FCC RADIO TEST REPORT

FCC ID	**:**	**UZ7MC3300R**
Equipment	**:**	**Mobile Computer**
Brand Name	**:**	**Zebra**
Model name	**:**	**MC3300R**
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 Jul. 19, 2018 and testing was started from Jul. 27, 2018 and completed on Sep. 04, 2018. 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 report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

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.

Approved by: Joseph Lin

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Table of Contents

History of this test report

Report No.	Version	Description	Issued Date
FR812630-07F	01	Initial issue of report	Sep. 07, 2018

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.403 (i)	6dB & 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 1.18 dB at 5649.500 MHz
3.5	15.207	AC Conducted Emission	Pass	Under limit 17.43 dB at 0.170 MHz
3.6	15.407 (c)	Automatically Discontinue Transmission	Pass	-
3.7	15.203 & 15.407 (a)	Antenna Requirement	Pass	-

Reviewed by: Wii Chang

Report Producer: Nancy Yang

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Mobile Computer
Brand Name	Zebra
Model Name	MC3300R
FCC ID	UZ7MC3300R
EUT supports Radios application	UHF RFID WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE
HW Version	DV
SW Version	RFID Manager Application Version: 2.0.9.1 RFID Demo. Application Version: 2.2.5.24 Terminal Version: 91-01-49-NN-00-A
FW Version	Module Version: PAAEES00-001-N12 Radio Version: 2.0.29.0 Terminal Version: FUSION_BA_2_10.0.0.019_N
MFD	10JUL18
EUT Stage	Identical Prototype

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

Specification of Accessories				
Sentry 2X battery	**Brand Name**	Zebra	**Part Number**	BT-000337
MC32 2X battery	**Brand Name**	Symbol	**Part Number**	82-000012-02
Adapter	**Brand Name**	Zebra	**Part Number**	PWR-WUA5V12W0US
USB cable	**Brand Name**	Zebra	**Part Number**	CBL-MC33-USBCHG-01
GUN HOLSTER	**Brand Name**	Zebra	**Part Number**	SG-MC3021212-01R

<Sample Information>

	SKU1	SKU2	SKU3
Part Number	MC339R-GE2HA4-US	MC339R-GF2HA4-US	MC333R-GI2HA4-US
RFID Antenna	Long range	Long range	Middle range
Scanner	SE4850	SE4750	SE4750
Keypad	29	29	29
Region	US	US	US

	SKU4	SKU5	SKU6
Part Number	MC339R-GE3HA4US	MC339R-GF3HA4US	MC333R-GI3HA4US
RFID Antenna	Long range	Long range	Middle range
Scanner	SE4850	SE4750	SE4750
Keypad	38	38	38
Region	US	US	US

	SKU7	SKU8	SKU9
Part Number	MC339R-GE4HA4US	MC339R-GF4HA4US	MC333R-GI4HA4US
RFID Antenna	Long range	Long range	Middle range
Scanner	SE4850	SE4750	SE4750
Keypad	47	47	47
Region	US	US	US

1.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Channel Frequency Range	5745 MHz ~ 5825 MHz
Maximum Output Power to Antenna <CDD Modes>	**<5745 MHz ~ 5825 MHz>** **<Ant. 1>** 802.11a : 18.48 dBm / 0.0705 W 802.11n HT20 : 18.21 dBm / 0.0662 W 802.11n HT40 : 18.22 dBm / 0.0664 W 802.11ac VHT20: 18.48 dBm / 0.0705 W 802.11ac VHT40: 18.49 dBm / 0.0706 W 802.11ac VHT80: 17.04 dBm / 0.0506 W **<Ant. 2>** 802.11a : 18.38 dBm / 0.0689 W 802.11n HT20 : 18.31 dBm / 0.0678 W 802.11n HT40 : 18.11 dBm / 0.0647 W 802.11ac VHT20: 18.44 dBm / 0.0698 W 802.11ac VHT40: 18.37 dBm / 0.0687 W 802.11ac VHT80: 16.80 dBm / 0.0479 W **MIMO <Ant. 1 + 2>** 802.11a : 20.67 dBm / 0.1167 W 802.11n HT20 : 20.57 dBm / 0.1140 W 802.11n HT40 : 20.47 dBm / 0.1114 W 802.11ac VHT20: 20.91 dBm / 0.1233 W 802.11ac VHT40: 20.49 dBm / 0.1119 W 802.11ac VHT80: 19.36 dBm / 0.0863 W
Maximum Output Power <TXBF Modes>	**<5745 MHz ~ 5825 MHz>** **MIMO <Ant. 1 + 2>** 802.11n HT20 : 20.71 dBm / 0.1178 W 802.11n HT40 : 20.86 dBm / 0.1219 W 802.11ac VHT20: 20.86 dBm / 0.1219 W 802.11ac VHT40: 20.96 dBm / 0.1247 W 802.11ac VHT80: 20.91 dBm / 0.1233 W

<table>
<tr><th colspan="2">Standards-related Product Specification</th></tr>
<tr><td>99% Occupied Bandwidth
<CDD Modes></td><td><Ant. 1>
802.11a : 27.20 MHz
802.11ac VHT20 : 19.55 MHz
802.11ac VHT40 : 43.00 MHz
802.11ac VHT80 : 77.40 MHz
MIMO <Ant. 1>
802.11a : 17.85 MHz
802.11ac VHT20 : 20.10 MHz
802.11ac VHT40 : 37.50 MHz
802.11ac VHT80 : 77.40 MHz
MIMO <Ant. 2>
802.11a : 18.25 MHz
802.11ac VHT20 : 19.40 MHz
802.11ac VHT40 : 38.10 MHz
802.11ac VHT80 : 77.64 MHz</td></tr>
<tr><td>99% Occupied Bandwidth
<TXBF Modes></td><td>MIMO <Ant. 1>
802.11ac VHT20 : 18.35 MHz
802.11ac VHT40 : 37.20 MHz
802.11ac VHT80 : 77.76 MHz
MIMO <Ant. 2>
802.11ac VHT20 : 18.75 MHz
802.11ac VHT40 : 37.30 MHz
802.11ac VHT80 : 77.52 MHz</td></tr>
<tr><td>Antenna Gain / Gain</td><td><Ant. 1> : Patch Antenna with gain 3.78 dBi
<Ant. 2> : Patch Antenna with gain 4.21 dBi</td></tr>
<tr><td>Type of Modulation</td><td>802.11a/n : OFDM (BPSK/QPSK/16QAM/64QAM)
802.11ac : OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)</td></tr>
<tr><td>Antenna Function Description</td><td>
<table>
<tr><th></th><th>Ant. 1</th><th>Ant. 2</th></tr>
<tr><td>802.11 a/n/ac</td><td>V</td><td>V</td></tr>
<tr><td>802.11 a/n/ac CDD MIMO</td><td>V</td><td>V</td></tr>
<tr><td>802.11 ac TXBF</td><td>V</td><td>V</td></tr>
</table>
</td></tr>
</table>

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

1.3 Modification of EUT

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

1.4 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1190 and TW0007 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Test Site	SPORTON INTERNATIONAL INC.	
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.
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

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

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.
- 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: 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 (X plane for SKU 1, Z plane for SKU 2 and SKU 3) 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)
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 modes are considering the modulation and worse data rates as below table.

Single Mode

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

MIMO Mode

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

TXBF Mode

Modulation	Data Rate
802.11ac VHT20	MCS0
802.11ac VHT40	MCS0
802.11ac VHT80	MCS0

Test Cases	
AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + Bluetooth Link + 29 Keypad + Scanner + Battery (Sentry 2X) + USB Cable + Adapter (PWR-WUA5V12W0US) for SKU 3
Remark: For Radiated Test Cases, the tests were performed with Sentry 2X battery.	

Ch. #		Band IV：5725-5850 MHz			
		802.11a	802.11ac VHT20	802.11ac VHT40	802.11ac VHT80
L	Low	149	149	151	-
M	Middle	157	157	-	155
H	High	165	165	159	-

<CDD Mode>

<Ant. 1>

802.11a RF Output Power (dBm)										
Power vs. Channel			Power vs Data Rate							
Channel	Frequency (MHz)	Data Rate (bps) 6M	channel	Data Rate (bps) 9M	12M	18M	24M	36M	48M	54M
Duty Cycle (%)		96.05		94.24	91.18	88.73	85.96	80.95	77.78	75.76
CH 149	5745	18.35	CH 157	18.47	18.41	18.43	18.46	18.44	18.43	18.47
CH 157	5785	**18.48**								
CH 165	5825	17.99								

802.11n HT20 RF Output Power (dBm)										
Power vs. Channel			Power vs Data Rate							
Channel	Frequency (MHz)	MCS Index MCS0	channel	MCS Index MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Duty Cycle (%)		94.52		92.54	88.89	86.44	82.61	78.95	78.38	75.36
CH 149	5745	18.20	CH 157	18.19	18.15	18.15	18.13	18.00	18.03	18.18
CH 157	5785	**18.21**								
CH 165	5825	17.94								

802.11n HT40 RF Output Power (dBm)										
Power vs. Channel			Power vs Data Rate							
Channel	Frequency (MHz)	MCS Index MCS0	channel	MCS Index MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Duty Cycle (%)		91.67		85.96	82.22	78.38	75.00	70.37	70.37	68.00
CH 151	5755	**18.22**	CH 151	18.07	18.04	18.13	18.10	18.16	18.16	18.19
CH 159	5795	18.15								

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
Duty Cycle (%)		95.89		92.54	88.89	86.44	82.61	78.95	78.38	75.36	71.88
CH 149	5745	18.32	CH 157	18.44	18.44	18.44	18.37	18.43	18.46	18.41	18.44
CH 157	5785	**18.48**									
CH 165	5825	17.97									

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
Duty Cycle (%)		91.84		85.96	82.22	78.38	75.00	70.37	70.37	68.00	66.67	65.22
CH 151	5755	18.47	CH 159	18.32	18.31	18.37	18.36	18.43	18.44	18.44	18.44	18.46
CH 159	5795	**18.49**										

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
Duty Cycle (%)		18.49		18.32	18.31	18.37	18.36	18.43	18.44	18.44	18.44	18.46
CH155	5775	**18.47**	CH155	15.14	14.66	14.54	14.41	14.22	14.01	14.03	13.90	13.93

<Ant. 2>

802.11a RF Output Power (dBm)										
Power vs. Channel			Power vs Data Rate							
Channel	Frequency (MHz)	Data Rate (bps) 6M	channel	Data Rate (bps) 9M	12M	18M	24M	36M	48M	54M
Duty Cycle (%)		96.05		94.25	92.38	88.89	86.73	80.95	77.14	73.85
CH 149	5745	18.32	CH 157	18.28	18.33	18.35	18.30	18.37	18.37	18.33
CH 157	5785	**18.38**								
CH 165	5825	17.90								

802.11n HT20 RF Output Power (dBm)										
Power vs. Channel			Power vs Data Rate							
Channel	Frequency (MHz)	MCS Index MCS0	channel	MCS Index MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Duty Cycle (%)		94.52		92.42	88.89	86.67	82.61	78.95	77.78	74.29
CH 149	5745	18.01	CH 157	18.29	18.30	18.13	18.28	18.12	18.12	18.13
CH 157	5785	**18.31**								
CH 165	5825	17.68								

802.11n HT40 RF Output Power (dBm)										
Power vs. Channel			Power vs Data Rate							
Channel	Frequency (MHz)	MCS Index MCS0	channel	MCS Index MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Duty Cycle (%)		91.67		86.21	81.82	78.38	74.19	70.37	69.23	70.59
CH 151	5755	**18.11**	CH 151	86.21	81.82	78.38	74.19	70.37	69.23	70.59
CH 159	5795	17.95								

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
Duty Cycle (%)		95.89		92.42	88.89	86.67	82.61	78.95	77.78	74.29	74.19
CH 149	5745	18.27	CH 157	18.36	18.39	18.42	18.37	18.41	18.41	18.42	18.40
CH 157	5785	**18.44**									
CH 165	5825	17.71									

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
Duty Cycle (%)		91.84		86.21	81.82	78.38	74.19	70.37	69.23	70.59	66.67	65.22
CH 151	5755	**18.37**	CH 151	86.21	81.82	78.38	74.19	70.37	69.23	70.59	66.67	65.22
CH 159	5795	18.23										

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
Duty Cycle (%)		85.19		79.31	73.77	72.73	67.35	65.91	66.67	65.12	64.29	63.41
CH155	5775	**16.80**	CH155	16.67	16.77	16.78	16.79	16.78	16.77	16.70	16.77	16.78

MIMO <Ant. 1 + 2>

802.11a RF Output Power (dBm)										
Power vs. Channel			Power vs Data Rate							
Channel	Frequency (MHz)	Data Rate (bps)	channel	Data Rate (bps)						
		6M		9M	12M	18M	24M	36M	48M	54M
Duty Cycle (%)										
CH 149	5745	**20.67**	CH 149	20.60	20.61	20.60	20.66	20.63	20.64	20.65
CH 157	5785	20.52								
CH 165	5825	19.55								

802.11n HT20 RF Output Power (dBm)										
Power vs. Channel			Power vs Data Rate							
Channel	Frequency (MHz)	MCS Index	channel	MCS Index						
		MCS0		MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Duty Cycle (%)										
CH 149	5745	**20.57**	CH 149	20.40	20.57	20.53	20.45	20.51	20.47	20.44
CH 157	5785	20.47								
CH 165	5825	19.32								

802.11n HT40 RF Output Power (dBm)										
Power vs. Channel			Power vs Data Rate							
Channel	Frequency (MHz)	MCS Index	channel	MCS Index						
		MCS0		MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Duty Cycle (%)										
CH 151	5755	**20.47**	CH 151	20.39	20.09	20.42	20.37	20.41	20.28	20.41
CH 159	5795	20.24								

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
Duty Cycle (%)											
CH 149	5745	**20.91**	CH 149	20.82	20.90	20.90	20.84	20.82	20.85	20.90	20.89
CH 157	5785	20.58									
CH 165	5825	20.20									

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
Duty Cycle (%)											
CH 151	5755	**20.49**	CH 151	20.45	20.15	20.48	20.44	20.47	20.34	20.48	20.48	20.37
CH 159	5795	20.33									

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
Duty Cycle (%)											
CH155	5775	**19.36**	CH155	19.29	19.30	19.35	19.30	19.29	19.26	19.27	19.23	19.31

<TXBF Mode>

MIMO<Ant. 1 + 2>

802.11n HT20 RF Output Power (dBm)											
Power vs. Channel			Power vs Data Rate								
Channel	Frequency (MHz)	MCS Index	channel	MCS Index							
		MCS0		MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Duty Cycle (%)											
CH 149	5745	20.56	CH 165	20.56	20.56	20.46	20.56	20.66	20.66	20.66
CH 157	5785	20.51								
CH 165	5825	**20.71**								

802.11n HT40 RF Output Power (dBm)											
Power vs. Channel			Power vs Data Rate								
Channel	Frequency (MHz)	MCS Index	channel	MCS Index							
		MCS0		MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7
Duty Cycle (%)											
CH 151	5755	**20.86**	CH 151	20.61	20.66	20.61	20.71	20.66	20.56	20.66
CH 159	5795	20.81								

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
Duty Cycle (%)											
CH 149	5745	20.61	CH 165	20.66	20.66	20.56	20.66	20.76	20.76	20.76	20.76
CH 157	5785	20.56									
CH 165	5825	**20.86**									

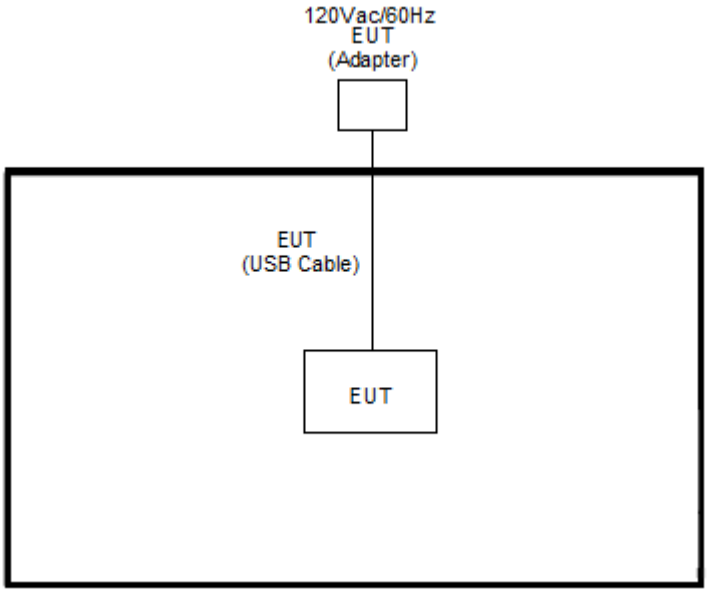
802.11ac VHT40 RF Output Power (dBm)											
Power vs. Channel			Power vs Data Rate								
Channel	Frequency (MHz)	MCS Index	channel	MCS Index							
		MCS0		MCS1	MCS2	MCS3	MCS4	MCS5	MCS6	MCS7	MCS8	MCS9
Duty Cycle (%)											
CH 151	5755	**20.96**	CH 151	20.76	20.81	20.76	20.86	20.81	20.71	20.81	20.81	20.91
CH 159	5795	20.91										

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
Duty Cycle (%)											
CH155	5775	**20.91**	CH155	20.81	20.71	20.81	20.81	20.81	20.81	20.81	20.81	20.81

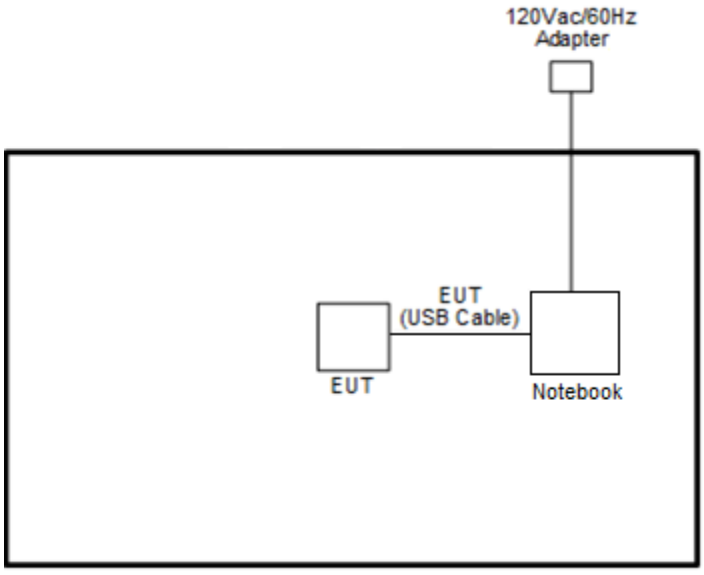
2.3 Connection Diagram of Test System

<Radiated Emission Mode>

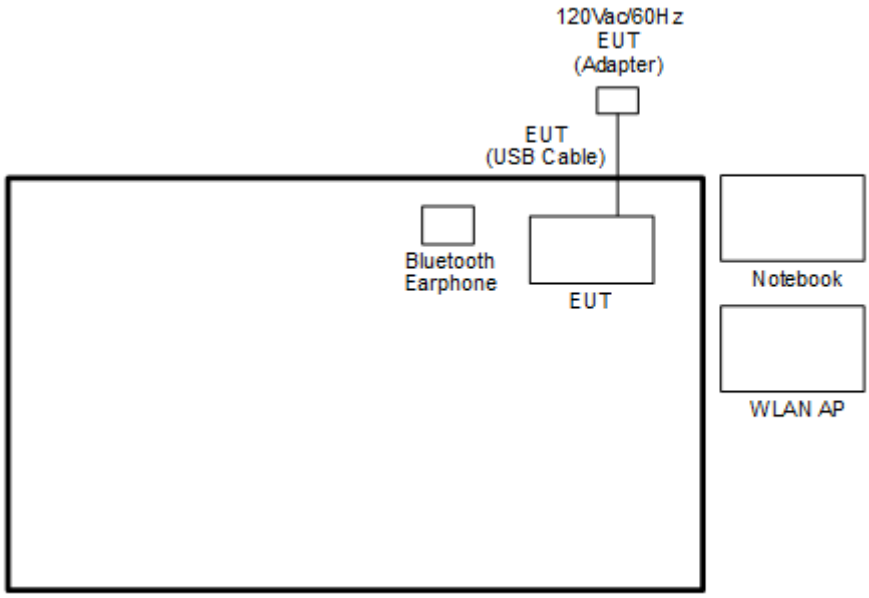
<CDD Mode>



<TXBF Mode>



<AC Conducted Emission Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade 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 E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
4.	Notebook	Lenovo	M490S(E330)	QDS-BRCM1063	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
5.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A

2.5 EUT Operation Test Setup

The RF test items, utility “CMD” 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.

For TXBF mode, the modulation modes and data rates manipulated by the command lines in the engineering program made the EUT link to another EUT by power under the normal operation. The “CMD” software tool was used to enable the EUT to transmit signals continuously.

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 6dB and 26dB and 99% Occupied Bandwidth Measurement

3.1.1 Description of 6dB and 26dB and 99% Occupied Bandwidth

The minimum 6 dB bandwidth shall be at least 500 kHz.

26dB and 99% Occupied bandwidth are reporting only.

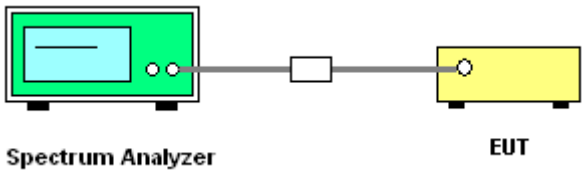
3.1.2 Measuring Instruments

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 for the band 5.725-5.85GHz
2. Set RBW = 100kHz.
3. Set the VBW ≥ 3 x RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.
7. Measure and record the results in the test report.

3.1.4 Test Setup



3.1.5 Test Result of 6dB Bandwidth

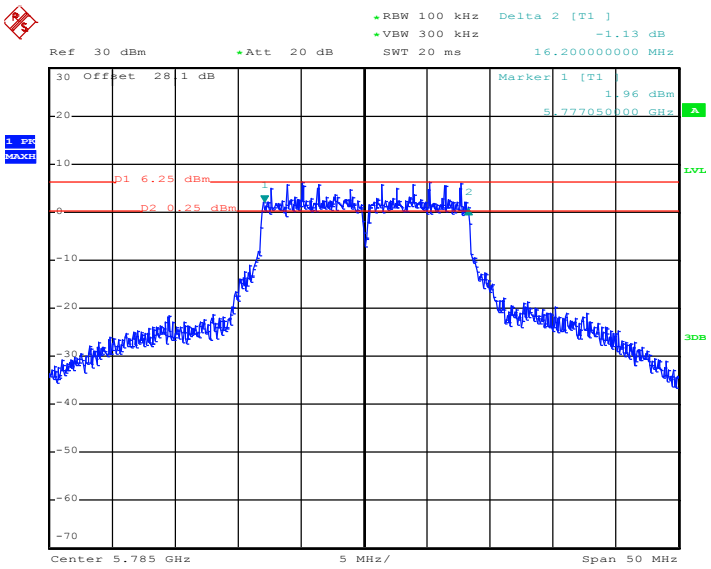
Test Engineer :	Kai Liao	Temperature :	21~25℃
		Relative Humidity :	51~54%

<CDD Mode>

Band IV												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		6 dB Bandwidth (MHz)		6 dB Bandwidth Min. Limit (MHz)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	149	5745	17.90	-	37.00	-	16.30	-	0.5	Pass
11a	6Mbps	1	157	5785	19.25	-	40.70	-	**16.20**	-	0.5	Pass
11a	6Mbps	1	165	5825	27.20	-	46.05	-	16.25	-	0.5	Pass
VHT20	MCS0	1	149	5745	18.35	-	44.60	-	17.50	-	0.5	Pass
VHT20	MCS0	1	157	5785	19.35	-	47.20	-	17.30	-	0.5	Pass
VHT20	MCS0	1	165	5825	19.55	-	47.75	-	17.50	-	0.5	Pass
VHT40	MCS0	1	151	5755	43.00	-	97.12	-	35.34	-	0.5	Pass
VHT40	MCS0	1	159	5795	42.30	-	97.68	-	35.82	-	0.5	Pass
VHT80	MCS0	1	155	5775	77.40	-	**176.29**	-	75.20	-	0.5	Pass
11a	6Mbps	2	149	5745	17.75	18.25	35.60	38.70	**16.20**	16.30	0.5	Pass
11a	6Mbps	2	157	5785	17.85	18.20	36.60	38.80	**16.20**	16.30	0.5	Pass
11a	6Mbps	2	165	5825	17.50	17.45	28.00	36.00	16.30	16.30	0.5	Pass
VHT20	MCS0	2	149	5745	19.05	19.40	46.00	47.75	17.50	17.55	0.5	Pass
VHT20	MCS0	2	157	5785	18.90	18.70	44.50	45.70	17.50	17.50	0.5	Pass
VHT20	MCS0	2	165	5825	20.10	18.50	47.05	38.85	17.50	17.55	0.5	Pass
VHT40	MCS0	2	151	5755	37.50	38.10	93.98	94.54	36.40	36.36	0.5	Pass
VHT40	MCS0	2	159	5795	37.50	38.00	89.70	90.24	36.00	36.00	0.5	Pass
VHT80	MCS0	2	155	5775	77.40	**77.64**	128.04	131.04	75.36	75.60	0.5	Pass

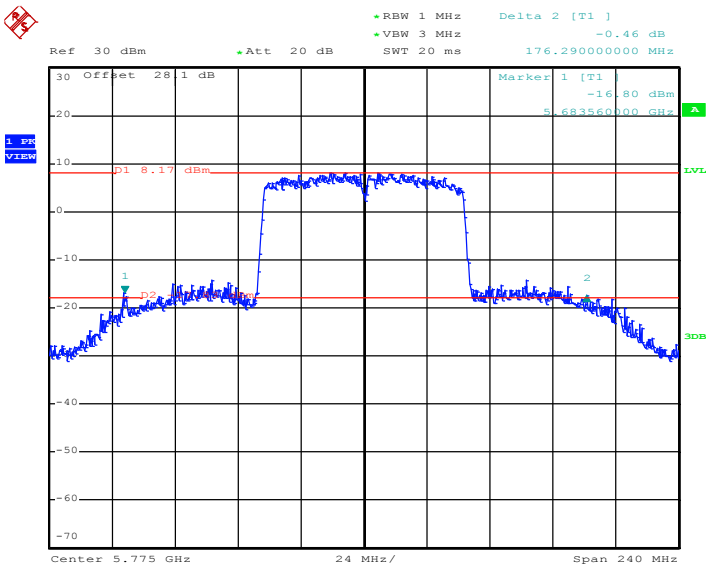
<CDD Mode>

Minimum 6dB Bandwidth



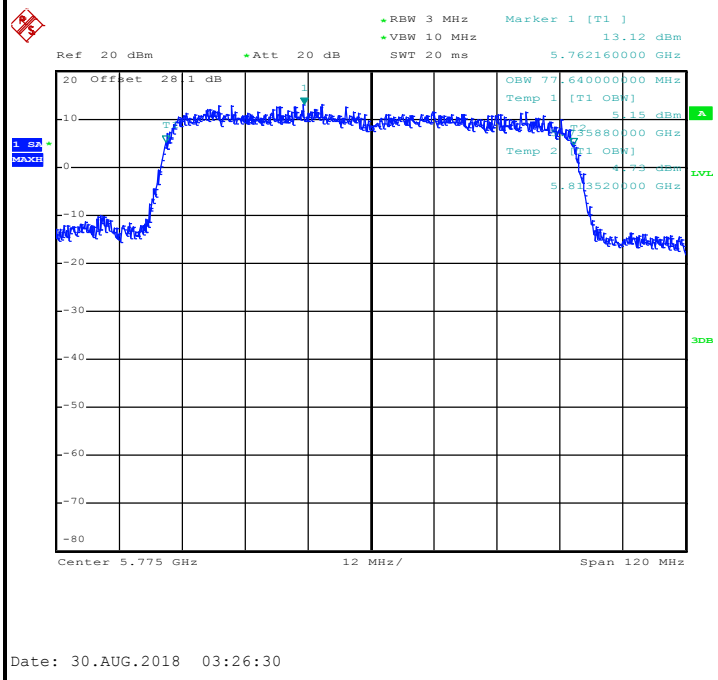
Date: 30.AUG.2018 02:05:46

Maximum 26dB Bandwidth



Date: 30.AUG.2018 01:39:06

Maximum 99% Occupied Bandwidth



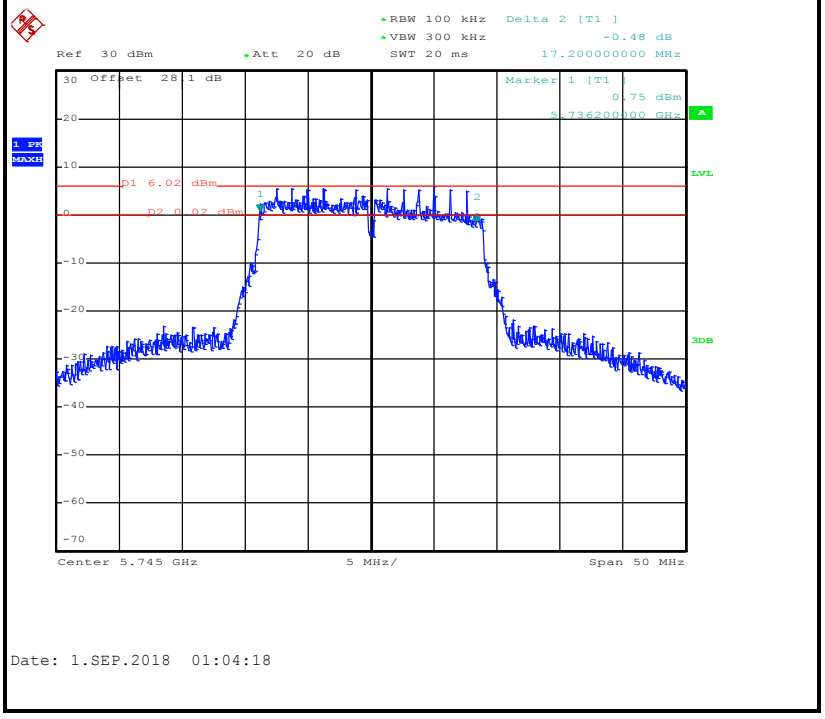
Note: The occupied channel bandwidth is maintained within the band of operation for all of the modulations.

<TXBF Modes>

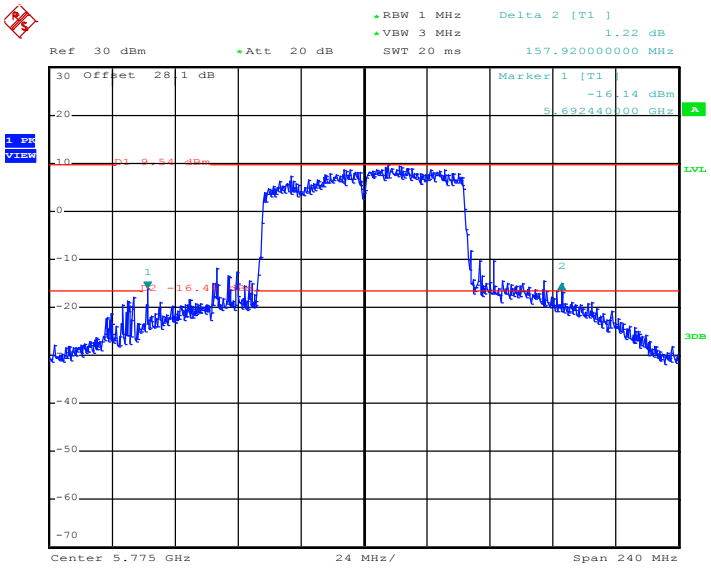
Band IV												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		6 dB Bandwidth (MHz)		6 dB Bandwidth Min. Limit (MHz)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
VHT20	MCS0	2	149	5745	18.25	18.20	27.25	24.90	17.30	**17.20**	0.5	Pass
VHT20	MCS0	2	157	5785	18.35	18.25	24.00	31.90	17.60	17.50	0.5	Pass
VHT20	MCS0	2	165	5825	18.35	18.75	33.55	45.35	17.30	17.55	0.5	Pass
VHT40	MCS0	2	151	5755	37.20	37.30	61.00	61.40	36.07	36.18	0.5	Pass
VHT40	MCS0	2	159	5795	36.80	37.30	69.79	77.31	35.46	36.06	0.5	Pass
VHT80	MCS0	2	155	5775	**77.76**	77.52	**157.92**	115.78	76.01	76.00	0.5	Pass

<TXBF Modes>

Minimum 6dB Bandwidth

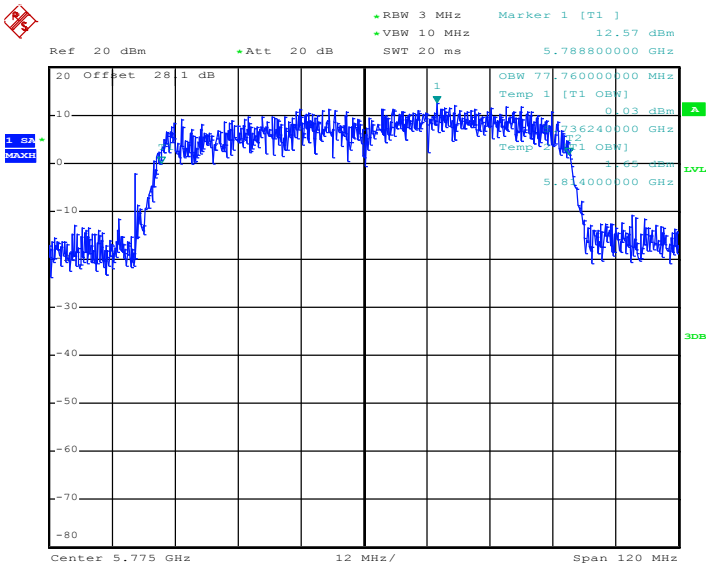


Maximum 26dB Bandwidth



Date: 1.SEP.2018 04:22:16

Maximum 99% Occupied Bandwidth



Date: 1.SEP.2018 04:18:22

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

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.

3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

3.2.3 Test Procedures

<CDD Modes>

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

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.

