FCC RADIO TEST REPORT

FCC ID	:	**APYHRO00278**
Equipment	:	**Smart phone**
Brand Name	:	**SHARP**
Applicant	:	**SHARP CORPORATION** **1 Takumi-cho, Sakai-ku, Sakai City, Osaka, Japan 590-8522**
Manufacturer	:	**SHARP CORPORATION** **2-13-1, HACHIHONMATSU-IIDA, HIGASHI-HIROSHIMA-SHI, HIROSHIMA PREFECTURE 739-0192, JAPAN**
Standard	:	**FCC Part 15 Subpart E §15.407**

The product was received on Aug. 06, 2019 and testing was started from Aug. 16, 2019 and completed on Sep. 20, 2019. We, SPORTON INTERNATIONAL INC., EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issued Date
FR960602-01E	01	Initial issue of report	Sep. 25, 2019
FR960602-01E	02	Revising company address of applicant	Oct. 17, 2019

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.403(i)	26dB Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Reporting only	-
3.2	15.407(a)	Maximum Conducted Output Power	Pass	-
3.3	15.407(a)	Power Spectral Density	Pass	-
3.4	15.407(b)	Unwanted Emissions	Pass	Under limit 1.58 dB at 5350.080 MHz
3.5	15.207	AC Conducted Emission	Pass	Under limit 18.44 dB at 0.400 MHz
3.6	15.407(c)	Automatically Discontinue Transmission	Pass	-
3.7	15.203 15.407(a)	Antenna Requirement	Pass	-

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

Reviewed by: Wii Chang

Report Producer: Jessie Ho

1 General Description

1.1 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: Fixed Internal Antenna WLAN: PIFA Antenna Bluetooth: PIFA Antenna GPS / Glonass / BDS / Galileo: PIFA Antenna NFC: Loop Antenna

1.2 Modification of EUT

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

1.3 Testing Location

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

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

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	03CH11-HY

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

FCC designation No.: TW1190 and TW0007

1.4 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- FCC KDB 414788 D01 Radiated Test Site v01r01.
- ANSI C63.10-2013

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. 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 : WCDMA Band V Idle+ Bluetooth Link + WLAN (5GHz) Link + Camera (Rear) + Earphone + USB Cable (Charging from AC Adapter)

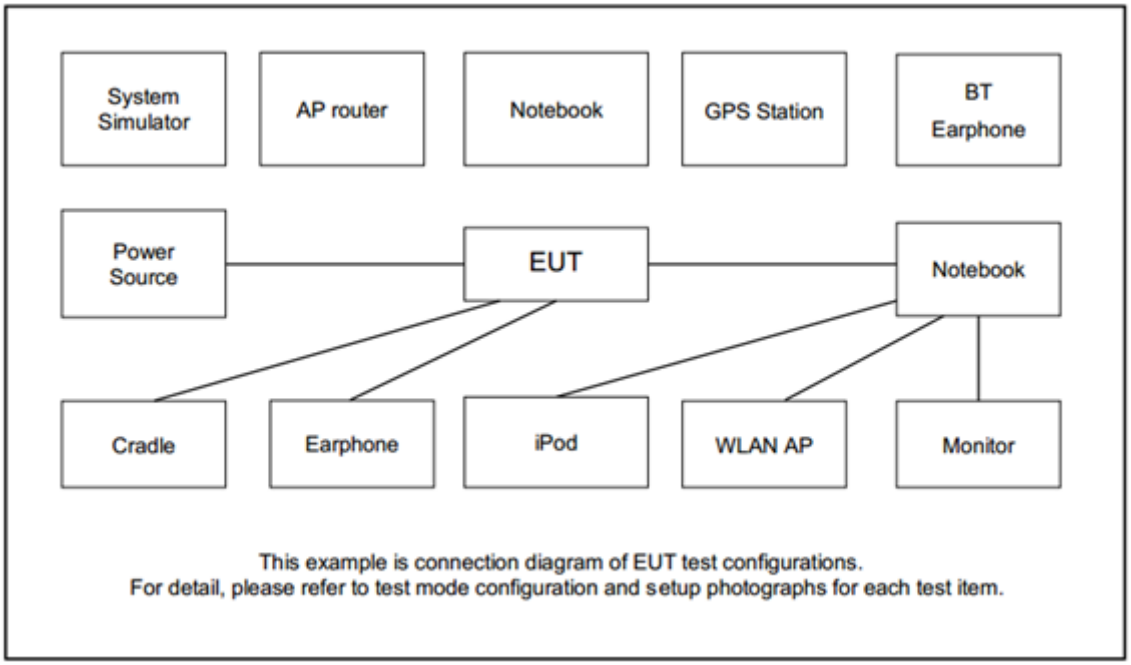
Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

Ch. #		Band I：5150-5250 MHz	Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

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

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

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.	Bluetooth Earphone	Pioneer	SE-C7BTSE	PY700A2029	N/A	N/A
3.	WLAN AP	ASUS	RT-AC1750	MSQ-RTAC66U	N/A	Unshielded,1.8m
4.	iPod	Apple	A1285	FCC DoC	Shielded, 1.0 m	N/A
5.	iPod Earphone	Apple	A1387	N/A	N/A	N/A
6.	Notebook	DELL	Latitude E3340	FCC DoC/ Contains FCC ID: PD97260NGU	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2.5 EUT Operation Test Setup

The RF test items, utility “adb” was installed in EUT 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.

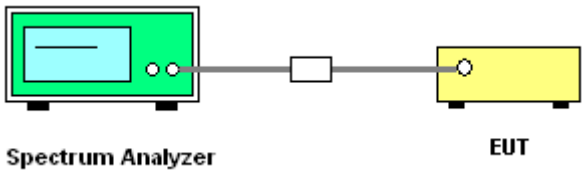
3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

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

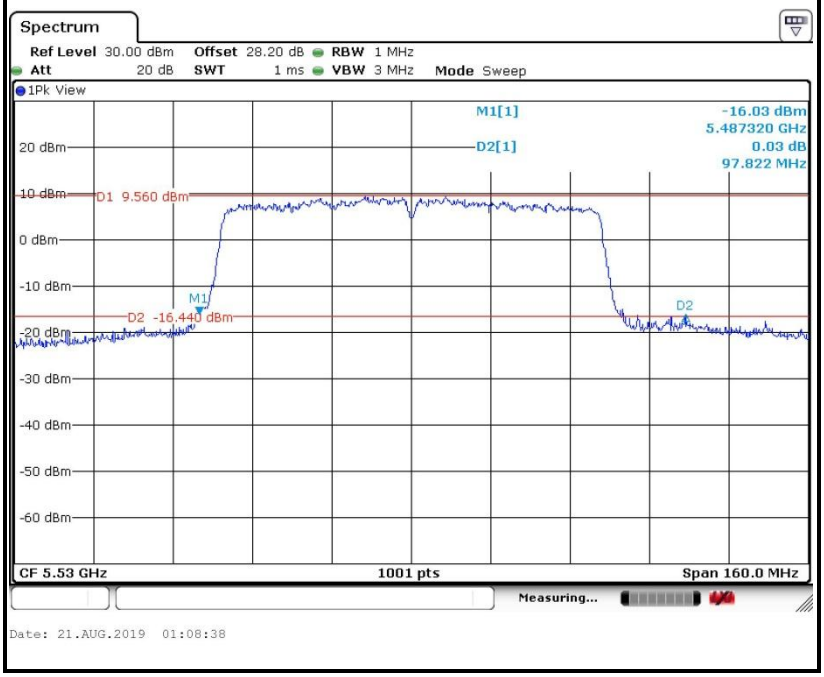
3.1.4 Test Setup



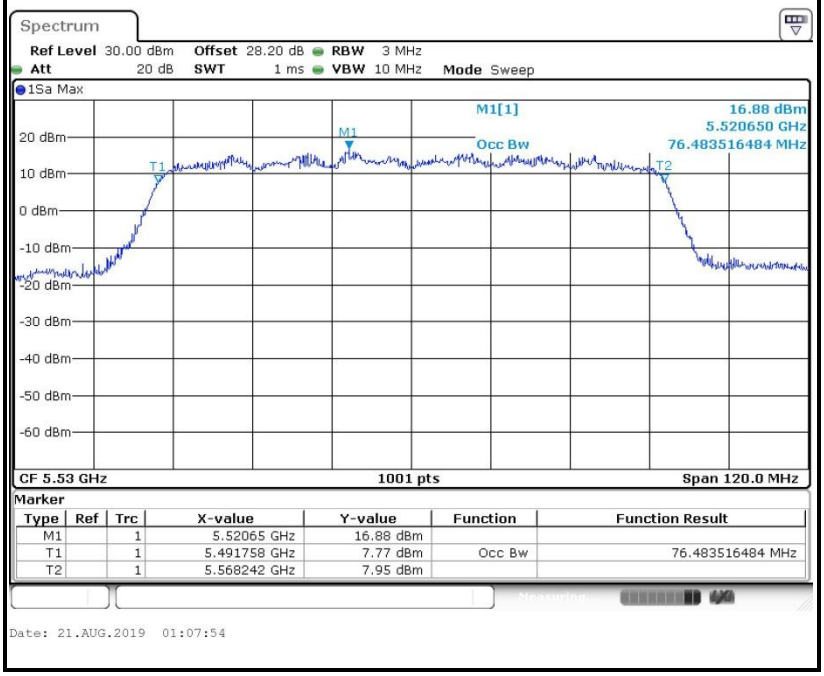
3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

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

<FCC 14-30 CFR 15.407>

For the 5.15–5.25 GHz bands:

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

For the 5.25–5.725 GHz bands:

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

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

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

3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

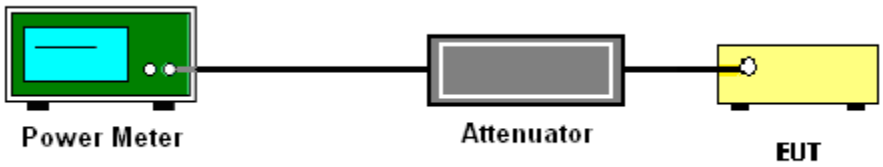
3.2.3 Test Procedures

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

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

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

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

For the 5.15–5.25 GHz bands:

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

For the 5.25–5.725 GHz bands:

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

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

3.3.2 Measuring Instruments

See list of measuring equipment of this test report.

3.3.3 Test Procedures

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

Section F) Maximum power spectral density.

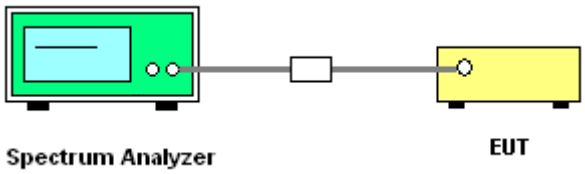
 # Method SA-3 #

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

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time ≤ (number of points in sweep) × T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
- Detector = power averaging (rms).
- Trace mode = max hold.
- Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.

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

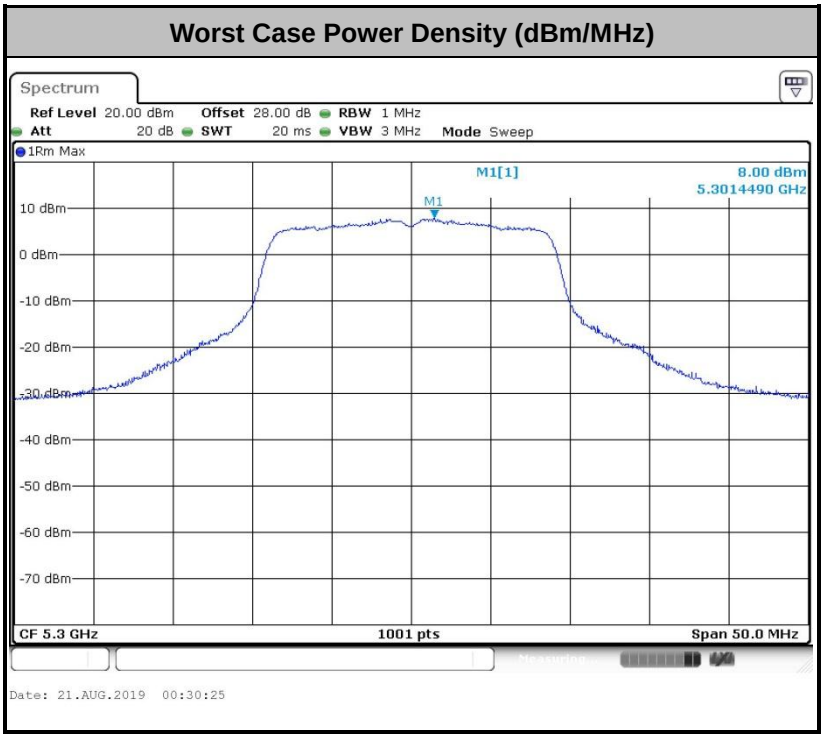
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

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)
- 27	68.3

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

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

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

3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

3.4.3 Test Procedures

1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

Section G) Unwanted emissions measurement.

(1) Procedure for Unwanted Emissions Measurements Below 1000MHz

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

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

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

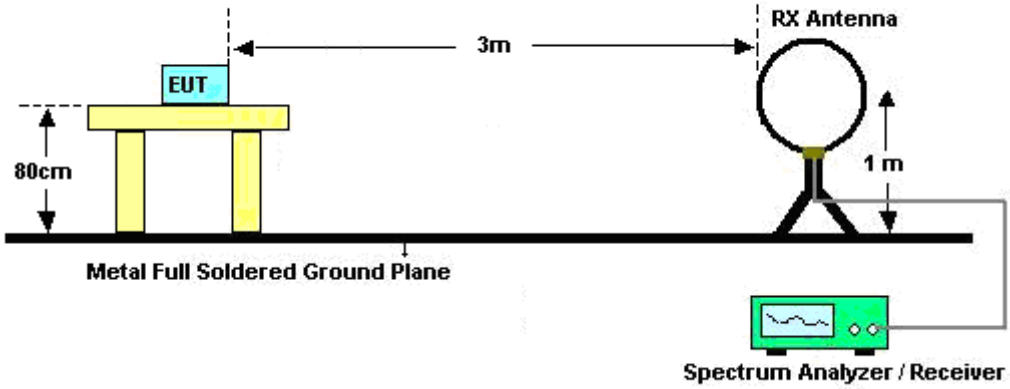
(3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

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

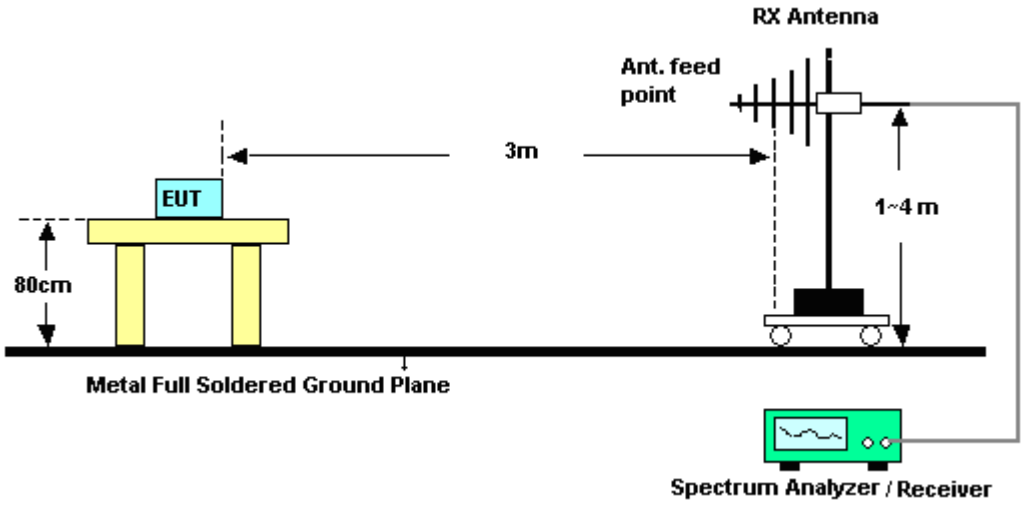
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband antenna and its height is adjusted between one meter and four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then adjust the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. For testing below 1GHz, if the emission level of the EUT in peak mode was 3 dB lower than the limit specified, then peak values of EUT will be reported, otherwise, the emissions will be repeated one by one using the CISPR quasi-peak method and reported.
7. For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in average mode also complies with the limit in average mode), then peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

3.4.4 Test Setup

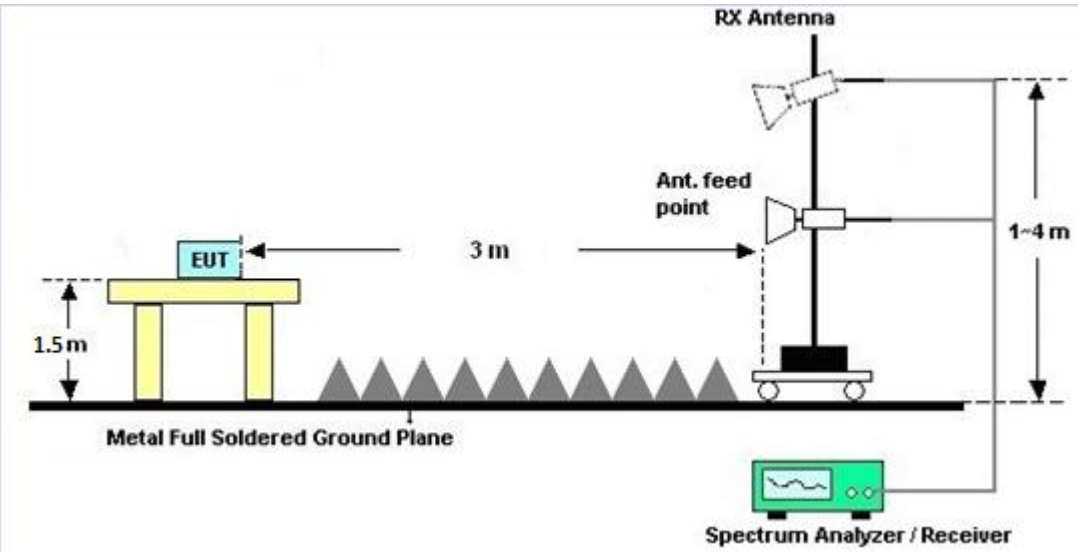
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



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 alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix 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.

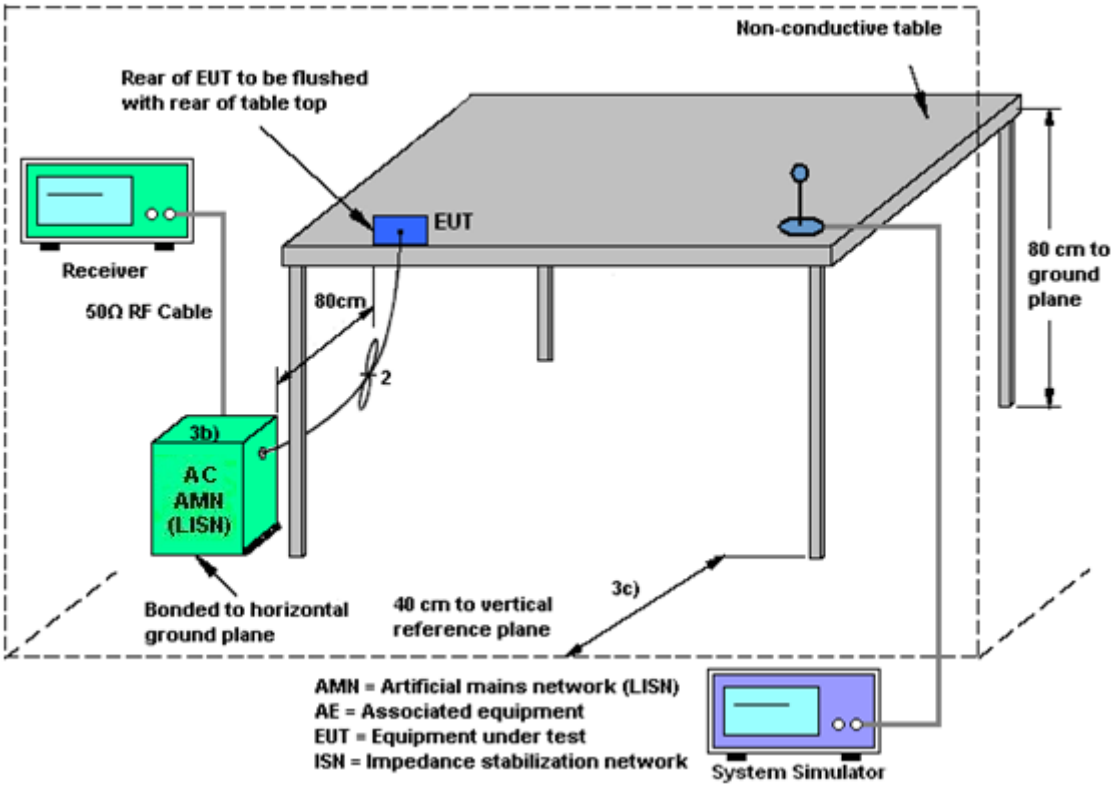
3.5.2 Measuring Instruments

See list of measuring equipment of this test report.

3.5.3 Test Procedures

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode.

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix 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

See list of measuring equipment of this test report.

3.6.3 Test Result of Automatically Discontinue Transmission

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

3.7 Antenna Requirements

3.7.1 Standard Applicable

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

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

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

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Sensor	DARE	RPR3006W	13I00030SNO32	9kHz~6GHz	Dec. 03, 2018	Aug. 16, 2019~ Sep. 20, 2019	Dec. 02, 2019	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSV40	101397	10Hz~40GHz	Nov. 13, 2018	Aug. 16, 2019~ Sep. 20, 2019	Nov. 12, 2019	Conducted (TH05-HY)
Switch Box & RF Cable	Burgeon	ETF-058	EC1208382	N/A	Mar. 27, 2019	Aug. 16, 2019~ Sep. 20, 2019	Mar. 26, 2020	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Aug. 25, 2019	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 12, 2018	Aug. 25, 2019	Nov. 11, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 14, 2018	Aug. 25, 2019	Nov. 13, 2019	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100081	9kHz~30MHz	Nov. 09, 2018	Aug. 25, 2019	Nov. 08, 2019	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Aug. 25, 2019	N/A	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Dec. 31, 2018	Aug. 25, 2019	Dec. 30, 2019	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Dec. 31, 2018	Aug. 25, 2019	Dec. 30, 2019	Conduction (CO05-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz ~ 40GHz	Dec. 06, 2018	Aug. 22, 2019~ Aug. 29, 2019	Dec. 05, 2019	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Dec. 04, 2018	Aug. 22, 2019~ Aug. 29, 2019	Dec. 03, 2019	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D&N-6-06	35414&AT-N0602	30MHz~1GHz	Oct. 13, 2018	Aug. 22, 2019~ Aug. 29, 2019	Oct. 12, 2019	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1326	1GHz ~ 18GHz	Oct. 30, 2018	Aug. 22, 2019~ Aug. 29, 2019	Oct. 29, 2019	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Nov. 22, 2018	Aug. 22, 2019~ Aug. 29, 2019	Nov. 21, 2019	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Nov. 14, 2018	Aug. 22, 2019~ Aug. 29, 2019	Nov. 13, 2020	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz ~ 44GHz	Oct. 19, 2018	Aug. 22, 2019~ Aug. 29, 2019	Oct. 18, 2019	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	Aug. 22, 2019~ Aug. 29, 2019	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	Aug. 22, 2019~ Aug. 29, 2019	N/A	Radiation (03CH11-HY)
Preamplifier	MITEQ	AMF-7D-00101800-30-10P	1590074	1GHz~18GHz	May 20, 2019	Aug. 22, 2019~ Aug. 29, 2019	May 19, 2020	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Dec. 05, 2018	Aug. 22, 2019~ Aug. 29, 2019	Dec. 04, 2019	Radiation (03CH11-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY55420170	20MHz~8.4GHz	Mar. 08, 2019	Aug. 22, 2019~ Aug. 29, 2019	Mar. 07, 2020	Radiation (03CH11-HY)

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Software	Audix	E3 6.2009-8-24	RK-001042	N/A	N/A	Aug. 22, 2019~ Aug. 29, 2019	N/A	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	9kHz-30MHz	Mar. 13, 2019	Aug. 22, 2019~ Aug. 29, 2019	Mar. 12, 2020	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2859/2	30MHz-40GHz	Mar. 13, 2019	Aug. 22, 2019~ Aug. 29, 2019	Mar. 12, 2020	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9837/4PE	30M-18G	Mar. 13, 2019	Aug. 22, 2019~ Aug. 29, 2019	Mar. 12, 2020	Radiation (03CH11-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY4274/2	30MHz-40GHz	Mar. 13, 2019	Aug. 22, 2019~ Aug. 29, 2019	Mar. 12, 2020	Radiation (03CH11-HY)
Filter	Wainwright	WLK4-1000-1530-8000-40SS	SN11	1.53G Low Pass	Sep. 16, 2018	Aug. 22, 2019~ Aug. 29, 2019	Sep. 15, 2019	Radiation (03CH11-HY)
Filter	Wainwright	WHKX8-5872.5-6750-18000-40ST	SN3	6.75GHz High Pass	Sep. 17, 2018	Aug. 22, 2019~ Aug. 29, 2019	Sep. 16, 2019	Radiation (03CH11-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.20**

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.5**

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

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

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Hank Hsu /Kai Liao/Richard Qiu	Temperature:	21~25	°C
Test Date:	2019/8/16 ~9/20	Relative Humidity:	51~54	%

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)			Note
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	36	5180	16.93	-	26.12	-	-		22.29	-		
11a	6Mbps	1	44	5220	16.98	-	26.07	-	-		22.30	-		
11a	6Mbps	1	48	5240	16.98	-	26.17	-	-		22.30	-		
HT20	MCS0	1	36	5180	18.08	-	27.17	-	-		22.57	-		
HT20	MCS0	1	44	5220	18.08	-	28.42	-	-		22.57	-		
HT20	MCS0	1	48	5240	18.03	-	28.47	-	-		22.56	-		
HT40	MCS0	1	38	5190	36.66	-	42.35	-	-		23.01	-		
HT40	MCS0	1	46	5230	36.56	-	42.35	-	-		23.01	-		
VHT80	MCS0	1	42	5210	76.36	-	84.72	-	-		23.01	-		

