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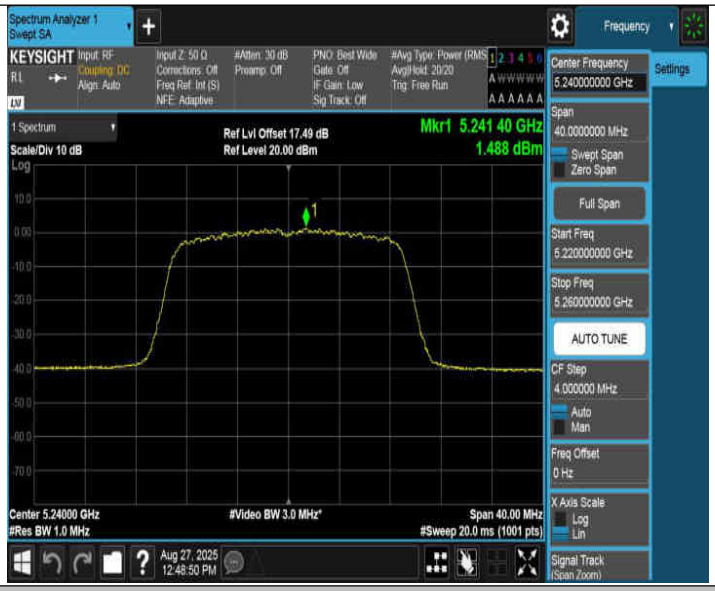
11AC20MIMO_Ant2_5200

11AC20MIMO_Ant1_5240



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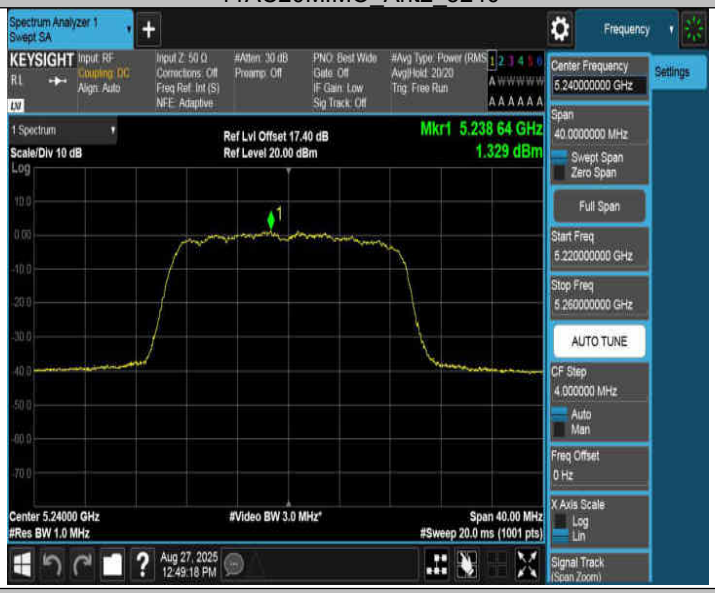

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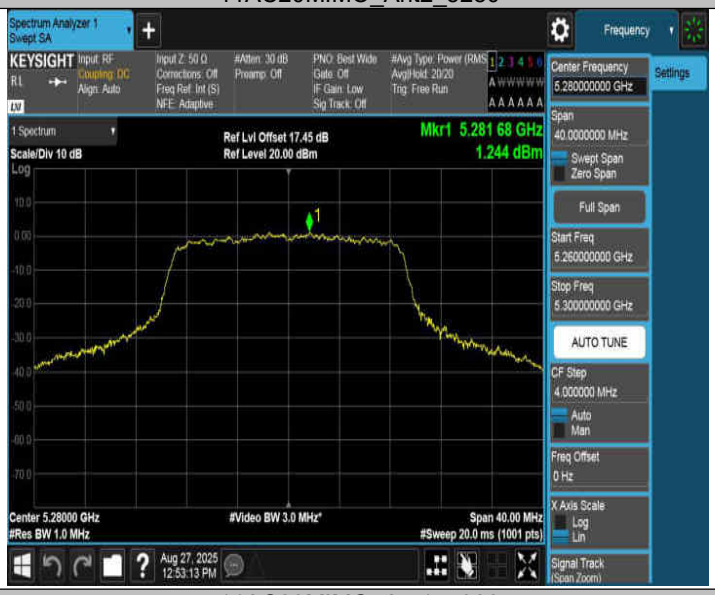

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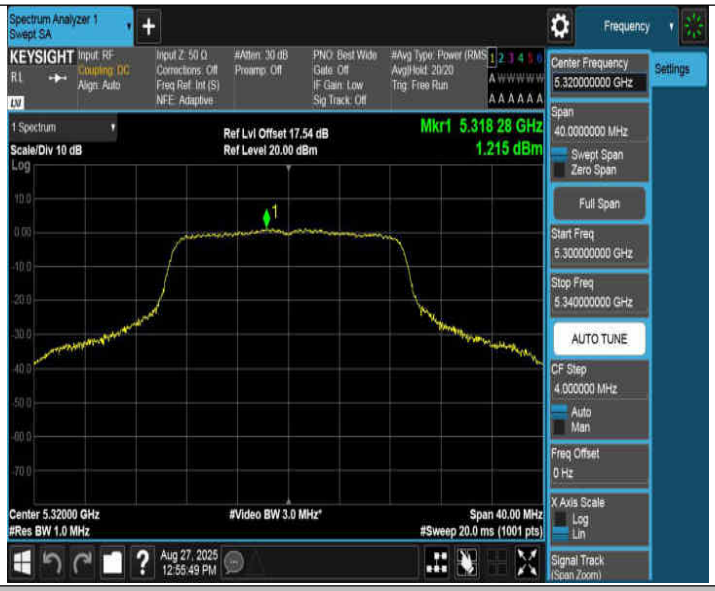

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11AC20MIMO_Ant2_5500

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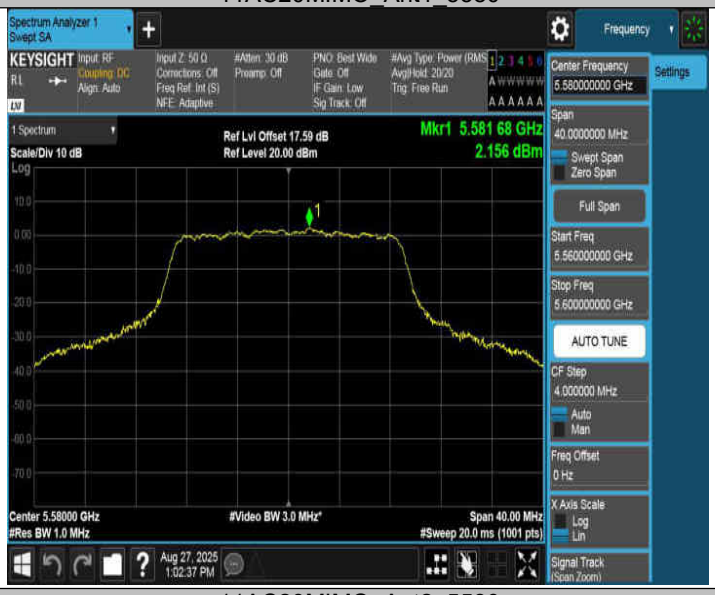

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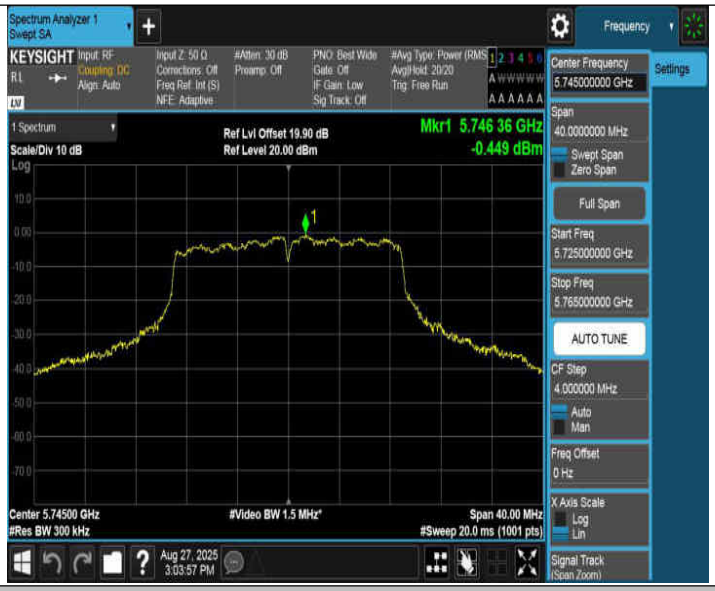

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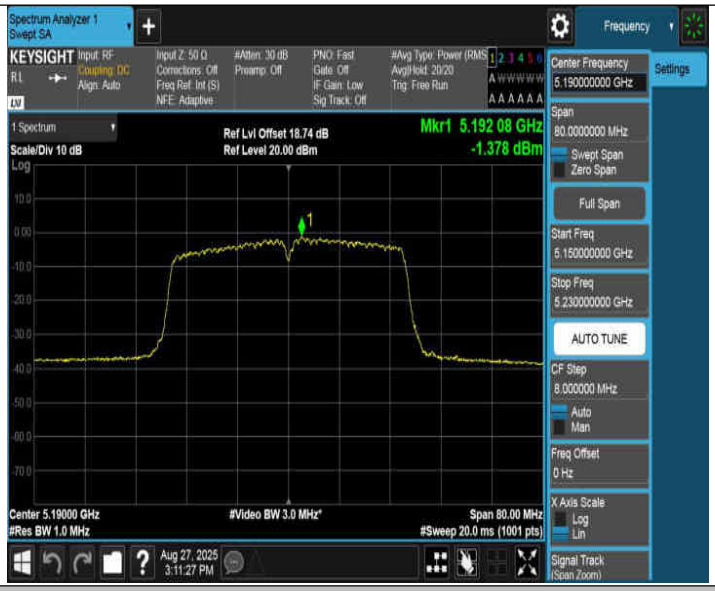

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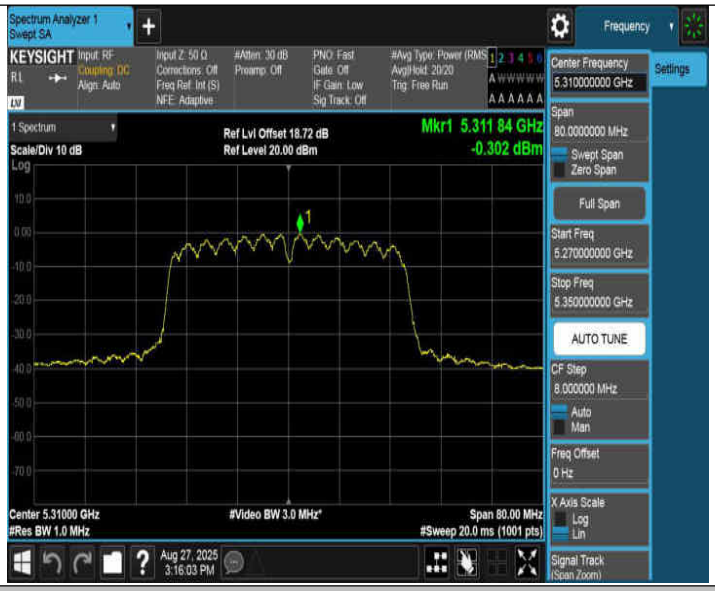
11AC40MIMO_Ant2_5270

