



FCC RF Test Report

APPLICANT : Zebra Technologies Corporation
EQUIPMENT : Mobile Computer
BRAND NAME : Zebra
MODEL NAME : MC330M
FCC ID : UZ7MC330M
STANDARD : FCC Part 15 Subpart E §15.407
CLASSIFICATION : (NII) Unlicensed National Information Infrastructure

This is a variant report which is only valid together with the original test report. The product was received on Sep. 02, 2017 and testing was completed on Oct. 16, 2017. We, SPORTON INTERNATIONAL INC., 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., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager



SPORTON INTERNATIONAL INC.

No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C.

SPORTON INTERNATIONAL INC.

TEL : 886-3-327-3456

FAX : 886-3-328-4978

FCC ID : UZ7MC330M

Page Number : 1 of 34

Report Issued Date : Nov. 08, 2017

Report Version : Rev. 02

Report Template No.: BU5-FR15EWLB4 AC MA Version 2.0



TABLE OF CONTENTS

REVISION HISTORY.....	3
SUMMARY OF TEST RESULT	4
1 GENERAL DESCRIPTION	5
1.1 Applicant.....	5
1.2 Manufacturer.....	5
1.3 Product Feature of Equipment Under Test.....	5
1.4 Product Specification of Equipment Under Test.....	7
1.5 Modification of EUT	7
1.6 Testing Location	8
1.7 Applicable Standards.....	8
2 TEST CONFIGURATION OF EQUIPMENT UNDER TEST	9
2.1 Carrier Frequency and Channel	9
2.2 Test Mode.....	10
2.3 Connection Diagram of Test System.....	19
2.4 Support Unit used in test configuration and system	20
2.5 EUT Operation Test Setup	20
3 TEST RESULT	21
3.1 Maximum Conducted Output Power Measurement	21
3.2 Unwanted Emissions Measurement	25
3.3 Automatically Discontinue Transmission	30
3.4 Antenna Requirements	31
4 LIST OF MEASURING EQUIPMENT	33
5 UNCERTAINTY OF EVALUATION	34
APPENDIX A. RADIATED SPURIOUS EMISSION	
APPENDIX B. RADIATED SPURIOUS EMISSION PLOTS	
APPENDIX C. DUTY CYCLE PLOTS	
APPENDIX D. SETUP PHOTOGRAPHS	



REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR790120-02E	Rev. 01	Initial issue of report	Nov. 03, 2017
FR790120-02E	Rev. 02	Updating the description of Data Re-use in Summary of Test Result	Nov. 08, 2017



SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
-	15.403(i)	6dB, 26dB and 99% Occupied Bandwidth	> 500kHz	Not Required	-
3.1	15.407(a)	Maximum Conducted Output Power	≤ 30 dBm	Pass	-
-	15.407(a)	Power Spectral Density	≤ 30 dBm/500kHz	Not Required	-
3.2	15.407(b)	Unwanted Emissions	15.407(b)(4)(i) & 15.209(a)	Not Required	Under limit 1.75 dB at 5649.200 MHz
-	15.207	AC Conducted Emission	15.207(a)	Not Required	-
-	15.407(g)	Frequency Stability	Within Operation Band	Not Required	-
3.3	15.407(c)	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.4	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass	-

Note:

- Not required means after assessing, test items are not necessary to carry out.
- The original model (FCC ID: UZ7MC330K) and the variant model (FCC ID: UZ7MC330M) have identical PCB layout, antenna, SW implementation for Bluetooth/Wi-Fi. Based on their similarity, the test reports of FCC Part 15C & 15E (equipment class: DTS, DSS, NII) for the original model represent compliance for the variant model, and are referenced into the FCC filing of the variant model.

In this test report, performed conducted power measurement and BT/WLAN radiated spurious emission that based on the worst-case condition from the original model (FCC ID: UZ7MC330K) which can be referred to Sporton Report Number FR790120F.



1 General Description

1.1 Applicant

Zebra Technologies Corporation
1 Zebra Plaza, Holtsville, NY 11742

1.2 Manufacturer

Zebra Technologies Corporation
1 Zebra Plaza, Holtsville, NY 11742

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Computer
Brand Name	Zebra
Model Name	MC330M
FCC ID	UZ7MC330M
EUT supports Radios application	WLAN 11a/b/g/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE
HW Version	EV1b
SW Version	Android Version 7.1.2
FW Version	W10: Aug 4 2017 12:57:11 version 7.35.205.8 (r) FWID 01-895bc792
Fusion Version	Fusion_BA_2.10.0.0.007_N-0809201717-N
MFD	30AUG17
EUT Stage	Engineering Sample

<SKU List>

Standard					
SKU	Type-scanner	camera	Audio Jack	NFC	Speaker
1	GUN-SE4850	X	X	X	X
2	GUN-SE4750	X	X	X	X
3	GUN-SE965	X	X	X	X
4	Brick-SE4850	X	X	X	X
5	Brick-SE4750	X	X	X	X
6	Brick-SE965	X	X	X	X
7	Rotate	X	X	X	X



Specification of Accessories				
Sentry 1X Battery	Brand Name	Zebra	Part Number	BT-000338-01
Sentry 2X Battery	Brand Name	Zebra	Part Number	BT-000337-01
MC32 1X Battery	Brand Name	Symbol	Part Number	82-000011-01
MC32 2X Battery	Brand Name	Symbol	Part Number	82-000012-02
Wall wart power supply(18W)	Brand Name	Zebra	Part Number	PWR-WUA5V12W0US
Charge Cable for Wall wart power supply	Brand Name	Zebra	Part Number	PWRS-14000-249R
HS2100 Earphone	Brand Name	Symbol	Part Number	HS2100-OTH
Quick Disconnect cable for HS2100 Headset	Brand Name	Symbol	Part Number	CBL-HS2100-QDC1-01
RCH51 Earphone	Brand Name	Symbol	Part Number	RCH51
Cable for RCH51 earphone	Brand Name	Symbol	Part Number	25-124411-02R
U cable	Brand Name	Symbol	Part Number	CBL-MC33-USBCHG-01
Gun Holster MC3000	Brand Name	Symbol	Model Name	SG-MC3021212-01R
Holster MC30XX	Brand Name	Symbol	Model Name	11-69293-01R

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification															
Tx/Rx Channel Frequency Range		5745 MHz ~ 5825 MHz													
Maximum Output Power <CDD Mode>		<Ant. 1> 802.11a : 17.23 dBm / 0.0528 W 802.11n HT20 : 17.47 dBm / 0.0558 W 802.11n HT40 : 16.75 dBm / 0.0473 W 802.11ac VHT20: 17.49 dBm / 0.0561 W 802.11ac VHT40: 16.79 dBm / 0.0478 W 802.11ac VHT80: 14.86 dBm / 0.0306 W <Ant. 2> 802.11a : 17.23 dBm / 0.0528 W 802.11n HT20 : 17.35 dBm / 0.0543 W 802.11n HT40 : 16.97 dBm / 0.0498 W 802.11ac VHT20: 17.39 dBm / 0.0548 W 802.11ac VHT40: 16.98 dBm / 0.0499 W 802.11ac VHT80: 14.52 dBm / 0.0283 W MIMO <Ant. 1 + 2> 802.11a : 20.10 dBm / 0.1023 W 802.11n HT20 : 20.17 dBm / 0.104 W 802.11n HT40 : 19.56 dBm / 0.0904 W 802.11ac VHT20: 20.21 dBm / 0.1050 W 802.11ac VHT40: 19.65 dBm / 0.0923 W 802.11ac VHT80: 18.62 dBm / 0.0728 W													
Maximum Output Power <TXBF Mode>		MIMO <Ant. 1 + 2> 802.11n HT20 : 20.50 dBm / 0.1122 W 802.11n HT40 : 19.86 dBm / 0.0968 W 802.11ac VHT20: 20.47 dBm / 0.1114 W 802.11ac VHT40: 19.96 dBm / 0.0991 W 802.11ac VHT80: 18.94 dBm / 0.0783 W													
Antenna Type / Gain		<Ant. 1> : PIFA Antenna with gain 5.31 dBi <Ant. 2> : PIFA Antenna with gain 4.85 dBi													
Type of Modulation		802.11a : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)													
Antenna Function Description		<table><tr><td></td><td>Ant. 1</td><td>Ant. 2</td></tr><tr><td>802.11 a/n/ac</td><td>V</td><td>V</td></tr><tr><td>802.11 a/n/ac MIMO</td><td>V</td><td>V</td></tr><tr><td>802.11 n/ac TXBF</td><td>V</td><td>V</td></tr></table>			Ant. 1	Ant. 2	802.11 a/n/ac	V	V	802.11 a/n/ac MIMO	V	V	802.11 n/ac TXBF	V	V
	Ant. 1	Ant. 2													
802.11 a/n/ac	V	V													
802.11 a/n/ac MIMO	V	V													
802.11 n/ac TXBF	V	V													

Note: MIMO Ant. 1+2 is a calculated result from sum of the power MIMO Ant. 1 and MIMO Ant. 2.

1.5 Modification of EUT

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

1.6 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No. 52, Hwa Ya 1 st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	Sporton Site No.	
	TH05-HY	03CH07-HY

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

1.7 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 v01r04.
- ♦ FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
- ♦ 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. 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:, 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 (Z plane) were recorded in this report.

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5725-5850 MHz Band 4 (U-NII-3)	149	5745	157	5785
	151*	5755	159*	5795
	153	5765	161	5805
	155 [#]	5775	165	5825

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 mode of conducted test items and radiated spurious emissions are considering the modulation and worse data rates as below table.

Single Antenna

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0

MIMO Antenna

Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0

TXBF Antenna

Modulation	Data Rate
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0



<Antenna 1>

802.11a mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		6M
Duty Cycle (%)		96.03
CH 149	5745	17.23
CH 157	5785	17.02
CH 165	5825	17.01

802.11n HT20 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		MCS0
Duty Cycle (%)		95.83
CH 149	5745	17.00
CH 157	5785	17.16
CH 165	5825	17.47

802.11n HT40 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		MCS0
Duty Cycle (%)		91.58
CH 151	5755	16.57
CH 159	5795	16.75



802.11ac VHT20 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		MCS0
Duty Cycle (%)		95.87
CH 149	5745	17.01
CH 157	5785	17.48
CH 165	5825	17.49

802.11ac VHT40 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		MCS0
Duty Cycle (%)		91.84
CH 151	5755	16.79
CH 159	5795	16.77

802.11ac VHT80 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		MCS0
Duty Cycle (%)		85.32
CH 155	5755	14.86



<Antenna 2>

802.11a mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		6M
Duty Cycle (%)		95.28
CH 149	5745	17.23
CH 157	5785	17.03
CH 165	5825	17.02

802.11n HT20 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		MCS0
Duty Cycle (%)		95.83
CH 149	5745	17.18
CH 157	5785	17.35
CH 165	5825	17.26

802.11n HT40 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		MCS0
Duty Cycle (%)		91.58
CH 151	5755	16.91
CH 159	5795	16.97



802.11ac VHT20 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		MCS0
Duty Cycle (%)		95.08
CH 149	5745	17.30
CH 157	5785	17.39
CH 165	5825	17.32

802.11ac VHT40 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		MCS0
Duty Cycle (%)		91.75
CH 151	5755	16.98
CH 159	5795	16.97

802.11ac VHT80 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		MCS0
Duty Cycle (%)		86.11
CH 155	5755	14.52



<CDD Mode>

MIMO < Antenna 1+2>

802.11a mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		6M
CH 149	5745	20.01
CH 157	5785	20.10
CH 165	5825	20.01

802.11n HT20 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		MCS0
CH 149	5745	20.17
CH 157	5785	20.10
CH 165	5825	20.02

802.11n HT40 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		MCS0
CH 151	5755	19.56
CH 159	5795	19.53

802.11ac VHT20 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		MCS0
CH 149	5745	20.21
CH 157	5785	20.12
CH 165	5825	20.20



802.11ac VHT40 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		MCS0
CH 151	5755	19.60
CH 159	5795	19.65

802.11ac VHT80 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		MCS0
CH 155	5755	18.62



<TXBF Mode>

MIMO <Antenna 1+2>

802.11n HT20 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		6M
CH 149	5745	20.47
CH 157	5785	20.46
CH 165	5825	20.50

