FCC RADIO TEST REPORT

FCC ID	:	**UZ7WS5001**
Equipment	:	**WS50 Wearable Computer**
Brand Name	:	**Zebra**
Model Name	:	**WS5001**
Applicant	:	**Zebra Technologies Corporation 1 Zebra Plaza, Holtsville, NY 11742**
Manufacturer	:	**Zebra Technologies Corporation 1 Zebra Plaza, Holtsville, NY 11742**
Standard	:	**FCC Part 15 Subpart E §15.407**

The product was received on Dec. 20, 2021 and testing was performed from Jan. 05, 2022 to Mar. 03, 2022. We, Sporton International Inc. Wensan Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. Wensan Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. Wensan Laboratory

No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issue Date
FR1O0707-02E	01	Initial issue of report	Mar. 18, 2022

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.403(i)	26dB Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Reporting only	-
3.2	15.407(a)	Maximum Conducted Output Power	Pass	-
3.3	15.407(a)	Power Spectral Density	Pass	-
3.4	15.407(b)	Unwanted Emissions	Pass	1.23 dB under the limit at 5350.320 MHz
3.5	15.207	AC Conducted Emission	Pass	4.73 dB under the limit at 13.560 MHz
3.6	15.203 15.407(a)	Antenna Requirement	Pass	-

Declaration of Conformity:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
   It's means measurement values may risk exceeding the limit of regulation standards, if measurement uncertainty is include in test results.
2. The measurement uncertainty please refer to this report "Uncertainty of Evaluation".

Comments and Explanations:

The product specifications of the EUT presented in the report are declared by the manufacturer who shall take full responsibility for the authenticity.

Reviewed by: Wei Chen

Report Producer: Ruby Zou

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	WS50 Wearable Computer
Brand Name	Zebra
Model Name	WS5001
FCC ID	109AN-RTL10C0
EUT supports Radios application	NFC WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80/VHT160 WLAN 11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE
HW Version	EV2.2
SW Version	Terminal Version:11-12-01.00-RN-U00-PRD-WTX-04
MFD	SKU 1: 23NOV21 SKU 3-1: 14DEC21 SKU 3-2: 15DEC21 SKU 5: 23NOV21
EUT Stage	Identical Prototype

Remark: The above EUT's information was declared by manufacturer.

SKU List				
Helix SKU	**Scanner**	**Battery**	**Camera**	**Mounting**
SKU 1	SE4770	1.6x Battery	N/A	Finger Trigger
SKU 3-1	N/A	1x Battery	Yes	Wrist Strap
SKU 3-2	N/A	1x Battery	N/A	Wrist Strap
SKU 5	SE4770	1.6x Battery	N/A	BOH

Specification of Accessories				
Adaptor	**Brand Name**	Zebra	**Model Number**	PWR-WUA5V12W0US
Battery 1x	**Brand Name**	Zebra	**Model Number**	BT-000446
Battery 1.6x	**Brand Name**	Zebra	**Model Number**	BT-000446B
USB charging cable with cup	**Brand Name**	Zebra	**Model Number**	CBL-WS5X-USB1-01
USB C CABLE	**Brand Name**	Zebra	**Model Number**	CBL-TC2X-USBC-01

Supported Unit used in test configuration and system				
Converged Scanner Shell	**Brand Name**	Zebra	**Part Number**	SG-WS5X-SHLCS-01
Replacement Finger Trigger for Converged	**Brand Name**	Zebra	**Part Number**	SG-WS5X-TRGA-01
Wrist Shell	**Brand Name**	Zebra	**Part Number**	SG-WS5X-SHLWR-01
Wrist Strap	**Brand Name**	Zebra	**Part Number**	SG-WS5X-WSTRP-01
Wrist Mount (without strap)	**Brand Name**	Zebra	**Part Number**	SG-WS5X-WSTMT-01
Wrist Mount with strap	**Brand Name**	Zebra	**Part Number**	SG-WS5X-WPLTS-01
Back of Hand Mount for Converged	**Brand Name**	Zebra	**Part Number**	SG-WS5X-BHMT-01

1.2 Product Specification of Equipment Under Test

Product Specification is subject to this standard	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5720 MHz
Maximum Output Power to Antenna	**<5180 MHz ~ 5240 MHz>** 802.11a: 21.50 dBm / 0.1413 W 802.11n HT20: 20.90 dBm / 0.1230 W 802.11n HT40: 21.00 dBm / 0.1259 W 802.11ac VHT20: 20.80 dBm / 0.1202 W 802.11ac VHT40: 20.90 dBm / 0.1230 W 802.11ac VHT80: 16.10 dBm / 0.0407 W **<5260 MHz ~ 5320 MHz>** 802.11a: 20.60 dBm / 0.1148 W 802.11n HT20: 20.20 dBm / 0.1047 W 802.11n HT40: 21.10 dBm / 0.1288 W 802.11ac VHT20: 20.10 dBm / 0.1023 W 802.11ac VHT40: 21.00 dBm / 0.1259 W 802.11ac VHT80: 19.10 dBm / 0.0813 W **<5500 MHz ~ 5720 MHz>** 802.11a: 21.30 dBm / 0.1349 W 802.11n HT20: 21.40 dBm / 0.1380 W 802.11n HT40: 21.10 dBm / 0.1288 W 802.11ac VHT20: 21.30 dBm / 0.1349 W 802.11ac VHT40: 21.00 dBm / 0.1259 W 802.11ac VHT80: 20.30 dBm / 0.1072 W
99% Occupied Bandwidth	802.11a: 17.73 MHz 802.11n HT20: 18.53 MHz 802.11n HT40: 37.76 MHz 802.11ac VHT80: 75.28 MHz
Antenna Type / Gain	**<5180 MHz ~ 5240 MHz>:** PIFA Antenna with gain 3.92 dBi **<5260 MHz ~ 5320 MHz>:** PIFA Antenna with gain 3.92 dBi **<5500 MHz ~ 5720 MHz>:** PIFA Antenna with gain 3.92 dBi
Type of Modulation	802.11a/n : OFDM (BPSK/QPSK/16QAM/64QAM) 802.11ac : OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)

Note:

1. For other wireless features of this EUT, test report will be issued separately.
2. The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.

1.3 Modification of EUT

No modifications made to the EUT during the testing.

1.4 Testing Location

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	**Sporton Site No.**
	CO05-HY (TAF Code: 1190)
Remark:	The AC Conducted Emission test item subcontracted to Sporton International Inc. EMC & Wireless Communications Laboratory

Note: The test site complies with ANSI C63.4 2014 requirement.

Test Site	Sporton International Inc. Wensan Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	TH05-HY, 03CH11-HY

Note: The test site complies with ANSI C63.4 2014 requirement.

FCC designation No.: TW1190 and TW3786

1.5 Applicable Standards

According to the specifications declared by the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- FCC KDB 414788 D01 Radiated Test Site v01r01.
- ANSI C63.10-2013

Remark:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. The TAF code is not including all the FCC KDB listed without accreditation.
3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and find X plane as worst plane.

b. AC power line Conducted Emission was tested under maximum output power.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5150-5250 MHz Band 1 (U-NII-1)	36	5180	44	5220
	38*	5190	46*	5230
	40	5200	48	5240
	42#	5210		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5250-5350 MHz Band 2 (U-NII-2A)	52	5260	60	5300
	54*	5270	62*	5310
	56	5280	64	5320
	58#	5290		

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5470-5725 MHz Band 3 (U-NII-2C)	100	5500	112	5560
	102*	5510	116	5580
	104	5520	132	5660
	106#	5530	134*	5670
	108	5540	136	5680
	110*	5550	140	5700

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
TDWR Channel	118*	5590	124	5620
	120	5600	126*	5630
	122#	5610	128	5640

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
Straddle Channel	138#	5690	144	5720
	142*	5710		

Note:

1. The above Frequency and Channel with "*" are 802.11n HT40 and 802.11ac VHT40.
2. The above Frequency and Channel with "#" are 802.11ac VHT80.

2.2 Test Mode

The final test modes consider the modulation and the worst data rates as shown in the table below.

Modulation	Data Rate
802.11a	**6 Mbps**
802.11n HT20	**MCS0**
802.11n HT40	**MCS0**
802.11ac VHT20 (Covered by HT20)	**MCS0**
802.11ac VHT40 (Covered by HT40)	**MCS0**
802.11ac VHT80	**MCS0**

802.11a RF Output Power (dBm)										
Power vs. Channel			Power vs Data Rate							
Channel	Frequency (MHz)	Data Rate (bps)	Channel	Data Rate (bps)						
		6M		9M	12M	18M	24M	36M	48M	54M
CH 036	5180	21.50	CH 036	21.40	21.40	21.10	21.10	21.00	21.00	21.00
CH 044	5220	20.80								
CH 048	5240	20.30								
CH 052	5260	20.50	CH 064	20.50	20.50	20.30	20.20	20.10	20.10	20.10
CH 060	5300	20.10								
CH 064	5320	20.60								
CH 100	5500	21.30	CH 100	21.20	21.20	21.10	21.10	20.80	20.80	20.60
CH 116	5580	21.20								
CH 140	5700	20.80								
CH 144*	5720	21.30								

Note: The above Frequency and Channel in "*" were straddle Channel.

802.11n HT20 RF Output Power (dBm)										
Power vs. Channel			Power vs Data Rate							
Channel	Frequency (MHz)	MCS Index	Channel	MCS Index						
		MCS0		MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 036	5180	19.90	CH 044	20.80	20.80	20.50	20.50	20.40	20.40	20.40
CH 044	5220	20.90								
CH 048	5240	20.30								
CH 052	5260	20.20	CH 052	20.10	20.10	19.70	19.70	19.50	19.50	19.50
CH 060	5300	20.10								
CH 064	5320	20.10								
CH 100	5500	21.40	CH 100	21.30	21.20	21.20	20.80	20.80	20.80	20.80
CH 116	5580	21.30								
CH 140	5700	20.00								
CH 144*	5720	21.40								

Note: The above Frequency and Channel in "*" were straddle Channel.

802.11n HT40 RF Output Power (dBm)											
Power vs. Channel			Power vs Data Rate								
Channel	Frequency (MHz)	MCS Index	Channel	MCS Index						
		MCS0		MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 038	5190	18.80	CH 046	20.90	20.90	20.70	20.70	20.70	20.60	20.60
CH 046	5230	21.00								
CH 054	5270	21.10	CH 054	21.00	21.00	20.70	20.60	20.60	20.60	20.50
CH 062	5310	19.10								
CH 102	5510	18.20	CH 110	21.00	21.00	20.90	20.90	20.80	20.80	20.70
CH 110	5550	21.10								
CH 134	5670	21.10								
CH 142*	5710	21.10								

Note: The above Frequency and Channel in "*" were straddle Channel.

802.11ac VHT20 RF Output Power (dBm)											
Power vs. Channel			Power vs Data Rate								
Channel	Frequency (MHz)	MCS Index	Channel	MCS Index							
		MCS0		MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
CH 036	5180	19.80	CH 044	20.70	20.70	20.40	20.40	20.30	20.30	20.30	20.30
CH 044	5220	20.80									
CH 048	5240	20.20									
CH 052	5260	20.10	CH 052	20.00	20.00	19.60	19.60	19.40	19.40	19.40	19.40
CH 060	5300	20.00									
CH 064	5320	20.00									
CH 100	5500	21.30	CH 100	21.20	21.10	21.10	20.70	20.70	20.70	20.70	20.70
CH 116	5580	21.20									
CH 140	5700	19.90									
CH 144*	5720	21.30									

Note: The above Frequency and Channel in "*" were straddle Channel.

802.11ac VHT40 RF Output Power (dBm)												
Power vs. Channel			Power vs Data Rate									
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS Index MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 038	5190	18.70	CH 046	20.80	20.80	20.60	20.60	20.60	20.50	20.50	20.40	20.40
CH 046	5230	20.90										
CH 054	5270	21.00	CH 054	21.00	21.00	20.70	20.60	20.60	20.60	20.50	20.30	20.30
CH 062	5310	19.00										
CH 102	5510	18.10	CH 110	21.00	21.00	20.90	20.90	20.80	20.80	20.70	20.50	20.50
CH 110	5550	21.00										
CH 134	5670	21.00										
CH 142*	5710	21.00										

Note: The above Frequency and Channel in "*" were straddle Channel.

802.11ac VHT80 RF Output Power (dBm)												
Power vs. Channel			Power vs Data Rate									
Channel	Frequency (MHz)	MCS Index MCS0	Channel	MCS Index MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 042	5210	16.10	CH 042	16.00	16.00	15.90	15.90	15.80	15.80	15.80	15.70	15.70
CH 058	5290	19.10	CH 058	19.00	19.00	19.00	18.80	18.80	18.60	18.60	18.60	18.50
CH 106	5530	19.50	CH 138*	20.00	20.00	20.00	19.90	19.90	19.80	19.80	19.80	19.70
CH 122	5610	20.10										
CH 138*	5690	20.30										

Note: The above Frequency and Channel in "*" were straddle Channel.

Test Cases	
AC Conducted Emission	Mode 1 : Bluetooth Link + WLAN (5GHz) Link + NFC Link + Camera + Battery 1 (1x) + USB C CABLE (Data Link with Notebook) + Wrist Strap for SKU 3-1

Remark:
1. For Radiated Test Cases, the tests were performed with Battery 1.6x and SKU 1
2. Data Link with Notebook means data application transferred mode between EUT and Notebook.

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

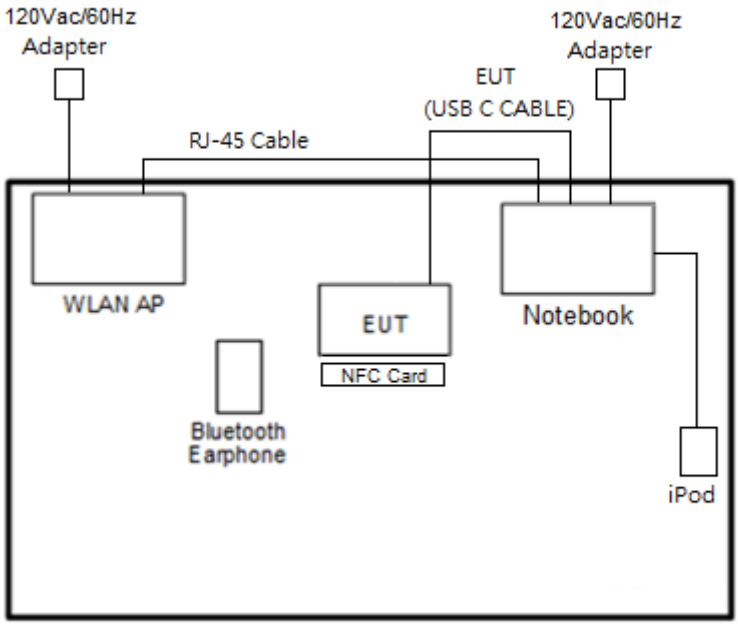
Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11n HT40	802.11n HT40	802.11n HT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle		-	-	142

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11ac VHT80	802.11ac VHT80	802.11ac VHT80
L	Low	-	-	106
M	Middle	42	58	-
H	High	-	-	122
Straddle		-	-	138

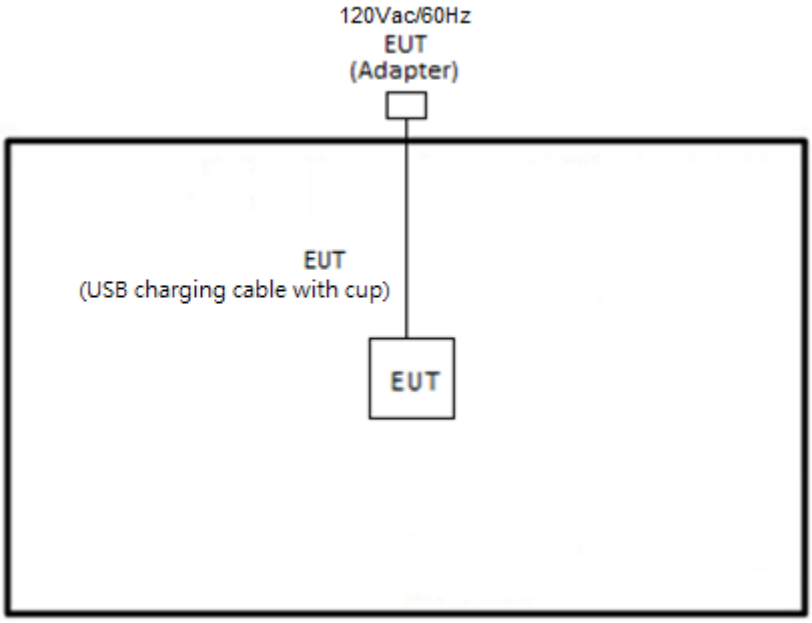
Remark: For radiation spurious emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power.

2.3 Connection Diagram of Test System

<AC Conducted Emission Mode>



<WLAN Tx Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Bluetooth Earphone	Sony Ericsson	MW600	PY700A2029	N/A	N/A
2.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded,1.8m
3.	iPod	Apple	A1285	FCC DoC	Shielded, 1.0m	N/A
4.	Notebook	Dell	Latitude 3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
5.	NFC Card	N/A	N/A	N/A	N/A	N/A

2.5 EUT Operation Test Setup

The RF test items, utility “QRCT4.0.00158.0” was installed in Notebook which was programmed in order to make the EUT get into the engineering modes to provide channel selection, power level, data rate and the application type and for continuous transmitting signals.

2.6 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

Example :

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.2 dB and 10 dB attenuator.

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

For Straddle Channel, according to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, if the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

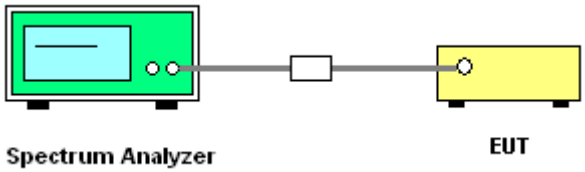
3.1.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.1.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.
7. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) ≥ 3 * RBW.
8. Measure and record the results in the test report.