11AC40MIMO_Ant1_5310

11AC40MIMO_Ant2_5310



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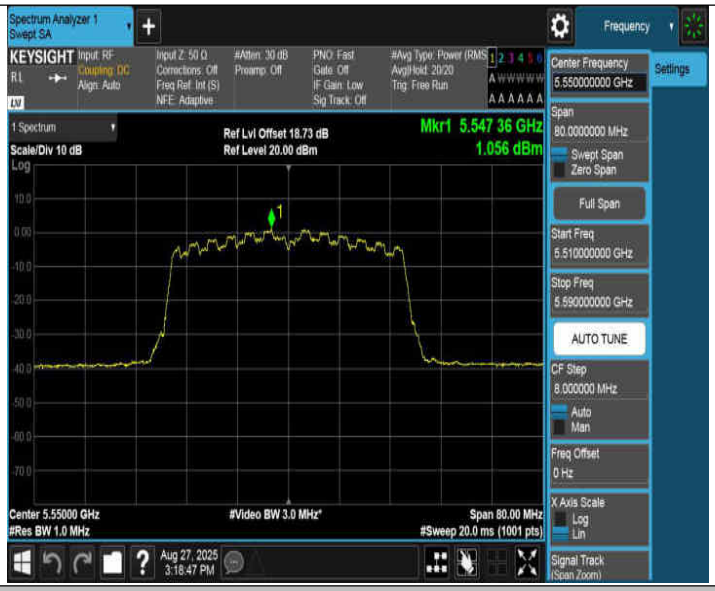

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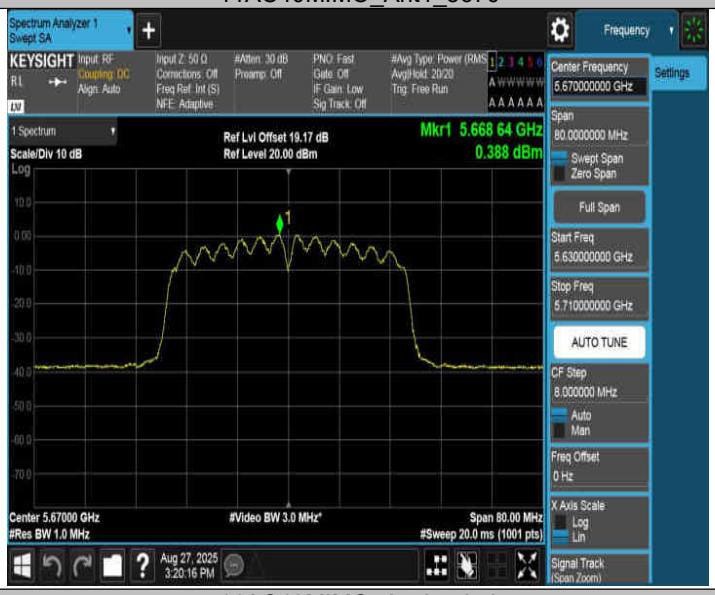

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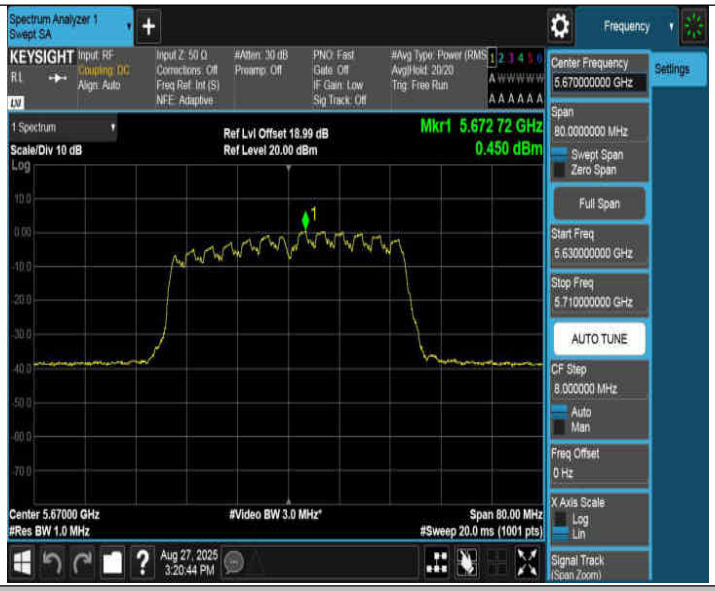

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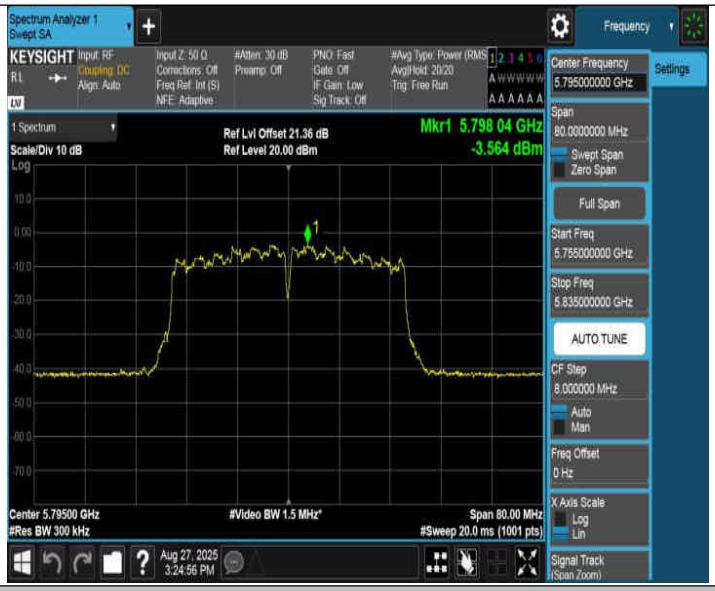

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11AC80MIMO_Ant2_5210

11AC80MIMO_Ant1_5290

11AC80MIMO_Ant2_5290

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11AC80MIMO_Ant2_5530

11AC80MIMO_Ant1_5775

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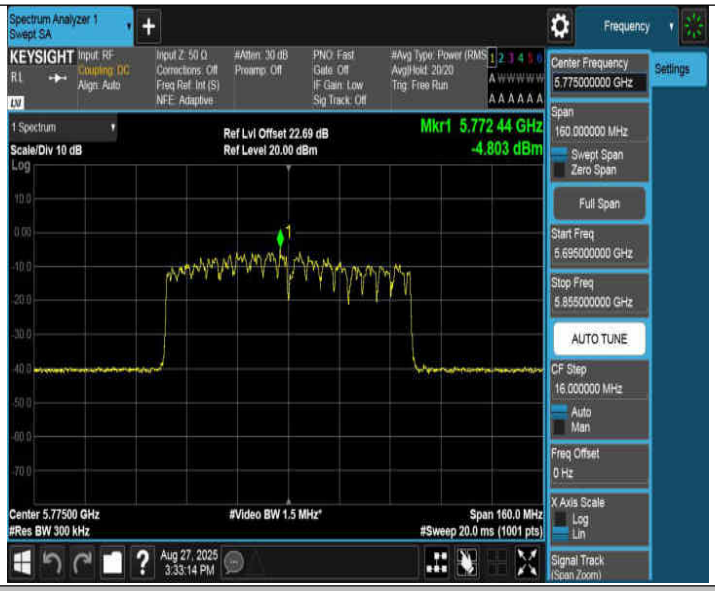

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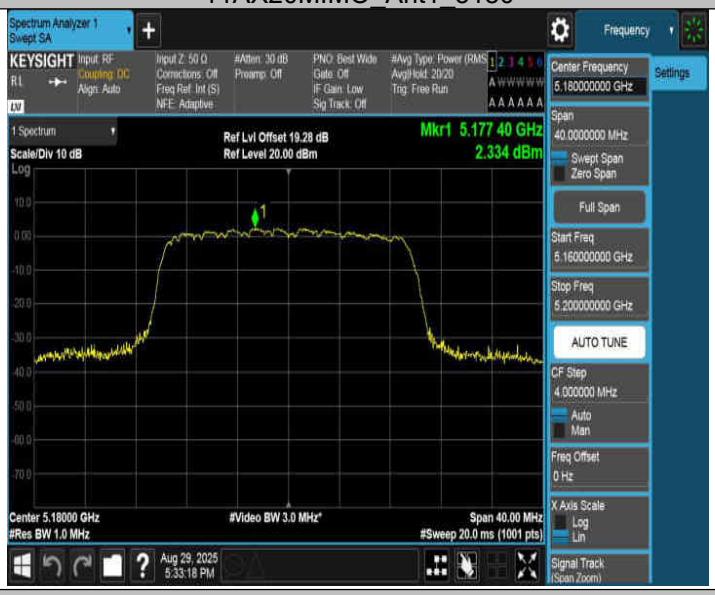

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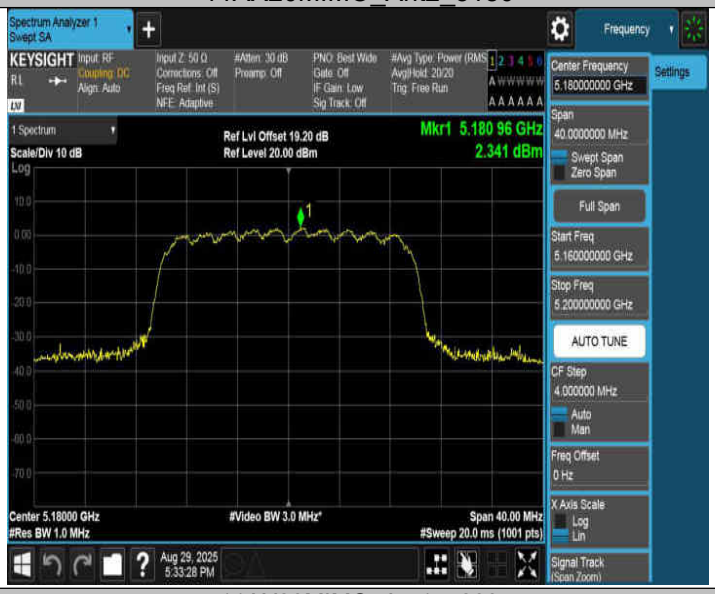

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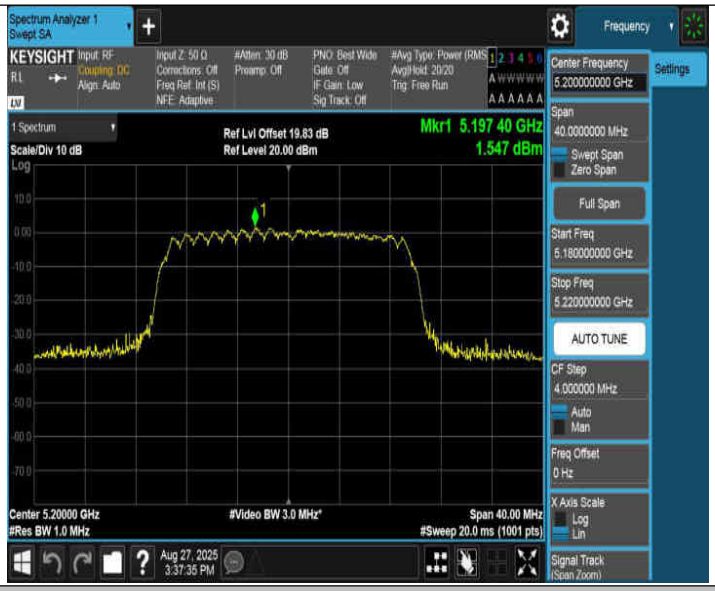

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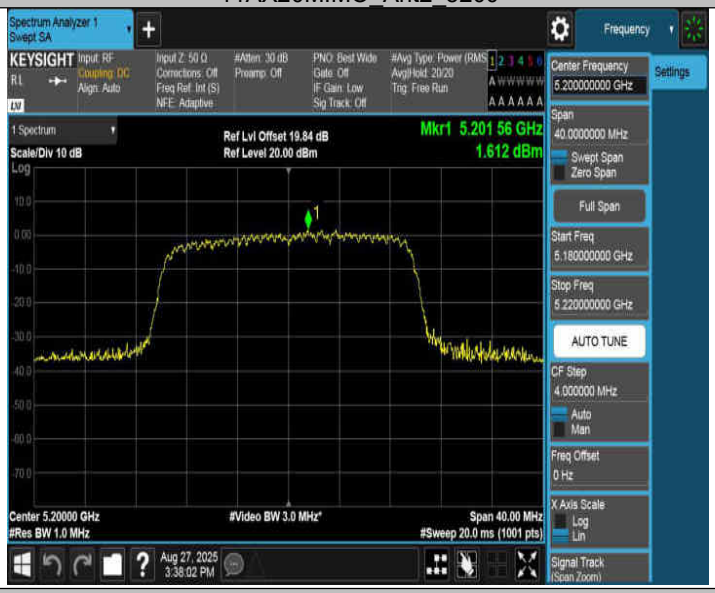

