FCC RADIO TEST REPORT

FCC ID	:	**UZ7TC26EK**
Equipment	:	**Touch computer**
Brand Name	:	**Zebra**
Model Name	:	**TC26EK**
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 Jan. 25, 2021 and testing was started from Jan. 28, 2021 and completed on Feb. 26, 2021. We, SPORTON INTERNATIONAL INC., EMC & Wireless Communications 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 of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, 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 7
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 14
2.4 Support Unit used in test configuration and system 15
2.5 EUT Operation Test Setup 15
2.6 Measurement Results Explanation Example 15
3 Test Result **16**
3.1 26dB & 99% Occupied Bandwidth Measurement 16
3.2 Maximum Conducted Output Power Measurement 21
3.3 Power Spectral Density Measurement 26
3.4 Unwanted Emissions Measurement 31
3.5 AC Conducted Emission Measurement 36
3.6 Automatically Discontinue Transmission 38
3.7 Antenna Requirements 39
4 List of Measuring Equipment **40**
5 Uncertainty of Evaluation **41**
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	Issued Date
FR0O2628-02E	01	Initial issue of report	Mar. 04, 2021

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	Under limit 1.60 dB at 5352.240 MHz
3.5	15.207	AC Conducted Emission	Pass	Under limit 15.45 dB at 13.560 MHz
3.6	15.407(c)	Automatically Discontinue Transmission	Pass	-
3.7	15.203 15.407(a)	Antenna Requirement	Pass	-

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Wii Chang

Report Producer: Ruby Zou

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Touch computer
Brand Name	Zebra
Model Name	TC26EK
FCC ID	UZ7TC26EK
EUT supports Radios application	WCDMA/HSPA/LTE/NFC/GNSS WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE
HW Version	EV1.5
SW Version	Android version 10
OS Version	FUSION_QA_2_1.3.0.019_Q
FW Version	Zebra/TC26PG/TC26:10/10-16-10.00-QG-U33-STD-HEL-04/115:userdebug/release-keys
MFD	13JAN21
EUT Stage	Engineering Sample

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

Specification of Accessories				
AC Adapter	**Brand Name**	Zebra	**Model Name**	SAWA-65-20005A
Battery	**Brand Name**	Zebra	**Model Name**	BT-000409A
USB Cable 1 (TypeA plug to TypeC plug)	**Brand Name**	Zebra	**Part Number**	CBL-TC5X-USBC2A-01
USB Cable 2 (TypeA plug to TypeC plug)	**Brand Name**	Zebra	**Part Number**	CBL-TC2Y-USBC90A-01
Headset 3.5mm type with PTT/micassy	**Brand Name**	Zebra	**Part Number**	HDST-35MM-PTVP-01
Adapter Cable PTT headset (3.5mm to 3.5mm)	**Brand Name**	Zebra	**Part Number**	CBL-TC51-HDST35-01
Type C to 3.5mm adapter	**Brand Name**	Zebra	**Part Number**	ADP-USBC-35MM1-01
Snap on Trigger handle	**Brand Name**	Zebra	**Part Number**	TRG-TC2Y-SNP1-01
Belt Holster	**Brand Name**	Zebra	**Part Number**	SG-TC2Y-HLSTR1-01
Wearable Arm Mount	**Brand Name**	Zebra	**Part Number**	SG-TC2Y-ARMNT-01

1.2 Product Specification of Equipment Under Test

Product Specification subjective to this standard	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5720 MHz
Maximum Output Power to Antenna	**<5180 MHz ~ 5240 MHz>** 802.11a: 17.60 dBm / 0.0575 W 802.11n HT20: 17.30 dBm / 0.0537 W 802.11n HT40: 17.40 dBm / 0.0550 W 802.11ac VHT20: 17.40 dBm / 0.0550 W 802.11ac VHT40: 17.50 dBm / 0.0562 W 802.11ac VHT80: 16.80 dBm / 0.0479 W **<5260 MHz ~ 5320 MHz>** 802.11a: 19.90 dBm / 0.0977 W 802.11n HT20: 19.70 dBm / 0.0933 W 802.11n HT40: 19.40 dBm / 0.0871 W 802.11ac VHT20: 19.80 dBm / 0.0955 W 802.11ac VHT40: 19.50 dBm / 0.0891 W 802.11ac VHT80: 15.10 dBm / 0.0324 W **<5500 MHz ~ 5720 MHz>** 802.11a: 18.90 dBm / 0.0776 W 802.11n HT20: 19.00 dBm / 0.0794 W 802.11n HT40: 18.20 dBm / 0.0661 W 802.11ac VHT20: 19.10 dBm / 0.0813 W 802.11ac VHT40: 18.30 dBm / 0.0676 W 802.11ac VHT80: 18.80 dBm / 0.0759 W
99% Occupied Bandwidth	802.11a: 17.03 MHz 802.11ac VHT20: 18.08 MHz 802.11ac VHT40: 36.56 MHz 802.11ac VHT80: 76.36 MHz
Antenna Type / Gain	**<5180 MHz ~ 5240 MHz>** PIFA Antenna with gain 2.70 dBi **<5260 MHz ~ 5320 MHz>** PIFA Antenna with gain 2.70 dBi **<5500 MHz ~ 5720 MHz >** PIFA Antenna with gain 3.20 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)

Remark: The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.

1.3 Modification of EUT

No modifications are made to the EUT during all test items.

1.4 Testing Location

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978
Test Site No.	**Sporton Site No.**
	TH05-HY, CO05-HY

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

Test Site	Sporton International Inc. Wensan Laboratory.
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	03CH11-HY (TAF Code: 3786)
Remark	The Radiated Spurious Emission test item subcontracted to Sporton International Inc. Wensan Laboratory.

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

FCC designation No.: TW1190 and TW0007

1.5 Applicable Standards

According to the specifications of 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 test items were verified and recorded according to the standards and without any deviation during the test.
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, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.

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

2.1 Carrier Frequency and Channel

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

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

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

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

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

Note:

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

2.2 Test Mode

Final test modes are considering the modulation and worse data rates as below table.

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

Test Cases	
AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + Bluetooth Link + NFC On + Battery + USB Cable 1 (Charging from AC Adapter)
Remark: For Radiated Test Cases, the tests were performed with USB Cable 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
Straddle		-	-	144

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11ac VHT20	802.11ac VHT20	802.11ac VHT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140
Straddle		-	-	144

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11ac VHT40	802.11ac VHT40	802.11ac VHT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134
Straddle		-	-	142

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

Remark: For radiation spurious emission, the final modulation and the worst data rate was reference 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	
CH 036	5180	**17.60**	CH 036	17.20	17.20	17.50	17.20	17.50	17.50	17.50	
CH 044	5220	17.30									
CH 048	5240	17.40									
CH 052	5260	**19.90**	CH 052	19.80	19.70	19.80	19.80	19.70	19.80	19.70	
CH 060	5300	19.70									
CH 064	5320	**19.90**									
CH 100	5500	18.80	CH 116	18.80	18.70	18.70	18.60	18.70	18.70	18.80	
CH 116	5580	**18.90**									
CH 140	5700	15.30									
CH 144*	5720	**18.90**									

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

802.11n HT20 RF Output Power (dBm)											
Power vs. Channel			Power vs Data Rate								
Channel	Frequency (MHz)	MCS Index	Channel	MCS Index							
		MCS0		MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	
CH 036	5180	**17.30**	CH 036	16.90	17.00	16.90	17.10	16.80	16.80	16.80	
CH 044	5220	16.70									
CH 048	5240	17.10									
CH 052	5260	19.50	CH 064	19.50	19.40	19.40	19.50	19.60	19.60	19.50	
CH 060	5300	19.50									
CH 064	5320	**19.70**									
CH 100	5500	**19.00**	CH 100	18.60	18.90	18.90	18.90	18.60	18.60	18.70	
CH 116	5580	18.70									
CH 140	5700	15.80									
CH 144*	5720	**19.00**									

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

802.11n HT40 RF Output Power (dBm)											
Power vs. Channel			Power vs Data Rate								
Channel	Frequency (MHz)	MCS Index	Channel	MCS Index							
		MCS0		MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
CH 038	5190	17.00	CH 046	17.30	17.30	17.20	17.20	17.20	17.20	17.30
CH 046	5230	**17.40**								
CH 054	5270	**19.40**	CH 054	19.30	19.30	19.30	19.10	19.10	19.10	19.20
CH 062	5310	15.70								
CH 102	5510	17.70	CH 142*	18.00	18.00	17.90	18.00	17.90	18.00	17.90
CH 110	5550	17.80								
CH 134	5670	17.80								
CH 142*	5710	**18.20**								

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

802.11ac VHT20 RF Output Power (dBm)											
Power vs. Channel			Power vs Data Rate								
Channel	Frequency (MHz)	MCS Index	Channel	MCS Index							
		MCS0		MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8
CH 036	5180	**17.40**	CH 036	16.90	17.10	17.00	17.20	17.20	17.30	17.20	17.20
CH 044	5220	16.80									
CH 048	5240	17.20									
CH 052	5260	19.60	CH 064	19.60	19.70	19.70	19.50	19.60	19.60	19.60	19.60
CH 060	5300	19.60									
CH 064	5320	**19.80**									
CH 100	5500	**19.10**	CH 100	19.00	18.90	19.00	19.00	19.00	19.00	19.00	19.00
CH 116	5580	18.80									
CH 140	5700	15.90									
CH 144*	5720	**19.10**									

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

802.11ac VHT40 RF Output Power (dBm)													
Power vs. Channel			Power vs Data Rate										
Channel	Frequency (MHz)	MCS Index	Channel	MCS Index									
		MCS0		MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 038	5190	17.10	CH 046	17.40	17.40	17.30	17.00	17.00	17.00	16.90	17.00	17.00
CH 046	5230	**17.50**										
CH 054	5270	**19.50**	CH 054	19.40	19.40	19.40	19.00	19.00	19.00	18.90	18.90	18.90
CH 062	5310	15.80										
CH 102	5510	17.80	CH 142*	18.10	18.10	18.00	18.10	18.00	18.10	18.00	18.00	18.00
CH 110	5550	17.90										
CH 134	5670	17.90										
CH 142*	5710	**18.30**										

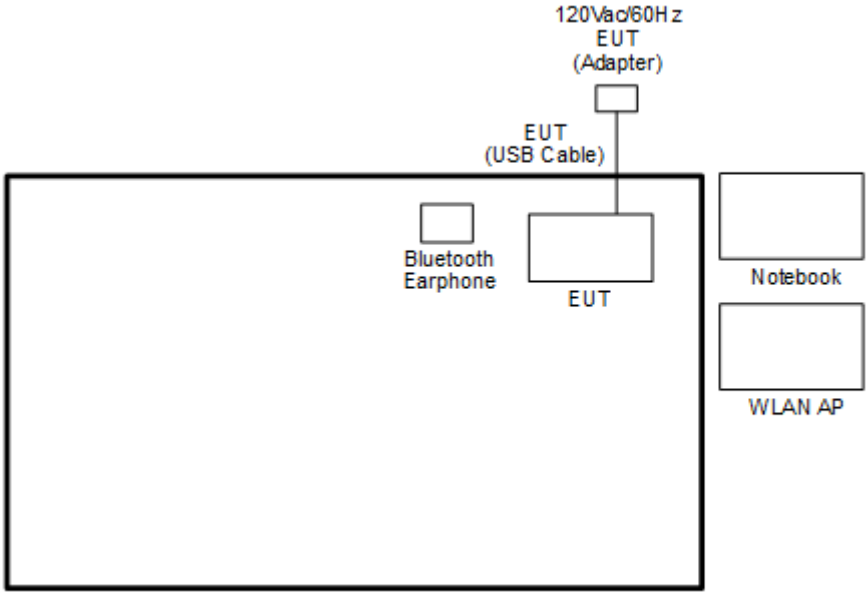
Note: The above Frequency and Channel in "*" were straddle Channel.

802.11ac VHT80 RF Output Power (dBm)													
Power vs. Channel			Power vs Data Rate										
Channel	Frequency (MHz)	MCS Index	Channel	MCS Index									
		MCS0		MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
CH 042	5210	**16.80**	CH 042	16.70	16.70	16.70	16.70	16.70	16.70	16.70	16.70	16.70
CH 058	5290	**15.10**	CH 058	15.00	15.00	15.00	14.80	14.80	14.80	14.80	14.80	14.80
CH 106	5530	15.20	CH 138*	18.60	18.50	18.50	18.40	18.40	18.30	18.40	18.40	18.40
CH 122	5610	18.50										
CH 138*	5690	**18.80**										

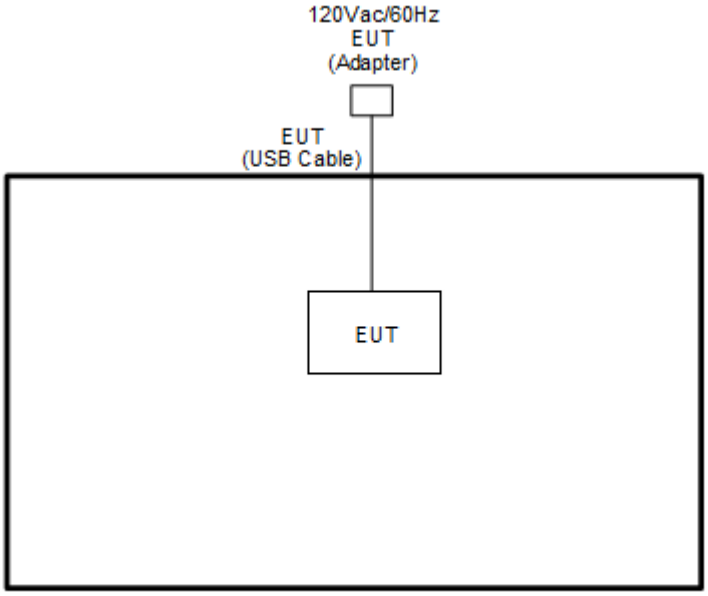
Note: The above Frequency and Channel in "*" were straddle Channel.

2.3 Connection Diagram of Test System

<AC Conducted Emission Mode>



<WLAN TX Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Brand Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
2.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
3.	Notebook	Dell	Latitude 3400	FCC DoC	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
4.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A

2.5 EUT Operation Test Setup

The RF test items, utility “QRCT4.0(00142.0)” 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 10dB attenuator.

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

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

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

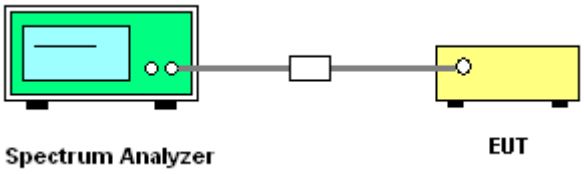
3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

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

3.1.4 Test Setup



3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Test Engineer :	Kathy Chen	Temperature :	22.3~25.5℃
		Relative Humidity :	56.1~59.1%

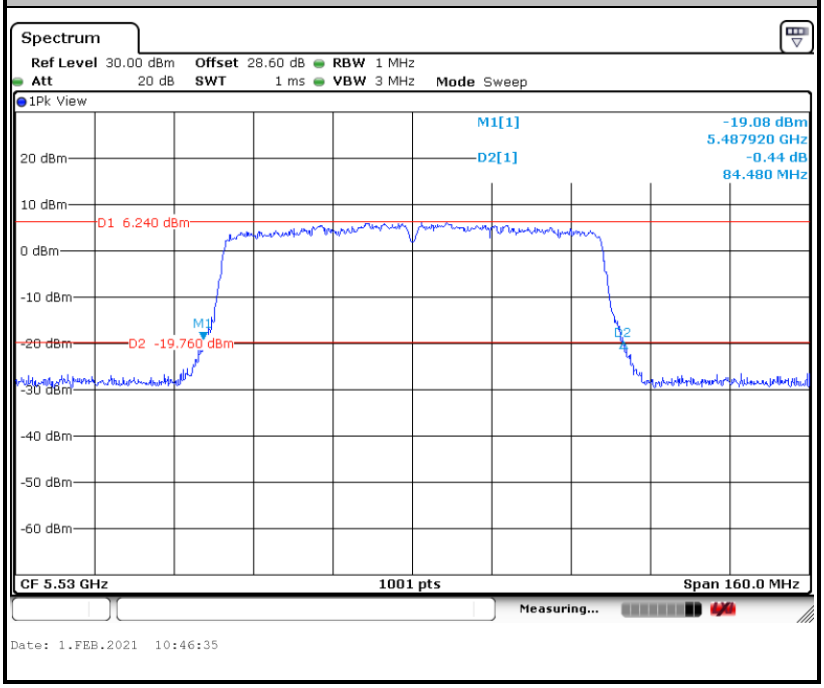
Band I single antenna													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		Note
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	36	5180	16.78	-	25.30	-	-		22.25	-	-
11a	6Mbps	1	44	5220	16.73	-	24.80	-	-		22.24	-	
11a	6Mbps	1	48	5240	16.78	-	25.05	-	-		22.25	-	
VHT20	MCS0	1	36	5180	17.93	-	27.15	-	-		22.54	-	
VHT20	MCS0	1	44	5220	17.93	-	25.85	-	-		22.54	-	
VHT20	MCS0	1	48	5240	17.93	-	26.10	-	-		22.54	-	
VHT40	MCS0	1	38	5190	36.56	-	42.03	-	-		23.01	-	
VHT40	MCS0	1	46	5230	36.56	-	42.03	-	-		23.01	-	
VHT80	MCS0	1	42	5210	**76.36**	-	**84.00**	-	-		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)		Note
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	52	5260	16.98	-	26.75	-	23.30	-	29.30	-	23.98	-	-
11a	6Mbps	1	60	5300	16.93	-	25.85	-	23.29	-	29.29	-	23.98	-	
11a	6Mbps	1	64	5320	17.03	-	25.55	-	23.31	-	29.31	-	23.98	-	
VHT20	MCS0	1	52	5260	18.08	-	28.30	-	23.57	-	29.57	-	23.98	-	
VHT20	MCS0	1	60	5300	18.03	-	27.65	-	23.56	-	29.56	-	23.98	-	
VHT20	MCS0	1	64	5320	18.08	-	28.40	-	23.57	-	29.57	-	23.98	-	
VHT40	MCS0	1	54	5270	36.56	-	42.30	-	23.98	-	30.00	-	23.98	-	
VHT40	MCS0	1	62	5310	36.56	-	41.85	-	23.98	-	30.00	-	23.98	-	
VHT80	MCS0	1	58	5290	**76.24**	-	**84.32**	-	23.98	-	30.00	-	23.98	-	

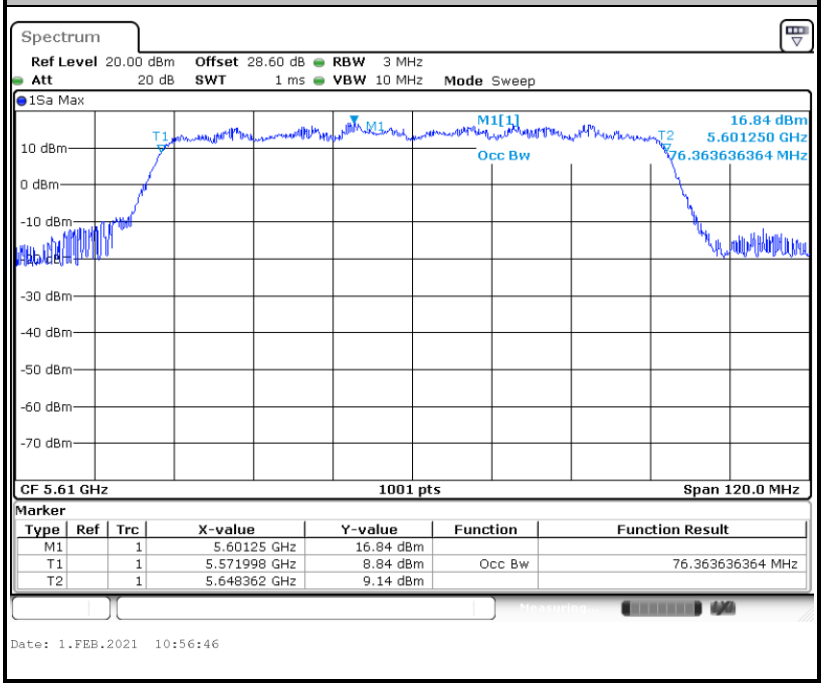
Band III single antenna																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth In U-NII 2C (MHz)		26 dB Bandwidth In U-NII 2C (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
11a	6Mbps	1	100	5500	16.78	-	25.25	-	23.25	-	29.25	-	23.98	-	-	-
11a	6Mbps	1	116	5580	16.83	-	25.10	-	23.26	-	29.26	-	23.98	-	-	-
11a	6Mbps	1	140	5700	16.78	-	25.25	-	23.25	-	29.25	-	23.98	-	-	-
VHT20	MCS0	1	100	5500	18.03	-	27.30	-	23.56	-	29.56	-	23.98	-	-	-
VHT20	MCS0	1	116	5580	17.98	-	26.60	-	23.55	-	29.55	-	23.98	-	-	-
VHT20	MCS0	1	140	5700	17.93	-	26.25	-	23.54	-	29.54	-	23.98	-	-	-
VHT40	MCS0	1	102	5510	36.56	-	41.94	-	23.98	-	30.00	-	23.98	-	-	-
VHT40	MCS0	1	110	5550	36.56	-	41.85	-	23.98	-	30.00	-	23.98	-	-	-
VHT40	MCS0	1	134	5670	36.56	-	41.94	-	23.98	-	30.00	-	23.98	-	-	-
VHT80	MCS0	1	106	5530	76.24	-	**84.48**	-	23.98	-	30.00	-	23.98	-	-	-
VHT80	MCS0	1	122	5610	**76.36**	-	**84.48**	-	23.98	-	30.00	-	23.98	-	-	-

Band III straddle channel single antenna																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth In U-NII 2C (MHz)		26 dB Bandwidth In U-NII 2C (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
11a	6Mbps	1	144	5720	13.44	-	17.60	-	22.28	-	28.28	-	23.46	-	2.8	-
VHT20	MCS0	1	144	5720	13.94	-	18.90	-	22.44	-	28.44	-	23.76	-	2.8	-
VHT40	MCS0	1	142	5710	33.18	-	36.06	-	23.98	-	30.00	-	23.98	-	2.82	-
VHT80	MCS0	1	138	5690	73.12	-	77.88	-	23.98	-	30.00	-	23.98	-	2.6	-

Maximum 26dB Bandwidth



Maximum 99% Occupied Bandwidth



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

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

For the 5.15–5.25 GHz bands:

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

For the 5.25–5.725 GHz bands:

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

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

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

Note that U-NII-2 band, devices with a maximum e.i.r.p. greater than 500 mW shall implement TPC in order to have the capability to operate at least 6 dB below the maximum permitted e.i.r.p. of 1 W.

3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

3.2.3 Test Procedures

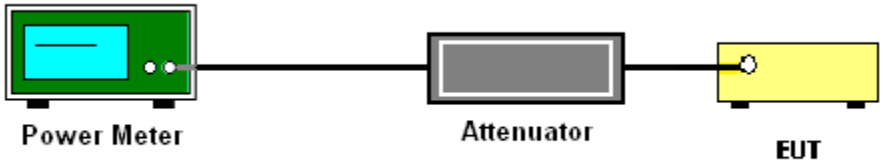
The testing follows Method PM-G of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

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

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

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

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Test Engineer :	Kathy Chen	Temperature :	22.3~25.5℃
		Relative Humidity :	56.1~59.1%

FCC Band I single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	36	5180	**17.60**	-	-	24.00	-	2.70	-	Pass
11a	6Mbps	1	44	5220	17.30	-		24.00	-	2.70	-	Pass
11a	6Mbps	1	48	5240	17.40	-		24.00	-	2.70	-	Pass
HT20	MCS0	1	36	5180	17.30	-		24.00	-	2.70	-	Pass
HT20	MCS0	1	44	5220	16.70	-		24.00	-	2.70	-	Pass
HT20	MCS0	1	48	5240	17.10	-		24.00	-	2.70	-	Pass
HT40	MCS0	1	38	5190	17.00	-		24.00	-	2.70	-	Pass
HT40	MCS0	1	46	5230	17.40	-		24.00	-	2.70	-	Pass
VHT20	MCS0	1	36	5180	17.40	-		24.00	-	2.70	-	Pass
VHT20	MCS0	1	44	5220	16.80	-		24.00	-	2.70	-	Pass
VHT20	MCS0	1	48	5240	17.20	-		24.00	-	2.70	-	Pass
VHT40	MCS0	1	38	5190	17.10	-		24.00	-	2.70	-	Pass
VHT40	MCS0	1	46	5230	17.50	-		24.00	-	2.70	-	Pass
VHT80	MCS0	1	42	5210	16.80	-		24.00	-	2.70	-	Pass

FCC Band II single antenna													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	52	5260	**19.90**	-	-	23.98	-	2.70	-	30	Pass
11a	6Mbps	1	60	5300	19.70	-		23.98	-	2.70	-	30	Pass
11a	6Mbps	1	64	5320	**19.90**	-		23.98	-	2.70	-	30	Pass
HT20	MCS0	1	52	5260	19.50	-		23.98	-	2.70	-	30	Pass
HT20	MCS0	1	60	5300	19.50	-		23.98	-	2.70	-	30	Pass
HT20	MCS0	1	64	5320	19.70	-		23.98	-	2.70	-	30	Pass
HT40	MCS0	1	54	5270	19.40	-		23.98	-	2.70	-	30	Pass
HT40	MCS0	1	62	5310	15.70	-		23.98	-	2.70	-	30	Pass
VHT20	MCS0	1	52	5260	19.60	-		23.98	-	2.70	-	30	Pass
VHT20	MCS0	1	60	5300	19.60	-		23.98	-	2.70	-	30	Pass
VHT20	MCS0	1	64	5320	19.80	-		23.98	-	2.70	-	30	Pass
VHT40	MCS0	1	54	5270	19.50	-		23.98	-	2.70	-	30	Pass
VHT40	MCS0	1	62	5310	15.80	-		23.98	-	2.70	-	30	Pass
VHT80	MCS0	1	58	5290	15.10	-		23.98	-	2.70	-	30	Pass

FCC Band III single antenna													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	100	5500	18.80	-	-	23.98	-	3.20	-	30	Pass
11a	6Mbps	1	116	5580	18.90	-		23.98	-	3.20	-	30	Pass
11a	6Mbps	1	140	5700	15.30	-		23.98	-	3.20	-	30	Pass
HT20	MCS0	1	100	5500	19.00	-		23.98	-	3.20	-	30	Pass
HT20	MCS0	1	116	5580	18.70	-		23.98	-	3.20	-	30	Pass
HT20	MCS0	1	140	5700	15.80	-		23.98	-	3.20	-	30	Pass
HT40	MCS0	1	102	5510	17.70	-		23.98	-	3.20	-	30	Pass
HT40	MCS0	1	110	5550	17.80	-		23.98	-	3.20	-	30	Pass
HT40	MCS0	1	134	5670	17.80	-		23.98	-	3.20	-	30	Pass
VHT20	MCS0	1	100	5500	**19.10**	-		23.98	-	3.20	-	30	Pass
VHT20	MCS0	1	116	5580	18.80	-		23.98	-	3.20	-	30	Pass
VHT20	MCS0	1	140	5700	15.90	-		23.98	-	3.20	-	30	Pass
VHT40	MCS0	1	102	5510	17.80	-		23.98	-	3.20	-	30	Pass
VHT40	MCS0	1	110	5550	17.90	-		23.98	-	3.20	-	30	Pass
VHT40	MCS0	1	134	5670	17.90	-		23.98	-	3.20	-	30	Pass
VHT80	MCS0	1	106	5530	15.20	-		23.98	-	3.20	-	30	Pass
VHT80	MCS0	1	122	5610	18.50	-		23.98	-	3.20	-	30	Pass

FCC Band III straddle channel single antenna													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	144	5720	18.90	-	-	23.46	-	3.20	-	30	Pass
HT20	MCS0	1	144	5720	19.00	-		23.98	-	3.20	-	30	Pass
HT40	MCS0	1	142	5710	18.20	-		23.98	-	3.20	-	30	Pass
VHT20	MCS0	1	144	5720	**19.10**	-		23.76	-	3.20	-	30	Pass
VHT40	MCS0	1	142	5710	18.30	-		23.98	-	3.20	-	30	Pass
VHT80	MCS0	1	138	5690	18.80	-		23.98	-	3.20	-	30	Pass

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

For the 5.15–5.25 GHz bands:

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

For the 5.25–5.725 GHz bands:

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

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

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

3.3.2 Measuring Instruments

See list of measuring equipment of 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.

