	5925~5935	-39.68	≤-27	PASS
11AC80SISO	Ant1	Low	5775	5720~5725	-39.05	≤18.47	PASS
11AC80SISO	Ant1	Low	5775	5700~5720	-38.97	≤12.31	PASS
11AC80SISO	Ant1	Low	5775	5650~5700	-39.83	≤9.33	PASS
11AC80SISO	Ant1	Low	5775	5800~5650	-40.71	≤-27	PASS
11AC80SISO	Ant1	High	5775	5850~5855	-40.25	≤22.96	PASS
11AC80SISO	Ant1	High	5775	5855~5875	-40.15	≤12.46	PASS
11AC80SISO	Ant1	High	5775	5875~5925	-40.01	≤-3.00	PASS
11AC80SISO	Ant1	High	5775	5925~5935	-39.88	≤-27	PASS

Test Graphs:

11A-Ant1-Low-5180-4.82

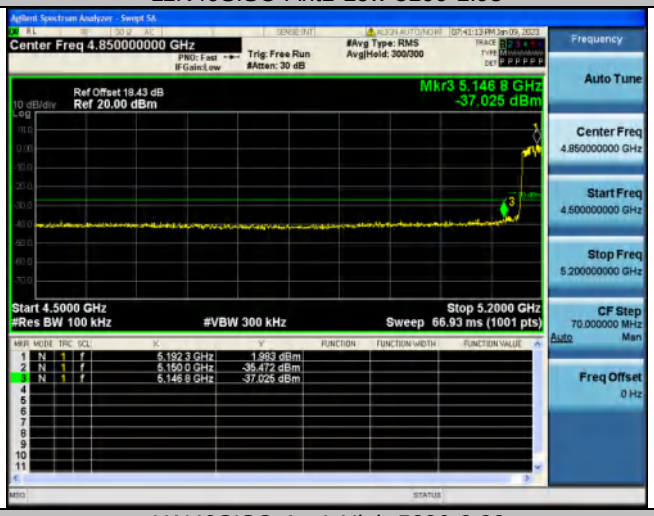


11A-Ant1-High-5240-6.40

11N20SISO-Ant1-Low-5180-5.48

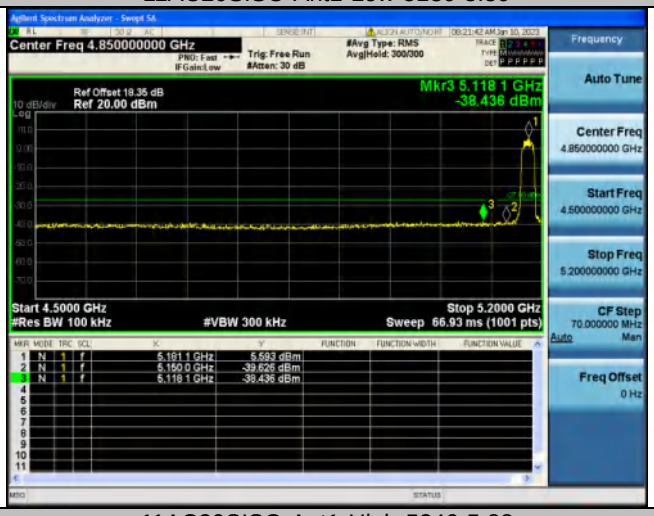
11N20SISO-Ant1-High-5240-5.39

11N40SISO-Ant1-Low-5190-1.98



11N40SISO-Ant1-High-5230-2.32

11AC20SISO-Ant1-Low-5180-5.59



11AC20SISO-Ant1-High-5240-5.88

11AC40SISO-Ant1-Low-5190-1.65

11AC40SISO-Ant1-High-5230-1.73

11AC80SISO-Ant1-Low-5210--1.72

11AC80SISO-Ant1-High-5210--1.67


Agilent Spectrum Analyzer - Swept SA
Center Freq 5.320000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
#Avg Type: RMS
Avg|Hold: 300/300
Ref Offset 18.47 dB
10 dB/div
Ref 20.00 dBm
Mkr3 5.354 16 GHz
-39.551 dBm
Start 5.1800 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 5.4600 GHz
Sweep 26.80 ms (1001 pts)
1 N 1 f 5.207 44 GHz -1.669 dBm
2 N 1 f 5.350 00 GHz -42.527 dBm
3 N 1 f 5.354 16 GHz -39.551 dBm
Frequency
Auto Tune
Center Freq
5.320000000 GHz
Start Freq
5.180000000 GHz
Stop Freq
5.460000000 GHz
CF Step
28.000000 MHz
Auto
Man
Freq Offset
0 Hz

Test plots B4:

11A-Ant1-Low-5745-5720~5725

11A-Ant1-High-5825-5850~5855

11N20SISO-Ant1-Low-5745-5720~5725

11N20SISO-Ant1-High-5825-5850~5855

11N40SISO-Ant1-Low-5755-5720~5725

11N40SISO-Ant1-High-5795-5850~5855

11AC20SISO-Ant1-Low-5745-5720~5725

11AC20SISO-Ant1-High-5825-5850~5855

11AC40SISO-Ant1-Low-5755-5720~5725

11AC40SISO-Ant1-High-5795-5850~5855

11AC80SISO-Ant1-Low-5775-5720~5725

11AC80SISO-Ant1-High-5775-5850~5855

6.7 Restricted Band

Test Requirement : FCC Part15 E Section 15.407(b)

Test site : Measurement Distance: 3m

Test Limit :

Frequency	Limit (dBuV/m @3m)	Remark
Above 1GHz	74	Peak Value
	54	Average Value

Test Procedure:

1. The EUT was placed on a styrofoam table which is 1.5m above ground plane.

2. EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions. The spectrum was investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.

5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

6. Repeat above procedures until the measurements for all frequencies are complete.

7. The radiation measurements are tested under 3-axes(X,Y,Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand), After pre-test, It was found that the worse radiation emission was get at the X position. So the data shown was the X position only.

8. The test above 1GHz must be use the fully anechoic room, and the test below 1GHz use the half anechoic room

Test Result:

Worst case mode:		802.11a(6Mbps)		Test channel:		36		
NO.	Freq. [MHz]	level [dBμV/m]	Factor [dB]	Emission level [dBμV/m]	Limit [dBμV/m]	Over [dB]	Polarity	Detector Type
1	5150	47.9	6.53	54.43	74	-19.57	H	Peak
2	5150	42.3	6.53	48.83	54	-5.17	H	Average
3	5150	49.5	6.53	56.03	74	-17.97	V	Peak
4	5150	40.28	6.53	46.81	54	-7.19	V	Average

Worst case mode:		802.11a(6Mbps)		Test channel:		48		
NO.	Freq. [MHz]	level [dBμV/m]	Factor [dB]	Emission level [dBμV/m]	Limit [dBμV/m]	Over [dB]	Polarity	Detector Type
1	5350	52.94	6.56	59.5	74	-14.5	H	Peak
2	5350	40.13	6.56	46.69	54	-7.31	H	Average
3	5350	51.34	6.56	57.9	74	-16.1	V	Peak
4	5350	41.91	6.56	48.47	54	-5.53	V	Average

Worst case mode:		802.11n(HT20)(6.5 Mbps)		Test channel:		36		
NO.	Freq. [MHz]	level [dBμV/m]	Factor [dB]	Emission level [dBμV/m]	Limit [dBμV/m]	Over [dB]	Polarity	Detector Type
1	5150	47.09	6.53	53.62	74	-20.38	H	Peak
2	5150	41.55	6.53	48.08	54	-5.92	H	Average
3	5150	49.5	6.53	56.03	74	-17.97	V	Peak
4	5150	36.55	6.53	43.08	54	-10.92	V	Average

Worst case mode:		802.11n(HT20)(6.5 Mbps)		Test channel:		48		
NO.	Freq. [MHz]	level [dBμV/m]	Factor [dB]	Emission level [dBμV/m]	Limit [dBμV/m]	Over [dB]	Polarity	Detector Type
1	5350	52.44	6.56	59	74	-15	H	Peak
2	5350	41.57	6.56	48.13	54	-5.87	H	Average
3	5350	51.78	6.56	58.34	74	-15.66	V	Peak
4	5350	40.65	6.56	47.21	54	-6.79	V	Average

Worst case mode:		802.11n(HT40)(13.5Mbps)		Test channel:		38		
NO.	Freq. [MHz]	level [dBμV/m]	Factor [dB]	Emission level [dBμV/m]	Limit [dBμV/m]	Over [dB]	Polarity	Detector Type
1	5150	49.22	6.53	55.75	74	-18.25	H	Peak
2	5150	40.98	6.53	47.51	54	-6.49	H	Average
3	5150	49.5	6.53	56.03	74	-17.97	V	Peak
4	5150	38.14	6.53	44.67	54	-9.33	V	Average

Worst case mode:		802.11n(HT40)(13.5Mbps)		Test channel:		46		
NO.	Freq. [MHz]	level [dBμV/m]	Factor [dB]	Emission level [dBμV/m]	Limit [dBμV/m]	Over [dB]	Polarity	Detector Type
1	5350	50.94	6.56	57.5	74	-16.5	H	Peak
2	5350	40.74	6.56	47.3	54	-6.7	H	Average
3	5350	52.64	6.56	59.2	74	-14.8	V	Peak
4	5350	41.73	6.56	48.29	54	-5.71	V	Average

Worst case mode:		802.11ac(HT20)		Test channel:		36		
NO.	Freq. [MHz]	level [dBμV/m]	Factor [dB]	Emission level [dBμV/m]	Limit [dBμV/m]	Over [dB]	Polarity	Detector Type
1	5150	46.17	6.53	52.7	74	-21.3	H	Peak
2	5150	39.65	6.53	46.18	54	-7.82	H	Average
3	5150	49.5	6.53	56.03	74	-17.97	V	Peak
4	5150	39.87	6.53	46.4	54	-7.6	V	Average

Worst case mode:		802.11ac(HT20)		Test channel:		48		
NO.	Freq. [MHz]	level [dBμV/m]	Factor [dB]	Emission level [dBμV/m]	Limit [dBμV/m]	Over [dB]	Polarity	Detector Type
1	5350	53.5	6.56	60.06	74	-13.94	H	Peak
2	5350	41.96	6.56	48.52	54	-5.48	H	Average
3	5350	52.28	6.56	58.84	74	-15.16	V	Peak
4	5350	41.14	6.56	47.7	54	-6.3	V	Average

Worst case mode:		802.11ac(VHT40)		Test channel:		38		
NO.	Freq. [MHz]	level [dBμV/m]	Factor [dB]	Emission level [dBμV/m]	Limit [dBμV/m]	Over [dB]	Polarity	Detector Type
1	5150	49.09	6.53	55.62	74	-18.38	H	Peak
2	5150	42.22	6.53	48.75	54	-5.25	H	Average
3	5150	49.5	6.53	56.03	74	-17.97	V	Peak
4	5150	38.25	6.53	44.78	54	-9.22	V	Average

Worst case mode:		802.11ac(VHT40)		Test channel:		46		
NO.	Freq. [MHz]	level [dBμV/m]	Factor [dB]	Emission level [dBμV/m]	Limit [dBμV/m]	Over [dB]	Polarity	Detector Type
1	5350	52.15	6.56	58.71	74	-15.29	H	Peak
2	5350	41.44	6.56	48	54	-6	H	Average
3	5350	52.94	6.56	59.5	74	-14.5	V	Peak
4	5350	40.06	6.56	46.62	54	-7.38	V	Average

Worst case mode:		802.11ac(VHT80)		Test channel:		42		
NO.	Freq. [MHz]	level [dBμV/m]	Factor [dB]	Emission level [dBμV/m]	Limit [dBμV/m]	Over [dB]	Polarity	Detector Type
1	5150	49.24	6.53	55.77	74	-18.23	H	Peak
2	5150	42.2	6.53	48.73	54	-5.27	H	Average
3	5150	49.5	6.53	56.03	74	-17.97	V	Peak
4	5150	38.07	6.53	44.6	54	-9.4	V	Average
5	5350	54.33	6.56	60.89	74	-13.11	H	Peak
6	5350	40.23	6.56	46.79	54	-7.21	H	Average
7	5350	52.28	6.56	58.84	74	-15.16	V	Peak
8	5350	41.87	6.56	48.43	54	-5.57	V	Average

7 Emission Bandwidth and Occupied Bandwidth

Test Requirement	:	FCC CFR47 Part 15 Section 15.407(a)(e)
Test Method	:	ANSI C63.10:2013
Test Limit		According to FCC §15.407(a), The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth. As per FCC §15.407(e): for equipment operating in the band 5725 – 5850 MHz, the minimum 6 dB bandwidth of U-NII devices shall be 500 kHz.

7.1 Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01,
Emission Bandwidth (EBW)
a) Set RBW = approximately 1% of the emission bandwidth; b) Set the VBW > RBW; c) Detector = Peak; d) Trace mode = max hold; e) Measure the maximum width of the emission that is 26 dB down from the maximum 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%;99% Occupied Bandwidth
The 99% occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5 % of the total mean power of the given emission. Measurement of the 99% occupied bandwidth is required only as a condition for using the optional band-edge measurement techniques described in II.G.3.d). Measurements of 99% occupied bandwidth may also optionally be used in lieu of the EBW to define the minimum frequency range over which the spectrum is integrated when measuring maximum conducted output power as described in II.E. However, the EBW must be measured to determine bandwidth dependent limits on maximum conducted output power in accordance with 15.407(a).

The following procedure shall be used for measuring (99 %) power bandwidth:
1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW $\geqslant$ 3 • RBW
5. Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise,
peak detection and max hold mode (until the trace stabilizes) shall be used.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency.

The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two frequencies.

7.2 Test Result

PASS

Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations / data rates and antenna ports.
Following channel was selected for the final test as listed below.

26 dB emission bandwidth:

TestMode	Antenna	Frequency[MHz]	26db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	21.080	5169.760	5190.840	---	---
11A	Ant1	5240	19.760	5230.160	5249.920	---	---
11A	Ant1	5745	20.120	5734.840	5754.960	---	---
11A	Ant1	5785	19.560	5775.160	5794.720	---	---
11A	Ant1	5825	19.920	5815.200	5835.120	---	---
11N20SISO	Ant1	5180	20.320	5169.880	5190.200	---	---
11A	Ant1	5200	20.000	5190.000	5210.000	---	---
11N20SISO	Ant1	5200	20.120	5189.960	5210.080	---	---
11N20SISO	Ant1	5240	20.280	5229.960	5250.240	---	---
11N20SISO	Ant1	5745	20.120	5735.000	5755.120	---	---
11N20SISO	Ant1	5785	20.160	5774.960	5795.120	---	---
11N20SISO	Ant1	5825	19.920	5815.040	5834.960	---	---
11N40SISO	Ant1	5190	40.160	5170.160	5210.320	---	---
11N40SISO	Ant1	5230	40.320	5209.840	5250.160	---	---
11N40SISO	Ant1	5755	39.920	5735.000	5774.920	---	---
11N40SISO	Ant1	5795	40.640	5774.520	5815.160	---	---
11AC20SISO	Ant1	5180	20.280	5169.880	5190.160	---	---
11AC20SISO	Ant1	5200	20.280	5189.880	5210.160	---	---
11AC20SISO	Ant1	5240	20.120	5229.960	5250.080	---	---
11AC20SISO	Ant1	5745	20.320	5734.800	5755.120	---	---
11AC20SISO	Ant1	5785	20.040	5774.920	5794.960	---	---
11AC20SISO	Ant1	5825	20.000	5815.080	5835.080	---	---
11AC40SISO	Ant1	5190	40.480	5169.920	5210.400	---	---
11AC40SISO	Ant1	5230	40.080	5209.840	5249.920	---	---
11AC40SISO	Ant1	5755	40.640	5734.760	5775.400	---	---
11AC40SISO	Ant1	5795	40.160	5774.760	5814.920	---	---
11AC80SISO	Ant1	5210	80.960	5169.520	5250.480	---	---
11AC80SISO	Ant1	5775	80.480	5734.680	5815.160	---	---

minimum 6 dB bandwidth:

TestMode	Antenna	Frequency[MHz]	OCB [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5180	17.173	5171.3492	5188.5222	---	---
11A	Ant1	5240	16.883	5231.5327	5248.4157	---	---
11A	Ant1	5745	16.876	5736.5228	5753.3988	---	---
11A	Ant1	5785	16.887	5776.5463	5793.4333	---	---
11A	Ant1	5825	16.885	5816.5815	5833.4665	---	---
11N20SISO	Ant1	5180	17.930	5171.0216	5188.9516	---	---
11A	Ant1	5200	16.818	5191.5952	5208.4132	---	---
11N20SISO	Ant1	5200	17.835	5191.0558	5208.8908	---	---
11N20SISO	Ant1	5240	17.842	5231.0592	5248.9012	---	---
11N20SISO	Ant1	5745	17.951	5735.9905	5753.9415	---	---
11N20SISO	Ant1	5785	17.900	5776.0554	5793.9554	---	---
11N20SISO	Ant1	5825	17.878	5816.0704	5833.9484	---	---
11N40SISO	Ant1	5190	36.419	5171.8575	5208.2765	---	---
11N40SISO	Ant1	5230	36.273	5211.9271	5248.2001	---	---
11N40SISO	Ant1	5755	36.267	5736.7820	5773.0490	---	---
11N40SISO	Ant1	5795	36.324	5776.7645	5813.0885	---	---
11AC20SISO	Ant1	5180	17.865	5171.0285	5188.8935	---	---
11AC20SISO	Ant1	5200	17.785	5191.1198	5208.9048	---	---
11AC20SISO	Ant1	5240	17.808	5231.1024	5248.9104	---	---
11AC20SISO	Ant1	5745	17.881	5736.0402	5753.9212	---	---
11AC20SISO	Ant1	5785	17.833	5776.1000	5793.9330	---	---
11AC20SISO	Ant1	5825	17.883	5816.0671	5833.9501	---	---
11AC40SISO	Ant1	5190	36.355	5171.8058	5208.1608	---	---
11AC40SISO	Ant1	5230	36.164	5211.9448	5248.1088	---	---
11AC40SISO	Ant1	5755	36.139	5736.8603	5772.9993	---	---
11AC40SISO	Ant1	5795	36.218	5776.8137	5813.0317	---	---
11AC80SISO	Ant1	5210	75.272	5172.4163	5247.6883	---	---
11AC80SISO	Ant1	5775	75.066	5737.2150	5812.2810	---	---

Test Graphs：

11A-Ant1-5180

11A-Ant1-5240

11A-Ant1-5745

11A-Ant1-5785

11A-Ant1-5825

11N20SISO-Ant1-5180

11A-Ant1-5200

11N20SISO-Ant1-5200

11N20SISO-Ant1-5240

11N20SISO-Ant1-5745

11N20SISO-Ant1-5785

11N20SISO-Ant1-5825

11N40SISO-Ant1-5190

11N40SISO-Ant1-5230

11N40SISO-Ant1-5755

11N40SISO-Ant1-5795

11AC20SISO-Ant1-5180

11AC20SISO-Ant1-5200

11AC20SISO-Ant1-5240

11AC20SISO-Ant1-5745

11AC20SISO-Ant1-5785

11AC20SISO-Ant1-5825

11AC40SISO-Ant1-5190

11AC40SISO-Ant1-5230

11AC40SISO-Ant1-5755

11AC40SISO-Ant1-5795

11AC80SISO-Ant1-5210

11AC80SISO-Ant1-5775

Min emission bandwidth Test Graphs:

TestMode	Antenna	Frequency[MHz]	6db EBW [MHz]	FL[MHz]	FH[MHz]	Limit[MHz]	Verdict
11A	Ant1	5745	15.480	5737.080	5752.560	0.5	PASS
11A	Ant1	5785	16.040	5777.080	5793.120	0.5	PASS
11A	Ant1	5825	11.360	5819.920	5831.280	0.5	PASS
11N20SISO	Ant1	5745	15.120	5737.440	5752.560	0.5	PASS
11N20SISO	Ant1	5785	13.080	5779.120	5792.200	0.5	PASS
11N20SISO	Ant1	5825	15.360	5817.400	5832.760	0.5	PASS
11N40SISO	Ant1	5755	35.040	5737.480	5772.520	0.5	PASS
11N40SISO	Ant1	5795	35.040	5777.480	5812.520	0.5	PASS
11AC20SISO	Ant1	5745	15.240	5737.520	5752.760	0.5	PASS
11AC20SISO	Ant1	5785	13.840	5778.680	5792.520	0.5	PASS
11AC20SISO	Ant1	5825	15.080	5817.480	5832.560	0.5	PASS
11AC40SISO	Ant1	5755	35.120	5737.400	5772.520	0.5	PASS
11AC40SISO	Ant1	5795	35.040	5777.480	5812.520	0.5	PASS
11AC80SISO	Ant1	5775	75.040	5737.400	5812.440	0.5	PASS

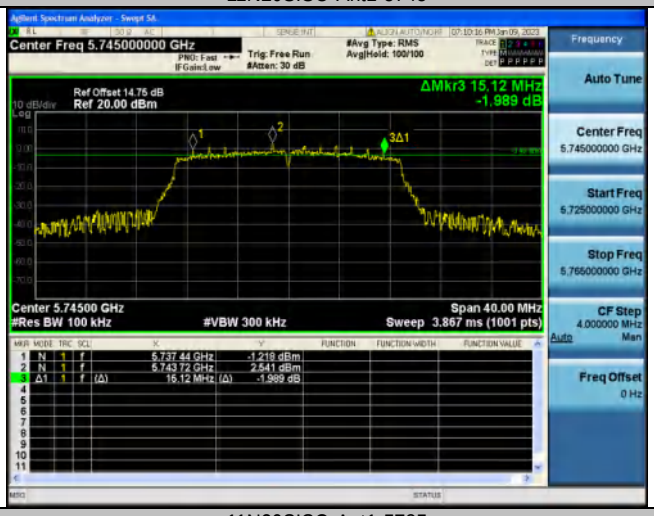
Test Graphs B4:

11A-Ant1-5745

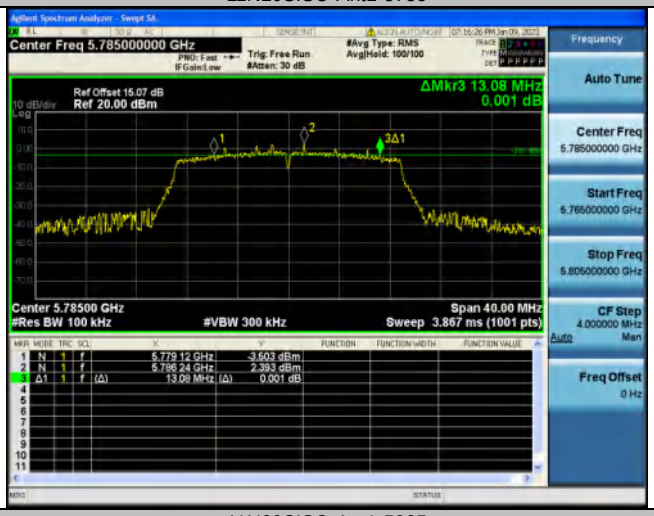
11A-Ant1-5785

11A-Ant1-5825

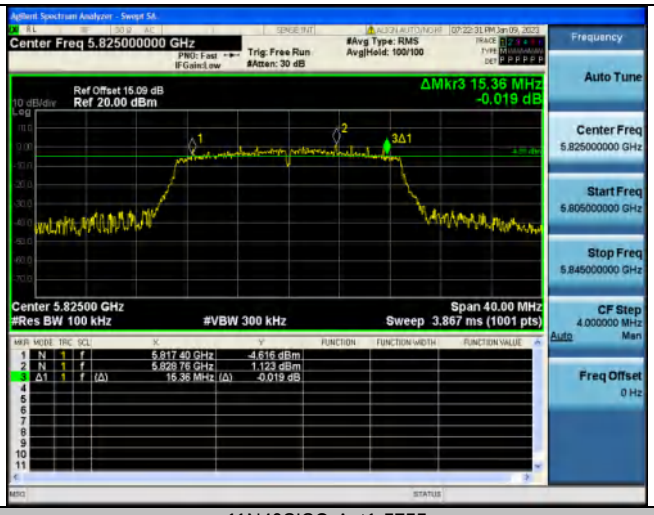
11N20SISO-Ant1-5745



11N20SISO-Ant1-5785



11N20SISO-Ant1-5825



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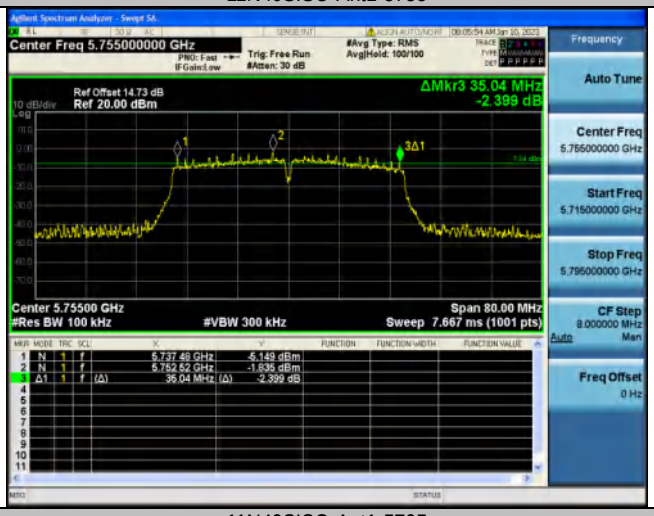
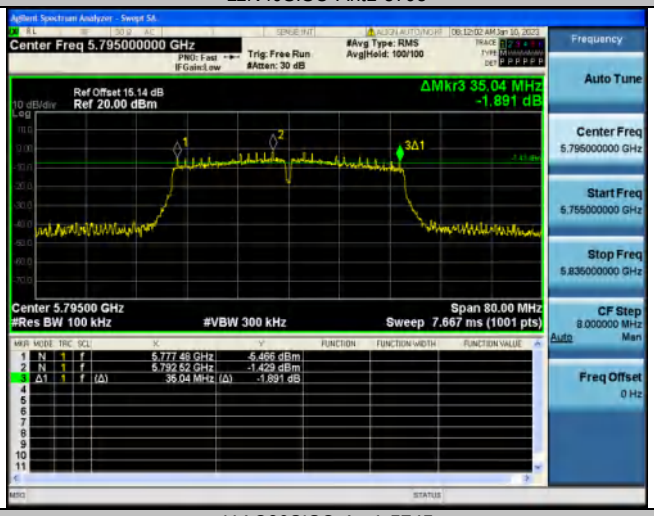
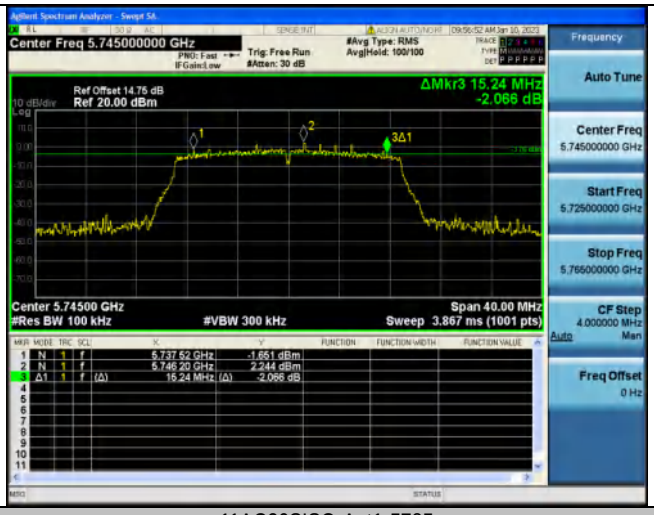


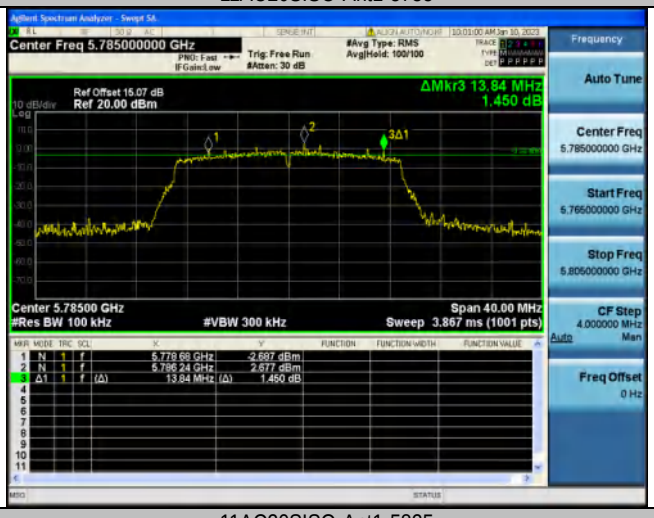
11N40SISO-Ant1-5795



11AC20SISO-Ant1-5745



11AC20SISO-Ant1-5785



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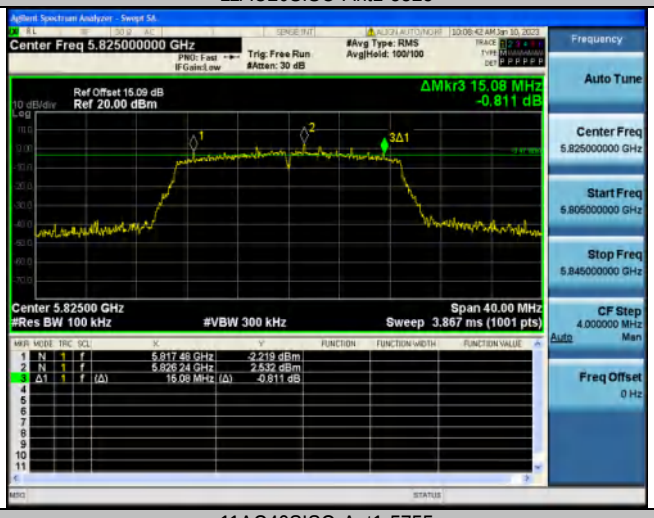

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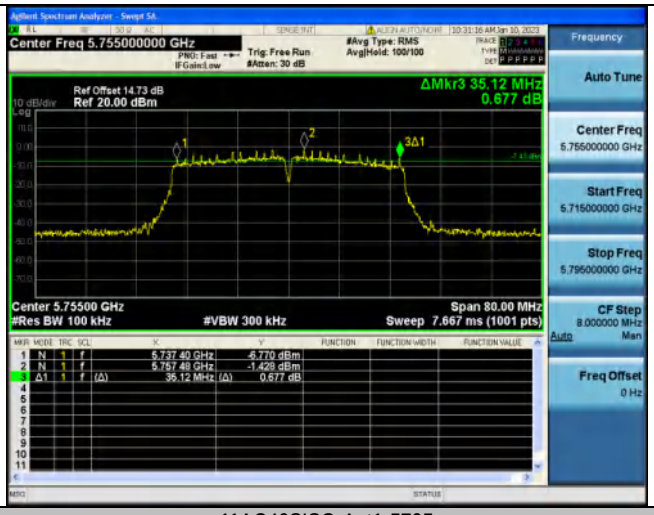
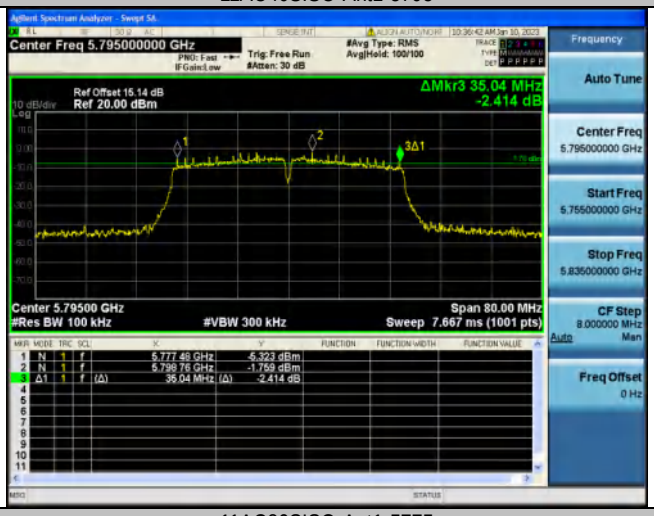


11AC40SISO-Ant1-5795



11AC80SISO-Ant1-5775

8 Maximum average Output Power

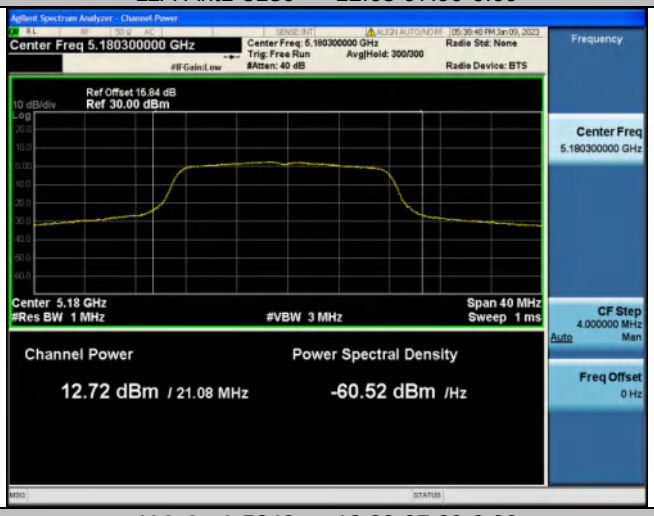
Test Requirement	:	FCC CFR47 Part 15 Section 15.247
Test Method	:	ANSI C63.10:2013
Test Limit	:	For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. 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. For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. 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. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. 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.