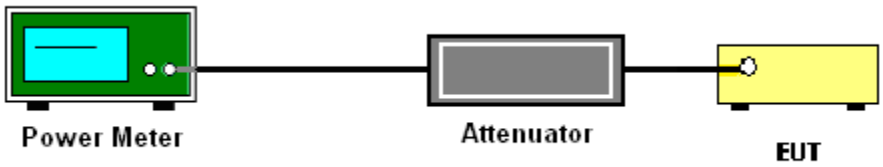
<TXBF Modes>

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

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

<CDD Mode>

Band IV														
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	0.18	18.35	18.32		30.00	30.00	3.78	4.21	Pass
11a	6Mbps	1	157	5785	0.18	0.18	18.48	18.38		30.00	30.00	3.78	4.21	Pass
11a	6Mbps	1	165	5825	0.18	0.18	17.99	17.90		30.00	30.00	3.78	4.21	Pass
HT20	MCS0	1	149	5745	0.24	0.24	18.20	18.01		30.00	30.00	3.78	4.21	Pass
HT20	MCS0	1	157	5785	0.24	0.24	18.21	18.31		30.00	30.00	3.78	4.21	Pass
HT20	MCS0	1	165	5825	0.24	0.24	17.94	17.68		30.00	30.00	3.78	4.21	Pass
HT40	MCS0	1	151	5755	0.38	0.38	18.22	18.11		30.00	30.00	3.78	4.21	Pass
HT40	MCS0	1	159	5795	0.38	0.38	18.15	17.95		30.00	30.00	3.78	4.21	Pass
VHT20	MCS0	1	149	5745	0.18	0.18	18.32	18.27		30.00	30.00	3.78	4.21	Pass
VHT20	MCS0	1	157	5785	0.18	0.18	18.48	18.44		30.00	30.00	3.78	4.21	Pass
VHT20	MCS0	1	165	5825	0.18	0.18	17.97	17.71		30.00	30.00	3.78	4.21	Pass
VHT40	MCS0	1	151	5755	0.37	0.37	18.47	18.37		30.00	30.00	3.78	4.21	Pass
VHT40	MCS0	1	159	5795	0.37	0.37	18.49	18.23		30.00	30.00	3.78	4.21	Pass
VHT80	MCS0	1	155	5775	0.70	0.70	17.04	16.80		30.00	30.00	3.78	4.21	Pass

Band IV														
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	2	149	5745	0.18	0.18	17.71	17.61	20.67	30.00		4.21		Pass
11a	6Mbps	2	157	5785	0.18	0.18	17.76	17.26	20.52	30.00		4.21		Pass
11a	6Mbps	2	165	5825	0.18	0.18	16.62	16.47	19.55	30.00		4.21		Pass
HT20	MCS0	2	149	5745	0.24	0.24	17.67	17.44	20.57	30.00		4.21		Pass
HT20	MCS0	2	157	5785	0.24	0.24	17.56	17.35	20.47	30.00		4.21		Pass
HT20	MCS0	2	165	5825	0.24	0.24	16.18	16.42	19.32	30.00		4.21		Pass
HT40	MCS0	2	151	5755	0.38	0.38	17.52	17.41	20.47	30.00		4.21		Pass
HT40	MCS0	2	159	5795	0.38	0.38	17.40	17.05	20.24	30.00		4.21		Pass
VHT20	MCS0	2	149	5745	0.18	0.18	18.05	17.73	**20.91**	30.00		4.21		Pass
VHT20	MCS0	2	157	5785	0.18	0.18	18.08	16.98	20.58	30.00		4.21		Pass
VHT20	MCS0	2	165	5825	0.18	0.18	17.80	16.48	20.20	30.00		4.21		Pass
VHT40	MCS0	2	151	5755	0.37	0.37	17.54	17.42	20.49	30.00		4.21		Pass
VHT40	MCS0	2	159	5795	0.37	0.37	17.51	17.12	20.33	30.00		4.21		Pass
VHT80	MCS0	2	155	5775	0.68	0.68	16.41	16.29	19.36	30.00		4.21		Pass

<TXBF Mode>

Band IV														
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	
HT20	MCS0	2	149	5745	0.00	0.00	17.70	17.40	20.56	28.99		7.01		Pass
HT20	MCS0	2	157	5785	0.00	0.00	17.60	17.40	20.51	28.99		7.01		Pass
HT20	MCS0	2	165	5825	0.00	0.00	17.50	17.90	20.71	28.99		7.01		Pass
HT40	MCS0	2	151	5755	0.00	0.00	17.80	17.90	20.86	28.99		7.01		Pass
HT40	MCS0	2	159	5795	0.00	0.00	17.80	17.80	20.81	28.99		7.01		Pass
VHT20	MCS0	2	149	5745	0.00	0.00	17.70	17.50	20.61	28.99		7.01		Pass
VHT20	MCS0	2	157	5785	0.00	0.00	17.60	17.50	20.56	28.99		7.01		Pass
VHT20	MCS0	2	165	5825	0.00	0.00	17.70	18.00	20.86	28.99		7.01		Pass
VHT40	MCS0	2	151	5755	0.00	0.00	18.00	17.90	**20.96**	28.99		7.01		Pass
VHT40	MCS0	2	159	5795	0.00	0.00	18.00	17.80	20.91	28.99		7.01		Pass
VHT80	MCS0	2	155	5775	0.00	0.00	17.90	17.90	20.91	28.99		7.01		Pass

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

For the band 5.725–5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band.

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

3.3.2 Measuring Instruments

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.

<CDD Modes>

 # Method SA-2 #

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

- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 300 kHz.
- Set VBW ≥ 1 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add 10 log(500kHz/RBW) to the test result.
- Add 10 log(1/x), where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times. For example, add 10 log(1/0.25) = 6 dB if the duty cycle is 25 percent.

<TXBF Modes>

 # Method SA-3 #

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

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 300 kHz.
- Set VBW ≥ 1 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. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.
   Method (c): Measure and add 10 log(N_{ANT}) dB.
   With this technique, spectrum measurements are performed at each output of the device, but rather than summing the spectra or the spectral peaks across the outputs, the quantity 10 log(N_{ANT}) dB is added to each spectrum value before comparing to the emission limit. The addition of 10 log(N_{ANT}) dB serves to apportion the emission limit among the N_{ANT} outputs so that each output is permitted to contribute no more than $1/N_{ANT}$ th of the PSD limit.

3.3.4 Test Setup

3.3.5 Test Result of Power Spectral Density

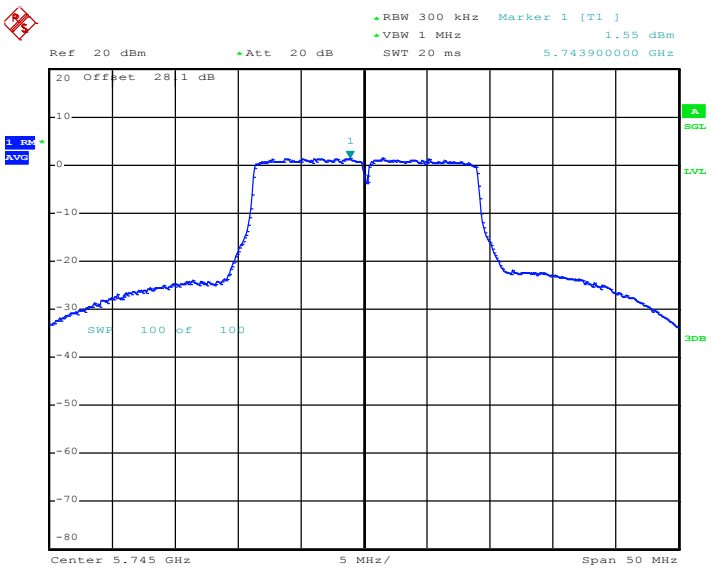
Test Engineer :	Kai Liao	Temperature :	21~25℃
		Relative Humidity :	51~54%

<CDD Modes>

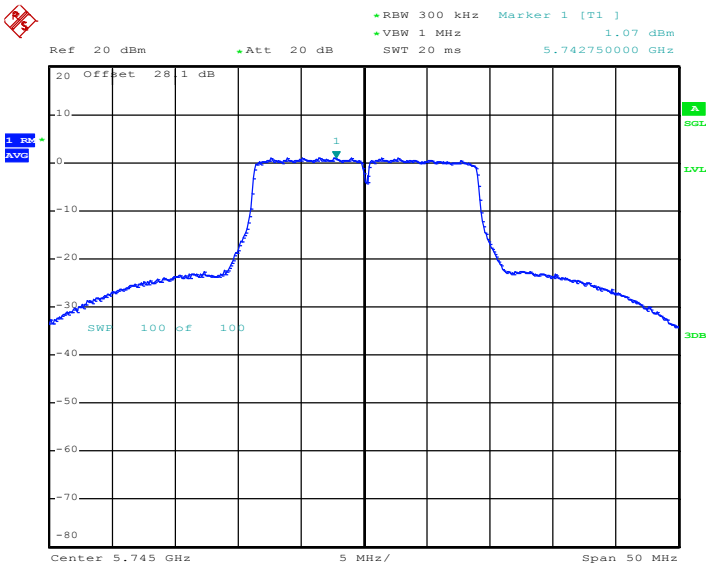
Band IV																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		10log (500kHz /RBW) Factor (dB)		Average Power Density (dBm/500kHz)			Average PSD Limit (dBm/500kHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	149	5745	0.18	0.18	2.22	-	4.23	-		30.00	-	3.78	4.21	Pass
11a	6Mbps	1	157	5785	0.18	0.18	2.22	-	4.58	-		30.00	-	3.78	4.21	Pass
11a	6Mbps	1	165	5825	0.18	0.18	2.22	-	4.93	-		30.00	-	3.78	4.21	Pass
VHT20	MCS0	1	149	5745	0.18	0.18	2.22	-	3.42	-		30.00	-	3.78	4.21	Pass
VHT20	MCS0	1	157	5785	0.18	0.18	2.22	-	4.28	-		30.00	-	3.78	4.21	Pass
VHT20	MCS0	1	165	5825	0.18	0.18	2.22	-	3.48	-		30.00	-	3.78	4.21	Pass
VHT40	MCS0	1	151	5755	0.37	0.37	2.22	-	1.45	-		30.00	-	3.78	4.21	Pass
VHT40	MCS0	1	159	5795	0.37	0.37	2.22	-	1.40	-		30.00	-	3.78	4.21	Pass
VHT80	MCS0	1	155	5775	0.70	0.70	2.22	-	-2.64	-		30.00	-	3.78	4.21	Pass
11a	6Mbps	2	149	5745	0.18	0.18	2.22		3.57	3.49	6.58	28.99		7.01		Pass
11a	6Mbps	2	157	5785	0.18	0.18	2.22		3.39	2.94	6.40	28.99		7.01		Pass
11a	6Mbps	2	165	5825	0.18	0.18	2.22		2.11	1.78	5.12	28.99		7.01		Pass
VHT20	MCS0	2	149	5745	0.18	0.18	2.22		3.95	3.47	**6.96**	28.99		7.01		Pass
VHT20	MCS0	2	157	5785	0.18	0.18	2.22		3.61	2.80	6.62	28.99		7.01		Pass
VHT20	MCS0	2	165	5825	0.18	0.18	2.22		3.10	1.48	6.11	28.99		7.01		Pass
VHT40	MCS0	2	151	5755	0.37	0.37	2.22		0.27	0.32	3.33	28.99		7.01		Pass
VHT40	MCS0	2	159	5795	0.37	0.37	2.22		0.33	-0.30	3.34	28.99		7.01		Pass
VHT80	MCS0	2	155	5775	0.68	0.68	2.22		-3.39	-3.27	-0.26	28.99		7.01		Pass

<CDD Modes>

Worst Case Power Density (dBm/MHz) for MIMO Ant. 1



Worst Case Power Density (dBm/MHz) for MIMO Ant. 2

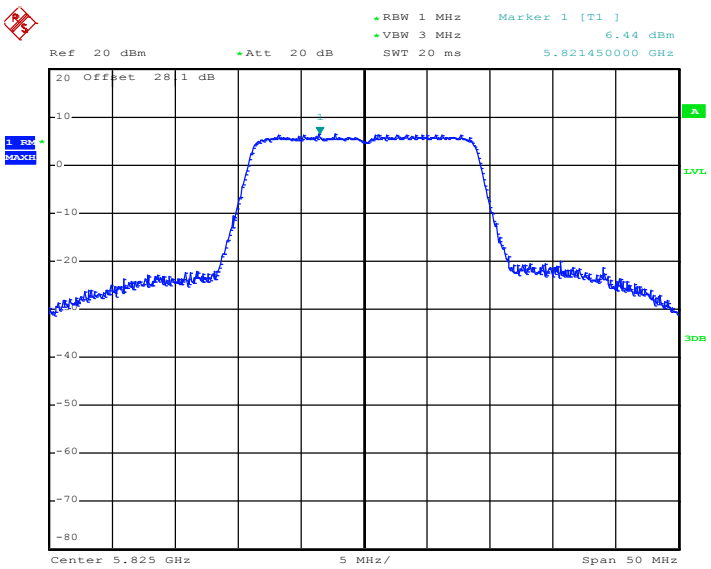


<TXBF Modes>

Band IV																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		10log (500kHz /RBW) Factor (dB)		Average Power Density (dBm/500kHz)			Average PSD Limit (dBm/500kHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
VHT20	MCS0	2	149	5745	0.00	0.00	2.22		8.86	9.01	12.02	28.99		7.01		Pass
VHT20	MCS0	2	157	5785	0.00	0.00	2.22		8.64	8.37	11.65	28.99		7.01		Pass
VHT20	MCS0	2	165	5825	0.00	0.00	2.22		8.66	9.52	**12.53**	28.99		7.01		Pass
VHT40	MCS0	2	151	5755	0.00	0.00	2.22		6.17	6.39	9.40	28.99		7.01		Pass
VHT40	MCS0	2	159	5795	0.00	0.00	2.22		6.37	6.06	9.38	28.99		7.01		Pass
VHT80	MCS0	2	155	5775	0.00	0.00	2.22		3.24	3.32	6.33	28.99		7.01		Pass

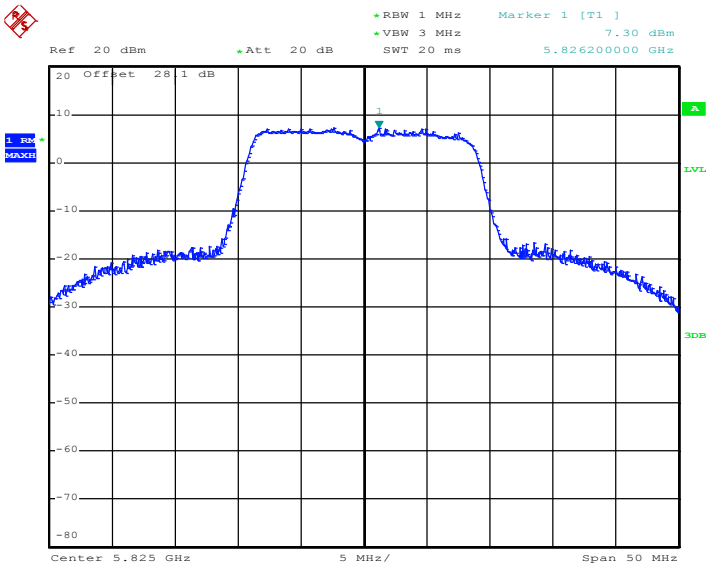
<TXBF Modes>

Worst Case Power Density (dBm/MHz) for MIMO Ant. 1



Date: 22.AUG.2018 22:39:26

Worst Case Power Density (dBm/MHz) for MIMO Ant. 2



Date: 22.AUG.2018 22:39:53

3.4 Unwanted Emissions Measurement

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

3.4.1 Limit of Unwanted Emissions

(1) For transmitters operating in the 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 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) Section 15.407(b)(1) to (b)(3) specify the unwanted emission limits 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.[3]

(ii) Section 15.407(b)(4) specifies the unwanted emission limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are in terms of a Peak detector. 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 devices using the alternative limit.[4]

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).

3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

3.4.3 Test Procedures

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

   (1) Procedure for Unwanted Emissions Measurements Below 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

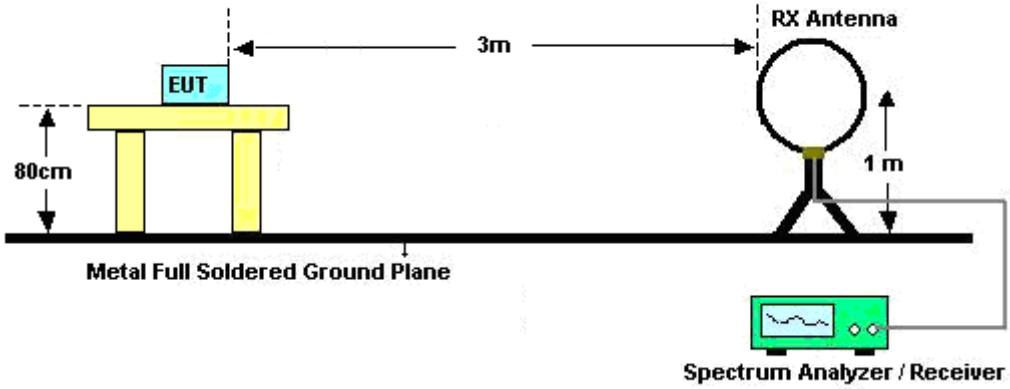
   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

   - 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.

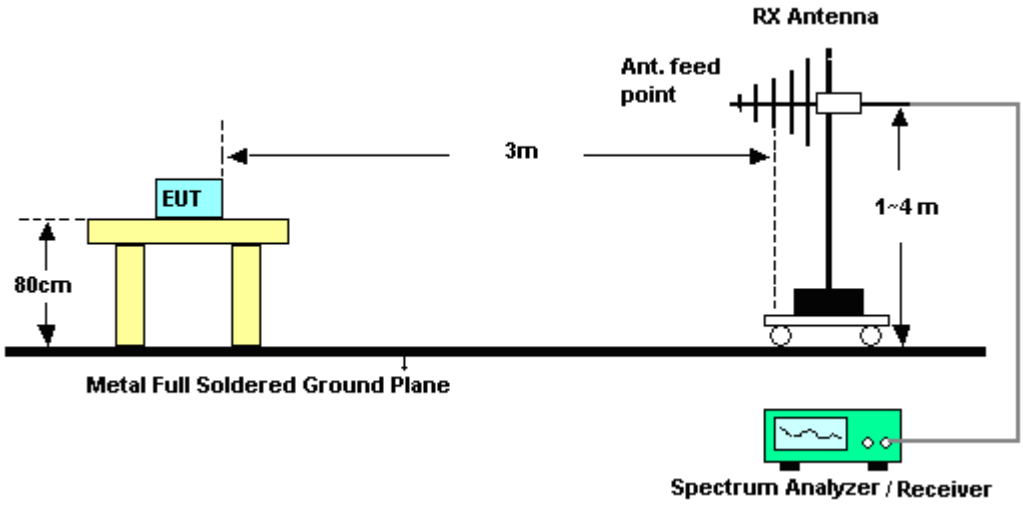
3.4.4 Test Setup

For radiated emissions below 30MHz

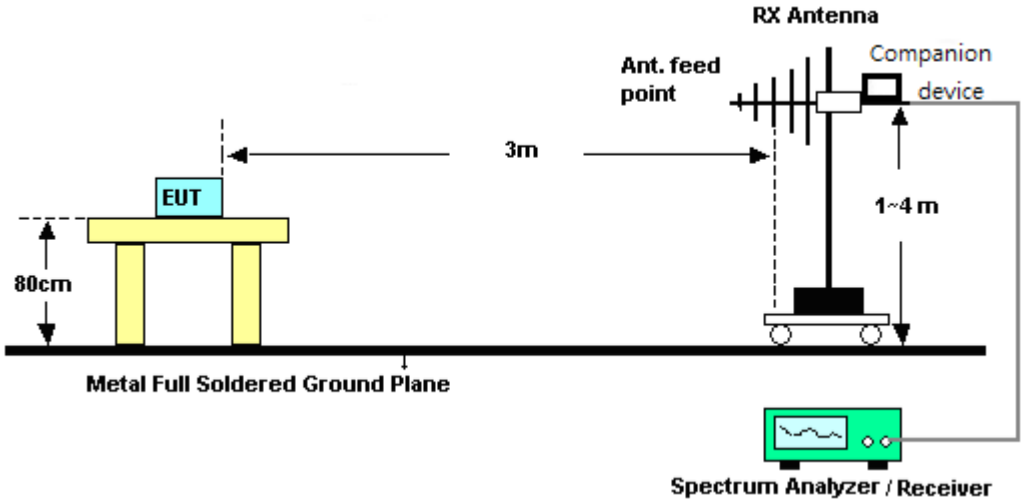


For radiated emissions from 30MHz to 1GHz

<CDD Mode>

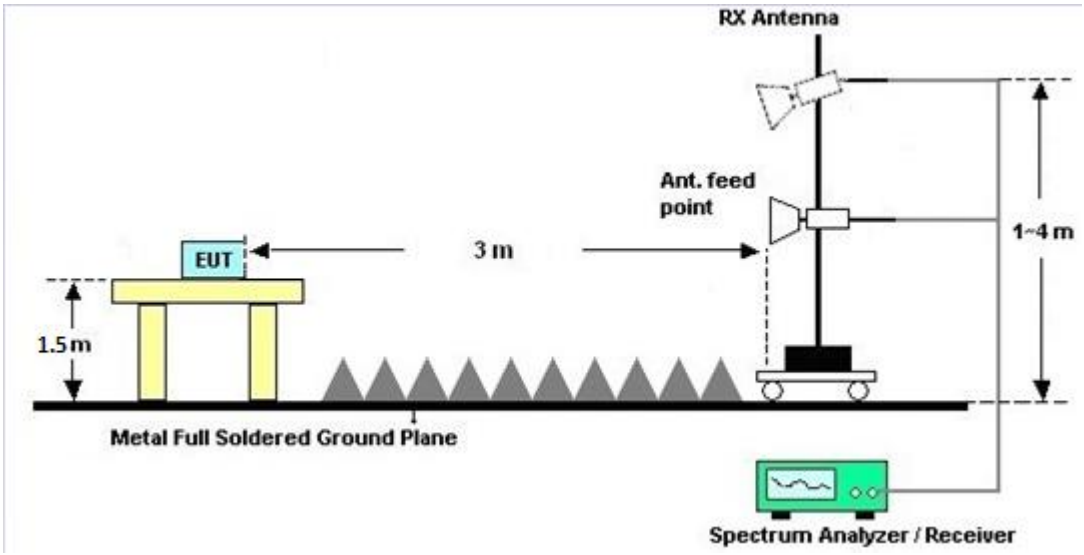


<TXBF Modes>

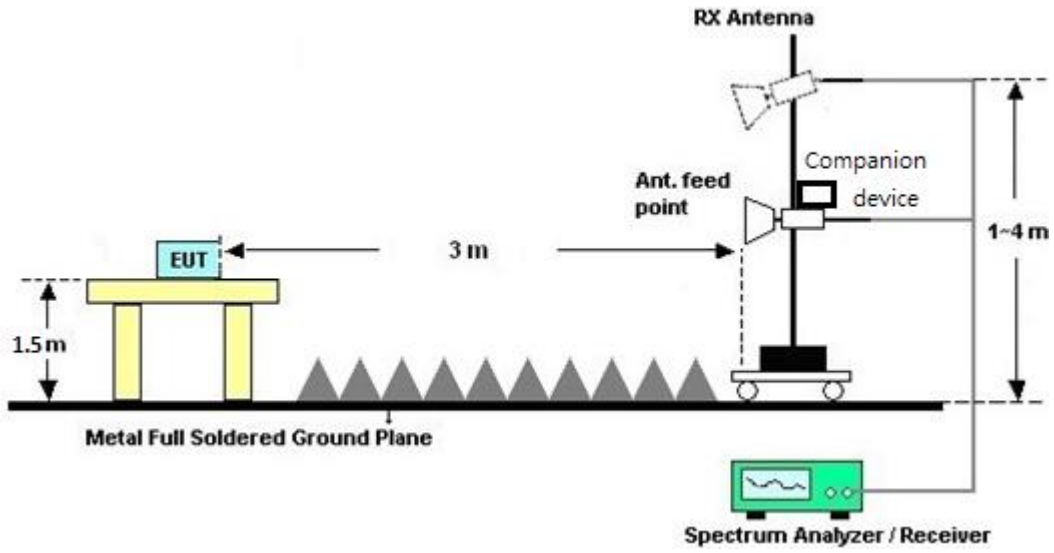


For radiated emissions above 1GHz

<CDD Mode>



<TXBF Modes>



3.4.5 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.

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.

3.4.6 Test Result of Radiated Band Edges

Please refer to Appendix B and C.

3.4.7 Duty Cycle

Please refer to Appendix D.

3.4.8 Test Result of Unwanted Radiated Emission (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.

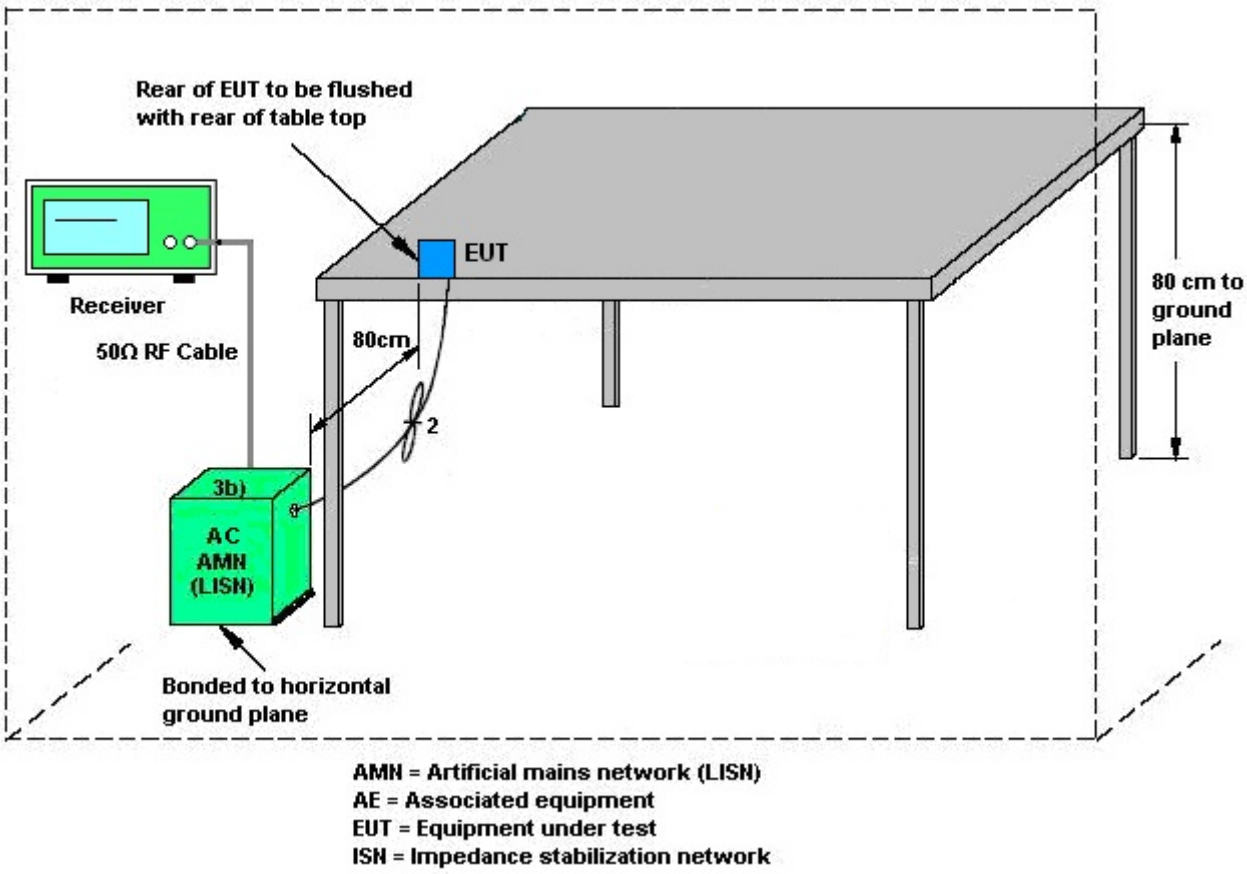
3.5.2 Measuring Instruments

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



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

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

Directional gain = GANT + Array Gain, where Array Gain is as follows.

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

Array Gain = 10 log(NANT/NSS=1) dB.

For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4.

Directional gain may be calculated by using the formulas applicable to equal gain antennas with GANT 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.

<CDD Modes>

	Ant. 1 (dBi)	Ant. 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band IV	3.78	4.21	4.21	7.01	0.00	1.01

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

PSD Limit Reduction = DG(PSD) – 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 kth antenna is being fed by spatial stream j, or zero if it is not;

G_k is the gain in dBi of the kth 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	3.78	4.21	7.01	7.01	1.01	1.01

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	1240001	N/A	Sep. 07, 2017	Jul. 27, 2018~ Sep. 04, 2018	Sep. 06, 2018	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1207349	300MHz~40GHz	Sep. 07, 2017	Jul. 27, 2018~ Sep. 04, 2018	Sep. 06, 2018	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	15I00041SNO10	10MHz~6GHz	May 07, 2018	Jul. 27, 2018~ Sep. 04, 2018	May 06, 2019	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 21, 2017	Jul. 27, 2018~ Sep. 04, 2018	Nov. 20, 2018	Conducted (TH05-HY)
Switch Box & RF Cable	Burgeon	ETF-058	EC1300484	N/A	Mar. 01, 2018	Jul. 27, 2018~ Sep. 04, 2018	Feb.28, 2019	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Aug. 06, 2018	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9KHz~3.6GHz	Dec. 08, 2017	Aug. 06, 2018	Dec. 07, 2018	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 30, 2017	Aug. 06, 2018	Nov. 29, 2018	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Aug. 06, 2018	N/A	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Jan. 03, 2018	Aug. 06, 2018	Jan. 02, 2019	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Jan. 03, 2018	Aug. 06, 2018	Jan. 02, 2019	Conduction (CO05-HY)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 16, 2018	Aug. 07, 2018~ Aug. 27, 2018	Jul. 15, 2019	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Jan. 16, 2018	Aug. 07, 2018~ Aug. 27, 2018	Jan. 15, 2019	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D&N-6-06	35414&AT-N0602	30MHz~1GHz	Oct. 14, 2017	Aug. 07, 2018~ Aug. 27, 2018	Oct. 13, 2018	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1326	1GHz ~ 18GHz	Oct. 16, 2017	Aug. 07, 2018~ Aug. 27, 2018	Oct. 15, 2018	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Nov. 23, 2017	Aug. 07, 2018~ Aug. 27, 2018	Nov. 22, 2018	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Jan. 16, 2018	Aug. 07, 2018~ Aug. 27, 2018	Jan. 15, 2020	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz ~ 44GHz	Oct. 19, 2017	Aug. 07, 2018~ Aug. 27, 2018	Oct. 18, 2018	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Aug. 07, 2018~ Aug. 27, 2018	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Aug. 07, 2018~ Aug. 27, 2018	N/A	Radiation (03CH11-HY)
Preamplifier	Jet-Power	JPA0118-55-303K	1710001800054001	1GHz~18GHz	Apr. 16, 2018	Aug. 07, 2018~ Aug. 27, 2018	Apr. 15, 2019	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 27, 2017	Aug. 07, 2018~ Aug. 27, 2018	Nov. 26, 2018	Radiation (03CH11-HY)
Software	Audix	E3 6.2009-8-24	RK-001042	N/A	N/A	Aug. 07, 2018~ Aug. 27, 2018	N/A	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz-30MHz	Mar. 14, 2018	Aug. 07, 2018~ Aug. 27, 2018	Mar. 13, 2019	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz-40GHz	Mar. 14, 2018	Aug. 07, 2018~ Aug. 27, 2018	Mar. 13, 2019	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	30M-18G	Mar. 14, 2018	Aug. 07, 2018~ Aug. 27, 2018	Mar. 13, 2019	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY4274/2	30MHz-40GHz	Mar. 14, 2018	Aug. 07, 2018~ Aug. 27, 2018	Mar. 13, 2019	Radiation (03CH11-HY)
Filter	Wainwright	WLK4-1000-1530-8000-40SS	SN11	1G Low Pass	Sep. 18, 2017	Aug. 07, 2018~ Aug. 27, 2018	Sep. 17, 2018	Radiation (03CH11-HY)
Filter	Wainwright	WHKX12-2700-3000-18000-60SS	SN3	2.7G High Pass	Sep. 18, 2017	Aug. 07, 2018~ Aug. 27, 2018	Sep. 17, 2018	Radiation (03CH11-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))	**5.20**

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

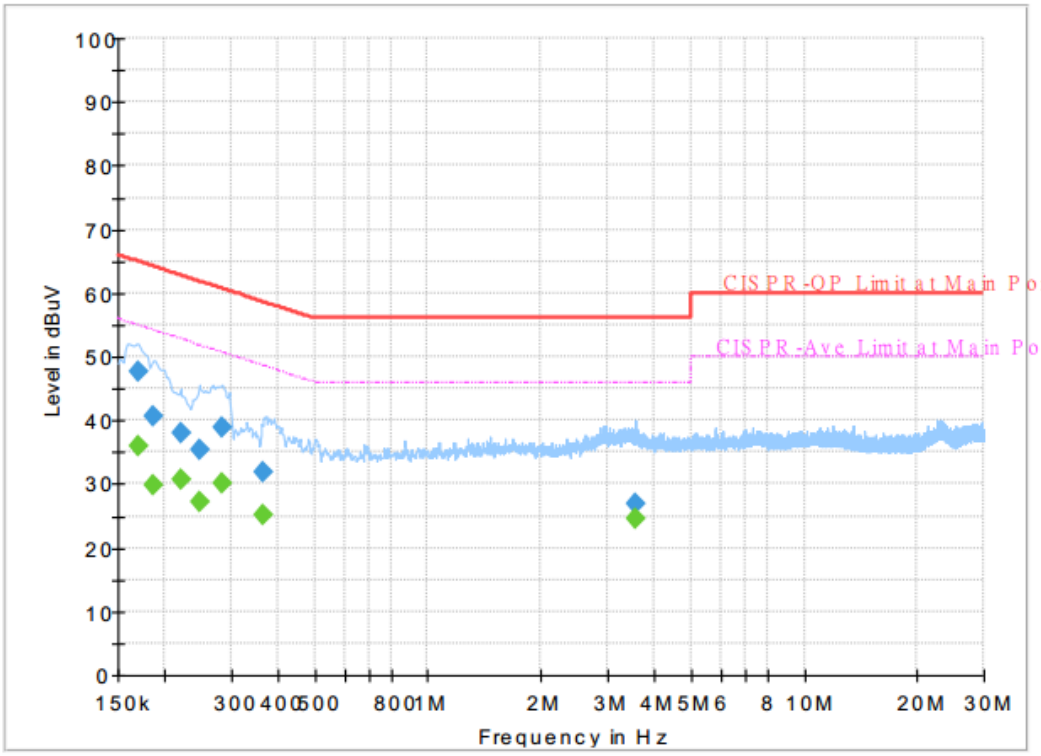
Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.50**

