15. Dynamic Frequency Selection

15.1. Applicability of DFS Requirements

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

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

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.		

15.2. 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.

15.3. 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		$\text{Roundup}\left\{\left(\dfrac{1}{360}\right) \cdot \left(\dfrac{19 \cdot 10^{6}}{\text{PRI}_{\mu sec}}\right)\right\}$	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

15.4. Calibration of Radar Waveform

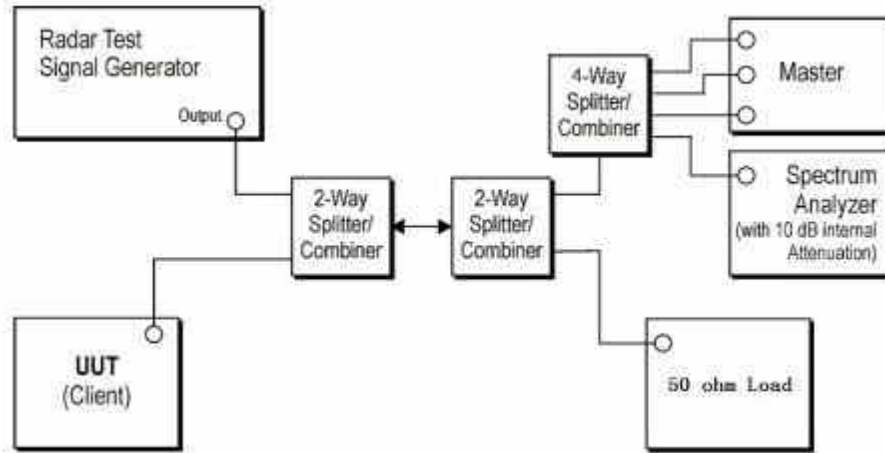Radar Waveform Calibration Procedure:

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.
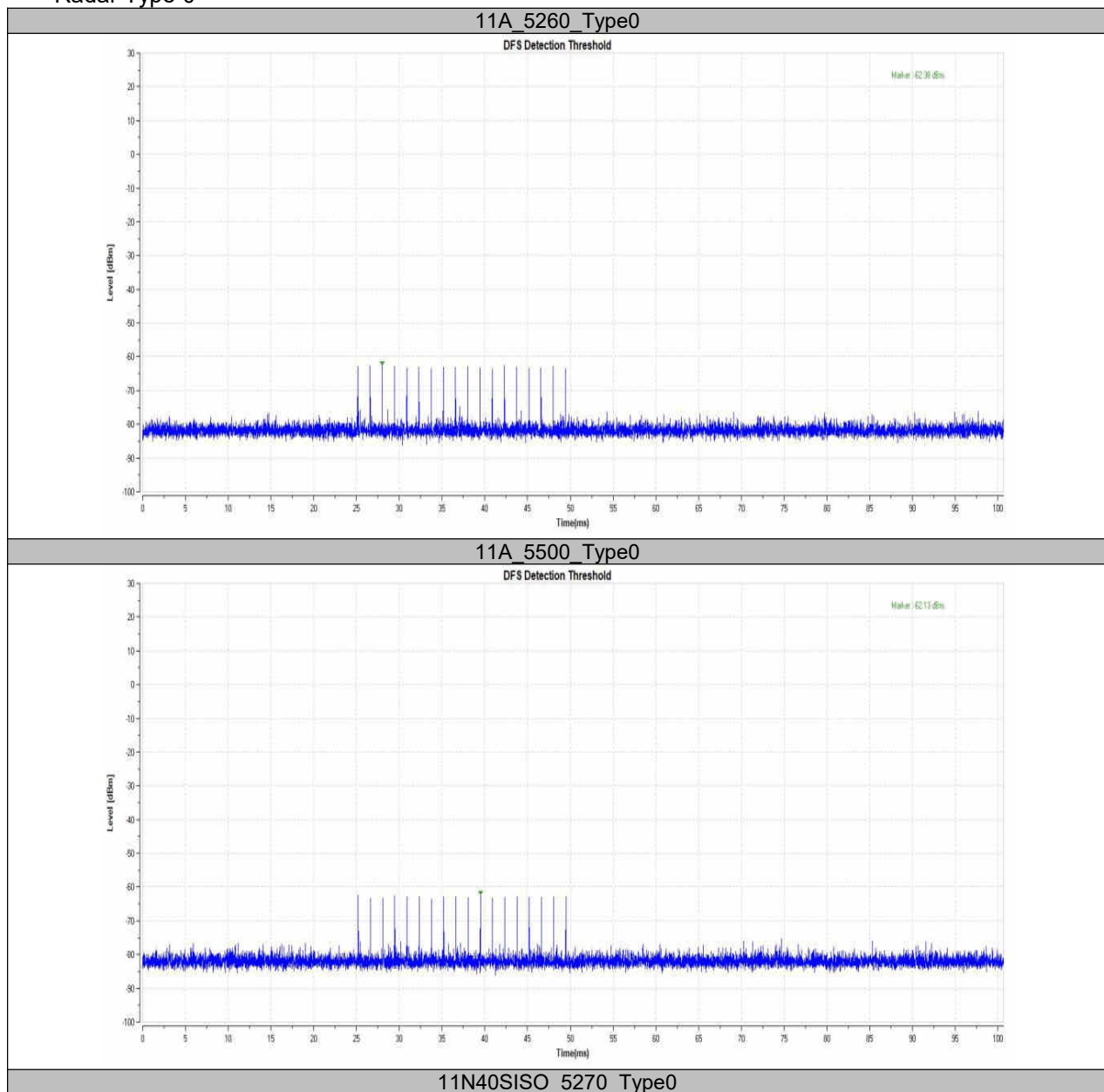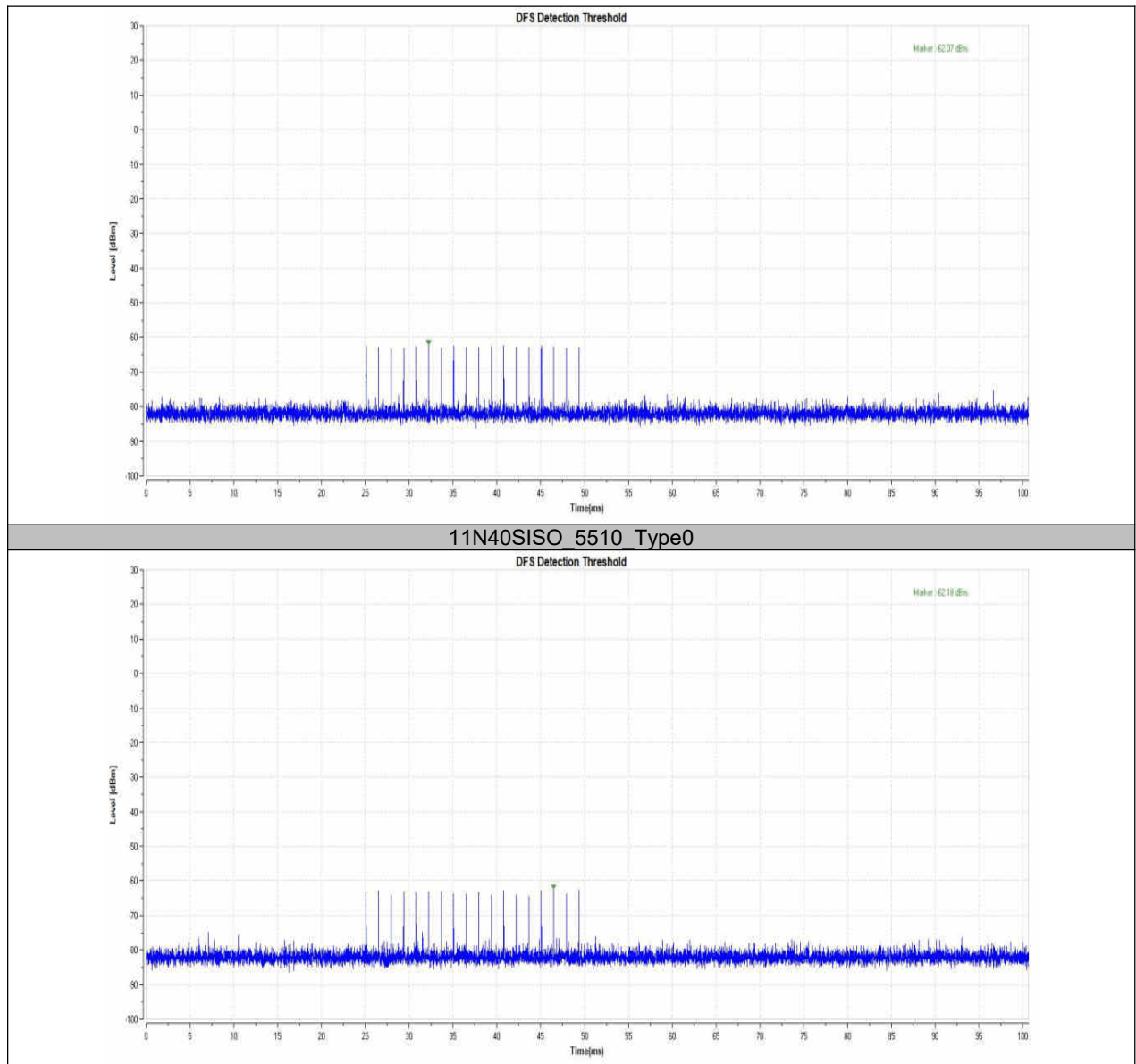
Conducted Calibration Setup:

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

11N40SISO_5510_Type0

15.5. 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.

15.6. Test Setup

Setup for Client with injection at the Master
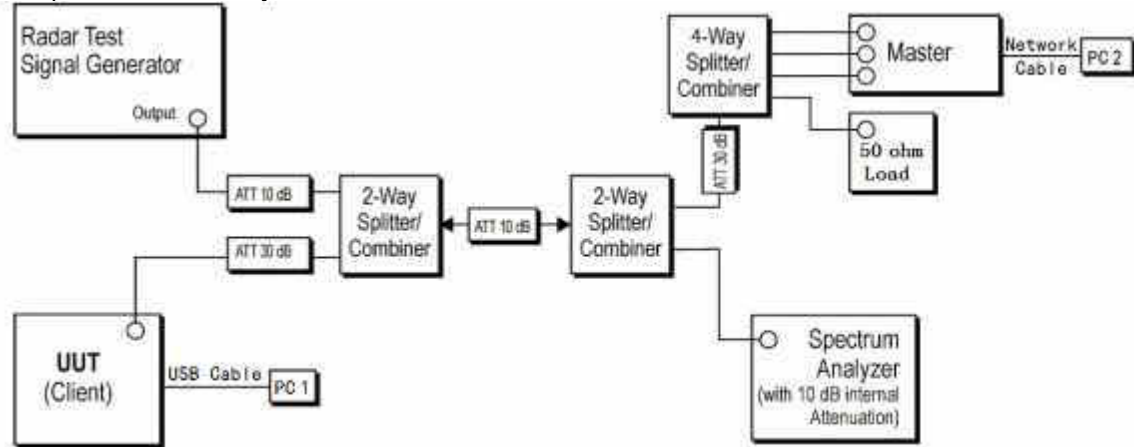
15.7. Test Result

BW/Channel	Test Item	Test Result	Limit	Results
20M/5260MHz	Channel Move Time	0.806	＜10s	pass
	Channel Closing Transmission Time	0.217	＜0.26s	pass
20M/5500MHz	Channel Move Time	0.861	＜10s	pass
	Channel Closing Transmission Time	0.214	＜0.26s	pass
40M/5270MHz	Channel Move Time	0.839	＜10s	pass
	Channel Closing Transmission Time	0.220	＜0.26s	pass
40M/5510MHz	Channel Move Time	0.878	＜10s	pass
	Channel Closing Transmission Time	0.213	＜0.26s	pass