8.1 Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, The use spectrum analyzer. Place the EUT on a bench and set it in transmitting mode. 2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to spectrum analyzer.

8.2 Test Result

Test Mode	Antenna	Frequency[MHz]	Result [dBm]	Limit [dBm]	Verdict
11A	Ant1	5180	12.72	≤23.98	PASS
11A	Ant1	5200	13.20	≤23.98	PASS
11A	Ant1	5240	13.98	≤23.98	PASS
11A	Ant1	5745	13.31	≤30.00	PASS
11A	Ant1	5785	12.61	≤30.00	PASS
11A	Ant1	5825	12.65	≤30.00	PASS
11N20SISO	Ant1	5180	13.03	≤23.98	PASS
11N20SISO	Ant1	5200	13.05	≤23.98	PASS
11N20SISO	Ant1	5240	13.26	≤23.98	PASS
11N20SISO	Ant1	5745	13.20	≤30.00	PASS
11N20SISO	Ant1	5785	12.47	≤30.00	PASS
11N20SISO	Ant1	5825	12.43	≤30.00	PASS
11N40SISO	Ant1	5190	12.63	≤23.98	PASS
11N40SISO	Ant1	5230	12.77	≤23.98	PASS
11N40SISO	Ant1	5755	11.23	≤30.00	PASS
11N40SISO	Ant1	5795	11.12	≤30.00	PASS
11AC20SISO	Ant1	5180	12.87	≤23.98	PASS
11AC20SISO	Ant1	5200	13.07	≤23.98	PASS
11AC20SISO	Ant1	5240	13.84	≤23.98	PASS
11AC20SISO	Ant1	5745	12.80	≤30.00	PASS
11AC20SISO	Ant1	5785	12.48	≤30.00	PASS
11AC20SISO	Ant1	5825	12.29	≤30.00	PASS
11AC40SISO	Ant1	5190	12.28	≤23.98	PASS
11AC40SISO	Ant1	5230	12.23	≤23.98	PASS
11AC40SISO	Ant1	5755	11.57	≤30.00	PASS
11AC40SISO	Ant1	5795	11.48	≤30.00	PASS
11AC80SISO	Ant1	5210	11.89	≤23.98	PASS
11AC80SISO	Ant1	5775	11.72	≤30.00	PASS

11A-Ant1-5180-----12.63-97.90-0.09

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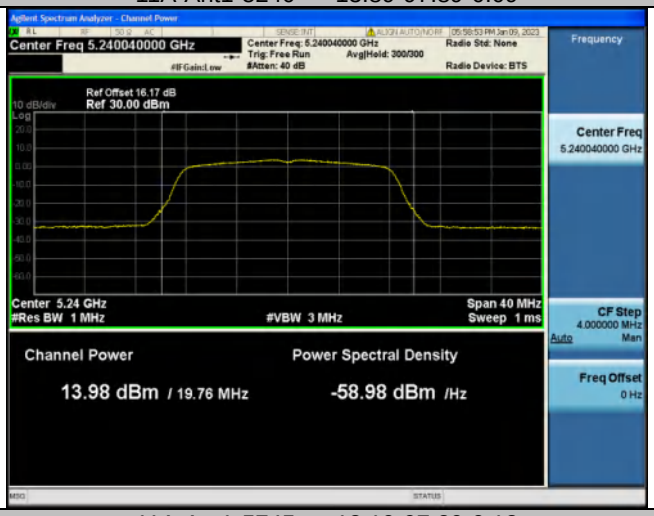
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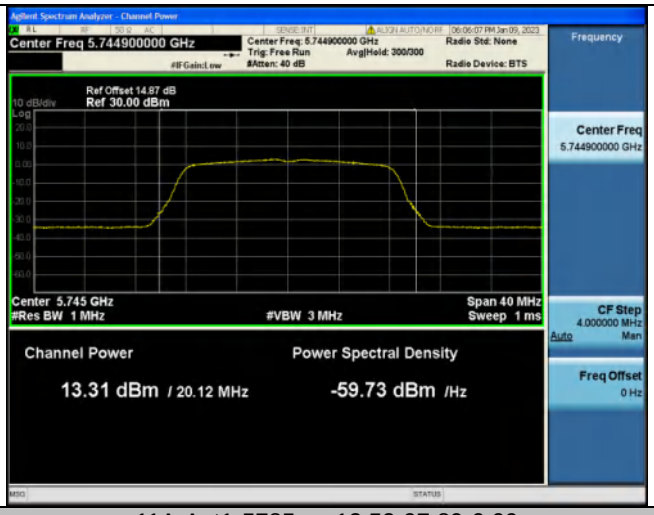

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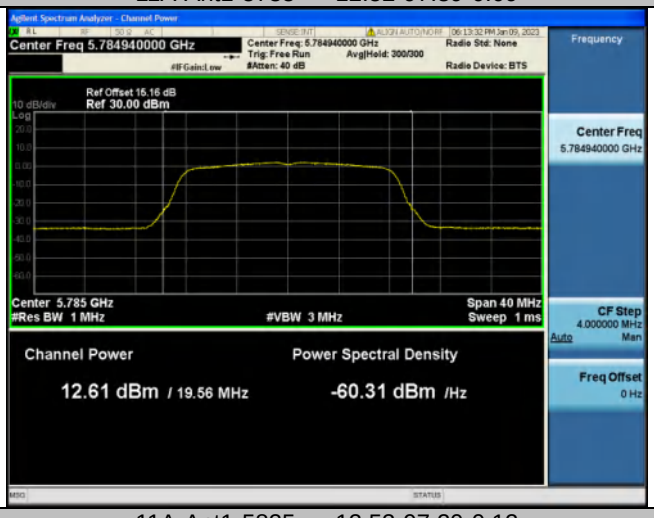

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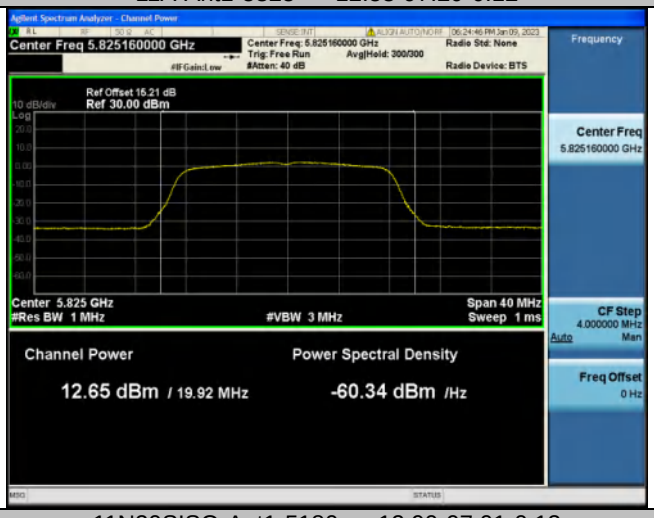

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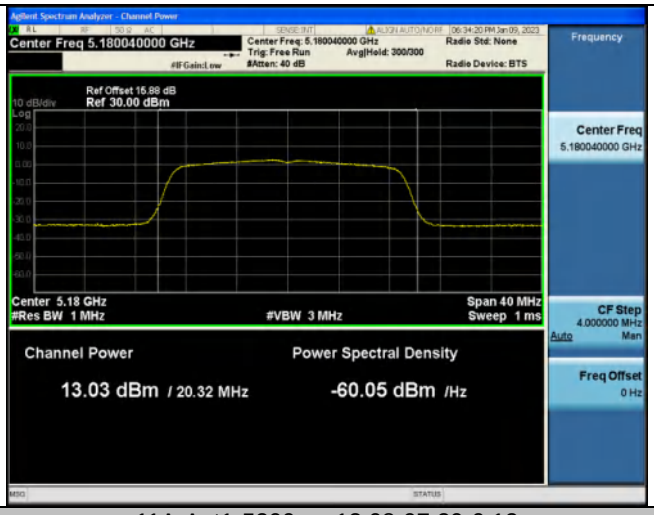

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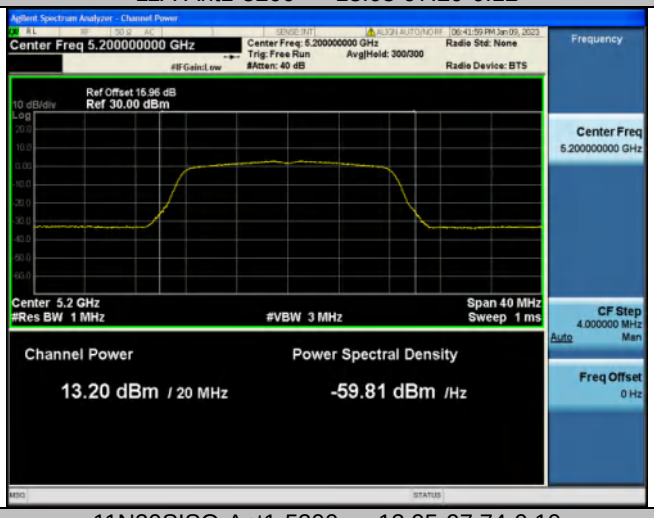

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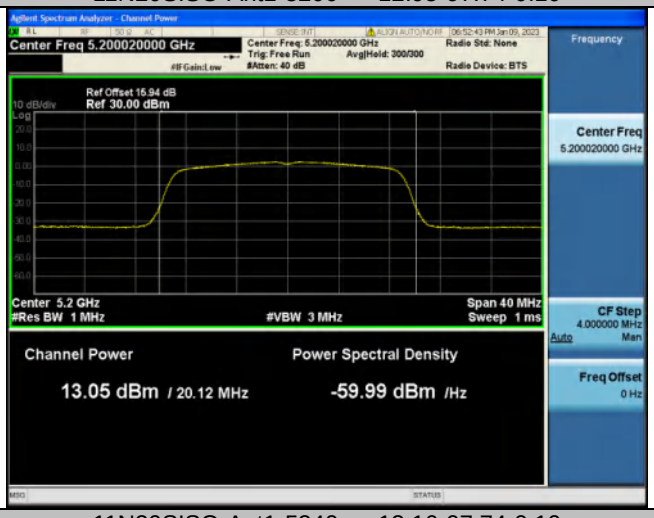

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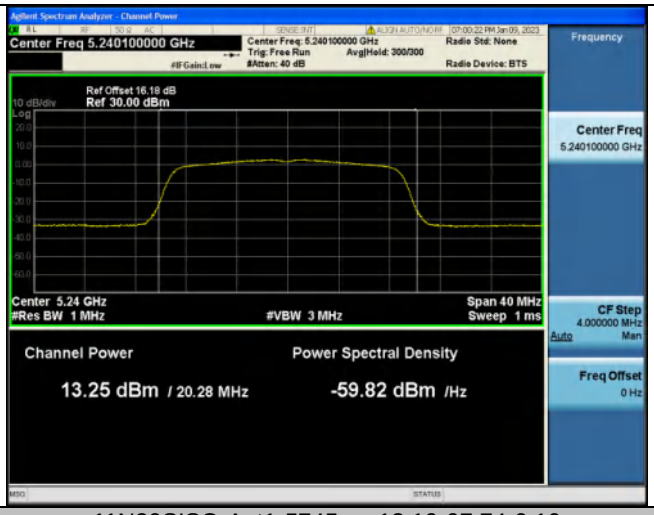

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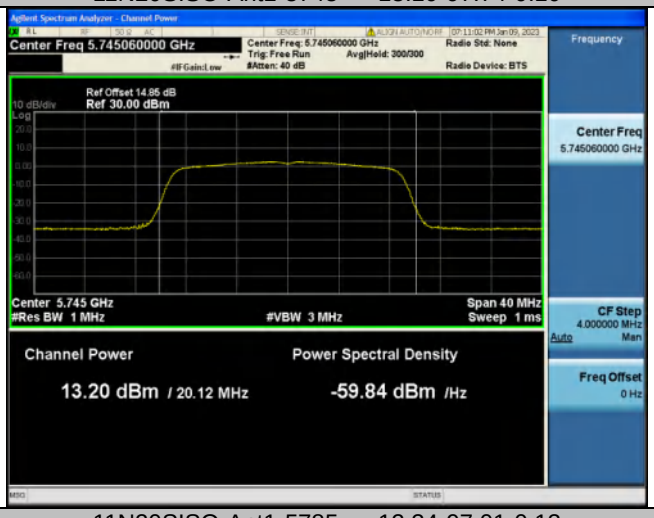

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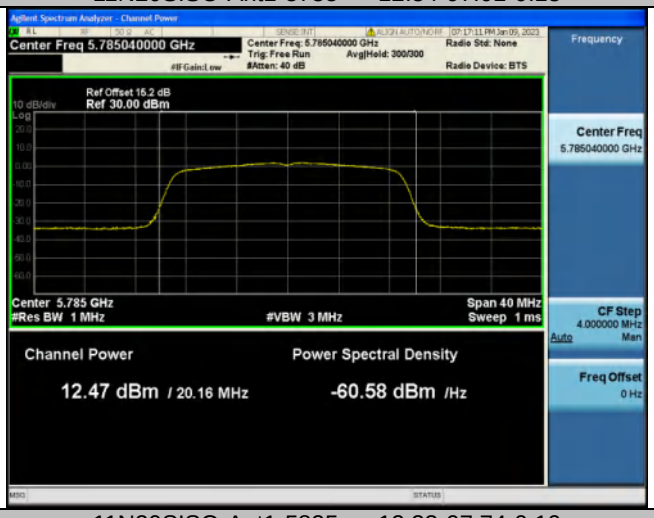

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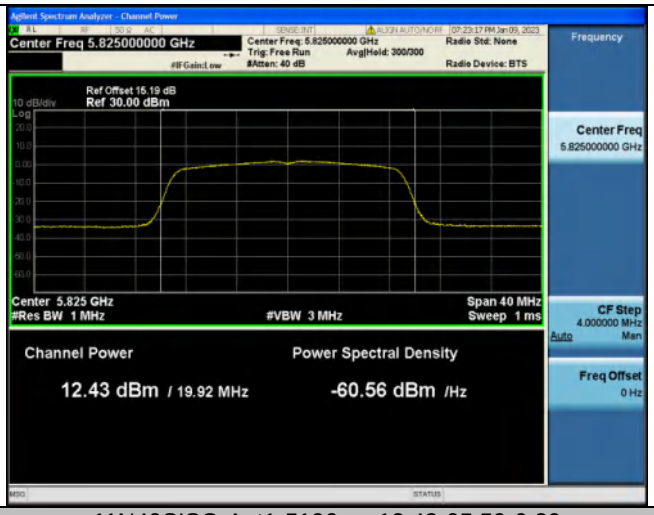

