

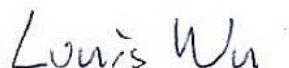


FCC RADIO TEST REPORT

FCC ID : UZ7TC15BK
Equipment : Touch computer
Brand Name : Zebra
Model Name : TC15BK
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 Mar. 02, 2022 to Mar. 23, 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.



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)



Table of Contents

History of this test report.....	3
Summary of Test Result.....	4
1 General Description	5
1.1 Product Feature of Equipment Under Test.....	5
1.2 Product Specification of Equipment Under Test.....	6
1.3 Modification of EUT	6
1.4 Testing Location	7
1.5 Applicable Standards.....	7
2 Test Configuration of Equipment Under Test	8
2.1 Carrier Frequency and Channel	8
2.2 Test Mode.....	9
2.3 Connection Diagram of Test System.....	13
2.4 Support Unit used in test configuration and system	14
2.5 EUT Operation Test Setup	14
2.6 Measurement Results Explanation Example.....	14
3 Test Result	15
3.1 26dB & 99% Occupied Bandwidth Measurement	15
3.2 Maximum Conducted Output Power Measurement	20
3.3 Power Spectral Density Measurement	25
3.4 Unwanted Emissions Measurement.....	29
3.5 AC Conducted Emission Measurement.....	34
3.6 Antenna Requirements.....	36
4 List of Measuring Equipment.....	37
5 Uncertainty of Evaluation	39
Appendix A. AC Conducted Emission Test Result	
Appendix B. Radiated Spurious Emission	
Appendix C. Radiated Spurious Emission Plots	
Appendix D. Duty Cycle Plots	
Appendix E. Setup Photographs	



History of this test report

Report No.	Version	Description	Issue Date
FR1N2513E	01	Initial issue of report	Mar. 31, 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	1.32 dB under the limit at 5350.800 MHz
3.5	15.207	AC Conducted Emission	Pass	12.03 dB under the limit at 0.438 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: Keven Cheng

Report Producer: Lucy Wu



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Touch computer
Brand Name	Zebra
Model Name	TC15BK
FCC ID	UZ7TC15BK
Sample 1	Scanner(SE4710)
Sample 2	Scanner(SE4100)
EUT supports Radios application	GSM/EGPRS/WCDMA/HSPA/LTE/5G NR/NFC/GNSS WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE
HW Version	EV2.4
SW Version	Groot-userdebug11 11-06-29.00-RG-U000-PRD-GRT FX3
MFD	26JAN22
EUT Stage	Identical Prototype

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

Specification of Accessories				
AC Adapter	Brand Name	Zebra	Part Number	PWR-WUA5V12W0US
Battery 1	Brand Name	Zebra	Model Number	BT-000454
			Part Number	BT-000454-20
Battery 2	Brand Name	Zebra	Model Number	BT-000454
			Part Number	BT-000454-70
Earphone	Brand Name	Zebra	Part Number	HDST-35MM-PTVP-01
USB Cable (Type C to Type A)	Brand Name	Zebra	Part Number	CBL-TC5X-USBC2A-01
Type C-Audio Cable (Type C to 3.5mm)	Brand Name	Zebra	Part Number	ADP-USBC-35MM1-01

1.2 Product Specification of Equipment Under Test

Product Specification is subject to this standard	
Tx/Rx Channel Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5700 MHz
Maximum Output Power to Antenna	<5180 MHz ~ 5240 MHz> 802.11a: 17.80 dBm / 0.0603 W 802.11n HT20: 17.90 dBm / 0.0617 W 802.11n HT40: 17.30 dBm / 0.0537 W 802.11ac VHT20: 17.80 dBm / 0.0603 W 802.11ac VHT40: 17.20 dBm / 0.0525 W 802.11ac VHT80: 14.10 dBm / 0.0257 W <5260 MHz ~ 5320 MHz> 802.11a: 17.90 dBm / 0.0617 W 802.11n HT20: 17.90 dBm / 0.0617 W 802.11n HT40: 16.90 dBm / 0.0490 W 802.11ac VHT20: 17.80 dBm / 0.0603 W 802.11ac VHT40: 16.80 dBm / 0.0479 W 802.11ac VHT80: 14.70 dBm / 0.0295 W <5500 MHz ~ 5700 MHz> 802.11a: 17.90 dBm / 0.0617 W 802.11n HT20: 17.90 dBm / 0.0617 W 802.11n HT40: 17.40 dBm / 0.0550 W 802.11ac VHT20: 17.80 dBm / 0.0603 W 802.11ac VHT40: 17.30 dBm / 0.0537 W 802.11ac VHT80: 16.70 dBm / 0.0468 W
99% Occupied Bandwidth	802.11a: 17.23 MHz 802.11n HT20: 18.23 MHz 802.11n HT40: 36.76 MHz 802.11ac VHT80: 75.76 MHz
Antenna Type / Gain	<5180 MHz ~ 5240 MHz> : PIFA Antenna with gain -1.07 dBi <5260 MHz ~ 5320 MHz> : PIFA Antenna with gain -1.07 dBi <5500 MHz ~ 5700 MHz> : PIFA Antenna with gain -1.39 dBi
Type of Modulation	802.11a/n : OFDM (BPSK/QPSK/16QAM/64QAM) 802.11ac : OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)

Remark:

- For other wireless features of this EUT, test report will be issued separately.
- The EUT's information above is 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. 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, 03CH16-HY, CO07-HY

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

FCC designation No.: 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

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

Test Cases	
AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + MPEG4 + USB Cable (Charging from AC Adapter) + Battery 1 for Sample 1
Remark: For Radiated Test Cases, the tests were performed with Battery 1	

<Sample 1>

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

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

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

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

<Sample 2>

Ch. #		Band II : 5250-5350 MHz
		802.11n HT40
L	Low	-
M	Middle	-
H	High	62

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



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
Duty Cycle (%)		98.08		97.30	96.50	94.90	93.30	90.70	88.20	87.00
CH 036	5180	17.80	CH 036	17.70	17.70	17.70	17.60	17.50	17.40	17.40
CH 044	5220	17.70								
CH 048	5240	17.70								
CH 052	5260	17.90	CH 052	17.80	17.80	17.80	17.50	17.40	17.30	17.30
CH 060	5300	17.80								
CH 064	5320	17.70								
CH 100	5500	17.80	CH 116	17.80	17.80	17.80	17.80	17.70	17.60	17.60
CH 116	5580	17.90								
CH 140	5700	17.70								

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
Duty Cycle (%)		97.93		96.30	94.60	93.00	90.50	88.00	87.00	86.00
CH 036	5180	17.90	CH 036							
CH 044	5220	17.80		17.80	17.80	17.80	17.70	17.60	17.60	17.50
CH 048	5240	17.60								
CH 052	5260	17.80	CH 060							
CH 060	5300	17.90		17.80	17.80	17.80	17.70	17.60	17.60	17.50
CH 064	5320	17.90								
CH 100	5500	17.90	CH 100							
CH 116	5580	17.80		17.80	17.80	17.70	17.70	17.60	17.60	17.50
CH 140	5700	17.90								

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
Duty Cycle (%)		95.88		93.00	90.20	87.70	83.80	80.20	78.80	77.80
CH 038	5190	16.90	CH 046	17.20	17.10	17.10	17.10	17.10	17.00	17.00
CH 046	5230	17.30								
CH 054	5270	16.90	CH 054	16.80	16.70	16.70	16.60	16.60	16.50	16.50
CH 062	5310	15.30								
CH 102	5510	17.00	CH 110	17.30	17.30	17.30	17.20	17.20	17.20	17.10
CH 110	5550	17.40								
CH 134	5670	17.20								

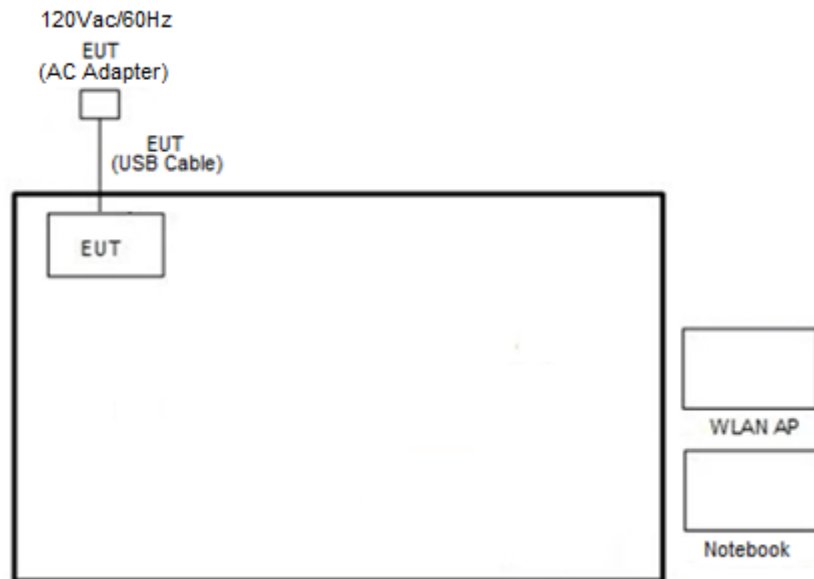
802.11ac VHT20 RF Output Power (dBm)		
Power vs. Channel		
Channel	Frequency (MHz)	MCS Index
Duty Cycle (%)		MCS0
		98.20
CH 036	5180	17.80
CH 044	5220	17.70
CH 048	5240	17.50
CH 052	5260	17.70
CH 060	5300	17.80
CH 064	5320	17.80
CH 100	5500	17.80
CH 116	5580	17.70
CH 140	5700	17.80

802.11ac VHT40 RF Output Power (dBm)		
Power vs. Channel		
Channel	Frequency (MHz)	MCS Index
Duty Cycle (%)		MCS0
		96.50
CH 038	5190	16.80
CH 046	5230	17.20
CH 054	5270	16.80
CH 062	5310	15.20
CH 102	5510	16.90
CH 110	5550	17.30
CH 134	5670	17.10

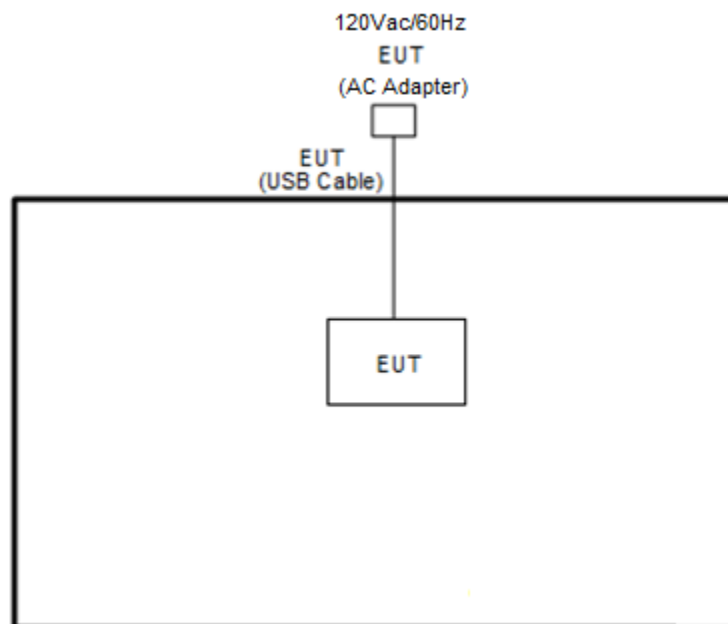
802.11ac VHT80 RF Output Power (dBm)											
Power vs. Channel			Power vs Data Rate								
Channel	Frequency (MHz)	MCS Index	MCS Index								
		MCS0	Channel	MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
Duty Cycle (%)		92.68		87.20	83.20	79.80	75.40	71.60	70.70	69.70	67.50
CH 042	5210	14.10	CH 042	14.00	14.00	13.90	13.90	13.90	13.80	13.80	13.80
CH 058	5290	14.70	CH 058	14.60	14.60	14.50	14.50	14.50	14.50	14.50	14.40
CH 106	5530	14.30	CH 122	16.60	16.60	16.50	16.50	16.50	16.50	16.40	16.40
CH 122	5610	16.70									

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.	WLAN AP	ASUS	RT-AC52	N/A	N/A	Unshielded, 1.8 m
2.	Notebook	DELL	P79G	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2.5 EUT Operation Test Setup

The RF test items, utility "QRCT Version 4.0.00194.0" 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.

$$\begin{aligned}\text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)} \\ &= 4.2 + 10 = 14.2 \text{ (dB)}\end{aligned}$$

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.

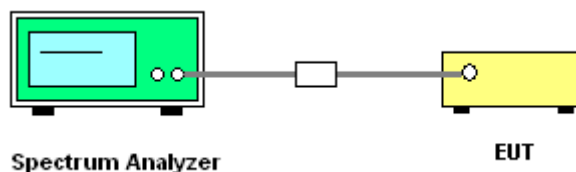
3.1.2 Measuring Instruments

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) $\geq 3 * RBW$.
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 :	Hank Hsu and Junyu Jhou	Temperature :	21~25°C
		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 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2	
11a	6Mbps	1	36	5180	17.08	-	26.65	-	-	-	22.33	-	-
11a	6Mbps	1	44	5220	17.13	-	27.85	-	-	-	22.34	-	
11a	6Mbps	1	48	5240	17.13	-	27.50	-	-	-	22.34	-	
HT20	MCS0	1	36	5180	18.23	-	27.65	-	-	-	22.61	-	
HT20	MCS0	1	44	5220	18.18	-	27.75	-	-	-	22.60	-	
HT20	MCS0	1	48	5240	18.23	-	28.45	-	-	-	22.61	-	
HT40	MCS0	1	38	5190	36.66	-	41.58	-	-	-	23.01	-	
HT40	MCS0	1	46	5230	36.66	-	41.85	-	-	-	23.01	-	
VHT80	MCS0	1	42	5210	75.64	-	84.48	-	-	-	23.01	-	

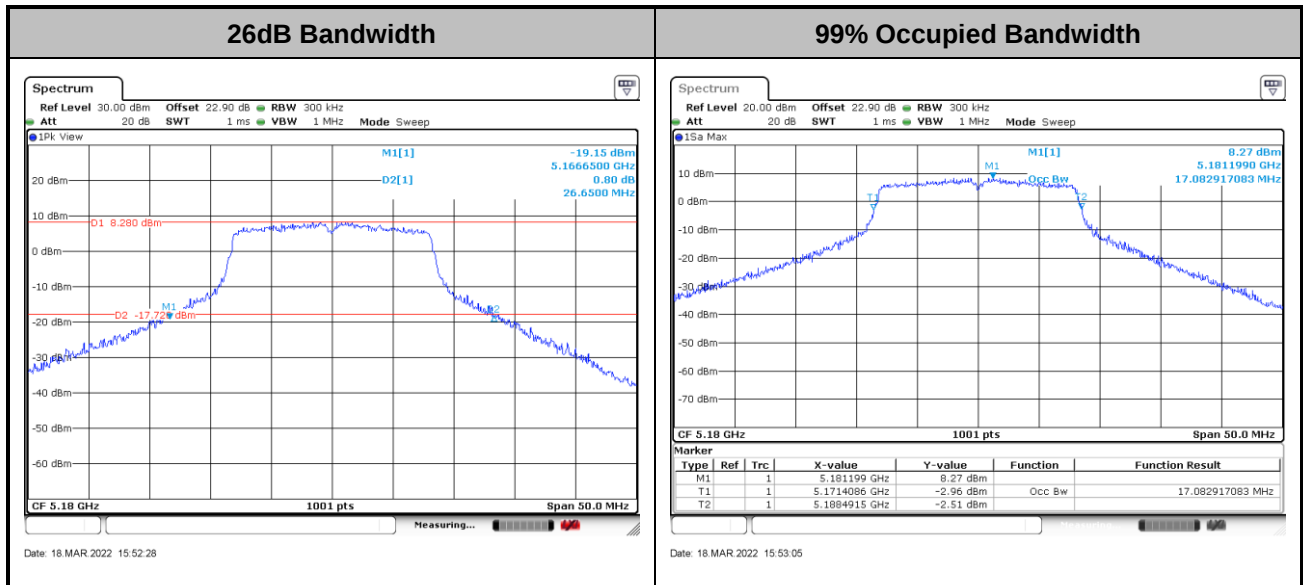
Band II single antenna														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)	
					Ant 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2
11a	6Mbps	1	52	5260	17.18	-	27.30	-	23.35	-	29.35	-	23.98	-
11a	6Mbps	1	60	5300	17.08	-	27.15	-	23.32	-	29.32	-	23.98	-
11a	6Mbps	1	64	5320	17.03	-	27.55	-	23.31	-	29.31	-	23.98	-
HT20	MCS0	1	52	5260	18.23	-	27.60	-	23.61	-	29.61	-	23.98	-
HT20	MCS0	1	60	5300	18.23	-	27.85	-	23.61	-	29.61	-	23.98	-
HT20	MCS0	1	64	5320	18.23	-	28.65	-	23.61	-	29.61	-	23.98	-
HT40	MCS0	1	54	5270	36.66	-	41.58	-	23.98	-	30.00	-	23.98	-
HT40	MCS0	1	62	5310	36.46	-	41.49	-	23.98	-	30.00	-	23.98	-
VHT80	MCS0	1	58	5290	75.76	-	84.48	-	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 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2	Ant 7	Ant 2
11a	6Mbps	1	100	5500	17.03	-	26.60	-	23.31	-	29.31	-	23.98	-	----	----
11a	6Mbps	1	116	5580	17.23	-	27.85	-	23.36	-	29.36	-	23.98	-	----	----
11a	6Mbps	1	140	5700	17.03	-	26.80	-	23.31	-	29.31	-	23.98	-	----	----
HT20	MCS0	1	100	5500	18.18	-	26.85	-	23.60	-	29.60	-	23.98	-	----	----
HT20	MCS0	1	116	5580	18.18	-	27.00	-	23.60	-	29.60	-	23.98	-	----	----
HT20	MCS0	1	140	5700	18.23	-	27.30	-	23.61	-	29.61	-	23.98	-	----	----
HT40	MCS0	1	102	5510	36.76	-	41.58	-	23.98	-	30.00	-	23.98	-	----	----
HT40	MCS0	1	110	5550	36.66	-	41.31	-	23.98	-	30.00	-	23.98	-	----	----
HT40	MCS0	1	134	5670	36.66	-	41.58	-	23.98	-	30.00	-	23.98	-	----	----
VHT80	MCS0	1	106	5530	75.64	-	84.32	-	23.98	-	30.00	-	23.98	-	----	----
VHT80	MCS0	1	122	5610	75.64	-	85.44	-	23.98	-	30.00	-	23.98	-	----	----