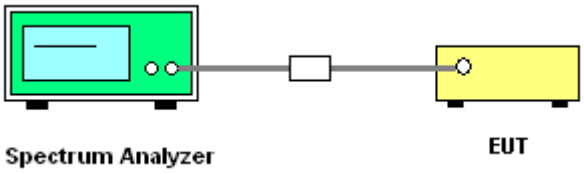
 # Method SA-3 #

(power averaging (rms) detection with max hold):

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time ≤ (number of points in sweep) × 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.
  Detector = power averaging (rms).
- Trace mode = max hold.
- Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.

1. The RF output of EUT was 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 :	Kathy Chen	Temperature :	22.3~25.5℃
		Relative Humidity :	56.1~59.1%

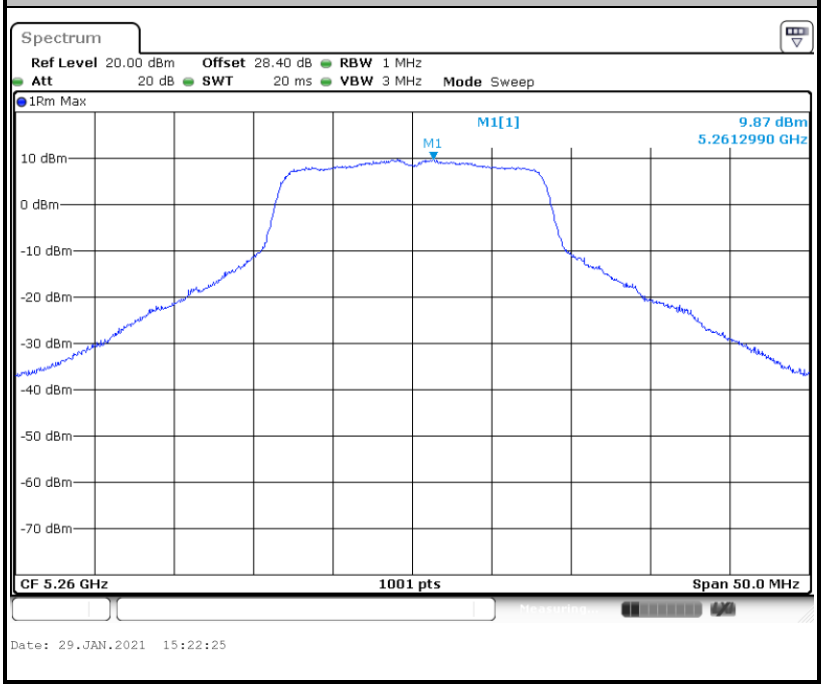
FCC Band I single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	36	5180	**7.39**	-	-	11.00	-	2.70	-	Pass
11a	6Mbps	1	44	5220	7.19	-		11.00	-	2.70	-	Pass
11a	6Mbps	1	48	5240	7.21	-		11.00	-	2.70	-	Pass
VHT20	MCS0	1	36	5180	7.22	-		11.00	-	2.70	-	Pass
VHT20	MCS0	1	44	5220	6.60	-		11.00	-	2.70	-	Pass
VHT20	MCS0	1	48	5240	7.03	-		11.00	-	2.70	-	Pass
VHT40	MCS0	1	38	5190	4.48	-		11.00	-	2.70	-	Pass
VHT40	MCS0	1	46	5230	4.32	-		11.00	-	2.70	-	Pass
VHT80	MCS0	1	42	5210	1.48	-		11.00	-	2.70	-	Pass

Band II single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	52	5260	**9.87**	-	-	11.00	-	2.70	-	Pass
11a	6Mbps	1	60	5300	9.62	-		11.00	-	2.70	-	Pass
11a	6Mbps	1	64	5320	9.85	-		11.00	-	2.70	-	Pass
VHT20	MCS0	1	52	5260	9.58	-		11.00	-	2.70	-	Pass
VHT20	MCS0	1	60	5300	9.48	-		11.00	-	2.70	-	Pass
VHT20	MCS0	1	64	5320	9.74	-		11.00	-	2.70	-	Pass
VHT40	MCS0	1	54	5270	6.20	-		11.00	-	2.70	-	Pass
VHT40	MCS0	1	62	5310	3.17	-		11.00	-	2.70	-	Pass
VHT80	MCS0	1	58	5290	-1.14	-		11.00	-	2.70	-	Pass

Band III single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	100	5500	8.92	-	-	11.00	-	3.20	-	Pass
11a	6Mbps	1	116	5580	8.90	-		11.00	-	3.20	-	Pass
11a	6Mbps	1	140	5700	5.71	-		11.00	-	3.20	-	Pass
VHT20	MCS0	1	100	5500	**8.95**	-		11.00	-	3.20	-	Pass
VHT20	MCS0	1	116	5580	8.82	-		11.00	-	3.20	-	Pass
VHT20	MCS0	1	140	5700	5.67	-		11.00	-	3.20	-	Pass
VHT40	MCS0	1	102	5510	4.66	-		11.00	-	3.20	-	Pass
VHT40	MCS0	1	110	5550	4.51	-		11.00	-	3.20	-	Pass
VHT40	MCS0	1	134	5670	4.76	-		11.00	-	3.20	-	Pass
VHT80	MCS0	1	106	5530	-0.76	-		11.00	-	3.20	-	Pass
VHT80	MCS0	1	122	5610	2.73	-		11.00	-	3.20	-	Pass

Band III straddle channel single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	144	5720	8.96	-	-	11.00	-	3.20	-	Pass
VHT20	MCS0	1	144	5720	**9.06**	-		11.00	-	3.20	-	Pass
VHT40	MCS0	1	142	5710	5.02	-		11.00	-	3.20	-	Pass
VHT80	MCS0	1	138	5690	3.01	-		11.00	-	3.20	-	Pass

Worst Case Power Density (dBm/MHz)



3.4 Unwanted Emissions Measurement

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

<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 fallen in restricted bands shall comply with the general field strength limits as below table:

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

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

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

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

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

(i) Sections 15.407(b)(1-3) specifies the unwanted emissions limit for the U-NII-1 and U-NII-2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of −27 dBm/MHz.

(ii) Section 15.407(b)(4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are based on the use of a peak detector.

3.4.1 Measuring Instruments

See list of measuring equipment of this test report.

3.4.2 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 1000MHz

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

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

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

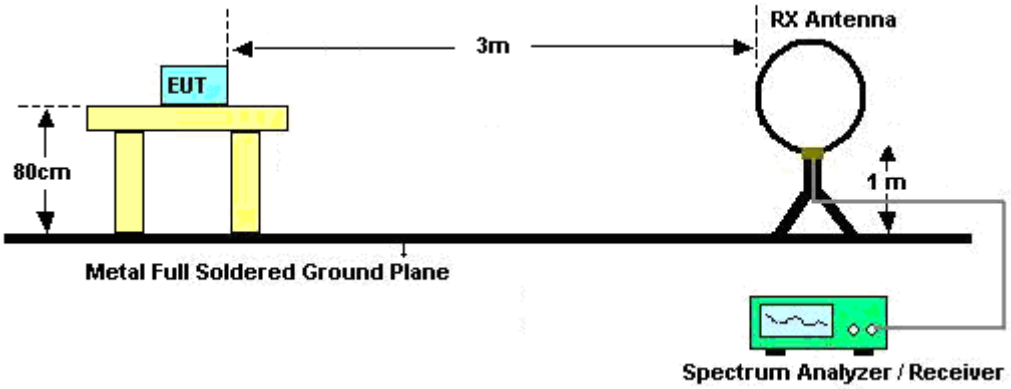
(3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

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

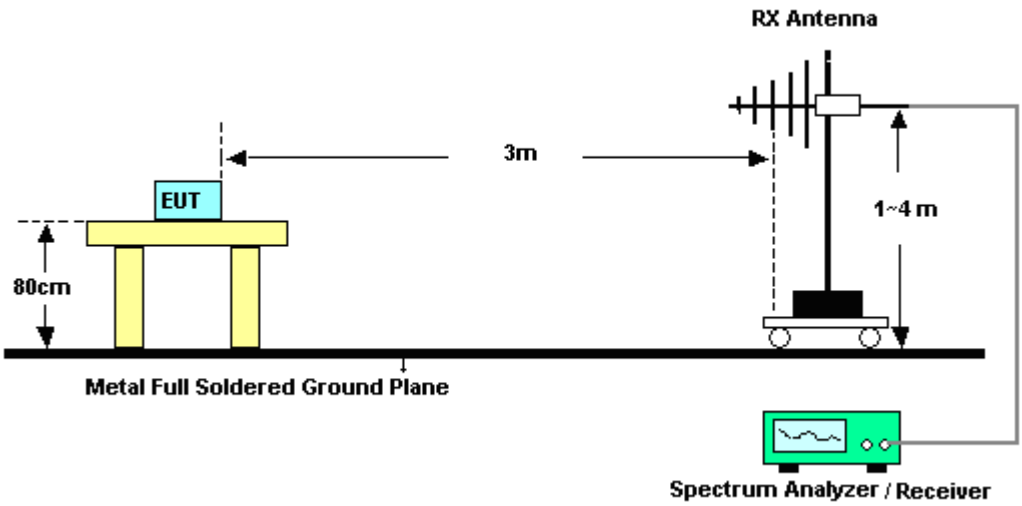
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband 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 was 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. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.4.3 Test Setup

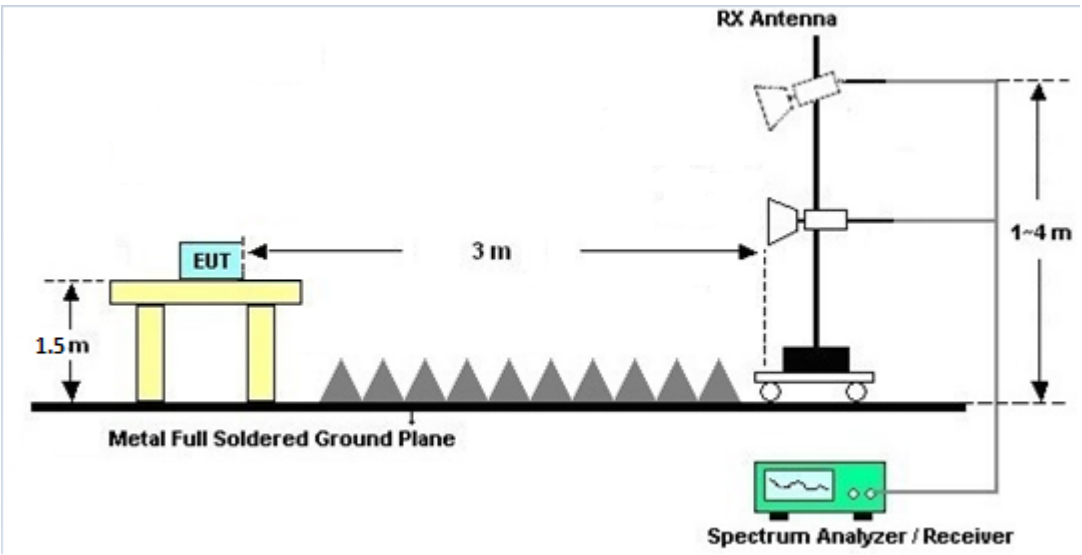
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated test above 1GHz



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

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

There is a comparison data 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.

3.4.5 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B and C.

3.4.6 Duty Cycle

Please refer to Appendix D.

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

Please refer to Appendix B and C.

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

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

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

*Decreases with the logarithm of the frequency.

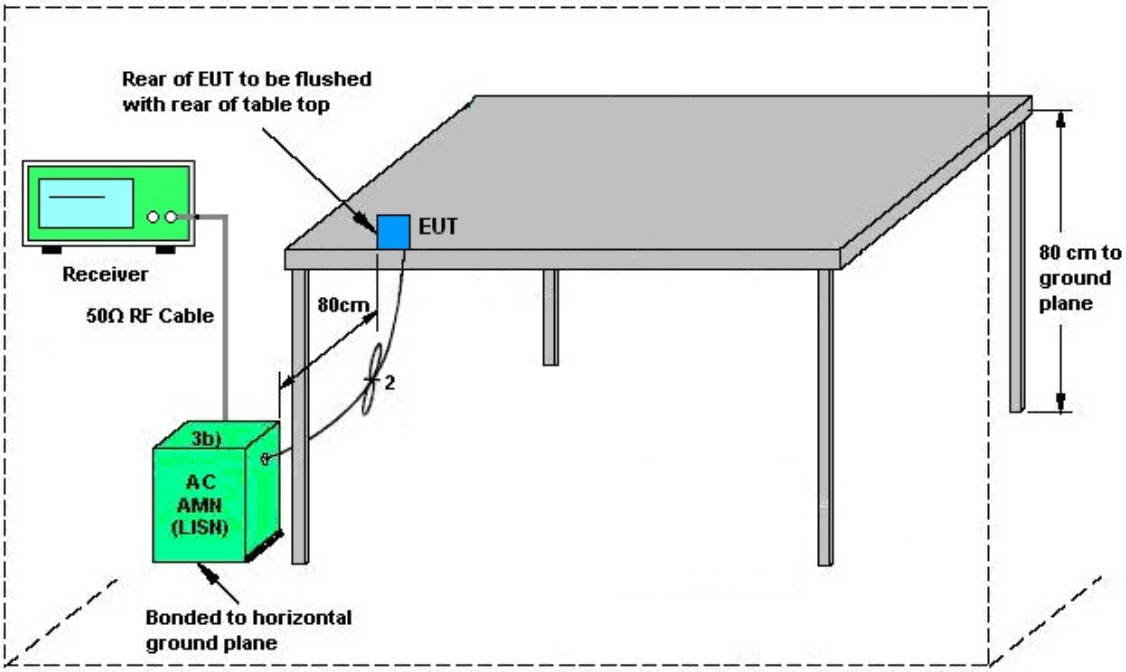
3.5.2 Measuring Instruments

See list of measuring equipment of this test report.

3.5.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was 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 should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.5.4 Test Setup



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

3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix A.

3.6 Automatically Discontinue Transmission

3.6.1 Limit of Automatically Discontinue Transmission

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

3.6.3 Test Result of Automatically Discontinue Transmission

While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving. The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.

3.7 Antenna Requirements

3.7.1 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.

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 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
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Nov. 12, 2020	Feb. 01, 2021~ Feb. 22, 2021	Nov. 11, 2021	Radiation (03CH11-HY)
Preamplifier	EMEC	EM18G40G	060801	18GHz~40GHz	Jun. 15, 2020	Feb. 01, 2021~ Feb. 22, 2021	Jun. 14, 2021	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170576	18GHz- 40GHz	May 22, 2020	Feb. 01, 2021~ Feb. 22, 2021	May 21, 2021	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1326	1GHz ~ 18GHz	Nov. 03, 2020	Feb. 01, 2021~ Feb. 22, 2021	Nov. 02, 2021	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz ~ 44GHz	Oct. 23, 2020	Feb. 01, 2021~ Feb. 22, 2021	Oct. 22, 2021	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D & N-6-06	35414 & AT-N0602	30MHz~1GHz	Oct. 11, 2020	Feb. 01, 2021~ Feb. 22, 2021	Oct. 10, 2021	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Dec. 02, 2020	Feb. 01, 2021~ Feb. 22, 2021	Dec. 01, 2021	Radiation (03CH11-HY)
Controller	EMEC	EM 1000	N/A	Control Turn table & Ant Mast	N/A	Feb. 01, 2021~ Feb. 22, 2021	N/A	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Feb. 01, 2021~ Feb. 22, 2021	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Feb. 01, 2021~ Feb. 22, 2021	N/A	Radiation (03CH11-HY)
Software	Audix	E3 6.2009-8-24	RK-001053	N/A	N/A	Feb. 01, 2021~ Feb. 22, 2021	N/A	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz-30MHz	Mar. 12, 2020	Feb. 01, 2021~ Feb. 22, 2021	Mar. 11, 2021	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz-40GHz	Mar. 12, 2020	Feb. 01, 2021~ Feb. 22, 2021	Mar. 11, 2021	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	30M-18G	Mar. 12, 2020	Feb. 01, 2021~ Feb. 22, 2021	Mar. 11, 2021	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY4274/2	30MHz-40GHz	Mar. 12, 2020	Feb. 01, 2021~ Feb. 22, 2021	Mar. 11, 2021	Radiation (03CH11-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40SS	SN3	6.75GHz High Pass Filter	Sep. 15, 2020	Feb. 01, 2021~ Feb. 22, 2021	Sep. 14, 2021	Radiation (03CH11-HY)
Filter	Wainwright	WLK4-1000-1530-8000-40SS	SN11	1.53G Low Pass	Sep. 14, 2020	Feb. 01, 2021~ Feb. 22, 2021	Sep. 13, 2021	Radiation (03CH11-HY)
Hygrometer	TECPEL	DTM-303B	TP200880	QA-3-031	Oct. 22, 2020	Feb. 01, 2021~ Feb. 22, 2021	Oct. 21, 2021	Radiation (03CH11-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Jan. 29, 2021	N/A	Conduction (CO05-HY)
LISN Cable	MVE	RG-400	260260	N/A	Dec. 31, 2020	Jan. 29, 2021	Dec. 30, 2021	Conduction (CO05-HY)
Pulse Limiter	SCHWARZBECK	ESHVTSD 9561-F N3-Z2	109561-FN003730851	9kHz-200MHz	Nov. 02, 2020	Jan. 29, 2021	Nov. 01, 2021	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34893241	N/A	Mar. 02, 2020	Jan. 28, 2021~ Feb. 26, 2021	Mar. 01, 2021	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I00054SNO10	10MHz~6GHz	Dec. 23, 2020	Jan. 28, 2021~ Feb. 26, 2021	Dec. 22, 2021	Conducted (TH05-HY)
Signal Analyzer	Rohde & Schwarz	FSV40	101566	10Hz ~ 40GHz	Jul. 22, 2020	Jan. 28, 2021~ Feb. 26, 2021	Jul. 21, 2021	Conducted (TH05-HY)
Switch Box & RF Cable	EM Electronics	EMSW18SE	SW200302	N/A	Mar. 17, 2020	Jan. 28, 2021~ Feb. 26, 2021	Mar. 16, 2021	Conducted (TH05-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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.4

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

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

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

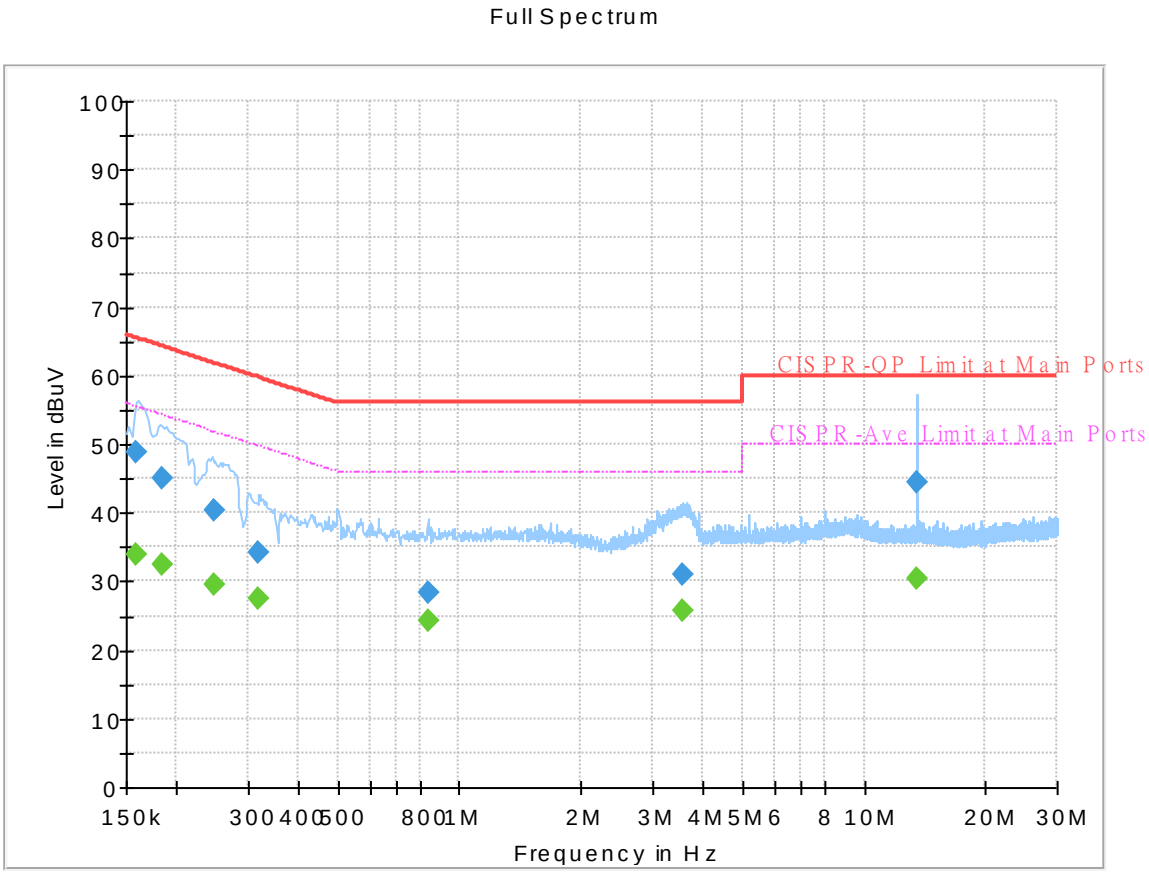
Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.1

Appendix A. AC Conducted Emission Test Results

Test Engineer :	Tom Lee	**Temperature :**	23~26℃
		Relative Humidity :	40~50%

EUT Information

Report NO :	0O2628-02
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

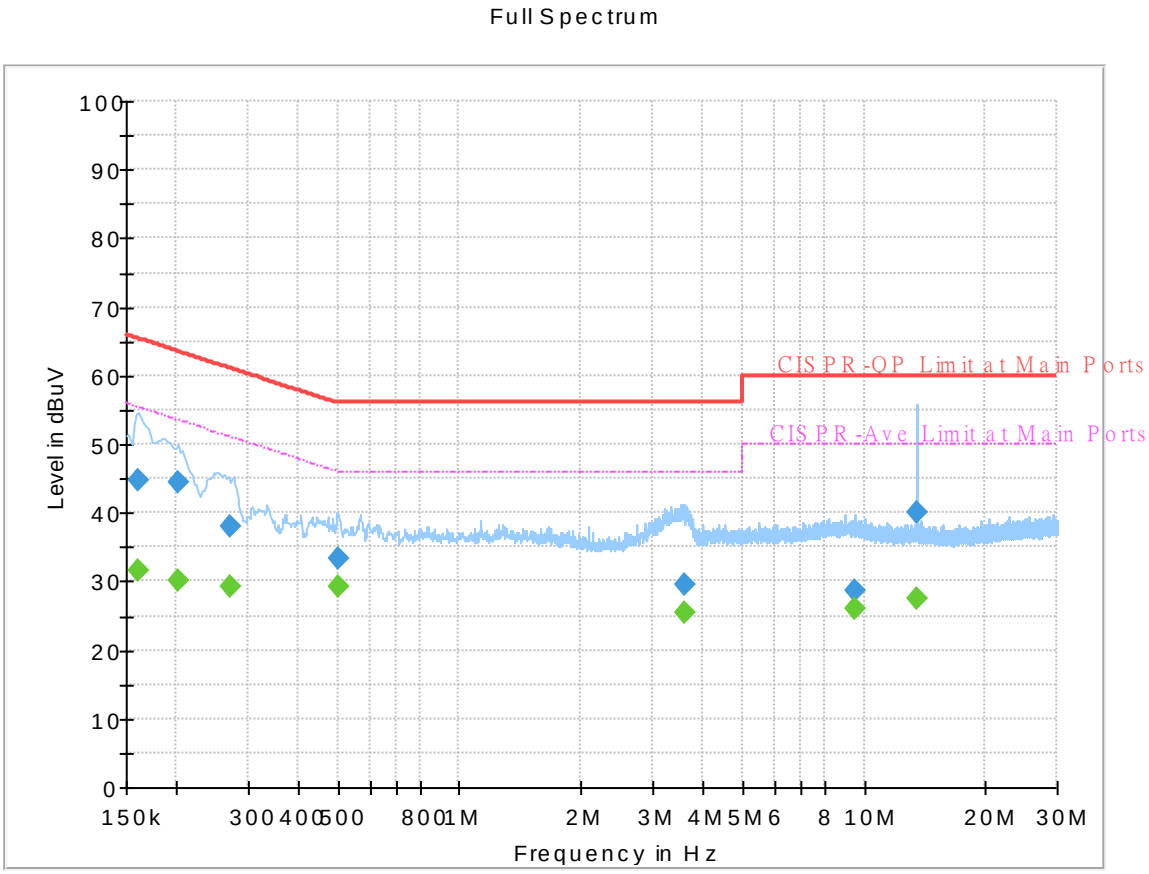


Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.158460	---	33.96	55.54	21.58	L1	OFF	19.7
0.158460	48.92	---	65.54	16.62	L1	OFF	19.7
0.183750	---	32.48	54.31	21.83	L1	OFF	19.7
0.183750	45.15	---	64.31	19.16	L1	OFF	19.7
0.247560	---	29.50	51.84	22.34	L1	OFF	19.7
0.247560	40.36	---	61.84	21.48	L1	OFF	19.7
0.316500	---	27.41	49.80	22.39	L1	OFF	19.7
0.316500	34.14	---	59.80	25.66	L1	OFF	19.7
0.834900	---	24.21	46.00	21.79	L1	OFF	20.2
0.834900	28.32	---	56.00	27.68	L1	OFF	20.2
3.576750	---	25.82	46.00	20.18	L1	OFF	20.1
3.576750	30.86	---	56.00	25.14	L1	OFF	20.1
13.560000	---	30.34	50.00	19.66	L1	OFF	20.3
13.560000	44.55	---	60.00	15.45	L1	OFF	20.3

EUT Information

Report NO :	0O2628-02
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.161237	---	31.47	55.40	23.93	N	OFF	19.7
0.161237	44.76	---	65.40	20.64	N	OFF	19.7
0.201570	---	30.23	53.55	23.32	N	OFF	19.7
0.201570	44.36	---	63.55	19.19	N	OFF	19.7
0.271950	---	29.17	51.06	21.89	N	OFF	19.8
0.271950	38.12	---	61.06	22.94	N	OFF	19.8
0.499290	---	29.36	46.01	16.65	N	OFF	19.9
0.499290	33.24	---	56.01	22.77	N	OFF	19.9
3.598980	---	25.41	46.00	20.59	N	OFF	20.1
3.598980	29.47	---	56.00	26.53	N	OFF	20.1
9.523500	---	25.97	50.00	24.03	N	OFF	20.2
9.523500	28.57	---	60.00	31.43	N	OFF	20.2
13.560000	---	27.44	50.00	22.56	N	OFF	20.4
13.560000	40.11	---	60.00	19.89	N	OFF	20.4

Appendix B. Radiated Spurious Emission

Test Engineer :	Bill Cheng, Fu Chen and Troye Hsieh	**Temperature :**	18.3~26.5°C
		Relative Humidity :	43.2~66.7%

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.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5149.5	63.54	-10.46	74	54.57	31.8	9.97	32.8	244	295	P	H
		5147.94	44.54	-9.46	54	35.58	31.8	9.96	32.8	244	295	A	H
	*	5180	111.67	-	-	102.85	31.62	10.01	32.81	244	295	P	H
	*	5180	104	-	-	95.18	31.62	10.01	32.81	244	295	A	H
													H
													H
		5146.9	58.97	-15.03	74	50	31.81	9.96	32.8	174	265	P	V
		5149.24	41.96	-12.04	54	32.99	31.8	9.97	32.8	174	265	A	V
	*	5180	106.7	-	-	97.88	31.62	10.01	32.81	174	265	P	V
	*	5180	98.83	-	-	90.01	31.62	10.01	32.81	174	265	A	V
													V
													V
802.11a CH 44 5220MHz		5148.2	53.7	-20.3	74	44.74	31.8	9.96	32.8	239	304	P	H
		5150	41.88	-12.12	54	32.91	31.8	9.97	32.8	239	304	A	H
	*	5220	111.29	-	-	102.68	31.38	10.06	32.83	239	304	P	H
	*	5220	103.06	-	-	94.45	31.38	10.06	32.83	239	304	A	H
		5458.8	50.8	-23.2	74	41.91	31.62	10.23	32.96	239	304	P	H
		5357.04	39.88	-14.12	54	31.4	31.23	10.16	32.91	239	304	A	H
		5133.64	51.28	-22.72	74	42.3	31.83	9.94	32.79	174	265	P	V
		5150	40.68	-13.32	54	31.71	31.8	9.97	32.8	174	265	A	V
	*	5220	103.84	-	-	95.23	31.38	10.06	32.83	174	265	P	V
	*	5220	96.02	-	-	87.41	31.38	10.06	32.83	174	265	A	V
		5415.84	49.06	-24.94	74	40.34	31.46	10.2	32.94	174	265	P	V
		5458.32	39.23	-14.77	54	30.34	31.62	10.23	32.96	174	265	A	V