TEST RESULTS DATA
Average Power Table

FCC Band I													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	36	5180	16.00	-		24.00	-	3.29	-		Pass
11a	6Mbps	1	44	5220	16.00	-		24.00	-	3.29	-		Pass
11a	6Mbps	1	48	5240	16.20	-		24.00	-	3.29	-		Pass
HT20	MCS0	1	36	5180	17.30	-		24.00	-	3.29	-		Pass
HT20	MCS0	1	44	5220	17.30	-		24.00	-	3.29	-		Pass
HT20	MCS0	1	48	5240	17.40	-		24.00	-	3.29	-		Pass
HT40	MCS0	1	38	5190	15.90	-		24.00	-	3.29	-		Pass
HT40	MCS0	1	46	5230	15.50	-		24.00	-	3.29	-		Pass
VHT20	MCS0	1	36	5180	17.20	-		24.00	-	3.29	-		Pass
VHT20	MCS0	1	44	5220	17.20	-		24.00	-	3.29	-		Pass
VHT20	MCS0	1	48	5240	17.30	-		24.00	-	3.29	-		Pass
VHT40	MCS0	1	38	5190	15.80	-		24.00	-	3.29	-		Pass
VHT40	MCS0	1	46	5230	15.20	-		24.00	-	3.29	-		Pass
VHT80	MCS0	1	42	5210	14.90	-		24.00	-	3.29	-		Pass

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
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	36	5180	0.21	-	5.52	-		11.00	-	3.29	-		Pass
11a	6Mbps	1	44	5220	0.21	-	5.71	-		11.00	-	3.29	-		Pass
11a	6Mbps	1	48	5240	0.21	-	5.78	-		11.00	-	3.29	-		Pass
HT20	MCS0	1	36	5180	0.24	-	7.46	-		11.00	-	3.29	-		Pass
HT20	MCS0	1	44	5220	0.24	-	7.68	-		11.00	-	3.29	-		Pass
HT20	MCS0	1	48	5240	0.24	-	7.76	-		11.00	-	3.29	-		Pass
HT40	MCS0	1	38	5190	0.42	-	2.50	-		11.00	-	3.29	-		Pass
HT40	MCS0	1	46	5230	0.42	-	1.72	-		11.00	-	3.29	-		Pass
VHT80	MCS0	1	42	5210	0.53	-	-0.76	-		11.00	-	3.29	-		Pass

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
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	52	5260	17.03	-	26.92	-	23.31	-	29.31	-	23.98	-	
11a	6Mbps	1	60	5300	16.98	-	26.57	-	23.30	-	29.30	-	23.98	-	
11a	6Mbps	1	64	5320	17.08	-	27.72	-	23.33	-	29.33	-	23.98	-	
HT20	MCS0	1	52	5260	18.08	-	27.92	-	23.57	-	29.57	-	23.98	-	
HT20	MCS0	1	60	5300	18.03	-	28.52	-	23.56	-	29.56	-	23.98	-	
HT20	MCS0	1	64	5320	17.98	-	27.07	-	23.55	-	29.55	-	23.98	-	
HT40	MCS0	1	54	5270	36.66	-	41.72	-	23.98	-	30.00	-	23.98	-	
HT40	MCS0	1	62	5310	36.66	-	41.81	-	23.98	-	30.00	-	23.98	-	
VHT80	MCS0	1	58	5290	76.36	-	84.72	-	23.98	-	30.00	-	23.98	-	

TEST RESULTS DATA
Average Power Table

FCC Band II													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	52	5260	16.10	-		23.98	-	4.27	-	30	Pass
11a	6Mbps	1	60	5300	16.00	-		23.98	-	4.27	-	30	Pass
11a	6Mbps	1	64	5320	16.20	-		23.98	-	4.27	-	30	Pass
HT20	MCS0	1	52	5260	17.40	-		23.98	-	4.27	-	30	Pass
HT20	MCS0	1	60	5300	17.40	-		23.98	-	4.27	-	30	Pass
HT20	MCS0	1	64	5320	17.10	-		23.98	-	4.27	-	30	Pass
HT40	MCS0	1	54	5270	15.40	-		23.98	-	4.27	-	30	Pass
HT40	MCS0	1	62	5310	15.30	-		23.98	-	4.27	-	30	Pass
VHT20	MCS0	1	52	5260	17.30	-		23.98	-	4.27	-	30	Pass
VHT20	MCS0	1	60	5300	17.30	-		23.98	-	4.27	-	30	Pass
VHT20	MCS0	1	64	5320	17.00	-		23.98	-	4.27	-	30	Pass
VHT40	MCS0	1	54	5270	15.30	-		23.98	-	4.27	-	30	Pass
VHT40	MCS0	1	62	5310	15.20	-		23.98	-	4.27	-	30	Pass
VHT80	MCS0	1	58	5290	14.50	-		23.98	-	4.27	-	30	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
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	52	5260	0.21	-	6.03	-		11.00	-	4.27	-		Pass
11a	6Mbps	1	60	5300	0.21	-	5.76	-		11.00	-	4.27	-		Pass
11a	6Mbps	1	64	5320	0.21	-	6.02	-		11.00	-	4.27	-		Pass
HT20	MCS0	1	52	5260	0.24	-	7.85	-		11.00	-	4.27	-		Pass
HT20	MCS0	1	60	5300	0.24	-	8.00	-		11.00	-	4.27	-		Pass
HT20	MCS0	1	64	5320	0.24	-	7.49	-		11.00	-	4.27	-		Pass
HT40	MCS0	1	54	5270	0.42	-	1.94	-		11.00	-	4.27	-		Pass
HT40	MCS0	1	62	5310	0.42	-	1.87	-		11.00	-	4.27	-		Pass
VHT80	MCS0	1	58	5290	0.53	-	-1.38	-		11.00	-	4.27	-		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band III																
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth In U-NII 2C (MHz)		26 dB Bandwidth In U-NII 2C (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)		FCC 26dB Bandwidth Power Limit (dBm)		6 dB Bandwidth for Straddle Channel (MHz)	
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2
11a	6Mbps	1	100	5500	16.98	-	27.87	-	23.30	-	29.30	-	23.98	-	----	----
11a	6Mbps	1	116	5580	17.13	-	28.17	-	23.34	-	29.34	-	23.98	-	----	----
11a	6Mbps	1	140	5700	17.18	-	28.22	-	23.35	-	29.35	-	23.98	-	----	----
HT20	MCS0	1	100	5500	18.13	-	27.82	-	23.58	-	29.58	-	23.98	-	----	----
HT20	MCS0	1	116	5580	18.23	-	28.82	-	23.61	-	29.61	-	23.98	-	----	----
HT20	MCS0	1	140	5700	18.18	-	29.32	-	23.60	-	29.60	-	23.98	-	----	----
HT40	MCS0	1	102	5510	36.66	-	42.53	-	23.98	-	30.00	-	23.98	-	----	----
HT40	MCS0	1	110	5550	36.66	-	42.89	-	23.98	-	30.00	-	23.98	-	----	----
HT40	MCS0	1	134	5670	36.66	-	42.71	-	23.98	-	30.00	-	23.98	-	----	----
VHT80	MCS0	1	106	5530	76.48	-	97.82	-	23.98	-	30.00	-	23.98	-	----	----
VHT80	MCS0	1	122	5610	76.36	-	84.88	-	23.98	-	30.00	-	23.98	-	----	----

TEST RESULTS DATA
Average Power Table

FCC Band III													
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	100	5500	16.00	-		23.98	-	3.56	-	30	Pass
11a	6Mbps	1	116	5580	16.00	-		23.98	-	3.56	-	30	Pass
11a	6Mbps	1	140	5700	16.40	-		23.98	-	3.56	-	30	Pass
HT20	MCS0	1	100	5500	17.10	-		23.98	-	3.56	-	30	Pass
HT20	MCS0	1	116	5580	17.30	-		23.98	-	3.56	-	30	Pass
HT20	MCS0	1	140	5700	17.10	-		23.98	-	3.56	-	30	Pass
HT40	MCS0	1	102	5510	15.20	-		23.98	-	3.56	-	30	Pass
HT40	MCS0	1	110	5550	15.20	-		23.98	-	3.56	-	30	Pass
HT40	MCS0	1	134	5670	15.90	-		23.98	-	3.56	-	30	Pass
VHT20	MCS0	1	100	5500	17.00	-		23.98	-	3.56	-	30	Pass
VHT20	MCS0	1	116	5580	17.20	-		23.98	-	3.56	-	30	Pass
VHT20	MCS0	1	140	5700	17.00	-		23.98	-	3.56	-	30	Pass
VHT40	MCS0	1	102	5510	15.10	-		23.98	-	3.56	-	30	Pass
VHT40	MCS0	1	110	5550	15.10	-		23.98	-	3.56	-	30	Pass
VHT40	MCS0	1	134	5670	15.80	-		23.98	-	3.56	-	30	Pass
VHT80	MCS0	1	106	5530	14.90	-		23.98	-	3.56	-	30	Pass
VHT80	MCS0	1	122	5610	14.20	-		23.98	-	3.56	-	30	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
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	100	5500	0.21	-	5.62	-		11.00	-	3.56	-		Pass
11a	6Mbps	1	116	5580	0.21	-	5.80	-		11.00	-	3.56	-		Pass
11a	6Mbps	1	140	5700	0.21	-	6.35	-		11.00	-	3.56	-		Pass
HT20	MCS0	1	100	5500	0.24	-	7.72	-		11.00	-	3.56	-		Pass
HT20	MCS0	1	116	5580	0.24	-	7.87	-		11.00	-	3.56	-		Pass
HT20	MCS0	1	140	5700	0.24	-	7.50	-		11.00	-	3.56	-		Pass
HT40	MCS0	1	102	5510	0.42	-	1.50	-		11.00	-	3.56	-		Pass
HT40	MCS0	1	110	5550	0.42	-	1.61	-		11.00	-	3.56	-		Pass
HT40	MCS0	1	134	5670	0.42	-	2.56	-		11.00	-	3.56	-		Pass
VHT80	MCS0	1	106	5530	0.53	-	-0.94	-		11.00	-	3.56	-		Pass
VHT80	MCS0	1	122	5610	0.53	-	-1.81	-		11.00	-	3.56	-		Pass

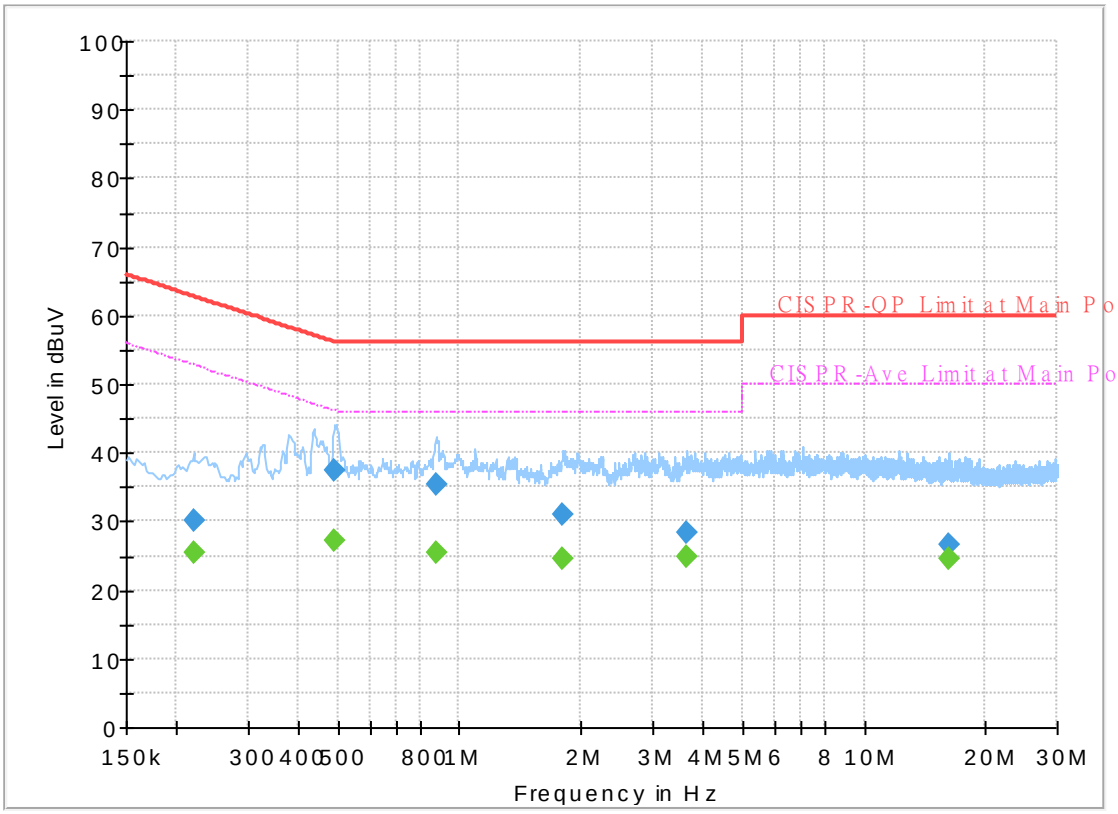
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Jimmy Chang	**Temperature :**	24~26℃
		Relative Humidity :	54~56%

EUT Information

Report NO :	960602-01
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

Full Spectrum



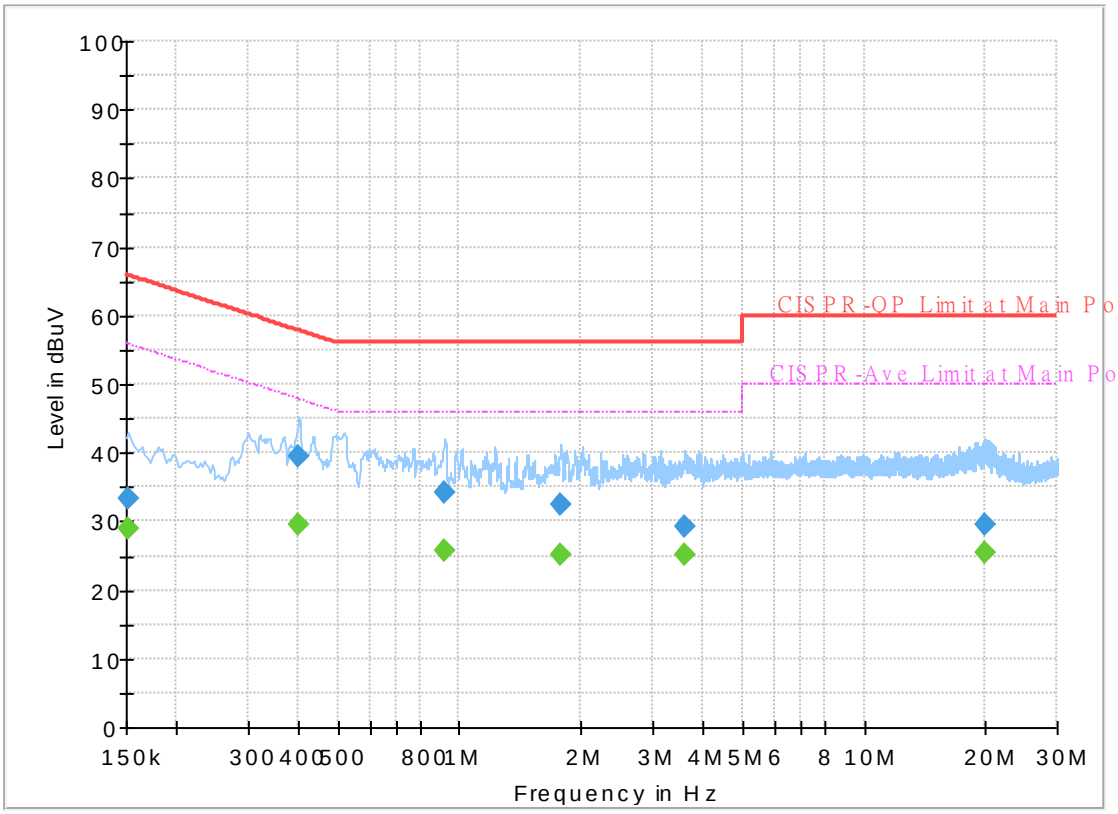
Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.219750	---	25.42	52.83	27.41	L1	OFF	19.4
0.219750	30.04	---	62.83	32.79	L1	OFF	19.4
0.489750	---	27.31	46.17	18.86	L1	OFF	19.4
0.489750	37.54	---	56.17	18.63	L1	OFF	19.4
0.872250	---	25.39	46.00	20.61	L1	OFF	19.5
0.872250	35.28	---	56.00	20.72	L1	OFF	19.5
1.803750	---	24.62	46.00	21.38	L1	OFF	19.5
1.803750	30.93	---	56.00	25.07	L1	OFF	19.5
3.633000	---	24.90	46.00	21.10	L1	OFF	19.6
3.633000	28.29	---	56.00	27.71	L1	OFF	19.6
16.158750	---	24.55	50.00	25.45	L1	OFF	20.0
16.158750	26.47	---	60.00	33.53	L1	OFF	20.0

EUT Information

Report NO :	960602-01
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	28.84	55.88	27.04	N	OFF	19.5
0.152250	33.25	---	65.88	32.63	N	OFF	19.5
0.399750	---	29.42	47.86	18.44	N	OFF	19.5
0.399750	39.39	---	57.86	18.47	N	OFF	19.5
0.917250	---	25.81	46.00	20.19	N	OFF	19.5
0.917250	34.30	---	56.00	21.70	N	OFF	19.5
1.774500	---	25.27	46.00	20.73	N	OFF	19.6
1.774500	32.45	---	56.00	23.55	N	OFF	19.6
3.619500	---	25.11	46.00	20.89	N	OFF	19.6
3.619500	29.12	---	56.00	26.88	N	OFF	19.6
19.947750	---	25.35	50.00	24.65	N	OFF	20.3
19.947750	29.50	---	60.00	30.50	N	OFF	20.3

Appendix C. Radiated Spurious Emission

Test Engineer :	Bill Kuo, Fu Chen, and Troye Hsieh	Temperature :	21.3~25.8°C
		Relative Humidity :	53.4~65.3%

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5146.9	51.41	-22.59	74	42.61	31.89	10.03	33.12	220	0	P	H
		5149.24	43.94	-10.06	54	35.13	31.9	10.03	33.12	220	0	A	H
	*	5180	108.22	-	-	99.55	31.72	10.07	33.12	220	0	P	H
	*	5180	100.8	-	-	92.13	31.72	10.07	33.12	220	0	A	H
													H
													H
		5148.98	50.37	-23.63	74	41.56	31.9	10.03	33.12	386	83	P	V
		5136.5	41.95	-12.05	54	33.18	31.87	10.02	33.12	386	83	A	V
	*	5180	104.12	-	-	95.45	31.72	10.07	33.12	386	83	P	V
	*	5180	96.73	-	-	88.06	31.72	10.07	33.12	386	83	A	V
													V
													V
802.11a CH 44 5220MHz		5135.46	51.74	-22.26	74	42.97	31.87	10.02	33.12	233	0	P	H
		5148.98	42.04	-11.96	54	33.23	31.9	10.03	33.12	233	0	A	H
	*	5220	108.61	-	-	100.11	31.52	10.1	33.12	233	0	P	H
	*	5220	101.33	-	-	92.83	31.52	10.1	33.12	233	0	A	H
		5404.39	49.51	-24.49	74	40.85	31.61	10.16	33.11	233	0	P	H
		5456.23	40.59	-13.41	54	31.74	31.72	10.24	33.11	233	0	A	H
		5101.66	49.95	-24.05	74	41.29	31.8	9.98	33.12	374	83	P	V
		5081.64	41.37	-12.63	54	32.8	31.73	9.96	33.12	374	83	A	V
	*	5220	104.22	-	-	95.72	31.52	10.1	33.12	374	83	P	V
	*	5220	96.92	-	-	88.42	31.52	10.1	33.12	374	83	A	V
		5439.49	48.75	-25.25	74	39.97	31.68	10.21	33.11	374	83	P	V
		5445.43	40.26	-13.74	54	31.46	31.69	10.22	33.11	374	83	A	V

802.11a CH 48 5240MHz		5086.06	50.41	-23.59	74	41.83	31.74	9.96	33.12	249	3	P	H
		5148.98	41.6	-12.4	54	32.79	31.9	10.03	33.12	249	3	A	H
	*	5240	109.24	-	-	100.82	31.44	10.1	33.12	249	3	P	H
	*	5240	101.72	-	-	93.3	31.44	10.1	33.12	249	3	A	H
		5360.38	49.18	-24.82	74	40.79	31.36	10.14	33.11	249	3	P	H
		5457.58	40.75	-13.25	54	31.89	31.73	10.24	33.11	249	3	A	H
		5074.1	50.26	-23.74	74	41.73	31.7	9.95	33.12	379	83	P	V
		5125.84	41.4	-12.6	54	32.66	31.85	10.01	33.12	379	83	A	V
	*	5240	103.68	-	-	95.26	31.44	10.1	33.12	379	83	P	V
	*	5240	96.43	-	-	88.01	31.44	10.1	33.12	379	83	A	V
		5424.91	50.57	-23.43	74	41.84	31.65	10.19	33.11	379	83	P	V
		5457.31	40.3	-13.7	54	31.44	31.73	10.24	33.11	379	83	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10360	45.8	-22.4	68.2	53.8	39.54	16.12	63.66	100	0	P	H
		15540	44.81	-29.19	74	48.39	38.3	20.56	62.44	100	0	P	H
													H
													H
		10360	44.85	-23.35	68.2	52.85	39.54	16.12	63.66	100	0	P	V
		15540	45.11	-28.89	74	48.69	38.3	20.56	62.44	100	0	P	V
													V
													V
802.11a CH 44 5220MHz		10440	45.34	-22.86	68.2	53.33	39.7	16.17	63.86	100	0	P	H
		15660	43.3	-30.7	74	47.31	37.7	20.53	62.24	100	0	P	H
													H
													H
		10440	44.79	-23.41	68.2	52.78	39.7	16.17	63.86	100	0	P	V
		15660	43.95	-30.05	74	47.96	37.7	20.53	62.24	100	0	P	V
													V
													V
802.11a CH 48 5240MHz		10480	44.36	-23.84	68.2	52.41	39.7	16.2	63.95	100	0	P	H
		15720	43.48	-30.52	74	47.59	37.52	20.52	62.15	100	0	P	H
													H
													H
		10480	45	-23.2	68.2	53.05	39.7	16.2	63.95	100	0	P	V
		15720	43.59	-30.41	74	47.7	37.52	20.52	62.15	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 HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5147.68	51.98	-22.02	74	43.17	31.9	10.03	33.12	220	0	P	H
		5147.68	44.25	-9.75	54	35.44	31.9	10.03	33.12	220	0	A	H
	*	5180	107.84	-	-	99.17	31.72	10.07	33.12	220	0	P	H
	*	5180	100.46	-	-	91.79	31.72	10.07	33.12	220	0	A	H
802.11n													H
HT20													H
CH 36		5137.54	52.62	-21.38	74	43.84	31.88	10.02	33.12	385	81	P	V
5180MHz		5138.06	41.95	-12.05	54	33.17	31.88	10.02	33.12	385	81	A	V
	*	5180	103.19	-	-	94.52	31.72	10.07	33.12	385	81	P	V
	*	5180	95.8	-	-	87.13	31.72	10.07	33.12	385	81	A	V
													V
													V
		5136.5	50.5	-23.5	74	41.73	31.87	10.02	33.12	230	0	P	H
		5149.24	42.26	-11.74	54	33.45	31.9	10.03	33.12	230	0	A	H
	*	5220	108.26	-	-	99.76	31.52	10.1	33.12	230	0	P	H
	*	5220	101.09	-	-	92.59	31.52	10.1	33.12	230	0	A	H
802.11n		5445.16	49.34	-24.66	74	40.54	31.69	10.22	33.11	230	0	P	H
HT20		5441.38	40.48	-13.52	54	31.7	31.68	10.21	33.11	230	0	A	H
CH 44		5133.9	50.39	-23.61	74	41.62	31.87	10.02	33.12	374	83	P	V
5220MHz		5146.38	41.38	-12.62	54	32.58	31.89	10.03	33.12	374	83	A	V
	*	5220	103.67	-	-	95.17	31.52	10.1	33.12	374	83	P	V
	*	5220	96.35	-	-	87.85	31.52	10.1	33.12	374	83	A	V
		5459.2	48.53	-25.47	74	39.66	31.74	10.24	33.11	374	83	P	V
		5456.23	40.19	-13.81	54	31.34	31.72	10.24	33.11	374	83	A	V