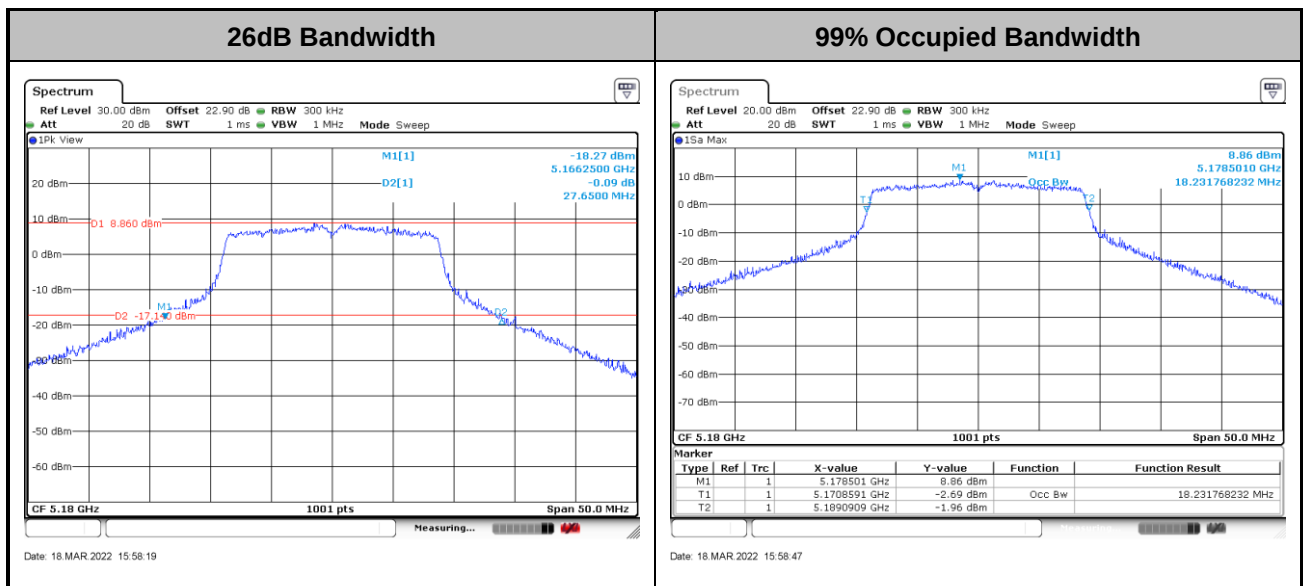


<802.11a>



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

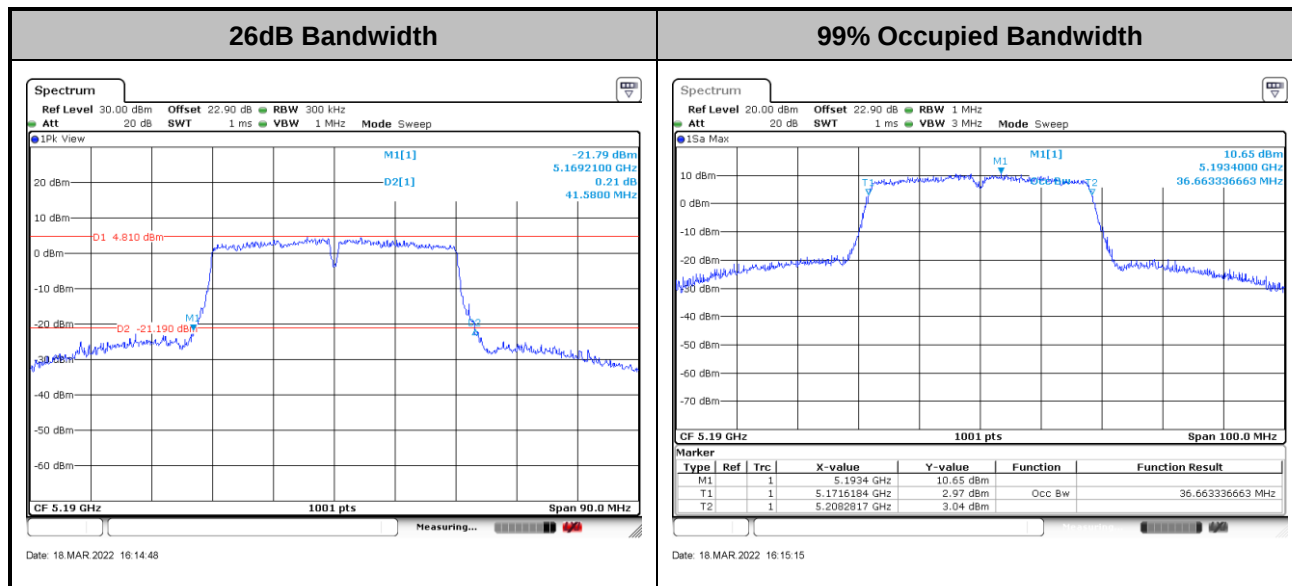
<802.11n HT20>



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

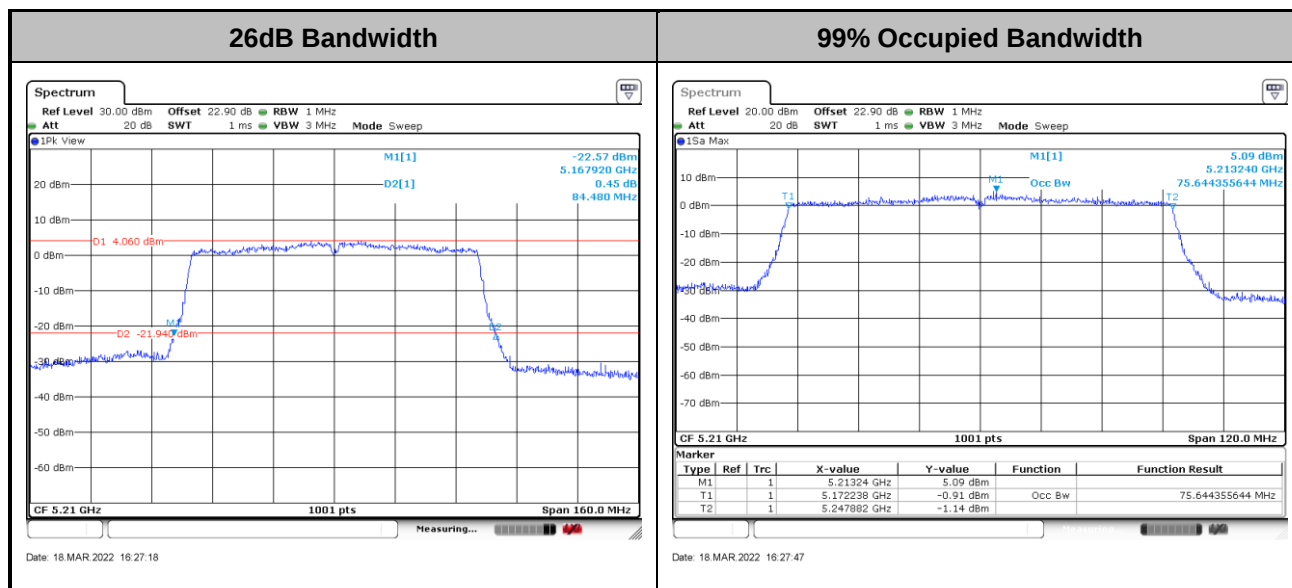


<802.11n HT40>



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

<802.11ac VHT80>



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.

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.

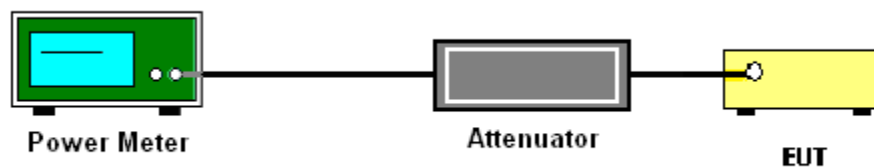
3.2.3 Test Procedures

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.

3.2.4 Test Setup





3.2.5 Test Result of Maximum Conducted Output Power

Test Engineer :	Hank Hsu and Junyu Jhou	Temperature :	21~25°C
		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 7	Ant 2	SUM	Ant 7	Ant 2	Ant 7	Ant 2	
11a	6Mbps	1	36	5180	17.80	-		24.00	-	-1.07	-	Pass
11a	6Mbps	1	44	5220	17.70	-		24.00	-	-1.07	-	Pass
11a	6Mbps	1	48	5240	17.70	-		24.00	-	-1.07	-	Pass
HT20	MCS0	1	36	5180	17.90	-		24.00	-	-1.07	-	Pass
HT20	MCS0	1	44	5220	17.80	-		24.00	-	-1.07	-	Pass
HT20	MCS0	1	48	5240	17.60	-		24.00	-	-1.07	-	Pass
HT40	MCS0	1	38	5190	16.90	-		24.00	-	-1.07	-	Pass
HT40	MCS0	1	46	5230	17.30	-		24.00	-	-1.07	-	Pass
VHT20	MCS0	1	36	5180	17.80	-		24.00	-	-1.07	-	Pass
VHT20	MCS0	1	44	5220	17.70	-		24.00	-	-1.07	-	Pass
VHT20	MCS0	1	48	5240	17.50	-		24.00	-	-1.07	-	Pass
VHT40	MCS0	1	38	5190	16.80	-		24.00	-	-1.07	-	Pass
VHT40	MCS0	1	46	5230	17.20	-		24.00	-	-1.07	-	Pass
VHT80	MCS0	1	42	5210	14.10	-		24.00	-	-1.07	-	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 7	Ant 2	SUM	Ant 7	Ant 2	Ant 7	Ant 2		
11a	6Mbps	1	52	5260	17.90	-	-	23.98	-	-1.07	-	30	Pass
11a	6Mbps	1	60	5300	17.80	-		23.98	-	-1.07	-	30	Pass
11a	6Mbps	1	64	5320	17.70	-		23.98	-	-1.07	-	30	Pass
HT20	MCS0	1	52	5260	17.80	-		23.98	-	-1.07	-	30	Pass
HT20	MCS0	1	60	5300	17.90	-		23.98	-	-1.07	-	30	Pass
HT20	MCS0	1	64	5320	17.90	-		23.98	-	-1.07	-	30	Pass
HT40	MCS0	1	54	5270	16.90	-		23.98	-	-1.07	-	30	Pass
HT40	MCS0	1	62	5310	15.30	-		23.98	-	-1.07	-	30	Pass
VHT20	MCS0	1	52	5260	17.70	-		23.98	-	-1.07	-	30	Pass
VHT20	MCS0	1	60	5300	17.80	-		23.98	-	-1.07	-	30	Pass
VHT20	MCS0	1	64	5320	17.80	-		23.98	-	-1.07	-	30	Pass
VHT40	MCS0	1	54	5270	16.80	-		23.98	-	-1.07	-	30	Pass
VHT40	MCS0	1	62	5310	15.20	-		23.98	-	-1.07	-	30	Pass
VHT80	MCS0	1	58	5290	14.70	-		23.98	-	-1.07	-	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 7	Ant 2	SUM	Ant 7	Ant 2	Ant 7	Ant 2		
11a	6Mbps	1	100	5500	17.80	-	-	23.98	-	-1.39	-	30	Pass
11a	6Mbps	1	116	5580	17.90	-		23.98	-	-1.39	-	30	Pass
11a	6Mbps	1	140	5700	17.70	-		23.98	-	-1.39	-	30	Pass
HT20	MCS0	1	100	5500	17.90	-		23.98	-	-1.39	-	30	Pass
HT20	MCS0	1	116	5580	17.80	-		23.98	-	-1.39	-	30	Pass
HT20	MCS0	1	140	5700	17.90	-		23.98	-	-1.39	-	30	Pass
HT40	MCS0	1	102	5510	17.00	-		23.98	-	-1.39	-	30	Pass
HT40	MCS0	1	110	5550	17.40	-		23.98	-	-1.39	-	30	Pass
HT40	MCS0	1	134	5670	17.20	-		23.98	-	-1.39	-	30	Pass
VHT20	MCS0	1	100	5500	17.80	-		23.98	-	-1.39	-	30	Pass
VHT20	MCS0	1	116	5580	17.70	-		23.98	-	-1.39	-	30	Pass
VHT20	MCS0	1	140	5700	17.80	-		23.98	-	-1.39	-	30	Pass
VHT40	MCS0	1	102	5510	16.90	-		23.98	-	-1.39	-	30	Pass
VHT40	MCS0	1	110	5550	17.30	-		23.98	-	-1.39	-	30	Pass
VHT40	MCS0	1	134	5670	17.10	-		23.98	-	-1.39	-	30	Pass
VHT80	MCS0	1	106	5530	14.30	-		23.98	-	-1.39	-	30	Pass
VHT80	MCS0	1	122	5610	16.70	-		23.98	-	-1.39	-	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.

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.

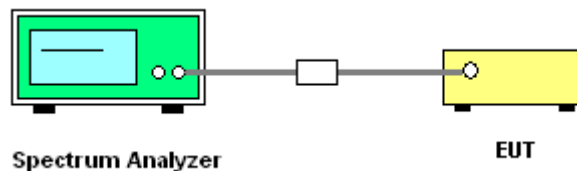
Section F) Maximum power spectral density.

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 $\geq$ 3 MHz.
 - Number of points in sweep $\geq$ 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





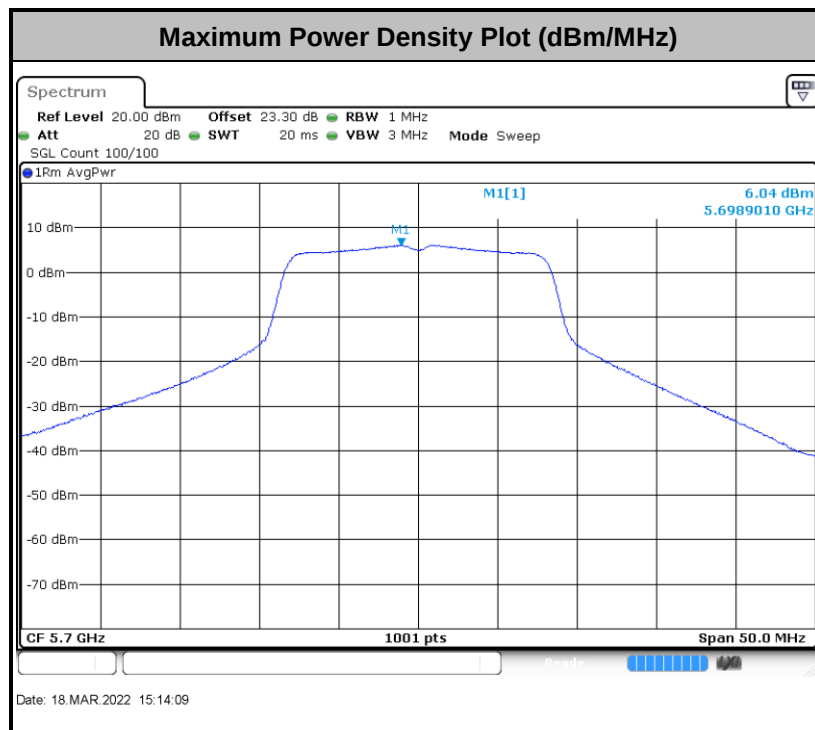
3.3.5 Test Result of Power Spectral Density

Test Engineer :	Hank Hsu and Junyu Jhou	Temperature :	21~25°C
		Relative Humidity :	51~54%

FCC Band I 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 7	Ant 2	SUM	Ant 7	Ant 2	Ant 7	Ant 2		
11a	6Mbps	1	36	5180	5.65	-	-	11.00	-	-1.07	-	-	Pass
11a	6Mbps	1	44	5220	6.04	-		11.00	-	-1.07	-		Pass
11a	6Mbps	1	48	5240	6.07	-		11.00	-	-1.07	-		Pass
HT20	MCS0	1	36	5180	5.72	-		11.00	-	-1.07	-		Pass
HT20	MCS0	1	44	5220	5.67	-		11.00	-	-1.07	-		Pass
HT20	MCS0	1	48	5240	5.66	-		11.00	-	-1.07	-		Pass
HT40	MCS0	1	38	5190	1.79	-		11.00	-	-1.07	-		Pass
HT40	MCS0	1	46	5230	2.22	-		11.00	-	-1.07	-		Pass
VHT80	MCS0	1	42	5210	-4.90	-		11.00	-	-1.07	-		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 7	Ant 2	SUM	Ant 7	Ant 2	Ant 7	Ant 2		
11a	6Mbps	1	52	5260	5.91	-	-	11.00	-	-1.07	-	-	Pass
11a	6Mbps	1	60	5300	5.83	-		11.00	-	-1.07	-		Pass
11a	6Mbps	1	64	5320	5.67	-		11.00	-	-1.07	-		Pass
HT20	MCS0	1	52	5260	5.54	-		11.00	-	-1.07	-		Pass
HT20	MCS0	1	60	5300	5.82	-		11.00	-	-1.07	-		Pass
HT20	MCS0	1	64	5320	5.71	-		11.00	-	-1.07	-		Pass
HT40	MCS0	1	54	5270	2.04	-		11.00	-	-1.07	-		Pass
HT40	MCS0	1	62	5310	0.40	-		11.00	-	-1.07	-		Pass
VHT80	MCS0	1	58	5290	-3.42	-		11.00	-	-1.07	-		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 7	Ant 2	SUM	Ant 7	Ant 2	Ant 7	Ant 2	
11a	6Mbps	1	100	5500	5.74	-	-	11.00	-	-1.39	-	Pass
11a	6Mbps	1	116	5580	6.11	-		11.00	-	-1.39	-	Pass
11a	6Mbps	1	140	5700	6.12	-		11.00	-	-1.39	-	Pass
HT20	MCS0	1	100	5500	5.61	-		11.00	-	-1.39	-	Pass
HT20	MCS0	1	116	5580	5.67	-		11.00	-	-1.39	-	Pass
HT20	MCS0	1	140	5700	6.11	-		11.00	-	-1.39	-	Pass
HT40	MCS0	1	102	5510	1.87	-		11.00	-	-1.39	-	Pass
HT40	MCS0	1	110	5550	2.14	-		11.00	-	-1.39	-	Pass
HT40	MCS0	1	134	5670	2.12	-		11.00	-	-1.39	-	Pass
VHT80	MCS0	1	106	5530	-3.77	-		11.00	-	-1.39	-	Pass
VHT80	MCS0	1	122	5610	-0.96	-		11.00	-	-1.39	-	Pass



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.