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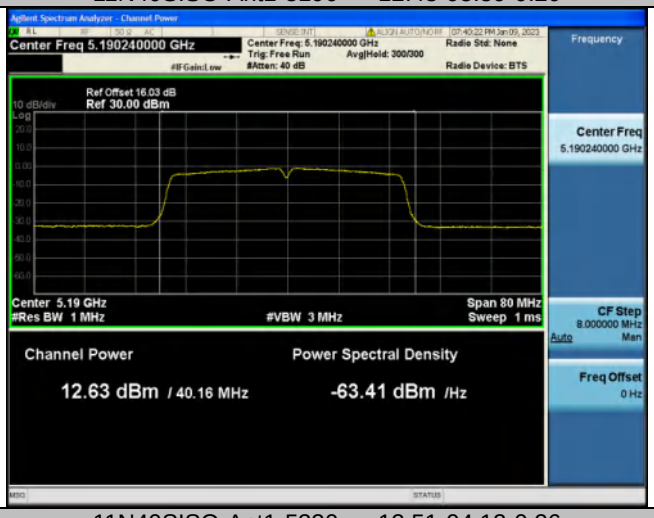

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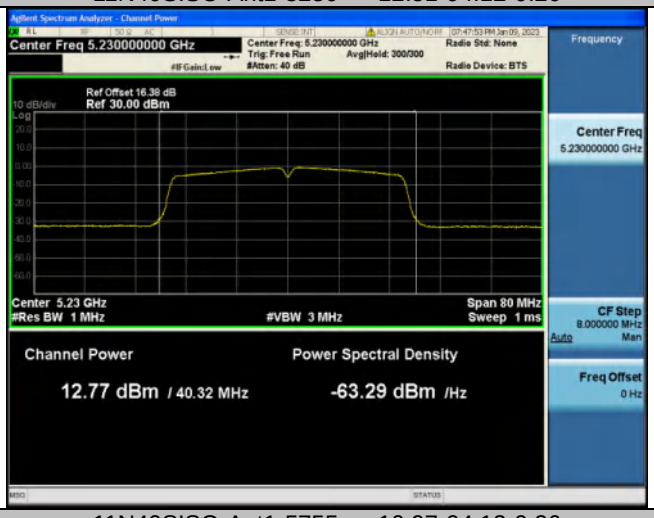

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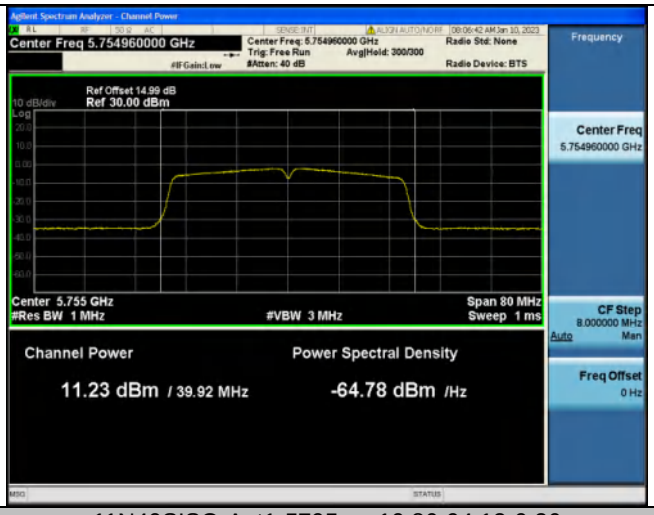

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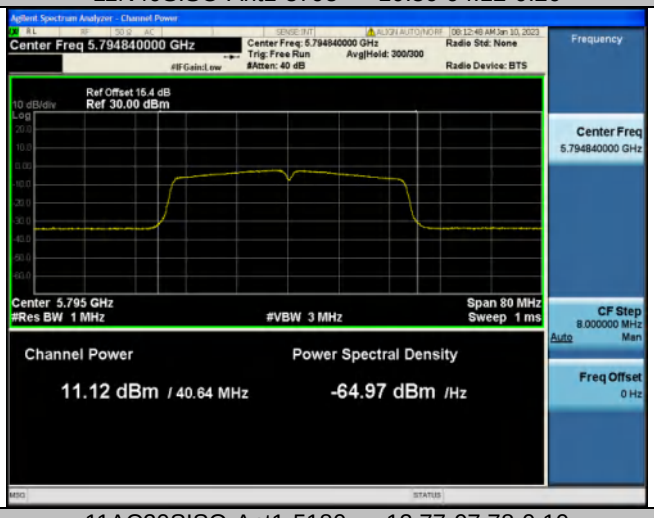

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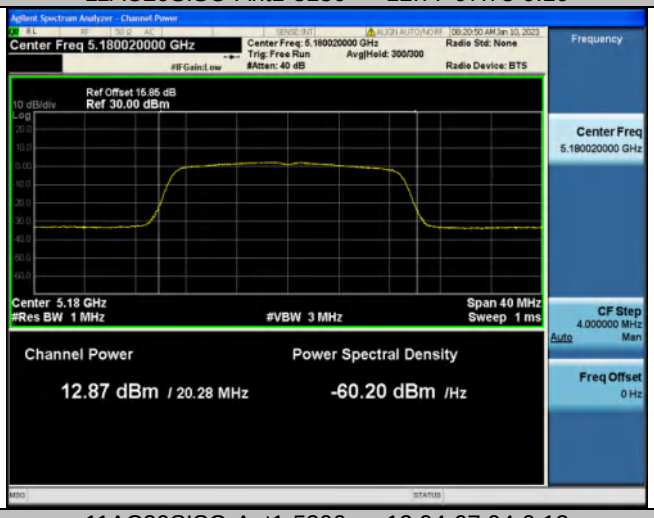

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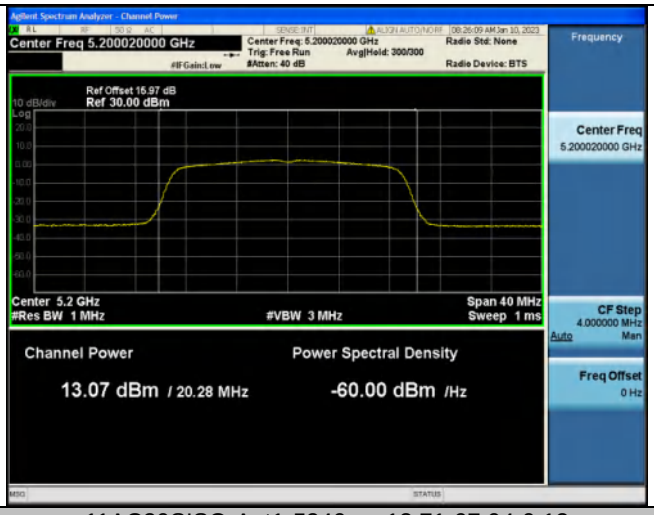

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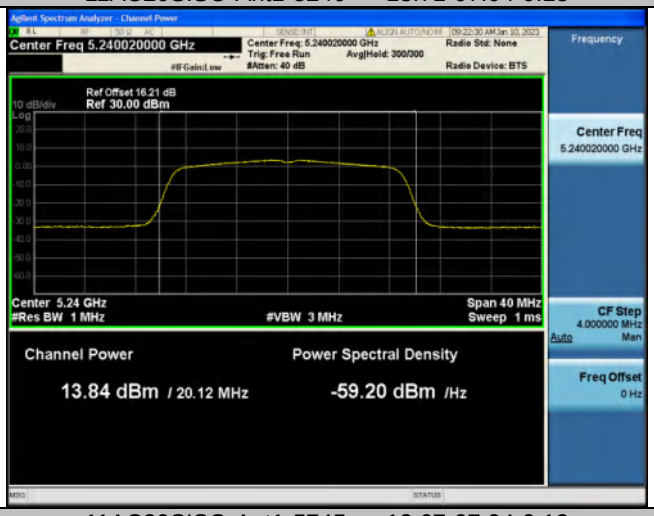

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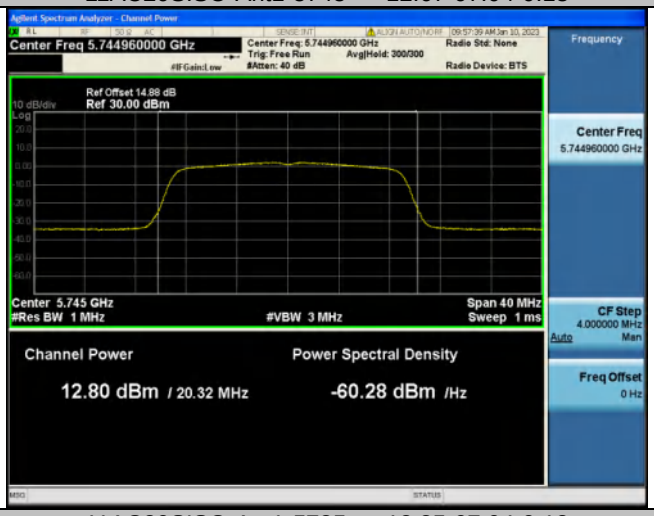

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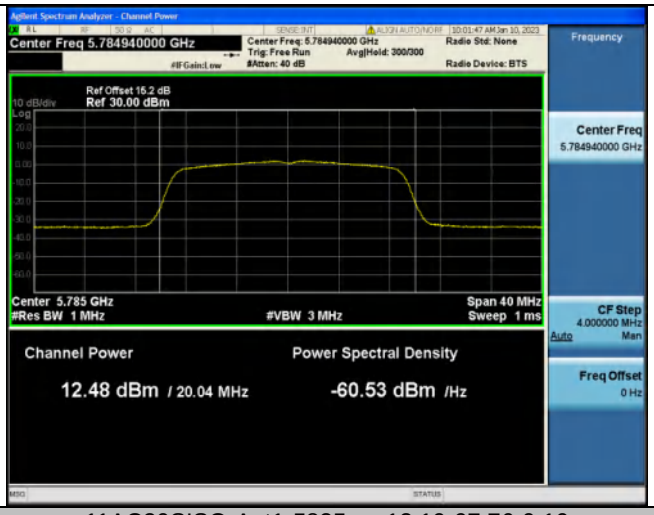

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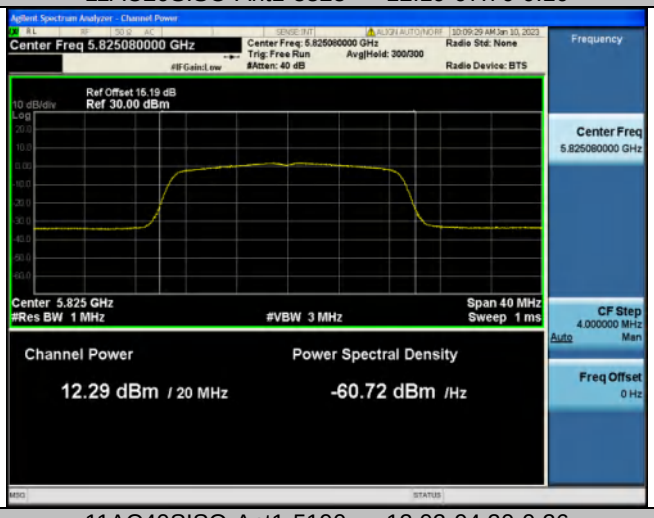

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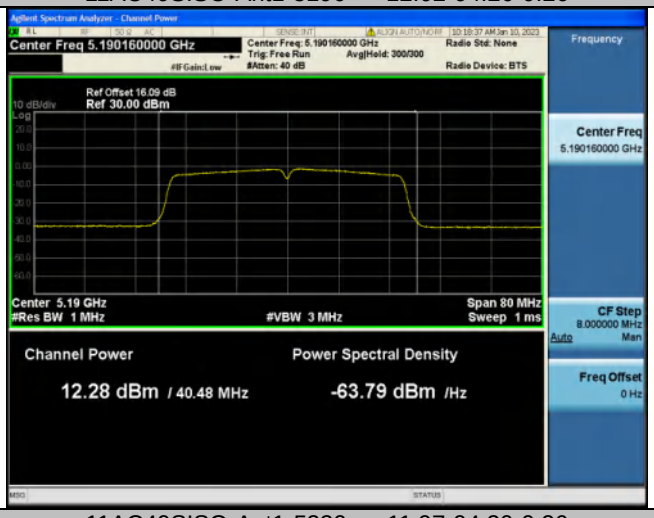

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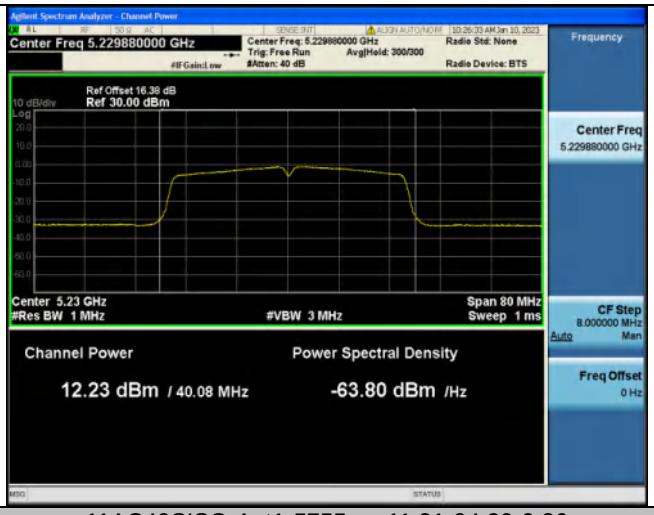

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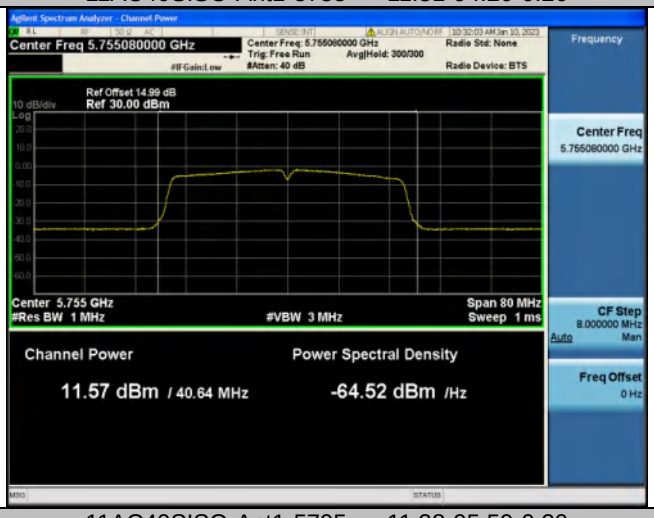
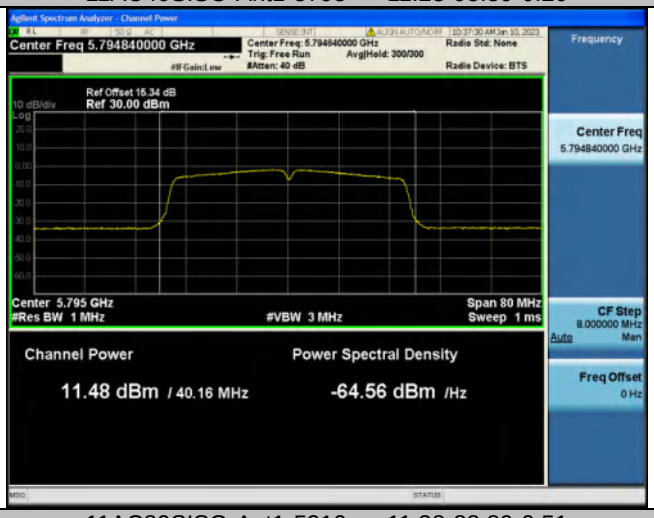
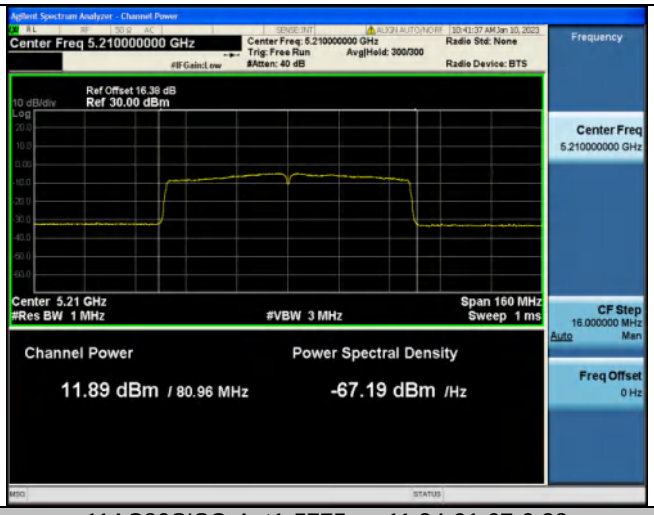