		5101.66	50.76	-23.24	74	42.1	31.8	9.98	33.12	243	0	P	H
		5146.38	41.64	-12.36	54	32.84	31.89	10.03	33.12	243	0	A	H
	*	5240	108.52	-	-	100.1	31.44	10.1	33.12	243	0	P	H
	*	5240	101.12	-	-	92.7	31.44	10.1	33.12	243	0	A	H
802.11n		5457.04	49.33	-24.67	74	40.47	31.73	10.24	33.11	243	0	P	H
HT20		5413.84	40.56	-13.44	54	31.87	31.63	10.17	33.11	243	0	A	H
CH 48		5136.76	50.66	-23.34	74	41.89	31.87	10.02	33.12	382	86	P	V
5240MHz		5123.24	41.25	-12.75	54	32.51	31.85	10.01	33.12	382	86	A	V
	*	5240	103.18	-	-	94.76	31.44	10.1	33.12	382	86	P	V
	*	5240	95.72	-	-	87.3	31.44	10.1	33.12	382	86	A	V
		5456.23	49.05	-24.95	74	40.2	31.72	10.24	33.11	382	86	P	V
		5459.74	40.34	-13.66	54	31.47	31.74	10.24	33.11	382	86	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10360	44.84	-23.36	68.2	52.84	39.54	16.12	63.66	100	0	P	H
		15540	45.35	-28.65	74	48.93	38.3	20.56	62.44	100	0	P	H
802.11n													H
HT20													H
CH 36		10360	45.38	-22.82	68.2	53.38	39.54	16.12	63.66	100	0	P	V
5180MHz		15540	46.59	-27.41	74	50.17	38.3	20.56	62.44	100	0	P	V
													V
													V
		10440	45.37	-22.83	68.2	53.36	39.7	16.17	63.86	100	0	P	H
		15660	44.59	-29.41	74	48.6	37.7	20.53	62.24	100	0	P	H
802.11n													H
HT20													H
CH 44		10440	45.05	-23.15	68.2	53.04	39.7	16.17	63.86	100	0	P	V
5220MHz		15660	43.91	-30.09	74	47.92	37.7	20.53	62.24	100	0	P	V
													V
													V
		10480	45.03	-23.17	68.2	53.08	39.7	16.2	63.95	100	0	P	H
		15720	45.4	-28.6	74	49.51	37.52	20.52	62.15	100	0	P	H
802.11n													H
HT20													H
CH 48		10480	45.51	-22.69	68.2	53.56	39.7	16.2	63.95	100	0	P	V
5240MHz		15720	44.22	-29.78	74	48.33	37.52	20.52	62.15	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 Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5140.66	58.41	-15.59	74	49.63	31.88	10.02	33.12	204	0	P	H
		5149.76	47.87	-6.13	54	39.06	31.9	10.03	33.12	204	0	A	H
	*	5190	105.59	-	-	96.97	31.66	10.08	33.12	204	0	P	H
	*	5190	97.86	-	-	89.24	31.66	10.08	33.12	204	0	A	H
		5371.8	48.83	-25.17	74	40.37	31.43	10.14	33.11	204	0	P	H
		5439.84	41.15	-12.85	54	32.37	31.68	10.21	33.11	204	0	A	H
		5138.58	54.48	-19.52	74	45.7	31.88	10.02	33.12	383	80	P	V
		5148.2	43.97	-10.03	54	35.16	31.9	10.03	33.12	383	80	A	V
	*	5190	100.73	-	-	92.11	31.66	10.08	33.12	383	80	P	V
	*	5190	92.95	-	-	84.33	31.66	10.08	33.12	383	80	A	V
		5427.52	48.66	-25.34	74	39.92	31.66	10.19	33.11	383	80	P	V
		5445.72	40.96	-13.04	54	32.16	31.69	10.22	33.11	383	80	A	V
802.11n HT40 CH 46 5230MHz		5149.24	53.56	-20.44	74	44.75	31.9	10.03	33.12	246	3	P	H
		5148.98	43.3	-10.7	54	34.49	31.9	10.03	33.12	246	3	A	H
	*	5230	106.14	-	-	97.68	31.48	10.1	33.12	246	3	P	H
	*	5230	98.2	-	-	89.74	31.48	10.1	33.12	246	3	A	H
		5356.68	49.97	-24.03	74	41.6	31.34	10.14	33.11	246	3	P	H
		5351.36	42.15	-11.85	54	33.81	31.31	10.14	33.11	246	3	A	H
		5149.5	50.33	-23.67	74	41.52	31.9	10.03	33.12	384	102	P	V
		5137.8	42.16	-11.84	54	33.38	31.88	10.02	33.12	384	102	A	V
	*	5230	100.87	-	-	92.41	31.48	10.1	33.12	384	102	P	V
	*	5230	93.29	-	-	84.83	31.48	10.1	33.12	384	102	A	V
		5422.48	49.74	-24.26	74	41.03	31.64	10.18	33.11	384	102	P	V
		5379.64	40.82	-13.18	54	32.31	31.48	10.14	33.11	384	102	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10380	45.77	-22.43	68.2	53.72	39.62	16.14	63.71	100	0	P	H
		15570	44.73	-29.27	74	48.42	38.15	20.55	62.39	100	0	P	H
802.11n													H
HT40													H
CH 38		10380	46.13	-22.07	68.2	54.08	39.62	16.14	63.71	100	0	P	V
5190MHz		15570	45.12	-28.88	74	48.81	38.15	20.55	62.39	100	0	P	V
													V
													V
		10460	47.57	-20.63	68.2	55.58	39.7	16.19	63.9	100	0	P	H
		15690	44.81	-29.19	74	48.93	37.55	20.53	62.2	100	0	P	H
802.11n													H
HT40													H
CH 46		10460	44.95	-23.25	68.2	52.96	39.7	16.19	63.9	100	0	P	V
5230MHz		15690	44.47	-29.53	74	48.59	37.55	20.53	62.2	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 42 5210MHz		5142.12	54.26	-19.74	74	45.47	31.88	10.03	33.12	230	0	P	H
		5149.94	47.49	-6.51	54	38.68	31.9	10.03	33.12	230	0	A	H
	*	5210	102.67	-	-	94.14	31.56	10.09	33.12	230	0	P	H
	*	5210	94.92	-	-	86.39	31.56	10.09	33.12	230	0	A	H
		5450.38	49.75	-24.25	74	40.93	31.7	10.23	33.11	230	0	P	H
		5459.74	41.16	-12.84	54	32.29	31.74	10.24	33.11	230	0	A	H
		5126.48	52.33	-21.67	74	43.59	31.85	10.01	33.12	400	99	P	V
		5149.94	44.18	-9.82	54	35.37	31.9	10.03	33.12	400	99	A	V
	*	5210	97.77	-	-	89.24	31.56	10.09	33.12	400	99	P	V
	*	5210	89.83	-	-	81.3	31.56	10.09	33.12	400	99	A	V
		5443.88	50.25	-23.75	74	41.45	31.69	10.22	33.11	400	99	P	V
		5426.72	40.96	-13.04	54	32.23	31.65	10.19	33.11	400	99	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10420	44.61	-23.59	68.2	52.56	39.7	16.16	63.81	100	0	P	H
		15630	44.68	-29.32	74	48.58	37.85	20.54	62.29	100	0	P	H
802.11ac													H
VHT80													H
CH 42		10420	45.42	-22.78	68.2	53.37	39.7	16.16	63.81	100	0	P	V
5210MHz		15630	44.96	-29.04	74	48.86	37.85	20.54	62.29	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 52 5260MHz		5110.84	49.83	-24.17	74	41.14	31.82	9.99	33.12	225	341	P	H
		5135.66	41.55	-12.45	54	32.78	31.87	10.02	33.12	225	341	A	H
	*	5260	109.16	-	-	100.78	31.38	10.11	33.11	225	341	P	H
	*	5260	101.77	-	-	93.39	31.38	10.11	33.11	225	341	A	H
		5368.32	50.57	-23.43	74	42.13	31.41	10.14	33.11	225	341	P	H
		5350.32	40.85	-13.15	54	32.52	31.3	10.14	33.11	225	341	A	H
		5145.18	50.55	-23.45	74	41.75	31.89	10.03	33.12	389	82	P	V
		5071.4	41.28	-12.72	54	32.76	31.69	9.95	33.12	389	82	A	V
	*	5260	104.16	-	-	95.78	31.38	10.11	33.11	389	82	P	V
	*	5260	96.91	-	-	88.53	31.38	10.11	33.11	389	82	A	V
		5424.96	48.94	-25.06	74	40.21	31.65	10.19	33.11	389	82	P	V
		5457.36	40.19	-13.81	54	31.33	31.73	10.24	33.11	389	82	A	V
802.11a CH 60 5300MHz		5074.12	49.94	-24.06	74	41.41	31.7	9.95	33.12	248	341	P	H
		5088.4	41.43	-12.57	54	32.83	31.75	9.97	33.12	248	341	A	H
	*	5300	109.09	-	-	100.78	31.3	10.12	33.11	248	341	P	H
	*	5300	101.64	-	-	93.33	31.3	10.12	33.11	248	341	A	H
		5368.32	51.8	-22.2	74	43.36	31.41	10.14	33.11	248	341	P	H
		5351.76	43.49	-10.51	54	35.15	31.31	10.14	33.11	248	341	A	H
		5000.68	50.38	-23.62	74	42.23	31.4	9.87	33.12	381	83	P	V
		5116.28	41.15	-12.85	54	32.44	31.83	10	33.12	381	83	A	V
	*	5300	103.6	-	-	95.29	31.3	10.12	33.11	381	83	P	V
	*	5300	96.33	-	-	88.02	31.3	10.12	33.11	381	83	A	V
		5353.92	49.68	-24.32	74	41.33	31.32	10.14	33.11	381	83	P	V
		5351.28	40.56	-13.44	54	32.22	31.31	10.14	33.11	381	83	A	V

	*	5320	108.43	-	-	100.11	31.3	10.13	33.11	233	346	P	H
	*	5320	100.92	-	-	92.6	31.3	10.13	33.11	233	346	A	H
		5353.44	52.41	-21.59	74	44.06	31.32	10.14	33.11	233	346	P	H
		5352.32	44.36	-9.64	54	36.02	31.31	10.14	33.11	233	346	A	H
													H
802.11a													H
CH 64	*	5320	102.5	-	-	94.18	31.3	10.13	33.11	400	83	P	V
5320MHz	*	5320	95.1	-	-	86.78	31.3	10.13	33.11	400	83	A	V
		5370.08	53.38	-20.62	74	44.93	31.42	10.14	33.11	400	83	P	V
		5353.76	41.31	-12.69	54	32.96	31.32	10.14	33.11	400	83	A	V
													V
													V

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

Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		10520	44.94	-23.26	68.2	53.05	39.7	16.22	64.03	100	0	P	H
		15780	44.05	-29.95	74	48.01	37.58	20.51	62.05	100	0	P	H
													H
													H
		10520	44.28	-23.92	68.2	52.39	39.7	16.22	64.03	100	0	P	V
		15780	44.13	-29.87	74	48.09	37.58	20.51	62.05	100	0	P	V
													V
													V
802.11a CH 60 5300MHz		10600	44.84	-29.16	74	53.01	39.7	16.27	64.14	100	0	P	H
		15900	44.64	-29.36	74	48.82	37.2	20.48	61.86	100	0	P	H
													H
													H
		10600	44.96	-29.04	74	53.13	39.7	16.27	64.14	100	0	P	V
		15900	43.67	-30.33	74	47.85	37.2	20.48	61.86	100	0	P	V
													V
													V
802.11a CH 64 5320MHz		10640	49.85	-24.15	74	50.68	39.66	16.3	56.79	100	0	P	H
		15960	48.8	-25.2	74	47.45	37.02	20.47	56.14	100	0	P	H
													H
													H
		10640	49.99	-24.01	74	50.82	39.66	16.3	56.79	100	0	P	V
		15960	48.79	-25.21	74	47.44	37.02	20.47	56.14	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 HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5089.08	50.24	-23.76	74	41.63	31.76	9.97	33.12	223	340	P	H
		5072.42	41.36	-12.64	54	32.84	31.69	9.95	33.12	223	340	A	H
	*	5260	108.83	-	-	100.45	31.38	10.11	33.11	223	340	P	H
	*	5260	101.19	-	-	92.81	31.38	10.11	33.11	223	340	A	H
802.11n		5360.16	50.2	-23.8	74	41.81	31.36	10.14	33.11	223	340	P	H
HT20		5351.52	40.92	-13.08	54	32.58	31.31	10.14	33.11	223	340	A	H
CH 52		5082.62	49.99	-24.01	74	41.42	31.73	9.96	33.12	389	84	P	V
5260MHz		5067.66	41.26	-12.74	54	32.77	31.67	9.94	33.12	389	84	A	V
	*	5260	104.03	-	-	95.65	31.38	10.11	33.11	389	84	P	V
	*	5260	96.52	-	-	88.14	31.38	10.11	33.11	389	84	A	V
		5454.48	48.85	-25.15	74	40.01	31.72	10.23	33.11	389	84	P	V
		5455.68	40.22	-13.78	54	31.37	31.72	10.24	33.11	389	84	A	V
		5068	49.65	-24.35	74	41.16	31.67	9.94	33.12	224	360	P	H
		5128.86	41.35	-12.65	54	32.6	31.86	10.01	33.12	224	360	A	H
	*	5300	108.23	-	-	99.92	31.3	10.12	33.11	224	360	P	H
	*	5300	101.01	-	-	92.7	31.3	10.12	33.11	224	360	A	H
802.11n		5353.2	55.68	-18.32	74	47.33	31.32	10.14	33.11	224	360	P	H
HT20		5352.96	43.26	-10.74	54	34.91	31.32	10.14	33.11	224	360	A	H
CH 60		5137.36	49.7	-24.3	74	40.93	31.87	10.02	33.12	382	82	P	V
5300MHz		5121.38	41.22	-12.78	54	32.5	31.84	10	33.12	382	82	A	V
	*	5300	103.37	-	-	95.06	31.3	10.12	33.11	382	82	P	V
	*	5300	95.65	-	-	87.34	31.3	10.12	33.11	382	82	A	V
		5420.88	49.8	-24.2	74	41.09	31.64	10.18	33.11	382	82	P	V
		5352.48	40.51	-13.49	54	32.17	31.31	10.14	33.11	382	82	A	V

	*	5320	108.09	-	-	99.77	31.3	10.13	33.11	232	340	P	H
	*	5320	100.62	-	-	92.3	31.3	10.13	33.11	232	340	A	H
		5372.64	56.32	-17.68	74	47.85	31.44	10.14	33.11	232	340	P	H
		5350.72	44.65	-9.35	54	36.32	31.3	10.14	33.11	232	340	A	H
802.11n													H
HT20													H
CH 64	*	5320	101.78	-	-	93.46	31.3	10.13	33.11	379	82	P	V
5320MHz	*	5320	94.57	-	-	86.25	31.3	10.13	33.11	379	82	A	V
		5358.24	53.84	-20.16	74	45.46	31.35	10.14	33.11	379	82	P	V
		5355.04	41.2	-12.8	54	32.84	31.33	10.14	33.11	379	82	A	V
													V
													V

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

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10520	46.87	-21.33	68.2	52.07	39.7	16.22	61.12	100	0	P	H
		15780	45.88	-28.12	74	49.05	37.58	20.51	61.26	100	0	P	H
802.11n													H
HT20													H
CH 52		10520	48.02	-20.18	68.2	53.22	39.7	16.22	61.12	100	0	P	V
5260MHz		15780	44.84	-29.16	74	48.01	37.58	20.51	61.26	100	0	P	V
													V
													V
		10600	47.51	-26.49	74	52.76	39.7	16.27	61.22	100	0	P	H
		15900	44.59	-29.41	74	48.03	37.2	20.48	61.12	100	0	P	H
802.11n													H
HT20													H
CH 60		10600	48.16	-25.84	74	53.41	39.7	16.27	61.22	100	0	P	V
5300MHz		15900	45.27	-28.73	74	48.71	37.2	20.48	61.12	100	0	P	V
													V
													V
		10640	47.72	-26.28	74	53.03	39.66	16.3	61.27	100	0	P	H
		15960	44.83	-29.17	74	48.39	37.02	20.47	61.05	100	0	P	H
802.11n													H
HT20													H
CH 64		10640	47.14	-26.86	74	52.45	39.66	16.3	61.27	100	0	P	V
5320MHz		15960	44.11	-29.89	74	47.67	37.02	20.47	61.05	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 Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 54 5270MHz		5129.88	51.49	-22.51	74	42.74	31.86	10.01	33.12	226	345	P	H
		5099.28	42.08	-11.92	54	33.42	31.8	9.98	33.12	226	345	A	H
	*	5270	106.28	-	-	97.92	31.36	10.11	33.11	226	345	P	H
	*	5270	98.48	-	-	90.12	31.36	10.11	33.11	226	345	A	H
		5380.08	52.42	-21.58	74	43.91	31.48	10.14	33.11	226	345	P	H
		5356.8	43.95	-10.05	54	35.58	31.34	10.14	33.11	226	345	A	H
		5048.28	49.28	-24.72	74	40.89	31.59	9.92	33.12	395	83	P	V
		5139.4	42.11	-11.89	54	33.33	31.88	10.02	33.12	395	83	A	V
	*	5270	100.76	-	-	92.4	31.36	10.11	33.11	395	83	P	V
	*	5270	92.91	-	-	84.55	31.36	10.11	33.11	395	83	A	V
		5444.64	49.7	-24.3	74	40.9	31.69	10.22	33.11	395	83	P	V
		5352.96	41.45	-12.55	54	33.1	31.32	10.14	33.11	395	83	A	V
802.11n HT40 CH 62 5310MHz		5073.1	49.72	-24.28	74	41.2	31.69	9.95	33.12	234	341	P	H
		5105.4	42.31	-11.69	54	33.63	31.81	9.99	33.12	234	341	A	H
	*	5310	105.39	-	-	97.08	31.3	10.12	33.11	234	341	P	H
	*	5310	97.61	-	-	89.3	31.3	10.12	33.11	234	341	A	H
		5350.8	61.86	-12.14	74	53.53	31.3	10.14	33.11	234	341	P	H
		5350.08	52.42	-1.58	54	44.09	31.3	10.14	33.11	234	341	P	H
		5129.2	49.78	-24.22	74	41.03	31.86	10.01	33.12	377	84	P	V
		5110.5	42.18	-11.82	54	33.49	31.82	9.99	33.12	377	84	A	V
	*	5310	99.62	-	-	91.31	31.3	10.12	33.11	377	84	P	V
	*	5310	91.62	-	-	83.31	31.3	10.12	33.11	377	84	A	V
		5362.32	56.36	-17.64	74	47.96	31.37	10.14	33.11	377	84	P	V
		5350.08	47.41	-6.59	54	39.08	31.3	10.14	33.11	377	84	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10540	48.13	-20.07	68.2	53.35	39.7	16.23	61.15	100	0	P	H
		15810	46.48	-27.52	74	49.65	37.56	20.5	61.23	100	0	P	H
802.11n													H
HT40													H
CH 54		10540	48.24	-19.96	68.2	53.46	39.7	16.23	61.15	100	0	P	V
5270MHz		15810	45.13	-28.87	74	48.3	37.56	20.5	61.23	100	0	P	V
													V
													V
		10620	48.33	-25.67	74	53.61	39.68	16.28	61.24	100	0	P	H
		15930	44.33	-29.67	74	47.83	37.11	20.47	61.08	100	0	P	H
802.11n													H
HT40													H
CH 62		10620	48.58	-25.42	74	53.86	39.68	16.28	61.24	100	0	P	V
5310MHz		15930	44.54	-29.46	74	48.04	37.11	20.47	61.08	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		5085.8	50.38	-23.62	74	41.8	31.74	9.96	33.12	222	360	P	H
		5080.1	42.34	-11.66	54	33.78	31.72	9.96	33.12	222	360	A	H
	*	5290	100.73	-	-	92.4	31.32	10.12	33.11	222	360	P	H
	*	5290	93.11	-	-	84.78	31.32	10.12	33.11	222	360	A	H
		5353.44	59.3	-14.7	74	50.95	31.32	10.14	33.11	222	360	P	H
		5350.32	51.4	-2.6	54	43.07	31.3	10.14	33.11	222	360	A	H
		5042	50.67	-23.33	74	42.3	31.57	9.92	33.12	400	98	P	V
		5132.3	42.28	-11.72	54	33.52	31.86	10.02	33.12	400	98	A	V
	*	5290	94.76	-	-	86.43	31.32	10.12	33.11	400	98	P	V
	*	5290	87.12	-	-	78.79	31.32	10.12	33.11	400	98	A	V
		5358.48	53.59	-20.41	74	45.21	31.35	10.14	33.11	400	98	P	V
		5350.56	45.39	-8.61	54	37.06	31.3	10.14	33.11	400	98	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		10580	49.14	-19.06	68.2	54.38	39.7	16.26	61.2	100	0	P	H
		15870	44.77	-29.23	74	48.12	37.32	20.49	61.16	100	0	P	H
802.11ac													H
VHT80													H
CH 58		10580	47.99	-20.21	68.2	53.23	39.7	16.26	61.2	100	0	P	V
5290MHz		15870	45.2	-28.8	74	48.55	37.32	20.49	61.16	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 100 5500MHz		5457.68	51.39	-22.61	74	42.53	31.73	10.24	33.11	109	360	P	H
		5466.96	52.57	-15.63	68.2	43.66	31.77	10.25	33.11	109	360	P	H
		5458.32	42.63	-11.37	54	33.77	31.73	10.24	33.11	109	360	A	H
	*	5500	106.61	-	-	97.51	31.9	10.31	33.11	109	360	P	H
	*	5500	98.62	-	-	89.52	31.9	10.31	33.11	109	360	A	H
													H
		5452.08	50.22	-23.78	74	41.39	31.71	10.23	33.11	103	350	P	V
		5468.08	52.04	-16.16	68.2	43.12	31.77	10.26	33.11	103	350	P	V
		5444.88	41.23	-12.77	54	32.43	31.69	10.22	33.11	103	350	A	V
	*	5500	101.81	-	-	92.71	31.9	10.31	33.11	103	350	P	V
	*	5500	94.28	-	-	85.18	31.9	10.31	33.11	103	350	A	V
													V
802.11a CH 116 5580MHz		5406.88	48.99	-25.01	74	40.33	31.61	10.16	33.11	100	343	P	H
		5468.32	49.53	-18.67	68.2	40.61	31.77	10.26	33.11	100	343	P	H
		5456.08	40.63	-13.37	54	31.78	31.72	10.24	33.11	100	343	A	H
	*	5580	106.65	-	-	97.56	31.8	10.43	33.14	100	343	P	H
	*	5580	99.35	-	-	90.26	31.8	10.43	33.14	100	343	A	H
		5757.125	50.22	-17.98	68.2	40.75	32.11	10.55	33.19	100	343	P	H
		5384.56	49.8	-24.2	74	41.25	31.51	10.15	33.11	100	333	P	V
		5461.6	48.83	-19.37	68.2	39.94	31.75	10.25	33.11	100	333	P	V
		5454.88	40.32	-13.68	54	31.47	31.72	10.24	33.11	100	333	A	V
	*	5580	105.1	-	-	96.01	31.8	10.43	33.14	100	333	P	V
	*	5580	97.27	-	-	88.18	31.8	10.43	33.14	100	333	A	V
		5734.445	49.98	-18.22	68.2	40.57	32.07	10.53	33.19	100	333	P	V

802.11a CH 140 5700MHz	*	5700	106.36	-	-	97.02	32	10.51	33.17	100	360	P	H
	*	5700	98.78	-	-	89.44	32	10.51	33.17	100	360	A	H
		5731.08	56.74	-11.46	68.2	47.33	32.06	10.53	33.18	100	360	P	H
													H
													H
													H
	*	5700	104.15	-	-	94.81	32	10.51	33.17	111	333	P	V
	*	5700	96.87	-	-	87.53	32	10.51	33.17	111	333	A	V
		5726.6	52.42	-15.78	68.2	43.02	32.05	10.53	33.18	111	333	P	V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		11000	49.27	-24.73	74	54.46	40	16.51	61.7	100	0	P	H
		16500	47.45	-20.75	68.2	47.3	38.7	21.15	59.7	100	0	P	H
													H
													H
		11000	48.97	-25.03	74	54.16	40	16.51	61.7	100	0	P	V
		16500	47.16	-21.04	68.2	47.01	38.7	21.15	59.7	100	0	P	V
													V
													V
802.11a CH 116 5580MHz		11160	49.53	-24.47	74	55.17	39.48	16.74	61.86	100	0	P	H
		16740	48.55	-19.65	68.2	47.16	39.56	21.48	59.65	100	0	P	H
													H
													H
		11160	49.31	-24.69	74	54.95	39.48	16.74	61.86	100	0	P	V
		16740	48.68	-19.52	68.2	47.29	39.56	21.48	59.65	100	0	P	V
													V
													V
802.11a CH 140 5700MHz		11400	48.07	-25.93	74	53.38	39.7	17.09	62.1	100	0	P	H
		17100	49.54	-18.66	68.2	46.88	40.1	21.94	59.38	100	0	P	H
													H
													H
		11400	48.87	-25.13	74	54.18	39.7	17.09	62.1	100	0	P	V
		17100	49.78	-18.42	68.2	47.12	40.1	21.94	59.38	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 HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5440.24	55.03	-18.97	74	46.25	31.68	10.21	33.11	112	360	P	H
		5468.72	57.29	-10.91	68.2	48.37	31.77	10.26	33.11	112	360	P	H
		5458.64	42.8	-11.2	54	33.94	31.73	10.24	33.11	112	360	A	H
	*	5500	107.35	-	-	98.25	31.9	10.31	33.11	112	360	P	H
802.11n	*	5500	99.9	-	-	90.8	31.9	10.31	33.11	112	360	A	H
HT20													H
CH 100		5455.92	55.27	-18.73	74	46.42	31.72	10.24	33.11	103	344	P	V
5500MHz		5464.72	53.25	-14.95	68.2	44.35	31.76	10.25	33.11	103	344	P	V
		5457.52	41.67	-12.33	54	32.81	31.73	10.24	33.11	103	344	A	V
	*	5500	105.14	-	-	96.04	31.9	10.31	33.11	103	344	P	V
	*	5500	97.32	-	-	88.22	31.9	10.31	33.11	103	344	A	V
													V
		5449.84	49.76	-24.24	74	40.94	31.7	10.23	33.11	100	360	P	H
		5463.52	48.22	-19.98	68.2	39.33	31.75	10.25	33.11	100	360	P	H
		5457.52	40.5	-13.5	54	31.64	31.73	10.24	33.11	100	360	A	H
	*	5580	107.53	-	-	98.44	31.8	10.43	33.14	100	360	P	H
802.11n	*	5580	99.91	-	-	90.82	31.8	10.43	33.14	100	360	A	H
HT20		5742.95	49.64	-18.56	68.2	40.2	32.09	10.54	33.19	100	360	P	H
CH 116		5441.44	49.53	-24.47	74	40.75	31.68	10.21	33.11	110	344	P	V
5580MHz		5470	49	-19.2	68.2	40.07	31.78	10.26	33.11	110	344	P	V
		5447.44	40.38	-13.62	54	31.58	31.69	10.22	33.11	110	344	A	V
	*	5580	104.89	-	-	95.8	31.8	10.43	33.14	110	344	P	V
	*	5580	97.4	-	-	88.31	31.8	10.43	33.14	110	344	A	V
		5736.02	49.89	-18.31	68.2	40.48	32.07	10.53	33.19	110	344	P	V

	*	5700	106.21	-	-	96.87	32	10.51	33.17	113	360	P	H
	*	5700	98.55	-	-	89.21	32	10.51	33.17	113	360	A	H
		5736.2	59.25	-8.95	68.2	49.84	32.07	10.53	33.19	113	360	P	H
													H
802.11n													H
HT20													H
CH 140	*	5700	104.39	-	-	95.05	32	10.51	33.17	100	344	P	V
5700MHz	*	5700	96.66	-	-	87.32	32	10.51	33.17	100	344	A	V
		5725.32	58.72	-9.48	68.2	49.32	32.05	10.53	33.18	100	344	P	V
													V
													V
													V