3.1.4 Test Setup



3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Test Engineer :	Mina Liu	Temperature :	21~25℃
		Relative Humidity :	51~54%

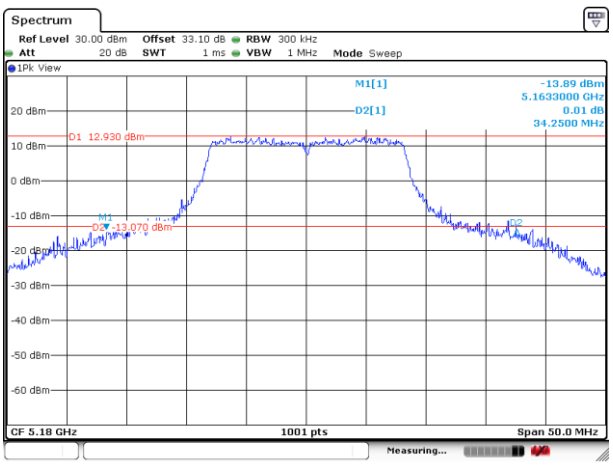
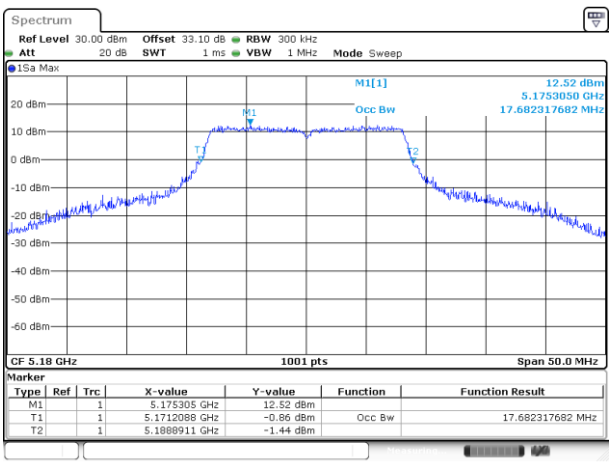
Band I single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)	
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
11a	6Mbps	1	36	5180	17.68	-	34.25	-	-		22.48	-
11a	6Mbps	1	44	5220	17.38	-	26.55	-	-		22.40	-
11a	6Mbps	1	48	5240	17.38	-	23.80	-	-		22.40	-
HT20	MCS0	1	36	5180	18.18	-	23.95	-	-		22.60	-
HT20	MCS0	1	44	5220	18.33	-	30.95	-	-		22.63	-
HT20	MCS0	1	48	5240	18.18	-	26.10	-	-		22.60	-
HT40	MCS0	1	38	5190	36.96	-	42.57	-	-		23.01	-
HT40	MCS0	1	46	5230	37.46	-	49.68	-	-		23.01	-
VHT80	MCS0	1	42	5210	75.28	-	92.32	-	-		23.01	-

Band II single antenna														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)	
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
11a	6Mbps	1	52	5260	17.43	-	25.85	-	23.41	-	29.41	-	23.98	-
11a	6Mbps	1	60	5300	17.33	-	22.75	-	23.39	-	29.39	-	23.98	-
11a	6Mbps	1	64	5320	17.33	-	24.40	-	23.39	-	29.39	-	23.98	-
HT20	MCS0	1	52	5260	18.23	-	27.10	-	23.61	-	29.61	-	23.98	-
HT20	MCS0	1	60	5300	18.28	-	26.25	-	23.62	-	29.62	-	23.98	-
HT20	MCS0	1	64	5320	18.23	-	28.80	-	23.61	-	29.61	-	23.98	-
HT40	MCS0	1	54	5270	37.26	-	60.21	-	23.98	-	30.00	-	23.98	-
HT40	MCS0	1	62	5310	37.16	-	42.66	-	23.98	-	30.00	-	23.98	-
VHT80	MCS0	1	58	5290	75.16	-	89.44	-	23.98	-	30.00	-	23.98	-

Band III single antenna																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth In U-NII 2C (MHz)		26 dB Bandwidth In U-NII 2C (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
11a	6Mbps	1	100	5500	17.48	-	28.85	-	23.43	-	29.43	-	23.98	-	----	----
11a	6Mbps	1	116	5580	17.73	-	30.60	-	23.49	-	29.49	-	23.98	-	----	----
11a	6Mbps	1	140	5700	17.63	-	29.60	-	23.46	-	29.46	-	23.98	-	----	----
HT20	MCS0	1	100	5500	18.43	-	31.75	-	23.66	-	29.66	-	23.98	-	----	----
HT20	MCS0	1	116	5580	18.53	-	35.20	-	23.68	-	29.68	-	23.98	-	----	----
HT20	MCS0	1	140	5700	18.43	-	29.40	-	23.66	-	29.66	-	23.98	-	----	----
HT40	MCS0	1	102	5510	37.06	-	44.28	-	23.98	-	30.00	-	23.98	-	----	----
HT40	MCS0	1	110	5550	37.76	-	62.01	-	23.98	-	30.00	-	23.98	-	----	----
HT40	MCS0	1	134	5670	37.66	-	60.39	-	23.98	-	30.00	-	23.98	-	----	----
VHT80	MCS0	1	106	5530	75.28	-	90.72	-	23.98	-	30.00	-	23.98	-	----	----
VHT80	MCS0	1	122	5610	75.28	-	89.92	-	23.98	-	30.00	-	23.98	-	----	----

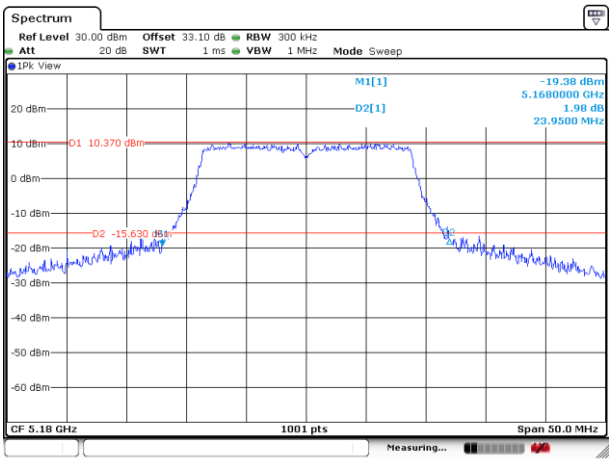
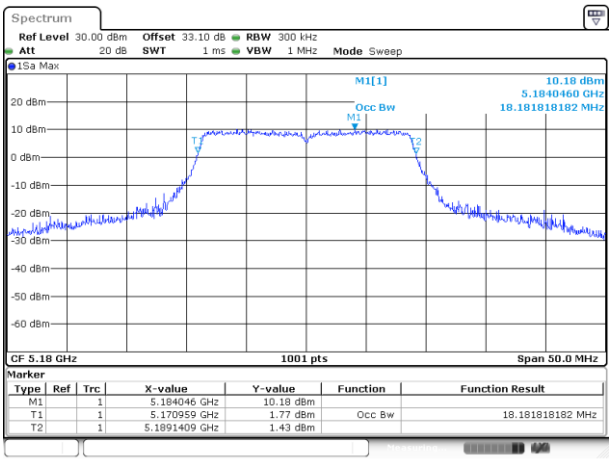
Band III straddle channel single antenna																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth In U-NII 2C (MHz)		26 dB Bandwidth In U-NII 2C (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
11a	6Mbps	1	144	5720	14.04	-	21.45	-	22.47	-	28.47	-	23.98	-	3.25	-
HT20	MCS0	1	144	5720	14.24	-	20.85	-	22.54	-	28.54	-	23.98	-	3.85	-
HT40	MCS0	1	142	5710	34.08	-	48.93	-	23.98	-	30.00	-	23.98	-	2.71	-
VHT80	MCS0	1	138	5690	72.76	-	89.24	-	23.98	-	30.00	-	23.98	-	2.76	-

<802.11a>

26dB Bandwidth	99% Occupied Bandwidth
	

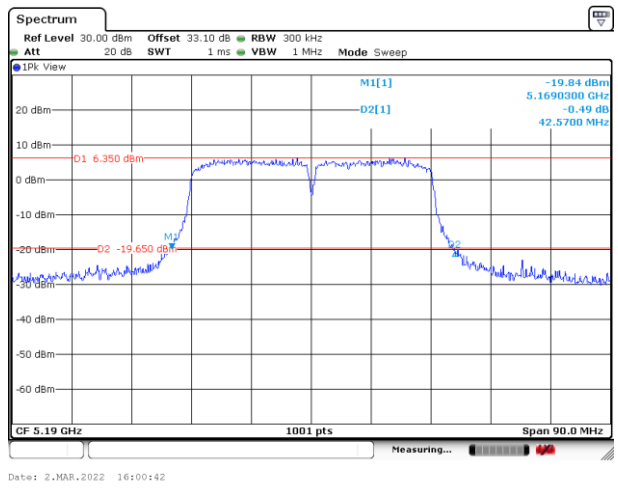
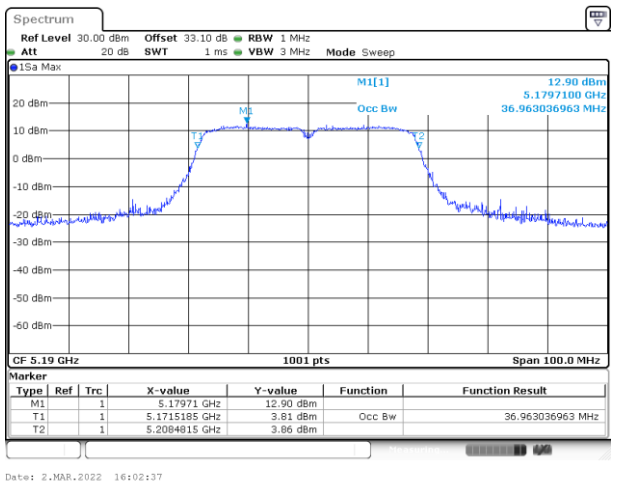
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11n HT20>

26dB Bandwidth	99% Occupied Bandwidth
	

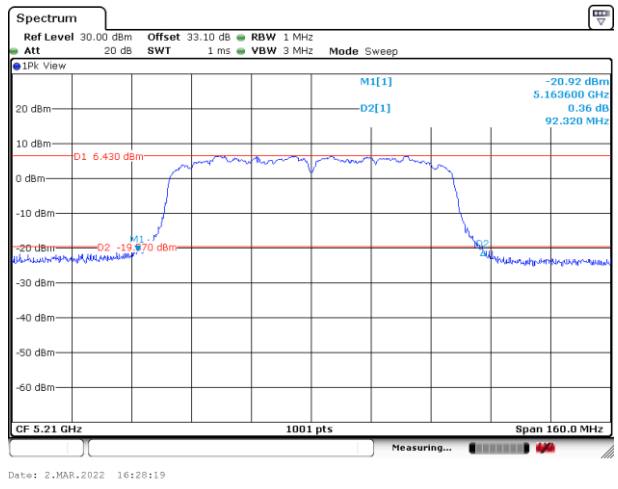
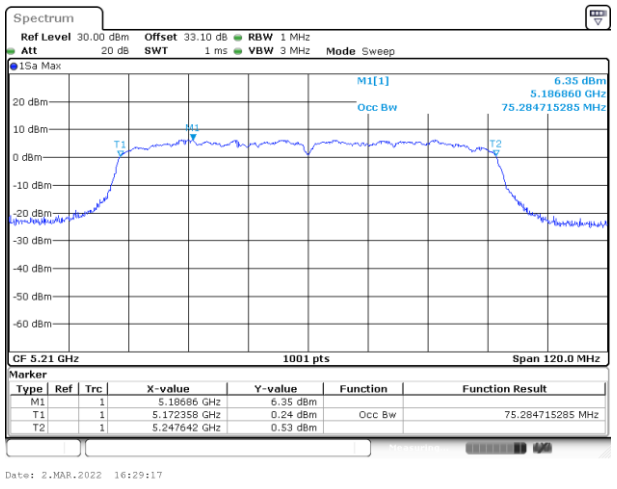
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11n HT40>

26dB Bandwidth	99% Occupied Bandwidth
	

Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<802.11ac VHT80>

26dB Bandwidth	99% Occupied Bandwidth
	

Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

For the 5.15–5.25 GHz bands:

■ For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW. For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

For the 5.25–5.725 GHz bands:

■ The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz.

For Straddle Channel, according to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, if the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Note that U-NII-2 band, 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.

3.2.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.2.3 Test Procedures

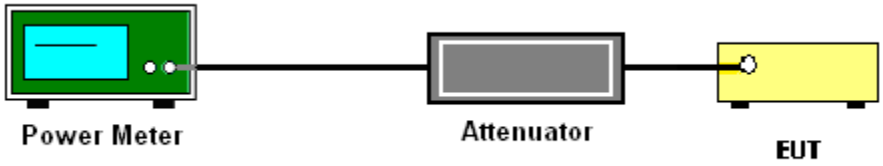
The testing follows Method PM-G of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Method PM-G (Measurement using a gated RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit at its maximum power control level.
3. Measure the average power of the transmitter.
4. Since the measurement is made only during the ON time of the transmitter, no duty cycle correction factor is required.

For Straddle Channel, according to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, if the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Test Engineer :	Mina Liu	Temperature :	21~25℃
		Relative Humidity :	51~54%

FCC Band I single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	36	5180	21.50	-	-	24.00	-	3.92	-	Pass
11a	6Mbps	1	44	5220	20.80	-		24.00	-	3.92	-	Pass
11a	6Mbps	1	48	5240	20.30	-		24.00	-	3.92	-	Pass
HT20	MCS0	1	36	5180	19.90	-		24.00	-	3.92	-	Pass
HT20	MCS0	1	44	5220	20.90	-		24.00	-	3.92	-	Pass
HT20	MCS0	1	48	5240	20.30	-		24.00	-	3.92	-	Pass
HT40	MCS0	1	38	5190	18.80	-		24.00	-	3.92	-	Pass
HT40	MCS0	1	46	5230	21.00	-		24.00	-	3.92	-	Pass
VHT20	MCS0	1	36	5180	19.80	-		24.00	-	3.92	-	Pass
VHT20	MCS0	1	44	5220	20.80	-		24.00	-	3.92	-	Pass
VHT20	MCS0	1	48	5240	20.20	-		24.00	-	3.92	-	Pass
VHT40	MCS0	1	38	5190	18.70	-		24.00	-	3.92	-	Pass
VHT40	MCS0	1	46	5230	20.90	-		24.00	-	3.92	-	Pass
VHT80	MCS0	1	42	5210	16.10	-		24.00	-	3.92	-	Pass

FCC Band II single antenna													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	52	5260	20.50	-	-	23.98	-	3.92	-	30	Pass
11a	6Mbps	1	60	5300	20.10	-		23.98	-	3.92	-	30	Pass
11a	6Mbps	1	64	5320	20.60	-		23.98	-	3.92	-	30	Pass
HT20	MCS0	1	52	5260	20.20	-		23.98	-	3.92	-	30	Pass
HT20	MCS0	1	60	5300	20.10	-		23.98	-	3.92	-	30	Pass
HT20	MCS0	1	64	5320	20.10	-		23.98	-	3.92	-	30	Pass
HT40	MCS0	1	54	5270	21.10	-		23.98	-	3.92	-	30	Pass
HT40	MCS0	1	62	5310	19.10	-		23.98	-	3.92	-	30	Pass
VHT20	MCS0	1	52	5260	20.10	-		23.98	-	3.92	-	30	Pass
VHT20	MCS0	1	60	5300	20.00	-		23.98	-	3.92	-	30	Pass
VHT20	MCS0	1	64	5320	20.00	-		23.98	-	3.92	-	30	Pass
VHT40	MCS0	1	54	5270	21.00	-		23.98	-	3.92	-	30	Pass
VHT40	MCS0	1	62	5310	19.00	-		23.98	-	3.92	-	30	Pass
VHT80	MCS0	1	58	5290	19.10	-		23.98	-	3.92	-	30	Pass

FCC Band III single antenna													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	100	5500	21.30	-		23.98	-	3.92	-	30	Pass
11a	6Mbps	1	116	5580	21.20	-		23.98	-	3.92	-	30	Pass
11a	6Mbps	1	140	5700	20.80	-		23.98	-	3.92	-	30	Pass
HT20	MCS0	1	100	5500	21.40	-		23.98	-	3.92	-	30	Pass
HT20	MCS0	1	116	5580	21.30	-		23.98	-	3.92	-	30	Pass
HT20	MCS0	1	140	5700	20.00	-		23.98	-	3.92	-	30	Pass
HT40	MCS0	1	102	5510	18.20	-		23.98	-	3.92	-	30	Pass
HT40	MCS0	1	110	5550	21.10	-		23.98	-	3.92	-	30	Pass
HT40	MCS0	1	134	5670	21.10	-	-	23.98	-	3.92	-	30	Pass
VHT20	MCS0	1	100	5500	21.30	-		23.98	-	3.92	-	30	Pass
VHT20	MCS0	1	116	5580	21.20	-		23.98	-	3.92	-	30	Pass
VHT20	MCS0	1	140	5700	19.90	-		23.98	-	3.92	-	30	Pass
VHT40	MCS0	1	102	5510	18.10	-		23.98	-	3.92	-	30	Pass
VHT40	MCS0	1	110	5550	21.00	-		23.98	-	3.92	-	30	Pass
VHT40	MCS0	1	134	5670	21.00	-		23.98	-	3.92	-	30	Pass
VHT80	MCS0	1	106	5530	19.50	-		23.98	-	3.92	-	30	Pass
VHT80	MCS0	1	122	5610	20.10	-		23.98	-	3.92	-	30	Pass

FCC Band III straddle channel single antenna													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	144	5720	21.30	-		23.98	-	3.92	-	30	Pass
HT20	MCS0	1	144	5720	21.40	-		23.98	-	3.92	-	30	Pass
HT40	MCS0	1	142	5710	21.10	-		23.98	-	3.92	-	30	Pass
VHT20	MCS0	1	144	5720	21.30	-	-	23.98	-	3.92	-	30	Pass
VHT40	MCS0	1	142	5710	21.00	-		23.98	-	3.92	-	30	Pass
VHT80	MCS0	1	138	5690	20.30	-		23.98	-	3.92	-	30	Pass

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

For the 5.15–5.25 GHz bands:

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1.0 MHz band. For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1.0 MHz band.

For the 5.25–5.725 GHz bands:

The maximum power spectral density shall not exceed 11 dBm in any 1.0 MHz band.

For Straddle Channel, according to KDB 789033 D02 General UNII Test Procedures New Rules v02r01, if the power and PSD of the devices are uniform and comply with the lower limits specified for the U-NII-2 bands, a single measurement over the entire emission bandwidth can be performed to show compliance.

If transmitting antennas of directional gain greater than 6 dBi are used, the peak output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.3.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Section F) Maximum power spectral density.

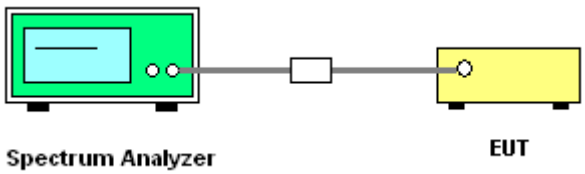
 # Method SA-2 #

(trace averaging across on and off times of the EUT transmissions, followed by duty cycle correction).

- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add 10 log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add 10 log(1/0.25) = 6 dB if the duty cycle is 25 percent.

