FCC RF Test Report

APPLICANT	**:**	**Blancopage LLC**
EQUIPMENT	**:**	**Tablet PC**
MODEL NAME	**:**	**SX034QT**
FCC ID	**:**	**2AIP4-4639**
STANDARD	**:**	**FCC Part 15 Subpart E §15.407**
CLASSIFICATION	**:**	**(NII) Unlicensed National Information Infrastructure**

This is a variant report. The testing was completed on May 28, 2018. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager

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

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR671335-07	Rev. 01	Initial issue of report	Jun. 05, 2018
FR671335-07	Rev. 02	Revising the test procedures description for 99% OB in section 3.1.3 and test data in appendix a.	Jun. 13, 2018

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	2.1049 & 15.403(i)	26dB & 99% Bandwidth	-	Pass	-
3.2	15.407(a)	Maximum Conducted Output Power	≤ 24 dBm	Pass	-
3.3	15.407(a)	Power Spectral Density	≤ 11 dBm	Pass	-
3.4	15.407(b)	Unwanted Emissions	15.407(b) & 15.209(a)	Pass	Under limit 0.59 dB at 15780.000 MHz
-	15.207	AC Conducted Emission	15.207(a)	Not Required	-
3.5	15.407(c)	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.6	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass	-

Remark:

1. Not required means after assessing, test items are not necessary to carry out.
2. This is a variant report by adding WLAN Band 2 and Band 3. All the test cases were performed on original report which can be referred to Sporton Report Number FR671335-01. Based on the original report, the test cases were verified.

1 General Description

1.1 Applicant

Blancopage LLC

520 White Plains Road, Suite 500, Tarrytown, New York 1059

1.2 Product Feature of Equipment Under Test

Product Feature	
Equipment	Tablet PC
Model Name	SX034QT
FCC ID	2AIP4-4639
EUT supports Radios application	WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 Bluetooth BR/EDR/LE

1.3 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	5260 MHz ~ 5320 MHz 5500 MHz ~ 5720 MHz
Maximum Output Power to Antenna	**<5260 MHz ~ 5320 MHz>** 802.11a : 13.98 dBm / 0.025 W 802.11n HT20 : 13.99 dBm / 0.0251 W 802.11n HT40 : 13.99 dBm / 0.0251 W **<5500 MHz ~ 5720 MHz >** 802.11a : 13.99 dBm / 0.0251 W 802.11n HT20 : 13.64 dBm / 0.0231 W 802.11n HT40 : 13.91 dBm / 0.0246 W
99% Occupied Bandwidth	**<5260 MHz ~ 5320 MHz>** 802.11a : 17.40 MHz 802.11n HT20 : 18.15 MHz 802.11n HT40 : 36.30 MHz **<5500 MHz ~ 5720 MHz>** 802.11a : 17.55 MHz 802.11n HT20 : 18.20 MHz 802.11n HT40 : 36.30 MHz
Antenna Type / Gain	**<5260 MHz ~ 5320 MHz>** Fixed Internal Antenna with gain 2.08 dBi **<5500 MHz ~ 5720 MHz >** Fixed Internal Antenna with gain 1.93 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)

1.4 Modification of EUT

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

1.5 Testing Location

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

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

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

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

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

1.6 Applicable Standards

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

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

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.

2 Test Configuration of Equipment Under Test

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (X plane) were recorded in this report.

2.1 Carrier Frequency and Channel

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
	-	-		

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
	-	-	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
	-	-	128	5640

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
Straddle Channel	-	-	144	5720
	142*	5710		

Note: The above Frequency and Channel in "*" were 802.11n HT40.

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

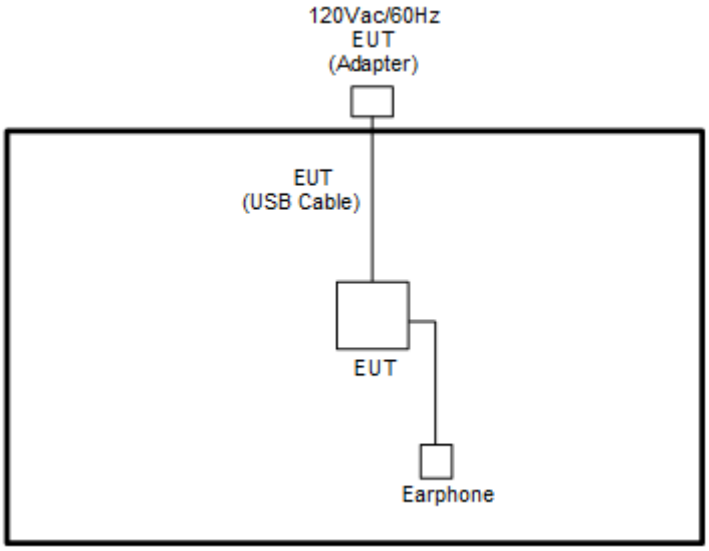
Ch. #		Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11a	802.11a
L	Low	52	100
M	Middle	60	116
H	High	64	140
Straddle		-	144

Ch. #		Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11n HT20	802.11n HT20
L	Low	52	100
M	Middle	60	116
H	High	64	140
Straddle		-	144

Ch. #		Band II：5250-5350 MHz	Band III：5470-5725MHz
		802.11n HT40	802.11n HT40
L	Low	54	102
M	Middle	-	110
H	High	62	134
Straddle		-	142

2.3 Connection Diagram of Test System

<WLAN Tx Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Earphone	N/A	N/A	Verification	Unshielded, 1.5m	N/A

2.5 EUT Operation Test Setup

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

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example :

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

Offset = RF cable loss + attenuator factor.

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

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

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

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

3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

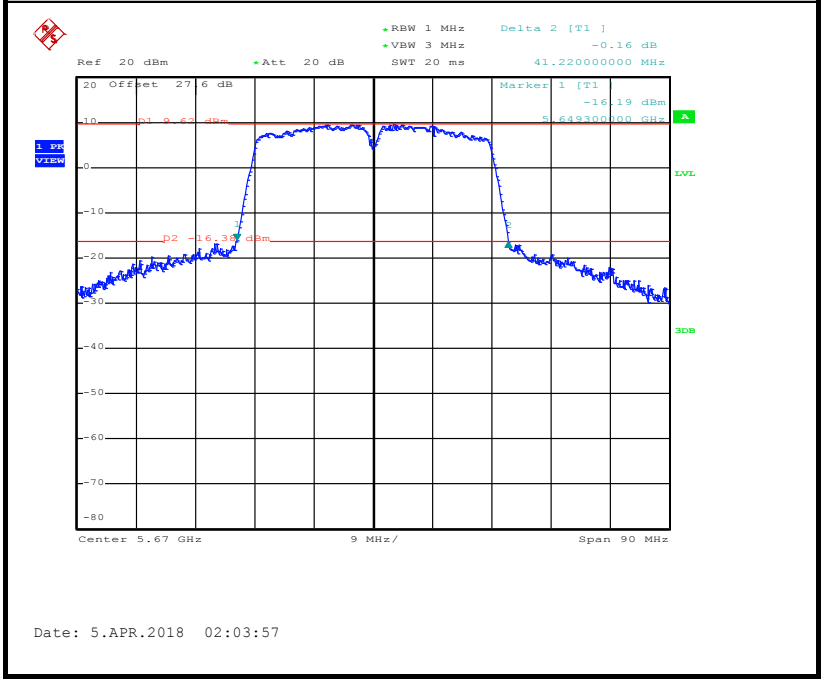
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01. Section C) Emission bandwidth
2. Set RBW = approximately 1% of the emission bandwidth.
3. Set the VBW > RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 26 dB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

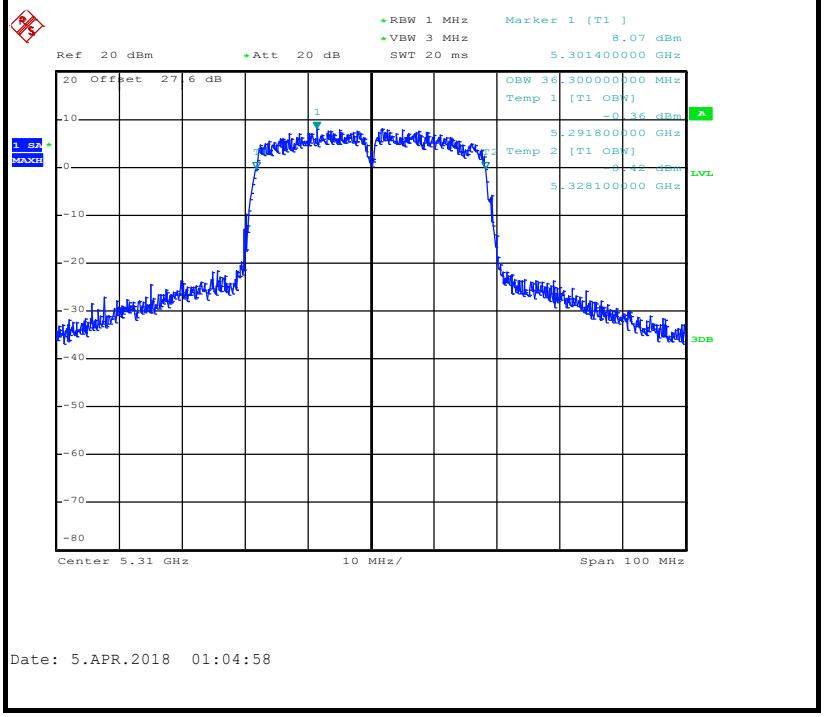
3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