802.11n HT40 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		MCS0
CH 151	5755	19.67
CH 159	5795	19.86

802.11ac VHT20 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		MCS0
CH 149	5745	20.47
CH 157	5785	20.46
CH 165	5825	20.45

802.11ac VHT40 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		MCS0
CH 151	5755	19.67
CH 159	5795	19.96

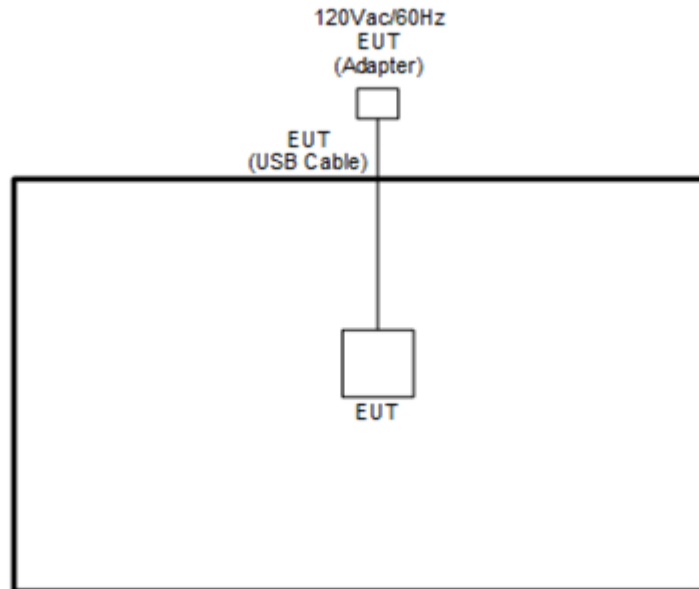


802.11ac VHT80 mode		
Power vs. Channel		
Channel	Frequency (MHz)	Data Rate (bps)
		6M
CH 155	5755	18.94

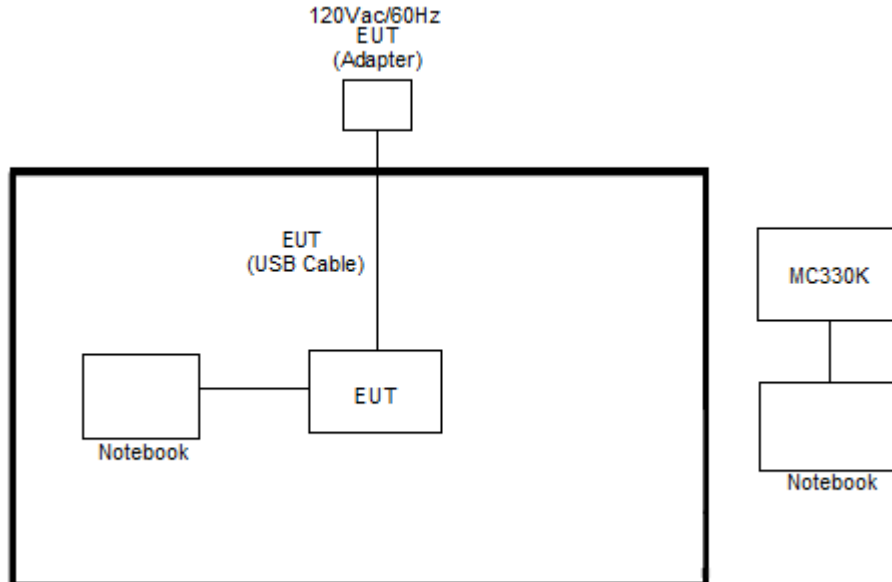
Remark: For radiated test cases, the test was performed with SKU 7, Keypad (38), MC32 1X Battery, USB Link with Adapter, PWR-WUA5V12W0US(LV6).

2.3 Connection Diagram of Test System.

<CDD Mode>



<TXBF Mode>





2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	RX EUT	RX EUT	Sentry Prem+ Rotating head	UZ7MC330M	Unshielded, 1.0 m	N/A
2.	Notebook	DELL	Latitude E3340	FCC DoC/ Contains FCC ID: PD97260NGU	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2.5 EUT Operation Test Setup

The RF test items, programmed RF utility, “ADB” installed in the notebook make the EUT provide functions like channel selection and power level for continuous transmitting signals

For WLAN MIMO TXBF modes, the EUT was tested under normal operation and link to another device with power, modulation modes and data rates controlled by engineer mode command lines. The CMD software tool was used to make EUT continuous transmitting signals.

3 Test Result

3.1 Maximum Conducted Output Power Measurement

3.1.1 Limit of Maximum Conducted Output Power

For the band 5.725–5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

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.

3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedures

CDD mode

The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.

Method PM (Measurement using an RF average power meter):

1. Measurement is performed using a wideband RF power meter.
2. The EUT is configured to transmit continuously with a consistent duty cycle at its maximum power control level.
3. Measure the average power of the transmitter, and the average power is corrected with duty factor, $10 \log(1/x)$, where x is the duty cycle.

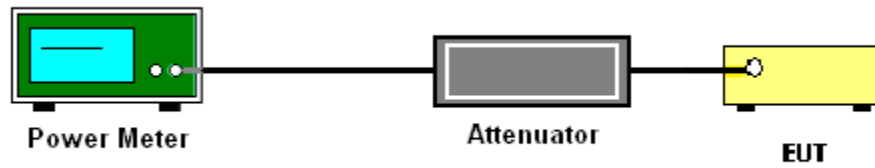
TXBF mode

The testing follows Method PM-G of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04 for TXBF modes.

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

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

3.1.4 Test Setup





3.1.5 Test Result of Maximum Conducted Output Power

<CDD Mode>

Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	149	5745	0.18	0.21	17.23	17.23	-	30.00	30.00	5.31	4.85	Pass
11a	6Mbps	1	157	5785	0.18	0.21	17.02	17.03	-	30.00	30.00	5.31	4.85	Pass
11a	6Mbps	1	165	5825	0.18	0.21	17.01	17.02	-	30.00	30.00	5.31	4.85	Pass
HT20	MCS0	1	149	5745	0.18	0.00	17.00	17.18	-	30.00	30.00	5.31	4.85	Pass
HT20	MCS0	1	157	5785	0.18	0.00	17.16	17.35	-	30.00	30.00	5.31	4.85	Pass
HT20	MCS0	1	165	5825	0.18	0.00	17.47	17.26	-	30.00	30.00	5.31	4.85	Pass
HT40	MCS0	1	151	5755	0.38	0.38	16.57	16.91	-	30.00	30.00	5.31	4.85	Pass
HT40	MCS0	1	159	5795	0.38	0.38	16.75	16.97		30.00	30.00	5.31	4.85	Pass
VHT20	MCS0	1	149	5745	0.18	0.22	17.01	17.30	-	30.00	30.00	5.31	4.85	Pass
VHT20	MCS0	1	157	5785	0.18	0.22	17.48	17.39	-	30.00	30.00	5.31	4.85	Pass
VHT20	MCS0	1	165	5825	0.18	0.22	17.49	17.32	-	30.00	30.00	5.31	4.85	Pass
VHT40	MCS0	1	151	5755	0.37	0.37	16.79	16.98	-	30.00	30.00	5.31	4.85	Pass
VHT40	MCS0	1	159	5795	0.37	0.37	16.77	16.97	-	30.00	30.00	5.31	4.85	Pass
VHT80	MCS0	1	155	5775	0.69	0.65	14.86	14.52	-	30.00	30.00	5.31	4.85	Pass
11a	6Mbps	2	149	5745	0.21	0.21	17.19	16.81	20.01	30.00		5.31		Pass
11a	6Mbps	2	157	5785	0.21	0.21	17.30	16.86	20.10	30.00		5.31		Pass
11a	6Mbps	2	165	5825	0.21	0.21	17.32	16.65	20.01	30.00		5.31		Pass
HT20	MCS0	2	149	5745	0.22	0.22	17.28	17.03	20.17	30.00		5.31		Pass
HT20	MCS0	2	157	5785	0.22	0.22	17.29	16.88	20.10	30.00		5.31		Pass
HT20	MCS0	2	165	5825	0.22	0.22	17.67	16.24	20.02	30.00		5.31		Pass
HT40	MCS0	2	151	5755	0.38	0.38	16.62	16.48	19.56	30.00		5.31		Pass
HT40	MCS0	2	159	5795	0.38	0.38	17.02	15.95	19.53	30.00		5.31		Pass
VHT20	MCS0	2	149	5745	0.22	0.18	17.35	17.04	20.21	30.00		5.31		Pass
VHT20	MCS0	2	157	5785	0.22	0.18	17.29	16.93	20.12	30.00		5.31		Pass
VHT20	MCS0	2	165	5825	0.22	0.18	17.75	16.54	20.20	30.00		5.31		Pass
VHT40	MCS0	2	151	5755	0.37	0.37	16.73	16.45	19.60	30.00		5.31		Pass
VHT40	MCS0	2	159	5795	0.37	0.37	17.14	16.07	19.65	30.00		5.31		Pass
VHT80	MCS0	2	155	5775	0.64	0.64	15.75	15.45	18.62	30.00		5.31		Pass

**<TXBF Mode>**

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	
HT20	MCS0	2	149	5745	17.10	17.80	20.47	27.91		8.09		Pass
HT20	MCS0	2	157	5785	17.40	17.50	20.46	27.91		8.09		Pass
HT20	MCS0	2	165	5825	18.00	16.90	20.50	27.91		8.09		Pass
HT40	MCS0	2	151	5755	16.30	17.00	19.67	27.91		8.09		Pass
HT40	MCS0	2	159	5795	16.70	17.00	19.86	27.91		8.09		Pass
VHT20	MCS0	2	149	5745	17.10	17.80	20.47	27.91		8.09		Pass
VHT20	MCS0	2	157	5785	17.30	17.60	20.46	27.91		8.09		Pass
VHT20	MCS0	2	165	5825	18.00	16.80	20.45	27.91		8.09		Pass
VHT40	MCS0	2	151	5755	16.30	17.00	19.67	27.91		8.09		Pass
VHT40	MCS0	2	159	5795	16.80	17.10	19.96	27.91		8.09		Pass
VHT80	MCS0	2	155	5775	15.40	16.40	18.94	27.91		8.09		Pass

3.2 Unwanted Emissions Measurement

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

3.2.1 Limit of Unwanted Emissions

- (1) For transmitters operating in the 5.725-5.85 GHz band:

15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

- (2) Unwanted spurious emissions fallen in restricted bands per FCC Part15.205 shall comply with the general field strength limits set forth in § 15.209 as below table,

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

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

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



EIRP (dBm)	Field Strength at 3m (dBμV/m)
-17	78.3
- 27	68.3

(3) KDB789033 D02 v01r04 G)2)c)

- (i) Section 15.407(b)(1-3) specifies the unwanted emissions limit for the U-NII-1 and 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. However, an out-of-band emission that complies with both the average and peak limits of Section 15.209 is not required to satisfy the -27 dBm/MHz dBm/MHz peak emission limit.
- (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). An alternative to the band emissions mask is specified in Section 15.407(b)(4)(ii). The alternative limits are based on the highest antenna gain specified in the filing. There are also marketing and importation restrictions for the alternative limit.

Note 3: An out-of-band emission that complies with both the average and peak limits of Section 15.209 is not required to satisfy the -27 dBm/MHz peak emission limit.

Note 4: Only devices with antenna gains of 10 dBi or less may be approved using the emission limits specified in Section 15.247(d) till March 2, 2018; all other devices operating in this band must use the mask specified in Section 15.407(b)(4)(i).

3.2.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.