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. AC Conducted Emission Test Results

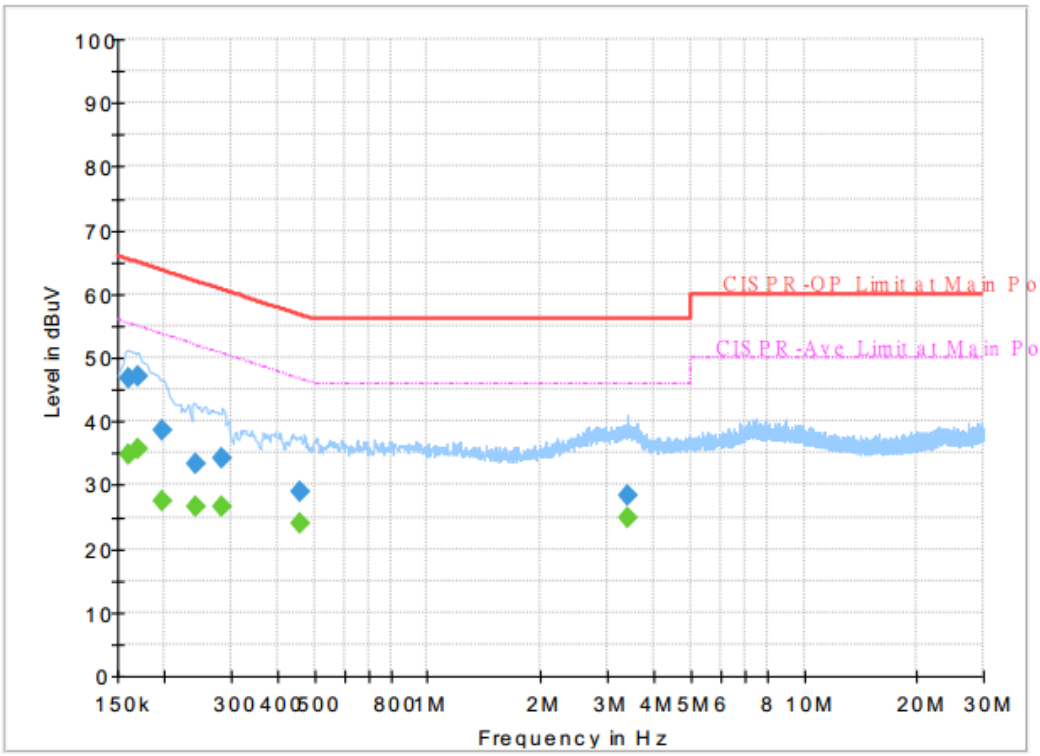
Test Engineer :	Arthur Hsieh	**Temperature :**	21~25℃
		Relative Humidity :	51~55%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.170250	---	35.96	54.95	18.99	L1	OFF	19.5
0.170250	47.52	---	64.95	17.43	L1	OFF	19.5
0.186000	---	29.86	54.21	24.35	L1	OFF	19.5
0.186000	40.51	---	64.21	23.70	L1	OFF	19.5
0.219750	---	30.74	52.83	22.09	L1	OFF	19.5
0.219750	38.03	---	62.83	24.80	L1	OFF	19.5
0.246750	---	27.09	51.87	24.78	L1	OFF	19.5
0.246750	35.34	---	61.87	26.53	L1	OFF	19.5
0.285000	---	30.18	50.67	20.49	L1	OFF	19.5
0.285000	39.02	---	60.67	21.65	L1	OFF	19.5
0.366000	---	25.17	48.59	23.42	L1	OFF	19.5
0.366000	31.78	---	58.59	26.81	L1	OFF	19.5
3.552000	---	24.67	46.00	21.33	L1	OFF	19.7
3.552000	26.98	---	56.00	29.02	L1	OFF	19.7

Test Engineer :	Arthur Hsieh	**Temperature :**	21~25℃
		Relative Humidity :	51~55%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral



Final Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.161250	---	34.78	55.40	20.62	N	OFF	19.5
0.161250	46.81	---	65.40	18.59	N	OFF	19.5
0.170250	---	35.74	54.95	19.21	N	OFF	19.5
0.170250	47.14	---	64.95	17.81	N	OFF	19.5
0.197250	---	27.56	53.73	26.17	N	OFF	19.5
0.197250	38.47	---	63.73	25.26	N	OFF	19.5
0.242250	---	26.68	52.02	25.34	N	OFF	19.5
0.242250	33.46	---	62.02	28.56	N	OFF	19.5
0.285000	---	26.68	50.67	23.99	N	OFF	19.5
0.285000	34.11	---	60.67	26.56	N	OFF	19.5
0.460500	---	23.97	46.68	22.71	N	OFF	19.5
0.460500	28.96	---	56.68	27.72	N	OFF	19.5
3.401250	---	24.91	46.00	21.09	N	OFF	19.7
3.401250	28.40	---	56.00	27.60	N	OFF	19.7

Appendix B. Radiated Spurious Emission

Test Engineer :	Hao Hsu, Ken Wu, and Chuan Zhu	Temperature :	22~25°C
		Relative Humidity :	50~55%

<CDD Mode>

<SKU 1>

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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 155 5775MHz		5650	66.77	-1.43	68.2	57.88	32.38	9.61	33.1	193	40	P	H
		5696.75	77.32	-25.48	102.8	68.25	32.44	9.75	33.12	193	40	P	H
		5713.5	80.71	-28.27	108.98	71.56	32.47	9.81	33.13	193	40	P	H
		5722.5	78.65	-37.85	116.5	69.47	32.5	9.81	33.13	193	40	P	H
	*	5775	109.8	-	-	100.41	32.6	9.95	33.16	193	40	P	H
	*	5775	102.19	-	-	92.8	32.6	9.95	33.16	193	40	A	H
		5851.25	77.83	-41.52	119.35	68.28	32.72	10.02	33.19	193	40	P	H
		5859.75	77.15	-32.32	109.47	67.59	32.75	10.02	33.21	193	40	P	H
		5877.75	70.17	-32.99	103.16	60.58	32.78	10.02	33.21	193	40	P	H
		5935.25	56.6	-11.6	68.2	46.94	32.88	10.02	33.24	193	40	P	H
		5647.25	57.96	-10.24	68.2	49.1	32.35	9.61	33.1	105	37	P	V
		5696.25	70.64	-31.8	102.44	61.57	32.44	9.75	33.12	105	37	P	V
		5713.25	72.61	-36.3	108.91	63.46	32.47	9.81	33.13	105	37	P	V
		5722.25	73.02	-42.91	115.93	63.84	32.5	9.81	33.13	105	37	P	V
	*	5775	103.29	-	-	93.9	32.6	9.95	33.16	105	37	P	V
	*	5775	97.09	-	-	87.7	32.6	9.95	33.16	105	37	A	V
		5851.5	71.63	-47.15	118.78	62.08	32.72	10.02	33.19	105	37	P	V
		5859	69.5	-40.18	109.68	59.94	32.75	10.02	33.21	105	37	P	V
		5880.5	62.78	-38.33	101.11	53.19	32.78	10.02	33.21	105	37	P	V
		5925.75	51.58	-16.62	68.2	41.91	32.88	10.02	33.23	105	37	P	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+2	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)
		11550	44.87	-29.13	74	50.68	39.9	15.76	61.47	100	0	P	H
		17325	47.13	-21.07	68.2	43.85	40.84	19.66	57.22	100	0	P	H
802.11ac													H
VHT80													H
CH 155		11550	45.13	-28.87	74	50.94	39.9	15.76	61.47	100	0	P	V
5775MHz		17325	46.35	-21.85	68.2	43.07	40.84	19.66	57.22	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

WIFI 802.11ac VHT80 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 LF		107.76	29.6	-13.9	43.5	44.14	16.51	1.42	32.47	-	-	P	H
		122.34	30.81	-12.69	43.5	44.44	17.28	1.55	32.46	100	0	P	H
		160.68	29.99	-13.51	43.5	44.53	16.18	1.71	32.43	-	-	P	H
		430.2	25.11	-20.89	46	32.12	22.66	2.68	32.35	-	-	P	H
		662.6	28.47	-17.53	46	31.39	26.24	3.31	32.47	-	-	P	H
		884.5	31.33	-14.67	46	30.1	29.08	3.89	31.74	-	-	P	H
													H
													H
													H
													H
													H
													H
		37.56	36.83	-3.17	40	48.23	20.26	0.83	32.49	100	0	P	V
		74.55	27.21	-12.79	40	46.02	12.44	1.24	32.49	-	-	P	V
		136.65	27.57	-15.93	43.5	41.27	17.18	1.57	32.45	-	-	P	V
		496.7	24.52	-21.48	46	30.36	23.65	2.89	32.38	-	-	P	V
		776	30.64	-15.36	46	31.27	27.98	3.64	32.25	-	-	P	V
		953.1	33.48	-12.52	46	29.82	30.76	4.07	31.17	-	-	P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

<SKU 2>

Band 4 - 5725~5850MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5649.5	63.38	-4.82	68.2	54.49	32.38	9.61	33.1	103	44	P	H
		5699.5	73.19	-31.64	104.83	64.12	32.44	9.75	33.12	103	44	P	H
		5703.75	75.68	-30.57	106.25	66.58	32.47	9.75	33.12	103	44	P	H
		5724.25	72.99	-47.5	120.49	63.81	32.5	9.81	33.13	103	44	P	H
	*	5775	105.58	-	-	96.19	32.6	9.95	33.16	103	44	P	H
	*	5775	97.49	-	-	88.1	32.6	9.95	33.16	103	44	A	H
		5850	71.39	-50.81	122.2	61.84	32.72	10.02	33.19	103	44	P	H
		5858.5	70.89	-38.93	109.82	61.33	32.75	10.02	33.21	103	44	P	H
		5880	65.91	-35.58	101.49	56.32	32.78	10.02	33.21	103	44	P	H
		5943	51.83	-16.37	68.2	42.14	32.91	10.02	33.24	103	44	P	H
802.11ac													H
VHT80													H
CH 155		5647.75	62.5	-5.7	68.2	53.64	32.35	9.61	33.1	100	269	P	V
5775MHz		5691.5	70.72	-28.21	98.93	61.65	32.44	9.75	33.12	100	269	P	V
		5719.75	73.71	-37.02	110.73	64.53	32.5	9.81	33.13	100	269	P	V
		5720.25	75.41	-35.96	111.37	66.23	32.5	9.81	33.13	100	269	P	V
	*	5775	103.41	-	-	94.02	32.6	9.95	33.16	100	269	P	V
	*	5775	96.21	-	-	86.82	32.6	9.95	33.16	100	269	A	V
		5850.5	68.02	-53.04	121.06	58.47	32.72	10.02	33.19	100	269	P	V
		5860.5	69.03	-40.23	109.26	59.47	32.75	10.02	33.21	100	269	P	V
		5875.25	62.16	-42.85	105.01	52.57	32.78	10.02	33.21	100	269	P	V
		5933.5	51.57	-16.63	68.2	41.9	32.88	10.02	33.23	100	269	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+2	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)
		11550	45.6	-28.4	74	51.41	39.9	15.76	61.47	100	0	P	H
		17325	46.05	-22.15	68.2	42.77	40.84	19.66	57.22	100	0	P	H
802.11ac													H
VHT80													H
CH 155		11550	45.56	-28.44	74	51.37	39.9	15.76	61.47	100	0	P	V
5775MHz		17325	46.48	-21.72	68.2	43.2	40.84	19.66	57.22	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

WIFI 802.11ac VHT80 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 LF		36.48	25.13	-14.87	40	36.01	20.79	0.82	32.49	-	-	P	H
		159.87	30.63	-12.87	43.5	45.07	16.28	1.71	32.43	100	0	P	H
		250.86	22.45	-23.55	46	34.08	18.59	2.16	32.38	-	-	P	H
		425.3	24.69	-21.31	46	31.76	22.59	2.68	32.34	-	-	P	H
		591.2	26.94	-19.06	46	30.8	25.42	3.17	32.45	-	-	P	H
		888.7	31.23	-14.77	46	30.01	29.05	3.89	31.72	-	-		H
													H
													H
													H
													H
													H
													H
		37.83	36.64	-3.36	40	48.04	20.26	0.83	32.49	100	0	P	V
		62.94	35.15	-4.85	40	54.97	11.64	1.03	32.49	-	-	P	V
		77.52	29.47	-10.53	40	47.91	12.81	1.23	32.48	-	-	P	V
		395.2	22.35	-23.65	46	30.57	21.49	2.62	32.33	-	-	P	V
		736.8	29.13	-16.87	46	30.36	27.6	3.53	32.36	-	-	P	V
		949.6	33.15	-12.85	46	29.8	30.56	3.99	31.2	-	-	P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

<SKU 3>

Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5640	54.54	-13.66	68.2	45.68	32.35	9.61	33.1	100	321	P	H
		5699.8	62.42	-42.63	105.05	53.35	32.44	9.75	33.12	100	321	P	H
		5714.4	71.95	-37.28	109.23	62.8	32.47	9.81	33.13	100	321	P	H
		5723.8	83.08	-36.38	119.46	73.9	32.5	9.81	33.13	100	321	P	H
	*	5745	113.07	-	-	103.81	32.53	9.88	33.15	100	321	P	H
	*	5745	104.87	-	-	95.61	32.53	9.88	33.15	100	321	A	H
													H
802.11a													H
CH 149		5647.2	51	-17.2	68.2	42.14	32.35	9.61	33.1	100	303	P	V
5745MHz		5698.2	60.86	-43.01	103.87	51.79	32.44	9.75	33.12	100	303	P	V
		5718.2	69.19	-41.11	110.3	60.01	32.5	9.81	33.13	100	303	P	V
		5724.8	76.07	-45.67	121.74	66.89	32.5	9.81	33.13	100	303	P	V
	*	5745	109.43	-	-	100.17	32.53	9.88	33.15	100	303	P	V
	*	5745	100.97	-	-	91.71	32.53	9.88	33.15	100	303	A	V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5629	51.66	-16.54	68.2	42.83	32.32	9.61	33.1	104	324	P	H
		5687	53.48	-42.13	95.61	44.41	32.44	9.75	33.12	104	324	P	H
		5717.5	56.45	-53.65	110.1	47.27	32.5	9.81	33.13	104	324	P	H
		5724.25	59.1	-61.39	120.49	49.92	32.5	9.81	33.13	104	324	P	H
	*	5785	112.04	-	-	102.6	32.6	10.01	33.17	104	324	P	H
	*	5785	103.64	-	-	94.2	32.6	10.01	33.17	104	324	A	H
		5852.25	53.5	-63.57	117.07	43.95	32.72	10.02	33.19	104	324	P	H
		5861.25	54.22	-54.83	109.05	44.66	32.75	10.02	33.21	104	324	P	H
		5875	51.6	-53.6	105.2	42.01	32.78	10.02	33.21	104	324	P	H
		5930.25	50.23	-17.97	68.2	40.56	32.88	10.02	33.23	104	324	P	H
													H
802.11a CH 157 5785MHz													H
		5647.75	51.1	-17.1	68.2	42.24	32.35	9.61	33.1	114	327	P	V
		5679.75	50.01	-40.24	90.25	40.97	32.41	9.75	33.12	114	327	P	V
		5719.25	52.9	-57.69	110.59	43.72	32.5	9.81	33.13	114	327	P	V
		5724.5	54	-67.06	121.06	44.82	32.5	9.81	33.13	114	327	P	V
	*	5785	106.49	-	-	97.05	32.6	10.01	33.17	114	327	P	V
	*	5785	98.47	-	-	89.03	32.6	10.01	33.17	114	327	A	V
		5851.25	50.14	-69.21	119.35	40.59	32.72	10.02	33.19	114	327	P	V
		5861	52.22	-56.9	109.12	42.66	32.75	10.02	33.21	114	327	P	V
		5895.25	49.28	-40.9	90.18	39.67	32.81	10.02	33.22	114	327	P	V
		5945.5	50.79	-17.41	68.2	41.1	32.91	10.02	33.24	114	327	P	V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
	*	5825	110.32	-	-	100.79	32.69	10.02	33.18	104	321	P	H
	*	5825	102.1	-	-	92.57	32.69	10.02	33.18	104	321	A	H
		5850.6	68.99	-51.84	120.83	59.44	32.72	10.02	33.19	104	321	P	H
		5855.4	66.3	-44.39	110.69	56.72	32.75	10.02	33.19	104	321	P	H
		5876.2	55.51	-48.8	104.31	45.92	32.78	10.02	33.21	104	321	P	H
		5933.4	50.41	-17.79	68.2	40.74	32.88	10.02	33.23	104	321	P	H
													H
802.11a													H
CH 165	*	5825	106.91	-	-	97.38	32.69	10.02	33.18	100	241	P	V
5825MHz	*	5825	98.37	-	-	88.84	32.69	10.02	33.18	100	241	A	V
		5850.6	66.28	-54.55	120.83	56.73	32.72	10.02	33.19	100	241	P	V
		5857.6	61.44	-48.63	110.07	51.86	32.75	10.02	33.19	100	241	P	V
		5875	53.54	-51.66	105.2	43.95	32.78	10.02	33.21	100	241	P	V
		5939.6	49.83	-18.37	68.2	40.14	32.91	10.02	33.24	100	241	P	V
													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 802.11a (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 149 5745MHz		11490	46.4	-27.6	74	52.08	40	15.72	61.4	100	0	P	H
		17235	47.52	-20.68	68.2	44.89	40.54	19.6	57.51	100	0	P	H
													H
													H
		11490	46.5	-27.5	74	52.18	40	15.72	61.4	100	0	P	V
		17235	47.96	-20.24	68.2	45.33	40.54	19.6	57.51	100	0	P	V
													V
													V
802.11a CH 157 5785MHz		11570	46.7	-27.3	74	52.57	39.86	15.77	61.5	100	0	P	H
		17355	47.28	-20.92	68.2	43.75	40.96	19.68	57.11	100	0	P	H
													H
													H
		11570	45.95	-28.05	74	51.82	39.86	15.77	61.5	100	0	P	V
		17355	47.8	-20.4	68.2	44.27	40.96	19.68	57.11	100	0	P	V
													V
													V
802.11a CH 165 5825MHz		11650	45.86	-28.14	74	51.89	39.72	15.84	61.59	100	0	P	H
		17475	49.24	-18.96	68.2	44.82	41.38	19.75	56.71	100	0	P	H
													H
													H
		11650	45.76	-28.24	74	51.79	39.72	15.84	61.59	100	0	P	V
		17475	49.36	-18.84	68.2	44.94	41.38	19.75	56.71	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 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)
		5649.6	55.03	-13.17	68.2	46.14	32.38	9.61	33.1	100	321	P	H
		5699.8	67.31	-37.74	105.05	58.24	32.44	9.75	33.12	100	321	P	H
		5720	75.29	-35.51	110.8	66.11	32.5	9.81	33.13	100	321	P	H
		5724.4	86.05	-34.78	120.83	76.87	32.5	9.81	33.13	100	321	P	H
	*	5745	113.33	-	-	104.07	32.53	9.88	33.15	100	321	P	H
	*	5745	104.77	-	-	95.51	32.53	9.88	33.15	100	321	A	H
802.11ac													H
VHT20													H
CH 149		5648.2	51.2	-17	68.2	42.34	32.35	9.61	33.1	100	303	P	V
5745MHz		5697.6	62.07	-41.36	103.43	53	32.44	9.75	33.12	100	303	P	V
		5719.8	72.85	-37.89	110.74	63.67	32.5	9.81	33.13	100	303	P	V
		5724.8	83.11	-38.63	121.74	73.93	32.5	9.81	33.13	100	303	P	V
	*	5745	109.97	-	-	100.71	32.53	9.88	33.15	100	303	P	V
	*	5745	101.45	-	-	92.19	32.53	9.88	33.15	100	303	A	V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5642.25	52.37	-15.83	68.2	43.51	32.35	9.61	33.1	100	319	P	H
		5690	53.16	-44.67	97.83	44.09	32.44	9.75	33.12	100	319	P	H
		5719.5	57	-53.66	110.66	47.82	32.5	9.81	33.13	100	319	P	H
		5723.5	60.34	-58.44	118.78	51.16	32.5	9.81	33.13	100	319	P	H
	*	5785	111.64	-	-	102.2	32.6	10.01	33.17	100	319	P	H
	*	5785	103.53	-	-	94.09	32.6	10.01	33.17	100	319	A	H
		5851.75	53.05	-65.16	118.21	43.5	32.72	10.02	33.19	100	319	P	H
		5855.25	52.16	-58.57	110.73	42.58	32.75	10.02	33.19	100	319	P	H
		5877.75	50.85	-52.31	103.16	41.26	32.78	10.02	33.21	100	319	P	H
		5931.5	50.02	-18.18	68.2	40.35	32.88	10.02	33.23	100	319	P	H
802.11ac													H
VHT20													H
CH 157		5636.75	50.18	-18.02	68.2	41.32	32.35	9.61	33.1	100	302	P	V
5785MHz		5695.25	49.99	-51.71	101.7	40.92	32.44	9.75	33.12	100	302	P	V
		5717.75	52.1	-58.07	110.17	42.92	32.5	9.81	33.13	100	302	P	V
		5723	55.52	-62.12	117.64	46.34	32.5	9.81	33.13	100	302	P	V
	*	5785	108.18	-	-	98.74	32.6	10.01	33.17	100	302	P	V
	*	5785	99.46	-	-	90.02	32.6	10.01	33.17	100	302	A	V
		5854.5	51.59	-60.35	111.94	42.01	32.75	10.02	33.19	100	302	P	V
		5856.75	51.27	-59.04	110.31	41.69	32.75	10.02	33.19	100	302	P	V
		5908.5	50.44	-29.94	80.38	40.8	32.84	10.02	33.22	100	302	P	V
		5931	49.78	-18.42	68.2	40.11	32.88	10.02	33.23	100	302	P	V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
	*	5825	111.02	-	-	101.49	32.69	10.02	33.18	107	319	P	H
	*	5825	102.12	-	-	92.59	32.69	10.02	33.18	107	319	A	H
		5850.6	73.73	-47.1	120.83	64.18	32.72	10.02	33.19	107	319	P	H
		5855	67	-43.8	110.8	57.42	32.75	10.02	33.19	107	319	P	H
		5875.8	55.53	-49.08	104.61	45.94	32.78	10.02	33.21	107	319	P	H
		5931.6	49.49	-18.71	68.2	39.82	32.88	10.02	33.23	107	319	P	H
802.11ac													H
VHT20													H
CH 165	*	5825	106.63	-	-	97.1	32.69	10.02	33.18	100	241	P	V
5825MHz	*	5825	98.19	-	-	88.66	32.69	10.02	33.18	100	241	A	V
		5850.4	69.3	-51.99	121.29	59.75	32.72	10.02	33.19	100	241	P	V
		5856.4	62.42	-47.99	110.41	52.84	32.75	10.02	33.19	100	241	P	V
		5875.2	52.63	-52.42	105.05	43.04	32.78	10.02	33.21	100	241	P	V
		5925	49.29	-18.91	68.2	39.62	32.88	10.02	33.23	100	241	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 (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)
		11490	45.23	-28.77	74	50.91	40	15.72	61.4	100	0	P	H
		17235	47.58	-20.62	68.2	44.95	40.54	19.6	57.51	100	0	P	H
802.11ac													H
VHT20													H
CH 149		11490	46.36	-27.64	74	52.04	40	15.72	61.4	100	0	P	V
5745MHz		17235	48.2	-20	68.2	45.57	40.54	19.6	57.51	100	0	P	V
													V
													V
		11570	46.09	-27.91	74	51.96	39.86	15.77	61.5	100	0	P	H
		17355	47.81	-20.39	68.2	44.28	40.96	19.68	57.11	100	0	P	H
802.11ac													H
VHT20													H
CH 157		11570	46.21	-27.79	74	52.08	39.86	15.77	61.5	100	0	P	V
5785MHz		17355	47.12	-21.08	68.2	43.59	40.96	19.68	57.11	100	0	P	V
													V
													V
		11650	46.06	-27.94	74	52.09	39.72	15.84	61.59	100	0	P	H
		17475	48.95	-19.25	68.2	44.53	41.38	19.75	56.71	100	0	P	H
802.11ac													H
VHT20													H
CH 165		11650	45.62	-28.38	74	51.65	39.72	15.84	61.59	100	0	P	V
5825MHz		17475	48.65	-19.55	68.2	44.23	41.38	19.75	56.71	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5638.75	60.89	-7.31	68.2	52.03	32.35	9.61	33.1	100	317	P	H
		5697.25	74.78	-28.39	103.17	65.71	32.44	9.75	33.12	100	317	P	H
		5719	87.21	-23.31	110.52	78.03	32.5	9.81	33.13	100	317	P	H
		5721.25	86.19	-27.46	113.65	77.01	32.5	9.81	33.13	100	317	P	H
	*	5755	110.1	-	-	100.8	32.57	9.88	33.15	100	317	P	H
	*	5755	101.5	-	-	92.2	32.57	9.88	33.15	100	317	A	H
		5851.75	57.37	-60.84	118.21	47.82	32.72	10.02	33.19	100	317	P	H
		5858.75	57.11	-52.64	109.75	47.55	32.75	10.02	33.21	100	317	P	H
		5882.25	54.62	-45.2	99.82	45.03	32.78	10.02	33.21	100	317	P	H
		5938.75	50.45	-17.75	68.2	40.76	32.91	10.02	33.24	100	317	P	H
802.11ac													H
VHT40													H
CH 151		5647.75	57.91	-10.29	68.2	49.05	32.35	9.61	33.1	100	302	P	V
5755MHz		5699.25	72.05	-32.6	104.65	62.98	32.44	9.75	33.12	100	302	P	V
		5716.75	81.38	-28.51	109.89	72.23	32.47	9.81	33.13	100	302	P	V
		5724	85.09	-34.83	119.92	75.91	32.5	9.81	33.13	100	302	P	V
	*	5755	106.72	-	-	97.42	32.57	9.88	33.15	100	302	P	V
	*	5755	98.1	-	-	88.8	32.57	9.88	33.15	100	302	A	V
		5850	53.43	-68.77	122.2	43.88	32.72	10.02	33.19	100	302	P	V
		5855	52.97	-57.83	110.8	43.39	32.75	10.02	33.19	100	302	P	V
		5876.5	52.7	-51.39	104.09	43.11	32.78	10.02	33.21	100	302	P	V
		5946.25	49.23	-18.97	68.2	39.54	32.91	10.02	33.24	100	302	P	V
													V
													V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5645	56.39	-11.81	68.2	47.53	32.35	9.61	33.1	100	321	P	H
		5699.5	63.85	-40.98	104.83	54.78	32.44	9.75	33.12	100	321	P	H
		5720	67.45	-43.35	110.8	58.27	32.5	9.81	33.13	100	321	P	H
		5722.25	67.61	-48.32	115.93	58.43	32.5	9.81	33.13	100	321	P	H
	*	5795	108.87	-	-	99.4	32.63	10.01	33.17	100	321	P	H
	*	5795	100.44	-	-	90.97	32.63	10.01	33.17	100	321	A	H
		5852	69.92	-47.72	117.64	60.37	32.72	10.02	33.19	100	321	P	H
		5861.5	68.21	-40.77	108.98	58.65	32.75	10.02	33.21	100	321	P	H
		5876.5	60.04	-44.05	104.09	50.45	32.78	10.02	33.21	100	321	P	H
		5928.5	52.15	-16.05	68.2	42.48	32.88	10.02	33.23	100	321	P	H
802.11ac													H
VHT40													H
CH 159		5649.75	52.95	-15.25	68.2	44.06	32.38	9.61	33.1	100	303	P	V
5795MHz		5696.5	56.27	-46.35	102.62	47.2	32.44	9.75	33.12	100	303	P	V
		5719.25	63.49	-47.1	110.59	54.31	32.5	9.81	33.13	100	303	P	V
		5724.5	64.19	-56.87	121.06	55.01	32.5	9.81	33.13	100	303	P	V
	*	5795	104.97	-	-	95.5	32.63	10.01	33.17	100	303	P	V
	*	5795	96.37	-	-	86.9	32.63	10.01	33.17	100	303	A	V
		5853.25	64.5	-50.29	114.79	54.95	32.72	10.02	33.19	100	303	P	V
		5859.75	63.88	-45.59	109.47	54.32	32.75	10.02	33.21	100	303	P	V
		5880.25	57.01	-44.29	101.3	47.42	32.78	10.02	33.21	100	303	P	V
		5941.5	51.42	-16.78	68.2	41.73	32.91	10.02	33.24	100	303	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11510	45.99	-28.01	74	51.66	40	15.73	61.4	100	0	P	H
		17265	47.58	-20.62	68.2	44.69	40.66	19.62	57.39	100	0	P	H
802.11ac													H
VHT40													H
CH 151		11510	46.43	-27.57	74	52.1	40	15.73	61.4	100	0	P	V
5755MHz		17265	47.52	-20.68	68.2	44.63	40.66	19.62	57.39	100	0	P	V
													V
													V
		11590	45.82	-28.18	74	51.72	39.83	15.79	61.52	100	0	P	H
		17385	47.84	-20.36	68.2	44.07	41.08	19.69	57	100	0	P	H
802.11ac													H
VHT40													H
CH 159		11590	46.52	-27.48	74	52.42	39.83	15.79	61.52	100	0	P	V
5795MHz		17385	46.84	-21.36	68.2	43.07	41.08	19.69	57	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5636.5	65.23	-2.97	68.2	56.37	32.35	9.61	33.1	100	320	P	H
		5699.75	76.19	-28.83	105.02	67.12	32.44	9.75	33.12	100	320	P	H
		5714.25	80.66	-28.53	109.19	71.51	32.47	9.81	33.13	100	320	P	H
		5720	80.27	-30.53	110.8	71.09	32.5	9.81	33.13	100	320	P	H
	*	5775	104.67	-	-	95.28	32.6	9.95	33.16	100	320	P	H
	*	5775	97.29	-	-	87.9	32.6	9.95	33.16	100	320	A	H
		5851.25	73.89	-45.46	119.35	64.34	32.72	10.02	33.19	100	320	P	H
		5860	71.79	-37.61	109.4	62.23	32.75	10.02	33.21	100	320	P	H
		5876	63.9	-40.56	104.46	54.31	32.78	10.02	33.21	100	320	P	H
		5936.75	53.26	-14.94	68.2	43.6	32.88	10.02	33.24	100	320	P	H
802.11ac													H
VHT80													H
CH 155		5648	61.97	-6.23	68.2	53.11	32.35	9.61	33.1	100	301	P	V
5775MHz		5691	73.56	-25	98.56	64.49	32.44	9.75	33.12	100	301	P	V
		5716.5	76.04	-33.78	109.82	66.89	32.47	9.81	33.13	100	301	P	V
		5721	74.95	-38.13	113.08	65.77	32.5	9.81	33.13	100	301	P	V
	*	5775	101.31	-	-	91.92	32.6	9.95	33.16	100	301	P	V
	*	5775	93.9	-	-	84.51	32.6	9.95	33.16	100	301	A	V
		5853.75	68.85	-44.8	113.65	59.27	32.75	10.02	33.19	100	301	P	V
		5857.25	67.22	-42.95	110.17	57.64	32.75	10.02	33.19	100	301	P	V
		5879	61.11	-41.12	102.23	51.52	32.78	10.02	33.21	100	301	P	V
		5925.75	50.82	-17.38	68.2	41.15	32.88	10.02	33.23	100	301	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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11550	45.78	-28.22	74	51.59	39.9	15.76	61.47	100	0	P	H
		17325	48.29	-19.91	68.2	45.01	40.84	19.66	57.22	100	0	P	H
802.11ac													H
VHT80													H
CH 155		11550	45.97	-28.03	74	51.78	39.9	15.76	61.47	100	0	P	V
5775MHz		17325	47.46	-20.74	68.2	44.18	40.84	19.66	57.22	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 VHT80 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		64.83	27.01	-12.99	40	46.73	11.74	1.03	32.49	-	-	P	H
		122.61	31.42	-12.08	43.5	45.05	17.28	1.55	32.46	100	0	P	H
		162.03	28.22	-15.28	43.5	42.85	16.08	1.71	32.42	-	-	P	H
		503.7	24.72	-21.28	46	30.5	23.71	2.89	32.38	-	-	P	H
		722.8	29.2	-16.8	46	31.09	26.98	3.53	32.4	-	-	P	H
		934.9	33.09	-12.91	46	30.57	29.87	3.99	31.34	-	-	P	H
													H
													H
													H
													H
5GHz													H
802.11ac													H
VHT80		36.48	36.95	-3.05	40	47.83	20.79	0.82	32.49	100	0	P	V
LF		37.56	36.63	-3.37	40	48.03	20.26	0.83	32.49	-	-	P	V
		42.42	35.62	-4.38	40	49.68	17.61	0.82	32.49	-	-	P	V
		459.6	24.19	-21.81	46	30.59	23.15	2.81	32.36	-	-	P	V
		639.5	27.74	-18.26	46	30.65	26.3	3.25	32.46	-	-	P	V
		928.6	31.94	-14.06	46	29.72	29.62	3.99	31.39	-	-	P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5644.8	52.08	-16.12	68.2	43.22	32.35	9.61	33.1	301	34	P	H
		5698.2	67.73	-36.14	103.87	58.66	32.44	9.75	33.12	301	34	P	H
		5720	75.93	-34.87	110.8	66.75	32.5	9.81	33.13	301	34	P	H
		5723.2	83.7	-34.4	118.1	74.52	32.5	9.81	33.13	301	34	P	H
	*	5745	113.86	-	-	104.6	32.53	9.88	33.15	301	34	P	H
	*	5745	106.29	-	-	97.03	32.53	9.88	33.15	301	34	A	H
													H
													H
		5631.8	50.02	-18.18	68.2	41.19	32.32	9.61	33.1	100	35	P	V
		5698.8	63.84	-40.48	104.32	54.77	32.44	9.75	33.12	100	35	P	V
		5718.4	74.48	-35.87	110.35	65.3	32.5	9.81	33.13	100	35	P	V
		5725	82.79	-39.41	122.2	73.61	32.5	9.81	33.13	100	35	P	V
	*	5746	112.51	-	-	103.25	32.53	9.88	33.15	100	35	P	V
	*	5746	105.16	-	-	95.9	32.53	9.88	33.15	100	35	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 802.11a (Harmonic @ 3m)

