FCC RF Test Report

APPLICANT	:	**HMD Global Oy**
EQUIPMENT	:	**Smart Phone**
BRAND NAME	:	**Nokia**
MODEL NAME	:	**TA-1046**
FCC ID	:	**2AJOTTA-1046**
STANDARD	:	**FCC Part 15 Subpart E §15.407**
CLASSIFICATION	:	**(NII) Unlicensed National Information Infrastructure**

The product was received on Dec. 07, 2017 and testing was completed on Mar. 05, 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 test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager

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

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR7D0706E	Rev. 01	Initial issue of report	Mar. 13, 2018

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	2.1049 & 15.403(i)	26dB & 99% Bandwidth	-	Pass	-
3.2	15.407(a)	Maximum Conducted Output Power	≤ 24 dBm	Pass	-
3.3	15.407(a)	Power Spectral Density	≤ 11 dBm	Pass	-
3.4	15.407(b)	Unwanted Emissions	15.407(b) & 15.209(a)	Pass	Under limit 9.95 dB at 34.320 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 9.74 dB at 0.195 MHz
3.6	15.407(c)	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.7	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

HMD Global Oy
Karaportti 2, 02610 Espoo, Finland

1.2 Manufacturer

HMD Global Oy
Karaportti 2, 02610 Espoo, Finland

1.3 Product Feature of Equipment Under Test

GSM/WCDMA/LTE, Bluetooth, Wi-Fi 2.4GHz 802.11b/g/n, Wi-Fi 5GHz 802.11a/n/ac, NFC, and GNSS

Product specification subjective to this standard	
Antenna Type	WWAN: PIFA Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna NFC: Single Loop Antenna GPS/GLONASS/BDS: PIFA Antenna

1.4 Modification of EUT

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

1.5 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, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	**Sporton Site No.**	
	TH05-HY	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.**
	03CH12-HY

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

1.6 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.
- 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 (Z plane) were recorded in this report.

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

2.1 Carrier Frequency and Channel

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

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

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

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

Note:

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

2.2 Test Mode

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

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

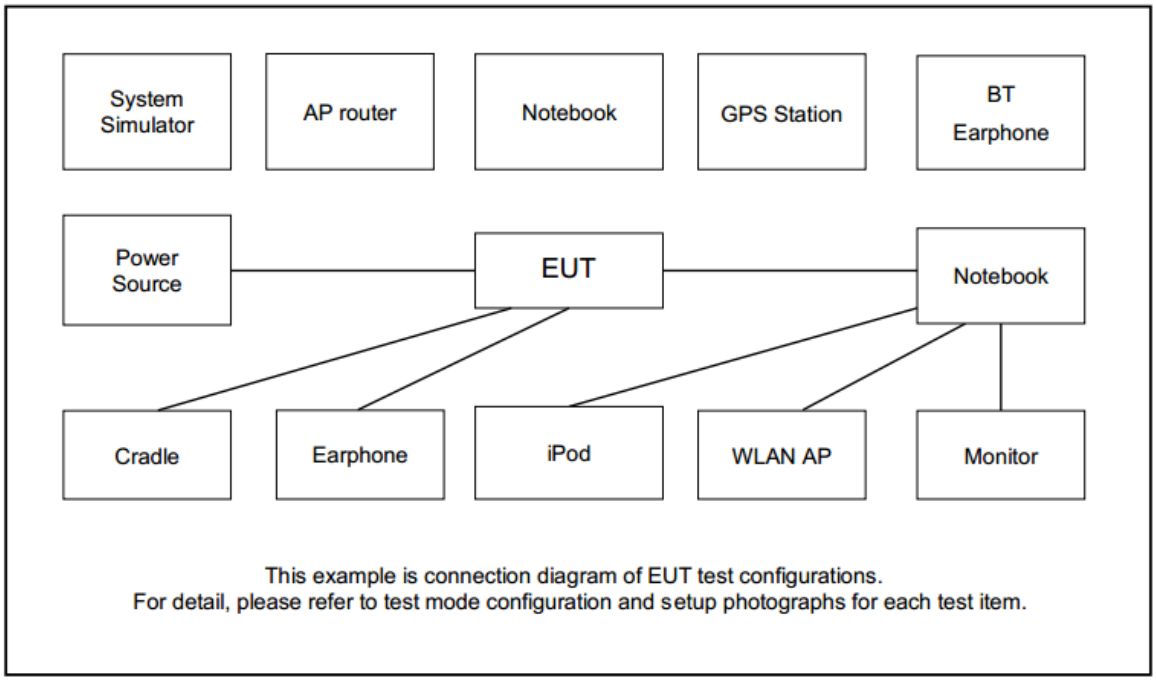
Test Cases	
AC Conducted Emission	Mode 1 : LTE Band 38 Idle + Bluetooth Link + WLAN (5GHz) Link + Color Bar + Earphone 2 + USB Cable 1 (Charigng from Adapter 3)
Remark: For Radiated Test Cases, The tests were performance with Adapter 1, Earphone 1, and USB Cable 1	

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

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

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

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
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.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
5.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A

2.5 EUT Operation Test Setup

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

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example :

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

Offset = RF cable loss + attenuator factor.

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

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

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

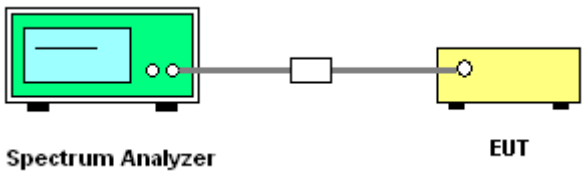
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

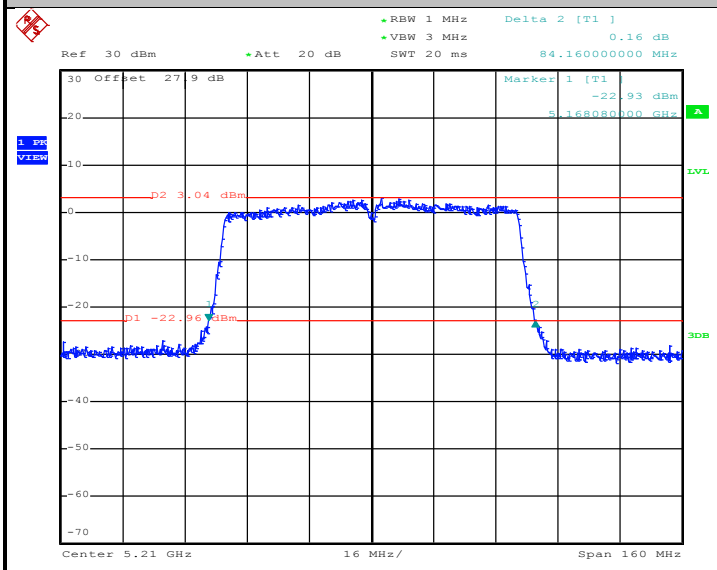
3.1.4 Test Setup



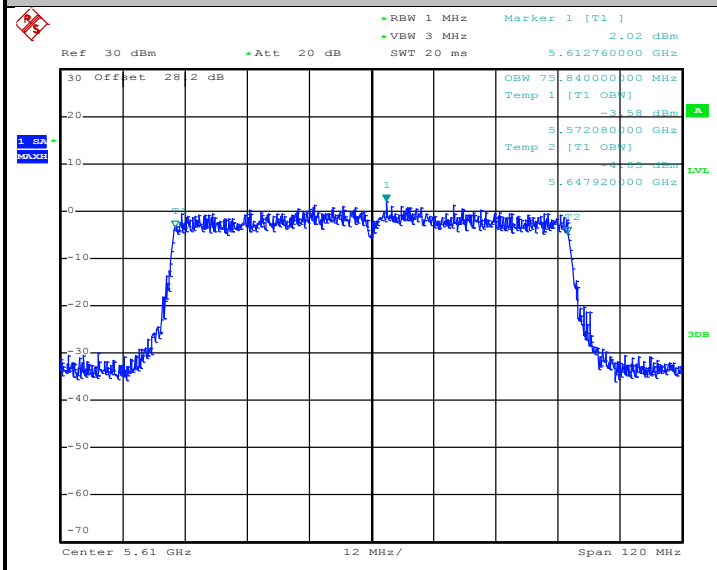
3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.

Maximum 26dB Bandwidth



Maximum 99% Occupied Bandwidth



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

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW.

For the 5.25–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz.

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

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

3.2.2 Measuring Instruments

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

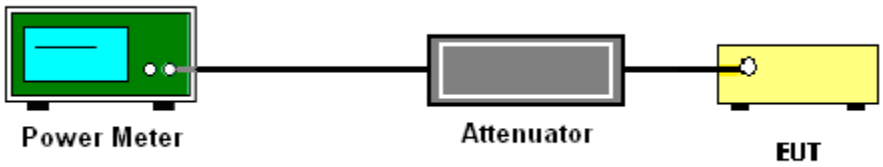
3.2.3 Test Procedures

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.

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band.

For the 5.25–5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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

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

3.3.3 Test Procedures

The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section F) Maximum power spectral density.

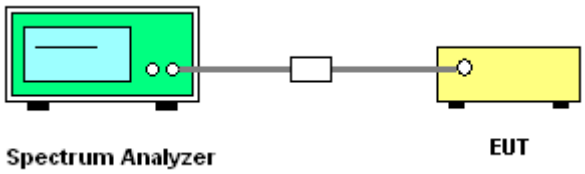
 # Method SA-2 #

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

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

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

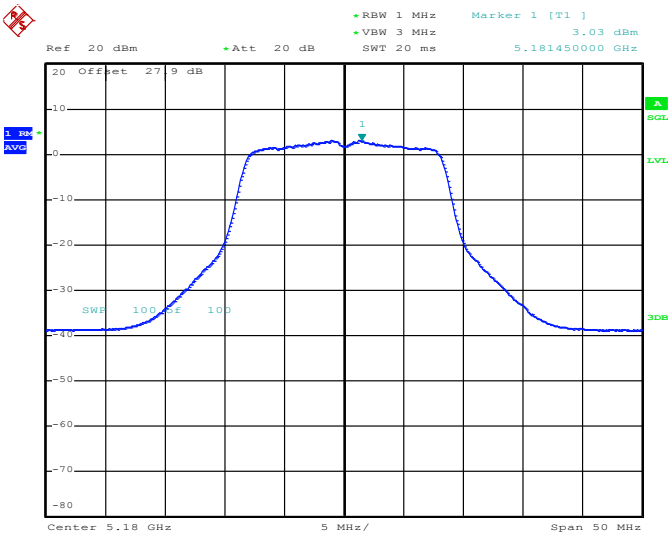
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Worst Case Power Density (dBm/MHz)



Note: Average Power Density (dB) = Measured value+ Duty Factor

3.4 Unwanted Emissions Measurement

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

3.4.1 Limit of Unwanted Emissions

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

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

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

(2) Unwanted spurious emissions 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)
-17	78.3
- 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

The measuring equipment is listed in the section 4 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

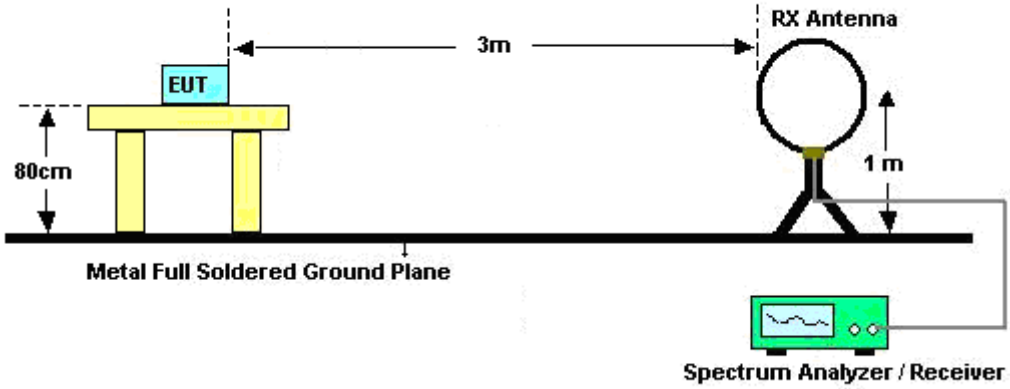
(3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

- 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.

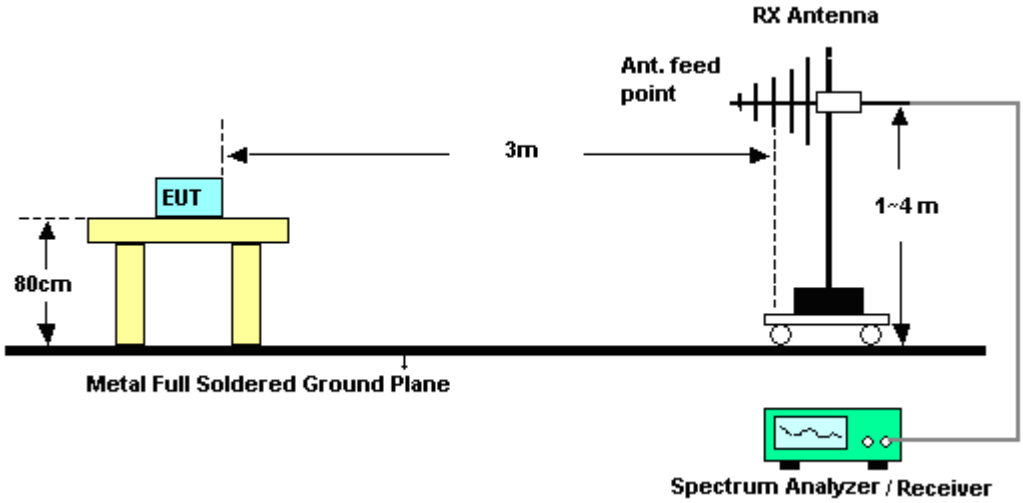
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

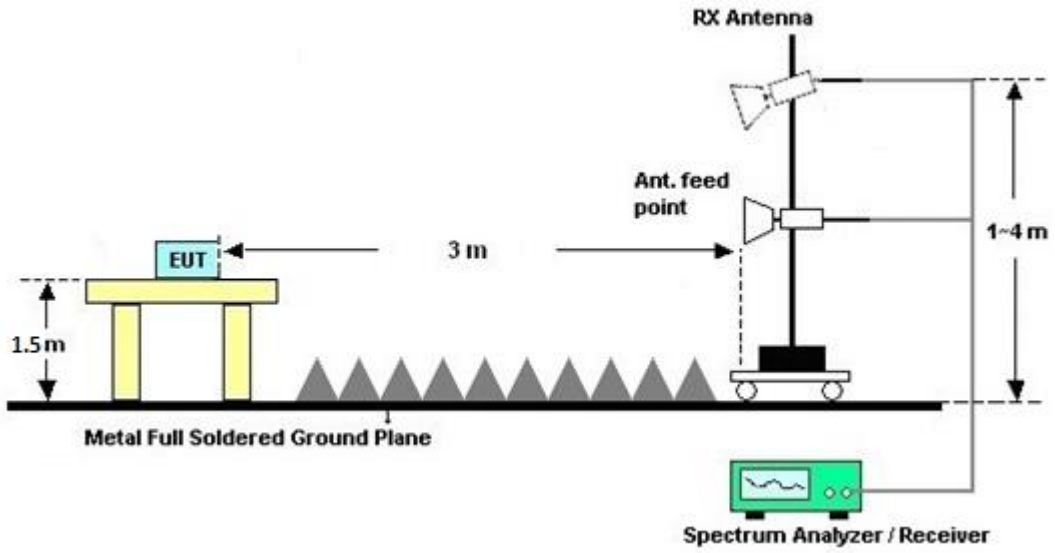
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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

There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.4.7 Duty Cycle

Please refer to Appendix E.

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

Please refer to Appendix C and D.

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.

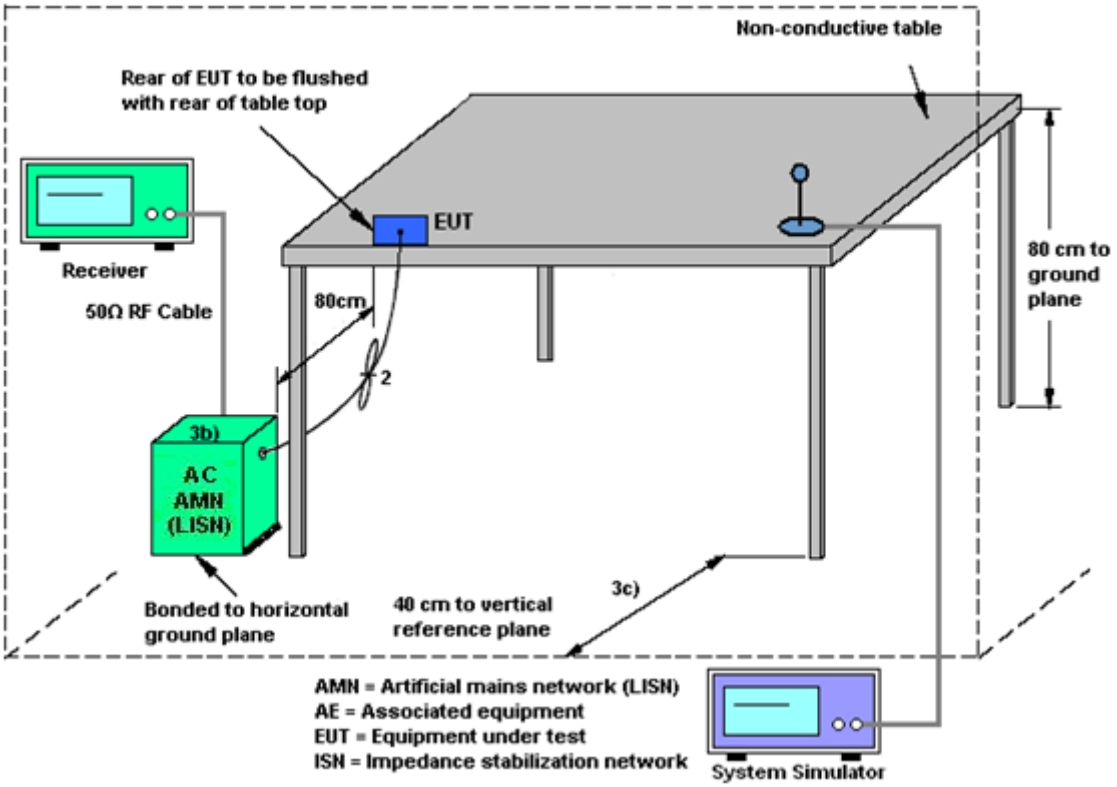
3.5.2 Measuring Instruments

The measuring equipment is listed in the section 4 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 B.