1. The RF output of EUT is connected to the spectrum analyzer by a low loss cable.
2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Test Engineer :	Mina Liu	Temperature :	21~25℃
		Relative Humidity :	51~54%

FCC Band I single antenna														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density with Duty Factor (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	36	5180	0.40	-	9.78	-		11.00	-	3.92	-	Pass
11a	6Mbps	1	44	5220	0.40	-	8.55	-		11.00	-	3.92	-	Pass
11a	6Mbps	1	48	5240	0.40	-	8.43	-		11.00	-	3.92	-	Pass
HT20	MCS0	1	36	5180	0.43	-	7.50	-		11.00	-	3.92	-	Pass
HT20	MCS0	1	44	5220	0.43	-	8.79	-	-	11.00	-	3.92	-	Pass
HT20	MCS0	1	48	5240	0.43	-	8.21	-		11.00	-	3.92	-	Pass
HT40	MCS0	1	38	5190	0.03	-	2.98	-		11.00	-	3.92	-	Pass
HT40	MCS0	1	46	5230	0.03	-	5.64	-		11.00	-	3.92	-	Pass
VHT80	MCS0	1	42	5210	0.11	-	-2.35	-		11.00	-	3.92	-	Pass

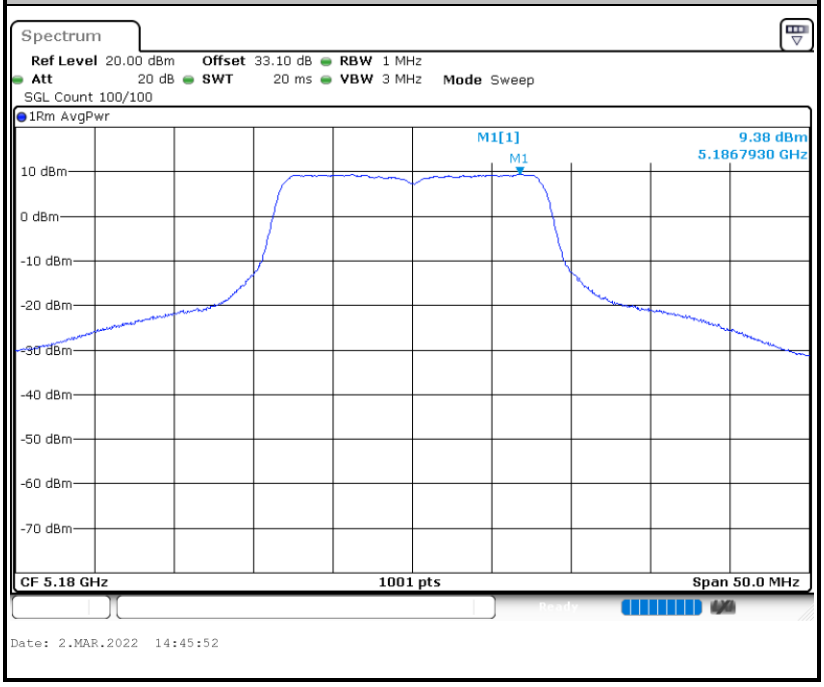
Band II single antenna													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density with Duty Factor (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	52	5260	8.64	-		11.00	-	3.92	-	Pass
11a	6Mbps	1	60	5300	7.75	-		11.00	-	3.92	-	Pass
11a	6Mbps	1	64	5320	8.00	-		11.00	-	3.92	-	Pass
HT20	MCS0	1	52	5260	7.96	-		11.00	-	3.92	-	Pass
HT20	MCS0	1	60	5300	8.07	-	-	11.00	-	3.92	-	Pass
HT20	MCS0	1	64	5320	7.83	-		11.00	-	3.92	-	Pass
HT40	MCS0	1	54	5270	5.71	-		11.00	-	3.92	-	Pass
HT40	MCS0	1	62	5310	3.55	-		11.00	-	3.92	-	Pass
VHT80	MCS0	1	58	5290	0.66	-		11.00	-	3.92	-	Pass

Band III single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density with Duty Factor (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	100	5500	9.26	-	-	11.00	-	3.92	-	Pass
11a	6Mbps	1	116	5580	9.36	-		11.00	-	3.92	-	Pass
11a	6Mbps	1	140	5700	8.64	-		11.00	-	3.92	-	Pass
HT20	MCS0	1	100	5500	9.07	-		11.00	-	3.92	-	Pass
HT20	MCS0	1	116	5580	9.23	-		11.00	-	3.92	-	Pass
HT20	MCS0	1	140	5700	7.96	-		11.00	-	3.92	-	Pass
HT40	MCS0	1	102	5510	2.63	-		11.00	-	3.92	-	Pass
HT40	MCS0	1	110	5550	5.25	-		11.00	-	3.92	-	Pass
HT40	MCS0	1	134	5670	5.43	-		11.00	-	3.92	-	Pass
VHT80	MCS0	1	106	5530	1.23	-		11.00	-	3.92	-	Pass
VHT80	MCS0	1	122	5610	1.86	-		11.00	-	3.92	-	Pass

Band III straddle channel single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	144	5720	9.38	-	-	11.00	-	3.92	-	Pass
HT20	MCS0	1	144	5720	8.87	-		11.00	-	3.92	-	Pass
HT40	MCS0	1	142	5710	5.59	-		11.00	-	3.92	-	Pass
VHT80	MCS0	1	138	5690	2.38	-		11.00	-	3.92	-	Pass

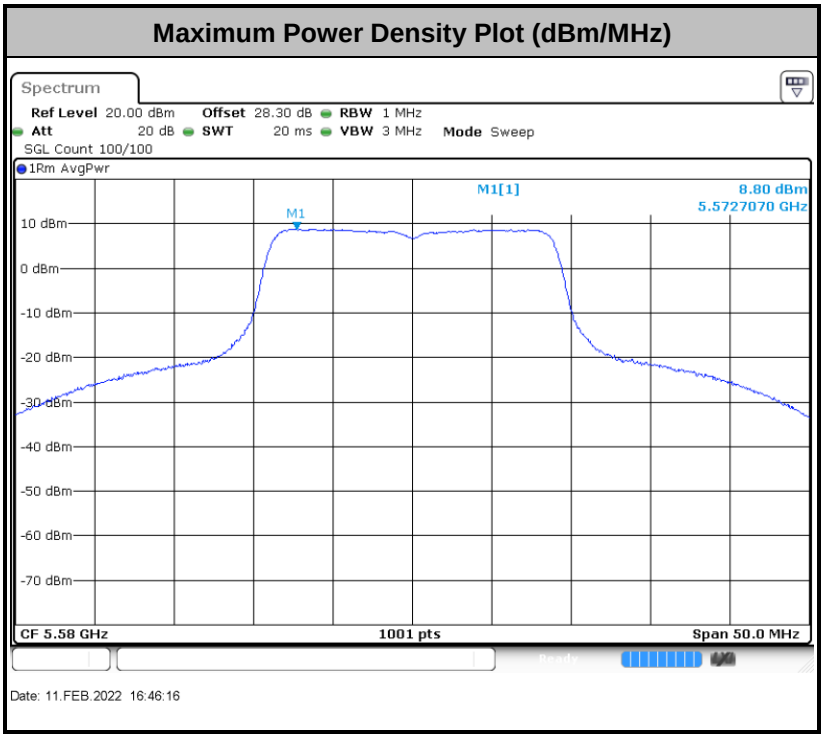
<802.11a>

Maximum Power Density Plot (dBm/MHz)



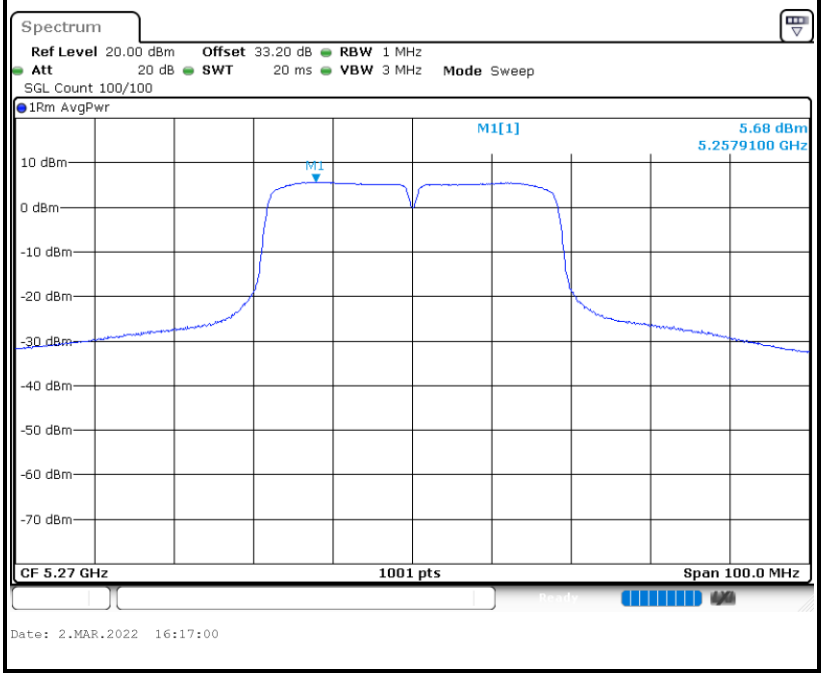
<802.11n HT20>

Maximum Power Density Plot (dBm/MHz)



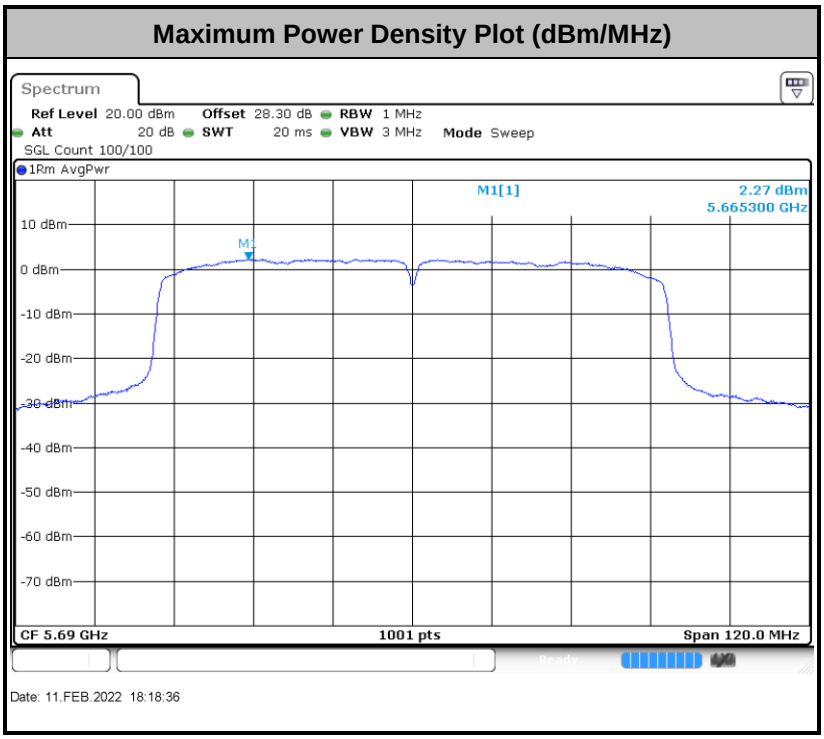
<802.11n HT40>

Maximum Power Density Plot (dBm/MHz)



<802.11ac VHT80>

Maximum Power Density Plot (dBm/MHz)



3.4 Unwanted Emissions Measurement

This section is to measure unwanted emissions through radiated measurement for band edge spurious emissions and out of band emissions measurement.

3.4.1 Limit of Unwanted Emissions

(1) For transmitters operating in the 5150-5250 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of –27dBm/MHz.

For transmitters operating in the 5250-5350 MHz band: all emissions outside of the 5150-5350 MHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5250-5350 MHz band that generate emissions in the 5150-5250 MHz band must meet all applicable technical requirements for operation in the 5150-5250 MHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5150-5250 MHz band.

For transmitters operating in the 5470-5600 MHz and 5650-5725MHz band: all emissions outside of the 5470-5600 MHz and 5650-5725MHz band shall not exceed an EIRP of -27 dBm/MHz.

(2) Unwanted spurious emissions falls in restricted bands shall comply with the general field strength limits as below table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30.0	30	30
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

Note: The following formula is used to convert the EIRP to field strength.

$$E=\frac{1000000\sqrt{30P}}{3}$$ μV/m, where P is the eirp (Watts)

EIRP (dBm)	Field Strength at 3m (dBµV/m)
- 27	68.3

(3) KDB789033 D02 v02r01 G)2)c)

(i) Sections 15.407(b)(1-3) specifies the unwanted emissions limit for the U-NII-1 and U-NII-2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of −27 dBm/MHz.
(ii) Section 15.407(b)(4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are based on the use of a peak detector.

3.4.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section G) Unwanted emissions measurement.

(1) Procedure for Unwanted Emissions Measurements Below 1000 MHz

- RBW = 120 kHz
- VBW = 300 kHz
- Detector = Peak
- Trace mode = max hold

(2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz

- RBW = 1 MHz
- VBW ≥ 3 MHz
- Detector = Peak
- Sweep time = auto
- Trace mode = max hold

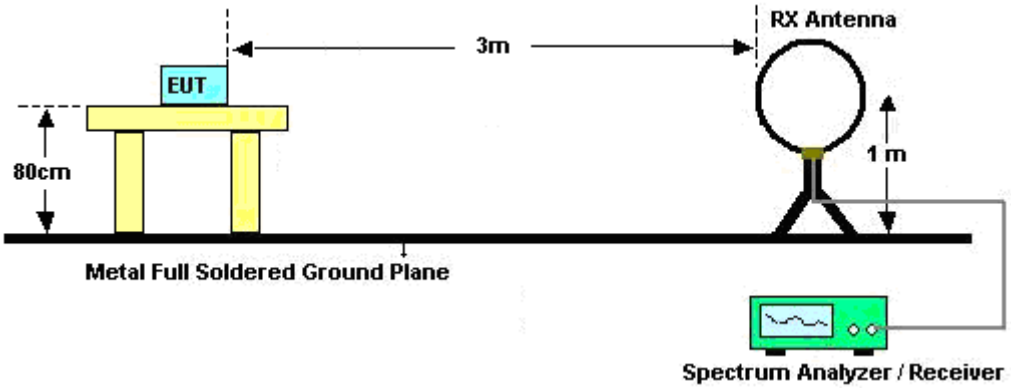
(3) Procedures for Average Unwanted Emissions Measurements Above 1000 MHz

- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

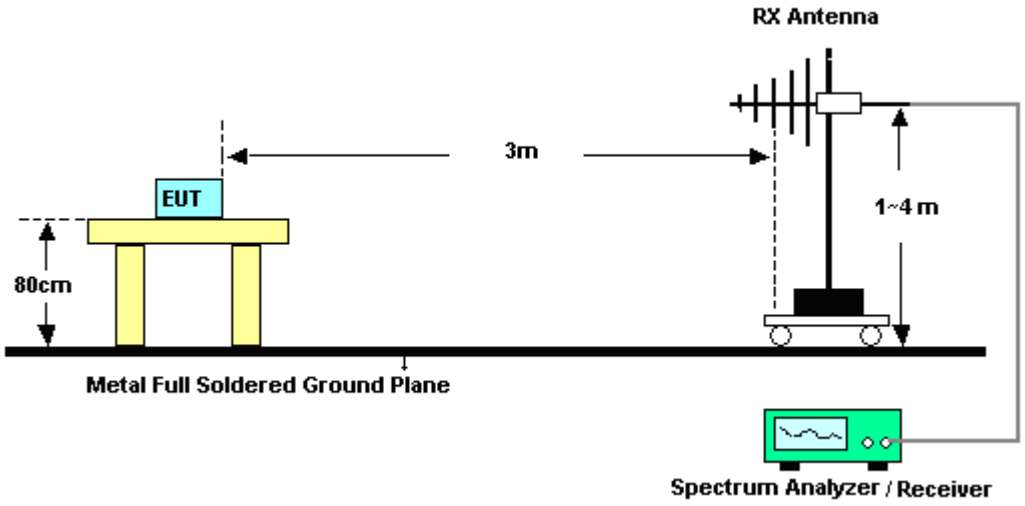
2. The EUT is placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
3. The EUT is set 3 meters away from the receiving antenna which is mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT is arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. Radiated testing below 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6 dB margin against QP limit line, the position is marked as "-".
7. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies. When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as "-".

3.4.4 Test Setup

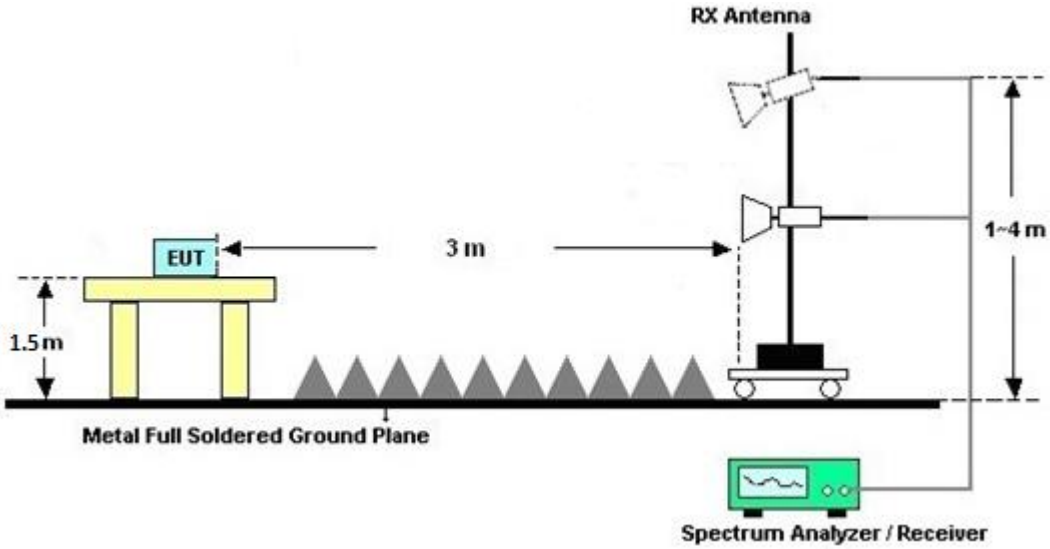
For radiated emissions below 30MHz



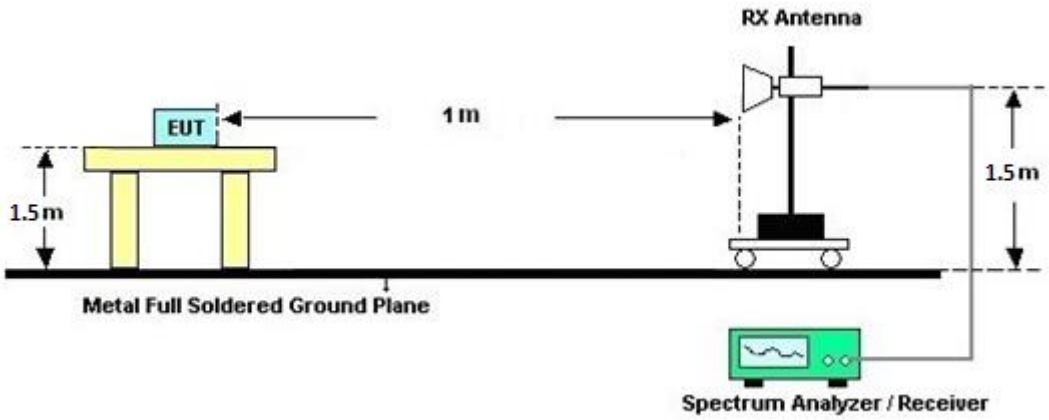
For radiated emissions from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



3.4.5 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

The low frequency, which starts from 9 kHz to 30 MHz, is pre-scanned and the result which is 20 dB lower than the limit line is not reported.

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B and C.

3.4.7 Duty Cycle

Please refer to Appendix D.

3.4.8 Test Result of Radiated Spurious Emissions (30MHz ~ 10th Harmonic)

Please refer to Appendix B and C.

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

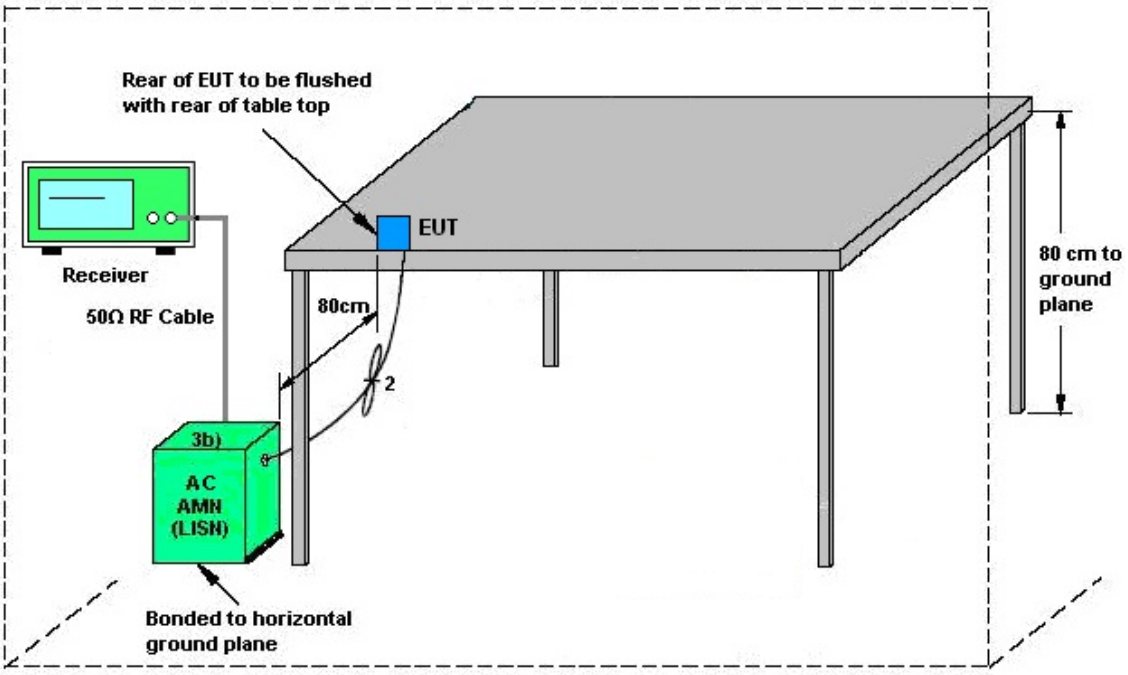
3.5.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.5.3 Test Procedures

1. The EUT is placed 0.4 meter away from the conducting wall of the shielding room, and is kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN shall be used.
6. Both Line and Neutral shall be tested in order to find out the maximum conducted emission.
7. The frequency range from 150 kHz to 30 MHz is scanned.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.5.4 Test Setup



AMN = Artificial mains network (LISN)
AE = Associated equipment
EUT = Equipment under test
ISN = Impedance stabilization network

3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix A.