WIFI Ant. 2	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 149 5745MHz		11490	46.55	-27.45	74	52.23	40	15.72	61.4	100	0	P	H
		17235	53.86	-14.34	68.2	51.23	40.54	19.6	57.51	100	0	P	H
													H
													H
		11490	45.86	-28.14	74	51.54	40	15.72	61.4	100	0	P	V
		17235	52.78	-15.42	68.2	50.15	40.54	19.6	57.51	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 Ant. 2	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)
		5648.2	51.53	-16.67	68.2	42.67	32.35	9.61	33.1	301	20	P	H
		5699.8	65.13	-39.92	105.05	56.06	32.44	9.75	33.12	301	20	P	H
		5719.6	77.04	-33.65	110.69	67.86	32.5	9.81	33.13	301	20	P	H
		5724.4	83.23	-37.6	120.83	74.05	32.5	9.81	33.13	301	20	P	H
	*	5745	113.35	-	-	104.09	32.53	9.88	33.15	301	20	P	H
	*	5745	105.82	-	-	96.56	32.53	9.88	33.15	301	20	A	H
802.11ac													H
VHT20													H
CH 149		5648.6	50.76	-17.44	68.2	41.9	32.35	9.61	33.1	100	33	P	V
5745MHz		5698.4	63.12	-40.9	104.02	54.05	32.44	9.75	33.12	100	33	P	V
		5719.8	74.89	-35.85	110.74	65.71	32.5	9.81	33.13	100	33	P	V
		5724.6	83.08	-38.21	121.29	73.9	32.5	9.81	33.13	100	33	P	V
	*	5745	112.75	-	-	103.49	32.53	9.88	33.15	100	33	P	V
	*	5745	104.78	-	-	95.52	32.53	9.88	33.15	100	33	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. 2	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)
		11490	46.06	-27.94	74	51.74	40	15.72	61.4	100	0	P	H
		17235	53.52	-14.68	68.2	50.89	40.54	19.6	57.51	100	0	P	H
802.11ac													H
VHT20													H
CH 149		11490	46.56	-27.44	74	52.24	40	15.72	61.4	100	0	P	V
5745MHz		17235	52.81	-15.39	68.2	50.18	40.54	19.6	57.51	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. 2	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)
		5644.25	58.54	-9.66	68.2	49.68	32.35	9.61	33.1	301	36	P	H
		5698.75	75.94	-28.34	104.28	66.87	32.44	9.75	33.12	301	36	P	H
		5718.75	88.27	-22.18	110.45	79.09	32.5	9.81	33.13	301	36	P	H
		5720.25	86.61	-24.76	111.37	77.43	32.5	9.81	33.13	301	36	P	H
	*	5755	111.39	-	-	102.09	32.57	9.88	33.15	301	36	P	H
	*	5755	102.36	-	-	93.06	32.57	9.88	33.15	301	36	A	H
		5855	55.08	-55.72	110.8	45.5	32.75	10.02	33.19	301	36	P	H
		5855	55.08	-55.72	110.8	45.5	32.75	10.02	33.19	301	36	P	H
		5886.25	52.18	-44.67	96.85	42.6	32.78	10.02	33.22	301	36	P	H
		5934	48.66	-19.54	68.2	38.99	32.88	10.02	33.23	301	36	P	H
802.11ac													H
VHT40													H
CH 151		5641	56.27	-11.93	68.2	47.41	32.35	9.61	33.1	100	34	P	V
5755MHz		5697.5	72.98	-30.38	103.36	63.91	32.44	9.75	33.12	100	34	P	V
		5718.75	84.92	-25.53	110.45	75.74	32.5	9.81	33.13	100	34	P	V
		5720.75	86.37	-26.14	112.51	77.19	32.5	9.81	33.13	100	34	P	V
	*	5755	109.69	-	-	100.39	32.57	9.88	33.15	100	34	P	V
	*	5755	101.2	-	-	91.9	32.57	9.88	33.15	100	34	A	V
		5850.75	55.38	-65.11	120.49	45.83	32.72	10.02	33.19	100	34	P	V
		5855	54.76	-56.04	110.8	45.18	32.75	10.02	33.19	100	34	P	V
		5875	51.97	-53.23	105.2	42.38	32.78	10.02	33.21	100	34	P	V
		5949.5	51.01	-17.19	68.2	41.32	32.91	10.02	33.24	100	34	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. 2	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)
		11510	45.51	-28.49	74	51.18	40	15.73	61.4	100	0	P	H
		17265	51.05	-17.15	68.2	48.16	40.66	19.62	57.39	100	0	P	H
802.11ac													H
VHT40													H
CH 151		11510	45.37	-28.63	74	51.04	40	15.73	61.4	100	0	P	V
5755MHz		17265	49.89	-18.31	68.2	47	40.66	19.62	57.39	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 2	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)
		5646.5	63.3	-4.9	68.2	54.44	32.35	9.61	33.1	303	37	P	H
		5699.5	77.31	-27.52	104.83	68.24	32.44	9.75	33.12	303	37	P	H
		5719	79.17	-31.35	110.52	69.99	32.5	9.81	33.13	303	37	P	H
		5723.5	79.98	-38.8	118.78	70.8	32.5	9.81	33.13	303	37	P	H
	*	5775	105.99	-	-	96.6	32.6	9.95	33.16	303	37	P	H
	*	5775	97.29	-	-	87.9	32.6	9.95	33.16	303	37	A	H
		5851	70.94	-48.98	119.92	61.39	32.72	10.02	33.19	303	37	P	H
		5856.25	69.83	-40.62	110.45	60.25	32.75	10.02	33.19	303	37	P	H
		5876.25	62.18	-42.09	104.27	52.59	32.78	10.02	33.21	303	37	P	H
		5928.5	52.67	-15.53	68.2	43	32.88	10.02	33.23	303	37	P	H
802.11ac													H
VHT80													H
CH 155		5647.25	60.25	-7.95	68.2	51.39	32.35	9.61	33.1	100	35	P	V
5775MHz		5699.75	72.68	-32.34	105.02	63.61	32.44	9.75	33.12	100	35	P	V
		5714.5	76.08	-33.18	109.26	66.93	32.47	9.81	33.13	100	35	P	V
		5722.5	75.38	-41.12	116.5	66.2	32.5	9.81	33.13	100	35	P	V
	*	5775	104.68	-	-	95.29	32.6	9.95	33.16	100	35	P	V
	*	5775	96.29	-	-	86.9	32.6	9.95	33.16	100	35	A	V
		5851.25	70.41	-48.94	119.35	60.86	32.72	10.02	33.19	100	35	P	V
		5857.5	71.21	-38.89	110.1	61.63	32.75	10.02	33.19	100	35	P	V
		5875.5	64.65	-40.18	104.83	55.06	32.78	10.02	33.21	100	35	P	V
		5934.5	51.08	-17.12	68.2	41.42	32.88	10.02	33.24	100	35	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. 2	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)
		11550	45.97	-28.03	74	51.78	39.9	15.76	61.47	100	0	P	H
		17325	47.61	-20.59	68.2	44.33	40.84	19.66	57.22	100	0	P	H
802.11ac													H
VHT80													H
CH 155		11550	45.38	-28.62	74	51.19	39.9	15.76	61.47	100	0	P	V
5775MHz		17325	47.62	-20.58	68.2	44.34	40.84	19.66	57.22	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 VHT80 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		64.83	27.23	-12.77	40	46.95	11.74	1.03	32.49	-	-	P	H
		123.96	31.02	-12.48	43.5	44.7	17.23	1.55	32.46	100	0	P	H
		159.33	29.08	-14.42	43.5	43.48	16.32	1.71	32.43	-	-	P	H
		468	24.34	-21.66	46	30.61	23.28	2.81	32.36	-	-	P	H
		661.2	28.49	-17.51	46	31.41	26.24	3.31	32.47	-	-	P	H
		883.8	32.24	-13.76	46	31.01	29.08	3.89	31.74	-	-	P	H
													H
													H
													H
													H
5GHz													H
802.11ac													H
VHT80		36.48	36.6	-3.4	40	47.48	20.79	0.82	32.49	100	0	P	V
LF		41.34	35.2	-4.8	40	48.71	18.15	0.83	32.49	-	-	P	V
		65.1	32.26	-7.74	40	51.98	11.74	1.03	32.49	-	-	P	V
		518.4	24.43	-21.57	46	30.08	23.77	2.97	32.39	-	-	P	V
		726.3	29.97	-16.03	46	31.68	27.15	3.53	32.39	-	-	P	V
		958	33.35	-12.65	46	29.38	31.02	4.08	31.13	-	-	P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5641.5	52.06	-16.14	68.2	43.2	32.35	9.61	33.1	116	325	P	H
		5696	57.61	-44.64	102.25	48.54	32.44	9.75	33.12	116	325	P	H
		5719.25	70.41	-40.18	110.59	61.23	32.5	9.81	33.13	116	325	P	H
		5723.75	76.48	-42.87	119.35	67.3	32.5	9.81	33.13	116	325	P	H
	*	5745	112.94	-	-	103.68	32.53	9.88	33.15	116	325	P	H
	*	5745	105.07	-	-	95.81	32.53	9.88	33.15	116	325	A	H
													H
802.11a													H
CH 149		5644.25	50.75	-17.45	68.2	41.89	32.35	9.61	33.1	108	352	P	V
5745MHz		5699	57.63	-46.83	104.46	48.56	32.44	9.75	33.12	108	352	P	V
		5719.25	70.45	-40.14	110.59	61.27	32.5	9.81	33.13	108	352	P	V
		5724.75	81.07	-40.56	121.63	71.89	32.5	9.81	33.13	108	352	P	V
	*	5745	112.97	-	-	103.71	32.53	9.88	33.15	108	352	P	V
	*	5745	105.17	-	-	95.91	32.53	9.88	33.15	108	352	A	V
													V
													V

WIFI Ant. 1+2	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)
		5640.5	51.52	-16.68	68.2	42.66	32.35	9.61	33.1	110	325	P	H
		5699.75	52.22	-52.8	105.02	43.15	32.44	9.75	33.12	110	325	P	H
		5718.25	54.21	-56.1	110.31	45.03	32.5	9.81	33.13	110	325	P	H
		5723.25	55.04	-63.17	118.21	45.86	32.5	9.81	33.13	110	325	P	H
	*	5785	112.6	-	-	103.16	32.6	10.01	33.17	110	325	P	H
	*	5785	104.76	-	-	95.32	32.6	10.01	33.17	110	325	A	H
		5851.5	53.98	-64.8	118.78	44.43	32.72	10.02	33.19	110	325	P	H
		5865.5	52.44	-55.42	107.86	42.88	32.75	10.02	33.21	110	325	P	H
		5876	50.88	-53.58	104.46	41.29	32.78	10.02	33.21	110	325	P	H
		5945	50.5	-17.7	68.2	40.81	32.91	10.02	33.24	110	325	P	H
													H
802.11a CH 157 5785MHz													H
		5639.5	50.06	-18.14	68.2	41.2	32.35	9.61	33.1	128	353	P	V
		5697	51.59	-51.4	102.99	42.52	32.44	9.75	33.12	128	353	P	V
		5720	55.5	-55.3	110.8	46.32	32.5	9.81	33.13	128	353	P	V
		5724.75	56.03	-65.6	121.63	46.85	32.5	9.81	33.13	128	353	P	V
	*	5785	112.2	-	-	102.76	32.6	10.01	33.17	128	353	P	V
	*	5785	104.37	-	-	94.93	32.6	10.01	33.17	128	353	A	V
		5854	53.25	-59.83	113.08	43.67	32.75	10.02	33.19	128	353	P	V
		5856.25	52.16	-58.29	110.45	42.58	32.75	10.02	33.19	128	353	P	V
		5903.25	51.13	-33.13	84.26	41.52	32.81	10.02	33.22	128	353	P	V
		5948.75	50.29	-17.91	68.2	40.6	32.91	10.02	33.24	128	353	P	V
													V
													V

WIFI Ant. 1+2	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)
	*	5825	112.22	-	-	102.69	32.69	10.02	33.18	149	326	P	H
	*	5825	104.38	-	-	94.85	32.69	10.02	33.18	149	326	A	H
		5851.8	66.49	-51.61	118.1	56.94	32.72	10.02	33.19	149	326	P	H
		5855.8	63.32	-47.26	110.58	53.74	32.75	10.02	33.19	149	326	P	H
		5885.2	53.23	-44.4	97.63	43.65	32.78	10.02	33.22	149	326	P	H
		5934.6	50.34	-17.86	68.2	40.68	32.88	10.02	33.24	149	326	P	H
													H
802.11a													H
CH 165	*	5825	110.64	-	-	101.11	32.69	10.02	33.18	103	354	P	V
5825MHz	*	5825	102.91	-	-	93.38	32.69	10.02	33.18	103	354	A	V
		5850.2	65.56	-56.18	121.74	56.01	32.72	10.02	33.19	103	354	P	V
		5860.2	60.73	-48.61	109.34	51.17	32.75	10.02	33.21	103	354	P	V
		5877.4	51.56	-51.86	103.42	41.97	32.78	10.02	33.21	103	354	P	V
		5946.8	50.46	-17.74	68.2	40.77	32.91	10.02	33.24	103	354	P	V
													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 802.11a (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 149 5745MHz		11490	47.07	-26.93	74	52.75	40	15.72	61.4	100	0	P	H
		17235	52.27	-15.93	68.2	49.64	40.54	19.6	57.51	100	0	P	H
													H
													H
		11490	46.12	-27.88	74	51.8	40	15.72	61.4	100	0	P	V
		17235	52.38	-15.82	68.2	49.75	40.54	19.6	57.51	100	0	P	V
													V
													V
802.11a CH 157 5785MHz		11570	45.84	-28.16	74	51.71	39.86	15.77	61.5	100	0	P	H
		17355	50.17	-18.03	68.2	46.64	40.96	19.68	57.11	100	0	P	H
													H
													H
		11570	46.11	-27.89	74	51.98	39.86	15.77	61.5	100	0	P	V
		17355	52.77	-15.43	68.2	49.24	40.96	19.68	57.11	100	0	P	V
													V
													V
802.11a CH 165 5825MHz		11650	46.37	-27.63	74	52.4	39.72	15.84	61.59	100	0	P	H
		17475	50.34	-17.86	68.2	45.92	41.38	19.75	56.71	100	0	P	H
													H
													H
		11650	46.47	-27.53	74	52.5	39.72	15.84	61.59	100	0	P	V
		17475	50.04	-18.16	68.2	45.62	41.38	19.75	56.71	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 Ant. 1+2	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)
		5631.75	53.38	-14.82	68.2	44.55	32.32	9.61	33.1	116	325	P	H
		5699.75	63.25	-41.77	105.02	54.18	32.44	9.75	33.12	116	325	P	H
		5718.75	74.32	-36.13	110.45	65.14	32.5	9.81	33.13	116	325	P	H
		5723.75	80.01	-39.34	119.35	70.83	32.5	9.81	33.13	116	325	P	H
	*	5745	112.76	-	-	103.5	32.53	9.88	33.15	116	325	P	H
	*	5745	104.57	-	-	95.31	32.53	9.88	33.15	116	325	A	H
802.11ac													H
VHT20													H
CH 149		5649.75	51.04	-17.16	68.2	42.15	32.38	9.61	33.1	108	355	P	V
5745MHz		5699.5	63.3	-41.53	104.83	54.23	32.44	9.75	33.12	108	355	P	V
		5719.75	74.49	-36.24	110.73	65.31	32.5	9.81	33.13	108	355	P	V
		5725	85.06	-37.14	122.2	75.88	32.5	9.81	33.13	108	355	P	V
	*	5745	113.17	-	-	103.91	32.53	9.88	33.15	108	355	P	V
	*	5745	104.45	-	-	95.19	32.53	9.88	33.15	108	355	A	V
													V
													V

WIFI Ant. 1+2	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)
		5635.25	52.79	-15.41	68.2	43.93	32.35	9.61	33.1	110	325	P	H
		5695	53.99	-47.52	101.51	44.92	32.44	9.75	33.12	110	325	P	H
		5713.25	55.25	-53.66	108.91	46.1	32.47	9.81	33.13	110	325	P	H
		5724.75	55.05	-66.58	121.63	45.87	32.5	9.81	33.13	110	325	P	H
	*	5785	112.33	-	-	102.89	32.6	10.01	33.17	110	325	P	H
	*	5785	103.84	-	-	94.4	32.6	10.01	33.17	110	325	A	H
		5852.75	52.13	-63.8	115.93	42.58	32.72	10.02	33.19	110	325	P	H
		5865	53.12	-54.88	108	43.56	32.75	10.02	33.21	110	325	P	H
		5899	51.8	-35.6	87.4	42.19	32.81	10.02	33.22	110	325	P	H
		5926.5	50.19	-18.01	68.2	40.52	32.88	10.02	33.23	110	325	P	H
802.11ac													H
VHT20													H
CH 157		5646.75	50.85	-17.35	68.2	41.99	32.35	9.61	33.1	128	353	P	V
5785MHz		5693.5	51.87	-48.54	100.41	42.8	32.44	9.75	33.12	128	353	P	V
		5718.25	53.47	-56.84	110.31	44.29	32.5	9.81	33.13	128	353	P	V
		5723.25	54.32	-63.89	118.21	45.14	32.5	9.81	33.13	128	353	P	V
	*	5785	111.24	-	-	101.8	32.6	10.01	33.17	128	353	P	V
	*	5785	103.04	-	-	93.6	32.6	10.01	33.17	128	353	A	V
		5853	51.78	-63.58	115.36	42.23	32.72	10.02	33.19	128	353	P	V
		5861.25	51.86	-57.19	109.05	42.3	32.75	10.02	33.21	128	353	P	V
		5897.75	49.89	-38.44	88.33	40.28	32.81	10.02	33.22	128	353	P	V
		5937	50.53	-17.67	68.2	40.87	32.88	10.02	33.24	128	353	P	V
													V
													V

WIFI Ant. 1+2	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)
	*	5825	111.72	-	-	102.19	32.69	10.02	33.18	149	326	P	H
	*	5825	103.63	-	-	94.1	32.69	10.02	33.18	149	326	A	H
		5850.6	71.49	-49.34	120.83	61.94	32.72	10.02	33.19	149	326	P	H
		5858.6	64.59	-45.2	109.79	55.03	32.75	10.02	33.21	149	326	P	H
		5875.6	55.27	-49.48	104.75	45.68	32.78	10.02	33.21	149	326	P	H
		5949	51.27	-16.93	68.2	41.58	32.91	10.02	33.24	149	326	P	H
802.11ac													H
VHT20													H
CH 165	*	5825	110.84	-	-	101.31	32.69	10.02	33.18	103	354	P	V
5825MHz	*	5825	101.92	-	-	92.39	32.69	10.02	33.18	103	354	A	V
		5850	68.56	-53.64	122.2	59.01	32.72	10.02	33.19	103	354	P	V
		5860.6	62.11	-47.12	109.23	52.55	32.75	10.02	33.21	103	354	P	V
		5875.2	53.91	-51.14	105.05	44.32	32.78	10.02	33.21	103	354	P	V
		5949.8	49.66	-18.54	68.2	39.97	32.91	10.02	33.24	103	354	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 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11490	47.16	-26.84	74	52.84	40	15.72	61.4	100	0	P	H
		17235	51.61	-16.59	68.2	48.98	40.54	19.6	57.51	100	0	P	H
802.11ac													H
VHT20													H
CH 149		11490	46.13	-27.87	74	51.81	40	15.72	61.4	100	0	P	V
5745MHz		17235	52.42	-15.78	68.2	49.79	40.54	19.6	57.51	100	0	P	V
													V
													V
		11570	46.89	-27.11	74	52.76	39.86	15.77	61.5	100	0	P	H
		17355	49.41	-18.79	68.2	45.88	40.96	19.68	57.11	100	0	P	H
802.11ac													H
VHT20													H
CH 157		11570	46.11	-27.89	74	51.98	39.86	15.77	61.5	100	0	P	V
5785MHz		17355	50.2	-18	68.2	46.67	40.96	19.68	57.11	100	0	P	V
													V
													V
		11650	45.83	-28.17	74	51.86	39.72	15.84	61.59	100	0	P	H
		17475	50.37	-17.83	68.2	45.95	41.38	19.75	56.71	100	0	P	H
802.11ac													H
VHT20													H
CH 165		11650	45.39	-28.61	74	51.42	39.72	15.84	61.59	100	0	P	V
5825MHz		17475	48.81	-19.39	68.2	44.39	41.38	19.75	56.71	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+2	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)
		5642	58.93	-9.27	68.2	50.07	32.35	9.61	33.1	100	324	P	H
		5699.25	73.07	-31.58	104.65	64	32.44	9.75	33.12	100	324	P	H
		5719	83.18	-27.34	110.52	74	32.5	9.81	33.13	100	324	P	H
		5724.25	83.17	-37.32	120.49	73.99	32.5	9.81	33.13	100	324	P	H
	*	5755	110.26	-	-	100.96	32.57	9.88	33.15	100	324	P	H
	*	5755	101.62	-	-	92.32	32.57	9.88	33.15	100	324	A	H
		5851.75	55.52	-62.69	118.21	45.97	32.72	10.02	33.19	100	324	P	H
		5862.25	57.67	-51.1	108.77	48.11	32.75	10.02	33.21	100	324	P	H
		5881.25	52.51	-48.05	100.56	42.92	32.78	10.02	33.21	100	324	P	H
		5934.75	51.09	-17.11	68.2	41.43	32.88	10.02	33.24	100	324	P	H
802.11ac													H
VHT40													H
CH 151		5649.5	56.42	-11.78	68.2	47.53	32.38	9.61	33.1	120	353	P	V
5755MHz		5699	70.7	-33.76	104.46	61.63	32.44	9.75	33.12	120	353	P	V
		5719	85.33	-25.19	110.52	76.15	32.5	9.81	33.13	120	353	P	V
		5720.25	85.2	-26.17	111.37	76.02	32.5	9.81	33.13	120	353	P	V
	*	5755	110.06	-	-	100.7	32.57	9.95	33.16	120	353	P	V
	*	5755	101.44	-	-	92.08	32.57	9.95	33.16	120	353	A	V
		5852	55.63	-62.01	117.64	46.08	32.72	10.02	33.19	120	353	P	V
		5855.75	54.48	-56.11	110.59	44.9	32.75	10.02	33.19	120	353	P	V
		5893	51.87	-39.97	91.84	42.26	32.81	10.02	33.22	120	353	P	V
		5937.75	50.65	-17.55	68.2	40.99	32.88	10.02	33.24	120	353	P	V
													V
													V

WIFI Ant. 1+2	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)
		5644	53.99	-14.21	68.2	45.13	32.35	9.61	33.1	100	326	P	H
		5697.25	61.13	-42.04	103.17	52.06	32.44	9.75	33.12	100	326	P	H
		5719.25	67.48	-43.11	110.59	58.3	32.5	9.81	33.13	100	326	P	H
		5722.75	66.66	-50.41	117.07	57.48	32.5	9.81	33.13	100	326	P	H
	*	5795	109.57	-	-	100.1	32.63	10.01	33.17	100	326	P	H
	*	5795	101.35	-	-	91.88	32.63	10.01	33.17	100	326	A	H
		5852	64.12	-53.52	117.64	54.57	32.72	10.02	33.19	100	326	P	H
		5857.5	65.68	-44.42	110.1	56.1	32.75	10.02	33.19	100	326	P	H
		5879	59.78	-42.45	102.23	50.19	32.78	10.02	33.21	100	326	P	H
		5928.25	52.52	-15.68	68.2	42.85	32.88	10.02	33.23	100	326	P	H
802.11ac													H
VHT40													H
CH 159		5646.75	51.39	-16.81	68.2	42.53	32.35	9.61	33.1	114	354	P	V
5795MHz		5697.75	60.02	-43.52	103.54	50.95	32.44	9.75	33.12	114	354	P	V
		5717.75	66.5	-43.67	110.17	57.32	32.5	9.81	33.13	114	354	P	V
		5724.75	66.57	-55.06	121.63	57.39	32.5	9.81	33.13	114	354	P	V
	*	5795	108.72	-	-	99.25	32.63	10.01	33.17	114	354	P	V
	*	5795	100.5	-	-	91.03	32.63	10.01	33.17	114	354	A	V
		5852	65.81	-51.83	117.64	56.26	32.72	10.02	33.19	114	354	P	V
		5855.75	63.69	-46.9	110.59	54.11	32.75	10.02	33.19	114	354	P	V
		5875.25	58.24	-46.77	105.01	48.65	32.78	10.02	33.21	114	354	P	V
		5928.75	52.9	-15.3	68.2	43.23	32.88	10.02	33.23	114	354	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+2	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)
		11510	46.33	-27.67	74	52	40	15.73	61.4	100	0	P	H
		17265	48.39	-19.81	68.2	45.5	40.66	19.62	57.39	100	0	P	H
802.11ac													H
VHT40													H
CH 151		11510	47.68	-26.32	74	53.35	40	15.73	61.4	100	0	P	V
5755MHz		17265	49.05	-19.15	68.2	46.16	40.66	19.62	57.39	100	0	P	V
													V
													V
		11590	45.34	-28.66	74	51.24	39.83	15.79	61.52	100	0	P	H
		17385	48.19	-20.01	68.2	44.42	41.08	19.69	57	100	0	P	H
802.11ac													H
VHT40													H
CH 159		11590	45.32	-28.68	74	51.22	39.83	15.79	61.52	100	0	P	V
5795MHz		17385	47.45	-20.75	68.2	43.68	41.08	19.69	57	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+2	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)
		5649.5	67.02	-1.18	68.2	58.13	32.38	9.61	33.1	100	325	P	H
		5699.5	77.29	-27.54	104.83	68.22	32.44	9.75	33.12	100	325	P	H
		5719.5	80.57	-30.09	110.66	71.39	32.5	9.81	33.13	100	325	P	H
		5723.25	81.81	-36.4	118.21	72.63	32.5	9.81	33.13	100	325	P	H
	*	5775	106.38	-	-	96.99	32.6	9.95	33.16	100	325	P	H
	*	5775	99.19	-	-	89.8	32.6	9.95	33.16	100	325	A	H
		5851.75	75.15	-43.06	118.21	65.6	32.72	10.02	33.19	100	325	P	H
		5871.25	74.42	-31.83	106.25	64.83	32.78	10.02	33.21	100	325	P	H
		5881	68.94	-31.8	100.74	59.35	32.78	10.02	33.21	100	325	P	H
		5932.5	55.95	-12.25	68.2	46.28	32.88	10.02	33.23	100	325	P	H
802.11ac													H
VHT80													H
CH 155		5649.75	65.16	-3.04	68.2	56.27	32.38	9.61	33.1	132	354	P	V
5775MHz		5699.25	76.71	-27.94	104.65	67.64	32.44	9.75	33.12	132	354	P	V
		5720	80.41	-30.39	110.8	71.23	32.5	9.81	33.13	132	354	P	V
		5720	80.41	-30.39	110.8	71.23	32.5	9.81	33.13	132	354	P	V
	*	5775	105.89	-	-	96.5	32.6	9.95	33.16	132	354	P	V
	*	5775	97.63	-	-	88.24	32.6	9.95	33.16	132	354	A	V
		5850	73.07	-49.13	122.2	63.52	32.72	10.02	33.19	132	354	P	V
		5859.75	73.24	-36.23	109.47	63.68	32.75	10.02	33.21	132	354	P	V
		5875	65.36	-39.84	105.2	55.77	32.78	10.02	33.21	132	354	P	V
		5928.25	52.89	-15.31	68.2	43.22	32.88	10.02	33.23	132	354	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+2	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)
		11550	45.27	-28.73	74	51.08	39.9	15.76	61.47	100	0	P	H
		17325	46.14	-22.06	68.2	42.86	40.84	19.66	57.22	100	0	P	H
802.11ac													H
VHT80													H
CH 155		11550	45.01	-28.99	74	50.82	39.9	15.76	61.47	100	0	P	V
5775MHz		17325	46.59	-21.61	68.2	43.31	40.84	19.66	57.22	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 VHT80 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		76.71	20.5	-19.5	40	39.05	12.69	1.24	32.48	-	-	P	H
		124.23	31.32	-12.18	43.5	45	17.23	1.55	32.46	100	0	P	H
		197.94	19.83	-23.67	43.5	35.67	14.8	1.75	32.39	-	-	P	H
		435.8	23.43	-22.57	46	30.31	22.72	2.75	32.35	-	-	P	H
		647.2	27.33	-18.67	46	30.18	26.3	3.31	32.46	-	-	P	H
		904.8	31.77	-14.23	46	30.37	29.06	3.95	31.61	-	-	P	H
													H
													H
													H
													H
5GHz													H
802.11ac													H
VHT80		36.21	36.96	-3.04	40	47.32	21.31	0.82	32.49	100	0	P	V
LF		42.69	34.61	-5.39	40	48.67	17.61	0.82	32.49	-	-	P	V
		78.06	31.49	-8.51	40	49.8	12.94	1.23	32.48	-	-	P	V
		449.8	23.54	-22.46	46	30.19	22.97	2.74	32.36	-	-	P	V
		660.5	27.9	-18.1	46	30.83	26.23	3.31	32.47	-	-	P	V
		881	31.89	-14.11	46	30.66	29.1	3.89	31.76	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

1. No other spurious found.
2. All results are PASS against limit line.

<TXBF Mode>

<SKU 3>

Band 4 - 5725~5850MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		5645.4	54.12	-14.08	68.2	45.26	32.35	9.61	33.1	350	63	P	H
		5695.6	72.18	-29.78	101.96	63.11	32.44	9.75	33.12	350	63	P	H
		5720	86.4	-24.4	110.8	77.22	32.5	9.81	33.13	350	63	P	H
		5724	91.56	-28.36	119.92	82.38	32.5	9.81	33.13	350	63	P	H
	*	5745	116.04	-	-	106.78	32.53	9.88	33.15	350	63	P	H
	*	5745	108.83	-	-	99.57	32.53	9.88	33.15	350	63	A	H
802.11ac													H
VHT20													H
CH 149		5642	51.04	-17.16	68.2	42.18	32.35	9.61	33.1	103	39	P	V
5745MHz		5694.6	68.25	-32.97	101.22	59.18	32.44	9.75	33.12	103	39	P	V
		5719.8	77.04	-33.7	110.74	67.86	32.5	9.81	33.13	103	39	P	V
		5724	88.55	-31.37	119.92	79.37	32.5	9.81	33.13	103	39	P	V
	*	5745	113.94	-	-	104.68	32.53	9.88	33.15	103	39	P	V
	*	5745	106.58	-	-	97.32	32.53	9.88	33.15	103	39	A	V
													V
													V

WIFI Ant. 1+2	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)
		5648	52.79	-15.41	68.2	43.93	32.35	9.61	33.1	309	40	P	H
		5693.5	55.73	-44.68	100.41	46.66	32.44	9.75	33.12	309	40	P	H
		5719	62.64	-47.88	110.52	53.46	32.5	9.81	33.13	309	40	P	H
		5724	62.32	-57.6	119.92	53.14	32.5	9.81	33.13	309	40	P	H
	*	5785	117.41	-	-	107.97	32.6	10.01	33.17	309	40	P	H
	*	5785	109.26	-	-	99.82	32.6	10.01	33.17	309	40	A	H
		5850	60.62	-61.58	122.2	51.07	32.72	10.02	33.19	309	40	P	H
		5855	57.95	-52.85	110.8	48.37	32.75	10.02	33.19	309	40	P	H
		5882.75	53.73	-45.71	99.44	44.14	32.78	10.02	33.21	309	40	P	H
		5933	52.59	-15.61	68.2	42.92	32.88	10.02	33.23	309	40	P	H
802.11ac													H
VHT20													H
CH 157		5616.75	50.08	-18.12	68.2	41.29	32.32	9.55	33.08	112	44	P	V
5785MHz		5698	51.08	-52.65	103.73	42.01	32.44	9.75	33.12	112	44	P	V
		5712.25	57.85	-50.78	108.63	48.7	32.47	9.81	33.13	112	44	P	V
		5723	57.91	-59.73	117.64	48.73	32.5	9.81	33.13	112	44	P	V
	*	5785	113.59	-	-	104.15	32.6	10.01	33.17	112	44	P	V
	*	5785	106.17	-	-	96.73	32.6	10.01	33.17	112	44	A	V
		5853	59.38	-55.98	115.36	49.83	32.72	10.02	33.19	112	44	P	V
		5857.5	56.27	-53.83	110.1	46.69	32.75	10.02	33.19	112	44	P	V
		5902.75	51.6	-33.03	84.63	41.99	32.81	10.02	33.22	112	44	P	V
		5936.75	50.76	-17.44	68.2	41.1	32.88	10.02	33.24	112	44	P	V
													V
													V