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

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

3.6.3 Test Result of Automatically Discontinue Transmission

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

3.7 Antenna Requirements

3.7.1 Standard Applicable

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

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

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

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	1240001	N/A	Sep. 07, 2017	Dec.12, 2017~ Dec.18, 2017	Sep. 06, 2018	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1207349	300MHz~40GHz	Sep. 07, 2017	Dec.12, 2017~ Dec.18, 2017	Sep. 06, 2018	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz~40GHz	Jun. 20, 2017	Dec.12, 2017~ Dec.18, 2017	Jun. 19, 2018	Conducted (TH05-HY)
Temperature Chamber	ESPEC	SH-641	92013720	-40℃ ~90℃	Aug. 28, 2017	Dec.12, 2017~ Dec.18, 2017	Aug. 27, 2018	Conducted (TH05-HY)
AC Power Source	AC POWER	AFC-500W	F104070011	50Hz~60Hz	Dec 01.2016	Dec.12, 2017~ Dec.18, 2017	Nov 30 2018	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Mar. 05, 2018	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	3.6GHz	Dec. 08, 2017	Mar. 05, 2018	Dec. 07, 2018	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 30, 2017	Mar. 05, 2018	Nov. 29, 2018	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Dec. 08, 2017	Mar. 05, 2018	Dec. 07, 2018	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Mar. 05, 2018	N/A	Conduction (CO05-HY)
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 18, 2017	Dec. 18, 2017~ Dec. 20, 2017	Jul. 17, 2018	Radiation (03CH12-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Oct. 20, 2016	Dec. 18, 2017~ Dec. 20, 2017	Oct. 19, 2018	Radiation (03CH12-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100390	20Hz~26.5GHz	Dec. 23, 2016	Dec. 18, 2017~ Dec. 20, 2017	Dec. 22, 2017	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1328	1GHz ~ 18GHz	Oct. 20, 2017	Dec. 18, 2017~ Dec. 20, 2017	Oct. 19, 2018	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 23, 2017	Dec. 18, 2017~ Dec. 20, 2017	Mar. 22, 2018	Radiation (03CH12-HY)
Preamplifier	MITEQ	AMF-7D-00101800	2025787	1GHz~18GHz	Feb. 13, 2017	Dec. 18, 2017~ Dec. 20, 2017	Feb. 12, 2018	Radiation (03CH12-HY)
Preamplifier	Keysight	83017A	MY53270148	1GHz~26.5GHz	Jan. 12, 2017	Dec. 18, 2017~ Dec. 20, 2017	Jan. 11, 2018	Radiation (03CH12-HY)
Spectrum Analyzer	Agilent	N9030A	MY52350276	3Hz~44GHz	Mar. 23, 2017	Dec. 18, 2017~ Dec. 20, 2017	Mar. 22, 2018	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Dec. 18, 2017~ Dec. 20, 2017	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Dec. 18, 2017~ Dec. 20, 2017	N/A	Radiation (03CH12-HY)
Attenuator	Fairview Microwave	SA18S5W-10	n/a	10db	Mar. 24, 2017	Dec. 18, 2017~ Dec. 20, 2017	Mar. 23, 2018	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170576	18GHz ~ 40GHz	Apr. 27, 2017	Dec. 18, 2017~ Dec. 20, 2017	Apr. 26, 2018	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800N1D01N-06	40103&04	30MHz to 1GHz	Jan. 07, 2017	Dec. 18, 2017~ Dec. 20, 2017	Jan. 06, 2018	Radiation (03CH12-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.7**

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

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

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.7**

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Shiming Liu / Allen Lin	Temperature:	21~25	°C
Test Date:	2017/12/12~2017/12/18	Relative Humidity:	51~54	%

Report Number : FR7D0706E

TEST RESULTS DATA
26dB and 99% OBW

Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)		
11a	6Mbps	1	36	5180	17.60	24.45	-	22.46		
11a	6Mbps	1	44	5220	17.60	24.60	-	22.46		
11a	6Mbps	1	48	5240	17.50	25.00	-	22.43		
HT20	MCS0	1	36	5180	18.65	25.85	-	22.71		
HT20	MCS0	1	44	5220	18.65	26.30	-	22.71		
HT20	MCS0	1	48	5240	18.75	25.40	-	22.73		
HT40	MCS0	1	38	5190	36.60	42.30	-	23.01		
HT40	MCS0	1	46	5230	36.60	42.39	-	23.01		
VHT80	MCS0	1	42	5210	75.72	84.16	-	23.01		

TEST RESULTS DATA
Average Power Table

FCC Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)		Pass/Fail
11a	6Mbps	1	36	5180	0.20	13.85	24.00	-2.35		Pass
11a	6Mbps	1	44	5220	0.20	13.83	24.00	-2.35		Pass
11a	6Mbps	1	48	5240	0.20	13.77	24.00	-2.35		Pass
HT20	MCS0	1	36	5180	0.22	12.74	24.00	-2.35		Pass
HT20	MCS0	1	44	5220	0.22	12.72	24.00	-2.35		Pass
HT20	MCS0	1	48	5240	0.22	12.60	24.00	-2.35		Pass
HT40	MCS0	1	38	5190	0.36	12.93	24.00	-2.35		Pass
HT40	MCS0	1	46	5230	0.36	12.90	24.00	-2.35		Pass
VHT20	MCS0	1	36	5180	0.25	10.97	24.00	-2.35		Pass
VHT20	MCS0	1	44	5220	0.25	10.95	24.00	-2.35		Pass
VHT20	MCS0	1	48	5240	0.25	10.80	24.00	-2.35		Pass
VHT40	MCS0	1	38	5190	0.39	10.87	24.00	-2.35		Pass
VHT40	MCS0	1	46	5230	0.39	10.83	24.00	-2.35		Pass
VHT80	MCS0	1	42	5210	0.70	10.97	24.00	-2.35		Pass

Report Number : FR7D0706E

TEST RESULTS DATA
Power Spectral Density

FCC Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6Mbps	1	36	5180	0.20	3.23	11.00	-2.35		Pass
11a	6Mbps	1	44	5220	0.20	2.76	11.00	-2.35		Pass
11a	6Mbps	1	48	5240	0.20	2.48	11.00	-2.35		Pass
HT20	MCS0	1	36	5180	0.22	1.89	11.00	-2.35		Pass
HT20	MCS0	1	44	5220	0.22	1.44	11.00	-2.35		Pass
HT20	MCS0	1	48	5240	0.22	0.95	11.00	-2.35		Pass
HT40	MCS0	1	38	5190	0.36	-1.09	11.00	-2.35		Pass
HT40	MCS0	1	46	5230	0.36	-1.43	11.00	-2.35		Pass
VHT80	MCS0	1	42	5210	0.70	-6.30	11.00	-2.35		Pass

Report Number : FR7D0706E

TEST RESULTS DATA
26dB and 99% OBW

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	52	5260	17.65	24.90	23.47	29.47	23.98	
11a	6M bps	1	60	5300	17.75	24.50	23.49	29.49	23.98	
11a	6M bps	1	64	5320	17.65	24.10	23.47	29.47	23.98	
HT20	MCS 0	1	52	5260	18.65	25.65	23.71	29.71	23.98	
HT20	MCS 0	1	60	5300	18.65	25.60	23.71	29.71	23.98	
HT20	MCS 0	1	64	5320	18.65	25.80	23.71	29.71	23.98	
HT40	MCS 0	1	54	5270	36.60	42.66	23.98	30.00	23.98	
HT40	MCS 0	1	62	5310	36.60	42.30	23.98	30.00	23.98	
VHT80	MCS 0	1	58	5290	75.84	83.20	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

FCC Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	52	5260	0.20	13.78	23.98	-3.29	30.00	Pass
11a	6M bps	1	60	5300	0.20	13.80	23.98	-3.29	30.00	Pass
11a	6M bps	1	64	5320	0.20	13.81	23.98	-3.29	30.00	Pass
HT20	MCS 0	1	52	5260	0.22	12.54	23.98	-3.29	30.00	Pass
HT20	MCS 0	1	60	5300	0.22	12.69	23.98	-3.29	30.00	Pass
HT20	MCS 0	1	64	5320	0.22	12.70	23.98	-3.29	30.00	Pass
HT40	MCS 0	1	54	5270	0.36	12.71	23.98	-3.29	30.00	Pass
HT40	MCS 0	1	62	5310	0.36	12.81	23.98	-3.29	30.00	Pass
VHT20	MCS 0	1	52	5260	0.25	10.75	23.98	-3.29	30.00	Pass
VHT20	MCS 0	1	60	5300	0.25	10.89	23.98	-3.29	30.00	Pass
VHT20	MCS 0	1	64	5320	0.25	10.91	23.98	-3.29	30.00	Pass
VHT40	MCS 0	1	54	5270	0.39	10.59	23.98	-3.29	30.00	Pass
VHT40	MCS 0	1	62	5310	0.39	10.66	23.98	-3.29	30.00	Pass
VHT80	MCS 0	1	58	5290	0.70	10.75	23.98	-3.29	30.00	Pass

TEST RESULTS DATA
Power Spectral Density

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6M bps	1	52	5260	0.20	2.33	11.00	-3.29		Pass
11a	6M bps	1	60	5300	0.20	2.46	11.00	-3.29		Pass
11a	6M bps	1	64	5320	0.20	2.59	11.00	-3.29		Pass
HT20	MCS 0	1	52	5260	0.22	1.01	11.00	-3.29		Pass
HT20	MCS 0	1	60	5300	0.22	1.02	11.00	-3.29		Pass
HT20	MCS 0	1	64	5320	0.22	0.86	11.00	-3.29		Pass
HT40	MCS 0	1	54	5270	0.36	-1.93	11.00	-3.29		Pass
HT40	MCS 0	1	62	5310	0.36	-1.90	11.00	-3.29		Pass
VHT80	MCS 0	1	58	5290	0.70	-6.98	11.00	-3.29		Pass

Report Number : FR7D0706E

TEST RESULTS DATA
26dB and 99% OBW

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth In UNII-2C (MHz)	26 dB Bandwidth In UNII-2C (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	6dB Bandwidth for Straddle Channel (MHz)
11a	6M bps	1	100	5500	17.55	24.20	23.44	29.44	23.98	----
11a	6M bps	1	116	5580	17.55	24.50	23.44	29.44	23.98	----
11a	6M bps	1	140	5700	17.65	24.55	23.47	29.47	23.98	----
HT20	MCS 0	1	100	5500	18.75	26.40	23.73	29.73	23.98	----
HT20	MCS 0	1	116	5580	18.65	25.70	23.71	29.71	23.98	----
HT20	MCS 0	1	140	5700	18.60	26.05	23.70	29.70	23.98	----
HT40	MCS 0	1	102	5510	36.60	42.21	23.98	30.00	23.98	----
HT40	MCS 0	1	110	5550	36.60	42.33	23.98	30.00	23.98	----
HT40	MCS 0	1	134	5670	36.60	42.66	23.98	30.00	23.98	----
VHT80	MCS 0	1	106	5530	75.72	84.16	23.98	30.00	23.98	----
VHT80	MCS 0	1	122	5610	75.84	83.84	23.98	30.00	23.98	----

TEST RESULTS DATA
Average Power Table

FCC Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	100	5500	0.20	13.75	23.98	-4.17	30.00	Pass
11a	6M bps	1	116	5580	0.20	13.60	23.98	-4.17	30.00	Pass
11a	6M bps	1	140	5700	0.20	13.55	23.98	-4.17	30.00	Pass
HT20	MCS 0	1	100	5500	0.22	12.94	23.98	-4.17	30.00	Pass
HT20	MCS 0	1	116	5580	0.22	12.76	23.98	-4.17	30.00	Pass
HT20	MCS 0	1	140	5700	0.22	12.73	23.98	-4.17	30.00	Pass
HT40	MCS 0	1	102	5510	0.36	12.66	23.98	-4.17	30.00	Pass
HT40	MCS 0	1	110	5550	0.36	12.63	23.98	-4.17	30.00	Pass
HT40	MCS 0	1	134	5670	0.36	12.53	23.98	-4.17	30.00	Pass
VHT20	MCS 0	1	100	5500	0.25	10.67	23.98	-4.17	30.00	Pass
VHT20	MCS 0	1	116	5580	0.25	10.65	23.98	-4.17	30.00	Pass
VHT20	MCS 0	1	140	5700	0.25	10.60	23.98	-4.17	30.00	Pass
VHT40	MCS 0	1	102	5510	0.39	10.99	23.98	-4.17	30.00	Pass
VHT40	MCS 0	1	110	5550	0.39	10.60	23.98	-4.17	30.00	Pass
VHT40	MCS 0	1	134	5670	0.39	10.58	23.98	-4.17	30.00	Pass
VHT80	MCS 0	1	106	5530	0.70	10.72	23.98	-4.17	30.00	Pass
VHT80	MCS 0	1	122	5610	0.70	10.70	23.98	-4.17	30.00	Pass

TEST RESULTS DATA
Power Spectral Density

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6M bps	1	100	5500	0.20	2.50	11.00	-4.17		Pass
11a	6M bps	1	116	5580	0.20	2.68	11.00	-4.17		Pass
11a	6M bps	1	140	5700	0.20	2.08	11.00	-4.17		Pass
HT20	MCS 0	1	100	5500	0.22	1.79	11.00	-4.17		Pass
HT20	MCS 0	1	116	5580	0.22	1.77	11.00	-4.17		Pass
HT20	MCS 0	1	140	5700	0.22	0.63	11.00	-4.17		Pass
HT40	MCS 0	1	102	5510	0.36	-1.34	11.00	-4.17		Pass
HT40	MCS 0	1	110	5550	0.36	-1.01	11.00	-4.17		Pass
HT40	MCS 0	1	134	5670	0.36	-2.30	11.00	-4.17		Pass
VHT80	MCS 0	1	106	5530	0.70	-6.20	11.00	-4.17		Pass
VHT80	MCS 0	1	122	5610	0.70	-6.34	11.00	-4.17		Pass

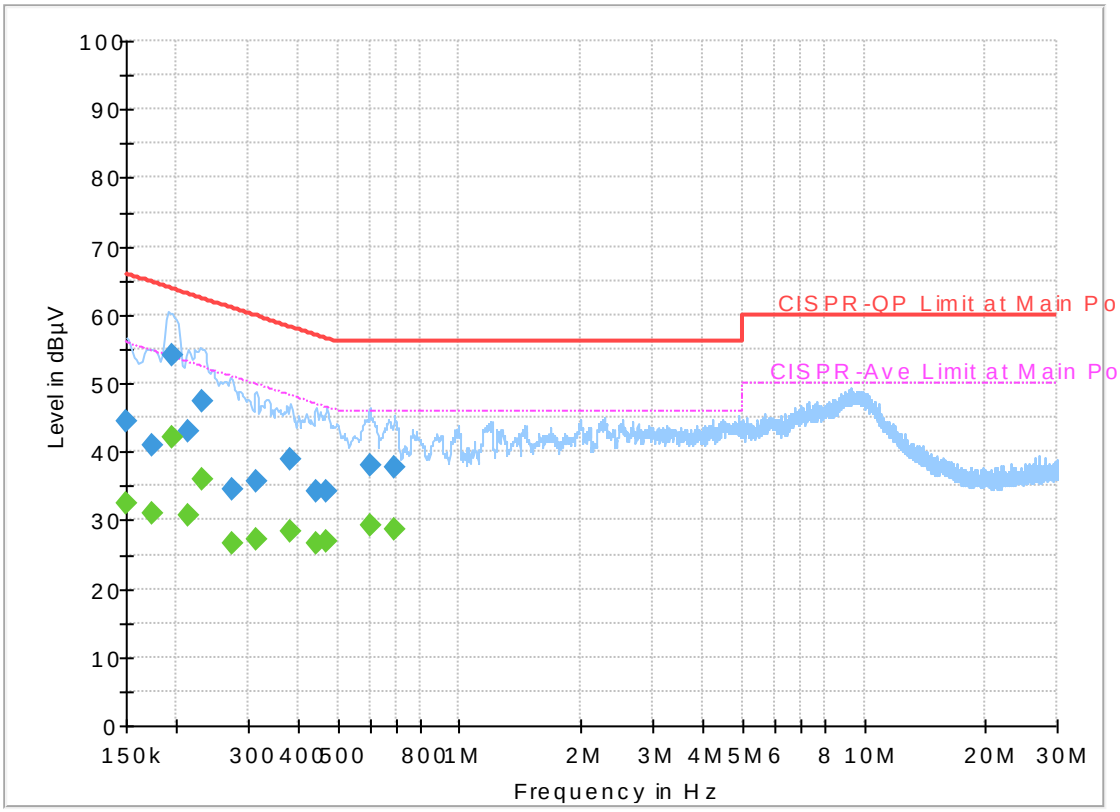
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Shareef Yu	**Temperature :**	21~23℃
		Relative Humidity :	53~56%

EUT Information

Report NO :	7D0706
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

Full Spectrum



Final_Result

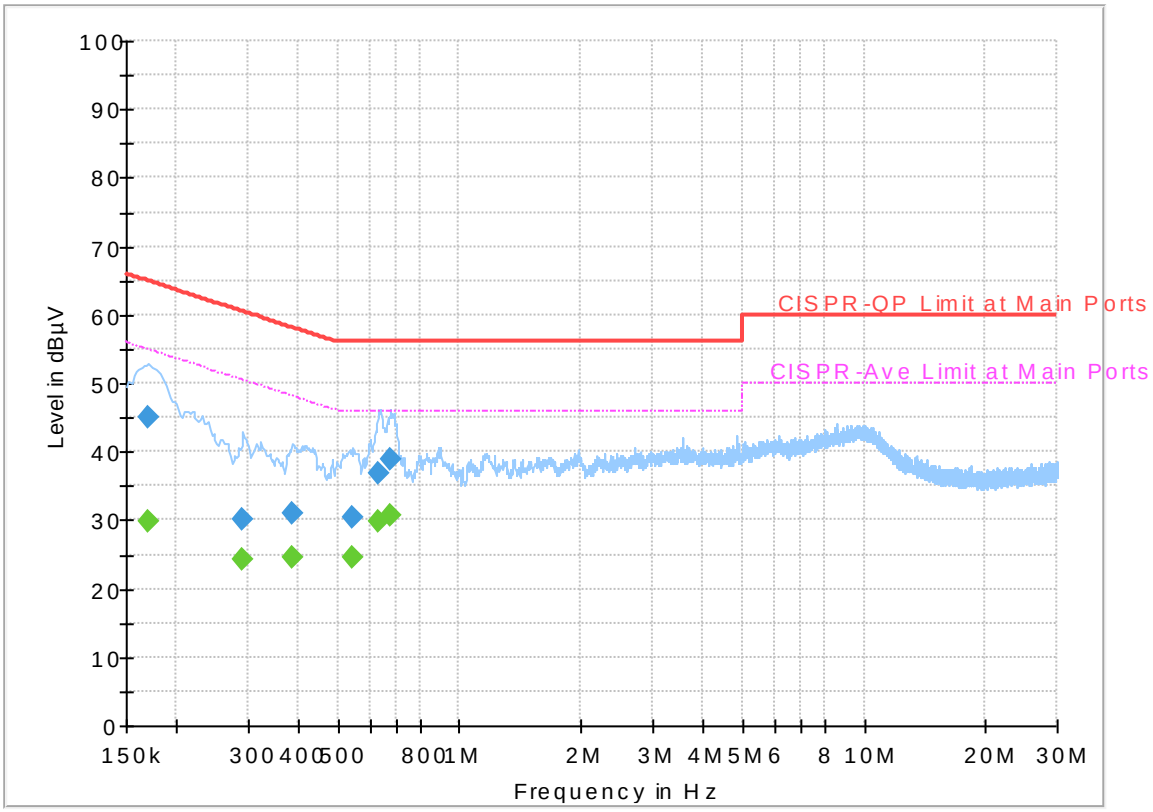
Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	32.38	56.00	23.62	L1	OFF	19.5
0.150000	44.52	---	66.00	21.48	L1	OFF	19.5
0.174750	---	30.99	54.73	23.74	L1	OFF	19.5
0.174750	40.89	---	64.73	23.84	L1	OFF	19.5
0.195000	---	42.23	53.82	11.59	L1	OFF	19.5
0.195000	54.08	---	63.82	9.74	L1	OFF	19.5
0.213000	---	30.69	53.09	22.40	L1	OFF	19.5
0.213000	43.08	---	63.09	20.01	L1	OFF	19.5
0.231000	---	35.82	52.41	16.59	L1	OFF	19.5
0.231000	47.35	---	62.41	15.06	L1	OFF	19.5
0.273750	---	26.68	51.00	24.32	L1	OFF	19.5
0.273750	34.45	---	61.00	26.55	L1	OFF	19.5
0.314250	---	27.08	49.86	22.78	L1	OFF	19.5
0.314250	35.53	---	59.86	24.33	L1	OFF	19.5
0.384000	---	28.49	48.19	19.70	L1	OFF	19.5
0.384000	38.76	---	58.19	19.43	L1	OFF	19.5
0.442500	---	26.47	47.02	20.55	L1	OFF	19.5
0.442500	34.34	---	57.02	22.68	L1	OFF	19.5
0.469500	---	26.79	46.52	19.73	L1	OFF	19.5
0.469500	34.21	---	56.52	22.31	L1	OFF	19.5
0.600000	---	29.15	46.00	16.85	L1	OFF	19.5