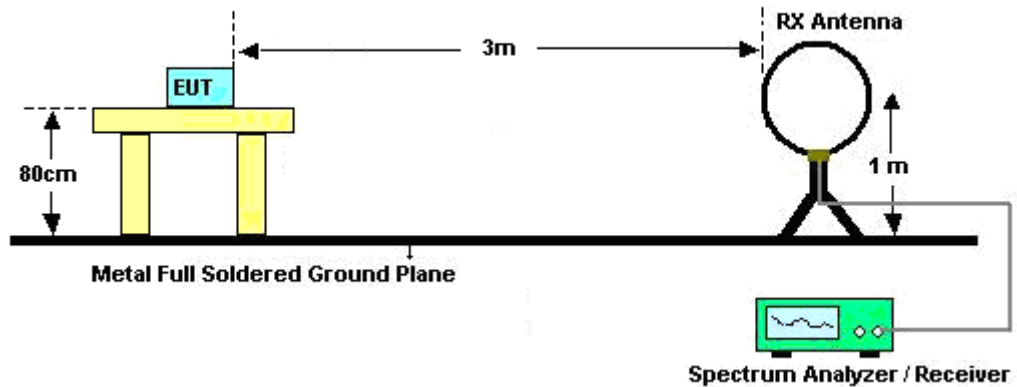
3.2.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01r04.
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 $\geq$ 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 $\geq$ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
2. The EUT 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

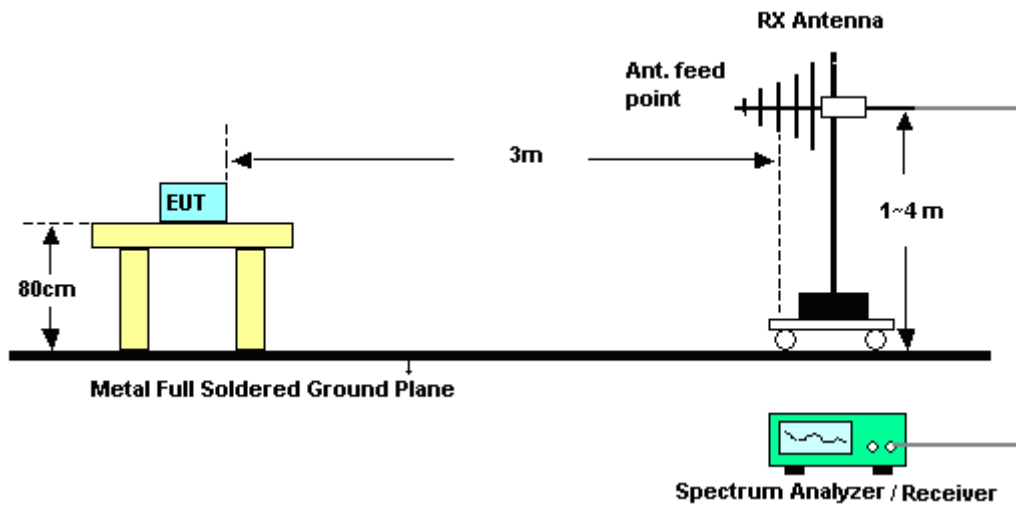
measured in average mode again and reported.

3.2.4 Test Setup

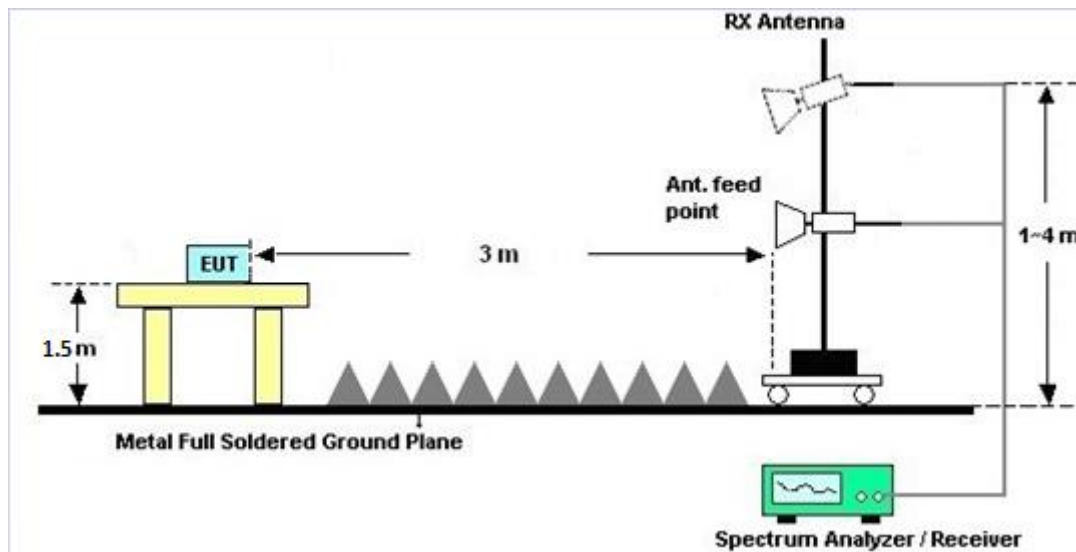
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.2.5 Test Results of Radiated 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.

3.2.6 Test Result of Radiated Band Edges

Please refer to Appendix A and B.

3.2.7 Duty Cycle

Please refer to Appendix C.

3.2.8 Test Result of Unwanted Radiated Emission (30MHz ~ 10th Harmonic)

Please refer to Appendix A and B.



3.3 Automatically Discontinue Transmission

3.3.1 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.

3.3.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.3.3 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.

3.4 Antenna Requirements

3.4.1 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.

3.4.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.4.3 Antenna Gain

CDD mode

FCC KDB 662911 D01 Multiple Transmitter Output **v02r01**

For CDD transmissions, directional gain is calculated as

Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows.

For power spectral density (PSD) measurements on all devices,

Array Gain = $10 \log(N_{ANT}/N_{SS}=1)$ dB.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$.

Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain;

The EUT supports CDD mode.

For power, the directional gain G_{ANT} is set equal to the antenna having the highest gain, i.e., F)2)f)i).

For PSD, the directional gain calculation is following F)2)f)ii) of KDB 662911 D01 **v02r01**.

The power and PSD limit should be modified if the directional gain of EUT is over 6 dBi,

The directional gain "DG" is calculated as following table.

			DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
	Ant 1 (dBi)	Ant 2 (dBi)				
Band IV	5.31	4.85	5.31	8.09	0.00	2.09

Power limit reduction = Composite gain – 6dBi, (min = 0)

PSD limit reduction = Composite gain + PSD Array gain – 6dBi, (min = 0)

TXBF modes

FCC KDB 662911 D01 Multiple Transmitter Output **v02r01**

For CDD transmissions, directional gain is calculated as

$$DirectionalGain = 10 \cdot \log \left[\frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$$

where

Each antenna is driven by no more than one spatial stream;

N_{SS} = the number of independent spatial streams of data;

N_{ANT} = the total number of antennas

$g_{j,k} = 10^{G_k/20}$ if the k th antenna is being fed by spatial stream j , or zero if it is not;
 G_k is the gain in dBi of the k th antenna.

The EUT supports beamforming for 802.11ac modes.

The directional gain calculation is following F)2)e)ii) of KDB 662911 D01 **v02r01**.

The power and PSD limit should be modified if the directional gain of EUT is over 6 dBi,

The directional gain "DG" is calculated as following table.

			DG for Power	DG for PSD	Power Limit Reduction	PSD Limit Reduction
	Ant 1 (dBi)	Ant 2 (dBi)	(dBi)	(dBi)	(dB)	(dB)
Band IV	5.31	4.85	8.09	8.09	2.09	2.09

Power Limit Reduction = DG(Power) – 6dBi, (min = 0)

PSD Limit Reduction = DG(PSD) – 6dBi, (min = 0)



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	0932001	N/A	Sep. 26, 2017	Oct. 04, 2017 ~ Oct. 13, 2017	Sep. 25, 2018	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	0846202	300MHz~40GHz	Sep. 26, 2017	Oct. 04, 2017 ~ Oct. 13, 2017	Sep. 25, 2018	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP30	101067	9kHz ~ 30GHz	Nov. 17, 2016	Oct. 04, 2017 ~ Oct. 13, 2017	Nov. 16, 2017	Conducted (TH05-HY)
Programmable Power Supply	GW Instek	PSS-2005	GEO821763	N/A	Nov. 14, 2016	Oct. 04, 2017 ~ Oct. 13, 2017	Nov. 13, 2017	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I000054S NO13	10MHz~6GHz	Dec. 22, 2016	Oct. 14, 2017	Dec. 21, 2017	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 25, 2016	Oct. 14, 2017	Nov. 24, 2017	Conducted (TH05-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	35419&03	30MHz to 1GHz	Jan. 07, 2017	Oct. 12, 2017 ~ Oct. 16, 2017	Jan. 06, 2018	Radiation (03CH07-HY)
Double Ridge Horn Antenna	ESCO	3117	00075962	1GHz ~ 18GHz	Aug. 23, 2017	Oct. 12, 2017 ~ Oct. 16, 2017	Aug. 22, 2018	Radiation (03CH07-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	May 15, 2017	Oct. 12, 2017 ~ Oct. 16, 2017	May 14, 2019	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-0010 1800-30-10P	1590075	1GHz ~ 18GHz	Apr. 25, 2017	Oct. 12, 2017 ~ Oct. 16, 2017	Apr. 24, 2018	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10MHz-1GHz	Mar. 14, 2017	Oct. 12, 2017 ~ Oct. 16, 2017	Mar. 13, 2018	Radiation (03CH07-HY)
Spectrum Analyzer	Agilent	N9010A	MY53470118	10Hz~44GHz	Apr. 17, 2017	Oct. 12, 2017 ~ Oct. 16, 2017	Apr. 16, 2018	Radiation (03CH07-HY)
Antenna Mast	Max-Full	MFA520BS	N/A	1m~4m	N/A	Oct. 12, 2017 ~ Oct. 16, 2017	N/A	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 Degree	N/A	Oct. 12, 2017 ~ Oct. 16, 2017	N/A	Radiation (03CH07-HY)
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 18, 2017	Oct. 12, 2017 ~ Oct. 16, 2017	Jul. 17, 2018	Radiation (03CH07-HY)
EMI Test Receiver	Agilent	N9038A(MXE)	MY53290053	20Hz to 26.5GHz	Jan. 12, 2017	Oct. 12, 2017 ~ Oct. 16, 2017	Jan. 11, 2018	Radiation (03CH07-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA91705 84	18GHz- 40GHz	Nov. 08, 2016	Oct. 12, 2017 ~ Oct. 16, 2017	Nov. 07, 2017	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02375	1GHz~26.5GHz	Dec. 21, 2016	Oct. 12, 2017 ~ Oct. 16, 2017	Dec. 20, 2017	Radiation (03CH07-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.70
---	------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.70
---	------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.50
---	------

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.20
---	------



Appendix A. Radiated Spurious Emission

Test Engineer :	Jesse Wang	Temperature :	23~27°C
		Relative Humidity :	55~58%

<CDD Mode>

Band 4 - 5725~5850MHz

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)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 149 5745MHz		5623	54	-14.2	68.2	40.72	35.07	12.61	34.4	100	155	P	H
		5699.6	61.62	-43.29	104.91	48.2	35.17	12.67	34.42	100	155	P	H
		5720	75.61	-35.19	110.8	62.09	35.21	12.73	34.42	100	155	P	H
		5724.8	81.05	-40.69	121.74	67.53	35.21	12.73	34.42	100	155	P	H
	*	5745	110.88	-	-	97.28	35.24	12.79	34.43	100	155	P	H
	*	5745	103.2	-	-	89.6	35.24	12.79	34.43	100	155	A	H
													H
													H
		5649.6	52.31	-15.89	68.2	38.98	35.12	12.61	34.4	100	245	P	V
		5692.8	57.83	-42.06	99.89	44.41	35.17	12.67	34.42	100	245	P	V
		5720	70.11	-40.69	110.8	56.59	35.21	12.73	34.42	100	245	P	V
		5724.6	78.25	-43.04	121.29	64.73	35.21	12.73	34.42	100	245	P	V
	*	5745	109.35	-	-	95.75	35.24	12.79	34.43	100	245	P	V
	*	5745	101.15	-	-	87.55	35.24	12.79	34.43	100	245	A	V
													V
													V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												

**Band 4 5725~5850MHz****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)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 149 5745MHz		11490	45.43	-28.57	74	45.51	38.38	18.88	57.34	100	0	P	H
		17235	55.7	-12.5	68.2	46.35	41.77	23.38	55.8	100	0	P	H
													H
													H
		11490	45.95	-28.05	74	46.03	38.38	18.88	57.34	100	0	P	V
		17235	58.34	-9.86	68.2	48.99	41.77	23.38	55.8	100	0	P	V
													V
													V
Remark 1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



