FCC AND ISED CERTIFICATION TEST REPORT

Applicant:	Guangzhou Shikun Electronics Co., Ltd
Address:	NO.6 Liankun Road, Huangpu District, Guangzhou 510530, China
Manufacturer:	Guangzhou Shikun Electronics Co., Ltd
Address:	NO.6 Liankun Road, Huangpu District, Guangzhou 510530, China
Product Description:	IEEE 802.11a/b/g/n/ac 2T2R USB Wi-Fi Module Integrated Bluetooth 2.1+EDR/4.2/5.1
Brand Name:	NA
Tested Model:	SKI.WB663U.2
FCC ID:	2AR82-SKIWB663U21
IC:	24728-SKIWB663U21
Report No.:	JCF250705011-004
Received Date:	July 05, 2025
Tested Date:	July 05, 2025 ~ July 25, 2025
Issued Date:	July 25, 2025
Test Standards:	FCC Rules and Regulations Part 15 Subpart E, RSS-247 Issue 3 August 2023
Test Procedure:	ANSI C63.10:2013, 789033 D02 General U-NII Test Procedures New Rules v02r01, 662911 D01 Multiple Transmitter Output v02r01, RSS-Gen Issue 5 A2, Feb. 2021
Test Result:	Pass

Prepared By:

Roger Li

Roger Li/Engineer **Date:** July 25, 2025

Reviewed By:

Kennys Zhang

Kennys Zhang/Engineer **Date:** July 25, 2025

Approved By:

Talent zhang

Talent Zhang/Engineer **Date:** July 25, 2025

Note: The test results in this report apply exclusively to the tested model / sample. Without written approval of Guangzhou Jingce Testing Technology Co., Ltd. the test report shall not be reproduced except in full.

Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	July 25, 2025	Original Report	/

Reference Report	Differences between the statement
4790010773.1-4	Based on the original report "4790010773.1-4", add new antenna.

Table of Contents

1. Test Report Declare

Applicant:	Guangzhou Shikun Electronics Co., Ltd
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Product Name:	IEEE 802.11a/b/g/n/ac 2T2R USB Wi-Fi Module Integrated Bluetooth 2.1+EDR/4.2/5.1
Brand Name:	NA
Model Name:	SKI.WB663U.2
Difference Description:	NA

We Declare:

The equipment described above is tested by Guangzhou Jingce Testing Technology Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and Guangzhou Jingce Testing Technology Co., Ltd. is assumed of full responsibility for the accuracy and completeness of these tests except as provided information by clients.

2. Summary of test results

The EUT have been tested according to the applicable standards as referenced below.			
Clause	Description of Test Item	Standard	Verdict
1	6/26dB Bandwidth	FCC 15.407 (a)&(e) RSS-247 Clause 6.2	NA
2	99% Occupied Bandwidth	RSS-Gen Clause 6.6	NA
3	Maximum Conducted Output Power	FCC 15.407 (a) RSS-247 Clause 6.2	Pass
4	Power Spectral Density	FCC 15.407 (a) RSS-247 Clause 6.2	NA
5	Frequency Stability Measurement	FCC 15.407 (g)	NA
6	Radiated Band edge and Spurious Emission	FCC 15.407 (b) FCC 15.209 FCC 15.205 RSS-247 Clause 6.2 RSS-GEN Clause 8.9	Pass
7	Power Line Conducted Emission	FCC 15.207 RSS-GEN Clause 8.8	NA
8	Antenna requirement	FCC 15.203 RSS-GEN Clause 8.3	Pass
9	Dynamic Frequency Selection	FCC 15.407 (h) RSS-247 Clause 6.3	NA

Note: The original report has already been certified. Only add new antenna, So above test data should refer to the original report “4790010773.1-4”, only Radiated emission need be retest and recalculate the EIRP.

3. Test Laboratory

Guangzhou Jingce Testing Technology Co., Ltd.

Add.: No.10, Hefeng No.1 street, Huangpu District, Guangzhou, Guangdong, People’s Republic of China

Association for Laboratory Accreditation(A2LA). Certificate Number: 6594.03

FCC Designation Number: CN1381. Test Firm Registration Number: 486550

IC Test Firm Registration Number: 31808

Conformity Assessment Body identifier: CN0173

4. Equipment Under Test

4.1. Description of EUT

EUT Name:	IEEE 802.11a/b/g/n/ac 2T2R USB Wi-Fi Module Integrated Bluetooth 2.1+EDR/4.2/5.1
Model Number:	SKI.WB663U.2
EUT Function Description:	Refer to user manual
Power Supply:	DC 3.3V
Sample No.:	250705011-01-01
Hardware Version:	NA
Software Version:	NA
Radio Specification:	IEEE 802.11a/n/ac
Operation Frequency:	IEEE 802.11a: 5180MHz—5825MHz IEEE 802.11n HT20: 5180MHz—5825MHz IEEE 802.11n HT40: 5190MHz—5795MHz IEEE 802.11ac VHT20: 5180MHz—5825MHz IEEE 802.11ac VHT40: 5190MHz—5795MHz IEEE 802.11ac VHT80: 5210MHz—5775MHz
Modulation:	IEEE 802.11a: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK, BPSK) IEEE 802.11ac (VHT20/40/80): OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK)
Antenna Type:	FPC Antenna, MAX. Gain: 4.74 dBi

Antenna Gain:		
FPC Ant. 1	BT ANT	2.4G: 2.42 dBi
	WIFI ANT	2.4G: 2.42 dBi; 5G: 3.69 dBi
FPC Ant. 2	BT ANT	2.4G: 2.90 dBi
	WIFI ANT	2.4G: 2.90 dBi; 5G: 4.74 dBi

Note 1: EUT is the ab. of equipment under test.

Note 2: The antenna gain is declared by the customer and the laboratory is not responsible for the accuracy of the antenna gain.

4.2. Channel List

UNII-1 (For Bandwidth = 20 MHz)		UNII-1 (For Bandwidth = 40 MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190
40	5200	46	5230
44	5220	/	/
48	5240	/	/

UNII-1 (For Bandwidth = 80 MHz)	
Channel	Frequency (MHz)
42	5210

UNII-2A (For Bandwidth = 20 MHz)		UNII-2A (For Bandwidth = 40 MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)

52	5260	54	5270
56	5280	62	5310
60	5300	/	/
64	5320	/	/
UNII-2A (For Bandwidth = 80 MHz)			
Channel		Frequency (MHz)	
58		5290	

UNII-2C (For Bandwidth = 20 MHz)		UNII-2C (For Bandwidth = 40 MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	102	5510
104	5520	110	5550
108	5540	118	5590
112	5560	126	5630
116	5580	134	5670
120	5600	142	5710
124	5620	/	/
128	5640	/	/
132	5660	/	/
136	5680	/	/
140	5700	/	/
144	5720	/	/
UNII-2C (For Bandwidth = 80 MHz)			
Channel		Frequency (MHz)	
106		5530	
122		5610	
138		5690	

UNII-3 (For Bandwidth = 20 MHz)		UNII-3 (For Bandwidth = 40 MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	151	5755
153	5765	159	5795
157	5785	/	/
161	5805	/	/
165	5825	/	/
UNII-3 (For Bandwidth = 80 MHz)			
Channel		Frequency (MHz)	

155	5775

4.3. Test Channel Configuration

Mode	Data rate (Mbps) (see Note)	Test Channel and Frequency
802.11a TX Mode	6	CH36, 5180
	6	CH44, 5220
	6	CH48, 5240
	6	CH52, 5260
	6	CH60, 5300
	6	CH64, 5320
	6	CH100, 5500
	6	CH116, 5580
	6	CH140, 5700
	6	CH144, 5720
	6	CH149, 5745
	6	CH157, 5785
	6	CH165, 5825
802.11n HT20 TX Mode	MCS 8	CH36, 5180
	MCS 8	CH44, 5220
	MCS 8	CH48, 5240
	MCS 8	CH52, 5260
	MCS 8	CH60, 5300
	MCS 8	CH64, 5320
	MCS 8	CH100, 5500
	MCS 8	CH116, 5580
	MCS 8	CH140, 5700
	MCS 8	CH144, 5720
	MCS 8	CH149, 5745
	MCS 8	CH157, 5785
	MCS 8	CH165, 5825
802.11n HT40 TX Mode	MCS 8	CH38, 5190
	MCS 8	CH46, 5230
	MCS 8	CH54, 5270
	MCS 8	CH62, 5310
	MCS 8	CH102, 5510
	MCS 8	CH110, 5550
	MCS 8	CH134, 5670
	MCS 8	CH142, 5710
	MCS 8	CH151, 5755
	MCS 8	CH159, 5795

802.11ac VHT20 TX Mode	MCS 0	CH36, 5180
	MCS 0	CH44, 5220
	MCS 0	CH48, 5240
	MCS 0	CH52, 5260
	MCS 0	CH60, 5300
	MCS 0	CH64, 5320
	MCS 0	CH100, 5500
	MCS 0	CH116, 5580
	MCS 0	CH140, 5700
	MCS 0	CH140, 5720
	MCS 0	CH149, 5745
	MCS 0	CH157, 5785
	MCS 0	CH165, 5825
802.11ac VHT40 TX Mode	MCS 0	CH38, 5190
	MCS 0	CH46, 5230
	MCS 0	CH54, 5270
	MCS 0	CH62, 5310
	MCS 0	CH102, 5510
	MCS 0	CH110, 5550
	MCS 0	CH134, 5670
	MCS 0	CH142, 5710
	MCS 0	CH151, 5755
	MCS 0	CH159, 5795
802.11ac VHT80 TX Mode	MCS 0	CH42, 5210
	MCS 0	CH58, 5290
	MCS 0	CH106, 5530
	MCS 0	CH122, 5610
	MCS 0	CH138, 5690
	MCS 0	CH155, 5775
Note: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.		

4.4. Test Environment Conditions

During the measurement the environmental conditions were within the listed ranges:

	Normal Conditions	Extreme Conditions
Temperature range	21-25 ℃	N/A
Humidity range	40-75%	N/A
Pressure range	86-106 kPa	N/A
Power supply	NV: DC 3.3V	N/A
Note: The Extreme temperature range and extreme voltages are declared by the manufacturer.		

4.5. The Worse Case Power Setting Parameter

The Worse Case Power Setting Parameter

Test Software	WCN_Combl_Tool		
Mode	Channel	Soft set value	
		ANT1	ANT2
802.11a	36	1A	1A
	44	1A	1A
	48	1A	1A
	52	1A	1A
	60	1A	1A
	64	1A	1A
	100	1A	1A
	116	1A	1A
	140	1A	1A
	144	1A	1A
	149	1A	1A
	157	1A	1A
	165	1A	1A
802.11n HT20	36	18	18
	44	18	18
	48	18	18
	52	1A	1A
	60	1A	1A
	64	1A	1A
	100	1A	1A
	116	1A	1A
	140	1A	1A
	144	1A	1A
	149	1A	1A
	157	1A	1A
	165	1A	1A
802.11n HT40	38	1A	1A
	46	1A	1A
	54	1A	1A
	62	1A	1A
	102	1A	1A
	110	1A	1A
	134	1A	1A
	142	1A	1A
	151	1A	1A
	159	1A	1A
802.11ac VHT20	36	17	17
	44	17	17

	48	17	17
	52	1A	1A
	60	1A	1A
	64	1A	1A
	100	1A	1A
	116	1A	1A
	140	1A	1A
	144	1A	1A
	149	1A	1A
	157	1A	1A
	165	1A	1A
802.11ac VHT40	38	1A	1A
	46	1A	1A
	54	1A	1A
	62	1A	1A
	102	1A	1A
	110	1A	1A
	134	1A	1A
	144	1A	1A
	151	1A	1A
	159	1A	1A
802.11ac VHT80	42	1A	1A
	58	1A	1A
	106	1A	1A
	122	1A	1A
	155	1A	1A

4.6. Description of Available Antennas

Test Mode	Transmit and Receive Mode	Description
802.11a	☒2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
802.11n HT20	☒2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
802.11n HT40	☒2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
802.11ac VHT20	☒2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
802.11ac VHT40	☒2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.
802.11ac VHT80	☒2TX, 2RX	ANT 1 and ANT2 can be used as transmitting/receiving antenna.

5. Description of Test Setup

5.1. Accessory

Description of Accessories	Manufacturer	Model Number	Description	Remark
/	/	/	/	/

5.2. Support Equipment

Equipment	Brand Name	Model Name	P/N
PC	Lenovo	T480	/

5.3. Test Setup

The EUT can work in Fixed Frequency mode.

5.4. Setup Diagram for Tests

6. Measurement uncertainty

Test Item	Uncertainty
AC Power Conduction emission	1.37 dB
All Radiated emissions	5.4dB
Conducted emissions	3.09 dB
Occupied Channel Bandwidth	1.1%
Conducted Output power	0.82dB
Power Spectral Density	0.82dB
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95 % confidence level using a coverage factor of k = 2.	

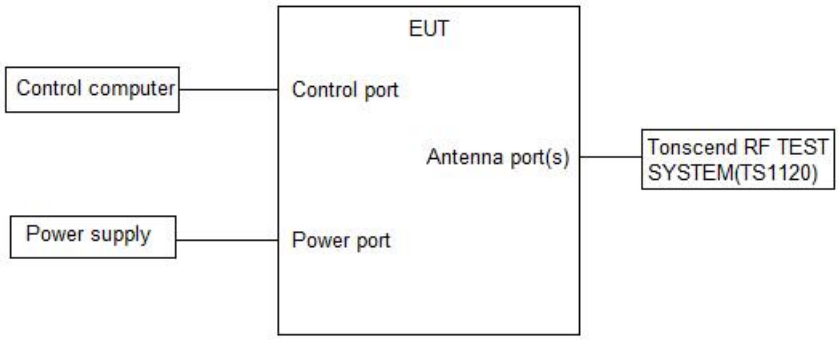
7. Measuring Instrument and Software Used

TS Test System						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
☑	Spectrum Analyzer	Keysight	N9030B	MY56320512	Aug. 22, 2024	Aug. 21, 2025
☑	Vector Signal Generator	Keysight	N5182B	MY57300334	Aug. 22, 2024	Aug. 21, 2025
☑	Signal Generator	Keysight	N5171B	MY57280639	Aug. 22, 2024	Aug. 21, 2025
☑	DC POWER	Keysight	E342A	MY59020356	Aug. 29, 2024	Aug. 28, 2025
☑	Incubator thermometer	GWS	EL-02JA	21107288	Aug. 15, 2024	Aug. 14, 2025
☑	Control unit(Power sensor)	Tonscend	JS0806-2	/	Aug. 23, 2024	Aug. 22, 2025
☑	Spectrum Analyzer	Keysight	N9020B	MY60112206	Sep. 11, 2024	Sep. 10, 2025
☑	Control unit(Power sensor)	Tonscend	JS0806-2	21H8060465	Aug. 22, 2024	Aug. 21, 2025
☑	Spectrum Analyzer	Keysight	N9020B	MY60112811	Aug. 23, 2024	Aug. 22, 2025
☑	Signal Generator	Keysight	N5173B	MY62220145	Aug. 23, 2024	Aug. 22, 2025
☑	Vector Signal Generator	Keysight	N5182B	MY61252859	Aug. 22, 2024	Aug. 21, 2025
☑	DC POWER	Keysight	E3642A	MY40005294	Aug. 30, 2024	Aug. 29, 2025
☑	Control unit(Power sensor)	Tonscend	JS0806-2	24F80620865	Aug. 23, 2024	Aug. 22, 2025
Software						
Used	Description	Manufacturer	Name		Version	
☑	Test software	Tonscend	JS1120-3		V3.3.10	
RSE Test System						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
☑	EMI Receiver	R&S	ESR26	101424	Sep. 14, 2024	Sep. 13, 2025
☑	Hybrid Antenna	Schwarzbeck	VULB9163	01361	Sep. 25, 2024	Sep. 24, 2025
☑	Horn Antenna 1	Schwarzbeck	BBHA 9120 D	02910	Sep. 11, 2024	Sep. 10, 2025
☑	Horn Antenna 2	ETS	BBHA 9170	1090	Sep. 11, 2024	Sep. 10, 2025
☑	loop-antenna	Schwarzbeck	FMZB 1513-60	00030	Jan. 12, 2025	Jan. 11, 2026
☑	Test path	/	Path3: WIFI-5.1G 1-6.5GHz	/	Aug. 23, 2024	Aug. 22, 2025
☑	Test path	/	Path4: WIFI-5.4G 1-6.5GHz	/	Aug. 23, 2024	Aug. 22, 2025
☑	Test path	/	Path5: WIFI-5.8G 1-6.5GHz	/	Aug. 23, 2024	Aug. 22, 2025
☑	Test path	/	Path7: ALL PASS 1-18GHz	/	Aug. 23, 2024	Aug. 22, 2025
☑	Test path	/	Path10:	/	Aug. 23, 2024	Aug. 22, 2025

			6.5GHz High PASS 6.5-18GHz			
☑	Test path	/	Path16: 30MHz-1GHz ALL PASS NO AMP	/	Aug. 23, 2024	Aug. 22, 2025
☑	Signal Pre-Amplifier	ETS	3116C-PA	00217677	Sep. 06, 2024	Sep. 05, 2025
☑	3m Fully-anechoic Chamber	YIHENG	9m*6m*6m	001	Sep. 05, 2023	Sep. 04, 2026
Software						
Used	Description	Manufacturer	Name		Version	
☑	Test software	Tonscend	TS+		V5.0.0.0	
Conducted Emission Test For AC Power Port						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
☑	LISN	R&S	ENV216	102509	Aug. 22, 2024	Aug. 21, 2025
☑	EMI Receiver	R&S	ESR	102154	Aug. 22, 2024	Aug. 21, 2025
Software						
Used	Description	Manufacturer	Name		Version	
☑	Test software	EZ	EZ-EMC		EMEC-3A1	
Other Instrument						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due. Date
☑	Temperature & Humidity	Temperature	HTC-1	/	Sep. 04, 2024	Sep. 03, 2025

8. Maximum Output Power

8.1. Block Diagram of Test Setup



8.2. Limits

FCC Part15, Subpart E		
Test Item	Limit	Frequency Range (MHz)
Conducted Output Power	☐ Outdoor Access Point: 1 W (30 dBm)	5150-5250
	☐ Indoor Access Point: 1 W (30 dBm)	
	☐ Fixed Point-To-Point Access Points: 1 W (30 dBm)	
	☒ Client Devices: 250 mW (24 dBm)	
	Shall not exceed the lesser of 250 mW (24dBm) or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.	5250-5350 5470-5725
	Shall not exceed 1 Watt (30 dBm).	5725-5850
Note: For 802.11n and 802.11ac, the EUT incorporates a MIMO function. The Antenna directional gain is 7.75 dBi. The Maximum Output Power limit is the above limits-(7.75-6)		

ISED RSS-247 ISSUE 2		
Test Item	Limit	Frequency Range (MHz)
Conducted Output Power or e.i.r.p.	The maximum e.i.r.p. shall not exceed 200 mW (23 dBm) or 10 + 10 log10B, dBm, whichever power is less. B is the 99 % emission bandwidth in megahertz.	5150-5250
	a. The maximum conducted output power shall not exceed 250 mW (24 dBm) or 11 + 10 log10B dBm, whichever is less.	5250-5350
	b. The maximum e.i.r.p. shall not exceed 1.0 W (30 dBm) or 17 + 10 log10B dBm, whichever is less. B is the 99 % emission bandwidth in megahertz. Note that devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.	5250-5350 5470-5600 5650-5725
	Shall not exceed 1 Watt (30 dBm). The e.i.r.p. shall not exceed 4 W	5725-5850
Note: For 802.11n and 802.11ac, the EUT incorporates a MIMO function. The Antenna directional gain is 7.75 dBi. The Maximum Output Power limit is the above limits-(7.75-6)		

Note: The above limits are based upon the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

8.3. Test Procedure

(1) Connect each EUT's antenna output to power meter by RF cable and attenuator

(2) Add each antenna port's results to get the total output power of EUT.