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



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 $\geq$ 3 MHz
- Detector = Peak
- Sweep time = auto
- Trace mode = max hold

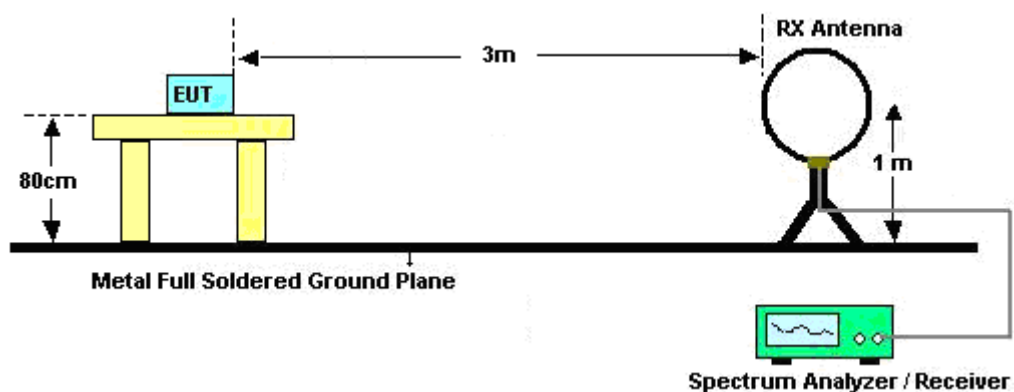
(3) Procedures for Average Unwanted Emissions Measurements Above 1000 MHz

- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- VBW $\geq$ 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.

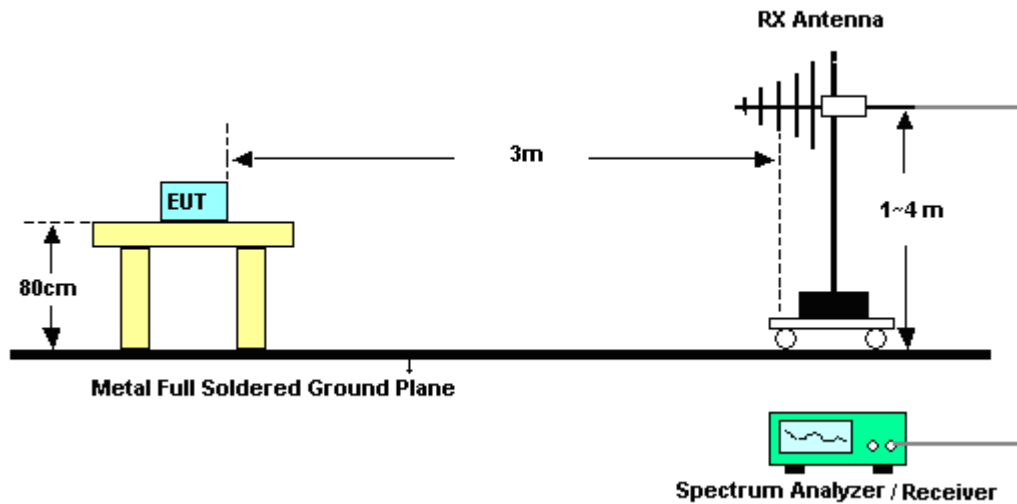
2. The EUT is placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
3. The EUT is set 3 meters away from the receiving antenna which is mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna 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

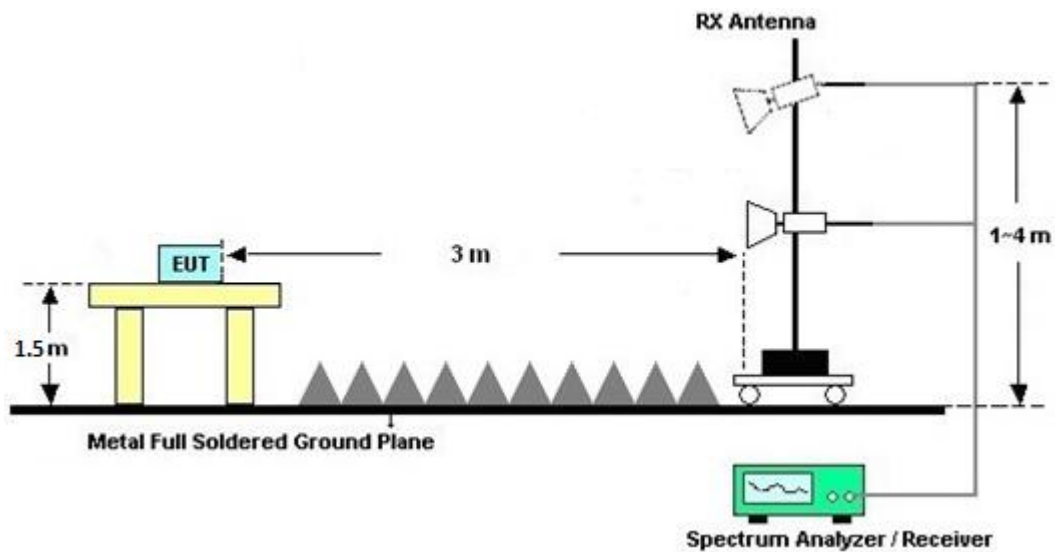
For radiated emissions below 30MHz



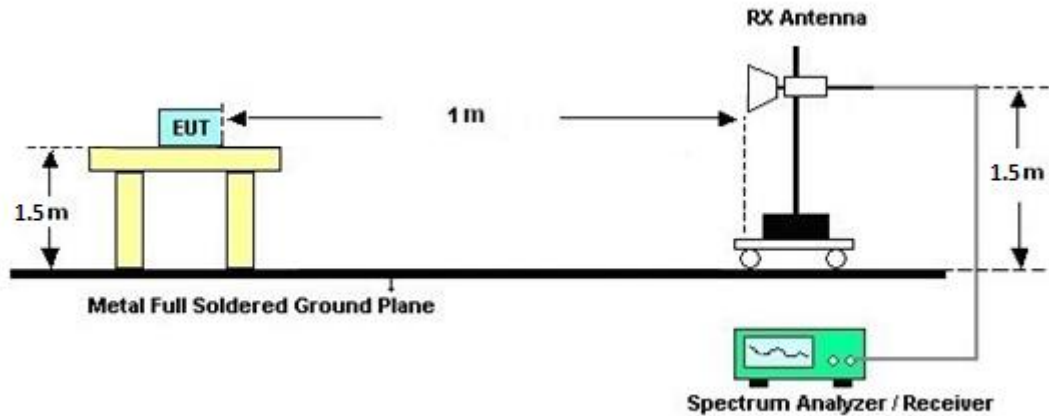
For radiated emissions from 30MHz to 1GHz



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 (dB μ V)	
	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.

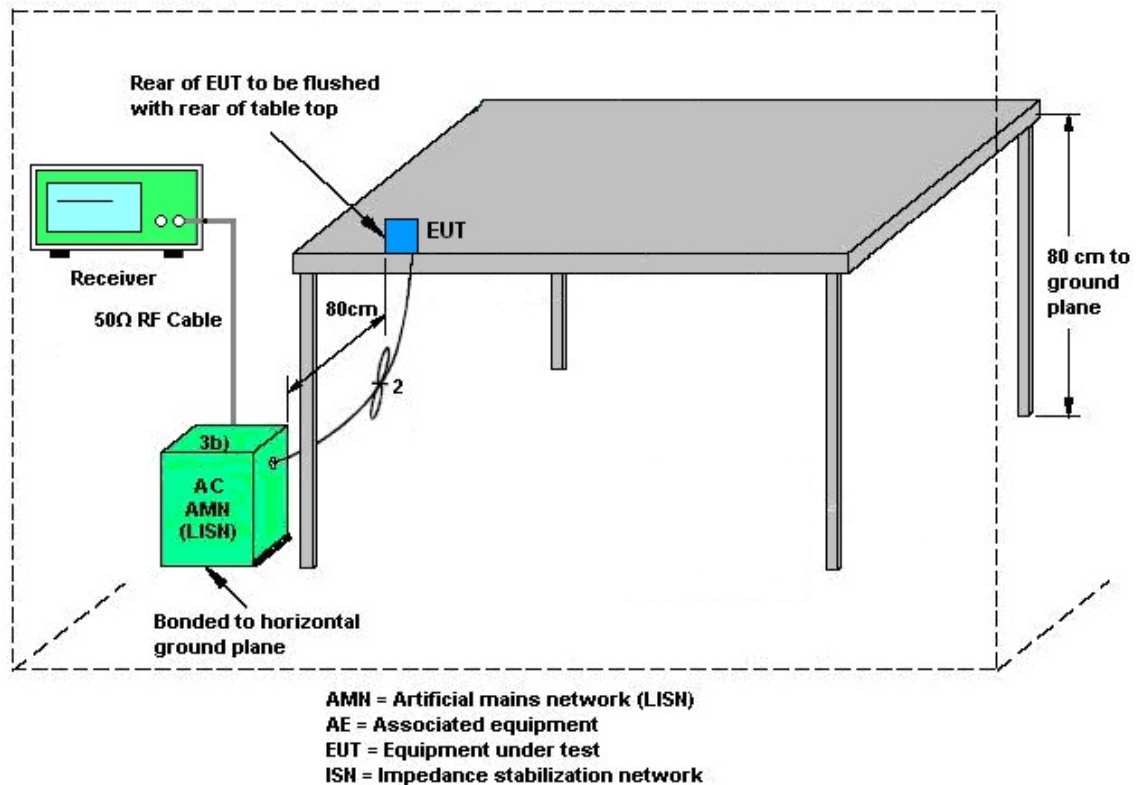
3.5.2 Measuring Instruments

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



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	100488	9 kHz~30 MHz	Sep. 07, 2021	Mar. 14, 2022~ Mar. 23, 2022	Sep. 06, 2022	Radiation (03CH16-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00802N1D01N -06	47020 & 06	30MHz to 1GHz	Oct. 09, 2021	Mar. 14, 2022~ Mar. 23, 2022	Oct. 08, 2022	Radiation (03CH16-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-02114	1G~18GHz	Aug. 04, 2021	Mar. 14, 2022~ Mar. 23, 2022	Aug. 03, 2022	Radiation (03CH16-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	00993	18GHz ~40GHz	Nov. 30, 2021	Mar. 14, 2022~ Mar. 23, 2022	Nov. 29, 2022	Radiation (03CH16-HY)
Amplifier	SONOMA	310N	371607	9kHz~1G	Jul. 05, 2021	Mar. 14, 2022~ Mar. 23, 2022	Jul. 04, 2022	Radiation (03CH16-HY)
Amplifier	EMCI	EMC051845S E	980729	1-18GHz	Jul. 09, 2021	Mar. 14, 2022~ Mar. 23, 2022	Jul. 08, 2022	Radiation (03CH16-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 22, 2021	Mar. 14, 2022~ Mar. 23, 2022	Jun. 21, 2022	Radiation (03CH16-HY)
Preamplifier	Keysight	83017A	MY53270264	1GHz~26.5GHz	Dec. 09, 2021	Mar. 14, 2022~ Mar. 23, 2022	Dec. 08, 2022	Radiation (03CH16-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY57290111	3Hz~26.5GHz	Dec. 15, 2021	Mar. 14, 2022~ Mar. 23, 2022	Dec. 14, 2022	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY11680/4P E	NA	Aug. 28, 2021	Mar. 14, 2022~ Mar. 23, 2022	Aug. 27, 2022	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY11688/4P E	NA	Aug. 28, 2021	Mar. 14, 2022~ Mar. 23, 2022	Aug. 27, 2022	Radiation (03CH16-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	EC-A5-300-5 757	NA	Aug. 28, 2021	Mar. 14, 2022~ Mar. 23, 2022	Aug. 27, 2022	Radiation (03CH16-HY)
Software	Audix	E3 6.2009-8-24	RK-001136	N/A	N/A	Mar. 14, 2022~ Mar. 23, 2022	N/A	Radiation (03CH16-HY)
Controller	ChainTek	3000-1	N/A	Control Turn table & Ant Mast	N/A	Mar. 14, 2022~ Mar. 23, 2022	N/A	Radiation (03CH16-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Mar. 14, 2022~ Mar. 23, 2022	N/A	Radiation (03CH16-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Mar. 14, 2022~ Mar. 23, 2022	N/A	Radiation (03CH16-HY)
Hygrometer	TECPEL	DTM-303A	TP201996	N/A	Nov. 16, 2021	Mar. 02, 2022~ Mar. 18, 2022	Nov. 15, 2022	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I00054SNO 12 (NO:113)	10MHz~6GHz	Dec. 16, 2021	Mar. 02, 2022~ Mar. 18, 2022	Dec. 15, 2022	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz~40GHz	Aug. 30, 2021	Mar. 02, 2022~ Mar. 18, 2022	Aug. 29, 2022	Conducted (TH05-HY)
Switch Control Manframe	E-IUSTRUME NT	ETF-1405-0	EC1900067 (BOX7)	N/A	Aug. 12, 2021	Mar. 02, 2022~ Mar. 18, 2022	Aug. 11, 2022	Conducted (TH05-HY)



Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
AC Power Source	ACPOWER	AFC-11003G	F317040033	N/A	N/A	Mar. 14, 2022	N/A	Conduction (CO07-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Mar. 14, 2022	N/A	Conduction (CO07-HY)
Pulse Limiter	SCHWARZBECK	VTSD 9561-FN	9561-FN00373	9kHz-200MHz	Oct. 29, 2021	Mar. 14, 2022	Oct. 28, 2022	Conduction (CO07-HY)
RF Cable	HUBER + SUHNER	RG 214/U	1358175	9kHz~30MHz	Mar. 17, 2021	Mar. 14, 2022	Mar. 16, 2022	Conduction (CO07-HY)
Two-Line V-Network	TESEQ	NNB 51	45051	N/A	Feb. 16, 2022	Mar. 14, 2022	Feb. 15, 2023	Conduction (CO07-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102317	9kHz~3.6GHz	Oct. 21, 2021	Mar. 14, 2022	Oct. 20, 2022	Conduction (CO07-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.3 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% ($U = 2Uc(y)$)	5.2 dB
---	--------

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

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



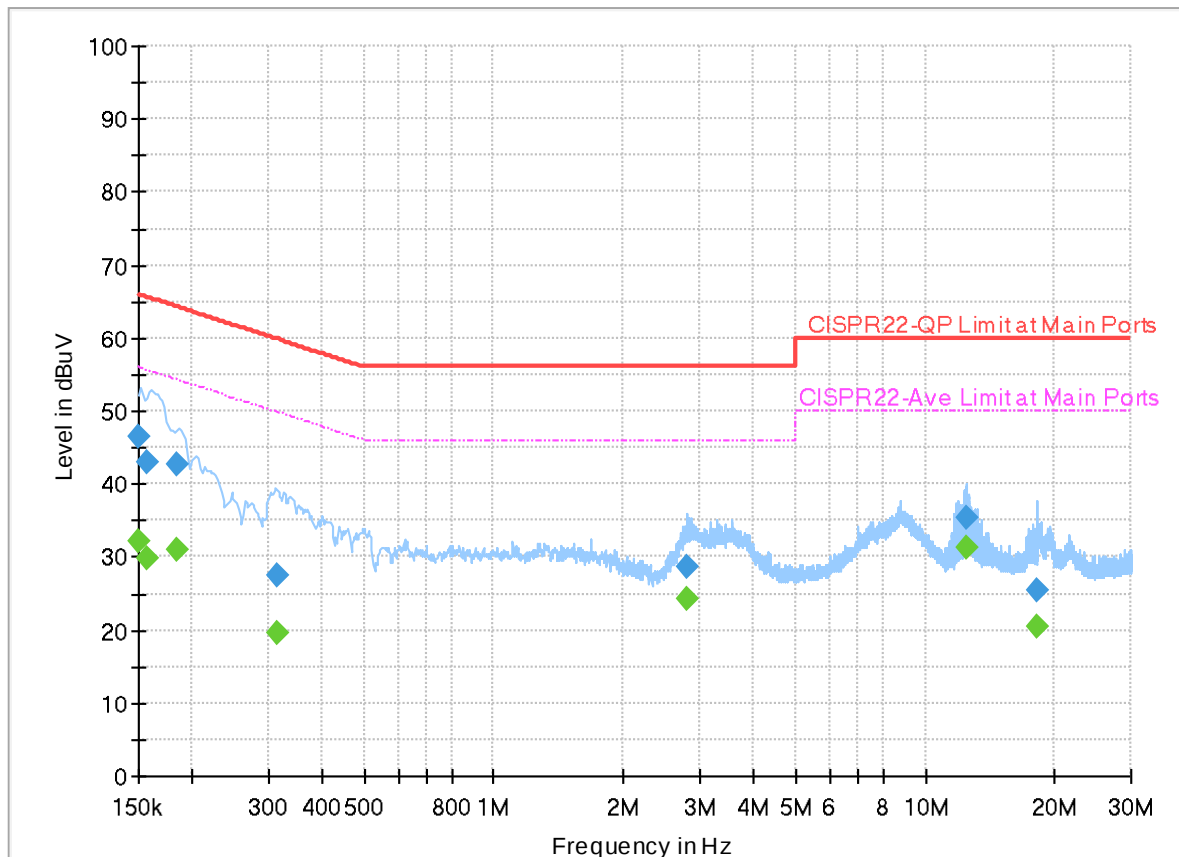
Appendix A. AC Conducted Emission Test Results

Test Engineer :	Louis Chung	Temperature :	24.6~26.3℃
		Relative Humidity :	48.2~52.7%