0.600000	**37.87**	**---**	**56.00**	**18.13**	**L1**	**OFF**	**19.5**
0.690000	**---**	**28.71**	**46.00**	**17.29**	**L1**	**OFF**	**19.5**
0.690000	**37.70**	**---**	**56.00**	**18.30**	**L1**	**OFF**	**19.5**

EUT Information

Report NO :	7D0706
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.170250	---	29.91	54.95	25.04	N	OFF	19.5
0.170250	45.04	---	64.95	19.91	N	OFF	19.5
0.291750	---	24.18	50.47	26.29	N	OFF	19.5
0.291750	30.17	---	60.47	30.30	N	OFF	19.5
0.386250	---	24.63	48.14	23.51	N	OFF	19.5
0.386250	30.99	---	58.14	27.15	N	OFF	19.5
0.546000	---	24.49	46.00	21.51	N	OFF	19.5
0.546000	30.51	---	56.00	25.49	N	OFF	19.5
0.633750	---	29.77	46.00	16.23	N	OFF	19.5
0.633750	36.96	---	56.00	19.04	N	OFF	19.5
0.676500	---	30.56	46.00	15.44	N	OFF	19.5
0.676500	38.98	---	56.00	17.02	N	OFF	19.5

Appendix C. Radiated Spurious Emission

Test Engineer :	Watt Tseng, Nick Yu, and Karl Hou	Temperature :	23~24°C
		Relative Humidity :	65~67%

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5134.42	48.82	-25.18	74	42.01	31.78	5.98	30.95	218	248	P	H
		5141.96	37.78	-16.22	54	30.96	31.79	5.98	30.95	218	248	A	H
	*	5180	97.98	-	-	91.1	31.81	6.02	30.95	218	248	P	H
	*	5180	86.77	-	-	79.89	31.81	6.02	30.95	218	248	A	H
													H
													H
		5131.3	48.9	-25.1	74	42.09	31.78	5.98	30.95	209	108	P	V
		5142.48	37.72	-16.28	54	30.89	31.79	5.99	30.95	209	108	A	V
	*	5180	95.96	-	-	89.08	31.81	6.02	30.95	209	108	P	V
	*	5180	84.83	-	-	77.95	31.81	6.02	30.95	209	108	A	V
													V
													V
802.11a CH 44 5220MHz		5143.52	50.7	-23.3	74	43.87	31.79	5.99	30.95	226	247	P	H
		5148.72	37.39	-16.61	54	30.56	31.79	5.99	30.95	226	247	A	H
	*	5220	98.35	-	-	91.43	31.83	6.04	30.95	226	247	P	H
	*	5220	87.25	-	-	80.33	31.83	6.04	30.95	226	247	A	H
		5352.76	49.03	-24.97	74	41.95	31.91	6.12	30.95	226	247	P	H
		5446	37.77	-16.23	54	30.56	31.97	6.19	30.95	226	247	A	H
		5006.5	49.43	-24.57	74	42.78	31.71	5.89	30.95	218	109	P	V
		5137.54	37.46	-16.54	54	30.65	31.78	5.98	30.95	218	109	A	V
	*	5220	95.93	-	-	89.01	31.83	6.04	30.95	218	109	P	V
	*	5220	84.89	-	-	77.97	31.83	6.04	30.95	218	109	A	V
		5428.64	48.65	-25.35	74	41.46	31.96	6.18	30.95	218	109	P	V
		5363.12	37.73	-16.27	54	30.62	31.92	6.14	30.95	218	109	A	V

802.11a CH 48 5240MHz		5070.72	48.06	-25.94	74	41.33	31.74	5.94	30.95	226	257	P	H
		5127.66	37.42	-16.58	54	30.61	31.78	5.98	30.95	226	257	A	H
	*	5240	98.1	-	-	91.16	31.84	6.05	30.95	226	257	P	H
	*	5240	87.16	-	-	80.22	31.84	6.05	30.95	226	257	A	H
		5385.24	49.26	-24.74	74	42.13	31.93	6.15	30.95	226	257	P	H
		5416.6	37.86	-16.14	54	30.68	31.95	6.18	30.95	226	257	A	H
		5124.28	48.48	-25.52	74	41.68	31.78	5.97	30.95	213	104	P	V
		5149.76	37.46	-16.54	54	30.63	31.79	5.99	30.95	213	104	A	V
	*	5240	95	-	-	88.06	31.84	6.05	30.95	213	104	P	V
	*	5240	84.13	-	-	77.19	31.84	6.05	30.95	213	104	A	V
		5360.88	49.41	-24.59	74	42.3	31.92	6.14	30.95	213	104	P	V
		5415.48	37.75	-16.25	54	30.57	31.95	6.18	30.95	213	104	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10360	49.1	-24.9	74	64.65	39.86	9.25	65.2	100	0	P	H
		15540	45.65	-28.35	74	58.87	38.53	11.47	63.98	100	0	P	H
													H
													H
		10360	48.73	-25.27	74	64.28	39.86	9.25	65.2	100	0	P	V
		15540	46.52	-27.48	74	59.74	38.53	11.47	63.98	100	0	P	V
													V
													V
802.11a CH 44 5220MHz		10440	47.62	-26.38	74	63.02	39.98	9.28	65.2	100	0	P	H
		15660	46.06	-27.94	74	59.73	38.29	11.53	64.24	100	0	P	H
													H
													H
		10440	47.32	-26.68	74	62.72	39.98	9.28	65.2	100	0	P	V
		15660	45.82	-28.18	74	59.49	38.29	11.53	64.24	100	0	P	V
													V
													V
802.11a CH 48 5240MHz		10480	47.26	-26.74	74	62.54	40.07	9.31	65.2	100	0	P	H
		15720	45.43	-28.57	74	59.37	38.15	11.56	64.39	100	0	P	H
													H
													H
		10480	47.99	-26.01	74	63.27	40.07	9.31	65.2	100	0	P	V
		15720	45.98	-28.02	74	59.92	38.15	11.56	64.39	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5112.84	48.55	-25.45	74	41.76	31.77	5.97	30.95	215	250	P	H
		5143	38.34	-15.66	54	31.51	31.79	5.99	30.95	215	250	A	H
	*	5190	93.18	-	-	86.3	31.81	6.02	30.95	215	250	P	H
	*	5190	82.4	-	-	75.52	31.81	6.02	30.95	215	250	A	H
		5445.16	48.92	-25.08	74	41.72	31.96	6.19	30.95	215	250	P	H
		5358.36	38.6	-15.4	54	31.5	31.91	6.14	30.95	215	250	A	H
		5143.52	48.89	-25.11	74	42.06	31.79	5.99	30.95	207	108	P	V
		5147.16	38.47	-15.53	54	31.64	31.79	5.99	30.95	207	108	A	V
	*	5190	91.53	-	-	84.65	31.81	6.02	30.95	207	108	P	V
	*	5190	80.89	-	-	74.01	31.81	6.02	30.95	207	108	A	V
		5393.64	48.77	-25.23	74	41.64	31.93	6.15	30.95	207	108	P	V
		5440.96	38.58	-15.42	54	31.38	31.96	6.19	30.95	207	108	A	V
802.11n HT40 CH 46 5230MHz		5132.6	48.56	-25.44	74	41.75	31.78	5.98	30.95	218	246	P	H
		5137.54	38.3	-15.7	54	31.49	31.78	5.98	30.95	218	246	A	H
	*	5230	94.03	-	-	87.1	31.84	6.04	30.95	218	246	P	H
	*	5230	83.43	-	-	76.5	31.84	6.04	30.95	218	246	A	H
		5400.64	49.25	-24.75	74	42.1	31.94	6.16	30.95	218	246	P	H
		5438.44	38.64	-15.36	54	31.44	31.96	6.19	30.95	218	246	A	H
		5081.12	48.35	-25.65	74	41.61	31.75	5.94	30.95	217	110	P	V
		5147.42	38.4	-15.6	54	31.57	31.79	5.99	30.95	217	110	A	V
	*	5230	91.3	-	-	84.37	31.84	6.04	30.95	217	110	P	V
	*	5230	80.74	-	-	73.81	31.84	6.04	30.95	217	110	A	V
		5382.72	48.87	-25.13	74	41.74	31.93	6.15	30.95	217	110	P	V
		5402.04	38.8	-15.2	54	31.65	31.94	6.16	30.95	217	110	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5138.32	49.42	-24.58	74	42.61	31.78	5.98	30.95	217	247	P	H
		5144.56	38.52	-15.48	54	31.69	31.79	5.99	30.95	217	247	A	H
	*	5210	88.67	-	-	81.76	31.83	6.03	30.95	217	247	P	H
	*	5210	77.88	-	-	70.97	31.83	6.03	30.95	217	247	A	H
		5374.04	49.08	-24.92	74	41.97	31.92	6.14	30.95	217	247	P	H
		5420.24	38.64	-15.36	54	31.46	31.95	6.18	30.95	217	247	A	H
		5117.52	49.12	-24.88	74	42.33	31.77	5.97	30.95	204	144	P	V
		5139.88	38.32	-15.68	54	31.5	31.79	5.98	30.95	204	144	A	V
	*	5210	85.91	-	-	79	31.83	6.03	30.95	204	144	P	V
	*	5210	75.13	-	-	68.22	31.83	6.03	30.95	204	144	A	V
		5408.2	48.86	-25.14	74	41.71	31.94	6.16	30.95	204	144	P	V
		5428.92	38.37	-15.63	54	31.18	31.96	6.18	30.95	204	144	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 52 5260MHz		5040.12	49.27	-24.73	74	42.57	31.73	5.92	30.95	225	258	P	H
		5143.82	37.58	-16.42	54	30.75	31.79	5.99	30.95	225	258	A	H
	*	5260	98.16	-	-	91.18	31.86	6.07	30.95	225	258	P	H
	*	5260	87.19	-	-	80.21	31.86	6.07	30.95	225	258	A	H
		5416.8	49.37	-24.63	74	42.19	31.95	6.18	30.95	225	258	P	H
		5397.6	37.76	-16.24	54	30.61	31.94	6.16	30.95	225	258	A	H
		5144.84	48.11	-25.89	74	41.28	31.79	5.99	30.95	229	108	P	V
		5142.12	37.41	-16.59	54	30.59	31.79	5.98	30.95	229	108	A	V
	*	5260	95.02	-	-	88.04	31.86	6.07	30.95	229	108	P	V
	*	5260	84.06	-	-	77.08	31.86	6.07	30.95	229	108	A	V
		5420.88	48.53	-25.47	74	41.35	31.95	6.18	30.95	229	108	P	V
		5405.04	37.7	-16.3	54	30.55	31.94	6.16	30.95	229	108	A	V
802.11a CH 60 5300MHz		5102	48.7	-25.3	74	41.94	31.76	5.95	30.95	222	261	P	H
		5146.2	37.37	-16.63	54	30.54	31.79	5.99	30.95	222	261	A	H
	*	5300	98.59	-	-	91.57	31.88	6.09	30.95	222	261	P	H
	*	5300	87.58	-	-	80.56	31.88	6.09	30.95	222	261	A	H
		5379.36	49.57	-24.43	74	42.44	31.93	6.15	30.95	222	261	P	H
		5371.44	37.9	-16.1	54	30.79	31.92	6.14	30.95	222	261	A	H
		5079.56	48.45	-25.55	74	41.71	31.75	5.94	30.95	219	107	P	V
		5139.06	37.42	-16.58	54	30.61	31.78	5.98	30.95	219	107	A	V
	*	5300	94.53	-	-	87.51	31.88	6.09	30.95	219	107	P	V
	*	5300	83.55	-	-	76.53	31.88	6.09	30.95	219	107	A	V
		5422.08	48.59	-25.41	74	41.41	31.95	6.18	30.95	219	107	P	V
		5393.04	37.67	-16.33	54	30.54	31.93	6.15	30.95	219	107	A	V

802.11a CH 64 5320MHz	*	5320	97.46	-	-	90.42	31.89	6.1	30.95	197	261	P	H
	*	5320	87.59	-	-	80.55	31.89	6.1	30.95	197	261	A	H
		5409.6	49.22	-24.78	74	42.07	31.94	6.16	30.95	197	261	P	H
		5367.68	38.11	-15.89	54	31	31.92	6.14	30.95	197	261	A	H
													H
													H
	*	5320	94.76	-	-	87.72	31.89	6.1	30.95	213	108	P	V
	*	5320	83.7	-	-	76.66	31.89	6.1	30.95	213	108	A	V
		5377.44	49.09	-24.91	74	41.97	31.92	6.15	30.95	213	108	P	V
		5391.2	37.73	-16.27	54	30.6	31.93	6.15	30.95	213	108	A	V
													V
													V

Remark

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

Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		10520	48.35	-25.65	74	63.57	40.11	9.33	65.2	100	0	P	H
		15780	46.73	-27.27	74	60.87	38.05	11.58	64.51	100	0	P	H
													H
													H
		10520	48.76	-25.24	74	63.98	40.11	9.33	65.2	100	0	P	V
		15780	45.97	-28.03	74	60.11	38.05	11.58	64.51	100	0	P	V
													V
													V
802.11a CH 60 5300MHz		10600	47.25	-26.75	74	62.35	40.18	9.36	65.18	100	0	P	H
		15900	44.97	-29.03	74	59.56	37.81	11.64	64.77	100	0	P	H
													H
													H
		10600	48	-26	74	63.1	40.18	9.36	65.18	100	0	P	V
		15900	45.25	-28.75	74	59.84	37.81	11.64	64.77	100	0	P	V
													V
													V
802.11a CH 64 5320MHz		10640	48.35	-25.65	74	63.4	40.21	9.38	65.17	100	0	P	H
		15960	43.98	-30.02	74	58.85	37.67	11.66	64.92	100	0	P	H
													H
													H
		10640	48.32	-25.68	74	63.37	40.21	9.38	65.17	100	0	P	V
		15960	44.34	-29.66	74	59.21	37.67	11.66	64.92	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 54 5270MHz		5138.72	48.02	-25.98	74	41.21	31.78	5.98	30.95	225	246	P	H
		5136	38.07	-15.93	54	31.26	31.78	5.98	30.95	225	246	A	H
	*	5270	93.48	-	-	86.49	31.86	6.08	30.95	225	246	P	H
	*	5270	83.08	-	-	76.09	31.86	6.08	30.95	225	246	A	H
		5415.36	49.34	-24.66	74	42.16	31.95	6.18	30.95	225	246	P	H
		5378.16	38.6	-15.4	54	31.47	31.93	6.15	30.95	225	246	A	H
		5087.72	48.26	-25.74	74	41.52	31.75	5.94	30.95	224	113	P	V
		5138.04	38.16	-15.84	54	31.35	31.78	5.98	30.95	224	113	A	V
	*	5270	90.27	-	-	83.28	31.86	6.08	30.95	224	113	P	V
	*	5270	79.6	-	-	72.61	31.86	6.08	30.95	224	113	A	V
		5358.48	49.12	-24.88	74	42.02	31.91	6.14	30.95	224	113	P	V
		5416.08	38.39	-15.61	54	31.21	31.95	6.18	30.95	224	113	A	V
802.11n HT40 CH 62 5310MHz		5047.26	48.24	-25.76	74	41.54	31.73	5.92	30.95	231	259	P	H
		5130.56	38.19	-15.81	54	31.38	31.78	5.98	30.95	231	259	A	H
	*	5310	94.39	-	-	87.35	31.89	6.1	30.95	231	259	P	H
	*	5310	83.75	-	-	76.71	31.89	6.1	30.95	231	259	A	H
		5358.48	50.59	-23.41	74	43.49	31.91	6.14	30.95	231	259	P	H
		5351.76	38.77	-15.23	54	31.69	31.91	6.12	30.95	231	259	A	H
		5134.3	48.39	-25.61	74	41.58	31.78	5.98	30.95	190	109	P	V
		5145.52	37.89	-16.11	54	31.06	31.79	5.99	30.95	190	109	A	V
	*	5310	90.17	-	-	83.13	31.89	6.1	30.95	190	109	P	V
	*	5310	79.53	-	-	72.49	31.89	6.1	30.95	190	109	A	V
		5417.28	48.62	-25.38	74	41.44	31.95	6.18	30.95	190	109	P	V
		5430.48	38.46	-15.54	54	31.26	31.96	6.19	30.95	190	109	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		5067.66	48.91	-25.09	74	42.19	31.74	5.93	30.95	221	259	P	H
		5149.94	38.55	-15.45	54	31.72	31.79	5.99	30.95	221	259	A	H
	*	5290	89.19	-	-	82.18	31.87	6.09	30.95	221	259	P	H
	*	5290	78.33	-	-	71.32	31.87	6.09	30.95	221	259	A	H
		5430.24	49.44	-24.56	74	42.24	31.96	6.19	30.95	221	259	P	H
		5354.88	39.2	-14.8	54	32.12	31.91	6.12	30.95	221	259	A	H
		5070.04	48.54	-25.46	74	41.82	31.74	5.93	30.95	199	107	P	V
		5147.9	38.2	-15.8	54	31.37	31.79	5.99	30.95	199	107	A	V
	*	5290	85.4	-	-	78.39	31.87	6.09	30.95	199	107	P	V
	*	5290	74.58	-	-	67.57	31.87	6.09	30.95	199	107	A	V
		5375.52	48.88	-25.12	74	41.77	31.92	6.14	30.95	199	107	P	V
		5448	38.72	-15.28	54	31.49	31.97	6.21	30.95	199	107	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 100 5500MHz		5416.4	49.23	-24.77	74	42.05	31.95	6.18	30.95	201	274	P	H
		5465.52	48.64	-19.56	68.2	41.4	31.98	6.21	30.95	201	274	P	H
		5439.76	37.89	-16.11	54	30.69	31.96	6.19	30.95	201	274	A	H
	*	5500	98.55	-	-	91.26	32	6.24	30.95	201	274	P	H
	*	5500	87.64	-	-	80.35	32	6.24	30.95	201	274	A	H
													H
		5432.08	49.09	-24.91	74	41.89	31.96	6.19	30.95	352	102	P	V
		5461.36	47.88	-20.32	68.2	40.65	31.97	6.21	30.95	352	102	P	V
		5414.32	37.7	-16.3	54	30.52	31.95	6.18	30.95	352	102	A	V
	*	5500	94.56	-	-	87.27	32	6.24	30.95	352	102	P	V
	*	5500	83.69	-	-	76.4	32	6.24	30.95	352	102	A	V
													V
802.11a CH 116 5580MHz		5419.84	49.25	-24.75	74	42.07	31.95	6.18	30.95	215	273	P	H
		5462.8	48.83	-19.37	68.2	41.59	31.98	6.21	30.95	215	273	P	H
		5421.52	37.77	-16.23	54	30.59	31.95	6.18	30.95	215	273	A	H
	*	5580	98.49	-	-	91.05	32.1	6.32	30.98	215	273	P	H
	*	5580	87.3	-	-	79.86	32.1	6.32	30.98	215	273	A	H
		5732.555	48.92	-19.28	68.2	41.27	32.31	6.37	31.03	215	273	P	H
		5445.76	49.59	-24.41	74	42.38	31.97	6.19	30.95	208	303	P	V
		5463.52	49.13	-19.07	68.2	41.89	31.98	6.21	30.95	208	303	P	V
		5429.44	37.71	-16.29	54	30.52	31.96	6.18	30.95	208	303	A	V
	*	5580	95.85	-	-	88.41	32.1	6.32	30.98	208	303	P	V
	*	5580	84.83	-	-	77.39	32.1	6.32	30.98	208	303	A	V
		5734.76	49.18	-19.02	68.2	41.5	32.34	6.37	31.03	208	303	P	V