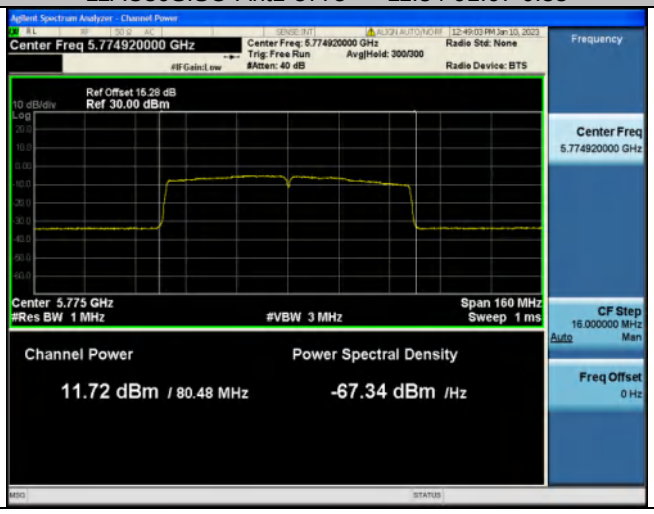
11AC40SISO-Ant1-5795-----11.28-95.59-0.20



11AC80SISO-Ant1-5210-----11.38-88.89-0.51



11AC80SISO-Ant1-5775-----11.34-91.67-0.38



9 Power Spectral density

Test Requirement	:	FCC CFR47 Part 15 Section 15.2407(a)
Test Method	:	ANSI C63.10:2013
Test Limit	:	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. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. 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.. For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHzband. 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. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-tomultipoint 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

9.1 Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 and ANSI 63.10: 2013 Sec 10.3.7.For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in Section 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures apply:

a) Set the RBW to 1 MHz.

b) Set the VBW to be at least 1 MHz (a VBW of 3 MHz is desirable).

c) Set the frequency span to examine the spectrum across a convenient frequency segment (e.g., 600 MHz).

d) Select the power averaging (rms) detector.

e) Set the sweep time so that there is no more than a 1 ms integration period over each measurement bin.

f) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

9.2 Test Result

Pre-scan has been conducted to determine the worst-case mode from all possible combinations between available modulations / data rates and antenna ports.

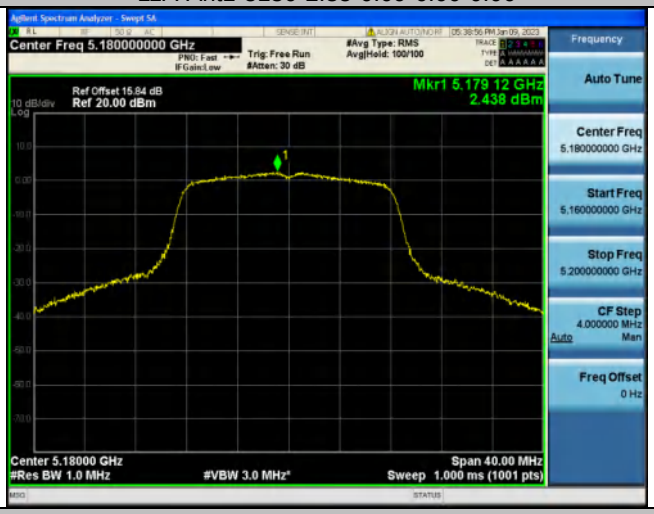
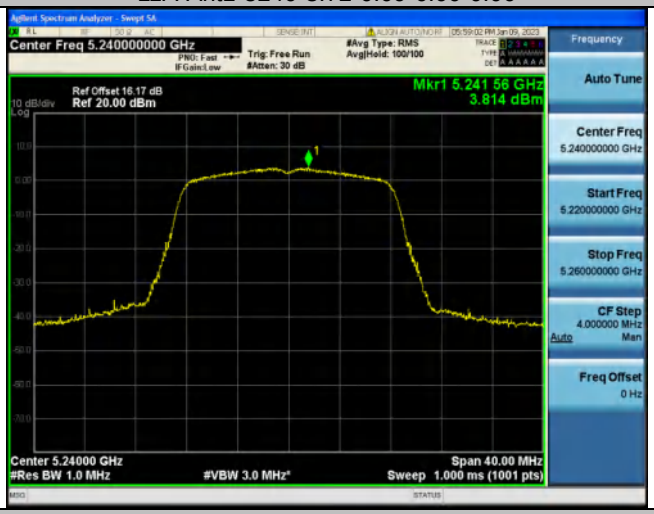
Following channel was selected for the final test as listed below

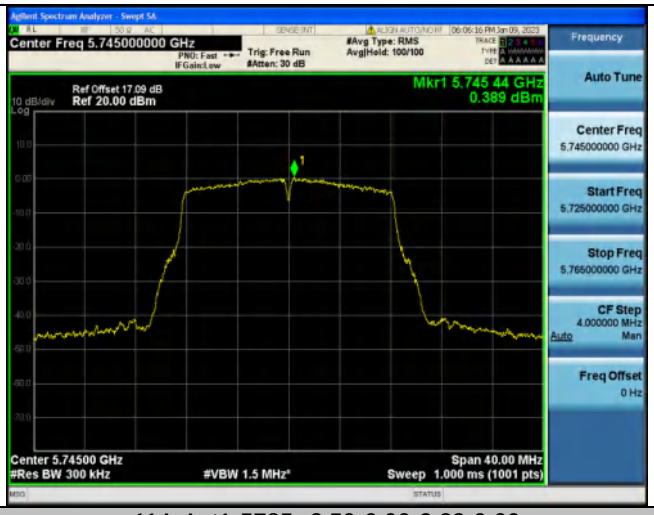
TestMode	Antenna	Frequency[MHz]	Result [dBm/MHz]	Limit[dBm/MHz]	Verdict
11A	Ant1	5180	2.44	≤11.00	PASS
11A	Ant1	5240	3.81	≤11.00	PASS
11A	Ant1	5745	0.39	≤30.00	PASS
11A	Ant1	5785	1.94	≤30.00	PASS
11A	Ant1	5825	2.24	≤30.00	PASS
11A	Ant1	5200	5.24	≤11.00	PASS
11N20SISO	Ant1	5180	2.72	≤11.00	PASS
11N20SISO	Ant1	5200	2.73	≤11.00	PASS
11N20SISO	Ant1	5240	2.83	≤11.00	PASS
11N20SISO	Ant1	5745	2.11	≤30.00	PASS
11N20SISO	Ant1	5785	1.70	≤30.00	PASS
11N20SISO	Ant1	5825	1.76	≤30.00	PASS
11N40SISO	Ant1	5190	-0.57	≤11.00	PASS
11N40SISO	Ant1	5230	-0.36	≤11.00	PASS
11N40SISO	Ant1	5755	-2.17	≤30.00	PASS
11N40SISO	Ant1	5795	-2.83	≤30.00	PASS
11AC20SISO	Ant1	5180	2.36	≤11.00	PASS
11AC20SISO	Ant1	5200	3.04	≤11.00	PASS
11AC20SISO	Ant1	5240	3.37	≤11.00	PASS
11AC20SISO	Ant1	5745	1.85	≤30.00	PASS
11AC20SISO	Ant1	5785	1.70	≤30.00	PASS
11AC20SISO	Ant1	5825	1.51	≤30.00	PASS
11AC40SISO	Ant1	5190	-1.13	≤11.00	PASS
11AC40SISO	Ant1	5230	-1.10	≤11.00	PASS
11AC40SISO	Ant1	5755	-2.33	≤30.00	PASS
11AC40SISO	Ant1	5795	-2.16	≤30.00	PASS
11AC80SISO	Ant1	5210	-4.62	≤11.00	PASS
11AC80SISO	Ant1	5775	-5.85	≤30.00	PASS

Note：1.The Result and Limit Unit is dBm/500 kHz in the band 5.725–5.85 GHz.

2. in the band 5.725–5.85 GHz the test RBW select 300KHz,so the measured result corrected by Result+10 log (500 kHz/300kHz).

Test Graphs:

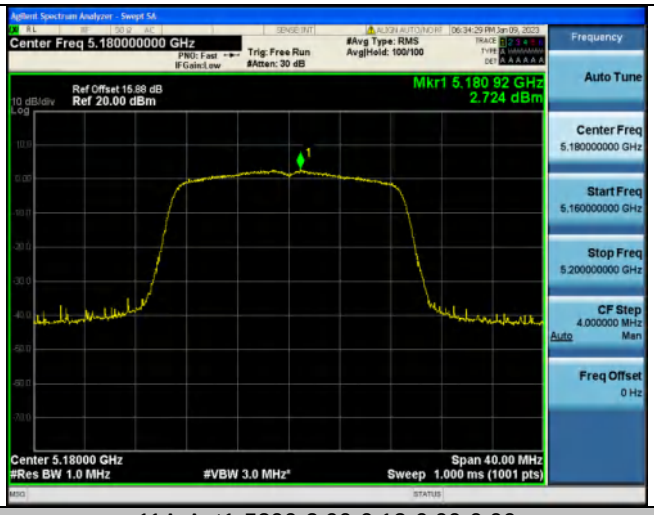
11A-Ant1-5180-2.35-0.09-0.00-0.00

11A-Ant1-5240-3.72-0.09-0.00-0.00

11A-Ant1-5745--1.95-0.12-2.22-0.00



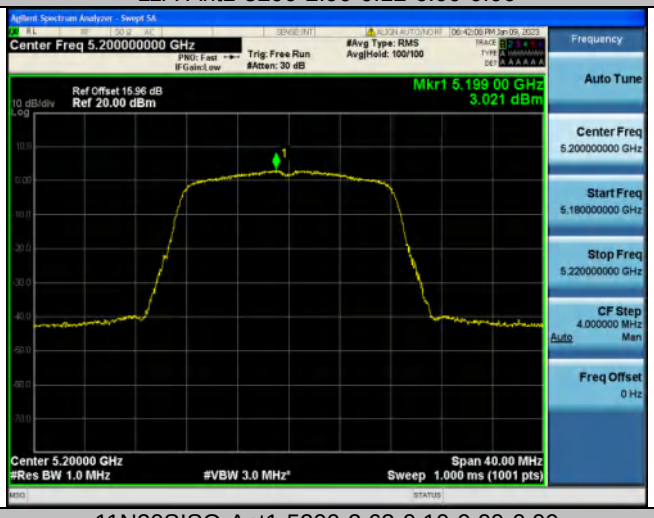
11A-Ant1-5785--2.59-0.09-2.22-0.00

11A-Ant1-5825--2.32-0.12-2.22-0.00

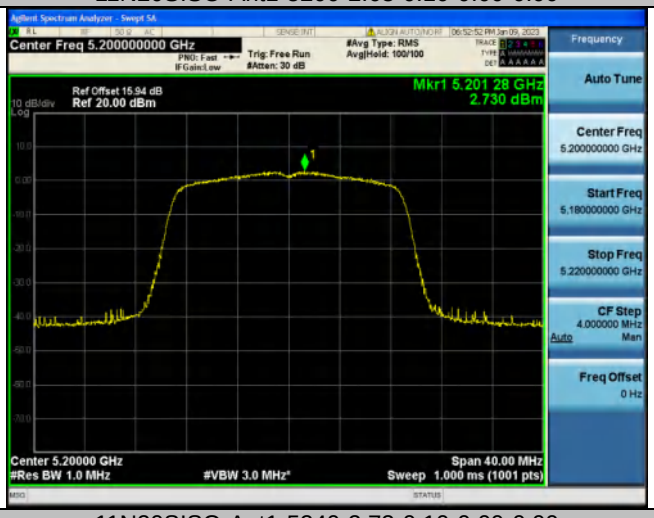
11N20SISO-Ant1-5180-2.59-0.13-0.00-0.00



11A-Ant1-5200-2.90-0.12-0.00-0.00



11N20SISO-Ant1-5200-2.63-0.10-0.00-0.00



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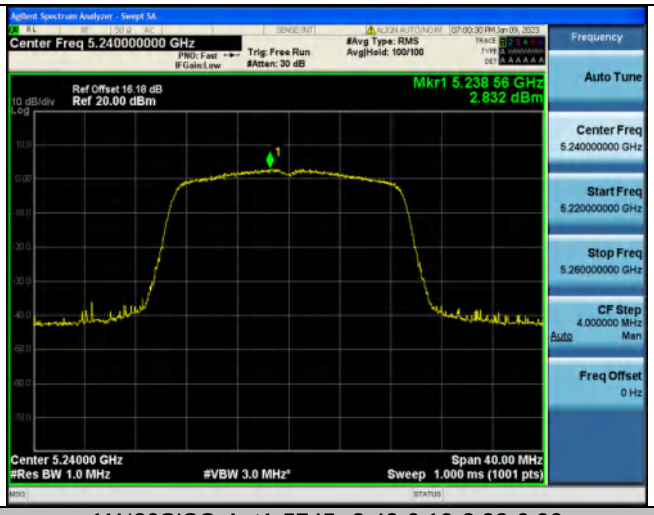

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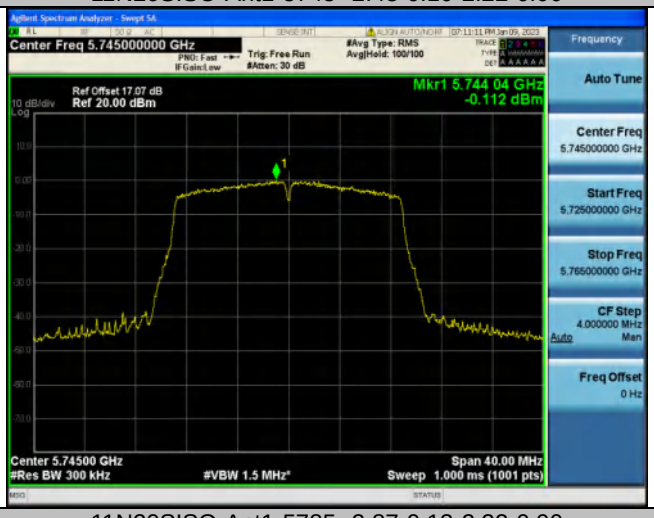
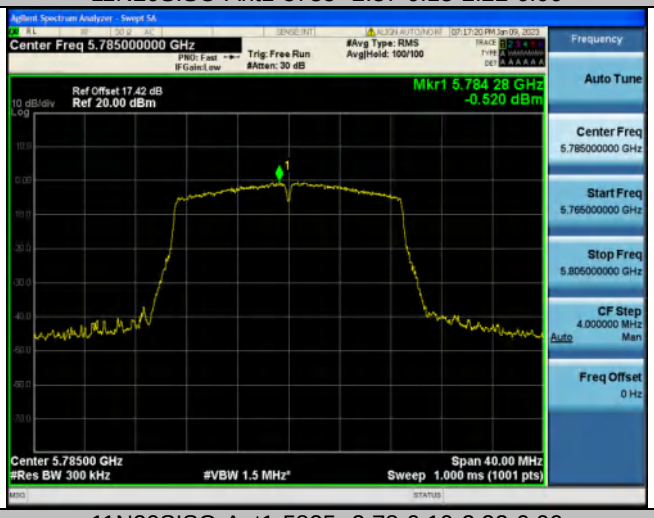
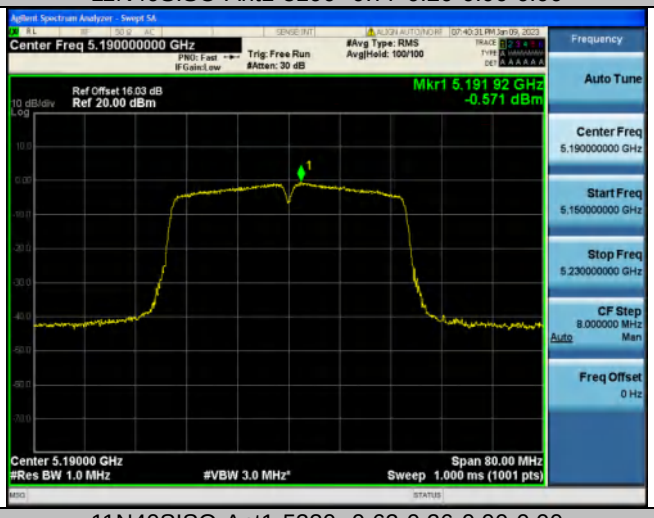