Band 4 5725~5850MHz

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)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 151 5755MHz		5642.6	58.53	-9.67	68.2	45.23	35.09	12.61	34.4	100	156	P	H
		5698.2	71.78	-32.09	103.87	58.36	35.17	12.67	34.42	100	156	P	H
		5715.2	81.48	-27.98	109.46	67.98	35.19	12.73	34.42	100	156	P	H
		5723	83.44	-34.2	117.64	69.92	35.21	12.73	34.42	100	156	P	H
	*	5755	107.63	-	-	94.01	35.26	12.79	34.43	100	156	P	H
	*	5755	99.94	-	-	86.32	35.26	12.79	34.43	100	156	A	H
		5851.4	54.53	-64.48	119.01	40.67	35.38	12.94	34.46	100	156	P	H
		5867.6	54.78	-52.49	107.27	40.82	35.41	13.02	34.47	100	156	P	H
		5879	53.32	-48.91	102.23	39.34	35.43	13.02	34.47	100	156	P	H
		5930.4	52.04	-16.16	68.2	37.91	35.5	13.11	34.48	100	156	P	H
													H
													H
		5647	57.39	-10.81	68.2	44.09	35.09	12.61	34.4	100	244	P	V
		5698.4	70.1	-33.92	104.02	56.68	35.17	12.67	34.42	100	244	P	V
		5719.2	79.35	-31.23	110.58	65.83	35.21	12.73	34.42	100	244	P	V
		5724	80.05	-39.87	119.92	66.53	35.21	12.73	34.42	100	244	P	V
	*	5755	105.85	-	-	92.23	35.26	12.79	34.43	100	244	P	V
	*	5755	98.28	-	-	84.66	35.26	12.79	34.43	100	244	A	V
		5851.8	53.61	-64.49	118.1	39.75	35.38	12.94	34.46	100	244	P	V
		5868.2	54.56	-52.54	107.1	40.6	35.41	13.02	34.47	100	244	P	V
		5880	52.87	-48.62	101.49	38.89	35.43	13.02	34.47	100	244	P	V
		5927.2	53.71	-14.49	68.2	39.58	35.5	13.11	34.48	100	244	P	V
													V
													V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												

**Band 4 5725~5850MHz****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)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 151 5755MHz		11510	45.02	-28.98	74	45	38.4	18.92	57.3	100	0	P	H
		17265	54.14	-14.06	68.2	44.81	41.73	23.4	55.8	100	0	P	H
													H
													H
		11510	45.05	-28.95	74	45.03	38.4	18.92	57.3	100	0	P	V
		17265	53.14	-15.06	68.2	43.81	41.73	23.4	55.8	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		5646.8	63.35	-4.85	68.2	50.05	35.09	12.61	34.4	100	156	P	H
		5693.2	73.07	-27.12	100.19	59.65	35.17	12.67	34.42	100	156	P	H
		5719.8	74.02	-36.72	110.74	60.5	35.21	12.73	34.42	100	156	P	H
		5723.6	75.7	-43.31	119.01	62.18	35.21	12.73	34.42	100	156	P	H
	*	5775	103.39	-	-	89.75	35.29	12.79	34.44	100	156	P	H
	*	5775	96.23	-	-	82.59	35.29	12.79	34.44	100	156	A	H
		5851.4	68.17	-50.84	119.01	54.31	35.38	12.94	34.46	100	156	P	H
		5855.8	69.78	-40.8	110.58	55.89	35.41	12.94	34.46	100	156	P	H
		5875.2	62.78	-42.27	105.05	48.8	35.43	13.02	34.47	100	156	P	H
		5931.8	53.88	-14.32	68.2	39.75	35.5	13.11	34.48	100	156	P	H
													H
													H
		5648.8	60.58	-7.62	68.2	47.28	35.09	12.61	34.4	100	245	P	V
		5692.6	71.36	-28.38	99.74	57.94	35.17	12.67	34.42	100	245	P	V
		5715.6	72.79	-36.78	109.57	59.29	35.19	12.73	34.42	100	245	P	V
		5724	73.78	-46.14	119.92	60.26	35.21	12.73	34.42	100	245	P	V
	*	5775	101.47	-	-	87.83	35.29	12.79	34.44	100	245	P	V
	*	5775	94.26	-	-	80.62	35.29	12.79	34.44	100	245	A	V
		5851	65.1	-54.82	119.92	51.24	35.38	12.94	34.46	100	245	P	V
		5864	64.75	-43.53	108.28	50.79	35.41	13.02	34.47	100	245	P	V
		5875.4	59.84	-45.06	104.9	45.86	35.43	13.02	34.47	100	245	P	V
		5937.8	53.32	-14.88	68.2	39.2	35.5	13.11	34.49	100	245	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

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)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		11550	46.24	-27.76	74	46.07	38.44	18.95	57.22	100	0	P	H
		17325	53.03	-15.17	68.2	43.74	41.66	23.43	55.8	100	0	P	H
													H
													H
		11550	45.58	-28.42	74	45.41	38.44	18.95	57.22	100	0	P	V
		17325	53.94	-14.26	68.2	44.65	41.66	23.43	55.8	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 - 5725~5850MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT20 CH 149 5745MHz		5642.4	54.82	-13.38	68.2	41.52	35.09	12.61	34.4	100	304	P	H
		5694	65.13	-35.65	100.78	51.71	35.17	12.67	34.42	100	304	P	H
		5719.2	75.4	-35.18	110.58	61.88	35.21	12.73	34.42	100	304	P	H
		5724.6	82.48	-38.81	121.29	68.96	35.21	12.73	34.42	100	304	P	H
	*	5745	113.8	-	-	100.2	35.24	12.79	34.43	100	304	P	H
	*	5745	106.57	-	-	92.97	35.24	12.79	34.43	100	304	A	H
													H
													H
		5629.2	53.61	-14.59	68.2	40.33	35.07	12.61	34.4	100	243	P	V
		5699.2	60.72	-43.89	104.61	47.3	35.17	12.67	34.42	100	243	P	V
		5719.8	70.4	-40.34	110.74	56.88	35.21	12.73	34.42	100	243	P	V
		5724.6	76.44	-44.85	121.29	62.92	35.21	12.73	34.42	100	243	P	V
	*	5745	110.32	-	-	96.72	35.24	12.79	34.43	100	243	P	V
	*	5745	103.2	-	-	89.6	35.24	12.79	34.43	100	243	A	V
													V
													V
Remark	3. No other spurious found.												
	4. All results are PASS against Peak and Average limit line.												

**Band 4 5725~5850MHz****WIFI 802.11ac VHT20 (Harmonic @ 3m)**

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 149 5745MHz		11490	45.37	-28.63	74	45.45	38.38	18.88	57.34	100	0	P	H
		17235	53.06	-15.14	68.2	43.71	41.77	23.38	55.8	100	0	P	H
													H
													H
		11490	45.92	-28.08	74	46	38.38	18.88	57.34	100	0	P	V
		17235	61.14	-7.06	68.2	51.79	41.77	23.38	55.8	100	0	P	V
													V
													V
Remark	3. No other spurious found.												
	4. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 151 5755MHz		5649.2	63.42	-4.78	68.2	50.12	35.09	12.61	34.4	100	305	P	H
		5697.6	76.04	-27.39	103.43	62.62	35.17	12.67	34.42	100	305	P	H
		5719.4	85.21	-25.42	110.63	71.69	35.21	12.73	34.42	100	305	P	H
		5724	85	-34.92	119.92	71.48	35.21	12.73	34.42	100	305	P	H
	*	5755	110.21	-	-	96.59	35.26	12.79	34.43	100	305	P	H
	*	5755	102.95	-	-	89.33	35.26	12.79	34.43	100	305	A	H
		5850.01	55.58	-66.6	122.18	41.72	35.38	12.94	34.46	100	305	P	H
		5857	55.01	-55.23	110.24	41.12	35.41	12.94	34.46	100	305	P	H
		5904.6	52.71	-30.55	83.26	38.59	35.48	13.11	34.47	100	305	P	H
		5925	52.41	-15.79	68.2	38.28	35.5	13.11	34.48	100	305	P	H
													H
													H
		5646.6	58.04	-10.16	68.2	44.74	35.09	12.61	34.4	102	243	P	V
		5699	69.92	-34.54	104.46	56.5	35.17	12.67	34.42	102	243	P	V
		5718.8	78.32	-32.14	110.46	64.8	35.21	12.73	34.42	102	243	P	V
		5720.6	78.43	-33.74	112.17	64.91	35.21	12.73	34.42	102	243	P	V
	*	5755	105.58	-	-	91.96	35.26	12.79	34.43	102	243	P	V
	*	5755	99.03	-	-	85.41	35.26	12.79	34.43	102	243	A	V
		5852.8	52.81	-63.01	115.82	38.95	35.38	12.94	34.46	102	243	P	V
		5859.4	53.01	-56.56	109.57	39.13	35.41	12.94	34.47	102	243	P	V
		5905.8	53.28	-29.09	82.37	39.16	35.48	13.11	34.47	102	243	P	V
		5942	52.75	-15.45	68.2	38.51	35.53	13.2	34.49	102	243	P	V
													V
													V
Remark	3. No other spurious found.												
	4. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 151 5755MHz		11510	45.81	-28.19	74	45.79	38.4	18.92	57.3	100	0	P	H
		17265	59.7	-8.5	68.2	50.37	41.73	23.4	55.8	100	0	P	H
													H
													H
		11510	45.49	-28.51	74	45.47	38.4	18.92	57.3	100	0	P	V
		17268	51.15	-17.05	68.2	41.82	41.73	23.4	55.8	100	0	P	V
													V
													V
Remark	3. No other spurious found.												
	4. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		5649.2	66.45	-1.75	68.2	53.15	35.09	12.61	34.4	100	304	P	H
		5699.2	77	-27.61	104.61	63.58	35.17	12.67	34.42	100	304	P	H
		5719.6	79.37	-31.32	110.69	65.85	35.21	12.73	34.42	100	304	P	H
		5722.8	78.77	-38.41	117.18	65.25	35.21	12.73	34.42	100	304	P	H
	*	5775	106.63	-	-	92.99	35.29	12.79	34.44	100	304	P	H
	*	5775	100.11	-	-	86.47	35.29	12.79	34.44	100	304	A	H
		5852.2	71.73	-45.45	117.18	57.87	35.38	12.94	34.46	100	304	P	H
		5864.6	71.72	-36.39	108.11	57.76	35.41	13.02	34.47	100	304	P	H
		5876.4	64.61	-39.55	104.16	50.63	35.43	13.02	34.47	100	304	P	H
		5930	54.86	-13.34	68.2	40.73	35.5	13.11	34.48	100	304	P	H
													H
													H
		5647.4	63.85	-4.35	68.2	50.55	35.09	12.61	34.4	100	243	P	V
		5692.4	71.8	-27.8	99.6	58.38	35.17	12.67	34.42	100	243	P	V
		5702.4	72.67	-33.2	105.87	59.17	35.19	12.73	34.42	100	243	P	V
		5722.6	72.23	-44.5	116.73	58.71	35.21	12.73	34.42	100	243	P	V
	*	5775	101.03	-	-	87.39	35.29	12.79	34.44	100	243	P	V
	*	5775	95.31	-	-	81.67	35.29	12.79	34.44	100	243	A	V
		5851.4	66	-53.01	119.01	52.14	35.38	12.94	34.46	100	243	P	V
		5863.8	65.04	-43.29	108.33	51.08	35.41	13.02	34.47	100	243	P	V
		5877.2	58.69	-44.88	103.57	44.71	35.43	13.02	34.47	100	243	P	V
		5940.2	52.69	-15.51	68.2	38.45	35.53	13.2	34.49	100	243	P	V
													V
													V
Remark	3. No other spurious found.												
	4. All results are PASS against Peak and Average limit line.												

**Band 4 5725~5850MHz****WIFI 802.11ac VHT80 (Harmonic @ 3m)**

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		11550	45	-29	74	44.83	38.44	18.95	57.22	100	0	P	H
		17325	50.99	-17.21	68.2	41.7	41.66	23.43	55.8	100	0	P	H
													H
													H
		11550	45.08	-28.92	74	44.91	38.44	18.95	57.22	100	0	P	V
		17325	51.85	-16.35	68.2	42.56	41.66	23.43	55.8	100	0	P	V
													V
													V
Remark	3. No other spurious found. 4. All results are PASS against Peak and Average limit line.												