Remark

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

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11000	49.42	-24.58	74	54.61	40	16.51	61.7	100	0	P	H
		16500	47.43	-20.77	68.2	47.28	38.7	21.15	59.7	100	0	P	H
802.11n													H
HT20													H
CH 100		11000	49.82	-24.18	74	55.01	40	16.51	61.7	100	0	P	V
5500MHz		16500	47.45	-20.75	68.2	47.3	38.7	21.15	59.7	100	0	P	V
													V
													V
		11160	49.83	-24.17	74	55.47	39.48	16.74	61.86	100	0	P	H
		16740	48.21	-19.99	68.2	46.82	39.56	21.48	59.65	100	0	P	H
802.11n													H
HT20													H
CH 116		11160	49.17	-24.83	74	54.81	39.48	16.74	61.86	100	0	P	V
5580MHz		16740	48.11	-20.09	68.2	46.72	39.56	21.48	59.65	100	0	P	V
													V
													V
		11400	49.76	-24.24	74	55.07	39.7	17.09	62.1	100	0	P	H
		17100	49.47	-18.73	68.2	46.81	40.1	21.94	59.38	100	0	P	H
802.11n													H
HT20													H
CH 140		11400	49.38	-24.62	74	54.69	39.7	17.09	62.1	100	0	P	V
5700MHz		17100	49.49	-18.71	68.2	46.83	40.1	21.94	59.38	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 Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5458.48	59.8	-14.2	74	50.94	31.73	10.24	33.11	107	360	P	H
		5470	66.36	-1.84	68.2	57.43	31.78	10.26	33.11	107	360	P	H
		5459.92	48.58	-5.42	54	39.71	31.74	10.24	33.11	107	360	A	H
	*	5510	105.61	-	-	96.52	31.88	10.32	33.11	107	360	P	H
802.11n	*	5510	97.52	-	-	88.43	31.88	10.32	33.11	107	360	A	H
HT40		5747.045	51.44	-16.76	68.2	42	32.09	10.54	33.19	107	360	P	H
CH 102		5455.6	56.75	-17.25	74	47.9	31.72	10.24	33.11	106	344	P	V
5510MHz		5468.56	58.92	-9.28	68.2	50	31.77	10.26	33.11	106	344	P	V
		5459.2	45.44	-8.56	54	36.57	31.74	10.24	33.11	106	344	A	V
	*	5510	102.2	-	-	93.11	31.88	10.32	33.11	106	344	P	V
	*	5510	94.03	-	-	84.94	31.88	10.32	33.11	106	344	A	V
		5739.17	49.74	-18.46	68.2	40.31	32.08	10.54	33.19	106	344	P	V
		5428.72	50.98	-23.02	74	42.24	31.66	10.19	33.11	103	360	P	H
		5465.68	50.9	-17.3	68.2	42	31.76	10.25	33.11	103	360	P	H
		5457.76	42.27	-11.73	54	33.41	31.73	10.24	33.11	103	360	A	H
	*	5550	105.32	-	-	96.27	31.8	10.38	33.13	103	360	P	H
802.11n	*	5550	98.31	-	-	89.26	31.8	10.38	33.13	103	360	A	H
HT40		5764.685	50.71	-17.49	68.2	41.22	32.13	10.55	33.19	103	360	P	H
CH 110		5445.76	49.95	-24.05	74	41.15	31.69	10.22	33.11	100	344	P	V
5550MHz		5464.96	50.57	-17.63	68.2	41.67	31.76	10.25	33.11	100	344	P	V
		5458.48	41.66	-12.34	54	32.8	31.73	10.24	33.11	100	344	A	V
	*	5550	102.6	-	-	93.55	31.8	10.38	33.13	100	344	P	V
	*	5550	94.57	-	-	85.52	31.8	10.38	33.13	100	344	A	V
		5756.81	50.49	-17.71	68.2	41.02	32.11	10.55	33.19	100	344	P	V

		5444.5	49.57	-24.43	74	40.77	31.69	10.22	33.11	100	360	P	H
		5469.7	47.89	-20.31	68.2	38.96	31.78	10.26	33.11	100	360	P	H
		5452.2	41.22	-12.78	54	32.39	31.71	10.23	33.11	100	360	A	H
	*	5670	104.33	-	-	95.17	31.82	10.5	33.16	100	360	P	H
802.11n	*	5670	95.86	-	-	86.7	31.82	10.5	33.16	100	360	A	H
HT40		5735.25	55.38	-12.82	68.2	45.97	32.07	10.53	33.19	100	360	P	H
CH 134		5450.45	49.63	-24.37	74	40.81	31.7	10.23	33.11	100	344	P	V
5670MHz		5464.8	48.69	-19.51	68.2	39.79	31.76	10.25	33.11	100	344	P	V
		5444.5	41.05	-12.95	54	32.25	31.69	10.22	33.11	100	344	A	V
	*	5670	102.07	-	-	92.91	31.82	10.5	33.16	100	344	P	V
	*	5670	93.59	-	-	84.43	31.82	10.5	33.16	100	344	A	V
		5730.875	56.67	-11.53	68.2	47.26	32.06	10.53	33.18	100	344	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11020	49.2	-24.8	74	54.46	39.92	16.54	61.72	100	0	P	H
		16530	46.98	-21.22	68.2	46.72	38.76	21.19	59.69	100	0	P	H
802.11n													H
HT40													H
CH 102		11020	49.59	-24.41	74	54.85	39.92	16.54	61.72	100	0	P	V
5510MHz		16530	47.21	-20.99	68.2	46.95	38.76	21.19	59.69	100	0	P	V
													V
													V
		11100	48.61	-25.39	74	54.15	39.6	16.66	61.8	100	0	P	H
		16650	48.46	-19.74	68.2	47.72	39.05	21.36	59.67	100	0	P	H
802.11n													H
HT40													H
CH 110		11100	48.91	-25.09	74	54.45	39.6	16.66	61.8	100	0	P	V
5550MHz		16650	48.33	-19.87	68.2	47.59	39.05	21.36	59.67	100	0	P	V
													V
													V
		11340	49.99	-24.01	74	55.44	39.58	17.01	62.04	100	0	P	H
		17010	48.99	-19.21	68.2	46.71	40.01	21.85	59.58	100	0	P	H
802.11n													H
HT40													H
CH 134		11340	49.2	-24.8	74	54.65	39.58	17.01	62.04	100	0	P	V
5670MHz		17010	49.86	-18.34	68.2	47.58	40.01	21.85	59.58	100	0	P	V
													V
													V

Remark

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

Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 106 5530MHz		5451.28	57.28	-16.72	74	48.45	31.71	10.23	33.11	100	360	P	H
		5467.84	59.47	-8.73	68.2	50.55	31.77	10.26	33.11	100	360	P	H
		5458	50.06	-3.94	54	41.2	31.73	10.24	33.11	100	360	A	H
	*	5530	100.92	-	-	91.85	31.84	10.35	33.12	100	360	P	H
	*	5530	92.63	-	-	83.56	31.84	10.35	33.12	100	360	A	H
		5749.88	50.38	-17.82	68.2	40.93	32.1	10.54	33.19	100	360	P	H
		5457.52	54.02	-19.98	74	45.16	31.73	10.24	33.11	114	344	P	V
		5462.08	56.12	-12.08	68.2	47.23	31.75	10.25	33.11	114	344	P	V
		5459.68	46.6	-7.4	54	37.73	31.74	10.24	33.11	114	344	A	V
	*	5530	97.81	-	-	88.74	31.84	10.35	33.12	114	344	P	V
	*	5530	89.8	-	-	80.73	31.84	10.35	33.12	114	344	A	V
		5734.13	49.75	-18.45	68.2	40.33	32.07	10.53	33.18	114	344	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		11060	48.67	-25.33	74	54.07	39.76	16.6	61.76	100	0	P	H
		16590	48.06	-20.14	68.2	47.58	38.88	21.28	59.68	100	0	P	H
802.11ac													H
VHT80													H
CH 106		11060	48.67	-25.33	74	54.07	39.76	16.6	61.76	100	0	P	V
5530MHz		16590	48.36	-19.84	68.2	47.88	38.88	21.28	59.68	100	0	P	V
													V
													V

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

Emission below 1GHz

WIFI 802.11n HT40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 LF		31.94	20.99	-19.01	40	29.41	23.16	0.79	32.37	-	-	P	H
		102.75	23.75	-19.75	43.5	38.61	16.1	1.36	32.32	-	-	P	H
		363.68	22.61	-23.39	46	31.59	20.6	2.59	32.17	-	-	P	H
		555.74	28.07	-17.93	46	31.32	25.72	3.22	32.19	-	-	P	H
		943.74	34.36	-11.64	46	30.82	30.19	4.3	30.95	100	0	P	H
		964.11	34.31	-19.69	54	29.73	30.99	4.35	30.76	-	-	P	H
													H
													H
													H
													H
													H
													H
		34.85	25.6	-14.4	40	35.28	21.88	0.81	32.37	-	-	P	V
		135.73	27.13	-16.37	43.5	40.65	17.22	1.55	32.29	-	-	P	V
		345.25	21.27	-24.73	46	30.88	20.04	2.52	32.17	-	-	P	V
		464.56	27.53	-18.47	46	33.57	23.21	2.91	32.16	-	-	P	V
		790.48	31.91	-14.09	46	31.81	28.1	3.9	31.9	100	0	P	V
		968.96	34.29	-19.71	54	29.66	30.98	4.37	30.72	-	-	P	V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

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

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

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 43.54 (dBμV/m)

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

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

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

Appendix D. Radiated Spurious Emission

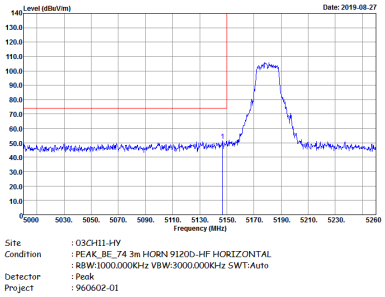
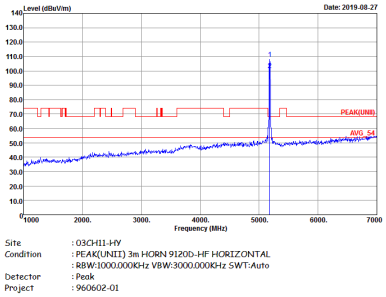
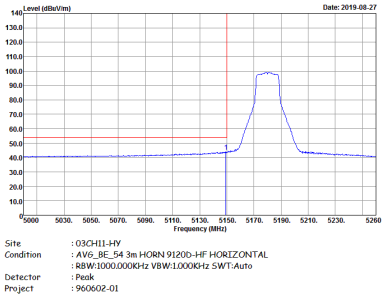
Test Engineer :	Bill Kuo, Fu Chen, and Troye Hsieh	**Temperature :**	21.3~25.8°C
		Relative Humidity :	53.4~65.3%

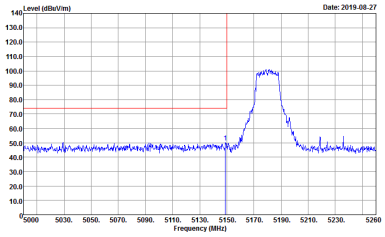
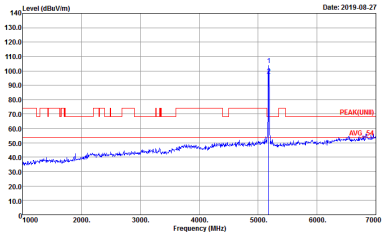
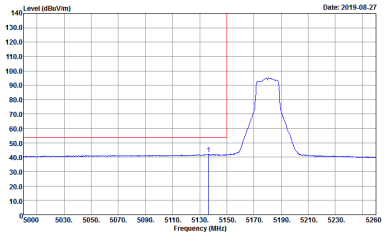
Note symbol

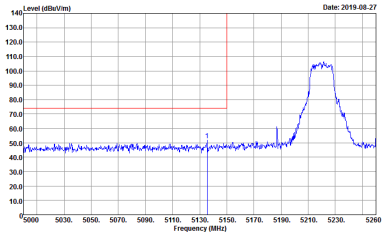
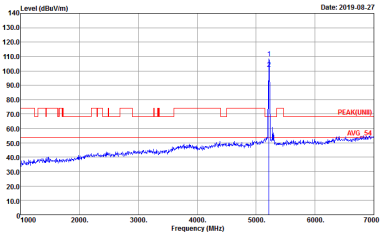
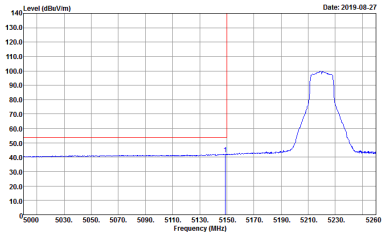
-L	**Low channel location**
-R	**High channel location**

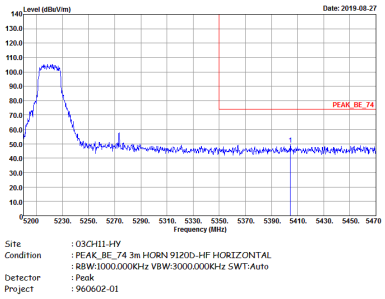
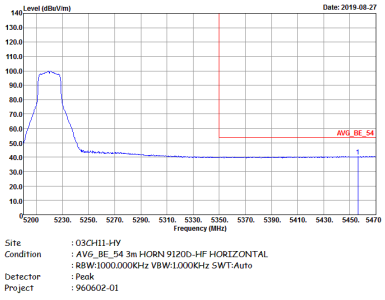
Band 1 - 5150~5250MHz

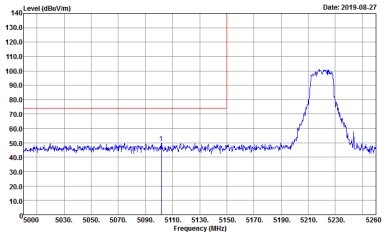
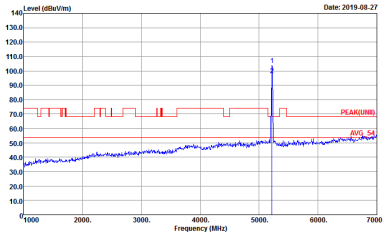
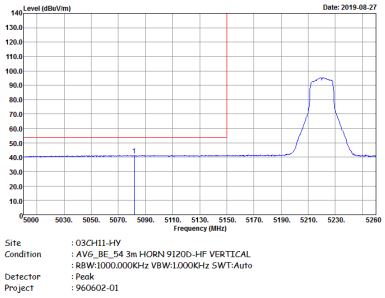
WIFI 802.11a (Band Edge @ 3m)

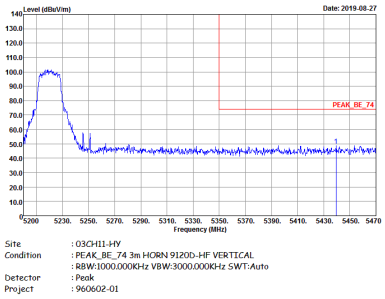
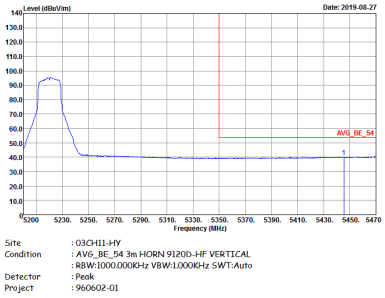
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

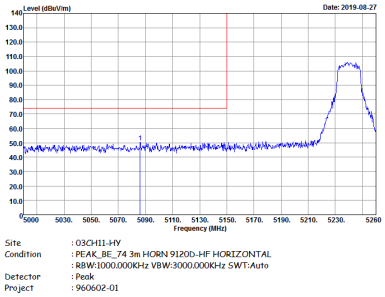
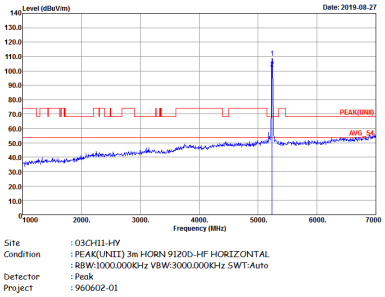
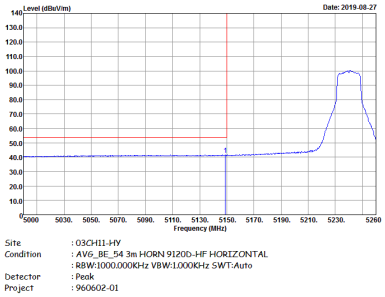
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

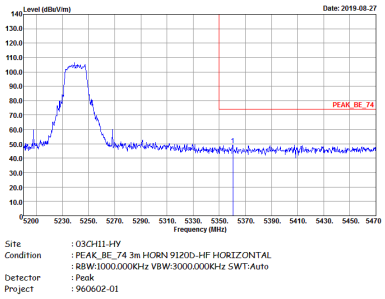
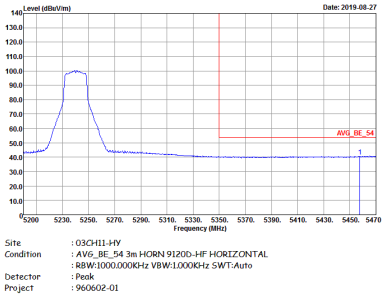
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1	Horizontal	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 960602-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 960602-01
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF HORIZONTAL : RBW:1000.000KHz VBW:1.000KHz SWT:Auto Detector : Peak Project : 960602-01	Left blank

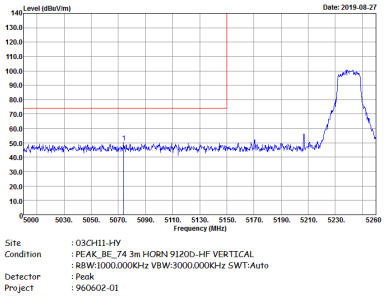
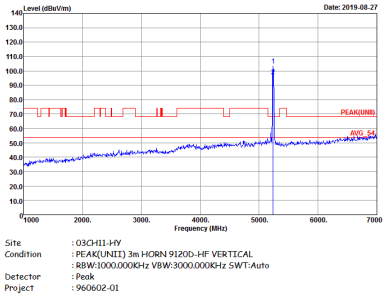
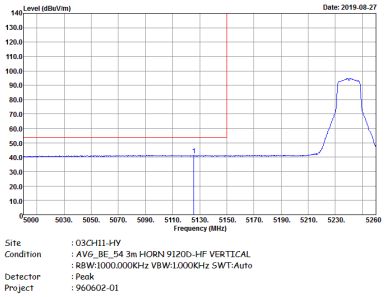
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

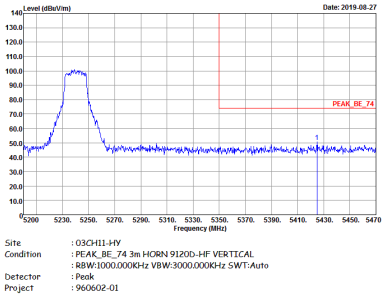
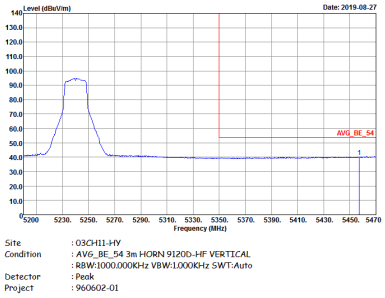
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

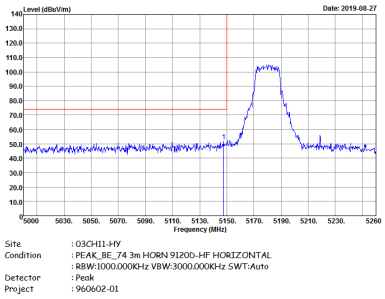
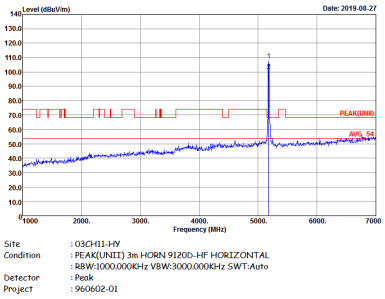
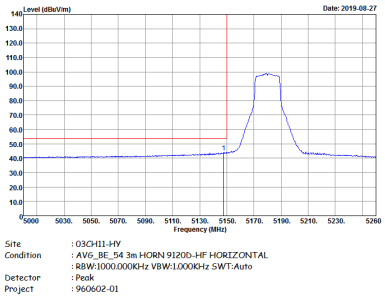
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

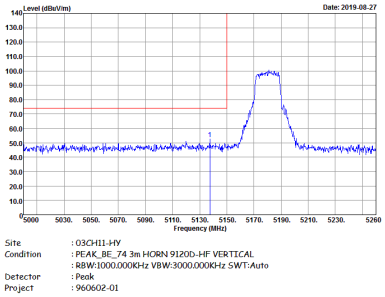
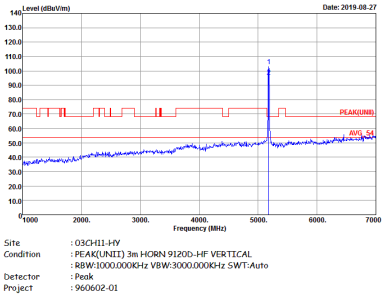
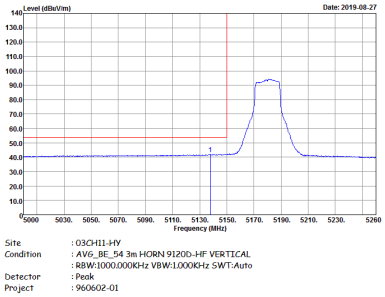
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

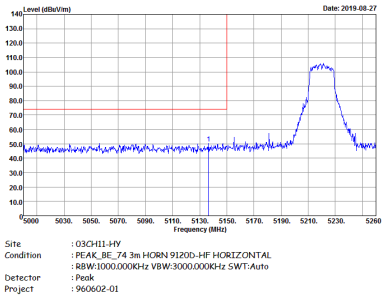
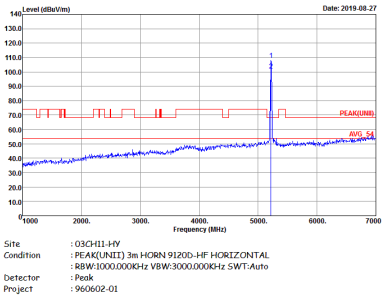
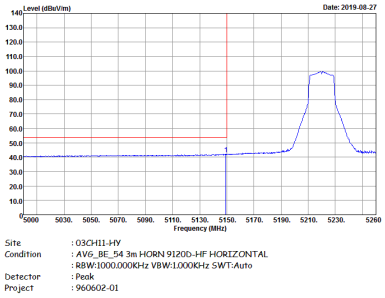
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

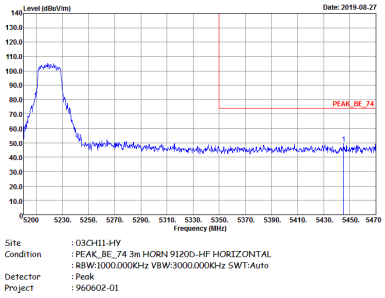
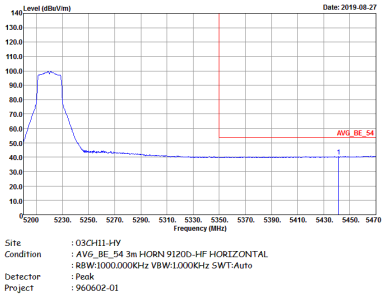
Band 1 5150~5250MHz

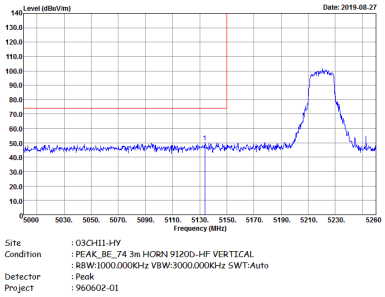
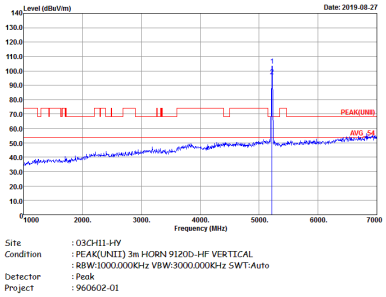
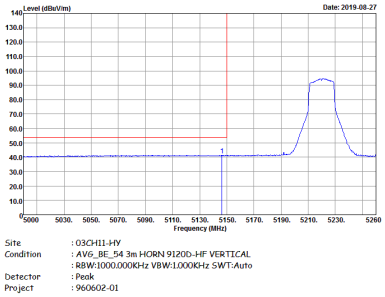
WIFI 802.11n HT20 (Band Edge @ 3m)

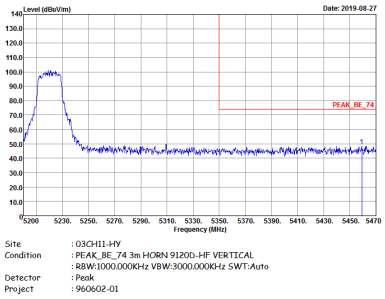
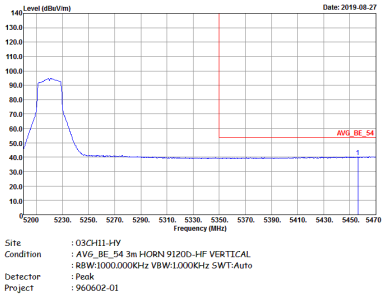
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

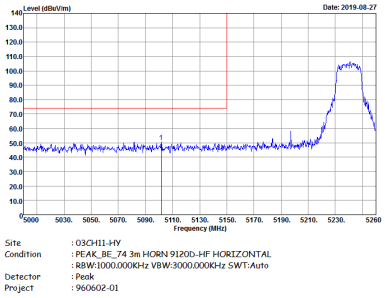
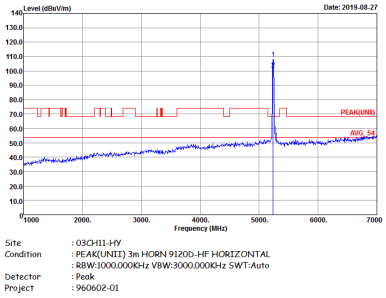
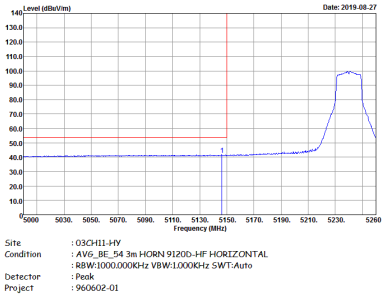
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

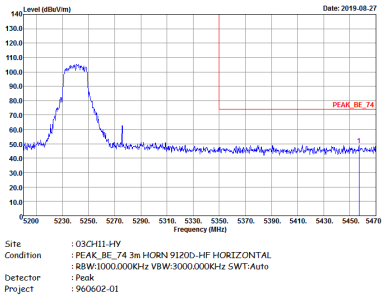
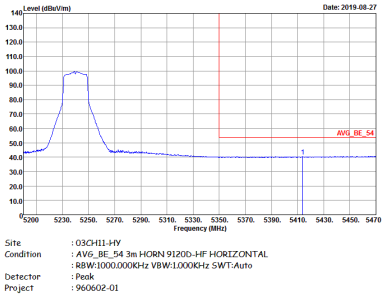
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