11N20SISO-Ant1-5785--2.87-0.13-2.22-0.00



11N20SISO-Ant1-5825--2.78-0.10-2.22-0.00

11N40SISO-Ant1-5190--0.77-0.20-0.00-0.00



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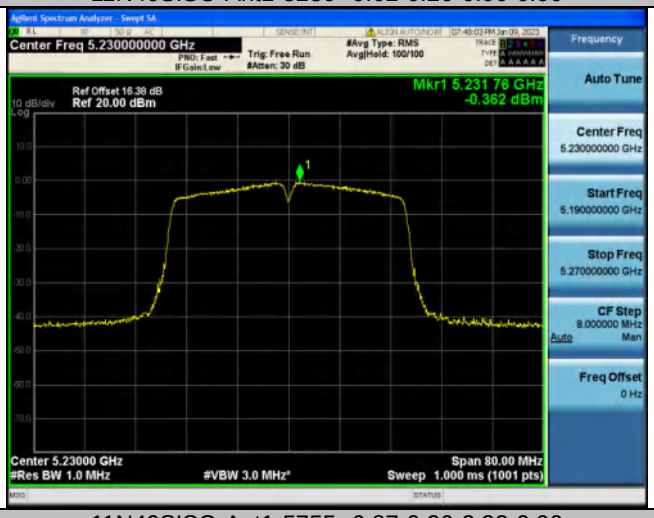

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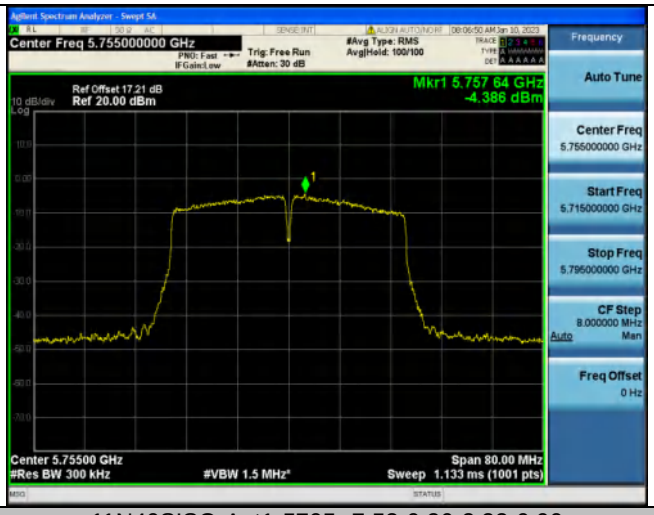

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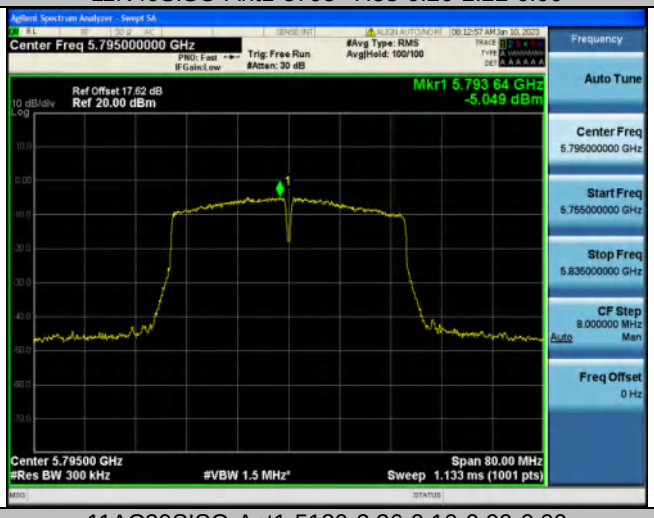

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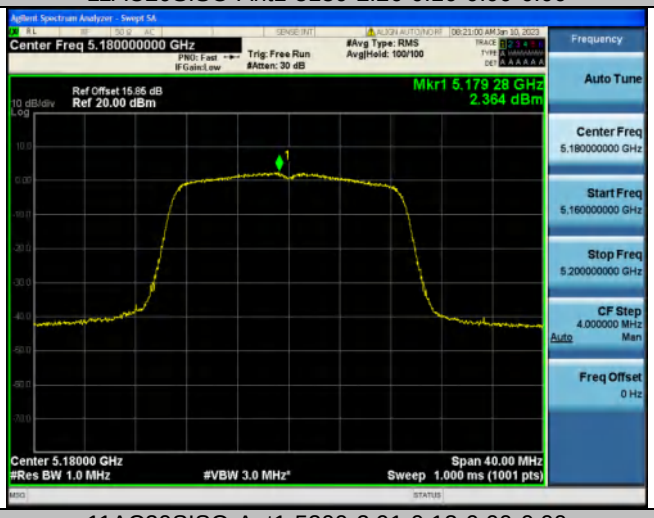

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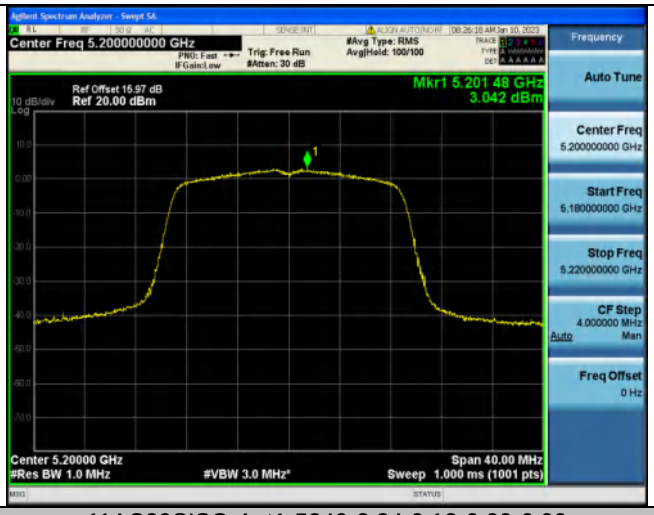

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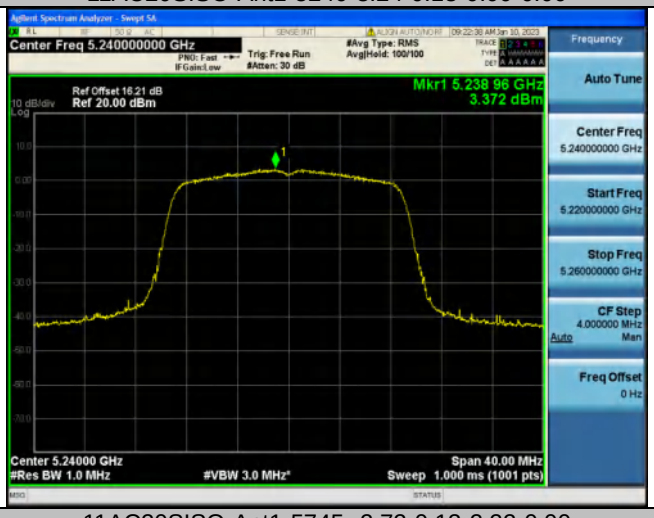
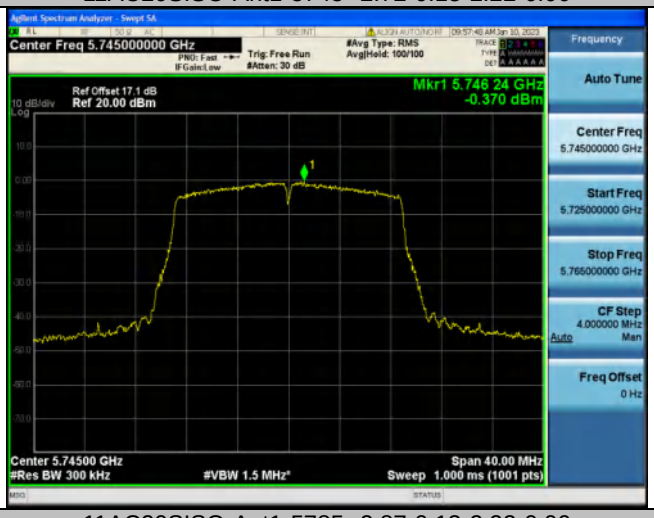


11AC20SISO-Ant1-5745--2.72-0.13-2.22-0.00



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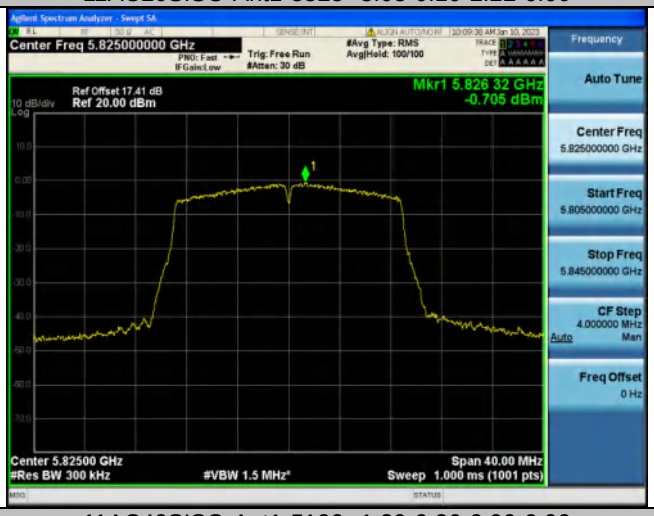
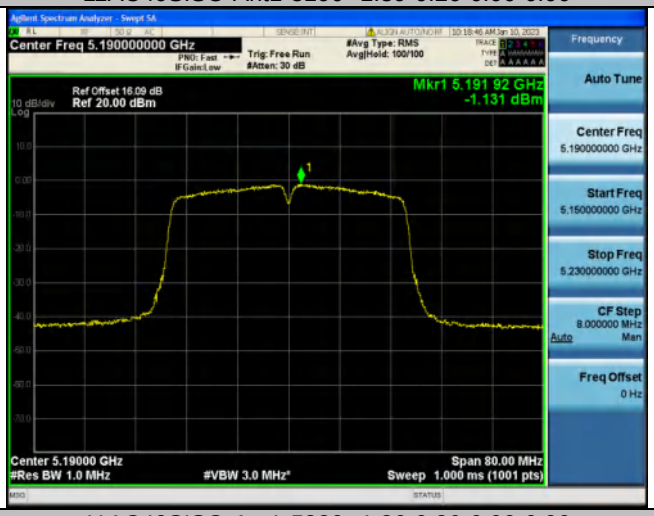
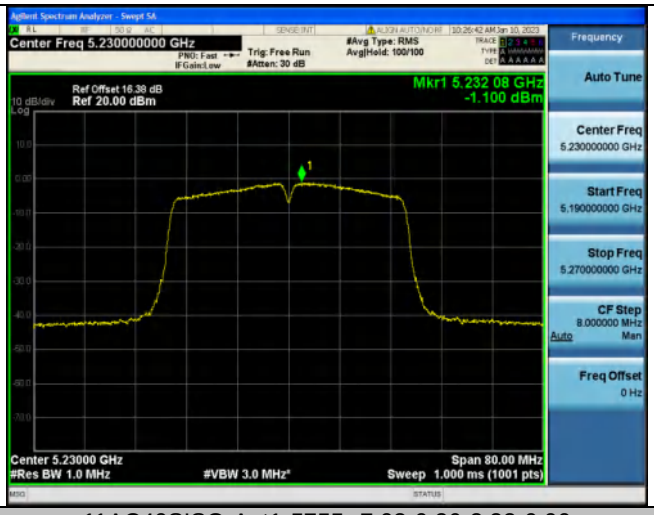
11AC20SISO-Ant1-5825--3.03-0.10-2.22-0.00



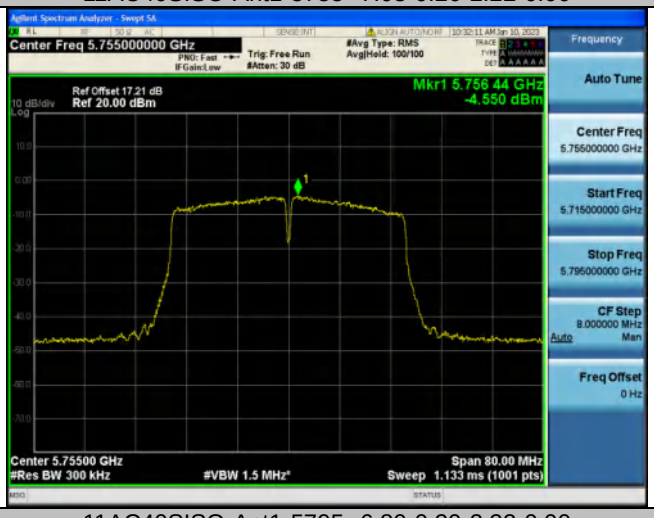
11AC40SISO-Ant1-5190--1.39-0.26-0.00-0.00



11AC40SISO-Ant1-5230--1.36-0.26-0.00-0.00



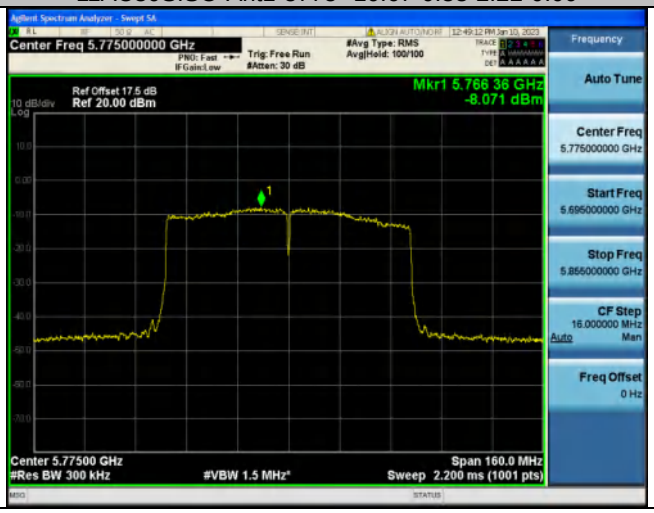
11AC40SISO-Ant1-5755--7.03-0.26-2.22-0.00



11AC40SISO-Ant1-5795--6.80-0.20-2.22-0.00

11AC80SISO-Ant1-5210--5.13-0.51-0.00-0.00

11AC80SISO-Ant1-5775--10.67-0.38-2.22-0.00



10 Antenna Requirement

For intentional device, according to FCC 47 CFR Section 15.203, 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. And according to FCC 47 CFR Section 15.407 (a) and 15.203, if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

10.1 Result

The EUT'S antenna, permanent attached antenna,is PIFA Antenna. The antenna's gain are 5G Wifi:2.6 dBi,5.8G Wifi: 2.8 dBi and meets the requirement.

11 Frequency Stability

Test Requirement : FCC Part15 E Section 15.407 (g)

Test Limit : 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.

11.1 Test Procedure

1. The EUT is installed in an environment test chamber with external power source.
2. Set the chamber to operate at 50 centigrade and external power source to output at nominal voltage of EUT.
3. A sufficient stabilization period at each temperature is used prior to each frequency measurement.
4. When temperature is stabled, measure the frequency stability.
5. The test shall be performed under -30 to 50 centigrade and 85 to 115 percent of the nominal voltage. Change setting of chamber and external power source to complete all conditions.