11A_5260

11A_5500

11N40SISO_5270

11N40SISO_5510
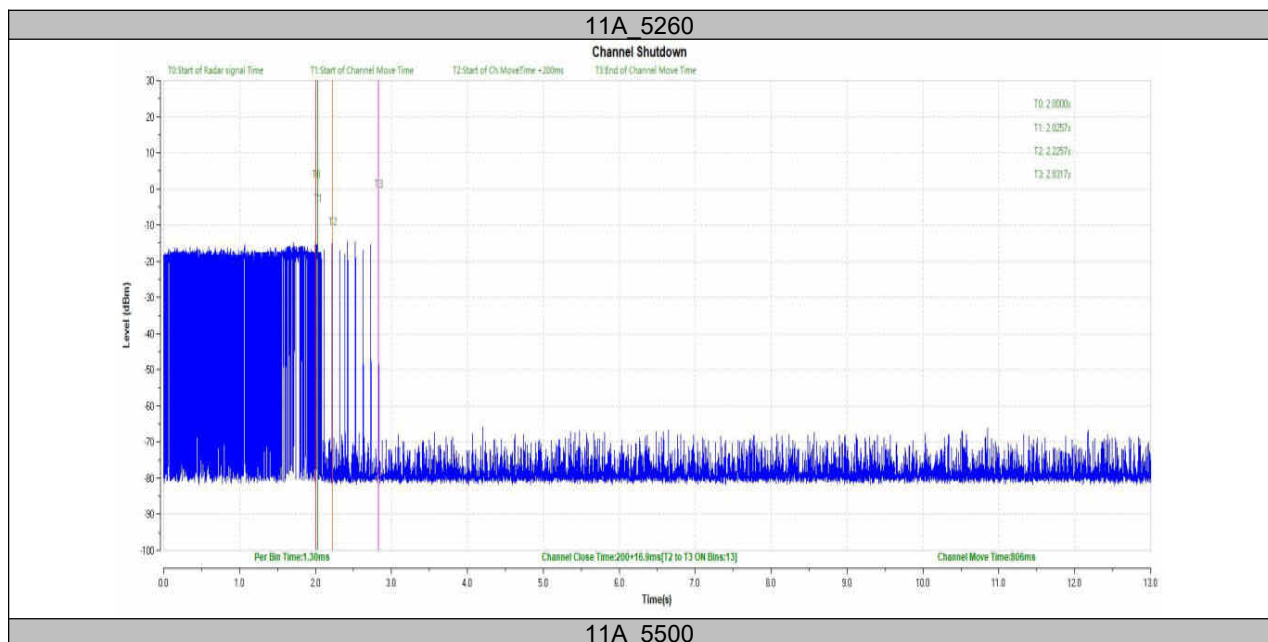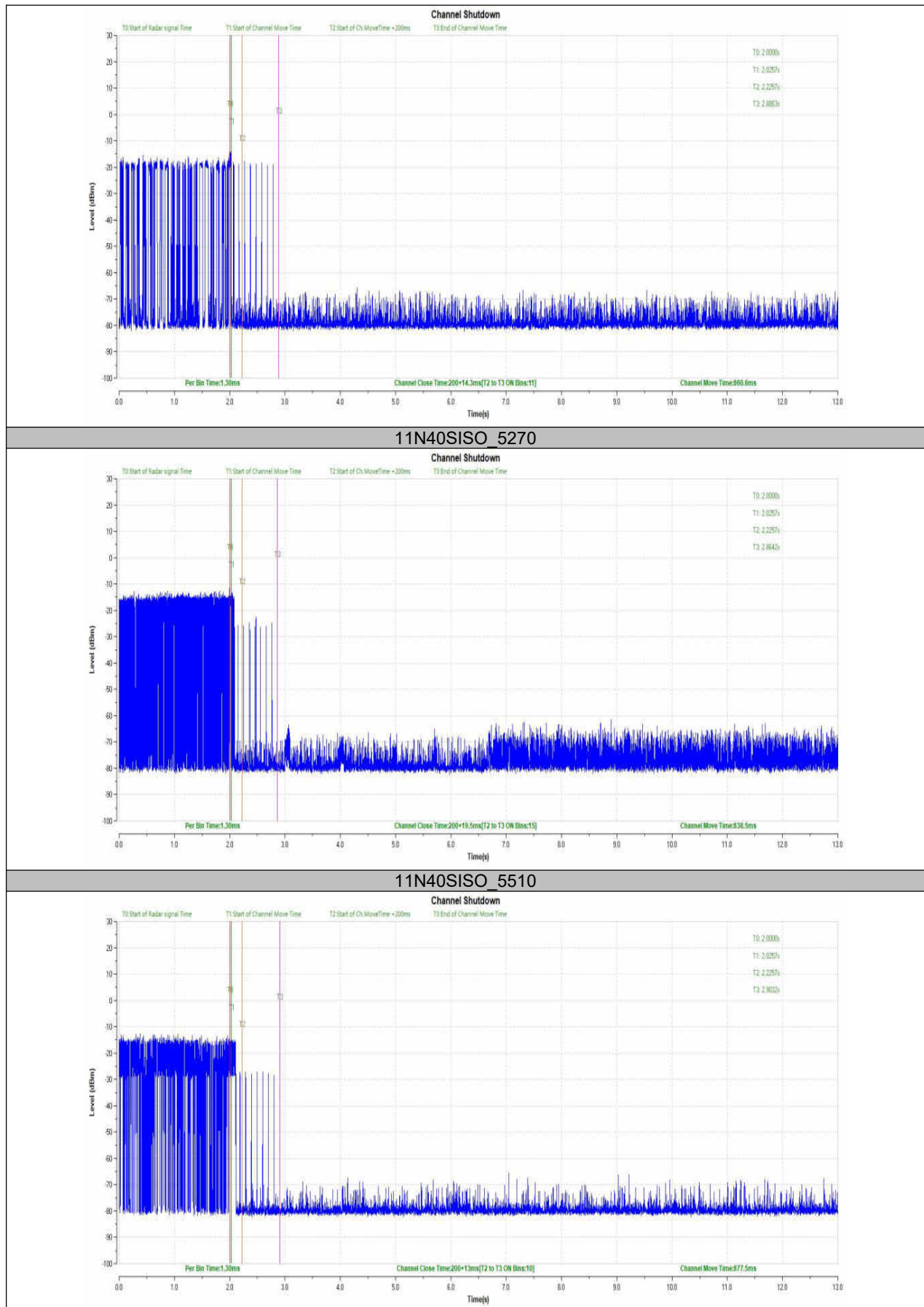
16. Antenna Requirements

16.1. 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.

16.2. Result

The device support 2T2R MIMO, the antennas both used for this product are dedicated PCB antennas and other than that furnished by the responsible party shall be used with the device, maximum antenna gain is 4.94 dBi for antenna 0, 4.08 dBi for antenna 1.

APPENDIX A – Radiated Emission Below 1GHz Test Data
Test Report

Project Information			
EUT:	IEEE 802.11a/b/g/n/ac 2T2R Wi-Fi Module Integrated BT 2.1/3.0/4.2/5.0		
Model:	SKI.WB822CU.5	Environment:	23.6℃ 53%
Mode:	11AC80_5610	Voltage:	DC 3.3V
Customer:		Engineer:	Soho Liu
Remark:			