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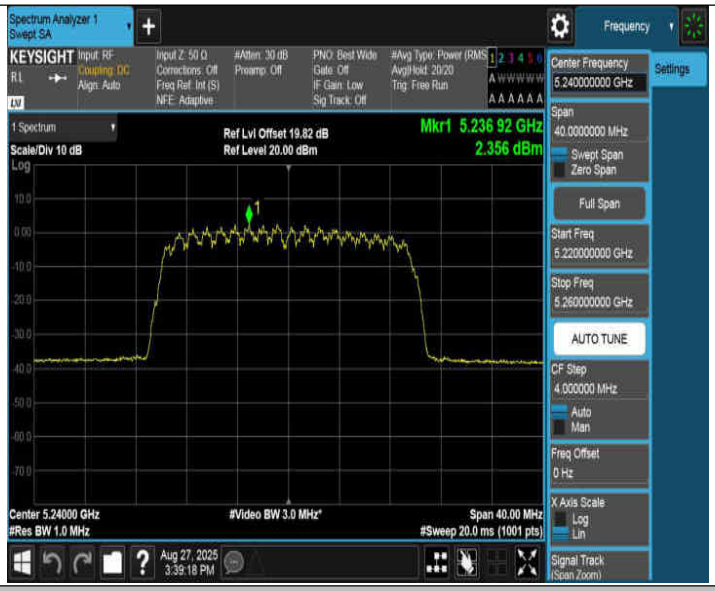

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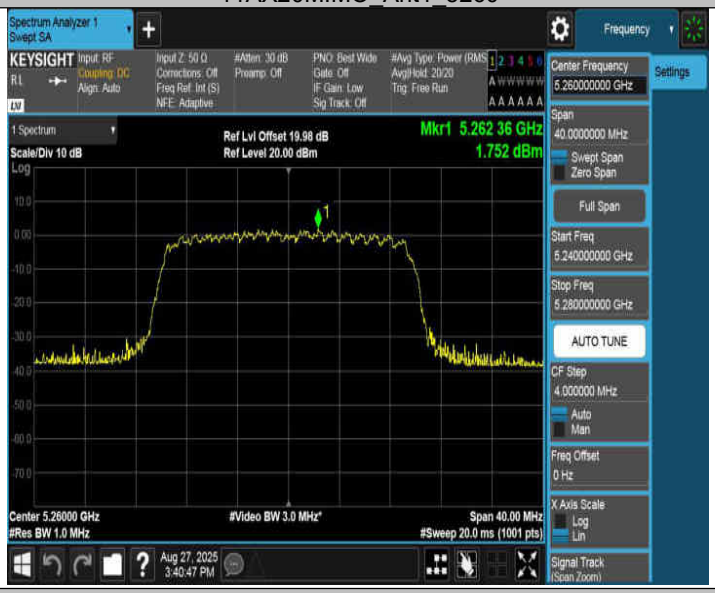

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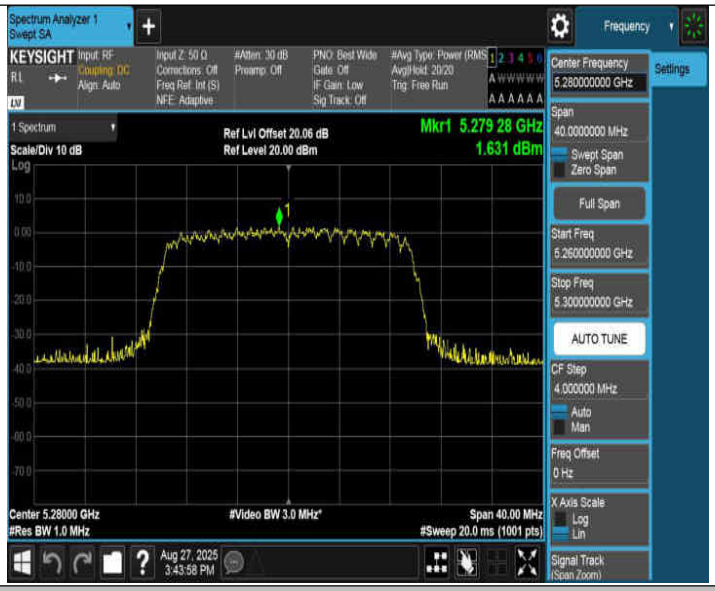

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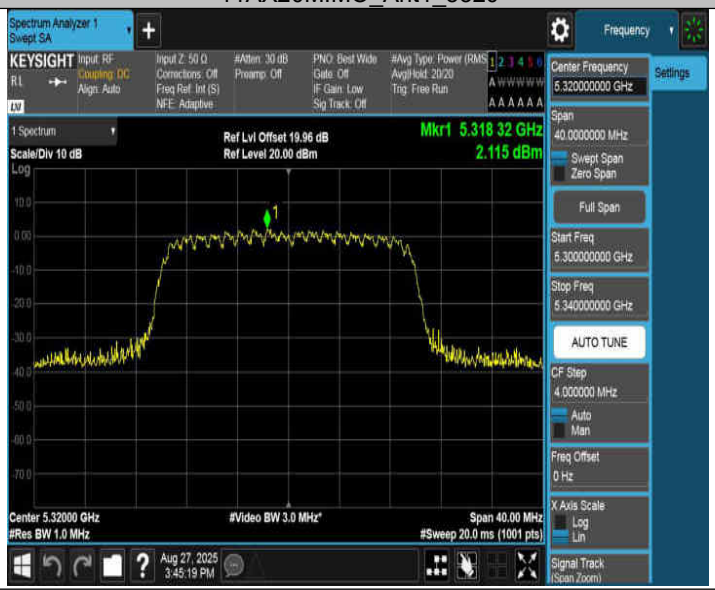

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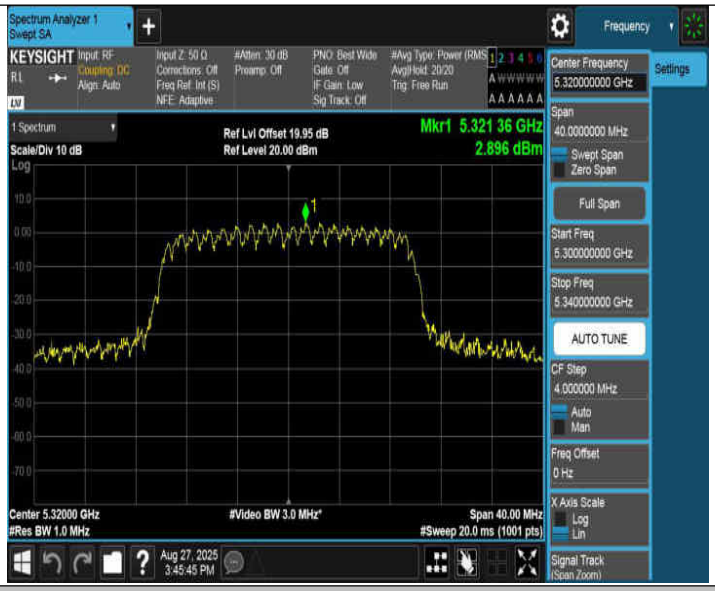

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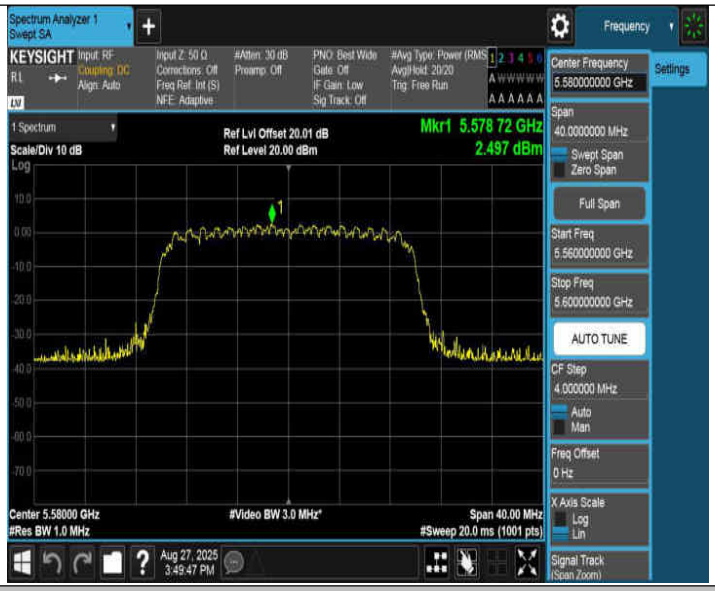
11AX20MIMO_Ant2_5500

11AX20MIMO_Ant1_5580



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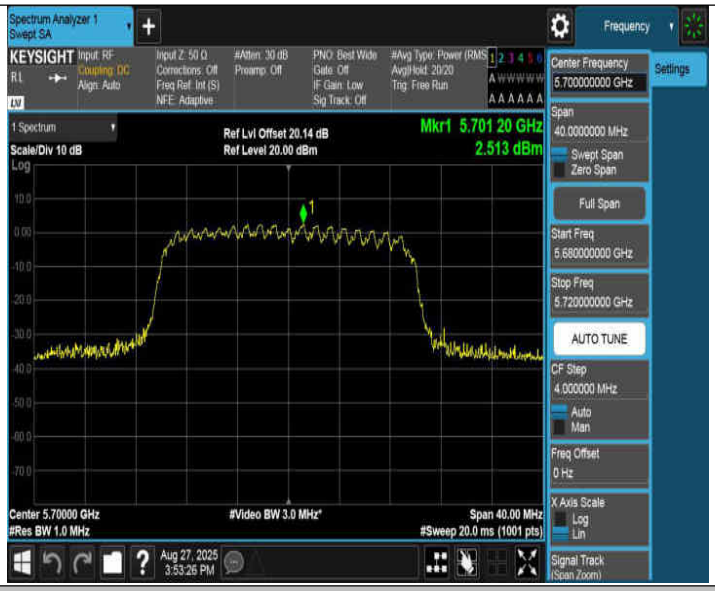
11AX20MIMO_Ant1_5700

11AX20MIMO_Ant2_5700



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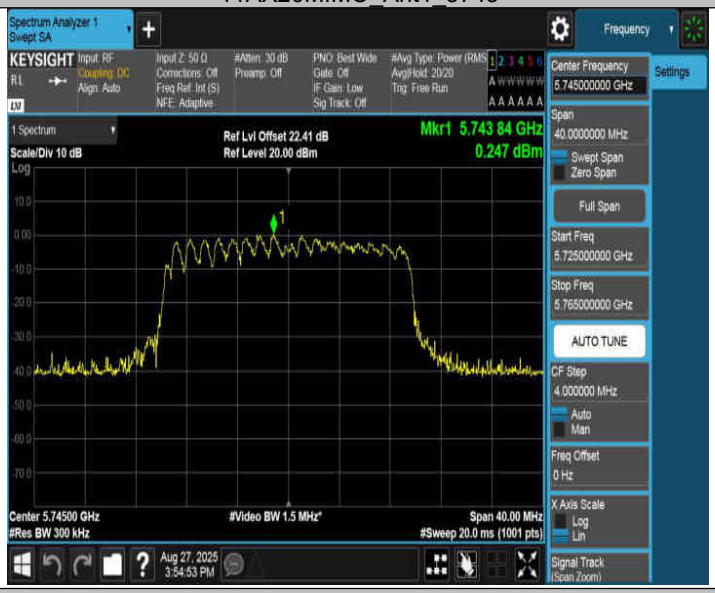