WIFI Ant. 1+2	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)
	*	5825	114.79	-	-	105.26	32.69	10.02	33.18	316	44	P	H
	*	5825	105.94	-	-	96.41	32.69	10.02	33.18	316	44	A	H
		5850.4	80.32	-40.97	121.29	70.77	32.72	10.02	33.19	316	44	P	H
		5858	72.7	-37.26	109.96	63.14	32.75	10.02	33.21	316	44	P	H
		5875.4	67.39	-37.51	104.9	57.8	32.78	10.02	33.21	316	44	P	H
		5927	51.89	-16.31	68.2	42.22	32.88	10.02	33.23	316	44	P	H
802.11ac													H
VHT20													H
CH 165	*	5825	114.35	-	-	104.82	32.69	10.02	33.18	100	40	P	V
5825MHz	*	5825	106.15	-	-	96.62	32.69	10.02	33.18	100	40	A	V
		5850.8	78.02	-42.36	120.38	68.47	32.72	10.02	33.19	100	40	P	V
		5855	72.95	-37.85	110.8	63.37	32.75	10.02	33.19	100	40	P	V
		5879.8	64.84	-36.79	101.63	55.25	32.78	10.02	33.21	100	40	P	V
		5934.4	52.87	-15.33	68.2	43.21	32.88	10.02	33.24	100	40	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 (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)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11490	46.23	-27.77	74	51.91	40	15.72	61.4	100	0	P	H
		17235	54.34	-13.86	68.2	51.71	40.54	19.6	57.51	100	0	P	H
802.11ac													H
VHT20													H
CH 149		11490	46.38	-27.62	74	52.06	40	15.72	61.4	100	0	P	V
5745MHz		17235	52.71	-15.49	68.2	50.08	40.54	19.6	57.51	100	0	P	V
													V
													V
		11570	48.43	-25.57	74	54.3	39.86	15.77	61.5	100	0	P	H
		17355	50.66	-17.54	68.2	47.13	40.96	19.68	57.11	100	0	P	H
802.11ac													H
VHT20													H
CH 157		11570	46.2	-27.8	74	52.07	39.86	15.77	61.5	100	0	P	V
5785MHz		17355	50.74	-17.46	68.2	47.21	40.96	19.68	57.11	100	0	P	V
													V
													V
		11650	47.12	-26.88	74	53.15	39.72	15.84	61.59	100	0	P	H
		17475	53.87	-14.33	68.2	49.45	41.38	19.75	56.71	100	0	P	H
802.11ac													H
VHT20													H
CH 165		11650	46.36	-27.64	74	52.39	39.72	15.84	61.59	100	0	P	V
5825MHz		17475	52.03	-16.17	68.2	47.61	41.38	19.75	56.71	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+2	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)
		5649.75	57.88	-10.32	68.2	48.99	32.38	9.61	33.1	208	6	P	H
		5698.75	76.53	-27.75	104.28	67.46	32.44	9.75	33.12	208	6	P	H
		5718.25	90.23	-20.08	110.31	81.05	32.5	9.81	33.13	208	6	P	H
		5724	90.59	-29.33	119.92	81.41	32.5	9.81	33.13	208	6	P	H
	*	5755	112.98	-	-	103.68	32.57	9.88	33.15	208	6	P	H
	*	5755	104.96	-	-	95.66	32.57	9.88	33.15	208	6	A	H
		5851.25	61.65	-57.7	119.35	52.1	32.72	10.02	33.19	208	6	P	H
		5858.75	64.03	-45.72	109.75	54.47	32.75	10.02	33.21	208	6	P	H
		5880	53.81	-47.68	101.49	44.22	32.78	10.02	33.21	208	6	P	H
		5947.5	50.4	-17.8	68.2	40.71	32.91	10.02	33.24	208	6	P	H
802.11ac													H
VHT40													H
CH 151		5648.25	55.99	-12.21	68.2	47.13	32.35	9.61	33.1	101	46	P	V
5755MHz		5697.75	75.24	-28.3	103.54	66.17	32.44	9.75	33.12	101	46	P	V
		5715.5	86.98	-22.56	109.54	77.83	32.47	9.81	33.13	101	46	P	V
		5723.25	89.19	-29.02	118.21	80.01	32.5	9.81	33.13	101	46	P	V
	*	5755	113.76	-	-	104.46	32.57	9.88	33.15	101	46	P	V
	*	5755	105.81	-	-	96.51	32.57	9.88	33.15	101	46	A	V
		5850	63.28	-58.92	122.2	53.73	32.72	10.02	33.19	101	46	P	V
		5858.75	65.4	-44.35	109.75	55.84	32.75	10.02	33.21	101	46	P	V
		5879.25	55.72	-46.32	102.04	46.13	32.78	10.02	33.21	101	46	P	V
		5940.75	51.69	-16.51	68.2	42	32.91	10.02	33.24	101	46	P	V
													V
													V

WIFI Ant. 1+2	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)
		5630.25	60.44	-7.76	68.2	51.61	32.32	9.61	33.1	293	36	P	H
		5693.75	68.89	-31.7	100.59	59.82	32.44	9.75	33.12	293	36	P	H
		5720	76.17	-34.63	110.8	66.99	32.5	9.81	33.13	293	36	P	H
		5720	76.17	-34.63	110.8	66.99	32.5	9.81	33.13	293	36	P	H
	*	5795	113.31	-	-	103.84	32.63	10.01	33.17	293	36	P	H
	*	5795	104.63	-	-	95.16	32.63	10.01	33.17	293	36	A	H
		5850	76.05	-46.15	122.2	66.5	32.72	10.02	33.19	293	36	P	H
		5867.25	77.1	-30.27	107.37	67.54	32.75	10.02	33.21	293	36	P	H
		5879.75	68.92	-32.75	101.67	59.33	32.78	10.02	33.21	293	36	P	H
		5935	54.3	-13.9	68.2	44.64	32.88	10.02	33.24	293	36	P	H
802.11ac													H
VHT40													H
CH 159		5645.5	54.43	-13.77	68.2	45.57	32.35	9.61	33.1	106	41	P	V
5795MHz		5688.75	65.47	-31.43	96.9	56.4	32.44	9.75	33.12	106	41	P	V
		5718.75	74.24	-36.21	110.45	65.06	32.5	9.81	33.13	106	41	P	V
		5723.25	75.08	-43.13	118.21	65.9	32.5	9.81	33.13	106	41	P	V
	*	5795	112.38	-	-	102.91	32.63	10.01	33.17	106	41	P	V
	*	5795	104.33	-	-	94.86	32.63	10.01	33.17	106	41	A	V
		5852.75	78.45	-37.48	115.93	68.9	32.72	10.02	33.19	106	41	P	V
		5864.5	75.05	-33.09	108.14	65.49	32.75	10.02	33.21	106	41	P	V
		5875.5	67.78	-37.05	104.83	58.19	32.78	10.02	33.21	106	41	P	V
		5925.5	53.83	-14.37	68.2	44.16	32.88	10.02	33.23	106	41	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+2	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)
		11510	46.69	-27.31	74	52.36	40	15.73	61.4	100	0	P	H
		17265	52.9	-15.3	68.2	50.01	40.66	19.62	57.39	100	0	P	H
802.11ac													H
VHT40													H
CH 151		11510	45.91	-28.09	74	51.58	40	15.73	61.4	100	0	P	V
5755MHz		17265	52.4	-15.8	68.2	49.51	40.66	19.62	57.39	100	0	P	V
													V
													V
		11590	46.01	-27.99	74	51.91	39.83	15.79	61.52	100	0	P	H
		17385	49.36	-18.84	68.2	45.59	41.08	19.69	57	100	0	P	H
802.11ac													H
VHT40													H
CH 159		11590	46.54	-27.46	74	52.44	39.83	15.79	61.52	100	0	P	V
5795MHz		17385	48.56	-19.64	68.2	44.79	41.08	19.69	57	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+2	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)
		5650	63.91	-4.29	68.2	55.02	32.38	9.61	33.1	350	71	P	H
		5690.25	77.59	-20.42	98.01	68.52	32.44	9.75	33.12	350	71	P	H
		5719	82.42	-28.1	110.52	73.24	32.5	9.81	33.13	350	71	P	H
		5722.5	80.92	-35.58	116.5	71.74	32.5	9.81	33.13	350	71	P	H
	*	5775	107.7	-	-	98.31	32.6	9.95	33.16	350	71	P	H
	*	5775	101.45	-	-	92.06	32.6	9.95	33.16	350	71	A	H
		5850.25	74.7	-46.93	121.63	65.15	32.72	10.02	33.19	350	71	P	H
		5865.25	70.21	-37.72	107.93	60.65	32.75	10.02	33.21	350	71	P	H
		5878.5	64.24	-38.36	102.6	54.65	32.78	10.02	33.21	350	71	P	H
		5928	54.01	-14.19	68.2	44.34	32.88	10.02	33.23	350	71	P	H
802.11ac													H
VHT80													H
CH 155		5645.75	62.16	-6.04	68.2	53.3	32.35	9.61	33.1	110	42	P	V
5775MHz		5700	76.44	-28.76	105.2	67.37	32.44	9.75	33.12	110	42	P	V
		5713.75	79.24	-29.81	109.05	70.09	32.47	9.81	33.13	110	42	P	V
		5724.5	80.6	-40.46	121.06	71.42	32.5	9.81	33.13	110	42	P	V
	*	5775	107.97	-	-	98.58	32.6	9.95	33.16	110	42	P	V
	*	5775	101.33	-	-	91.94	32.6	9.95	33.16	110	42	A	V
		5851.75	74.66	-43.55	118.21	65.11	32.72	10.02	33.19	110	42	P	V
		5858.75	75.29	-34.46	109.75	65.73	32.75	10.02	33.21	110	42	P	V
		5875.25	70.29	-34.72	105.01	60.7	32.78	10.02	33.21	110	42	P	V
		5931.5	55.66	-12.54	68.2	45.99	32.88	10.02	33.23	110	42	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+2	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)
		11550	46.25	-27.75	74	52.06	39.9	15.76	61.47	100	0	P	H
		17325	47.01	-21.19	68.2	43.73	40.84	19.66	57.22	100	0	P	H
802.11ac													H
VHT80													H
CH 155		11550	45.69	-28.31	74	51.5	39.9	15.76	61.47	100	0	P	V
5775MHz		17325	47.45	-20.75	68.2	44.17	40.84	19.66	57.22	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 VHT80 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		64.02	32.25	-7.75	40	52.02	11.69	1.03	32.49	100	0	P	H
		123.42	31.32	-12.18	43.5	44.97	17.26	1.55	32.46	-	-	P	H
		159.87	29.55	-13.95	43.5	43.99	16.28	1.71	32.43	-	-	P	H
		506.5	24.62	-21.38	46	30.39	23.72	2.89	32.38	-	-	P	H
		721.4	28.94	-17.06	46	30.88	26.94	3.53	32.41	-	-	P	H
		868.4	31.76	-14.24	46	30.7	29.07	3.82	31.83	-	-	P	H
													H
													H
													H
													H
5GHz													H
802.11ac													H
VHT80		36.21	36.81	-3.19	40	47.17	21.31	0.82	32.49	100	0	P	V
LF		42.69	34.39	-5.61	40	48.45	17.61	0.82	32.49	-	-	P	V
		63.75	31.49	-8.51	40	51.26	11.69	1.03	32.49	-	-	P	V
		503	25.16	-20.84	46	30.94	23.71	2.89	32.38	-	-	P	V
		722.8	28.16	-17.84	46	30.05	26.98	3.53	32.4	-	-	P	V
		951	32.61	-13.39	46	29.2	30.61	3.99	31.19	-	-	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 Ant. 1+2	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)
802.11b 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 Plots

Test Engineer :	Hao Hsu, Ken Wu, and Chuan Zhu	**Temperature :**	22~25°C
		Relative Humidity :	50~55%

Note symbol

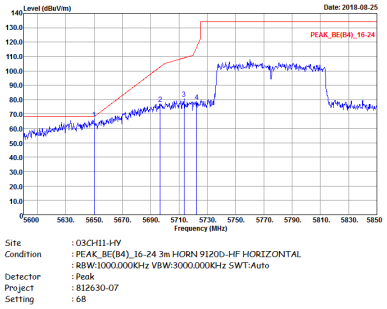
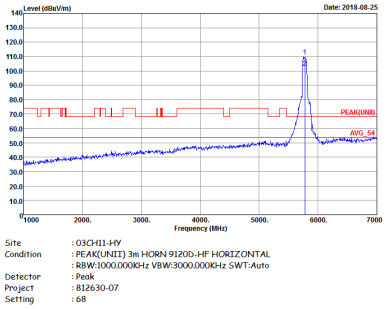
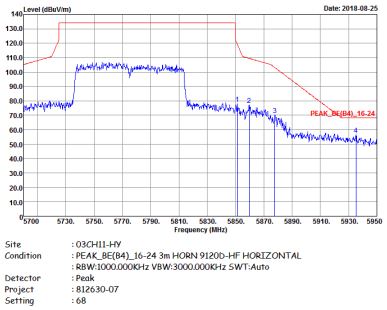
-L	**Low channel location**
-R	**High channel location**

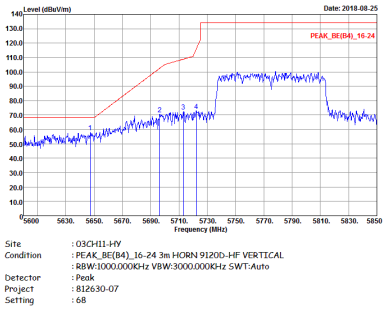
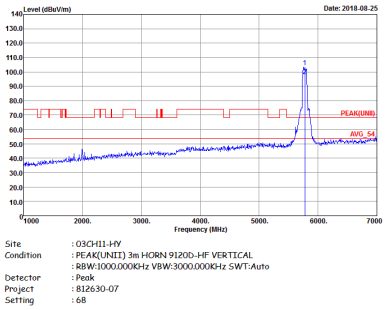
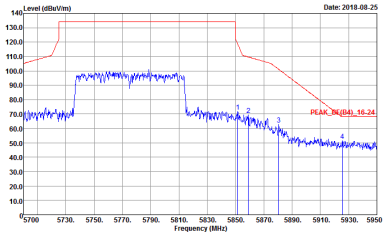
<CDD Mode>

<SKU 1>

Band 4 - 5725~5850MHz

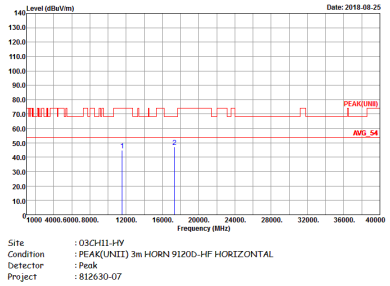
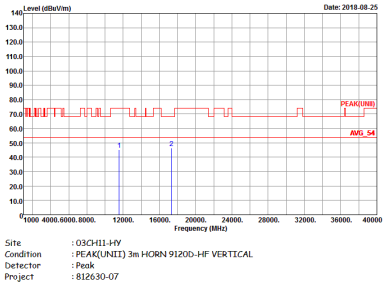
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07 Setting : 68	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07 Setting : 68
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07 Setting : 68	Left blank

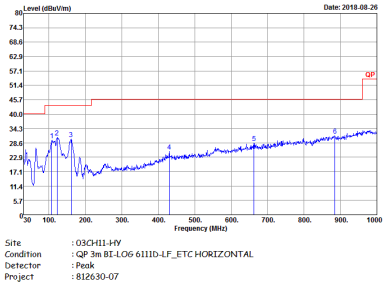
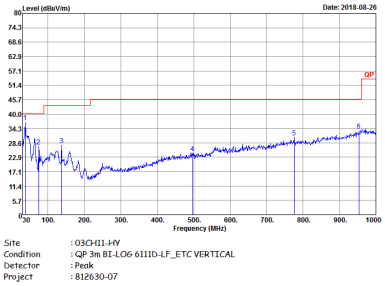
Band 4 - 5725~5850MHz

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.		

Emission below 1GHz

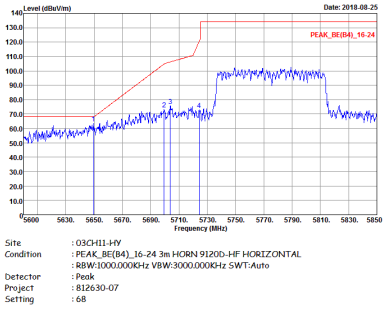
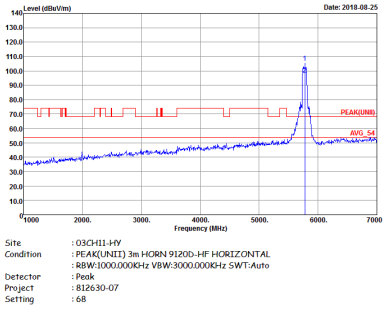
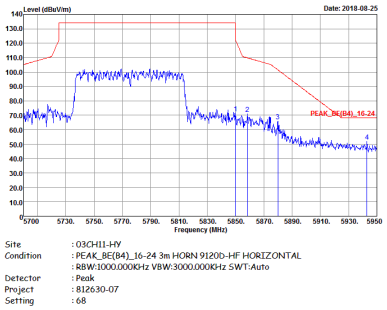
5GHz WIFI 802.11ac VHT80 (LF)

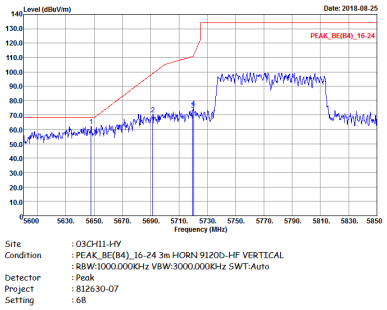
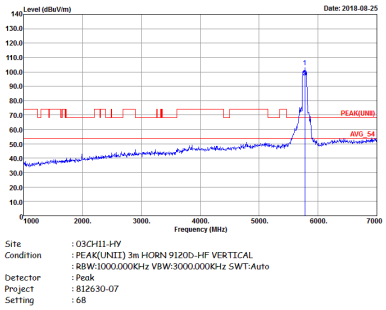
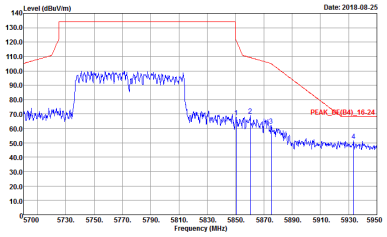
WIFI	5GHz 5725~5850MHz	
ANT	802.11ac VHT80 LF	
1+2	Horizontal	Vertical
QP / Peak		

<SKU 2>

Band 4 - 5725~5850MHz

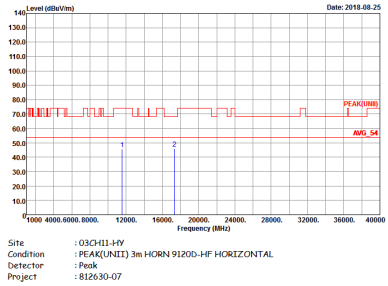
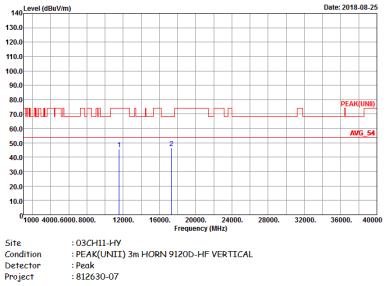
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07 Setting : 68	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07 Setting : 68
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07 Setting : 68	Left blank

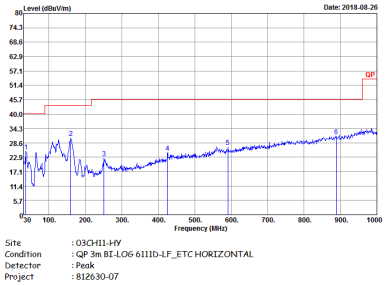
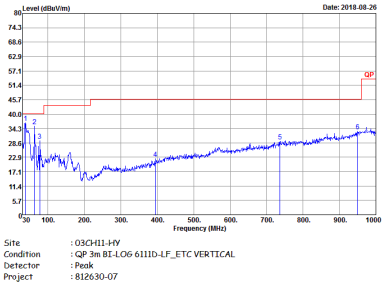
Band 4 - 5725~5850MHz

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.		

Emission below 1GHz

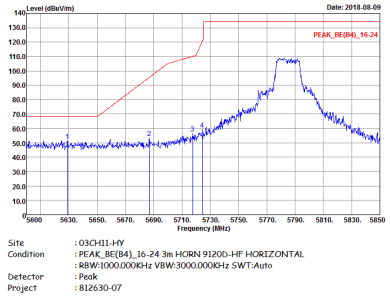
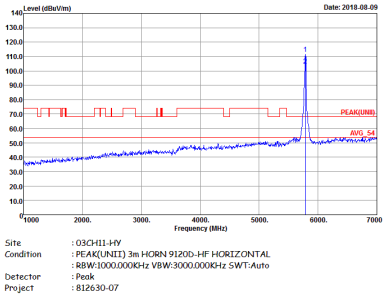
5GHz WIFI 802.11ac VHT80 (LF)

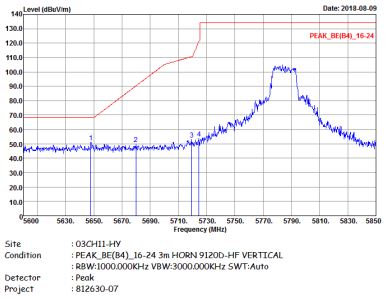
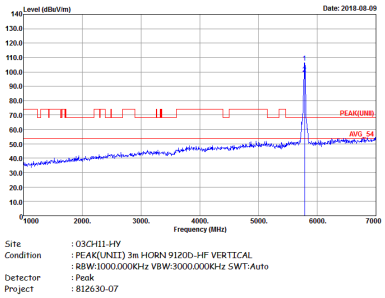
WIFI	5GHz 5725~5850MHz	
ANT	802.11ac VHT80 LF	
1+2	Horizontal	Vertical
QP / Peak		

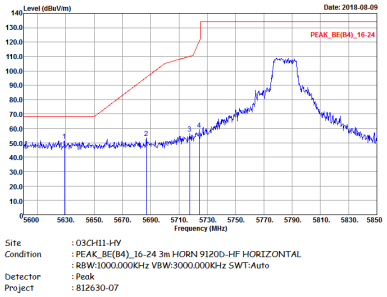
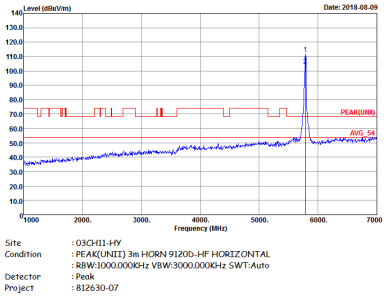
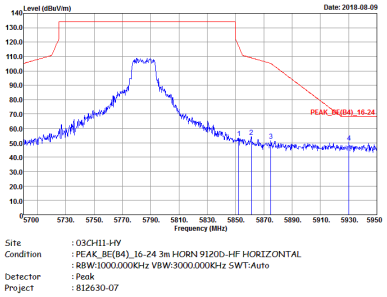
<SKU 3>

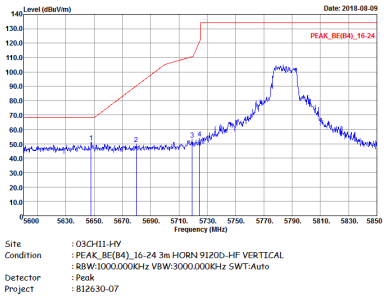
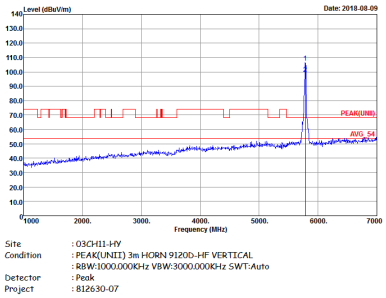
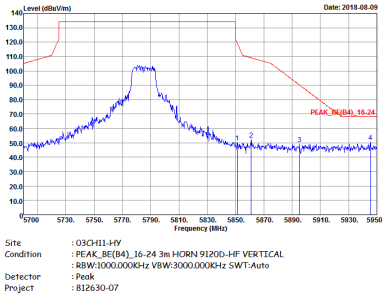
Band 4 - 5725~5850MHz

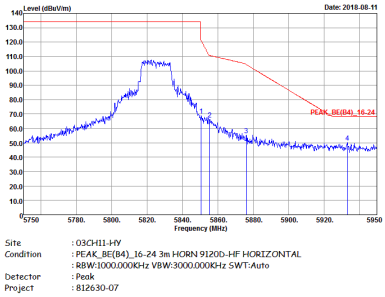
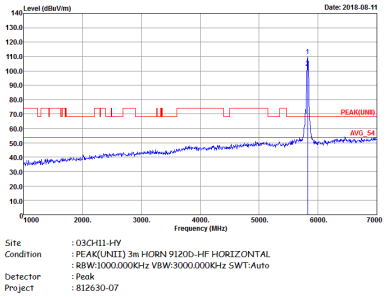
WIFI 802.11a (Band Edge @ 3m)

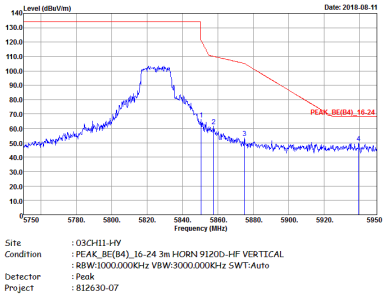
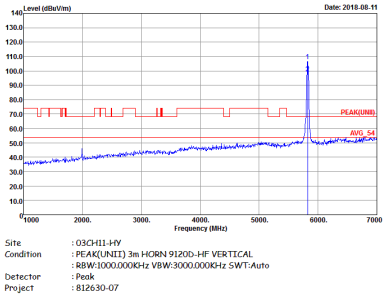
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1	Vertical	Fundamental
Peak		

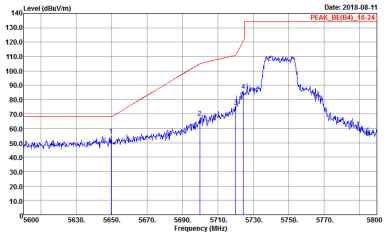
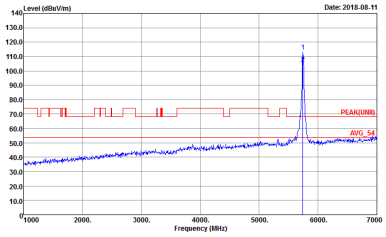
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	Left blank

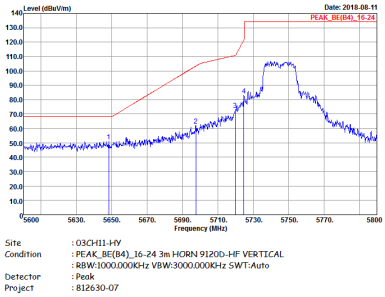
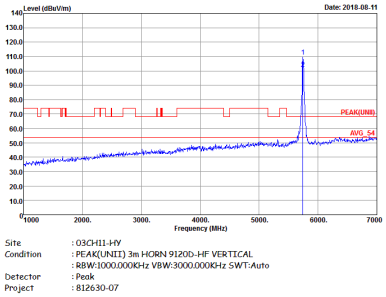
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1	Vertical	Fundamental
Peak		
Peak		Left blank

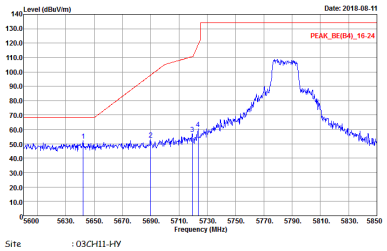
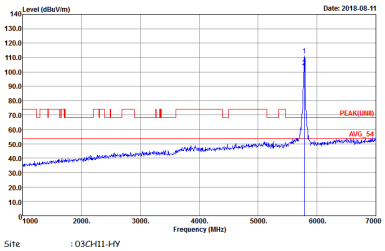
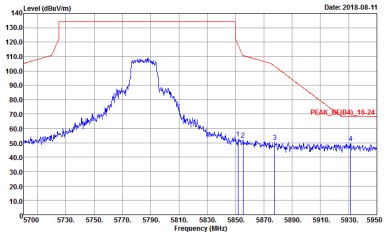
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1	Horizontal	Fundamental
Peak		

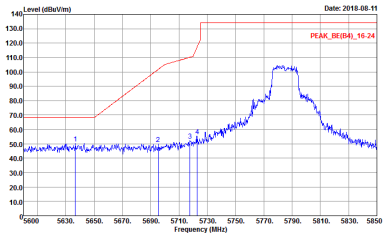
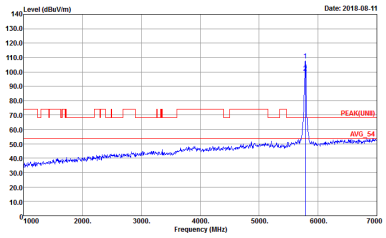
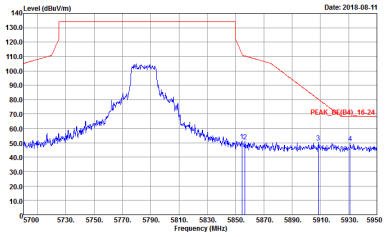
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1	Vertical	Fundamental
Peak		

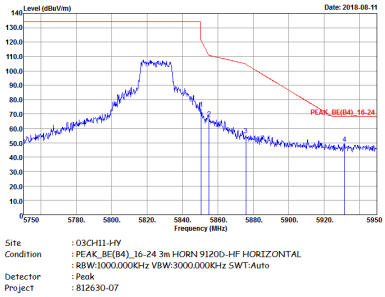
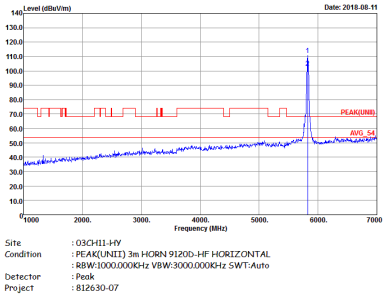
Band 4 5725~5850MHz
WIFI 802.11ac VHT20 (Band Edge @ 3m)

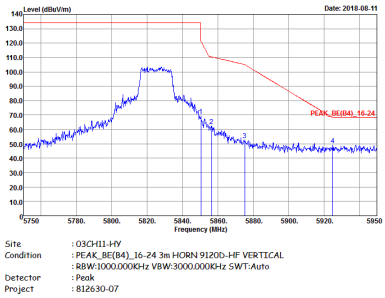
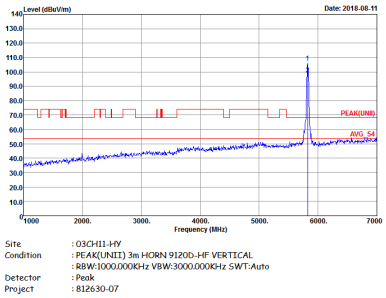
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1	Vertical	Fundamental
Peak Avg.		

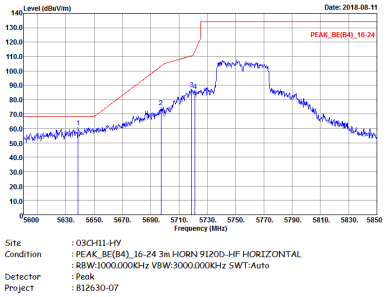
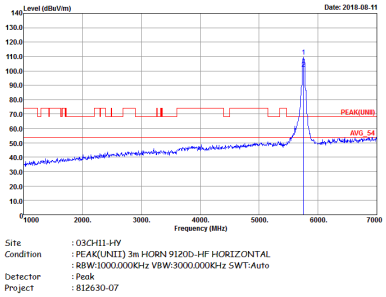
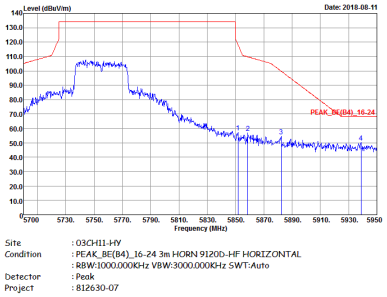
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH157 5785MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	Left blank

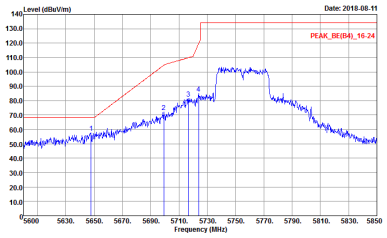
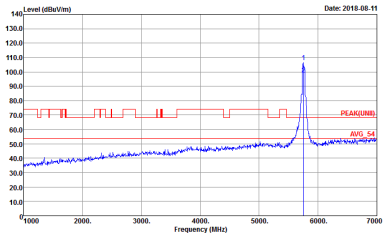
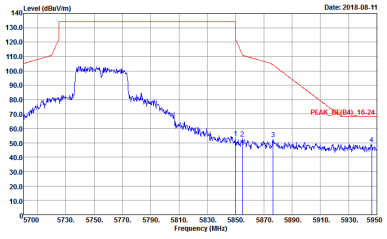
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH157 5785MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	Left blank

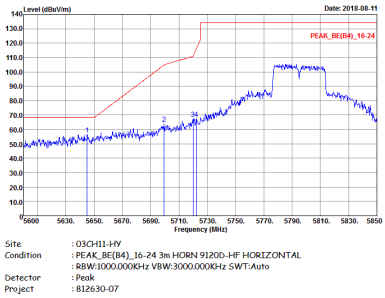
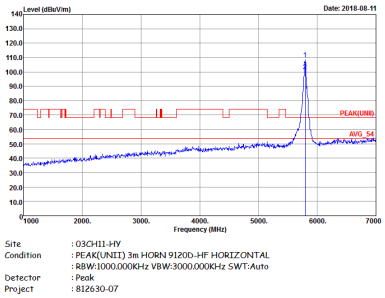
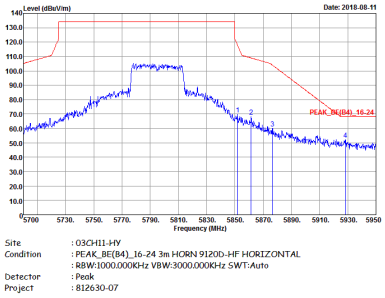
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH165 5825MHz	
1	Horizontal	Fundamental
Peak		

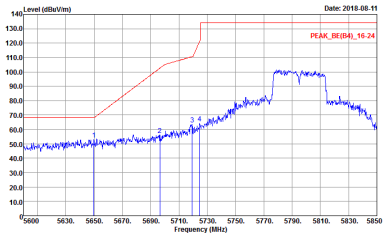
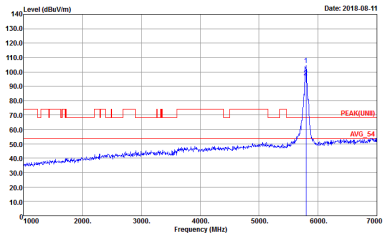
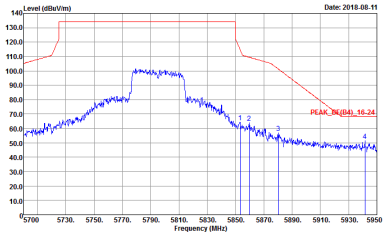
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH165 5825MHz	
1	Vertical	Fundamental
Peak Avg.		