Start of Test: 2024-01-09 17:56:38

Test Graph
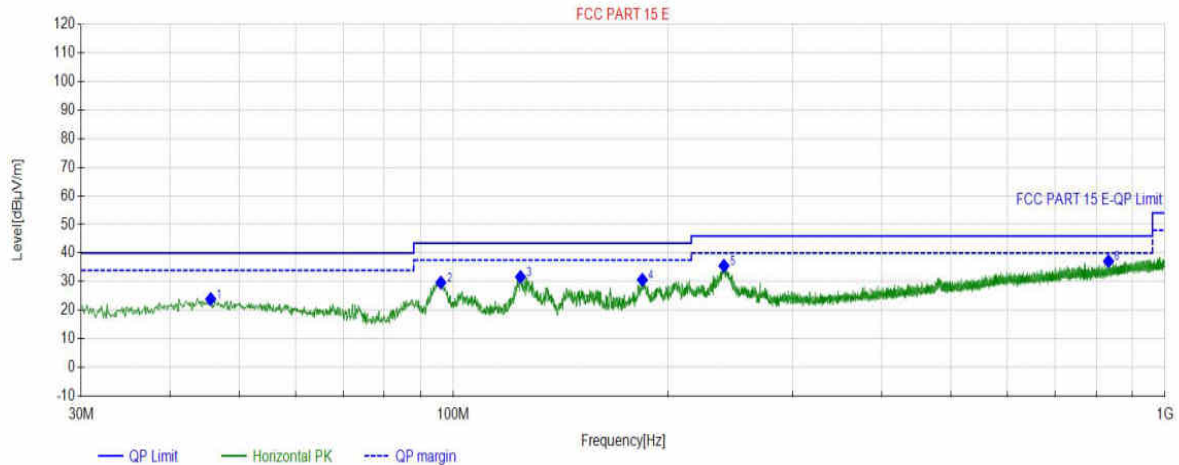
Final Data List

NO.	Freq. (MHz)	Factor (dB)	QP Value (dBµV/m)	QP Limit (dBµV/m)	Margin (dB)	Height (cm)	Angle (°)	Polarity
1	45.6186	22.18	23.92	40.00	16.08	150	45	Horizontal
2	96.0636	19.85	29.69	43.50	13.81	150	98	Horizontal
3	124.2934	17.92	31.66	43.50	11.84	150	162	Horizontal
4	184.3424	18.60	30.63	43.50	12.87	150	192	Horizontal
5	240.0260	21.06	35.54	46.00	10.46	150	124	Horizontal
6	832.8523	32.96	37.16	46.00	8.84	150	273	Horizontal

Test Report

Project Information			
EUT:	IEEE 802.11a/b/g/n/ac 2T2R Wi-Fi Module Integrated BT 2.1/3.0/4.2/5.0		
Model:	SKI.WB822CU.5	Environment:	23.6℃ 53%
Mode:	11AC80_5610	Voltage:	DC 3.3V
Customer:		Engineer:	Soho Liu
Remark:			

Start of Test: 2024-01-09 17:57:23

Test Graph
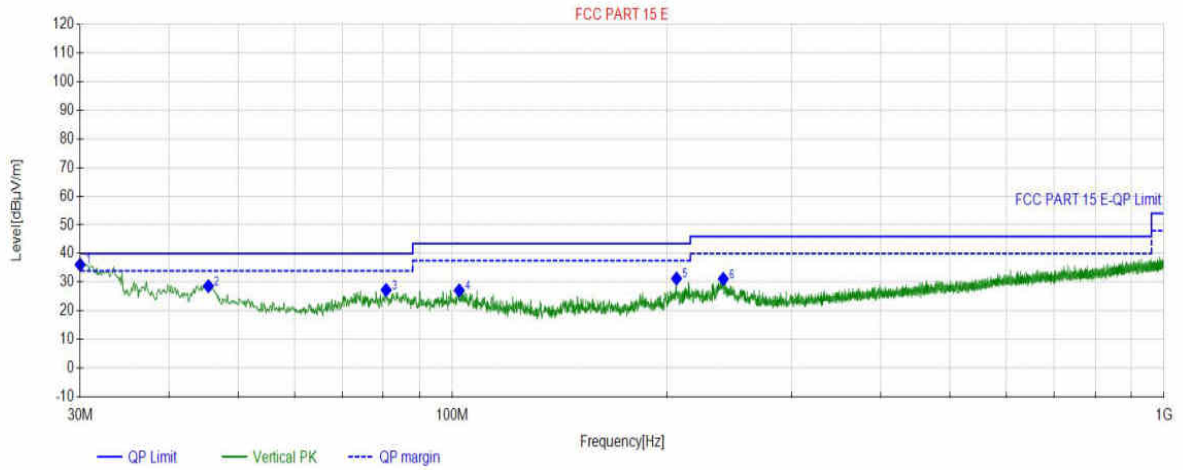
Final Data List

NO.	Freq. (MHz)	Factor (dB)	QP Value (dBμV/m)	QP Limit (dBμV/m)	Margin (dB)	Height (cm)	Angle (°)	Polarity
1	30.0000	18.52	36.12	40.00	3.88	150	312	Vertical
2	45.4245	22.17	28.62	40.00	11.38	150	199	Vertical
3	80.7361	15.75	27.28	40.00	12.72	150	293	Vertical
4	102.2722	20.62	27.15	43.50	16.35	150	147	Vertical
5	206.5577	20.12	31.30	43.50	12.20	150	122	Vertical
6	240.3170	21.07	31.18	46.00	14.82	150	358	Vertical

APPENDIX B – Radiated Emission Above 1GHz Test Data
Test Report

Project Information			
EUT:	IEEE 802.11a/b/g/n/ac 2T2R Wi-Fi Module Integrated BT 2.1/3.0/4.2/5.0		
Model:	SKI.WB822CU.5	Environment:	23.6℃ 53%
Mode:	11AC80_5210	Voltage:	DC 3.3V
Customer:		Engineer:	Soho Liu
Remark:			