802.11a CH 140 5700MHz	*	5700	99.96	-	-	92.34	32.27	6.36	31.01	300	310	P	H
	*	5700	88.93	-	-	81.31	32.27	6.36	31.01	300	310	A	H
		5733.56	51.67	-16.53	68.2	44.02	32.31	6.37	31.03	300	310	P	H
													H
													H
													H
	*	5700	99.94	-	-	92.32	32.27	6.36	31.01	193	324	P	V
	*	5700	88.9	-	-	81.28	32.27	6.36	31.01	193	324	A	V
		5749.48	50.87	-17.33	68.2	43.19	32.34	6.37	31.03	193	324	P	V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		11000	48.95	-25.05	74	63.47	40.5	9.56	65.1	100	0	P	H
		16500	44.1	-24.1	68.2	57.11	39.6	11.8	65.1	100	0	P	H
													H
													H
		11000	49.86	-24.14	74	64.38	40.5	9.56	65.1	100	0	P	V
		16500	44.86	-23.34	68.2	57.87	39.6	11.8	65.1	100	0	P	V
													V
													V
802.11a CH 116 5580MHz		11160	48.2	-25.8	74	62.87	40.37	9.64	65.2	100	0	P	H
		16740	44.39	-23.81	68.2	56.6	40.13	11.85	64.86	100	0	P	H
													H
													H
		11160	47.75	-26.25	74	62.42	40.37	9.64	65.2	100	0	P	V
		16740	44.9	-23.3	68.2	57.11	40.13	11.85	64.86	100	0	P	V
													V
													V
802.11a CH 140 5700MHz		11400	47.02	-26.98	74	61.89	40.18	9.77	65.34	100	0	P	H
		17100	48.67	-19.53	68.2	59.43	41.06	11.99	64.46	100	0	P	H
													H
													H
		11400	46.23	-27.77	74	61.1	40.18	9.77	65.34	100	0	P	V
		17100	48.69	-19.51	68.2	59.45	41.06	11.99	64.46	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5358.4	49.1	-24.9	74	42	31.91	6.14	30.95	228	257	P	H
		5461.12	51.51	-16.69	68.2	44.28	31.97	6.21	30.95	228	257	P	H
		5447.92	38.77	-15.23	54	31.56	31.97	6.19	30.95	228	257	A	H
	*	5510	93.66	-	-	86.36	32	6.26	30.96	228	257	P	H
802.11n	*	5510	83.11	-	-	75.81	32	6.26	30.96	228	257	A	H
HT40		5753.66	48.94	-19.26	68.2	41.24	32.36	6.37	31.03	228	257	P	H
CH 102		5430.64	48.75	-25.25	74	41.55	31.96	6.19	30.95	351	94	P	V
5510MHz		5463.52	48.18	-20.02	68.2	40.94	31.98	6.21	30.95	351	94	P	V
		5430.64	38.66	-15.34	54	31.46	31.96	6.19	30.95	351	94	A	V
	*	5510	92.47	-	-	85.17	32	6.26	30.96	351	94	P	V
	*	5510	81.66	-	-	74.36	32	6.26	30.96	351	94	A	V
		5746.73	48.88	-19.32	68.2	41.2	32.34	6.37	31.03	351	94	P	V
		5432.08	48.98	-25.02	74	41.78	31.96	6.19	30.95	211	259	P	H
		5466.4	48.14	-20.06	68.2	40.88	31.98	6.23	30.95	211	259	P	H
		5451.52	38.73	-15.27	54	31.5	31.97	6.21	30.95	211	259	A	H
	*	5550	94.41	-	-	87.02	32.07	6.29	30.97	211	259	P	H
802.11n	*	5550	83.72	-	-	76.33	32.07	6.29	30.97	211	259	A	H
HT40		5759.015	49.31	-18.89	68.2	41.62	32.36	6.37	31.04	211	259	P	H
CH 110		5426.56	48.89	-25.11	74	41.71	31.95	6.18	30.95	365	91	P	V
5550MHz		5460.64	48.74	-19.46	68.2	41.51	31.97	6.21	30.95	365	91	P	V
		5422.96	38.45	-15.55	54	31.27	31.95	6.18	30.95	365	91	A	V
	*	5550	93.38	-	-	85.99	32.07	6.29	30.97	365	91	P	V
	*	5550	82.92	-	-	75.53	32.07	6.29	30.97	365	91	A	V
		5741.375	49.49	-18.71	68.2	41.81	32.34	6.37	31.03	365	91	P	V

		5449.4	48.95	-25.05	74	41.72	31.97	6.21	30.95	210	67	P	H
		5464.8	47.97	-20.23	68.2	40.73	31.98	6.21	30.95	210	67	P	H
		5411.25	38.38	-15.62	54	31.23	31.94	6.16	30.95	210	67	A	H
	*	5670	94.77	-	-	87.19	32.24	6.35	31.01	210	67	P	H
802.11n	*	5670	83.72	-	-	76.14	32.24	6.35	31.01	210	67	A	H
HT40		5725.1	52.4	-15.8	68.2	44.74	32.31	6.37	31.02	210	67	P	H
CH 134		5398.65	48.53	-25.47	74	41.38	31.94	6.16	30.95	345	100	P	V
5670MHz		5467.25	47.82	-20.38	68.2	40.56	31.98	6.23	30.95	345	100	P	V
		5389.9	38.61	-15.39	54	31.48	31.93	6.15	30.95	345	100	A	V
	*	5670	93.59	-	-	86.01	32.24	6.35	31.01	345	100	P	V
	*	5670	84.4	-	-	76.82	32.24	6.35	31.01	345	100	A	V
		5731.75	52.15	-16.05	68.2	44.5	32.31	6.37	31.03	345	100	P	V

Remark

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

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5406.64	49.1	-24.9	74	41.95	31.94	6.16	30.95	213	258	P	H
		5468.8	48.9	-19.3	68.2	41.64	31.98	6.23	30.95	213	258	P	H
		5444.08	38.57	-15.43	54	31.37	31.96	6.19	30.95	213	258	A	H
	*	5530	88.53	-	-	81.21	32.02	6.27	30.97	213	258	P	H
802.11ac	*	5530	77.6	-	-	70.28	32.02	6.27	30.97	213	258	A	H
VHT80		5759.33	49.17	-19.03	68.2	41.48	32.36	6.37	31.04	213	258	P	H
CH 106		5433.04	48.73	-25.27	74	41.53	31.96	6.19	30.95	200	136	P	V
5530MHz		5468.56	48.45	-19.75	68.2	41.19	31.98	6.23	30.95	200	136	P	V
		5453.44	38.61	-15.39	54	31.38	31.97	6.21	30.95	200	136	A	V
	*	5530	85.59	-	-	78.27	32.02	6.27	30.97	200	136	P	V
	*	5530	73.33	-	-	66.01	32.02	6.27	30.97	200	136	A	V
		5729.72	49.77	-18.43	68.2	42.11	32.31	6.37	31.02	200	136	P	V
		5412.65	48.78	-25.22	74	41.6	31.95	6.18	30.95	207	257	P	H
		5461.3	48.55	-19.65	68.2	41.32	31.97	6.21	30.95	207	257	P	H
		5417.2	38.39	-15.61	54	31.21	31.95	6.18	30.95	207	257	A	H
	*	5610	89.47	-	-	81.98	32.14	6.34	30.99	207	257	P	H
802.11ac	*	5610	77.6	-	-	70.11	32.14	6.34	30.99	207	257	A	H
VHT80		5735.075	49.71	-18.49	68.2	42.03	32.34	6.37	31.03	207	257	P	H
CH 122		5373.8	49.58	-24.42	74	42.47	31.92	6.14	30.95	222	104	P	V
5610MHz		5467.6	47.82	-20.38	68.2	40.56	31.98	6.23	30.95	222	104	P	V
		5450.8	38.63	-15.37	54	31.4	31.97	6.21	30.95	222	104	A	V
	*	5610	88.39	-	-	80.9	32.14	6.34	30.99	222	104	P	V
	*	5610	76.48	-	-	68.99	32.14	6.34	30.99	222	104	A	V
		5738.4	49.45	-18.75	68.2	41.77	32.34	6.37	31.03	222	104	P	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	Cable	Preamp	Ant	Table	Peak	Pol.
				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 LF		67.8	19.78	-20.22	40	37.39	12.09	0.68	30.43	-	-	P	H
		92.91	21.89	-21.61	43.5	36.47	14.97	0.8	30.41	-	-	P	H
		104.25	27.53	-15.97	43.5	40.67	16.4	0.8	30.39	100	0	P	H
		421.8	24.21	-21.79	46	29.83	22.62	1.65	29.94	-	-	P	H
		438.6	25.71	-20.29	46	31.07	22.79	1.7	29.91	-	-	P	H
		618.5	28.65	-17.35	46	30.5	25.7	2	29.64	-	-	P	H
													H
													H
													H
													H
													H
													H
		34.32	30.05	-9.95	40	37.36	22.49	0.48	30.25	100	0	P	V
		67.53	24.21	-15.79	40	41.82	12.09	0.68	30.43	-	-	P	V
		105.33	24.77	-18.73	43.5	37.85	16.47	0.8	30.39	-	-	P	V
		417.6	24.67	-21.33	46	30.4	22.52	1.65	29.95	-	-	P	V
		555.5	27.69	-18.31	46	29.91	25.48	1.9	29.72	-	-	P	V
		759.9	30.94	-15.06	46	30.08	27.93	2.24	29.42	-	-	P	V
													V
													V
													V
													V
													V
													V

Remark

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

Note symbol

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

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

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

1. Level(dBμV/m) =

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

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

Appendix D. Radiated Spurious Emission Plots

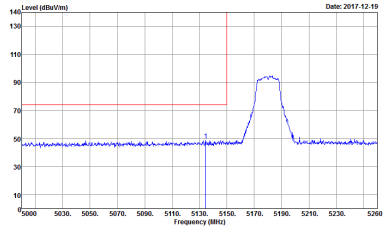
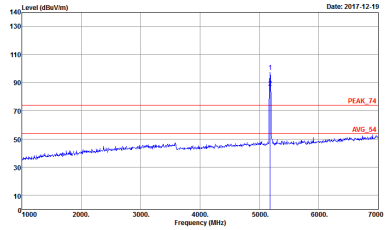
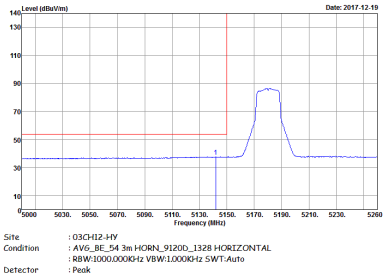
Test Engineer :	Watt Tseng, Nick Yu, and Karl Hou	**Temperature :**	23~24°C
		Relative Humidity :	65~67%

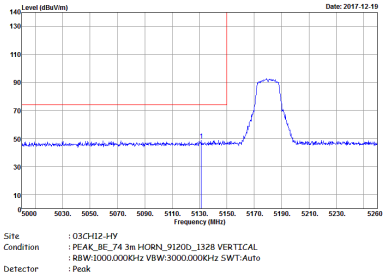
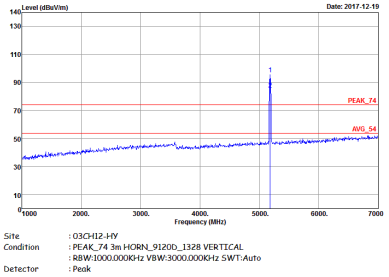
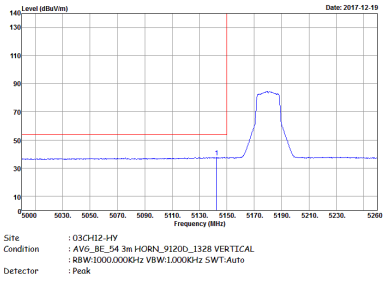
Note symbol

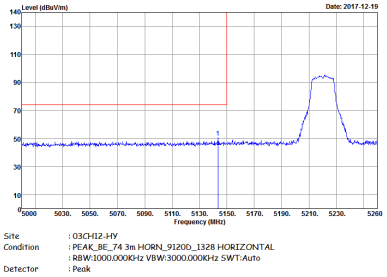
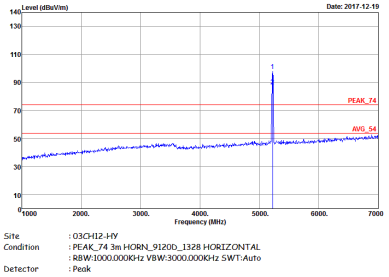
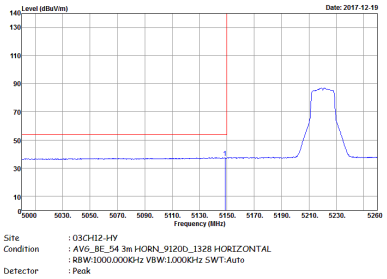
-L	**Low channel location**
-R	**High channel location**

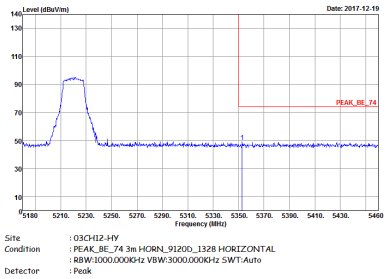
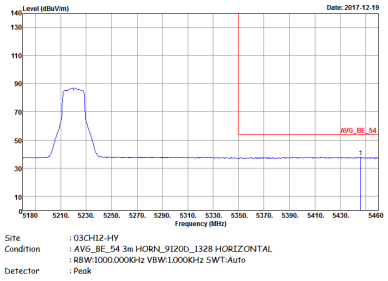
Band 1 - 5150~5250MHz

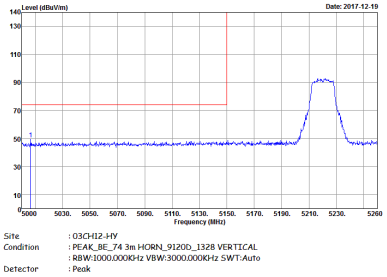
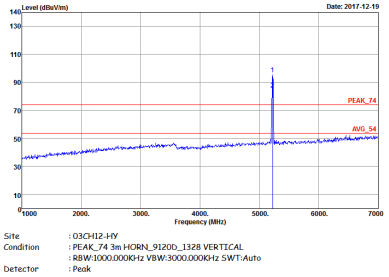
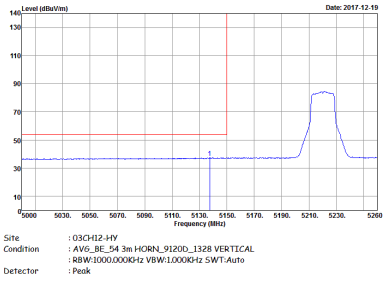
WIFI 802.11a (Band Edge @ 3m)

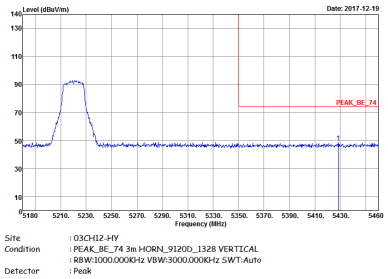
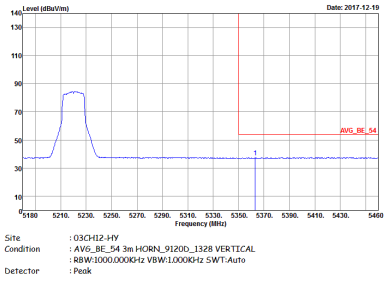
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11a CH36 5180MHz	
	Horizontal	Fundamental
Peak		
Avg.		Left blank