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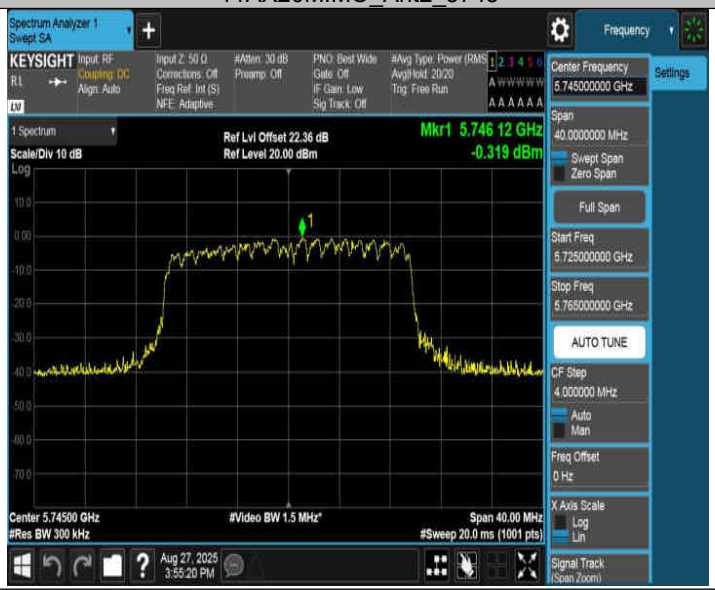

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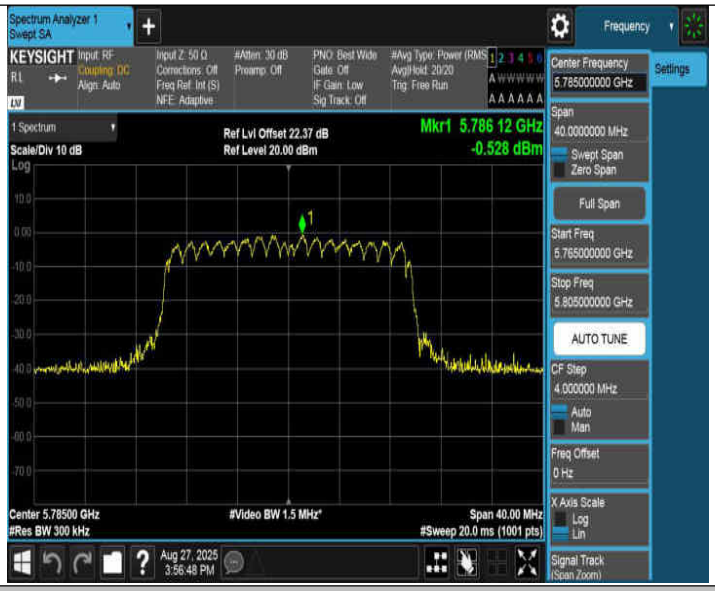

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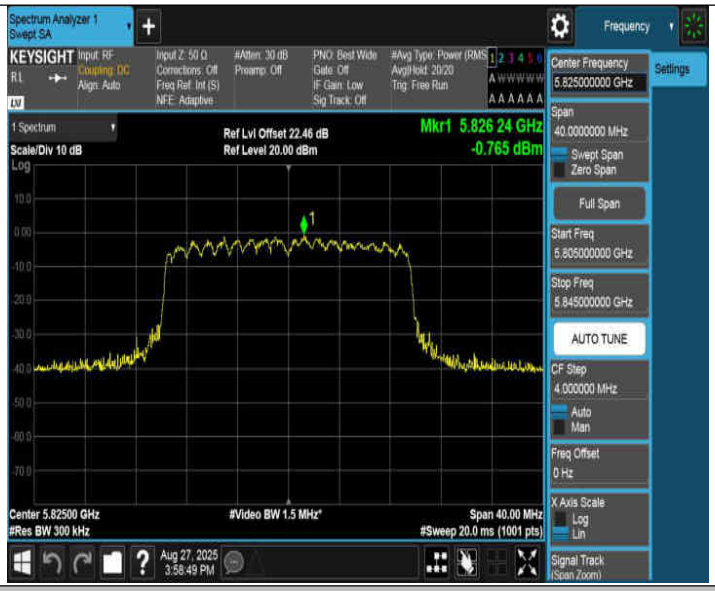
11AX20MIMO_Ant1_5825

11AX20MIMO_Ant2_5825



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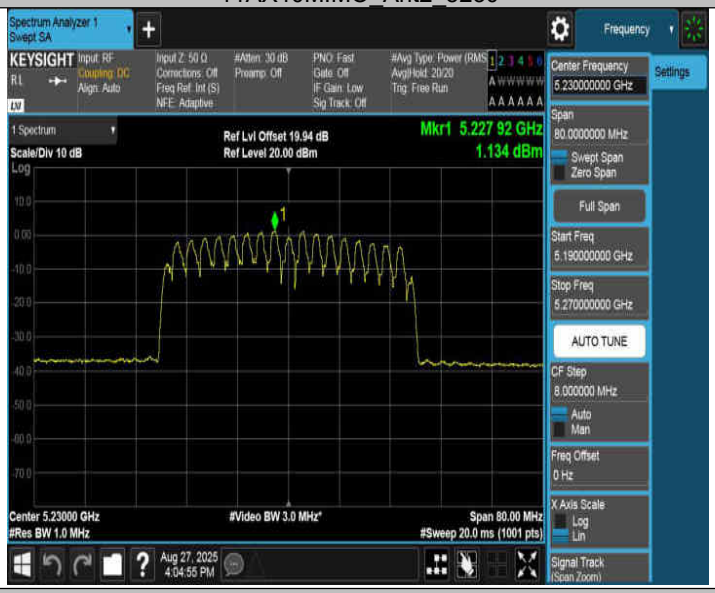
11AX40MIMO_Ant2_5230



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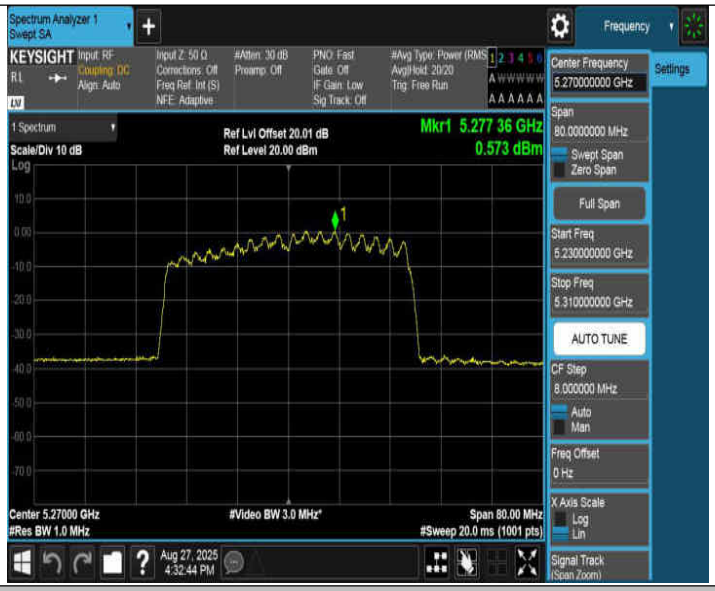
11AX40MIMO_Ant2_5270



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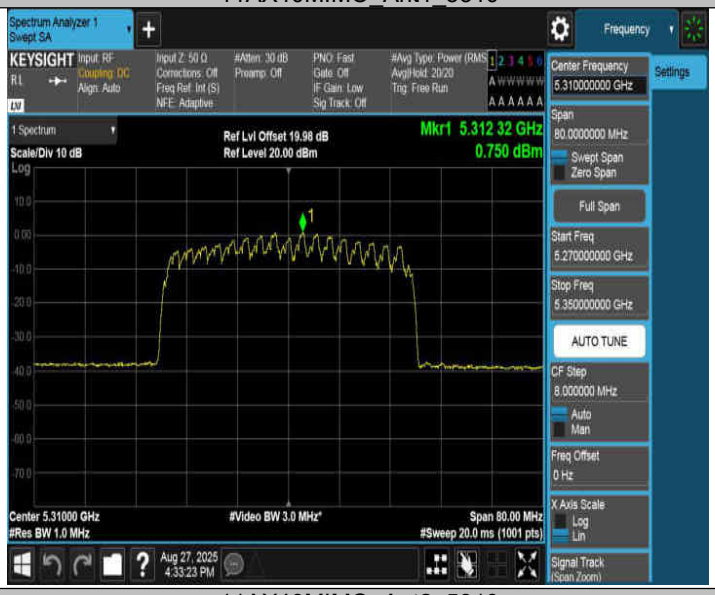

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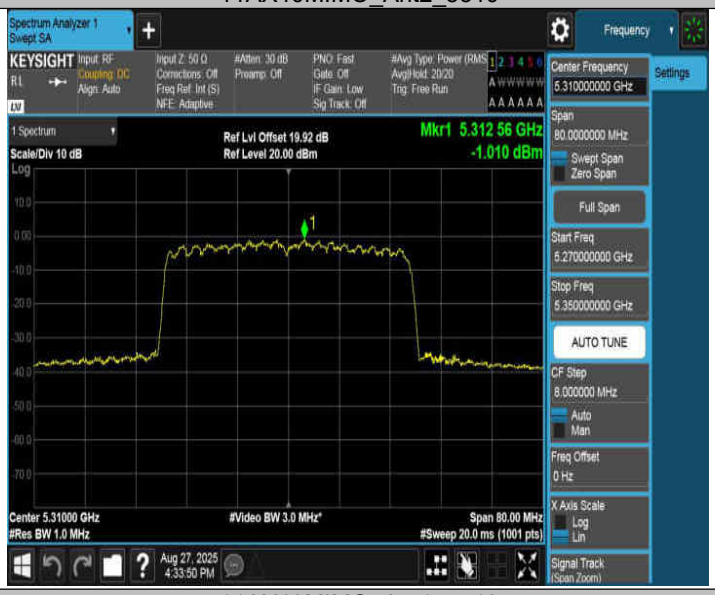

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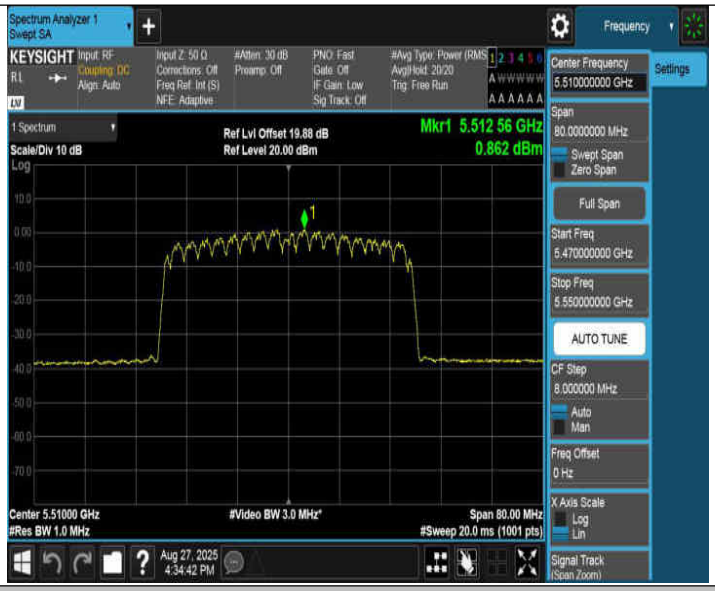

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11AX40MIMO_Ant2_5550

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11AX40MIMO_Ant2_5670

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11AX40MIMO_Ant2_5755

11AX40MIMO_Ant1_5795

11AX40MIMO_Ant2_5795

11AX80MIMO_Ant1_5210

11AX80MIMO_Ant2_5210

11AX80MIMO_Ant1_5290

11AX80MIMO_Ant2_5290

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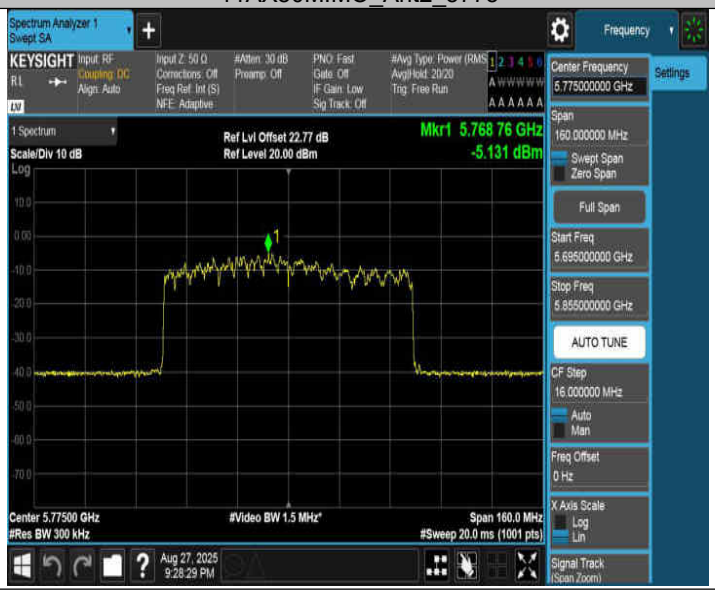
11AX80MIMO_Ant2_5775



10. Dynamic Frequency Selection

10.1. Applicability of DFS Requirements

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

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

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

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

Table 2: Applicability of DFS requirements during normal operation

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

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

10.2. Limit

(1) DFS Detection Thresholds

Table 3: DFS Detection Thresholds for Master Devices and Client Devices with Radar Detection

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP ≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the	

test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KdB Publication 662911 D01.