11.2 Test Result

Voltage								
TestMode	Antenna	Frequency[MHz]	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	NT	-16000	-3.088803	20	PASS
			LV	NT	-24000	-4.633205	20	PASS
			HV	NT	-15000	-2.895753	20	PASS
		5220	NV	NT	-19000	-3.639847	20	PASS
			LV	NT	-19000	-3.639847	20	PASS
			HV	NT	-15000	-2.873563	20	PASS
		5240	NV	NT	-16000	-3.053435	20	PASS
			LV	NT	-15000	-2.862595	20	PASS
			HV	NT	-14000	-2.671756	20	PASS
		5745	NV	NT	-18000	-3.133159	20	PASS
			LV	NT	-20000	-3.481288	20	PASS
			HV	NT	-21000	-3.655352	20	PASS
		5785	NV	NT	-11000	-1.901469	20	PASS
			LV	NT	-24000	-4.148660	20	PASS
			HV	NT	-11000	-1.901469	20	PASS
		5825	NV	NT	-18000	-3.090129	20	PASS
			LV	NT	-15000	-2.575107	20	PASS
			HV	NT	-15000	-2.575107	20	PASS
11N20SISO	Ant1	5180	NV	NT	-11000	-2.123552	20	PASS
			LV	NT	-17000	-3.281853	20	PASS
			HV	NT	-16000	-3.088803	20	PASS
		5220	NV	NT	-17000	-3.256705	20	PASS
			LV	NT	-14000	-2.681992	20	PASS
			HV	NT	-25000	-4.789272	20	PASS
		5240	NV	NT	-25000	-4.770992	20	PASS
			LV	NT	-16000	-3.053435	20	PASS
			HV	NT	-13000	-2.480916	20	PASS
		5745	NV	NT	-29000	-5.047868	20	PASS
			LV	NT	-23000	-4.003481	20	PASS
			HV	NT	-12000	-2.088773	20	PASS
		5785	NV	NT	-20000	-3.457217	20	PASS
			LV	NT	-11000	-1.901469	20	PASS

			HV	NT	-11000	-1.901469	20	PASS
		5825	NV	NT	-26000	-4.463519	20	PASS
			LV	NT	-13000	-2.231760	20	PASS
			HV	NT	-14000	-2.403433	20	PASS
11N40SISO	Ant1	5190	NV	NT	-11000	-2.119461	20	PASS
			LV	NT	-16000	-3.082852	20	PASS
			HV	NT	-12000	-2.312139	20	PASS
		5230	NV	NT	-18000	-3.441683	20	PASS
			LV	NT	-20000	-3.824092	20	PASS
			HV	NT	-22000	-4.206501	20	PASS
		5755	NV	NT	-29000	-5.039096	20	PASS
			LV	NT	-20000	-3.475239	20	PASS
			HV	NT	-17000	-2.953953	20	PASS
		5795	NV	NT	-15000	-2.588438	20	PASS
			LV	NT	-11000	-1.898188	20	PASS
			HV	NT	-27000	-4.659189	20	PASS
11AC20SISO	Ant1	5180	NV	NT	-14000	-2.702703	20	PASS
			LV	NT	-28000	-5.405405	20	PASS
			HV	NT	-24000	-4.633205	20	PASS
		5220	NV	NT	-17000	-3.256705	20	PASS
			LV	NT	-22000	-4.214559	20	PASS
			HV	NT	-25000	-4.789272	20	PASS
		5240	NV	NT	-12000	-2.290076	20	PASS
			LV	NT	-18000	-3.435115	20	PASS
			HV	NT	-25000	-4.770992	20	PASS
		5745	NV	NT	-13000	-2.262837	20	PASS
			LV	NT	-27000	-4.699739	20	PASS
			HV	NT	-20000	-3.481288	20	PASS
		5785	NV	NT	-23000	-3.975799	20	PASS
			LV	NT	-21000	-3.630078	20	PASS
			HV	NT	-15000	-2.592913	20	PASS
		5825	NV	NT	-11000	-1.888412	20	PASS
			LV	NT	-12000	-2.060086	20	PASS
			HV	NT	-24000	-4.120172	20	PASS
11AC40SISO	Ant1	5190	NV	NT	-16000	-3.082852	20	PASS
			LV	NT	-28000	-5.394990	20	PASS
			HV	NT	-11000	-2.119461	20	PASS
		5230	NV	NT	-21000	-4.015296	20	PASS
			LV	NT	-12000	-2.294455	20	PASS
			HV	NT	-18000	-3.441683	20	PASS
		5755	NV	NT	-21000	-3.649001	20	PASS
			LV	NT	-18000	-3.127715	20	PASS
			HV	NT	-21000	-3.649001	20	PASS
		5795	NV	NT	-17000	-2.933563	20	PASS
			LV	NT	-25000	-4.314064	20	PASS
			HV	NT	-15000	-2.588438	20	PASS
11AC80SISO	Ant1	5210	NV	NT	-11000	-2.111324	20	PASS
			LV	NT	-17000	-3.262956	20	PASS
			HV	NT	-22000	-4.222649	20	PASS
		5775	NV	NT	-17000	-2.943723	20	PASS
			LV	NT	-29000	-5.021645	20	PASS
			HV	NT	-20000	-3.463203	20	PASS

Temperature								
TestMode	Antenna	Frequency[MHz]	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
11A	Ant1	5180	NV	-30	40000	7.722008	20	PASS
			NV	-20	48000	9.266409	20	PASS
			NV	-10	49000	9.459459	20	PASS
			NV	0	45000	8.687259	20	PASS
			NV	10	49000	9.459459	20	PASS
			NV	20	37000	7.142857	20	PASS
			NV	30	41000	7.915058	20	PASS
			NV	40	46000	8.880309	20	PASS
			NV	50	35000	6.756757	20	PASS
		5220	NV	-30	47000	9.003831	20	PASS
			NV	-20	37000	7.088123	20	PASS
			NV	-10	33000	6.321839	20	PASS
			NV	0	40000	7.662835	20	PASS
			NV	10	40000	7.662835	20	PASS
			NV	20	44000	8.429119	20	PASS
			NV	30	31000	5.938697	20	PASS
			NV	40	32000	6.130268	20	PASS
			NV	50	47000	9.003831	20	PASS
		5240	NV	-30	40000	7.633588	20	PASS
			NV	-20	37000	7.061069	20	PASS
			NV	-10	33000	6.297710	20	PASS
			NV	0	33000	6.297710	20	PASS
			NV	10	31000	5.916031	20	PASS
			NV	20	37000	7.061069	20	PASS
			NV	30	33000	6.297710	20	PASS
			NV	40	35000	6.679389	20	PASS
			NV	50	33000	6.297710	20	PASS
		5745	NV	-30	49000	8.529156	20	PASS
			NV	-20	44000	7.658834	20	PASS
			NV	-10	46000	8.006963	20	PASS
			NV	0	38000	6.614447	20	PASS
			NV	10	44000	7.658834	20	PASS
			NV	20	45000	7.832898	20	PASS
			NV	30	36000	6.266319	20	PASS
			NV	40	31000	5.395997	20	PASS
			NV	50	46000	8.006963	20	PASS
		5785	NV	-30	38000	6.568712	20	PASS
			NV	-20	40000	6.914434	20	PASS
			NV	-10	41000	7.087295	20	PASS
			NV	0	32000	5.531547	20	PASS
			NV	10	33000	5.704408	20	PASS
			NV	20	31000	5.358686	20	PASS
			NV	30	35000	6.050130	20	PASS
			NV	40	37000	6.395851	20	PASS
			NV	50	45000	7.778738	20	PASS
		5825	NV	-30	33000	5.665236	20	PASS
			NV	-20	48000	8.240343	20	PASS
			NV	-10	43000	7.381974	20	PASS
			NV	0	49000	8.412017	20	PASS
			NV	10	33000	5.665236	20	PASS
			NV	20	47000	8.068670	20	PASS

			NV	30	41000	7.038627	20	PASS
			NV	40	36000	6.180258	20	PASS
			NV	50	35000	6.008584	20	PASS
11N20SISO	Ant1	5180	NV	-30	45000	8.687259	20	PASS
			NV	-20	47000	9.073359	20	PASS
			NV	-10	47000	9.073359	20	PASS
			NV	0	49000	9.459459	20	PASS
			NV	10	39000	7.528958	20	PASS
			NV	20	48000	9.266409	20	PASS
			NV	30	43000	8.301158	20	PASS
			NV	40	40000	7.722008	20	PASS
			NV	50	42000	8.108108	20	PASS
		5220	NV	-30	33000	6.321839	20	PASS
			NV	-20	36000	6.896552	20	PASS
			NV	-10	34000	6.513410	20	PASS
			NV	0	35000	6.704981	20	PASS
			NV	10	34000	6.513410	20	PASS
			NV	20	38000	7.279693	20	PASS
			NV	30	38000	7.279693	20	PASS
			NV	40	34000	6.513410	20	PASS
			NV	50	40000	7.662835	20	PASS
		5240	NV	-30	48000	9.160305	20	PASS
			NV	-20	49000	9.351145	20	PASS
			NV	-10	40000	7.633588	20	PASS
			NV	0	32000	6.106870	20	PASS
			NV	10	40000	7.633588	20	PASS
			NV	20	36000	6.870229	20	PASS
			NV	30	40000	7.633588	20	PASS
			NV	40	46000	8.778626	20	PASS
			NV	50	42000	8.015267	20	PASS
		5745	NV	-30	32000	5.570061	20	PASS
			NV	-20	33000	5.744125	20	PASS
			NV	-10	45000	7.832898	20	PASS
			NV	0	33000	5.744125	20	PASS
			NV	10	40000	6.962576	20	PASS
			NV	20	45000	7.832898	20	PASS
			NV	30	47000	8.181027	20	PASS
			NV	40	40000	6.962576	20	PASS
			NV	50	36000	6.266319	20	PASS
		5785	NV	-30	39000	6.741573	20	PASS
			NV	-20	47000	8.124460	20	PASS
			NV	-10	46000	7.951599	20	PASS
			NV	0	44000	7.605877	20	PASS
			NV	10	39000	6.741573	20	PASS
			NV	20	46000	7.951599	20	PASS
			NV	30	48000	8.297321	20	PASS
			NV	40	41000	7.087295	20	PASS
			NV	50	46000	7.951599	20	PASS
		5825	NV	-30	39000	6.695279	20	PASS
			NV	-20	37000	6.351931	20	PASS
			NV	-10	34000	5.836910	20	PASS
			NV	0	39000	6.695279	20	PASS
			NV	10	42000	7.210300	20	PASS
			NV	20	36000	6.180258	20	PASS
			NV	30	45000	7.725322	20	PASS
			NV	40	41000	7.038627	20	PASS

			NV	50	36000	6.180258	20	PASS
11N40SISO	Ant1	5190	NV	-30	40000	7.707129	20	PASS
			NV	-20	42000	8.092486	20	PASS
			NV	-10	32000	6.165703	20	PASS
			NV	0	33000	6.358382	20	PASS
			NV	10	46000	8.863198	20	PASS
			NV	20	31000	5.973025	20	PASS
			NV	30	36000	6.936416	20	PASS
			NV	40	40000	7.707129	20	PASS
			NV	50	44000	8.477842	20	PASS
		5230	NV	-30	44000	8.413002	20	PASS
			NV	-20	31000	5.927342	20	PASS
			NV	-10	39000	7.456979	20	PASS
			NV	0	38000	7.265774	20	PASS
			NV	10	40000	7.648184	20	PASS
			NV	20	34000	6.500956	20	PASS
			NV	30	32000	6.118547	20	PASS
			NV	40	49000	9.369025	20	PASS
			NV	50	35000	6.692161	20	PASS
		5755	NV	-30	35000	6.081668	20	PASS
			NV	-20	40000	6.950478	20	PASS
			NV	-10	37000	6.429192	20	PASS
			NV	0	35000	6.081668	20	PASS
			NV	10	49000	8.514335	20	PASS
			NV	20	42000	7.298002	20	PASS
			NV	30	37000	6.429192	20	PASS
			NV	40	41000	7.124240	20	PASS
			NV	50	45000	7.819288	20	PASS
		5795	NV	-30	39000	6.729940	20	PASS
			NV	-20	35000	6.039689	20	PASS
			NV	-10	46000	7.937877	20	PASS
			NV	0	45000	7.765315	20	PASS
			NV	10	49000	8.455565	20	PASS
			NV	20	40000	6.902502	20	PASS
			NV	30	44000	7.592752	20	PASS
			NV	40	40000	6.902502	20	PASS
			NV	50	40000	6.902502	20	PASS
11AC20SISO	Ant1	5180	NV	-30	44000	8.494208	20	PASS
			NV	-20	35000	6.756757	20	PASS
			NV	-10	36000	6.949807	20	PASS
			NV	0	31000	5.984556	20	PASS
			NV	10	42000	8.108108	20	PASS
			NV	20	45000	8.687259	20	PASS
			NV	30	46000	8.880309	20	PASS
			NV	40	42000	8.108108	20	PASS
			NV	50	31000	5.984556	20	PASS
		5220	NV	-30	44000	8.429119	20	PASS
			NV	-20	33000	6.321839	20	PASS
			NV	-10	37000	7.088123	20	PASS
			NV	0	40000	7.662835	20	PASS
			NV	10	33000	6.321839	20	PASS
			NV	20	36000	6.896552	20	PASS
			NV	30	31000	5.938697	20	PASS
			NV	40	49000	9.386973	20	PASS
			NV	50	46000	8.812261	20	PASS
		5240	NV	-30	47000	8.969466	20	PASS

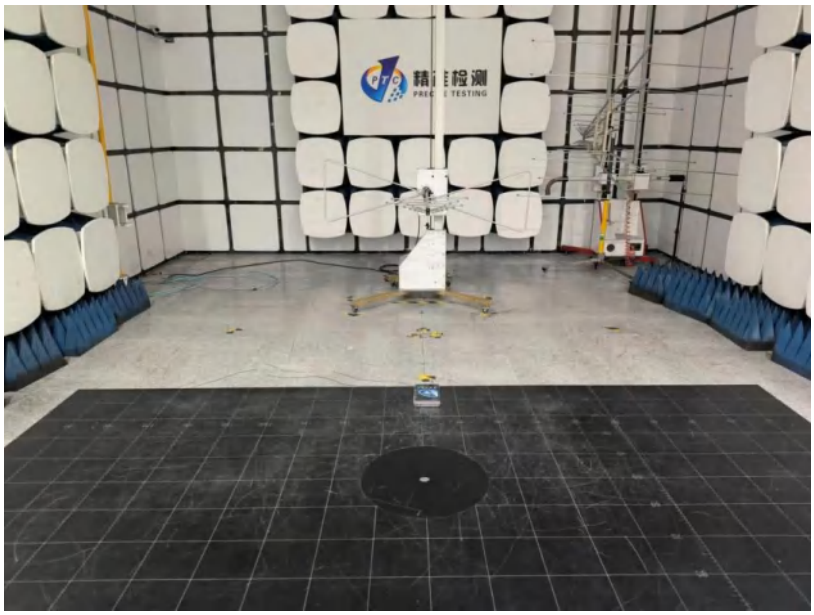
			NV	-20	48000	9.160305	20	PASS
			NV	-10	36000	6.870229	20	PASS
			NV	0	34000	6.488550	20	PASS
			NV	10	43000	8.206107	20	PASS
			NV	20	31000	5.916031	20	PASS
			NV	30	49000	9.351145	20	PASS
			NV	40	35000	6.679389	20	PASS
			NV	50	40000	7.633588	20	PASS
		5745	NV	-30	42000	7.310705	20	PASS
			NV	-20	32000	5.570061	20	PASS
			NV	-10	36000	6.266319	20	PASS
			NV	0	42000	7.310705	20	PASS
			NV	10	46000	8.006963	20	PASS
			NV	20	49000	8.529156	20	PASS
			NV	30	48000	8.355091	20	PASS
			NV	40	43000	7.484769	20	PASS
			NV	50	40000	6.962576	20	PASS
		5785	NV	-30	34000	5.877269	20	PASS
			NV	-20	36000	6.222990	20	PASS
			NV	-10	40000	6.914434	20	PASS
			NV	0	39000	6.741573	20	PASS
			NV	10	41000	7.087295	20	PASS
			NV	20	49000	8.470182	20	PASS
			NV	30	33000	5.704408	20	PASS
			NV	40	48000	8.297321	20	PASS
			NV	50	44000	7.605877	20	PASS
		5825	NV	-30	38000	6.523605	20	PASS
			NV	-20	42000	7.210300	20	PASS
			NV	-10	49000	8.412017	20	PASS
			NV	0	41000	7.038627	20	PASS
			NV	10	36000	6.180258	20	PASS
			NV	20	43000	7.381974	20	PASS
			NV	30	44000	7.553648	20	PASS
			NV	40	47000	8.068670	20	PASS
			NV	50	44000	7.553648	20	PASS
11AC40SISO	Ant1	5190	NV	-30	33000	6.358382	20	PASS
			NV	-20	44000	8.477842	20	PASS
			NV	-10	39000	7.514451	20	PASS
			NV	0	32000	6.165703	20	PASS
			NV	10	40000	7.707129	20	PASS
			NV	20	33000	6.358382	20	PASS
			NV	30	42000	8.092486	20	PASS
			NV	40	32000	6.165703	20	PASS
			NV	50	31000	5.973025	20	PASS
		5230	NV	-30	47000	8.986616	20	PASS
			NV	-20	40000	7.648184	20	PASS
			NV	-10	43000	8.221797	20	PASS
			NV	0	47000	8.986616	20	PASS
			NV	10	44000	8.413002	20	PASS
			NV	20	49000	9.369025	20	PASS
			NV	30	36000	6.883365	20	PASS
			NV	40	49000	9.369025	20	PASS
			NV	50	43000	8.221797	20	PASS
		5755	NV	-30	34000	5.907906	20	PASS
			NV	-20	49000	8.514335	20	PASS
			NV	-10	44000	7.645526	20	PASS