Start of Test: 2024-01-09 14:16:21

Test Graph
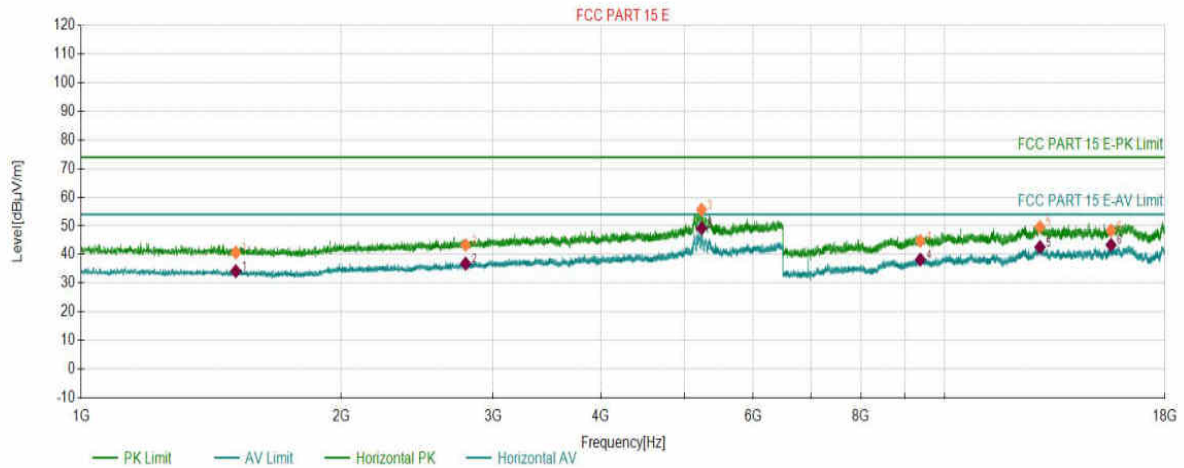
PK Final Data List

NO.	Freq. (MHz)	Factor (dB)	PK Value (dBμV/m)	PK Limit (dBμV/m)	PK Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1510.4510	3.45	40.69	74.00	33.31	150	162	Horizontal
2	2787.6788	8.29	43.34	74.00	30.66	150	162	Horizontal
3	5230.4730	20.88	55.67	74.00	18.33	150	92	Horizontal
4	9372.9873	3.98	44.77	74.00	29.23	150	260	Horizontal
5	12896.9397	10.86	49.62	74.00	24.38	150	331	Horizontal
6	15584.7585	11.77	48.36	74.00	25.64	150	276	Horizontal

AV Final Data List

NO.	Freq. (MHz)	Factor (dB)	AV Value (dBμV/m)	AV Limit (dBμV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1510.4510	3.45	34.20	54.00	19.80	150	162	Horizontal
2	2787.6788	8.29	36.85	54.00	17.15	150	162	Horizontal
3	5230.4730	20.88	49.17	54.00	4.83	150	92	Horizontal
4	9372.9873	3.98	38.24	54.00	15.76	150	260	Horizontal
5	12896.9397	10.86	42.60	54.00	11.40	150	331	Horizontal
6	15584.7585	11.77	43.35	54.00	10.65	150	276	Horizontal

Test Report

Project Information			
EUT:	IEEE 802.11a/b/g/n/ac 2T2R Wi-Fi Module Integrated BT 2.1/3.0/4.2/5.0		
Model:	SKI.WB822CU.5	Environment:	23.6℃ 53%
Mode:	11AC80_5210	Voltage:	DC 3.3V
Customer:		Engineer:	Soho Liu
Remark:			

Start of Test: 2024-01-09 14:17:40

Test Graph
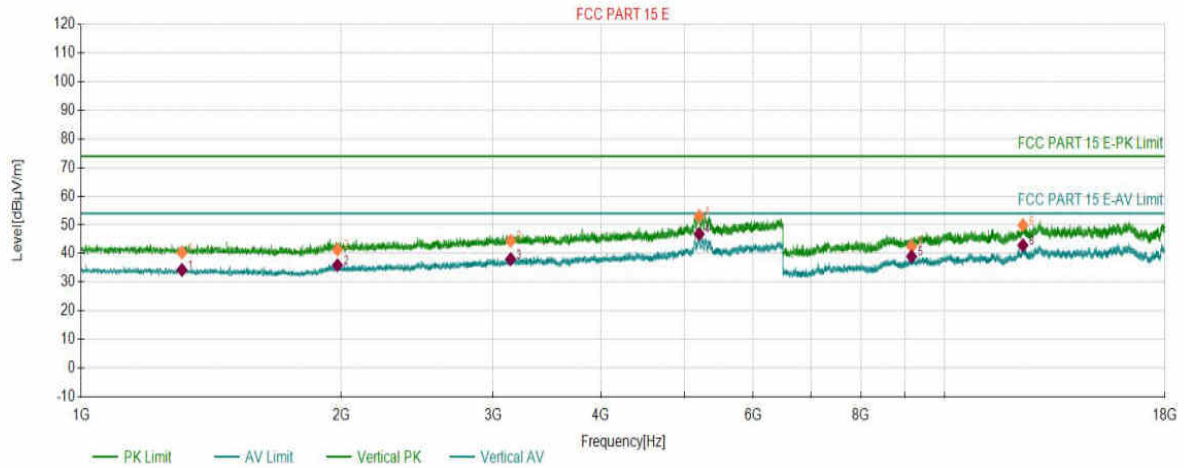
PK Final Data List

NO.	Freq. (MHz)	Factor (dB)	PK Value (dBμV/m)	PK Limit (dBμV/m)	PK Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1308.5809	2.79	40.38	74.00	33.62	150	336	Vertical
2	1980.7481	5.29	41.36	74.00	32.64	150	148	Vertical
3	3143.5644	9.55	44.44	74.00	29.56	150	297	Vertical
4	5196.9197	20.86	53.05	74.00	20.95	150	357	Vertical
5	9157.9158	2.96	42.47	74.00	31.53	150	260	Vertical
6	12321.8822	7.80	49.88	74.00	24.12	150	358	Vertical

AV Final Data List

NO.	Freq. (MHz)	Factor (dB)	AV Value (dBμV/m)	AV Limit (dBμV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1308.5809	2.79	34.29	54.00	19.71	150	336	Vertical
2	1980.7481	5.29	35.94	54.00	18.06	150	148	Vertical
3	3143.5644	9.55	38.05	54.00	15.95	150	297	Vertical
4	5196.9197	20.86	46.82	54.00	7.18	150	357	Vertical
5	9157.9158	2.96	38.97	54.00	15.03	150	260	Vertical
6	12321.8822	7.80	42.89	54.00	11.11	150	358	Vertical

Test Report

Project Information			
EUT:	IEEE 802.11a/b/g/n/ac 2T2R Wi-Fi Module Integrated BT 2.1/3.0/4.2/5.0		
Model:	SKI.WB822CU.5	Environment:	23.6℃ 53%
Mode:	11AC80_5290	Voltage:	DC 3.3V
Customer:		Engineer:	Soho Liu
Remark:			