(2) DFS Response Requirements

Table 4: DFS Response Requirement Values

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst. Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required facilitating a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions. Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.	

10.3. Parameters of Radar Test Waveform

This section provides the parameters for required test waveforms, minimum percentage of successful detection, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

Table 5 Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A	$\text{Roundup}\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot 10^6}{\text{PRI}_{\mu\text{sec}}}\right)\right\}$	60%	30
		Test B			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120
Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests. Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A					

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms. If more than 30 waveforms are used for Short Pulse Radar Type 1, then each additional waveform is generated with

Test B and must also be unique and not repeated from the previous waveforms in Tests A or B. Test aggregate is average of the percentage of successful detections of short pulse radar types 1-4

10.4. Calibration of Radar Waveform

Radar Waveform Calibration Procedure:

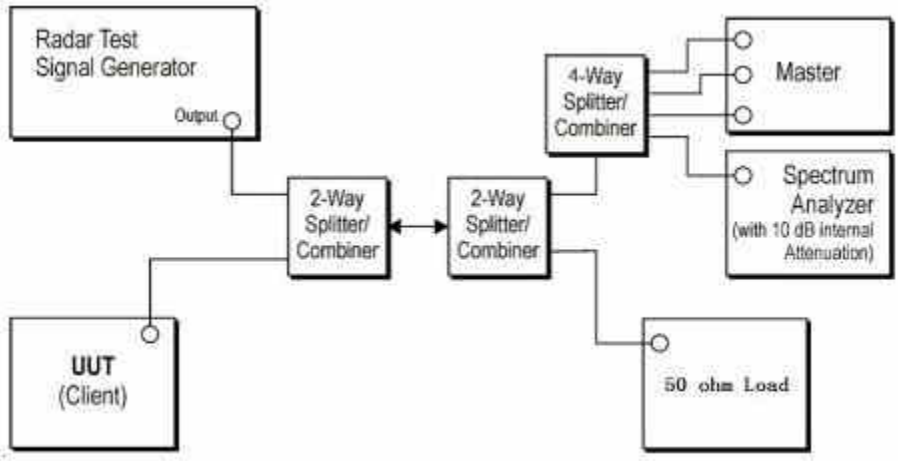
A 50 ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to place of the master

The interference Radar Detection Threshold Level is -62dBm + 0dBi +1dB = -61dBm that had been taken into account the output power range and antenna gain.

The following equipment setup was used to calibrate the conducted radar waveform. A vector signal generator was utilized to establish the test signal level for radar type 0. During this process there were no transmissions by either the master or client device. The spectrum analyzer was switched to the zero spans (time domain) at the frequency of the radar waveform generator. Peak detection was used. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to 3 MHz. The spectrum analyzer had offset -1.0dB to compensate RF cable loss 1.0dB.

The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was - -62dBm + 0dBi +1dB = -61dBm. Capture the spectrum analyzer plots on short pulse radar waveform.

Conducted Calibration Setup:



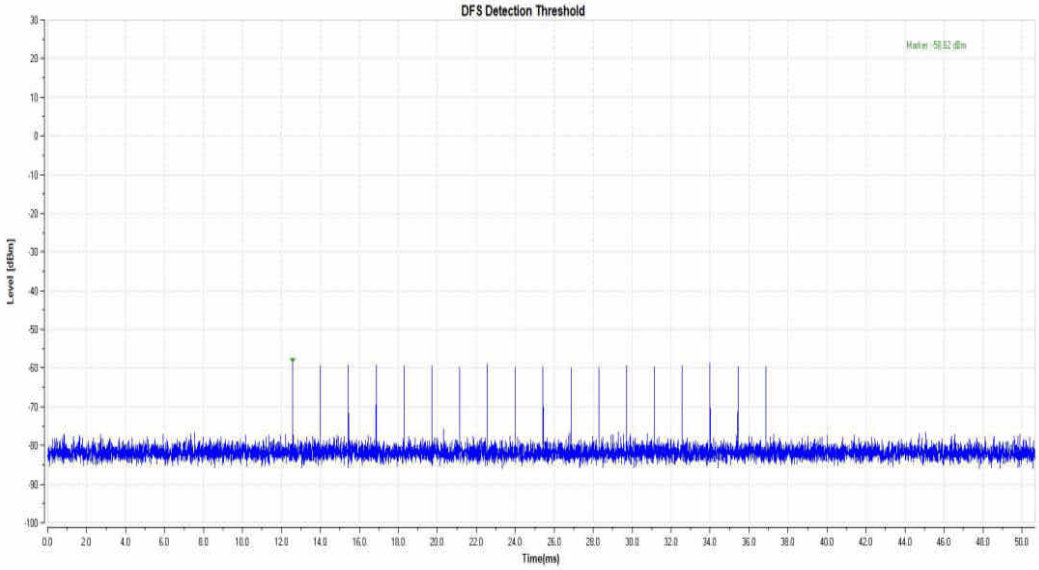
Note: 1. Use the software "Web" to set the frequency channel.

2. EUT is not support TPC and not with Radar detection.

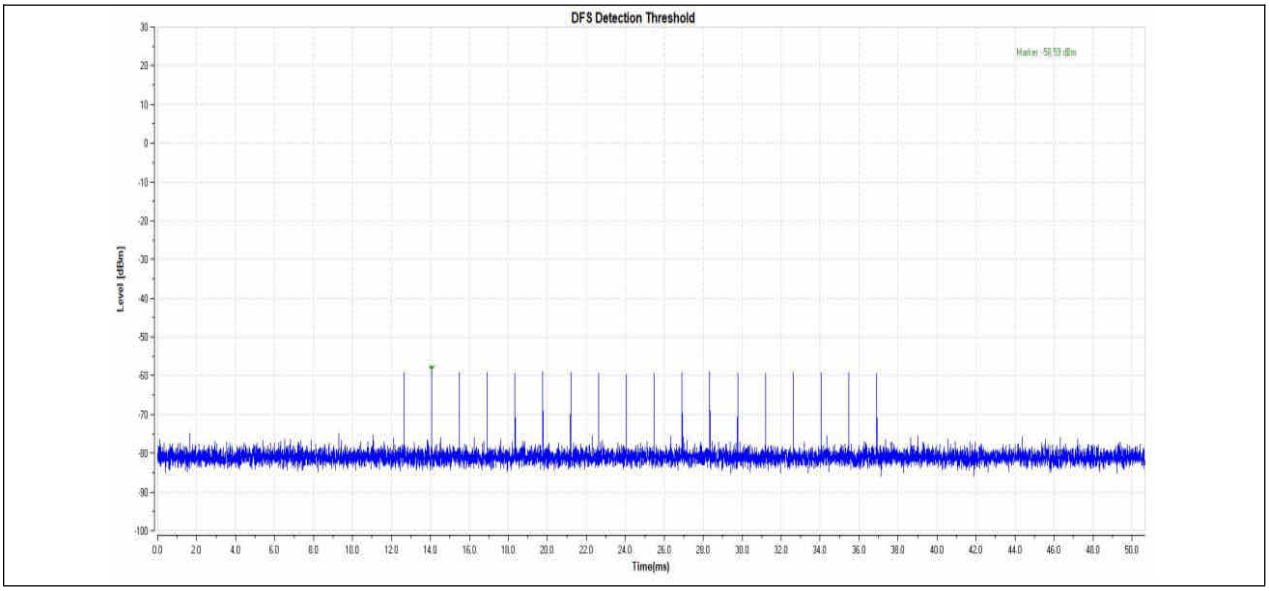
Radar Waveform Calibration Result:

Radar Type 0

11AC80MIMO_5290_Type0



11AC80MIMO_5530_Type0



10.5. Channel Closing Transmission Time, Channel Move Time and Non-Occupancy Period

Block diagram of test setup Test Procedure:

The radar pulse generator is setup to provide a pulse at frequency that the master and client are operating. A type 0 radar pulse with a 1us pulse width and a 1428us PRI is used for the testing.

The vector signal generator is adjusted to provide the radar burst (18 pulses) at the level of approximately -61dBm at the antenna port of the master device.

A trigger is provided from the pulse generator to the DFS monitoring system in order to capture the traffic and the occurrence of the radar pulse.

EUT will associate with the master at channel. The file “iperf.exe” specified by the FCC is streamed from the PC 2 through the master and the client device to the PC 1 and played in full motion video using Test Software in order to properly load the network for the entire period of the test.

When radar burst with a level equal to the DFS Detection Threshold +1dB is generated on the operating channel of the U-NII device. At time T0 the radar waveform generator sends a burst of pulse of the radar waveform at Detection Threshold +1dB.

Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the UUT during the observation time (Channel Move Time). One 15 seconds plot is reported for the Short Pulse Radar Type 0. The plot for the Short Pulse Radar Types start at the end of the radar burst. The Channel Move Time will be calculated based on the zoom in 600ms plot of the Short Pulse Radar Type.

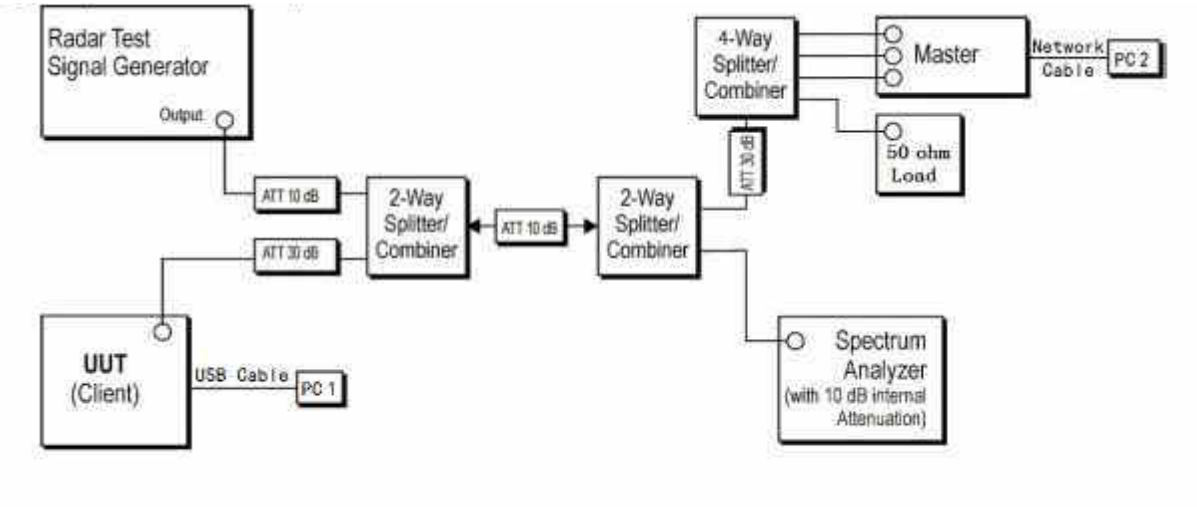
Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (0.3ms) =S (12000ms) / B (4000); where Dwell is the dwell time per spectrum analyzer sampling bin, S is sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: C (ms)= N X Dwell (0.3ms); where C is the Closing Time, N is the number of spectrum analyzer sampling bins (intermittent control signals) showing a U-NII transmission and Dwell is the dwell time per bin.