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

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

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

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

3.2.2 Measuring Instruments

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

3.2.3 Test Procedures

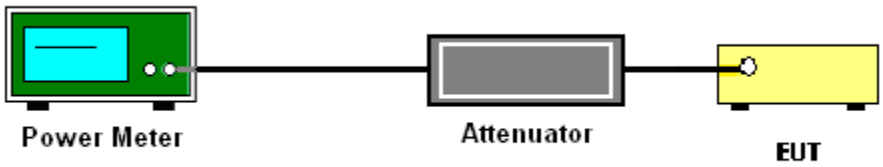
The testing follows Method PM of FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.

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

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

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

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

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

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

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

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

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

 # Method SA-2 #

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

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

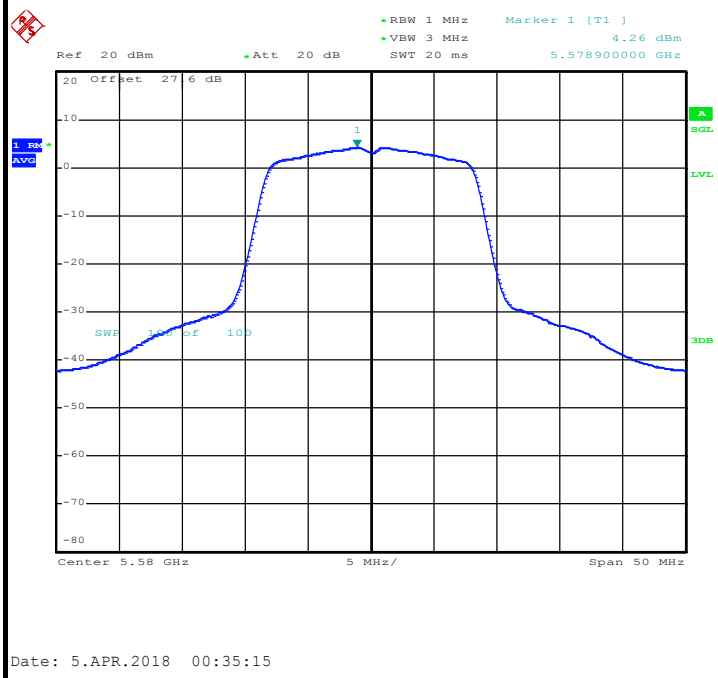
1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.

3.3.4 Test Setup

3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Worst Case Power Density (dBm/MHz)



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

3.4 Unwanted Emissions Measurement

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

3.4.1 Limit of Unwanted Emissions

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.

(1) Unwanted spurious emissions fallen in restricted bands shall comply with the general field strength limits as below table,

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

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

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

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

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

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

(ii) Section 15.407(b)(4) specifies the unwanted emission limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are in terms of a Peak detector. An alternative to the band emissions mask is specified in Section 15.407(b)(4)(ii). The alternative limits are based on the highest antenna gain specified in the filing. There are also marketing and importation restrictions for the devices using the alternative limit.[4]

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

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

3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

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

   (1) Procedure for Unwanted Emissions Measurements Below 1000MHz

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

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

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

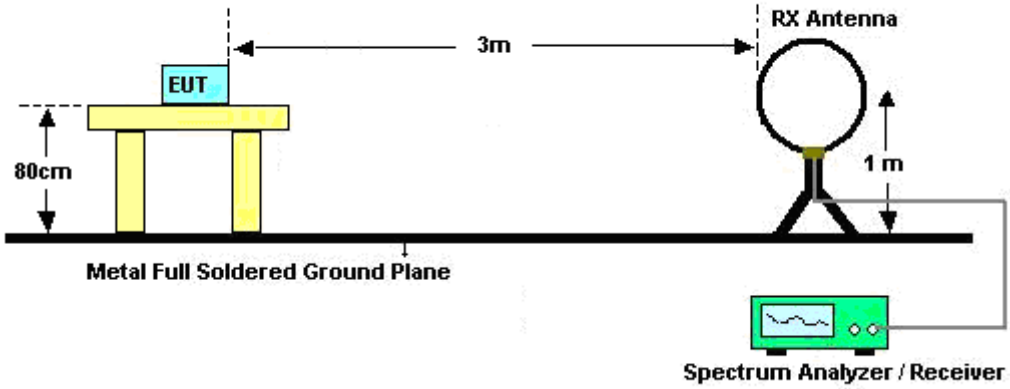
   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

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

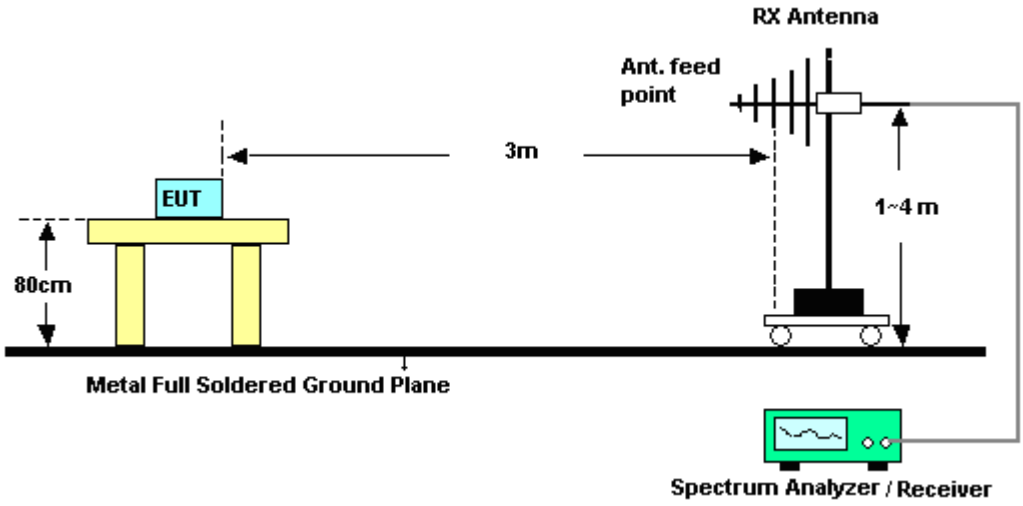
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

3.4.4 Test Setup

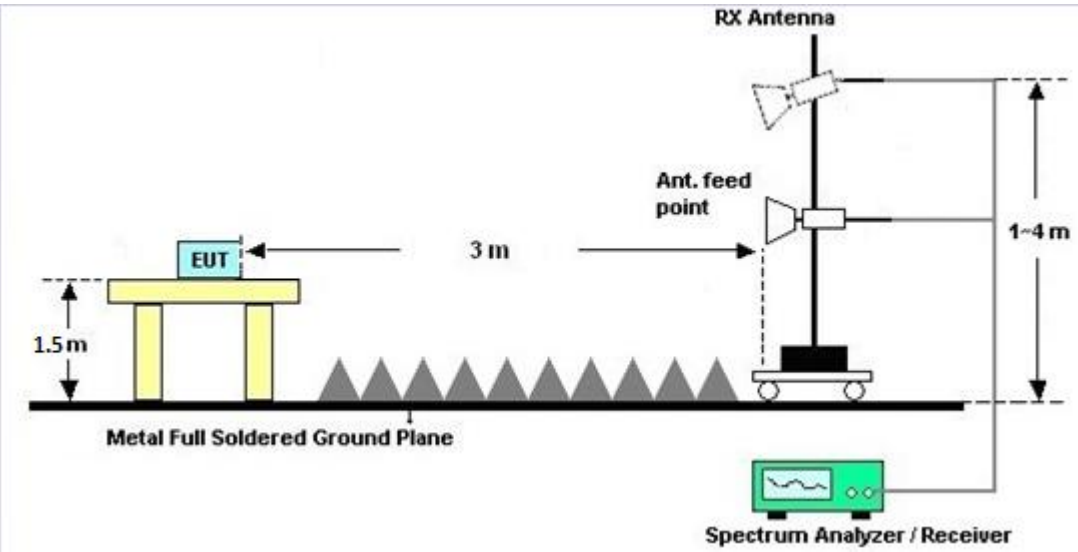
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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

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

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B and C.