802.11a CH 48 5240MHz		5131.82	51.77	-22.23	74	42.78	31.84	9.94	32.79	241	304	P	H
		5150	41.07	-12.93	54	32.1	31.8	9.97	32.8	241	304	A	H
	*	5240	111.32	-	-	102.83	31.26	10.07	32.84	241	304	P	H
	*	5240	103.43	-	-	94.94	31.26	10.07	32.84	241	304	A	H
		5350.08	53.62	-20.38	74	45.17	31.2	10.15	32.9	241	304	P	H
		5356.8	40.45	-13.55	54	31.97	31.23	10.16	32.91	241	304	A	H
		5103.48	51.78	-22.22	74	42.76	31.89	9.9	32.77	160	259	P	V
		5098.8	40.54	-13.46	54	31.52	31.9	9.89	32.77	160	259	A	V
	*	5240	104.27	-	-	95.78	31.26	10.07	32.84	160	259	P	V
	*	5240	96.38	-	-	87.89	31.26	10.07	32.84	160	259	A	V
		5391.84	50.46	-23.54	74	41.83	31.37	10.18	32.92	160	259	P	V
		5458.8	39.22	-14.78	54	30.33	31.62	10.23	32.96	160	259	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10360	46.66	-21.54	68.2	56.4	39.68	17.3	66.72	100	0	P	H
		15540	47.57	-26.43	74	54.3	38.08	21.32	66.13	100	0	P	H
													H
													H
		10360	47.58	-20.62	68.2	57.32	39.68	17.3	66.72	100	0	P	V
		15540	48.27	-25.73	74	55	38.08	21.32	66.13	100	0	P	V
													V
													V
802.11a CH 44 5220MHz		10440	47.81	-20.39	68.2	57.37	39.88	17.3	66.74	100	0	P	H
		15660	48.79	-25.21	74	55.91	37.84	21.32	66.28	100	0	P	H
													H
													H
		10440	47.33	-20.87	68.2	56.89	39.88	17.3	66.74	100	0	P	V
		15660	49.57	-24.43	74	56.69	37.84	21.32	66.28	100	0	P	V
													V
													V
802.11a CH 48 5240MHz		10480	47.54	-20.66	68.2	57.03	39.96	17.3	66.75	100	0	P	H
		15720	49.36	-24.64	74	56.7	37.7	21.32	66.36	100	0	P	H
													H
													H
		10480	47.09	-21.11	68.2	56.58	39.96	17.3	66.75	100	0	P	V
		15720	49.93	-24.07	74	57.27	37.7	21.32	66.36	100	0	P	V
													V
													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 VHT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 36 5180MHz		5150	65.53	-8.47	74	56.56	31.8	9.97	32.8	180	298	P	H
		5149.5	47.37	-6.63	54	38.4	31.8	9.97	32.8	180	298	A	H
	*	5180	111.68	-	-	102.86	31.62	10.01	32.81	180	298	P	H
	*	5180	104.12	-	-	95.3	31.62	10.01	32.81	180	298	A	H
													H
													H
		5147.42	57.87	-16.13	74	48.9	31.81	9.96	32.8	101	13	P	V
		5144.56	42.98	-11.02	54	34.01	31.81	9.96	32.8	101	13	A	V
	*	5180	104.52	-	-	95.7	31.62	10.01	32.81	101	13	P	V
	*	5180	97.57	-	-	88.75	31.62	10.01	32.81	101	13	A	V
													V
													V
802.11ac VHT20 CH 48 5240MHz		5091.52	51	-23	74	42.02	31.87	9.88	32.77	188	301	P	H
		5114.4	41.93	-12.07	54	32.92	31.87	9.92	32.78	188	301	A	H
	*	5240	111.16	-	-	102.67	31.26	10.07	32.84	188	301	P	H
	*	5240	103.84	-	-	95.35	31.26	10.07	32.84	188	301	A	H
		5353.09	51.79	-22.21	74	43.33	31.21	10.15	32.9	188	301	P	H
		5358.49	41.59	-12.41	54	33.11	31.23	10.16	32.91	188	301	A	H
		5023.14	50.17	-23.83	74	41.63	31.49	9.78	32.73	110	14	P	V
		5115.18	41.46	-12.54	54	32.45	31.87	9.92	32.78	110	14	A	V
	*	5240	103.89	-	-	95.4	31.26	10.07	32.84	110	14	P	V
	*	5240	96.48	-	-	87.99	31.26	10.07	32.84	110	14	A	V
		5435.71	49.01	-24.99	74	40.2	31.54	10.22	32.95	110	14	P	V
		5450.29	40.1	-13.9	54	31.22	31.6	10.23	32.95	110	14	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 VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 36 5180MHz		10360	46.99	-21.21	68.2	56.73	39.68	17.3	66.72	100	0	P	H
		15540	47.55	-26.45	74	54.28	38.08	21.32	66.13	100	0	P	H
													H
													H
		10360	46.96	-21.24	68.2	56.7	39.68	17.3	66.72	100	0	P	V
		15540	47.4	-26.6	74	54.13	38.08	21.32	66.13	100	0	P	V
													V
													V
802.11ac VHT20 CH 44 5220MHz		10440	47.55	-20.65	68.2	57.11	39.88	17.3	66.74	100	0	P	H
		15660	48.7	-25.3	74	55.82	37.84	21.32	66.28	100	0	P	H
													H
													H
		10440	48.1	-20.1	68.2	57.66	39.88	17.3	66.74	100	0	P	V
		15660	48.48	-25.52	74	55.6	37.84	21.32	66.28	100	0	P	V
													V
													V
802.11ac VHT20 CH 48 5240MHz		10480	47.55	-20.65	68.2	57.04	39.96	17.3	66.75	100	0	P	H
		15720	47.43	-26.57	74	54.77	37.7	21.32	66.36	100	0	P	H
													H
													H
		10480	47.34	-20.86	68.2	56.83	39.96	17.3	66.75	100	0	P	V
		15720	48.23	-25.77	74	55.57	37.7	21.32	66.36	100	0	P	V
													V
													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 VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 38 5190MHz		5150	61.18	-12.82	74	52.21	31.8	9.97	32.8	177	298	P	H
		5150	51.29	-2.71	54	42.32	31.8	9.97	32.8	177	298	A	H
	*	5190	108.72	-	-	99.95	31.56	10.03	32.82	177	298	P	H
	*	5190	100.97	-	-	92.2	31.56	10.03	32.82	177	298	A	H
		5383	50.49	-23.51	74	41.9	31.33	10.18	32.92	177	298	P	H
		5353.04	41.76	-12.24	54	33.3	31.21	10.15	32.9	177	298	A	H
		5137.54	55.21	-18.79	74	46.23	31.82	9.95	32.79	116	14	P	V
		5150	45.03	-8.97	54	36.06	31.8	9.97	32.8	116	14	A	V
	*	5190	101.57	-	-	92.8	31.56	10.03	32.82	116	14	P	V
	*	5190	93.79	-	-	85.02	31.56	10.03	32.82	116	14	A	V
		5457.2	48.9	-25.1	74	40.02	31.61	10.23	32.96	116	14	P	V
		5457.2	40.66	-13.34	54	31.78	31.61	10.23	32.96	116	14	A	V
802.11ac VHT40 CH 46 5230MHz		5133.12	52.78	-21.22	74	43.8	31.83	9.94	32.79	189	302	P	H
		5144.3	43.96	-10.04	54	34.99	31.81	9.96	32.8	189	302	A	H
	*	5230	109.04	-	-	100.5	31.32	10.06	32.84	189	302	P	H
	*	5230	101.37	-	-	92.83	31.32	10.06	32.84	189	302	A	H
		5367.04	51.49	-22.51	74	42.96	31.27	10.17	32.91	189	302	P	H
		5351.64	42.81	-11.19	54	34.35	31.21	10.15	32.9	189	302	A	H
		5139.36	51.65	-22.35	74	42.67	31.82	9.95	32.79	118	15	P	V
		5150	42.4	-11.6	54	33.43	31.8	9.97	32.8	118	15	A	V
	*	5230	101.83	-	-	93.29	31.32	10.06	32.84	118	15	P	V
	*	5230	93.85	-	-	85.31	31.32	10.06	32.84	118	15	A	V
		5357.24	49.67	-24.33	74	41.19	31.23	10.16	32.91	118	15	P	V
		5424.44	40.58	-13.42	54	31.81	31.5	10.21	32.94	118	15	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 VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 38 5190MHz		10380	47.47	-20.73	68.2	57.16	39.74	17.3	66.73	100	0	P	H
		15570	48.17	-25.83	74	55.03	37.99	21.32	66.17	100	0	P	H
													H
													H
		10380	49.17	-19.03	68.2	58.86	39.74	17.3	66.73	100	0	P	V
		15570	48.46	-25.54	74	55.32	37.99	21.32	66.17	100	0	P	V
													V
													V
802.11ac VHT40 CH 46 5230MHz		10460	47.61	-20.59	68.2	57.13	39.92	17.3	66.74	100	0	P	H
		15690	47.82	-26.18	74	55	37.81	21.33	66.32	100	0	P	H
													H
													H
		10460	47.16	-21.04	68.2	56.68	39.92	17.3	66.74	100	0	P	V
		15690	48.14	-25.86	74	55.32	37.81	21.33	66.32	100	0	P	V
													V
													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 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		10420	48.59	-19.61	68.2	58.19	39.84	17.3	66.74	100	0	P	H
		15630	47.79	-26.21	74	54.84	37.87	21.32	66.24	100	0	P	H
													H
													H
		10420	48.85	-19.35	68.2	58.45	39.84	17.3	66.74	100	0	P	V
		15630	48.4	-25.6	74	55.45	37.87	21.32	66.24	100	0	P	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 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		5146.88	52.03	-21.97	74	43.06	31.81	9.96	32.8	248	319	P	H
		5107.1	41.1	-12.9	54	32.08	31.89	9.91	32.78	248	319	A	H
	*	5260	113.38	-	-	104.95	31.2	10.09	32.86	248	319	P	H
	*	5260	105.95	-	-	97.52	31.2	10.09	32.86	248	319	A	H
		5351.52	54.06	-19.94	74	45.6	31.21	10.15	32.9	248	319	P	H
		5350.08	41.35	-12.65	54	32.9	31.2	10.15	32.9	248	319	A	H
		5019.72	52.29	-21.71	74	43.78	31.46	9.78	32.73	252	265	P	V
		5104.72	40.72	-13.28	54	31.7	31.89	9.9	32.77	252	265	A	V
	*	5260	105.88	-	-	97.45	31.2	10.09	32.86	252	265	P	V
	*	5260	97.86	-	-	89.43	31.2	10.09	32.86	252	265	A	V
		5374.56	50.53	-23.47	74	41.97	31.3	10.17	32.91	252	265	P	V
		5458.32	39.23	-14.77	54	30.34	31.62	10.23	32.96	252	265	A	V
802.11a CH 60 5300MHz		5149.26	51.51	-22.49	74	42.54	31.8	9.97	32.8	249	323	P	H
		5094.18	40.79	-13.21	54	31.79	31.88	9.89	32.77	249	323	A	H
	*	5300	113.62	-	-	105.19	31.2	10.11	32.88	249	323	P	H
	*	5300	105.89	-	-	97.46	31.2	10.11	32.88	249	323	A	H
		5352	62.65	-11.35	74	54.19	31.21	10.15	32.9	249	323	P	H
		5350.08	44.11	-9.89	54	35.66	31.2	10.15	32.9	249	323	A	H
		5023.12	51.97	-22.03	74	43.44	31.48	9.78	32.73	235	264	P	V
		5096.22	40.64	-13.36	54	31.64	31.88	9.89	32.77	235	264	A	V
	*	5300	105.4	-	-	96.97	31.2	10.11	32.88	235	264	P	V
	*	5300	97.55	-	-	89.12	31.2	10.11	32.88	235	264	A	V
		5358	53.85	-20.15	74	45.37	31.23	10.16	32.91	235	264	P	V
		5350.32	39.53	-14.47	54	31.08	31.2	10.15	32.9	235	264	A	V

802.11a CH 64 5320MHz	*	5320	114.24	-	-	105.8	31.2	10.13	32.89	168	309	P	H
	*	5320	106.68	-	-	98.24	31.2	10.13	32.89	168	309	A	H
		5356.32	68.37	-5.63	74	59.89	31.23	10.16	32.91	168	309	P	H
		5350.08	47.6	-6.4	54	39.15	31.2	10.15	32.9	168	309	A	H
													H
													H
	*	5320	108.37	-	-	99.93	31.2	10.13	32.89	100	12	P	V
	*	5320	100.64	-	-	92.2	31.2	10.13	32.89	100	12	A	V
		5359.36	61.88	-12.12	74	53.39	31.24	10.16	32.91	100	12	P	V
		5350.08	42.49	-11.51	54	34.04	31.2	10.15	32.9	100	12	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		10520	47.16	-21.04	68.2	56.59	39.98	17.31	66.72	100	0	P	H
		15780	48.25	-25.75	74	55.96	37.4	21.32	66.43	100	0	P	H
													H
													H
		10520	47.49	-20.71	68.2	56.92	39.98	17.31	66.72	100	0	P	V
		15780	47.85	-26.15	74	55.56	37.4	21.32	66.43	100	0	P	V
													V
													V
802.11a CH 60 5300MHz		10600	45.5	-28.5	74	54.9	39.9	17.32	66.62	100	0	P	H
		15900	45.83	-28.17	74	53.69	37.4	21.32	66.58	100	0	P	H
													H
													H
		10600	45.87	-28.13	74	55.27	39.9	17.32	66.62	100	0	P	V
		15900	45.62	-28.38	74	53.48	37.4	21.32	66.58	100	0	P	V
													V
													V
802.11a CH 64 5320MHz		10640	45.78	-28.22	74	55.05	39.98	17.32	66.57	100	0	P	H
		15960	45.46	-28.54	74	53.53	37.28	21.31	66.66	100	0	P	H
													H
													H
		10640	45.57	-28.43	74	54.84	39.98	17.32	66.57	100	0	P	V
		15960	46.85	-27.15	74	54.92	37.28	21.31	66.66	100	0	P	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 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 52 5260MHz		5032.3	49.8	-24.2	74	41.18	31.56	9.8	32.74	188	308	P	H
		5114.92	41.67	-12.33	54	32.66	31.87	9.92	32.78	188	308	A	H
	*	5260	113.23	-	-	104.8	31.2	10.09	32.86	188	308	P	H
	*	5260	105.73	-	-	97.3	31.2	10.09	32.86	188	308	A	H
		5351.04	52.78	-21.22	74	44.33	31.2	10.15	32.9	188	308	P	H
		5352.72	42.01	-11.99	54	33.55	31.21	10.15	32.9	188	308	A	H
		5127.5	50.59	-23.41	74	41.61	31.84	9.93	32.79	122	13	P	V
		5065.28	41.6	-12.4	54	32.75	31.76	9.84	32.75	122	13	A	V
	*	5260	107.1	-	-	98.67	31.2	10.09	32.86	122	13	P	V
	*	5260	99.58	-	-	91.15	31.2	10.09	32.86	122	13	A	V
		5413.92	48.93	-25.07	74	40.21	31.46	10.2	32.94	122	13	P	V
		5459.76	40.11	-13.89	54	31.22	31.62	10.23	32.96	122	13	A	V
802.11ac VHT20 CH 60 5300MHz		5052.7	49.71	-24.29	74	40.92	31.71	9.83	32.75	188	308	P	H
		5070.72	41.73	-12.27	54	32.86	31.78	9.85	32.76	188	308	A	H
	*	5300	113.04	-	-	104.61	31.2	10.11	32.88	188	308	P	H
	*	5300	105.73	-	-	97.3	31.2	10.11	32.88	188	308	A	H
		5367.6	57.43	-16.57	74	48.9	31.27	10.17	32.91	188	308	P	H
		5350.8	46.43	-7.57	54	37.98	31.2	10.15	32.9	188	308	A	H
		5077.52	50.59	-23.41	74	41.68	31.81	9.86	32.76	103	12	P	V
		5079.9	41.48	-12.52	54	32.55	31.82	9.87	32.76	103	12	A	V
	*	5300	106.77	-	-	98.34	31.2	10.11	32.88	103	12	P	V
	*	5300	99.25	-	-	90.82	31.2	10.11	32.88	103	12	A	V
		5361.12	49.14	-24.86	74	40.65	31.24	10.16	32.91	103	12	P	V
		5359.44	41.17	-12.83	54	32.68	31.24	10.16	32.91	103	12	A	V

	*	5320	114.23	-	-	105.79	31.2	10.13	32.89	194	302	P	H
	*	5320	106.6	-	-	98.16	31.2	10.13	32.89	194	302	A	H
		5360.96	67.8	-6.2	74	59.31	31.24	10.16	32.91	194	302	P	H
		5350.4	48.96	-5.04	54	40.51	31.2	10.15	32.9	194	302	A	H
802.11ac													H
VHT20													H
CH 64	*	5320	107.85	-	-	99.41	31.2	10.13	32.89	103	12	P	V
5320MHz	*	5320	99.73	-	-	91.29	31.2	10.13	32.89	103	12	A	V
		5359.2	62.33	-11.67	74	53.84	31.24	10.16	32.91	103	12	P	V
		5356.16	43.73	-10.27	54	35.26	31.22	10.16	32.91	103	12	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 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 52 5260MHz		10520	47.24	-20.96	68.2	56.67	39.98	17.31	66.72	100	0	P	H
		15780	46.93	-27.07	74	54.64	37.4	21.32	66.43	100	0	P	H
													H
													H
		10520	46.81	-21.39	68.2	56.24	39.98	17.31	66.72	100	0	P	V
		15780	47.35	-26.65	74	55.06	37.4	21.32	66.43	100	0	P	V
													V
													V
802.11ac VHT20 CH 60 5300MHz		10600	46.61	-27.39	74	56.01	39.9	17.32	66.62	100	0	P	H
		15900	46.42	-27.58	74	54.28	37.4	21.32	66.58	100	0	P	H
													H
													H
		10600	46.46	-27.54	74	55.86	39.9	17.32	66.62	100	0	P	V
		15900	46.48	-27.52	74	54.34	37.4	21.32	66.58	100	0	P	V
													V
													V
802.11ac VHT20 CH 64 5320MHz		10640	45.71	-28.29	74	54.98	39.98	17.32	66.57	100	0	P	H
		15960	46.34	-27.66	74	54.41	37.28	21.31	66.66	100	0	P	H
													H
													H
		10640	46.17	-27.83	74	55.44	39.98	17.32	66.57	100	0	P	V
		15960	45.55	-28.45	74	53.62	37.28	21.31	66.66	100	0	P	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 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 54 5270MHz		5069.36	50.24	-23.76	74	41.37	31.78	9.85	32.76	184	301	P	H
		5088.06	42.37	-11.63	54	33.41	31.85	9.88	32.77	184	301	A	H
	*	5270	111.12	-	-	102.69	31.2	10.09	32.86	184	301	P	H
	*	5270	102.77	-	-	94.34	31.2	10.09	32.86	184	301	A	H
		5358.48	58.98	-15.02	74	50.5	31.23	10.16	32.91	184	301	P	H
		5351.52	45.17	-8.83	54	36.71	31.21	10.15	32.9	184	301	A	H
		5077.86	51.01	-22.99	74	42.1	31.81	9.86	32.76	109	12	P	V
		5107.78	42.28	-11.72	54	33.27	31.88	9.91	32.78	109	12	A	V
	*	5270	105.05	-	-	96.62	31.2	10.09	32.86	109	12	P	V
	*	5270	96.98	-	-	88.55	31.2	10.09	32.86	109	12	A	V
		5351.52	49.83	-24.17	74	41.37	31.21	10.15	32.9	109	12	P	V
		5350.32	41.74	-12.26	54	33.29	31.2	10.15	32.9	109	12	A	V
802.11ac VHT40 CH 62 5310MHz		5064.94	51.58	-22.42	74	42.73	31.76	9.84	32.75	176	301	P	H
		5072.08	42.27	-11.73	54	33.39	31.79	9.85	32.76	176	301	A	H
	*	5310	108.01	-	-	99.57	31.2	10.12	32.88	176	301	P	H
	*	5310	99.87	-	-	91.43	31.2	10.12	32.88	176	301	A	H
		5352.72	62.54	-11.46	74	54.08	31.21	10.15	32.9	176	301	P	H
		5350.32	52.27	-1.73	54	43.82	31.2	10.15	32.9	176	301	A	H
		5131.58	49.7	-24.3	74	40.71	31.84	9.94	32.79	100	12	P	V
		5083.3	42.27	-11.73	54	33.33	31.83	9.87	32.76	100	12	A	V
	*	5310	100.36	-	-	91.92	31.2	10.12	32.88	100	12	P	V
	*	5310	92.26	-	-	83.82	31.2	10.12	32.88	100	12	A	V
		5370.96	55.59	-18.41	74	47.05	31.28	10.17	32.91	100	12	P	V
		5350.08	44.58	-9.42	54	36.13	31.2	10.15	32.9	100	12	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 VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 54 5270MHz		10540	46.15	-22.05	68.2	55.58	39.96	17.31	66.7	100	0	P	H
		15810	47.93	-26.07	74	55.77	37.31	21.32	66.47	100	0	P	H
													H
													H
		10540	46.57	-21.63	68.2	56	39.96	17.31	66.7	100	0	P	V
		15810	47.51	-26.49	74	55.35	37.31	21.32	66.47	100	0	P	V
													V
													V
802.11ac VHT40 CH 62 5310MHz		10620	45.89	-28.11	74	55.22	39.94	17.32	66.59	100	0	P	H
		15930	46.58	-27.42	74	54.55	37.34	21.31	66.62	100	0	P	H
													H
													H
		10620	45.56	-28.44	74	54.89	39.94	17.32	66.59	100	0	P	V
		15930	46.65	-27.35	74	54.62	37.34	21.31	66.62	100	0	P	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 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		5122.7	50.94	-23.06	74	41.94	31.85	9.93	32.78	190	317	P	H
		5095.7	42.28	-11.72	54	33.28	31.88	9.89	32.77	190	317	A	H
	*	5290	102.25	-	-	93.81	31.2	10.11	32.87	190	317	P	H
	*	5290	94.5	-	-	86.06	31.2	10.11	32.87	190	317	A	H
		5354.64	62.14	-11.86	74	53.66	31.22	10.16	32.9	190	317	P	H
		5352.24	52.4	-1.6	54	43.94	31.21	10.15	32.9	190	317	A	H
		5110.4	50.7	-23.3	74	41.69	31.88	9.91	32.78	263	240	P	V
		5071.4	42.2	-11.8	54	33.32	31.79	9.85	32.76	263	240	A	V
	*	5290	96.8	-	-	88.36	31.2	10.11	32.87	263	240	P	V
	*	5290	88.32	-	-	79.88	31.2	10.11	32.87	263	240	A	V
		5362.08	51.82	-22.18	74	43.32	31.25	10.16	32.91	263	240	P	V
		5350.32	44.37	-9.63	54	35.92	31.2	10.15	32.9	263	240	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		10580	47.4	-20.8	68.2	56.82	39.92	17.31	66.65	100	0	P	H
		15870	47.56	-26.44	74	55.42	37.37	21.32	66.55	100	0	P	H
													H
													H
		10580	46.79	-21.41	68.2	56.21	39.92	17.31	66.65	100	0	P	V
		15870	46.55	-27.45	74	54.41	37.37	21.32	66.55	100	0	P	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 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		5456.56	63.76	-10.24	74	54.88	31.61	10.23	32.96	157	315	P	H
		5469.52	64.03	-4.17	68.2	55.11	31.64	10.24	32.96	157	315	P	H
		5459.76	43.66	-10.34	54	34.77	31.62	10.23	32.96	157	315	A	H
	*	5500	112.59	-	-	103.61	31.7	10.26	32.98	157	315	P	H
	*	5500	105.2	-	-	96.22	31.7	10.26	32.98	157	315	A	H
													H
		5455.6	56.59	-17.41	74	47.71	31.61	10.23	32.96	149	18	P	V
		5468.72	58.48	-9.72	68.2	49.56	31.64	10.24	32.96	149	18	P	V
		5459.76	40.41	-13.59	54	31.52	31.62	10.23	32.96	149	18	A	V
	*	5500	104.9	-	-	95.92	31.7	10.26	32.98	149	18	P	V
	*	5500	97.57	-	-	88.59	31.7	10.26	32.98	149	18	A	V
													V
802.11a CH 116 5580MHz		5447.44	50.52	-23.48	74	41.65	31.59	10.23	32.95	176	322	P	H
		5465.68	50.92	-17.28	68.2	42.01	31.63	10.24	32.96	176	322	P	H
		5458.48	39.94	-14.06	54	31.05	31.62	10.23	32.96	176	322	A	H
	*	5580	113.14	-	-	104.13	31.66	10.32	32.97	176	322	P	H
	*	5580	105.64	-	-	96.63	31.66	10.32	32.97	176	322	A	H
		5762.48	51.53	-16.67	68.2	41.92	32.02	10.52	32.93	176	322	P	H
		5431.84	49.74	-24.26	74	40.94	31.53	10.21	32.94	163	19	P	V
		5469.52	48.8	-19.4	68.2	39.88	31.64	10.24	32.96	163	19	P	V
		5458	39.22	-14.78	54	30.33	31.62	10.23	32.96	163	19	A	V
	*	5580	105.58	-	-	96.57	31.66	10.32	32.97	163	19	P	V
	*	5580	98	-	-	88.99	31.66	10.32	32.97	163	19	A	V
		5732.24	51.36	-16.84	68.2	41.88	31.93	10.49	32.94	163	19	P	V

802.11a CH 140 5700MHz	*	5700	110.39	-	-	101.08	31.8	10.45	32.94	174	320	P	H
	*	5700	102.7	-	-	93.39	31.8	10.45	32.94	174	320	A	H
		5727.16	66.03	-2.17	68.2	56.58	31.91	10.48	32.94	174	320	P	H
													H
													H
													H
	*	5700	102.47	-	-	93.16	31.8	10.45	32.94	157	20	P	V
	*	5700	94.99	-	-	85.68	31.8	10.45	32.94	157	20	A	V
		5731.24	57.41	-10.79	68.2	47.95	31.92	10.48	32.94	157	20	P	V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		11000	47.91	-26.09	74	56.46	40.2	17.35	66.1	100	0	P	H
		16500	48.42	-19.78	68.2	54.43	38.5	21.81	66.32	100	0	P	H
													H
													H
		11000	48.69	-25.31	74	57.24	40.2	17.35	66.1	100	0	P	V
		16500	48.71	-19.49	68.2	54.72	38.5	21.81	66.32	100	0	P	V
													V
													V
802.11a CH 116 5580MHz		11160	48.11	-25.89	74	57.1	39.62	17.53	66.14	100	0	P	H
		16740	50.67	-17.53	68.2	55.37	39.62	22.05	66.37	100	0	P	H
													H
													H
		11160	47.87	-26.13	74	56.86	39.62	17.53	66.14	100	0	P	V
		16740	50.11	-18.09	68.2	54.81	39.62	22.05	66.37	100	0	P	V
													V
													V
802.11a CH 140 5700MHz		11400	47.19	-26.81	74	55.89	39.7	17.8	66.2	100	0	P	H
		17100	49.23	-18.97	68.2	53.18	39.9	22.46	66.31	100	0	P	H
													H
													H
		11400	47.53	-26.47	74	56.23	39.7	17.8	66.2	100	0	P	V
		17100	49.89	-18.31	68.2	53.84	39.9	22.46	66.31	100	0	P	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 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 100 5500MHz		5459.44	60.98	-13.02	74	52.09	31.62	10.23	32.96	168	329	P	H
		5470	63.4	-4.8	68.2	54.48	31.64	10.24	32.96	168	329	P	H
		5459.12	44.83	-9.17	54	35.94	31.62	10.23	32.96	168	329	A	H
	*	5500	111.82	-	-	102.84	31.7	10.26	32.98	168	329	P	H
	*	5500	104.27	-	-	95.29	31.7	10.26	32.98	168	329	A	H
													H
		5449.84	54.96	-19.04	74	46.08	31.6	10.23	32.95	103	24	P	V
		5463.44	57.89	-10.31	68.2	48.98	31.63	10.24	32.96	103	24	P	V
		5458.96	42.73	-11.27	54	33.84	31.62	10.23	32.96	103	24	A	V
	*	5500	107.3	-	-	98.32	31.7	10.26	32.98	103	24	P	V
	*	5500	99.87	-	-	90.89	31.7	10.26	32.98	103	24	A	V
													V
802.11ac VHT20 CH 116 5580MHz		5434.96	48.93	-25.07	74	40.12	31.54	10.22	32.95	169	341	P	H
		5461.12	47.6	-20.6	68.2	38.7	31.62	10.24	32.96	169	341	P	H
		5459.92	40.38	-13.62	54	31.49	31.62	10.23	32.96	169	341	A	H
	*	5580	111.16	-	-	102.15	31.66	10.32	32.97	169	341	P	H
	*	5580	103.7	-	-	94.69	31.66	10.32	32.97	169	341	A	H
		5734.445	49.1	-19.1	68.2	39.61	31.94	10.49	32.94	169	341	P	H
		5452.96	48.15	-25.85	74	39.27	31.61	10.23	32.96	103	24	P	V
		5460.4	47.88	-20.32	68.2	38.98	31.62	10.24	32.96	103	24	P	V
		5457.04	40.19	-13.81	54	31.31	31.61	10.23	32.96	103	24	A	V
	*	5580	107.06	-	-	98.05	31.66	10.32	32.97	103	24	P	V
	*	5580	99.29	-	-	90.28	31.66	10.32	32.97	103	24	A	V
		5764.055	49.64	-18.56	68.2	40.02	32.03	10.52	32.93	103	24	P	V