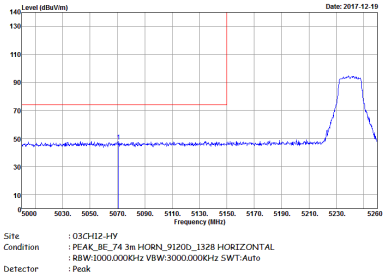
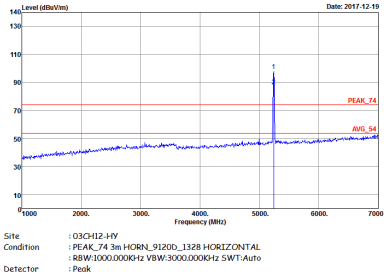
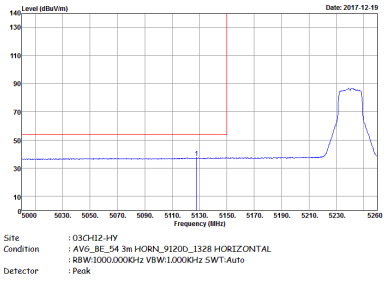
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11a CH36 5180MHz	
	Vertical	Fundamental
Peak		
Avg.		Left blank

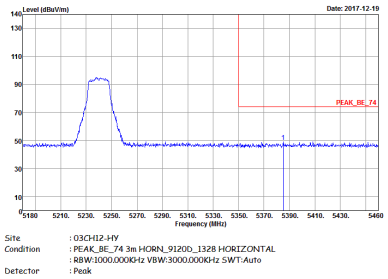
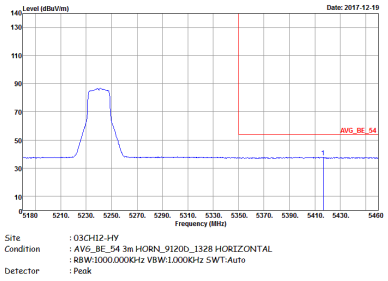
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11a CH44 5220MHz - L	
	Horizontal	Fundamental
Peak		
Avg.		Left blank

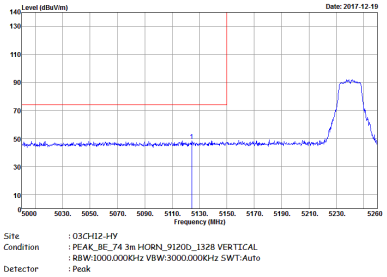
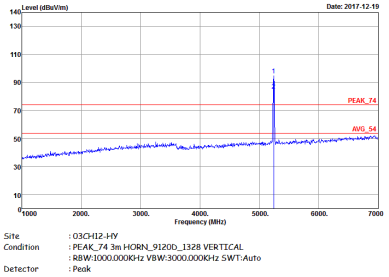
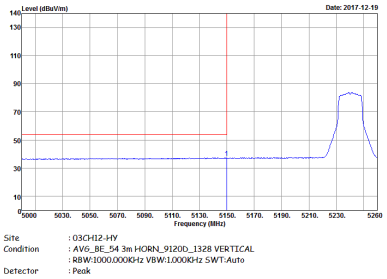
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11a CH44 5220MHz - R	
	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

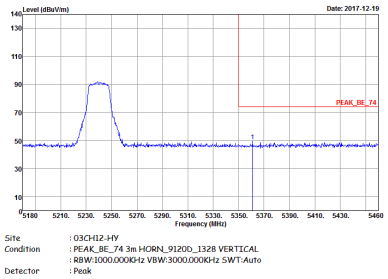
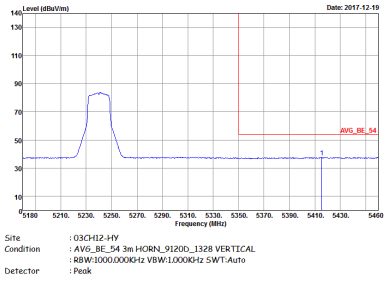
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11a CH44 5220MHz - L	
	Vertical	Fundamental
Peak		
Avg.		Left blank

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

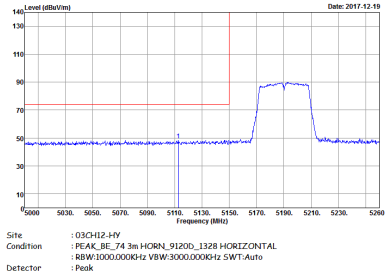
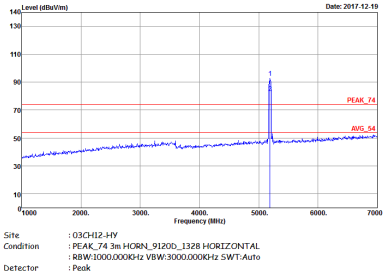
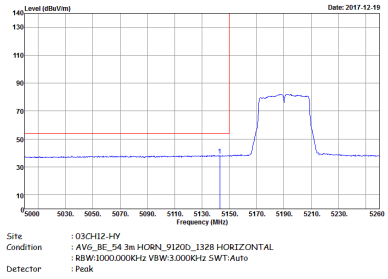
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11a CH48 5240MHz - L	
	Horizontal	Fundamental
Peak		
Avg.		Left blank

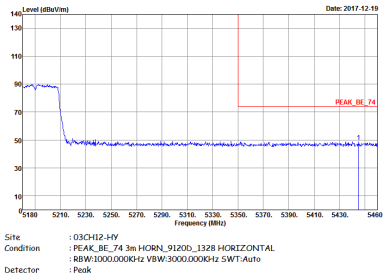
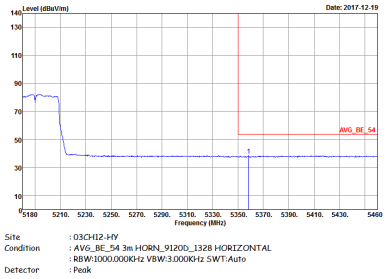
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11a CH48 5240MHz - R	
	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

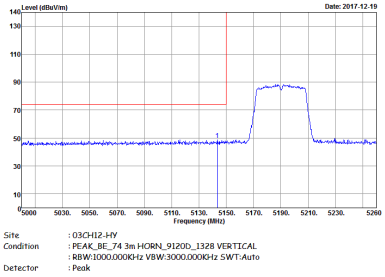
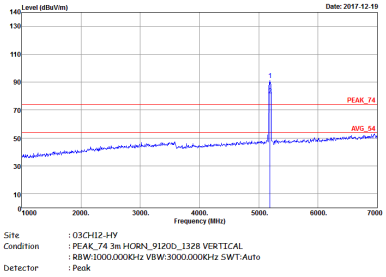
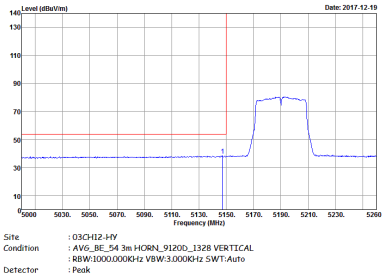
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11a CH48 5240MHz - L	
	Vertical	Fundamental
Peak		
Avg.		Left blank

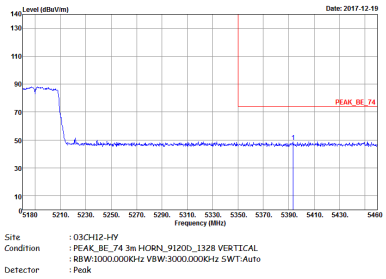
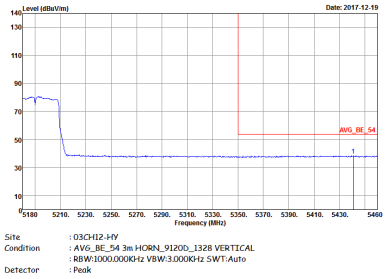
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11a CH48 5240MHz - R	
	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

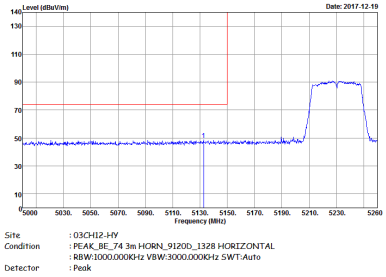
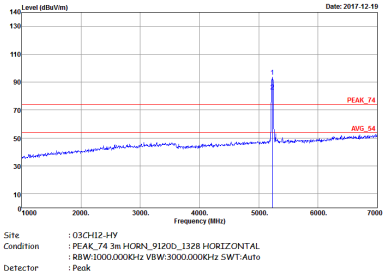
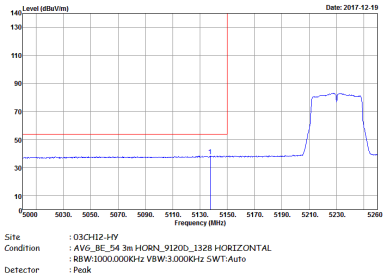
Band 1 5150~5250MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

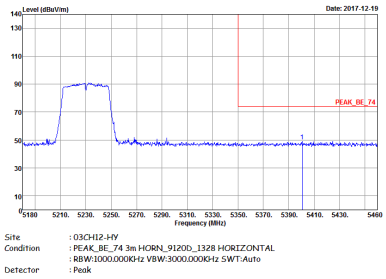
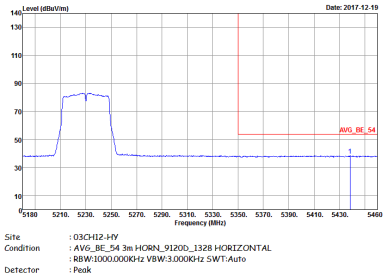
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11n HT40 CH38 5190MHz - L	
	Horizontal	Fundamental
Peak		
Avg.		Left blank

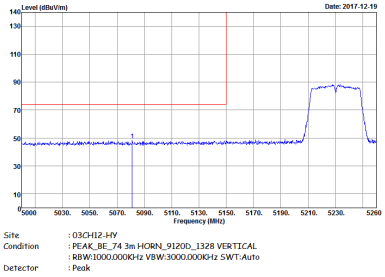
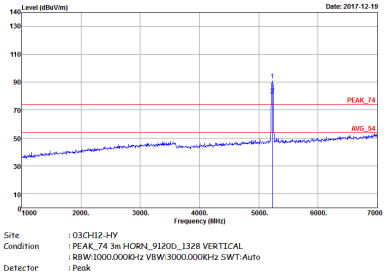
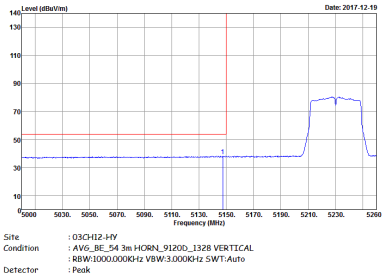
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11n HT40 CH38 5190MHz - R	
	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

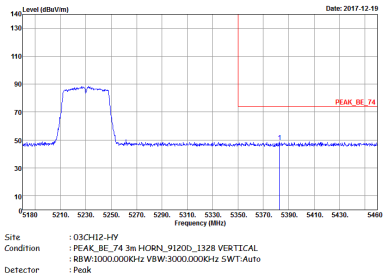
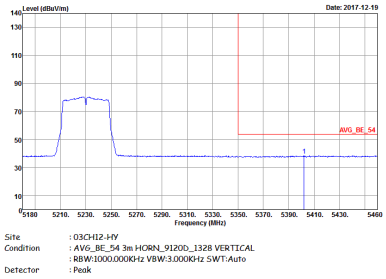
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11n HT40 CH38 5190MHz - L	
	Vertical	Fundamental
Peak		
Avg.		Left blank

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

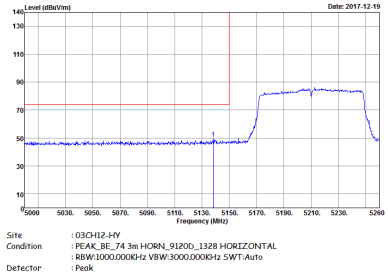
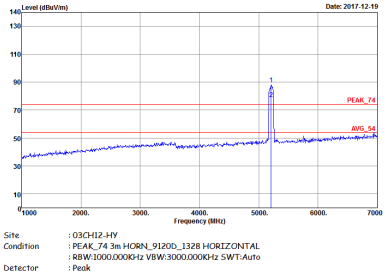
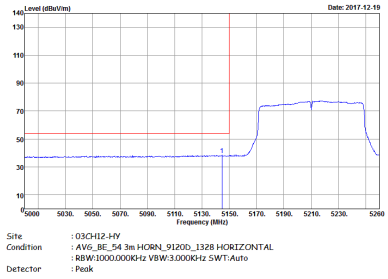
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11n HT40 CH46 5230MHz - L	
	Horizontal	Fundamental
Peak		
Avg.		Left blank

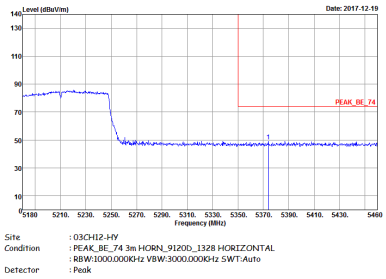
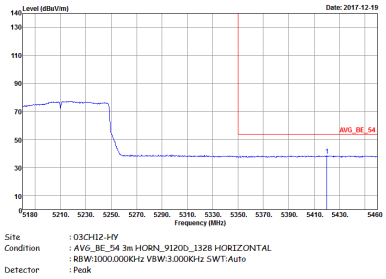
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11n HT40 CH46 5230MHz - R	
	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

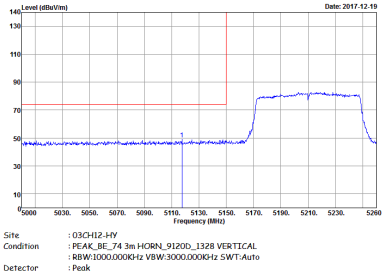
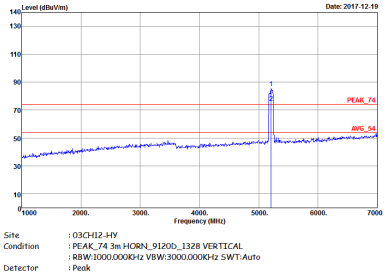
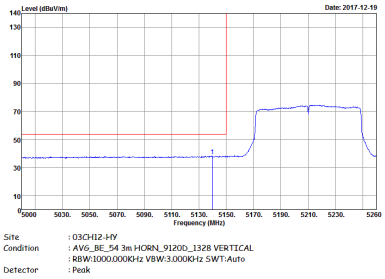
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11n HT40 CH46 5230MHz - L	
	Vertical	Fundamental
Peak		
Avg.		Left blank

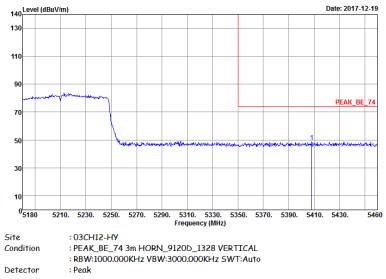
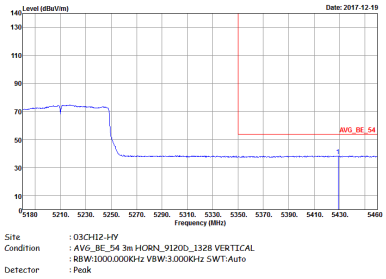
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11n HT40 CH46 5230MHz - R	
	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

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

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11ac VHT80 CH42 5210MHz - L	
	Horizontal	Fundamental
Peak		
Avg.		Left blank

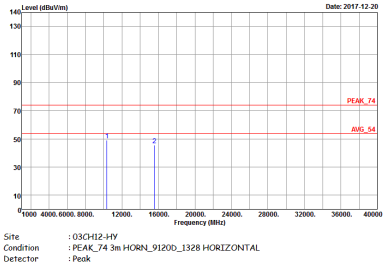
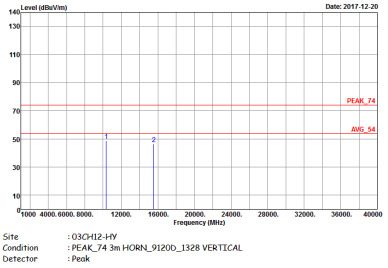
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11ac VHT80 CH42 5210MHz - R	
	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

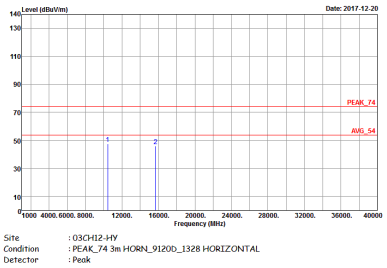
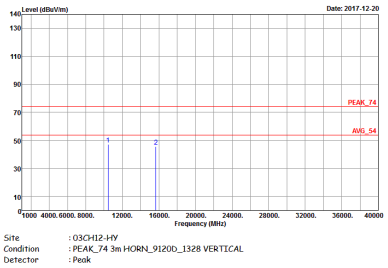
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11ac VHT80 CH42 5210MHz - L	
	Vertical	Fundamental
Peak		
Avg.		Left blank

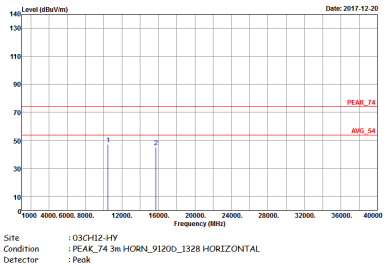
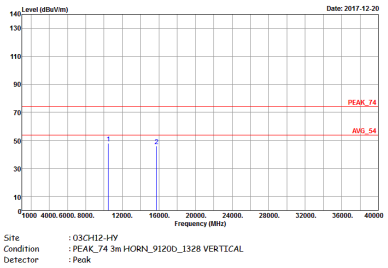
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
	802.11ac VHT80 CH42 5210MHz - R	
	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

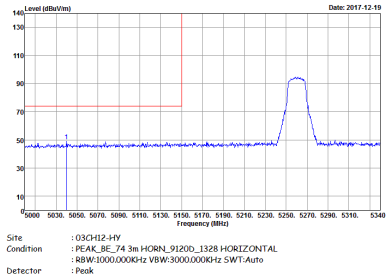
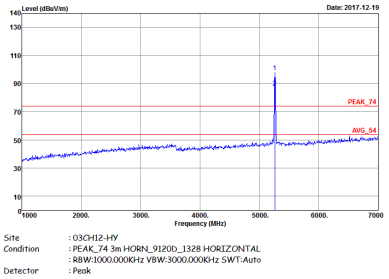
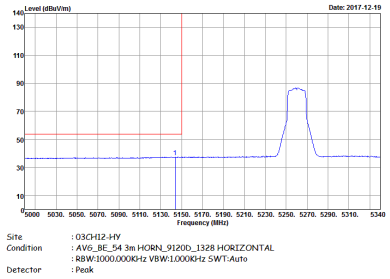
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
	802.11a CH36 5180MHz	
	Horizontal	Vertical
Peak Avg.		

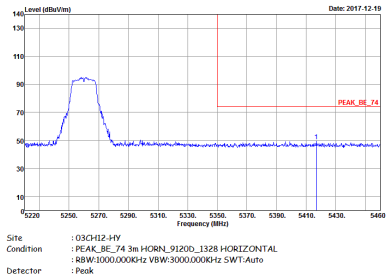
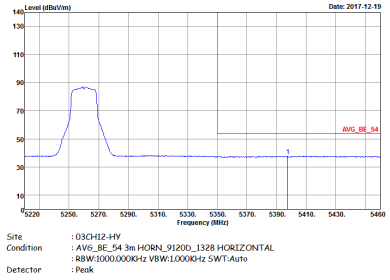
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
	802.11a CH44 5220MHz	
	Horizontal	Vertical
Peak Avg.		