8.4. Test Result

Test Mode	Antenna	Channel	Power (dBm)	FCC Limit (dBm)	ISED Limit (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
11A	Ant1	5180	10.73	<=23.98	---	15.47	<=22.21	PASS
	Ant2	5180	10.85	<=23.98	---	15.59	<=22.22	PASS
	Ant1	5200	10.66	<=23.98	---	15.4	<=22.22	PASS
	Ant2	5200	10.69	<=23.98	---	15.43	<=22.23	PASS
	Ant1	5240	10.48	<=23.98	---	15.22	<=22.20	PASS
	Ant2	5240	10.52	<=23.98	---	15.26	<=22.22	PASS
	Ant1	5260	10.61	<=23.98	<=23.24	15.35	<=29.24	PASS
	Ant2	5260	10.40	<=23.98	<=23.20	15.14	<=29.20	PASS
	Ant1	5280	10.47	<=23.98	<=23.25	15.21	<=29.25	PASS
	Ant2	5280	10.22	<=23.98	<=23.22	14.96	<=29.22	PASS
	Ant1	5320	10.07	<=23.98	<=23.20	14.81	<=29.20	PASS
	Ant2	5320	10.09	<=23.92	<=23.19	14.83	<=29.19	PASS
	Ant1	5500	10.17	<=23.98	<=23.19	14.91	<=29.19	PASS
	Ant2	5500	10.64	<=23.93	<=23.20	15.38	<=29.20	PASS
	Ant1	5580	10.67	<=23.98	<=23.20	15.41	<=29.20	PASS
	Ant2	5580	11.45	<=23.91	<=23.21	16.19	<=29.21	PASS
	Ant1	5700	10.81	<=23.97	<=23.21	15.55	<=29.21	PASS
	Ant2	5700	11.02	<=23.98	<=23.20	15.76	<=29.20	PASS
	Ant1	5720_UNII-2C	9.71	<=22.73	<=22.22	14.45	<=28.22	PASS
	Ant2	5720_UNII-2C	9.91	<=22.68	<=22.23	14.65	<=28.23	PASS
	Ant1	5720_UNII-3	1.96	<=30	<=30	6.7	---	PASS
	Ant2	5720_UNII-3	2.49	<=30	<=30	7.23	---	PASS
	Ant1	5745	10.32	<=30	<=30	15.06	---	PASS
	Ant2	5745	10.31	<=30	<=30	15.05	---	PASS
	Ant1	5785	9.66	<=30	<=30	14.4	---	PASS
	Ant2	5785	9.88	<=30	<=30	14.62	---	PASS
	Ant1	5825	9.13	<=30	<=30	13.87	---	PASS
	Ant2	5825	9.14	<=30	<=30	13.88	---	PASS
11N20MIMO	Ant1	5180	8.98	<=23.98	---	13.72	<=22.48	PASS
	Ant2	5180	8.73	<=23.98	---	13.47	<=22.49	PASS
	total	5180	11.87	<=22.23	---	16.61	<=22.49	PASS
	Ant1	5200	8.85	<=23.98	---	13.59	<=22.48	PASS
	Ant2	5200	8.75	<=23.98	---	13.49	<=22.48	PASS
	total	5200	11.81	<=22.23	---	16.55	<=22.48	PASS
	Ant1	5240	8.83	<=23.98	---	13.57	<=22.47	PASS
	Ant2	5240	8.50	<=23.98	---	13.24	<=22.48	PASS
	total	5240	11.68	<=22.23	---	16.42	<=22.48	PASS
	Ant1	5260	9.58	<=23.98	<=23.46	14.32	<=29.46	PASS
	Ant2	5260	9.19	<=23.98	<=23.49	13.93	<=29.49	PASS

	total	5260	12.40	<=22.23	<=23.49	17.14	<=29.49	PASS
	Ant1	5280	9.35	<=23.95	<=23.47	14.09	<=29.47	PASS
	Ant2	5280	8.93	<=23.98	<=23.47	13.67	<=29.47	PASS
	total	5280	12.16	<=22.23	<=23.47	16.9	<=29.47	PASS
	Ant1	5320	9.16	<=23.96	<=23.47	13.9	<=29.47	PASS
	Ant2	5320	8.94	<=23.97	<=23.46	13.68	<=29.46	PASS
	total	5320	12.06	<=22.22	<=23.46	16.8	<=29.46	PASS
	Ant1	5500	9.34	<=23.98	<=23.49	14.08	<=29.49	PASs
	Ant2	5500	9.50	<=23.98	<=23.47	14.24	<=29.47	PASS
	total	5500	12.43	<=22.23	<=23.47	17.17	<=29.47	PASS
	Ant1	5580	9.97	<=23.98	<=23.46	14.71	<=29.46	PASS
	Ant2	5580	10.43	<=23.98	<=23.48	15.17	<=29.48	PASS
	total	5580	13.22	<=22.23	<=23.48	17.96	<=29.48	PASS
	Ant1	5700	9.75	<=23.93	<=23.48	14.49	<=29.48	PASS
	Ant2	5700	9.92	<=23.98	<=23.45	14.66	<=29.45	PASS
	total	5700	12.85	<=22.23	<=23.45	17.59	<=29.45	PASS
	Ant1	5720_UNII-2C	8.62	<=22.81	<=22.38	13.36	<=28.38	PASS
	Ant2	5720_UNII-2C	8.55	<=22.73	<=22.42	13.29	<=28.42	PASS
	total	5720_UNII-2C	11.60	<=20.98	<=22.42	16.34	<=28.42	PASS
	Ant1	5720_UNII-3	1.58	<=30	<=30	6.32	---	PASS
	Ant2	5720_UNII-3	1.60	<=30	<=30	6.34	---	PASS
	total	5720_UNII-3	4.60	<=28.25	<=30	9.34	---	PASS
	Ant1	5745	9.18	<=30	<=30	13.92	---	PASS
	Ant2	5745	9.08	<=30	<=30	13.82	---	PASS
	total	5745	12.14	<=28.25	<=30	16.88	---	PASS
	Ant1	5785	8.70	<=30	<=30	13.44	---	PASS
	Ant2	5785	8.85	<=30	<=30	13.59	---	PASS
	total	5785	11.79	<=28.25	<=30	16.53	---	PASs
	Ant1	5825	8.09	<=30	<=30	12.83	---	PASS
	Ant2	5825	8.14	<=30	<=30	12.88	---	PASS
	total	5825	11.13	<=28.25	<=30	15.87	---	PASS
11N40MIMO	Ant1	5190	10.14	<=23.98	---	14.88	<=23	PASS
	Ant2	5190	9.95	<=23.98	---	14.69	<=23	PASS
	total	5190	13.06	<=22.23	---	17.8	<=23	PASS
	Ant1	5230	9.98	<=23.98	---	14.72	<=23	PASS
	Ant2	5230	9.70	<=23.98	---	14.44	<=23	PASS
	total	5230	12.85	<=22.23	---	17.59	<=23	PASS
	Ant1	5270	9.68	<=23.98	<=23.98	14.42	<=30	PASS
	Ant2	5270	9.44	<=23.98	<=23.98	14.18	<=30	PASS
	total	5270	12.57	<=22.23	<=23.98	17.31	<=30	PASS
	Ant1	5310	9.31	<=23.98	<=23.98	14.05	<=30	PASS
	Ant2	5310	9.02	<=23.98	<=23.98	13.76	<=30	PASS
	total	5310	12.18	<=22.23	<=23.98	16.92	<=30	PASS
	Ant1	5510	9.38	<=23.98	<=23.98	14.12	<=30	PASS
	Ant2	5510	9.49	<=23.98	<=23.98	14.23	<=30	PASS
	total	5510	12.45	<=22.23	<=23.98	17.19	<=30	PASS

	Ant1	5550	9.78	<=23.98	<=23.98	14.52	<=30	PASS
	Ant2	5550	10.29	<=23.98	<=23.98	15.03	<=30	PASS
	total	5550	13.05	<=22.23	<=23.98	17.79	<=30	PASS
	Ant1	5670	10.00	<=23.98	<=23.98	14.74	<=30	PASS
	Ant2	5670	10.22	<=23.98	<=23.98	14.96	<=30	PASS
	total	5670	13.12	<=22.23	<=23.98	17.86	<=30	PASS
	Ant1	5710_UNII-2C	9.71	<=23.98	<=23.98	14.45	<=30	PASS
	Ant2	5710_UNII-2C	9.87	<=23.98	<=23.98	14.61	<=30	PASS
	total	5710_UNII-2C	12.80	<=22.23	<=23.98	17.54	<=30	PASS
	Ant1	5710_UNII-3	-2.62	<=30	<=30	2.12	---	PASS
	Ant2	5710_UNII-3	-2.50	<=30	<=30	2.24	---	PASS
	total	5710_UNII-3	0.45	<=28.25	<=30	5.19	---	PAss
	Ant1	5755	9.53	<=30	<=30	14.27	---	PASS
	Ant2	5755	9.52	<=30	<=30	14.26	---	PASS
	total	5755	12.54	<=28.25	<=30	17.28	---	PASS
	Ant1	5795	8.88	<=30	<=30	13.62	---	PASS
	Ant2	5795	8.94	<=30	<=30	13.68	---	PASS
	total	5795	11.92	<=28.25	<=30	16.66	---	PASS
11AC20MIMO	Ant1	5180	8.73	<=23.98	---	13.47	<=22.48	PASS
	Ant2	5180	8.43	<=23.98	---	13.17	<=22.47	PASS
	total	5180	11.59	<=22.23	---	16.33	<=22.47	PASS
	Ant1	5200	8.43	<=23.98	---	13.17	<=22.49	PASS
	Ant2	5200	8.16	<=23.98	---	12.9	<=22.48	PASS
	total	5200	11.31	<=22.23	---	16.05	<=22.48	PASS
	Ant1	5240	8.30	<=23.98	---	13.04	<=22.48	PASS
	Ant2	5240	8.08	<=23.98	---	12.82	<=22.47	PASS
	total	5240	11.20	<=22.23	---	15.94	<=22.47	PASS
	Ant1	5260	9.56	<=23.94	<=23.49	14.3	<=29.49	PASS
	Ant2	5260	9.21	<=23.98	<=23.47	13.95	<=29.47	PASS
	total	5260	12.40	<=22.23	<=23.47	17.14	<=29.47	PASS
	Ant1	5280	9.32	<=23.98	<=23.46	14.06	<=29.46	PASS
	Ant2	5280	8.88	<=23.98	<=23.47	13.62	<=29.47	PASS
	total	5280	12.12	<=22.23	<=23.47	16.86	<=29.47	PASS
	Ant1	5320	8.96	<=23.98	<=23.46	13.7	<=29.46	PASS
	Ant2	5320	8.75	<=23.98	<=23.49	13.49	<=29.49	PASS
	total	5320	11.87	<=22.23	<=23.49	16.61	<=29.49	PASS
	Ant1	5500	9.34	<=23.98	<=23.46	14.08	<=29.46	PASS
	Ant2	5500	9.35	<=23.98	<=23.47	14.09	<=29.47	PASS
	total	5500	12.36	<=22.23	<=23.7	17.1	<=29.47	PASS
	Ant1	5580	9.74	<=23.98	<=23.45	14.48	<=29.45	PASS
	Ant2	5580	10.29	<=23.9	<23.45	15.03	<=29.45	PASS
	total	5580	13.03	<=22.15	<=23.45	17.77	<=29.45	PASS
	Ant1	5700	9.44	<=23.97	<=23.50	14.18	<=29.50	PASS
	Ant2	5700	9.54	<=23.98	<=23.48	14.28	<=29.48	PASS
	total	5700	12.50	<=22.23	<=23.48	17.24	<=29.48	PASS

	Ant1	5720_UNII-2C	8.27	<=22.76	<=22.38	13.01	<=28.38	PASS
	Ant2	5720_UNII-2C	8.32	<=22.7	<=22.40	13.06	<=28.40	PASS
	total	5720_UNII-2C	11.31	<=20.95	<=22.40	16.05	<=28.40	PASS
	Ant1	5720_UNII-3	1.78	<=30	<=30	6.52	---	PASS
	Ant2	5720_UNII-3	1.79	<=30	<=30	6.53	---	PASS
	total	5720_UNII-3	4.80	<=28.25	<=30	9.54	---	PASS
	Ant1	5745	9.17	<=30	<=30	13.91	---	PASS
	Ant2	5745	9.19	<=30	<=30	13.93	---	PASS
	total	5745	12.19	<=28.25	<=30	16.93	---	PASS
	Ant1	5785	8.57	<=30	<=30	13.31	---	PASS
	Ant2	5785	8.75	<=30	<=30	13.49	---	PASS
	total	5785	11.67	<=28.25	<=30	16.41	---	PASS
	Ant1	5825	8.02	<=30	<=30	12.76	---	PASS
	Ant2	5825	8.09	<=30	30	12.83	---	PASS
	total	5825	11.07	<=28.25	<=30	15.81	---	PASS
11AC40MIMO	Ant1	5190	10.09	<=23.98	---	14.83	<=23	PASS
	Ant2	5190	9.94	<=23.98	---	14.68	<=23	PASS
	total	5190	13.03	<=22.23	---	17.77	<=23	PASS
	Ant1	5230	9.87	<=23.98	---	14.61	<=23	PASS
	Ant2	5230	9.66	<=23.98	---	14.4	<=23	PASS
	total	5230	12.78	<=22.23	---	17.52	<=23	PASS
	Ant1	5270	10.01	<=23.98	<=23.98	14.75	<=30	PASS
	Ant2	5270	9.47	<=23.98	<=23.98	14.21	<=30	PASS
	total	5270	12.76	<=22.23	<=23.98	17.5	<=30	PASS
	Ant1	5310	9.20	<=23.98	<=23.98	13.94	<=30	PASS
	Ant2	5310	8.97	<=23.98	<=23.98	13.71	<=30	PASS
	total	5310	12.10	<=22.23	<=23.98	16.84	<=30	PASS
	Ant1	5510	9.29	<=23.98	<=23.98	14.03	<=30	PASS
	Ant2	5510	9.48	<=23.98	<=23.98	14.22	<=30	PASS
	total	5510	12.40	<=22.23	<=23.98	17.14	<=30	PASs
	Ant1	5550	9.78	<=23.98	<=23.98	14.52	<=30	PASS
	Ant2	5550	10.11	<=23.98	<=23.98	14.85	<=30	PASS
	total	5550	12.96	<=22.23	<=23.98	17.7	<=30	PASS
	Ant1	5670	9.99	<=23.98	<=23.98	14.73	<=30	PASS
	Ant2	5670	10.33	<=23.98	<=23.98	15.07	<=30	PASS
	total	5670	13.17	<=22.23	<=23.98	17.91	<=30	PASS
	Ant1	5710_UNII-2C	9.76	<=23.98	<=23.98	14.5	<=30	PASS
	Ant2	5710_UNII-2C	9.77	<=23.98	<=23.98	14.51	<=30	PASS
	total	5710_UNII-2C	12.78	<=22.23	<=23.98	17.52	<=30	PASS
	Ant1	5710_UNII-3	-2.72	<=30	<=30	2.02	---	PASS
	Ant2	5710_UNII-3	-2.68	<=30	<=30	2.06	---	PASS

	total	5710_UNII-3	0.31	<=28.25	<=30	5.05	---	PASS
	Ant1	5755	9.38	<=30	<=30	14.12	---	PASS
	Ant2	5755	9.44	<=30	<=30	14.18	---	PASS
	total	5755	12.42	<=28.25	<=30	17.16	-	PASS
	Ant1	5795	8.92	<=30	<=30	13.66	---	PASS
	Ant2	5795	8.96	<=30	<=30	13.7	---	PASS
	total	5795	11.95	<=28.25	<=30	16.69	---	PASS
11AC80MIMO	Ant1	5210	10.14	<=23.98	---	14.88	<=23	PASS
	Ant2	5210	10.12	<=23.98	---	14.86	<=23	PASS
	total	5210	13.14	<=22.23	---	17.88	<=23	PASS
	Ant1	5290	9.87	<=23.98	<=23.98	14.61	<=30	PASS
	Ant2	5290	9.53	<=23.98	<=23.98	14.27	<=30	PASS
	total	5290	12.71	<=22.23	<=23.98	17.45	<=30	PASS
	Ant1	5530	10.19	<=23.98	<=23.98	14.93	<=30	PASS
	Ant2	5530	10.45	<=23.98	<=23.98	15.19	<=30	PASS
	total	5530	13.33	<=22.23	<=23.98	18.07	<=30	PASS
	Ant1	5610	10.49	<=23.98	<=23.98	15.23	<=30	PASS
	Ant2	5610	10.94	<=23.98	<=23.98	15.68	<=30	PASS
	total	5610	13.73	<=22.23	<=23.98	18.47	<=30	PASS
	Ant1	5690_UNII-2C	10.36	<=23.98	<=23.98	15.1	<=30	PASS
	Ant2	5690_UNII-2C	10.61	<=23.98	<=23.98	15.35	<=30	PASS
	total	5690_UNII-2C	13.50	<=22.23	<=23.98	18.24	<=30	PASS
	Ant1	5690_UNII-3	-5.27	<=30	<=30	-0.53	---	PASS
	Ant2	5690_UNII-3	-5.16	<=30	<=30	-0.42	---	PASS
	total	5690_UNII-3	-2.20	<=28.25	<=30	2.54	---	PASS
	Ant1	5775	9.53	<=30	<=30	14.27	---	PASS
	Ant2	5775	9.54	<=30	<=30	14.28	---	PASS
	total	5775	12.55	<=28.25	<=30	17.29	---	PASS