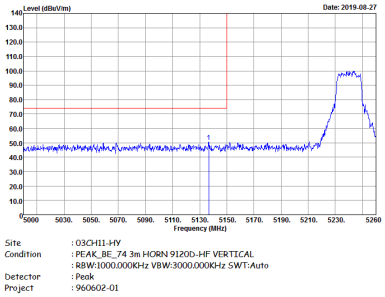
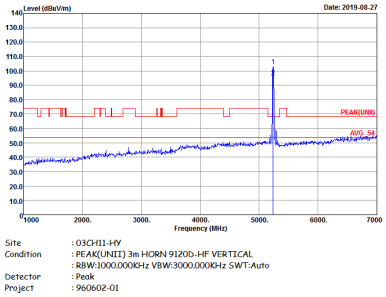
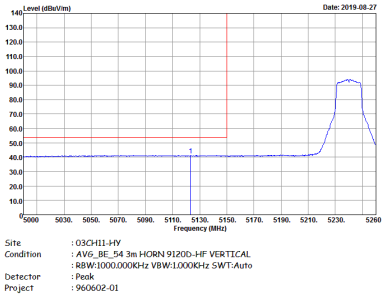
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

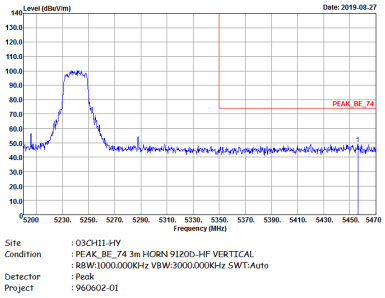
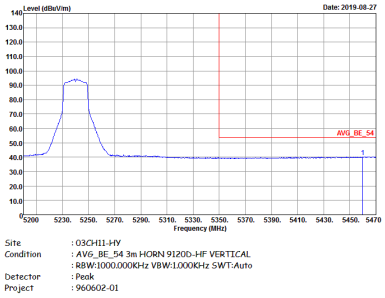
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

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

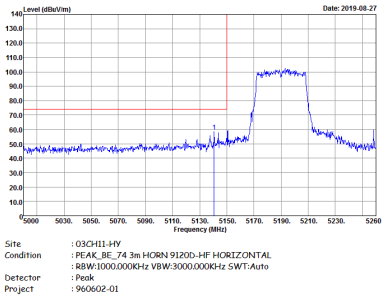
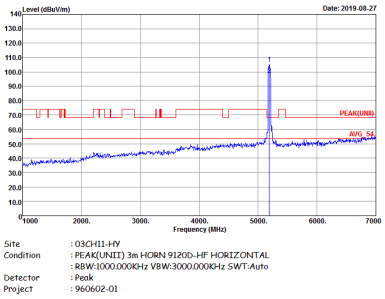
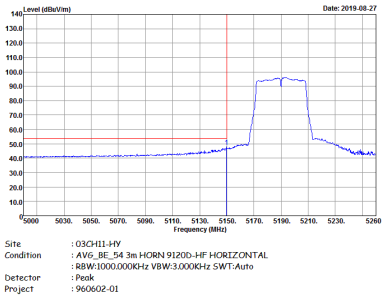
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

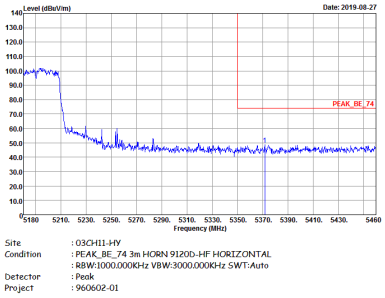
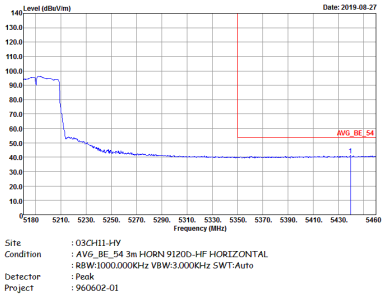
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

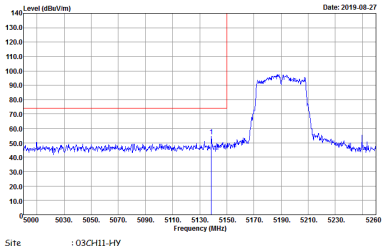
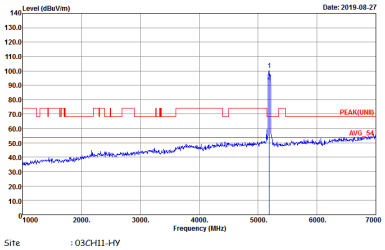
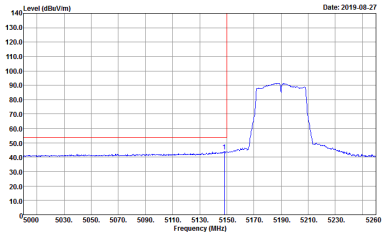
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

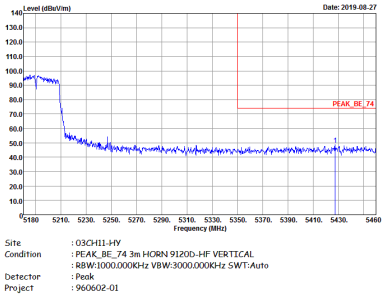
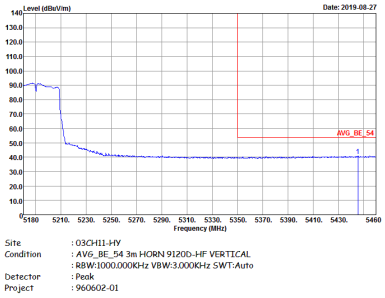
Band 1 5150~5250MHz

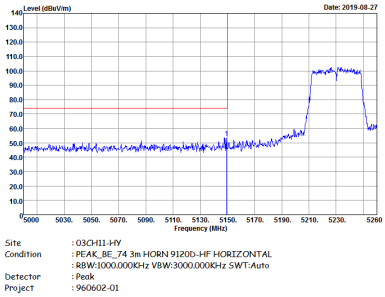
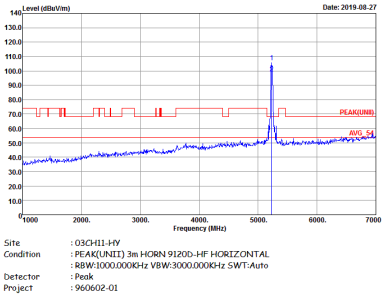
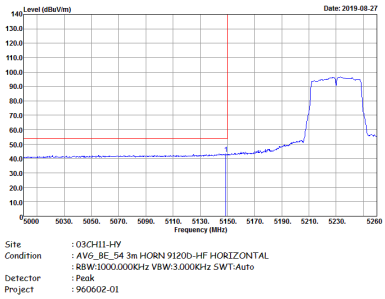
WIFI 802.11n HT40 (Band Edge @ 3m)

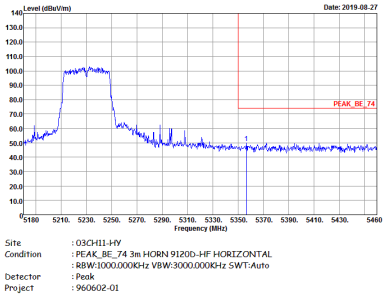
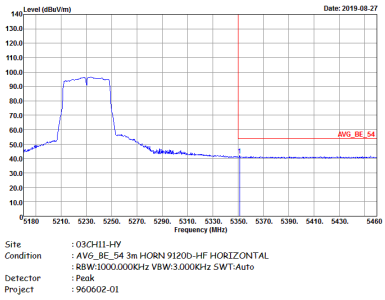
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

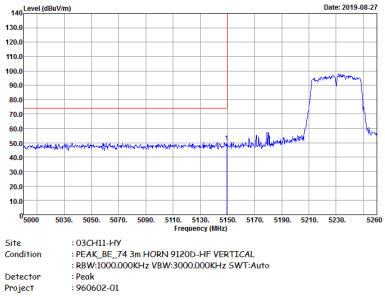
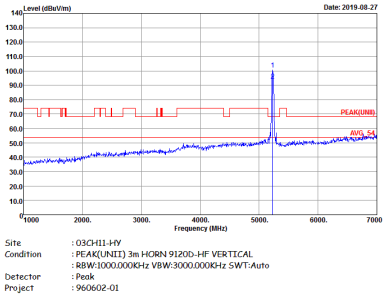
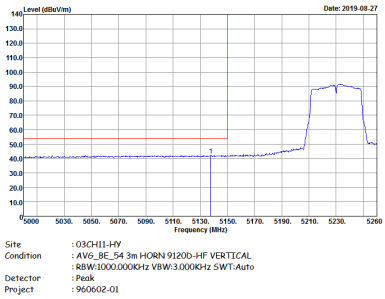
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

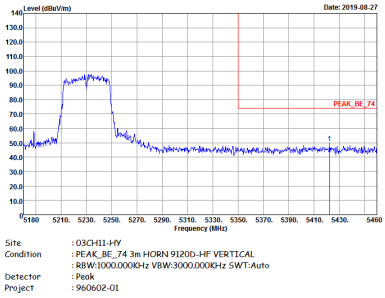
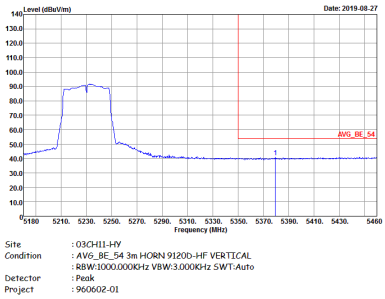
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1	Vertical	Fundamental
Peak	 Site : 03CH11-HY Condition : PEAK_BE_74 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 960602-01	 Site : 03CH11-HY Condition : PEAK(UNII) 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 960602-01
Avg.	 Site : 03CH11-HY Condition : AVG_BE_54 3m HORN 9120D-HF VERTICAL : RBW:1000.000KHz VBW:3.000KHz SWT:Auto Detector : Peak Project : 960602-01	Left blank

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

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

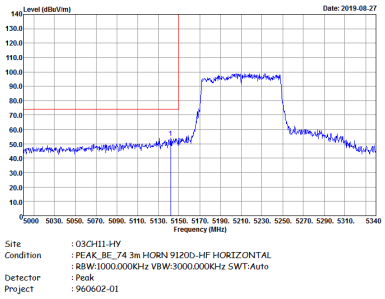
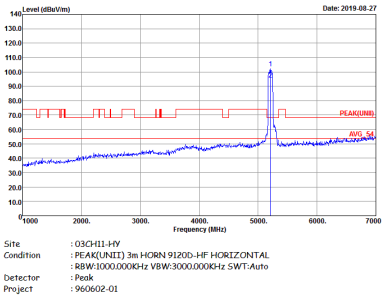
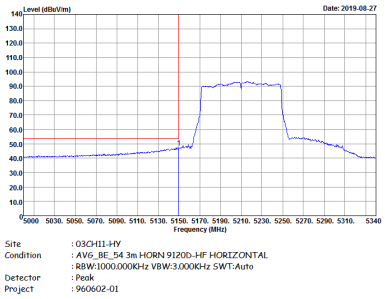
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

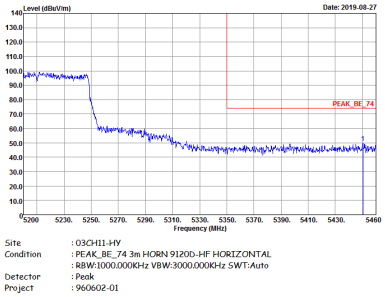
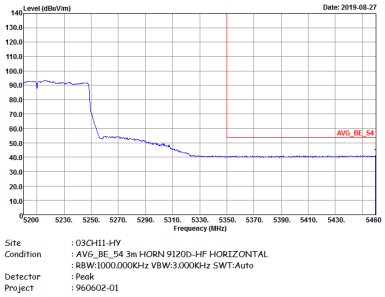
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

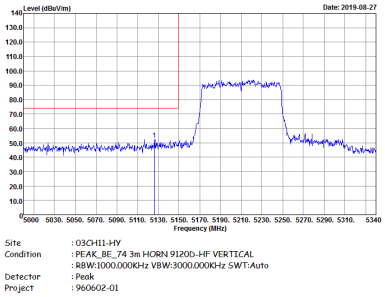
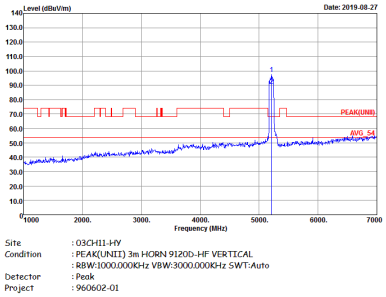
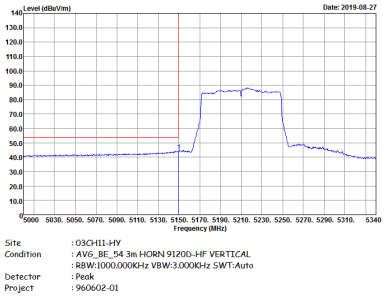
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

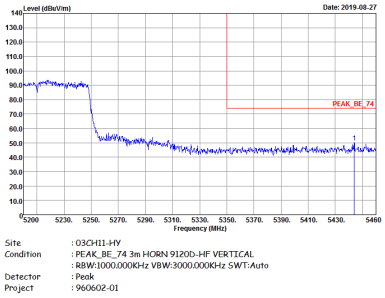
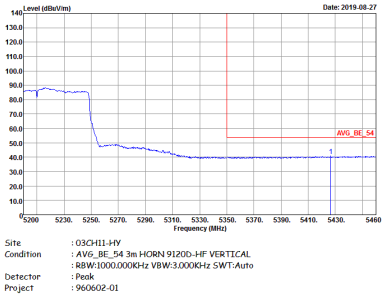
Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

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

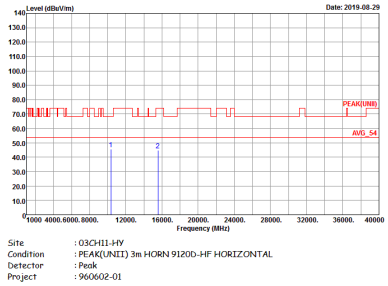
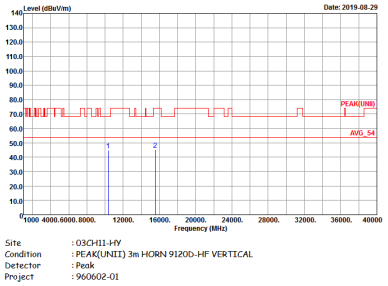
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

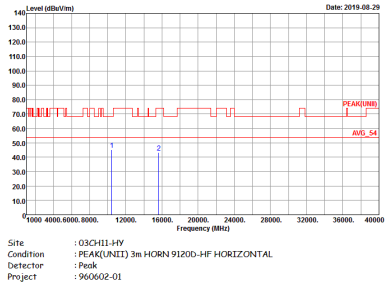
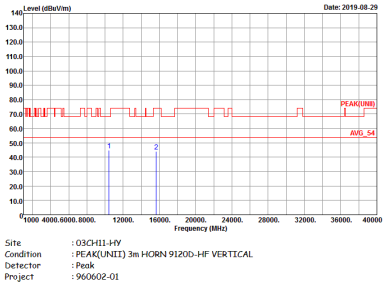
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

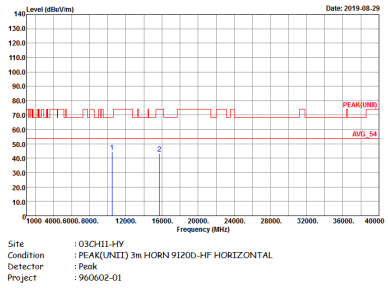
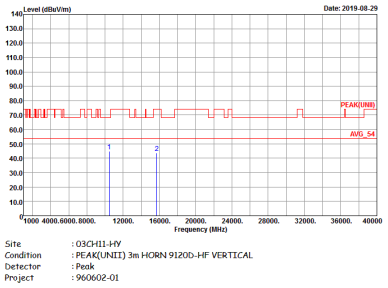
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

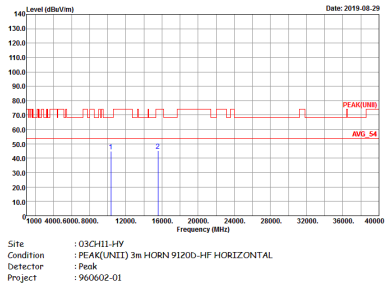
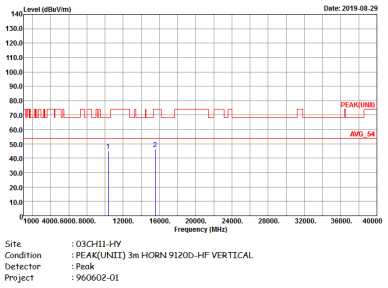
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
1	Horizontal	Vertical
Peak Avg.		

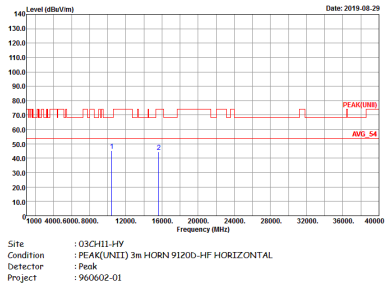
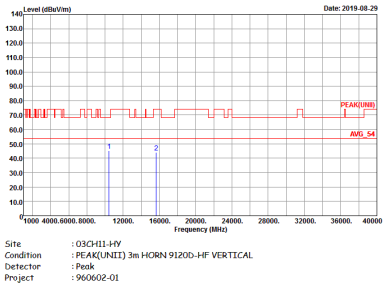
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
1	Horizontal	Vertical
Peak Avg.		

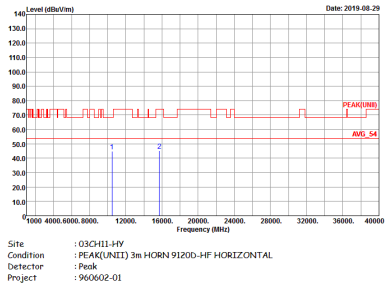
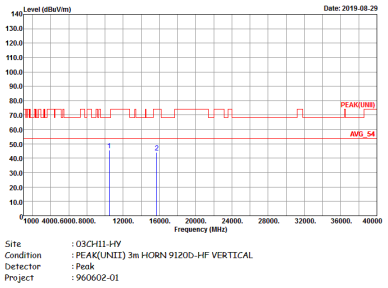
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
1	Horizontal	Vertical
Peak Avg.		

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

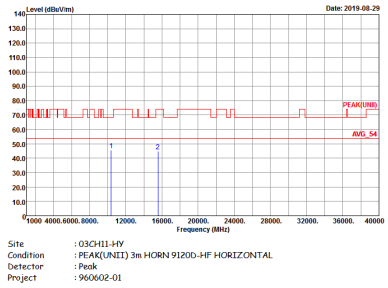
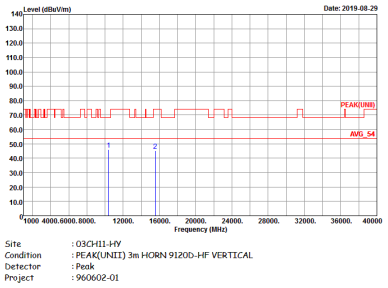
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1	Horizontal	Vertical
Peak Avg.		

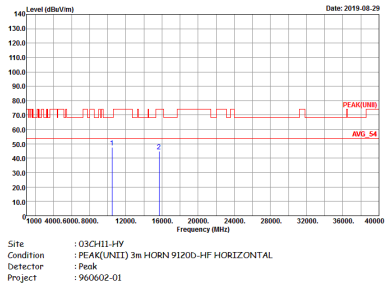
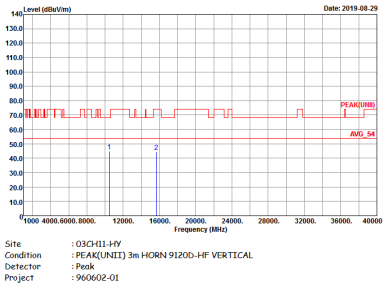
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH44 5220MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH48 5240MHz	
1	Horizontal	Vertical
Peak Avg.		

Band 1 5150~5250MHz

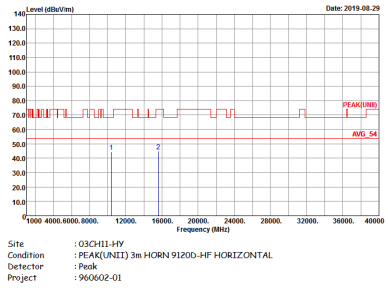
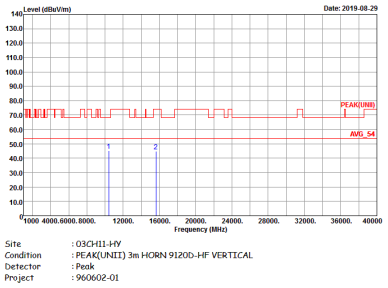
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH38 5190MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH46 5230MHz	
1	Horizontal	Vertical
Peak Avg.		

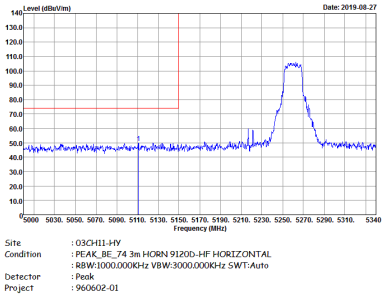
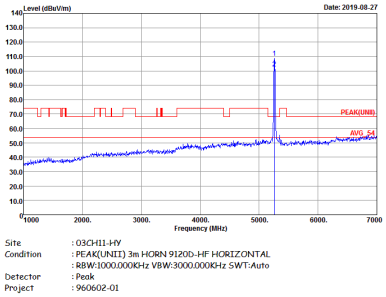
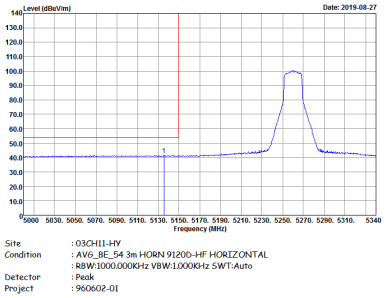
Band 1 5150~5250MHz

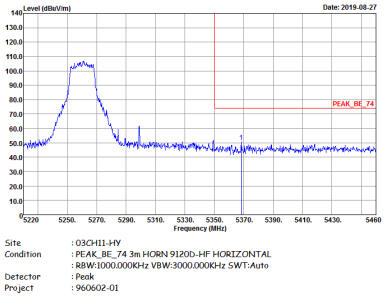
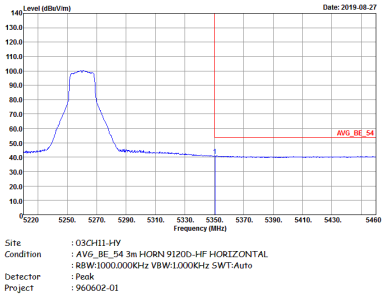
WIFI 802.11ac VHT80 (Harmonic @ 3m)

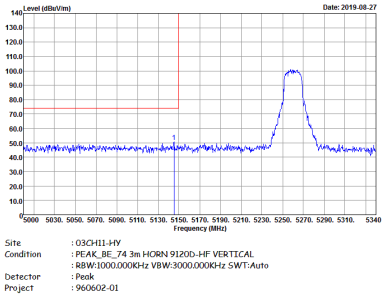
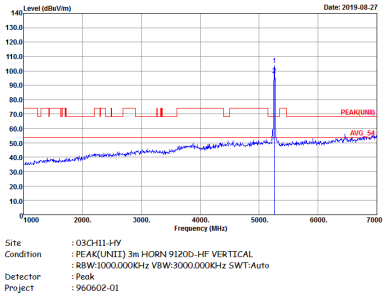
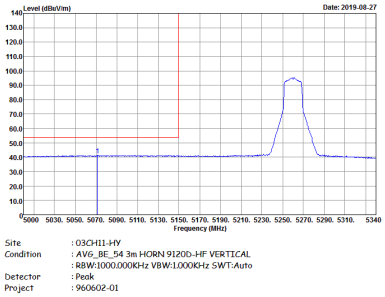
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz	
1	Horizontal	Vertical
Peak Avg.		