3.4.7 Duty Cycle

Please refer to Appendix D.

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

Please refer to Appendix B and C.

3.5 Automatically Discontinue Transmission

3.5.1 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.

3.5.2 Measuring Instruments

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

3.5.3 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.

3.6 Antenna Requirements

3.6.1 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.

3.6.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.6.3 Antenna Gain

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

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	1240001	N/A	Sep. 07, 2017	Apr. 04, 2018 ~ May 25, 2018	Sep. 06, 2018	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1207349	300MHz~40GHz	Sep. 07, 2017	Apr. 04, 2018 ~ May 25, 2018	Sep. 06, 2018	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz~40GHz	Jun. 20, 2017	Apr. 04, 2018 ~ May 25, 2018	Jun. 19, 2018	Conducted (TH05-HY)
Switch Box & RF Cable	Burgeon	ETF-058	EC1300484	N/A	Mar. 01, 2018	Apr. 04, 2018 ~ May 25, 2018	Feb. 28, 2019	Conducted (TH05-HY)
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 18, 2017	May 01, 2018 ~ May 28, 2018	Jul. 17, 2018	Radiation (03CH11-HY)
Amplifier	SONOMA	310N	187312	9kHz~1GHz	Jan. 16, 2018	May 01, 2018 ~ May 28, 2018	Jan. 15, 2019	Radiation (03CH11-HY)
Bilog Antenna	TESEQ	CBL 6111D&N-6-06	35414&AT-N0602	30MHz~1GHz	Oct. 14, 2017	May 01, 2018 ~ May 28, 2018	Oct. 13, 2018	Radiation (03CH11-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1326	1GHz ~ 18GHz	Oct. 16, 2017	May 01, 2018 ~ May 28, 2018	Oct. 15, 2018	Radiation (03CH11-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Nov. 23, 2017	May 01, 2018 ~ May 28, 2018	Nov. 22, 2018	Radiation (03CH11-HY)
Preamplifier	Keysight	83017A	MY53270080	1GHz~26.5GHz	Jan. 16, 2018	May 01, 2018 ~ May 28, 2018	Jan. 15, 2020	Radiation (03CH11-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200486	10Hz ~ 44GHz	Oct. 19, 2017	May 01, 2018 ~ May 28, 2018	Oct. 18, 2018	Radiation (03CH11-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1~4m	N/A	May 01, 2018 ~ May 28, 2018	N/A	Radiation (03CH11-HY)
Turn Table	EMEC	TT 2000	N/A	0~360 Degree	N/A	May 01, 2018 ~ May 28, 2018	N/A	Radiation (03CH11-HY)
Preamplifier	MITEQ	AMF-7D-00101800-30-10P	1590074	1GHz~18GHz	May 22, 2017	May 01, 2018 ~ May 03, 2018	May 21, 2018	Radiation (03CH11-HY)
Preamplifier	Jet-Power	JPA0118-55-303K	1710001800054002	1GHz~18GHz	Apr. 17, 2018	May 28, 2018	Apr. 16, 2019	Radiation (03CH11-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 27, 2017	May 01, 2018 ~ May 28, 2018	Nov. 26, 2018	Radiation (03CH11-HY)
Software	Audix	E3 6.2009-8-24	RK-001042	N/A	N/A	May 01, 2018 ~ May 28, 2018	N/A	Radiation (03CH11-HY)

5 Uncertainty of Evaluation

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

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

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

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

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

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

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Lena Lo / Kai Liao	Temperature:	21~25	°C
Test Date:	2018/4/4~2018/5/25	Relative Humidity:	51~54	%

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	16.65	-	21.40	-	23.21	-	29.21	-	23.98	-	
11a	6Mbps	1	60	5300	16.60	-	21.10	-	23.20	-	29.20	-	23.98	-	
11a	6Mbps	1	64	5320	16.70	-	21.00	-	23.23	-	29.23	-	23.98	-	
HT20	MCS0	1	52	5260	17.70	-	21.40	-	23.48	-	29.48	-	23.98	-	
HT20	MCS0	1	60	5300	17.70	-	21.50	-	23.48	-	29.48	-	23.98	-	
HT20	MCS0	1	64	5320	17.70	-	21.40	-	23.48	-	29.48	-	23.98	-	
HT40	MCS0	1	54	5270	36.20	-	40.86	-	23.98	-	30.00	-	23.98	-	
HT40	MCS0	1	62	5310	36.30	-	40.68	-	23.98	-	30.00	-	23.98	-	

TEST RESULTS DATA
Average Power Table

FCC Band II															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	52	5260	0.00	-	13.72	-	-	23.98	-	2.08	-	26.99	Pass
11a	6Mbps	1	60	5300	0.00	-	13.98	-		23.98	-	2.08	-	26.99	Pass
11a	6Mbps	1	64	5320	0.00	-	13.94	-		23.98	-	2.08	-	26.99	Pass
HT20	MCS0	1	52	5260	0.00	-	13.59	-		23.98	-	2.08	-	26.99	Pass
HT20	MCS0	1	60	5300	0.00	-	13.98	-		23.98	-	2.08	-	26.99	Pass
HT20	MCS0	1	64	5320	0.00	-	13.99	-		23.98	-	2.08	-	26.99	Pass
HT40	MCS0	1	54	5270	0.00	-	13.83	-		23.98	-	2.08	-	26.99	Pass
HT40	MCS0	1	62	5310	0.00	-	13.99	-		23.98	-	2.08	-	26.99	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	0.00	-	3.72	-	-	11.00	-	2.08	-		Pass
11a	6Mbps	1	60	5300	0.00	-	4.08	-		11.00	-	2.08	-		Pass
11a	6Mbps	1	64	5320	0.00	-	3.97	-		11.00	-	2.08	-		Pass
HT20	MCS0	1	52	5260	0.00	-	3.61	-		11.00	-	2.08	-		Pass
HT20	MCS0	1	60	5300	0.00	-	3.80	-		11.00	-	2.08	-		Pass
HT20	MCS0	1	64	5320	0.00	-	3.71	-		11.00	-	2.08	-		Pass
HT40	MCS0	1	54	5270	0.00	-	0.29	-		11.00	-	2.08	-		Pass
HT40	MCS0	1	62	5310	0.00	-	0.41	-		11.00	-	2.08	-		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	16.60	-	21.20	-	23.20	-	29.20	-	23.98	-	----	----
11a	6Mbps	1	116	5580	16.75	-	21.40	-	23.24	-	29.24	-	23.98	-	----	----
11a	6Mbps	1	140	5700	16.60	-	21.30	-	23.20	-	29.20	-	23.98	-	----	----
11a	6Mbps	1	144	5720	13.35	-	15.60	-	22.25	-	28.25	-	22.93	-	3.15	----
HT20	MCS0	1	100	5500	17.60	-	21.30	-	23.46	-	29.46	-	23.98	-	----	----
HT20	MCS0	1	116	5580	17.70	-	21.50	-	23.48	-	29.48	-	23.98	-	----	----
HT20	MCS0	1	140	5700	17.70	-	21.70	-	23.48	-	29.48	-	23.98	-	----	----
HT20	MCS0	1	144	5720	13.85	-	15.90	-	22.41	-	28.41	-	23.01	-	3.8	----
HT40	MCS0	1	102	5510	36.20	-	40.68	-	23.98	-	30.00	-	23.98	-	----	----
HT40	MCS0	1	110	5550	36.20	-	40.86	-	23.98	-	30.00	-	23.98	-	----	----
HT40	MCS0	1	134	5670	36.30	-	41.22	-	23.98	-	30.00	-	23.98	-	----	----
HT40	MCS0	1	142	5710	33.20	-	39.03	-	23.98	-	30.00	-	23.98	-	3.09	----