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

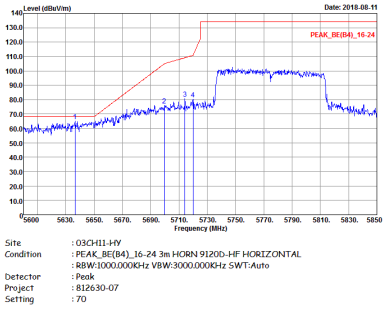
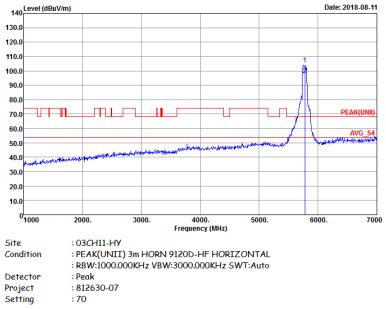
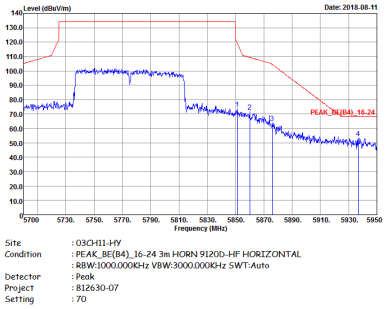
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1	Horizontal	Fundamental
Peak		
Peak		Left blank

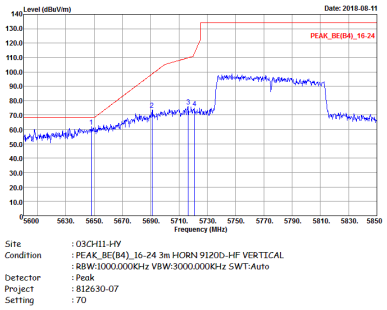
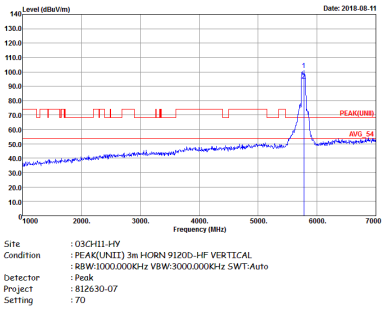
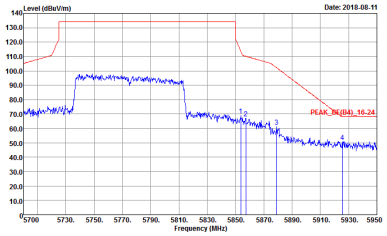
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07
Peak	 Site : 03CH11-HY Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	Left blank

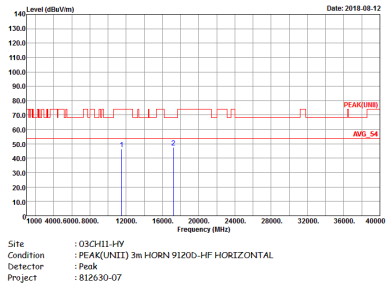
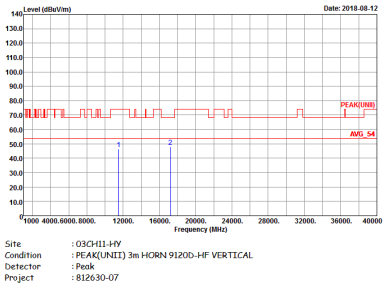
Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

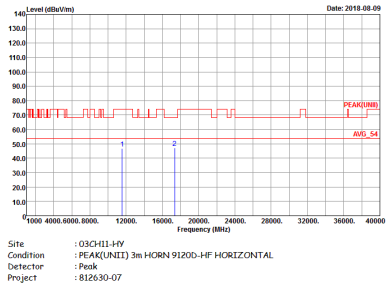
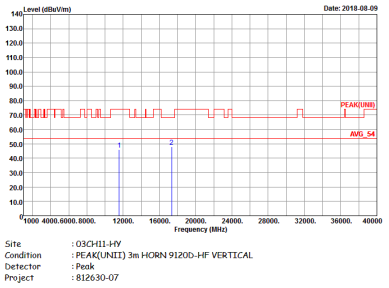
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1	Horizontal	Fundamental
Peak		
Peak		Left blank

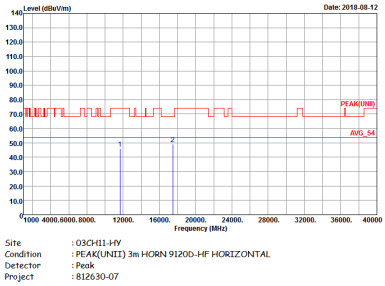
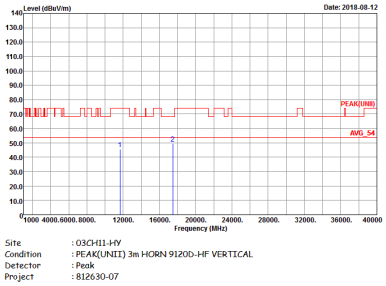
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07 Setting : 70	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07 Setting : 70
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07 Setting : 70	Left blank

Band 4 - 5725~5850MHz

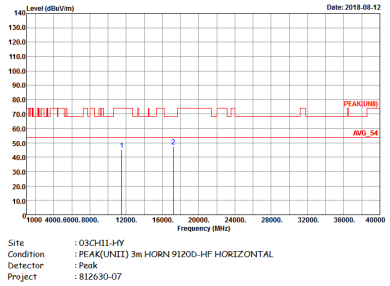
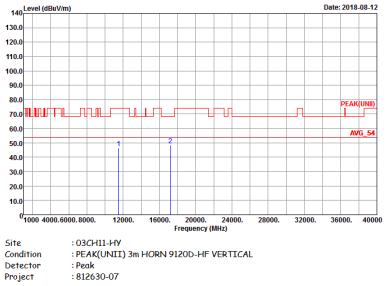
WIFI 802.11a (Harmonic @ 3m)

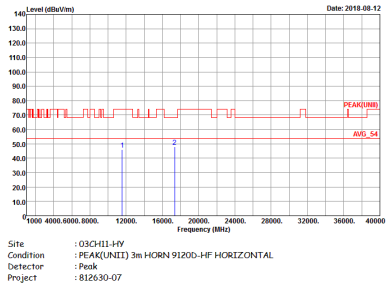
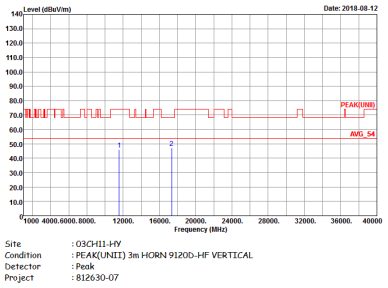
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
1	Horizontal	Vertical
Peak Avg.		

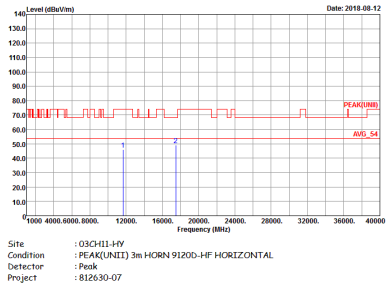
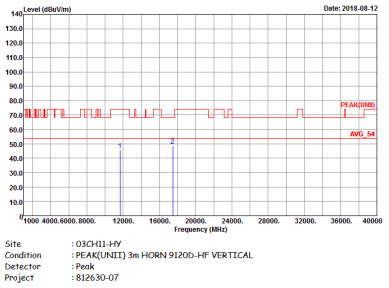
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
1	Horizontal	Vertical
Peak Avg.		

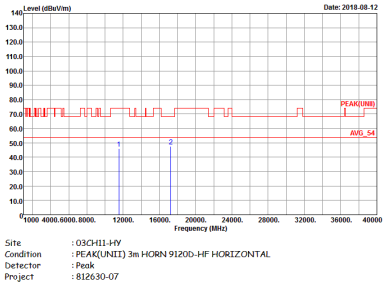
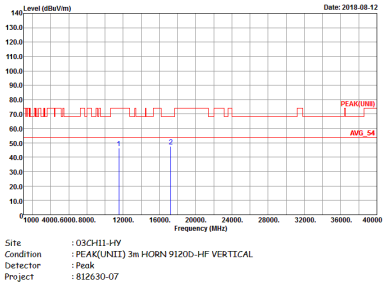
Band 4 5725~5850MHz
WIFI 802.11ac VHT20 (Harmonic @ 3m)

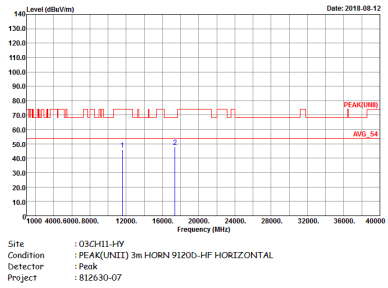
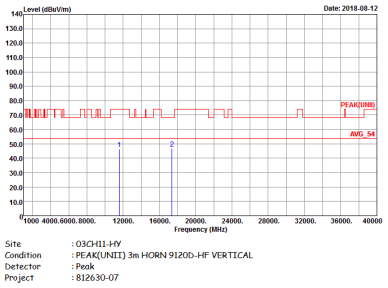
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH157 5785MHz	
1	Horizontal	Vertical
Peak Avg.		

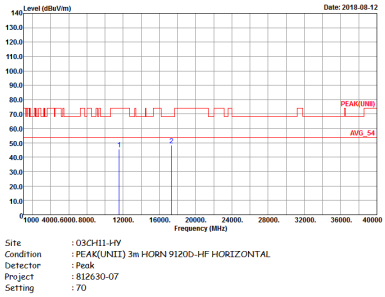
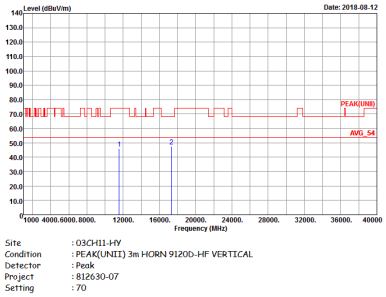
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH165 5825MHz	
1	Horizontal	Vertical
Peak Avg.		

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.		

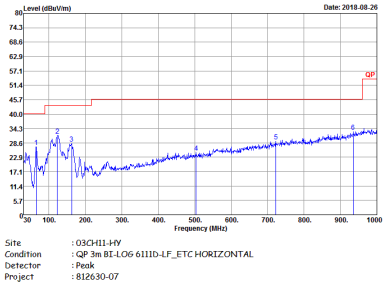
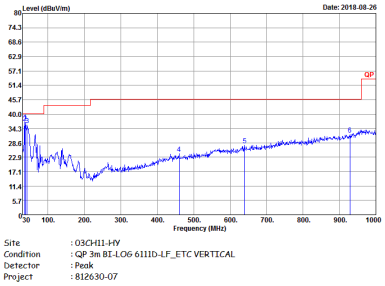
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
1	Horizontal	Vertical
Peak Avg.		

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.		

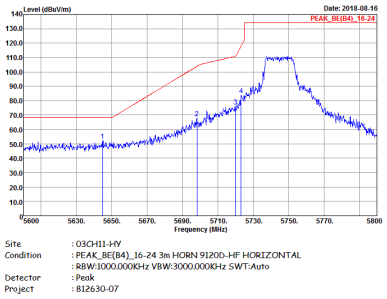
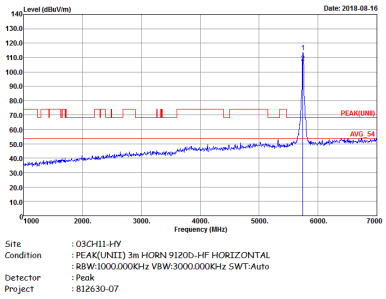
Emission below 1GHz

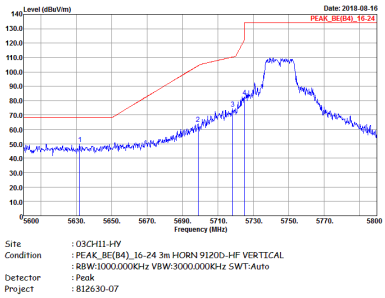
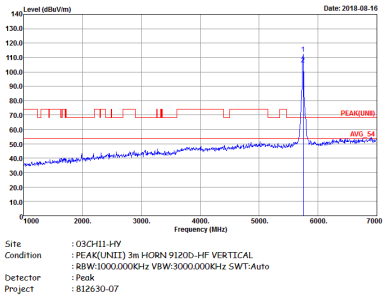
5GHz WIFI 802.11ac VHT80 (LF)

WIFI	5GHz 5725~5850MHz	
ANT	802.11ac VHT80 LF	
1	Horizontal	Vertical
QP / Peak		

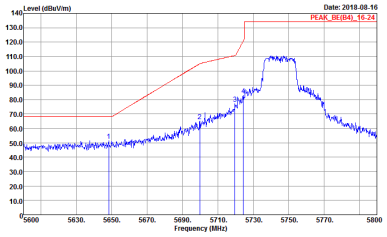
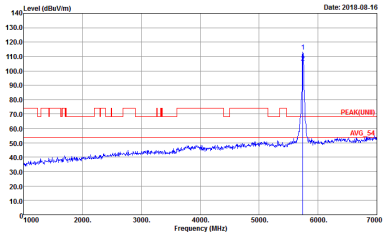
Band 4 - 5725~5850MHz

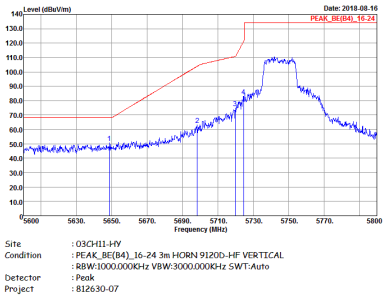
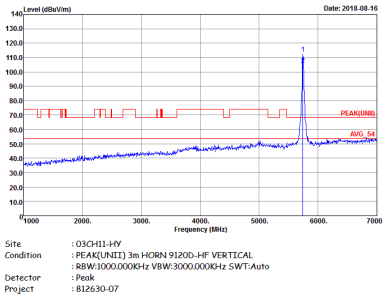
WIFI 802.11a (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
2	Horizontal	Fundamental
Peak		

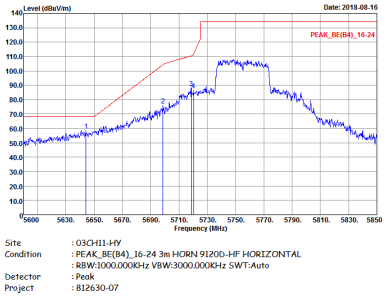
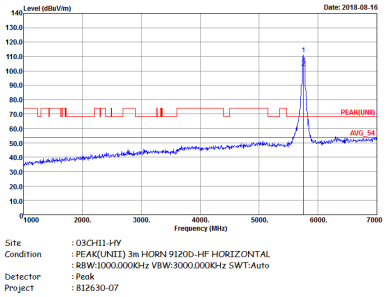
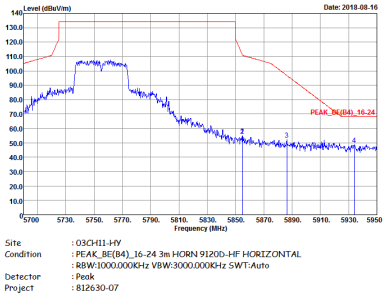
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
2	Vertical	Fundamental
Peak		

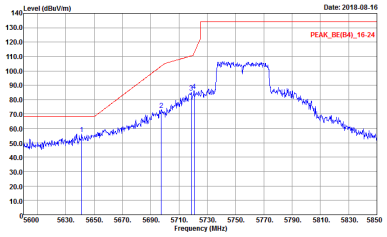
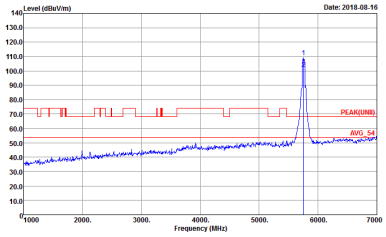
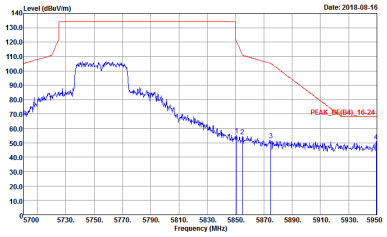
Band 4 5725~5850MHz
WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
2	Horizontal	Fundamental
Peak		

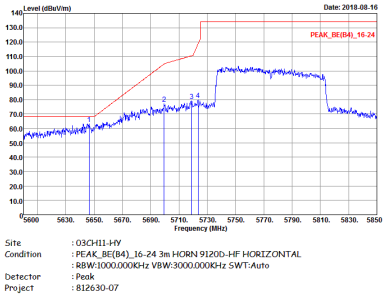
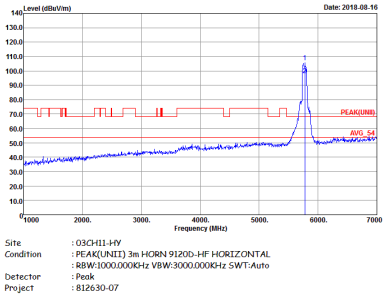
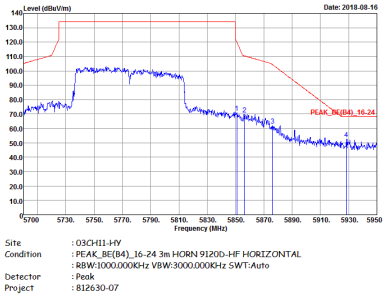
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
2	Vertical	Fundamental
Peak Avg.		

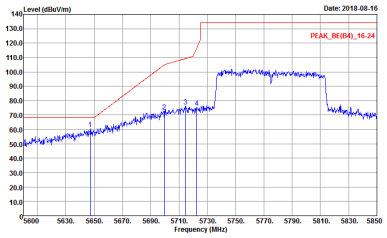
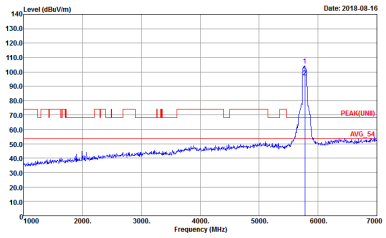
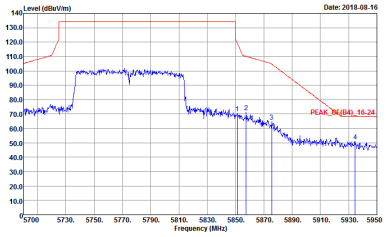
Band 4 5725~5850MHz
WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	Left blank

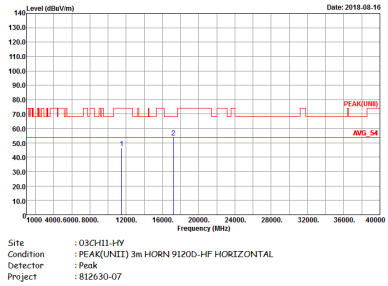
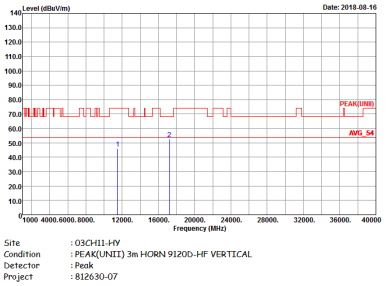
Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

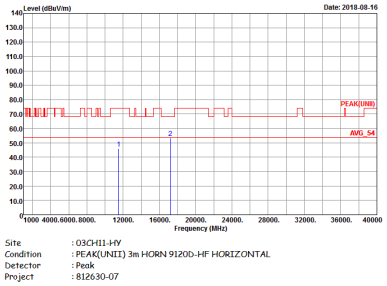
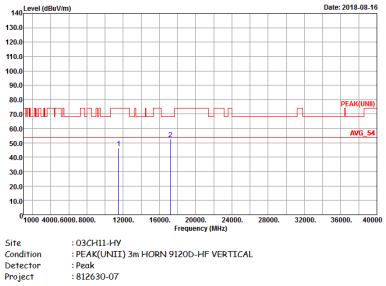
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	Left blank

Band 4 - 5725~5850MHz

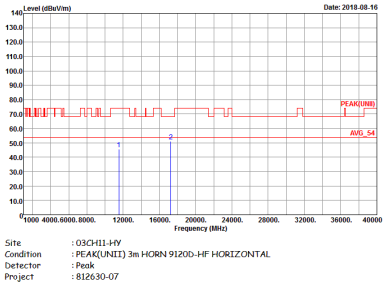
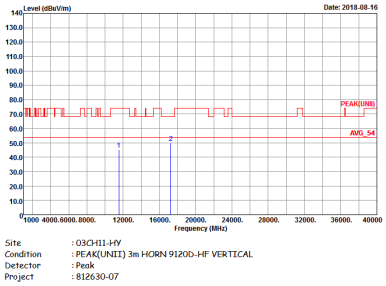
WIFI 802.11a (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
2	Horizontal	Vertical
Peak Avg.		

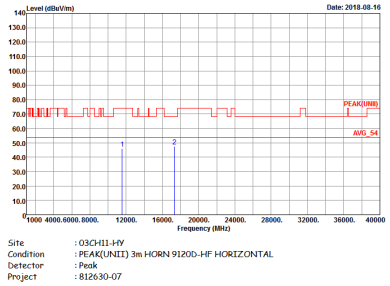
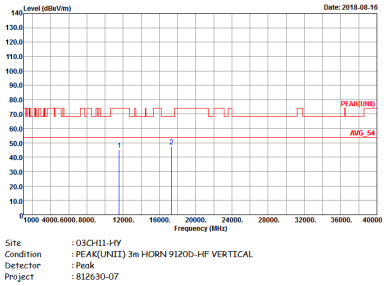
Band 4 5725~5850MHz
WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
2	Horizontal	Vertical
Peak Avg.		

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

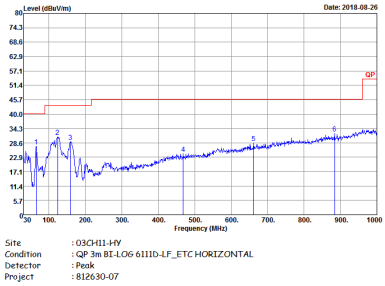
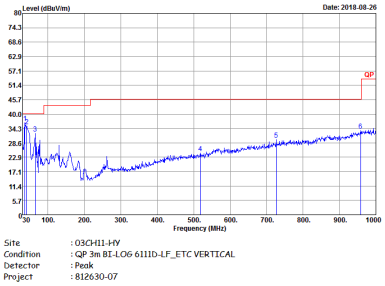
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
2	Horizontal	Vertical
Peak Avg.		

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

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
2	Horizontal	Vertical
Peak Avg.		

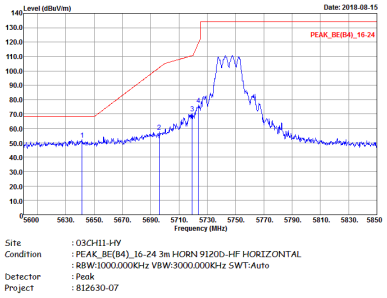
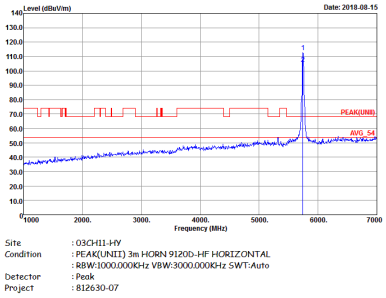
Emission below 1GHz

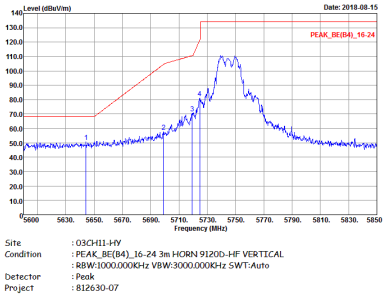
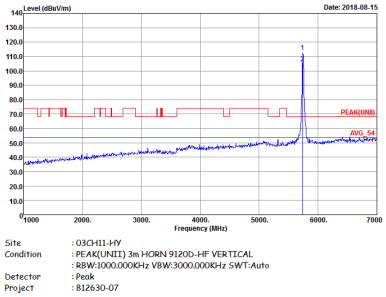
5GHz WIFI 802.11ac VHT80 (LF)

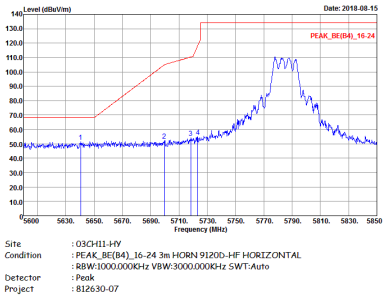
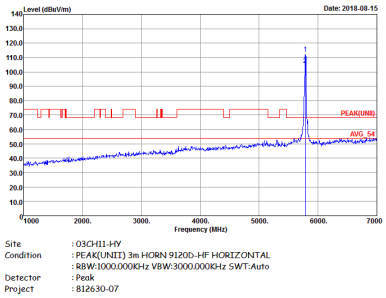
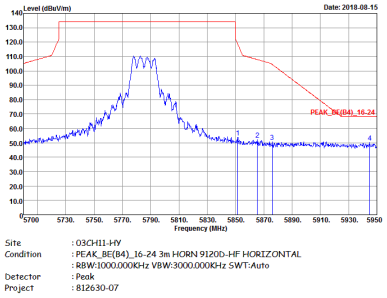
WIFI	5GHz 5725~5850MHz	
ANT	802.11ac VHT80 LF	
2	Horizontal	Vertical
QP / Peak		

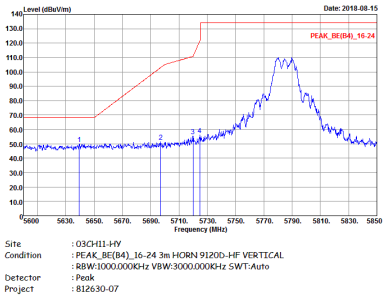
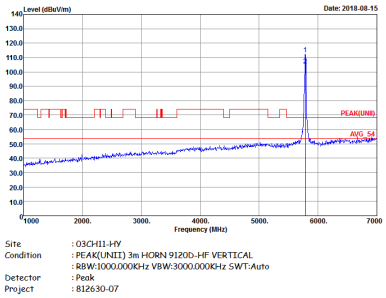
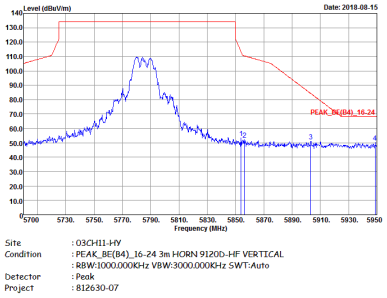
Band 4 - 5725~5850MHz

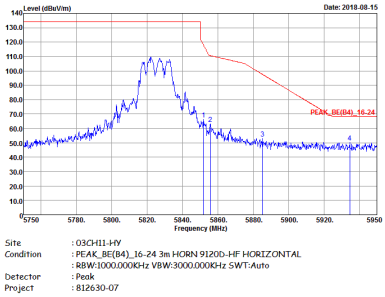
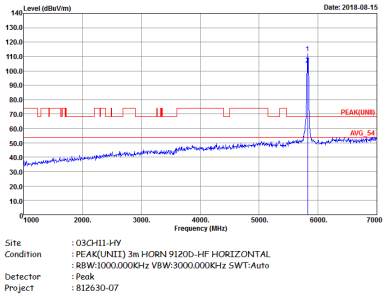
WIFI 802.11a (Band Edge @ 3m)

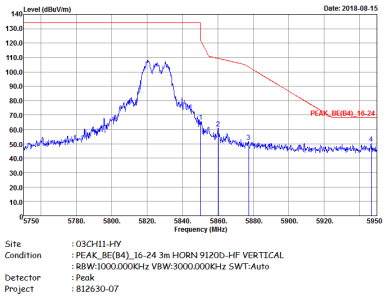
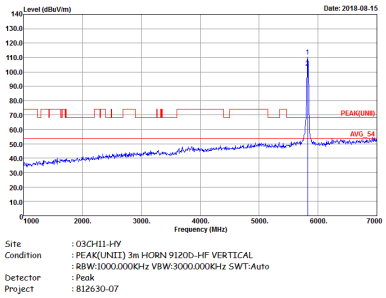
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1+2	Vertical	Fundamental
Peak		

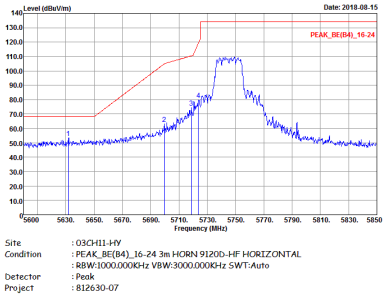
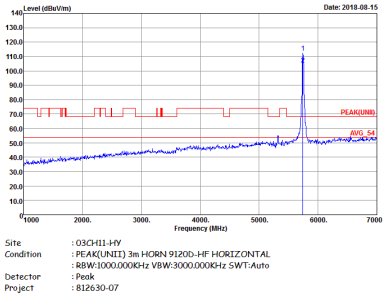
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

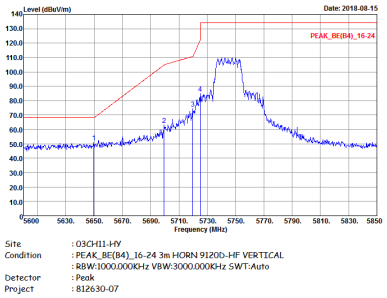
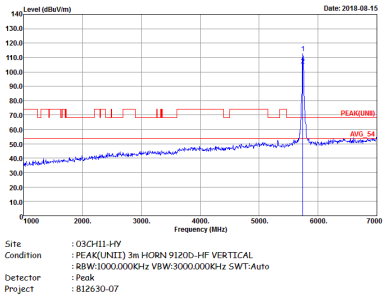
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

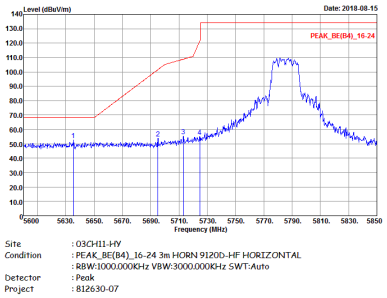
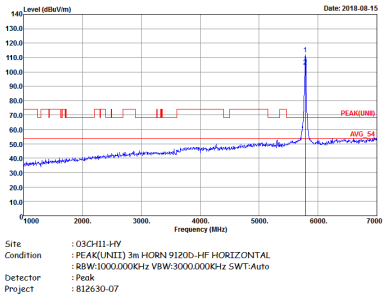
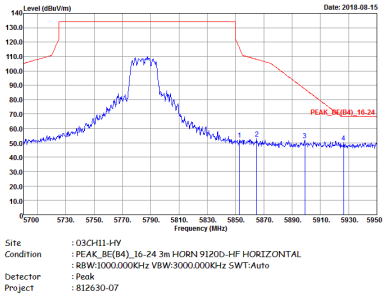
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1+2	Horizontal	Fundamental
Peak		

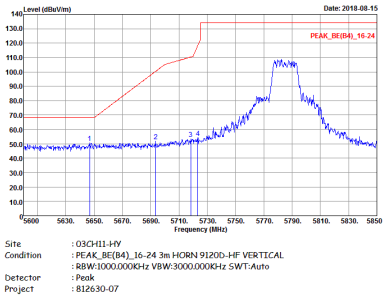
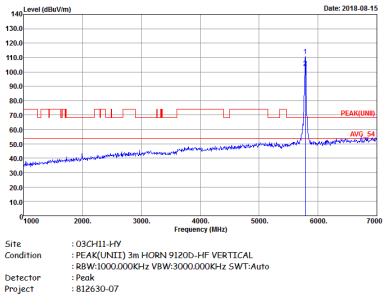
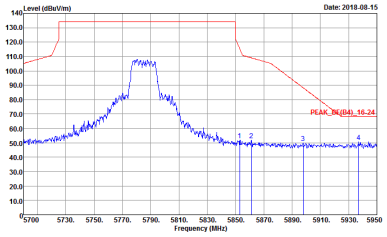
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1+2	Vertical	Fundamental
Peak		

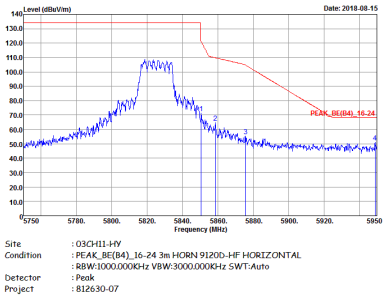
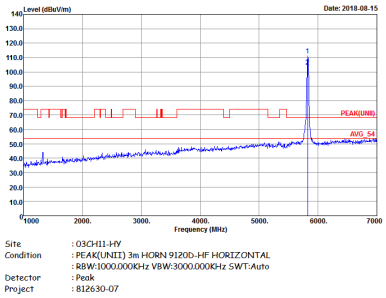
Band 4 5725~5850MHz
WIFI 802.11ac VHT20 (Band Edge @ 3m)

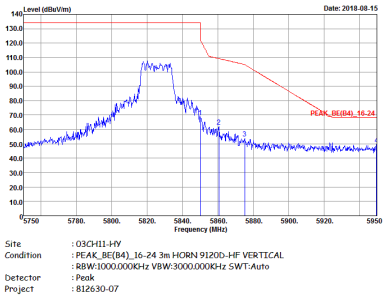
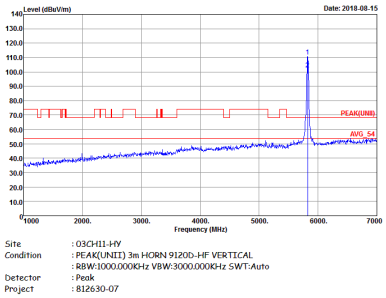
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1+2	Vertical	Fundamental
Peak Avg.		