3.6 Antenna Requirements

3.6.1 Standard Applicable

If transmitting antenna directional gain is greater than 6 dBi, both the peak transmit power and the peak power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

3.6.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.6.3 Antenna Gain

The antenna peak gain of EUT is less than 6 dBi. Therefore, it is not necessary to reduce maximum peak output power limit.

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~50 MHz	Jan. 07, 2022	Jan. 09, 2022~ Feb. 08, 2022	Jan. 06, 2023	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 09, 2021	Jan. 09, 2022~ Feb. 08, 2022	Oct. 08, 2022	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1326	1GHz ~ 18GHz	Oct. 25, 2021	Jan. 09, 2022~ Feb. 08, 2022	Oct. 24, 2022	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA9170	00993	18GHz~40GHz	Nov. 30, 2021	Jan. 09, 2022~ Feb. 08, 2022	Nov. 29, 2022	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Dec. 10, 2021	Jan. 09, 2022~ Feb. 08, 2022	Dec. 09, 2022	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Nov. 10, 2021	Jan. 09, 2022~ Feb. 08, 2022	Nov. 09, 2022	Radiation (03CH11-HY)
Preamplifier	Jet-Power	JPA0118-55-303	171000180005007	1GHz~18GHz	Jun. 16, 2021	Jan. 09, 2022~ Feb. 08, 2022	Jun. 15, 2022	Radiation (03CH11-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 22, 2021	Jan. 09, 2022~ Feb. 08, 2022	Jun. 21, 2022	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz~44GHz	Oct. 15, 2021	Jan. 09, 2022~ Feb. 08, 2022	Oct. 14, 2022	Radiation (03CH11-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY55420170	20MHz~8.4GHz	Jul. 15, 2021	Jan. 09, 2022~ Feb. 08, 2022	Jul. 14, 2022	Radiation (03CH11-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Jan. 09, 2022~ Feb. 08, 2022	N/A	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Jan. 09, 2022~ Feb. 08, 2022	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Jan. 09, 2022~ Feb. 08, 2022	N/A	Radiation (03CH11-HY)
Software	Audix	E3 6.2009-8-24	RK-001053	N/A	N/A	Jan. 09, 2022~ Feb. 08, 2022	N/A	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz-40GHz	Mar. 11, 2021	Jan. 09, 2022~ Feb. 08, 2022	Mar. 10, 2022	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz-30MHz	Mar. 11, 2021	Jan. 09, 2022~ Feb. 08, 2022	Mar. 10, 2022	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	30M-18G	Mar. 11, 2021	Jan. 09, 2022~ Feb. 08, 2022	Mar. 10, 2022	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102，SUCOFLEX 104	811852/4,MY2859/2,MY9837/4PE	30MHz-18GHz	Nov. 15, 2021	Jan. 09, 2022~ Feb. 08, 2022	Nov. 14, 2022	Radiation (03CH11-HY)
Filter	Wainwright	WLK4-1000-1530-8000-40SS	SN11	1.53G Low Pass	Sep. 13, 2021	Jan. 09, 2022~ Feb. 08, 2022	Sep. 12, 2022	Radiation (03CH11-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40SS	SN3	6.75GHz High Pass Filter	Sep. 13, 2021	Jan. 09, 2022~ Feb. 08, 2022	Sep. 12, 2022	Radiation (03CH11-HY)
Hygrometer	TECPEL	DTM-303B	TP140325	N/A	Nov. 26, 2021	Jan. 09, 2022~ Feb. 08, 2022	Nov. 25, 2022	Radiation (03CH11-HY)
Hygrometer	TECPEL	DTM-303B	TP200880	N/A	Sep. 30, 2021	Jan. 09, 2022~ Feb. 08, 2022	Sep. 29, 2022	Radiation (03CH11-HY)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 16, 2021	Jan. 05, 2022~ Mar. 03, 2022	Nov. 15, 2022	Conducted (TH05-HY)
Power Meter	DARE	RPR3006W	16I00054SNO 12 (NO:113)	10MHz~6GHz	Dec. 16, 2021	Jan. 05, 2022~ Mar. 03, 2022	Dec. 15, 2022	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz~40GHz	Aug. 30, 2021	Jan. 05, 2022~ Mar. 03, 2022	Aug. 29, 2022	Conducted (TH05-HY)
Switch Control Manframe	E-IUSTRUME NT	ETF-1405-0	EC1900067 (BOX7)	N/A	Aug. 12, 2021	Jan. 05, 2022~ Mar. 03, 2022	Aug. 11, 2022	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Feb. 17, 2022	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Dec. 01, 2021	Feb. 17, 2022	Nov. 30, 2022	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Nov. 17, 2021	Feb. 17, 2022	Nov. 16, 2022	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Dec. 03, 2021	Feb. 17, 2022	Dec. 02, 2022	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 16, 2021	Feb. 17, 2022	Nov. 15, 2022	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32	N/A	N/A	N/A	Feb. 17, 2022	N/A	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBE CK	VTSD 9561-F N	00691	N/A	Jul. 28, 2021	Feb. 17, 2022	Jul. 27, 2022	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 30, 2021	Feb. 17, 2022	Dec. 29, 2022	Conduction (CO05-HY)

5 Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150kHz ~ 30MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.1 dB**

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.8 dB**

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.4 dB**

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.9 dB**

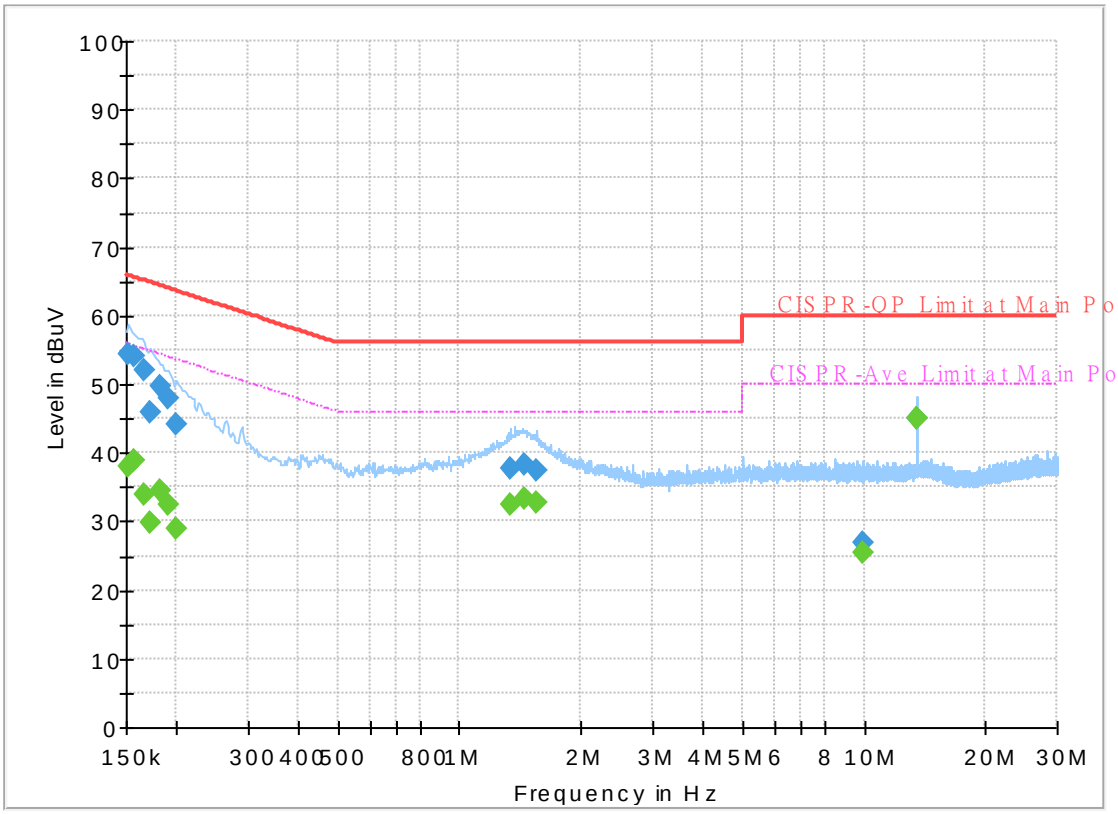
Appendix A. AC Conducted Emission Test Results

Test Engineer :	Calvin Wang	**Temperature :**	23~26℃
		Relative Humidity :	45~55%

EUT Information

Report NO :	1O0707-02
Test Mode :	Mode 1
Test Voltage :	Power From System
Phase :	Line

Full Spectrum



Final_Result

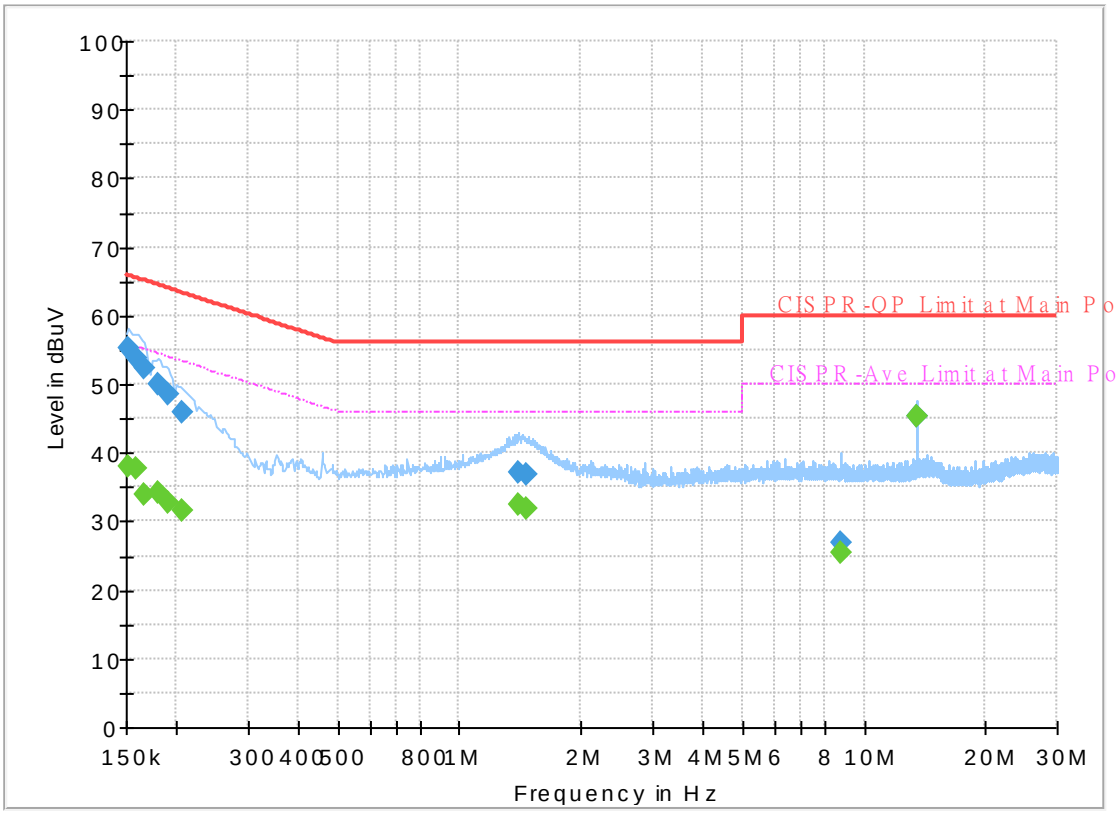
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	37.94	55.88	17.94	L1	OFF	19.6
0.152250	54.37	---	65.88	11.51	L1	OFF	19.6
0.156750	---	38.91	55.63	16.72	L1	OFF	19.6
0.156750	54.23	---	65.63	11.40	L1	OFF	19.6
0.165750	---	34.02	55.17	21.15	L1	OFF	19.6
0.165750	51.97	---	65.17	13.20	L1	OFF	19.6
0.172500	---	29.75	54.84	25.09	L1	OFF	19.6
0.172500	46.05	---	64.84	18.79	L1	OFF	19.6
0.181500	---	34.61	54.42	19.81	L1	OFF	19.6
0.181500	49.59	---	64.42	14.83	L1	OFF	19.6
0.190500	---	32.56	54.02	21.46	L1	OFF	19.6
0.190500	47.97	---	64.02	16.05	L1	OFF	19.6
0.199500	---	28.86	53.63	24.77	L1	OFF	19.6
0.199500	44.29	---	63.63	19.34	L1	OFF	19.6
1.340250	---	32.55	46.00	13.45	L1	OFF	19.6
1.340250	37.63	---	56.00	18.37	L1	OFF	19.6
1.448250	---	33.34	46.00	12.66	L1	OFF	19.6
1.448250	38.35	---	56.00	17.65	L1	OFF	19.6
1.549500	---	32.71	46.00	13.29	L1	OFF	19.6
1.549500	37.31	---	56.00	18.69	L1	OFF	19.6
9.888000	---	25.43	50.00	24.57	L1	OFF	20.0

9.888000	**26.96**	**---**	**60.00**	**33.04**	**L1**	**OFF**	**20.0**
13.560000	**---**	**44.98**	**50.00**	**5.02**	**L1**	**OFF**	**20.1**
13.560000	**45.04**	**---**	**60.00**	**14.96**	**L1**	**OFF**	**20.1**

EUT Information

Report NO :	1O0707-02
Test Mode :	Mode 1
Test Voltage :	Power From System
Phase :	Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	38.11	55.88	17.77	N	OFF	19.6
0.152250	55.23	---	65.88	10.65	N	OFF	19.6
0.159000	---	37.69	55.52	17.83	N	OFF	19.6
0.159000	53.67	---	65.52	11.85	N	OFF	19.6
0.165750	---	33.93	55.17	21.24	N	OFF	19.6
0.165750	52.42	---	65.17	12.75	N	OFF	19.6
0.179250	---	34.32	54.52	20.20	N	OFF	19.6
0.179250	50.04	---	64.52	14.48	N	OFF	19.6
0.190500	---	32.79	54.02	21.23	N	OFF	19.6
0.190500	48.48	---	64.02	15.54	N	OFF	19.6
0.206250	---	31.64	53.36	21.72	N	OFF	19.6
0.206250	45.77	---	63.36	17.59	N	OFF	19.6
1.401000	---	32.46	46.00	13.54	N	OFF	19.6
1.401000	37.19	---	56.00	18.81	N	OFF	19.6
1.473000	---	31.87	46.00	14.13	N	OFF	19.6
1.473000	36.71	---	56.00	19.29	N	OFF	19.6
8.736000	---	25.45	50.00	24.55	N	OFF	20.0
8.736000	26.93	---	60.00	33.07	N	OFF	20.0
13.560000	---	45.27	50.00	4.73	N	OFF	20.2
13.560000	45.31	---	60.00	14.69	N	OFF	20.2

Appendix B. Radiated Spurious Emission

Test Engineer :	Daniel Lee, Hayden Wu, James Chiu and Fu Chen	Temperature :	19.5~22.5°C
		Relative Humidity :	54.6~68.3%

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5148.72	61.06	-12.94	74	52.02	32.1	10.37	33.43	227	229	P	H
		5150	49.8	-4.2	54	40.76	32.1	10.37	33.43	227	229	A	H
	*	5180	110.18	-	-	101.22	31.98	10.41	33.43	227	229	P	H
	*	5180	102.18	-	-	93.22	31.98	10.41	33.43	227	229	A	H
													H
													H
		5147.94	63.67	-10.33	74	54.63	32.1	10.37	33.43	290	168	P	V
		5150	51.47	-2.53	54	42.43	32.1	10.37	33.43	290	168	A	V
	*	5180	112.41	-	-	103.45	31.98	10.41	33.43	290	168	P	V
	*	5180	103.57	-	-	94.61	31.98	10.41	33.43	290	168	A	V
													V
													V
802.11a CH 44 5220MHz		5116.22	50.36	-23.64	74	41.36	32.1	10.33	33.43	200	45	P	H
		5119.6	40.31	-13.69	54	31.31	32.1	10.33	33.43	200	45	A	H
	*	5220	110.18	-	-	101.38	31.78	10.46	33.44	200	45	P	H
	*	5220	101.97	-	-	93.17	31.78	10.46	33.44	200	45	A	H
		5365.68	49.77	-24.23	74	41.12	31.49	10.61	33.45	200	45	P	H
		5416.08	39.03	-14.97	54	30.03	31.8	10.65	33.45	200	45	A	H
		5079.82	50.53	-23.47	74	41.74	31.94	10.28	33.43	300	343	P	V
		5082.68	40.3	-13.7	54	31.49	31.96	10.28	33.43	300	343	A	V
	*	5220	109.85	-	-	101.05	31.78	10.46	33.44	300	343	P	V
	*	5220	101.85	-	-	93.05	31.78	10.46	33.44	300	343	A	V
		5453.04	49.08	-24.92	74	39.88	32	10.66	33.46	300	343	P	V
		5406.72	39.11	-14.89	54	30.17	31.74	10.65	33.45	300	343	A	V