EUT Information

Report NO : 1N2513
Test Mode : Mode 1
Test Voltage : 120Vac/60Hz
Phase : Line

Full Spectrum



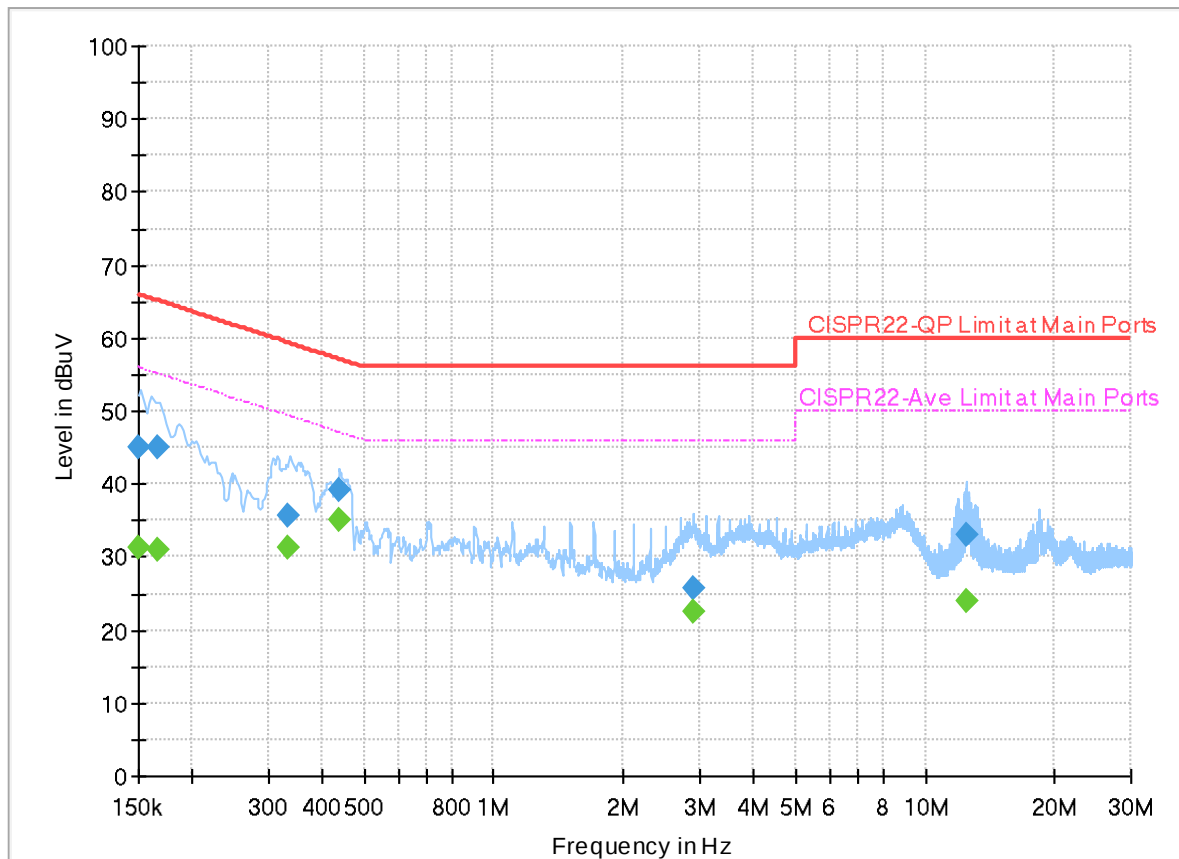
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	32.16	56.00	23.84	L1	OFF	20.0
0.150000	46.41	---	66.00	19.59	L1	OFF	20.0
0.156750	---	29.77	55.63	25.86	L1	OFF	20.0
0.156750	42.89	---	65.63	22.74	L1	OFF	20.0
0.184920	---	30.99	54.26	23.27	L1	OFF	20.0
0.184920	42.55	---	64.26	21.71	L1	OFF	20.0
0.314430	---	19.61	49.85	30.24	L1	OFF	20.0
0.314430	27.49	---	59.85	32.36	L1	OFF	20.0
2.809050	---	24.36	46.00	21.64	L1	OFF	20.0
2.809050	28.66	---	56.00	27.34	L1	OFF	20.0
12.409170	---	31.24	50.00	18.76	L1	OFF	20.2
12.409170	35.30	---	60.00	24.70	L1	OFF	20.2
18.224340	---	20.41	50.00	29.59	L1	OFF	20.2
18.224340	25.42	---	60.00	34.58	L1	OFF	20.2

EUT Information

Report NO : 1N2513
Test Mode : Mode 1
Test Voltage : 120Vac/60Hz
Phase : Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	31.23	56.00	24.77	N	OFF	20.0
0.150000	45.08	---	66.00	20.92	N	OFF	20.0
0.166920	---	30.86	55.11	24.25	N	OFF	20.0
0.166920	44.91	---	65.11	20.20	N	OFF	20.0
0.333330	---	31.34	49.37	18.03	N	OFF	20.0
0.333330	35.72	---	59.37	23.65	N	OFF	20.0
0.438180	---	35.07	47.10	12.03	N	OFF	20.0
0.438180	39.09	---	57.10	18.01	N	OFF	20.0
2.907060	---	22.46	46.00	23.54	N	OFF	20.0
2.907060	25.81	---	56.00	30.19	N	OFF	20.0
12.425820	---	23.86	50.00	26.14	N	OFF	20.2
12.425820	33.00	---	60.00	27.00	N	OFF	20.2



Appendix B. Radiated Spurious Emission

Test Engineer :	Andy Yang, Karl Hou and Wilson Wu	Temperature :	20~25°C
		Relative Humidity :	50~60%

<Sample 1>

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
7		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5147.16	58.1	-15.9	74	42.61	32.92	12.03	29.46	100	119	P	H
		5150	48.18	-5.82	54	32.71	32.9	12.03	29.46	100	119	A	H
	*	5180	110.46	-	-	94.89	32.96	12.08	29.47	100	119	P	H
	*	5180	101.97	-	-	86.4	32.96	12.08	29.47	100	119	A	H
													H
													H
		5148.72	59.38	-14.62	74	43.9	32.91	12.03	29.46	100	84	P	V
		5150	49.36	-4.64	54	33.89	32.9	12.03	29.46	100	84	A	V
	*	5180	111.85	-	-	96.28	32.96	12.08	29.47	100	84	P	V
	*	5180	103.43	-	-	87.86	32.96	12.08	29.47	100	84	A	V
													V
													V
802.11a CH 44 5220MHz		5113.1	54.41	-19.59	74	38.76	33.12	11.98	29.45	100	141	P	H
		5148.98	42.87	-11.13	54	27.39	32.91	12.03	29.46	100	141	A	H
	*	5220	109.87	-	-	94.21	32.96	12.18	29.48	100	141	P	H
	*	5220	101.63	-	-	85.97	32.96	12.18	29.48	100	141	A	H
		5385.52	54.27	-19.73	74	38.19	32.87	12.74	29.53	100	141	P	H
		5401.2	42.35	-11.65	54	26.2	32.9	12.79	29.54	100	141	A	H
		5146.12	54.76	-19.24	74	39.27	32.92	12.03	29.46	100	63	P	V
		5148.46	43.16	-10.84	54	27.68	32.91	12.03	29.46	100	63	A	V
	*	5220	112.07	-	-	96.41	32.96	12.18	29.48	100	63	P	V
	*	5220	104.02	-	-	88.36	32.96	12.18	29.48	100	63	A	V
		5362	54.64	-19.36	74	38.69	32.82	12.66	29.53	100	63	P	V
		5428.08	42.47	-11.53	54	26.32	32.9	12.8	29.55	100	63	A	V



802.11a CH 48 5240MHz		5142.22	54.51	-19.49	74	39	32.95	12.02	29.46	100	115	P	H
		5145.6	42.49	-11.51	54	26.99	32.93	12.03	29.46	100	115	A	H
	*	5240	110.16	-	-	94.48	32.92	12.25	29.49	100	115	P	H
	*	5240	101.17	-	-	85.49	32.92	12.25	29.49	100	115	A	H
		5436.2	54.62	-19.38	74	38.46	32.9	12.81	29.55	100	115	P	H
		5401.76	42.43	-11.57	54	26.28	32.9	12.79	29.54	100	115	A	H
		5114.92	53.96	-20.04	74	38.32	33.11	11.98	29.45	100	62	P	V
		5150	42.62	-11.38	54	27.15	32.9	12.03	29.46	100	62	A	V
	*	5240	112.97	-	-	97.29	32.92	12.25	29.49	100	62	P	V
	*	5240	104.34	-	-	88.66	32.92	12.25	29.49	100	62	A	V
		5428.64	54.76	-19.24	74	38.61	32.9	12.8	29.55	100	62	P	V
		5351.08	42.58	-11.42	54	26.68	32.8	12.62	29.52	100	62	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. 7	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 36 5180MHz		10360	48.42	-19.78	68.2	46.46	38.66	18.9	55.6	-	-	P	H
		15540	47.77	-26.23	74	41.52	38.28	22.65	54.68	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		10360	50.97	-17.23	68.2	49.01	38.66	18.9	55.6	-	-	P	V
		15540	47.9	-26.1	74	41.65	38.28	22.65	54.68	-	-	P	V
													V
													V
													V
													V
													V
													V
													V

[illegible]



Band 1 5150~5250MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 7	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 36 5180MHz		5148.72	59.68	-14.32	74	44.2	32.91	12.03	29.46	100	119	P	H
		5150	48.24	-5.76	54	32.77	32.9	12.03	29.46	100	119	A	H
	*	5180	110.47	-	-	94.9	32.96	12.08	29.47	100	119	P	H
	*	5180	101.86	-	-	86.29	32.96	12.08	29.47	100	119	A	H
													H
													H
		5149.5	59.35	-14.65	74	43.88	32.9	12.03	29.46	121	71	P	V
		5150	49.11	-4.89	54	33.64	32.9	12.03	29.46	121	71	A	V
	*	5180	111.96	-	-	96.39	32.96	12.08	29.47	121	71	P	V
	*	5180	103.37	-	-	87.8	32.96	12.08	29.47	121	71	A	V
													V
													V
802.11n HT20 CH 44 5220MHz		5144.56	54.24	-19.76	74	38.75	32.93	12.02	29.46	100	143	P	H
		5148.72	42.94	-11.06	54	27.46	32.91	12.03	29.46	100	143	A	H
	*	5220	109.61	-	-	93.95	32.96	12.18	29.48	100	143	P	H
	*	5220	101.37	-	-	85.71	32.96	12.18	29.48	100	143	A	H
		5352.48	55.04	-18.96	74	39.13	32.8	12.63	29.52	100	143	P	H
		5419.68	42.42	-11.58	54	26.26	32.9	12.8	29.54	100	143	A	H
		5076.96	54.52	-19.48	74	39.01	33.02	11.92	29.43	100	65	P	V
		5149.76	43.21	-10.79	54	27.74	32.9	12.03	29.46	100	65	A	V
	*	5220	111.5	-	-	95.84	32.96	12.18	29.48	100	65	P	V
	*	5220	103.45	-	-	87.79	32.96	12.18	29.48	100	65	A	V
		5358.92	54.32	-19.68	74	38.37	32.82	12.65	29.52	100	65	P	V
		5402.04	42.45	-11.55	54	26.3	32.9	12.79	29.54	100	65	A	V



802.11n HT20 CH 48 5240MHz		5141.7	53.7	-20.3	74	38.19	32.95	12.02	29.46	100	118	P	H
		5148.2	42.44	-11.56	54	26.96	32.91	12.03	29.46	100	118	A	H
	*	5240	109.65	-	-	93.97	32.92	12.25	29.49	100	118	P	H
	*	5240	100.7	-	-	85.02	32.92	12.25	29.49	100	118	A	H
		5416.04	54.11	-19.89	74	37.95	32.9	12.8	29.54	100	118	P	H
		5420.8	42.39	-11.61	54	26.23	32.9	12.8	29.54	100	118	A	H
		5077.74	53.93	-20.07	74	38.42	33.02	11.92	29.43	100	61	P	V
		5148.2	42.6	-11.4	54	27.12	32.91	12.03	29.46	100	61	A	V
	*	5240	112.54	-	-	96.86	32.92	12.25	29.49	100	61	P	V
	*	5240	103.97	-	-	88.29	32.92	12.25	29.49	100	61	A	V
		5400.08	54.69	-19.31	74	38.54	32.9	12.79	29.54	100	61	P	V
		5351.08	42.56	-11.44	54	26.66	32.8	12.62	29.52	100	61	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. 7	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 36 5180MHz		10360	48.77	-19.43	68.2	46.81	38.66	18.9	55.6	-	-	P	H
		15540	47.4	-26.6	74	41.15	38.28	22.65	54.68	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		10360	48.6	-19.6	68.2	46.64	38.66	18.9	55.6	-	-	P	V
		15540	47.86	-26.14	74	41.61	38.28	22.65	54.68	-	-	P	V
													V
													V
													V
													V
													V
													V



WIFI Ant. 7	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 44 5220MHz		10440	49.87	-18.33	68.2	47.84	38.66	18.91	55.54	-	-	P	H
		15660	46.95	-27.05	74	41.21	37.86	22.74	54.86	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		10440	53.47	-14.73	68.2	51.44	38.66	18.91	55.54	-	-	P	V
		15660	45.93	-28.07	74	40.19	37.86	22.74	54.86	-	-	P	V
													V
													V
													V
													V
													V
													V
													V



Band 1 5150~5250MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 7	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		5147.42	58.97	-15.03	74	43.48	32.92	12.03	29.46	100	119	P	H
		5150	50.89	-3.11	54	35.42	32.9	12.03	29.46	100	119	A	H
	*	5190	106.34	-	-	90.74	32.98	12.09	29.47	100	119	P	H
	*	5190	98.7	-	-	83.1	32.98	12.09	29.47	100	119	A	H
		5394.2	55.1	-18.9	74	38.98	32.89	12.77	29.54	100	119	P	H
		5456.36	44.97	-9.03	54	28.82	32.89	12.82	29.56	100	119	A	H
		5137.8	59.81	-14.19	74	44.28	32.97	12.01	29.45	113	70	P	V
		5147.42	51.97	-2.03	54	36.48	32.92	12.03	29.46	113	70	A	V
	*	5190	108.34	-	-	92.74	32.98	12.09	29.47	113	70	P	V
	*	5190	99.96	-	-	84.36	32.98	12.09	29.47	113	70	A	V
		5442.64	54.21	-19.79	74	38.05	32.9	12.81	29.55	113	70	P	V
		5436.76	44.86	-9.14	54	28.7	32.9	12.81	29.55	113	70	A	V
802.11n HT40 CH 46 5230MHz		5086.58	54.43	-19.57	74	38.85	33.09	11.93	29.44	100	119	P	H
		5150	46.62	-7.38	54	31.15	32.9	12.03	29.46	100	119	A	H
	*	5230	106.8	-	-	91.13	32.94	12.21	29.48	100	119	P	H
	*	5230	99.17	-	-	83.5	32.94	12.21	29.48	100	119	A	H
		5418	54.98	-19.02	74	38.82	32.9	12.8	29.54	100	119	P	H
		5423.04	44.84	-9.16	54	28.69	32.9	12.8	29.55	100	119	A	H
		5149.5	55.68	-18.32	74	40.21	32.9	12.03	29.46	102	62	P	V
		5149.5	47.19	-6.81	54	31.72	32.9	12.03	29.46	102	62	A	V
	*	5230	109.31	-	-	93.64	32.94	12.21	29.48	102	62	P	V
	*	5230	101.43	-	-	85.76	32.94	12.21	29.48	102	62	A	V
		5412.4	54.34	-19.66	74	38.18	32.9	12.8	29.54	102	62	P	V
		5392.52	44.95	-9.05	54	28.84	32.89	12.76	29.54	102	62	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. 7	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		10380	47.91	-20.29	68.2	45.92	38.68	18.9	55.59	-	-	P	H
		15570	47.8	-26.2	74	41.66	38.19	22.68	54.73	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		10380	48.09	-20.11	68.2	46.1	38.68	18.9	55.59	-	-	P	V
		15570	47.89	-26.11	74	41.75	38.19	22.68	54.73	-	-	P	V
													V
													V
													V
													V
													V
													V



Band 1 5150~5250MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 7	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		5124.28	58.58	-15.42	74	42.99	33.05	11.99	29.45	100	119	P	H
		5150	50.86	-3.14	54	35.39	32.9	12.03	29.46	100	119	A	H
	*	5210	99.84	-	-	84.2	32.98	12.14	29.48	100	119	P	H
	*	5210	92.15	-	-	76.51	32.98	12.14	29.48	100	119	A	H
		5386.64	53.86	-20.14	74	37.78	32.87	12.74	29.53	100	119	P	H
		5350.8	44.72	-9.28	54	28.82	32.8	12.62	29.52	100	119	A	H
		5149.76	58.89	-15.11	74	43.42	32.9	12.03	29.46	108	70	P	V
		5149.76	52.2	-1.8	54	36.73	32.9	12.03	29.46	108	70	A	V
	*	5210	102.53	-	-	86.89	32.98	12.14	29.48	108	70	P	V
	*	5210	94.46	-	-	78.82	32.98	12.14	29.48	108	70	A	V
		5371.8	54.47	-19.53	74	38.47	32.84	12.69	29.53	108	70	P	V
		5351.08	45.13	-8.87	54	29.23	32.8	12.62	29.52	108	70	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)



Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 7	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		5098.94	53.61	-20.39	74	37.91	33.19	11.95	29.44	100	119	P	H
		5102.34	42.33	-11.67	54	26.62	33.19	11.96	29.44	100	119	A	H
	*	5260	110.1	-	-	94.36	32.92	12.31	29.49	100	119	P	H
	*	5260	101.33	-	-	85.59	32.92	12.31	29.49	100	119	A	H
		5459.28	54.29	-19.71	74	38.15	32.88	12.82	29.56	100	119	P	H
		5405.04	42.38	-11.62	54	26.23	32.9	12.79	29.54	100	119	A	H
		5101.66	53.88	-20.12	74	38.17	33.19	11.96	29.44	110	61	P	V
		5149.26	42.35	-11.65	54	26.88	32.9	12.03	29.46	110	61	A	V
	*	5260	113.4	-	-	97.66	32.92	12.31	29.49	110	61	P	V
	*	5260	104.76	-	-	89.02	32.92	12.31	29.49	110	61	A	V
		5407.44	55.22	-18.78	74	39.07	32.9	12.79	29.54	110	61	P	V
		5350.08	42.78	-11.22	54	26.88	32.8	12.62	29.52	110	61	A	V
802.11a CH 60 5300MHz		5011.56	53.29	-20.71	74	37.85	33.03	11.82	29.41	100	143	P	H
		5099.62	42.69	-11.31	54	26.98	33.2	11.95	29.44	100	143	A	H
	*	5300	109.71	-	-	93.77	33	12.45	29.51	100	143	P	H
	*	5300	101.79	-	-	85.85	33	12.45	29.51	100	143	A	H
		5431.68	55.2	-18.8	74	39.05	32.9	12.8	29.55	100	143	P	H
		5350.32	43.49	-10.51	54	27.59	32.8	12.62	29.52	100	143	A	H
		5093.84	54.38	-19.62	74	38.72	33.15	11.95	29.44	100	71	P	V
		5100.98	42.88	-11.12	54	27.17	33.19	11.96	29.44	100	71	A	V
	*	5300	112.98	-	-	97.04	33	12.45	29.51	100	71	P	V
	*	5300	105.36	-	-	89.42	33	12.45	29.51	100	71	A	V
		5384.4	55.98	-18.02	74	39.9	32.87	12.74	29.53	100	71	P	V
		5350.08	45.06	-8.94	54	29.16	32.8	12.62	29.52	100	71	A	V



802.11a CH 64 5320MHz	*	5320	109.4	-	-	93.47	32.92	12.52	29.51	100	118	P	H
	*	5320	101.02	-	-	85.09	32.92	12.52	29.51	100	118	A	H
		5351.2	55.36	-18.64	74	39.46	32.8	12.62	29.52	100	118	P	H
		5350.08	45.48	-8.52	54	29.58	32.8	12.62	29.52	100	118	A	H
													H
													H
	*	5320	113.84	-	-	97.91	32.92	12.52	29.51	100	62	P	V
	*	5320	105.1	-	-	89.17	32.92	12.52	29.51	100	62	A	V
		5370.56	57.05	-16.95	74	41.05	32.84	12.69	29.53	100	62	P	V
		5350.08	47.92	-6.08	54	32.02	32.8	12.62	29.52	100	62	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. 7	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	48.68	-19.52	68.2	46.56	38.68	18.93	55.49	-	-	P	H
		15780	46.71	-27.29	74	41.23	37.7	22.83	55.05	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		10520	52.49	-15.71	68.2	50.37	38.68	18.93	55.49	-	-	P	V
		15780	46.26	-27.74	74	40.78	37.7	22.83	55.05	-	-	P	V
													V
													V
													V
													V
													V
													V
													V



WIFI Ant. 7	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 60 5300MHz		10600	52.46	-21.54	74	49.98	39	18.95	55.47	100	322	P	H
		10600	41.19	-12.81	54	38.71	39	18.95	55.47	100	322	A	H
		15900	47.03	-26.97	74	41.46	37.9	22.9	55.23	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		10600	58.77	-15.23	74	56.29	39	18.95	55.47	100	236	P	V
		10600	46.89	-7.11	54	44.41	39	18.95	55.47	100	236	A	V
		15900	47.54	-26.46	74	41.97	37.9	22.9	55.23	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V
													V



Band 2 5250~5350MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 7	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 52 5260MHz		5002.72	54.04	-19.96	74	38.57	33.08	11.8	29.41	100	118	P	H
		5099.28	42.29	-11.71	54	26.59	33.19	11.95	29.44	100	118	A	H
	*	5260	109.84	-	-	94.1	32.92	12.31	29.49	100	118	P	H
	*	5260	101.18	-	-	85.44	32.92	12.31	29.49	100	118	A	H
		5354.16	54.49	-19.51	74	38.57	32.81	12.63	29.52	100	118	P	H
		5350.8	42.44	-11.56	54	26.54	32.8	12.62	29.52	100	118	A	H
		5097.58	54.86	-19.14	74	39.17	33.18	11.95	29.44	100	73	P	V
		5103.36	42.35	-11.65	54	26.65	33.18	11.96	29.44	100	73	A	V
	*	5260	112.54	-	-	96.8	32.92	12.31	29.49	100	73	P	V
	*	5260	104.1	-	-	88.36	32.92	12.31	29.49	100	73	A	V
		5456.4	54.32	-19.68	74	38.17	32.89	12.82	29.56	100	73	P	V
		5351.52	42.86	-11.14	54	26.95	32.8	12.63	29.52	100	73	A	V
802.11n HT20 CH 60 5300MHz		5121.72	54.06	-19.94	74	38.45	33.07	11.99	29.45	102	143	P	H
		5097.92	42.37	-11.63	54	26.68	33.18	11.95	29.44	102	143	A	H
	*	5300	109.29	-	-	93.35	33	12.45	29.51	102	143	P	H
	*	5300	101.51	-	-	85.57	33	12.45	29.51	102	143	A	H
		5417.28	53.83	-20.17	74	37.67	32.9	12.8	29.54	102	143	P	H
		5350.56	43.08	-10.92	54	27.18	32.8	12.62	29.52	102	143	A	H
		5074.12	53.25	-20.75	74	37.78	32.99	11.91	29.43	100	62	P	V
		5097.92	42.43	-11.57	54	26.74	33.18	11.95	29.44	100	62	A	V
	*	5300	113.18	-	-	97.24	33	12.45	29.51	100	62	P	V
	*	5300	105.25	-	-	89.31	33	12.45	29.51	100	62	A	V
		5356.32	55.67	-18.33	74	39.74	32.81	12.64	29.52	100	62	P	V
		5350.08	44.73	-9.27	54	28.83	32.8	12.62	29.52	100	62	A	V



802.11n HT20 CH 64 5320MHz	*	5320	109.7	-	-	93.77	32.92	12.52	29.51	100	143	P	H
	*	5320	101.07	-	-	85.14	32.92	12.52	29.51	100	143	A	H
		5359.2	56.5	-17.5	74	40.55	32.82	12.65	29.52	100	143	P	H
		5350.08	46.17	-7.83	54	30.27	32.8	12.62	29.52	100	143	A	H
													H
													H
	*	5320	113.66	-	-	97.73	32.92	12.52	29.51	100	62	P	V
	*	5320	105.13	-	-	89.2	32.92	12.52	29.51	100	62	A	V
		5352.16	59.86	-14.14	74	43.95	32.8	12.63	29.52	100	62	P	V
		5350.08	49.18	-4.82	54	33.28	32.8	12.62	29.52	100	62	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. 7	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 52 5260MHz		10520	48.52	-19.68	68.2	46.4	38.68	18.93	55.49	-	-	P	H
		15780	46.33	-27.67	74	40.85	37.7	22.83	55.05	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		10520	50.6	-17.6	68.2	48.48	38.68	18.93	55.49	-	-	P	V
		15780	47.17	-26.83	74	41.69	37.7	22.83	55.05	-	-	P	V
													V
													V
													V
													V
													V
													V



WIFI Ant. 7	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 60 5300MHz		10600	51.82	-22.18	74	49.34	39	18.95	55.47	100	328	P	H
		10600	41.36	-12.64	54	38.88	39	18.95	55.47	100	328	A	H
		15900	46.02	-27.98	74	40.45	37.9	22.9	55.23	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		10600	59.24	-14.76	74	56.76	39	18.95	55.47	100	236	P	V
		10600	47.27	-6.73	54	44.79	39	18.95	55.47	100	236	A	V
		15900	47.28	-26.72	74	41.71	37.9	22.9	55.23	-	-	P	V
													V
													V
													V
													V
													V
													V



WIFI Ant. 7	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 64 5320MHz		10640	52.47	-21.53	74	49.98	39	18.95	55.46	100	328	P	H
		10640	41.31	-12.69	54	38.82	39	18.95	55.46	100	328	A	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		10640	59.04	-14.96	74	56.55	39	18.95	55.46	100	237	P	V
		10640	46.95	-7.05	54	44.46	39	18.95	55.46	100	237	A	V
													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.												
Remark	3. The emission position marked as "-" means no suspected emission found with sufficient margin against limit line or noise floor only.												



Band 2 5250~5350MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 7	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		5124.78	54.74	-19.26	74	39.15	33.05	11.99	29.45	100	143	P	H
		5144.5	44.6	-9.4	54	29.11	32.93	12.02	29.46	100	143	A	H
	*	5270	106.29	-	-	90.5	32.94	12.35	29.5	100	143	P	H
	*	5270	98.56	-	-	82.77	32.94	12.35	29.5	100	143	A	H
		5351.76	57.11	-16.89	74	41.2	32.8	12.63	29.52	100	143	P	H
		5350.32	48	-6	54	32.1	32.8	12.62	29.52	100	143	A	H
		5127.5	53.75	-20.25	74	38.17	33.03	12	29.45	112	71	P	V
		5095.2	44.54	-9.46	54	28.87	33.16	11.95	29.44	112	71	A	V
	*	5270	109.35	-	-	93.56	32.94	12.35	29.5	112	71	P	V
	*	5270	101.96	-	-	86.17	32.94	12.35	29.5	112	71	A	V
		5352.24	59.38	-14.62	74	43.47	32.8	12.63	29.52	112	71	P	V
		5350.08	51.47	-2.53	54	35.57	32.8	12.62	29.52	112	71	A	V
802.11n HT40 CH 62 5310MHz		5089.42	53.78	-20.22	74	38.16	33.12	11.94	29.44	100	118	P	H
		5126.14	44.65	-9.35	54	29.06	33.04	12	29.45	100	118	A	H
	*	5310	104.53	-	-	88.6	32.96	12.48	29.51	100	118	P	H
	*	5310	96.4	-	-	80.47	32.96	12.48	29.51	100	118	A	H
		5352.96	56.67	-17.33	74	40.75	32.81	12.63	29.52	100	118	P	H
		5350.56	49.5	-4.5	54	33.6	32.8	12.62	29.52	100	118	A	H
		5001.36	54.43	-19.57	74	38.95	33.09	11.8	29.41	100	62	P	V
		5144.16	44.54	-9.46	54	29.04	32.94	12.02	29.46	100	62	A	V
	*	5310	107.02	-	-	91.09	32.96	12.48	29.51	100	62	P	V
	*	5310	99.14	-	-	83.21	32.96	12.48	29.51	100	62	A	V
		5352.72	62.01	-11.99	74	46.09	32.81	12.63	29.52	100	62	P	V
		5350.8	52.68	-1.32	54	36.78	32.8	12.62	29.52	100	62	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)

[illegible]

WIFI Ant. 7	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 62 5310MHz		10620	47.36	-26.64	74	44.87	39	18.95	55.46	-	-	P	H	
		15930	45.54	-28.46	74	40.07	37.81	22.93	55.27	-	-	P	H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
			10620	47.85	-26.15	74	45.36	39	18.95	55.46	-	-	P	V
			15930	46.17	-27.83	74	40.7	37.81	22.93	55.27	-	-	P	V
														V
														V
														V
														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.													



Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 7	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		5133.28	54.46	-19.54	74	38.9	33	12.01	29.45	100	118	P	H
		5134.98	44.88	-9.12	54	29.33	32.99	12.01	29.45	100	118	A	H
	*	5290	99.97	-	-	84.07	32.98	12.42	29.5	100	118	P	H
	*	5290	92.49	-	-	76.59	32.98	12.42	29.5	100	118	A	H
		5350.32	60.39	-13.61	74	44.49	32.8	12.62	29.52	100	118	P	H
		5363.52	50.19	-3.81	54	34.22	32.83	12.67	29.53	100	118	A	H
		5127.16	54.61	-19.39	74	39.02	33.04	12	29.45	125	71	P	V
		5149.94	45.29	-8.71	54	29.82	32.9	12.03	29.46	125	71	A	V
	*	5290	103.75	-	-	87.85	32.98	12.42	29.5	125	71	P	V
	*	5290	95.93	-	-	80.03	32.98	12.42	29.5	125	71	A	V
		5365.44	62.44	-11.56	74	46.47	32.83	12.67	29.53	125	71	P	V
		5363.52	52.46	-1.54	54	36.49	32.83	12.67	29.53	125	71	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)

[illegible]



Band 3 - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 7	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		5457.36	58.03	-15.97	74	41.88	32.89	12.82	29.56	100	116	P	H
		5464.88	60.84	-7.36	68.2	44.71	32.87	12.82	29.56	100	116	P	H
		5459.76	45.33	-8.67	54	29.19	32.88	12.82	29.56	100	116	A	H
	*	5500	110.94	-	-	94.87	32.8	12.84	29.57	100	116	P	H
	*	5500	102.65	-	-	86.58	32.8	12.84	29.57	100	116	A	H
													H
		5452.88	61.43	-12.57	74	45.28	32.89	12.81	29.55	122	64	P	V
		5469.84	63.82	-4.38	68.2	47.7	32.86	12.82	29.56	122	64	P	V
		5460	46.74	-7.26	54	30.6	32.88	12.82	29.56	122	64	A	V
	*	5500	112.01	-	-	95.94	32.8	12.84	29.57	122	64	P	V
	*	5500	103.85	-	-	87.78	32.8	12.84	29.57	122	64	A	V
													V
802.11a CH 116 5580MHz		5439.04	55.23	-18.77	74	39.07	32.9	12.81	29.55	100	115	P	H
		5468.32	53.66	-14.54	68.2	37.54	32.86	12.82	29.56	100	115	P	H
		5446.24	43.03	-10.97	54	26.87	32.9	12.81	29.55	100	115	A	H
	*	5580	111.52	-	-	95.19	33.04	12.87	29.58	100	115	P	H
	*	5580	103.65	-	-	87.32	33.04	12.87	29.58	100	115	A	H
		5725.94	55.83	-12.37	68.2	39.03	33.46	12.95	29.61	100	115	P	H
		5397.28	55.48	-18.52	74	39.35	32.89	12.78	29.54	101	247	P	V
		5467.36	54.47	-13.73	68.2	38.34	32.87	12.82	29.56	101	247	P	V
		5457.28	43.33	-10.67	54	27.18	32.89	12.82	29.56	101	247	A	V
	*	5580	115.73	-	-	99.4	33.04	12.87	29.58	101	247	P	V
	*	5580	107.24	-	-	90.91	33.04	12.87	29.58	101	247	A	V
		5765	55.38	-12.82	68.2	38.4	33.63	12.97	29.62	101	247	P	V



802.11a CH 140 5700MHz	*	5700	111.48	-	-	94.86	33.3	12.93	29.61	100	115	P	H
	*	5700	103.17	-	-	86.55	33.3	12.93	29.61	100	115	A	H
		5725.4	63.76	-4.44	68.2	46.97	33.45	12.95	29.61	100	115	P	H
													H
													H
													H
	*	5700	115.05	-	-	98.43	33.3	12.93	29.61	100	240	P	V
	*	5700	107.01	-	-	90.39	33.3	12.93	29.61	100	240	A	V
		5727.32	66.1	-2.1	68.2	49.3	33.46	12.95	29.61	100	240	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. 7	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	50.61	-23.39	74	48.07	38.9	19.01	55.37	100	328	P	H
		11000	39.66	-14.34	54	37.12	38.9	19.01	55.37	100	328	A	H
		16500	48.54	-19.66	68.2	40.92	38.5	23.98	54.86	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		7333	51.58	-22.42	74	54.2	36.73	16.3	55.65	100	170	P	V
		7333	45.13	-8.87	54	47.75	36.73	16.3	55.65	100	170	A	V
		11000	53.05	-20.95	74	50.51	38.9	19.01	55.37	100	309	P	V
		11000	41.24	-12.76	54	38.7	38.9	19.01	55.37	100	309	A	V
		16500	48.09	-20.11	68.2	40.47	38.5	23.98	54.86	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
													V



WIFI Ant. 7	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 116 5580MHz		11160	51.2	-22.8	74	48.4	38.96	19.09	55.25	100	333	P	H
		11160	40.68	-13.32	54	37.88	38.96	19.09	55.25	100	333	A	H
		16740	49.25	-18.95	68.2	41.92	37.88	24.46	55.01	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		7440	51.88	-22.12	74	54.88	36.22	16.45	55.67	100	198	P	V
		7440	44.82	-9.18	54	47.82	36.22	16.45	55.67	100	198	A	V
		11160	54.23	-19.77	74	51.43	38.96	19.09	55.25	100	204	P	V
		11160	42.86	-11.14	54	40.06	38.96	19.09	55.25	100	204	A	V
		16740	48.35	-19.85	68.2	41.02	37.88	24.46	55.01	-	-	P	V
													V
													V
													V
													V
													V
													V
													V

[illegible]



Band 3 - 5470~5725MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 7	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 100 5500MHz		5458.8	58.33	-15.67	74	42.19	32.88	12.82	29.56	100	116	P	H
		5469.52	59.65	-8.55	68.2	43.53	32.86	12.82	29.56	100	116	P	H
		5460	46.14	-7.86	54	30	32.88	12.82	29.56	100	116	A	H
	*	5500	111.27	-	-	95.2	32.8	12.84	29.57	100	116	P	H
	*	5500	103.28	-	-	87.21	32.8	12.84	29.57	100	116	A	H
													H
		5459.92	62.6	-11.4	74	46.46	32.88	12.82	29.56	104	244	P	V
		5469.84	65.27	-2.93	68.2	49.15	32.86	12.82	29.56	104	244	P	V
		5460	48.85	-5.15	54	32.71	32.88	12.82	29.56	104	244	A	V
	*	5500	114.5	-	-	98.43	32.8	12.84	29.57	104	244	P	V
	*	5500	106.38	-	-	90.31	32.8	12.84	29.57	104	244	A	V
													V
802.11n HT20 CH 116 5580MHz		5401.84	55.89	-18.11	74	39.74	32.9	12.79	29.54	100	115	P	H
		5464.48	54.22	-13.98	68.2	38.09	32.87	12.82	29.56	100	115	P	H
		5445.76	43.09	-10.91	54	26.93	32.9	12.81	29.55	100	115	A	H
	*	5580	111.43	-	-	95.1	33.04	12.87	29.58	100	115	P	H
	*	5580	103.44	-	-	87.11	33.04	12.87	29.58	100	115	A	H
		5746.415	55.5	-12.7	68.2	38.57	33.58	12.96	29.61	100	115	P	H
		5446.96	55.02	-18.98	74	38.86	32.9	12.81	29.55	100	244	P	V
		5465.44	54.97	-13.23	68.2	38.84	32.87	12.82	29.56	100	244	P	V
		5459.92	43.4	-10.6	54	27.26	32.88	12.82	29.56	100	244	A	V
	*	5580	115.08	-	-	98.75	33.04	12.87	29.58	100	244	P	V
	*	5580	107.06	-	-	90.73	33.04	12.87	29.58	100	244	A	V
		5762.165	55.55	-12.65	68.2	38.58	33.62	12.97	29.62	100	244	P	V