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 100 5500MHz		11000	47.2	-26.8	74	55.75	40.2	17.35	66.1	100	0	P	H
		16500	48.49	-19.71	68.2	54.5	38.5	21.81	66.32	100	0	P	H
													H
													H
		11000	47.15	-26.85	74	55.7	40.2	17.35	66.1	100	0	P	V
		16500	49.51	-18.69	68.2	55.52	38.5	21.81	66.32	100	0	P	V
													V
													V
802.11ac VHT20 CH 116 5580MHz		11160	49.18	-24.82	74	58.17	39.62	17.53	66.14	100	0	P	H
		16740	50.29	-17.91	68.2	54.99	39.62	22.05	66.37	100	0	P	H
													H
													H
		11160	48.39	-25.61	74	57.38	39.62	17.53	66.14	100	0	P	V
		16740	50.62	-17.58	68.2	55.32	39.62	22.05	66.37	100	0	P	V
													V
													V
802.11ac VHT20 CH 140 5700MHz		11400	46.68	-27.32	74	55.38	39.7	17.8	66.2	100	0	P	H
		17100	49.42	-18.78	68.2	53.37	39.9	22.46	66.31	100	0	P	H
													H
													H
		11400	48.9	-25.1	74	57.6	39.7	17.8	66.2	100	0	P	V
		17100	49.7	-18.5	68.2	53.65	39.9	22.46	66.31	100	0	P	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 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 102 5510MHz		5459.92	59.43	-14.57	74	50.54	31.62	10.23	32.96	150	319	P	H
		5470	62.18	-6.02	68.2	53.26	31.64	10.24	32.96	150	319	P	H
		5459.2	48.41	-5.59	54	39.52	31.62	10.23	32.96	150	319	A	H
	*	5510	108.94	-	-	99.97	31.68	10.27	32.98	150	319	P	H
	*	5510	100.66	-	-	91.69	31.68	10.27	32.98	150	319	A	H
		5741.06	51.86	-16.34	68.2	42.34	31.96	10.5	32.94	150	319	P	H
		5457.28	56.58	-17.42	74	47.7	31.61	10.23	32.96	100	26	P	V
		5464.96	56.06	-12.14	68.2	47.15	31.63	10.24	32.96	100	26	P	V
		5459.2	44.94	-9.06	54	36.05	31.62	10.23	32.96	100	26	A	V
	*	5510	104.33	-	-	95.36	31.68	10.27	32.98	100	26	P	V
	*	5510	96.45	-	-	87.48	31.68	10.27	32.98	100	26	A	V
		5741.06	50.85	-17.35	68.2	41.33	31.96	10.5	32.94	100	26	P	V
802.11ac VHT40 CH 110 5550MHz		5456.8	51.28	-22.72	74	42.4	31.61	10.23	32.96	155	326	P	H
		5465.2	54.43	-13.77	68.2	45.52	31.63	10.24	32.96	155	326	P	H
		5459.2	43.09	-10.91	54	34.2	31.62	10.23	32.96	155	326	A	H
	*	5550	109.23	-	-	100.3	31.6	10.3	32.97	155	326	P	H
	*	5550	101.12	-	-	92.19	31.6	10.3	32.97	155	326	A	H
		5736.335	52.68	-15.52	68.2	43.18	31.95	10.49	32.94	155	326	P	H
		5364.16	49.94	-24.06	74	41.43	31.26	10.16	32.91	100	24	P	V
		5466.4	51.11	-17.09	68.2	42.2	31.63	10.24	32.96	100	24	P	V
		5458.48	41.71	-12.29	54	32.82	31.62	10.23	32.96	100	24	A	V
	*	5550	103.71	-	-	94.78	31.6	10.3	32.97	100	24	P	V
	*	5550	96.08	-	-	87.15	31.6	10.3	32.97	100	24	A	V
		5736.335	49.89	-18.31	68.2	40.39	31.95	10.49	32.94	100	24	P	V

802.11ac VHT40 CH 134 5670MHz		5443.8	49.52	-24.48	74	40.67	31.58	10.22	32.95	150	323	P	H
		5469.35	49.45	-18.75	68.2	40.53	31.64	10.24	32.96	150	323	P	H
		5458.85	40.93	-13.07	54	32.04	31.62	10.23	32.96	150	323	A	H
	*	5670	109.75	-	-	100.48	31.8	10.42	32.95	150	323	P	H
	*	5670	101.53	-	-	92.26	31.8	10.42	32.95	150	323	A	H
		5727.025	62.43	-5.77	68.2	52.98	31.91	10.48	32.94	150	323	P	H
		5448.35	48.95	-25.05	74	40.08	31.59	10.23	32.95	100	40	P	V
		5462.7	47.81	-20.39	68.2	38.9	31.63	10.24	32.96	100	40	P	V
		5433.65	40.6	-13.4	54	31.8	31.53	10.22	32.95	100	40	A	V
	*	5670	102.42	-	-	93.15	31.8	10.42	32.95	100	40	P	V
	*	5670	94.84	-	-	85.57	31.8	10.42	32.95	100	40	A	V
		5726.675	54.39	-13.81	68.2	44.94	31.91	10.48	32.94	100	40	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 VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 102 5510MHz		11020	47.6	-26.4	74	56.21	40.12	17.37	66.1	100	0	P	H
		16530	48.3	-19.9	68.2	54.2	38.59	21.84	66.33	100	0	P	H
													H
													H
		11020	47.64	-26.36	74	56.25	40.12	17.37	66.1	100	0	P	V
		16530	48.78	-19.42	68.2	54.68	38.59	21.84	66.33	100	0	P	V
													V
													V
802.11ac VHT40 CH 110 5550MHz		11100	45.74	-28.26	74	54.6	39.8	17.46	66.12	100	0	P	H
		16650	49.47	-18.73	68.2	54.71	39.15	21.96	66.35	100	0	P	H
													H
													H
		11100	45.67	-28.33	74	54.53	39.8	17.46	66.12	100	0	P	V
		16650	49.83	-18.37	68.2	55.07	39.15	21.96	66.35	100	0	P	V
													V
													V
802.11ac VHT40 CH 134 5670MHz		11340	45.85	-28.15	74	54.72	39.58	17.73	66.18	100	0	P	H
		17010	49.73	-18.47	68.2	53.64	40.17	22.33	66.41	100	0	P	H
													H
													H
		11340	46.15	-27.85	74	55.02	39.58	17.73	66.18	100	0	P	V
		17010	49.15	-19.05	68.2	53.06	40.17	22.33	66.41	100	0	P	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 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		5454.4	54.61	-19.39	74	45.73	31.61	10.23	32.96	150	320	P	H
		5467.36	55.47	-12.73	68.2	46.56	31.63	10.24	32.96	150	320	P	H
		5456.32	43.98	-10.02	54	35.1	31.61	10.23	32.96	150	320	A	H
	*	5530	102.4	-	-	93.44	31.64	10.29	32.97	150	320	P	H
	*	5530	94.72	-	-	85.76	31.64	10.29	32.97	150	320	A	H
		5753.03	51.92	-16.28	68.2	42.33	32.01	10.51	32.93	150	320	P	H
		5457.04	50.11	-23.89	74	41.23	31.61	10.23	32.96	100	25	P	V
		5462.08	51.68	-16.52	68.2	42.78	31.62	10.24	32.96	100	25	P	V
		5457.04	42.28	-11.72	54	33.4	31.61	10.23	32.96	100	25	A	V
	*	5530	97.9	-	-	88.94	31.64	10.29	32.97	100	25	P	V
	*	5530	89.93	-	-	80.97	31.64	10.29	32.97	100	25	A	V
		5754.605	50.22	-17.98	68.2	40.63	32.01	10.51	32.93	100	25	P	V
802.11ac VHT80 CH 122 5610MHz		5458.85	50.61	-23.39	74	41.72	31.62	10.23	32.96	150	329	P	H
		5468.3	51.23	-16.97	68.2	42.31	31.64	10.24	32.96	150	329	P	H
		5458.5	42.74	-11.26	54	33.85	31.62	10.23	32.96	150	329	A	H
	*	5610	107.44	-	-	98.33	31.72	10.35	32.96	150	329	P	H
	*	5610	98.82	-	-	89.71	31.72	10.35	32.96	150	329	A	H
		5727.55	53.84	-14.36	68.2	44.39	31.91	10.48	32.94	150	329	P	H
		5455.7	50	-24	74	41.12	31.61	10.23	32.96	100	26	P	V
		5467.95	50.19	-18.01	68.2	41.27	31.64	10.24	32.96	100	26	P	V
		5457.8	41.58	-12.42	54	32.69	31.62	10.23	32.96	100	26	A	V
	*	5610	101.23	-	-	92.12	31.72	10.35	32.96	100	26	P	V
	*	5610	93.29	-	-	84.18	31.72	10.35	32.96	100	26	A	V
		5748.2	50.13	-18.07	68.2	40.58	31.99	10.5	32.94	100	26	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		11060	46.21	-27.79	74	54.94	39.96	17.42	66.11	100	0	P	H
		16590	48.77	-19.43	68.2	54.44	38.77	21.9	66.34	100	0	P	H
													H
													H
		11060	47.13	-26.87	74	55.86	39.96	17.42	66.11	100	0	P	V
		16590	48.01	-20.19	68.2	53.68	38.77	21.9	66.34	100	0	P	V
													V
													V
802.11ac VHT80 CH 122 5610MHz		11220	46.75	-27.25	74	55.8	39.5	17.6	66.15	100	0	P	H
		16830	48.89	-19.31	68.2	53.35	39.8	22.13	66.39	100	0	P	H
													H
													H
		11220	46.4	-27.6	74	55.45	39.5	17.6	66.15	100	0	P	V
		16830	49	-19.2	68.2	53.46	39.8	22.13	66.39	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 144 5720MHz		5447.11	49.67	-24.33	74	40.8	31.59	10.23	32.95	164	314	P	H
		5467.78	50.95	-17.25	68.2	42.03	31.64	10.24	32.96	164	314	P	H
		5452.96	39.36	-14.64	54	30.48	31.61	10.23	32.96	164	314	A	H
	*	5720	114.12	-	-	104.71	31.88	10.47	32.94	164	314	P	H
	*	5720	106.24	-	-	96.83	31.88	10.47	32.94	164	314	A	H
		5921.5	52.87	-15.33	68.2	42.64	32.4	10.73	32.9	164	314	P	H
		5450.23	49.33	-24.67	74	40.45	31.6	10.23	32.95	146	18	P	V
		5463.1	48.96	-19.24	68.2	40.05	31.63	10.24	32.96	146	18	P	V
		5459.59	39.11	-14.89	54	30.22	31.62	10.23	32.96	146	18	A	V
	*	5720	105.58	-	-	96.17	31.88	10.47	32.94	146	18	P	V
	*	5720	98.13	-	-	88.72	31.88	10.47	32.94	146	18	A	V
		5896	50.9	-17.3	68.2	40.73	32.39	10.69	32.91	146	18	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 144 5720MHz		11444	47.39	-26.61	74	56	39.74	17.86	66.21	100	0	P	H
		17160	49.25	-18.95	68.2	52.97	39.96	22.56	66.24	100	0	P	H
													H
													H
		11440	47.51	-26.49	74	56.12	39.74	17.86	66.21	100	0	P	V
		17160	49.28	-18.92	68.2	53	39.96	22.56	66.24	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 144 5720MHz		5447.11	49.02	-24.98	74	40.15	31.59	10.23	32.95	247	305	P	H
		5461.54	50.2	-18	68.2	41.3	31.62	10.24	32.96	247	305	P	H
		5457.25	40.15	-13.85	54	31.27	31.61	10.23	32.96	247	305	A	H
	*	5720	113.01	-	-	103.6	31.88	10.47	32.94	247	305	P	H
	*	5720	105.26	-	-	95.85	31.88	10.47	32.94	247	305	A	H
		5873.5	51.24	-16.96	68.2	41.14	32.35	10.66	32.91	247	305	P	H
		5436.58	49.01	-24.99	74	40.19	31.55	10.22	32.95	150	224	P	V
		5461.54	48.02	-20.18	68.2	39.12	31.62	10.24	32.96	150	224	P	V
		5457.64	39.88	-14.12	54	30.99	31.62	10.23	32.96	150	224	A	V
	*	5720	106.12	-	-	96.71	31.88	10.47	32.94	150	224	P	V
	*	5720	98.55	-	-	89.14	31.88	10.47	32.94	150	224	A	V
		5931.5	50.72	-17.48	68.2	40.48	32.4	10.74	32.9	150	224	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 144 5720MHz		11440	47.11	-26.89	74	55.72	39.74	17.86	66.21	100	0	P	H
		17160	48.96	-19.24	68.2	52.68	39.96	22.56	66.24	100	0	P	H
													H
													H
		11440	47.79	-26.21	74	56.4	39.74	17.86	66.21	100	0	P	V
		17160	48.76	-19.44	68.2	52.48	39.96	22.56	66.24	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 142 5710MHz		5366.77	49.33	-24.67	74	40.8	31.27	10.17	32.91	250	305	P	H
		5468.95	49.58	-18.62	68.2	40.66	31.64	10.24	32.96	250	305	P	H
		5457.64	40.4	-13.6	54	31.51	31.62	10.23	32.96	250	305	A	H
	*	5710	109.69	-	-	100.33	31.84	10.46	32.94	250	305	P	H
	*	5710	101.43	-	-	92.07	31.84	10.46	32.94	250	305	A	H
		5873.5	52.48	-15.72	68.2	42.38	32.35	10.66	32.91	250	305	P	H
		5408.5	49.75	-24.25	74	41.05	31.43	10.2	32.93	250	235	P	V
		5467.78	49.49	-18.71	68.2	40.57	31.64	10.24	32.96	250	235	P	V
		5436.97	40.41	-13.59	54	31.59	31.55	10.22	32.95	250	235	A	V
	*	5710	103.51	-	-	94.15	31.84	10.46	32.94	250	235	P	V
	*	5710	95.71	-	-	86.35	31.84	10.46	32.94	250	235	A	V
		5916.25	51.36	-16.84	68.2	41.15	32.4	10.72	32.91	250	235	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 142 5710MHz		11420	46.53	-27.47	74	55.18	39.72	17.83	66.2	100	0	P	H
		17130	48.76	-19.44	68.2	52.6	39.93	22.51	66.28	100	0	P	H
													H
													H
		11420	46.59	-27.41	74	55.24	39.72	17.83	66.2	100	0	P	V
		17130	49	-19.2	68.2	52.84	39.93	22.51	66.28	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 138 5690MHz		5407.72	50.02	-23.98	74	41.32	31.43	10.2	32.93	150	330	P	H
		5468.95	48.96	-19.24	68.2	40.04	31.64	10.24	32.96	150	330	P	H
		5454.91	40.72	-13.28	54	31.84	31.61	10.23	32.96	150	330	A	H
	*	5690	107.33	-	-	98.04	31.8	10.44	32.95	150	330	P	H
	*	5690	99.14	-	-	89.85	31.8	10.44	32.95	150	330	A	H
		5859.7	52.58	-15.62	68.2	42.54	32.32	10.64	32.92	150	330	P	H
		5431.12	50.69	-23.31	74	41.9	31.52	10.21	32.94	150	227	P	V
		5463.1	50.39	-17.81	68.2	41.48	31.63	10.24	32.96	150	227	P	V
		5445.94	40.4	-13.6	54	31.55	31.58	10.22	32.95	150	227	A	V
	*	5690	101.02	-	-	91.73	31.8	10.44	32.95	150	227	P	V
	*	5690	92.54	-	-	83.25	31.8	10.44	32.95	150	227	A	V
		5891.5	51.5	-16.7	68.2	41.34	32.38	10.69	32.91	150	227	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 138 5690MHz		11380	46.23	-27.77	74	54.98	39.66	17.78	66.19	100	0	P	H
		17070	49.54	-18.66	68.2	53.47	39.99	22.42	66.34	100	0	P	H
													H
													H
		11380	46.23	-27.77	74	54.98	39.66	17.78	66.19	100	0	P	V
		17070	49.94	-18.26	68.2	53.87	39.99	22.42	66.34	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

5GHz WIFI 802.11ac VHT40 (LF)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
5GHz 802.11ac VHT40 LF		30	19.48	-20.52	40	27.1	24.06	0.76	32.44	-	-	P	H
		92.08	27.43	-16.07	43.5	43.66	14.88	1.4	32.51	-	-	P	H
		136.7	24.29	-19.21	43.5	37.76	17.32	1.72	32.51	-	-	P	H
		852.56	30.09	-15.91	46	28.11	29.18	4.19	31.39	-	-	P	H
		928.22	30.01	-15.99	46	27.07	29.57	4.39	31.02	-	-	P	H
		953.44	31.53	-14.47	46	27.09	30.84	4.45	30.85	100	0	P	H
													H
													H
													H
													H
													H
													H
		46.49	32.84	-7.16	40	48.63	15.73	1.01	32.53	100	63	P	V
		50.37	35.82	-4.18	40	53.36	13.98	1.03	32.55	100	52	P	V
		97.9	32.87	-10.63	43.5	48.25	15.67	1.45	32.5	-	-	P	V
		866.14	30.11	-15.89	46	27.95	29.27	4.23	31.34	-	-	P	V
		871.96	30.59	-15.41	46	28.38	29.28	4.24	31.31	-	-	P	V
		952.47	30.48	-15.52	46	26.1	30.79	4.45	30.86	-	-	P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

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

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

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

For Peak Limit @ 2390MHz:

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 @ 2390MHz:

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

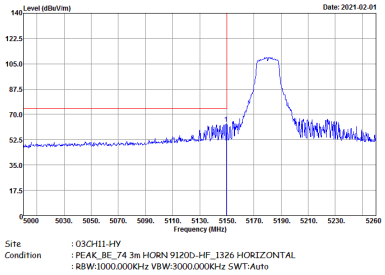
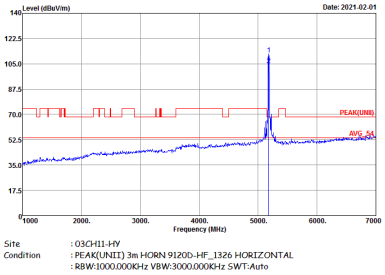
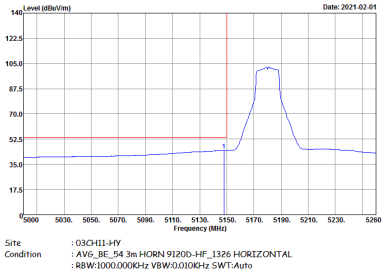
Test Engineer :	Bill Cheng, Fu Chen and Troye Hsieh	**Temperature :**	18.3~26.5°C
		Relative Humidity :	43.2~66.7%

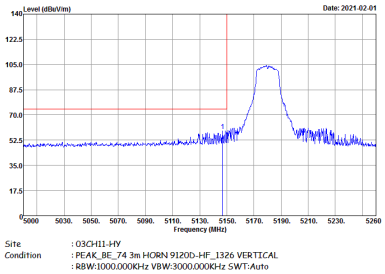
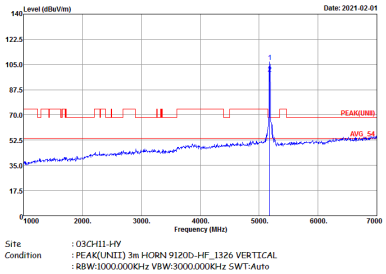
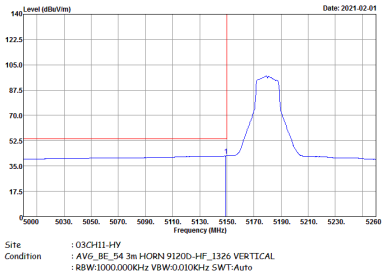
Note symbol

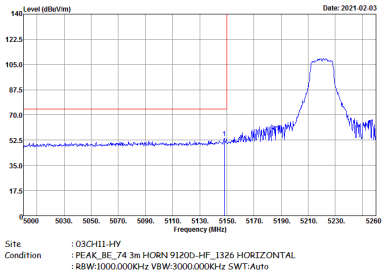
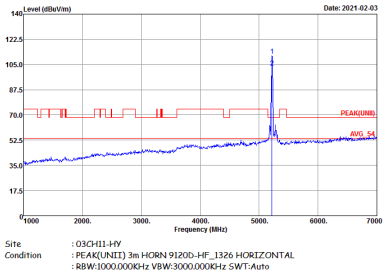
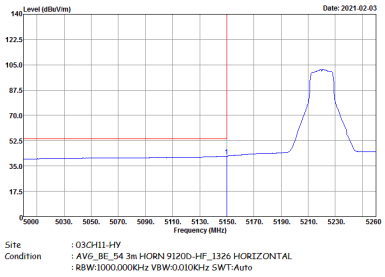
-L	**Low channel location**
-R	**High channel location**

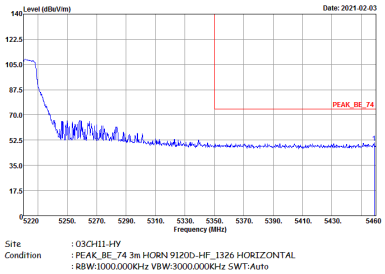
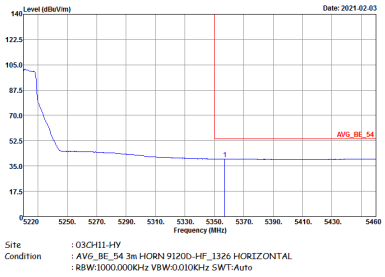
Band 1 - 5150~5250MHz

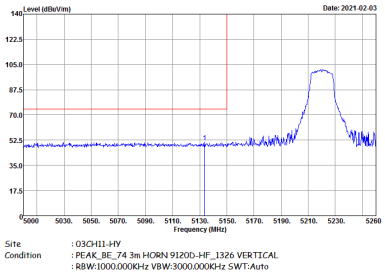
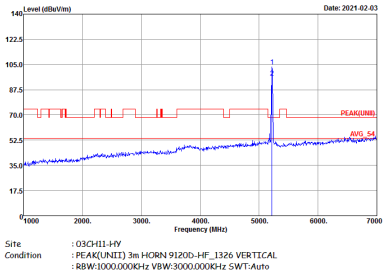
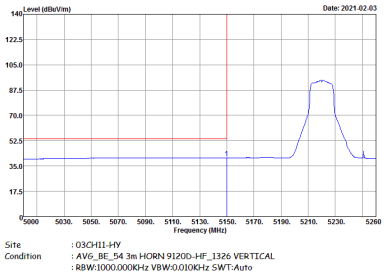
WIFI 802.11a (Band Edge @ 3m)

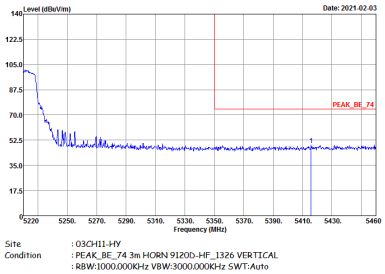
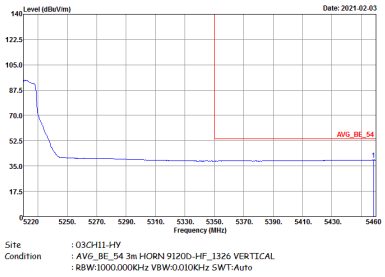
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

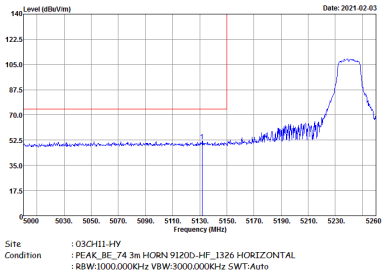
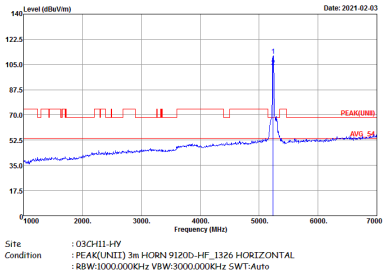
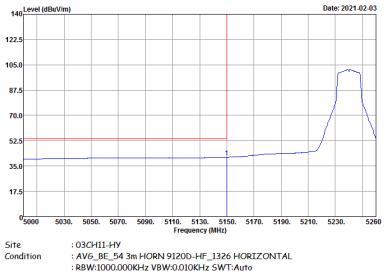
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

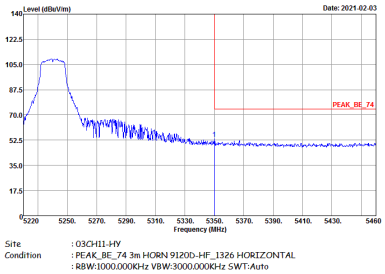
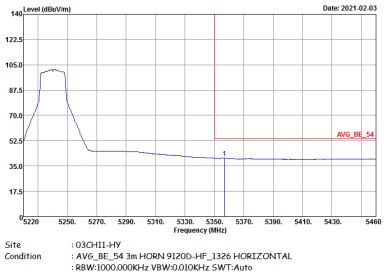
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

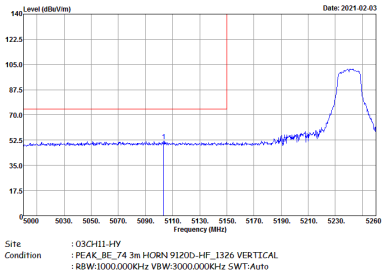
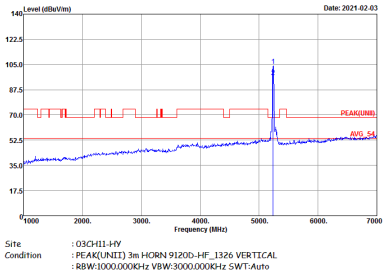
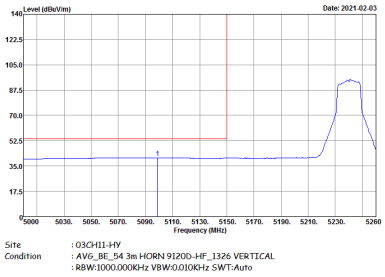
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

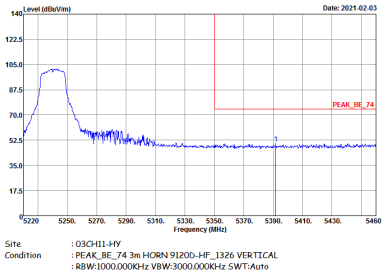
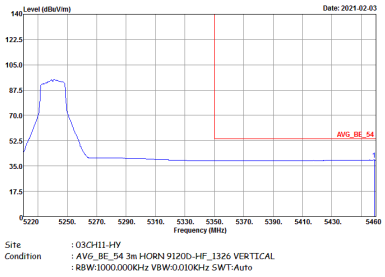
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

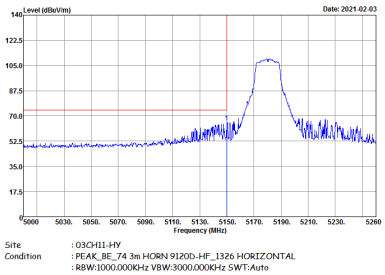
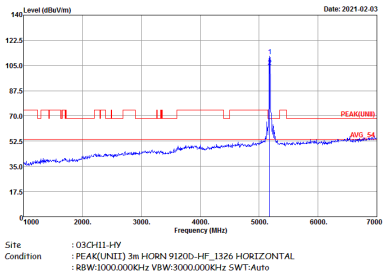
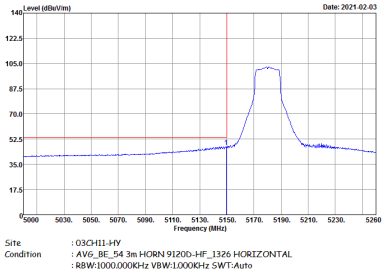
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