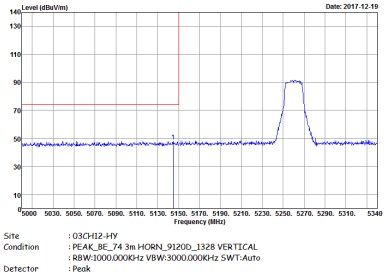
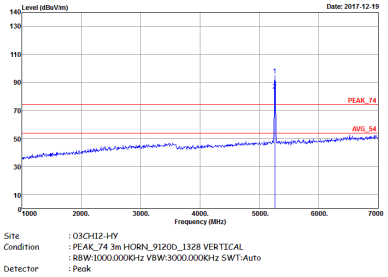
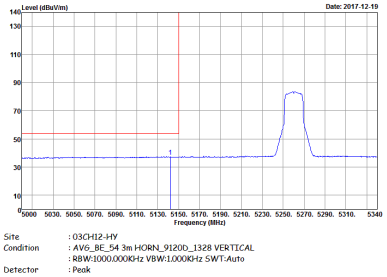
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
	802.11a CH48 5240MHz	
	Horizontal	Vertical
Peak Avg.		

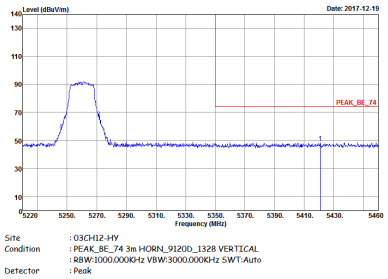
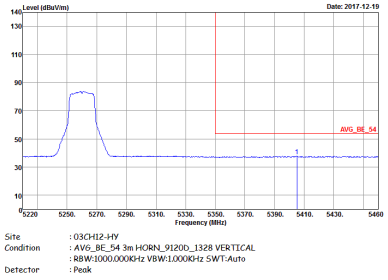
Band 2 - 5250~5350MHz

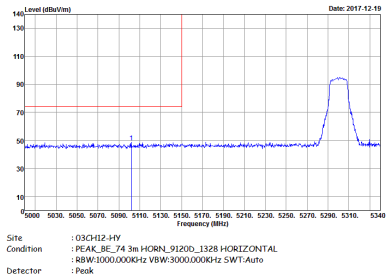
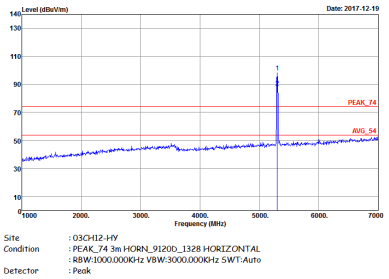
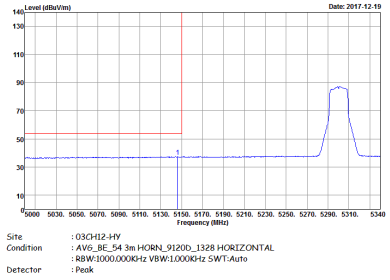
WIFI 802.11a (Band Edge @ 3m)

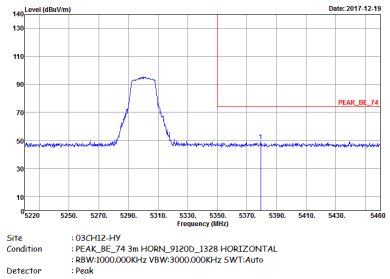
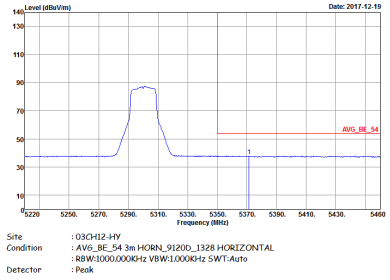
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11a CH52 5260MHz - L	
	Horizontal	Fundamental
Peak		
Avg.		Left blank

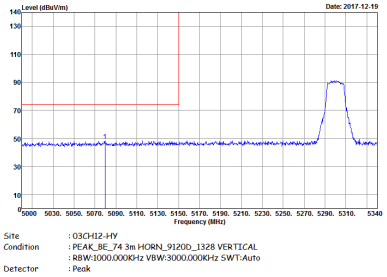
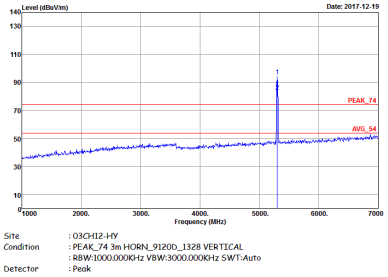
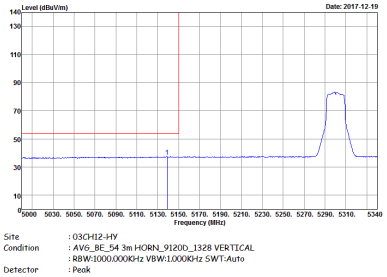
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11a CH52 5260MHz - R	
	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

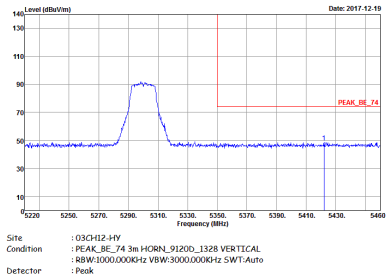
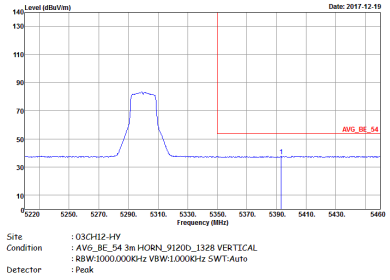
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11a CH52 5260MHz - L	
	Vertical	Fundamental
Peak		
Avg.		Left blank

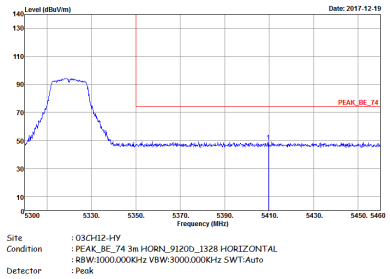
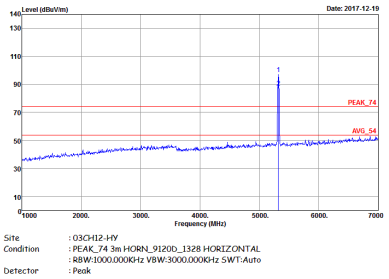
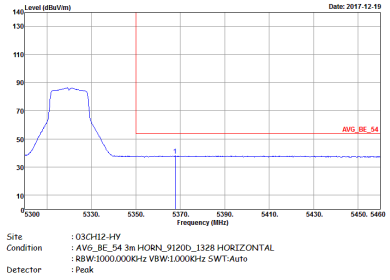
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11a CH52 5260MHz - R	
	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

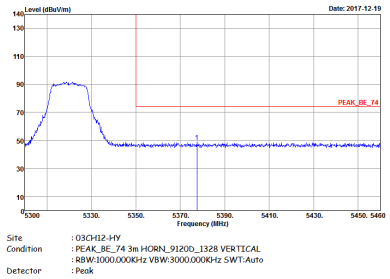
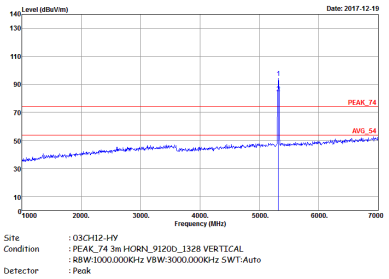
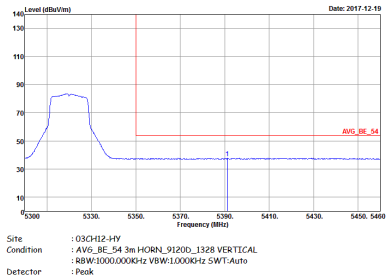
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11a CH60 5300MHz - L	
	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

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

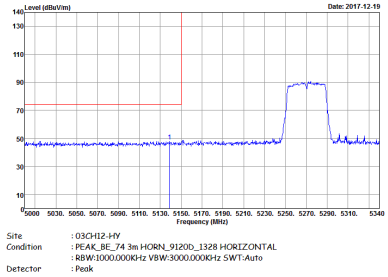
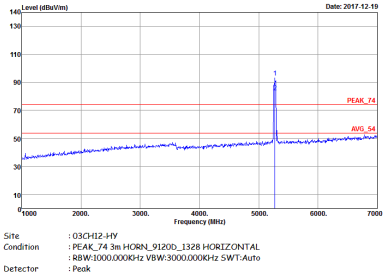
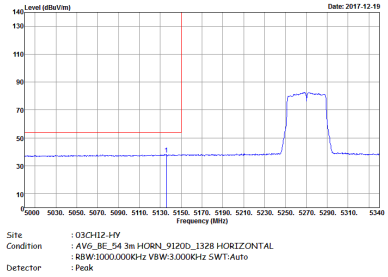
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11a CH60 5300MHz - R	
	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

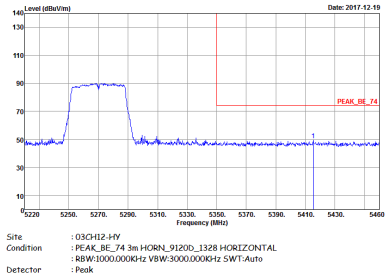
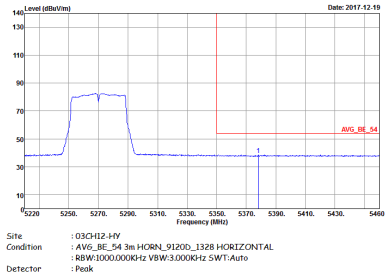
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11a CH64 5320MHz	
	Horizontal	Fundamental
Peak		
Avg.		Left blank

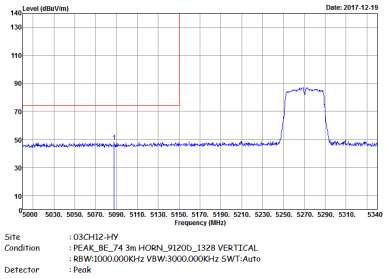
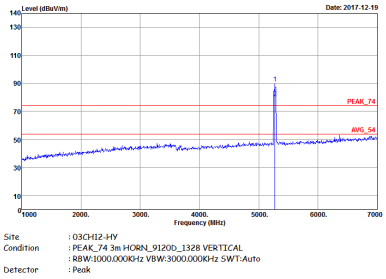
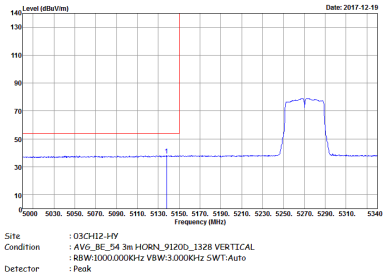
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11a CH64 5320MHz	
	Vertical	Fundamental
Peak		
Avg.		Left blank

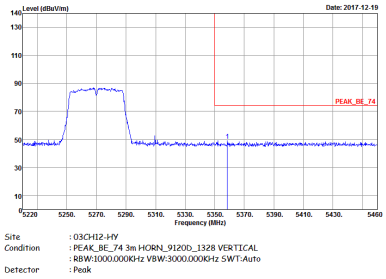
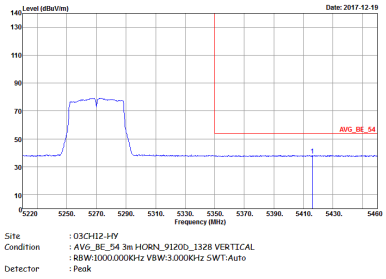
Band 2 5250~5350MHz

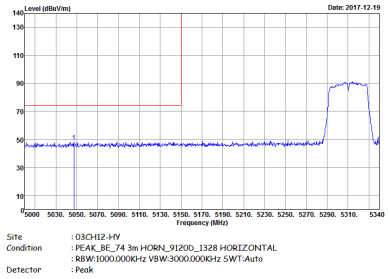
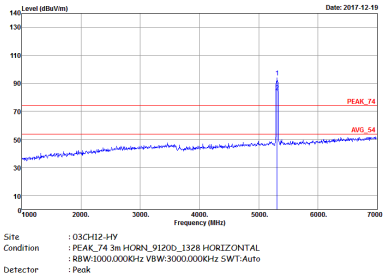
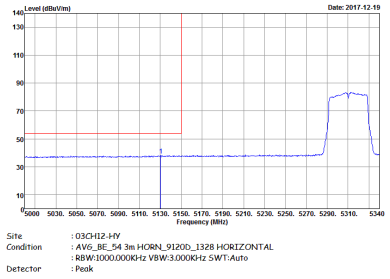
WIFI 802.11n HT40 (Band Edge @ 3m)

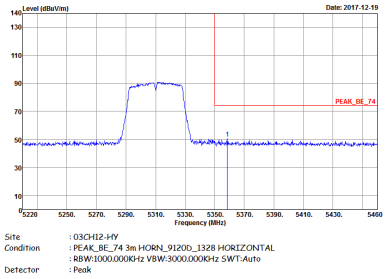
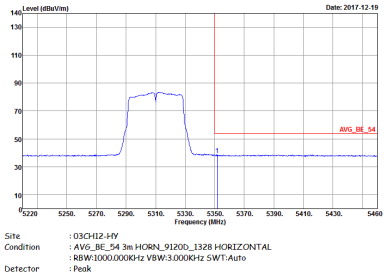
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11n HT40 CH54 5270 - L	
	Horizontal	Fundamental
Peak		
Avg.		Left blank

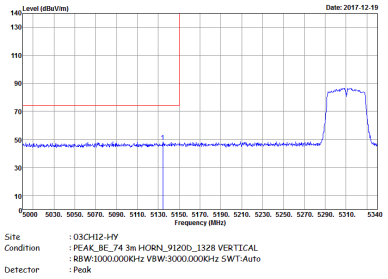
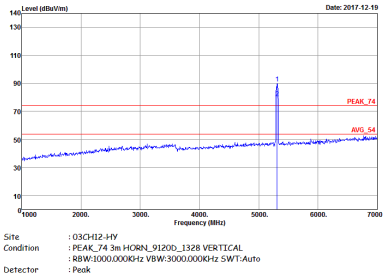
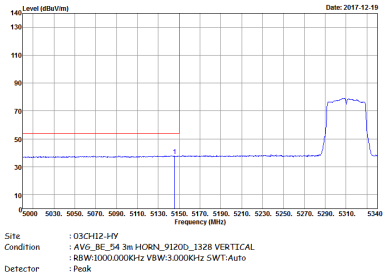
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11n HT40 CH54 5270 - R	
	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

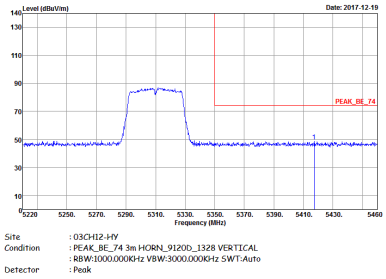
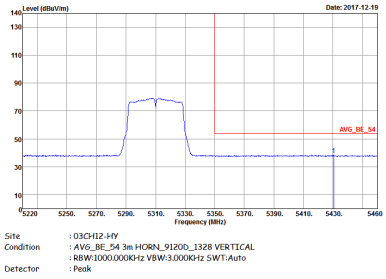
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11n HT40 CH54 5270 - L	
	Vertical	Vertical
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11n HT40 CH54 5270 - R	
	Vertical	Vertical
Peak		Left blank
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11n HT40 CH62 5310 - L	
	Horizontal	Fundamental
Peak		
Avg.		Left blank

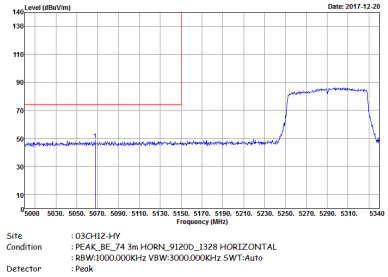
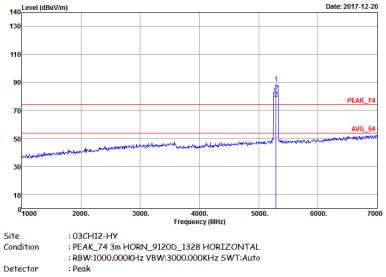
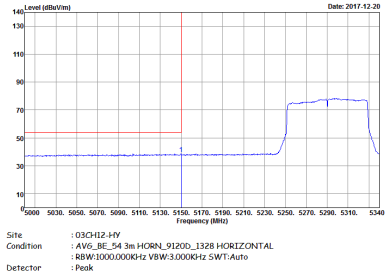
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11n HT40 CH62 5310 - R	
	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

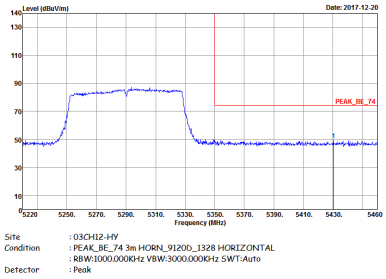
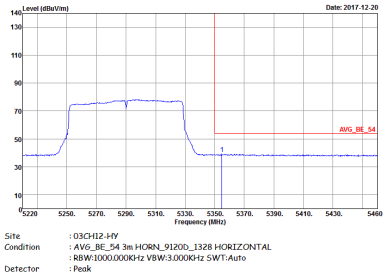
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11n HT40 CH62 5310 - L	
	Vertical	Fundamental
Peak		
Avg.		Left blank

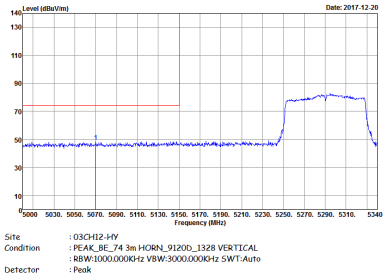
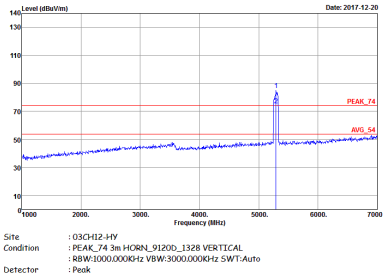
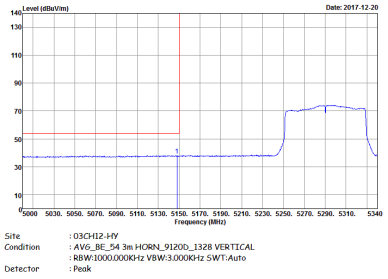
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11n HT40 CH62 5310 - R	
	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