TEST RESULTS DATA
Average Power Table

FCC Band III															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		EIRP Power Limit (dBm)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	100	5500	0.00	-	13.79	-		23.98	-	1.93	-	26.99	Pass
11a	6Mbps	1	116	5580	0.00	-	13.99	-		23.98	-	1.93	-	26.99	Pass
11a	6Mbps	1	140	5700	0.00	-	13.55	-		23.98	-	1.93	-	26.99	Pass
11a	6Mbps	1	144	5720	0.00	-	13.97	-		22.93	-	1.93	-	26.99	Pass
HT20	MCS0	1	100	5500	0.00	-	13.64	-		23.98	-	1.93	-	26.99	Pass
HT20	MCS0	1	116	5580	0.00	-	13.53	-		23.98	-	1.93	-	26.99	Pass
HT20	MCS0	1	140	5700	0.00	-	13.52	-	-	23.98	-	1.93	-	26.99	Pass
HT20	MCS0	1	144	5720	0.00	-	13.35	-		23.01	-	1.93	-	26.99	Pass
HT40	MCS0	1	102	5510	0.00	-	13.67	-		23.98	-	1.93	-	26.99	Pass
HT40	MCS0	1	110	5550	0.00	-	13.91	-		23.98	-	1.93	-	26.99	Pass
HT40	MCS0	1	134	5670	0.00	-	13.54	-		23.98	-	1.93	-	26.99	Pass
HT40	MCS0	1	142	5710	0.00	-	13.88	-		23.98	-	1.93	-	26.99	Pass

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

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	0.00	-	3.49	-		11.00	-	1.93	-		Pass
11a	6Mbps	1	116	5580	0.00	-	4.26	-		11.00	-	1.93	-		Pass
11a	6Mbps	1	140	5700	0.00	-	3.68	-		11.00	-	1.93	-		Pass
11a	6Mbps	1	144	5720	0.00	-	1.99	-		11.00	-	1.93	-		Pass
HT20	MCS0	1	100	5500	0.00	-	3.42	-		11.00	-	1.93	-		Pass
HT20	MCS0	1	116	5580	0.00	-	4.01	-		11.00	-	1.93	-		Pass
HT20	MCS0	1	140	5700	0.00	-	4.01	-	-	11.00	-	1.93	-		Pass
HT20	MCS0	1	144	5720	0.00	-	2.00	-		11.00	-	1.93	-		Pass
HT40	MCS0	1	102	5510	0.00	-	-0.07	-		11.00	-	1.93	-		Pass
HT40	MCS0	1	110	5550	0.00	-	0.50	-		11.00	-	1.93	-		Pass
HT40	MCS0	1	134	5670	0.00	-	1.02	-		11.00	-	1.93	-		Pass
HT40	MCS0	1	142	5710	0.00	-	-0.66	-		11.00	-	1.93	-		Pass

Appendix B. Radiated Spurious Emission

Test Engineer :	Hao Hsu, Lance Chiang, and Ken Wu	**Temperature :**	21~26°C
		Relative Humidity :	51~56%

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		5110.5	50.95	-23.05	74	43.24	31.72	9.03	33.04	109	119	P	H
		5107.44	41.17	-12.83	54	33.46	31.72	9.03	33.04	109	119	A	H
	*	5260	108.37	-	-	100.41	31.87	9.12	33.03	109	119	P	H
	*	5260	102.57	-	-	94.61	31.87	9.12	33.03	109	119	A	H
		5369.28	51.02	-22.98	74	42.88	31.97	9.2	33.03	109	119	P	H
		5350.56	42.79	-11.21	54	34.68	31.95	9.19	33.03	109	119	A	H
		5103.7	49.52	-24.48	74	41.85	31.7	9.01	33.04	396	347	P	V
		5107.44	40.28	-13.72	54	32.57	31.72	9.03	33.04	396	347	A	V
	*	5260	106.01	-	-	98.05	31.87	9.12	33.03	396	347	P	V
	*	5260	100.05	-	-	92.09	31.87	9.12	33.03	396	347	A	V
		5398.32	48.91	-25.09	74	40.71	32	9.22	33.02	396	347	P	V
		5412.72	39.75	-14.25	54	31.53	32.02	9.22	33.02	396	347	A	V
802.11a CH 60 5300MHz		5140.08	49.35	-24.65	74	41.58	31.75	9.05	33.03	100	121	P	H
		5147.56	41.19	-12.81	54	33.42	31.75	9.05	33.03	100	121	A	H
	*	5300	108.17	-	-	100.14	31.9	9.16	33.03	100	121	P	H
	*	5300	102.4	-	-	94.37	31.9	9.16	33.03	100	121	A	H
		5352.72	55.29	-18.71	74	47.18	31.95	9.19	33.03	100	121	P	H
		5380.08	45.51	-8.49	54	37.35	31.98	9.2	33.02	100	121	A	H
		5120.02	49.27	-24.73	74	41.55	31.72	9.03	33.03	330	348	P	V
		5147.9	40.68	-13.32	54	32.91	31.75	9.05	33.03	330	348	A	V
	*	5300	105.44	-	-	97.41	31.9	9.16	33.03	330	348	P	V
	*	5300	99.62	-	-	91.59	31.9	9.16	33.03	330	348	A	V
		5358.48	51.02	-22.98	74	42.91	31.95	9.19	33.03	330	348	P	V
		5350.08	42.59	-11.41	54	34.48	31.95	9.19	33.03	330	348	A	V

802.11a CH 64 5320MHz	*	5320	108.25	-	-	100.19	31.92	9.17	33.03	100	116	P	H
	*	5320	102.25	-	-	94.19	31.92	9.17	33.03	100	116	A	H
		5392.96	53.35	-20.65	74	45.17	31.98	9.22	33.02	100	116	P	H
		5350.08	44.8	-9.2	54	36.69	31.95	9.19	33.03	100	116	A	H
	*	5320	105.24	-	-	97.18	31.92	9.17	33.03	327	348	P	V
	*	5320	97.69	-	-	89.63	31.92	9.17	33.03	327	348	A	V
		5353.28	51.31	-22.69	74	43.2	31.95	9.19	33.03	327	348	P	V
		5350.08	42.18	-11.82	54	34.07	31.95	9.19	33.03	327	348	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11a (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	46.99	-27.01	74	49.22	39.71	15.05	56.99	100	0	P	H
		15780	62.66	-11.34	74	63.2	37.33	18.46	56.33	100	127	P	H
		15780	50.57	-3.43	54	51.11	37.33	18.46	56.33	100	127	A	H
		10520	48.05	-25.95	74	50.28	39.71	15.05	56.99	100	0	P	V
		15780	63.98	-10.02	74	64.52	37.33	18.46	56.33	100	115	P	V
		15780	52.71	-1.29	54	53.25	37.33	18.46	56.33	100	115	A	V
802.11a CH 60 5300MHz		10600	45.15	-28.85	74	47.18	39.78	15.11	56.92	100	0	P	H
		15900	61.98	-12.02	74	62.72	36.99	18.53	56.26	100	130	P	H
		15900	50.62	-3.38	54	51.36	36.99	18.53	56.26	100	130	A	H
		10600	45.1	-28.9	74	47.13	39.78	15.11	56.92	100	0	P	V
		15900	61.77	-12.23	74	62.51	36.99	18.53	56.26	100	117	P	V
		15900	50.48	-3.52	54	51.22	36.99	18.53	56.26	100	117	A	V
802.11a CH 64 5320MHz		10640	45.73	-28.27	74	47.69	39.81	15.12	56.89	100	0	P	H
		15960	61.02	-12.98	74	61.88	36.8	18.56	56.22	101	121	P	H
		15960	49.07	-4.93	54	49.93	36.8	18.56	56.22	101	121	A	H
		10640	47.63	-26.37	74	49.59	39.81	15.12	56.89	100	0	P	V
		15960	61.27	-12.73	74	62.13	36.8	18.56	56.22	106	119	P	V
		15960	49.11	-4.89	54	49.97	36.8	18.56	56.22	106	119	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 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)
		5103.36	51.27	-22.73	74	43.6	31.7	9.01	33.04	112	117	P	H
		5108.12	41.01	-12.99	54	33.3	31.72	9.03	33.04	112	117	A	H
	*	5260	107.94	-	-	99.98	31.87	9.12	33.03	112	117	P	H
	*	5260	101.98	-	-	94.02	31.87	9.12	33.03	112	117	A	H
802.11n		5353.44	50.6	-23.4	74	42.49	31.95	9.19	33.03	112	117	P	H
HT20		5350.08	42.64	-11.36	54	34.53	31.95	9.19	33.03	112	117	A	H
CH 52		5126.48	48.66	-25.34	74	40.93	31.73	9.03	33.03	376	346	P	V
5260MHz		5108.46	40.42	-13.58	54	32.71	31.72	9.03	33.04	376	346	A	V
	*	5260	105.2	-	-	97.24	31.87	9.12	33.03	376	346	P	V
	*	5260	99.08	-	-	91.12	31.87	9.12	33.03	376	346	A	V
		5402.88	50.16	-23.84	74	41.96	32	9.22	33.02	376	346	P	V
		5352	40	-14	54	31.89	31.95	9.19	33.03	376	346	A	V
		5088.4	50.88	-23.12	74	43.23	31.68	9.01	33.04	101	117	P	H
		5148.24	41.13	-12.87	54	33.36	31.75	9.05	33.03	101	117	A	H
	*	5300	108.27	-	-	100.24	31.9	9.16	33.03	101	117	P	H
	*	5300	100.97	-	-	92.94	31.9	9.16	33.03	101	117	A	H
802.11n		5350.08	53.86	-20.14	74	45.75	31.95	9.19	33.03	101	117	P	H
HT20		5380.08	46.06	-7.94	54	37.9	31.98	9.2	33.02	101	117	A	H
CH 60		5149.6	49.29	-24.71	74	41.52	31.75	9.05	33.03	372	341	P	V
5300MHz		5148.58	40.42	-13.58	54	32.65	31.75	9.05	33.03	372	341	A	V
	*	5300	105.14	-	-	97.11	31.9	9.16	33.03	372	341	P	V
	*	5300	97.82	-	-	89.79	31.9	9.16	33.03	372	341	A	V
		5356.32	51.11	-22.89	74	43	31.95	9.19	33.03	372	341	P	V
		5350.56	42.15	-11.85	54	34.04	31.95	9.19	33.03	372	341	A	V