802.11a CH 48 5240MHz		5001.04	50.44	-23.56	74	42.19	31.5	10.17	33.42	229	44	P	H
		5102.44	40.3	-13.7	54	31.32	32.1	10.31	33.43	229	44	A	H
	*	5240	109.27	-	-	100.57	31.66	10.48	33.44	229	44	P	H
	*	5240	101.57	-	-	92.87	31.66	10.48	33.44	229	44	A	H
		5439.36	49.64	-24.36	74	40.5	31.94	10.66	33.46	229	44	P	H
		5426.4	39.28	-14.72	54	30.22	31.86	10.65	33.45	229	44	A	H
		5055.64	50.61	-23.39	74	42.03	31.75	10.25	33.42	335	344	P	V
		5093.08	40.26	-13.74	54	31.35	32.04	10.3	33.43	335	344	A	V
	*	5240	110.9	-	-	102.2	31.66	10.48	33.44	335	344	P	V
	*	5240	101.94	-	-	93.24	31.66	10.48	33.44	335	344	A	V
		5438.4	49.05	-24.95	74	39.92	31.93	10.66	33.46	335	344	P	V
		5439.84	39.29	-14.71	54	30.15	31.94	10.66	33.46	335	344	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10360	58.03	-10.17	68.2	62.24	39.72	16.75	60.68	194	88	P	H
		11400	48.02	-25.98	74	52.45	39.9	17.65	61.98	-	-	P	H
		11400	37.79	-16.21	54	42.22	39.9	17.65	61.98	-	-	A	H
		14491	47.93	-26.07	74	49.74	41.3	19.9	63.01	-	-	P	H
		15540	57.65	-16.35	74	60.75	38.66	20.84	62.6	192	194	P	H
		15540	48.71	-5.29	54	51.81	38.66	20.84	62.6	192	194	A	H
		17989	54.52	-19.48	74	41.72	46.62	22.81	56.63	-	-	P	H
		17989	44.5	-9.5	54	31.7	46.62	22.81	56.63	-	-	A	H
													H
													H
													H
802.11a CH 36 5180MHz													H
		10360	58.53	-9.67	68.2	62.74	39.72	16.75	60.68	186	114	P	V
		10817	47.53	-26.47	74	51.48	40.2	17.13	61.28	-	-	P	V
		14491	47.91	-26.09	74	49.72	41.3	19.9	63.01	-	-	P	V
		15540	57.22	-16.78	74	60.32	38.66	20.84	62.6	162	339	P	V
		15540	46.21	-7.79	54	49.31	38.66	20.84	62.6	162	339	A	V
		17978	54.27	-19.73	74	41.67	46.45	22.8	56.65	-	-	P	V
		17978	44.24	-9.76	54	31.64	46.45	22.8	56.65	-	-	A	V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10440	57.12	-11.08	68.2	61.26	39.84	16.82	60.8	207	88	P	H
		11147	46.27	-27.73	74	50.78	39.76	17.41	61.68	-	-	P	H
		14499	44.9	-29.1	74	46.69	41.3	19.91	63	-	-	P	H
		15660	62.44	-11.56	74	65.8	38.06	20.9	62.32	192	111	P	H
		15660	50.22	-3.78	54	53.58	38.06	20.9	62.32	192	111	A	H
		17978	51.55	-22.45	74	38.95	46.45	22.8	56.65	-	-	P	H
		17978	42.25	-11.75	54	29.65	46.45	22.8	56.65	-	-	A	H
													H
													H
													H
													H
802.11a CH 44 5220MHz													H
		10440	59.12	-9.08	68.2	63.26	39.84	16.82	60.8	200	120	P	V
		11224	45.95	-28.05	74	50.62	39.62	17.48	61.77	-	-	P	V
		14491	45.14	-28.86	74	46.95	41.3	19.9	63.01	-	-	P	V
		15660	60.2	-13.8	74	63.56	38.06	20.9	62.32	100	60	P	V
		15660	48.69	-5.31	54	52.05	38.06	20.9	62.32	100	60	A	V
		17989	52.44	-21.56	74	39.64	46.62	22.81	56.63	-	-	P	V
		17989	42.52	-11.48	54	29.72	46.62	22.81	56.63	-	-	A	V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10480	57.89	-10.31	68.2	62.03	39.88	16.85	60.87	263	93	P	H
		11147	46.59	-27.41	74	51.1	39.76	17.41	61.68	-	-	P	H
		14491	46.62	-27.38	74	48.43	41.3	19.9	63.01	-	-	P	H
		15720	62.56	-11.44	74	65.95	37.86	20.92	62.17	193	109	P	H
		15720	49.58	-4.42	54	52.97	37.86	20.92	62.17	193	109	A	H
		18000	51.86	-22.14	74	38.84	46.8	22.82	56.6	-	-	P	H
		18000	42.46	-11.54	54	29.44	46.8	22.82	56.6	-	-	A	H
													H
													H
													H
													H
802.11a CH 48 5240MHz													H
		10480	58.61	-9.59	68.2	62.75	39.88	16.85	60.87	206	120	P	V
		10905	46.5	-27.5	74	50.49	40.21	17.19	61.39	-	-	P	V
		14499	45.51	-28.49	74	47.3	41.3	19.91	63	-	-	P	V
		15720	60.99	-13.01	74	64.38	37.86	20.92	62.17	100	59	P	V
		15720	48.44	-5.56	54	51.83	37.86	20.92	62.17	100	59	A	V
		17989	51.87	-22.13	74	39.07	46.62	22.81	56.63	-	-	P	V
		17989	42.22	-11.78	54	29.42	46.62	22.81	56.63	-	-	A	V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5147.68	62.99	-11.01	74	53.95	32.1	10.37	33.43	224	47	P	H
		5150	51.99	-2.01	54	42.95	32.1	10.37	33.43	224	47	A	H
	*	5180	109.82	-	-	100.86	31.98	10.41	33.43	224	47	P	H
	*	5180	102.62	-	-	93.66	31.98	10.41	33.43	224	47	A	H
802.11n													H
HT20													H
CH 36		5150	57.47	-16.53	74	48.43	32.1	10.37	33.43	339	344	P	V
5180MHz		5150	50.77	-3.23	54	41.73	32.1	10.37	33.43	339	344	A	V
	*	5180	109.29	-	-	100.33	31.98	10.41	33.43	339	344	P	V
	*	5180	102.14	-	-	93.18	31.98	10.41	33.43	339	344	A	V
													V
													V
		5122.98	49.96	-24.04	74	40.95	32.1	10.34	33.43	219	47	P	H
		5094.64	41.22	-12.78	54	32.29	32.06	10.3	33.43	219	47	A	H
	*	5220	110.16	-	-	101.36	31.78	10.46	33.44	219	47	P	H
	*	5220	102.58	-	-	93.78	31.78	10.46	33.44	219	47	A	H
802.11n		5438.41	47.85	-26.15	74	38.72	31.93	10.66	33.46	219	47	P	H
HT20		5458.93	39.79	-14.21	54	30.59	32	10.66	33.46	219	47	A	H
CH 44		5046.54	50.66	-23.34	74	42.16	31.69	10.23	33.42	303	345	P	V
5220MHz		5108.68	41.13	-12.87	54	32.14	32.1	10.32	33.43	303	345	A	V
	*	5220	110.25	-	-	101.45	31.78	10.46	33.44	303	345	P	V
	*	5220	102.11	-	-	93.31	31.78	10.46	33.44	303	345	A	V
		5434.36	49.07	-24.93	74	39.95	31.91	10.66	33.45	303	345	P	V
		5419.24	39.79	-14.21	54	30.77	31.82	10.65	33.45	303	345	A	V

		5131.04	49.92	-24.08	74	40.9	32.1	10.35	33.43	220	45	P	H
		5100.36	40.38	-13.62	54	31.4	32.1	10.31	33.43	220	45	A	H
	*	5240	110.21	-	-	101.51	31.66	10.48	33.44	220	45	P	H
	*	5240	101.82	-	-	93.12	31.66	10.48	33.44	220	45	A	H
802.11n		5420.16	49.22	-24.78	74	40.2	31.82	10.65	33.45	220	45	P	H
HT20		5436.96	39.41	-14.59	54	30.28	31.92	10.66	33.45	220	45	A	H
CH 48		5143	50.68	-23.32	74	41.65	32.1	10.36	33.43	334	357	P	V
5240MHz		5100.36	40.25	-13.75	54	31.27	32.1	10.31	33.43	334	357	A	V
	*	5240	110.39	-	-	101.69	31.66	10.48	33.44	334	357	P	V
	*	5240	100.51	-	-	91.81	31.66	10.48	33.44	334	357	A	V
		5430.96	48.95	-25.05	74	39.86	31.89	10.65	33.45	334	357	P	V
		5439.36	39.37	-14.63	54	30.23	31.94	10.66	33.46	334	357	A	V

Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10360	58.22	-9.98	68.2	62.43	39.72	16.75	60.68	200	83	P	H
		11147	47.6	-26.4	74	52.11	39.76	17.41	61.68	-	-	P	H
		14471	47.63	-26.37	74	49.5	41.3	19.87	63.04	-	-	P	H
		15540	57.43	-16.57	74	60.53	38.66	20.84	62.6	200	112	P	H
		15540	44.17	-9.83	54	47.27	38.66	20.84	62.6	200	112	A	H
		17978	52.99	-21.01	74	40.39	46.45	22.8	56.65	-	-	P	H
		17978	44.12	-9.88	54	31.52	46.45	22.8	56.65	-	-	A	H
													H
													H
													H
802.11n													H
HT20													H
CH 36		10360	58.26	-9.94	68.2	62.47	39.72	16.75	60.68	200	100	P	V
5180MHz		11224	46.93	-27.07	74	51.6	39.62	17.48	61.77	-	-	P	V
		14490	47.16	-26.84	74	48.97	41.3	19.9	63.01	-	-	P	V
		15540	58.32	-15.68	74	61.42	38.66	20.84	62.6	150	154	P	V
		15540	43.98	-10.02	54	47.08	38.66	20.84	62.6	150	154	A	V
		17989	52.94	-21.06	74	40.14	46.62	22.81	56.63	-	-	P	V
		17989	43.87	-10.13	54	31.07	46.62	22.81	56.63	-	-	A	V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10440	57.08	-11.12	68.2	61.22	39.84	16.82	60.8	215	88	P	H
		10993	46.85	-27.15	74	50.79	40.29	17.26	61.49	-	-	P	H
		14502	47.53	-20.67	68.2	49.31	41.3	19.92	63	-	-	P	H
		15660	62.15	-11.85	74	65.51	38.06	20.9	62.32	192	108	P	H
		15660	50.55	-3.45	54	53.91	38.06	20.9	62.32	192	108	A	H
		17989	52.72	-21.28	74	39.92	46.62	22.81	56.63	-	-	P	H
		17989	43.55	-10.45	54	30.75	46.62	22.81	56.63	-	-	A	H
													H
													H
													H
i802.11n													H
HT20													H
CH 44		10440	58.01	-10.19	68.2	62.15	39.84	16.82	60.8	200	124	P	V
5220MHz		11697	46.98	-27.02	74	52.27	39.22	17.94	62.45	-	-	P	V
		14490	45.88	-28.12	74	47.69	41.3	19.9	63.01	-	-	P	V
		15660	58.8	-15.2	74	62.16	38.06	20.9	62.32	150	154	P	V
		15660	47.54	-6.46	54	50.9	38.06	20.9	62.32	150	154	A	V
		17978	52.1	-21.9	74	39.5	46.45	22.8	56.65	-	-	P	V
		17978	42.61	-11.39	54	30.01	46.45	22.8	56.65	-	-	A	V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10480	55.39	-12.81	68.2	59.53	39.88	16.85	60.87	200	85	P	H
		10938	46.61	-27.39	74	50.58	40.24	17.22	61.43	-	-	P	H
		14480	47.7	-26.3	74	49.55	41.3	19.88	63.03	-	-	P	H
		15720	61.33	-12.67	74	64.72	37.86	20.92	62.17	225	108	P	H
		15720	49.98	-4.02	54	53.37	37.86	20.92	62.17	225	108	A	H
		17989	52.13	-21.87	74	39.33	46.62	22.81	56.63	-	-	P	H
		17989	43.32	-10.68	54	30.52	46.62	22.81	56.63	-	-	A	H
													H
													H
													H
802.11n													H
HT20													H
CH 48		10480	53.11	-15.09	68.2	57.25	39.88	16.85	60.87	200	103	P	V
5240MHz		10960	47.1	-26.9	74	51.05	40.26	17.24	61.45	-	-	P	V
		14490	45.29	-28.71	74	47.1	41.3	19.9	63.01	-	-	P	V
		15720	58.37	-15.63	74	61.76	37.86	20.92	62.17	150	145	P	V
		15720	48.44	-5.56	54	51.83	37.86	20.92	62.17	150	145	A	V
		17989	52.45	-21.55	74	39.65	46.62	22.81	56.63	-	-	P	V
		17989	43.88	-10.12	54	31.08	46.62	22.81	56.63	-	-	A	V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5149.24	63.11	-10.89	74	54.07	32.1	10.37	33.43	225	46	P	H
		5150	52.01	-1.99	54	42.97	32.1	10.37	33.43	225	46	A	H
	*	5190	105.3	-	-	96.37	31.94	10.43	33.44	225	46	P	H
	*	5190	98.44	-	-	89.51	31.94	10.43	33.44	225	46	A	H
		5423.32	48.17	-25.83	74	39.13	31.84	10.65	33.45	225	46	P	H
		5460	38.94	-15.06	54	29.74	32	10.66	33.46	225	46	A	H
		5144.56	61.82	-12.18	74	52.78	32.1	10.37	33.43	322	344	P	V
		5150	51.46	-2.54	54	42.42	32.1	10.37	33.43	322	344	A	V
	*	5190	106.07	-	-	97.14	31.94	10.43	33.44	322	344	P	V
	*	5190	97.32	-	-	88.39	31.94	10.43	33.44	322	344	A	V
		5427.8	48.06	-25.94	74	38.99	31.87	10.65	33.45	322	344	P	V
		5459.44	38.96	-15.04	54	29.76	32	10.66	33.46	322	344	A	V
802.11n HT40 CH 46 5230MHz		5141.7	54.52	-19.48	74	45.49	32.1	10.36	33.43	221	45	P	H
		5127.66	44.34	-9.66	54	35.33	32.1	10.34	33.43	221	45	A	H
	*	5230	107.4	-	-	98.65	31.72	10.47	33.44	221	45	P	H
	*	5230	99.79	-	-	91.04	31.72	10.47	33.44	221	45	A	H
		5456.64	49.01	-24.99	74	39.81	32	10.66	33.46	221	45	P	H
		5434.32	39.06	-14.94	54	29.94	31.91	10.66	33.45	221	45	A	H
		5145.6	51.29	-22.71	74	42.25	32.1	10.37	33.43	356	345	P	V
		5127.4	43.45	-10.55	54	34.44	32.1	10.34	33.43	356	345	A	V
	*	5230	107.51	-	-	98.76	31.72	10.47	33.44	356	345	P	V
	*	5230	99.87	-	-	91.12	31.72	10.47	33.44	356	345	A	V
		5422.8	48.9	-25.1	74	39.86	31.84	10.65	33.45	356	345	P	V
		5435.52	39.04	-14.96	54	29.92	31.91	10.66	33.45	356	345	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10380	54.04	-14.16	68.2	58.22	39.76	16.77	60.71	210	88	P	H
		11620	46.9	-27.1	74	51.75	39.6	17.87	62.32	-	-	P	H
		14491	45.96	-28.04	74	47.77	41.3	19.9	63.01	-	-	P	H
		15570	51.08	-22.92	74	54.27	38.48	20.86	62.53	222	113	P	H
		15570	38.25	-15.75	54	41.44	38.48	20.86	62.53	222	113	A	H
		18000	52.49	-21.51	74	39.47	46.8	22.82	56.6	-	-	P	H
		18000	42.73	-11.27	54	29.71	46.8	22.82	56.6	-	-	A	H
													H
													H
													H
802.11n													H
HT40													H
CH 38		10380	55.75	-12.45	68.2	59.93	39.76	16.77	60.71	186	110	P	V
5190MHz		10927	46.78	-27.22	74	50.75	40.23	17.21	61.41	-	-	P	V
		14491	47.09	-26.91	74	48.9	41.3	19.9	63.01	-	-	P	V
		15570	49.5	-24.5	74	52.69	38.48	20.86	62.53	100	59	P	V
		15570	37.54	-16.46	54	40.73	38.48	20.86	62.53	100	59	A	V
		17989	51.95	-22.05	74	39.15	46.62	22.81	56.63	-	-	P	V
		17989	42.36	-11.64	54	29.56	46.62	22.81	56.63	-	-	A	V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10460	54.74	-13.46	68.2	58.89	39.86	16.83	60.84	210	93	P	H
		11422	46.56	-27.44	74	51	39.9	17.67	62.01	-	-	P	H
		14480	45.05	-28.95	74	46.9	41.3	19.88	63.03	-	-	P	H
		15690	59.07	-14.93	74	62.46	37.94	20.91	62.24	193	111	P	H
		15690	48.65	-5.35	54	52.04	37.94	20.91	62.24	193	111	A	H
		18000	53.59	-20.41	74	40.57	46.8	22.82	56.6	-	-	P	H
		18000	42.63	-11.37	54	29.61	46.8	22.82	56.6	-	-	A	H
													H
													H
													H
802.11n													H
HT40													H
CH 46		10460	55.67	-12.53	68.2	59.82	39.86	16.83	60.84	201	126	P	V
5230MHz		10883	46.43	-27.57	74	50.41	40.2	17.18	61.36	-	-	P	V
		14491	45.35	-28.65	74	47.16	41.3	19.9	63.01	-	-	P	V
		15690	58.62	-15.38	74	62.01	37.94	20.91	62.24	100	60	P	V
		15690	47.5	-6.5	54	50.89	37.94	20.91	62.24	100	60	A	V
		18000	52.26	-21.74	74	39.24	46.8	22.82	56.6	-	-	P	V
		18000	42.41	-11.59	54	29.39	46.8	22.82	56.6	-	-	A	V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 1 5150~5250MHz

IFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5141.44	57.91	-16.09	74	48.88	32.1	10.36	33.43	223	48	P	H
		5148.72	52.02	-1.98	54	42.98	32.1	10.37	33.43	223	48	A	H
	*	5210	99.27	-	-	90.42	31.84	10.45	33.44	223	48	P	H
	*	5210	91.94	-	-	83.09	31.84	10.45	33.44	223	48	A	H
		5396.56	47.96	-26.04	74	39.08	31.68	10.65	33.45	223	48	P	H
		5454.02	41.65	-12.35	54	32.45	32	10.66	33.46	223	48	A	H
		5147.42	58.74	-15.26	74	49.7	32.1	10.37	33.43	322	346	P	V
		5148.72	51.56	-2.44	54	42.52	32.1	10.37	33.43	322	346	A	V
	*	5210	100.65	-	-	91.8	31.84	10.45	33.44	322	346	P	V
	*	5210	92.84	-	-	83.99	31.84	10.45	33.44	322	346	A	V
		5387.2	48.33	-25.67	74	39.52	31.62	10.64	33.45	322	346	P	V
		5441.54	41.18	-12.82	54	32.03	31.95	10.66	33.46	322	346	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10420	48.8	-19.4	68.2	52.95	39.82	16.8	60.77	218	90	P	H
		10938	46.85	-27.15	74	50.82	40.24	17.22	61.43	-	-	P	H
		14491	47.73	-26.27	74	49.54	41.3	19.9	63.01	-	-	P	H
		15630	44.27	-29.73	74	47.6	38.18	20.88	62.39	-	-	P	H
		18000	52.5	-21.5	74	39.48	46.8	22.82	56.6	-	-	P	H
		18000	45.01	-8.99	54	31.99	46.8	22.82	56.6	-	-	A	H
													H
													H
													H
													H
802.11ac													H
VHT80													H
CH 42		10420	50.85	-17.35	68.2	55	39.82	16.8	60.77	201	121	P	V
5210MHz		11004	46.92	-27.08	74	50.87	40.28	17.27	61.5	-	-	P	V
		14491	46.85	-27.15	74	48.66	41.3	19.9	63.01	-	-	P	V
		15630	43.99	-30.01	74	47.32	38.18	20.88	62.39	-	-	P	V
		18000	52.75	-21.25	74	39.73	46.8	22.82	56.6	-	-	P	V
		18000	44.58	-9.42	54	31.56	46.8	22.82	56.6	-	-	A	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		5137.02	49.53	-24.47	74	40.51	32.1	10.35	33.43	223	45	P	H
		5074.8	40.53	-13.47	54	31.79	31.9	10.27	33.43	223	45	A	H
	*	5260	110.31	-	-	101.67	31.58	10.5	33.44	223	45	P	H
	*	5260	99.54	-	-	90.9	31.58	10.5	33.44	223	45	A	H
		5369.28	48.22	-25.78	74	39.53	31.52	10.62	33.45	223	45	P	H
		5458.08	39.76	-14.24	54	30.56	32	10.66	33.46	223	45	A	H
		5098.94	50.02	-23.98	74	41.06	32.09	10.3	33.43	311	343	P	V
		5075.48	40.32	-13.68	54	31.58	31.9	10.27	33.43	311	343	A	V
	*	5260	110.03	-	-	101.39	31.58	10.5	33.44	311	343	P	V
	*	5260	102.22	-	-	93.58	31.58	10.5	33.44	311	343	A	V
		5436.96	49.23	-24.77	74	40.1	31.92	10.66	33.45	311	343	P	V
		5458.56	39.8	-14.2	54	30.6	32	10.66	33.46	311	343	A	V
802.11a CH 60 5300MHz		5139.06	50.69	-23.31	74	41.66	32.1	10.36	33.43	230	23	P	H
		5103.7	40.76	-13.24	54	31.78	32.1	10.31	33.43	230	23	A	H
	*	5300	109.58	-	-	100.97	31.5	10.55	33.44	230	23	P	H
	*	5300	101.57	-	-	92.96	31.5	10.55	33.44	230	23	A	H
		5352.48	50.6	-23.4	74	42.04	31.41	10.6	33.45	230	23	P	H
		5352.24	45.25	-8.75	54	36.69	31.41	10.6	33.45	230	23	A	H
		5068.68	49.27	-24.73	74	40.59	31.85	10.26	33.43	324	351	P	V
		5101.32	40.47	-13.53	54	31.49	32.1	10.31	33.43	324	351	A	V
	*	5300	108.46	-	-	99.85	31.5	10.55	33.44	324	351	P	V
	*	5300	100.69	-	-	92.08	31.5	10.55	33.44	324	351	A	V
		5351.76	50.54	-23.46	74	41.98	31.41	10.6	33.45	324	351	P	V
		5352.24	44.42	-9.58	54	35.86	31.41	10.6	33.45	324	351	A	V