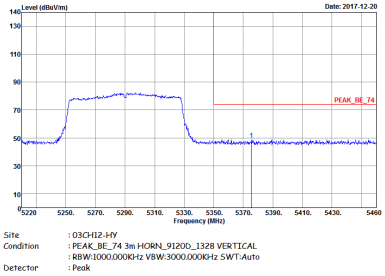
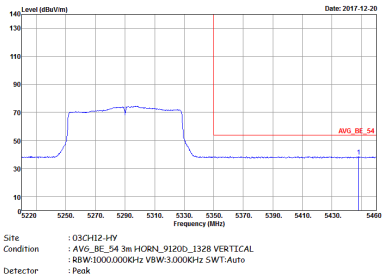
Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

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

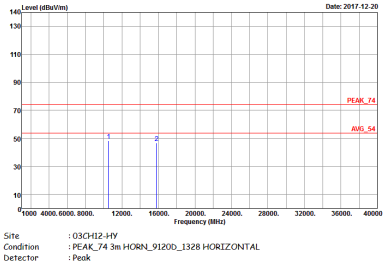
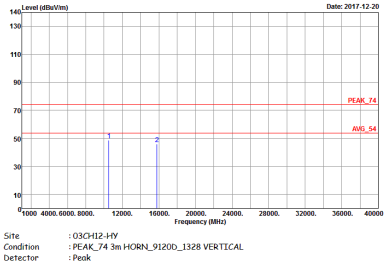
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11ac VHT80 CH58 5290MHz - R	
	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

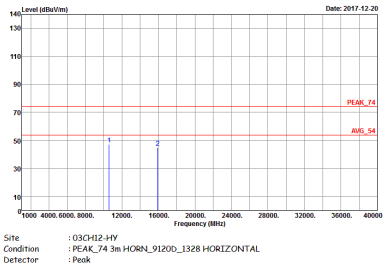
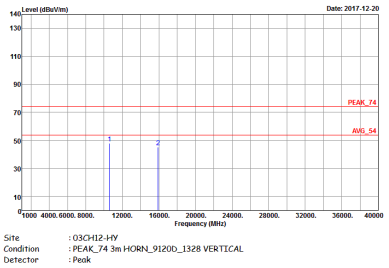
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11ac VHT80 CH58 5290MHz - L	
	Vertical	Fundamental
Peak		
Avg.		Left blank

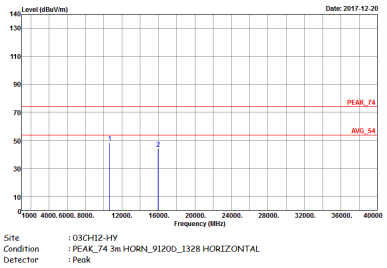
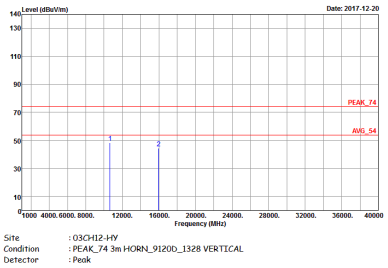
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
	802.11ac VHT80 CH58 5290MHz - R	
	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 2 - 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

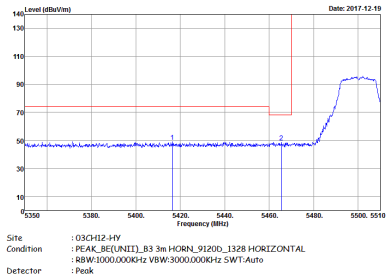
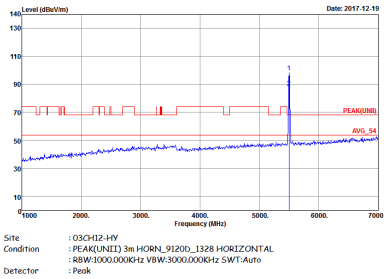
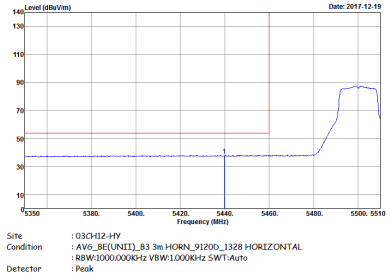
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
	802.11a CH52 5260MHz	
	Horizontal	Vertical
Peak Avg.		

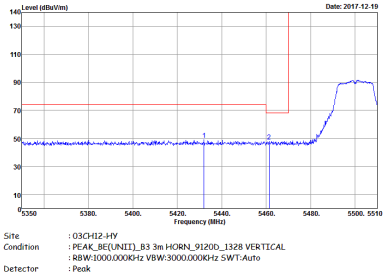
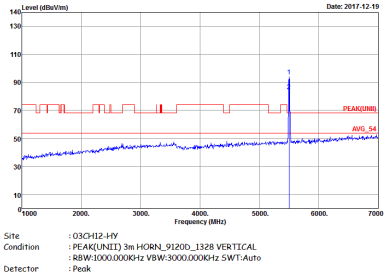
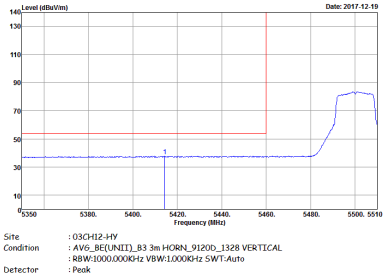
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
	802.11a CH60 5300MHz	
	Horizontal	Vertical
Peak Avg.		

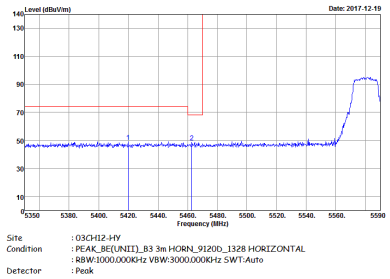
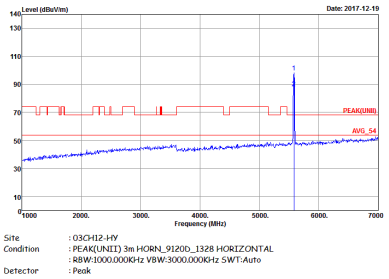
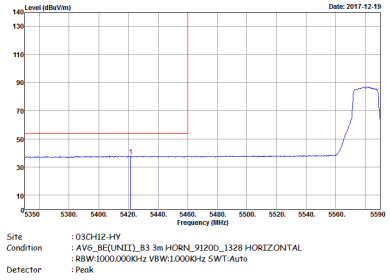
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
	802.11a CH64 5320MHz	
	Horizontal	Vertical
Peak Avg.		

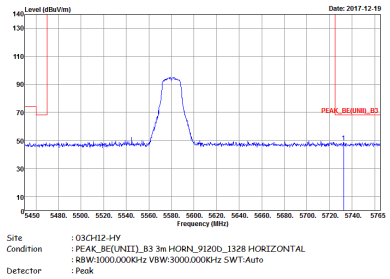
Band 3 - 5470~5725MHz

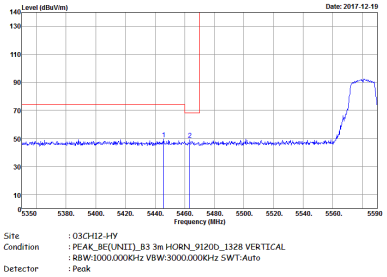
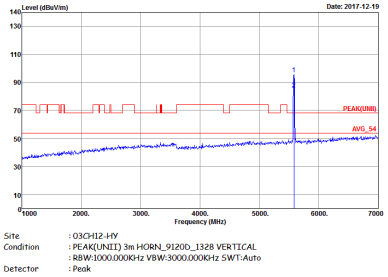
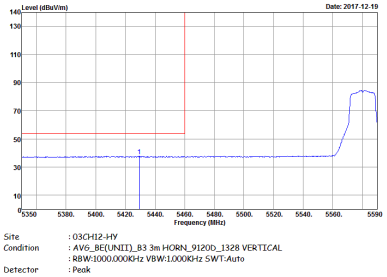
WIFI 802.11a (Band Edge @ 3m)

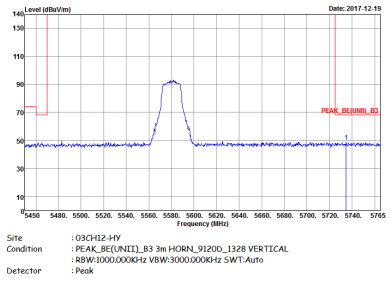
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11a CH100 5500MHz	
	Horizontal	Fundamental
Peak		
Avg.		Left blank

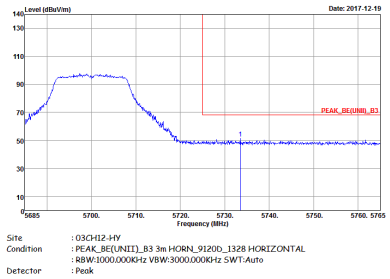
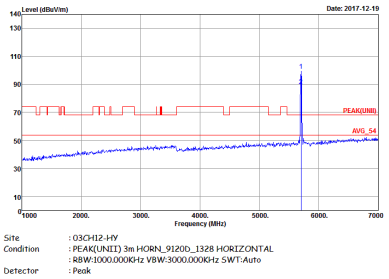
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11a CH100 5500MHz	
	Vertical	Fundamental
Peak		
Avg.		Left blank

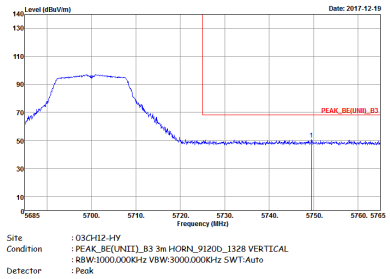
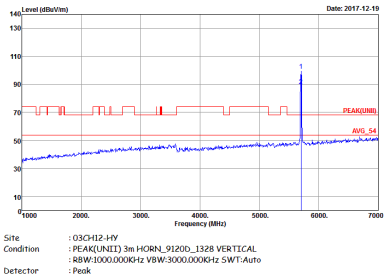
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11a CH116 5580MHz - L	
	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

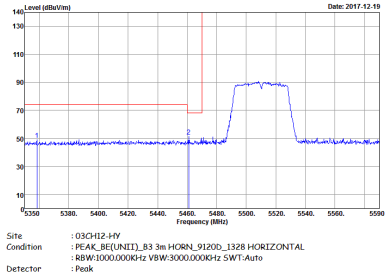
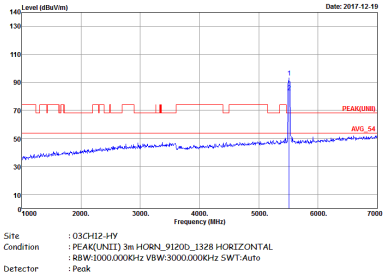
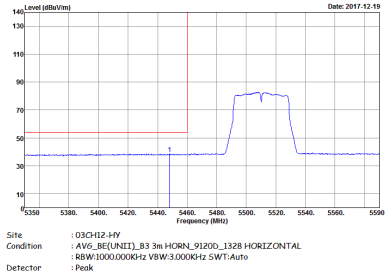
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11a CH116 5580MHz - L	
	Vertical	Fundamental
Peak		
Avg.		Left blank

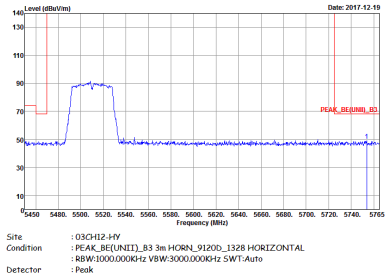
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11a CH116 5580MHz - R	
	Vertical	Fundamental
Peak		Left blank

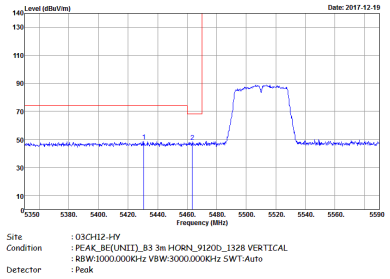
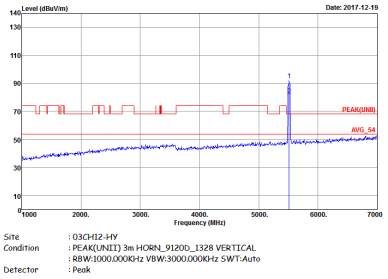
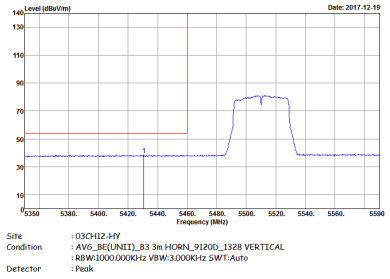
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11a CH140 5700MHz	
	Horizontal	Fundamental
Peak		

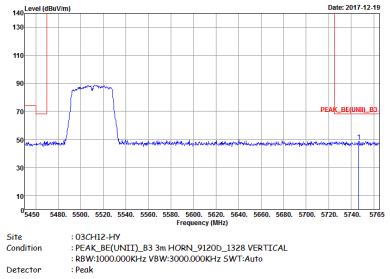
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11a CH140 5700MHz	
	Vertical	Fundamental
Peak		

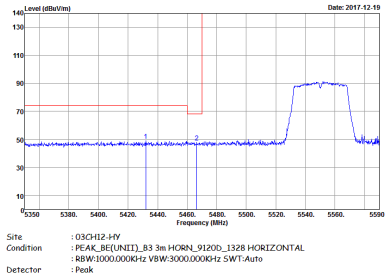
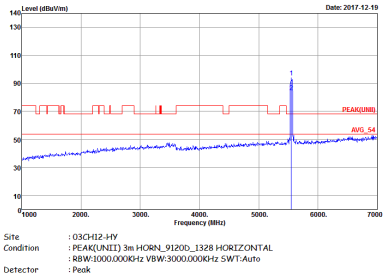
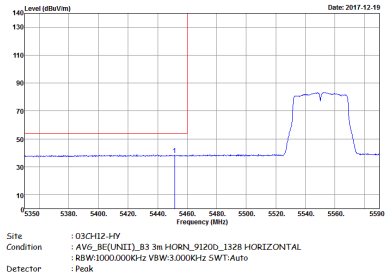
Band 3 5470~5725MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

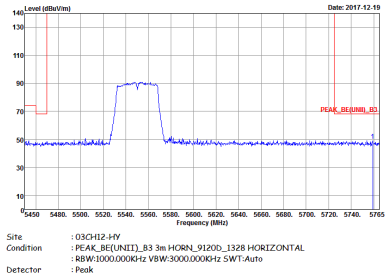
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11n HT40 CH102 5510MHz - L	
	Horizontal	Fundamental
Peak		
Avg.		Left blank

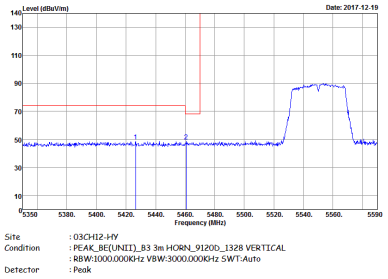
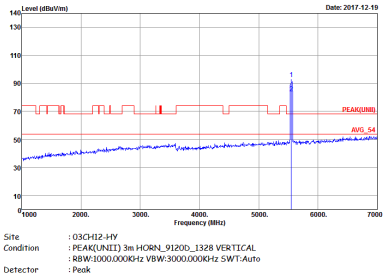
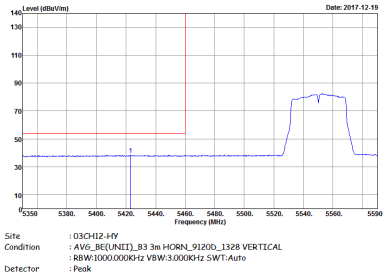
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11n HT40 CH102 5510MHz - R	
	Horizontal	Fundamental
Peak		Left blank

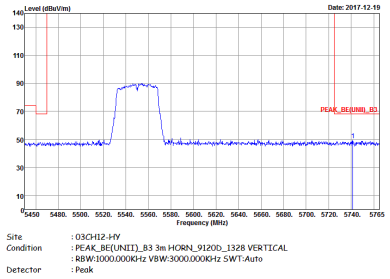
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11n HT40 CH102 5510MHz - L	
	Vertical	Fundamental
Peak		
Avg.		Left blank

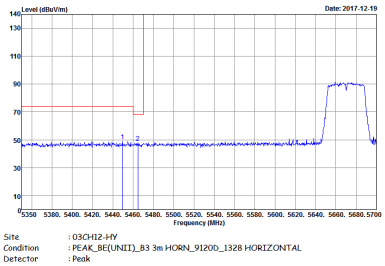
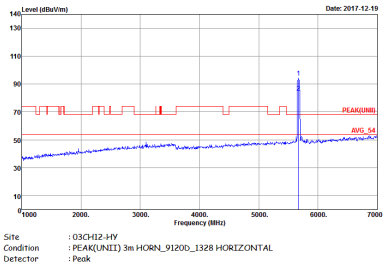
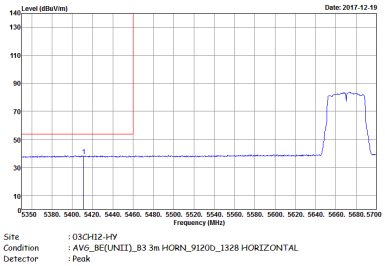
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11n HT40 CH102 5510MHz - R	
	Vertical	Fundamental
Peak		Left blank

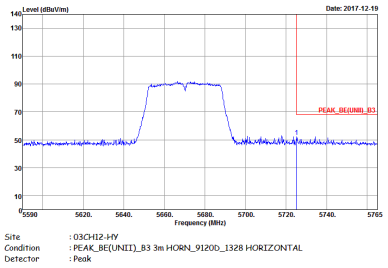
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11n HT40 CH110 5550MHz - L	
	Horizontal	Fundamental
Peak		
Avg.		Left blank

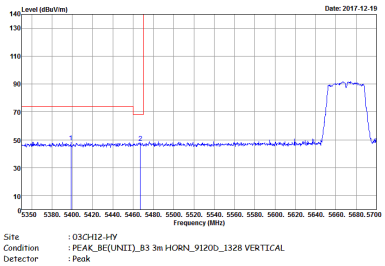
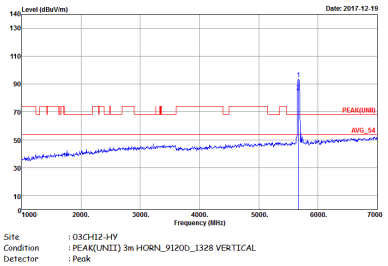
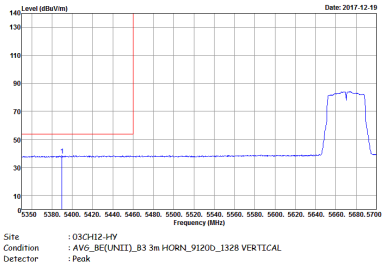
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11n HT40 CH110 5550MHz - R	
	Horizontal	Fundamental
Peak		Left blank