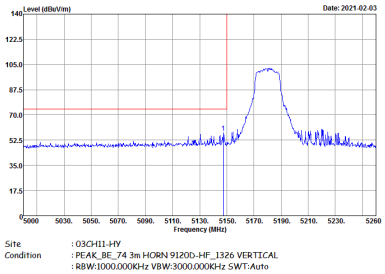
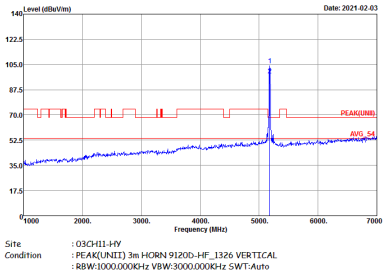
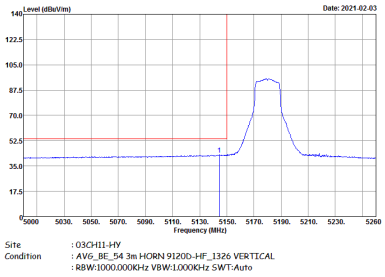
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

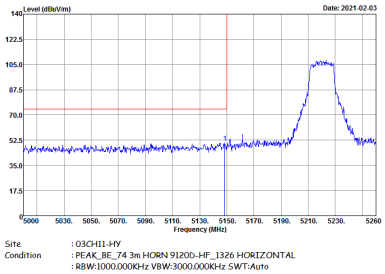
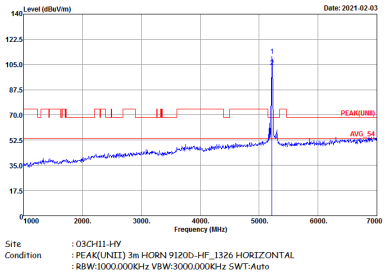
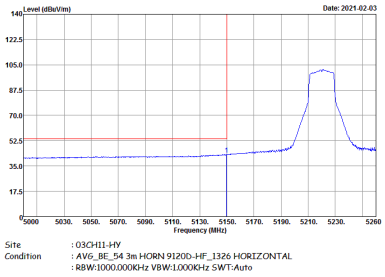
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

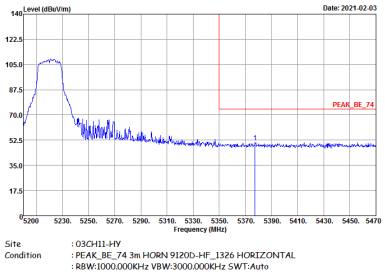
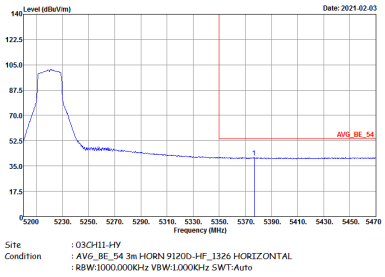
Band 1 5150~5250MHz

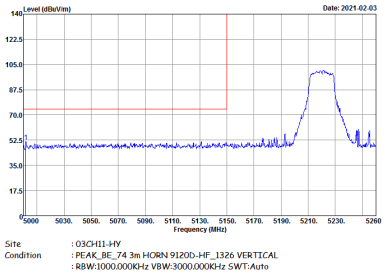
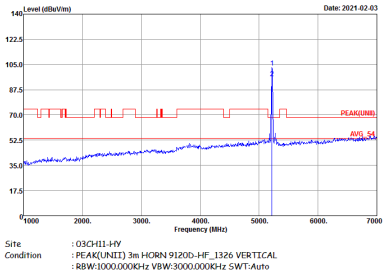
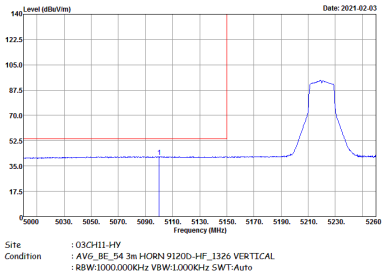
WIFI 802.11ac VHT20 (Band Edge @ 3m)

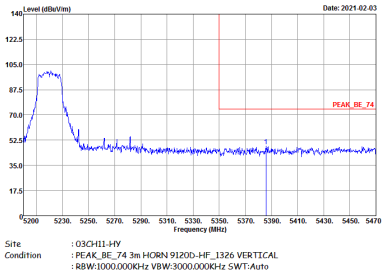
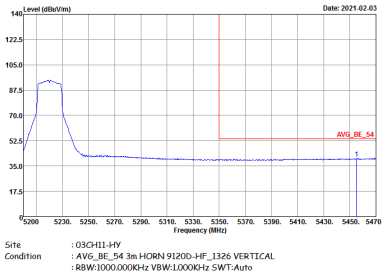
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH36 5180MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

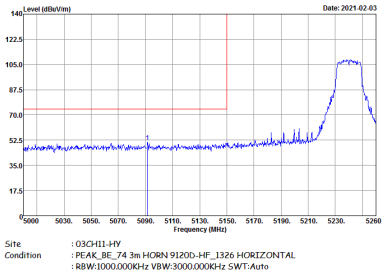
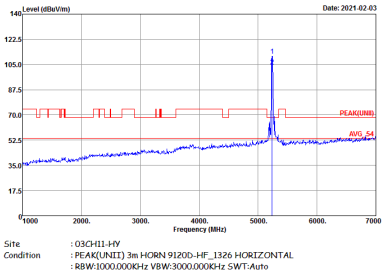
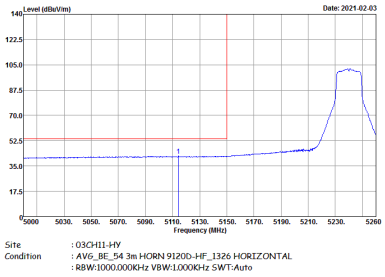
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH36 5180MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

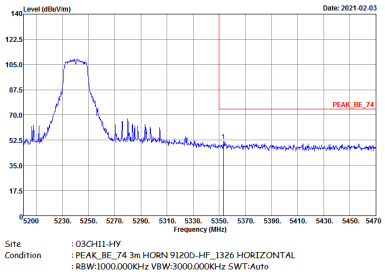
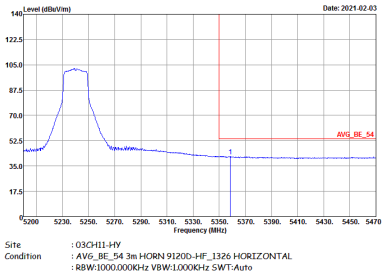
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH44 5220MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

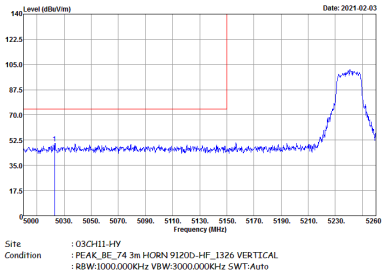
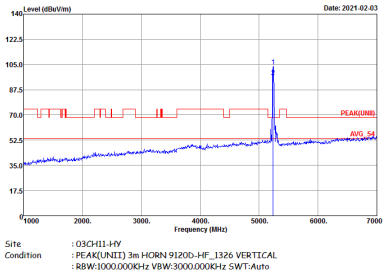
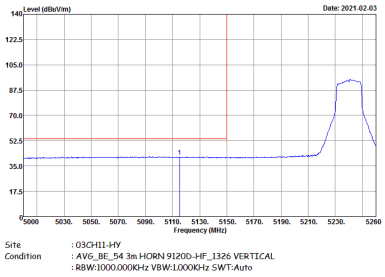
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH44 5220MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

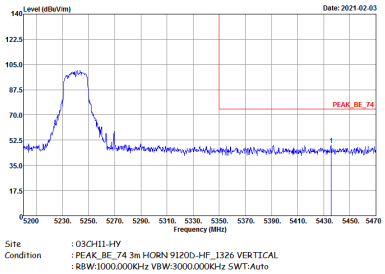
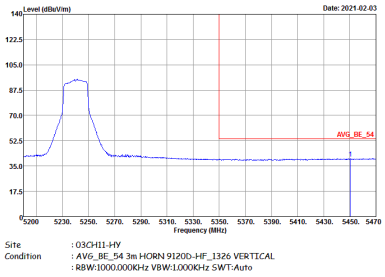
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH44 5220MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH44 5220MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH48 5240MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

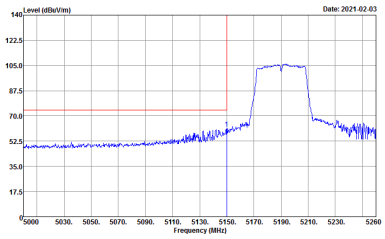
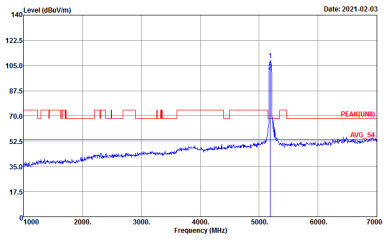
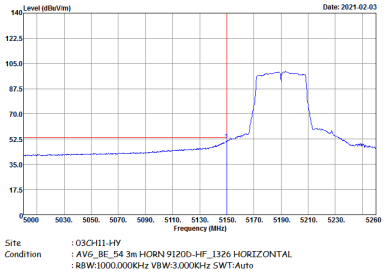
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH48 5240MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

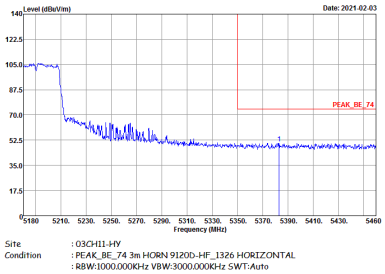
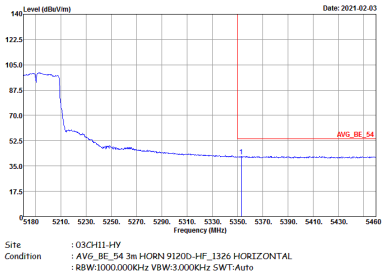
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH48 5240MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

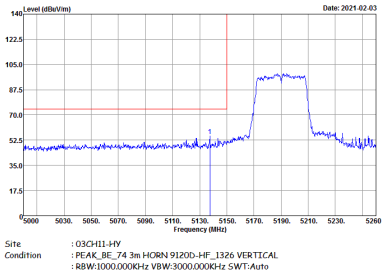
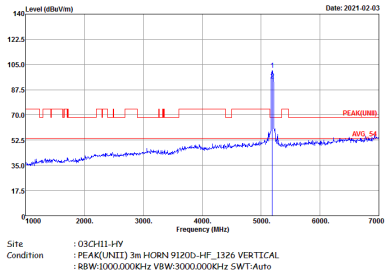
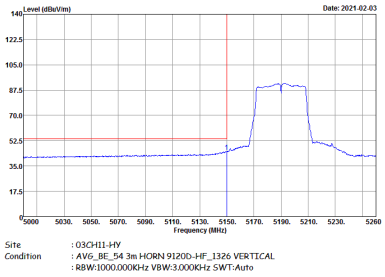
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH48 5240MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

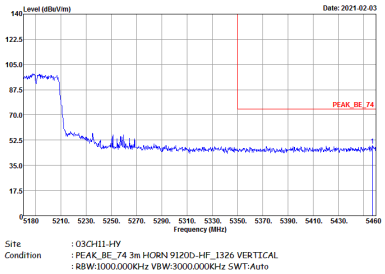
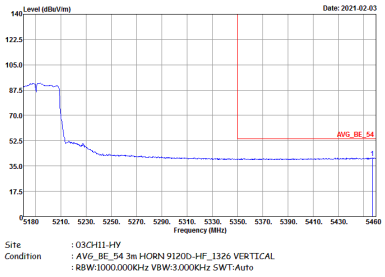
Band 1 5150~5250MHz

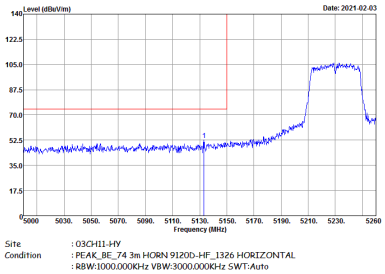
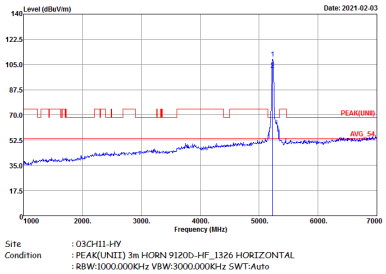
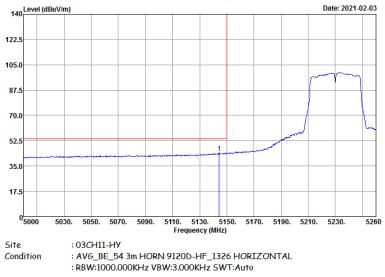
WIFI 802.11ac VHT40 (Band Edge @ 3m)

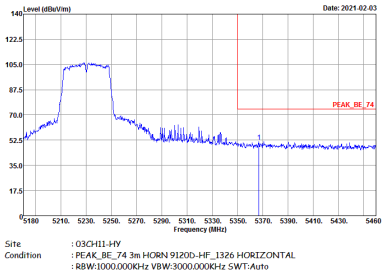
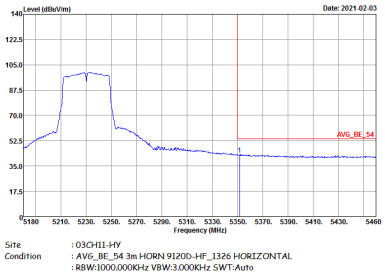
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH38 5190MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

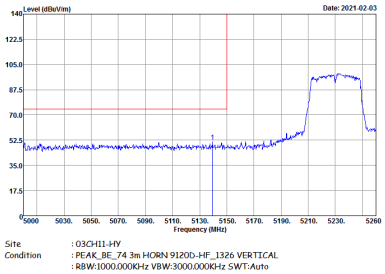
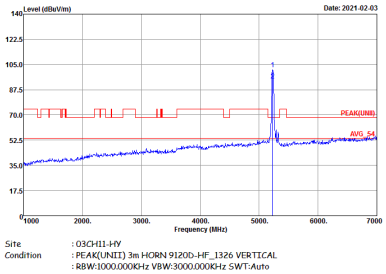
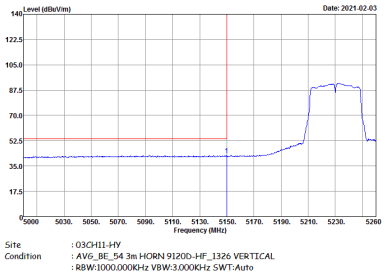
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH38 5190MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

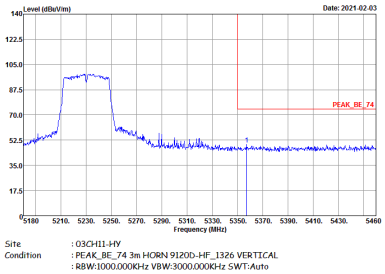
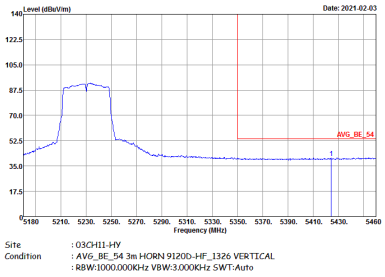
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH38 5190MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH38 5190MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH46 5230MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

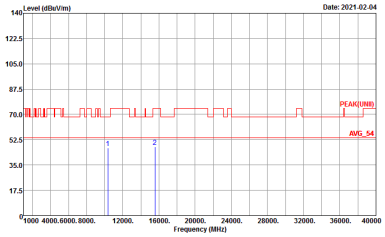
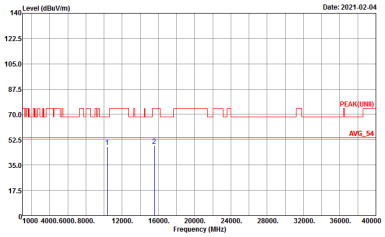
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH46 5230MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

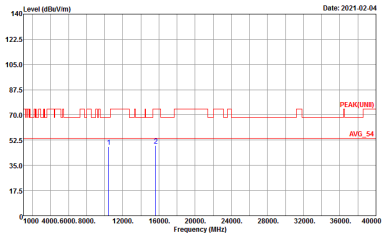
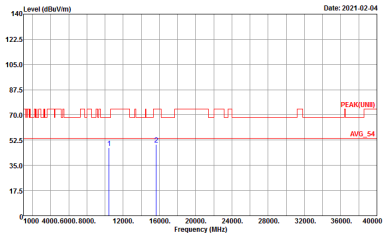
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH46 5230MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

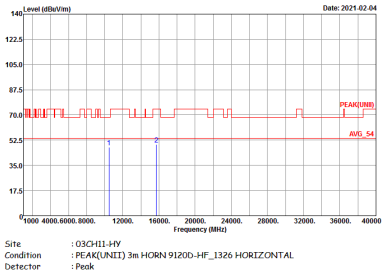
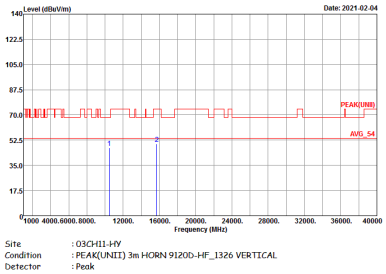
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH46 5230MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

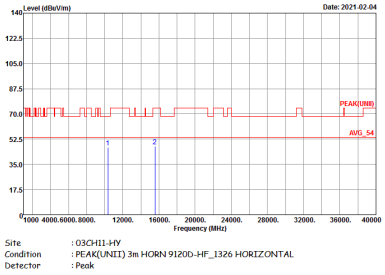
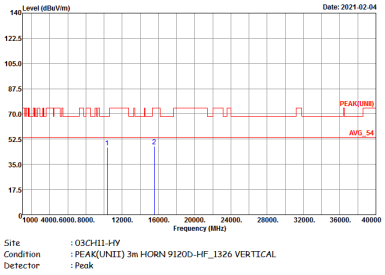
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 HORIZONTAL Detector : Peak	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 VERTICAL Detector : Peak

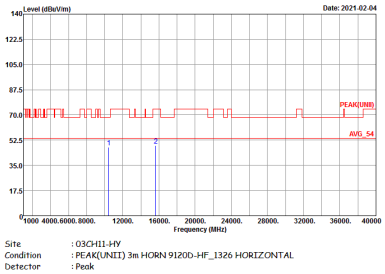
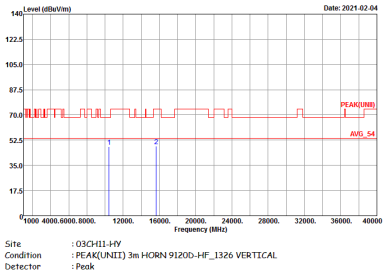
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 HORIZONTAL Detector : Peak	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 VERTICAL Detector : Peak

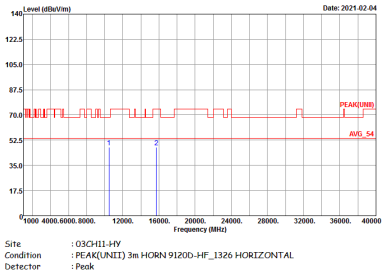
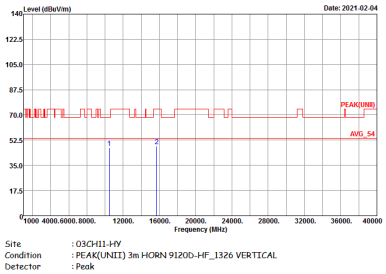
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 HORIZONTAL Detector : Peak	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 VERTICAL Detector : Peak

Band 1 5150~5250MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

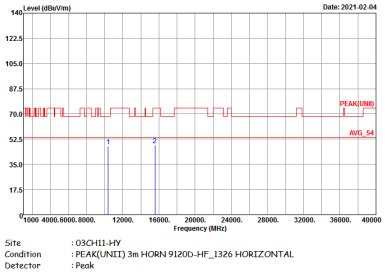
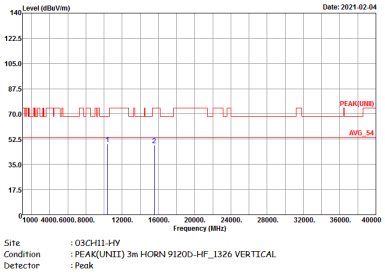
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH36 5180MHz	
1	Horizontal	Vertical
Peak Avg.		

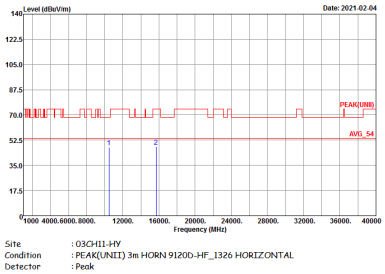
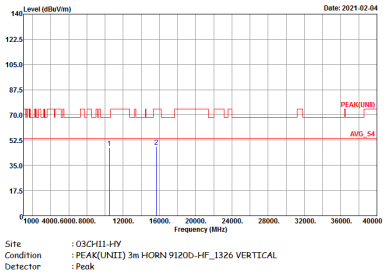
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH44 5220MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 HORIZONTAL Detector : Peak	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 VERTICAL Detector : Peak

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH48 5240MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 HORIZONTAL Detector : Peak	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 VERTICAL Detector : Peak

Band 1 5150~5250MHz

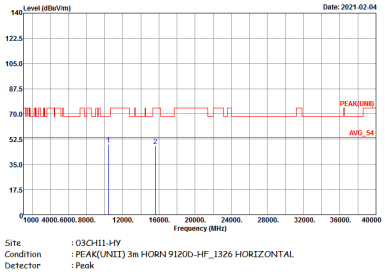
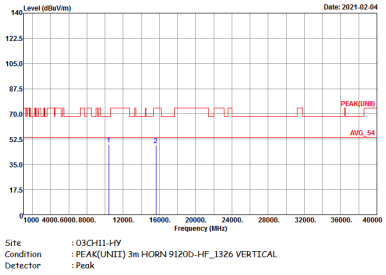
WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH38 5190MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH46 5230MHz	
1	Horizontal	Vertical
Peak Avg.	 	

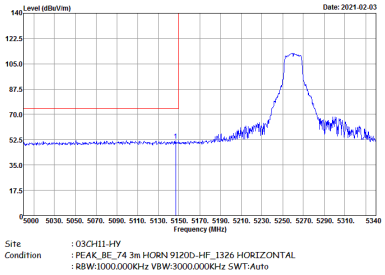
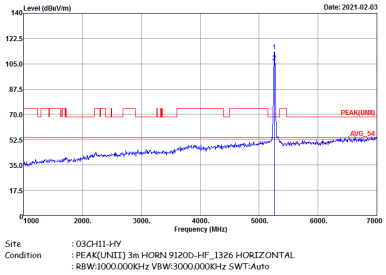
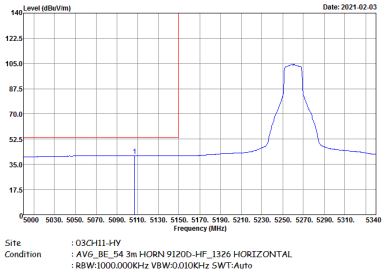
Band 1 5150~5250MHz

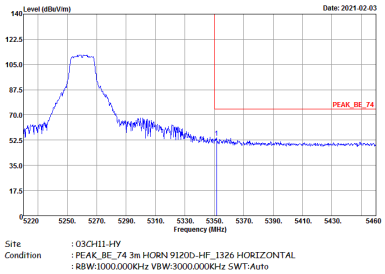
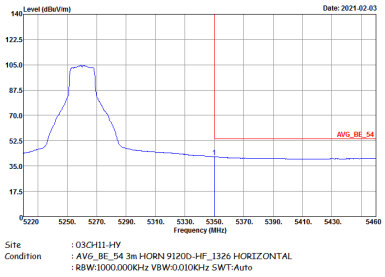
WIFI 802.11ac VHT80 (Harmonic @ 3m)

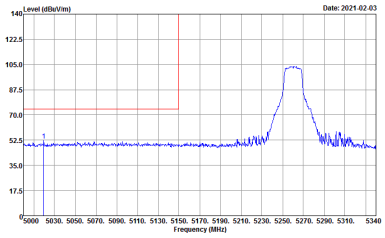
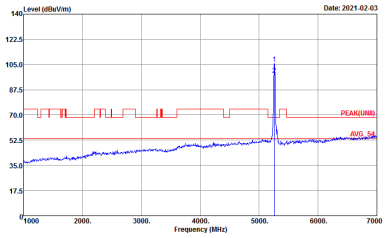
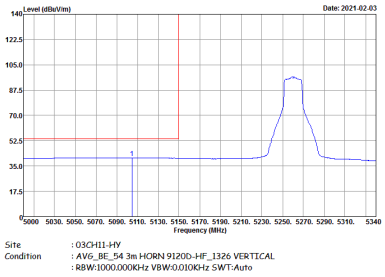
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz	
1	Horizontal	Vertical
Peak Avg.		