<TXBF Mode>

Band 4 - 5725~5850MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT20 CH 149 5745MHz		5636	55.59	-12.61	68.2	42.29	35.09	12.61	34.4	100	311	P	H
		5698.6	62.81	-41.36	104.17	49.39	35.17	12.67	34.42	100	311	P	H
		5712	71.32	-37.24	108.56	57.82	35.19	12.73	34.42	100	311	P	H
		5724.2	81.29	-39.09	120.38	67.77	35.21	12.73	34.42	100	311	P	H
	*	5745	116.31	-	-	102.71	35.24	12.79	34.43	100	311	P	H
	*	5745	108.76	-	-	95.16	35.24	12.79	34.43	100	311	A	H
													H
													H
		5637	54.61	-13.59	68.2	41.31	35.09	12.61	34.4	339	233	P	V
		5695.4	58.69	-43.12	101.81	45.27	35.17	12.67	34.42	339	233	P	V
		5720	70.29	-40.51	110.8	56.77	35.21	12.73	34.42	339	233	P	V
		5723.6	77.56	-41.45	119.01	64.04	35.21	12.73	34.42	339	233	P	V
	*	5745	111.71	-	-	98.11	35.24	12.79	34.43	339	233	P	V
	*	5745	105.24	-	-	91.64	35.24	12.79	34.43	339	233	A	V
													V
													V
Remark	5. No other spurious found.												
	6. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT20 CH 149 5745MHz		11490	46.03	-27.97	74	46.11	38.38	18.88	57.34	100	0	P	H
		17235	61.38	-6.82	68.2	52.03	41.77	23.38	55.8	100	0	P	H
													H
													H
		11490	45.13	-28.87	74	45.21	38.38	18.88	57.34	100	0	P	V
		17235	55.96	-12.24	68.2	46.61	41.77	23.38	55.8	100	0	P	V
													V
													V
Remark	5. No other spurious found.												
	6. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 151 5755MHz		5644.2	61.02	-7.18	68.2	47.72	35.09	12.61	34.4	100	311	P	H
		5699	70.51	-33.95	104.46	57.09	35.17	12.67	34.42	100	311	P	H
		5708.2	82.92	-24.58	107.5	69.42	35.19	12.73	34.42	100	311	P	H
		5722.6	84.16	-32.57	116.73	70.64	35.21	12.73	34.42	100	311	P	H
	*	5755	109.4	-	-	95.78	35.26	12.79	34.43	100	311	P	H
	*	5755	102.78	-	-	89.16	35.26	12.79	34.43	100	311	A	H
		5850.6	55.82	-65.01	120.83	41.96	35.38	12.94	34.46	100	311	P	H
		5858.6	55.44	-54.35	109.79	41.56	35.41	12.94	34.47	100	311	P	H
		5877.8	54.49	-48.63	103.12	40.51	35.43	13.02	34.47	100	311	P	H
		5938.6	53.42	-14.78	68.2	39.27	35.53	13.11	34.49	100	311	P	H
													H
													H
		5632	55.66	-12.54	68.2	42.38	35.07	12.61	34.4	363	63	P	V
		5700	66.48	-38.72	105.2	53.06	35.17	12.67	34.42	363	63	P	V
		5712.2	78.96	-29.66	108.62	65.46	35.19	12.73	34.42	363	63	P	V
		5723.6	79.1	-39.91	119.01	65.58	35.21	12.73	34.42	363	63	P	V
	*	5755	104.57	-	-	90.95	35.26	12.79	34.43	363	63	P	V
	*	5755	97.64	-	-	84.02	35.26	12.79	34.43	363	63	A	V
		5850.6	54.42	-66.41	120.83	40.56	35.38	12.94	34.46	363	63	P	V
		5867.8	55.18	-52.03	107.21	41.22	35.41	13.02	34.47	363	63	P	V
		5921	53.48	-17.67	71.15	39.37	35.48	13.11	34.48	363	63	P	V
		5929.6	53.43	-14.77	68.2	39.3	35.5	13.11	34.48	363	63	P	V
													V
													V
Remark	5. No other spurious found.												
	6. All results are PASS against Peak and Average limit line.												

**Band 4 5725~5850MHz****WIFI 802.11ac VHT40 (Harmonic @ 3m)**

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT40 CH 151 5755MHz		11510	45.51	-28.49	74	45.49	38.4	18.92	57.3	100	0	P	H
		17265	51.93	-16.27	68.2	42.6	41.73	23.4	55.8	100	0	P	H
													H
													H
		11510	45.08	-28.92	74	45.06	38.4	18.92	57.3	100	0	P	V
		17265	51.05	-17.15	68.2	41.72	41.73	23.4	55.8	100	0	P	V
													V
													V
Remark	5. No other spurious found.												
	6. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		5643	64.73	-3.47	68.2	51.43	35.09	12.61	34.4	100	316	P	H
		5699	76.49	-27.97	104.46	63.07	35.17	12.67	34.42	100	316	P	H
		5718	78.67	-31.57	110.24	65.15	35.21	12.73	34.42	100	316	P	H
		5724.8	78.39	-43.35	121.74	64.87	35.21	12.73	34.42	100	316	P	H
	*	5775	107.9	-	-	94.26	35.29	12.79	34.44	100	316	P	H
	*	5775	99.6	-	-	85.96	35.29	12.79	34.44	100	316	A	H
		5853.4	68.59	-45.86	114.45	54.73	35.38	12.94	34.46	100	316	P	H
		5868.2	70.56	-36.54	107.1	56.6	35.41	13.02	34.47	100	316	P	H
		5877.6	65.03	-38.24	103.27	51.05	35.43	13.02	34.47	100	316	P	H
		5933	53.75	-14.45	68.2	39.62	35.5	13.11	34.48	100	316	P	H
													H
													H
		5639.2	57.89	-10.31	68.2	44.59	35.09	12.61	34.4	100	328	P	V
		5677.4	70.23	-18.29	88.52	56.83	35.14	12.67	34.41	100	328	P	V
		5702.6	68.03	-37.9	105.93	54.53	35.19	12.73	34.42	100	328	P	V
		5722.8	67.48	-49.7	117.18	53.96	35.21	12.73	34.42	100	328	P	V
	*	5775	99.69	-	-	86.05	35.29	12.79	34.44	100	328	P	V
	*	5775	92.57	-	-	78.93	35.29	12.79	34.44	100	328	A	V
		5850.6	66.24	-54.59	120.83	52.38	35.38	12.94	34.46	100	328	P	V
		5861.2	68.22	-40.84	109.06	54.26	35.41	13.02	34.47	100	328	P	V
		5875.6	64.96	-39.79	104.75	50.98	35.43	13.02	34.47	100	328	P	V
		5935.2	53.89	-14.31	68.2	39.77	35.5	13.11	34.49	100	328	P	V
													V
													V
Remark	5. No other spurious found.												
	6. All results are PASS against Peak and Average limit line.												

**Band 4 5725~5850MHz****WIFI 802.11ac VHT80 (Harmonic @ 3m)**

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		11550	45.74	-28.26	74	45.57	38.44	18.95	57.22	100	0	P	H
		17325	53.66	-14.54	68.2	44.37	41.66	23.43	55.8	100	0	P	H
													H
													H
		11550	45.44	-28.56	74	45.27	38.44	18.95	57.22	100	0	P	V
		17325	51.18	-17.02	68.2	41.89	41.66	23.43	55.8	100	0	P	V
													V
													V
Remark	5. No other spurious found. 6. All results are PASS against Peak and Average 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	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

1. Level(dBμV/m) =

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

= Antenna Factor(dB/m) + Cable 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) + Cable 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 B. Radiated Spurious Emission Plots

Test Engineer :	Jesse Wang	Temperature :	23~27°C
		Relative Humidity :	55~58%

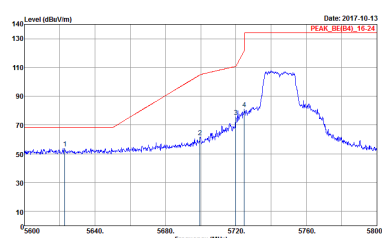
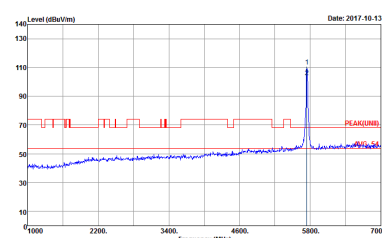
Note symbol

-L	Low channel location
-R	High channel location

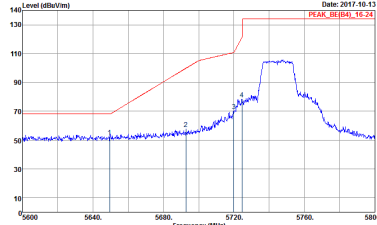
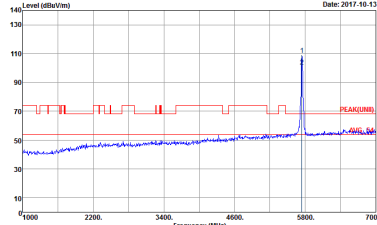
<CDD Mode>

Band 4 - 5725~5850MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

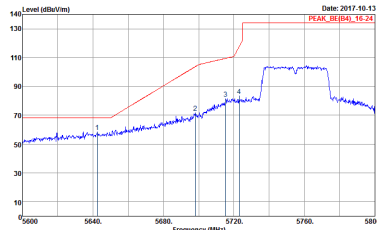
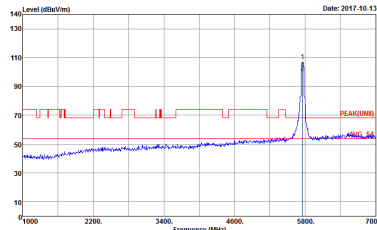
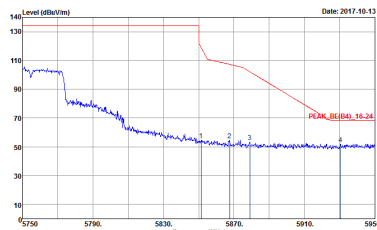
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 790120-02 Mode : 16 Power Setting : 19	 Site : 03CH07-HY Condition : PEAK(FUND)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 790120-02 Mode : 16 Power Setting : 19

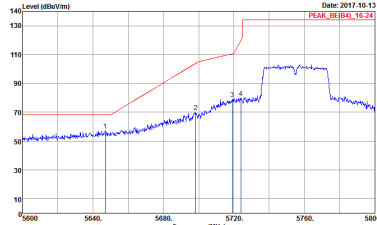
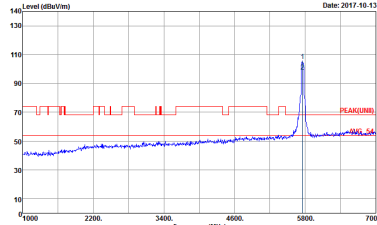
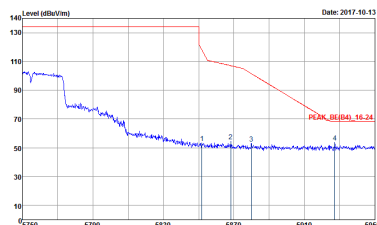


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1	Vertical	Fundamental
Peak Avg.	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 16 Power Setting : 19	 Site : 03CH07-HY Condition : PEAK(LINII) 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 16 Power Setting : 19



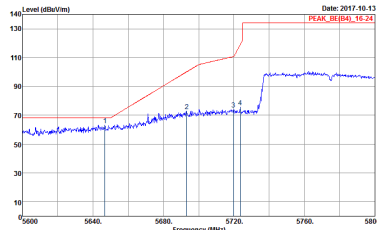
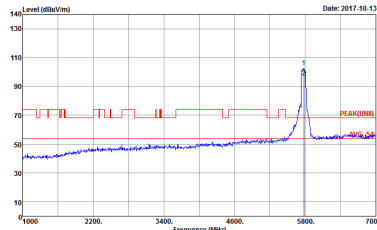
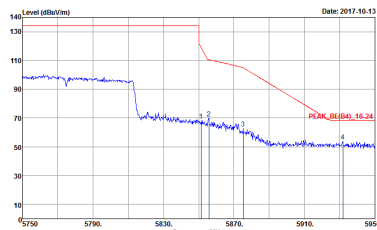
Band 4 5725~5850MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)