Measurement the EUT for more than 30 minutes following the channel move time to verify that no transmission or beacons occur on this channel.

10.6. Test Setup

Setup for Client with injection at the Master

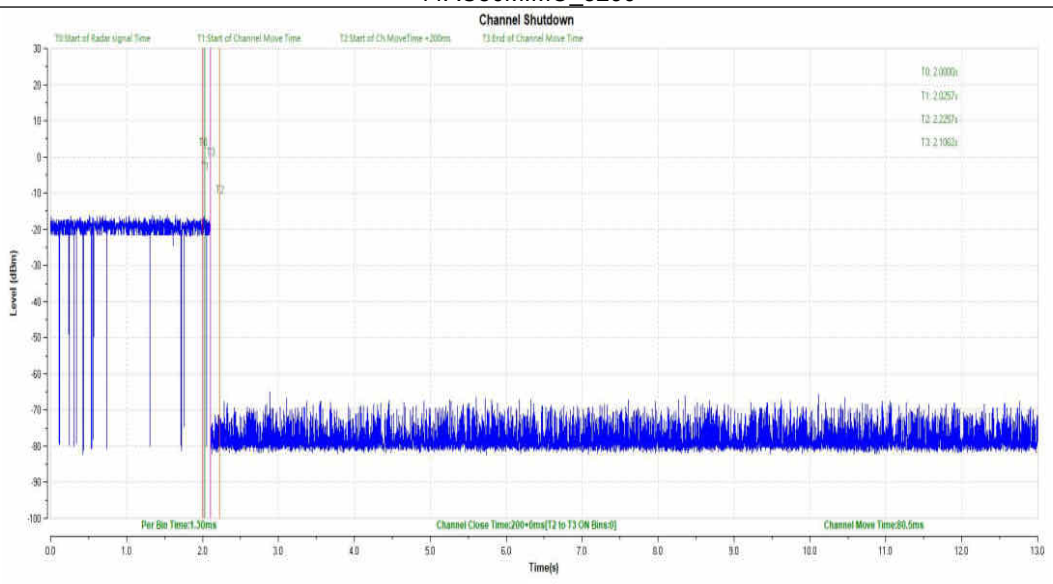
Master Name	Brand Name	Model Name	FCC ID	Run-up Time(s)
ROG Rapture Tri-band Gaming Router	ASUS	GT-AXE11000	MSQ-RTAXJF00	90

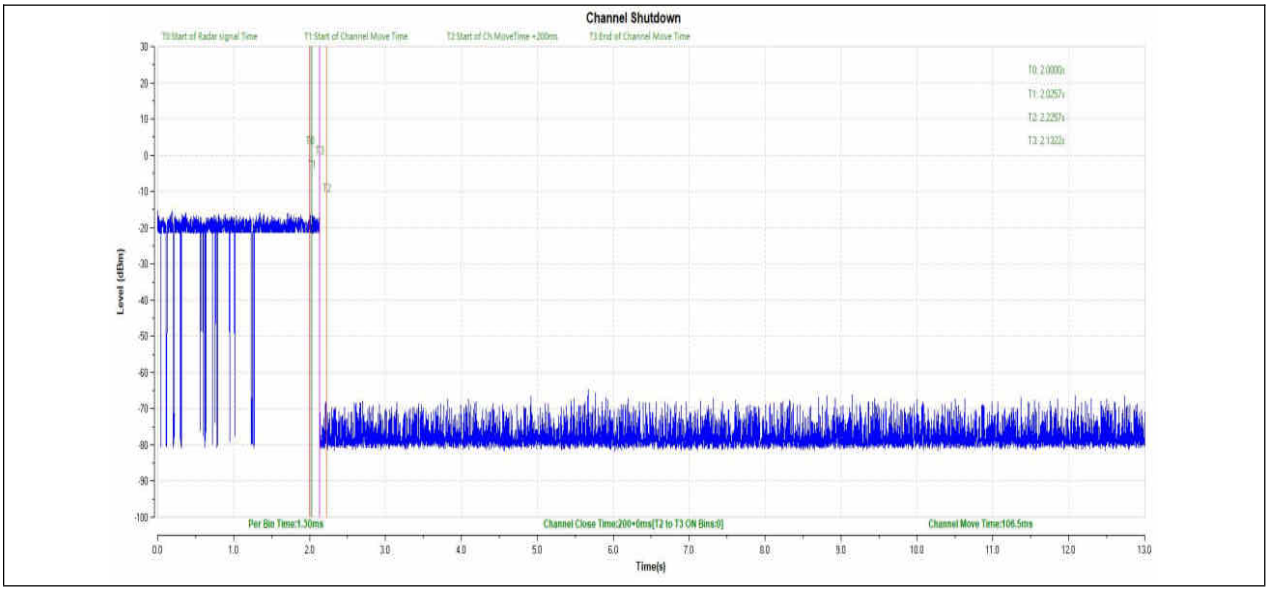


10.7. Test Result

BW/Channel	Test Item	Test Result	Limit	Results
80M/5290MHz	Channel Move Time	0.080	＜10s	pass
	Channel Closing Transmission Time	0.200	＜0.26s	pass
80M/5530MHz	Channel Move Time	0.107	＜10s	pass
	Channel Closing Transmission Time	0.200	＜0.26s	pass

Test plots as follows:

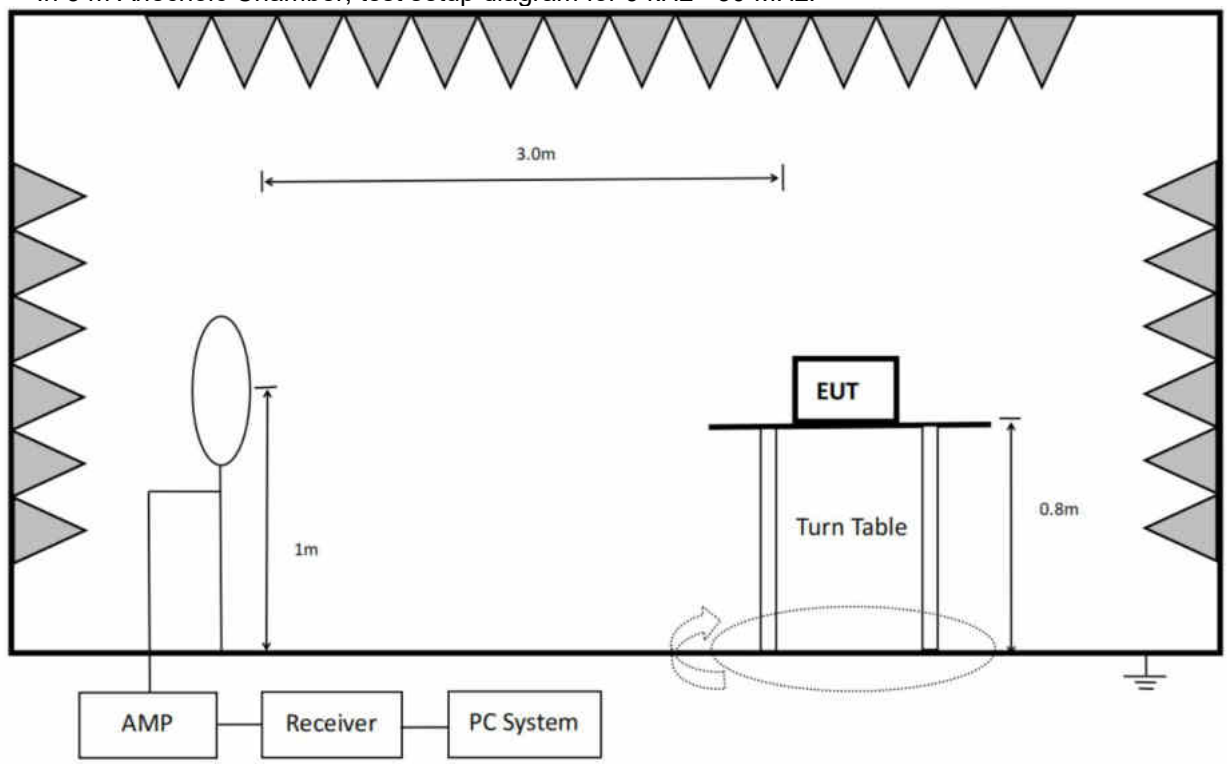
Channel Move Time & Channel Closing Transmission Time
11AC80MIMO_5290

11AC80MIMO_5530


Channel Shutdown
T0:Start of Radar signal Time
T1:Start of Channel Move Time
T2:Start of Ch.MoveTime +200ms
T3:End of Channel Move Time
T0: 2.0000s
T1: 2.0257s
T2: 2.2257s
T3: 2.1322s
Level (dBm)
Per Bin Time:1.30ms
Channel Close Time:200+0ms(T2 to T3 ON Bins:0)
Channel Move Time:106.5ms
Time(s)