802.11a CH 64 5320MHz	*	5320	110.03	-	-	101.45	31.46	10.57	33.45	213	46	P	H
	*	5320	102.08	-	-	93.5	31.46	10.57	33.45	213	46	A	H
		5350.72	54.81	-19.19	74	46.26	31.4	10.6	33.45	213	46	P	H
		5372.32	45.95	-8.05	54	37.25	31.53	10.62	33.45	213	46	A	H
													H
													H
	*	5320	110.11	-	-	101.53	31.46	10.57	33.45	340	340	P	V
	*	5320	102.04	-	-	93.46	31.46	10.57	33.45	340	340	A	V
		5352	55.84	-18.16	74	47.28	31.41	10.6	33.45	340	340	P	V
		5372.16	45.67	-8.33	54	36.97	31.53	10.62	33.45	340	340	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		10520	55.78	-12.42	68.2	59.93	39.88	16.89	60.92	211	93	P	H
		11521	46.73	-27.27	74	51.24	39.86	17.77	62.14	-	-	P	H
		14499	46.98	-27.02	74	48.77	41.3	19.91	63	-	-	P	H
		15780	64.14	-9.86	74	67.48	37.74	20.95	62.03	191	111	P	H
		15780	49.77	-4.23	54	53.11	37.74	20.95	62.03	191	111	A	H
		17989	52.99	-21.01	74	40.19	46.62	22.81	56.63	-	-	P	H
		17989	42.37	-11.63	54	29.57	46.62	22.81	56.63	-	-	A	H
													H
													H
													H
													H
													H
		10520	57.45	-10.75	68.2	61.6	39.88	16.89	60.92	197	116	P	V
		10938	46.33	-27.67	74	50.3	40.24	17.22	61.43	-	-	P	V
		14490	46.9	-27.1	74	48.71	41.3	19.9	63.01	-	-	P	V
		15780	61.15	-12.85	74	64.49	37.74	20.95	62.03	100	62	P	V
		15780	48.68	-5.32	54	52.02	37.74	20.95	62.03	100	62	A	V
		17989	52.83	-21.17	74	40.03	46.62	22.81	56.63	-	-	P	V
		17989	42.47	-11.53	54	29.67	46.62	22.81	56.63	-	-	A	V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10600	55.12	-18.88	74	59.39	39.8	16.95	61.02	198	93	P	H
		10600	43.96	-10.04	54	48.23	39.8	16.95	61.02	198	93	A	H
		11224	45.81	-28.19	74	50.48	39.62	17.48	61.77	-	-	P	H
		14471	46.15	-27.85	74	48.02	41.3	19.87	63.04	-	-	P	H
		15900	62.58	-11.42	74	65.7	37.6	21.02	61.74	189	110	P	H
		15900	49.68	-4.32	54	52.8	37.6	21.02	61.74	189	110	A	H
		17989	51.88	-22.12	74	39.08	46.62	22.81	56.63	-	-	P	H
		17989	42.27	-11.73	54	29.47	46.62	22.81	56.63	-	-	A	H
													H
													H
													H
i802.11a													H
CH 60		10600	56.22	-17.78	74	60.49	39.8	16.95	61.02	193	119	P	V
5300MHz		10600	45.96	-8.04	54	50.23	39.8	16.95	61.02	193	119	A	V
		10993	45.74	-28.26	74	49.68	40.29	17.26	61.49	-	-	P	V
		14490	45.29	-28.71	74	47.1	41.3	19.9	63.01	-	-	P	V
		15900	61.91	-12.09	74	65.03	37.6	21.02	61.74	100	59	P	V
		15900	48.79	-5.21	54	51.91	37.6	21.02	61.74	100	59	A	V
		17989	52.24	-21.76	74	39.44	46.62	22.81	56.63	-	-	P	V
		17989	42.52	-11.48	54	29.72	46.62	22.81	56.63	-	-	A	V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 64 5320MHz		10640	53.14	-20.86	74	57.38	39.84	16.99	61.07	210	92	P	H
		10640	43.19	-10.81	54	47.43	39.84	16.99	61.07	210	92	A	H
		11587	46.8	-27.2	74	51.49	39.73	17.84	62.26	-	-	P	H
		14471	45.97	-28.03	74	47.84	41.3	19.87	63.04	-	-	P	H
		15960	62.53	-11.47	74	65.55	37.54	21.04	61.6	189	110	P	H
		15960	50.01	-3.99	54	53.03	37.54	21.04	61.6	189	110	A	H
		17989	52.15	-21.85	74	39.35	46.62	22.81	56.63	-	-	P	H
		17989	42.47	-11.53	54	29.67	46.62	22.81	56.63	-	-	A	H
													H
													H
													H
													H
		10640	54.71	-19.29	74	58.95	39.84	16.99	61.07	195	120	P	V
		10640	44.48	-9.52	54	48.72	39.84	16.99	61.07	195	120	A	V
		11323	46.37	-27.63	74	50.93	39.75	17.58	61.89	-	-	P	V
		14490	45.41	-28.59	74	47.22	41.3	19.9	63.01	-	-	P	V
		15960	61.49	-12.51	74	64.51	37.54	21.04	61.6	100	60	P	V
		15960	48.8	-5.2	54	51.82	37.54	21.04	61.6	100	60	A	V
		17978	51.27	-22.73	74	38.67	46.45	22.8	56.65	-	-	P	V
		17978	42.03	-11.97	54	29.43	46.45	22.8	56.65	-	-	A	V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5066.64	50.03	-23.97	74	41.37	31.83	10.26	33.43	220	46	P	H
		5075.82	40.56	-13.44	54	31.81	31.91	10.27	33.43	220	46	A	H
	*	5260	110.28	-	-	101.64	31.58	10.5	33.44	220	46	P	H
	*	5260	102.16	-	-	93.52	31.58	10.5	33.44	220	46	A	H
802.11n		5444.64	49.52	-24.48	74	40.35	31.97	10.66	33.46	220	46	P	H
HT20		5457.36	39.64	-14.36	54	30.44	32	10.66	33.46	220	46	A	H
CH 52		5109.48	50.14	-23.86	74	41.15	32.1	10.32	33.43	311	345	P	V
5260MHz		5075.48	40.33	-13.67	54	31.59	31.9	10.27	33.43	311	345	A	V
	*	5260	110.09	-	-	101.45	31.58	10.5	33.44	311	345	P	V
	*	5260	102	-	-	93.36	31.58	10.5	33.44	311	345	A	V
		5454.48	49.78	-24.22	74	40.58	32	10.66	33.46	311	345	P	V
		5457.12	39.78	-14.22	54	30.58	32	10.66	33.46	311	345	A	V
		5077.18	49.36	-24.64	74	40.6	31.92	10.27	33.43	227	46	P	H
		5101.66	40.72	-13.28	54	31.74	32.1	10.31	33.43	227	46	A	H
	*	5300	109.81	-	-	101.2	31.5	10.55	33.44	227	46	P	H
	*	5300	101.77	-	-	93.16	31.5	10.55	33.44	227	46	A	H
802.11n		5352.24	51.88	-22.12	74	43.32	31.41	10.6	33.45	227	46	P	H
HT20		5351.52	46.38	-7.62	54	37.82	31.41	10.6	33.45	227	46	A	H
CH 60		5145.86	49.61	-24.39	74	40.57	32.1	10.37	33.43	308	340	P	V
5300MHz		5101.32	40.45	-13.55	54	31.47	32.1	10.31	33.43	308	340	A	V
	*	5300	109.76	-	-	101.15	31.5	10.55	33.44	308	340	P	V
	*	5300	101.64	-	-	93.03	31.5	10.55	33.44	308	340	A	V
		5352	52.5	-21.5	74	43.94	31.41	10.6	33.45	308	340	P	V
		5351.76	45.96	-8.04	54	37.4	31.41	10.6	33.45	308	340	A	V

	*	5320	109.6	-	-	101.02	31.46	10.57	33.45	213	43	P	H
	*	5320	101.61	-	-	93.03	31.46	10.57	33.45	213	43	A	H
		5352.8	57.14	-16.86	74	48.57	31.42	10.6	33.45	213	43	P	H
		5371.84	46.94	-7.06	54	38.24	31.53	10.62	33.45	213	43	A	H
802.11n													H
HT20													H
CH 64	*	5320	109.67	-	-	101.09	31.46	10.57	33.45	342	345	P	V
5320MHz	*	5320	101.94	-	-	93.36	31.46	10.57	33.45	342	345	A	V
		5350.88	55.69	-18.31	74	47.13	31.41	10.6	33.45	342	345	P	V
		5350.08	46.1	-7.9	54	37.55	31.4	10.6	33.45	342	345	A	V
													V
													V

Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10520	56.67	-11.53	68.2	60.82	39.88	16.89	60.92	283	94	P	H
		11158	47.3	-26.7	74	51.84	39.73	17.42	61.69	-	-	P	H
		14491	46.47	-27.53	74	48.28	41.3	19.9	63.01	-	-	P	H
		15780	62.06	-11.94	74	65.4	37.74	20.95	62.03	190	111	P	H
		15780	49.36	-4.64	54	52.7	37.74	20.95	62.03	190	111	A	H
		17978	51.94	-22.06	74	39.34	46.45	22.8	56.65	-	-	P	H
		17978	41.95	-12.05	54	29.35	46.45	22.8	56.65	-	-	A	H
													H
													H
													H
802.11n													H
HT20													H
CH 52		10520	58.02	-10.18	68.2	62.17	39.88	16.89	60.92	199	121	P	V
5260MHz		11147	46.4	-27.6	74	50.91	39.76	17.41	61.68	-	-	P	V
		14491	45.96	-28.04	74	47.77	41.3	19.9	63.01	-	-	P	V
		15780	62.43	-11.57	74	65.77	37.74	20.95	62.03	100	61	P	V
		15780	48.73	-5.27	54	52.07	37.74	20.95	62.03	100	61	A	V
		18000	51.87	-22.13	74	38.85	46.8	22.82	56.6	-	-	P	V
		18000	42.57	-11.43	54	29.55	46.8	22.82	56.6	-	-	A	V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10600	54.63	-19.37	74	58.9	39.8	16.95	61.02	210	94	P	H
		10600	44.42	-9.58	54	48.69	39.8	16.95	61.02	210	94	A	H
		11378	45.76	-28.24	74	50.22	39.86	17.63	61.95	-	-	P	H
		14491	45.1	-28.9	74	46.91	41.3	19.9	63.01	-	-	P	H
		15900	64.08	-9.92	74	67.2	37.6	21.02	61.74	191	110	P	H
		15900	50.68	-3.32	54	53.8	37.6	21.02	61.74	191	110	A	H
		17978	52.3	-21.7	74	39.7	46.45	22.8	56.65	-	-	P	H
		17978	42.18	-11.82	54	29.58	46.45	22.8	56.65	-	-	A	H
													H
													H
802.11n													H
HT20													H
CH 60		10600	57.53	-16.47	74	61.8	39.8	16.95	61.02	193	119	P	V
5300MHz		10600	46.44	-7.56	54	50.71	39.8	16.95	61.02	193	119	A	V
		11609	45.94	-28.06	74	50.72	39.66	17.86	62.3	-	-	P	V
		14491	45.58	-28.42	74	47.39	41.3	19.9	63.01	-	-	P	V
		15900	62.06	-11.94	74	65.18	37.6	21.02	61.74	100	61	P	V
		15900	49.82	-4.18	54	52.94	37.6	21.02	61.74	100	61	A	V
		17978	52.12	-21.88	74	39.52	46.45	22.8	56.65	-	-	P	V
		17978	42.2	-11.8	54	29.6	46.45	22.8	56.65	-	-	A	V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10640	54.76	-19.24	74	59	39.84	16.99	61.07	209	92	P	H
		10640	43.46	-10.54	54	47.7	39.84	16.99	61.07	209	92	A	H
		11631	46.28	-27.72	74	51.19	39.55	17.88	62.34	-	-	P	H
		14491	45.11	-28.89	74	46.92	41.3	19.9	63.01	-	-	P	H
		15960	62.68	-11.32	74	65.7	37.54	21.04	61.6	189	110	P	H
		15960	50.17	-3.83	54	53.19	37.54	21.04	61.6	189	110	A	H
		18000	51.77	-22.23	74	38.75	46.8	22.82	56.6	-	-	P	H
		18000	42.68	-11.32	54	29.66	46.8	22.82	56.6	-	-	A	H
													H
													H
802.11n													H
HT20													H
CH 64		10640	55.61	-18.39	74	59.85	39.84	16.99	61.07	208	122	P	V
5320MHz		10640	44.48	-9.52	54	48.72	39.84	16.99	61.07	208	122	A	V
		10894	46.12	-27.88	74	50.1	40.2	17.19	61.37	-	-	P	V
		14491	45.57	-28.43	74	47.38	41.3	19.9	63.01	-	-	P	V
		15960	60.74	-13.26	74	63.76	37.54	21.04	61.6	100	61	P	V
		15960	48.77	-5.23	54	51.79	37.54	21.04	61.6	100	61	A	V
		17989	52.1	-21.9	74	39.3	46.62	22.81	56.63	-	-	P	V
		17989	42.37	-11.63	54	29.57	46.62	22.81	56.63	-	-	A	V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 54 5270MHz		5137.7	50	-24	74	40.97	32.1	10.36	33.43	222	45	P	H
		5134.98	40.76	-13.24	54	31.74	32.1	10.35	33.43	222	45	A	H
	*	5270	108.62	-	-	99.99	31.56	10.51	33.44	222	45	P	H
	*	5270	100.03	-	-	91.4	31.56	10.51	33.44	222	45	A	H
		5353.68	50.7	-23.3	74	42.13	31.42	10.6	33.45	222	45	P	H
		5372.64	41.93	-12.07	54	33.22	31.54	10.62	33.45	222	45	A	H
		5141.78	50.33	-23.67	74	41.3	32.1	10.36	33.43	310	344	P	V
		5135.32	40.6	-13.4	54	31.58	32.1	10.35	33.43	310	344	A	V
	*	5270	108.31	-	-	99.68	31.56	10.51	33.44	310	344	P	V
	*	5270	99.91	-	-	91.28	31.56	10.51	33.44	310	344	A	V
		5377.2	49.51	-24.49	74	40.77	31.56	10.63	33.45	310	344	P	V
		5372.64	41.83	-12.17	54	33.12	31.54	10.62	33.45	310	344	A	V
802.11n HT40 CH 62 5310MHz		5015.64	50.02	-23.98	74	41.69	31.56	10.19	33.42	227	43	P	H
		5104.04	40.39	-13.61	54	31.41	32.1	10.31	33.43	227	43	A	H
	*	5310	105.7	-	-	97.1	31.48	10.56	33.44	227	43	P	H
	*	5310	97.64	-	-	89.04	31.48	10.56	33.44	227	43	A	H
		5352	63.05	-10.95	74	54.49	31.41	10.6	33.45	227	43	P	H
		5350.08	51.11	-2.89	54	42.56	31.4	10.6	33.45	227	43	A	H
		5124.1	49.99	-24.01	74	40.98	32.1	10.34	33.43	342	350	P	V
		5104.72	40.32	-13.68	54	31.34	32.1	10.31	33.43	342	350	A	V
	*	5310	106.33	-	-	97.73	31.48	10.56	33.44	342	350	P	V
	*	5310	97.76	-	-	89.16	31.48	10.56	33.44	342	350	A	V
		5350.8	61.52	-12.48	74	52.97	31.4	10.6	33.45	342	350	P	V
		5350.08	50.52	-3.48	54	41.97	31.4	10.6	33.45	342	350	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10540	54.34	-13.86	68.2	58.52	39.86	16.91	60.95	273	91	P	H
		10960	46.64	-27.36	74	50.59	40.26	17.24	61.45	-	-	P	H
		14491	45.01	-28.99	74	46.82	41.3	19.9	63.01	-	-	P	H
		15810	60.89	-13.11	74	64.2	37.69	20.96	61.96	190	111	P	H
		15810	49.86	-4.14	54	53.17	37.69	20.96	61.96	190	111	A	H
		17989	52.19	-21.81	74	39.39	46.62	22.81	56.63	-	-	P	H
		17989	42.27	-11.73	54	29.47	46.62	22.81	56.63	-	-	A	H
													H
													H
													H
802.11n													H
HT40													H
CH 54		10540	54.72	-13.48	68.2	58.9	39.86	16.91	60.95	190	117	P	V
5270MHz		11213	46.19	-27.81	74	50.87	39.61	17.47	61.76	-	-	P	V
		14491	46.43	-27.57	74	48.24	41.3	19.9	63.01	-	-	P	V
		15810	59.67	-14.33	74	62.98	37.69	20.96	61.96	100	61	P	V
		15810	49.39	-4.61	54	52.7	37.69	20.96	61.96	100	61	A	V
		18000	52.94	-21.06	74	39.92	46.8	22.82	56.6	-	-	P	V
		18000	42.46	-11.54	54	29.44	46.8	22.82	56.6	-	-	A	V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10620	51.66	-22.34	74	55.91	39.82	16.97	61.04	217	94	P	H
		10620	41.16	-12.84	54	45.41	39.82	16.97	61.04	217	94	A	H
		11411	46.77	-27.23	74	51.2	39.9	17.66	61.99	-	-	P	H
		14491	47.09	-26.91	74	48.9	41.3	19.9	63.01	-	-	P	H
		15930	56.16	-17.84	74	59.23	37.57	21.03	61.67	193	112	P	H
		15930	42.56	-11.44	54	45.63	37.57	21.03	61.67	193	112	A	H
		18000	52.32	-21.68	74	39.3	46.8	22.82	56.6	-	-	P	H
		18000	42.63	-11.37	54	29.61	46.8	22.82	56.6	-	-	A	H
													H
													H
802.11n													H
HT40													H
CH 62		10620	53.14	-20.86	74	57.39	39.82	16.97	61.04	198	123	P	V
5310MHz		10620	42.65	-11.35	54	46.9	39.82	16.97	61.04	198	123	A	V
		10916	46.68	-27.32	74	50.66	40.22	17.2	61.4	-	-	P	V
		14491	46.52	-27.48	74	48.33	41.3	19.9	63.01	-	-	P	V
		15930	54.73	-19.27	74	57.8	37.57	21.03	61.67	100	63	P	V
		15930	41.64	-12.36	54	44.71	37.57	21.03	61.67	100	63	A	V
		18000	52	-22	74	38.98	46.8	22.82	56.6	-	-	P	V
		18000	42.71	-11.29	54	29.69	46.8	22.82	56.6	-	-	A	V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		5128.1	51.35	-22.65	74	42.34	32.1	10.34	33.43	217	43	P	H
		5143.7	42.69	-11.31	54	33.66	32.1	10.36	33.43	217	43	A	H
	*	5290	103.66	-	-	95.05	31.52	10.53	33.44	217	43	P	H
	*	5290	95.85	-	-	87.24	31.52	10.53	33.44	217	43	A	H
		5365.2	65.1	-8.9	74	56.45	31.49	10.61	33.45	217	43	P	H
		5350.32	52.77	-1.23	54	44.22	31.4	10.6	33.45	217	43	A	H
		5117.9	51.1	-22.9	74	42.1	32.1	10.33	33.43	363	345	P	V
		5146.7	42.29	-11.71	54	33.25	32.1	10.37	33.43	363	345	A	V
	*	5290	103.76	-	-	95.15	31.52	10.53	33.44	363	345	P	V
	*	5290	96.22	-	-	87.61	31.52	10.53	33.44	363	345	A	V
		5373.36	63.97	-10.03	74	55.26	31.54	10.62	33.45	363	345	P	V
		5350.32	52.22	-1.78	54	43.67	31.4	10.6	33.45	363	345	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10580	50.94	-17.26	68.2	55.18	39.82	16.94	61	203	94	P	H
		11598	46.86	-27.14	74	51.59	39.7	17.85	62.28	-	-	P	H
		14491	46.94	-27.06	74	48.75	41.3	19.9	63.01	-	-	P	H
		15870	53	-21	74	56.18	37.63	21	61.81	189	108	P	H
		15870	39.54	-14.46	54	42.72	37.63	21	61.81	189	108	A	H
		18000	52.99	-21.01	74	39.97	46.8	22.82	56.6	-	-	P	H
		18000	44.71	-9.29	54	31.69	46.8	22.82	56.6	-	-	A	H
													H
													H
													H
802.11ac													H
VHT80													H
CH 58		10580	52.31	-15.89	68.2	56.55	39.82	16.94	61	197	119	P	V
5290MHz		11191	46.93	-27.07	74	51.58	39.63	17.45	61.73	-	-	P	V
		14491	47.81	-26.19	74	49.62	41.3	19.9	63.01	-	-	P	V
		15870	52.97	-21.03	74	56.15	37.63	21	61.81	100	62	P	V
		15870	38.94	-15.06	54	42.12	37.63	21	61.81	100	62	A	V
		17989	53.32	-20.68	74	40.52	46.62	22.81	56.63	-	-	P	V
		17989	44.52	-9.48	54	31.72	46.62	22.81	56.63	-	-	A	V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 3 - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		5447.76	54.21	-19.79	74	45.02	31.99	10.66	33.46	214	226	P	H
		5469.36	57.84	-10.36	68.2	48.64	32	10.66	33.46	214	226	P	H
		5447.76	48.28	-5.72	54	39.09	31.99	10.66	33.46	214	226	A	H
	*	5500	109.72	-	-	100.52	32	10.66	33.46	214	226	P	H
	*	5500	102.16	-	-	92.96	32	10.66	33.46	214	226	A	H
													H
		5447.28	56.83	-17.17	74	47.65	31.98	10.66	33.46	289	165	P	V
		5470	62.25	-5.95	68.2	53.05	32	10.66	33.46	289	165	P	V
		5447.76	49.96	-4.04	54	40.77	31.99	10.66	33.46	289	165	A	V
	*	5500	111.8	-	-	102.6	32	10.66	33.46	289	165	P	V
	*	5500	104.25	-	-	95.05	32	10.66	33.46	289	165	A	V
													V
802.11a CH 116 5580MHz		5451.04	48.46	-25.54	74	39.26	32	10.66	33.46	196	41	P	H
		5468.8	47.91	-20.29	68.2	38.71	32	10.66	33.46	196	41	P	H
		5391.52	39.84	-14.16	54	31	31.65	10.64	33.45	196	41	A	H
	*	5580	110.95	-	-	101.75	32	10.68	33.48	196	41	P	H
	*	5580	103.35	-	-	94.15	32	10.68	33.48	196	41	A	H
		5758.07	49.24	-18.96	68.2	39.51	32.4	10.86	33.53	196	41	P	H
		5386	48.9	-25.1	74	40.09	31.62	10.64	33.45	297	337	P	V
		5460.16	48.6	-19.6	68.2	39.4	32	10.66	33.46	297	337	P	V
		5458.96	39.92	-14.08	54	30.72	32	10.66	33.46	297	337	A	V
	*	5580	112.94	-	-	103.74	32	10.68	33.48	297	337	P	V
	*	5580	105.44	-	-	96.24	32	10.68	33.48	297	337	A	V
		5764.37	49.61	-18.59	68.2	39.87	32.4	10.87	33.53	297	337	P	V