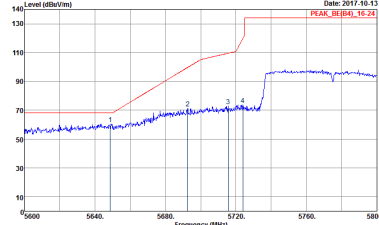
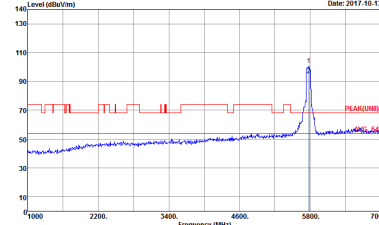
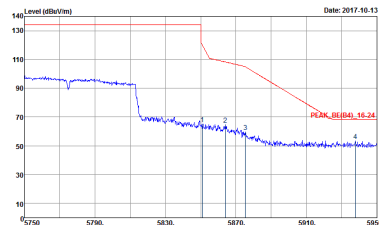
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 790120-02 Power Setting : 20 Power Setting : 17.5	 Site : 03CH07-HY Condition : PEAK(UNIT) 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 790120-02 Power Setting : 20 Power Setting : 17.5
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 790120-02 Power Setting : 20 Power Setting : 17.5	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 20 Power Setting : 17.5	 Site : 03CH07-HY Condition : PEAK(UNI) 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 20 Power Setting : 17.5
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 20 Power Setting : 17.5	Left blank



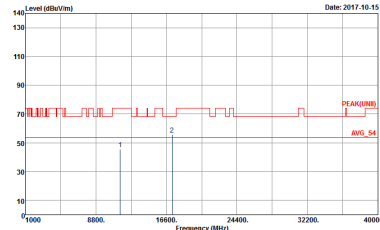
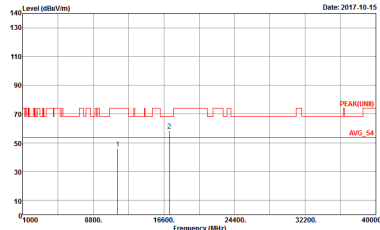
Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 790120-02 Mode : 24 Power Setting : 17	 Site : 03CH07-HY Condition : PEAK(UNIT) 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 790120-02 Mode : 24 Power Setting : 17
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 790120-02 Mode : 24 Power Setting : 17	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 24 Power Setting : 17	 Site : 03CH07-HY Condition : PEAK(UNI) 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 24 Power Setting : 17
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 24 Power Setting : 17	Left blank

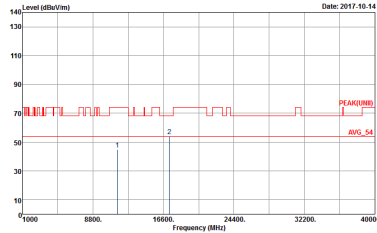
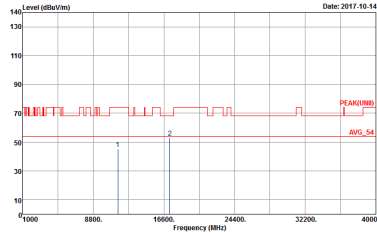


Band 4 - 5725~5850MHz
WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-4FY Condition : PEAK(UNIT) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 790120-02 Mode : 16 Power Setting : 19	 Site : 03CH07-4FY Condition : PEAK(UNIT) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 790120-02 Mode : 16 Power Setting : 19

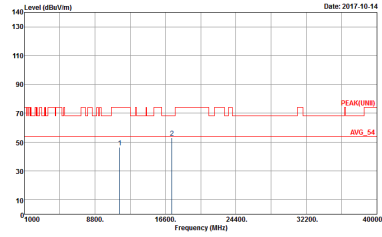
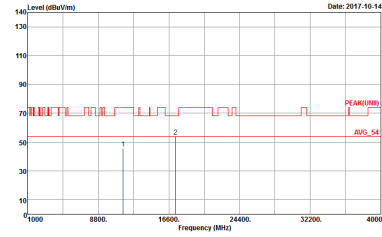


Band 4 5725~5850MHz
WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNII) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 790120-02 Mode : 20 Power Setting : 17.5	 Site : 03CH07-HY Condition : PEAK(UNII) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 790120-02 Mode : 20 Power Setting : 17.5

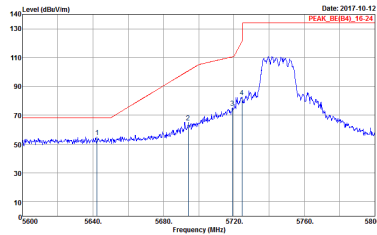
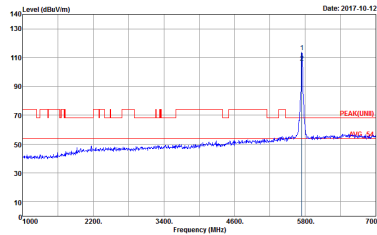


Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)

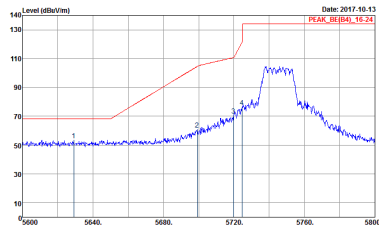
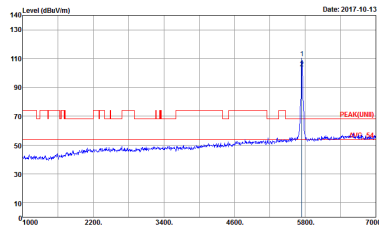
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNII) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 790120-02 Mode : 24 Power Setting : 17	 Site : 03CH07-HY Condition : PEAK(UNII) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 790120-02 Mode : 24 Power Setting : 17



Band 4 5725~5850MHz
WIFI 802.11ac VHT20 (Band Edge @ 3m)

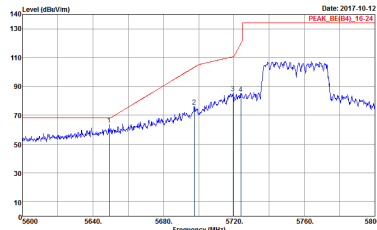
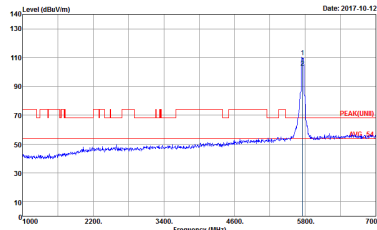
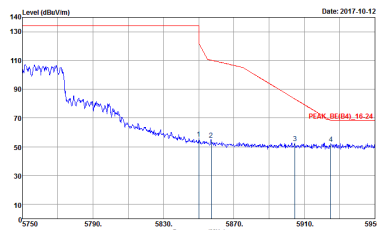
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(84)_16-24 3m HF_ANT_00075962 HORIZONTAL RBW:3000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 790120-02 Mode : 4 Power Setting : 20	 Site : 03CH07-HY Condition : PEAK(UNID) 3m HF_ANT_00075962 HORIZONTAL RBW:3000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 790120-02 Mode : 4 Power Setting : 20

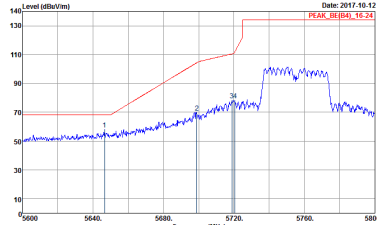
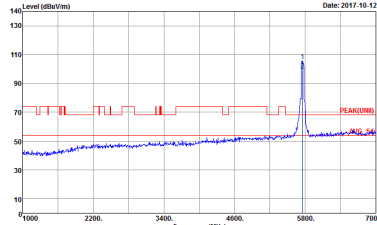
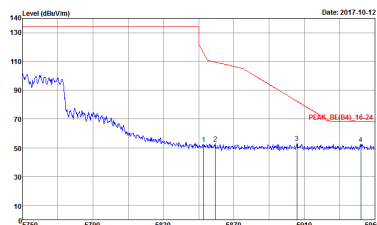


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1+2	Vertical	Fundamental
Peak Avg.	 Site : 03CH07-HY Condition : PEAK_BE(84)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 4 Power Setting : 20	 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 4 Power Setting : 20



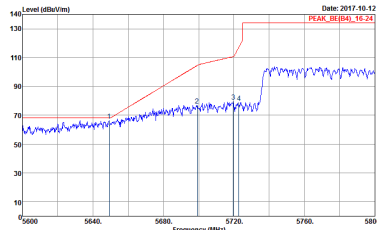
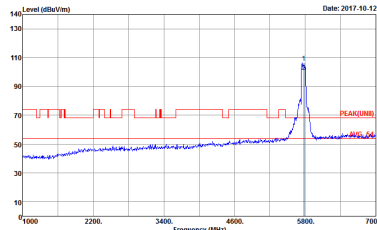
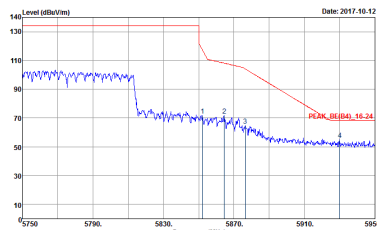
Band 4 5725~5850MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)

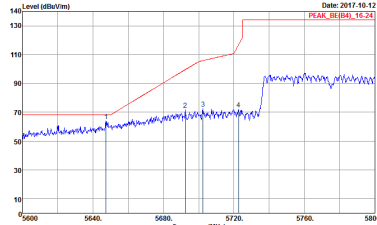
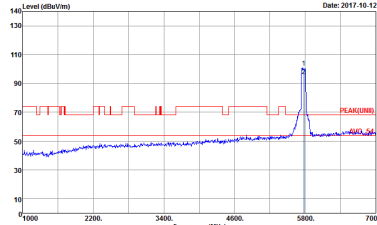
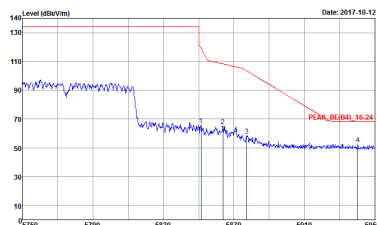
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 790120-02 Power Setting : 8 Power Setting : 20	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 790120-02 Power Setting : 8 Power Setting : 20
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 790120-02 Power Setting : 8 Power Setting : 20	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 8 Power Setting : 20	 Site : 03CH07-HY Condition : PEAK(UNI) 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 8 Power Setting : 20
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 8 Power Setting : 20	Left blank



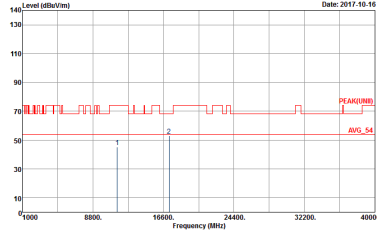
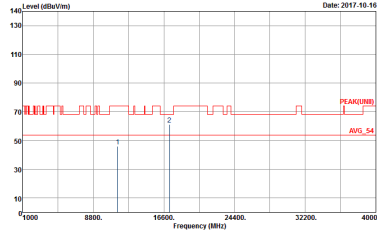
Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(84)_16-24 3m HF_ANT_00075962 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 790120-02 Mode : 12 Power Setting : 17.5	 Site : 03CH07-HY Condition : PEAK(UNIT) 3m HF_ANT_00075962 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 790120-02 Mode : 12 Power Setting : 17.5
Peak	 Site : 03CH07-HY Condition : PEAK_BE(84)_16-24 3m HF_ANT_00075962 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 790120-02 Mode : 12 Power Setting : 17.5	Left blank