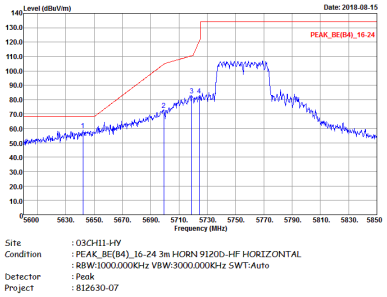
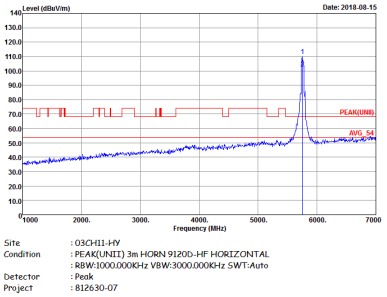
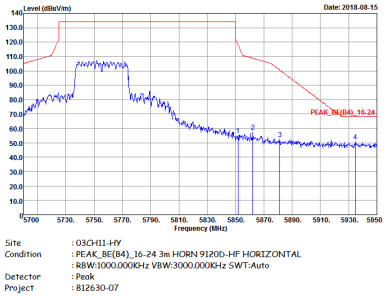
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH157 5785MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

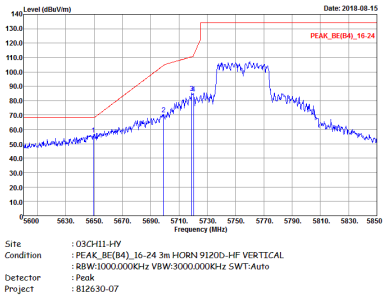
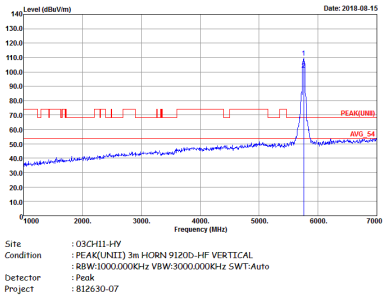
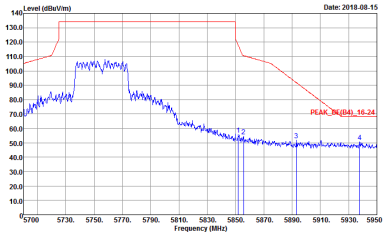
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH157 5785MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	Left blank

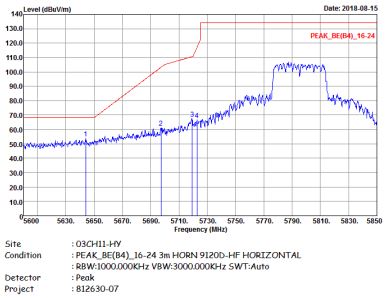
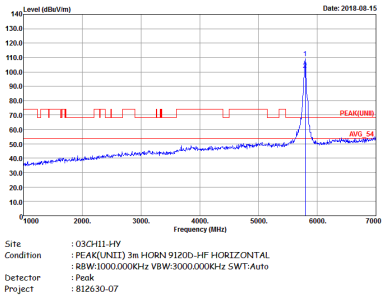
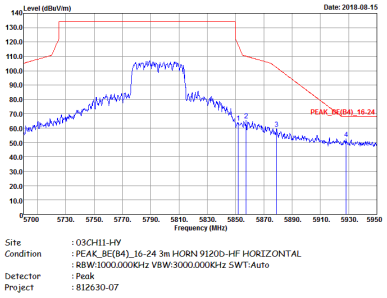
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH165 5825MHz	
1+2	Horizontal	Fundamental
Peak		

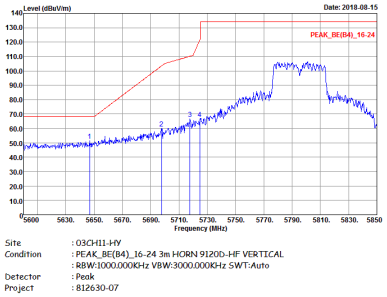
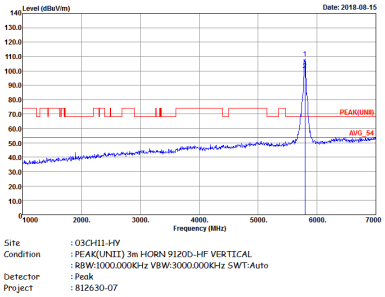
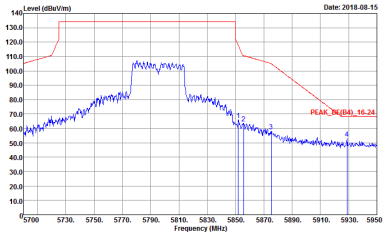
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH165 5825MHz	
1+2	Vertical	Fundamental
Peak Avg.		

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

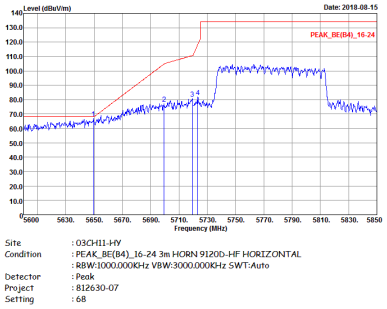
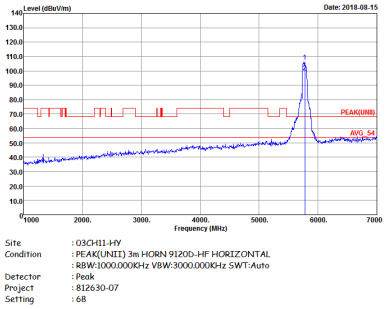
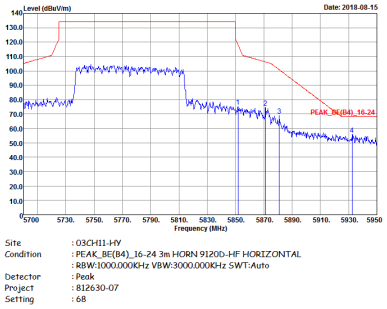
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

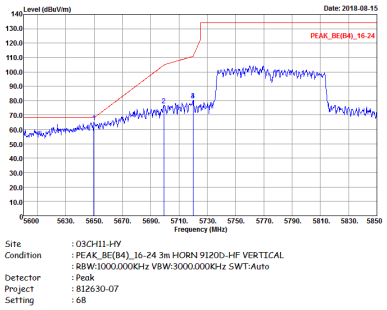
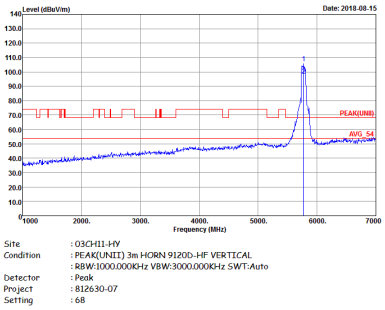
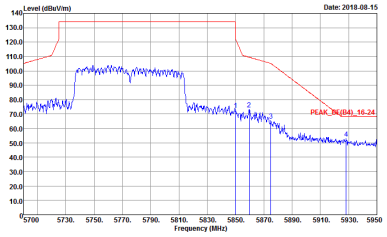
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07
Peak	 Site : 03CH11-HY Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	Left blank

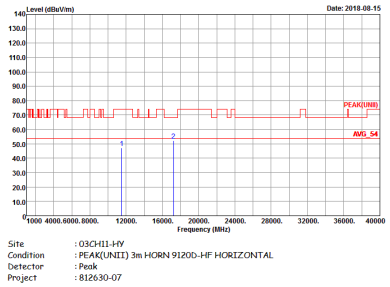
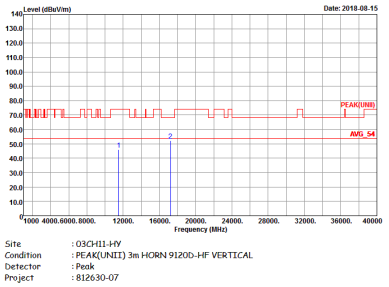
Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

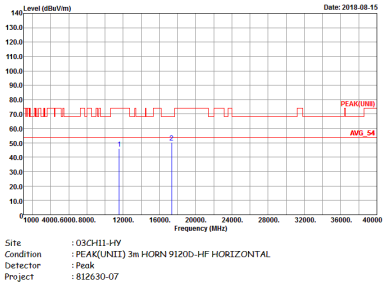
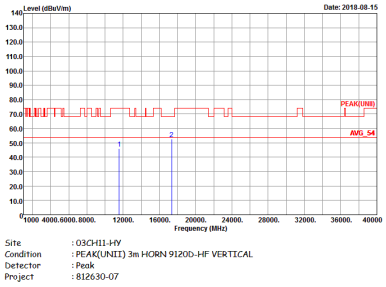
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

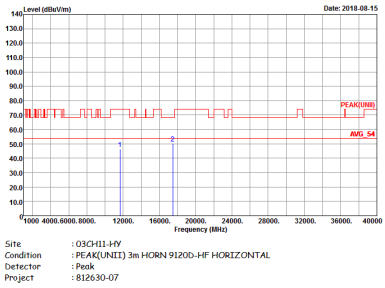
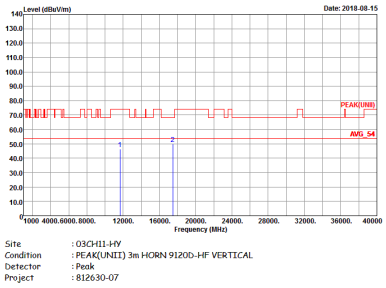
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07 Setting : 68	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07 Setting : 68
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07 Setting : 68	Left blank

Band 4 - 5725~5850MHz

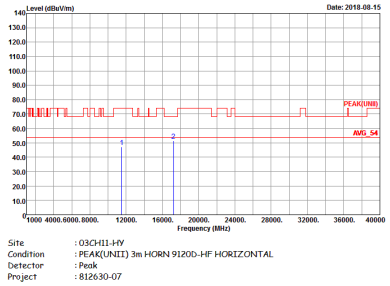
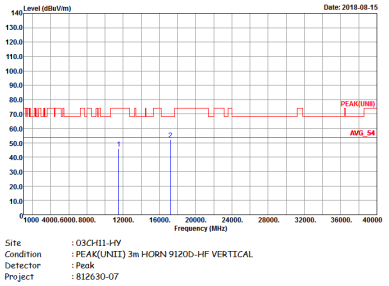
WIFI 802.11a (Harmonic @ 3m)

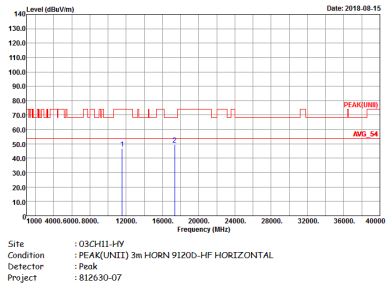
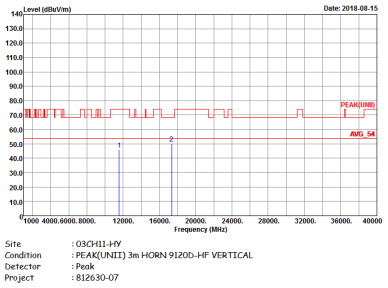
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
1+2	Horizontal	Vertical
Peak Avg.		

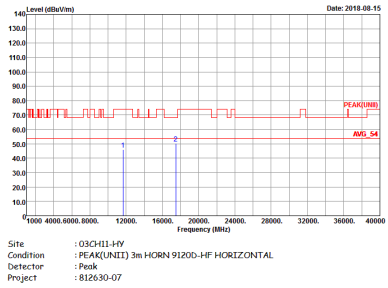
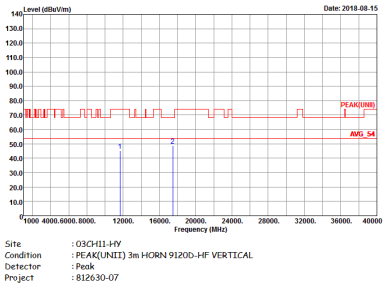
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
1+2	Horizontal	Vertical
Peak Avg.		

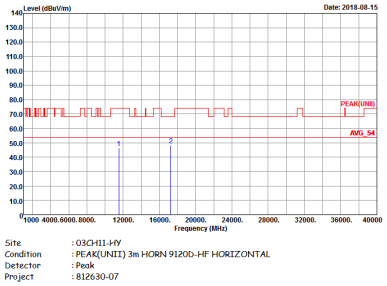
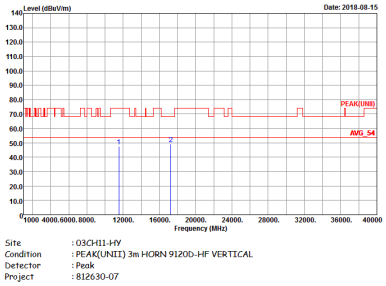
Band 4 5725~5850MHz
WIFI 802.11ac VHT20 (Harmonic @ 3m)

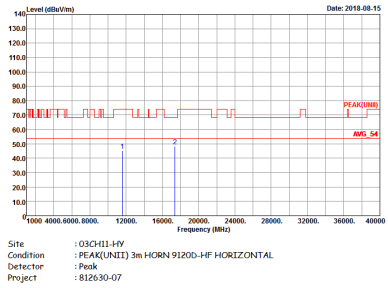
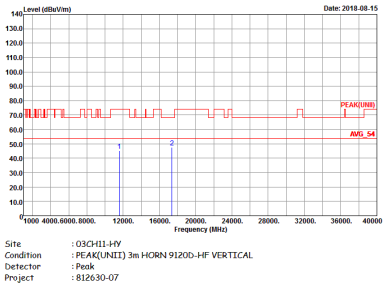
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH157 5785MHz	
1+2	Horizontal	Vertical
Peak Avg.		

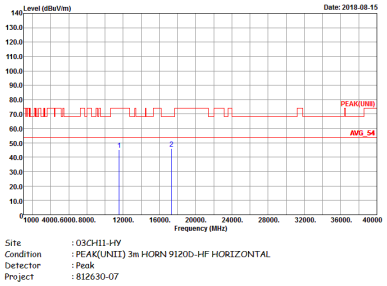
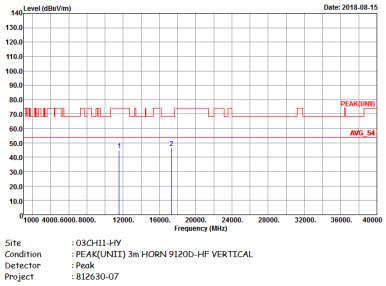
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH165 5825MHz	
1+2	Horizontal	Vertical
Peak Avg.		

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.		

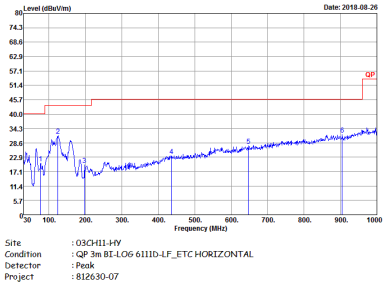
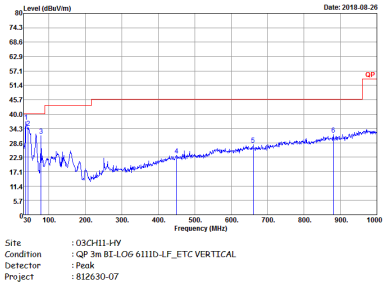
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
1+2	Horizontal	Vertical
Peak Avg.		

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.		

Emission below 1GHz

5GHz WIFI 802.11ac VHT80 (LF)

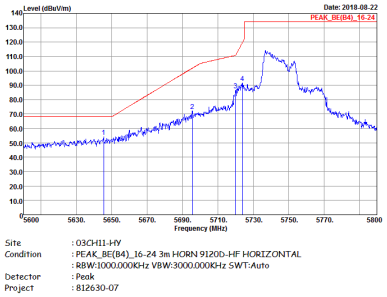
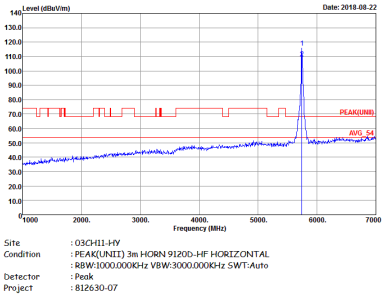
WIFI	5GHz 5725~5850MHz	
ANT	802.11ac VHT80 LF	
1+2	Horizontal	Vertical
QP / Peak		

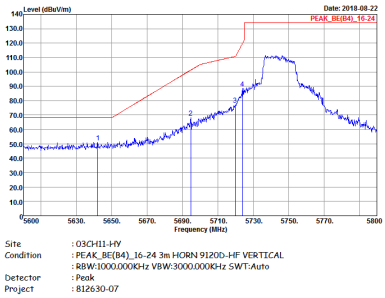
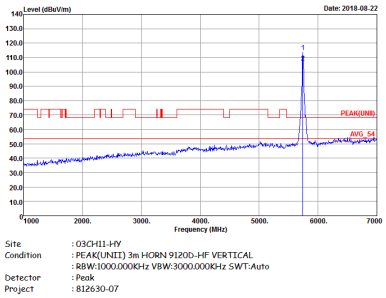
<TXBF Mode>

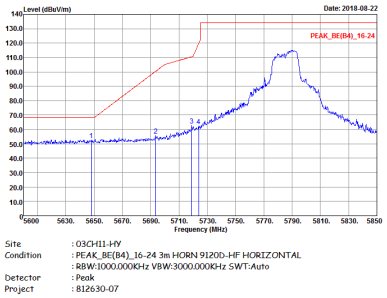
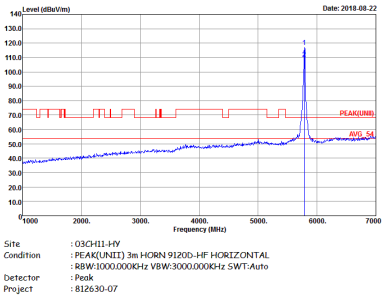
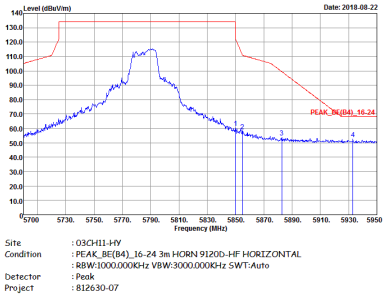
<SKU 3>

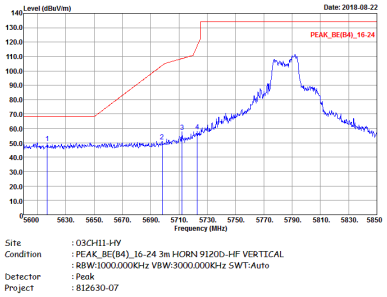
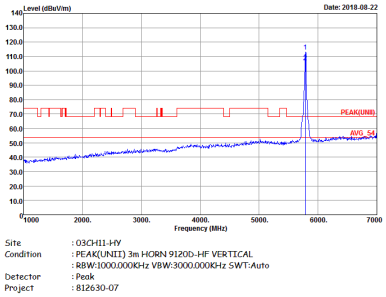
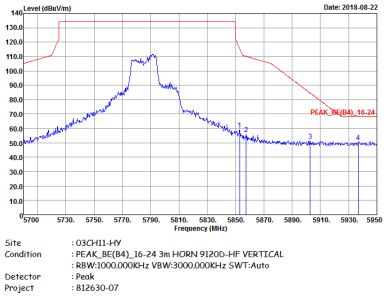
Band 4 - 5725~5850MHz

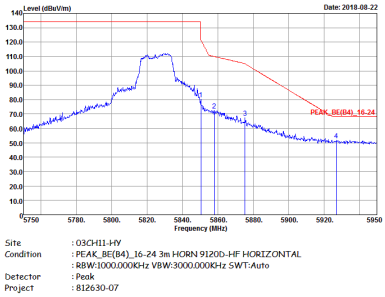
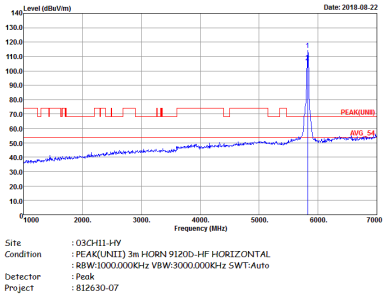
WIFI 802.11ac VHT20 (Band Edge @ 3m)

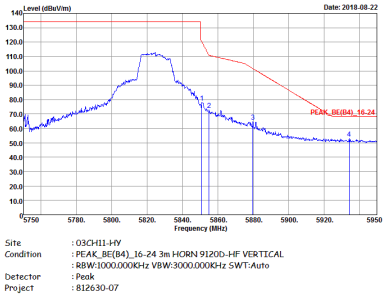
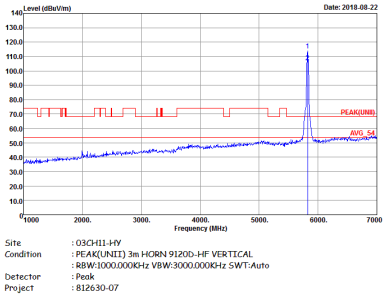
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1+2	Horizontal	Fundamental
Peak		

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1+2	Vertical	Fundamental
Peak Avg.		

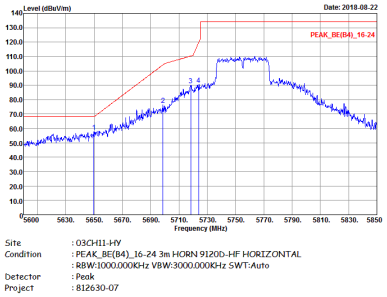
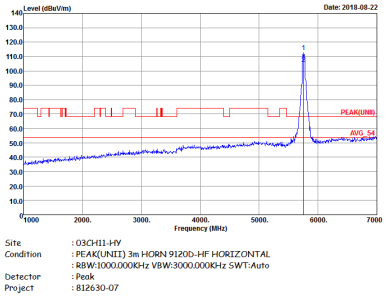
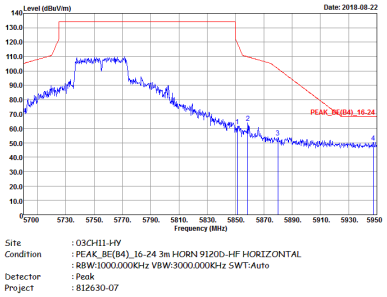
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH157 5785MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	Left blank

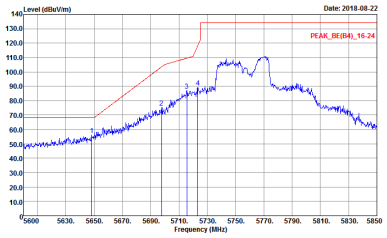
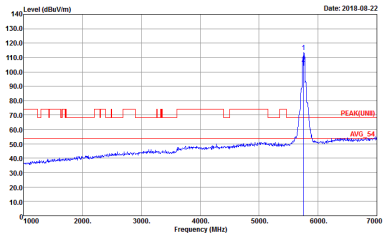
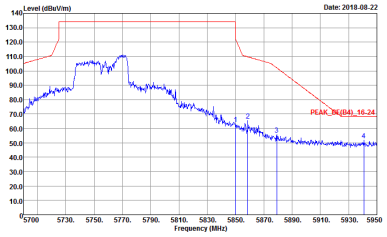
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH157 5785MHz	
1+2	Vertical	Fundamental
Peak		
Peak		Left blank

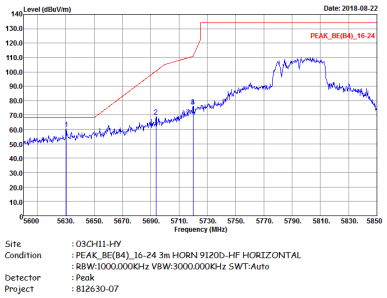
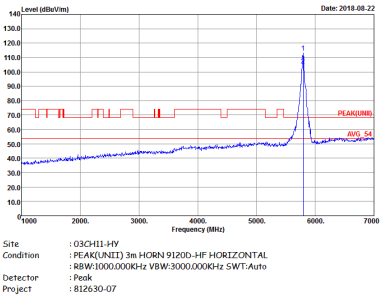
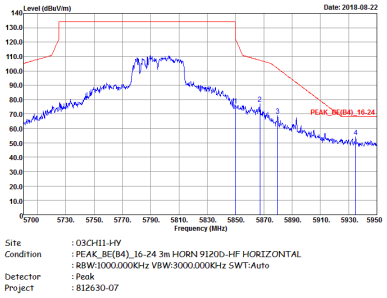
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH165 5825MHz	
1+2	Horizontal	Fundamental
Peak		

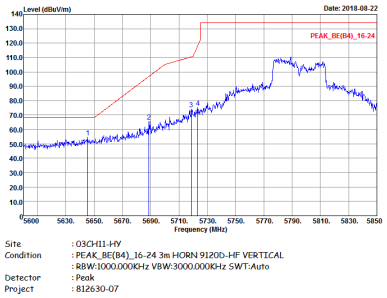
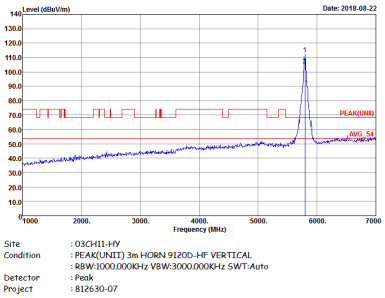
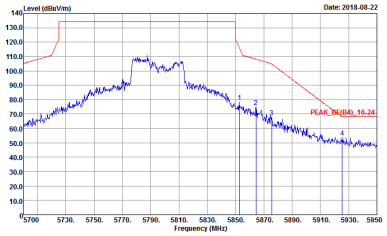
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT20 CH165 5825MHz	
1+2	Vertical	Fundamental
Peak Avg.		

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

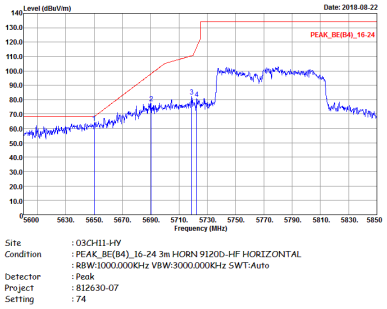
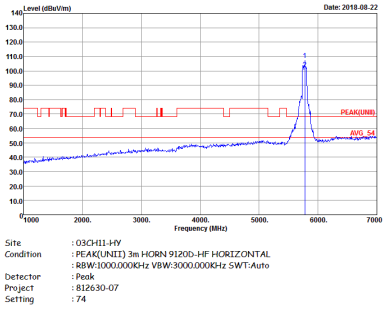
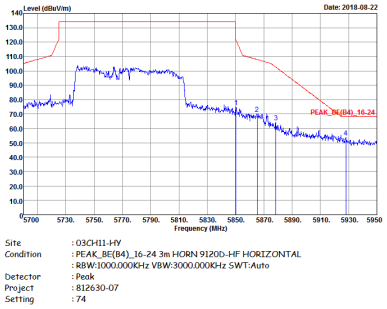
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

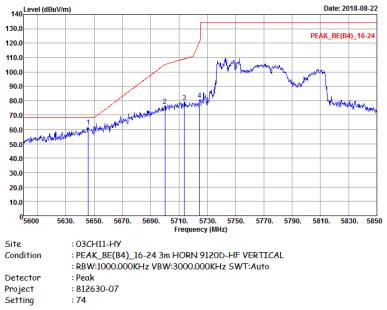
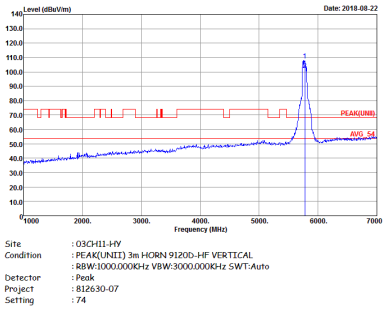
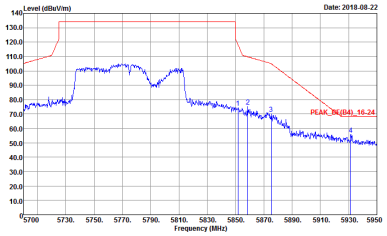
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH151 5755MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07
Peak	 Site : 03CH11-HY Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07	Left blank

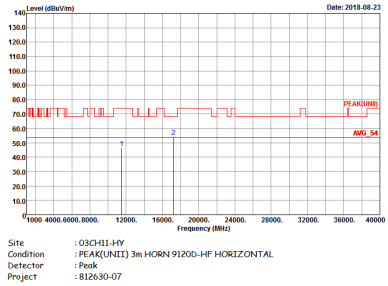
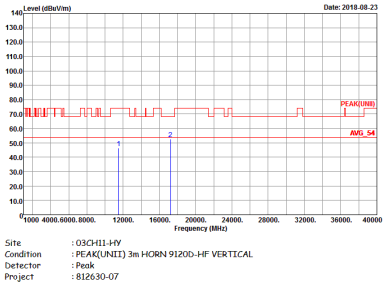
Band 4 5725~5850MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

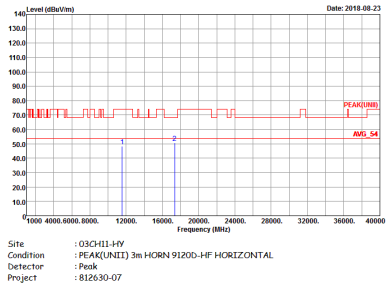
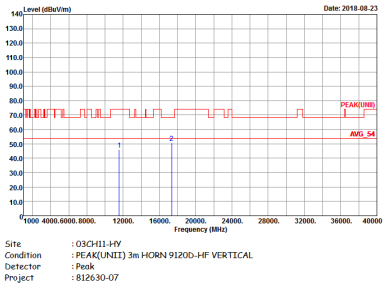
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Horizontal	Fundamental
Peak		
Peak		Left blank

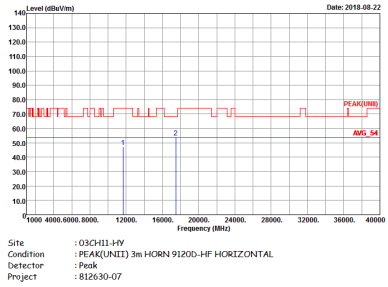
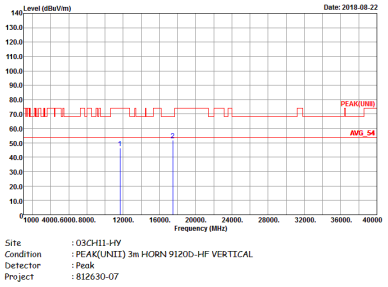
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1+2	Vertical	Fundamental
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07 Setting : 74	 Site : 03CH11-HV Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07 Setting : 74
Peak	 Site : 03CH11-HV Condition : PEAK_BE(B4)_16-24 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 812630-07 Setting : 74	Left blank

Band 4 - 5725~5850MHz

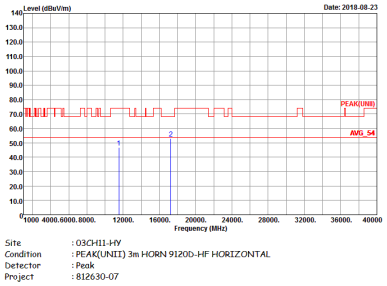
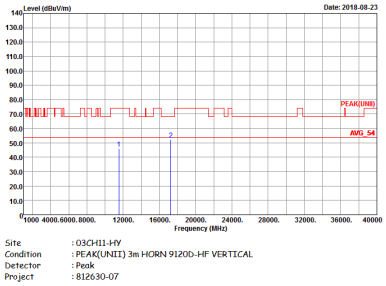
WIFI 802.11ac VHT20 (Harmonic @ 3m)

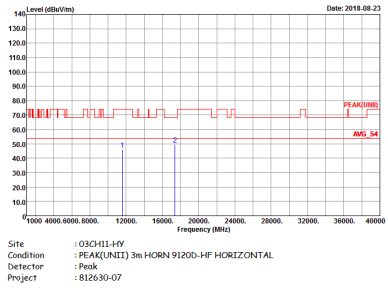
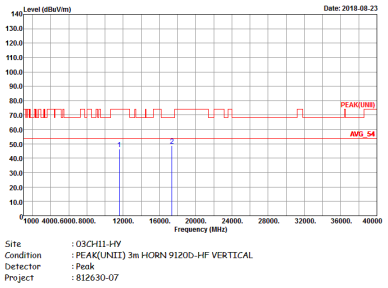
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH149 5745MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH157 5785MHz	
1+2	Horizontal	Vertical
Peak Avg.		

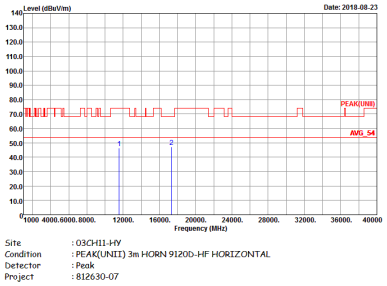
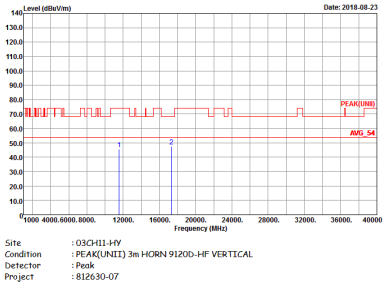
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT20 CH165 5825MHz	
1+2	Horizontal	Vertical
Peak Avg.		

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.		

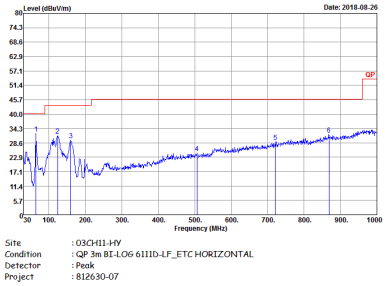
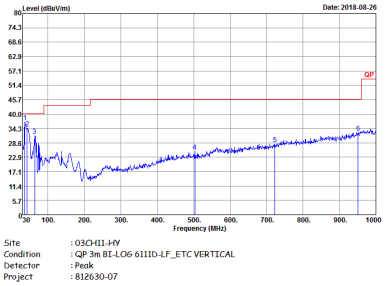
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT40 CH159 5795MHz	
1+2	Horizontal	Vertical
Peak Avg.		

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.		