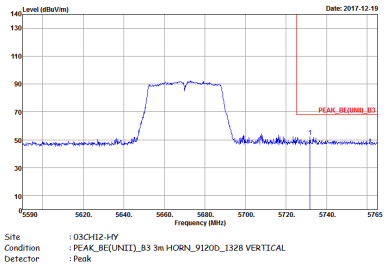
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11n HT40 CH110 5550MHz - L	
	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11n HT40 CH110 5550MHz - R	
	Vertical	Fundamental
Peak		Left blank

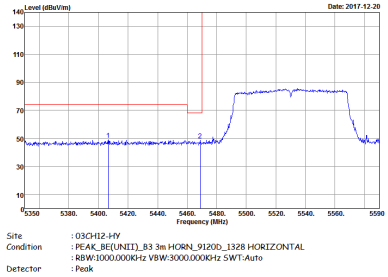
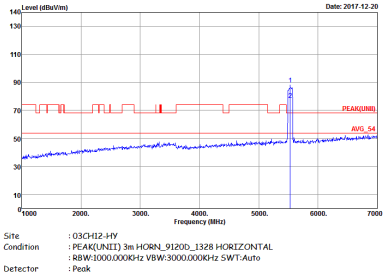
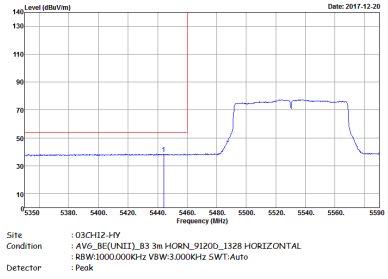
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11n HT40 CH134 5670MHz - L	
	Horizontal	Fundamental
Peak		
Avg.		Left blank

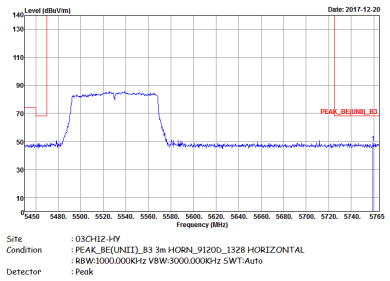
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11n HT40 CH134 5670MHz - R	
	Horizontal	Fundamental
Peak		Left blank

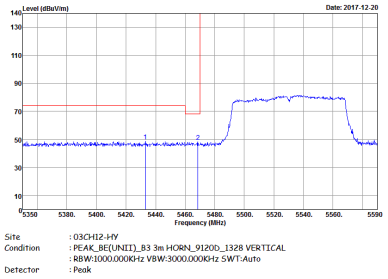
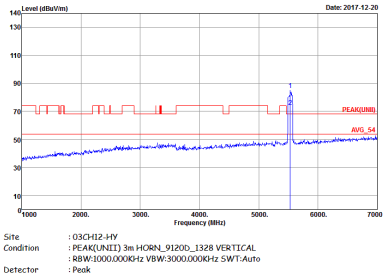
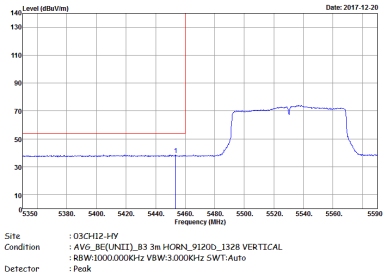
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11n HT40 CH134 5670MHz - L	
	Vertical	Fundamental
Peak		
Avg.		Left blank

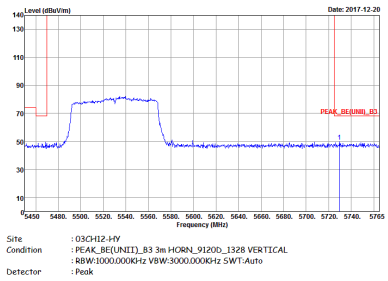
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11n HT40 CH134 5670MHz - R	
	Vertical	Fundamental
Peak		Left blank

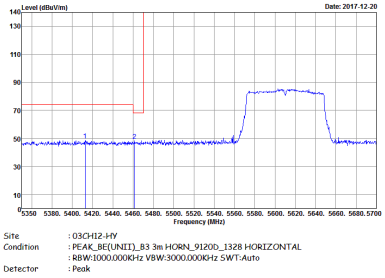
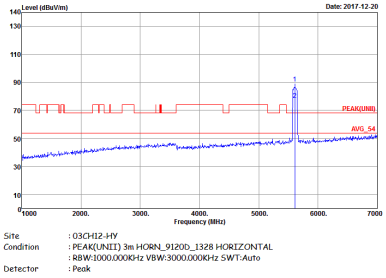
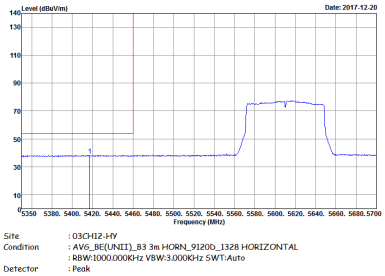
Band 3 5470~5725MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

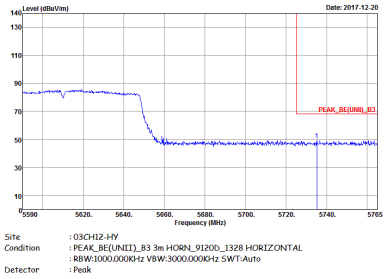
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11ac VHT80 CH106 5530MHz - L	
	Horizontal	Fundamental
Peak		
Avg.		Left blank

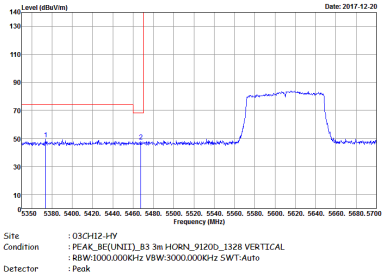
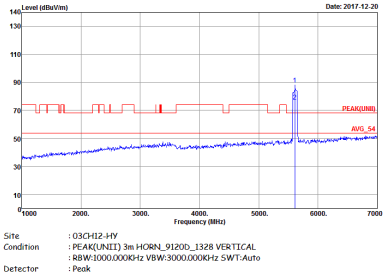
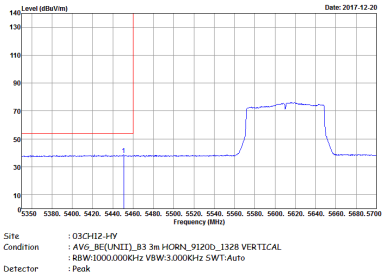
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11ac VHT80 CH106 5530MHz - R	
	Horizontal	Fundamental
Peak		Left blank

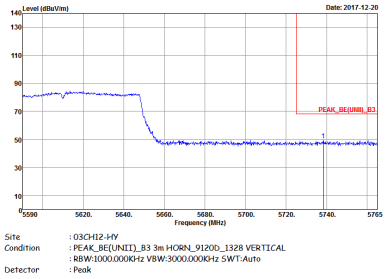
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11ac VHT80 CH106 5530MHz - L	
	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

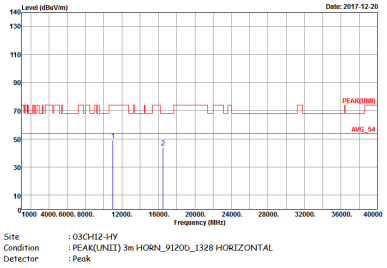
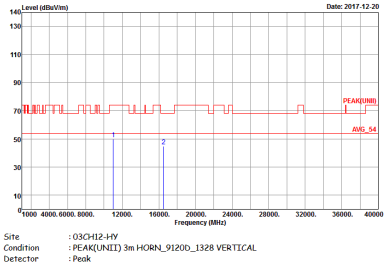
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11ac VHT80 CH122 5610MHz - R	
	Horizontal	Fundamental
Peak		Left blank

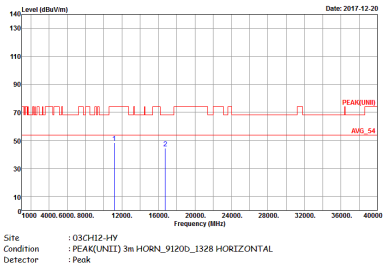
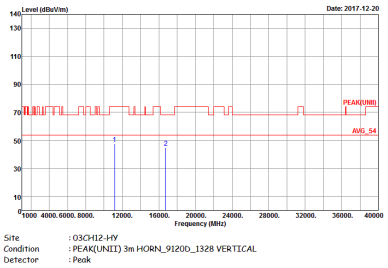
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11ac VHT80 CH122 5610MHz - L	
	Vertical	Fundamental
Peak		
Avg.		Left blank

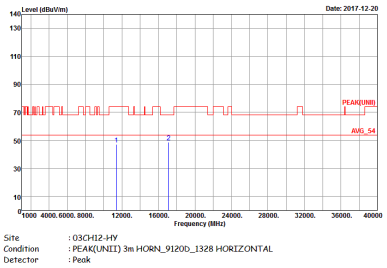
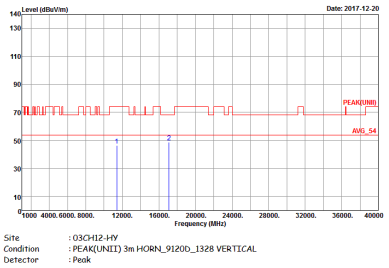
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
	802.11ac VHT80 CH122 5610MHz - R	
	Vertical	Fundamental
Peak		Left blank

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

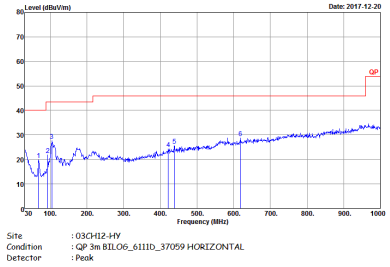
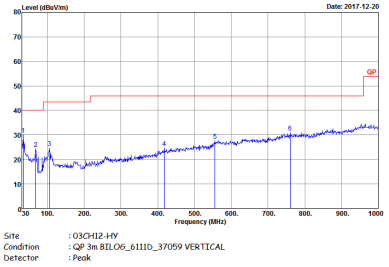
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
	802.11a CH100 5500MHz	
	Horizontal	Vertical
Peak Avg.		

WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
	802.11a CH116 5580MHz	
	Horizontal	Vertical
Peak Avg.		

WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
	802.11a CH140 5700MHz	
	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

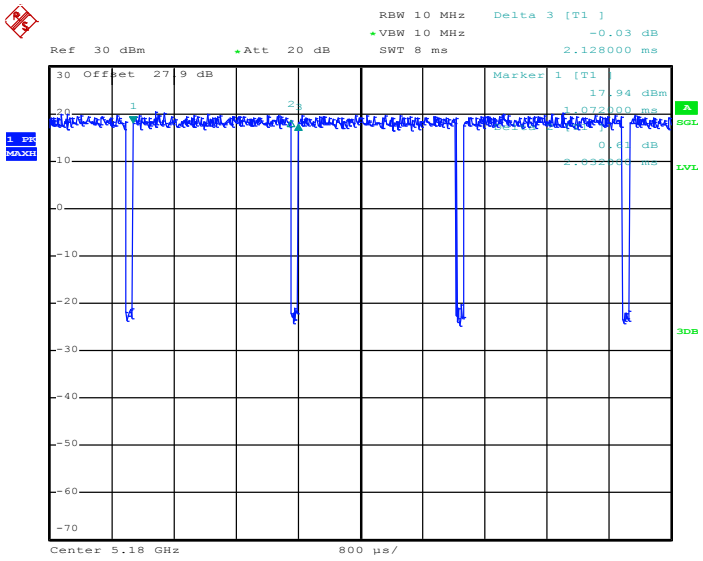
5GHz WIFI 802.11ac VHT80 (LF)

WIFI	5GHz WIFI	
	802.11ac VHT80 LF	
	Horizontal	Vertical
QP / Peak		

Appendix E. Duty Cycle Plots

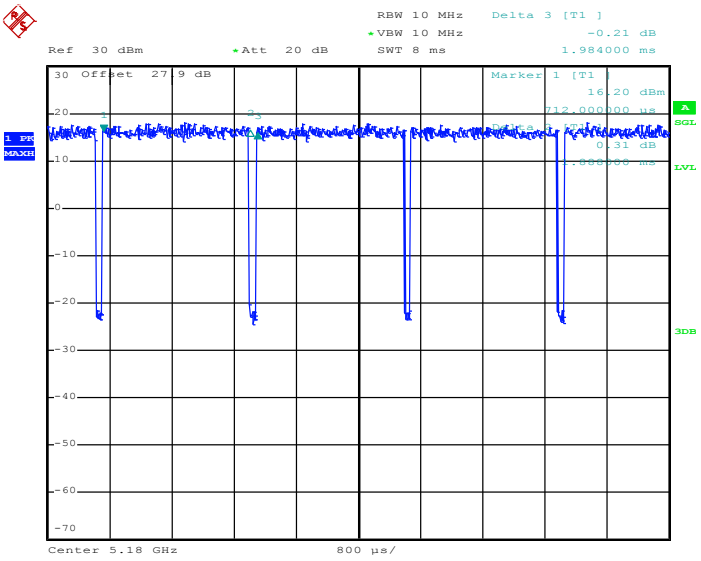
Band	Duty Cycle (%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor (dB)
802.11a	95.49	2032.00	0.49	1kHz	0.20
5GHz 802.11n HT20	95.16	1888.00	0.53	1kHz	0.22
5GHz 802.11n HT40	92.03	924.00	1.08	3kHz	0.36
5GHz 802.11ac VHT20	94.40	1888.00	0.530	1kHz	0.25
5GHz 802.11ac VHT40	91.34	928.00	1.078	3kHz	0.39
5GHz 802.11ac VHT80	85.08	456.00	2.19	3kHz	0.70

802.11a



Date: 12.DEC.2017 22:20:49

802.11n HT20



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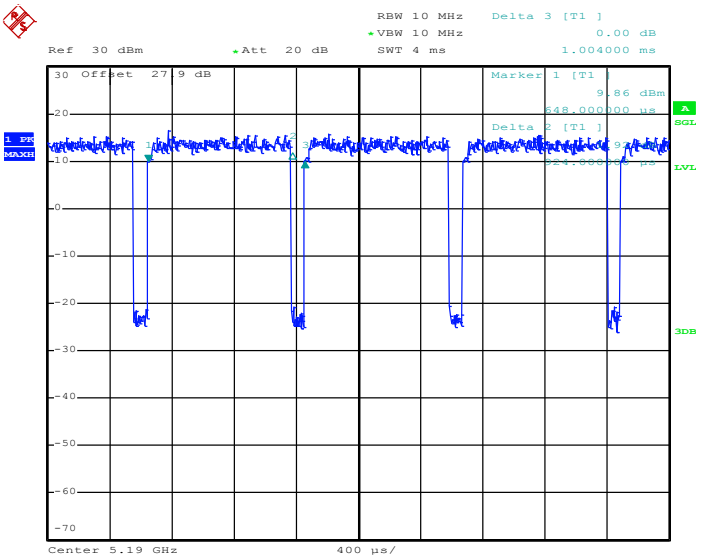
802.11n HT40



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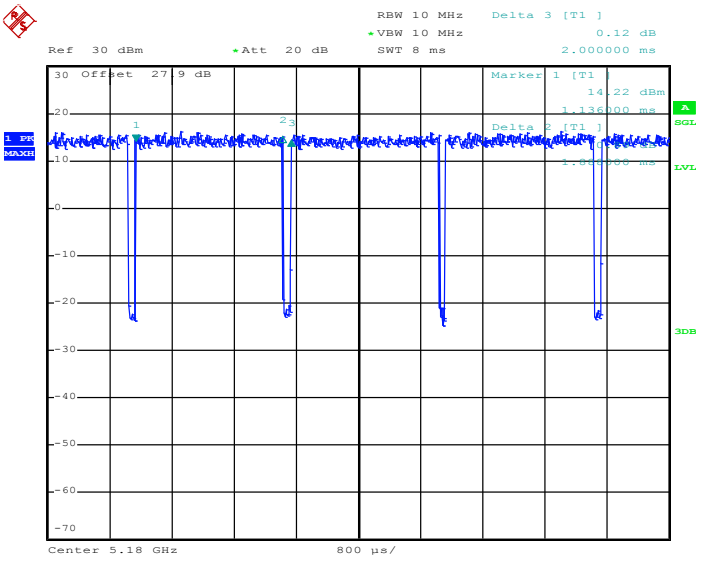
802.11ac VHT20



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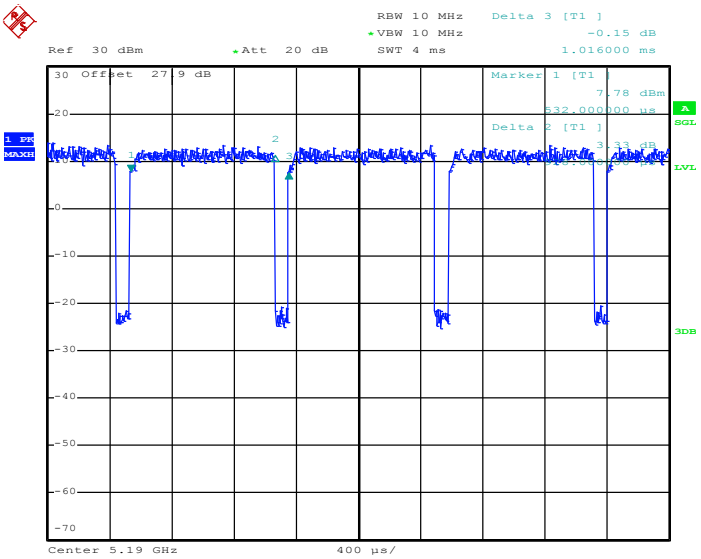
802.11ac VHT40



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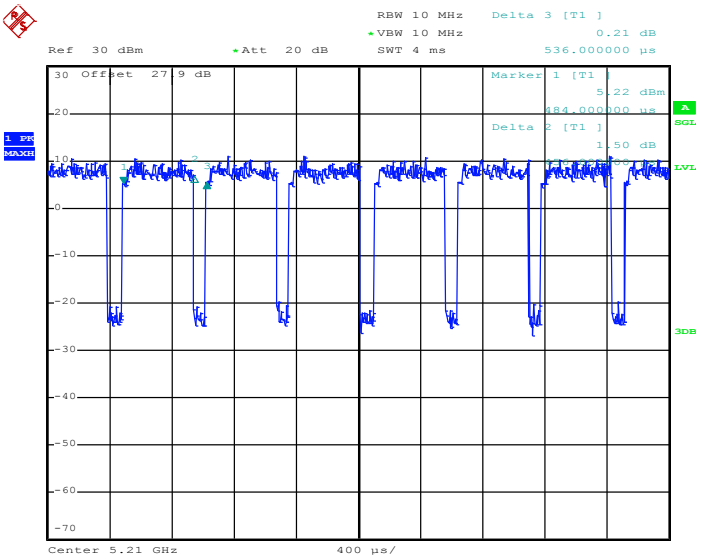
802.11ac VHT80



Date: 12.DEC.2017 23:00:35