802.11n HT20 CH 64 5320MHz	*	5320	108.83	-	-	100.77	31.92	9.17	33.03	113	115	P	H
	*	5320	101.47	-	-	93.41	31.92	9.17	33.03	113	115	A	H
		5364	55.24	-18.76	74	47.11	31.97	9.19	33.03	113	115	P	H
		5350.08	46.46	-7.54	54	38.35	31.95	9.19	33.03	113	115	A	H
	*	5320	106.34	-	-	98.28	31.92	9.17	33.03	370	339	P	V
	*	5320	99.1	-	-	91.04	31.92	9.17	33.03	370	339	A	V
		5399.52	52.44	-21.56	74	44.24	32	9.22	33.02	370	339	P	V
		5350.08	43.92	-10.08	54	35.81	31.95	9.19	33.03	370	339	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 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)
802.11n HT20 CH 52 5260MHz		10520	48.55	-25.45	74	50.78	39.71	15.05	56.99	100	0	P	H
		15780	66.13	-7.87	74	66.67	37.33	18.46	56.33	100	121	P	H
		15780	52.82	-1.18	54	53.36	37.33	18.46	56.33	100	121	A	H
		10520	48.41	-25.59	74	50.64	39.71	15.05	56.99	100	0	P	V
		15780	67.52	-6.48	74	68.06	37.33	18.46	56.33	100	120	P	V
		15780	53.41	-0.59	54	53.95	37.33	18.46	56.33	100	120	A	V
802.11n HT20 CH 60 5300MHz		10600	45.98	-28.02	74	48.01	39.78	15.11	56.92	100	0	P	H
		15900	66.88	-7.12	74	67.62	36.99	18.53	56.26	100	127	P	H
		15900	52.15	-1.85	54	52.89	36.99	18.53	56.26	100	127	A	H
		10600	45.55	-28.45	74	47.58	39.78	15.11	56.92	100	0	P	V
		15900	66.5	-7.5	74	67.24	36.99	18.53	56.26	106	116	P	V
		15900	52.15	-1.85	54	52.89	36.99	18.53	56.26	106	116	A	V
802.11n HT20 CH 64 5320MHz		10640	45.89	-28.11	74	47.85	39.81	15.12	56.89	100	0	P	H
		15960	64.41	-9.59	74	65.27	36.8	18.56	56.22	100	133	P	H
		15960	50.54	-3.46	54	51.4	36.8	18.56	56.22	100	133	A	H
		10640	45.99	-28.01	74	47.95	39.81	15.12	56.89	100	0	P	V
		15960	63.48	-10.52	74	64.34	36.8	18.56	56.22	100	118	P	V
		15960	50.03	-3.97	54	50.89	36.8	18.56	56.22	100	118	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 (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		5042.16	49.64	-24.36	74	42.06	31.65	8.97	33.04	104	118	P	H
		5123.42	41.2	-12.8	54	33.47	31.73	9.03	33.03	104	118	A	H
	*	5270	105.24	-	-	97.26	31.87	9.14	33.03	104	118	P	H
	*	5270	97.72	-	-	89.74	31.87	9.14	33.03	104	118	A	H
		5356.32	52.06	-21.94	74	43.95	31.95	9.19	33.03	104	118	P	H
		5350.08	43.36	-10.64	54	35.25	31.95	9.19	33.03	104	118	A	H
		5026.18	49.72	-24.28	74	42.18	31.63	8.95	33.04	373	341	P	V
		5123.42	40.36	-13.64	54	32.63	31.73	9.03	33.03	373	341	A	V
	*	5270	102.8	-	-	94.82	31.87	9.14	33.03	373	341	P	V
	*	5270	95.08	-	-	87.1	31.87	9.14	33.03	373	341	A	V
		5358	49.87	-24.13	74	41.76	31.95	9.19	33.03	373	341	P	V
		5350.32	40.69	-13.31	54	32.58	31.95	9.19	33.03	373	341	A	V
802.11n HT40 CH 62 5310MHz		5004.08	49.22	-24.78	74	41.69	31.62	8.95	33.04	103	118	P	H
		5140.42	40.41	-13.59	54	32.64	31.75	9.05	33.03	103	118	A	H
	*	5310	105.53	-	-	97.48	31.92	9.16	33.03	103	118	P	H
	*	5310	97.78	-	-	89.73	31.92	9.16	33.03	103	118	A	H
		5354.88	61.08	-12.92	74	52.97	31.95	9.19	33.03	103	118	P	H
		5350.08	53.11	-0.89	54	45	31.95	9.19	33.03	103	118	A	H
		5112.88	50.19	-23.81	74	42.48	31.72	9.03	33.04	370	340	P	V
		5140.42	40.02	-13.98	54	32.25	31.75	9.05	33.03	370	340	A	V
	*	5310	102.58	-	-	94.53	31.92	9.16	33.03	370	340	P	V
	*	5310	95.01	-	-	86.96	31.92	9.16	33.03	370	340	A	V
		5352.48	56.18	-17.82	74	48.07	31.95	9.19	33.03	370	340	P	V
		5350.08	49.45	-4.55	54	41.34	31.95	9.19	33.03	370	340	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)
802.11n HT40 CH 54 5270MHz		10540	46.01	-27.99	74	48.18	39.73	15.07	56.97	100	0	P	H
		15810	59.99	-14.01	74	60.58	37.23	18.49	56.31	100	128	P	H
		15810	50.01	-3.99	54	50.6	37.23	18.49	56.31	100	128	A	H
		10540	45.72	-28.28	74	47.89	39.73	15.07	56.97	100	0	P	V
		15810	60.36	-13.64	74	60.95	37.23	18.49	56.31	104	120	P	V
		15810	50.14	-3.86	54	50.73	37.23	18.49	56.31	104	120	A	V
802.11n HT40 CH 62 5310MHz		10620	46.05	-27.95	74	48.04	39.8	15.11	56.9	100	0	P	H
		15930	60.93	-13.07	74	61.73	36.89	18.55	56.24	100	131	P	H
		15930	49.75	-4.25	54	50.55	36.89	18.55	56.24	100	131	A	H
		10620	46.58	-27.42	74	48.57	39.8	15.11	56.9	100	0	P	V
		15930	60.06	-13.94	74	60.86	36.89	18.55	56.24	109	119	P	V
		15930	49.08	-4.92	54	49.88	36.89	18.55	56.24	109	119	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	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		5421.2	53.08	-20.92	74	44.82	32.02	9.26	33.02	103	119	P	H
		5469.36	53.17	-15.03	68.2	44.83	32.07	9.29	33.02	103	119	P	H
		5459.92	43.56	-10.44	54	35.24	32.05	9.29	33.02	103	119	A	H
	*	5500	104.71	-	-	96.26	32.1	9.37	33.02	103	119	P	H
	*	5500	99.13	-	-	90.68	32.1	9.37	33.02	103	119	A	H
		5447.92	50.07	-23.93	74	41.75	32.05	9.29	33.02	342	351	P	V
		5467.12	50.59	-17.61	68.2	42.25	32.07	9.29	33.02	342	351	P	V
		5459.6	41.16	-12.84	54	32.84	32.05	9.29	33.02	342	351	A	V
	*	5500	102.32	-	-	93.87	32.1	9.37	33.02	342	351	P	V
	*	5500	96.68	-	-	88.23	32.1	9.37	33.02	342	351	A	V
802.11a CH 116 5580MHz		5455.12	48.4	-25.6	74	40.08	32.05	9.29	33.02	103	118	P	H
		5462.08	49.53	-18.67	68.2	41.21	32.05	9.29	33.02	103	118	P	H
		5427.76	40.31	-13.69	54	32.05	32.02	9.26	33.02	103	118	A	H
	*	5580	106.1	-	-	97.47	32.22	9.48	33.07	103	118	P	H
	*	5580	98.79	-	-	90.16	32.22	9.48	33.07	103	118	A	H
		5725.94	49.88	-18.32	68.2	40.7	32.5	9.81	33.13	103	118	P	H
		5377.84	49.31	-24.69	74	41.15	31.98	9.2	33.02	326	357	P	V
		5465.92	48.5	-19.7	68.2	40.16	32.07	9.29	33.02	326	357	P	V
		5427.52	39.82	-14.18	54	31.56	32.02	9.26	33.02	326	357	A	V
	*	5580	104.72	-	-	96.09	32.22	9.48	33.07	326	357	P	V
	*	5580	97.57	-	-	88.94	32.22	9.48	33.07	326	357	A	V
		5733.185	50.8	-17.4	68.2	41.57	32.5	9.88	33.15	326	357	P	V