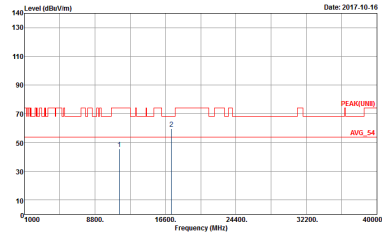
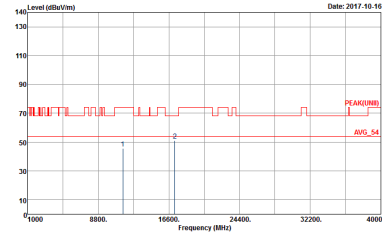
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 12 Power Setting : 17.5	 Site : 03CH07-HY Condition : PEAK(UNII) 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 12 Power Setting : 17.5
	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 12 Power Setting : 17.5	Left blank



Band 4 5725~5850MHz
WIFI 802.11ac VHT20 (Harmonic @ 3m)

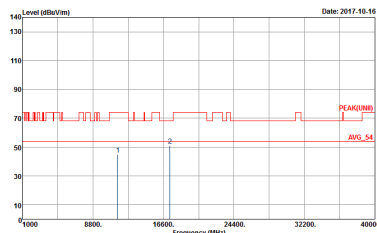
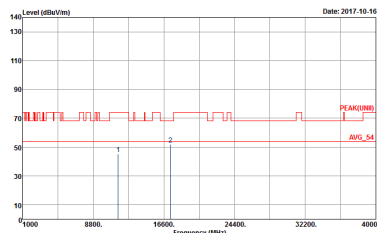
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UM) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 790120-02 Mode : 4 Power Setting : 20	 Site : 03CH07-HY Condition : PEAK(UM) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 790120-02 Mode : 4 Power Setting : 20

Band 4 5725~5850MHz
WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNII) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 790120-02 Mode : 8 Power Setting : 20	 Site : 03CH07-HY Condition : PEAK(UNII) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 790120-02 Mode : 8 Power Setting : 20



Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)

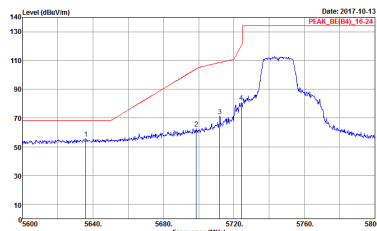
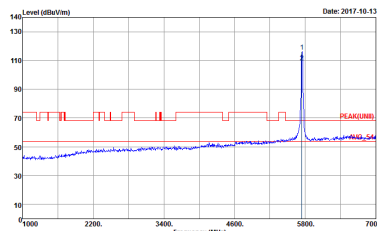
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNII) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 790120-02 Mode : 12 Power Setting : 17.5	 Site : 03CH07-HY Condition : PEAK(UNII) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 790120-02 Mode : 12 Power Setting : 17.5



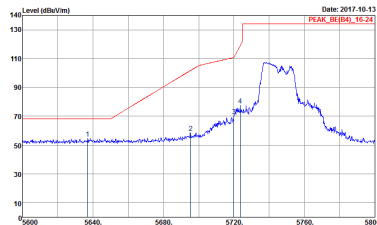
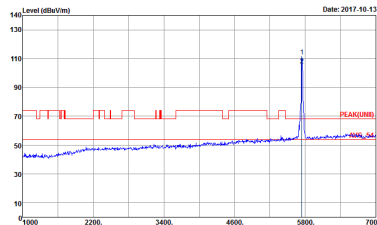
<TXBF Mode>

Band 4 - 5725~5850MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

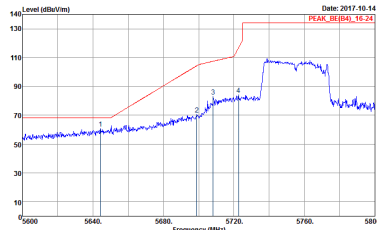
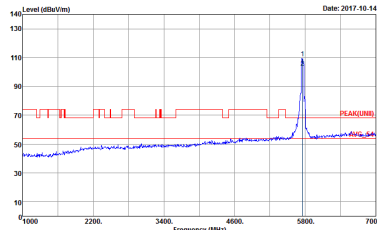
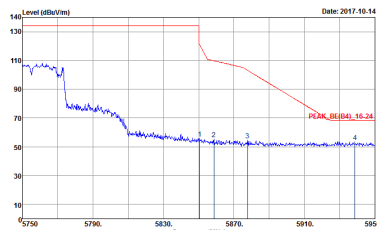
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 790120-02 Mode : 2B Power Setting : 18.5	 Site : 03CH07-HY Condition : PEAK(LINII) 3m HF_ANT_00075962 HORIZONTAL Detector : Peak Project : 790120-02 Mode : 2B Power Setting : 18.5

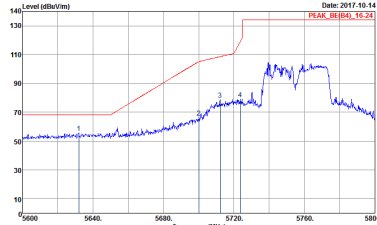
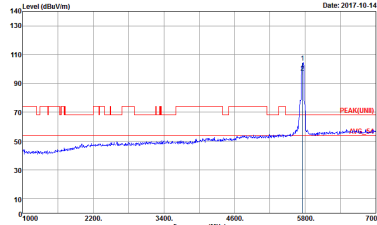
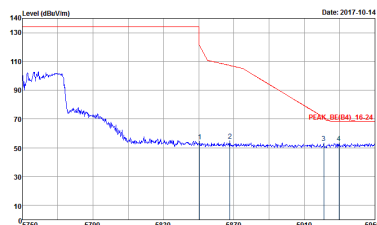


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1+2	Vertical	Fundamental
Peak Avg.	 Site : 03CH07-4HY Condition : PEAK_BE(84)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 28 Power Setting : 18.5	 Site : 03CH07-4HY Condition : PEAK_BE(84)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 28 Power Setting : 18.5



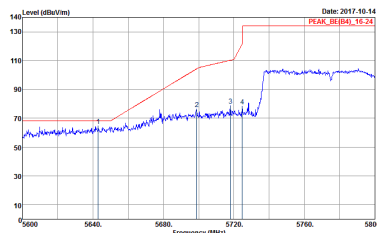
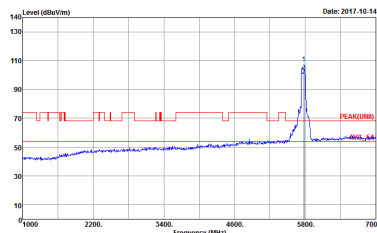
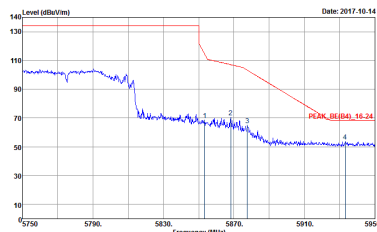
Band 4 5725~5850MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 790120-02 Power Setting : 32 Power Setting : 17	 Site : 03CH07-HY Condition : PEAK(UNIT) 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 790120-02 Power Setting : 32 Power Setting : 17
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : Peak Mode : 790120-02 Power Setting : 32 Power Setting : 17	Left blank

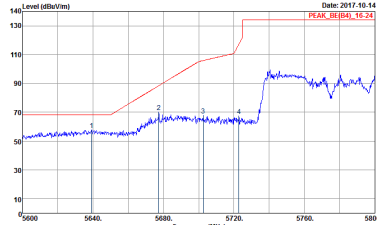
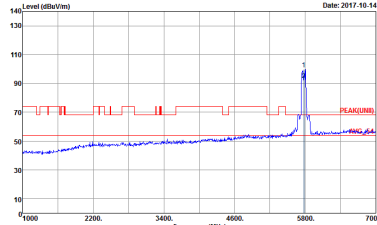
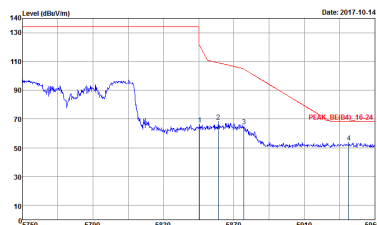
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 32 Power Setting : 17	 Site : 03CH07-HY Condition : PEAK(UNI) 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 32 Power Setting : 17
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 32 Power Setting : 17	Left blank



Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

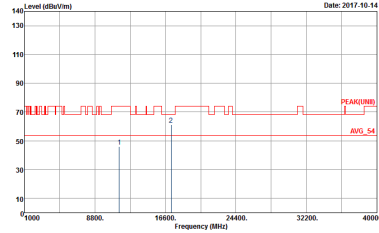
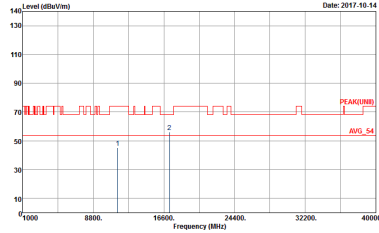
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(84)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 790120-02 Mode : 36 Power Setting : 16.5	 Site : 03CH07-HY Condition : PEAK(UNIT) 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 790120-02 Mode : 36 Power Setting : 16.5
Peak	 Site : 03CH07-HY Condition : PEAK_BE(84)_16-24 3m HF_ANT_00075962 HORIZONTAL Detector : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Project : 790120-02 Mode : 36 Power Setting : 16.5	Left blank



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 36 Power Setting : 16.5	 Site : 03CH07-HY Condition : PEAK(UNI) 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 36 Power Setting : 16.5
Peak	 Site : 03CH07-HY Condition : PEAK_BE(B4)_16-24 3m HF_ANT_00075962 VERTICAL Detector : Peak Project : 790120-02 Mode : 36 Power Setting : 16.5	Left blank

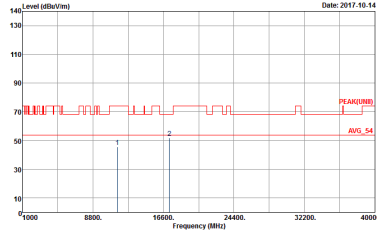
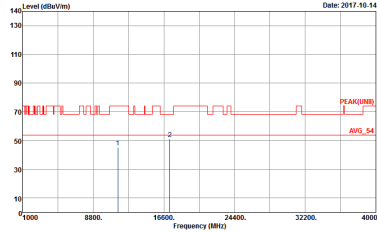


Band 4 - 5725~5850MHz
WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-4FY Condition : PEAK(UNIT) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 790120-02 Mode : 2B Power Setting : 18.5	 Site : 03CH07-4FY Condition : PEAK(UNIT) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 790120-02 Mode : 2B Power Setting : 18.5

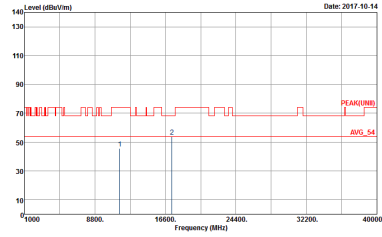
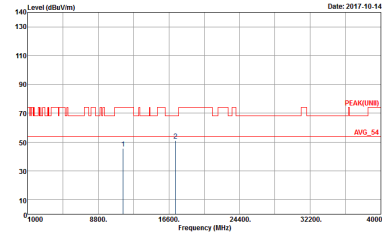


Band 4 5725~5850MHz
WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNII) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 790120-02 Mode : 32 Power Setting : 17	 Site : 03CH07-HY Condition : PEAK(UNII) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 790120-02 Mode : 32 Power Setting : 17



Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Harmonic @ 3m)

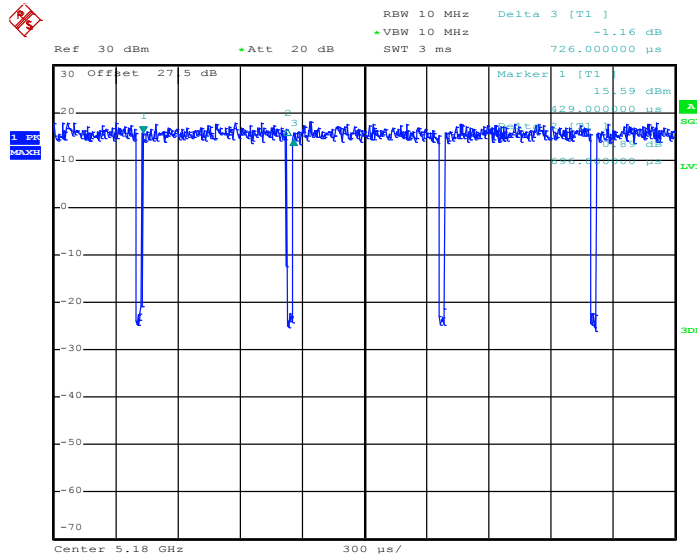
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Vertical
Peak Avg.	 Site : 03CH07-HY Condition : PEAK(UNIT) 3m SHF-EHF_131029 HORIZONTAL Detector : Peak Project : 790120-02 Mode : 36 Power Setting : 16.5	 Site : 03CH07-HY Condition : PEAK(UNIT) 3m SHF-EHF_131029 VERTICAL Detector : Peak Project : 790120-02 Mode : 36 Power Setting : 16.5