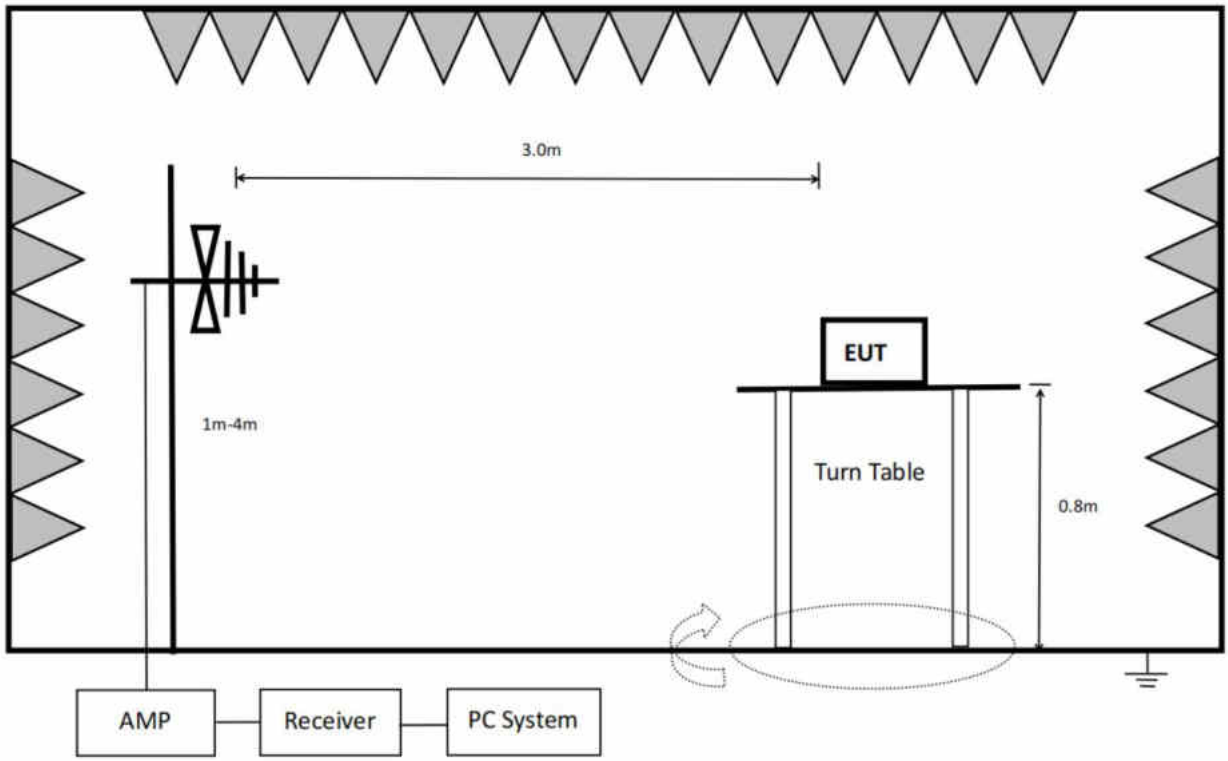
11. Radiated Emission

11.1. Block Diagram of Test Setup

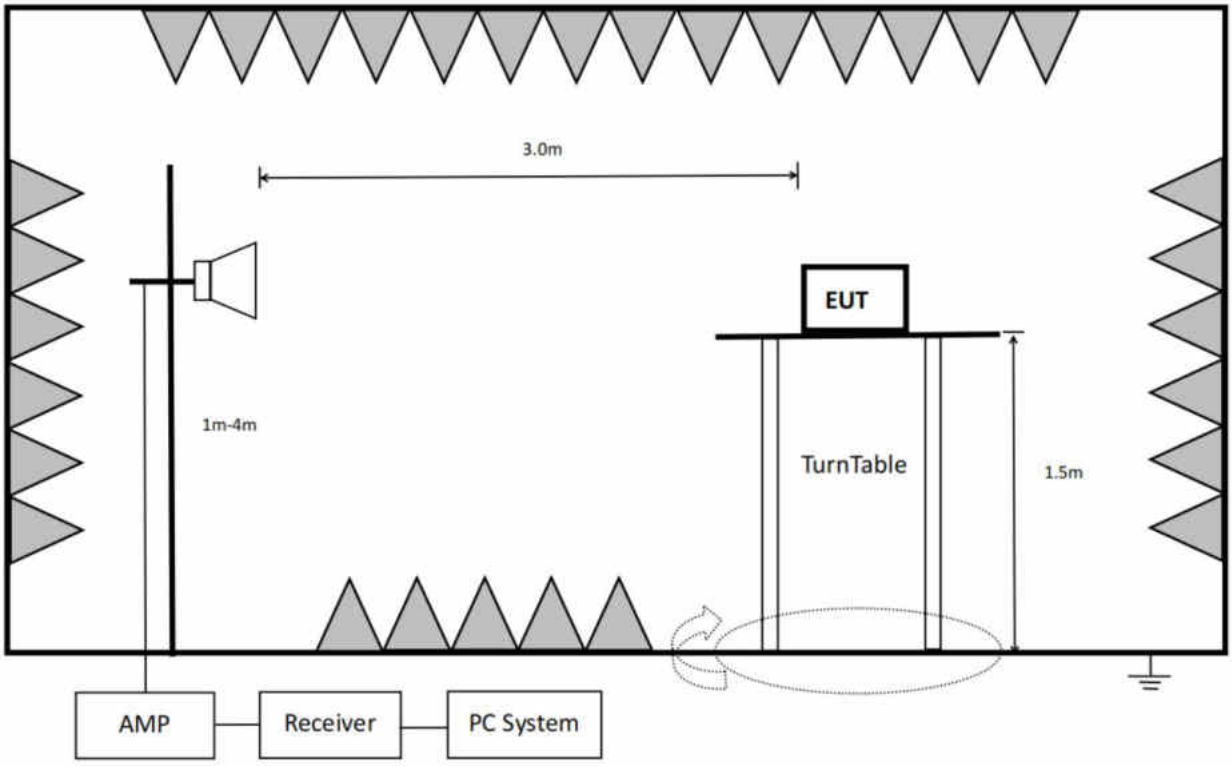
In 3 m Anechoic Chamber, test setup diagram for 9 kHz - 30 MHz:



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



In 3 m Anechoic Chamber, test setup diagram for frequency above 1 GHz:



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

11.2. Limit

(1) FCC 15.205 Restricted frequency band

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

[1]Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

[2]Above 38.6

(2) FCC 15.209 Limit.

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

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

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

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

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

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

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

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

Note:

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

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

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

(3) Limit for this EUT

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

11.3. Test Procedure

Below 30 MHz：

The setting of the spectrum Analyzer

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

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

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

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

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

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

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

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

Below 1 GHz and above 30 MHz：

The setting of the spectrum Analyzer

RBW	120 kHz
VBW	300 kHz
Sweep	Auto
Trace	Max hold

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

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

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

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

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

Above 1 GHz：

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

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

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

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

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

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

6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video

bandwidth with peak detector for AVG measurements. For the Duty Cycle please refer to clause 8.1.ON TIME AND DUTY CYCLE.

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

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

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

Note 2: The EUT does not support simultaneous transmission.

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

11.4. Test Result

PASS. (See below detailed test result)

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

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

Note2: For emissions below 1 GHz, according exploratory explorer test, when change Tx mode and channel, have no distinct influence on emissions level, so for emissions below 1 GHz, the final test was only performed with EUT working in 11AX40 mode.

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

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

Note 5: For emissions Above 1 GHz, all mode have been tested, 11AX40 mode is worse case and recorded in report.

11.5. Original Test Data

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

Above 1 GHz test data Refer to appendix B

12. Antenna Requirements

12.1. Applicable Requirements

Please refer to FCC §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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Please refer to FCC §15.247(b)(4)

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

12.2. Result

The device support 2T2R MIMO, the antennas both used for this product are dedicated FPC antennas and other than that furnished by the responsible party shall be used with the device, maximum antenna gain is 3.69 dBi.

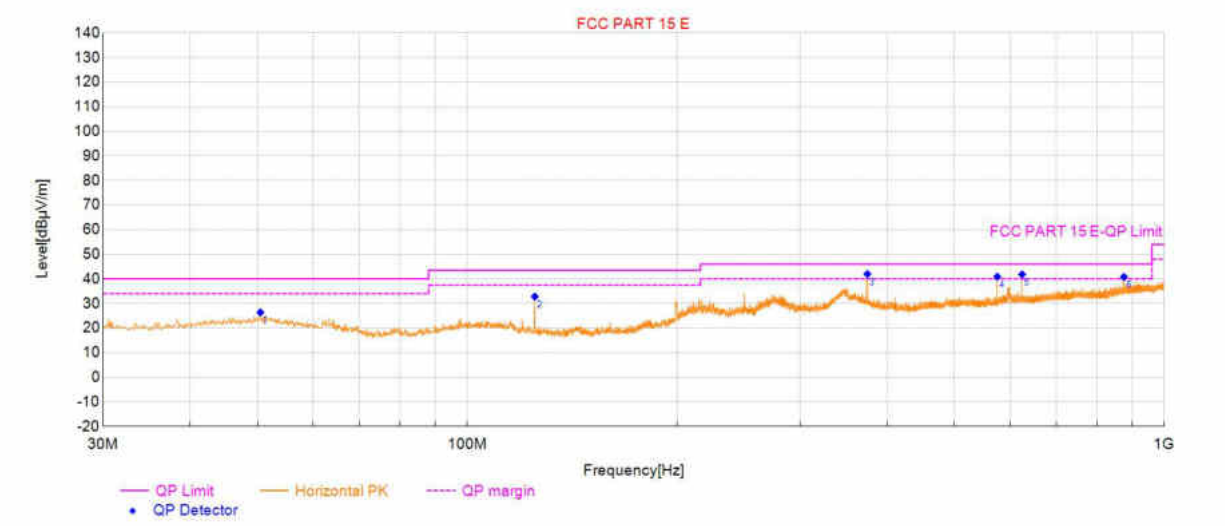
APPENDIX A – Radiated Emission Below 1GHz Test Data

Test Report

Project Information			
EUT:			
Customer:			
Model:	SKI.WB921AU.1	SN:	
Mode:	11AC40_5190	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:			

Start of Test:2025-07-20 10:01:23

Test Graph



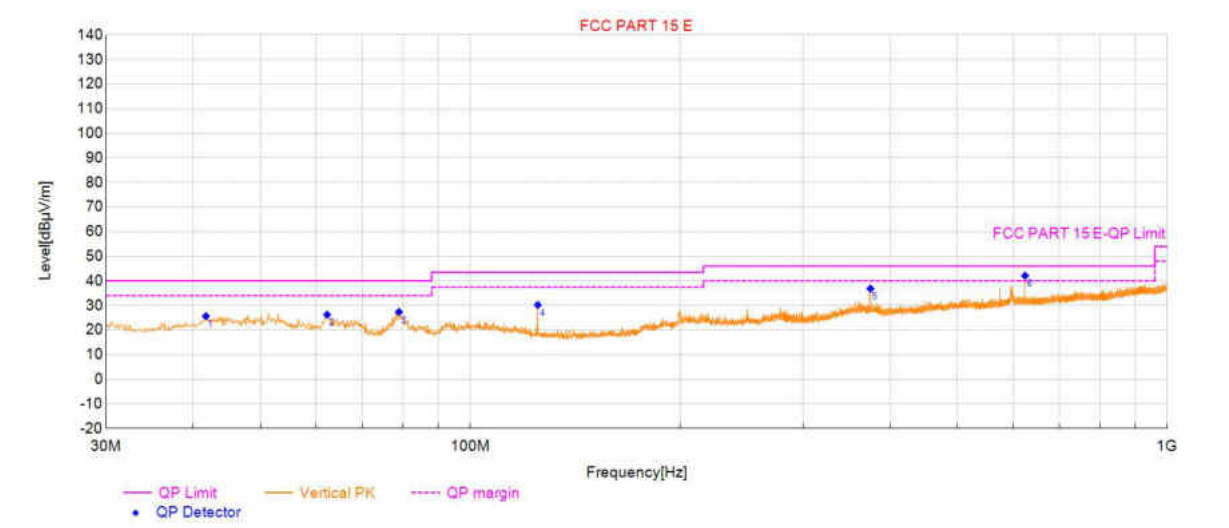
Final Data List									
NO.	Freq. (MHz)	Factor (dB)	QP Value (dBµV/m)	QP Limit (dBµV/m)	Margin (dB)	Height (cm)	Angle (°)	Polarity	Verdict
1	50.47	21.52	26.39	40.00	13.61	100	116	Horizontal	PASS
2	124.97	17.42	32.84	43.50	10.66	100	265	Horizontal	PASS
3	374.97	25.07	42.00	46.00	4.00	100	346	Horizontal	PASS
4	575.97	29.10	40.91	46.00	5.09	100	215	Horizontal	PASS
5	625.06	30.08	41.84	46.00	4.16	100	360	Horizontal	PASS
6	875.05	33.65	40.83	46.00	5.17	100	49	Horizontal	PASS

Test Report

Project Information			
EUT:			
Customer:			
Model:	SKI.WB921AU.1	SN:	
Mode:	11AC40_5190	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:			

Start of Test:2025-07-20 10:02:05

Test Graph



Final Data List									
NO.	Freq. (MHz)	Factor (dB)	QP Value (dBµV/m)	QP Limit (dBµV/m)	Margin (dB)	Height (cm)	Angle (°)	Polarity	Verdict
1	41.74	20.47	25.66	40.00	14.34	100	309	Vertical	PASS
2	62.30	19.42	26.27	40.00	13.73	100	261	Vertical	PASS
3	78.99	15.16	27.38	40.00	12.62	100	239	Vertical	PASS
4	124.97	17.42	30.24	43.50	13.26	100	156	Vertical	PASS
5	374.97	25.07	36.87	46.00	9.13	100	156	Vertical	PASS
6	624.98	30.08	42.13	46.00	3.87	104.6	42	Vertical	PASS