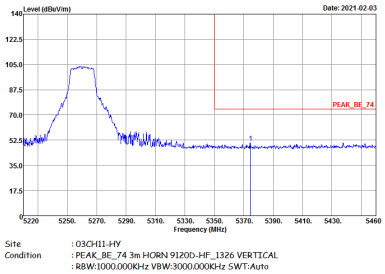
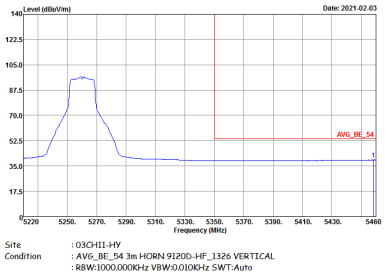
Band 2 - 5250~5350MHz

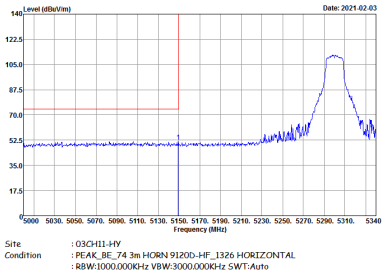
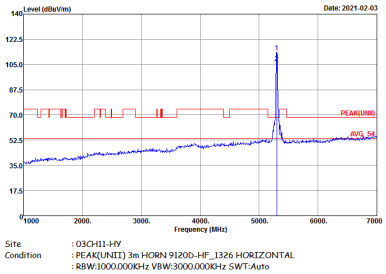
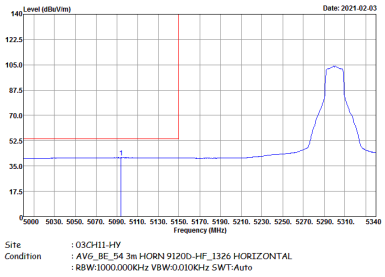
WIFI 802.11a (Band Edge @ 3m)

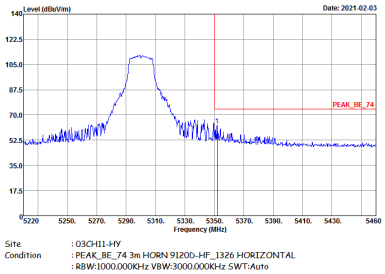
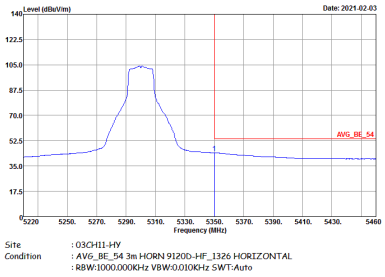
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

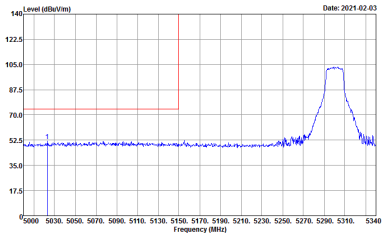
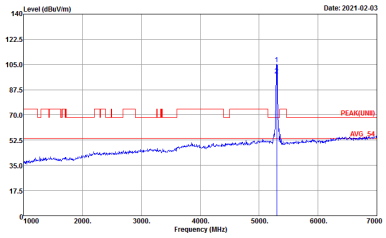
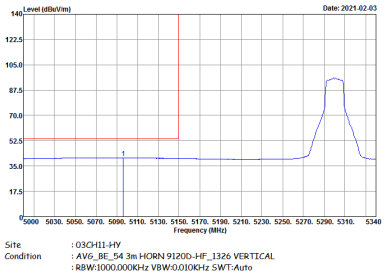
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

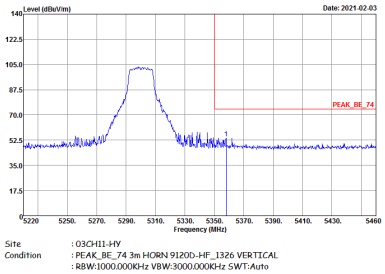
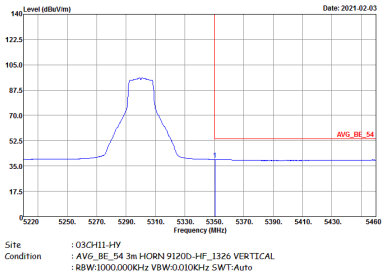
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

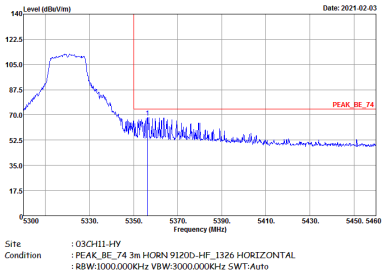
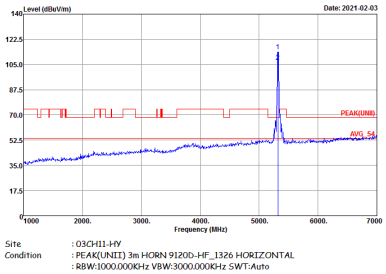
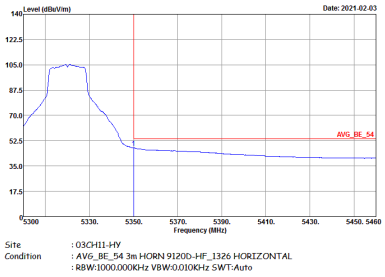
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

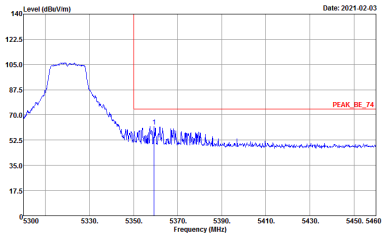
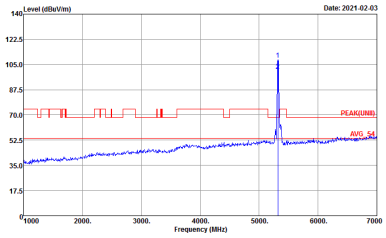
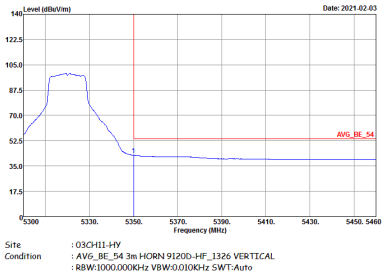
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

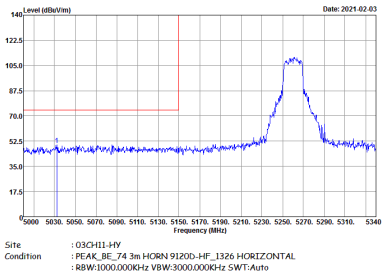
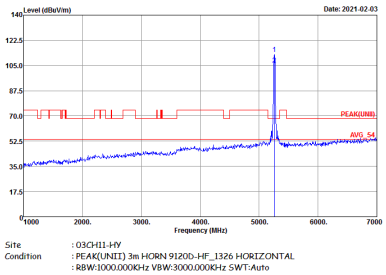
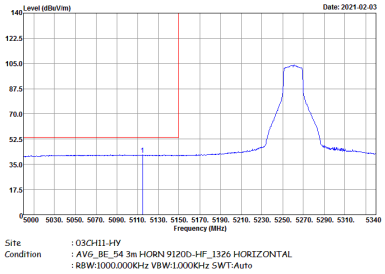
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

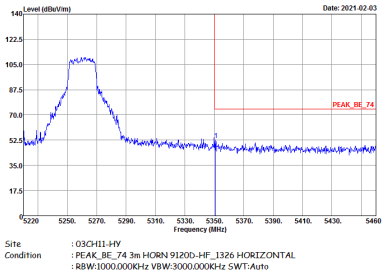
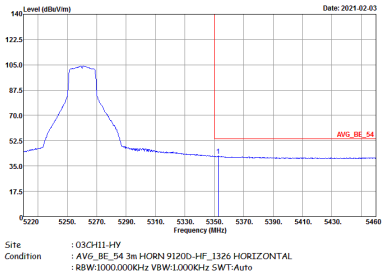
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

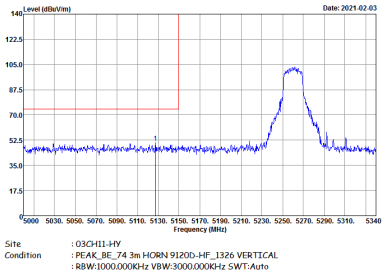
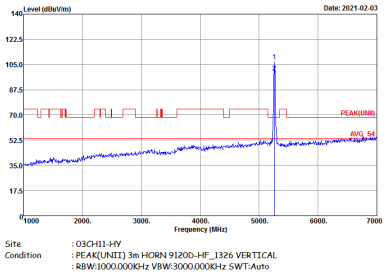
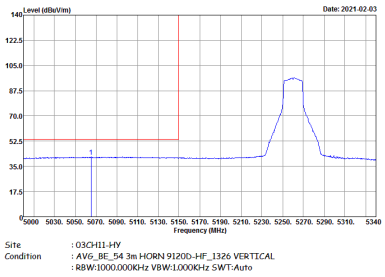
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

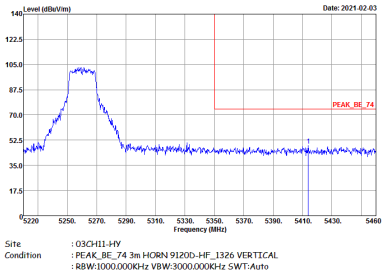
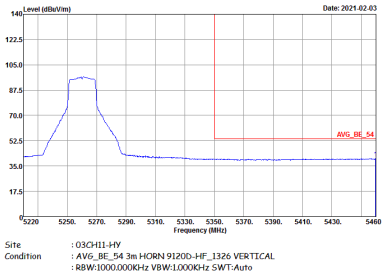
Band 2 5250~5350MHz

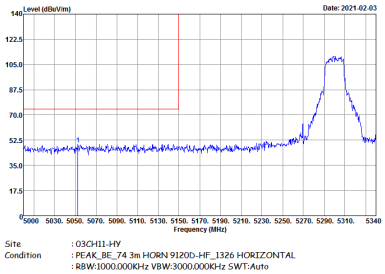
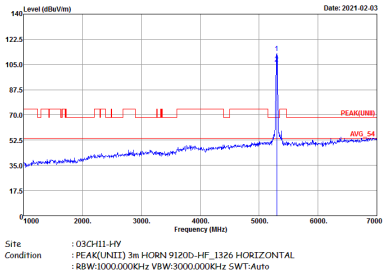
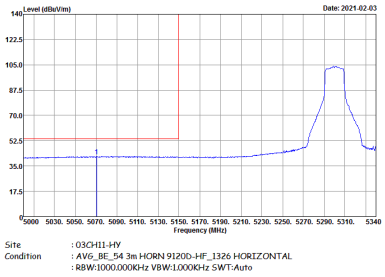
WIFI 802.11ac VHT20 (Band Edge @ 3m)

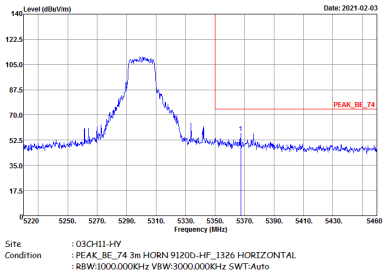
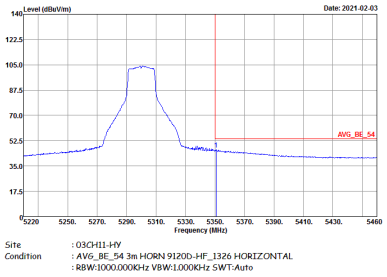
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH52 5260MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

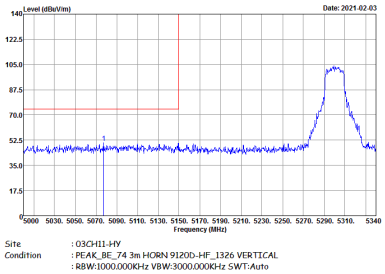
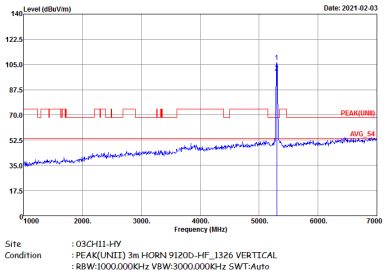
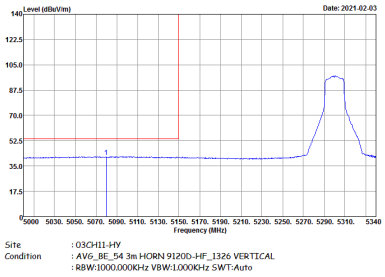
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH52 5260MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

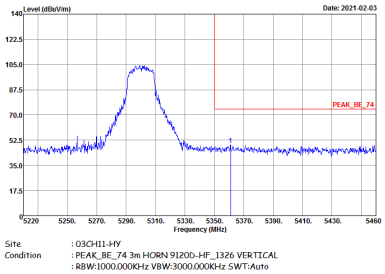
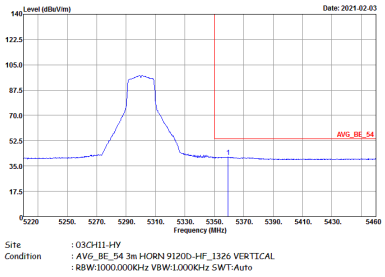
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH52 5260MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

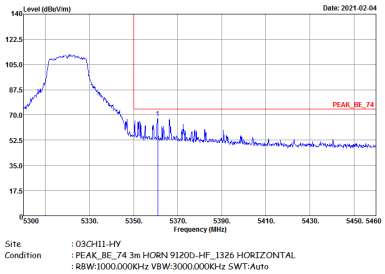
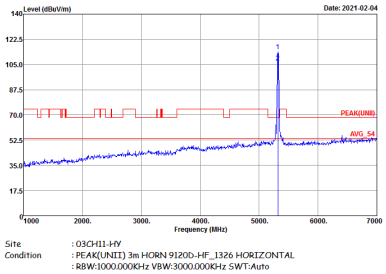
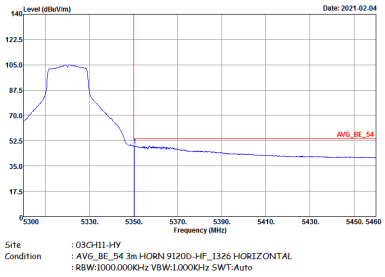
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH52 5260MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

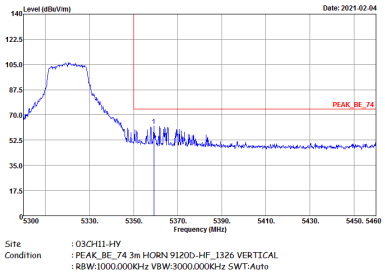
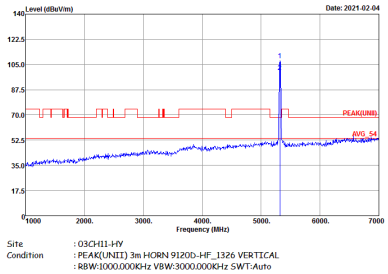
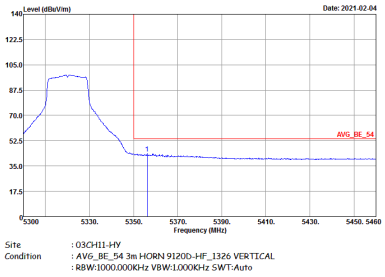
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH60 5300MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH60 5300MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH60 5300MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

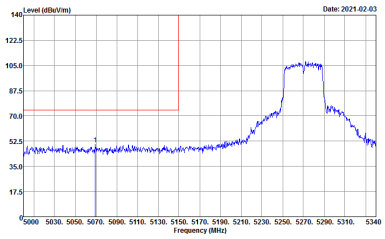
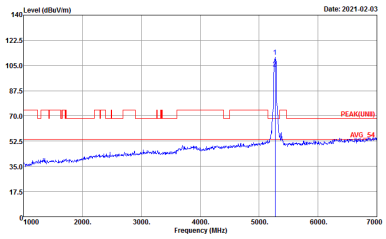
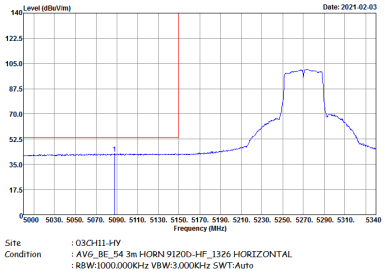
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH60 5300MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

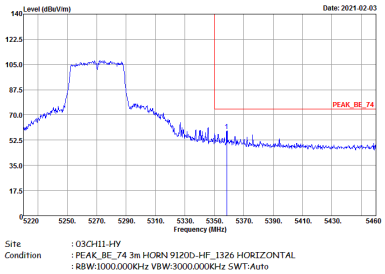
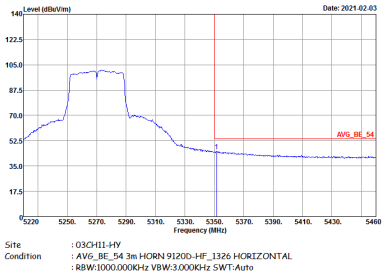
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH64 5320MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

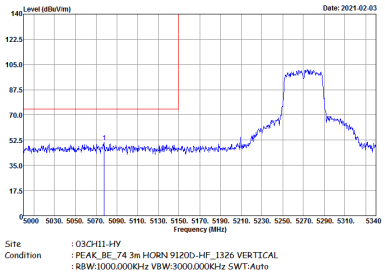
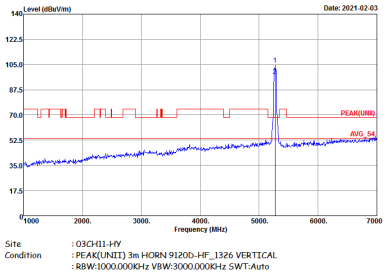
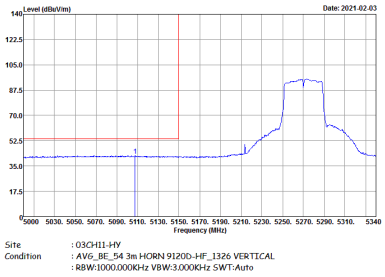
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH64 5320MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

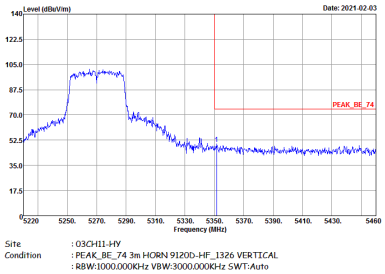
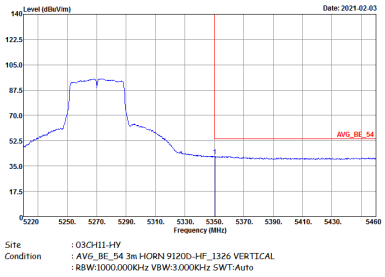
Band 2 5250~5350MHz

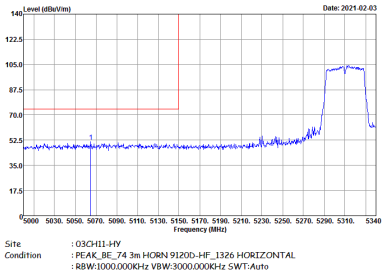
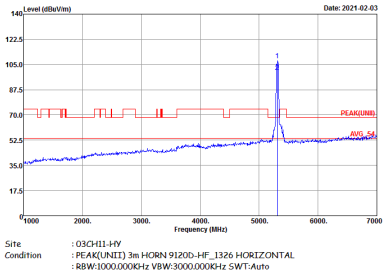
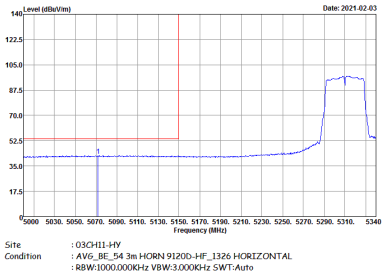
WIFI 802.11ac VHT40 (Band Edge @ 3m)

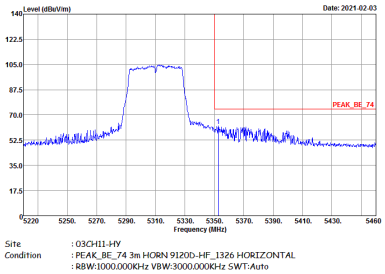
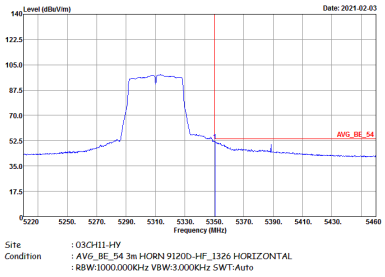
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH54 5270 - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

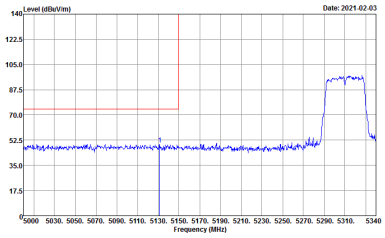
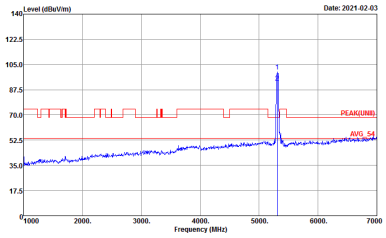
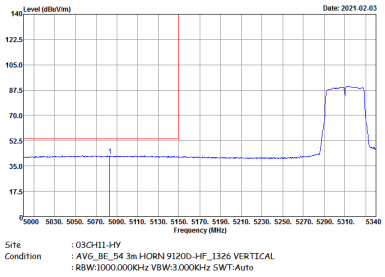
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH54 5270 - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

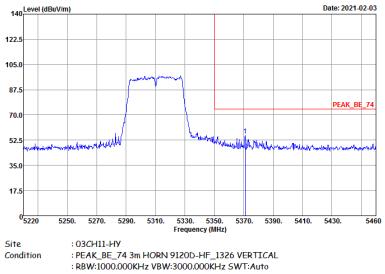
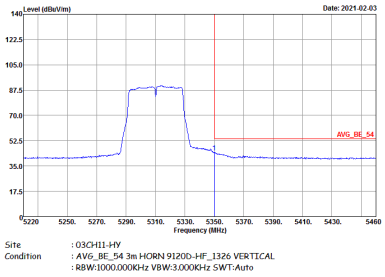
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH54 5270 - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH54 5270 - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH62 5310 - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

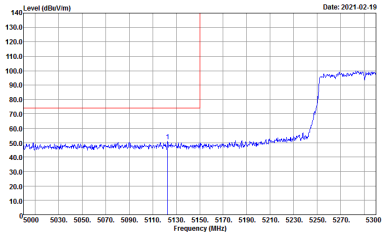
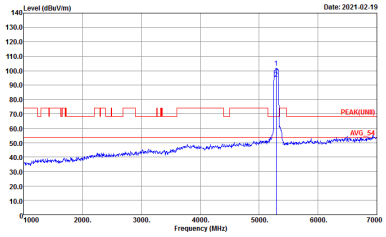
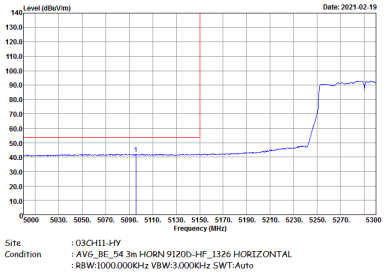
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH62 5310 - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

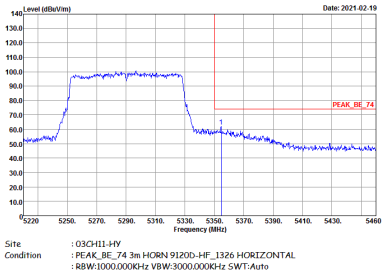
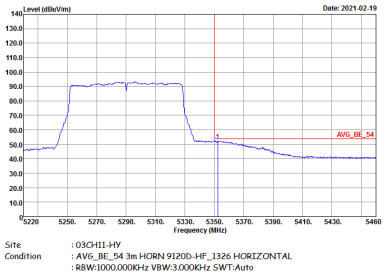
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH62 5310 - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

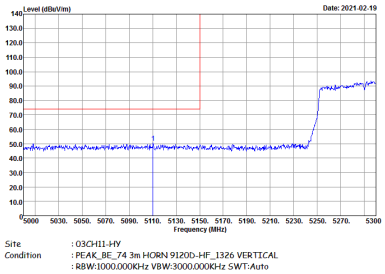
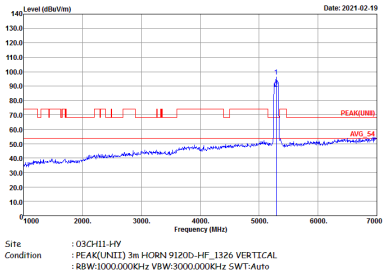
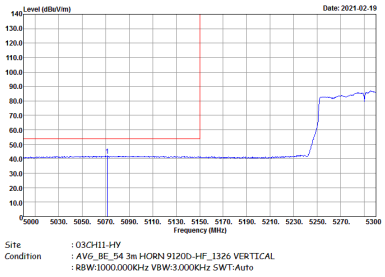
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH62 5310 - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

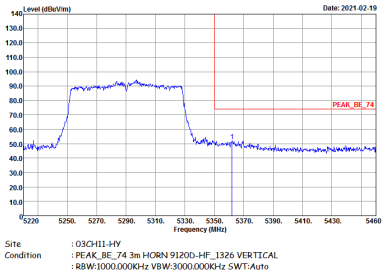
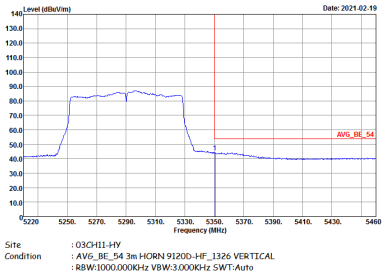
Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

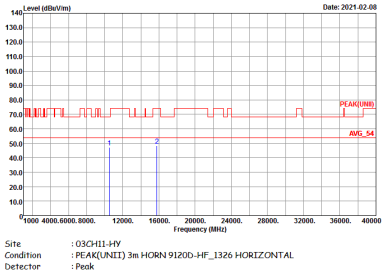
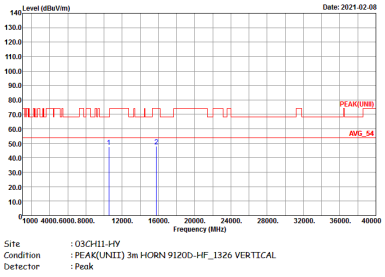
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

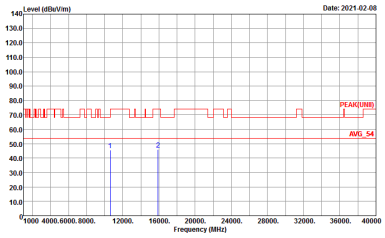
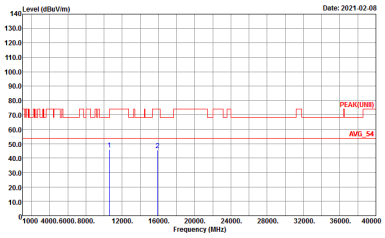
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

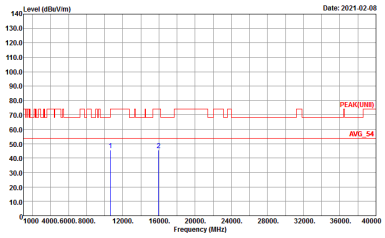
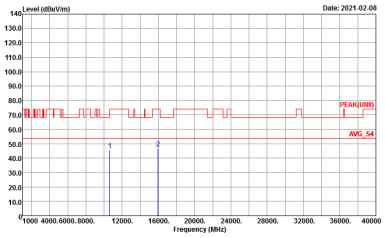
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 2 - 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

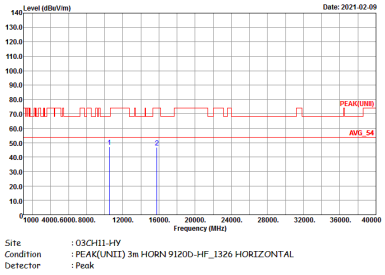
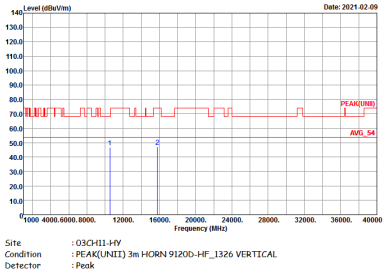
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH52 5260MHz	
1	Horizontal	Vertical
Peak Avg.		

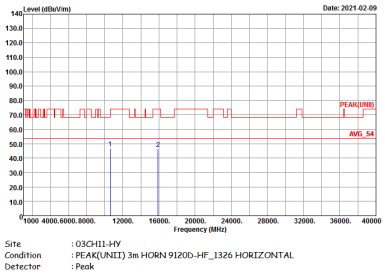
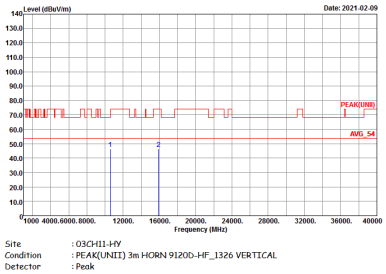
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH60 5300MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 HORIZONTAL Detector : Peak	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 VERTICAL Detector : Peak

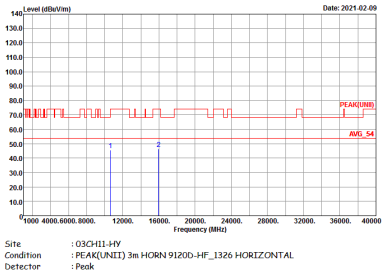
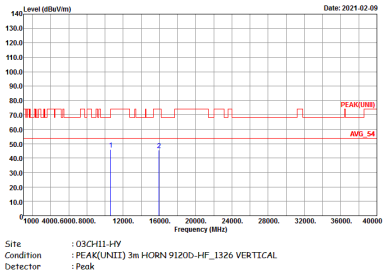
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH64 5320MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 HORIZONTAL Detector : Peak	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 VERTICAL Detector : Peak

Band 2 5250~5350MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

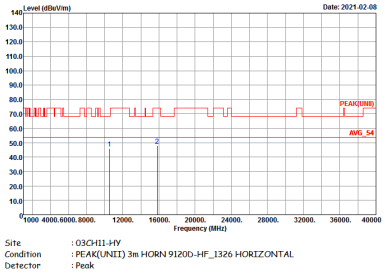
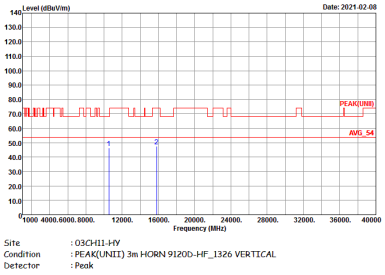
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH52 5260MHz	
1	Horizontal	Vertical
Peak Avg.		

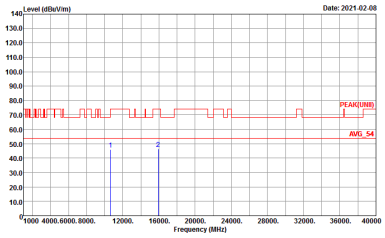
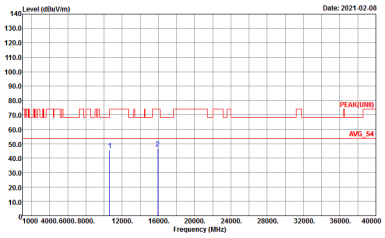
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH60 5300MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 HORIZONTAL Detector : Peak	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 VERTICAL Detector : Peak

WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH64 5320MHz	
1	Horizontal	Vertical
Peak Avg.		

Band 2 5250~5350MHz

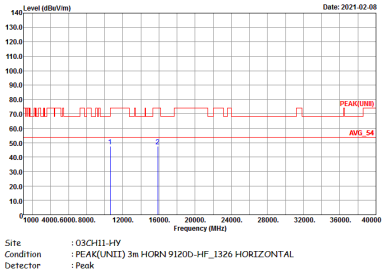
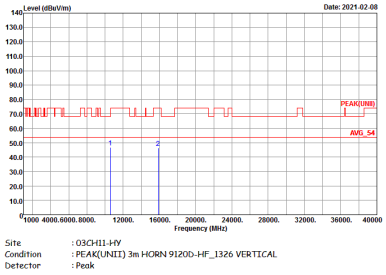
WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH54 5270	
1	Horizontal	Vertical
Peak Avg.		

WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH62 5310	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 HORIZONTAL Detector : Peak	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 VERTICAL Detector : Peak

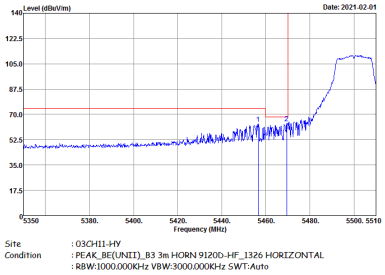
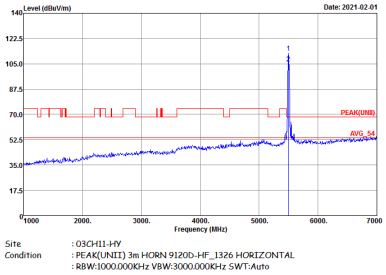
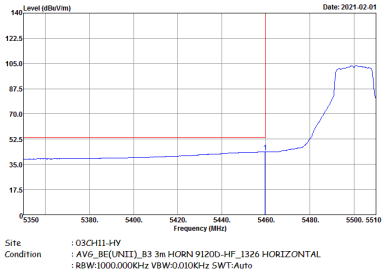
Band 2 5250~5350MHz

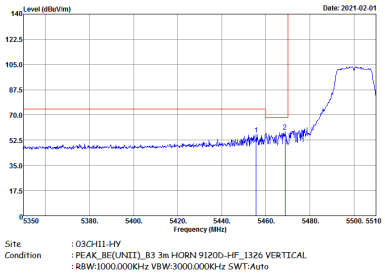
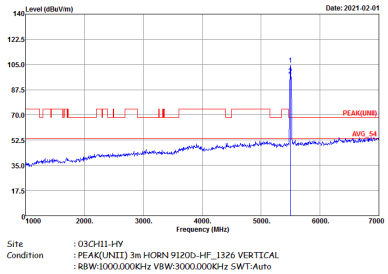
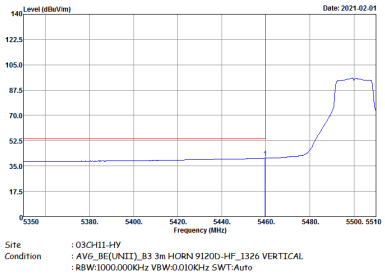
WIFI 802.11ac VHT80 (Harmonic @ 3m)

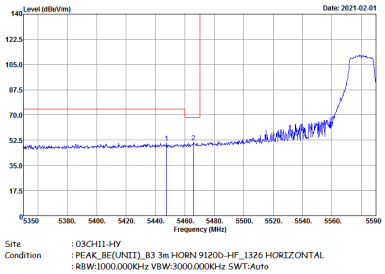
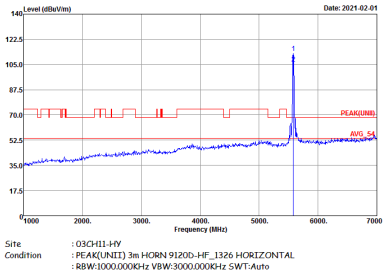
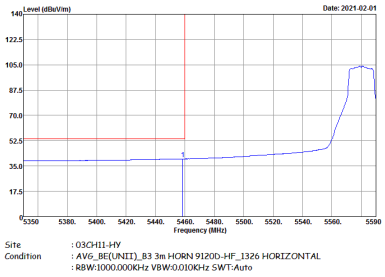
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz	
1	Horizontal	Vertical
Peak Avg.		

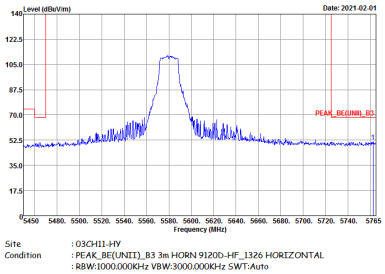
Band 3 - 5470~5725MHz

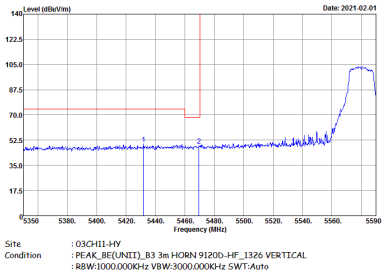
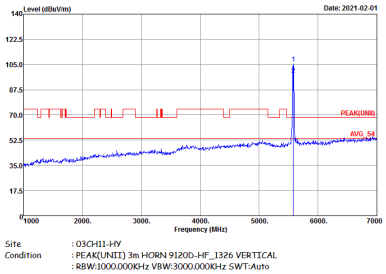
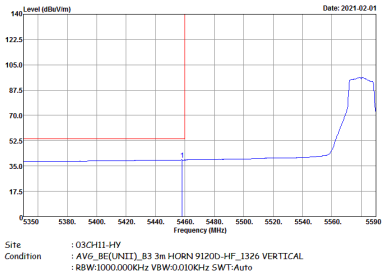
WIFI 802.11a (Band Edge @ 3m)

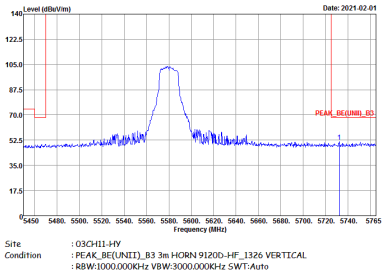
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

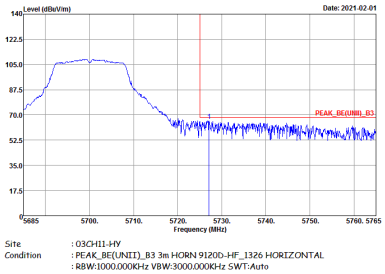
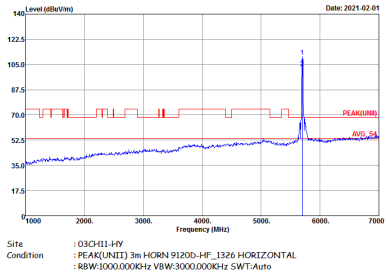
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

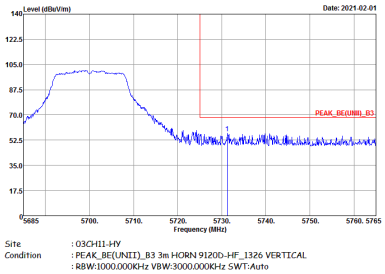
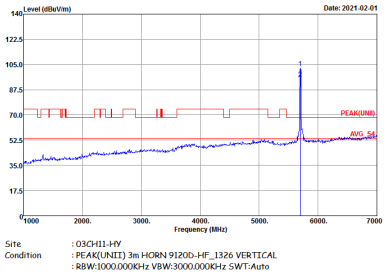
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

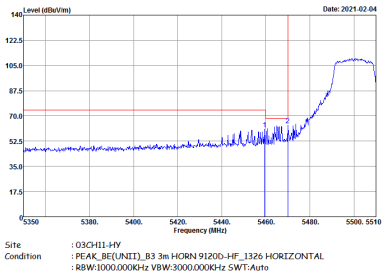
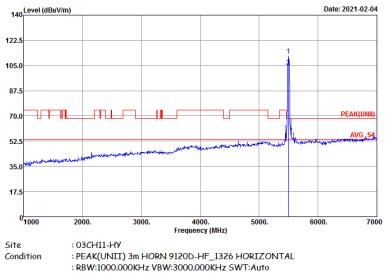
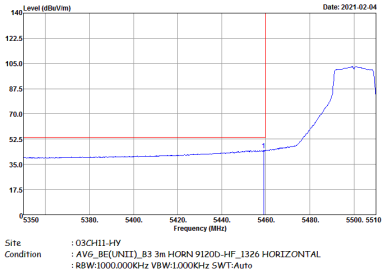
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

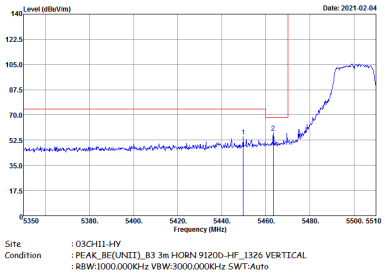
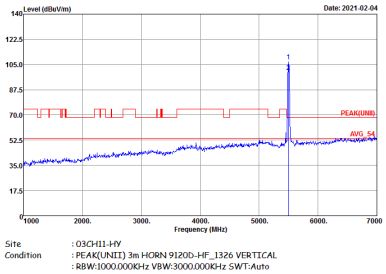
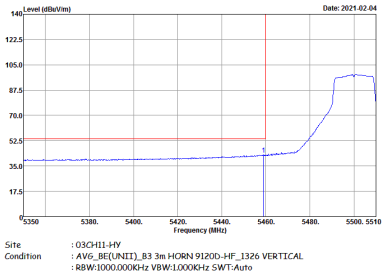
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
1	Vertical	Fundamental
Peak		Left blank

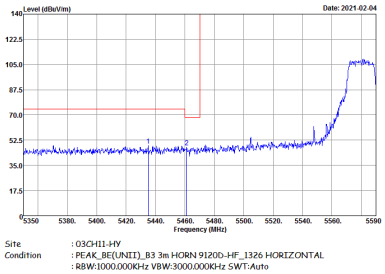
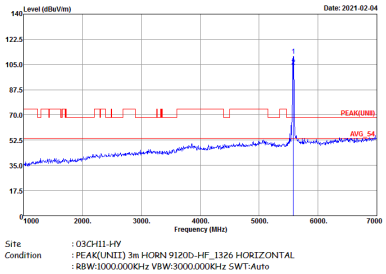
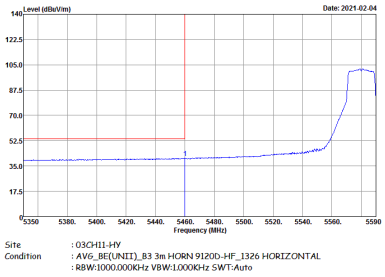
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1	Horizontal	Fundamental
Peak		

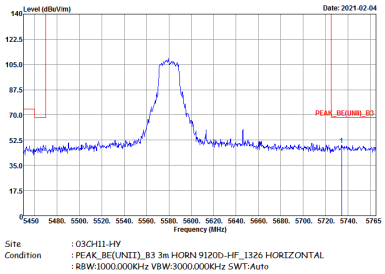
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1	Vertical	Fundamental
Peak		

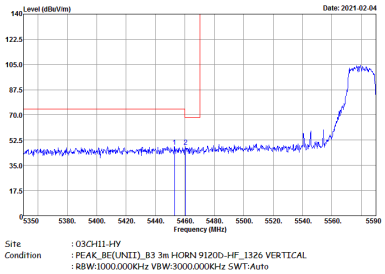
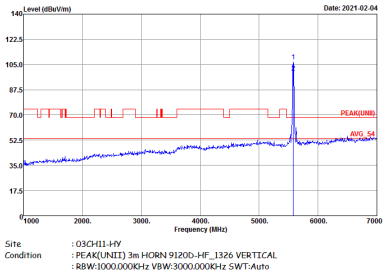
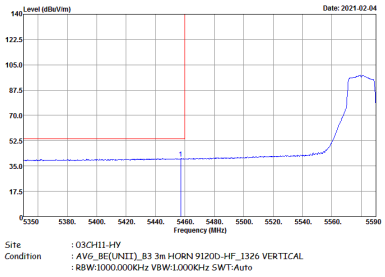
Band 3 5470~5725MHz
WIFI 802.11ac VHT20 (Band Edge @ 3m)

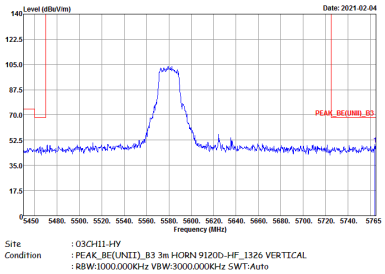
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH100 5500MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

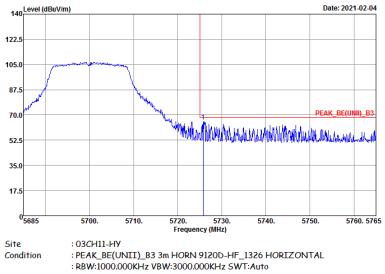
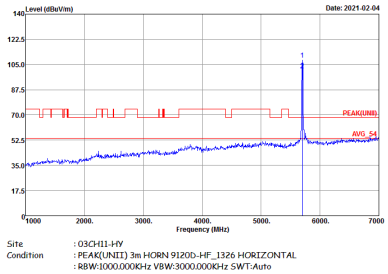
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH100 5500MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

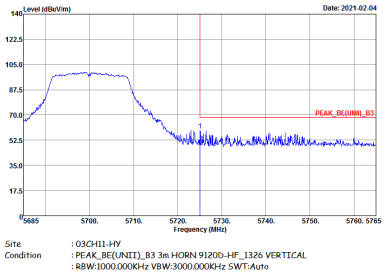
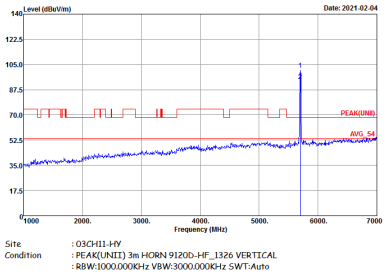
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH116 5580MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH116 5580MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH116 5580MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

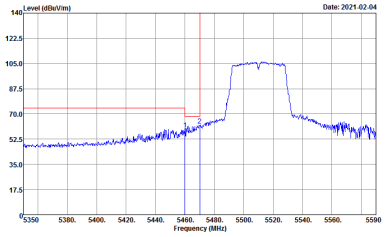
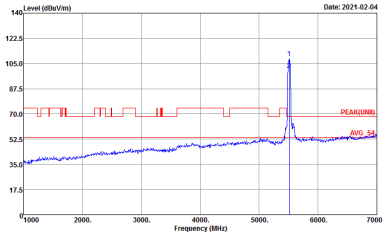
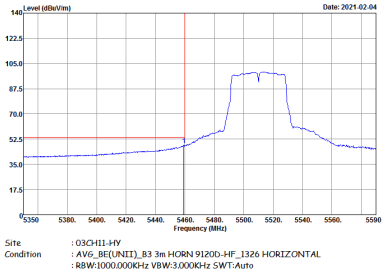
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH116 5580MHz - R	
1	Vertical	Fundamental
Peak		Left blank

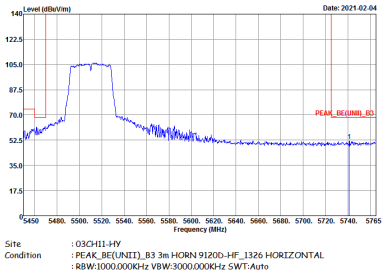
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH140 5700MHz	
1	Horizontal	Fundamental
Peak		

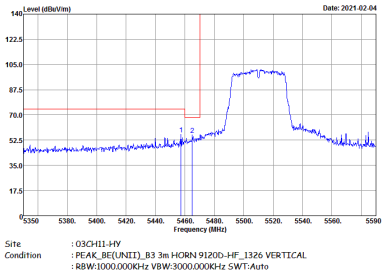
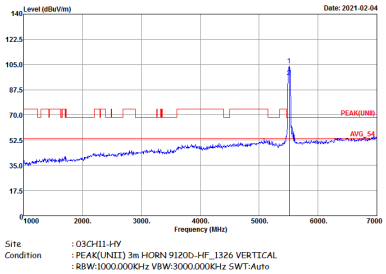
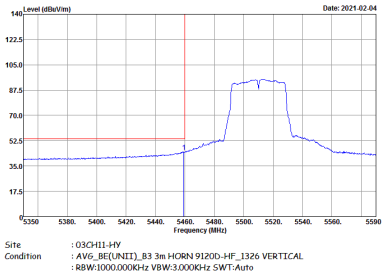
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH140 5700MHz	
1	Vertical	Fundamental
Peak		

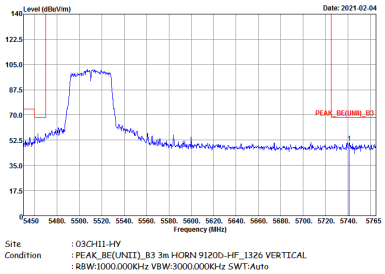
Band 3 5470~5725MHz

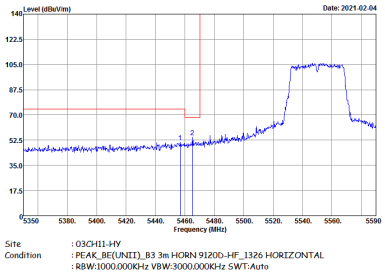
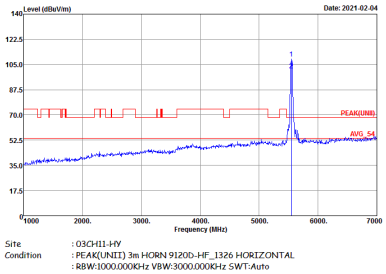
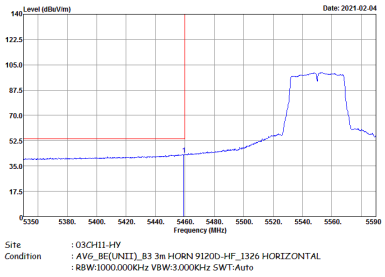
WIFI 802.11ac VHT40 (Band Edge @ 3m)

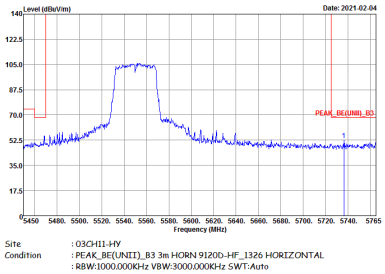
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH102 5510MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

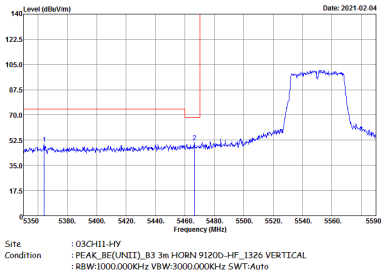
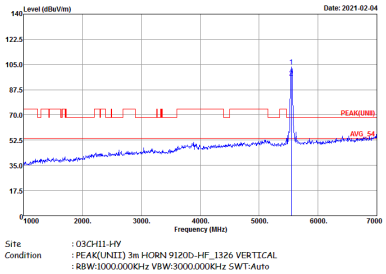
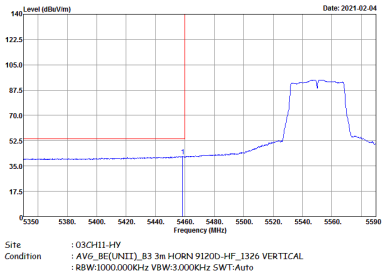
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH102 5510MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

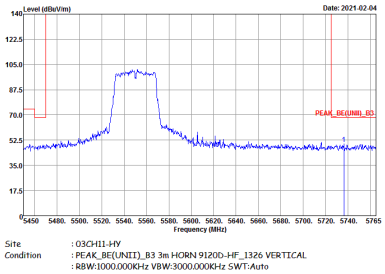
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH102 5510MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

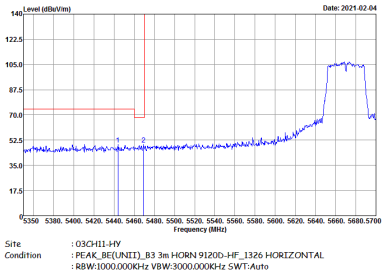
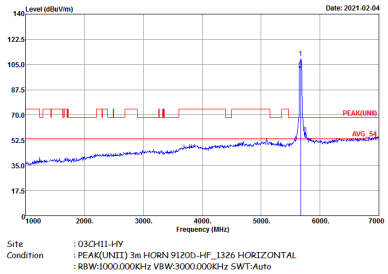
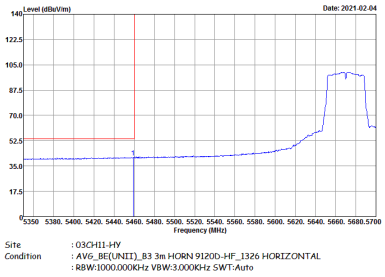
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH102 5510MHz - R	
1	Vertical	Fundamental
Peak		Left blank

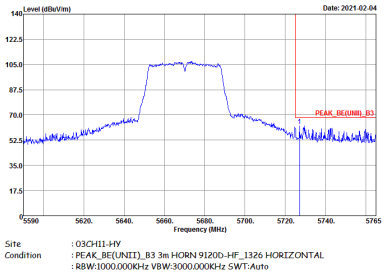
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH110 5550MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

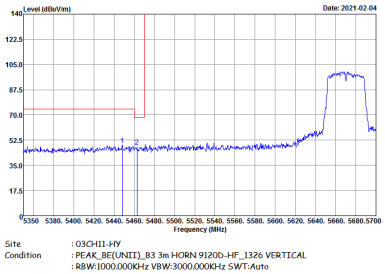
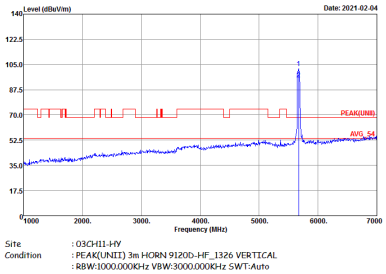
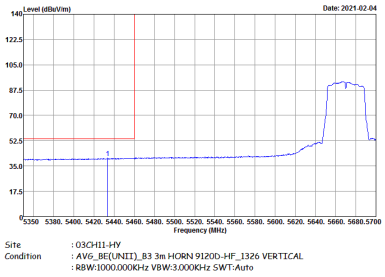
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH110 5550MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

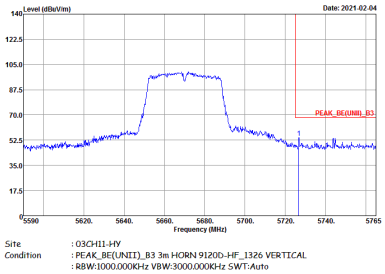
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH110 5550MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH110 5550MHz - R	
1	Vertical	Fundamental
Peak		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH134 5670MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

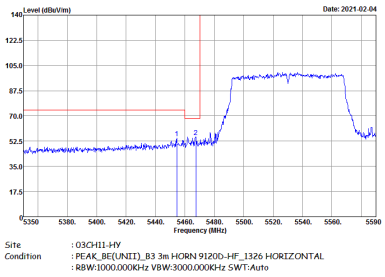
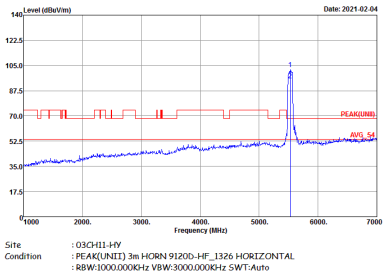
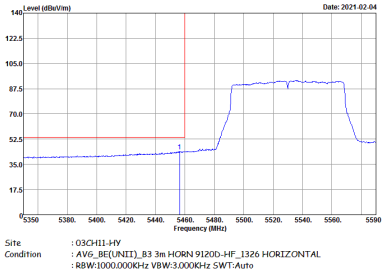
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH134 5670MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

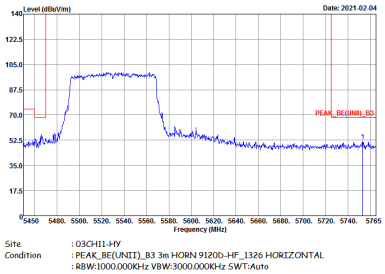
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH134 5670MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

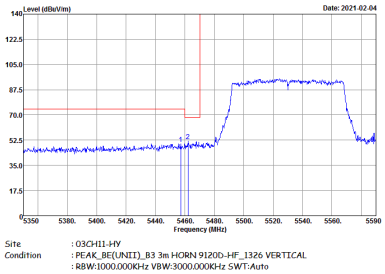
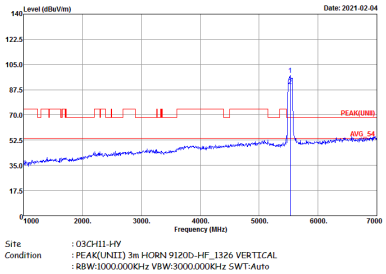
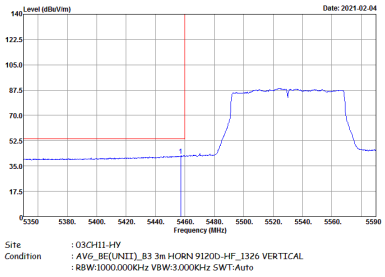
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH134 5670MHz - R	
1	Vertical	Fundamental
Peak		Left blank

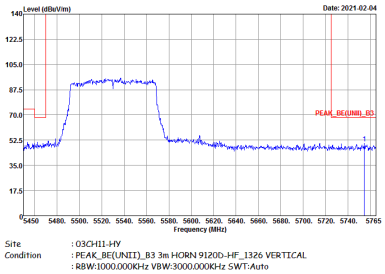
Band 3 5470~5725MHz

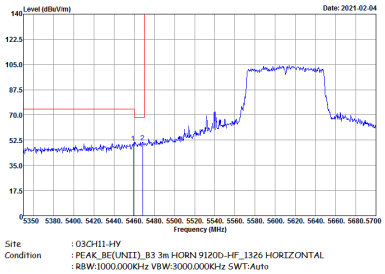
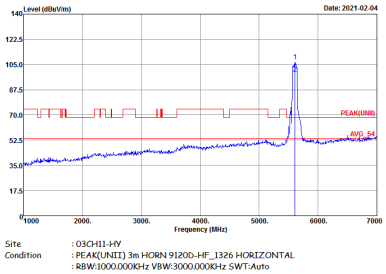
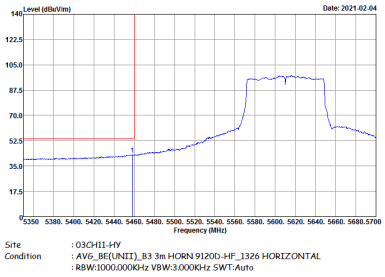
WIFI 802.11ac VHT80 (Band Edge @ 3m)

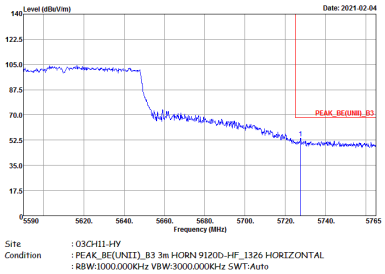
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

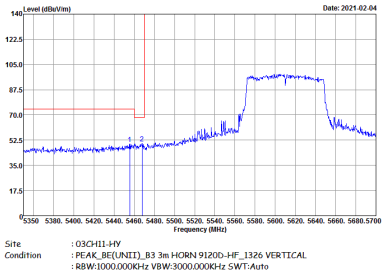
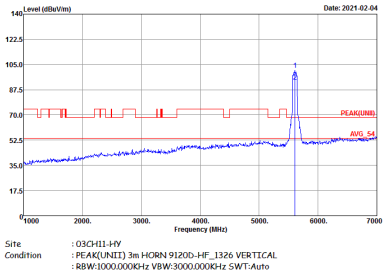
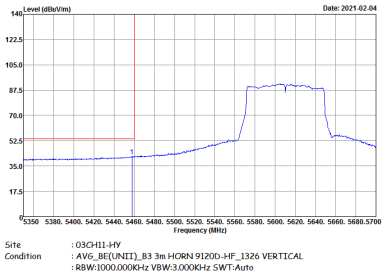
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

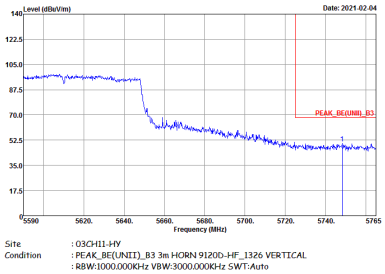
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - R	
1	Vertical	Fundamental
Peak		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

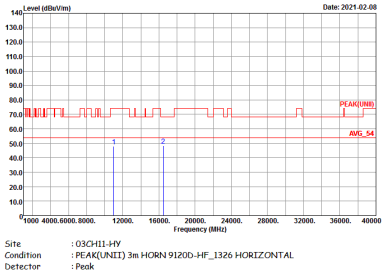
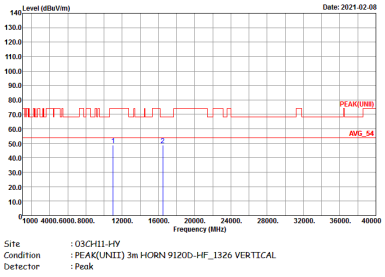
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

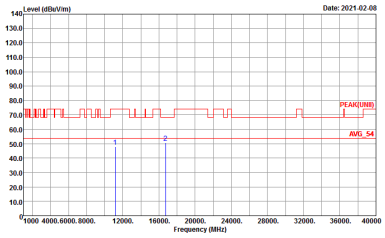
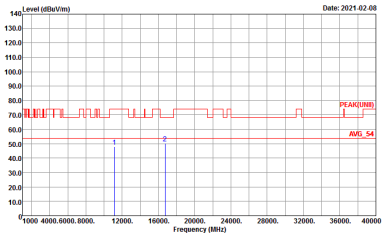
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

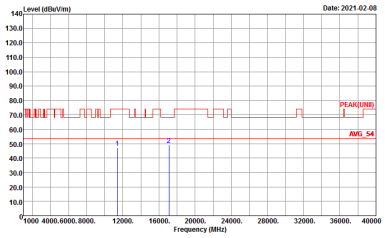
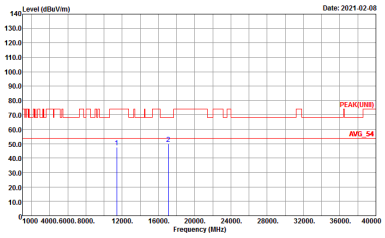
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - R	
1	Vertical	Fundamental
Peak		Left blank

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

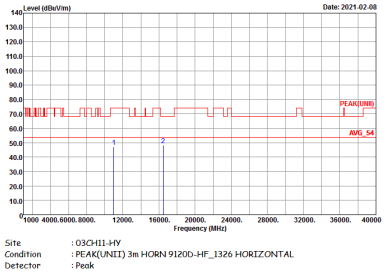
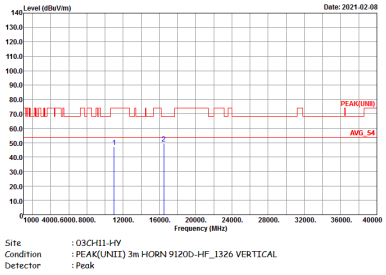
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH100 5500MHz	
1	Horizontal	Vertical
Peak Avg.		