Start of Test: 2024-01-09 14:22:05

Test Graph
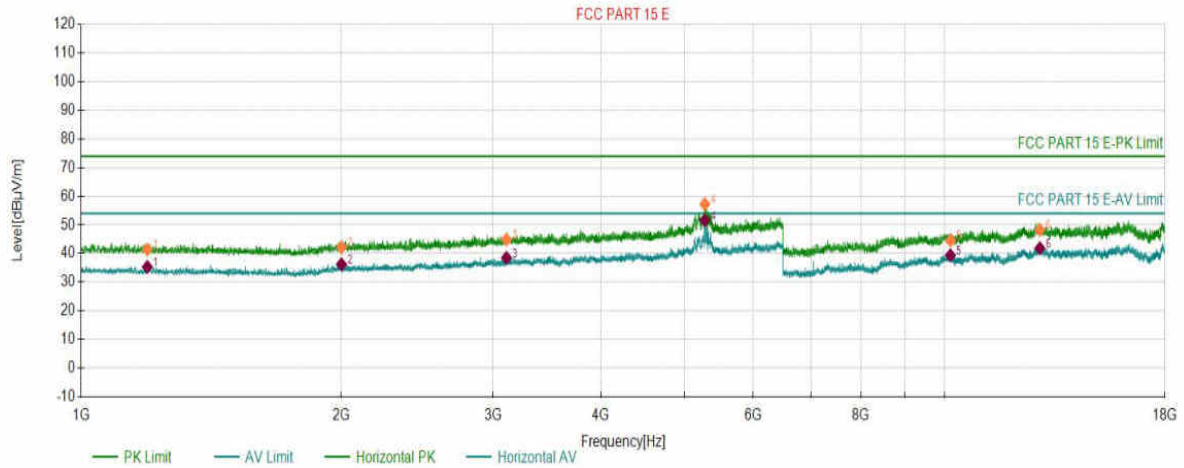
PK Final Data List

NO.	Freq. (MHz)	Factor (dB)	PK Value (dBμV/m)	PK Limit (dBμV/m)	PK Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1193.0693	2.42	41.44	74.00	32.56	150	166	Horizontal
2	2002.2002	5.49	42.15	74.00	31.85	150	237	Horizontal
3	3108.9109	9.48	44.89	74.00	29.11	150	173	Horizontal
4	5276.1276	20.92	57.25	74.00	16.75	150	90	Horizontal
5	10156.2156	5.15	44.53	74.00	29.47	150	358	Horizontal
6	12891.1891	10.77	48.19	74.00	25.81	150	142	Horizontal

AV Final Data List

NO.	Freq. (MHz)	Factor (dB)	AV Value (dBμV/m)	AV Limit (dBμV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1193.0693	2.42	35.35	54.00	18.65	150	166	Horizontal
2	2002.2002	5.49	36.24	54.00	17.76	150	237	Horizontal
3	3108.9109	9.48	38.49	54.00	15.51	150	173	Horizontal
4	5276.1276	20.92	51.62	54.00	2.38	150	90	Horizontal
5	10156.2156	5.15	39.37	54.00	14.63	150	358	Horizontal
6	12891.1891	10.77	41.84	54.00	12.16	150	142	Horizontal

Test Report

Project Information			
EUT:	IEEE 802.11a/b/g/n/ac 2T2R Wi-Fi Module Integrated BT 2.1/3.0/4.2/5.0		
Model:	SKI.WB822CU.5	Environment:	23.6℃ 53%
Mode:	11AC80_5290	Voltage:	DC 3.3V
Customer:		Engineer:	Soho Liu
Remark:			

Start of Test: 2024-01-09 14:23:34

Test Graph
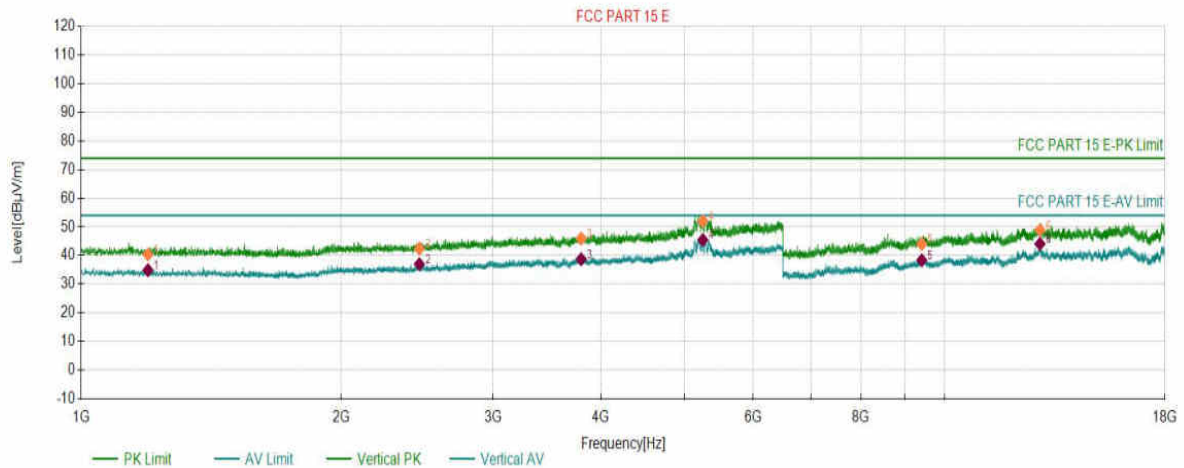
PK Final Data List

NO.	Freq. (MHz)	Factor (dB)	PK Value (dBµV/m)	PK Limit (dBµV/m)	PK Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1195.2695	2.44	40.37	74.00	33.63	150	236	Vertical
2	2464.2464	6.87	42.38	74.00	31.62	150	84	Vertical
3	3793.7294	11.65	45.94	74.00	28.06	150	227	Vertical
4	5248.0748	20.90	52.02	74.00	21.98	150	355	Vertical
5	9409.7910	4.18	44.06	74.00	29.94	150	205	Vertical
6	12894.6395	10.82	48.86	74.00	25.14	150	24	Vertical

AV Final Data List

NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1195.2695	2.44	34.91	54.00	19.09	150	236	Vertical
2	2464.2464	6.87	37.01	54.00	16.99	150	84	Vertical
3	3793.7294	11.65	38.73	54.00	15.27	150	227	Vertical
4	5248.0748	20.90	45.46	54.00	8.54	150	355	Vertical
5	9409.7910	4.18	38.35	54.00	15.65	150	205	Vertical
6	12894.6395	10.82	44.08	54.00	9.92	150	24	Vertical

Test Report

Project Information			
EUT:	IEEE 802.11a/b/g/n/ac 2T2R Wi-Fi Module Integrated BT 2.1/3.0/4.2/5.0		
Model:	SKI.WB822CU.5	Environment:	23.6℃ 53%
Mode:	11AC80_5530	Voltage:	DC 3.3V
Customer:		Engineer:	Soho Liu
Remark:			