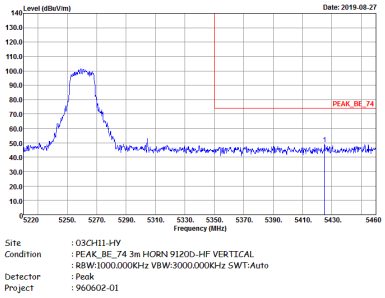
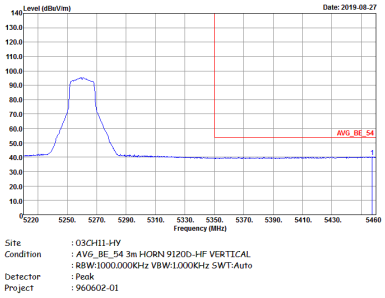
Band 2 - 5250~5350MHz

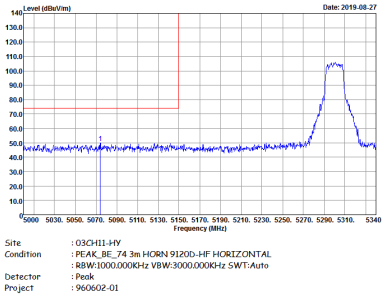
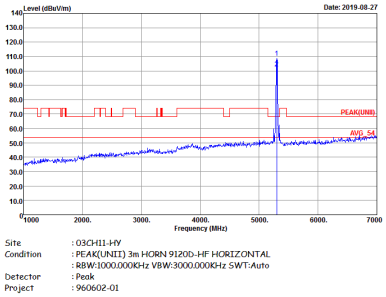
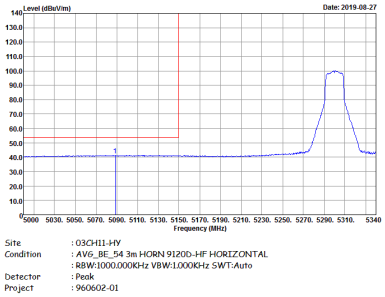
WIFI 802.11a (Band Edge @ 3m)

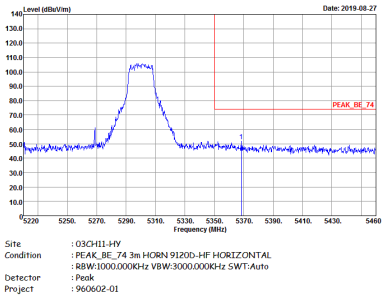
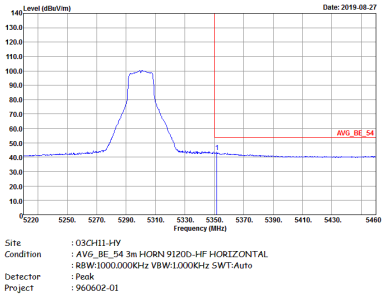
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

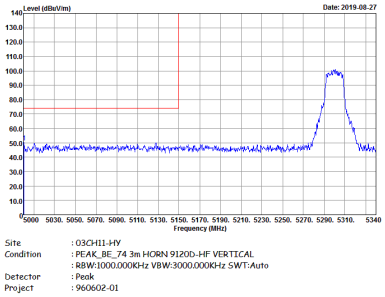
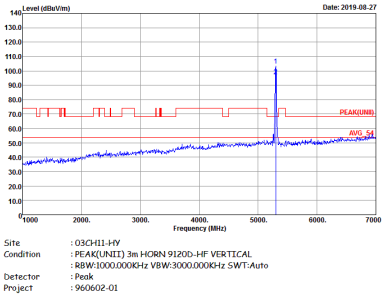
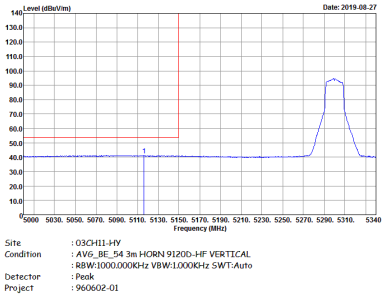
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

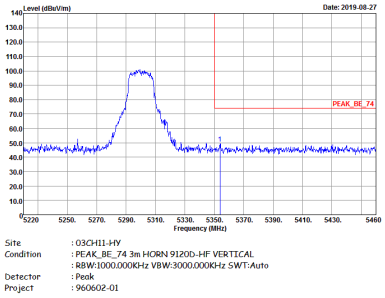
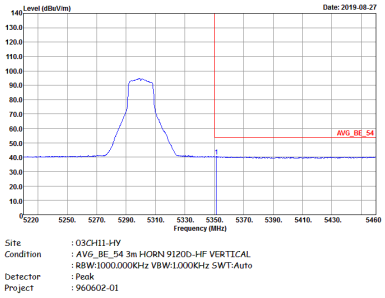
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

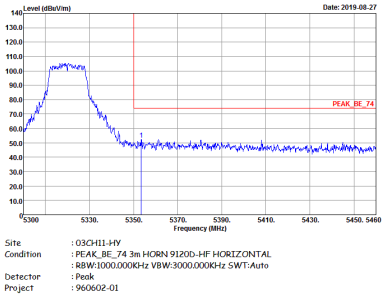
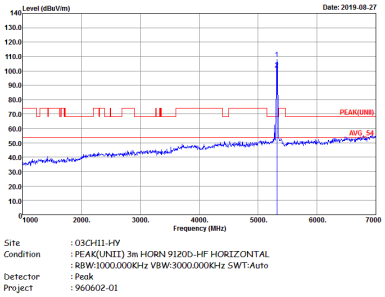
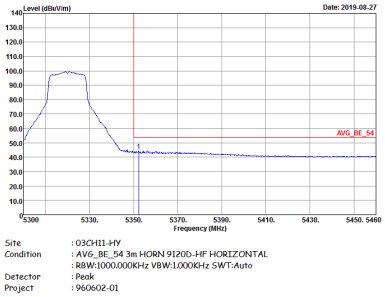
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

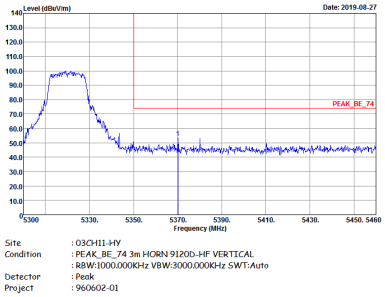
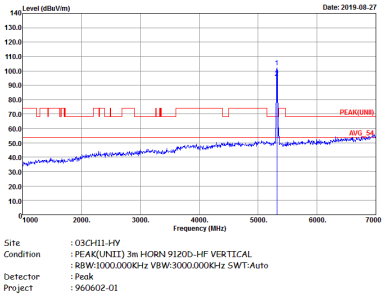
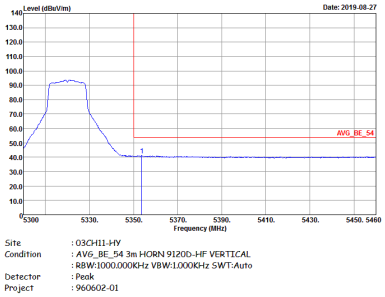
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

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

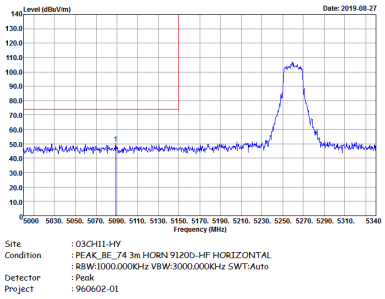
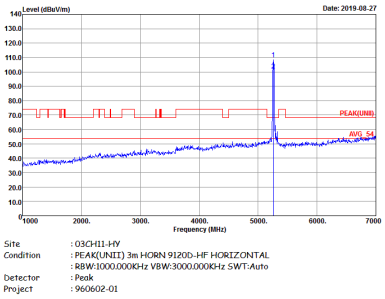
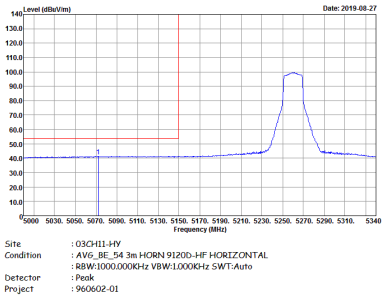
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

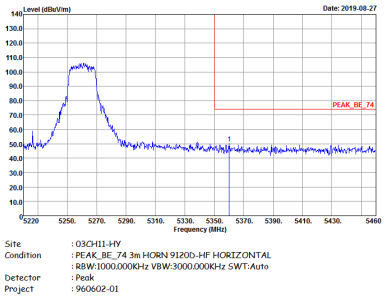
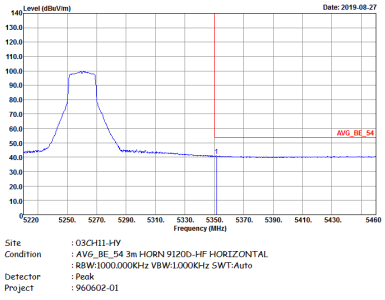
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

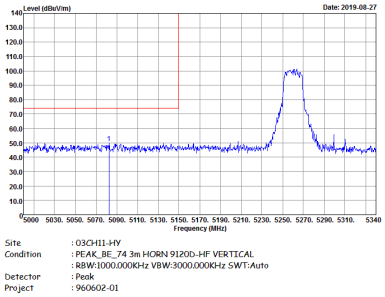
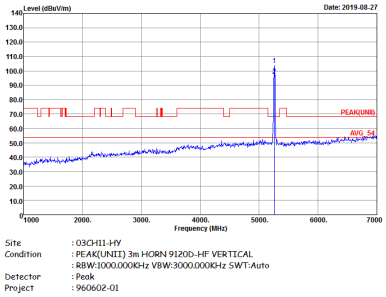
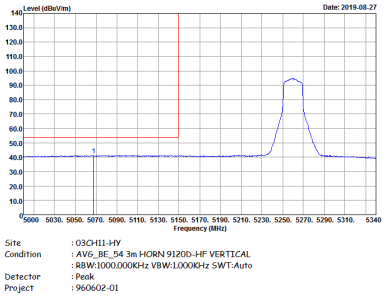
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

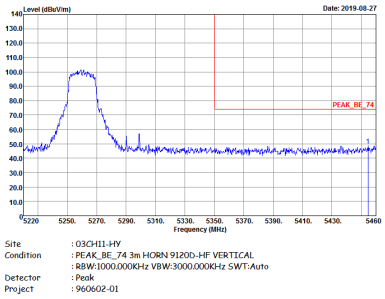
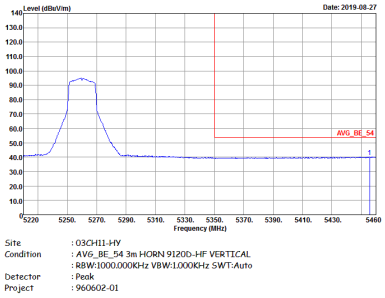
Band 2 5250~5350MHz

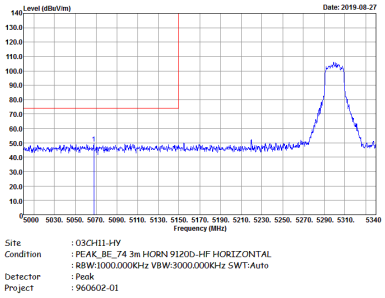
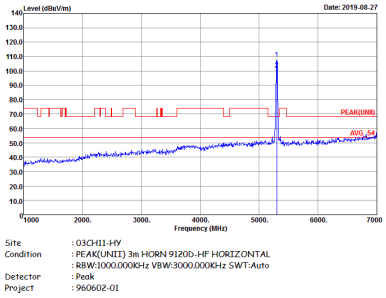
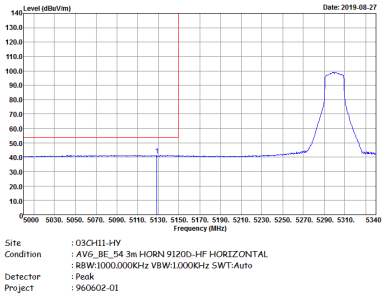
WIFI 802.11n HT20 (Band Edge @ 3m)

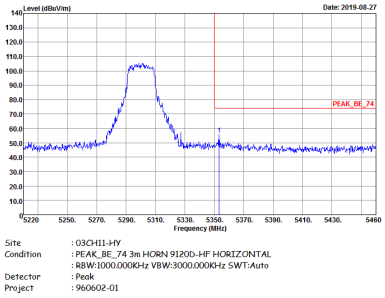
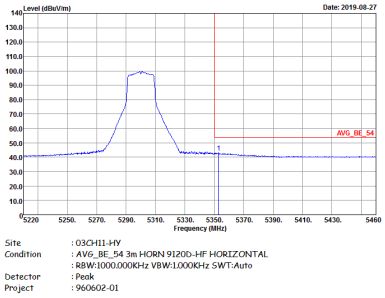
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

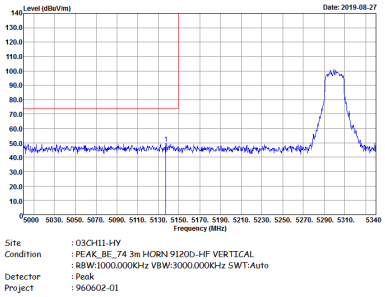
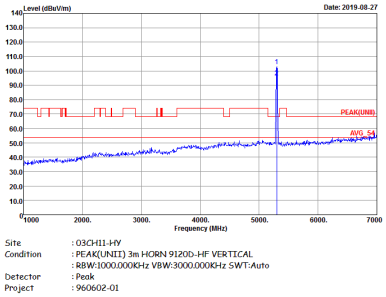
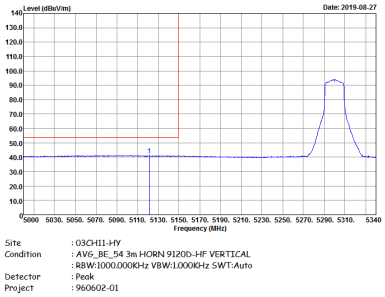
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

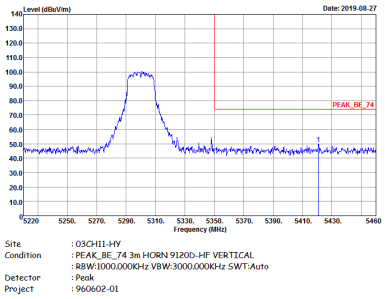
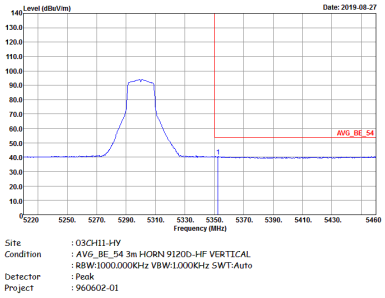
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

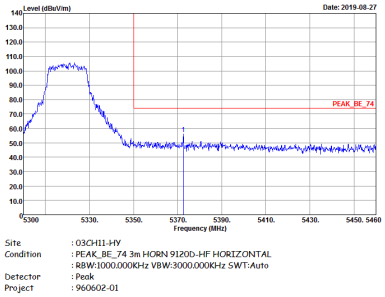
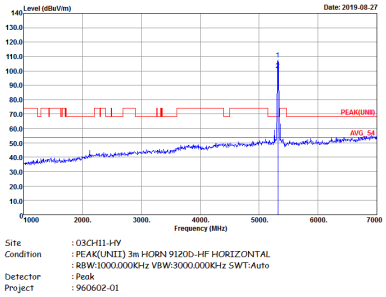
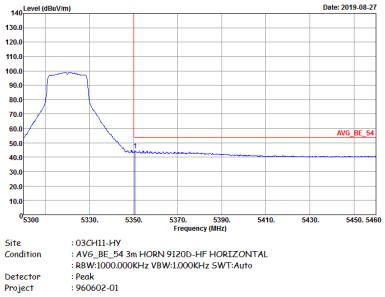
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

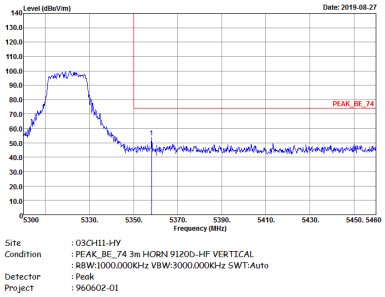
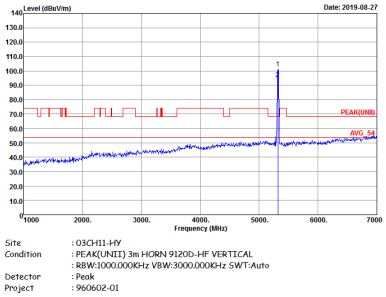
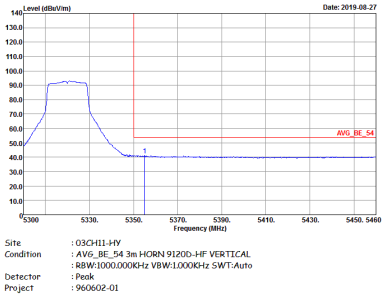
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - R	
1	Horizontal	Vertical
Peak		Left blank
Avg.		Left blank

WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

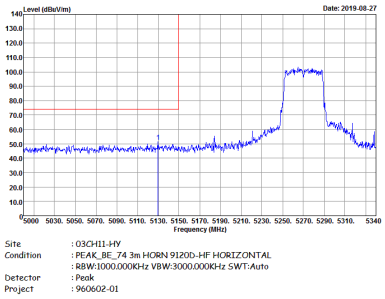
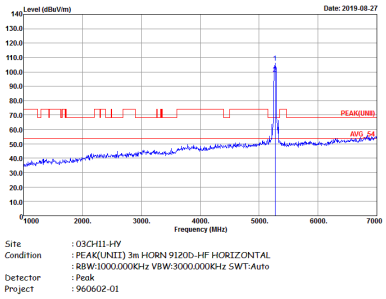
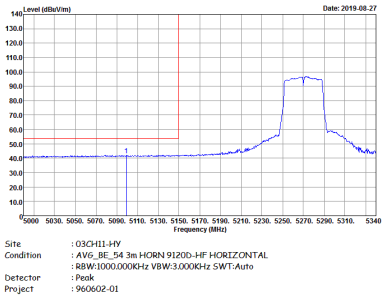
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

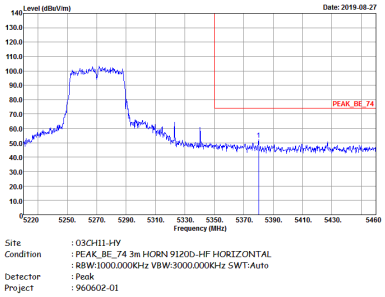
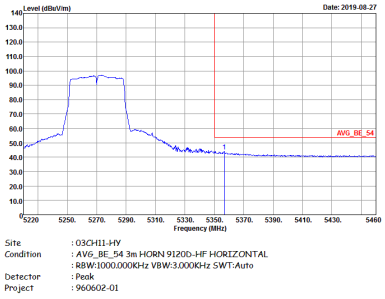
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

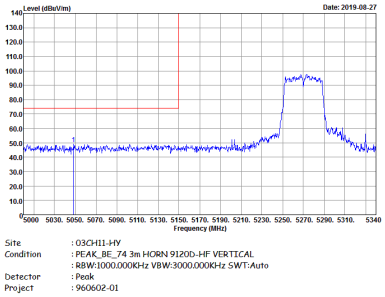
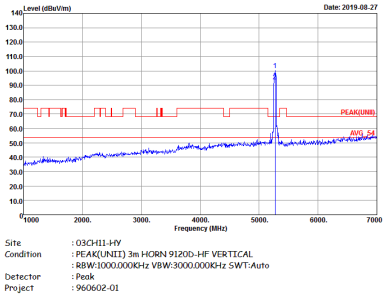
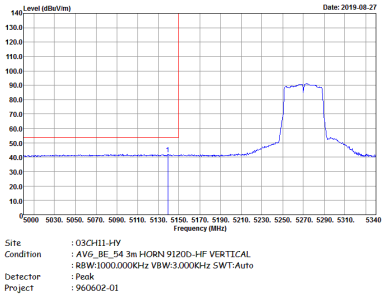
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

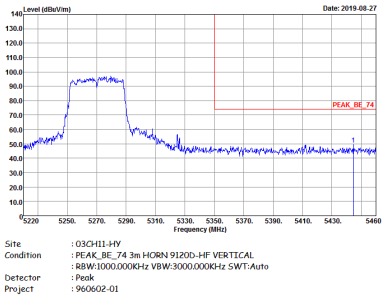
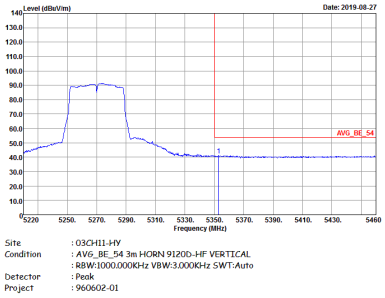
Band 2 5250~5350MHz

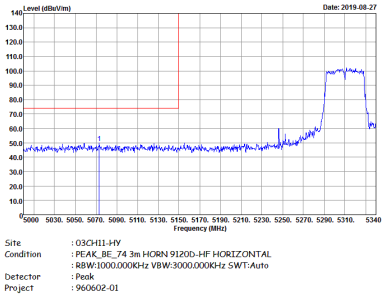
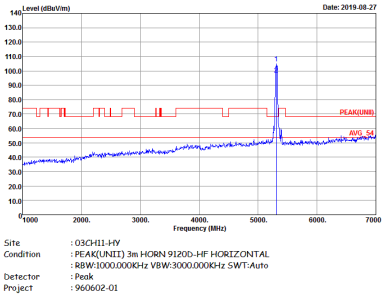
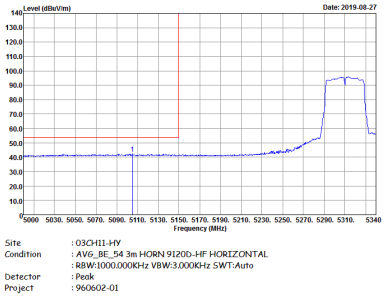
WIFI 802.11n HT40 (Band Edge @ 3m)

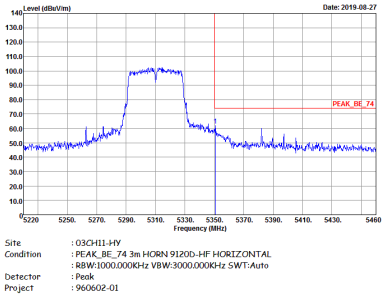
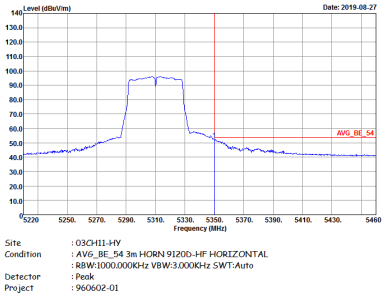
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

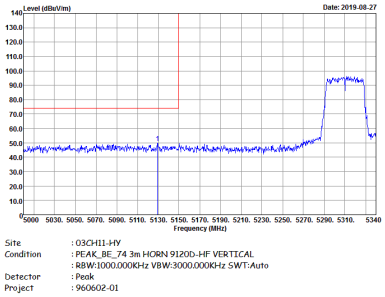
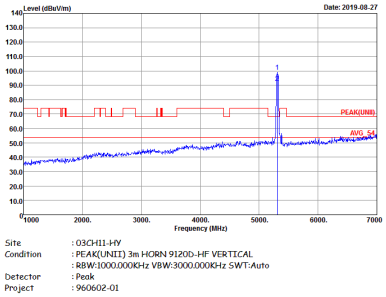
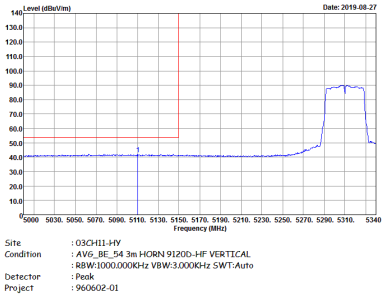
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

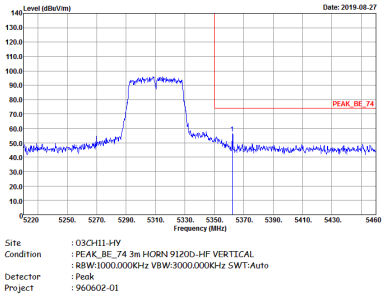
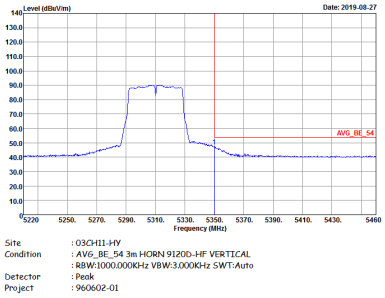
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270MHz - L	
1	Vertical	Vertical
Peak		
Avg.		Left blank

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

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

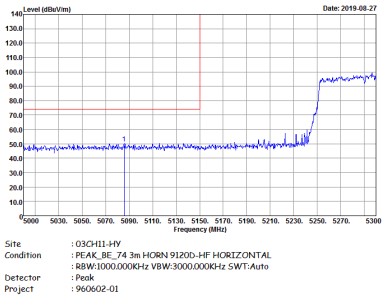
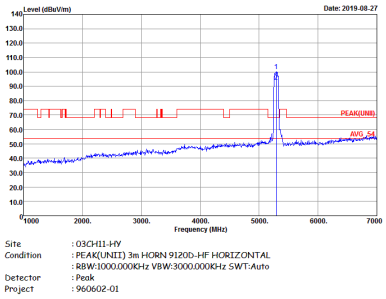
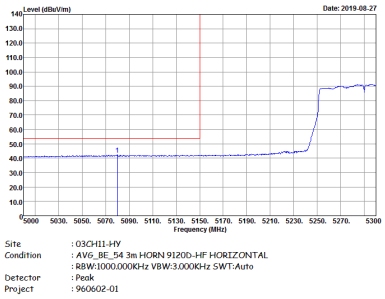
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

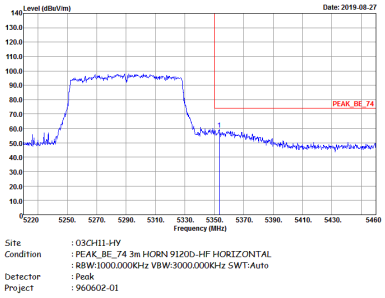
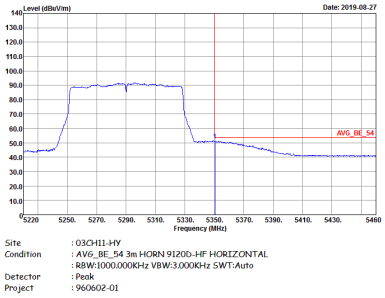
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

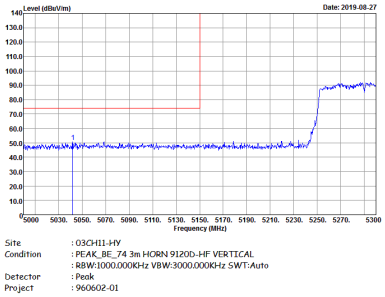
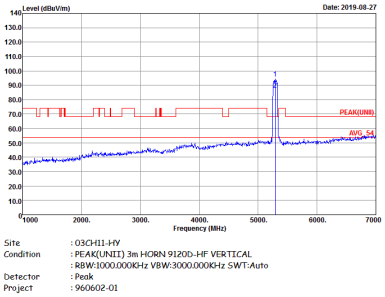
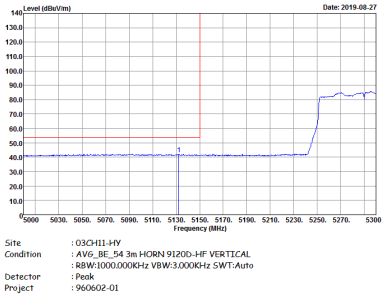
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

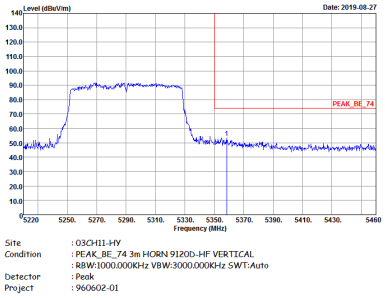
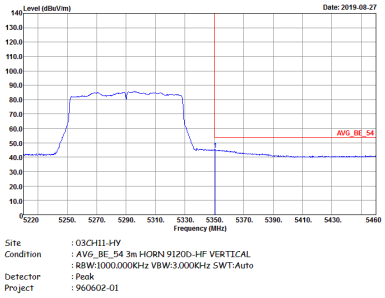
Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

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

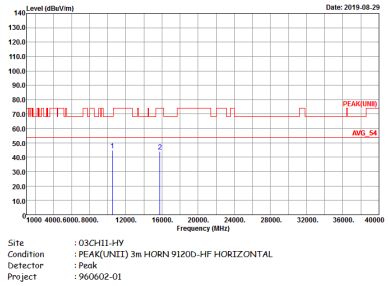
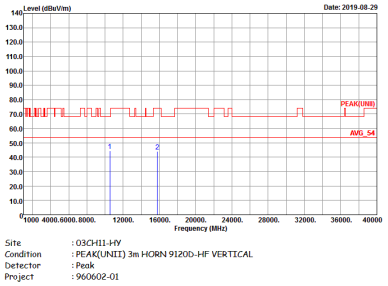
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

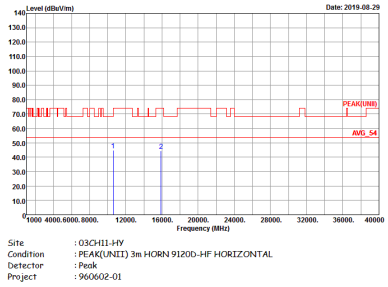
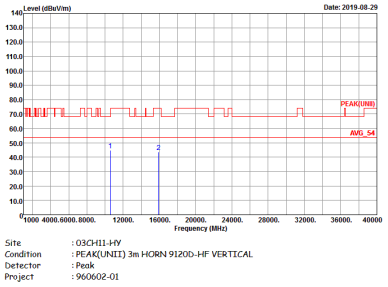
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

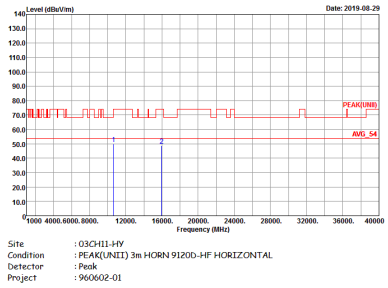
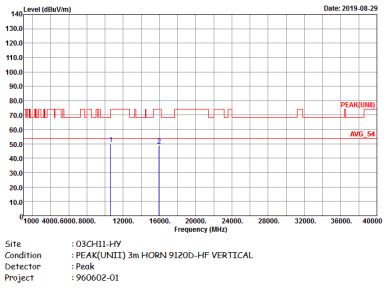
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 2 - 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

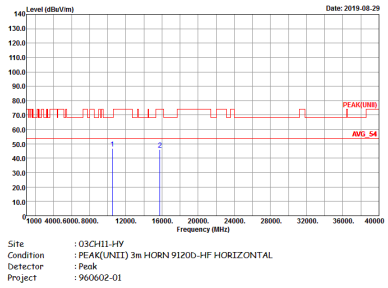
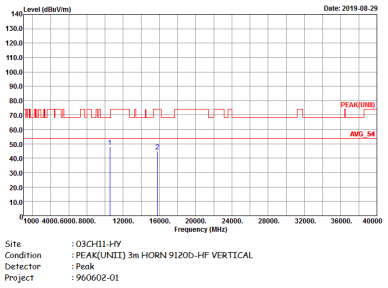
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH52 5260MHz	
1	Horizontal	Vertical
Peak Avg.		