Note: The Conducted peak power reference report “4790010773.1-4”

9. Power Spectral Density

9.1. Block Diagram of Test Setup

Same as section 8.1

9.2. Limits

CFR 47 FCC Part15, Subpart E		
Test Item	Limit	Frequency Range (MHz)
Power Spectral Density	☐ Outdoor Access Point: 17 dBm/MHz ☒ Indoor Access Point: 17 dBm/MHz ☐ Fixed Point-To-Point Access Points: 17 dBm/MHz ☒ Client Devices: 11 dBm/MHz	5150-5250
	11 dBm/MHz	5250-5350 5470-5725
	30 dBm/500 kHz	5725-5850
Note: For 802.11n and 802.11ac, the EUT incorporates a MIMO function. The Antenna directional gain is 7.98 dBi. The Power Spectral Density limit is the above limits-(7.75-6)		

ISED RSS-247 ISSUE 2		
Test Item	Limit	Frequency Range (MHz)
Power Spectral Density	The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz band.	5150-5250
	The power spectral density shall not exceed 11 dBm inany 1.0 MHz band.	5250-5350 5470-5600 5650-5725
	30 dBm/500 kHz	5725-5850
Note: For 802.11n and 802.11ac, the EUT incorporates a MIMO function. The Antenna directional gain is 7.75 dBi. The Maximum Output Power limit is the above limits-(7.75-6)		

Note: The above limits are based upon the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

9.3. Test Procedure

The transmitter output was connected to a spectrum analyzer. Power density was measured by spectrum analyzer with 1MHz RBW and 3MHz VBW.

Connect the UUT to the spectrum analyzer and use the following settings:

5150 MHz~5250 MHz, 5250 MHz~5350 MHz, 5470 MHz~5725 MHz

Center Frequency	The centre frequency of the channel under test
Detector	RMS
RBW	1MHz
VBW	≥3 × RBW
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

5725 MHz-5850 MHz

Center Frequency	The centre frequency of the channel under test

Detector	RMS
RBW	500 kHz
VBW	≥3 × RBW
Span	Encompass the entire emissions bandwidth (EBW) of the signal
Trace	Max hold
Sweep time	Auto

Note:

1. For UNII-3, according to KdB publication 789033 D02 General U-NII Test Procedures New Rules v02r01, section II.F.5., it is acceptable to set RBW at 1 MHz and VBW at 3 MHz if the spectrum analyzer does not have 500 kHz RBW.

2. The value measured with RBW=300kHz is to be added with 10log(500kHz/300kHz) which is 2.2dB. For example, if the measured value is +30 dBm using RBW=300kHz (that is +30 dBm/300kHz), then the converted value will be +32.2 dBm/1MHz.

3. Allow trace to fully stabilize and use the peak marker function to determine the maximum amplitude level within the RBW.

9.4. Test Result

Test Mode	Antenna	Channel	Power (dBm/MHz)	Limit (dBm/MHz)	EIRP (dBm/MHz)	Limit (dBm/MHz)	Verdict
11A	Ant1	5180	3.00	<=11	7.74	<=10	PASS
	Ant2	5180	2.83	<=11	7.57	<=10	PASS
	Ant1	5200	2.75	<=11	7.49	<=10	PASS
	Ant2	5200	2.60	<=11	7.34	<=10	PASS
	Ant1	5240	2.74	<=11	7.48	<=10	PASS
	Ant2	5240	2.95	<=11	7.69	<=10	PASS
	Ant1	5260	4.72	<=11	---	---	PASS
	Ant2	5260	3.94	<=11	---	---	PASS
	Ant1	5280	4.28	<=11	---	---	PASS
	Ant2	5280	3.52	<=11	---	---	PASS
	Ant1	5320	4.17	<=11	---	---	PASS
	Ant2	5320	3.8	<=11	---	---	PASS
	Ant1	5500	5.25	<=11	---	---	PASS
	Ant2	5500	5.01	<=11	---	---	PASS
	Ant1	5580	5.63	<=11	---	---	PASS
	Ant2	5580	5.54	<=11	---	---	PASS
	Ant1	5700	5.29	<=11	---	---	PASS
	Ant2	5700	4.83	<=11	---	---	PASS
	Ant1	5720_UNII-2C	3.68	<=11	---	---	PASS
	Ant2	5720_UNII-2C	3.98	<=11	---	---	PASS
	Ant1	5720_UNII-3	-0.64	<=11	---	---	PASS
	Ant2	5720_UNII-3	-0.72	<=11	---	---	PASS
	Ant1	5745	1.92	<=30	---	---	PASS
	Ant2	5745	1.63	<=30	---	---	PASS
	Ant1	5785	1.87	<=30	---	---	PASS
	Ant2	5785	1.13	<=30	---	---	PASS
	Ant1	5825	1.83	<=30	---	---	PASS

	Ant2	5825	0.87	<=30	---	---	PASS
11N20MIMO	Ant1	5180	-0.65	<=11	4.09	<=10	PASS
	Ant2	5180	-0.74	<=11	4.00	<=10	PASS
	total	5180	2.32	<=9.25	7.06	<=8.25	PASS
	Ant1	5200	-0.45	<=11	4.29	<=10	PASS
	Ant2	5200	-1.56	<=11	3.18	<=10	PASS
	total	5200	2.04	<=9.25	6.78	<=8.25	PASS
	Ant1	5240	-0.86	<=11	3.88	<=10	PASS
	Ant2	5240	-0.84	<=11	3.90	<=10	PASS
	total	5240	2.16	<=9.25	6.90	<=8.25	PASS
	Ant1	5260	2.8	<=11	---	---	PASS
	Ant2	5260	1.91	<=11	---	---	PASS
	total	5260	5.39	<=9.25	---	---	PASS
	Ant1	5280	2.58	<=11	---	---	PASS
	Ant2	5280	1.84	<=11	---	---	PASS
	total	5280	.24	<=9.25	---	---	PASS
	Ant1	5320	2.7	<=11	---	---	PASS
	Ant2	5320	2.27	<=11	---	---	PASS
	total	5320	5.50	<=9.25	---	---	PASS
	Ant1	5500	3.26	<=11	---	---	PASS
	Ant2	5500	3.06	<=11	---	---	PASS
	total	5500	6.17	<=9.25	---	---	PASS
	Ant1	5580	3.94	<=11	---	---	PASS
	Ant2	5580	3.89	<=11	---	---	PASS
	total	5580	6.93	<=9.25	---	---	PASS
	Ant1	5700	3.73	<=11	---	---	PASs
	Ant2	5700	3.16	<=11	---	---	PASS
	total	5700	6.46	<=9.25	---	---	PASS
	Ant1	5720_UNII-2C	3.2	<=11	---	---	PASS
	Ant2	5720_UNII-2C	3.06	<=11	---	---	PASS
	total	5720_UNII-2C	6.14	<=9.25	---	---	PASS
	Ant1	5720_UNII-3	-1.51	<=11	---	---	PASS
	Ant2	5720_UNII-3	-1.74	<=11	---	---	PASS
	total	5720_UNII-3	1.39	<=9.25	---	---	PASS
	Ant1	5745	0.82	<=30	---	---	PASS
	Ant2	5745	-0.16	<=30	---	---	PASS
	total	5745	3.37	<=28.5	---	---	PASS
	Ant1	5785	0.79	<=30	---	---	PASS
	Ant2	5785	0.24	<=30	---	---	PASS
	total	5785	3.53	<=28.5	---	---	PASS
	Ant1	5825	0.57	<=30	---	---	PASS
	Ant2	5825	-0.48	<=30	---	---	PASs
	total	5825	3.09	<=28.5	---	---	PASS
11N40MIMO	Ant1	5190	-1.29	<=11	3.45	<=10	PASS
	Ant2	5190	-1.16	<=11	3.58	<=10	PASS

	total	5190	1.79	<=9.25	6.53	<=8.25	PASS
	Ant1	5230	-1.19	<=11	3.55	<=10	PASS
	Ant2	5230	-0.14	<=11	4.60	<=10	PASS
	total	5230	2.38	<=9.25	7.12	<=8.25	PASS
	Ant1	5270	0.38	<=11	---	---	PASS
	Ant2	5270	-0.22	<=11	---	---	PASS
	total	5270	3.10	<=9.25	---	---	PASS
	Ant1	5310	0.30	<=11	---	---	PASS
	Ant2	5310	-0.26	<=11	---	---	PASS
	total	5310	3.04	<=9.25	---	---	PASS
	Ant1	5510	0.84	<=11	---	---	PASS
	Ant2	5510	0.36	<=11	---	---	PASS
	total	5510	3.62	<=9.25	---	---	PASS
	Ant1	5550	1.28	<=11	---	---	PASS
	Ant2	5550	0.07	<=11	---	---	PASS
	total	5550	3.73	<=9.25	---	---	PASS
	Ant1	5670	-0.96	<=11	---	---	PASS
	Ant2	5670	-0.33	<=11	---	---	PASS
	total	5670	2.38	<=9.25	---	---	PASS
	Ant1	5710_UNII-2C	0.33	<=11	---	---	PASS
	Ant2	5710_UNII-2C	0.41	<=11	---	---	PASS
	total	5710_UNII-2C	3.38	<=9.25	---	---	PASS
	Ant1	5710_UNII-3	-5.62	<=11	---	---	PASS
	Ant2	5710_UNII-3	-5.84	<=11	---	---	PASS
	total	5710_UNII-3	-2.72	<=9.25	---	---	PASS
	Ant1	5755	-2.08	<=30	---	---	PASS
	Ant2	5755	-4.11	<=30	---	---	PASS
	total	5755	0.03	<=28.5	---	---	PASS
	Ant1	5795	-2.23	<=30	---	---	PASS
	Ant2	5795	-4.39	<=30	---	---	ASS
	total	5795	-0.17	<=28.5	---	---	PASS
11AC20MIMO	Ant1	5180	-0.41	<=11	4.33	<=10	PASS
	Ant2	5180	-0.03	<=11	4.71	<=10	PASS
	total	5180	2.79	<=9.25	7.53	<=8.25	PASS
	Ant1	5200	-0.25	<=11	4.49	<=10	PASS
	Ant2	5200	-0.42	<=11	4.32	<=10	PASS
	total	5200	2.68	<=9.25	7.42	<=8.25	PASS
	Ant1	5240	-0.21	<=11	4.53	<=10	PASS
	Ant2	5240	-0.24	<=11	4.50	<=10	PASS
	total	5240	2.79	<=9.25	7.53	<=8.25	PASS
	Ant1	5260	3.6	<=11	---	---	PASS
	Ant2	5260	3.82	<=11	---	---	PASS
	total	5260	6.72	<=9.25	---	---	PASS
	Ant1	5280	3.23	<=11	---	---	PASS
	Ant2	5280	3.25	<=11	---	---	PASS

	total	5280	6.25	<=9.25	---	---	PASS
	Ant1	5320	2.96	<=11	---	---	PASS
	Ant2	5320	3.25	<=11	---	---	PASS
	total	5320	6.12	<=9.25	---	---	PASS
	Ant1	5500	3.72	<=11	---	---	PASS
	Ant2	5500	3.01	<=11	---	---	PASS
	total	5500	6.39	<=9.25	---	---	PASS
	Ant1	5580	4.62	<=11	---	---	PASS
	Ant2	5580	3.31	<=11	---	---	PASS
	total	5580	7.02	<=9.25	---	---	PASS
	Ant1	5700	4.33	<=11	---	---	PASS
	Ant2	5700	2.46	<=11	---	---	PASS
	total	5700	6.51	<=9.25	---	---	PASS
	Ant1	5720_UNII-2C	3.63	<=11	---	---	PASS
	Ant2	5720_UNII-2C	3.45	<=11	---	---	PASS
	total	5720_UNII-2C	6.55	<=9.25	---	---	PASS
	Ant1	5720_UNII-3	-1.47	<=11	---	---	PASS
	Ant2	5720_UNII-3	-1.52	<=11	---	---	PASS
	total	5720_UNII-3	1.52	<=9.25	---	---	PASS
	Ant1	5745	1.42	<=30	---	---	PASS
	Ant2	5745	-0.83	<=30	---	---	PASS
	total	5745	3.45	<=28.5	---	---	PASS
	Ant1	5785	1.09	<=30	---	---	PASS
	Ant2	5785	-0.81	<=30	---	---	PASS
	total	5785	3.25	<=28.5	---	---	PASS
	Ant1	5825	0.88	<=30	---	---	PASS
	Ant2	5825	-1.08	<=30	---	---	PASS
	total	5825	3.02	<=28.5	---	---	PASS
11AC40MIMO	Ant1	5190	-0.90	<=11	3.84	<=10	PASS
	Ant2	5190	-0.70	<=11	4.04	<=10	PASS
	total	5190	2.21	<=9.25	6.95	<=8.25	PASS
	Ant1	5230	-1.26	<=11	3.48	<=10	PASS
	Ant2	5230	-0.32	<=11	4.42	<=10	PASS
	total	5230	2.25	<=9.25	6.99	<=8.25	PASS
	Ant1	5270	1.37	<=11	---	---	PASS
	Ant2	5270	1.57	<=11	---	---	PASS
	total	5270	4.48	<=9.25	---	---	PASS
	Ant1	5310	0.81	<=11	---	---	PASS
	Ant2	5310	0.82	<=11	---	---	PASS
	total	5310	3.83	<=9.25	---	---	PASS
	Ant1	5510	0.83	<=11	---	---	PASS
	Ant2	5510	-0.11	<=11	---	---	PASS
	total	5510	3.40	<=9.25	---	---	PASS
	Ant1	5550	1.46	<=11	---	---	PASS
	Ant2	5550	0.37	<=11	---	---	PASS

	total	5550	3.96	<=9.25	---	---	PASS
	Ant1	5670	1.22	<=11	---	---	PASS
	Ant2	5670	-0.14	<=11	---	---	PASS
	total	5670	3.60	<=9.25	---	---	PASS
	Ant1	5710_UNII-2C	0.6	<=11	---	---	PASS
	Ant2	5710_UNII-2C	0.6	<=11	---	---	PASS
	total	5710_UNII-2C	3.61	<=9.25	---	---	PASS
	Ant1	5710_UNII-3	-5.7	<=11	---	---	PASS
	Ant2	5710_UNII-3	-5.1	<=11	---	---	PASS
	total	5710_UNII-3	-2.38	<=9.25	---	---	PASS
	Ant1	5755	-1.17	<=30	---	---	PASS
	Ant2	5755	-3.76	<=30	---	---	PASS
	total	5755	0.74	<=28.5	---	---	PASS
	Ant1	5795	-1.68	<=30	---	---	PASS
	Ant2	5795	-3.91	<=30	---	---	PASS
	total	5795	0.36	<=28.5	---	---	PASS
11AC80MIMO	Ant1	5210	-4.94	<=11	-0.20	<=10	PASS
	Ant2	5210	-4.62	<=11	0.12	<=10	PASS
	total	5210	-1.77	<=9.25	2.97	<=8.25	PASS
	Ant1	5290	-2.79	<=11	---	---	PASS
	Ant2	5290	-2.2	<=11	---	---	PASS
	total	5290	0.53	<=9.25	---	---	PASS
	Ant1	5530	-1.17	<=11	---	---	PASS
	Ant2	5530	-1.81	<=11	---	---	PASS
	total	5530	1.53	<=9.25	---	---	PASS
	Ant1	5610	-1.17	<=11	---	---	PASS
	Ant2	5610	-2.48	<=11	---	---	PASS
	total	5610	1.23	<=9.25	---	---	PASS
	Ant1	5690_UNII-2C	-2.05	<=11	---	---	PASS
	Ant2	5690_UNII-2C	-2.04	<=11	---	---	PASS
	total	5690_UNII-2C	0.97	<=9.25	---	---	PASS
	Ant1	5690_UNII-3	-8.29	<=11	---	---	PASS
	Ant2	5690_UNII-3	-8.3	<=11	---	---	PASS
	total	5690_UNII-3	-5.28	<=9.25	---	---	PASS
	Ant1	5775	-3.81	<=30	---	---	PASS
	Ant2	5775	-6.28	<=30	---	---	PASS
	total	5775	-1.86	<=28.5	---	---	PASS

Note: Only frequency band 1 has been retest, all others refer to the original report “4790010773.1-4”.