Start of Test: 2024-01-09 14:27:41

Test Graph
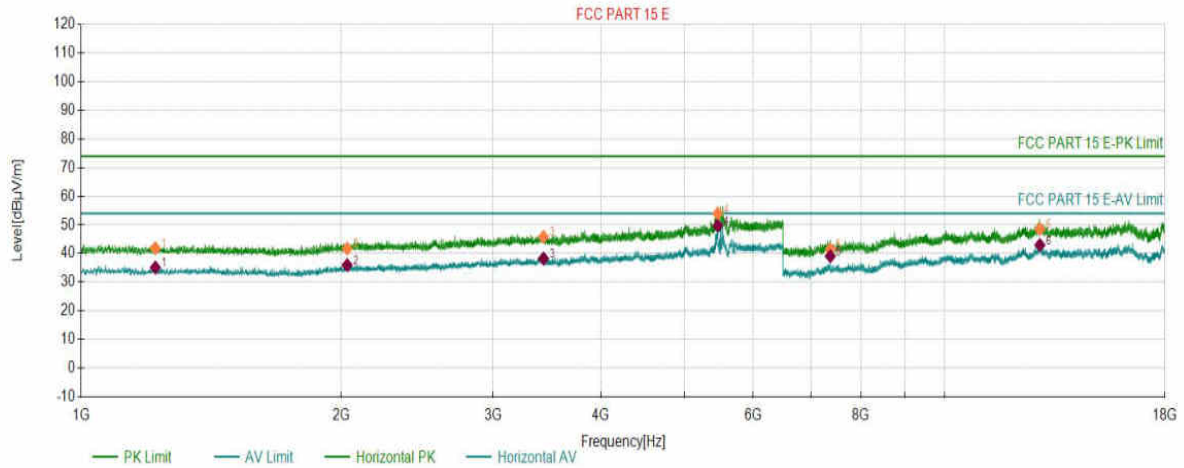
PK Final Data List								
NO.	Freq. (MHz)	Factor (dB)	PK Value (dBμV/m)	PK Limit (dBμV/m)	PK Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1218.9219	2.40	41.86	74.00	32.14	150	35	Horizontal
2	2033.0033	5.43	41.74	74.00	32.26	150	2	Horizontal
3	3431.2431	10.23	45.83	74.00	28.17	150	312	Horizontal
4	5460.9461	19.54	53.92	74.00	20.08	150	5	Horizontal
5	7372.9373	-1.21	41.53	74.00	32.47	150	84	Horizontal
6	12893.4893	10.81	48.56	74.00	25.44	150	145	Horizontal

AV Final Data List								
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBμV/m)	AV Limit (dBμV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1218.9219	2.40	35.11	54.00	18.89	150	35	Horizontal
2	2033.0033	5.43	35.96	54.00	18.04	150	2	Horizontal
3	3431.2431	10.23	38.24	54.00	15.76	150	312	Horizontal
4	5460.9461	19.54	49.71	54.00	4.29	150	5	Horizontal
5	7372.9373	-1.21	39.10	54.00	14.90	150	84	Horizontal
6	12893.4893	10.81	42.98	54.00	11.02	150	145	Horizontal

Test Report

Project Information			
EUT:	IEEE 802.11a/b/g/n/ac 2T2R Wi-Fi Module Integrated BT 2.1/3.0/4.2/5.0		
Model:	SKI.WB822CU.5	Environment:	23.6℃ 53%
Mode:	11AC80_5530	Voltage:	DC 3.3V
Customer:		Engineer:	Soho Liu
Remark:			

Start of Test: 2024-01-09 14:29:09

Test Graph
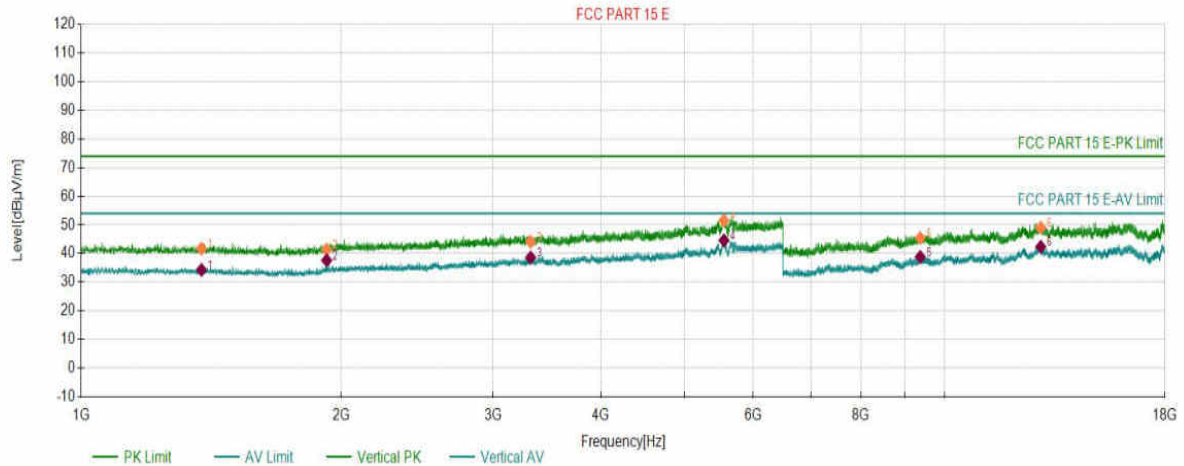
PK Final Data List								
NO.	Freq. (MHz)	Factor (dB)	PK Value (dBμV/m)	PK Limit (dBμV/m)	PK Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1378.4378	3.22	41.73	74.00	32.27	150	42	Vertical
2	1924.6425	4.61	41.42	74.00	32.58	150	342	Vertical
3	3315.7316	9.92	44.12	74.00	29.88	150	136	Vertical
4	5552.2552	19.76	51.55	74.00	22.45	150	311	Vertical
5	9371.8372	3.98	45.41	74.00	28.59	150	310	Vertical
6	12924.5425	10.59	49.00	74.00	25.00	150	67	Vertical

AV Final Data List								
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBμV/m)	AV Limit (dBμV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1378.4378	3.22	34.30	54.00	19.70	150	42	Vertical
2	1924.6425	4.61	37.63	54.00	16.37	150	342	Vertical
3	3315.7316	9.92	38.60	54.00	15.40	150	136	Vertical
4	5552.2552	19.76	44.59	54.00	9.41	150	311	Vertical
5	9371.8372	3.98	38.79	54.00	15.21	150	310	Vertical
6	12924.5425	10.59	42.35	54.00	11.65	150	67	Vertical

Test Report

Project Information			
EUT:	IEEE 802.11a/b/g/n/ac 2T2R Wi-Fi Module Integrated BT 2.1/3.0/4.2/5.0		
Model:	SKI.WB822CU.5	Environment:	23.6℃ 53%
Mode:	11AC80_5610	Voltage:	DC 3.3V
Customer:		Engineer:	Soho Liu
Remark:			