Emission below 1GHz

5GHz WIFI 802.11ac VHT80 (LF)

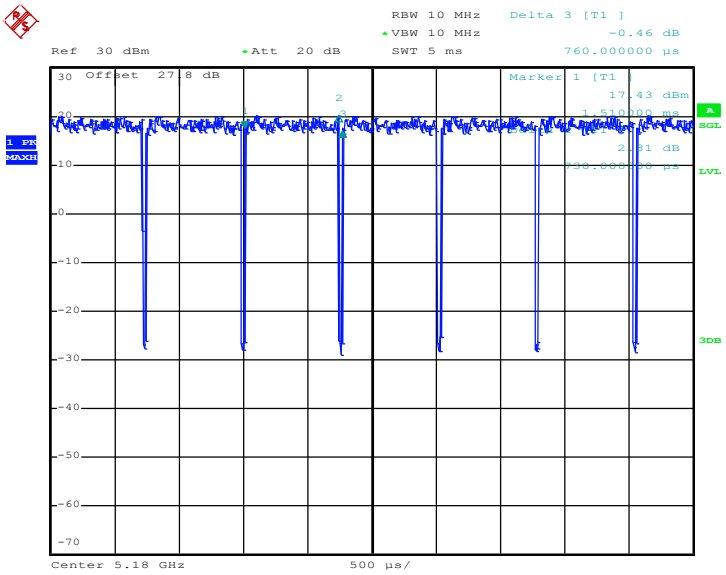
WIFI	5GHz 5725~5850MHz	
ANT	802.11ac VHT80 LF	
1+2	Horizontal	Vertical
QP / Peak		

Appendix D. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
1	802.11a	96.05	730	1.37	3kHz	0.18
2	802.11a	96.05	730	1.37	3kHz	0.18
1+2	802.11a for Ant. 1	96.05	730	1.37	3kHz	0.18
1+2	802.11a for Ant. 2	96.05	730	1.37	3kHz	0.18
1	5GHz 802.11n HT20	94.52	690	1.45	3kHz	0.24
2	5GHz 802.11n HT20	94.52	690	1.45	3kHz	0.24
1+2	5GHz 802.11n HT20 for Ant. 1	94.52	690	1.45	3kHz	0.24
1+2	5GHz 802.11n HT20 for Ant. 2	94.52	690	1.45	3kHz	0.24
1	5GHz 802.11n HT40	91.67	352	2.84	3kHz	0.38
2	5GHz 802.11n HT40	91.67	352	2.84	3kHz	0.38
1+2	5GHz 802.11n HT40 for Ant. 1	91.67	352	2.84	3kHz	0.38
1+2	5GHz 802.11n HT40 for Ant. 2	91.67	352	2.84	3kHz	0.38
1	5GHz 802.11ac VHT20	95.89	700	1.43	3kHz	0.18
2	5GHz 802.11ac VHT20	95.89	700	1.43	3kHz	0.18
1+2	5GHz 802.11ac VHT20 for Ant. 1	95.89	700	1.43	3kHz	0.18
1+2	5GHz 802.11ac VHT20 for Ant. 2	95.89	700	1.43	3kHz	0.18
1	5GHz 802.11ac VHT40	91.84	360	2.78	3kHz	0.37
2	5GHz 802.11ac VHT40	91.84	360	2.78	3kHz	0.37
1+2	5GHz 802.11ac VHT40 for Ant. 1	91.84	360	2.78	3kHz	0.37
1+2	5GHz 802.11ac VHT40 for Ant. 2	91.84	360	2.78	3kHz	0.37
1	5GHz 802.11ac VHT80	85.19	184	5.43	10kHz	0.70
2	5GHz 802.11ac VHT80	85.19	184	5.43	10kHz	0.70
1+2	5GHz 802.11ac VHT80 for Ant. 1	85.45	188	5.32	10kHz	0.68
1+2	5GHz 802.11ac VHT80 for Ant. 2	85.45	188	5.32	10kHz	0.68

<Ant. 1>

802.11a



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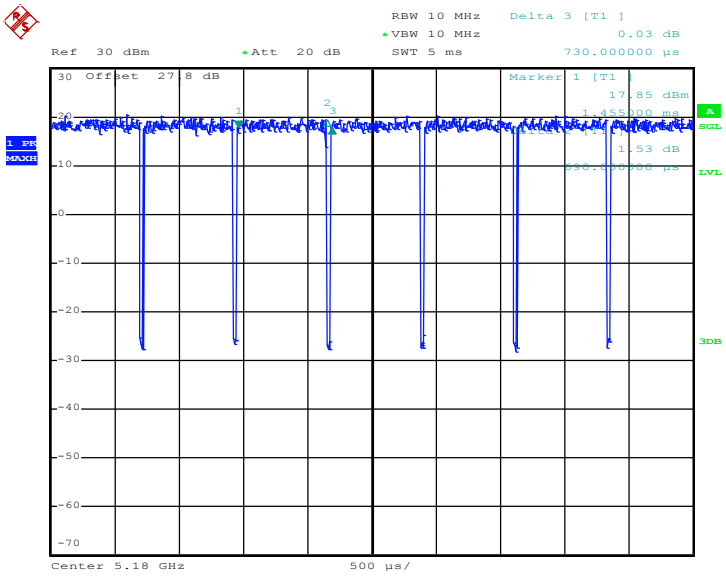

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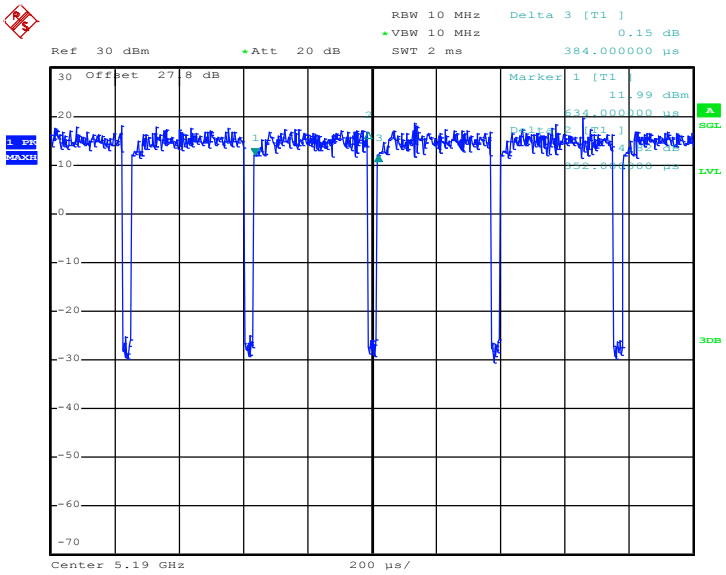

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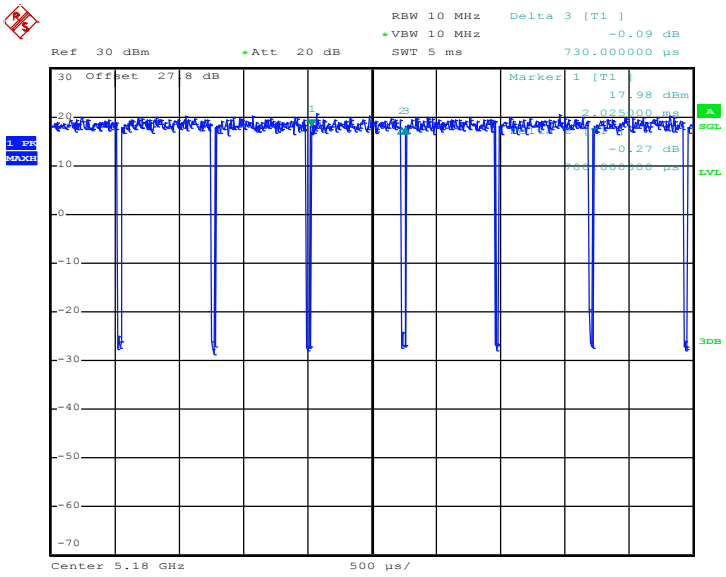
802.11ac VHT20



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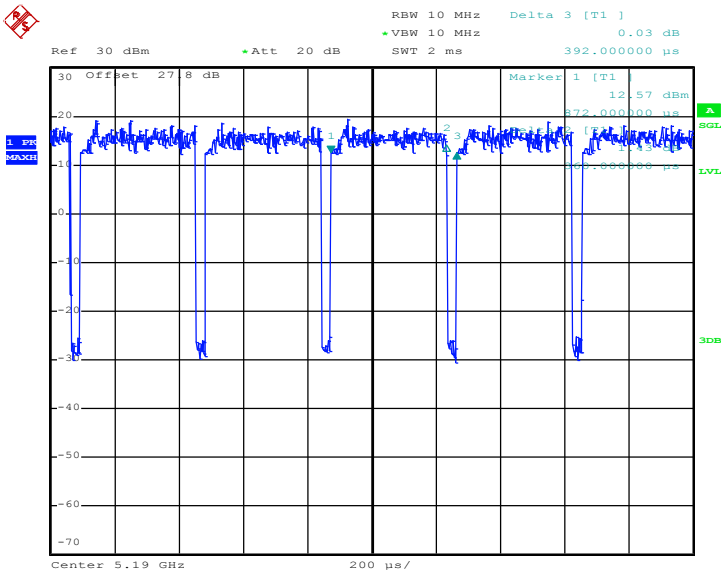

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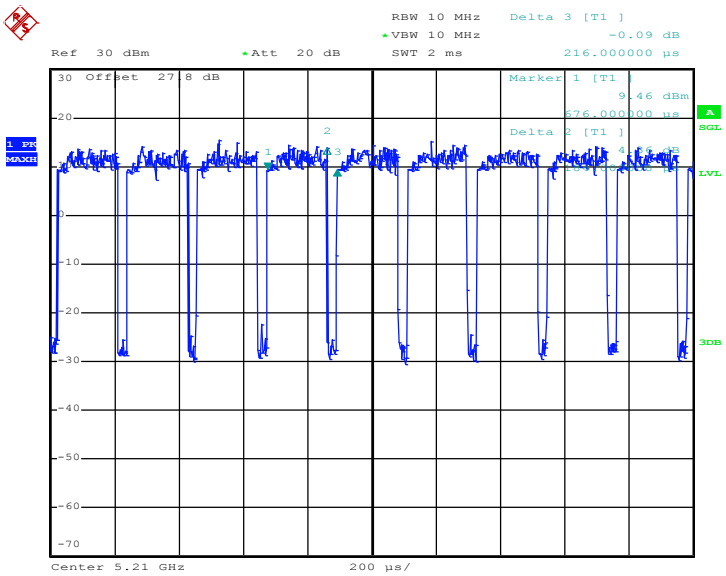
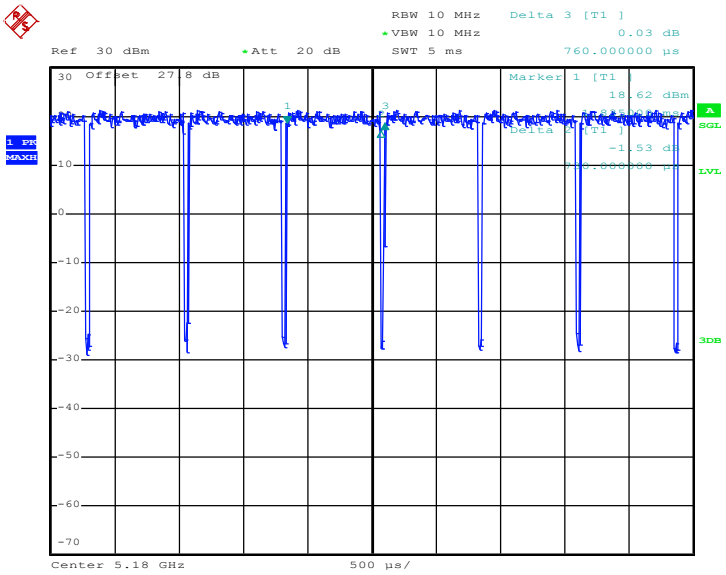


Date: 26.JUL.2018 03:57:02

<Ant. 2>

802.11a



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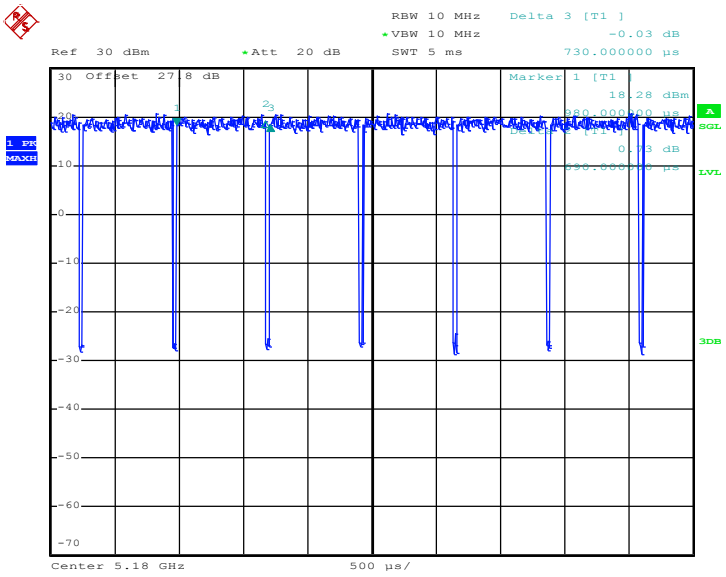

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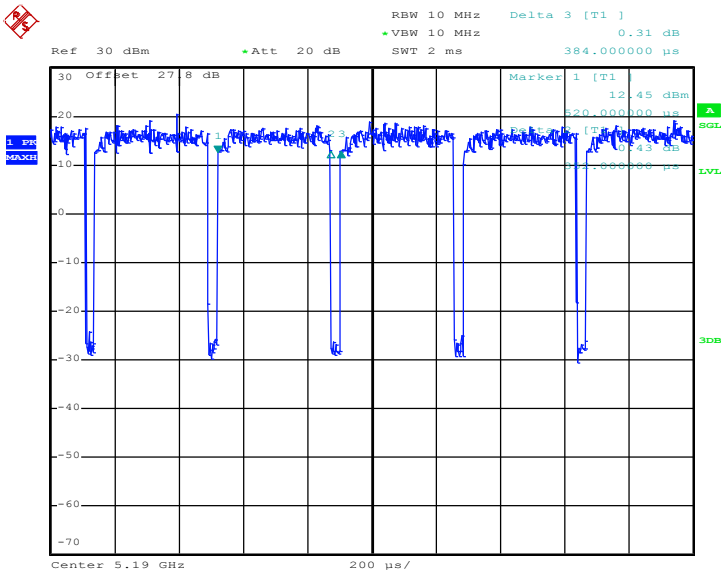

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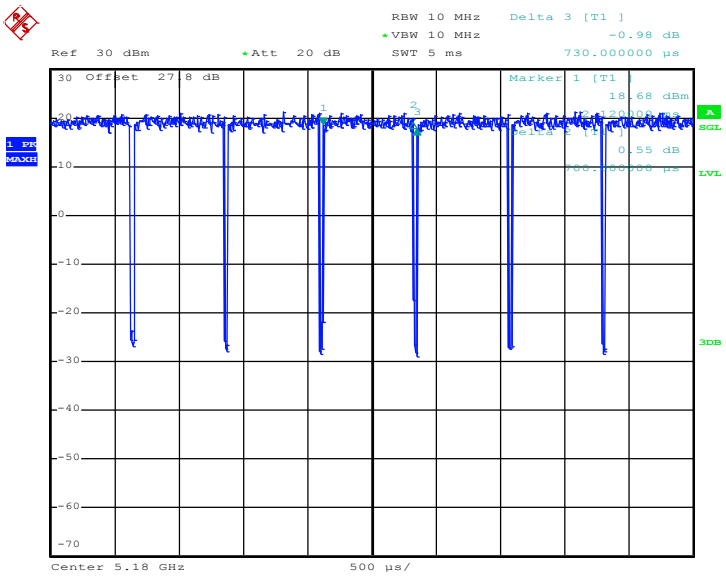

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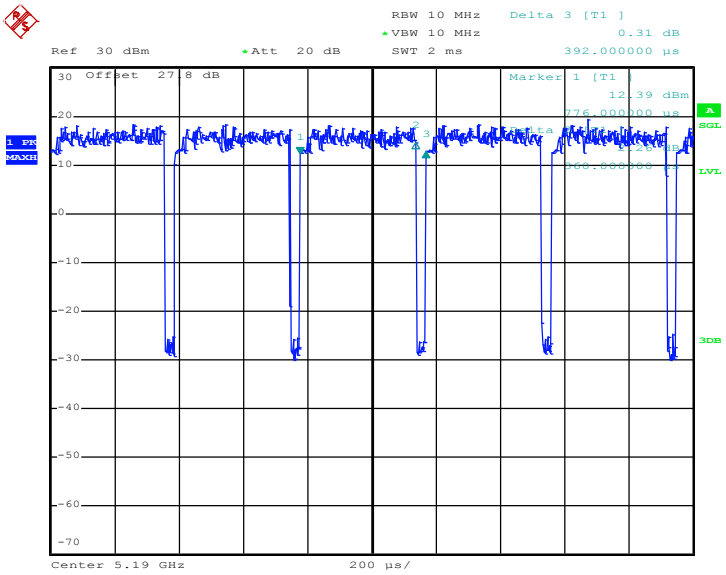

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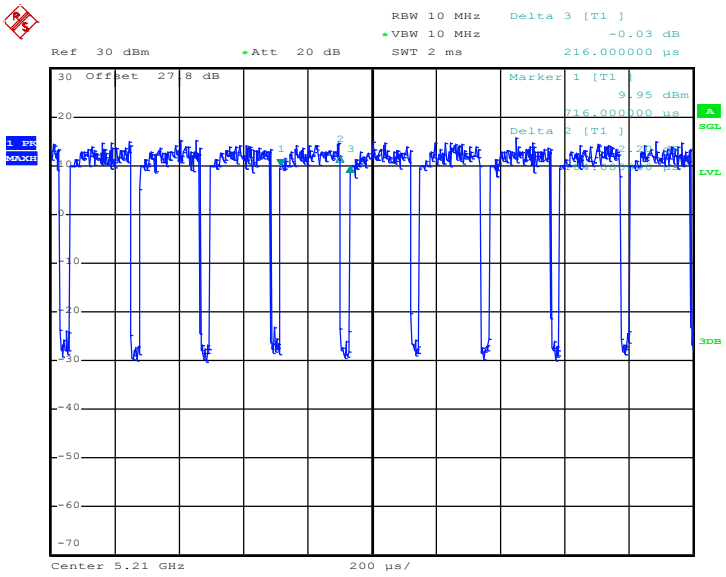

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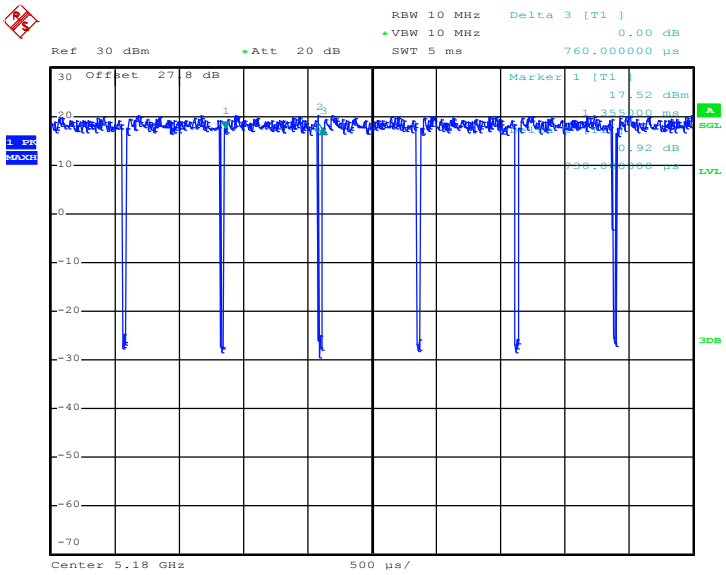
MIMO <Ant. 1>

802.11a



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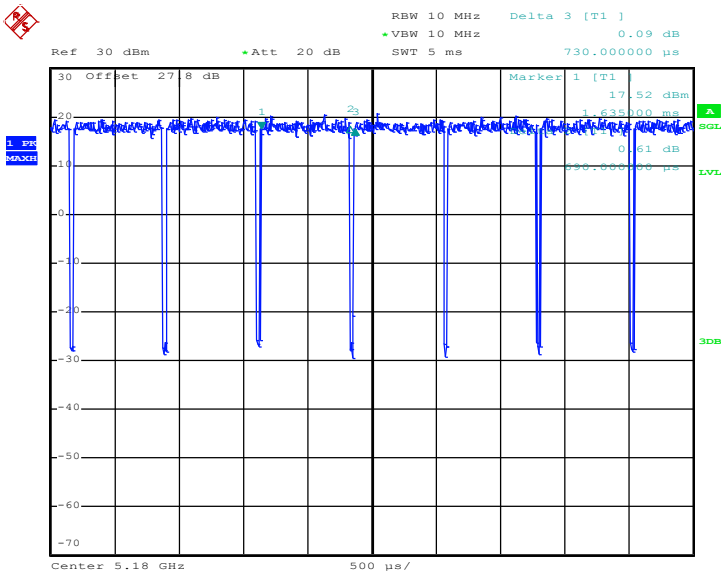
802.11n HT20



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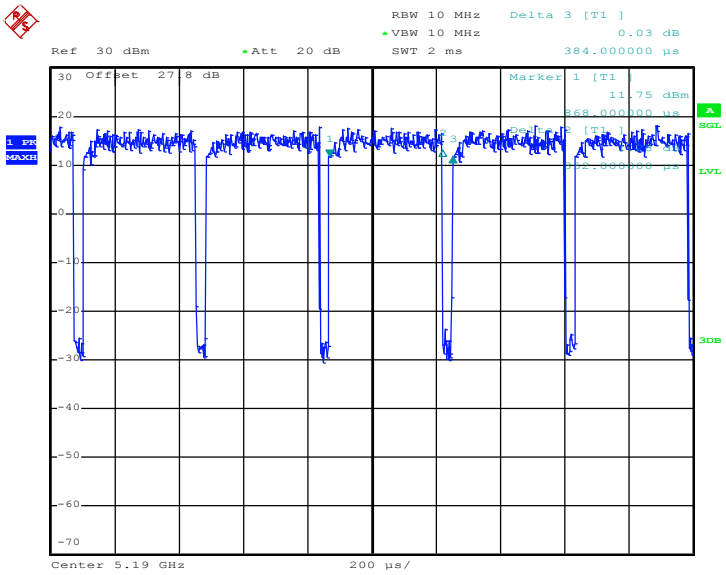
802.11n HT40



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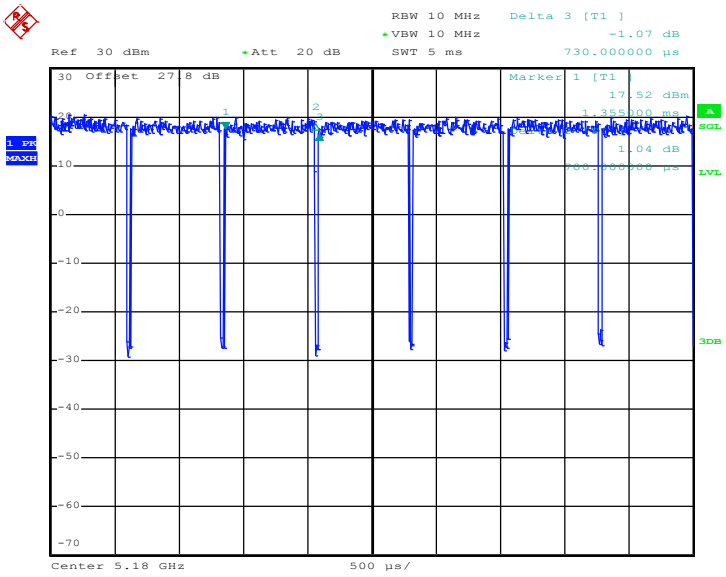

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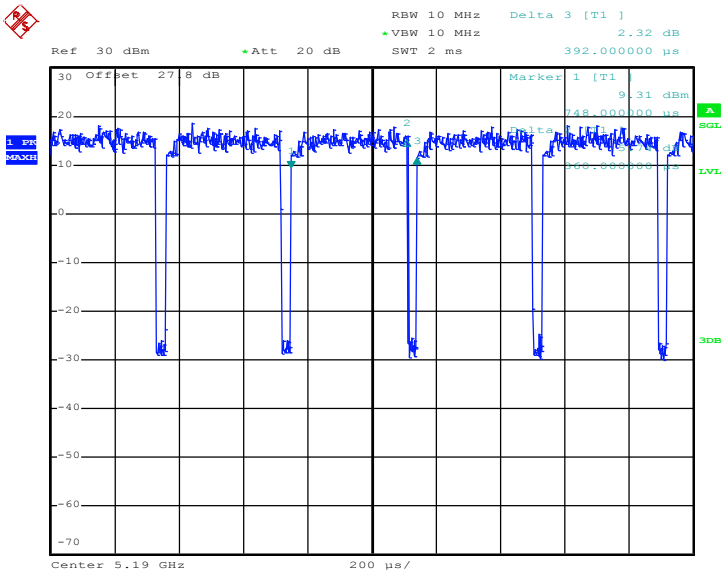

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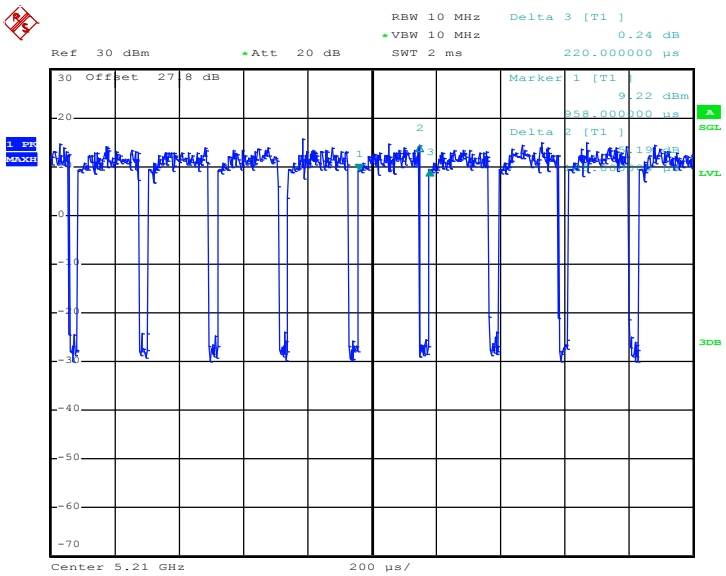

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MIMO <Ant. 2>

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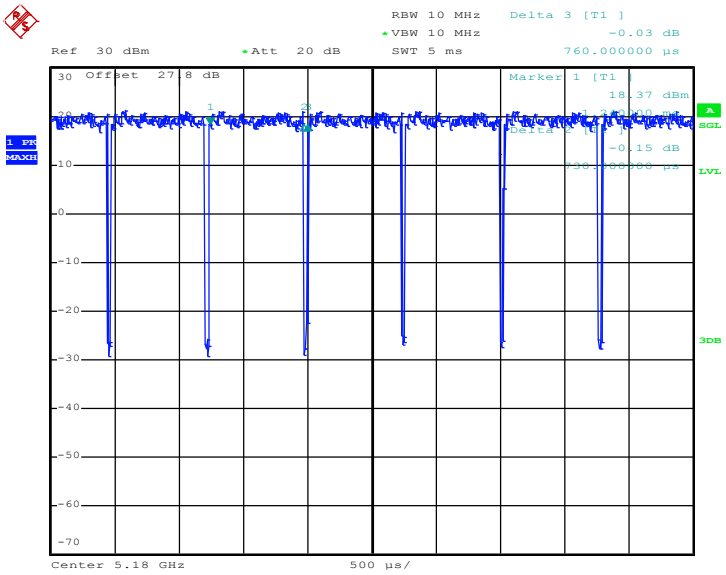

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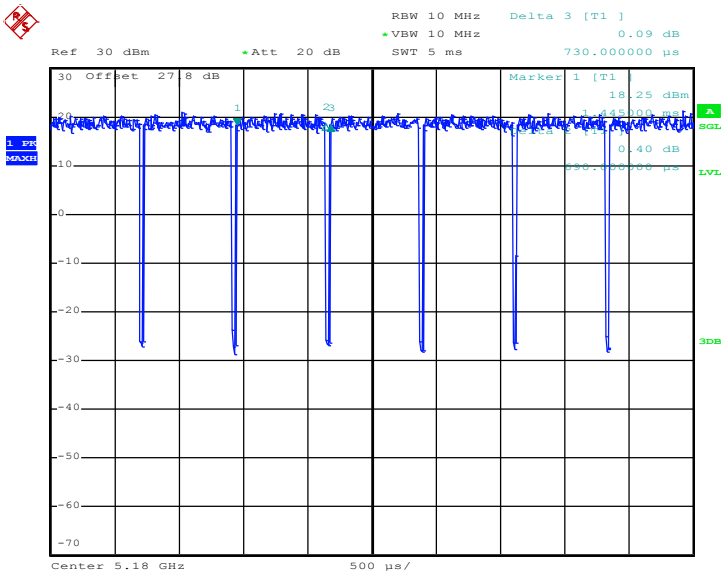

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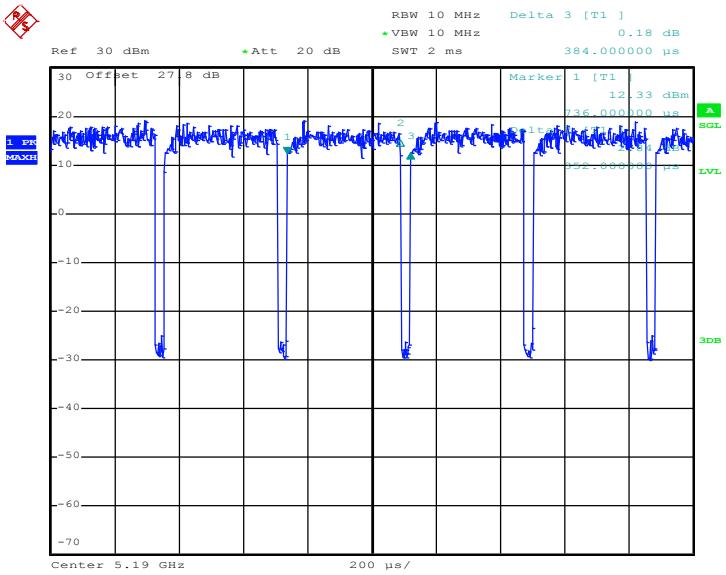
802.11n HT40



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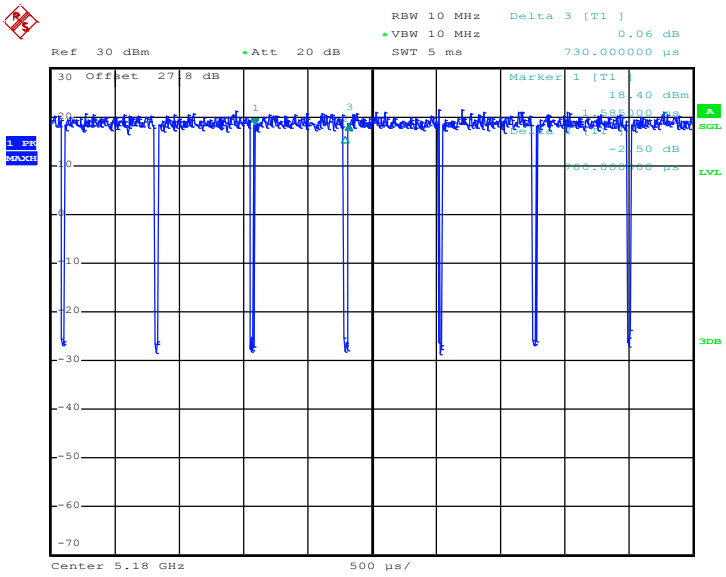

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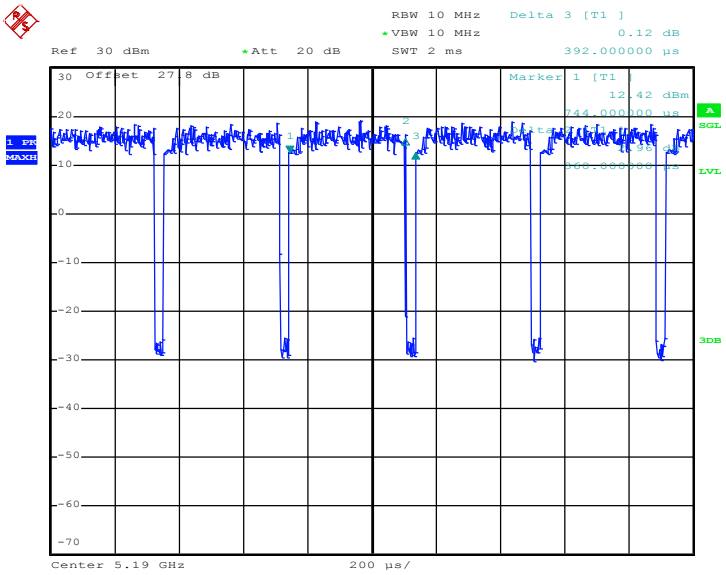

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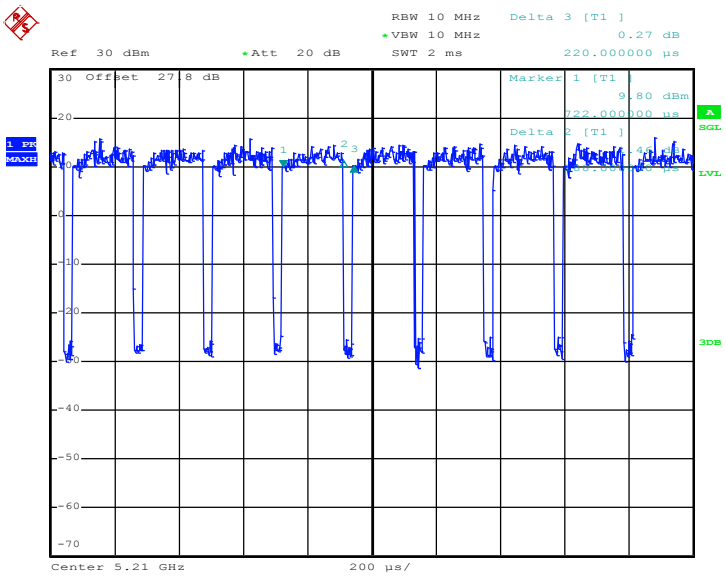

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