802.11a CH 140 5700MHz	*	5700	111.69	-	-	102.2	32.2	10.8	33.51	217	43	P	H
	*	5700	103.88	-	-	94.39	32.2	10.8	33.51	217	43	A	H
		5726.68	65.47	-2.73	68.2	55.85	32.31	10.83	33.52	217	43	P	H
													H
													H
													H
	*	5700	113.85	-	-	104.36	32.2	10.8	33.51	330	338	P	V
	*	5700	104.46	-	-	94.97	32.2	10.8	33.51	330	338	A	V
		5725.88	65.27	-2.93	68.2	55.67	32.3	10.82	33.52	330	338	P	V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		11000	46.44	-27.56	74	50.37	40.3	17.27	61.5	-	-	P	H
		11422	47.91	-26.09	74	52.35	39.9	17.67	62.01	-	-	P	H
		14480	47.97	-26.03	74	49.82	41.3	19.88	63.03	-	-	P	H
		16500	58.79	-9.41	68.2	58.77	39.1	21.42	60.5	-	-	P	H
		17978	53.5	-20.5	74	40.9	46.45	22.8	56.65	-	-	P	H
		17978	43.41	-10.59	54	30.81	46.45	22.8	56.65	-	-	A	H
													H
													H
													H
													H
													H
													H
		10828	47.29	-26.71	74	51.25	40.2	17.13	61.29	-	-	P	V
		11000	47.05	-26.95	74	50.98	40.3	17.27	61.5	-	-	P	V
		14480	47.91	-26.09	74	49.76	41.3	19.88	63.03	-	-	P	V
		16500	59.22	-8.98	68.2	59.2	39.1	21.42	60.5	-	-	P	V
		17989	54.35	-19.65	74	41.55	46.62	22.81	56.63	-	-	P	V
		17989	44.1	-9.9	54	31.3	46.62	22.81	56.63	-	-	A	V
													V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11160	46.98	-27.02	74	51.53	39.72	17.42	61.69	-	-	P	H
		13314	46.65	-27.35	74	51.01	39.67	19.03	63.06	-	-	P	H
		14480	48.57	-25.43	74	50.42	41.3	19.88	63.03	-	-	P	H
		16740	56.3	-11.9	68.2	54.83	39.7	21.6	59.83	-	-	P	H
		17989	54.76	-19.24	74	41.96	46.62	22.81	56.63	-	-	P	H
		17989	43.4	-10.6	54	30.6	46.62	22.81	56.63	-	-	A	H
													H
													H
													H
													H
													H
802.11a CH 116 5580MHz													H
		11160	47.14	-26.86	74	51.69	39.72	17.42	61.69	-	-	P	V
		13314	47.09	-26.91	74	51.45	39.67	19.03	63.06	-	-	P	V
		14491	49.35	-24.65	74	51.16	41.3	19.9	63.01	-	-	P	V
		16740	53.81	-14.39	68.2	52.34	39.7	21.6	59.83	-	-	P	V
		17978	54.63	-19.37	74	42.03	46.45	22.8	56.65	-	-	P	V
		17978	43.69	-10.31	54	31.09	46.45	22.8	56.65	-	-	A	V
													V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11400	45.09	-28.91	74	49.52	39.9	17.65	61.98	-	-	P	H
		11598	46.34	-27.66	74	51.07	39.7	17.85	62.28	-	-	P	H
		14491	46.81	-27.19	74	48.62	41.3	19.9	63.01	-	-	P	H
		17100	60.11	-8.09	68.2	56.77	40.3	21.88	58.84	400	330	P	H
		18000	52.46	-21.54	74	39.44	46.8	22.82	56.6	-	-	P	H
		18000	42.73	-11.27	54	29.71	46.8	22.82	56.6	-	-	A	H
													H
													H
													H
													H
													H
802.11a CH 140 5700MHz													H
		11400	45.22	-28.78	74	49.65	39.9	17.65	61.98	-	-	P	V
		11598	46.52	-27.48	74	51.25	39.7	17.85	62.28	-	-	P	V
		14491	47.04	-26.96	74	48.85	41.3	19.9	63.01	-	-	P	V
		17100	57.8	-10.4	68.2	54.46	40.3	21.88	58.84	100	116	P	V
		18000	51.76	-22.24	74	38.74	46.8	22.82	56.6	-	-	P	V
		18000	42.53	-11.47	54	29.51	46.8	22.82	56.6	-	-	A	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5459.92	59.18	-14.82	74	49.98	32	10.66	33.46	400	329	P	V
		5468.4	65.31	-2.89	68.2	56.11	32	10.66	33.46	400	329	P	V
		5448.4	50.8	-3.2	54	41.61	31.99	10.66	33.46	400	329	A	V
	*	5500	110.1	-	-	100.9	32	10.66	33.46	400	329	P	V
802.11n	*	5500	102.71	-	-	93.51	32	10.66	33.46	400	329	A	V
HT20													H
CH 100		5459.44	59.55	-14.45	74	50.35	32	10.66	33.46	231	34	P	H
5500MHz		5467.28	64.03	-4.17	68.2	54.83	32	10.66	33.46	231	34	P	H
		5448.56	48.04	-5.96	54	38.85	31.99	10.66	33.46	231	34	A	H
	*	5500	109.31	-	-	100.11	32	10.66	33.46	231	34	P	H
	*	5500	101.46	-	-	92.26	32	10.66	33.46	231	34	A	H
													V
		5379.28	49.38	-24.62	74	40.62	31.58	10.63	33.45	224	38	P	H
		5463.28	47.71	-20.49	68.2	38.51	32	10.66	33.46	224	38	P	H
		5433.28	40.01	-13.99	54	30.91	31.9	10.65	33.45	224	38	A	H
	*	5580	110.72	-	-	101.52	32	10.68	33.48	224	38	P	H
802.11n	*	5580	103.38	-	-	94.18	32	10.68	33.48	224	38	A	H
HT20		5739.485	49.89	-18.31	68.2	40.21	32.36	10.84	33.52	224	38	P	H
CH 116		5433.28	49.05	-24.95	74	39.95	31.9	10.65	33.45	235	332	P	V
5580MHz		5463.76	48.08	-20.12	68.2	38.88	32	10.66	33.46	235	332	P	V
		5448.88	40.24	-13.76	54	31.05	31.99	10.66	33.46	235	332	A	V
	*	5580	112.78	-	-	103.58	32	10.68	33.48	235	332	P	V
	*	5580	105.27	-	-	96.07	32	10.68	33.48	235	332	A	V
		5761.22	50.04	-18.16	68.2	40.3	32.4	10.87	33.53	235	332	P	V

	*	5700	110.71	-	-	101.22	32.2	10.8	33.51	219	43	P	H
	*	5700	102.92	-	-	93.43	32.2	10.8	33.51	219	43	A	H
		5725.24	65.43	-2.77	68.2	55.83	32.3	10.82	33.52	219	43	P	H
													H
802.11n													H
HT20													H
CH 140	*	5700	110.79	-	-	101.3	32.2	10.8	33.51	329	341	P	V
5700MHz	*	5700	103.47	-	-	93.98	32.2	10.8	33.51	329	341	A	V
		5725.24	63.77	-4.43	68.2	54.17	32.3	10.82	33.52	329	341	P	V
													V
													V
													V

Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11000	45.64	-28.36	74	49.57	40.3	17.27	61.5	-	-	P	H
		13369	46.65	-27.35	74	50.74	39.94	19.04	63.07	-	-	P	H
		14491	47.16	-26.84	74	48.97	41.3	19.9	63.01	-	-	P	H
		16500	55.21	-12.99	68.2	55.19	39.1	21.42	60.5	-	-	P	H
		17978	53.26	-20.74	74	40.66	46.45	22.8	56.65	-	-	P	H
		17978	43.03	-10.97	54	30.43	46.45	22.8	56.65	-	-	A	H
													H
													H
													H
													H
802.11n													H
HT20													H
CH 100		11000	46.63	-27.37	74	50.56	40.3	17.27	61.5	-	-	P	V
5500MHz		13347	45.73	-28.27	74	49.93	39.83	19.04	63.07	-	-	P	V
		14491	47.19	-26.81	74	49	41.3	19.9	63.01	-	-	P	V
		16500	56.27	-11.93	68.2	56.25	39.1	21.42	60.5	-	-	P	V
		17967	53.29	-20.71	74	40.91	46.27	22.79	56.68	-	-	P	V
		17967	43.12	-10.88	54	30.74	46.27	22.79	56.68	-	-	A	V
													V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11160	46.83	-27.17	74	51.38	39.72	17.42	61.69	-	-	P	H
		13281	46.07	-27.93	74	50.53	39.58	19.02	63.06	-	-	P	H
		14491	46.66	-27.34	74	48.47	41.3	19.9	63.01	-	-	P	H
		16740	53.15	-15.05	68.2	51.68	39.7	21.6	59.83	-	-	P	H
		17989	53.01	-20.99	74	40.21	46.62	22.81	56.63	-	-	P	H
		17989	43.46	-10.54	54	30.66	46.62	22.81	56.63	-	-	A	H
													H
													H
													H
													H
802.11n													H
HT20													H
CH 116		11160	47.19	-26.81	74	51.74	39.72	17.42	61.69	-	-	P	V
5580MHz		13380	46.22	-27.78	74	50.25	40	19.05	63.08	-	-	P	V
		14491	46.51	-27.49	74	48.32	41.3	19.9	63.01	-	-	P	V
		16740	52.9	-15.3	68.2	51.43	39.7	21.6	59.83	-	-	P	V
		17989	53.88	-20.12	74	41.08	46.62	22.81	56.63	-	-	P	V
		17989	43.87	-10.13	54	31.07	46.62	22.81	56.63	-	-	A	V
													V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10971	47.29	-26.71	74	51.24	40.27	17.25	61.47	-	-	P	H
		11400	45.75	-28.25	74	50.18	39.9	17.65	61.98	-	-	P	H
		14491	46.51	-27.49	74	48.32	41.3	19.9	63.01	-	-	P	H
		17100	59.71	-8.49	68.2	56.37	40.3	21.88	58.84	400	329	P	H
		17989	52.36	-21.64	74	39.56	46.62	22.81	56.63	-	-	P	H
		17989	42.02	-11.98	54	29.22	46.62	22.81	56.63	-	-	A	H
													H
													H
													H
													H
802.11n													H
HT20													H
CH 140		11400	45.56	-28.44	74	49.99	39.9	17.65	61.98	-	-	P	V
5700MHz		11609	46.77	-27.23	74	51.55	39.66	17.86	62.3	-	-	P	V
		14491	46.44	-27.56	74	48.25	41.3	19.9	63.01	-	-	P	V
		17100	59.05	-9.15	68.2	55.71	40.3	21.88	58.84	100	119	P	V
		18000	52.51	-21.49	74	39.49	46.8	22.82	56.6	-	-	P	V
		18000	42.41	-11.59	54	29.39	46.8	22.82	56.6	-	-	A	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5453.92	57.38	-16.62	74	48.18	32	10.66	33.46	227	44	P	H
		5467.36	66.41	-1.79	68.2	57.21	32	10.66	33.46	227	44	P	H
		5459.92	44.55	-9.45	54	35.35	32	10.66	33.46	227	44	A	H
	*	5510	107.15	-	-	97.94	32	10.67	33.46	227	44	P	H
802.11n	*	5510	105.04	-	-	95.83	32	10.67	33.46	227	44	A	H
HT40		5763.11	49.54	-18.66	68.2	39.8	32.4	10.87	33.53	227	44	P	H
CH 102		5457.76	54.04	-19.96	74	44.84	32	10.66	33.46	335	343	P	V
5510MHz		5469.76	64.85	-3.35	68.2	55.65	32	10.66	33.46	335	343	P	V
		5459.92	43.93	-10.07	54	34.73	32	10.66	33.46	335	343	A	V
	*	5510	106.05	-	-	96.84	32	10.67	33.46	335	343	P	V
	*	5510	98.29	-	-	89.08	32	10.67	33.46	335	343	A	V
		5760.905	48.55	-19.65	68.2	38.81	32.4	10.87	33.53	335	343	P	V
		5458	54.51	-19.49	74	45.31	32	10.66	33.46	211	42	P	H
		5467.12	59.01	-9.19	68.2	49.81	32	10.66	33.46	211	42	P	H
		5447.68	46.26	-7.74	54	37.07	31.99	10.66	33.46	211	42	A	H
	*	5550	109.67	-	-	100.47	32	10.67	33.47	211	42	P	H
802.11n	*	5550	101.64	-	-	92.44	32	10.67	33.47	211	42	A	H
HT40		5755.55	49.38	-18.82	68.2	39.65	32.4	10.86	33.53	211	42	P	H
CH 110		5446.24	55.96	-18.04	74	46.78	31.98	10.66	33.46	232	342	P	V
5550MHz		5463.28	57.86	-10.34	68.2	48.66	32	10.66	33.46	232	342	P	V
		5447.44	45.7	-8.3	54	36.52	31.98	10.66	33.46	232	342	A	V
	*	5550	111.27	-	-	102.07	32	10.67	33.47	232	342	P	V
	*	5550	102.79	-	-	93.59	32	10.67	33.47	232	342	A	V
		5726.885	49.47	-18.73	68.2	39.85	32.31	10.83	33.52	232	342	P	V

		5457.8	50.31	-23.69	74	41.11	32	10.66	33.46	207	43	P	H
		5466.2	48.61	-19.59	68.2	39.41	32	10.66	33.46	207	43	P	H
		5459.9	39.72	-14.28	54	30.52	32	10.66	33.46	207	43	A	H
	*	5670	108.69	-	-	99.29	32.14	10.76	33.5	207	43	P	H
802.11n	*	5670	100.8	-	-	91.4	32.14	10.76	33.5	207	43	A	H
HT40		5725.275	58.81	-9.39	68.2	49.21	32.3	10.82	33.52	207	43	P	H
CH 134		5367.5	49.47	-24.53	74	40.8	31.5	10.62	33.45	350	342	P	V
5670MHz		5469.35	48.6	-19.6	68.2	39.4	32	10.66	33.46	350	342	P	V
		5459.9	39.67	-14.33	54	30.47	32	10.66	33.46	350	342	A	V
	*	5670	109.93	-	-	100.53	32.14	10.76	33.5	350	342	P	V
	*	5670	101.62	-	-	92.22	32.14	10.76	33.5	350	342	A	V
		5725.625	59.02	-9.18	68.2	49.42	32.3	10.82	33.52	350	342	P	V

Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11020	45.54	-28.46	74	49.55	40.22	17.29	61.52	-	-	P	H
		11444	46.41	-27.59	74	50.85	39.9	17.69	62.03	-	-	P	H
		14491	47.4	-26.6	74	49.21	41.3	19.9	63.01	-	-	P	H
		16530	52.17	-16.03	68.2	52.07	39.07	21.45	60.42	225	101	P	H
		17978	53.52	-20.48	74	40.92	46.45	22.8	56.65	-	-	P	H
		17978	42.05	-11.95	54	29.45	46.45	22.8	56.65	-	-	A	H
													H
													H
													H
													H
802.11n													H
HT40													H
CH 102		11020	45.59	-28.41	74	49.6	40.22	17.29	61.52	-	-	P	V
5510MHz		11620	46.66	-27.34	74	51.51	39.6	17.87	62.32	-	-	P	V
		14491	46.35	-27.65	74	48.16	41.3	19.9	63.01	-	-	P	V
		16530	50.55	-17.65	68.2	50.45	39.07	21.45	60.42	100	59	P	V
		18000	52.72	-21.28	74	39.7	46.8	22.82	56.6	-	-	P	V
		18000	42.68	-11.32	54	29.66	46.8	22.82	56.6	-	-	A	V
													V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11100	45.61	-28.39	74	49.97	39.9	17.36	61.62	-	-	P	H
		13336	46.24	-27.76	74	50.5	39.78	19.03	63.07	-	-	P	H
		14491	47.2	-26.8	74	49.01	41.3	19.9	63.01	-	-	P	H
		16650	51.84	-16.36	68.2	51.14	39.25	21.53	60.08	-	-	P	H
		17989	53.38	-20.62	74	40.58	46.62	22.81	56.63	-	-	P	H
		17989	43.24	-10.76	54	30.44	46.62	22.81	56.63	-	-	A	H
													H
													H
													H
													H
802.11n													H
HT40													H
CH 110		11100	45.34	-28.66	74	49.7	39.9	17.36	61.62	-	-	P	V
5550MHz		13380	45.89	-28.11	74	49.92	40	19.05	63.08	-	-	P	V
		14491	47.03	-26.97	74	48.84	41.3	19.9	63.01	-	-	P	V
		16650	51.75	-16.45	68.2	51.05	39.25	21.53	60.08	-	-	P	V
		17989	53.33	-20.67	74	40.53	46.62	22.81	56.63	-	-	P	V
		17989	43.58	-10.42	54	30.78	46.62	22.81	56.63	-	-	A	V
													V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10993	47.71	-26.29	74	51.65	40.29	17.26	61.49	-	-	P	H
		14469	48.79	-19.41	68.2	50.66	41.3	19.87	63.04	-	-	P	H
		17010	56.14	-12.06	68.2	53.3	40.12	21.79	59.07	161	220	P	H
		17989	53.67	-20.33	74	40.87	46.62	22.81	56.63	-	-	P	H
		17989	42.72	-11.28	54	29.92	46.62	22.81	56.63	-	-	A	H
													H
													H
													H
													H
													H
i802.11n													H
HT40													H
CH 134		11070	47.09	-26.91	74	51.31	40.02	17.34	61.58	-	-	P	V
5670MHz		14490	47.62	-26.38	74	49.43	41.3	19.9	63.01	-	-	P	V
		17010	52.36	-15.84	68.2	49.52	40.12	21.79	59.07	184	115	P	V
		17989	52.83	-21.17	74	40.03	46.62	22.81	56.63	-	-	P	V
		17989	42.53	-11.47	54	29.73	46.62	22.81	56.63	-	-	A	V
													V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5458.48	63.35	-10.65	74	54.15	32	10.66	33.46	208	46	P	H
		5466.4	64.47	-3.73	68.2	55.27	32	10.66	33.46	208	46	P	H
		5459.92	52.23	-1.77	54	43.03	32	10.66	33.46	208	46	A	H
	*	5530	104.1	-	-	94.9	32	10.67	33.47	208	46	P	H
802.11ac	*	5530	94.95	-	-	85.75	32	10.67	33.47	208	46	A	H
VHT80		5727.83	49.65	-18.55	68.2	40.03	32.31	10.83	33.52	208	46	P	H
CH 106		5458.24	63.75	-10.25	74	54.55	32	10.66	33.46	368	344	P	V
5530MHz		5470	65.14	-3.06	68.2	55.94	32	10.66	33.46	368	344	P	V
		5459.92	52.09	-1.91	54	42.89	32	10.66	33.46	368	344	A	V
	*	5530	104.97	-	-	95.77	32	10.67	33.47	368	344	P	V
	*	5530	96.1	-	-	86.9	32	10.67	33.47	368	344	A	V
		5758.07	49.42	-18.78	68.2	39.69	32.4	10.86	33.53	368	344	P	V
		5459.9	52.01	-21.99	74	42.81	32	10.66	33.46	227	40	P	H
		5465.85	55.19	-13.01	68.2	45.99	32	10.66	33.46	227	40	P	H
		5458.85	45.63	-8.37	54	36.43	32	10.66	33.46	227	40	A	H
	*	5610	106.25	-	-	97.03	32.02	10.69	33.49	227	40	P	H
802.11ac	*	5610	98	-	-	88.78	32.02	10.69	33.49	227	40	A	H
VHT80		5734.375	54.71	-13.49	68.2	45.06	32.34	10.83	33.52	227	40	P	H
CH 122		5459.9	52.7	-21.3	74	43.5	32	10.66	33.46	228	344	P	V
5610MHz		5467.95	53.16	-15.04	68.2	43.96	32	10.66	33.46	228	344	P	V
		5459.2	46.75	-7.25	54	37.55	32	10.66	33.46	228	344	A	V
	*	5610	108.3	-	-	99.08	32.02	10.69	33.49	228	344	P	V
	*	5610	100.15	-	-	90.93	32.02	10.69	33.49	228	344	A	V
		5736.65	56.91	-11.29	68.2	47.24	32.35	10.84	33.52	228	344	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11060	45.65	-28.35	74	49.83	40.06	17.33	61.57	-	-	P	H
		13369	45.72	-28.28	74	49.81	39.94	19.04	63.07	-	-	P	H
		14480	47.78	-26.22	74	49.63	41.3	19.88	63.03	-	-	P	H
		16590	52.76	-15.44	68.2	52.51	39.01	21.49	60.25	187	102	P	H
		17989	53.77	-20.23	74	40.97	46.62	22.81	56.63	-	-	P	H
		17989	43.38	-10.62	54	30.58	46.62	22.81	56.63	-	-	A	H
													H
													H
													H
													H
802.11ac													H
VHT80													H
CH 106		11060	45.59	-28.41	74	49.77	40.06	17.33	61.57	-	-	P	V
5530MHz		13347	45.64	-28.36	74	49.84	39.83	19.04	63.07	-	-	P	V
		14480	47.97	-26.03	74	49.82	41.3	19.88	63.03	-	-	P	V
		16590	51.58	-16.62	68.2	51.33	39.01	21.49	60.25	100	87	P	V
		17989	52.55	-21.45	74	39.75	46.62	22.81	56.63	-	-	P	V
		17989	43.86	-10.14	54	31.06	46.62	22.81	56.63	-	-	A	V
													V
													V
													V
													V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11220	47.35	-26.65	74	52.01	39.62	17.48	61.76	-	-	P	H
		13399	46.31	-27.69	74	50.25	40.09	19.05	63.08	-	-	P	H
		14491	48.69	-25.31	74	50.5	41.3	19.9	63.01	-	-	P	H
		16830	54.58	-13.62	68.2	52.53	39.97	21.66	59.58	198	302	P	H
		17989	53.67	-20.33	74	40.87	46.62	22.81	56.63	-	-	P	H
		17989	43.62	-10.38	54	30.82	46.62	22.81	56.63	-	-	A	H
													H
													H
													H
													H
802.11ac													H
VHT80													H
CH 122		11220	46.1	-27.9	74	50.76	39.62	17.48	61.76	-	-	P	V
5610MHz		13325	45.89	-28.11	74	50.2	39.72	19.03	63.06	-	-	P	V
		14471	47.31	-26.69	74	49.18	41.3	19.87	63.04	-	-	P	V
		16830	54.07	-14.13	68.2	52.02	39.97	21.66	59.58	197	63	P	V
		17989	54.38	-19.62	74	41.58	46.62	22.81	56.63	-	-	P	V
		17989	43.86	-10.14	54	31.06	46.62	22.81	56.63	-	-	A	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 3 - Straddle Channel

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 144 5720MHz		5437.36	48.82	-25.18	74	39.69	31.92	10.66	33.45	200	45	P	H
		5463.49	48.13	-20.07	68.2	38.93	32	10.66	33.46	200	45	P	H
		5425.27	39.55	-14.45	54	30.5	31.85	10.65	33.45	200	45	A	H
	*	5720	111.01	-	-	101.43	32.28	10.82	33.52	200	45	P	H
	*	5720	103.8	-	-	94.22	32.28	10.82	33.52	200	45	A	H
		5896.75	50.34	-17.86	68.2	40.21	32.69	11	33.56	200	45	P	H
		5393.68	48.18	-25.82	74	39.33	31.66	10.64	33.45	301	337	P	V
		5468.56	47.79	-20.41	68.2	38.59	32	10.66	33.46	301	337	P	V
		5435.02	39.55	-14.45	54	30.43	31.91	10.66	33.45	301	337	A	V
	*	5720	113.58	-	-	104	32.28	10.82	33.52	301	337	P	V
	*	5720	106.09	-	-	96.51	32.28	10.82	33.52	301	337	A	V
		5851.75	49.7	-18.5	68.2	39.78	32.51	10.96	33.55	301	337	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 144 5720MHz		11440	45.66	-28.34	74	50.1	39.9	17.69	62.03	-	-	P	H
		13380	45.86	-28.14	74	49.89	40	19.05	63.08	-	-	P	H
		14491	46.74	-27.26	74	48.55	41.3	19.9	63.01	-	-	P	H
		17160	49.19	-19.01	68.2	45.63	40.3	21.94	58.68	-	-	P	H
		18000	53.33	-20.67	74	40.31	46.8	22.82	56.6	-	-	P	H
		18000	43.47	-10.53	54	30.45	46.8	22.82	56.6	-	-	A	H
													H
													H
													H
													H
													H
													H
		11440	47.75	-26.25	74	52.19	39.9	17.69	62.03	-	-	P	V
		13358	45.98	-28.02	74	50.12	39.89	19.04	63.07	-	-	P	V
		14491	47.85	-26.15	74	49.66	41.3	19.9	63.01	-	-	P	V
		17160	49.6	-18.6	68.2	46.04	40.3	21.94	58.68	-	-	P	V
		17989	53.7	-20.3	74	40.9	46.62	22.81	56.63	-	-	P	V
		17989	43.83	-10.17	54	31.03	46.62	22.81	56.63	-	-	A	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 3 - Straddle Channel

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 144 5720MHz		5459.2	49.9	-24.1	74	40.7	32	10.66	33.46	212	39	P	H
		5464.66	47.82	-20.38	68.2	38.62	32	10.66	33.46	212	39	P	H
		5449.06	39.86	-14.14	54	30.67	31.99	10.66	33.46	212	39	A	H
	*	5720	111.78	-	-	102.2	32.28	10.82	33.52	212	39	P	H
	*	5720	104.13	-	-	94.55	32.28	10.82	33.52	212	39	A	H
		5893.5	50	-18.2	68.2	39.9	32.67	10.99	33.56	212	39	P	H
		5399.14	48.32	-25.68	74	39.43	31.69	10.65	33.45	233	343	P	V
		5469.73	49.15	-19.05	68.2	39.95	32	10.66	33.46	233	343	P	V
		5458.81	39.98	-14.02	54	30.78	32	10.66	33.46	233	343	A	V
	*	5720	113.93	-	-	104.35	32.28	10.82	33.52	233	343	P	V
	*	5720	106.12	-	-	96.54	32.28	10.82	33.52	233	343	A	V
		5906.75	49.76	-18.44	68.2	39.61	32.71	11.01	33.57	233	343	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11440	46.19	-27.81	74	50.63	39.9	17.69	62.03	-	-	P	H
		13314	46.7	-27.3	74	51.06	39.67	19.03	63.06	-	-	P	H
		14491	46.74	-27.26	74	48.55	41.3	19.9	63.01	-	-	P	H
		17160	51.93	-16.27	68.2	48.37	40.3	21.94	58.68	-	-	P	H
		17989	53.03	-20.97	74	40.23	46.62	22.81	56.63	-	-	P	H
		17989	42.84	-11.16	54	30.04	46.62	22.81	56.63	-	-	A	H
													H
													H
													H
													H
802.11n													H
HT20													H
CH 144		11440	46.63	-27.37	74	51.07	39.9	17.69	62.03	-	-	P	V
5720MHz		13380	46.27	-27.73	74	50.3	40	19.05	63.08	-	-	P	V
		14491	47.13	-26.87	74	48.94	41.3	19.9	63.01	-	-	P	V
		17160	50.42	-17.78	68.2	46.86	40.3	21.94	58.68	-	-	P	V
		18000	53.57	-20.43	74	40.55	46.8	22.82	56.6	-	-	P	V
		18000	43.53	-10.47	54	30.51	46.8	22.82	56.6	-	-	A	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 3 - Straddle Channel

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 142 5710MHz		5449.45	50.9	-23.1	74	41.7	32	10.66	33.46	216	43	P	H
		5465.05	48.52	-19.68	68.2	39.32	32	10.66	33.46	216	43	P	H
		5458.03	39.55	-14.45	54	30.35	32	10.66	33.46	216	43	A	H
	*	5710	110.87	-	-	101.33	32.24	10.81	33.51	216	43	P	H
	*	5710	102.48	-	-	92.94	32.24	10.81	33.51	216	43	A	H
		5878	51.08	-17.12	68.2	41.05	32.61	10.98	33.56	216	43	P	H
		5457.25	48.89	-25.11	74	39.69	32	10.66	33.46	219	340	P	V
		5460.37	50.63	-17.57	68.2	41.43	32	10.66	33.46	219	340	P	V
		5456.86	39.47	-14.53	54	30.27	32	10.66	33.46	219	340	A	V
	*	5710	111.83	-	-	102.29	32.24	10.81	33.51	219	340	P	V
	*	5710	104.03	-	-	94.49	32.24	10.81	33.51	219	340	A	V
		5899.25	52.83	-15.37	68.2	42.69	32.7	11	33.56	219	340	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11420	45.5	-28.5	74	49.93	39.9	17.67	62	-	-	P	H
		13380	45.9	-28.1	74	49.93	40	19.05	63.08	-	-	P	H
		14491	46.76	-27.24	74	48.57	41.3	19.9	63.01	-	-	P	H
		17130	49.81	-18.39	68.2	46.36	40.3	21.91	58.76	-	-	P	H
		17989	53.03	-20.97	74	40.23	46.62	22.81	56.63	-	-	P	H
		17989	43.45	-10.55	54	30.65	46.62	22.81	56.63	-	-	A	H
													H
													H
													H
													H
802.11n													H
HT40													H
CH 142		11420	46.6	-27.4	74	51.03	39.9	17.67	62	-	-	P	V
5710MHz		13314	46.91	-27.09	74	51.27	39.67	19.03	63.06	-	-	P	V
		14491	46.59	-27.41	74	48.4	41.3	19.9	63.01	-	-	P	V
		17130	48.06	-20.14	68.2	44.61	40.3	21.91	58.76	-	-	P	V
		17989	53.39	-20.61	74	40.59	46.62	22.81	56.63	-	-	P	V
		17989	43.75	-10.25	54	30.95	46.62	22.81	56.63	-	-	A	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 138 5690MHz		5427.22	48.24	-25.76	74	39.18	31.86	10.65	33.45	219	40	P	H
		5470	48.35	-19.85	68.2	39.15	32	10.66	33.46	219	40	P	H
		5408.5	41.88	-12.12	54	32.93	31.75	10.65	33.45	219	40	A	H
	*	5690	105.16	-	-	95.71	32.18	10.78	33.51	219	40	P	H
	*	5690	98.47	-	-	89.02	32.18	10.78	33.51	219	40	A	H
		5863.6	50.97	-17.23	68.2	41	32.55	10.97	33.55	219	40	P	H
		5430.34	49.7	-24.3	74	40.62	31.88	10.65	33.45	250	342	P	V
		5468.17	48.87	-19.33	68.2	39.67	32	10.66	33.46	250	342	P	V
		5430.73	42.55	-11.45	54	33.47	31.88	10.65	33.45	250	342	A	V
	*	5690	108.03	-	-	98.58	32.18	10.78	33.51	250	342	P	V
	*	5690	100.34	-	-	90.89	32.18	10.78	33.51	250	342	A	V
		5858.8	52.85	-15.35	68.2	42.9	32.54	10.96	33.55	250	342	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11380	45.65	-28.35	74	50.12	39.86	17.63	61.96	-	-	P	H
		13303	46.15	-27.85	74	50.58	39.61	19.02	63.06	-	-	P	H
		14471	47.62	-26.38	74	49.49	41.3	19.87	63.04	-	-	P	H
		17070	55.5	-12.7	68.2	52.33	40.24	21.85	58.92	200	309	P	H
		17989	53.37	-20.63	74	40.57	46.62	22.81	56.63	-	-	P	H
		17989	43.38	-10.62	54	30.58	46.62	22.81	56.63	-	-	A	H
													H
													H
													H
													H
802.11ac													H
VHT80													H
CH 138		11380	45.33	-28.67	74	49.8	39.86	17.63	61.96	-	-	P	V
5690MHz		13391	45.74	-28.26	74	49.71	40.06	19.05	63.08	-	-	P	V
		14471	47.25	-26.75	74	49.12	41.3	19.87	63.04	-	-	P	V
		17070	53.73	-14.47	68.2	50.56	40.24	21.85	58.92	206	69	P	V
		17989	52.48	-21.52	74	39.68	46.62	22.81	56.63	-	-	P	V
		17989	43.86	-10.14	54	31.06	46.62	22.81	56.63	-	-	A	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against Peak and Average limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.
4. The emission level close to 18GHz is checked that the average emission level is noise floor only.

Emission above 18GHz

5GHz WIFI 802.11ac VHT80 (SHF@ 1m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		39300	46.53	-27.47	74	58.9	44.54	-0.49	56.42	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
5GHz													H
802.11ac													H
VHT80		39510	47.55	-26.45	74	59.61	44.69	-0.46	56.29	-	-	P	V
SHF													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against limit line.
3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.

Emission below 1GHz

5GHz WIFI 802.11ac VHT80 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		63.95	23.42	-16.58	40	42.86	11.81	1.21	32.46	-	-	P	H
		126.03	24.88	-18.62	43.5	38.25	17.34	1.71	32.42	-	-	P	H
		180.35	24.23	-19.27	43.5	40	14.7	2.03	32.5	-	-	P	H
		824.43	28.52	-17.48	46	27.82	28	4.32	31.62	-	-	P	H
		877.78	30.14	-15.86	46	28.04	28.97	4.48	31.35	-	-	P	H
		950.53	30.37	-15.63	46	26.16	30.43	4.67	30.89	-	-	P	H
													H
													H
													H
													H
5GHz													H
802.11ac													H
VHT80		40.67	30.79	-9.21	40	43.34	18.89	0.99	32.43	100	343	Q	V
LF		64.92	30.23	-9.77	40	49.66	11.81	1.22	32.46	-	-	P	V
		86.26	25.81	-14.19	40	42.97	13.86	1.39	32.41	-	-	P	V
		175.5	28.76	-14.74	43.5	44.24	15.01	2	32.49	-	-	P	V
		839.95	29.69	-16.31	46	28.17	28.69	4.37	31.54	-	-	P	V
		897.18	30.36	-15.64	46	28.22	28.84	4.54	31.24	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against limit line.
3. The emission position marked as “-” means no suspected emission found and emission level has at least 6dB margin against limit or emission is noise floor only.

Note symbol

*	**Fundamental Frequency** which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is **over limit** line.
P/A	**P**eak or **A**verage
H/V	**H**orizontal or **V**ertical

A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5150	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		5150	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Path Loss(dB) = Cable loss(dB) + Filter loss(dB) + Attenuator loss(dB)
2. Level(dBμV/m) = Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
3. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 5150MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 5150MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Path Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)

= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)

= 43.54 (dBμV/m)

2. Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

Both peak and average measured complies with the limit line, so test result is “PASS”.