			NV	0	44000	7.645526	20	PASS
			NV	10	32000	5.560382	20	PASS
			NV	20	44000	7.645526	20	PASS
			NV	30	43000	7.471764	20	PASS
			NV	40	35000	6.081668	20	PASS
			NV	50	35000	6.081668	20	PASS
		5795	NV	-30	34000	5.867127	20	PASS
			NV	-20	40000	6.902502	20	PASS
			NV	-10	37000	6.384814	20	PASS
			NV	0	34000	5.867127	20	PASS
			NV	10	39000	6.729940	20	PASS
			NV	20	31000	5.349439	20	PASS
			NV	30	38000	6.557377	20	PASS
			NV	40	47000	8.110440	20	PASS
			NV	50	33000	5.694564	20	PASS
11AC80SISO	Ant1	5210	NV	-30	42000	8.061420	20	PASS
			NV	-20	45000	8.637236	20	PASS
			NV	-10	47000	9.021113	20	PASS
			NV	0	49000	9.404990	20	PASS
			NV	10	42000	8.061420	20	PASS
			NV	20	32000	6.142035	20	PASS
			NV	30	34000	6.525912	20	PASS
			NV	40	40000	7.677543	20	PASS
			NV	50	45000	8.637236	20	PASS
		5775	NV	-30	49000	8.484848	20	PASS
			NV	-20	46000	7.965368	20	PASS
			NV	-10	48000	8.311688	20	PASS
			NV	0	49000	8.484848	20	PASS
			NV	10	34000	5.887446	20	PASS
			NV	20	47000	8.138528	20	PASS
			NV	30	42000	7.272727	20	PASS
			NV	40	36000	6.233766	20	PASS
			NV	50	44000	7.619048	20	PASS

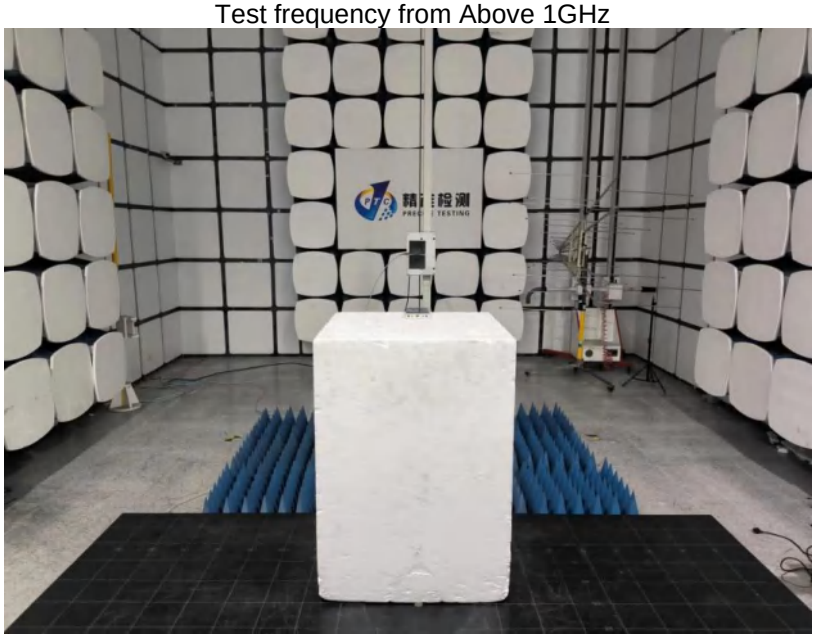
12 Test Setup

Conducted Emissions

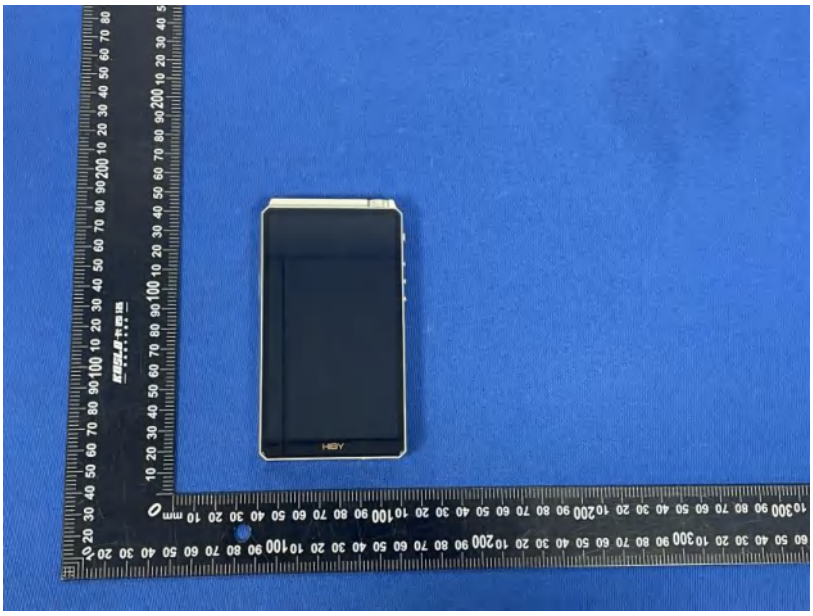
Radiated Spurious Emissions
From 30MHz-1000MHz

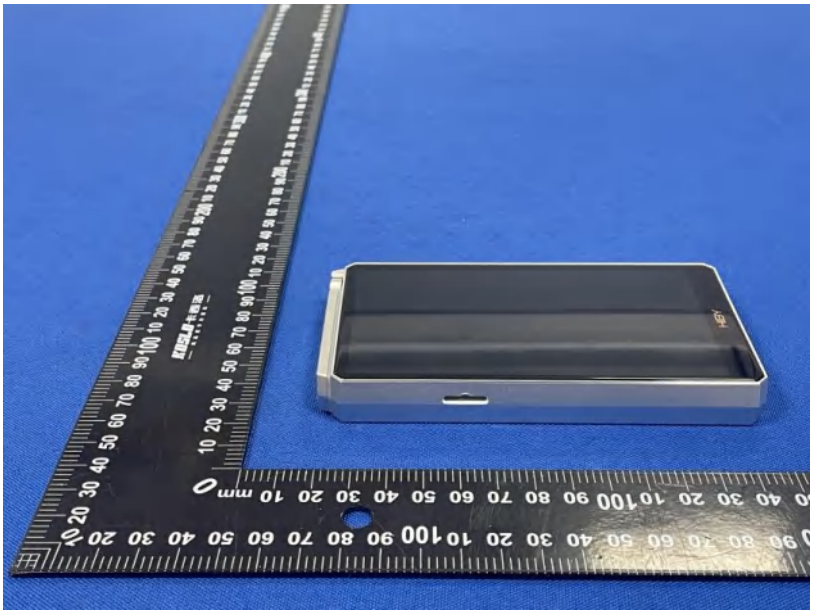


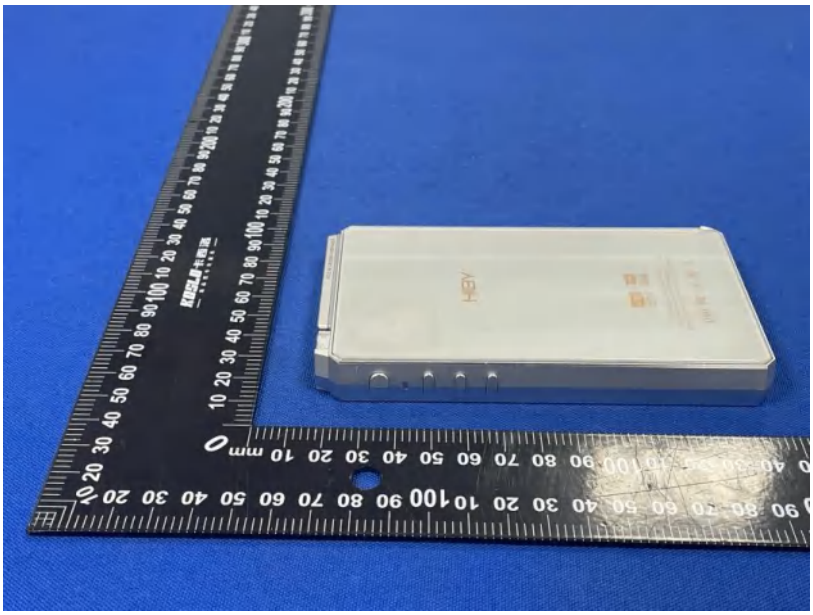
Test frequency from Above 1GHz



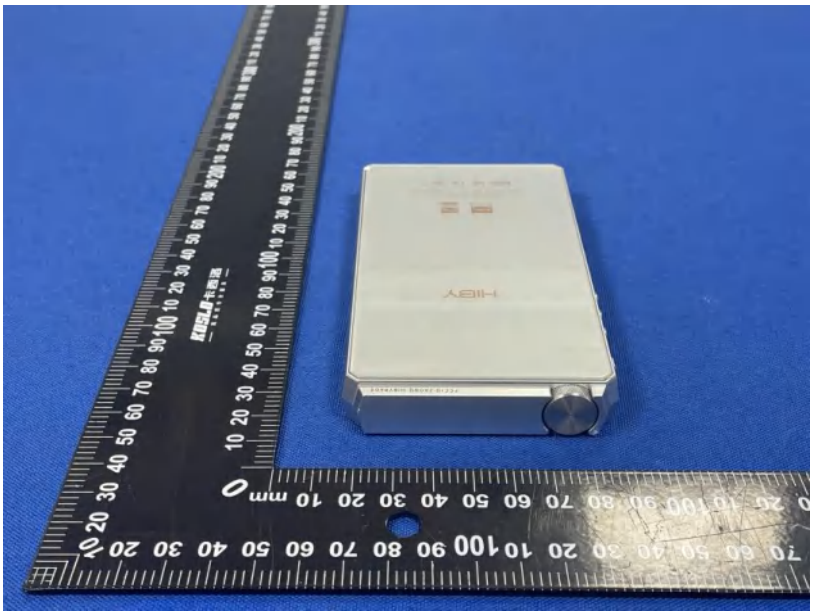
13 EUT PHOTOS

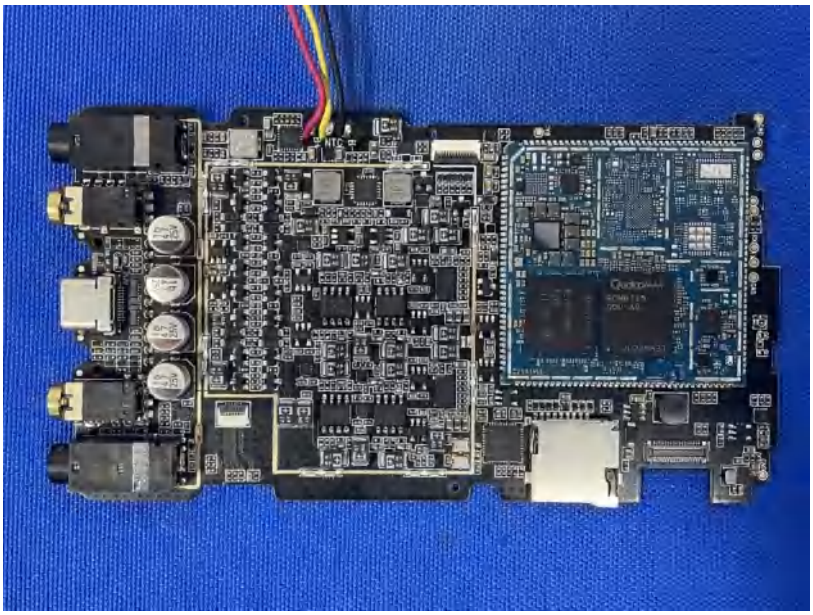


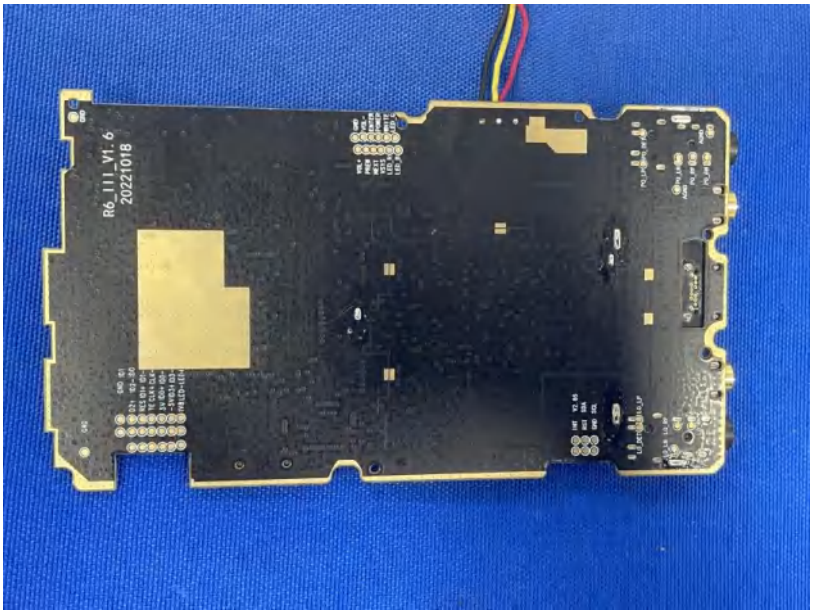


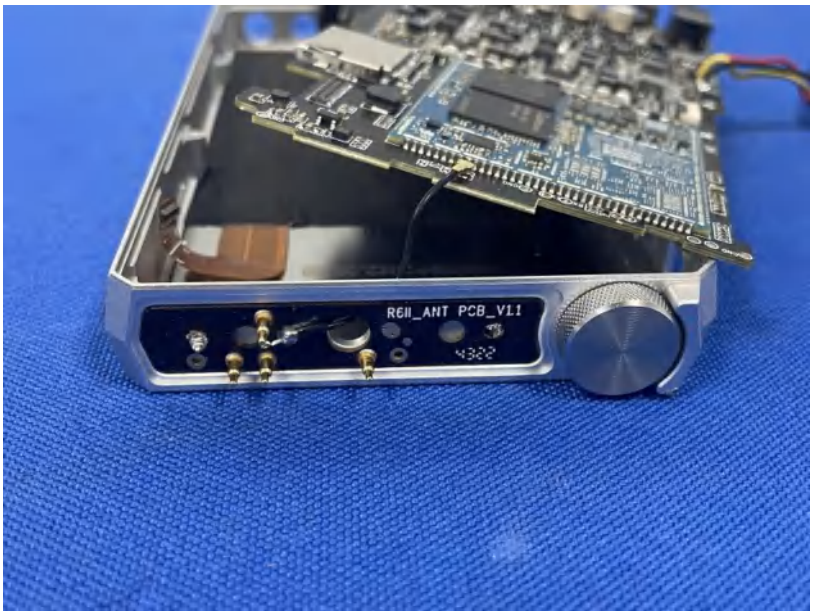



HIBY






R6_III_V1.6
20221018


R6II_ANT PCB_V1.1

******THE END REPORT******