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	$\text{Roundup}\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot10^6}{\text{PRI}_{\mu\text{sec}}}\right)\right\}$	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:

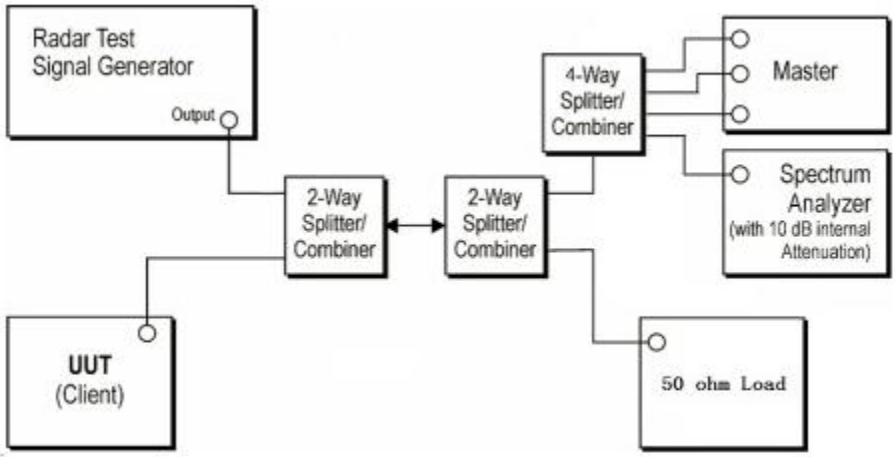
A 50 ohm load is connected in place of the spectrum analyzer, and the spectrum analyzer is connected to place of the master

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:

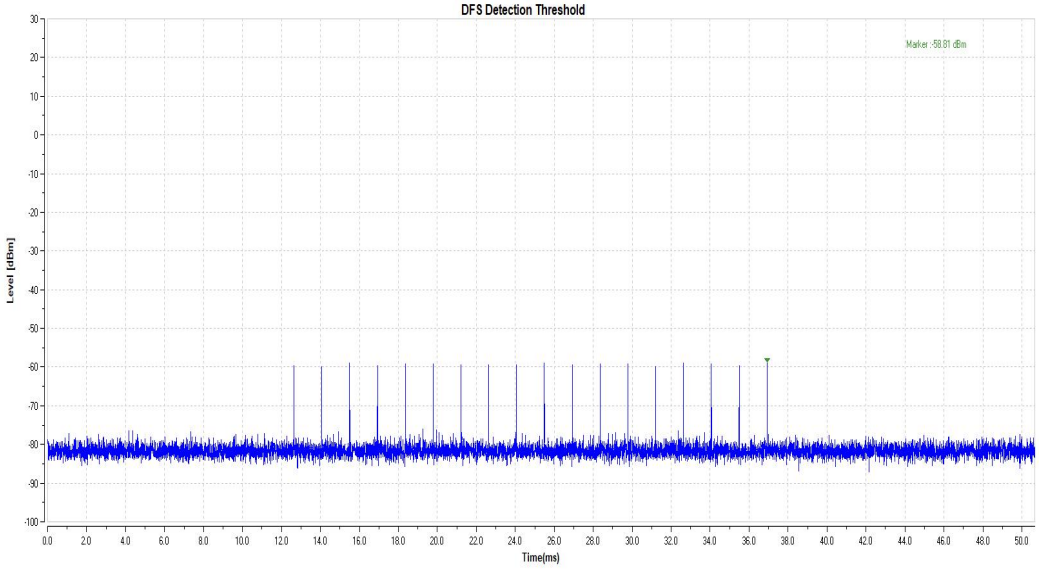


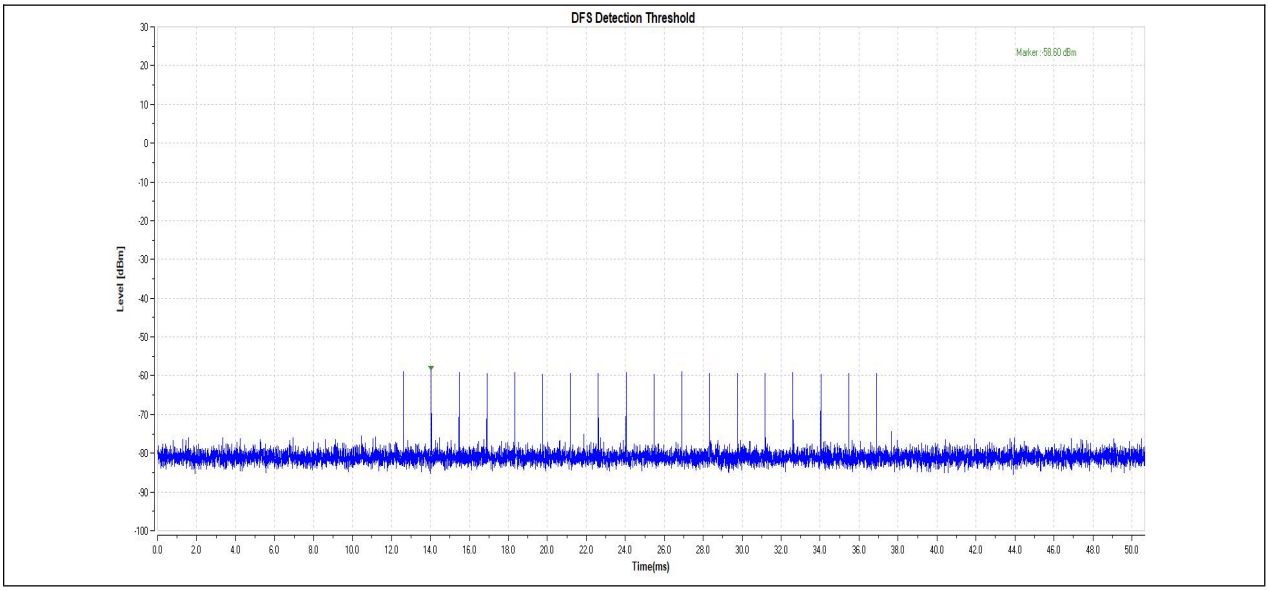
Note: 1. Use the software "Web" to set the frequency channel.

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

Radar Waveform Calibration Result:

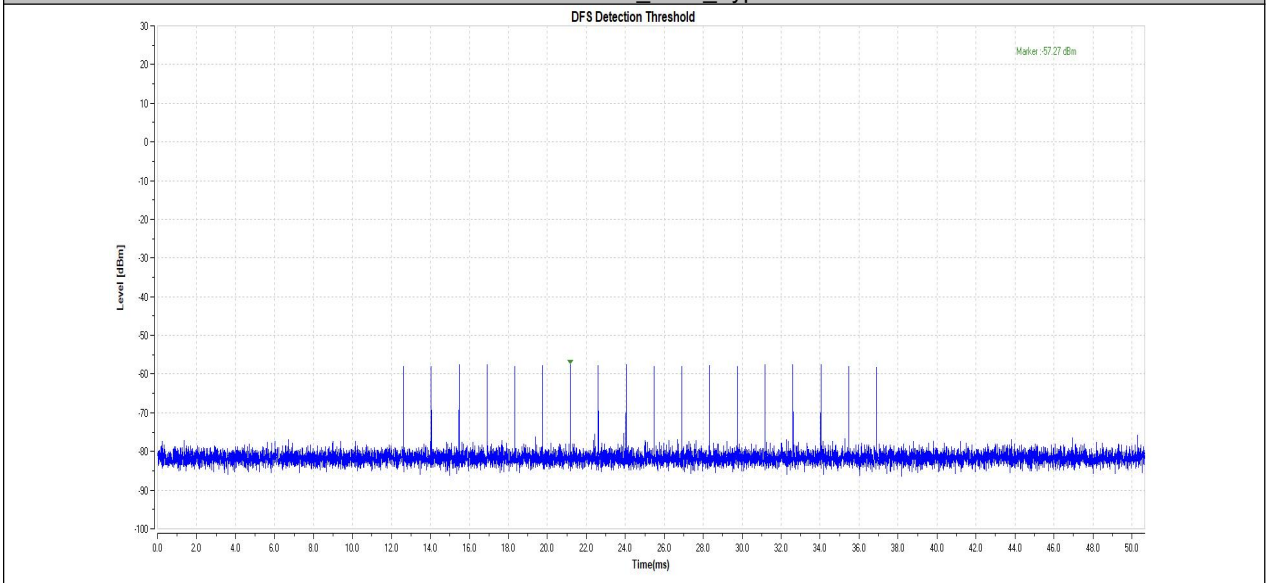
Radar Type 0 (Ant. Gain : 3.69dBi)

11AC80MIMO_5290_Type0

11AC80MIMO_5530_Type0

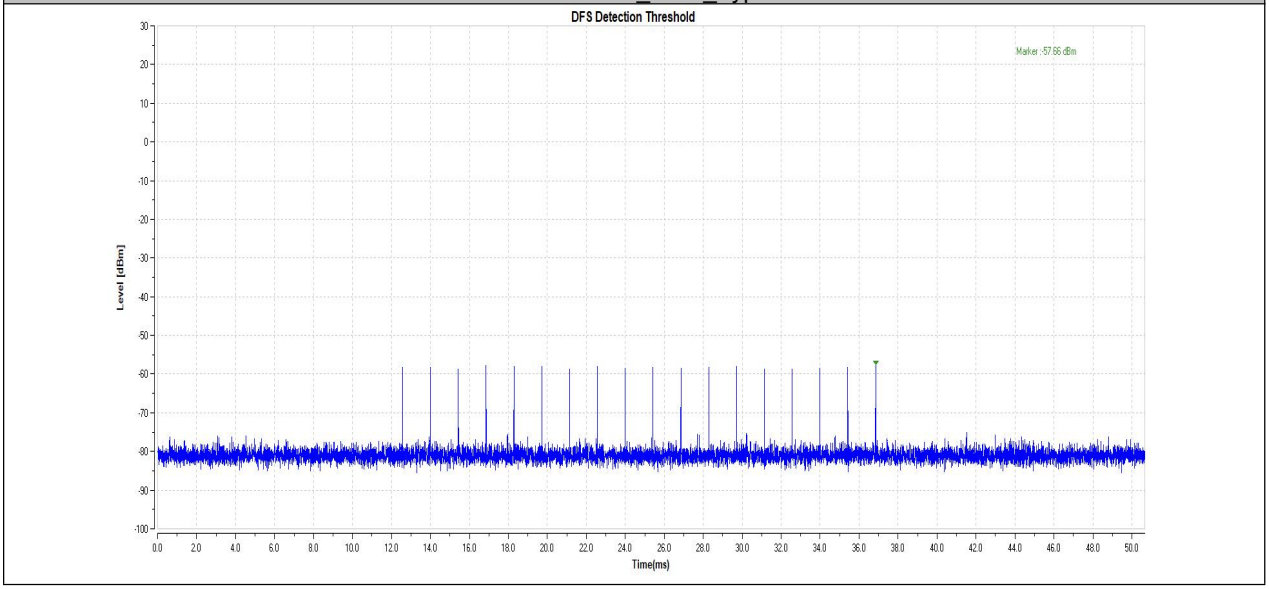


Radar Type 0 (Ant. Gain : 4.74dBi)

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.

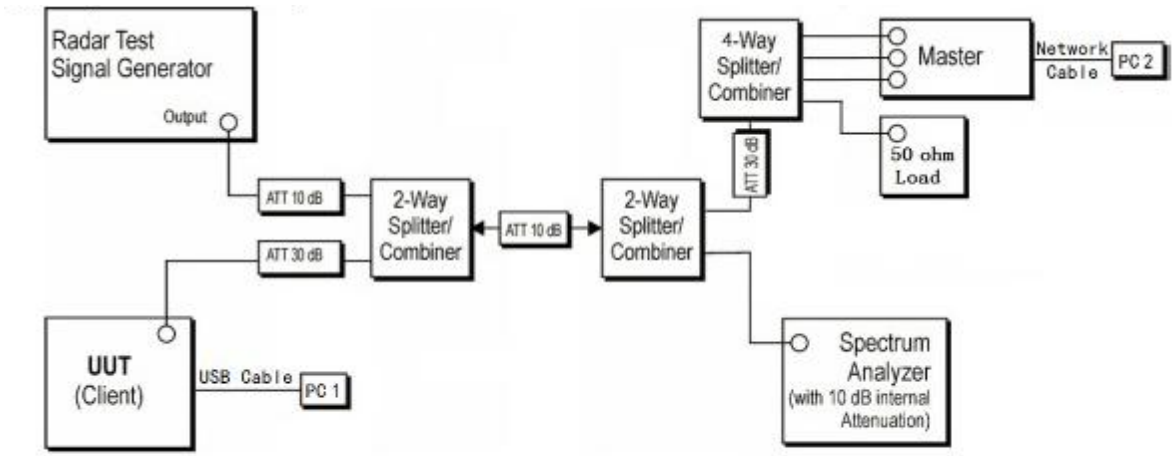
Measurement of the aggregate duration of the Channel Closed Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (0.3ms) =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

Ant. Gain: 3.69dBi

BW/Channel	Test Item	Test Result	Limit	Results
80M/5290MHz	Channel Move Time	0.059	＜10s	pass
	Channel Closing Transmission Time	0.200	＜0.26s	pass
80M/5530MHz	Channel Move Time	0.137	＜10s	pass
	Channel Closing Transmission Time	0.200	＜0.26s	pass

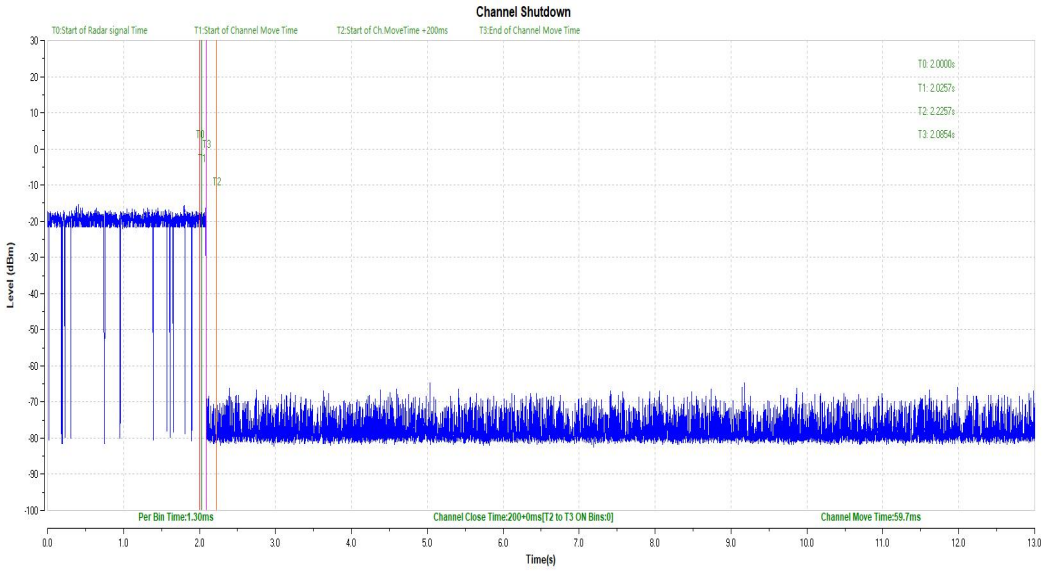
Ant. Gain: 4.74dBi

BW/Channel	Test Item	Test Result	Limit	Results
80M/5290MHz	Channel Move Time	0.158	＜10s	pass
	Channel Closing Transmission Time	0.200	＜0.26s	pass
80M/5530MHz	Channel Move Time	0.045	＜10s	pass
	Channel Closing Transmission Time	0.200	＜0.26s	pass

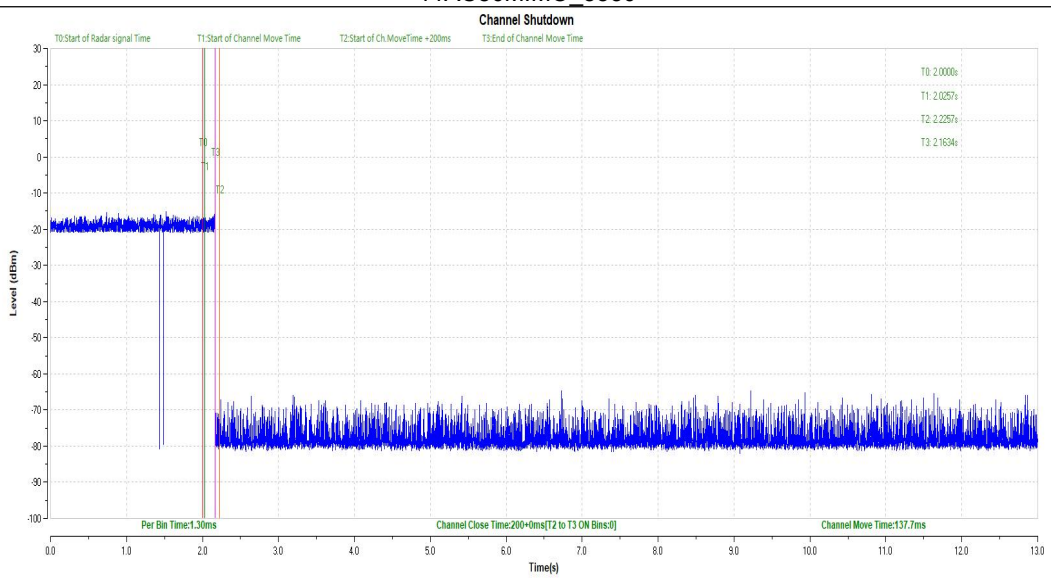
Test plots as follows:

Channel Move Time & Channel Closing Transmission Time

11AC80MIMO_5290

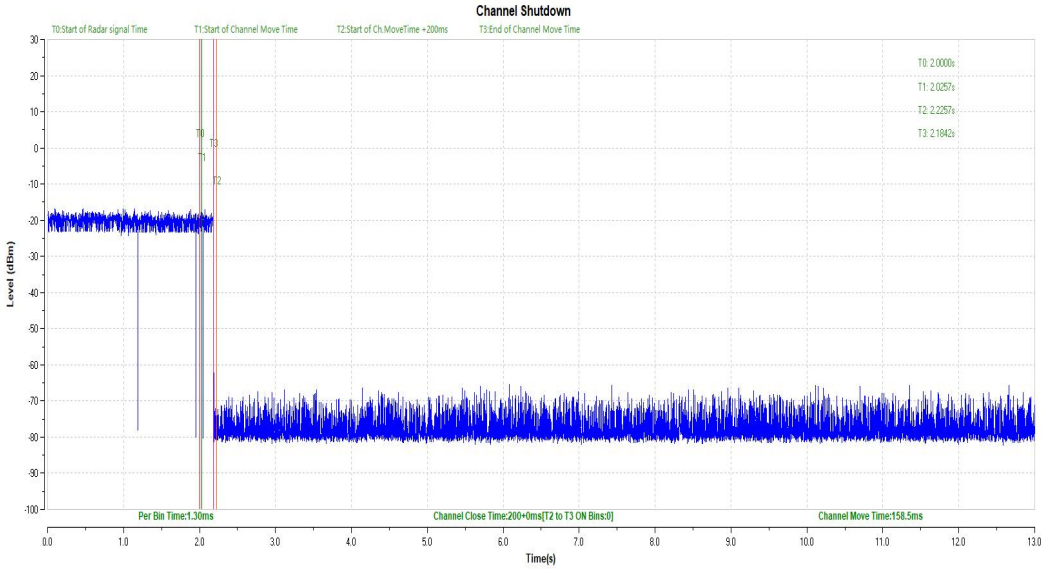


11AC80MIMO_5530

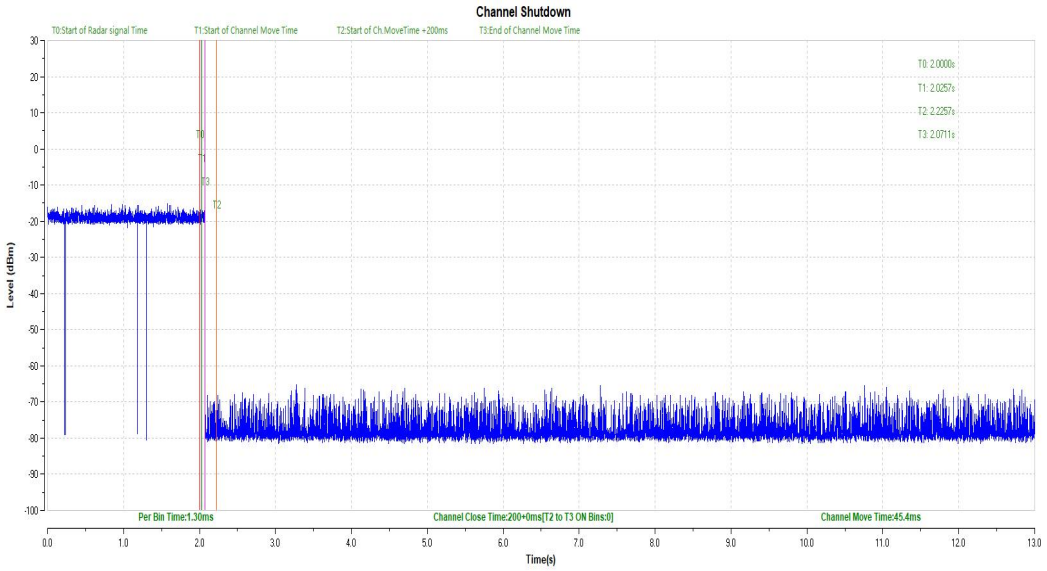


Channel Move Time & Channel Closing Transmission Time

11AC80MIMO_5290



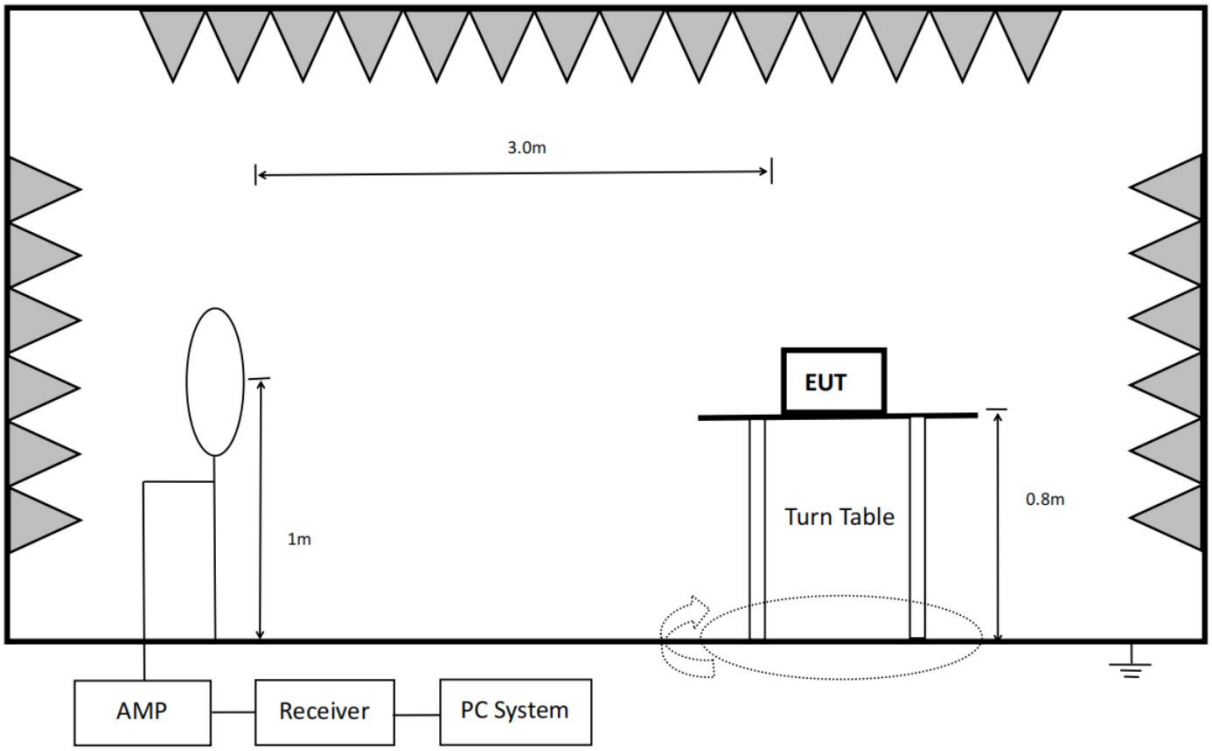
11AC80MIMO_5530



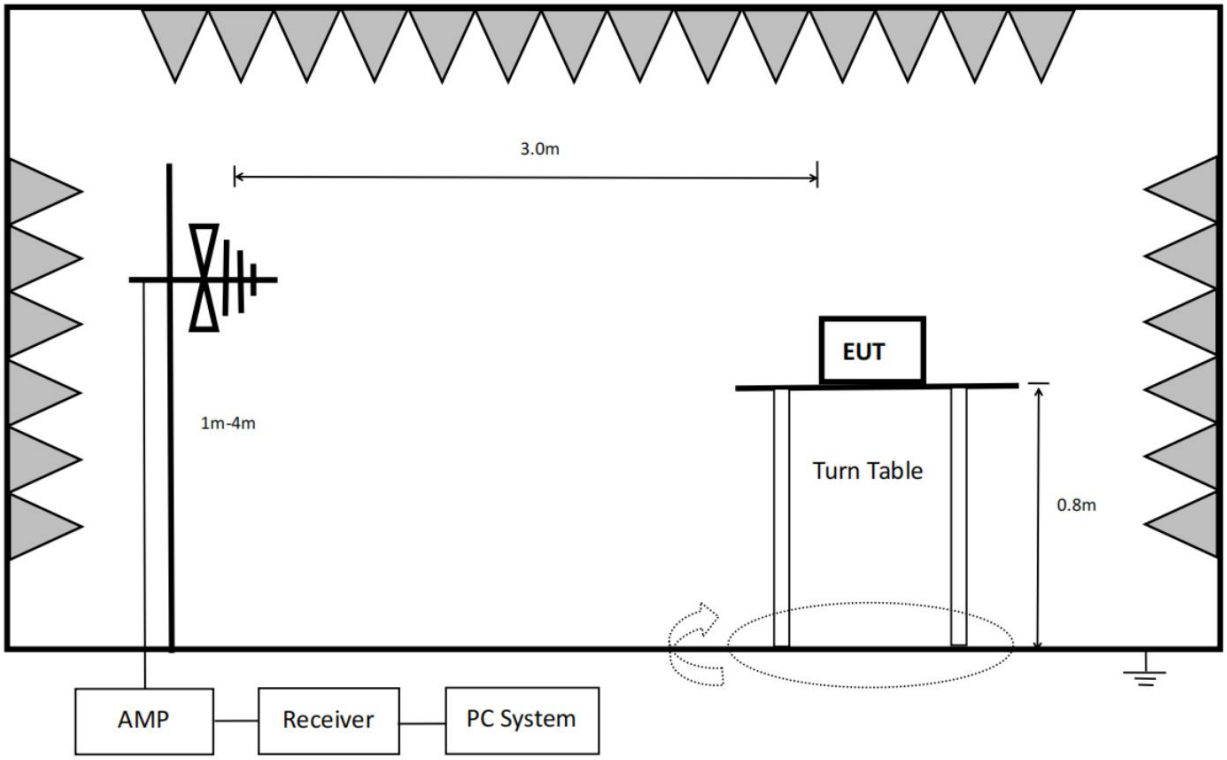
11. Radiated Emission

11.1. Block Diagram of Test Setup

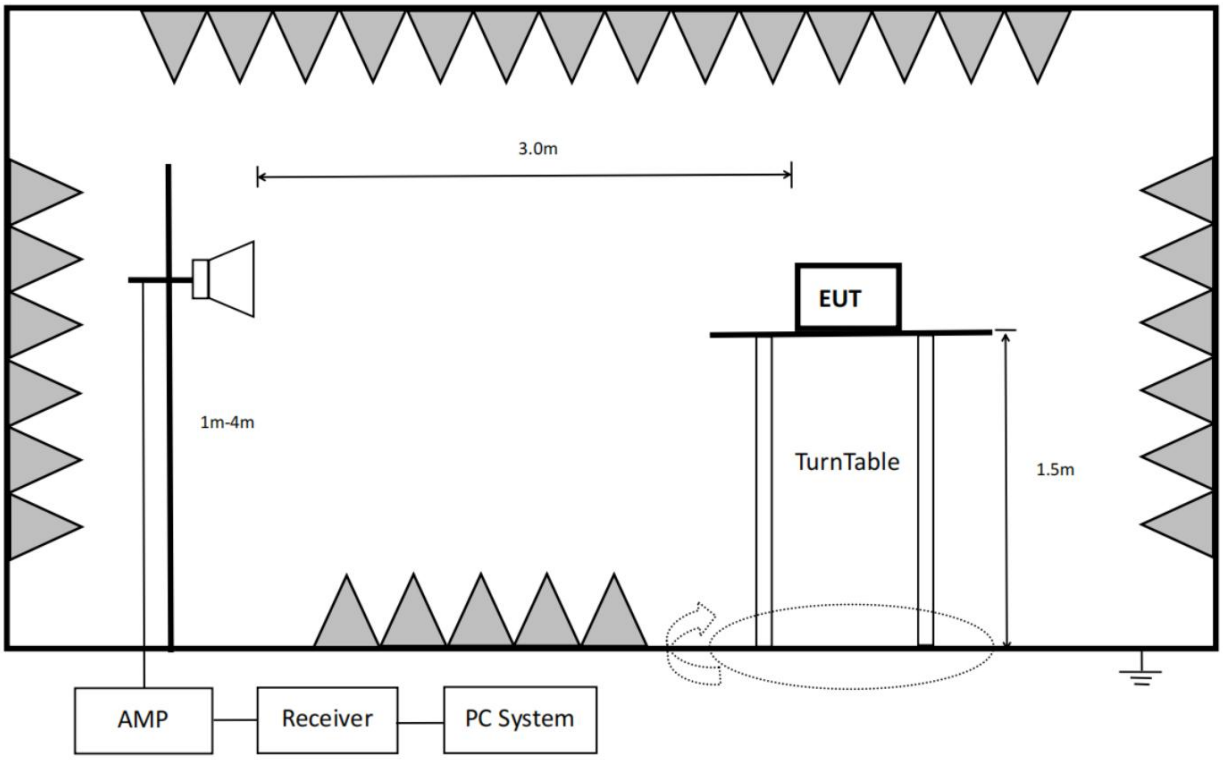
In 3 m Anechoic Chamber, test setup diagram for 9 kHz - 30 MHz:



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 11ac80 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, 11ac80 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 4.74 dBi for antenna.

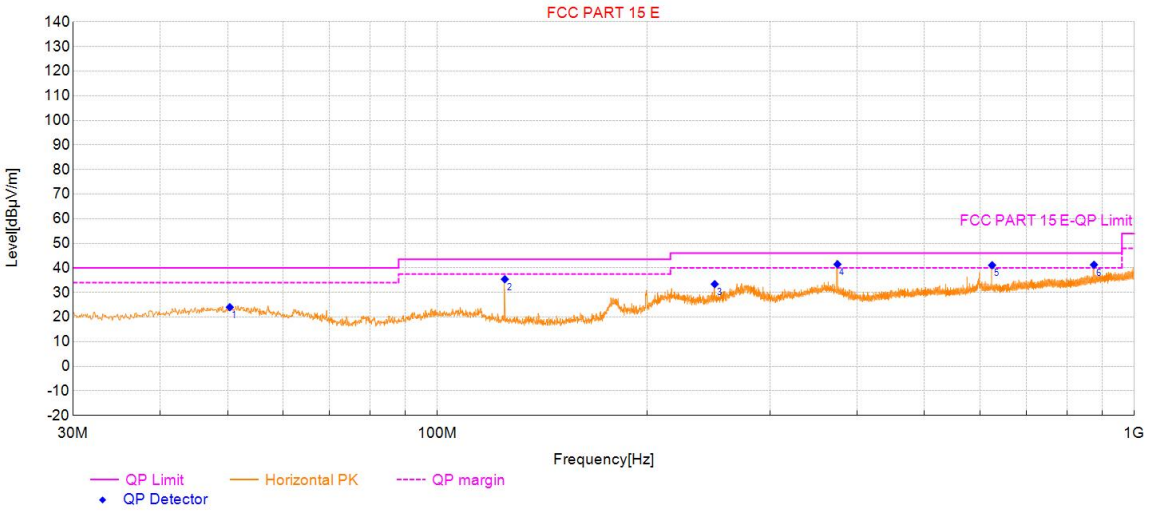
APPENDIX A – Radiated Emission Below 1GHz Test Data

Test Report

Project Information			
EUT:			
Customer:			
Model:	SKI.WB663U.2	SN:	
Mode:	11AC80_5210	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:			

Start of Test:2025-07-20 09:44:31

Test Graph



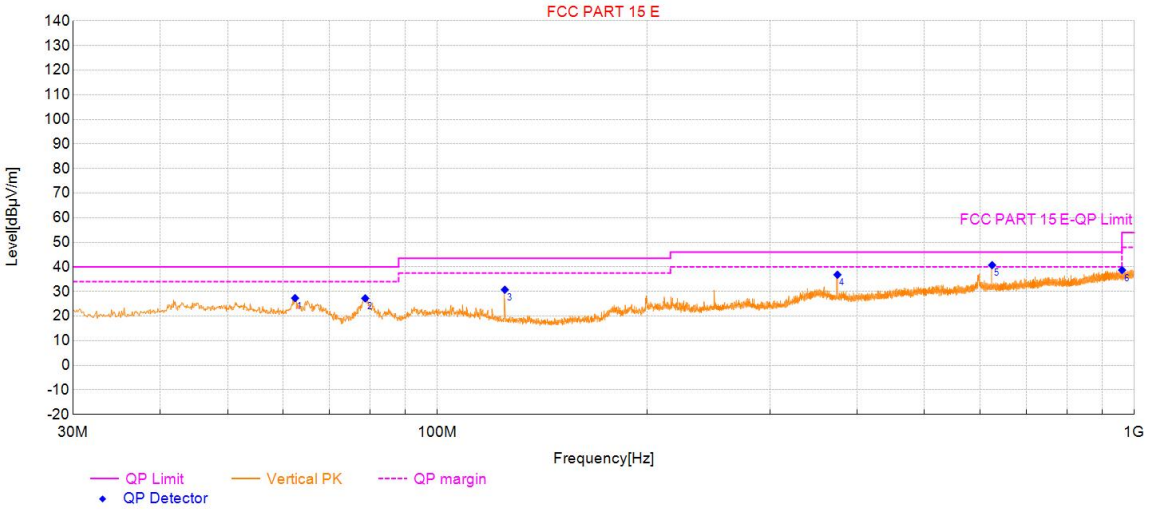
Final Data List									
NO.	Freq. (MHz)	Factor (dB)	QP Value (dBµV/m)	QP Limit (dBµV/m)	Margin (dB)	Height (cm)	Angle (°)	Polarity	Verdict
1	50.37	21.54	24.04	40.00	15.96	100	39	Horizontal	PASS
2	124.97	17.42	35.40	43.50	8.10	100	237	Horizontal	PASS
3	250.02	22.01	33.41	46.00	12.59	100	181	Horizontal	PASS
4	375.02	25.07	41.48	46.00	4.52	104.6	138.6	Horizontal	PASS
5	625.06	30.08	41.10	46.00	4.90	100	327	Horizontal	PASS
6	875.15	33.65	41.29	46.00	4.71	100	30	Horizontal	PASS