802.11a CH 140 5700MHz	*	5700	109.46	-	-	100.39	32.44	9.75	33.12	102	113	P	H
	*	5700	102.22	-	-	93.15	32.44	9.75	33.12	102	113	A	H
		5729.24	62.17	-6.03	68.2	52.99	32.5	9.81	33.13	102	113	P	H
	*	5700	106.8	-	-	97.73	32.44	9.75	33.12	353	350	P	V
	*	5700	99.52	-	-	90.45	32.44	9.75	33.12	353	350	A	V
		5725.08	61.41	-6.79	68.2	52.23	32.5	9.81	33.13	353	350	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (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	46.69	-27.31	74	47.81	40.1	15.38	56.6	100	0	P	H
		16500	50.66	-17.54	68.2	48.82	38.5	19.04	55.7	100	0	P	H
		11000	47.32	-26.68	74	48.44	40.1	15.38	56.6	100	0	P	V
		16500	47.09	-21.11	68.2	45.25	38.5	19.04	55.7	100	0	P	V
802.11a CH 116 5580MHz		11160	48.73	-25.27	74	49.7	40.07	15.49	56.53	100	0	P	H
		16740	52.08	-16.12	68.2	49.55	39.08	19.25	55.8	100	0	P	H
		11160	49.12	-24.88	74	50.09	40.07	15.49	56.53	100	0	P	V
		16740	54.33	-13.87	68.2	51.8	39.08	19.25	55.8	100	0	P	V
802.11a CH 140 5700MHz		11400	47.41	-26.59	74	48.17	40.02	15.66	56.44	100	0	P	H
		17100	58.98	-9.22	68.2	55.45	40.06	19.53	56.06	100	0	P	H
		11400	47.62	-26.38	74	48.38	40.02	15.66	56.44	100	0	P	V
		17100	59	-9.2	68.2	55.47	40.06	19.53	56.06	100	0	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 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)
		5457.2	53.02	-20.98	74	44.7	32.05	9.29	33.02	100	117	P	H
		5467.92	54.74	-13.46	68.2	46.4	32.07	9.29	33.02	100	117	P	H
		5460	44.74	-9.26	54	36.42	32.05	9.29	33.02	100	117	A	H
802.11n	*	5500	105.69	-	-	97.24	32.1	9.37	33.02	100	117	P	H
HT20	*	5500	98.36	-	-	89.91	32.1	9.37	33.02	100	117	A	H
CH 100		5451.28	50.5	-23.5	74	42.18	32.05	9.29	33.02	342	349	P	V
5500MHz		5467.6	52.21	-15.99	68.2	43.87	32.07	9.29	33.02	342	349	P	V
		5459.28	41.81	-12.19	54	33.49	32.05	9.29	33.02	342	349	A	V
	*	5500	102.69	-	-	94.24	32.1	9.37	33.02	342	349	P	V
	*	5500	95.33	-	-	86.88	32.1	9.37	33.02	342	349	A	V
		5459.44	51.21	-22.79	74	42.89	32.05	9.29	33.02	100	115	P	H
		5468.56	49.52	-18.68	68.2	41.18	32.07	9.29	33.02	100	115	P	H
		5428.48	41.3	-12.7	54	33.04	32.02	9.26	33.02	100	115	A	H
	*	5580	108.38	-	-	99.75	32.22	9.48	33.07	100	115	P	H
802.11n	*	5580	101.05	-	-	92.42	32.22	9.48	33.07	100	115	A	H
HT20		5755.865	51.17	-17.03	68.2	41.88	32.57	9.88	33.16	100	115	P	H
CH 116		5433.76	48.93	-25.07	74	40.66	32.03	9.26	33.02	354	343	P	V
5580MHz		5469.52	49.79	-18.41	68.2	41.45	32.07	9.29	33.02	354	343	P	V
		5428.24	40.04	-13.96	54	31.78	32.02	9.26	33.02	354	343	A	V
	*	5580	105.86	-	-	97.23	32.22	9.48	33.07	354	343	P	V
	*	5580	98.57	-	-	89.94	32.22	9.48	33.07	354	343	A	V
		5742.95	50.72	-17.48	68.2	41.46	32.53	9.88	33.15	354	343	P	V

802.11n HT20 CH 140 5700MHz	*	5700	109.69	-	-	100.62	32.44	9.75	33.12	103	114	P	H
	*	5700	102.5	-	-	93.43	32.44	9.75	33.12	103	114	A	H
		5725.08	63.61	-4.59	68.2	54.43	32.5	9.81	33.13	103	114	P	H
	*	5700	107.11	-	-	98.04	32.44	9.75	33.12	336	348	P	V
	*	5700	99.78	-	-	90.71	32.44	9.75	33.12	336	348	A	V
		5725.4	60.76	-7.44	68.2	51.58	32.5	9.81	33.13	336	348	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 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)
802.11n		11000	46.27	-27.73	74	47.39	40.1	15.38	56.6	100	0	P	H
HT20		16500	49.69	-18.51	68.2	47.85	38.5	19.04	55.7	100	0	P	H
CH 100		11000	45.64	-28.36	74	46.76	40.1	15.38	56.6	100	0	P	V
5500MHz		16500	47.63	-20.57	68.2	45.79	38.5	19.04	55.7	100	0	P	V
802.11n		11160	47.35	-26.65	74	48.32	40.07	15.49	56.53	100	0	P	H
HT20		16740	51.94	-16.26	68.2	49.41	39.08	19.25	55.8	100	0	P	H
CH 116		11160	48.54	-25.46	74	49.51	40.07	15.49	56.53	100	0	P	V
5580MHz		16740	50.57	-17.63	68.2	48.04	39.08	19.25	55.8	100	0	P	V
802.11n		11400	46.12	-27.88	74	46.88	40.02	15.66	56.44	100	0	P	H
HT20		17100	58.92	-9.28	68.2	55.39	40.06	19.53	56.06	100	0	P	H
CH 140		11400	48.01	-25.99	74	48.77	40.02	15.66	56.44	100	0	P	V
5700MHz		17100	58.54	-9.66	68.2	55.01	40.06	19.53	56.06	100	0	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 (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)
		5455.36	54.22	-19.78	74	45.9	32.05	9.29	33.02	103	113	P	H
		5469.76	62.12	-6.08	68.2	53.78	32.07	9.29	33.02	103	113	P	H
		5459.92	46.41	-7.59	54	38.09	32.05	9.29	33.02	103	113	A	H
	*	5510	103.17	-	-	94.73	32.1	9.37	33.03	103	113	P	H
802.11n	*	5510	95.48	-	-	87.04	32.1	9.37	33.03	103	113	A	H
HT40		5757.755	50.44	-17.76	68.2	41.08	32.57	9.95	33.16	103	113	P	H
CH 102		5459.92	52.42	-21.58	74	44.1	32.05	9.29	33.02	339	349	P	V
5510MHz		5470	56.91	-11.29	68.2	48.57	32.07	9.29	33.02	339	349	P	V
		5459.92	43.25	-10.75	54	34.93	32.05	9.29	33.02	339	349	A	V
	*	5510	100.34	-	-	91.9	32.1	9.37	33.03	339	349	P	V
	*	5510	92.45	-	-	84.01	32.1	9.37	33.03	339	349	A	V
		5751.455	49.93	-18.27	68.2	40.67	32.53	9.88	33.15	339	349	P	V
		5404	50.6	-23.4	74	42.4	32	9.22	33.02	123	111	P	H
		5467.6	50.11	-18.09	68.2	41.77	32.07	9.29	33.02	123	111	P	H
		5459.68	41.4	-12.6	54	33.08	32.05	9.29	33.02	123	111	A	H
	*	5550	105.38	-	-	96.8	32.19	9.44	33.05	123	111	P	H
802.11n	*	5550	97.26	-	-	88.68	32.19	9.44	33.05	123	111	A	H
HT40		5757.44	50.53	-17.67	68.2	41.17	32.57	9.95	33.16	123	111	P	H
CH 110		5407.36	48.73	-25.27	74	40.53	32	9.22	33.02	339	341	P	V
5550MHz		5465.92	49.78	-18.42	68.2	41.44	32.07	9.29	33.02	339	341	P	V
		5459.44	40.09	-13.91	54	31.77	32.05	9.29	33.02	339	341	A	V
	*	5550	103.21	-	-	94.63	32.19	9.44	33.05	339	341	P	V
	*	5550	94.99	-	-	86.41	32.19	9.44	33.05	339	341	A	V
		5755.865	49.86	-18.34	68.2	40.57	32.57	9.88	33.16	339	341	P	V