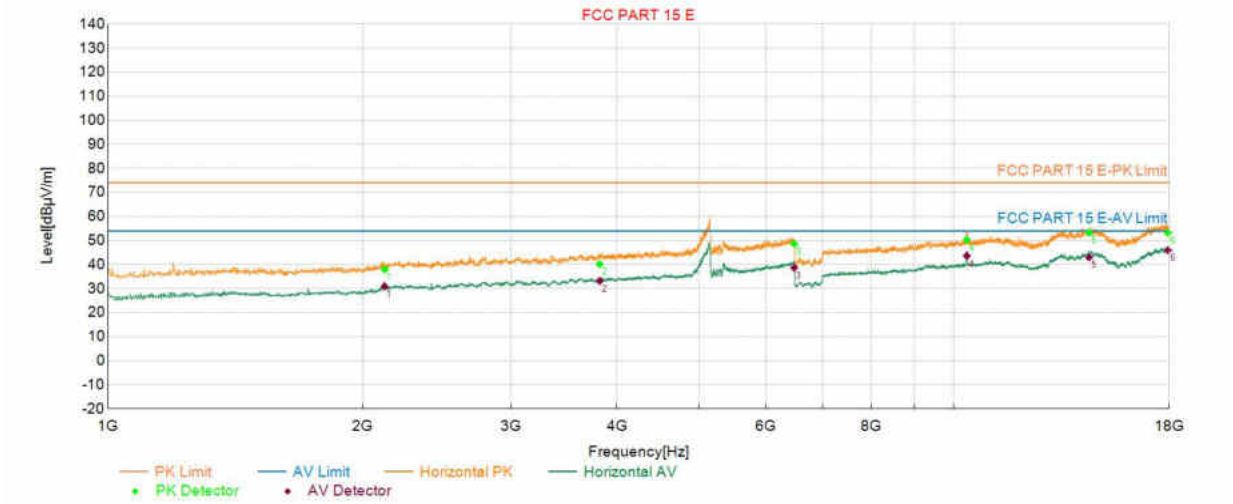
APPENDIX B – Radiated Emission Above 1GHz Test Data

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB921AU.1	SN:	
Mode:	11AX40_5190	Voltage:	DC 3.3V
Environment:	24.3℃;52%	Engineer:	Orion chen
Remark:			

Start of Test:2025-07-14 14:46:31

Test Graph



PK Final Data List							
NO.	Freq. (MHz)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	Height (cm)	Angle (°)	Polarity
1	2124.208	38.01	74.00	35.99	150	127	Horizontal
2	3815.105	40.18	74.00	33.82	150	82	Horizontal
3	6479.827	48.66	74.00	25.34	150	145	Horizontal
4	10369.123	50.31	74.00	23.69	150	249	Horizontal
5	14464.488	53.29	74.00	20.71	150	316	Horizontal
6	17934.812	53.19	74.00	20.81	150	8	Horizontal

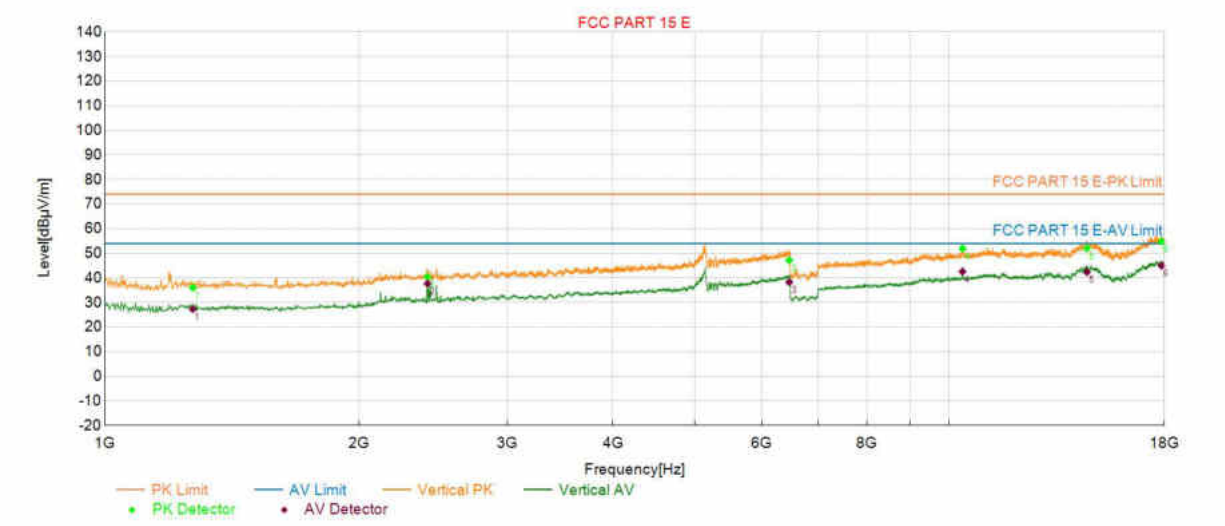
AV Final Data List							
NO.	Freq. (MHz)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	2124.208	30.91	54.00	23.09	150	127	Horizontal
2	3815.105	33.15	54.00	20.85	150	82	Horizontal
3	6479.827	38.71	54.00	15.29	150	145	Horizontal
4	10369.123	43.62	54.00	10.38	150	249	Horizontal
5	14464.488	43.00	54.00	11.00	150	316	Horizontal
6	17934.812	45.99	54.00	8.01	150	8	Horizontal

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB921AU.1	SN:	
Mode:	11AX40_5190	Voltage:	DC 3.3V
Environment:	24.3℃;52%	Engineer:	Orion chen
Remark:			

Start of Test:2025-07-14 14:48:01

Test Graph



PK Final Data List							
NO.	Freq. (MHz)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1271.424	36.08	74.00	37.92	150	351	Vertical
2	2412.137	40.43	74.00	33.57	150	345	Vertical
3	6468.823	47.19	74.00	26.81	150	246	Vertical
4	10376.792	51.94	74.00	22.06	150	325	Vertical
5	14571.857	52.01	74.00	21.99	150	56	Vertical
6	17854.285	54.86	74.00	19.14	150	187	Vertical

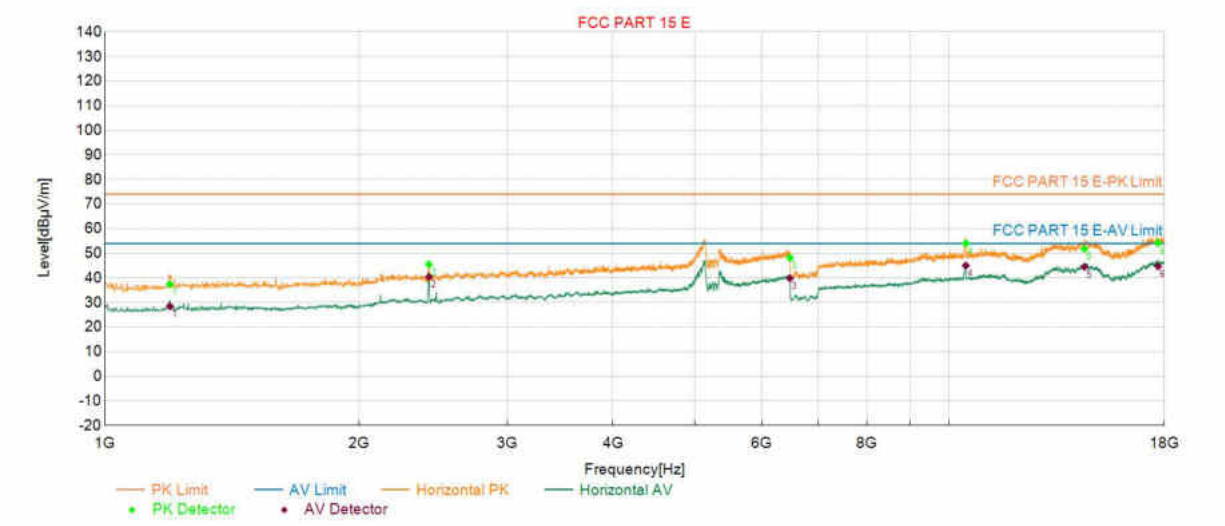
AV Final Data List							
NO.	Freq. (MHz)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1271.424	27.32	54.00	26.68	150	351	Vertical
2	2412.137	37.70	54.00	16.30	150	345	Vertical
3	6468.823	38.28	54.00	15.72	150	246	Vertical
4	10376.792	42.54	54.00	11.46	150	325	Vertical
5	14571.857	42.38	54.00	11.62	150	56	Vertical
6	17854.285	45.00	54.00	9.00	150	187	Vertical

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB921AU.1	SN:	
Mode:	11AX40_5230	Voltage:	DC 3.3V
Environment:	24.3℃;52%	Engineer:	Orion chen
Remark:			

Start of Test:2025-07-14 14:51:43

Test Graph



PK Final Data List							
NO.	Freq. (MHz)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1194.398	37.36	74.00	36.64	150	175	Horizontal
2	2421.307	45.50	74.00	28.50	150	91	Horizontal
3	6481.661	48.21	74.00	25.79	150	230	Horizontal
4	10472.658	54.06	74.00	19.94	150	270	Horizontal
5	14472.157	51.78	74.00	22.22	150	243	Horizontal
6	17693.231	54.24	74.00	19.76	150	5	Horizontal

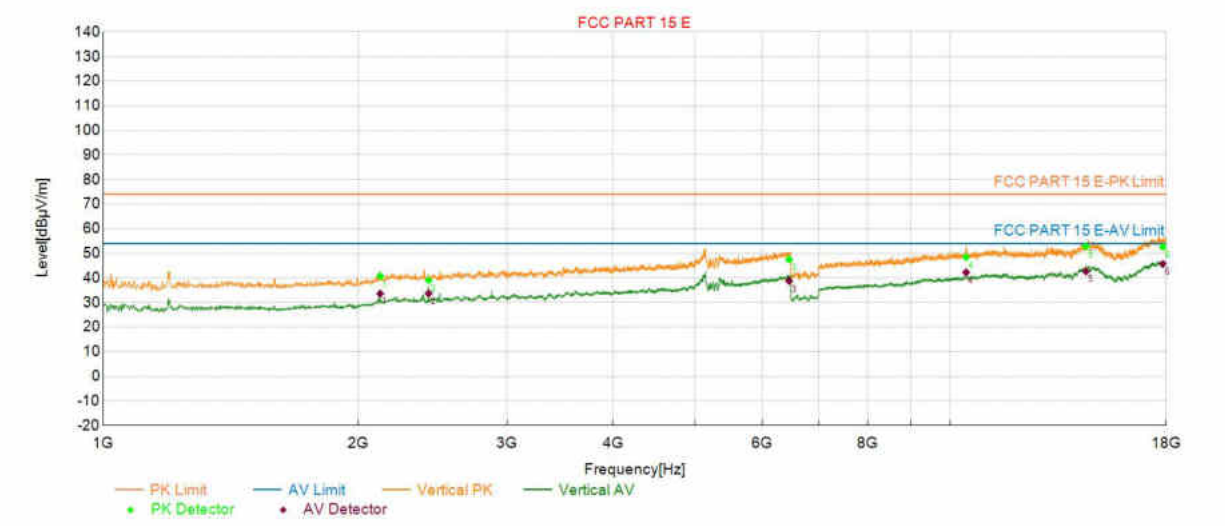
AV Final Data List							
NO.	Freq. (MHz)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1194.398	28.45	54.00	25.55	150	175	Horizontal
2	2421.307	40.44	54.00	13.56	150	91	Horizontal
3	6481.661	39.86	54.00	14.14	150	230	Horizontal
4	10472.658	45.02	54.00	8.98	150	270	Horizontal
5	14472.157	44.51	54.00	9.49	150	243	Horizontal
6	17693.231	44.73	54.00	9.27	150	5	Horizontal

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB921AU.1	SN:	
Mode:	11AX40_5230	Voltage:	DC 3.3V
Environment:	24.3℃;52%	Engineer:	Orion chen
Remark:			

Start of Test:2025-07-14 14:53:11

Test Graph



PK Final Data List

NO.	Freq. (MHz)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	Height (cm)	Angle (°)	Polarity
1	2124.208	40.68	74.00	33.32	150	318	Vertical
2	2423.141	39.04	74.00	34.96	150	236	Vertical
3	6455.985	47.53	74.00	26.47	150	3	Vertical
4	10445.815	48.44	74.00	25.56	150	326	Vertical
5	14468.323	52.84	74.00	21.16	150	215	Vertical
6	17838.946	52.58	74.00	21.42	150	119	Vertical

AV Final Data List

NO.	Freq. (MHz)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	2124.208	33.61	54.00	20.39	150	318	Vertical
2	2423.141	33.68	54.00	20.32	150	236	Vertical
3	6455.985	38.75	54.00	15.25	150	3	Vertical
4	10445.815	42.25	54.00	11.75	150	326	Vertical
5	14468.323	42.68	54.00	11.32	150	215	Vertical
6	17838.946	45.64	54.00	8.36	150	119	Vertical