Test Report

Project Information			
EUT:			
Customer:			
Model:	SKI.WB663U.2	SN:	
Mode:	11AC80_5210	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:			

Start of Test:2025-07-20 09:45:13

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	62.50	19.37	27.32	40.00	12.68	100	227	Vertical	PASS
2	78.80	15.20	27.23	40.00	12.77	100	214	Vertical	PASS
3	124.97	17.42	30.75	43.50	12.75	100	124	Vertical	PASS
4	374.97	25.07	36.82	46.00	9.18	100	231	Vertical	PASS
5	625.06	30.08	40.74	46.00	5.26	100	37	Vertical	PASS
6	960.32	34.75	38.71	54.00	15.29	100	187	Vertical	PASS

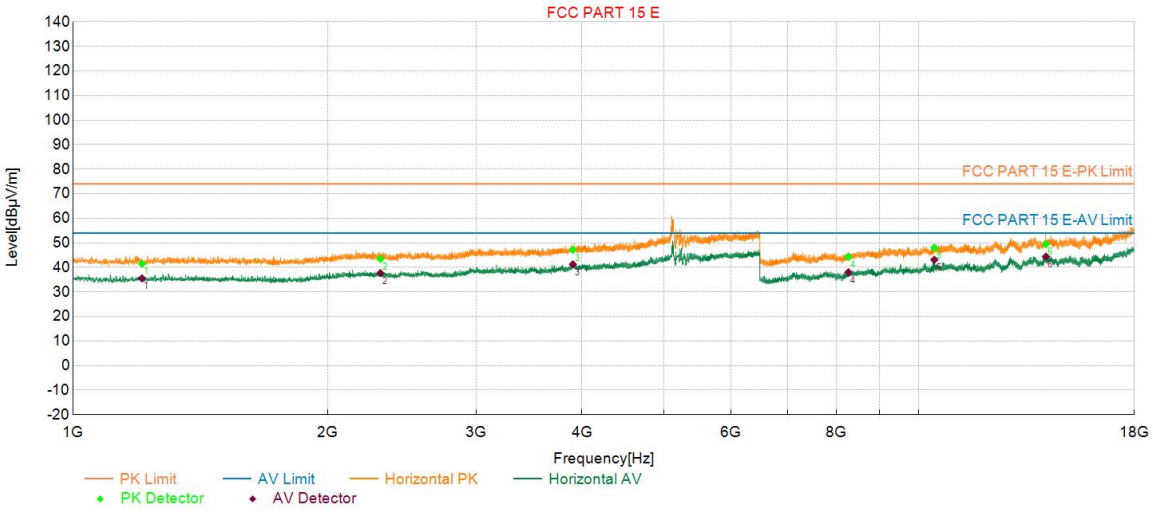
APPENDIX B – Radiated Emission Above 1GHz Test Data

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11AC80_5210	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:1A		

Start of Test:2025-07-19 16:22:46

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	1206.82	3.33	41.49	74.00	32.51	150	169	Horizontal
2	2309.68	8.04	43.47	74.00	30.53	150	70	Horizontal
3	3902.09	14.48	47.19	74.00	26.81	150	286	Horizontal
4	8260.83	2.01	44.30	74.00	29.70	150	13	Horizontal
5	10441.44	6.48	48.01	74.00	25.99	150	182	Horizontal
6	14148.26	13.55	49.51	74.00	24.49	150	224	Horizontal

AV Final Data List

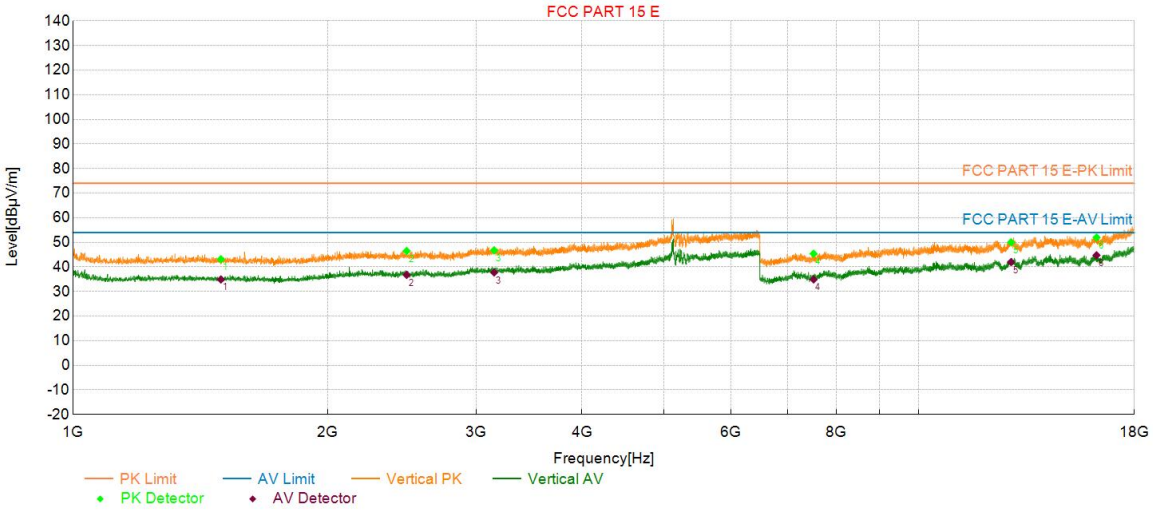
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1206.82	3.33	35.53	54.00	18.47	150	169	Horizontal
2	2309.68	8.04	37.70	54.00	16.30	150	70	Horizontal
3	3902.09	14.48	41.25	54.00	12.75	150	286	Horizontal
4	8260.83	2.01	38.04	54.00	15.96	150	13	Horizontal
5	10441.44	6.48	43.11	54.00	10.89	150	182	Horizontal
6	14148.26	13.55	44.39	54.00	9.61	150	224	Horizontal

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11AC80_5210	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:1A		

Start of Test:2025-07-19 16:24:06

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	1496.15	4.45	43.13	74.00	30.87	150	328	Vertical
2	2481.30	8.39	46.49	74.00	27.51	150	94	Vertical
3	3148.51	11.10	46.80	74.00	27.20	150	60	Vertical
4	7514.40	0.70	45.38	74.00	28.62	150	84	Vertical
5	12867.04	10.19	50.01	74.00	23.99	150	50	Vertical
6	16238.02	13.70	51.97	74.00	22.03	150	158	Vertical

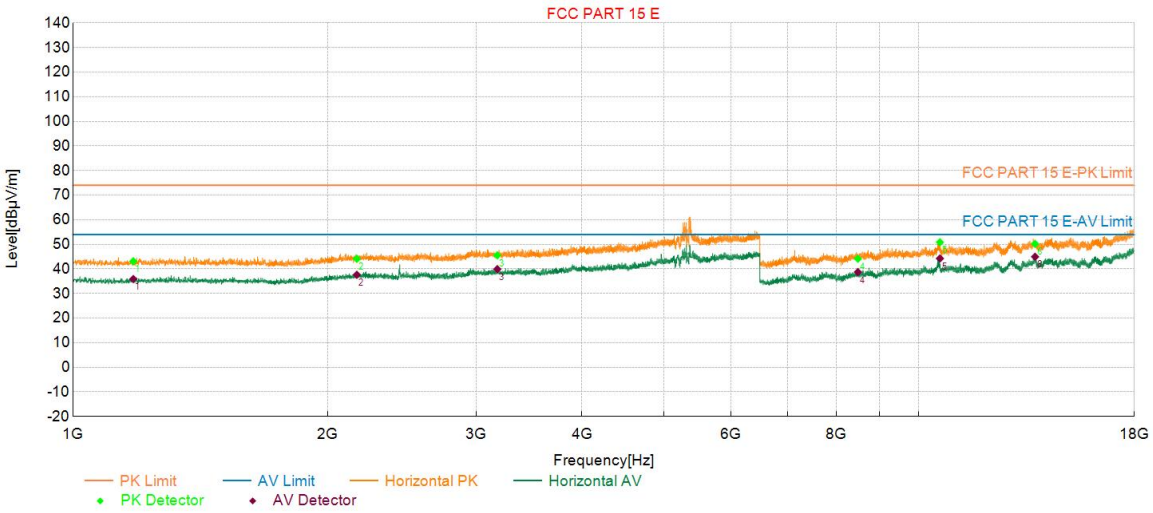
AV Final Data List								
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1496.15	4.45	34.91	54.00	19.09	150	328	Vertical
2	2481.30	8.39	36.77	54.00	17.23	150	94	Vertical
3	3148.51	11.10	37.74	54.00	16.26	150	60	Vertical
4	7514.40	0.70	34.91	54.00	19.09	150	84	Vertical
5	12867.04	10.19	41.97	54.00	12.03	150	50	Vertical
6	16238.02	13.70	44.75	54.00	9.25	150	158	Vertical

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11AC80_5290	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:1A		

Start of Test:2025-07-19 16:34:29

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	1178.77	3.07	43.11	74.00	30.89	150	115	Horizontal
2	2166.67	7.82	44.13	74.00	29.87	150	258	Horizontal
3	3176.02	11.21	45.54	74.00	28.46	150	133	Horizontal
4	8478.20	3.23	44.16	74.00	29.84	150	144	Horizontal
5	10601.31	7.25	50.86	74.00	23.14	150	177	Horizontal
6	13736.52	12.87	50.19	74.00	23.81	150	347	Horizontal

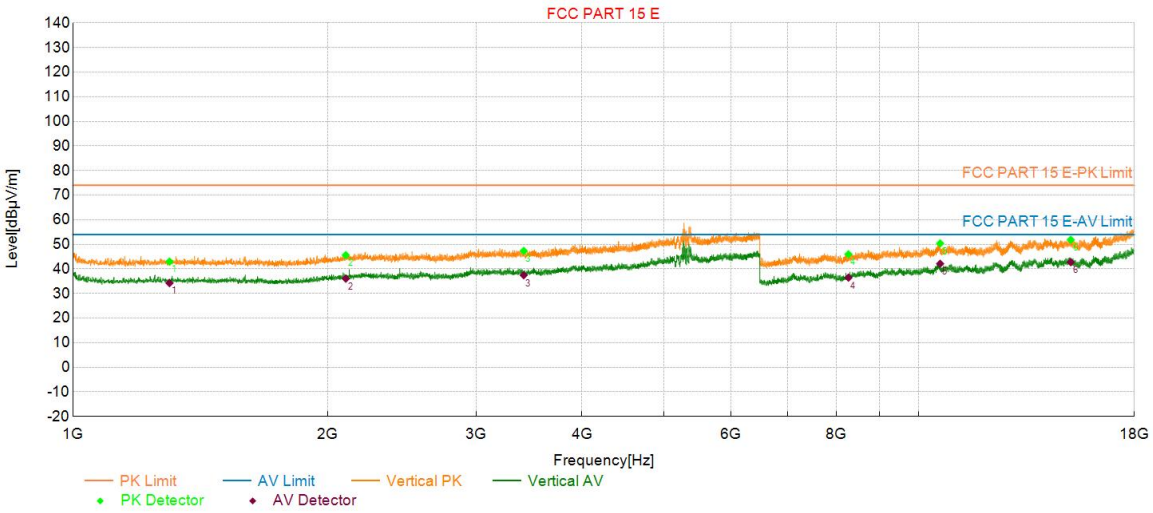
AV Final Data List								
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1178.77	3.07	35.90	54.00	18.10	150	115	Horizontal
2	2166.67	7.82	37.62	54.00	16.38	150	258	Horizontal
3	3176.02	11.21	39.91	54.00	14.09	150	133	Horizontal
4	8478.20	3.23	38.72	54.00	15.28	150	144	Horizontal
5	10601.31	7.25	44.26	54.00	9.74	150	177	Horizontal
6	13736.52	12.87	44.95	54.00	9.05	150	347	Horizontal

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11AC80_5290	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:1A		

Start of Test:2025-07-19 16:35:49

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	1300.88	3.83	43.00	74.00	31.00	150	37	Vertical
2	2102.31	7.29	45.61	74.00	28.39	150	182	Vertical
3	3413.09	11.63	47.34	74.00	26.66	150	0	Vertical
4	8263.13	2.00	45.96	74.00	28.04	150	13	Vertical
5	10607.06	7.28	50.39	74.00	23.61	150	208	Vertical
6	15139.66	14.41	51.85	74.00	22.15	150	13	Vertical

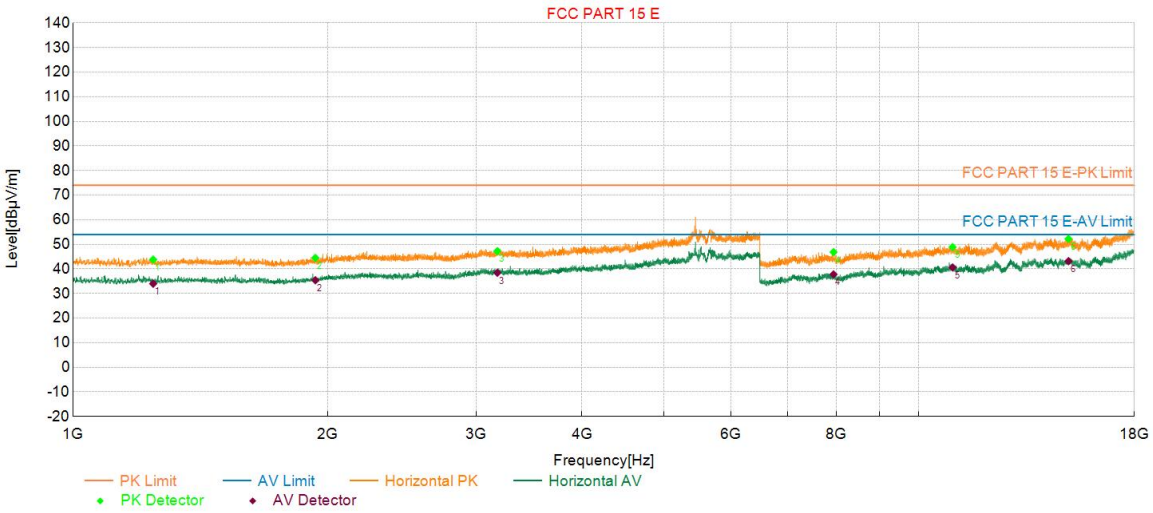
AV Final Data List								
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1300.88	3.83	34.25	54.00	19.75	150	37	Vertical
2	2102.31	7.29	36.05	54.00	17.95	150	182	Vertical
3	3413.09	11.63	37.45	54.00	16.55	150	0	Vertical
4	8263.13	2.00	36.48	54.00	17.52	150	13	Vertical
5	10607.06	7.28	42.12	54.00	11.88	150	208	Vertical
6	15139.66	14.41	42.75	54.00	11.25	150	13	Vertical

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11AC80_5530	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:1A		

Start of Test:2025-07-19 16:40:12

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	1244.22	3.52	43.82	74.00	30.18	150	360	Horizontal
2	1935.09	5.96	44.51	74.00	29.49	150	200	Horizontal
3	3176.57	11.42	47.24	74.00	26.76	150	9	Horizontal
4	7934.19	1.53	46.86	74.00	27.14	150	35	Horizontal
5	10972.80	7.14	48.88	74.00	25.12	150	291	Horizontal
6	15046.50	14.09	52.21	74.00	21.79	150	1	Horizontal

AV Final Data List

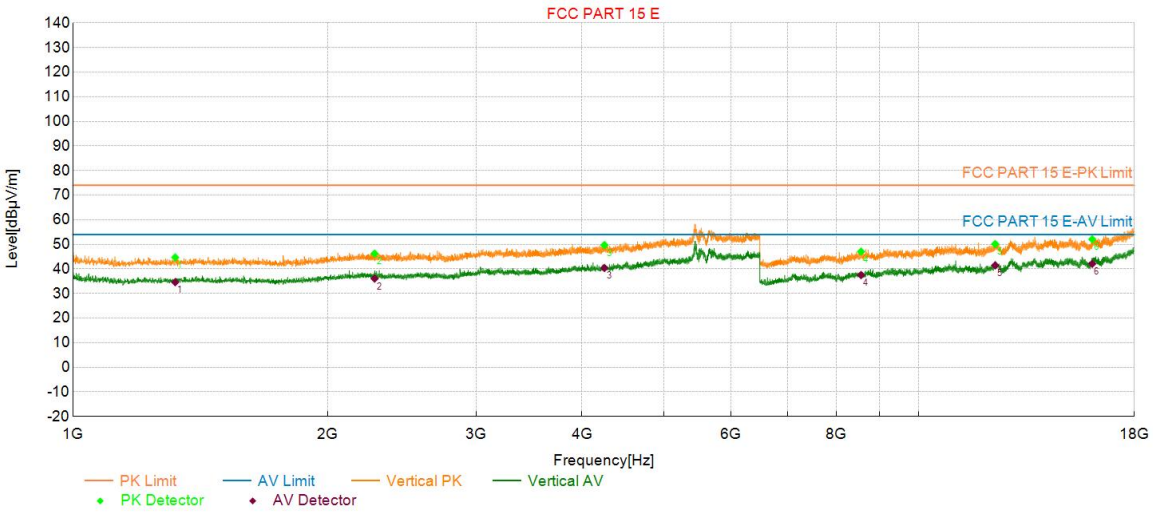
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1244.22	3.52	33.98	54.00	20.02	150	360	Horizontal
2	1935.09	5.96	35.41	54.00	18.59	150	200	Horizontal
3	3176.57	11.42	38.44	54.00	15.56	150	9	Horizontal
4	7934.19	1.53	37.80	54.00	16.20	150	35	Horizontal
5	10972.80	7.14	40.62	54.00	13.38	150	291	Horizontal
6	15046.50	14.09	43.16	54.00	10.84	150	1	Horizontal