Appendix C. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting
1	5GHz 802.11ac VHT20	95.87	696.00	1.44	3kHz
1+2	5GHz 802.11ac VHT20 for Ant. 1	95.08	696.00	1.44	3kHz
1+2	5GHz 802.11ac VHT20 for Ant. 2	95.90	702.00	1.42	3kHz
1	5GHz 802.11ac VHT40	91.84	360.00	2.78	3kHz
1+2	5GHz 802.11ac VHT40 for Ant. 1	91.84	360.00	2.78	3kHz
1+2	5GHz 802.11ac VHT40 for Ant. 2	91.84	360.00	2.78	3kHz
1	5GHz 802.11ac VHT80	85.32	186.00	5.38	10kHz
1+2	5GHz 802.11ac VHT80 for Ant. 1	86.24	188.00	5.32	10kHz
1+2	5GHz 802.11ac VHT80 for Ant. 2	86.24	188.00	5.32	10kHz

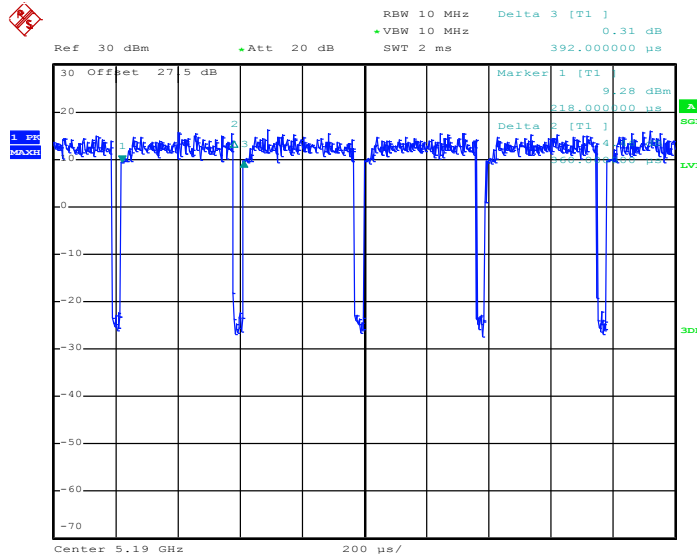
<Ant. 1>

802.11ac VHT20



Date: 4.OCT.2017 10:04:56

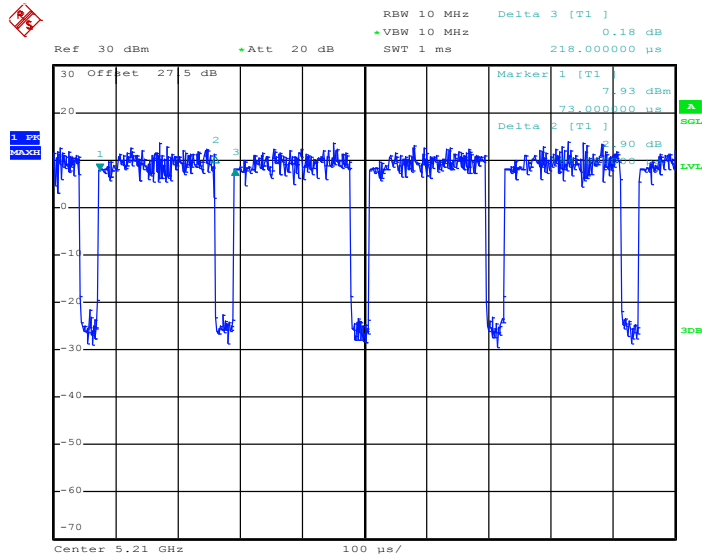
802.11ac VHT40



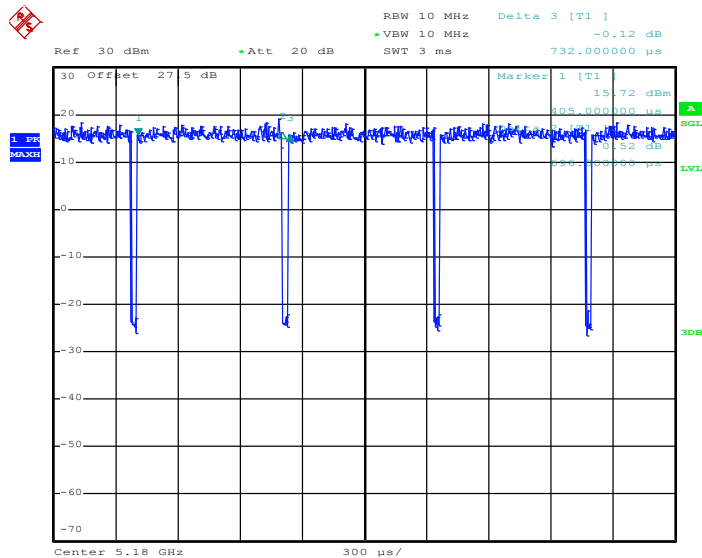
Date: 4.OCT.2017 11:25:23



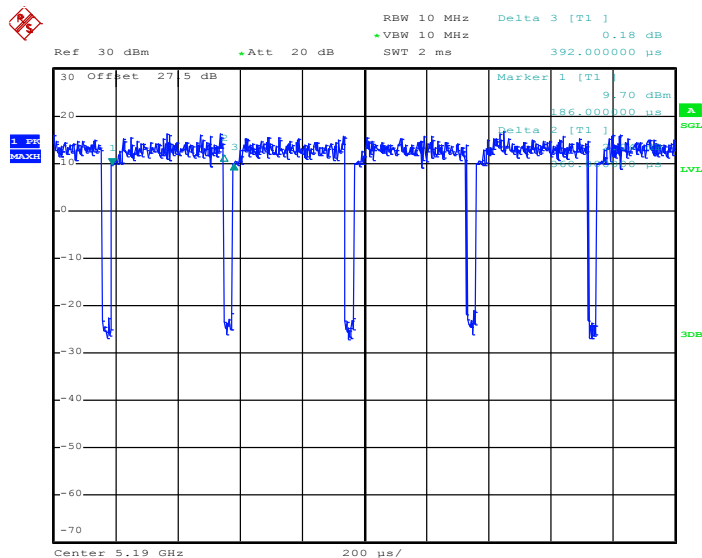
802.11ac VHT80



Date: 4.OCT.2017 12:05:20

<MIMO Ant. 1>
802.11ac VHT20


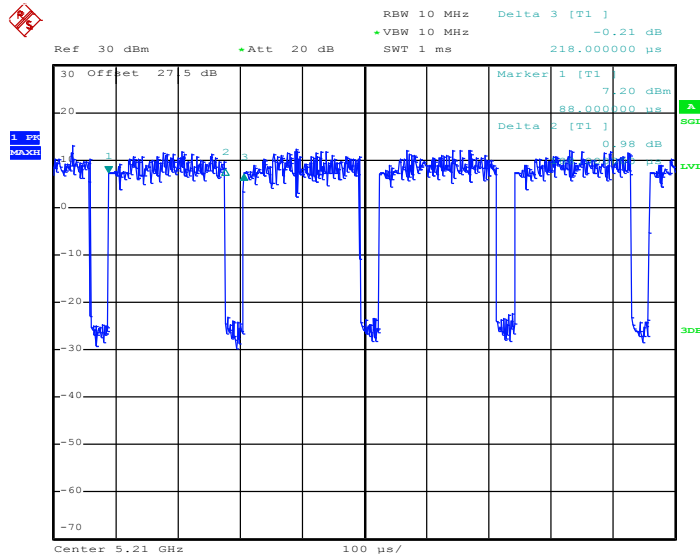
Date: 4.OCT.2017 10:09:24

802.11ac VHT40


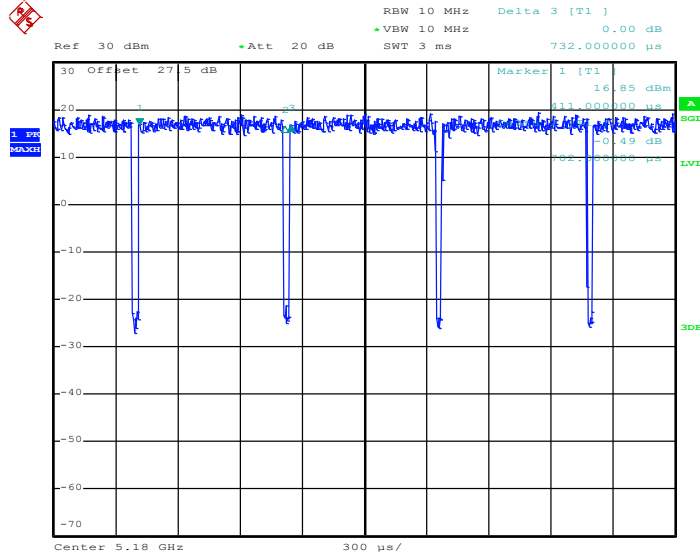
Date: 4.OCT.2017 11:30:57



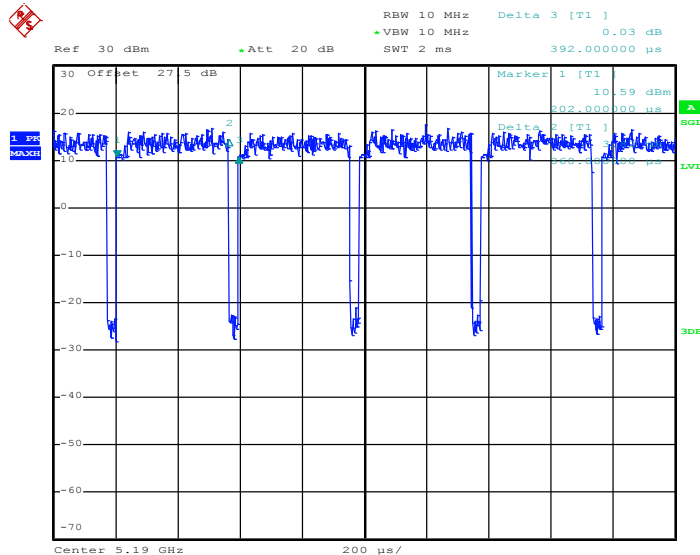
802.11ac VHT80



Date: 4.OCT.2017 12:10:04

<MIMO Ant. 2>
802.11ac VHT20


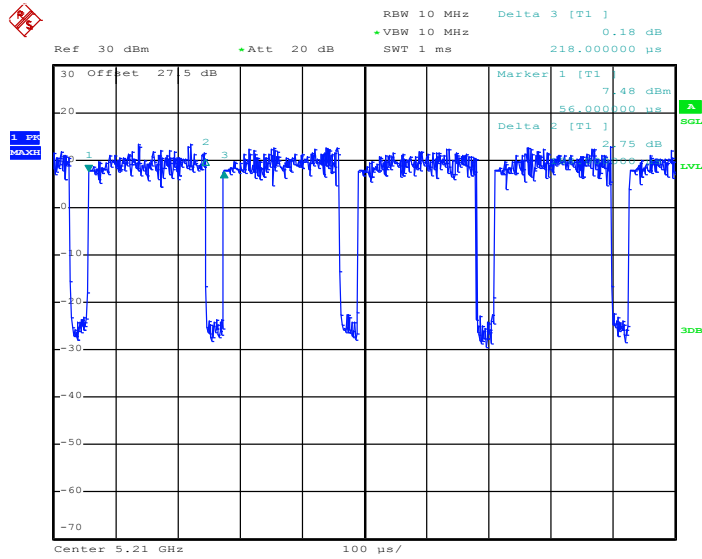
Date: 4.OCT.2017 10:10:04

802.11ac VHT40


Date: 4.OCT.2017 11:31:45



802.11ac VHT80



Date: 4.OCT.2017 12:11:08