802.11n HT20 CH 140 5700MHz	*	5700	111.07	-	-	94.45	33.3	12.93	29.61	100	115	P	H
	*	5700	103	-	-	86.38	33.3	12.93	29.61	100	115	A	H
		5725.88	64.94	-3.26	68.2	48.14	33.46	12.95	29.61	100	115	P	H
													H
													H
													H
	*	5700	115.09	-	-	98.47	33.3	12.93	29.61	100	240	P	V
	*	5700	106.84	-	-	90.22	33.3	12.93	29.61	100	240	A	V
		5726.76	66.85	-1.35	68.2	50.05	33.46	12.95	29.61	100	240	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. 7	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 100 5500MHz		11000	52.39	-21.61	74	49.85	38.9	19.01	55.37	100	332	P	H
		11000	39.86	-14.14	54	37.32	38.9	19.01	55.37	100	332	A	H
		16500	48.15	-20.05	68.2	40.53	38.5	23.98	54.86	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		7333	52.15	-21.85	74	54.77	36.73	16.3	55.65	100	170	P	V
		7333	45.2	-8.8	54	47.82	36.73	16.3	55.65	100	170	A	V
		11000	53.86	-20.14	74	51.32	38.9	19.01	55.37	100	311	P	V
		11000	41.62	-12.38	54	39.08	38.9	19.01	55.37	100	311	A	V
		16500	47.91	-20.29	68.2	40.29	38.5	23.98	54.86	-	-	P	V
													V
													V
													V
													V
													V
													V



WIFI Ant. 7	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 116 5580MHz		11160	51.96	-22.04	74	49.16	38.96	19.09	55.25	100	331	P	H
		11160	39.6	-14.4	54	36.8	38.96	19.09	55.25	100	331	A	H
		16740	47.81	-20.39	68.2	40.48	37.88	24.46	55.01	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		11160	54.17	-19.83	74	51.37	38.96	19.09	55.25	100	201	P	V
		11160	41.56	-12.44	54	38.76	38.96	19.09	55.25	100	201	A	V
		16740	48	-20.2	68.2	40.67	37.88	24.46	55.01	-	-	P	V
													V
													V
													V
													V
													V
													V

[illegible]



Band 3 - 5470~5725MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 7	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 102 5510MHz		5459.68	57.57	-16.43	74	41.43	32.88	12.82	29.56	100	116	P	H
		5469.76	58.69	-9.51	68.2	42.57	32.86	12.82	29.56	100	116	P	H
		5458.24	49.81	-4.19	54	33.67	32.88	12.82	29.56	100	116	A	H
	*	5510	106.51	-	-	90.44	32.8	12.84	29.57	100	116	P	H
	*	5510	99.21	-	-	83.14	32.8	12.84	29.57	100	116	A	H
		5755.865	54.6	-13.6	68.2	37.64	33.61	12.97	29.62	100	116	P	H
		5458.96	61.07	-12.93	74	44.93	32.88	12.82	29.56	100	244	P	V
		5467.36	63.37	-4.83	68.2	47.24	32.87	12.82	29.56	100	244	P	V
		5459.68	52.64	-1.36	54	36.5	32.88	12.82	29.56	100	244	A	V
	*	5510	110.25	-	-	94.18	32.8	12.84	29.57	100	244	P	V
	*	5510	102.6	-	-	86.53	32.8	12.84	29.57	100	244	A	V
		5754.29	54.94	-13.26	68.2	37.99	33.61	12.96	29.62	100	244	P	V
802.11n HT40 CH 110 5550MHz		5422.24	55.22	-18.78	74	39.07	32.9	12.8	29.55	100	115	P	H
		5468.8	55.61	-12.59	68.2	39.49	32.86	12.82	29.56	100	115	P	H
		5459.44	46.03	-7.97	54	29.89	32.88	12.82	29.56	100	115	A	H
	*	5550	107.88	-	-	91.8	32.8	12.86	29.58	100	115	P	H
	*	5550	100.49	-	-	84.41	32.8	12.86	29.58	100	115	A	H
		5757.755	55.43	-12.77	68.2	38.46	33.62	12.97	29.62	100	115	P	H
		5454.88	56.37	-17.63	74	40.23	32.89	12.81	29.56	100	244	P	V
		5466.64	59.55	-8.65	68.2	43.42	32.87	12.82	29.56	100	244	P	V
		5458.72	47.51	-6.49	54	31.37	32.88	12.82	29.56	100	244	A	V
	*	5550	111.91	-	-	95.83	32.8	12.86	29.58	100	244	P	V
	*	5550	104.15	-	-	88.07	32.8	12.86	29.58	100	244	A	V
		5756.81	55.04	-13.16	68.2	38.08	33.61	12.97	29.62	100	244	P	V



802.11n HT40 CH 134 5670MHz		5402.85	53.59	-20.41	74	37.44	32.9	12.79	29.54	100	115	P	H
		5461.3	52.37	-15.83	68.2	36.23	32.88	12.82	29.56	100	115	P	H
		5432.25	45.21	-8.79	54	29.06	32.9	12.8	29.55	100	115	A	H
	*	5670	107.28	-	-	90.66	33.3	12.92	29.6	100	115	P	H
	*	5670	100.19	-	-	83.57	33.3	12.92	29.6	100	115	A	H
		5727.55	58.39	-9.81	68.2	41.58	33.47	12.95	29.61	100	115	P	H
		5403.9	53.52	-20.48	74	37.37	32.9	12.79	29.54	100	238	P	V
		5464.8	52.44	-15.76	68.2	36.31	32.87	12.82	29.56	100	238	P	V
		5408.45	45.22	-8.78	54	29.07	32.9	12.79	29.54	100	238	A	V
	*	5670	111.68	-	-	95.06	33.3	12.92	29.6	100	238	P	V
	*	5670	104.03	-	-	87.41	33.3	12.92	29.6	100	238	A	V
		5728.6	62.73	-5.47	68.2	45.92	33.47	12.95	29.61	100	238	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. 7	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 102 5510MHz		11020	47.23	-26.77	74	44.67	38.9	19.02	55.36	-	-	P	H
		16530	47.69	-20.51	68.2	40.09	38.44	24.04	54.88	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		11020	47.4	-26.6	74	44.84	38.9	19.02	55.36	-	-	P	V
		16530	47.63	-20.57	68.2	40.03	38.44	24.04	54.88	-	-	P	V
													V
													V
													V
													V
													V
													V



WIFI Ant. 7	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 110 5550MHz		11100	50.68	-23.32	74	48.02	38.9	19.06	55.3	100	269	P	H
		11100	40.22	-13.78	54	37.56	38.9	19.06	55.3	100	269	A	H
		16650	48.17	-20.03	68.2	40.7	38.15	24.28	54.96	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		11100	51.31	-22.69	74	48.65	38.9	19.06	55.3	100	203	P	V
		11100	41.71	-12.29	54	39.05	38.9	19.06	55.3	100	203	A	V
		16650	47.83	-20.37	68.2	40.36	38.15	24.28	54.96	-	-	P	V
													V
													V
													V
													V
													V
													V

[illegible]



Band 3 - 5470~5725MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 7	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 106 5530MHz		5442.88	58.27	-15.73	74	42.11	32.9	12.81	29.55	100	115	P	H
		5464	57.16	-11.04	68.2	41.03	32.87	12.82	29.56	100	115	P	H
		5452.24	50.05	-3.95	54	33.89	32.9	12.81	29.55	100	115	A	H
	*	5530	100.85	-	-	84.78	32.8	12.85	29.58	100	115	P	H
	*	5530	93.53	-	-	77.46	32.8	12.85	29.58	100	115	A	H
		5745.785	55.58	-12.62	68.2	38.66	33.57	12.96	29.61	100	115	P	H
		5441.92	60.43	-13.57	74	44.27	32.9	12.81	29.55	100	245	P	V
		5463.52	59.07	-9.13	68.2	42.94	32.87	12.82	29.56	100	245	P	V
		5452.48	52.51	-1.49	54	36.35	32.9	12.81	29.55	100	245	A	V
	*	5530	105.26	-	-	89.19	32.8	12.85	29.58	100	245	P	V
	*	5530	97.37	-	-	81.3	32.8	12.85	29.58	100	245	A	V
		5744.21	54.88	-13.32	68.2	37.96	33.57	12.96	29.61	100	245	P	V
802.11ac VHT80 CH 122 5610MHz		5422.1	54.21	-19.79	74	38.06	32.9	12.8	29.55	100	115	P	H
		5467.25	53.71	-14.49	68.2	37.58	32.87	12.82	29.56	100	115	P	H
		5449.75	45.33	-8.67	54	29.17	32.9	12.81	29.55	100	115	A	H
	*	5610	104.62	-	-	88.1	33.22	12.89	29.59	100	115	P	H
	*	5610	96.78	-	-	80.26	33.22	12.89	29.59	100	115	A	H
		5726.325	59.62	-8.58	68.2	42.82	33.46	12.95	29.61	100	115	P	H
		5455.35	54.95	-19.05	74	38.81	32.89	12.81	29.56	100	239	P	V
		5462.35	55.32	-12.88	68.2	39.18	32.88	12.82	29.56	100	239	P	V
		5458.85	46.63	-7.37	54	30.49	32.88	12.82	29.56	100	239	A	V
	*	5610	108.1	-	-	91.58	33.22	12.89	29.59	100	239	P	V
	*	5610	100.55	-	-	84.03	33.22	12.89	29.59	100	239	A	V
		5726.15	61.25	-6.95	68.2	44.45	33.46	12.95	29.61	100	239	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. 7	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 106 5530MHz		11060	47.96	-26.04	74	45.35	38.9	19.04	55.33	-	-	P	H
		16590	48.39	-19.81	68.2	40.83	38.32	24.16	54.92	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
													H
		11060	47.87	-26.13	74	45.26	38.9	19.04	55.33	-	-	P	V
		16590	48.68	-19.52	68.2	41.12	38.32	24.16	54.92	-	-	P	V
													V
													V
													V
													V
													V
													V
													V

[illegible]

Emission below 1GHz

5GHz WIFI 802.11n HT40 (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.	
7		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11an HT40 LF		93.05	31.3	-12.2	43.5	46.92	14.94	1.65	32.31	-	-	P	H
		116.33	25.52	-17.98	43.5	38.52	17.35	1.85	32.28	-	-	P	H
		155.13	25.29	-18.21	43.5	38.31	16.95	2.17	32.25	-	-	P	H
		765.26	30.68	-15.32	46	30.08	28.09	4.65	32.31	-	-	P	H
		854.5	33.01	-12.99	46	30.65	29.13	4.93	31.91	-	-	P	H
		937.92	34.92	-11.08	46	30.64	30.15	5.16	31.28	-	-	P	H
													H
													H
													H
													H
													H
													H
													H
		37.76	31.88	-8.12	40	42.4	20.79	0.93	32.3	-	-	P	V
		51.34	33.55	-6.45	40	50.91	13.67	1.19	32.29	-	-	P	V
		94.02	31.71	-11.79	43.5	47.24	15.03	1.65	32.31	-	-	P	V
		704.15	32.53	-13.47	46	33.77	26.54	4.45	32.39	-	-	P	V
		896.21	38.92	-7.08	46	36.28	28.94	5.04	31.57	-	-	P	V
		957.32	34.45	-11.55	46	29.33	30.79	5.21	31.14	-	-	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.												



<Sample 2>

Band 2 - 5250~5350MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 7	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 62 5310MHz		5084.66	53.06	-20.94	74	37.49	33.08	11.93	29.44	100	141	P	H
		5116.96	44.76	-9.24	54	29.13	33.1	11.98	29.45	100	141	A	H
	*	5310	103.75	-	-	87.82	32.96	12.48	29.51	100	141	P	H
	*	5310	95.74	-	-	79.81	32.96	12.48	29.51	100	141	A	H
		5352.24	54.77	-19.23	74	38.86	32.8	12.63	29.52	100	141	P	H
		5352	46.25	-7.75	54	30.34	32.8	12.63	29.52	100	141	A	H
		5060.86	54.38	-19.62	74	39.03	32.89	11.89	29.43	100	65	P	V
		5086.7	44.48	-9.52	54	28.9	33.09	11.93	29.44	100	65	A	V
	*	5310	107.34	-	-	91.41	32.96	12.48	29.51	100	65	P	V
	*	5310	99.36	-	-	83.43	32.96	12.48	29.51	100	65	A	V
		5350.32	57.79	-16.21	74	41.89	32.8	12.62	29.52	100	65	P	V
		5354.4	49.18	-4.82	54	33.26	32.81	12.63	29.52	100	65	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)

[illegible]

Emission below 1GHz

WIFI 802.11n HT40 (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.	
7		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 LF		67.83	28.14	-11.86	40	46.72	12.24	1.47	32.29	-	-	P	H
		146.4	31.83	-11.67	43.5	44.43	17.46	2.2	32.26	-	-	P	H
		191.02	33.99	-9.51	43.5	48.89	14.84	2.5	32.24	-	-	P	H
		729.37	37.95	-8.05	46	37.99	27.63	4.69	32.36	-	-	P	H
		746.83	36.27	-9.73	46	35.77	28.09	4.75	32.34	-	-	P	H
		899.12	39.7	-6.3	46	36.98	28.99	5.28	31.55	-	-	P	H
													H
													H
													H
													H
													H
													H
		38.73	32.67	-7.33	40	43.8	20.15	1.02	32.3	-	-	P	V
		73.65	32.4	-7.6	40	50.43	12.73	1.55	32.31	-	-	P	V
		187.14	26.57	-16.93	43.5	41.5	14.83	2.47	32.23	-	-	P	V
		783.69	33.23	-12.77	46	32.58	28.04	4.89	32.28	-	-	P	V
		913.67	33.08	-12.92	46	29.89	29.31	5.33	31.45	-	-	P	V
		943.74	33.98	-12.02	46	29.44	30.34	5.44	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.	
7		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a		5150	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 36		5150	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H
5180MHz													

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”.



Appendix C. Radiated Spurious Emission Plots

Test Engineer :	Andy Yang, Karl Hou and Wilson Wu	Temperature :	20~25°C
		Relative Humidity :	50~60%

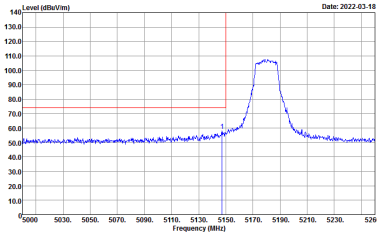
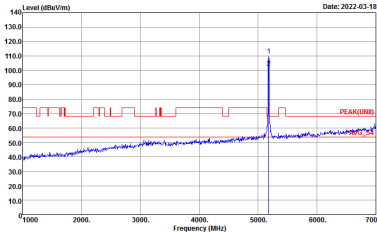
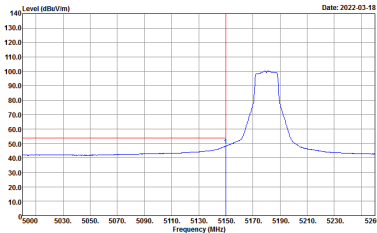
Note symbol

-L	Low channel location
-R	High channel location

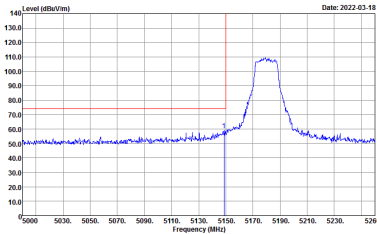
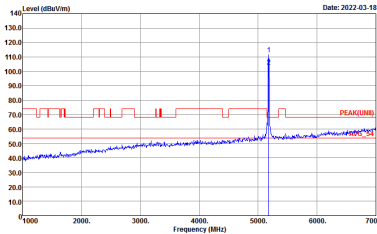
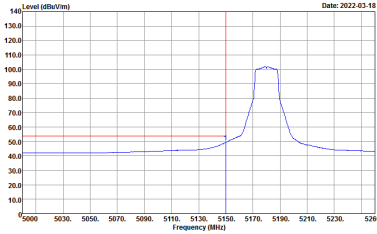


<Sample 1>

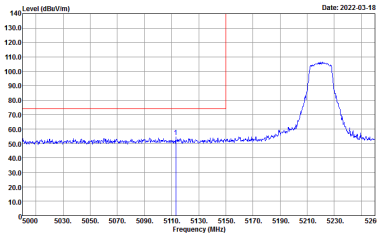
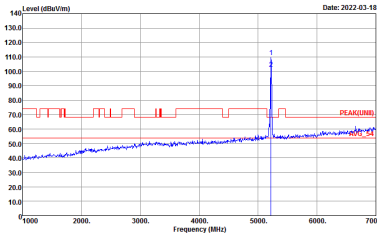
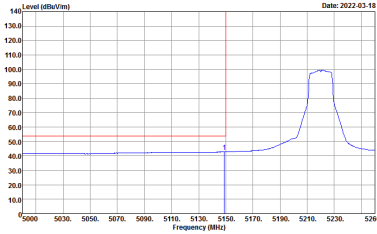
Band 1 - 5150~5250MHz
WIFI 802.11a (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_02114_210804 HORIZONTAL RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL RBW:1000.000kHz VBW:0.010kHz SWT:Auto	Left blank

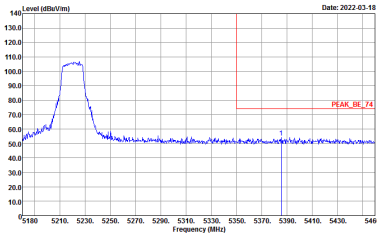
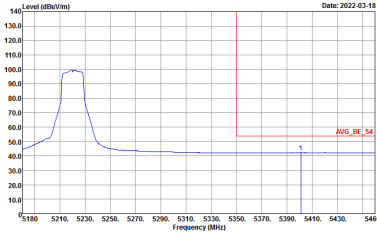