		5371.35	48.2	-25.8	74	40.06	31.97	9.2	33.03	106	112	P	H
		5460.25	47.86	-20.34	68.2	39.54	32.05	9.29	33.02	106	112	P	H
		5459.2	39.51	-14.49	54	31.19	32.05	9.29	33.02	106	112	A	H
	*	5670	107.2	-	-	98.22	32.41	9.68	33.11	106	112	P	H
802.11n	*	5670	98.92	-	-	89.94	32.41	9.68	33.11	106	112	A	H
HT40		5728.25	59.64	-8.56	68.2	50.46	32.5	9.81	33.13	106	112	P	H
CH 134		5404.95	48.37	-25.63	74	40.17	32	9.22	33.02	343	342	P	V
5670MHz		5467.6	48.29	-19.91	68.2	39.95	32.07	9.29	33.02	343	342	P	V
		5459.55	39.12	-14.88	54	30.8	32.05	9.29	33.02	343	342	A	V
	*	5670	104.55	-	-	95.57	32.41	9.68	33.11	343	342	P	V
	*	5670	96.49	-	-	87.51	32.41	9.68	33.11	343	342	A	V
		5729.65	53.4	-14.8	68.2	44.22	32.5	9.81	33.13	343	342	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)
802.11n		11020	46.44	-27.56	74	47.53	40.1	15.4	56.59	100	0	P	H
HT40		16530	46.32	-21.88	68.2	44.39	38.58	19.06	55.71	100	0	P	H
CH 102		11020	47.36	-26.64	74	48.45	40.1	15.4	56.59	100	0	P	V
5510MHz		16530	44.66	-23.54	68.2	42.73	38.58	19.06	55.71	100	0	P	V
802.11n		11100	45.92	-28.08	74	46.95	40.08	15.45	56.56	100	0	P	H
HT40		16650	48.55	-19.65	68.2	46.27	38.87	19.17	55.76	100	0	P	H
CH 110		11100	46.19	-27.81	74	47.22	40.08	15.45	56.56	100	0	P	V
5550MHz		16650	46.86	-21.34	68.2	44.58	38.87	19.17	55.76	100	0	P	V
802.11n		11340	46.63	-27.37	74	47.45	40.03	15.62	56.47	100	0	P	H
HT40		17010	52.18	-16.02	68.2	48.87	39.76	19.48	55.93	100	0	P	H
CH 134		11340	45.95	-28.05	74	46.77	40.03	15.62	56.47	100	0	P	V
5670MHz		17010	53.38	-14.82	68.2	50.07	39.76	19.48	55.93	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11a (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 144 5720MHz		5434.24	49.06	-24.94	74	40.79	32.03	9.26	33.02	102	112	P	H
		5464.66	48.97	-19.23	68.2	40.63	32.07	9.29	33.02	102	112	P	H
		5458.03	39.3	-14.7	54	30.98	32.05	9.29	33.02	102	112	A	H
	*	5720	108.97	-	-	99.79	32.5	9.81	33.13	102	112	P	H
	*	5720	102.87	-	-	93.69	32.5	9.81	33.13	102	112	A	H
		5854.5	52.73	-15.47	68.2	43.15	32.75	10.02	33.19	102	112	P	H
		5443.6	49.62	-24.38	74	41.35	32.03	9.26	33.02	400	334	P	V
		5460.37	47.3	-20.9	68.2	38.98	32.05	9.29	33.02	400	334	P	V
		5459.59	39.14	-14.86	54	30.82	32.05	9.29	33.02	400	334	A	V
	*	5720	107.4	-	-	98.22	32.5	9.81	33.13	400	334	P	V
	*	5720	100.07	-	-	90.89	32.5	9.81	33.13	400	334	A	V
		5887.75	52.09	-16.11	68.2	42.48	32.81	10.02	33.22	400	334	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 144 5720MHz		11440	46.08	-27.92	74	51.98	40.01	15.68	61.59	100	0	P	H
		17160	62.65	-5.55	68.2	58.72	40.3	19.56	55.93	236	135	P	H
		17160	52.58	-1.42	54	48.65	40.3	19.56	55.93	236	135	A	H
		11440	47.04	-26.96	74	52.94	40.01	15.68	61.59	100	0	P	V
		17160	60.33	-7.87	68.2	56.4	40.3	19.56	55.93	104	97	P	V
		17160	50.14	-3.86	54	46.21	40.3	19.56	55.93	104	97	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

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)
802.11n HT20 CH 144 5720MHz		5441.65	49.09	-24.91	74	40.82	32.03	9.26	33.02	104	113	P	H
		5469.73	49.02	-19.18	68.2	40.68	32.07	9.29	33.02	104	113	P	H
		5459.2	39.38	-14.62	54	31.06	32.05	9.29	33.02	104	113	A	H
	*	5720	108.89	-	-	99.71	32.5	9.81	33.13	104	113	P	H
	*	5720	102.77	-	-	93.59	32.5	9.81	33.13	104	113	A	H
		5873.75	52.36	-15.84	68.2	42.77	32.78	10.02	33.21	104	113	P	H
		5392.12	48.93	-25.07	74	40.77	31.98	9.2	33.02	379	338	P	V
		5461.93	49.8	-18.4	68.2	41.48	32.05	9.29	33.02	379	338	P	V
		5459.98	39.14	-14.86	54	30.82	32.05	9.29	33.02	379	338	A	V
	*	5720	108	-	-	98.82	32.5	9.81	33.13	379	338	P	V
	*	5720	101.9	-	-	92.72	32.5	9.81	33.13	379	338	A	V
		5877.5	53.12	-15.08	68.2	43.53	32.78	10.02	33.21	379	338	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n 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)
802.11n HT20 CH 144 5720MHz		11440	45.21	-28.79	74	51.11	40.01	15.68	61.59	100	0	P	H
		17160	64.65	-3.55	68.2	60.72	40.3	19.56	55.93	233	134	P	H
		17160	52.2	-1.8	54	48.27	40.3	19.56	55.93	233	134	A	H
		11440	48.47	-25.53	74	54.37	40.01	15.68	61.59	100	0	P	V
		17160	61.03	-7.17	68.2	57.1	40.3	19.56	55.93	103	94	P	V
		17160	48.87	-5.13	54	44.94	40.3	19.56	55.93	103	94	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

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 142 5710MHz		5431.51	49.61	-24.39	74	41.34	32.03	9.26	33.02	110	110	P	H
		5469.73	49.06	-19.14	68.2	40.72	32.07	9.29	33.02	110	110	P	H
		5459.98	39.52	-14.48	54	31.2	32.05	9.29	33.02	110	110	A	H
	*	5710	106.04	-	-	96.89	32.47	9.81	33.13	110	110	P	H
	*	5710	102.1	-	-	92.95	32.47	9.81	33.13	110	110	A	H
		5856.5	53.32	-14.88	68.2	43.74	32.75	10.02	33.19	110	110	P	H
		5416.3	48.93	-25.07	74	40.71	32.02	9.22	33.02	343	337	P	V
		5467.39	49.88	-18.32	68.2	41.54	32.07	9.29	33.02	343	337	P	V
		5458.03	39.14	-14.86	54	30.82	32.05	9.29	33.02	343	337	A	V
	*	5710	103.73	-	-	94.58	32.47	9.81	33.13	343	337	P	V
	*	5710	97.39	-	-	88.24	32.47	9.81	33.13	343	337	A	V
		5861.25	51.91	-16.29	68.2	42.35	32.75	10.02	33.21	343	337	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - Straddle Channel