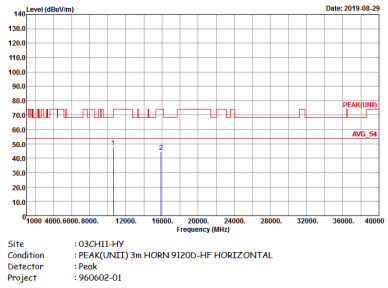
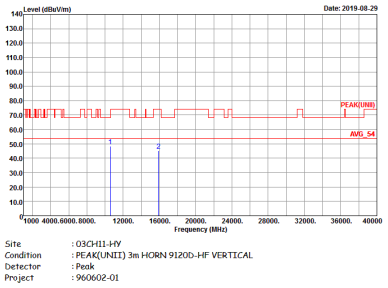
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH60 5300MHz	
1	Horizontal	Vertical
Peak Avg.		

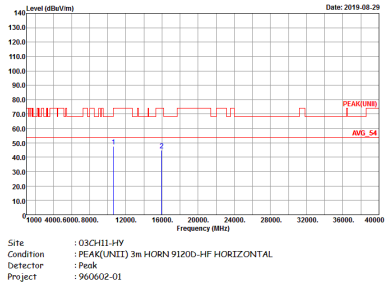
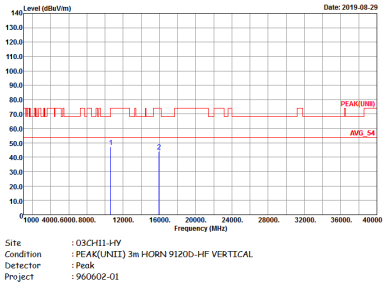
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH64 5320MHz	
1	Horizontal	Vertical
Peak Avg.		

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

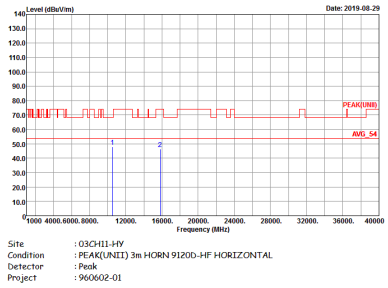
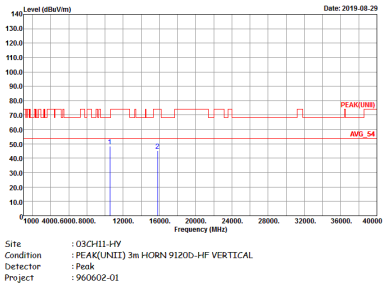
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH52 5260MHz	
1	Horizontal	Vertical
Peak Avg.		

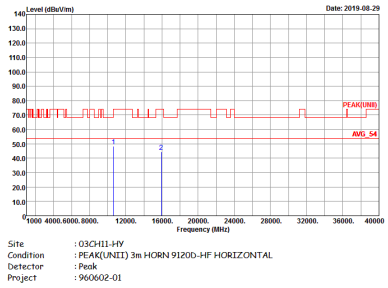
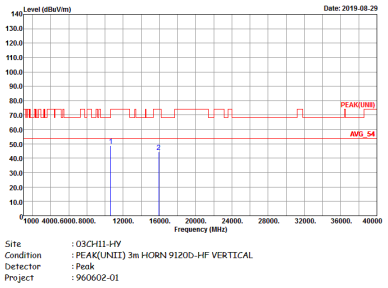
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH60 5300MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1	Horizontal	Vertical
Peak Avg.		

Band 2 5250~5350MHz

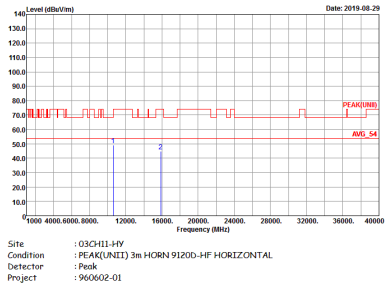
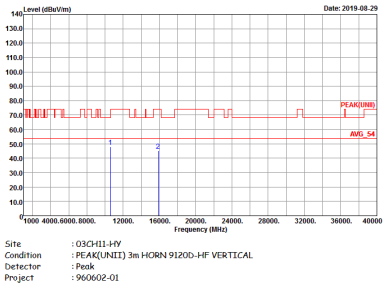
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT40 CH54 5270MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT40 CH62 5310MHz	
1	Horizontal	Vertical
Peak Avg.		

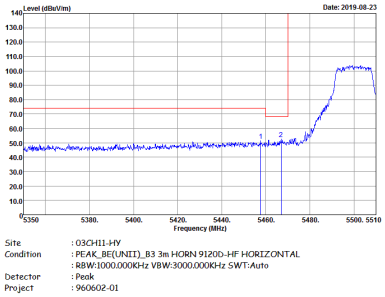
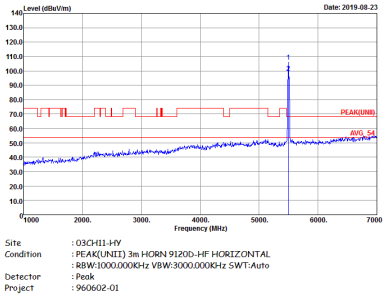
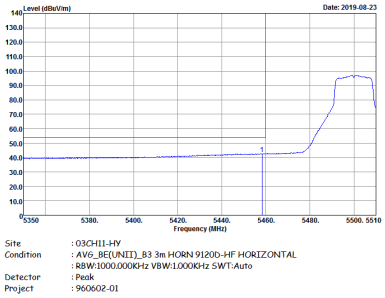
Band 2 5250~5350MHz

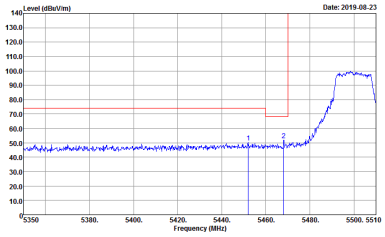
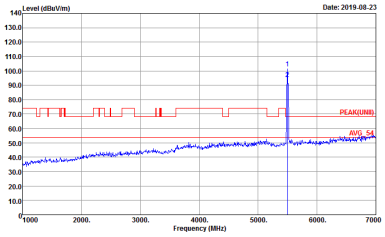
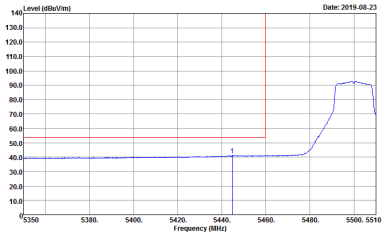
WIFI 802.11ac VHT80 (Harmonic @ 3m)

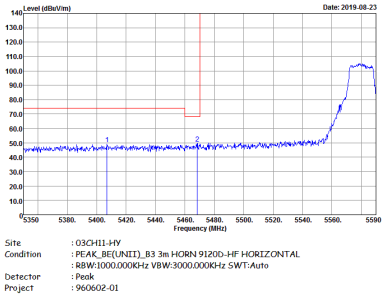
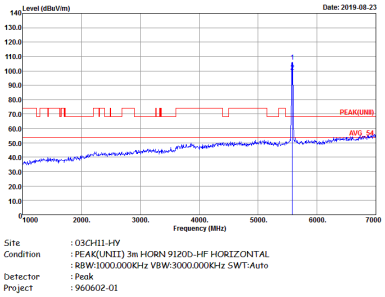
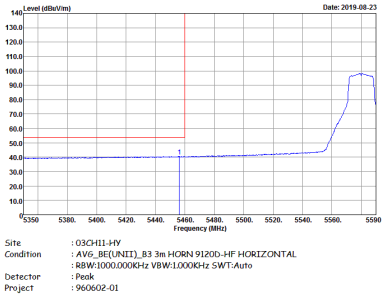
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz	
1	Horizontal	Vertical
Peak Avg.		

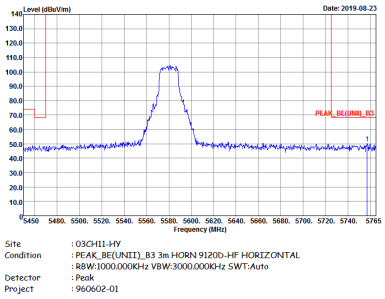
Band 3 - 5470~5725MHz

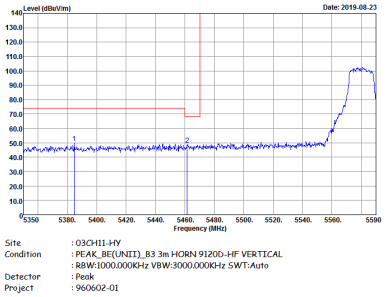
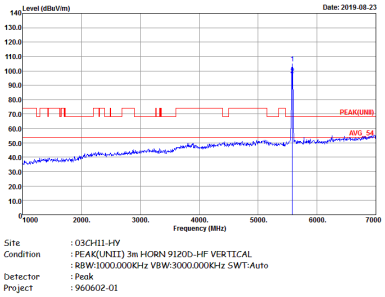
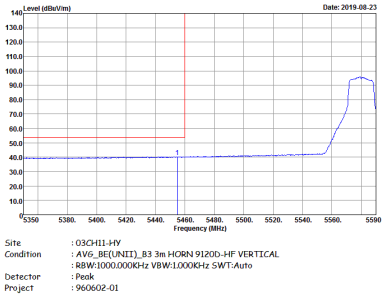
WIFI 802.11a (Band Edge @ 3m)

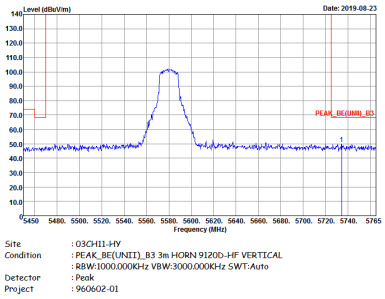
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

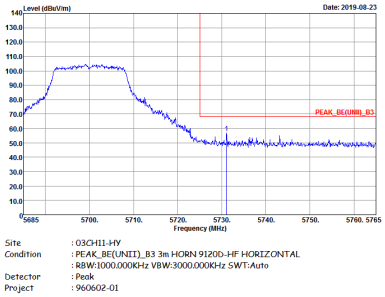
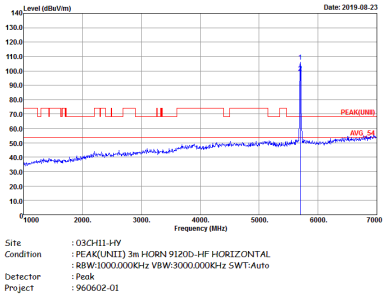
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

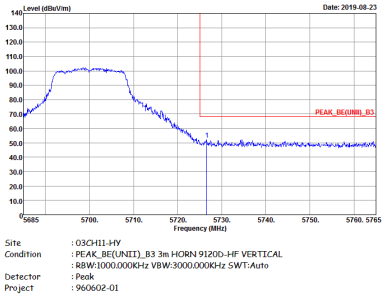
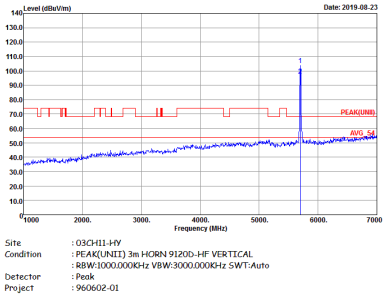
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

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

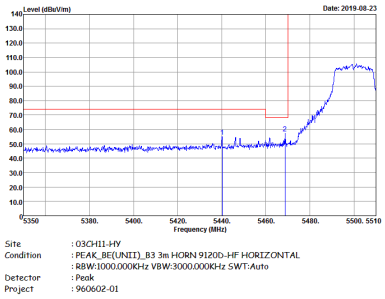
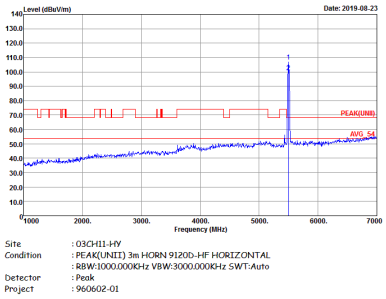
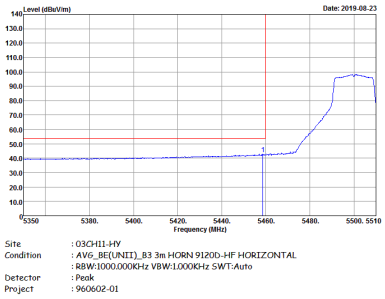
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
1	Vertical	Fundamental
Peak		Left blank

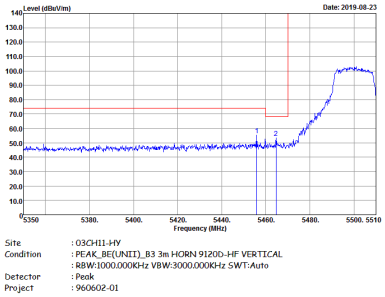
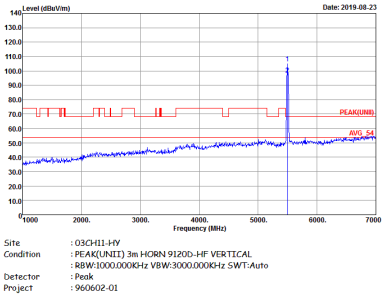
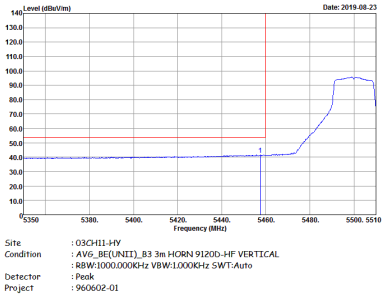
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1	Horizontal	Fundamental
Peak		

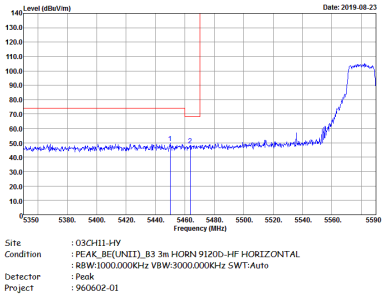
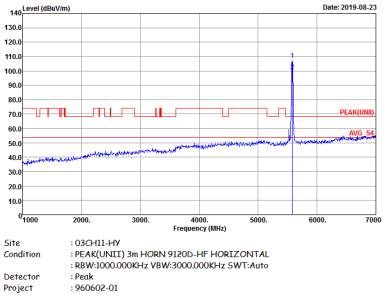
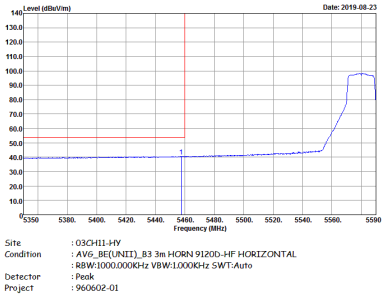
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1	Vertical	Fundamental
Peak		

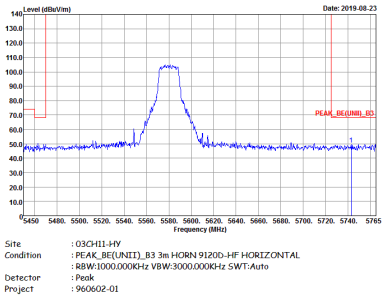
Band 3 5470~5725MHz

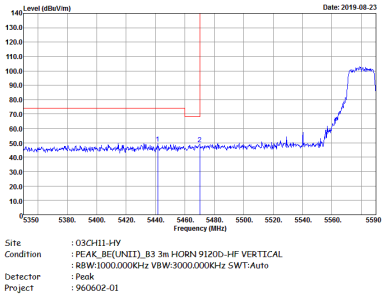
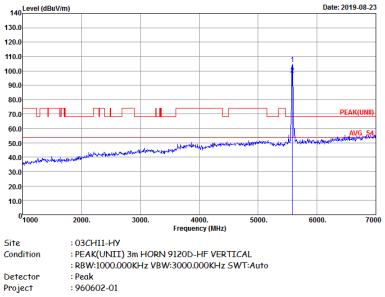
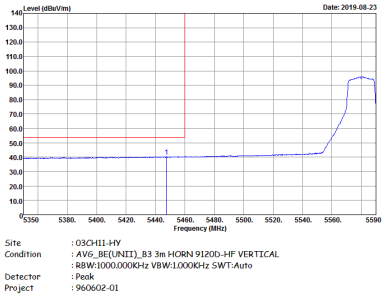
WIFI 802.11n HT20 (Band Edge @ 3m)

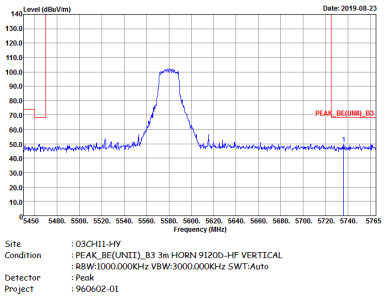
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

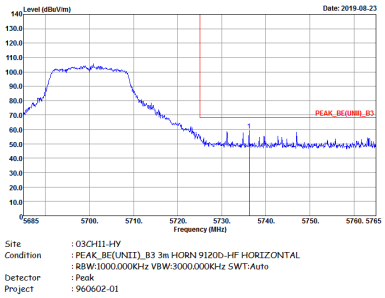
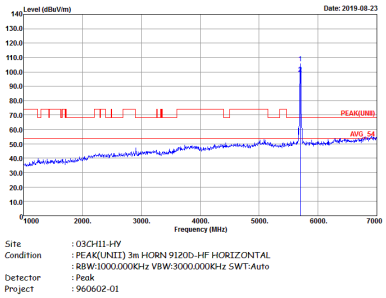
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

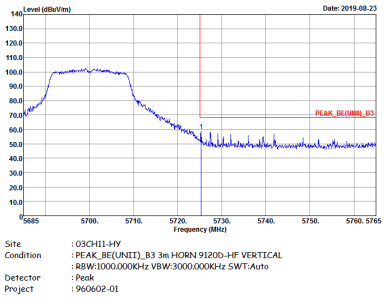
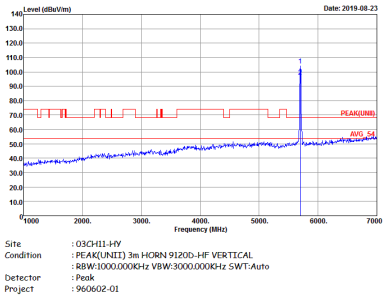
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

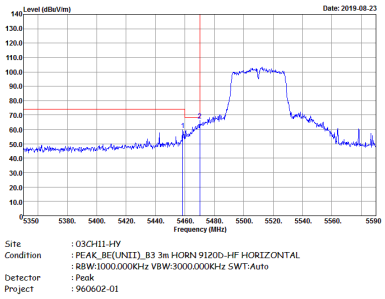
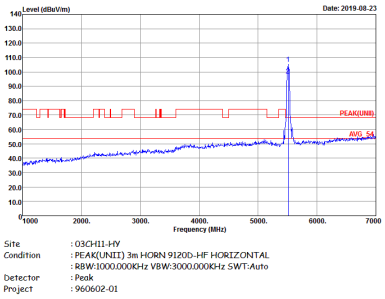
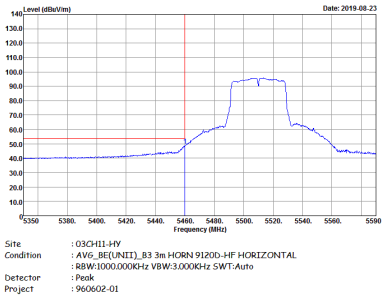
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - R	
1	Vertical	Fundamental
Peak		Left blank

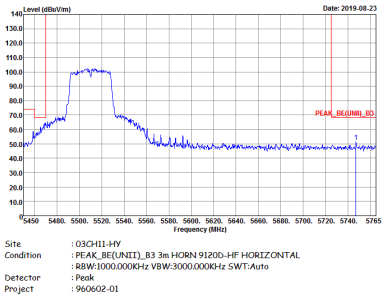
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1	Horizontal	Fundamental
Peak		

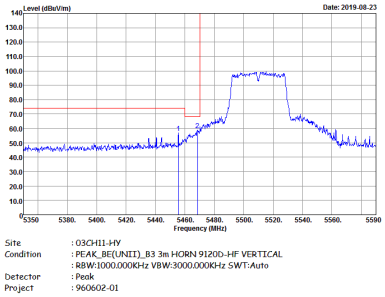
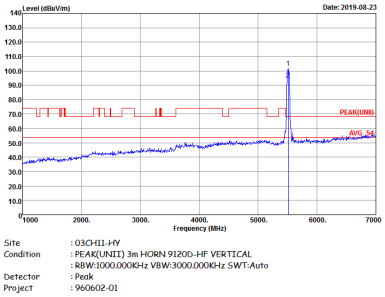
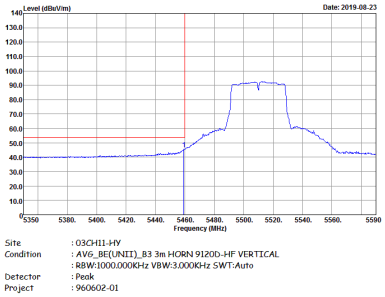
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1	Vertical	Fundamental
Peak.		