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
7	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_02114_210804 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

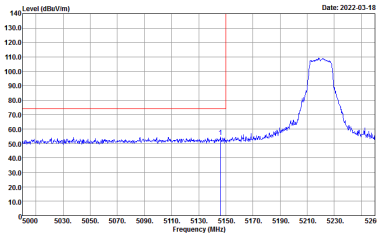
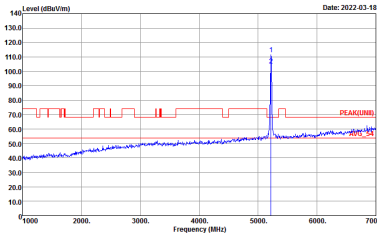
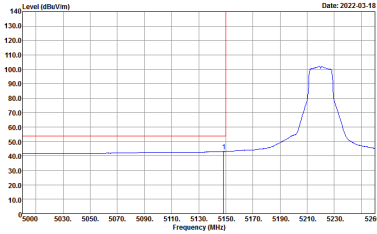


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_02114_210804 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

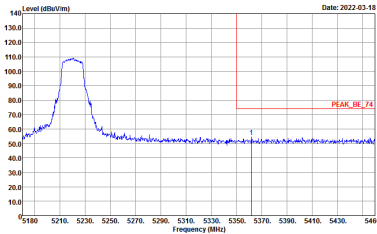
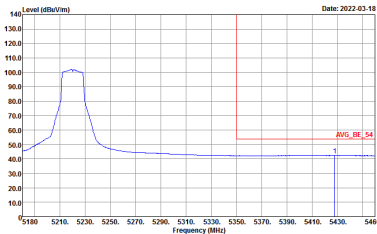


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

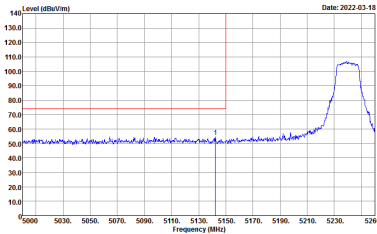
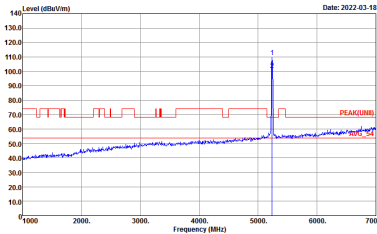
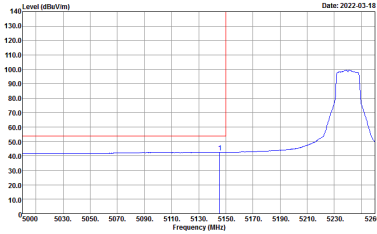


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
7	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_02114_210804 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

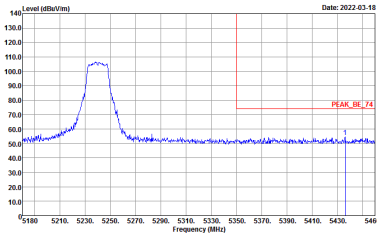
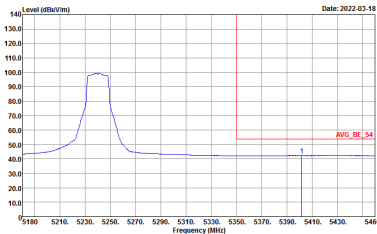


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
7	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

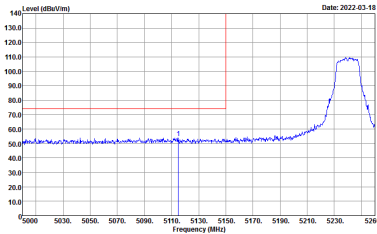
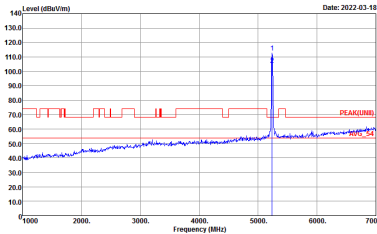
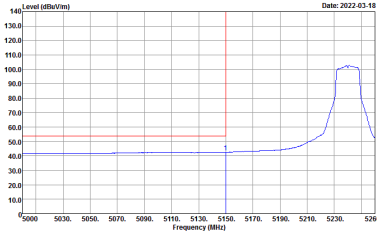


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

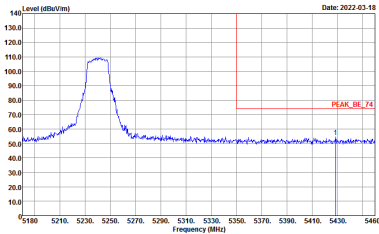
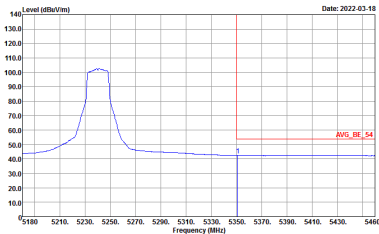


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
7	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_02114_210804 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
7	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank



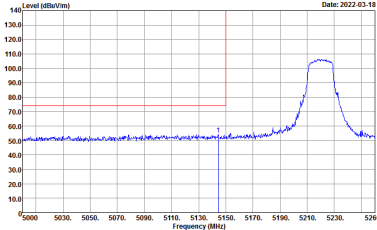
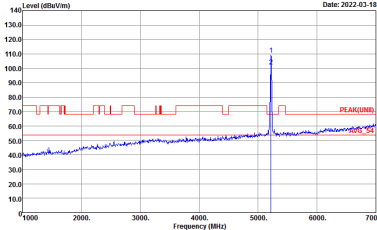
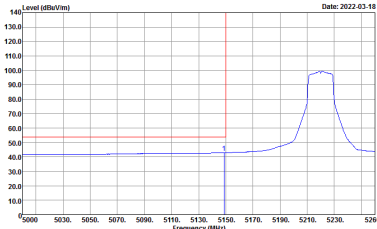
Band 1 5150~5250MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
7	Horizontal	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto	Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWT:Auto	Left blank

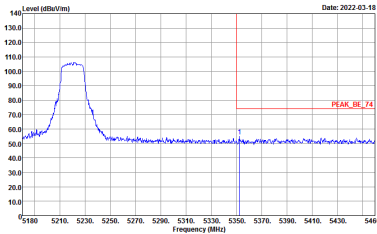
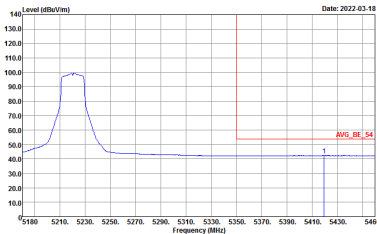


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
7	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK(FUNDI) 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

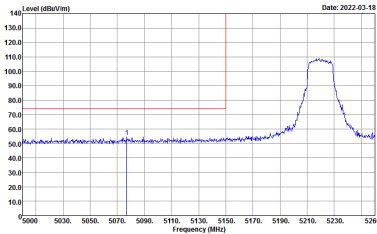
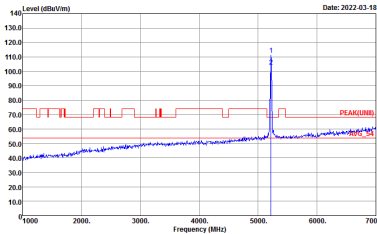
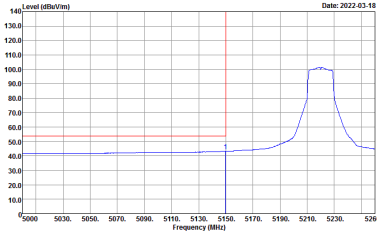


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

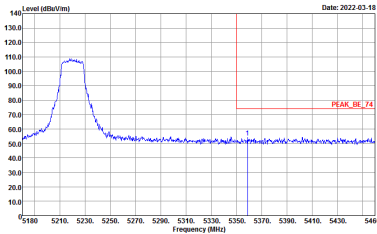
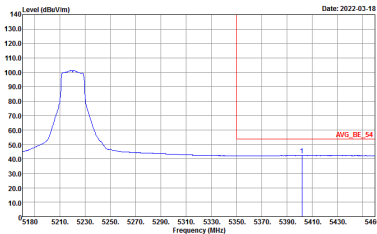


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

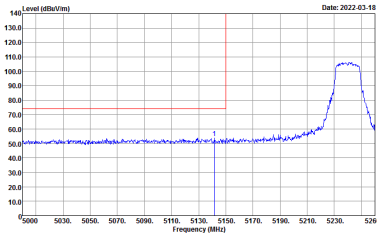
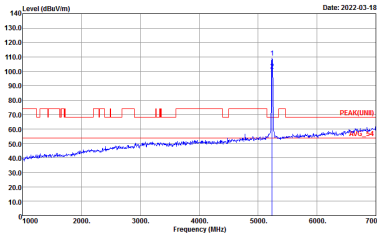
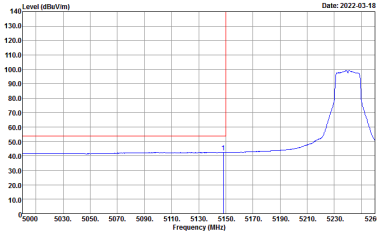


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
7	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

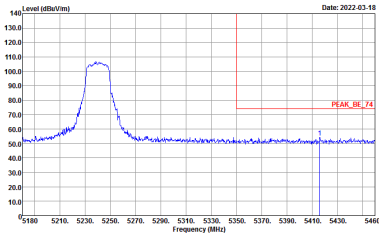
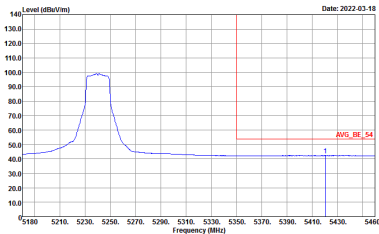


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
7	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

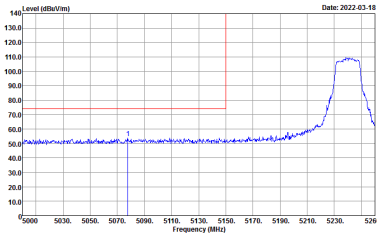
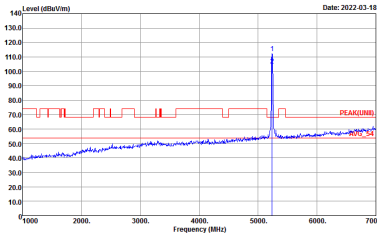
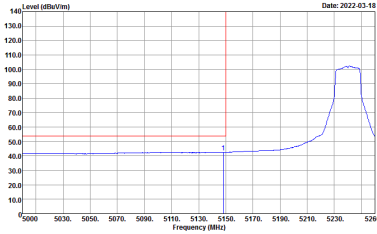


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

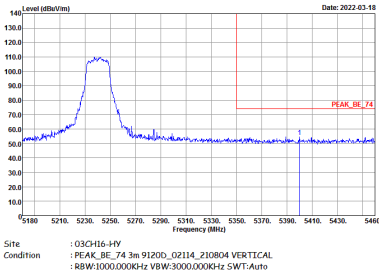
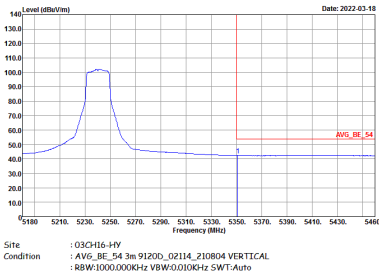


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank



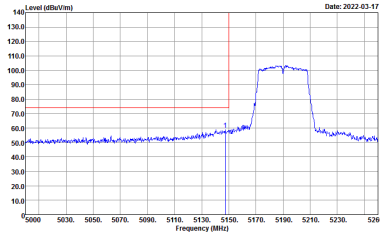
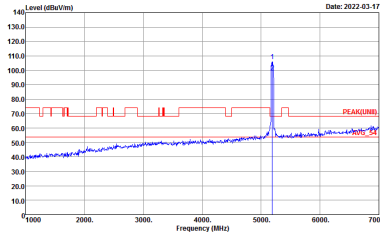
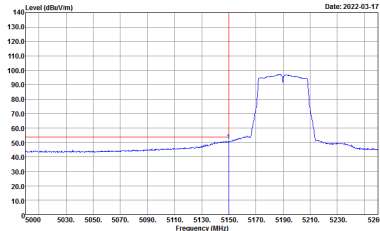
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
7	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank



WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
7	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank



Band 1 5150~5250MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

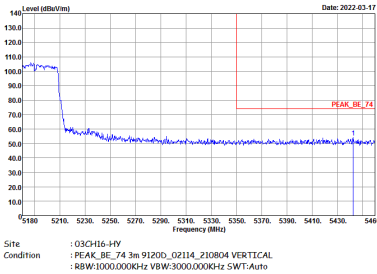
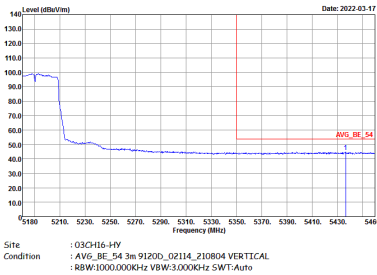


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
7	Horizontal	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

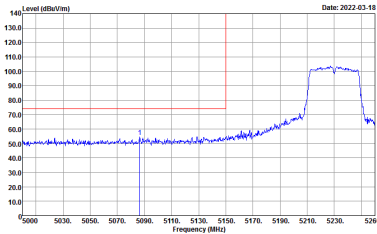
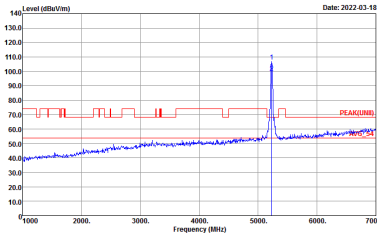
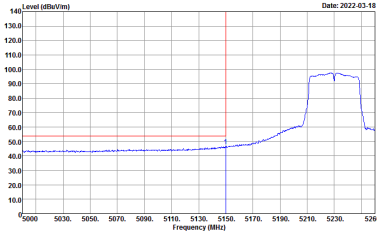


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
7	Vertical	Fundamental
Peak		
Avg.		Left blank

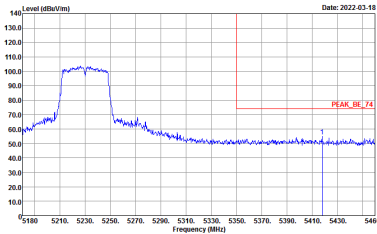
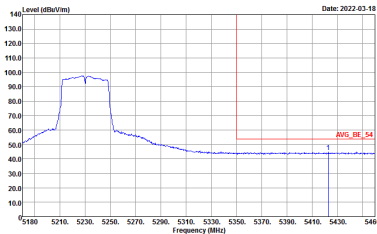


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
7	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

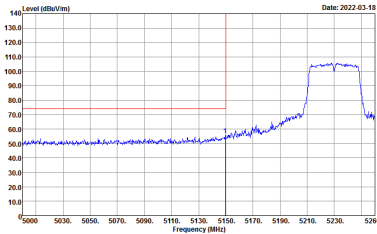
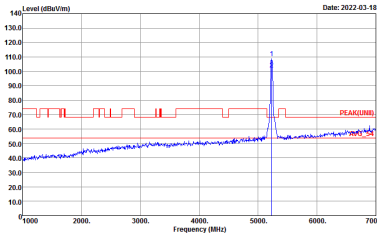
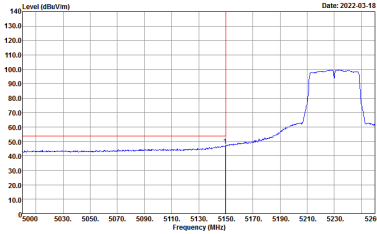


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

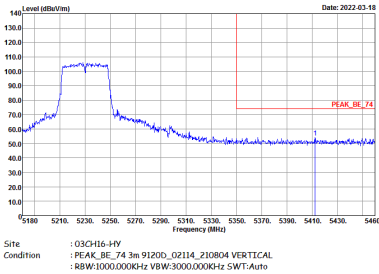
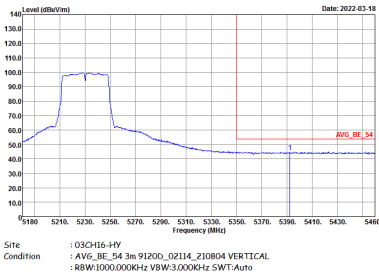


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank



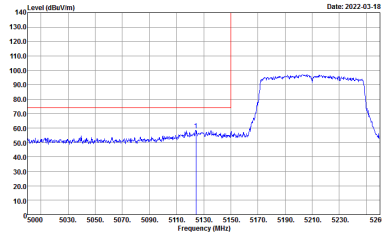
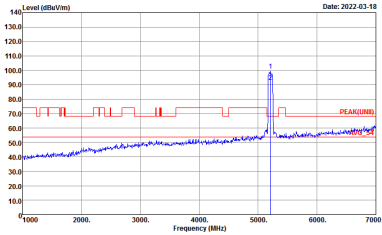
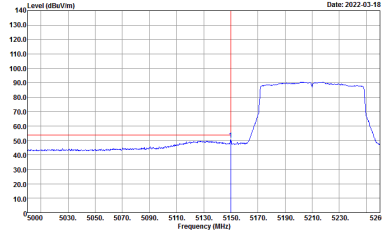
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
7	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank



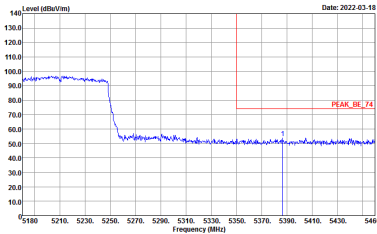
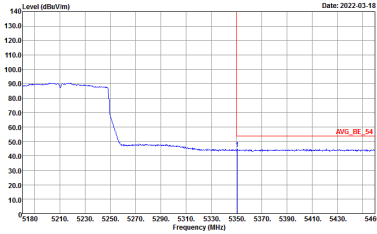
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
7	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank



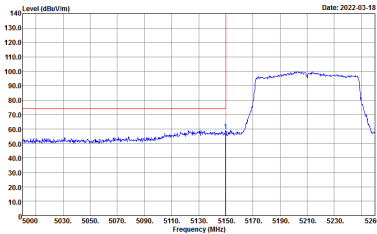
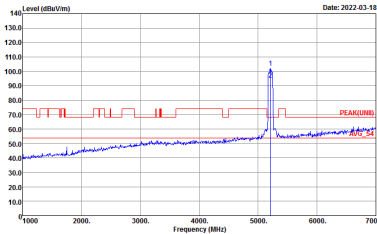
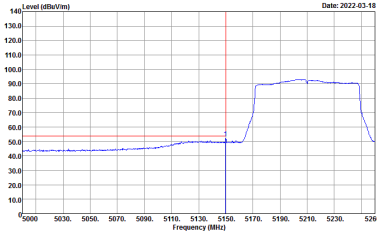
Band 1 5150~5250MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

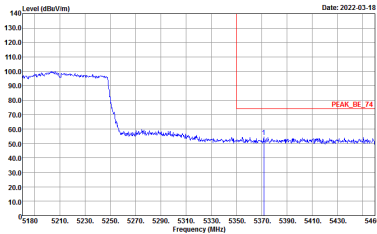
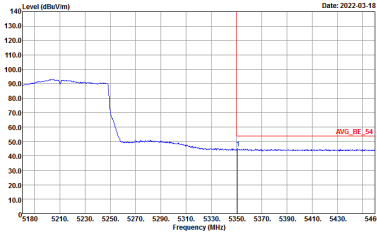


WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank



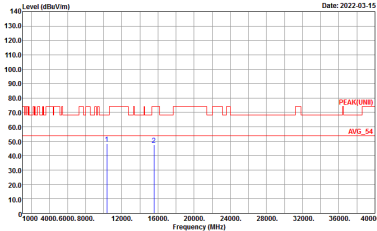
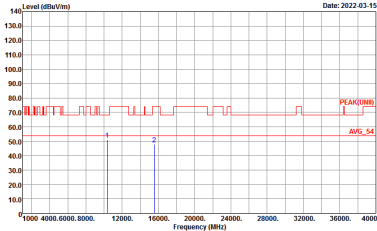
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
7	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank



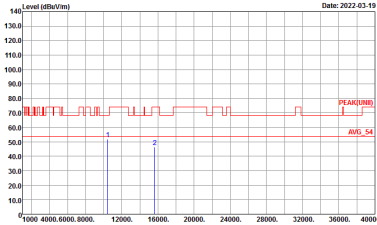
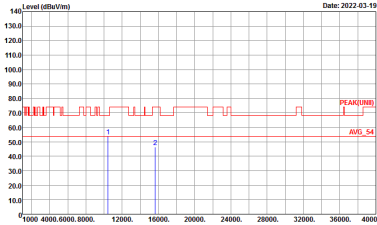
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
7	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank



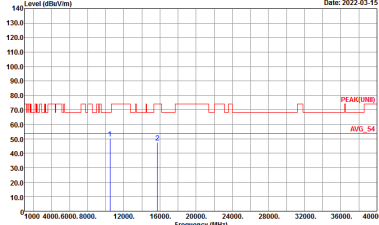
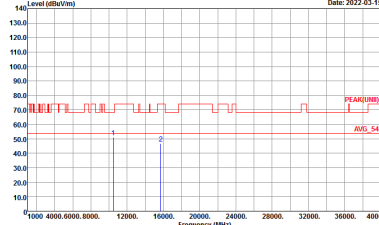
Band 1 - 5150~5250MHz
WIFI 802.11a (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
7	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 9120D_02114_210804 HORIZONTAL	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 9120D_02114_210804 VERTICAL



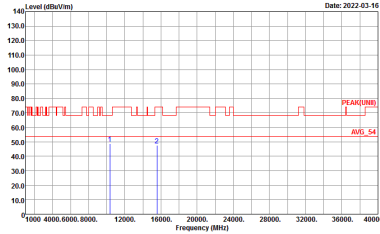
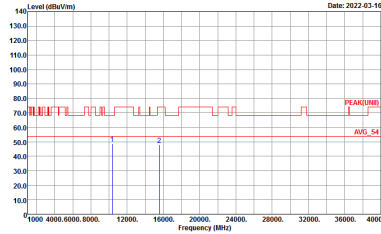
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
7	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_02114_210804 HORIZONTAL	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_02114_210804 VERTICAL



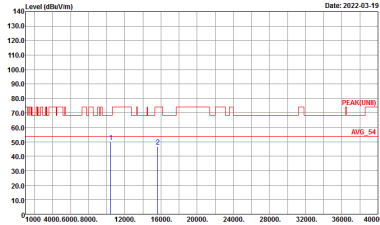
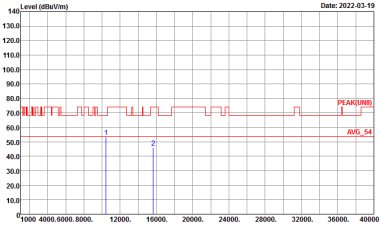
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
7	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_02114_210804 HORIZONTAL	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_02114_210804 VERTICAL



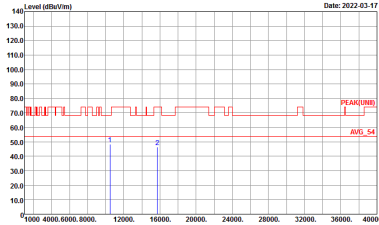
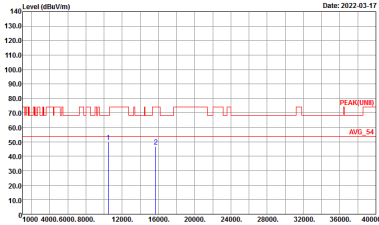
Band 1 5150~5250MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
7	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-14Y Condition : PEAK(UNIT) 3m 91200_02114_210804 HORIZONTAL	 Site : 03CH16-14Y Condition : PEAK(UNIT) 3m 91200_02114_210804 VERTICAL



WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH44 5220MHz	
7	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_02114_210804 HORIZONTAL	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_02114_210804 VERTICAL



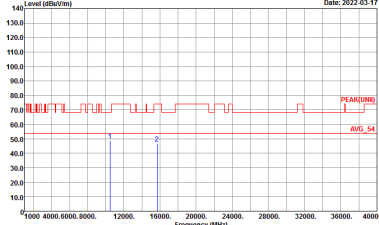
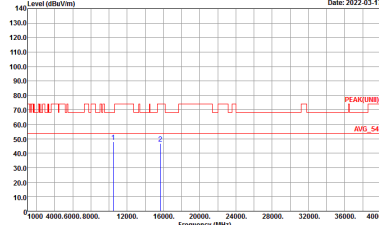
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH48 5240MHz	
7	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_02114_210804 HORIZONTAL	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_02114_210804 VERTICAL



Band 1 5150~5250MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

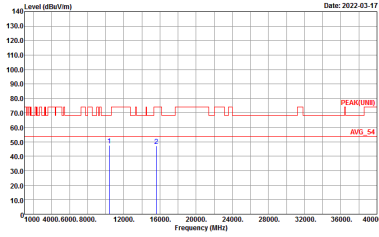
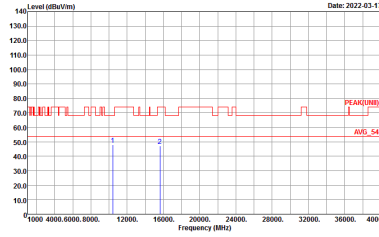
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH38 5190MHz	
7	Horizontal	Vertical
Peak Avg.	Site : 03CH16-14Y Condition : PEAK(UNIT) 3m 91200_02114_210804 HORIZONTAL	Site : 03CH16-14Y Condition : PEAK(UNIT) 3m 91200_02114_210804 VERTICAL



WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH46 5230MHz	
7	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_02114_210804 HORIZONTAL	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_02114_210804 VERTICAL

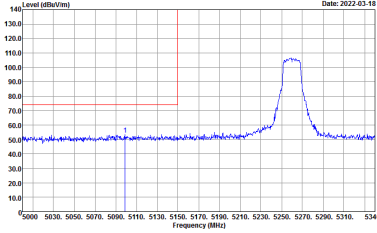
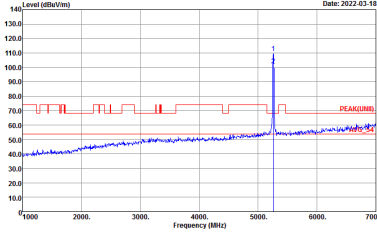
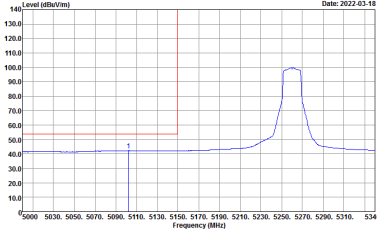


Band 1 5150~5250MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)

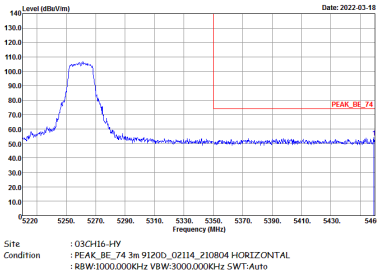
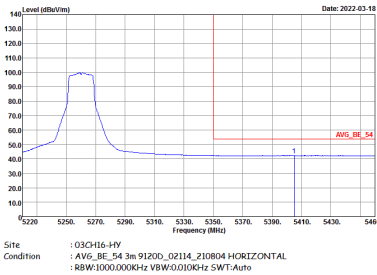
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz	
7	Horizontal	Vertical
Peak Avg.	 Site : 03CH16-14Y Condition : PEAK(UNIT) 3m 91200_02114_210804 HORIZONTAL	 Site : 03CH16-14Y Condition : PEAK(UNIT) 3m 91200_02114_210804 VERTICAL



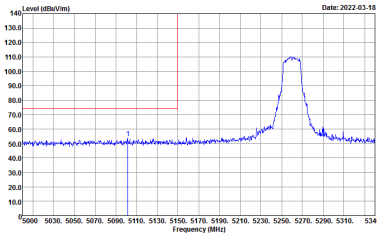
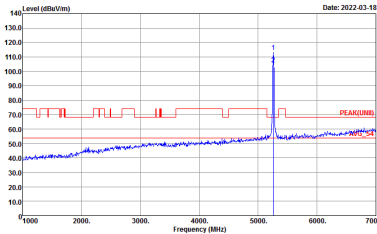
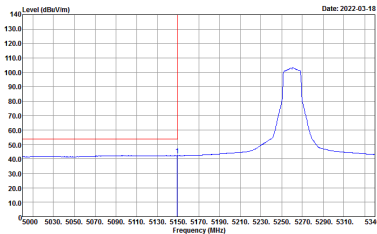
Band 2 - 5250~5350MHz
WIFI 802.11a (Band Edge @ 3m)

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_02114_210804 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

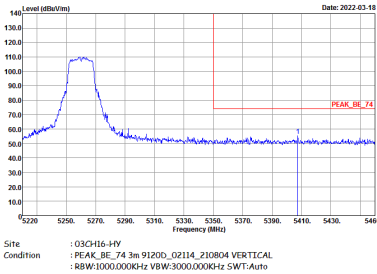
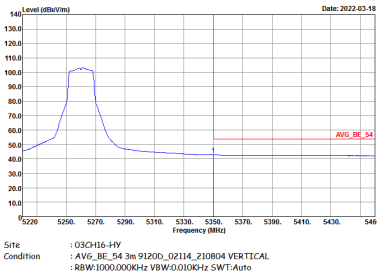


WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
7	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

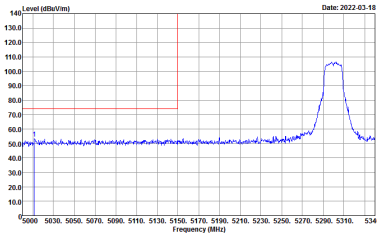
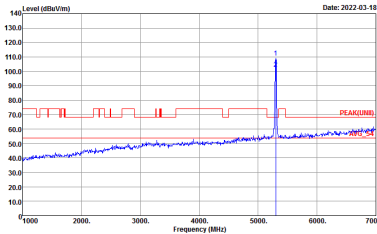
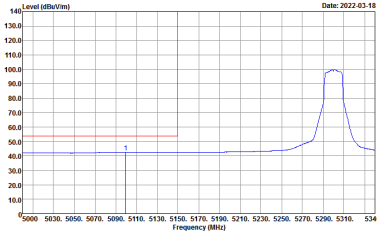


WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
7	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_02114_210804 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

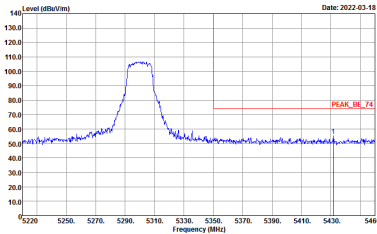
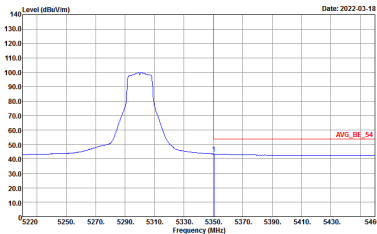


WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
7	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

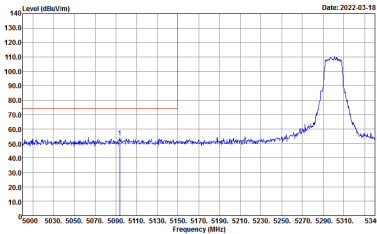
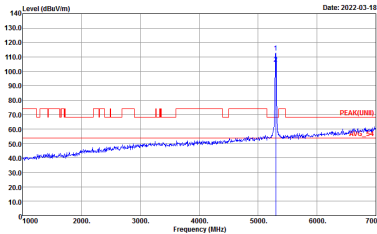
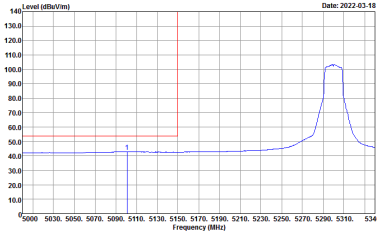


WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank



WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

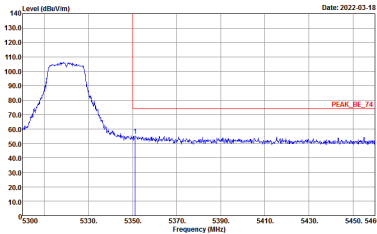
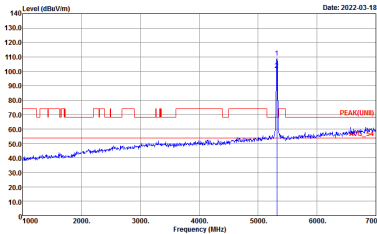
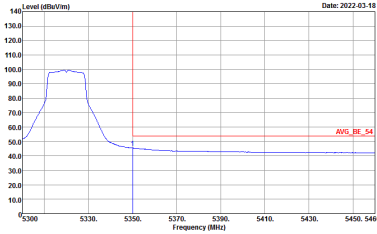


WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
7	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank



WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
7	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

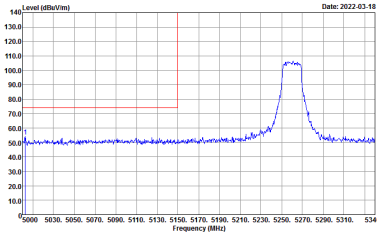
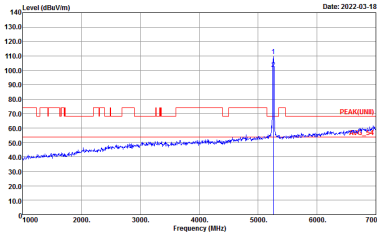
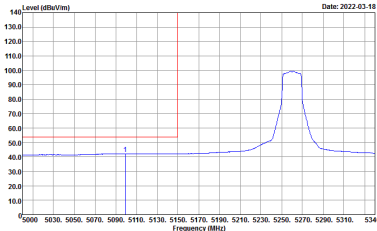


WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_02114_210804 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank



WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
7	Vertical	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH16-HY Condition : PEAK(LINB) 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

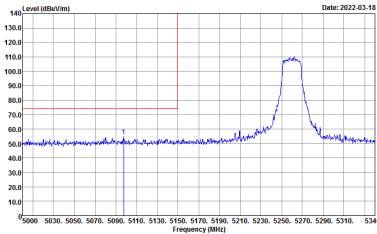
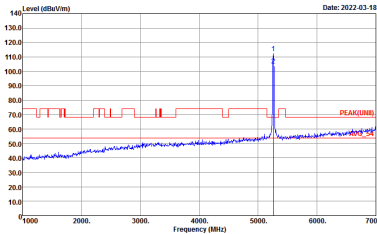
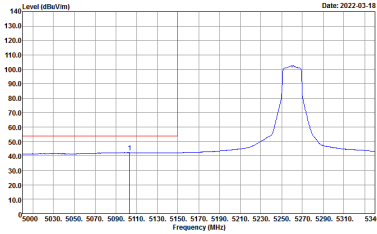
Band 2 5250~5350MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
7	Horizontal	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(UNIT) 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank

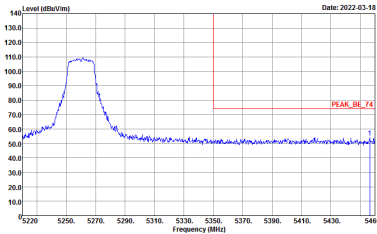
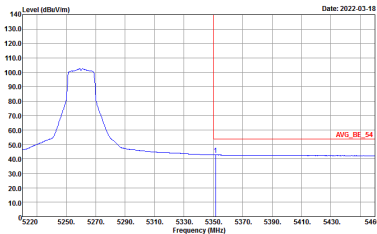


WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
7	Horizontal	Fundamental
Peak	Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 HORIZONTAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank



WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
7	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH16-HY Condition : PEAK(FUND) 3m 91200_02114_210804 VERTICAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 VERTICAL RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank



WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
7	Vertical	Fundamental
Peak	 Site : 03CH16-HY Condition : PEAK_BE_74 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank
Avg.	 Site : 03CH16-HY Condition : AVG_BE_54 3m 91200_02114_210804 VERTICAL : RBW:1000.000KHz VBW:0.010KHz SWT:Auto	Left blank