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11AC80_5530	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:1A		

Start of Test:2025-07-19 16:41:32

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	1321.23	3.97	44.69	74.00	29.31	150	115	Vertical
2	2273.93	8.03	46.24	74.00	27.76	150	360	Vertical
3	4251.93	15.63	49.71	74.00	24.29	150	31	Vertical
4	8551.81	3.62	47.03	74.00	26.97	150	201	Vertical
5	12321.88	8.42	50.13	74.00	23.87	150	347	Vertical
6	16050.56	12.44	52.08	74.00	21.92	150	150	Vertical

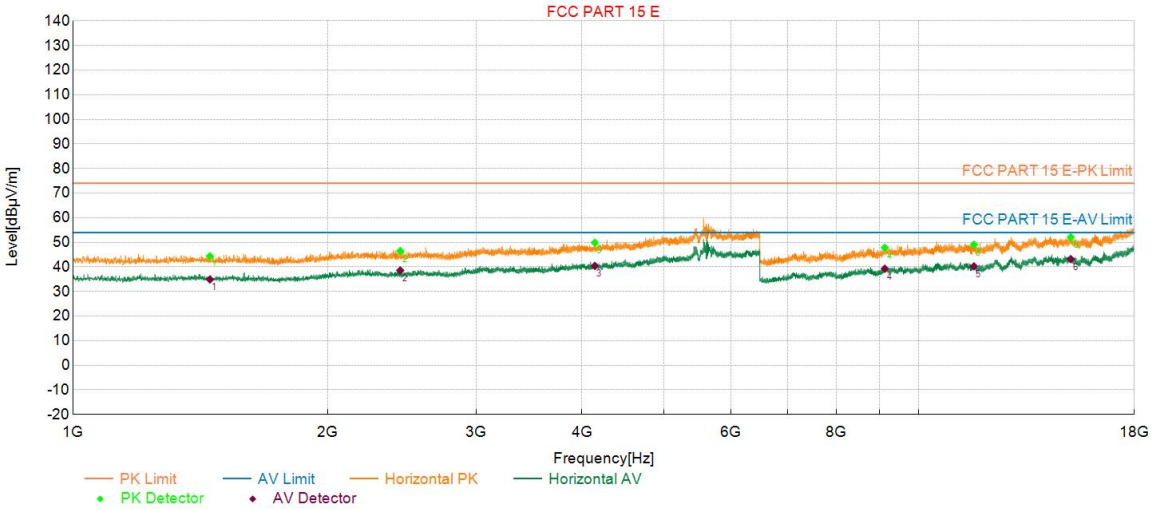
AV Final Data List								
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1321.23	3.97	34.61	54.00	19.39	150	115	Vertical
2	2273.93	8.03	36.07	54.00	17.93	150	360	Vertical
3	4251.93	15.63	40.39	54.00	13.61	150	31	Vertical
4	8551.81	3.62	37.49	54.00	16.51	150	201	Vertical
5	12321.88	8.42	41.43	54.00	12.57	150	347	Vertical
6	16050.56	12.44	42.11	54.00	11.89	150	150	Vertical

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11AC80_5610	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:1A		

Start of Test:2025-07-19 16:43:26

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	1452.15	4.43	44.42	74.00	29.58	150	83	Horizontal
2	2438.39	8.10	46.46	74.00	27.54	150	360	Horizontal
3	4141.91	14.80	49.87	74.00	24.13	150	4	Horizontal
4	9123.41	4.51	47.83	74.00	26.17	150	352	Horizontal
5	11629.51	6.91	49.06	74.00	24.94	150	241	Horizontal
6	15137.36	14.42	52.09	74.00	21.91	150	104	Horizontal

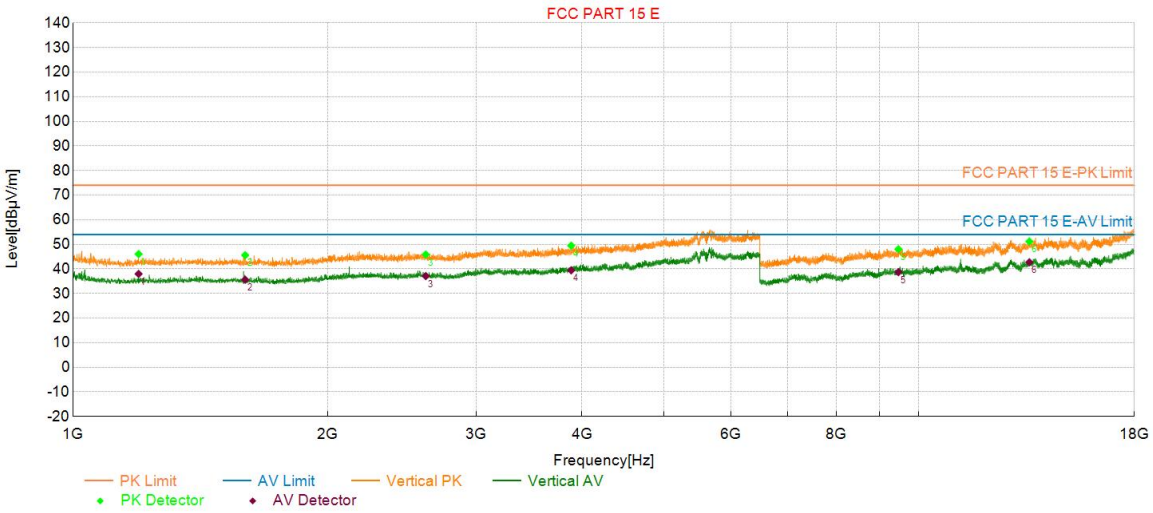
AV Final Data List								
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1452.15	4.43	34.91	54.00	19.09	150	83	Horizontal
2	2438.39	8.10	38.59	54.00	15.41	150	360	Horizontal
3	4141.91	14.80	40.44	54.00	13.56	150	4	Horizontal
4	9123.41	4.51	39.29	54.00	14.71	150	352	Horizontal
5	11629.51	6.91	40.26	54.00	13.74	150	241	Horizontal
6	15137.36	14.42	43.19	54.00	10.81	150	104	Horizontal

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11AC80_5610	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:1A		

Start of Test:2025-07-19 16:44:46

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	1195.82	3.36	46.06	74.00	27.94	150	144	Vertical
2	1598.46	4.58	45.59	74.00	28.41	150	151	Vertical
3	2613.86	8.99	45.86	74.00	28.14	150	98	Vertical
4	3883.94	14.15	49.47	74.00	24.53	150	188	Vertical
5	9468.45	6.01	48.02	74.00	25.98	150	131	Vertical
6	13524.90	12.42	51.16	74.00	22.84	150	352	Vertical

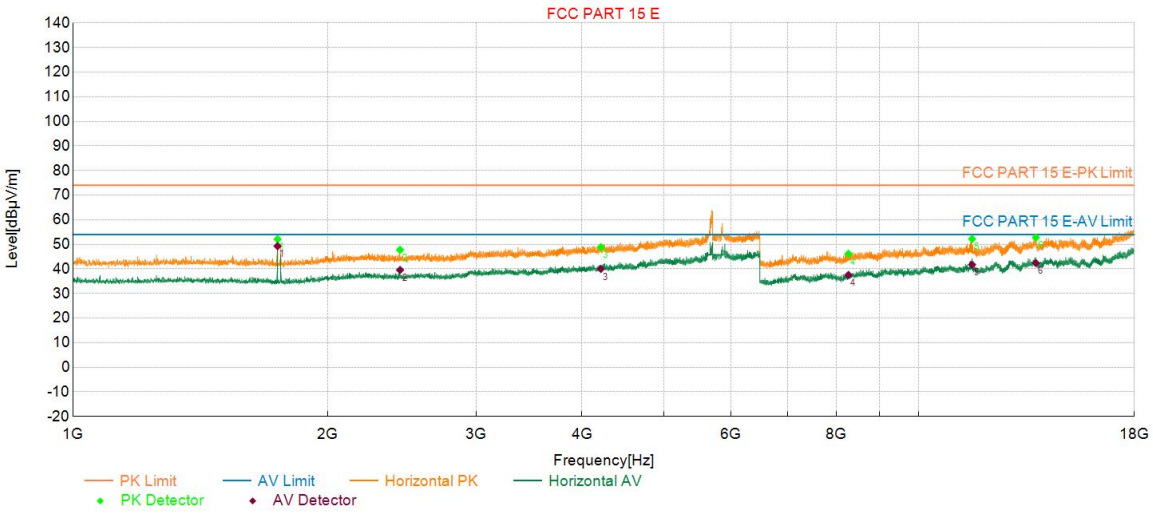
AV Final Data List								
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1195.82	3.36	37.99	54.00	16.01	150	144	Vertical
2	1598.46	4.58	35.64	54.00	18.36	150	151	Vertical
3	2613.86	8.99	37.11	54.00	16.89	150	98	Vertical
4	3883.94	14.15	39.44	54.00	14.56	150	188	Vertical
5	9468.45	6.01	38.71	54.00	15.29	150	131	Vertical
6	13524.90	12.42	42.74	54.00	11.26	150	352	Vertical

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11AC80_5775	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:1A		

Start of Test:2025-07-19 16:46:57

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	1745.87	4.61	52.10	74.00	21.90	150	319	Horizontal
2	2437.29	7.94	47.77	74.00	26.23	150	63	Horizontal
3	4211.22	15.48	48.85	74.00	25.15	150	332	Horizontal
4	8263.13	2.00	46.14	74.00	27.86	150	353	Horizontal
5	11570.86	7.06	52.22	74.00	21.78	150	196	Horizontal
6	13765.28	12.59	52.79	74.00	21.21	150	0	Horizontal

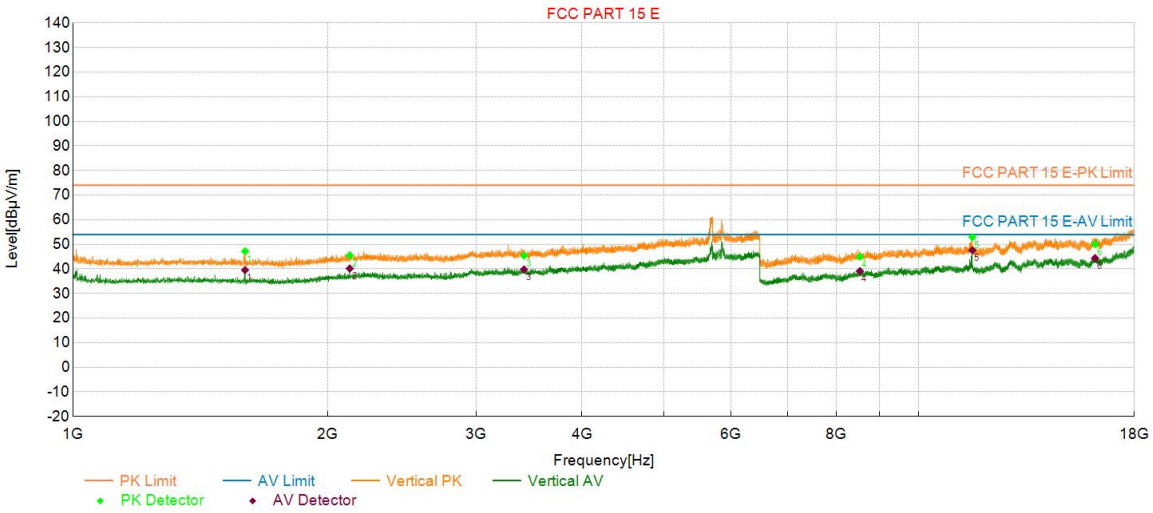
AV Final Data List								
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1745.87	4.61	49.29	54.00	4.71	150	319	Horizontal
2	2437.29	7.94	39.56	54.00	14.44	150	63	Horizontal
3	4211.22	15.48	40.01	54.00	13.99	150	332	Horizontal
4	8263.13	2.00	37.55	54.00	16.45	150	353	Horizontal
5	11570.86	7.06	41.74	54.00	12.26	150	196	Horizontal
6	13765.28	12.59	42.38	54.00	11.62	150	0	Horizontal

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11AC80_5775	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:1A		

Start of Test:2025-07-19 16:48:17

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	1597.91	4.49	47.19	74.00	26.81	150	150	Vertical
2	2124.86	7.42	45.55	74.00	28.45	150	263	Vertical
3	3415.29	11.80	45.42	74.00	28.58	150	237	Vertical
4	8524.20	3.45	44.98	74.00	29.02	150	78	Vertical
5	11581.21	6.98	52.91	74.00	21.09	150	71	Vertical
6	16173.62	13.36	50.05	74.00	23.95	150	144	Vertical

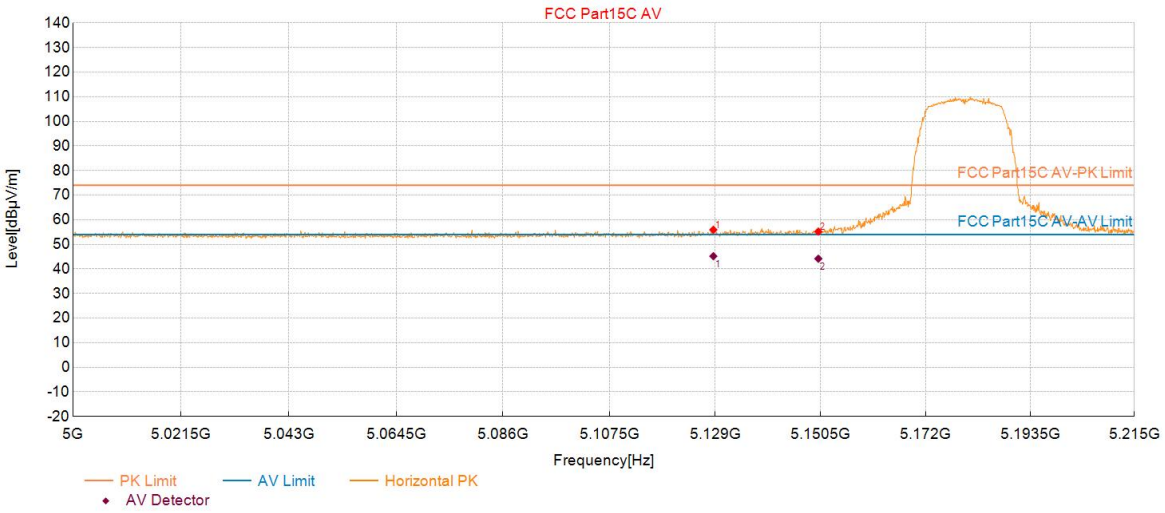
AV Final Data List								
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	1597.91	4.49	39.55	54.00	14.45	150	150	Vertical
2	2124.86	7.42	40.17	54.00	13.83	150	263	Vertical
3	3415.29	11.80	39.78	54.00	14.22	150	237	Vertical
4	8524.20	3.45	39.13	54.00	14.87	150	78	Vertical
5	11581.21	6.98	47.59	54.00	6.41	150	71	Vertical
6	16173.62	13.36	44.40	54.00	9.60	150	144	Vertical

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11A_5180	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:1A		

Start of Test:2025-07-19 14:44:37

Test Graph



Suspected Data List								
NO.	Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Angle (°)	Polarity
1	5128.63	55.93	17.81	74.00	18.07	150	158	Horizontal
2	5150.04	55.20	17.79	74.00	18.80	150	158	Horizontal

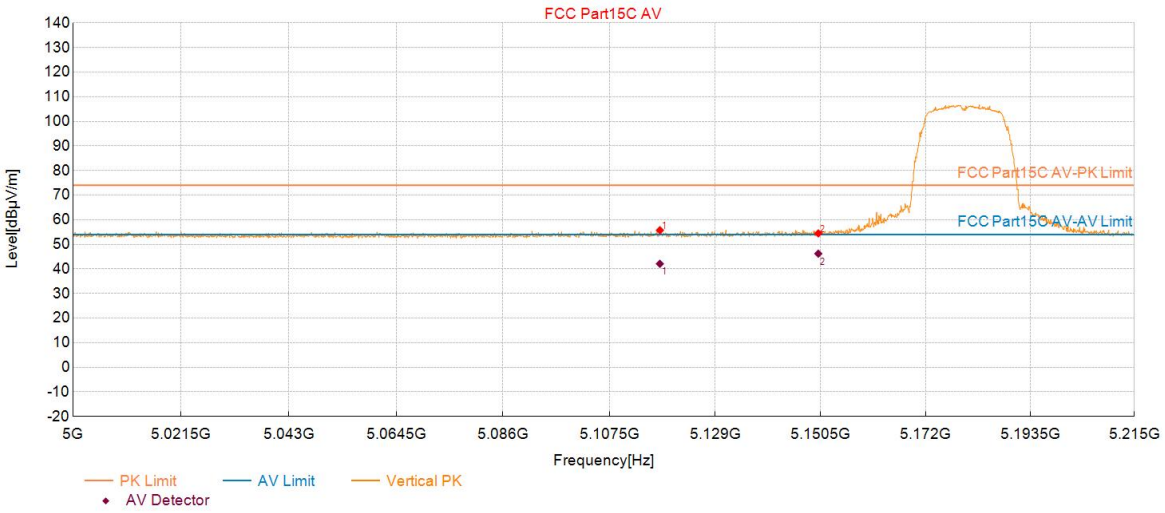
AV Final Data List								
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	5128.63	17.81	45.19	54.00	8.81	150	158	Horizontal
2	5150.04	17.79	44.16	54.00	9.84	150	158	Horizontal

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11A_5180	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:1A		

Start of Test:2025-07-19 14:45:17

Test Graph



Suspected Data List								
NO.	Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Angle (°)	Polarity
1	5117.77	55.75	17.81	74.00	18.25	150	223	Vertical
2	5150.04	54.45	17.79	74.00	19.55	150	278	Vertical