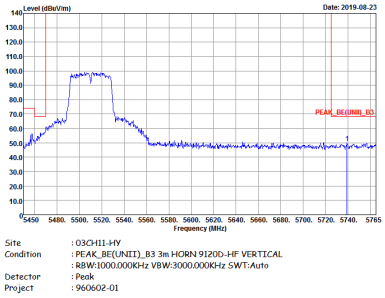
Band 3 5470~5725MHz

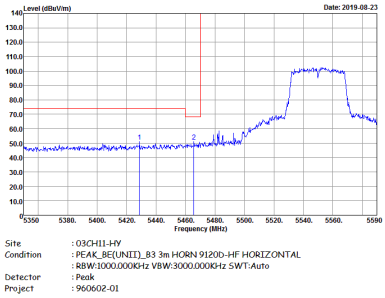
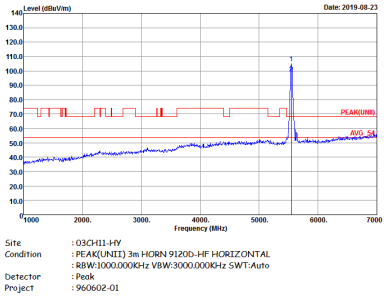
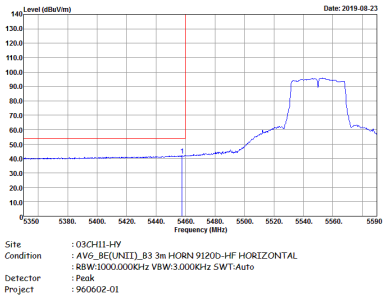
WIFI 802.11n HT40 (Band Edge @ 3m)

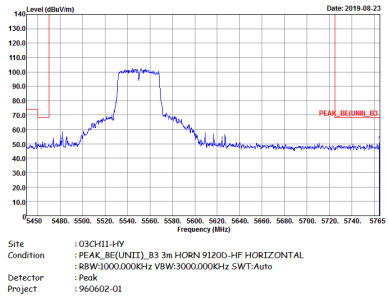
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

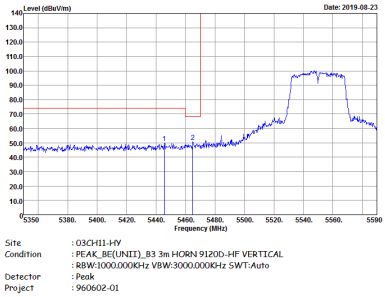
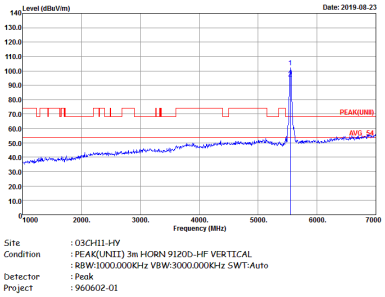
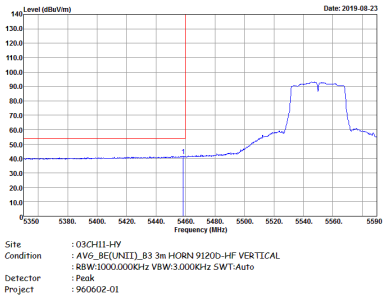
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

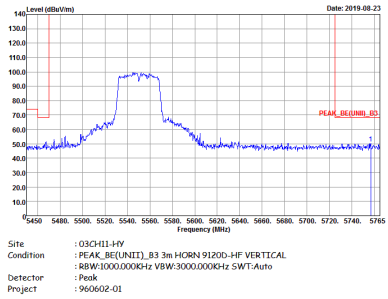
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

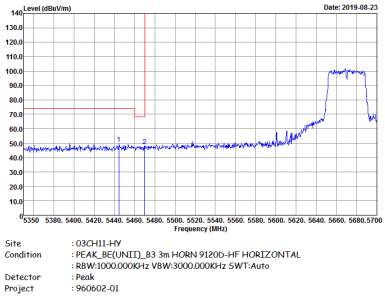
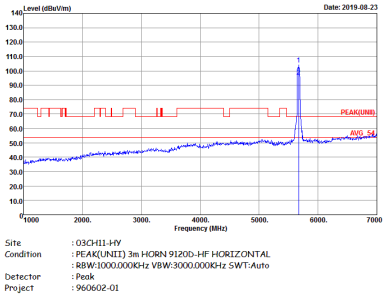
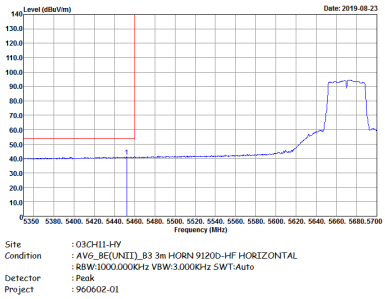
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1	Vertical	Fundamental
Peak		Left blank

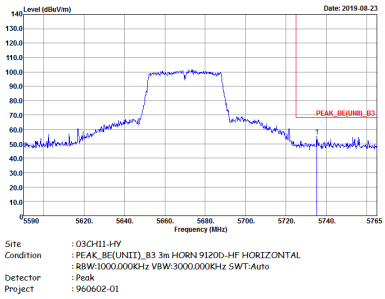
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

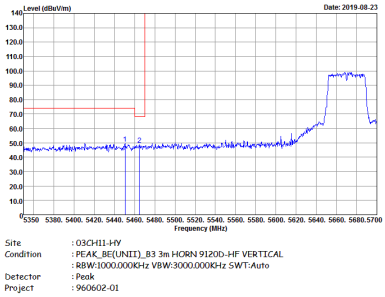
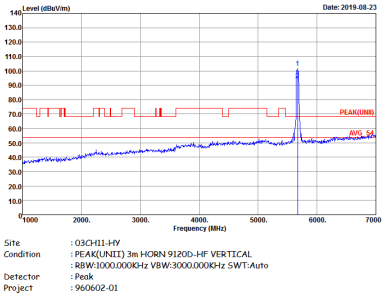
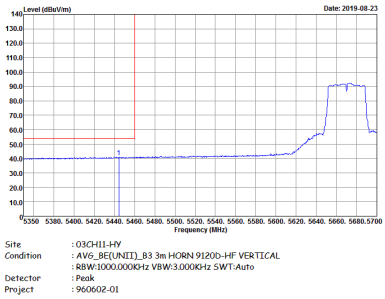
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

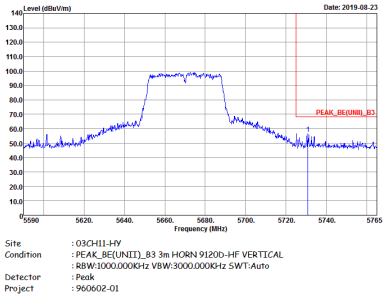
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

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

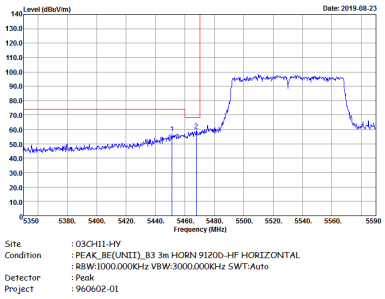
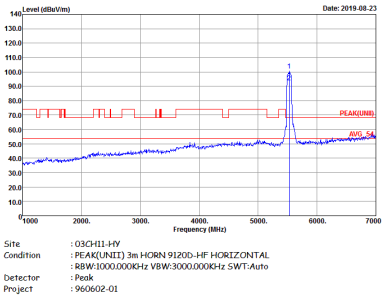
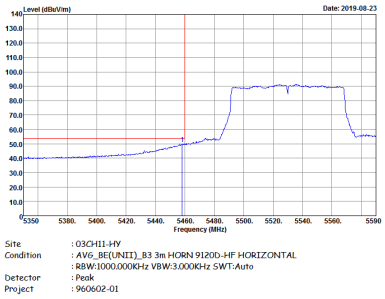
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

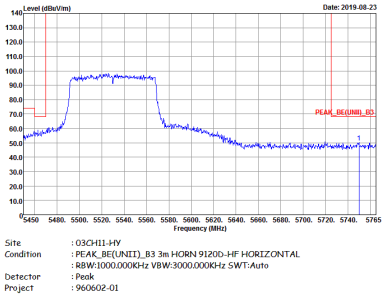
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

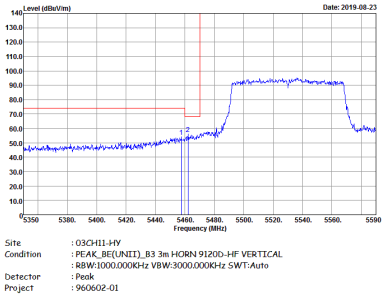
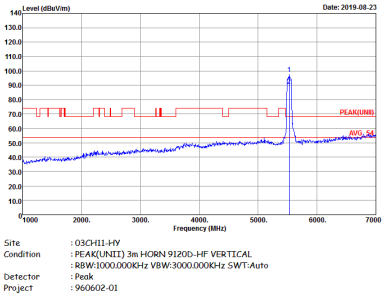
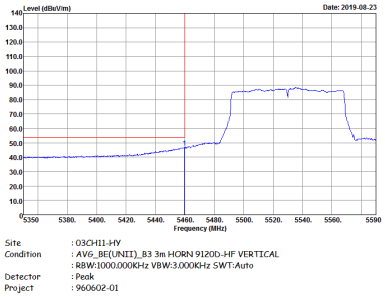
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1	Vertical	Fundamental
Peak		Left blank

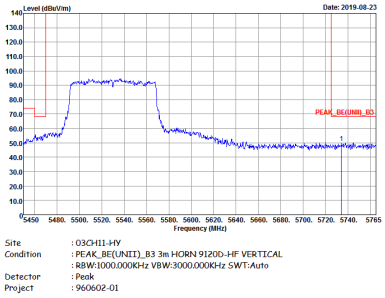
Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

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

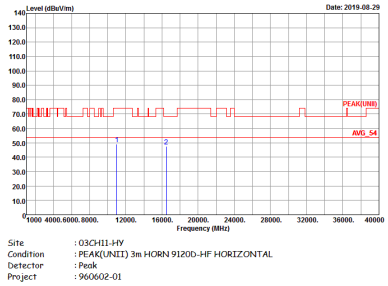
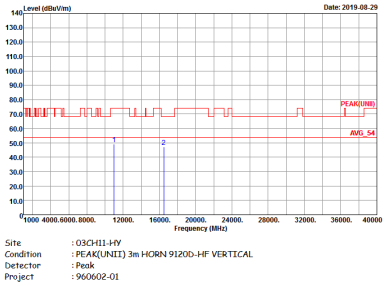
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

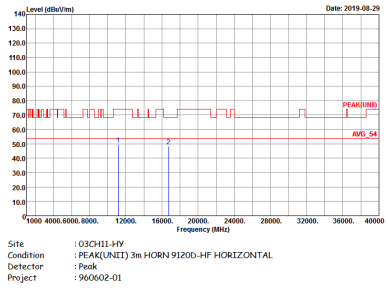
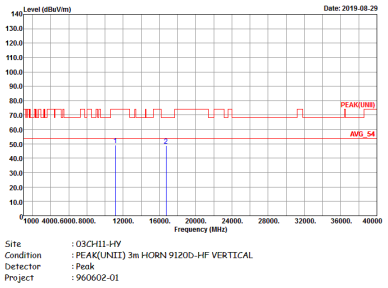
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

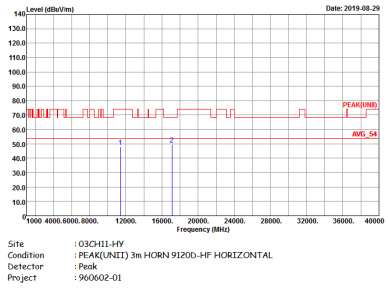
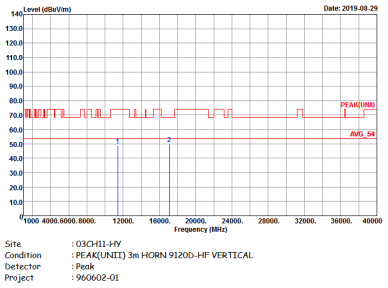
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - R	
1	Vertical	Fundamental
Peak		Left blank

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

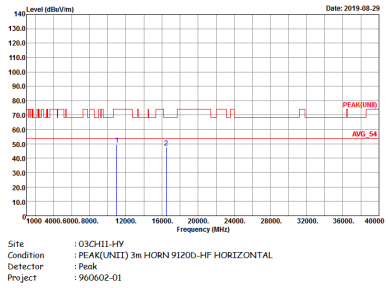
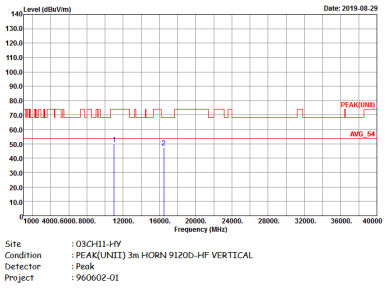
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH100 5500MHz	
1	Horizontal	Vertical
Peak Avg.		

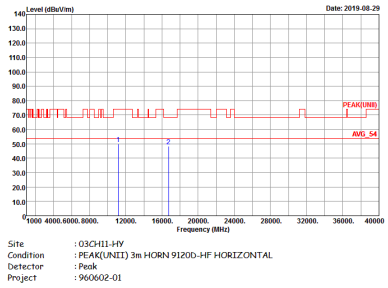
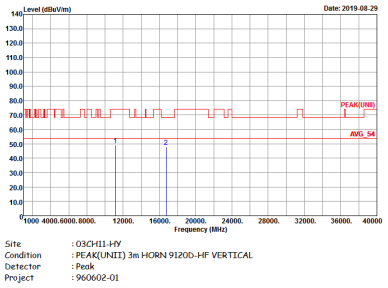
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH116 5580MHz	
1	Horizontal	Vertical
Peak Avg.		

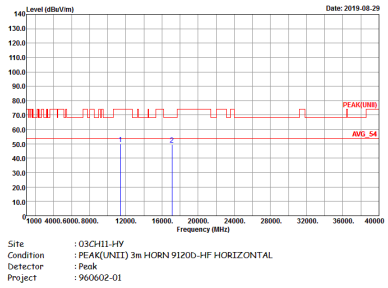
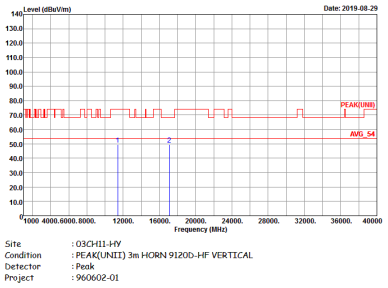
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH140 5700MHz	
1	Horizontal	Vertical
Peak Avg.		

Band 3 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

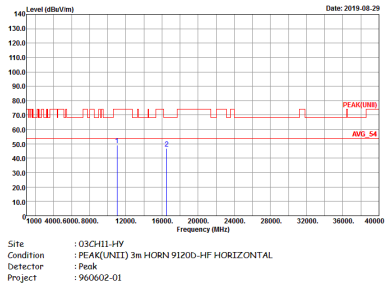
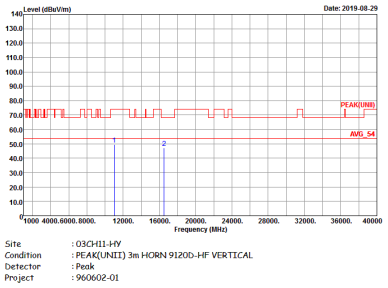
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1	Horizontal	Vertical
Peak Avg.		

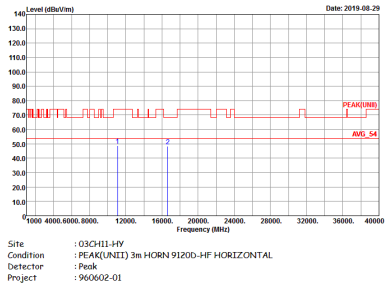
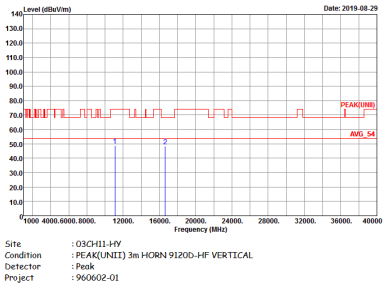
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH116 5580MHz	
1	Horizontal	Vertical
Peak Avg.		

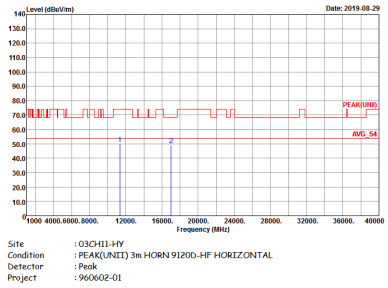
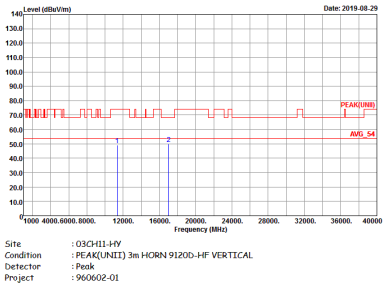
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1	Horizontal	Vertical
Peak Avg.		

Band 3 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

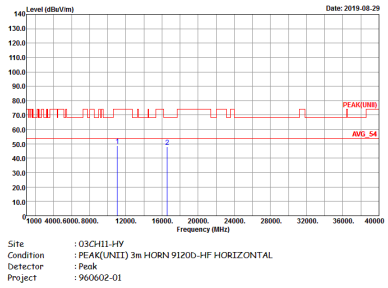
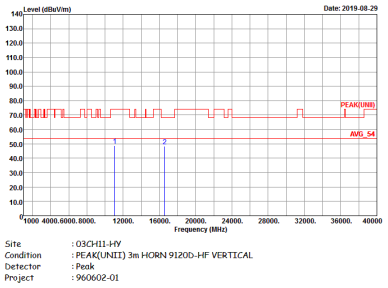
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT40 CH102 5510MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT40 CH110 5550MHz	
1	Horizontal	Vertical
Peak Avg.		

WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT40 CH134 5670MHz	
1	Horizontal	Vertical
Peak Avg.		

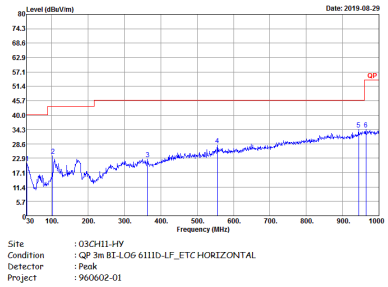
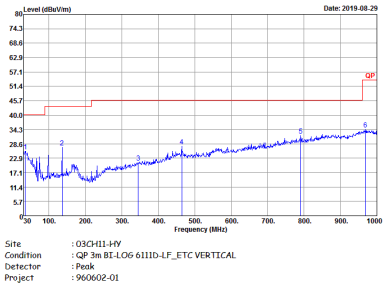
Band 3 5470~5725MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

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

Emission below 1GHz

5GHz WIFI 802.11n HT40 (LF)

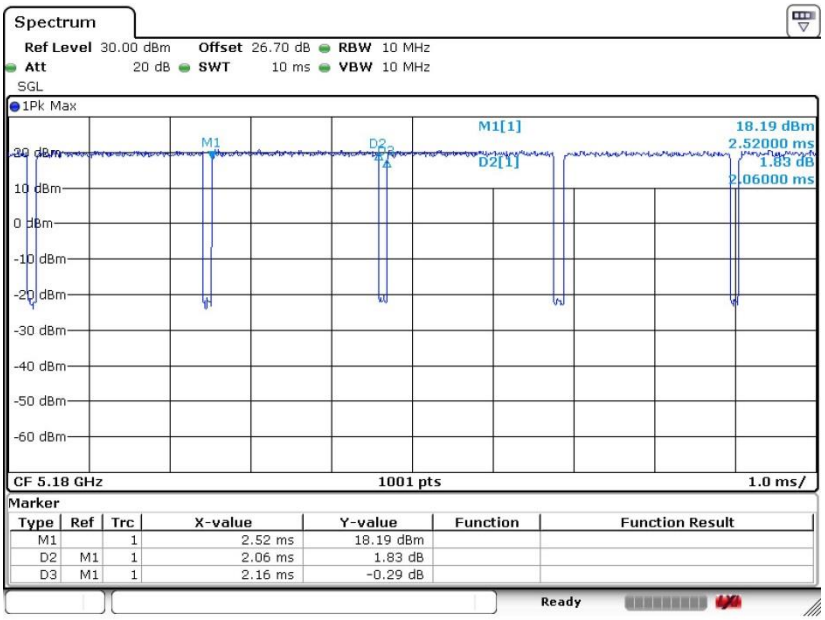
WIFI	5GHz WIFI	
ANT	802.11n HT40 LF	
1	Horizontal	Vertical
QP / Peak		

Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
1	802.11a	95.37	2060	0.49	1kHz	0.21
1	5GHz 802.11n HT20 for Ant. 1	94.58	1920	0.52	1kHz	0.24
1	5GHz 802.11n HT40 for Ant. 1	90.87	945	1.06	3kHz	0.42
1	5GHz 802.11ac VHT20 for Ant. 1	94.61	1930	0.52	1kHz	0.24
1	5GHz 802.11ac VHT40 for Ant. 1	90.05	950	1.05	3kHz	0.46
1	5GHz 802.11ac VHT80 for Ant. 1	88.55	735	1.36	3kHz	0.53

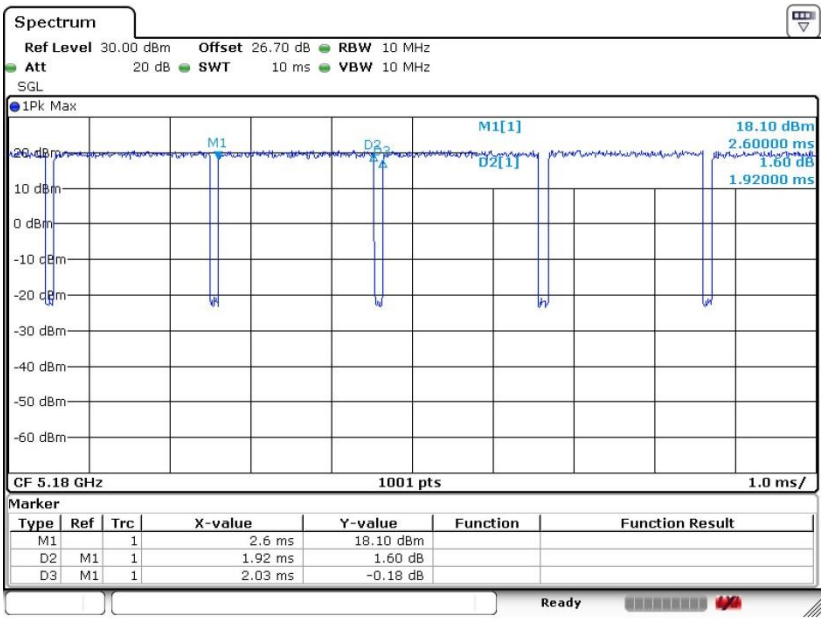
<Ant. 1>

802.11a



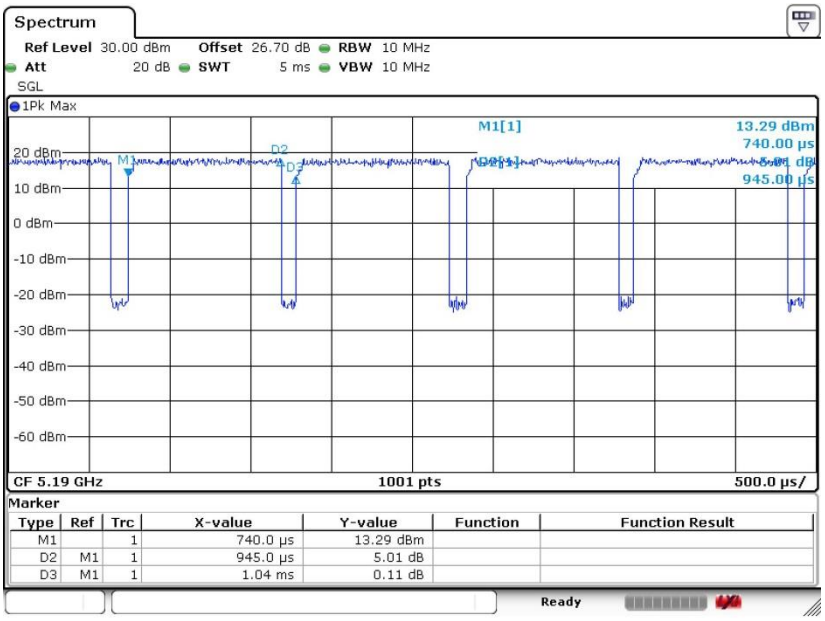
Date: 14.AUG.2019 14:40:12

802.11n HT20



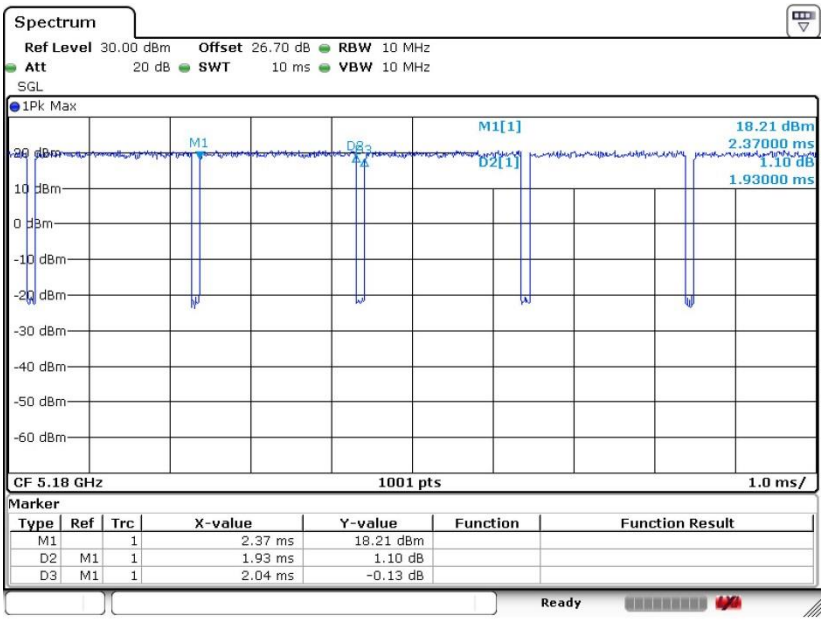
Date: 14.AUG.2019 14:42:50

802.11n HT40



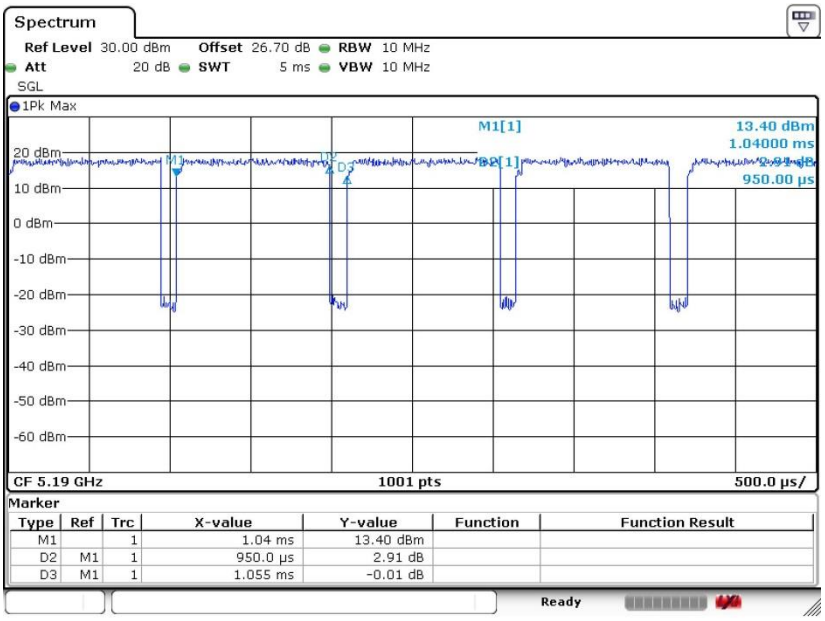
Date: 14.AUG.2019 14:51:39

802.11ac VHT20



Date: 14.AUG.2019 14:45:44

802.11ac VHT40



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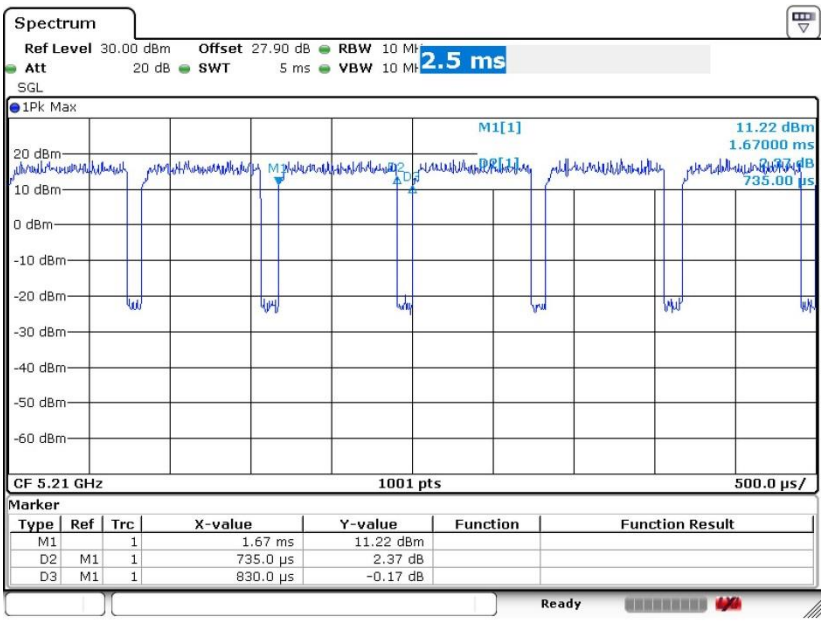
802.11ac VHT80



Date: 2.SEP.2019 22:21:45