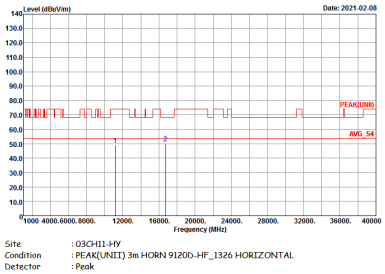
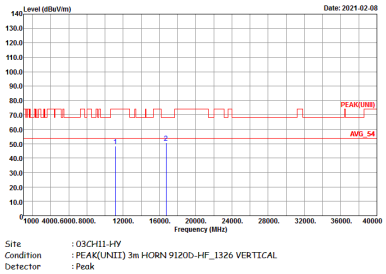
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH116 5580MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 HORIZONTAL Detector : Peak	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 VERTICAL Detector : Peak

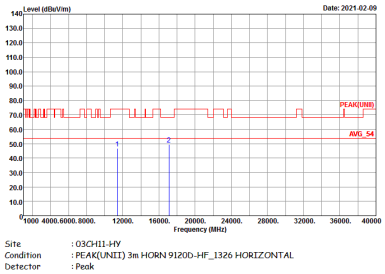
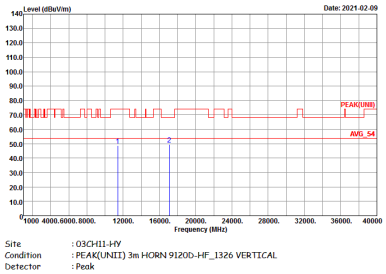
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH140 5700MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 HORIZONTAL Detector : Peak	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 VERTICAL Detector : Peak

Band 3 5470~5725MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

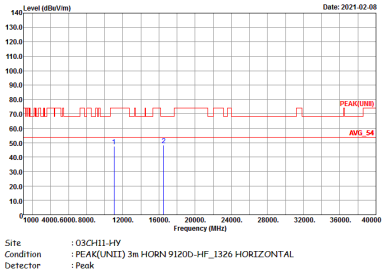
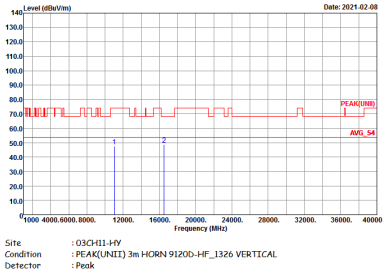
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH100 5500MHz	
1	Horizontal	Vertical
Peak Avg.		

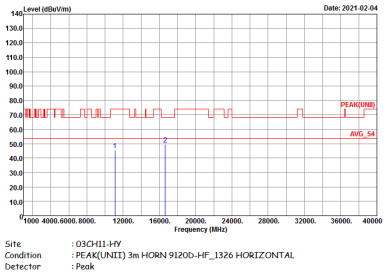
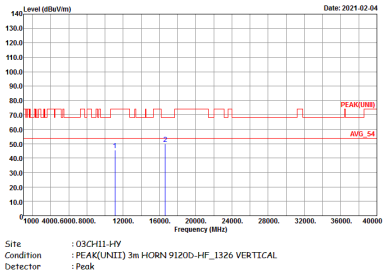
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH116 5580MHz	
1	Horizontal	Vertical
Peak Avg.		

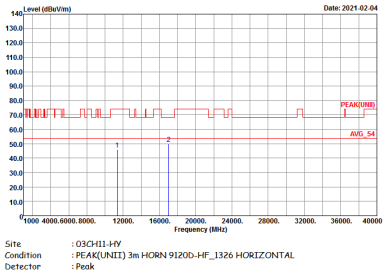
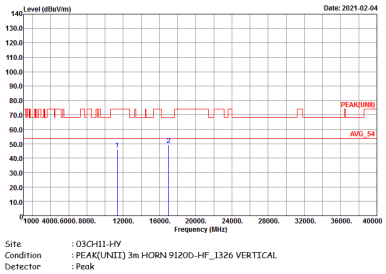
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH140 5700MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 HORIZONTAL Detector : Peak	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 VERTICAL Detector : Peak

Band 3 5470~5725MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

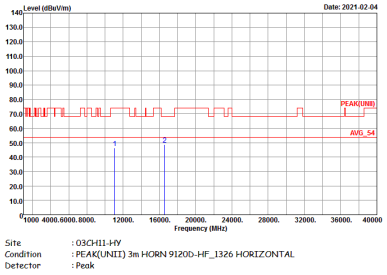
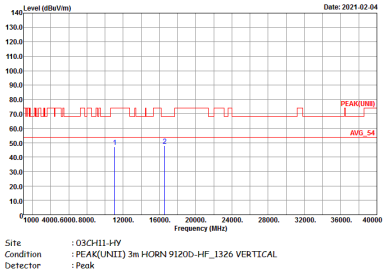
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH102 5510MHz	
1	Horizontal	Vertical
Peak Avg.		

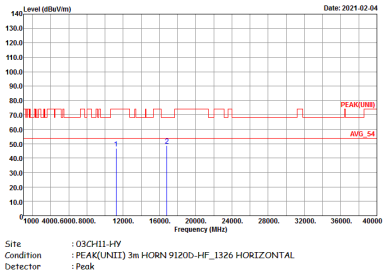
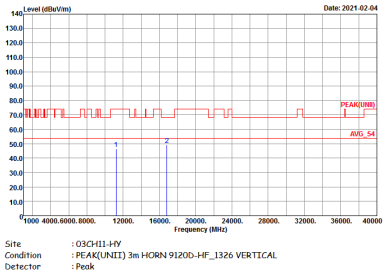
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH110 5550MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH134 5670MHz	
1	Horizontal	Vertical
Peak Avg.		

Band 3 5470~5725MHz

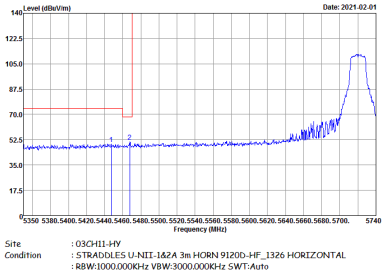
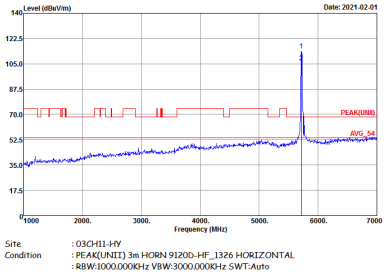
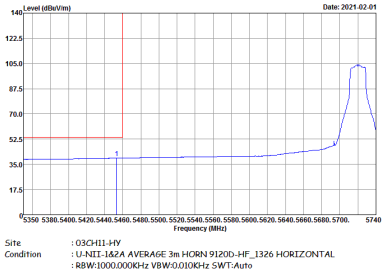
WIFI 802.11ac VHT80 (Harmonic @ 3m)

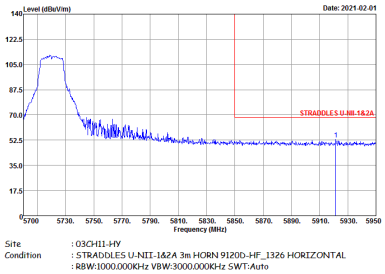
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz	
1	Horizontal	Vertical
Peak Avg.		

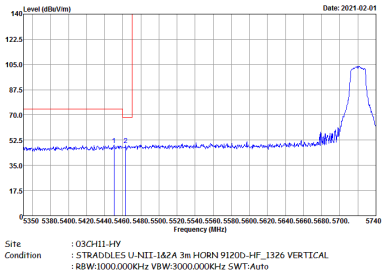
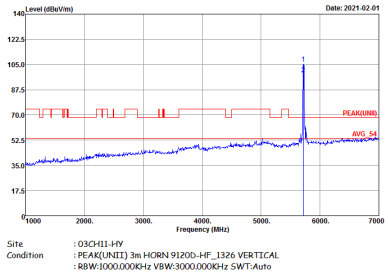
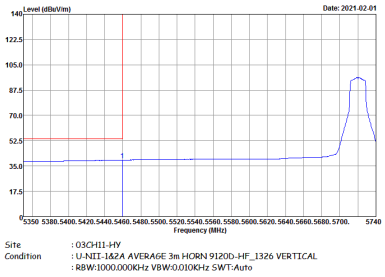
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 HORIZONTAL Detector : Peak	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF_1326 VERTICAL Detector : Peak

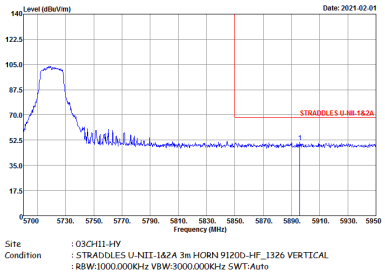
Band 3 - Straddle Channel

WIFI 802.11a (Band Edge @ 3m)

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

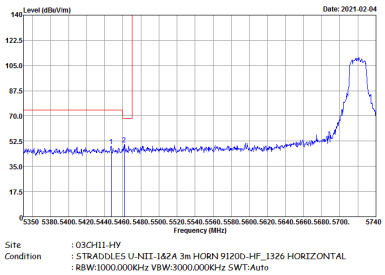
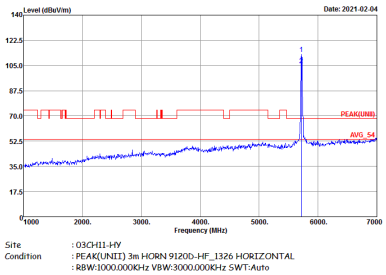
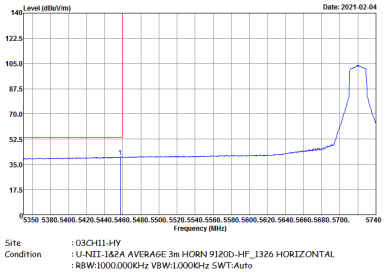
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz – R	
1	Horizontal	Fundamental
Peak		Left blank

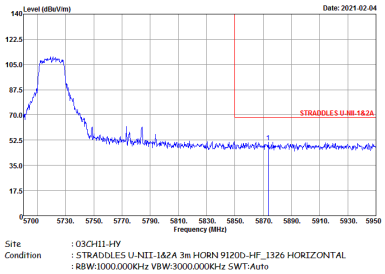
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

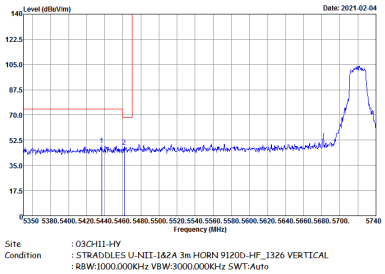
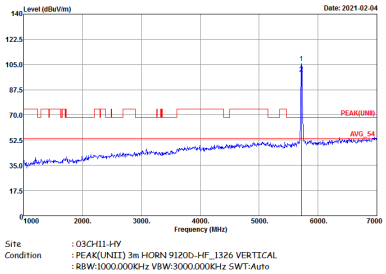
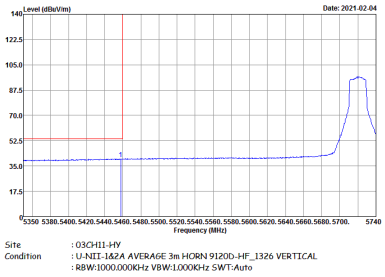
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz - R	
1	Vertical	Fundamental
Peak		Left blank

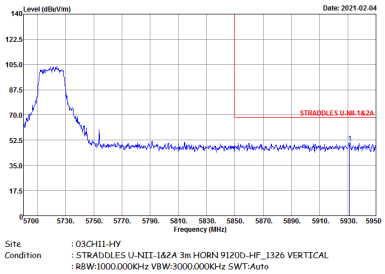
Band 3 – Straddle Channel

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ac VHT20 CH144 5720MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

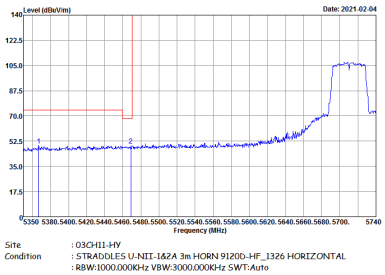
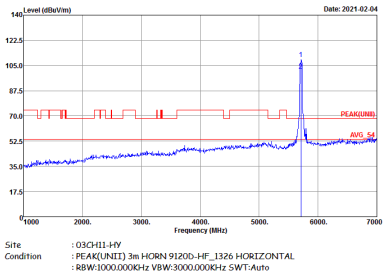
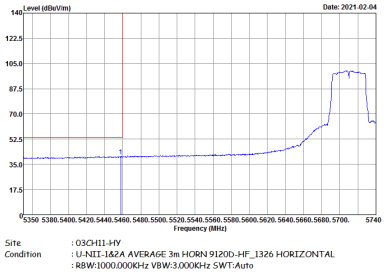
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ac VHT20 CH144 5720MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

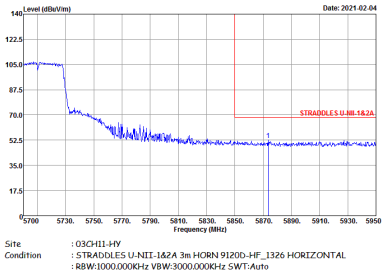
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ac VHT20 CH144 5720MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

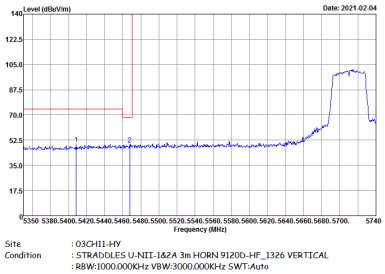
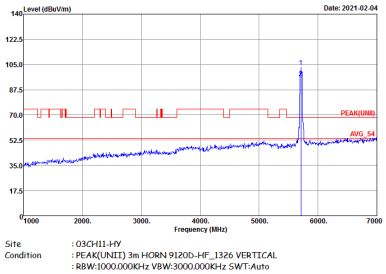
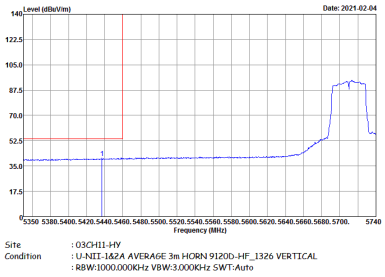
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ac VHT20 CH144 5720MHz - R	
1	Vertical	Fundamental
Peak		Left blank

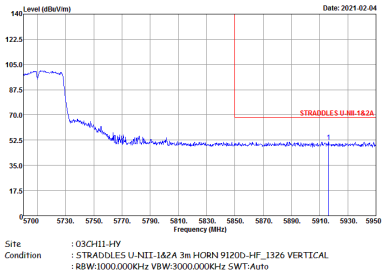
Band 3 – Straddle Channel

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ac VHT40 CH142 5710MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

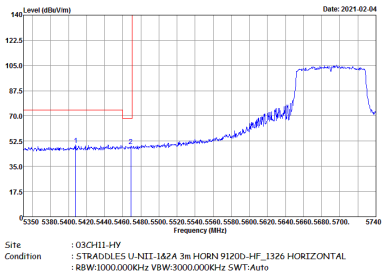
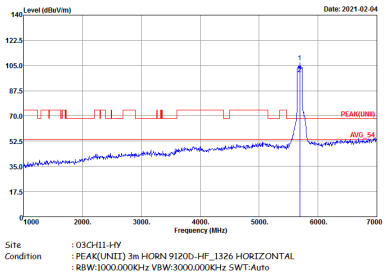
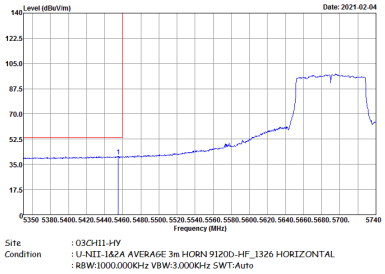
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ac VHT40 CH142 5710MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

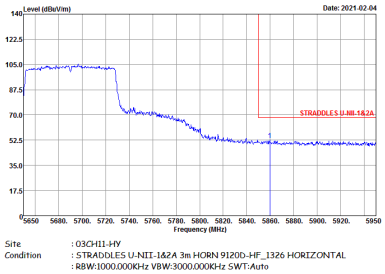
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ac VHT40 CH142 5710MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

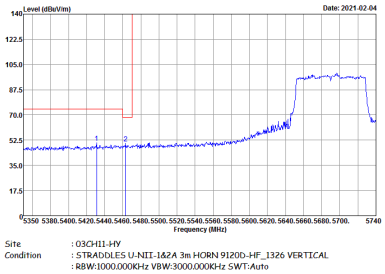
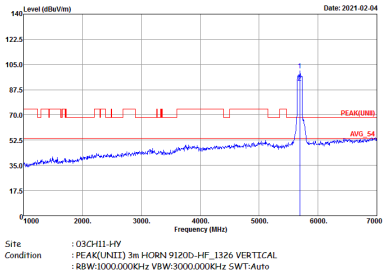
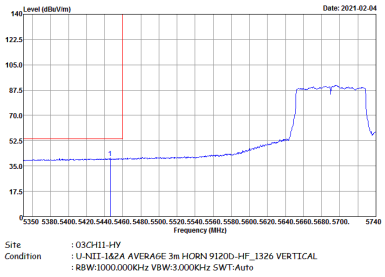
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ac VHT40 CH142 5710MHz - R	
1	Vertical	Fundamental
Peak		Left blank

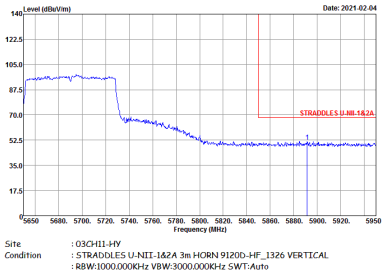
Band 3 – Straddle Channel

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ac CH138 5690MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

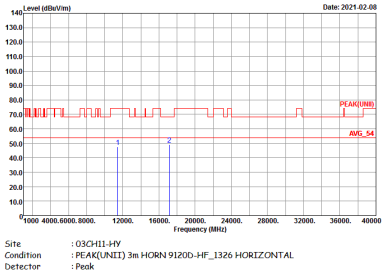
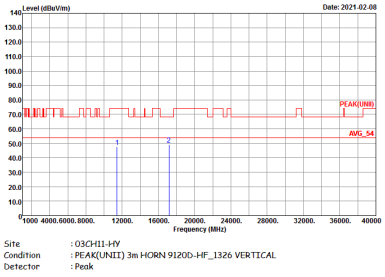
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ac CH138 5690MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ac CH138 5690MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11ac CH138 5690MHz - R	
1	Vertical	Fundamental
Peak		Left blank

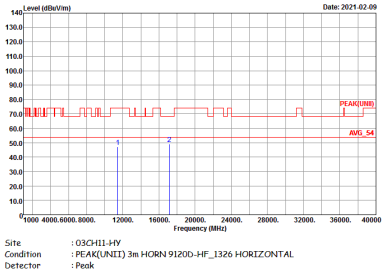
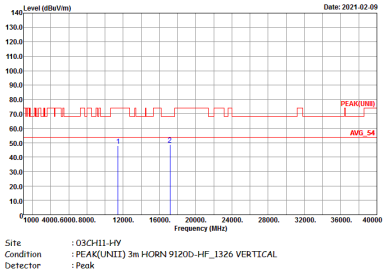
Band 3 - Straddle Channel

WIFI 802.11a (Harmonic @ 3m)

WIFI	Band 3 Straddle Channel Harmonic @ 3m	
ANT	802.11a CH144 5720MHz	
1	Horizontal	Vertical
Peak Avg.		

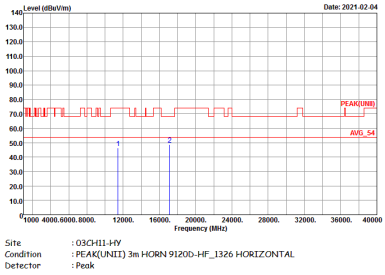
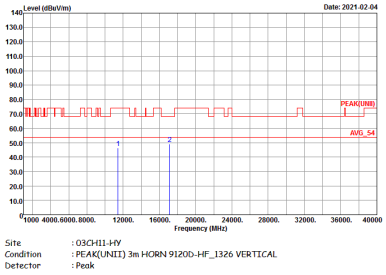
Band 3 – Straddle Channel

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Band 3 Straddle Channel Harmonic @ 3m	
ANT	802.11ac VHT20 CH144 5720MHz	
1	Horizontal	Vertical
Peak Avg.		

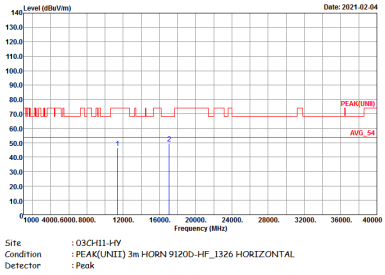
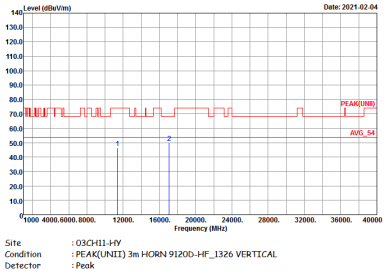
Band 3 – Straddle Channel

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Band 3 Straddle Channel Harmonic @ 3m	
ANT	802.11ac VHT40 CH142 5710MHz	
1	Horizontal	Vertical
Peak Avg.		

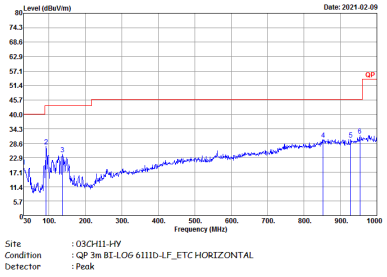
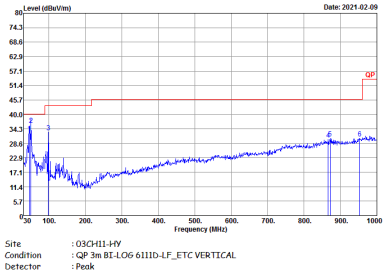
Band 3 – Straddle Channel

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Band 3 Straddle Channel Harmonic @ 3m	
ANT	802.11ac VHT80 CH138 5690MHz	
1	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

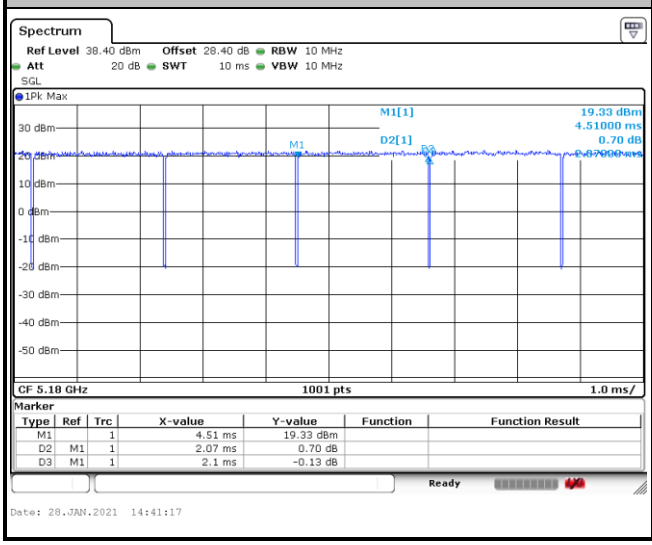
5GHz WIFI 802.11ac VHT40 (LF)

WIFI	5GHz WIFI	
ANT	802.11ac VHT40 LF	
1	Horizontal	Vertical
QP / Peak		

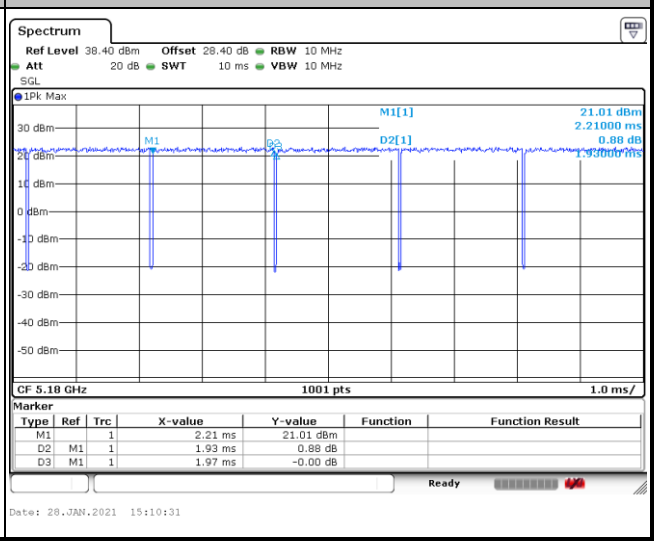
Appendix D. Duty Cycle Plots

Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
802.11a	98.57	-	-	10Hz	0.06
5GHz 802.11ac VHT20	97.97	1930	0.52	1kHz	0.09
5GHz 802.11ac VHT40	96.45	950	1.05	3kHz	0.16
5GHz 802.11ac VHT80	93.00	465	2.15	3kHz	0.32

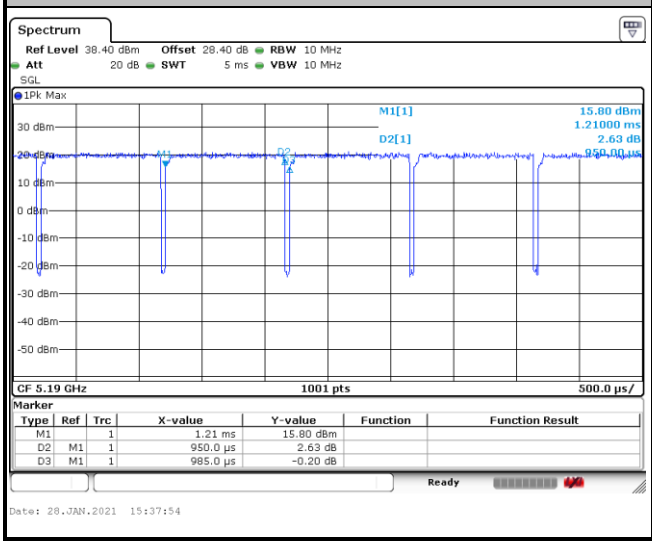
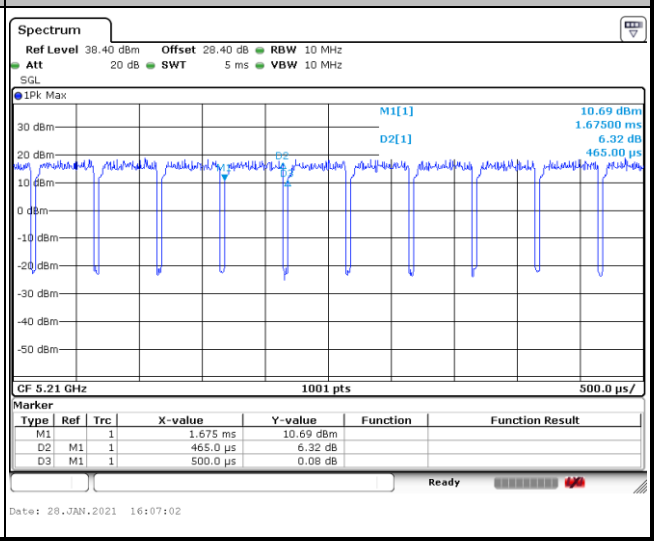
802.11a



802.11ac VHT20



802.11ac VHT40



802.11ac VHT80