Start of Test: 2024-01-09 14:32:18

Test Graph
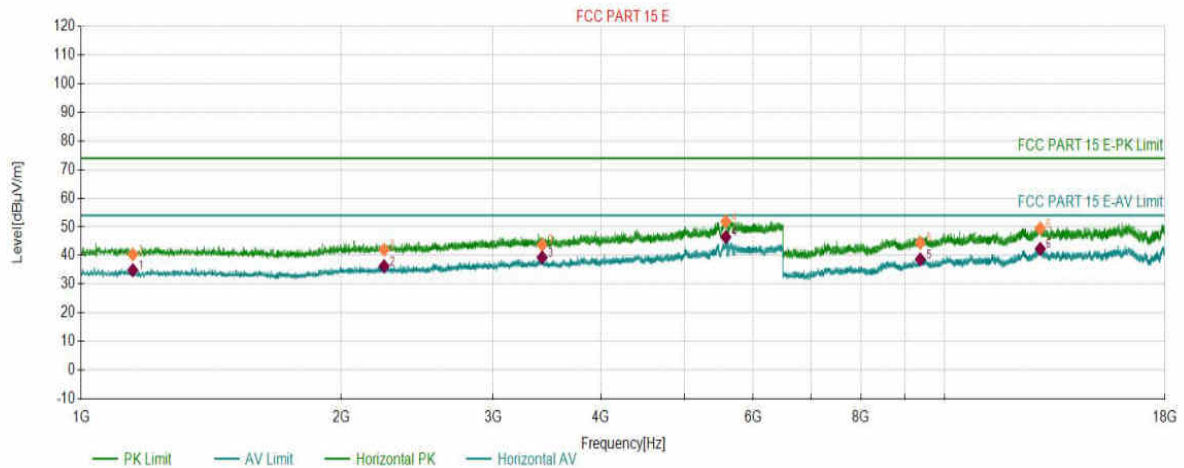
PK Final Data List

NO.	Freq. (MHz)	Factor (dB)	PK Value (dBμV/m)	PK Limit (dBμV/m)	PK Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1147.9648	2.01	40.37	74.00	33.63	150	2	Horizontal
2	2243.1243	6.09	42.06	74.00	31.94	150	20	Horizontal
3	3419.1419	10.28	43.70	74.00	30.30	150	341	Horizontal
4	5578.6579	19.82	51.86	74.00	22.14	150	94	Horizontal
5	9371.8372	3.98	44.44	74.00	29.56	150	298	Horizontal
6	12907.2907	10.81	49.45	74.00	24.55	150	12	Horizontal

AV Final Data List

NO.	Freq. (MHz)	Factor (dB)	AV Value (dBμV/m)	AV Limit (dBμV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1147.9648	2.01	34.91	54.00	19.09	150	2	Horizontal
2	2243.1243	6.09	36.29	54.00	17.71	150	20	Horizontal
3	3419.1419	10.28	39.33	54.00	14.67	150	341	Horizontal
4	5578.6579	19.82	46.46	54.00	7.54	150	94	Horizontal
5	9371.8372	3.98	38.63	54.00	15.37	150	298	Horizontal
6	12907.2907	10.81	42.33	54.00	11.67	150	12	Horizontal

Test Report

Project Information			
EUT:	IEEE 802.11a/b/g/n/ac 2T2R Wi-Fi Module Integrated BT 2.1/3.0/4.2/5.0		
Model:	SKI.WB822CU.5	Environment:	23.6℃ 53%
Mode:	11AC80_5610	Voltage:	DC 3.3V
Customer:		Engineer:	Soho Liu
Remark:			

Start of Test: 2024-01-09 14:33:47

Test Graph
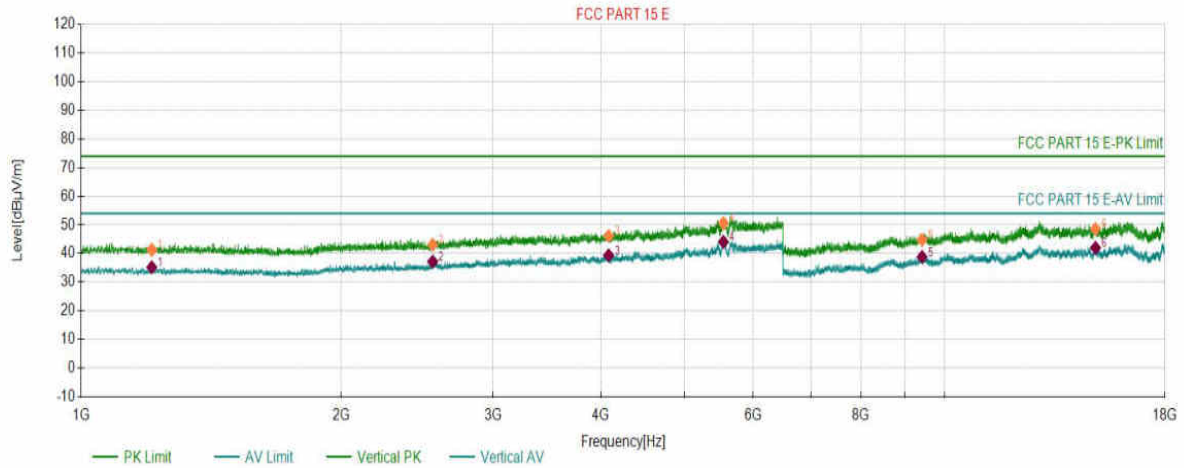
PK Final Data List								
NO.	Freq. (MHz)	Factor (dB)	PK Value (dBμV/m)	PK Limit (dBμV/m)	PK Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1207.3707	2.33	41.30	74.00	32.70	150	356	Vertical
2	2553.3553	6.94	43.04	74.00	30.96	150	359	Vertical
3	4082.5083	12.67	46.14	74.00	27.86	150	43	Vertical
4	5543.4543	19.74	50.61	74.00	23.39	150	51	Vertical
5	9417.8418	4.21	44.74	74.00	29.26	150	92	Vertical
6	14954.4955	11.41	48.56	74.00	25.44	150	106	Vertical

AV Final Data List								
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBμV/m)	AV Limit (dBμV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1207.3707	2.33	35.22	54.00	18.78	150	356	Vertical
2	2553.3553	6.94	37.20	54.00	16.80	150	359	Vertical
3	4082.5083	12.67	39.37	54.00	14.63	150	43	Vertical
4	5543.4543	19.74	44.09	54.00	9.91	150	51	Vertical
5	9417.8418	4.21	38.82	54.00	15.18	150	92	Vertical
6	14954.4955	11.41	42.02	54.00	11.98	150	106	Vertical