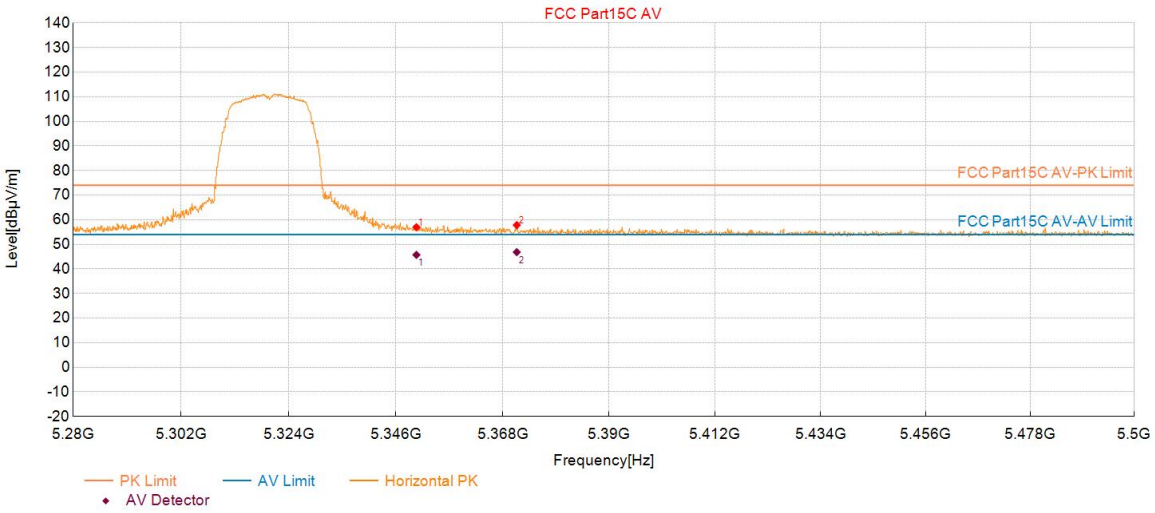
AV Final Data List								
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	5117.77	17.81	42.09	54.00	11.91	150	223	Vertical
2	5150.04	17.79	46.21	54.00	7.79	150	278	Vertical

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11A_5320	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:1A		

Start of Test:2025-07-19 14:47:50

Test Graph



Suspected Data List

NO.	Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Angle (°)	Polarity
1	5350.22	56.96	18.34	74.00	17.04	150	205	Horizontal
2	5370.91	57.84	18.46	74.00	16.16	150	176	Horizontal

AV Final Data List

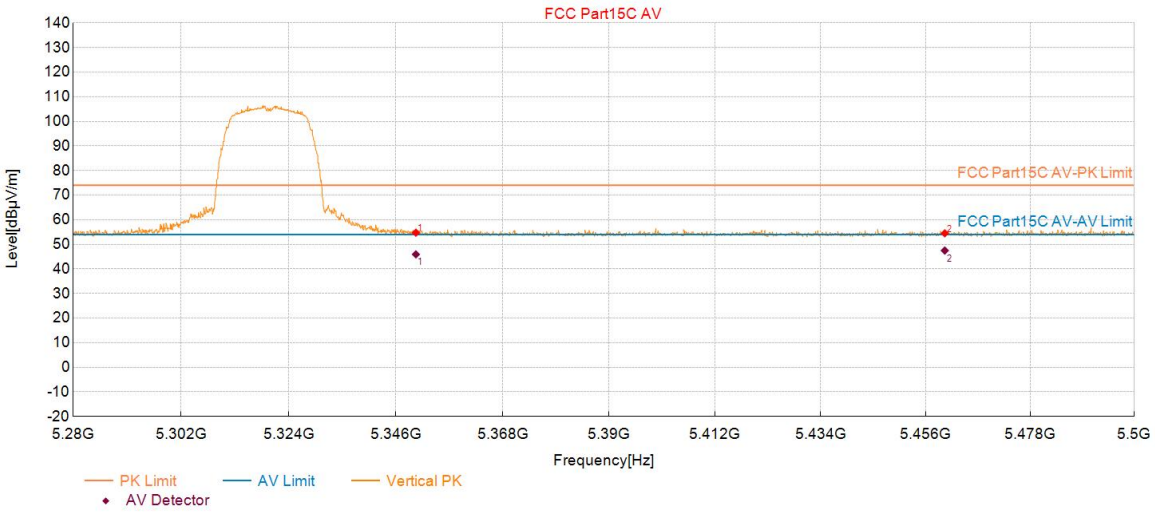
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	5350.22	18.34	45.71	54.00	8.29	150	205	Horizontal
2	5370.91	18.46	46.83	54.00	7.17	150	176	Horizontal

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11A_5320	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:1A		

Start of Test:2025-07-19 14:48:30

Test Graph



Suspected Data List								
NO.	Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Angle (°)	Polarity
1	5350.11	54.75	18.34	74.00	19.25	150	207	Vertical
2	5460.05	54.49	18.72	74.00	19.51	150	115	Vertical

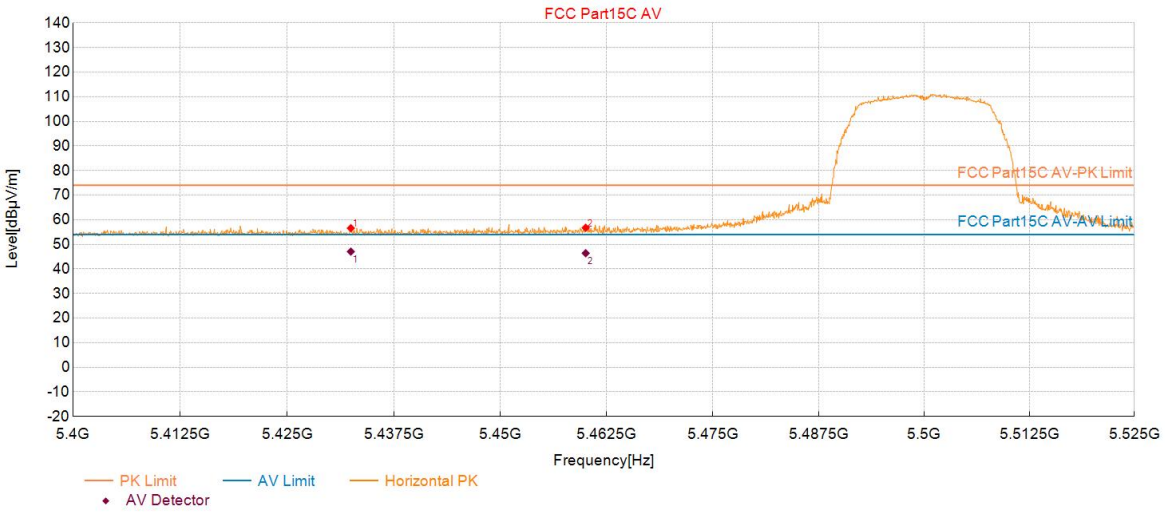
AV Final Data List								
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	5350.11	18.34	45.93	54.00	8.07	150	207	Vertical
2	5460.05	18.72	47.48	54.00	6.52	150	115	Vertical

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11A_5500	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:1A		

Start of Test:2025-07-19 14:52:23

Test Graph



Suspected Data List								
NO.	Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Angle (°)	Polarity
1	5432.45	56.57	18.68	74.00	17.43	150	166	Horizontal
2	5460.03	56.75	18.72	74.00	17.25	150	171	Horizontal

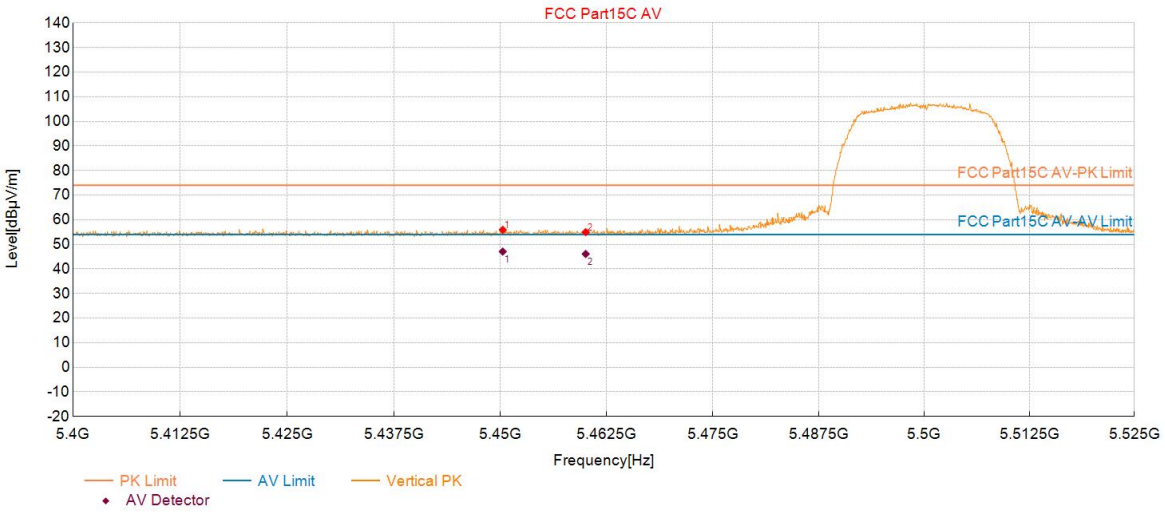
AV Final Data List								
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	5432.45	18.68	47.05	54.00	6.95	150	166	Horizontal
2	5460.03	18.72	46.40	54.00	7.60	150	171	Horizontal

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11A_5500	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:1A		

Start of Test:2025-07-19 14:53:03

Test Graph



Suspected Data List

NO.	Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Angle (°)	Polarity
1	5450.28	55.91	18.71	74.00	18.09	150	113	Vertical
2	5460.03	54.96	18.72	74.00	19.04	150	291	Vertical

AV Final Data List

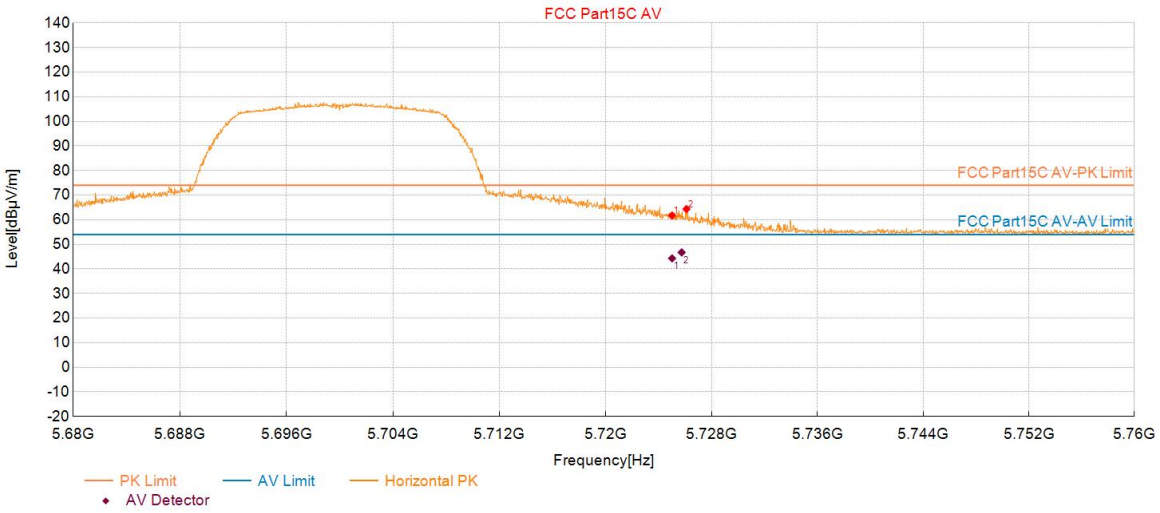
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	5450.28	18.71	47.06	54.00	6.94	150	113	Vertical
2	5460.03	18.72	46.09	54.00	7.91	150	291	Vertical

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11A_5700	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:1A		

Start of Test:2025-07-19 14:55:04

Test Graph



Suspected Data List

NO.	Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Angle (°)	Polarity
1	5725.02	61.74	19.93	74.00	12.26	150	160	Horizontal
2	5726.10	64.35	19.93	74.00	9.65	150	169	Horizontal

AV Final Data List

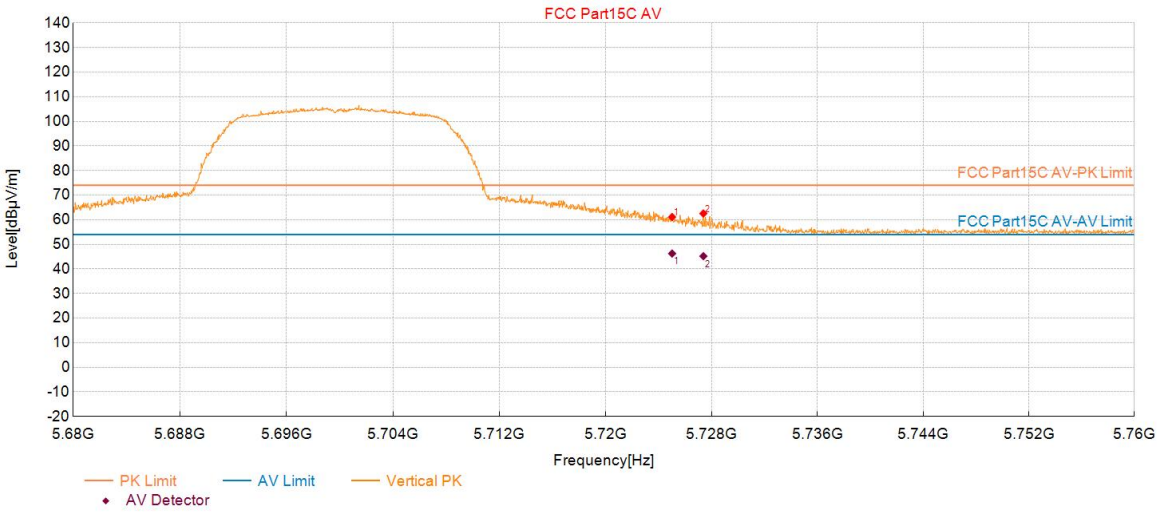
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	5725.02	19.93	44.30	54.00	9.70	150	160	Horizontal
2	5725.74	19.93	46.73	54.00	7.27	150	160	Horizontal

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11A_5700	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:1A		

Start of Test:2025-07-19 14:55:44

Test Graph



Suspected Data List

NO.	Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Angle (°)	Polarity
1	5725.02	61.12	19.93	74.00	12.88	150	244	Vertical
2	5727.38	62.54	19.94	74.00	11.46	150	214	Vertical

AV Final Data List

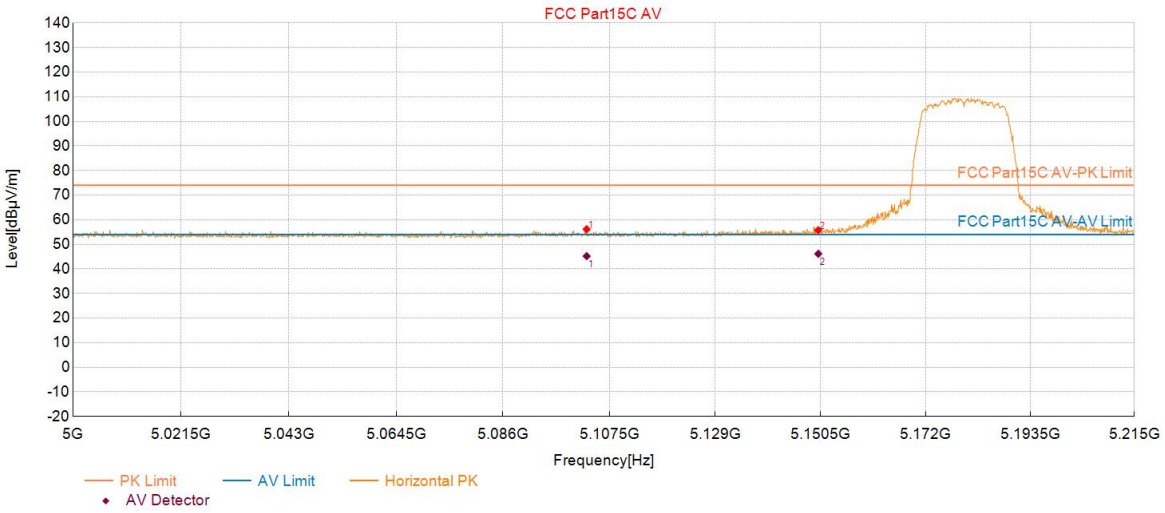
NO.	Freq. (MHz)	Factor (dB)	AV Value (dBµV/m)	AV Limit (dBµV/m)	AV Margin (dB)	Height (cm)	Angle (°)	Polarity
1	5725.02	19.93	46.27	54.00	7.73	150	244	Vertical
2	5727.38	19.94	45.18	54.00	8.82	150	214	Vertical

Test Report

Project Information			
Customer:			
EUT:			
Model:	SKI.WB663U.2	SN:	
Mode:	11N20_5180	Voltage:	DC 3.3V
Environment:	23.1℃ 54%	Engineer:	Soho Liu
Remark:	setpower:18		

Start of Test:2025-07-19 15:10:41

Test Graph



Suspected Data List								
NO.	Frequency (MHz)	Level (dBµV/m)	Factor (dB)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Angle (°)	Polarity
1	5102.93	56.15	17.83	74.00	17.85	150	208	Horizontal
2	5150.04	55.78	17.79	74.00	18.22	150	213	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	5102.93	17.83	45.20	54.00	8.80	150	208	Horizontal
2	5150.04	17.79	46.16	54.00	7.84	150	213	Horizontal