WIFI 802.11n 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)
802.11n HT40 CH 142 5710MHz		11420	45.56	-28.44	74	51.45	40.02	15.67	61.58	100	0	P	H
		17130	59.04	-9.16	68.2	55.32	40.18	19.55	56.01	238	135	P	H
		17130	49.13	-4.87	54	45.41	40.18	19.55	56.01	238	135	A	H
		11420	45.88	-28.12	74	51.77	40.02	15.67	61.58	100	0	P	V
		17130	57.57	-10.63	68.2	53.85	40.18	19.55	56.01	104	103	P	V
		17130	47.4	-6.6	54	43.68	40.18	19.55	56.01	104	103	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11n HT20 (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 HT20 LF		30.54	22.5	-17.5	40	30.46	23.7	0.84	32.5	-	-	P	H
		96.42	25.39	-18.11	43.5	41.18	15.28	1.41	32.48	-	-	P	H
		271.38	27.71	-18.29	46	38.79	19.13	2.17	32.38	-	-	P	H
		304.2	23.42	-22.58	46	34.27	19.12	2.4	32.37	-	-	P	H
		629	27.79	-18.21	46	31.06	25.94	3.25	32.46	-	-	P	H
		946.8	33.44	-12.56	46	30.27	30.41	3.99	31.23	100	0	P	H
		40.8	34.47	-5.53	40	47.45	18.68	0.83	32.49	-	-	P	V
		46.47	34.87	-5.13	40	50.62	15.72	1.02	32.49	100	277	P	V
		63.48	28.78	-11.22	40	48.55	11.69	1.03	32.49	-	-	P	V
		571.6	27.25	-18.75	46	30.85	25.72	3.12	32.44	-	-	P	V
		847.4	30.67	-15.33	46	30.14	28.72	3.75	31.94	-	-	P	V
		956.6	33.96	-12.04	46	30.11	30.92	4.07	31.14	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

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

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

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 43.54 (dBμV/m)

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

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

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

Appendix C. Radiated Spurious Emission

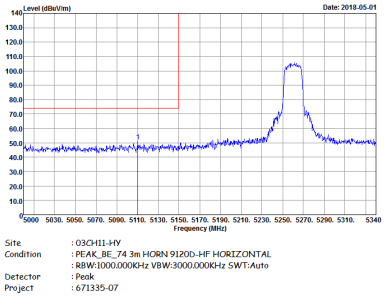
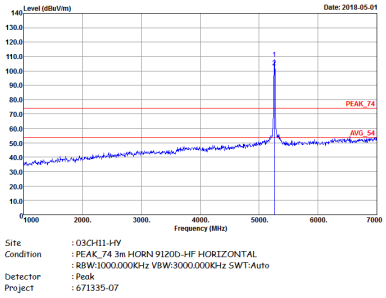
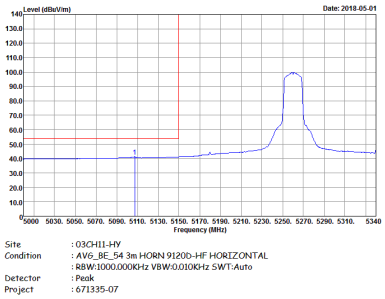
Test Engineer :	Hao Hsu, Lance Chiang, and Ken Wu	**Temperature :**	21~26°C
		Relative Humidity :	51~56%

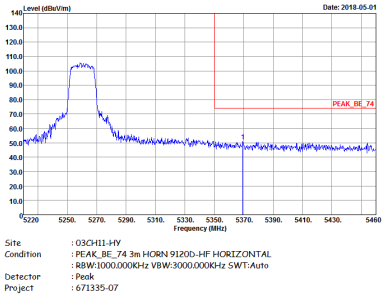
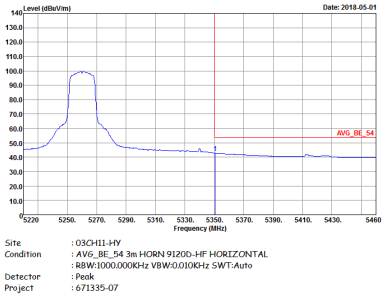
Note symbol

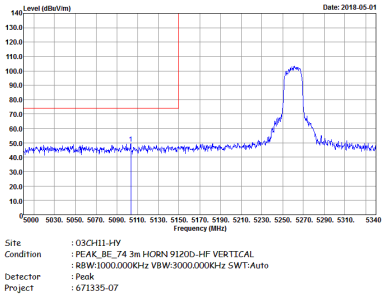
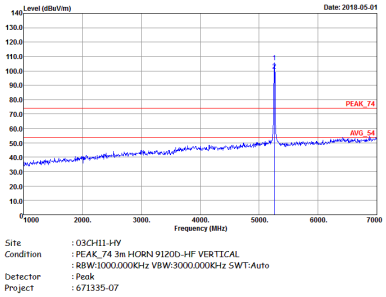
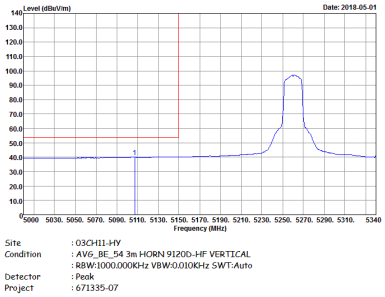
-L	**Low channel location**
-R	**High channel location**

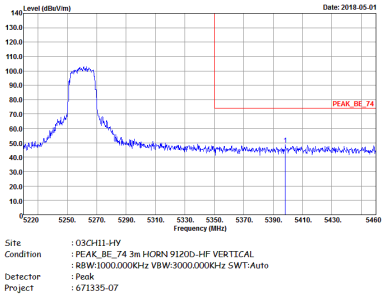
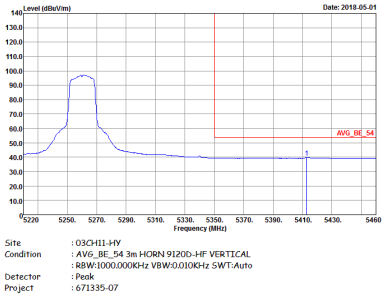
Band 2 - 5250~5350MHz

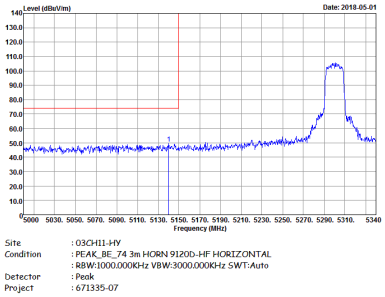
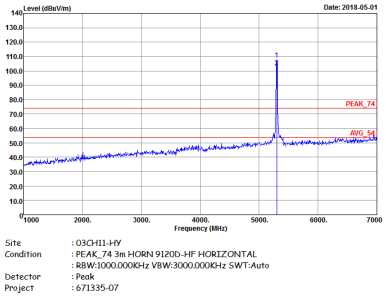
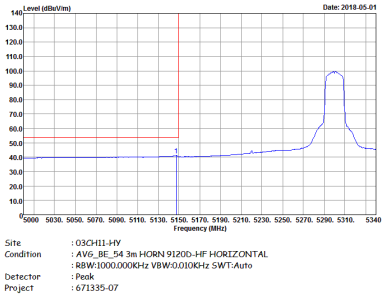
WIFI 802.11a (Band Edge @ 3m)

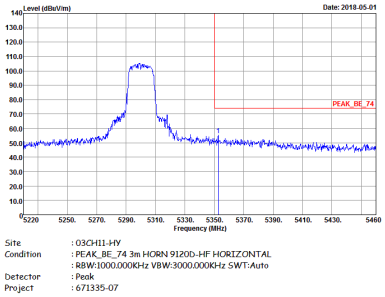
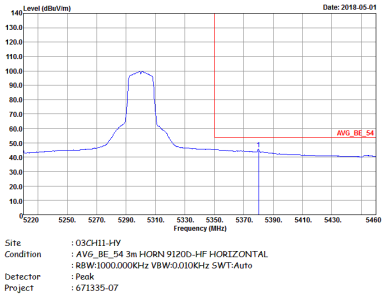
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

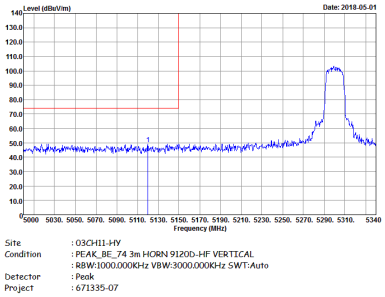
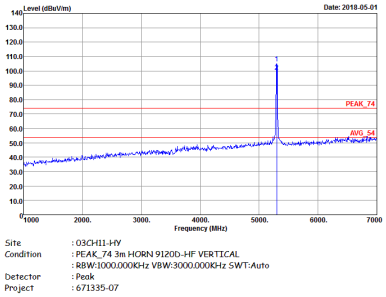
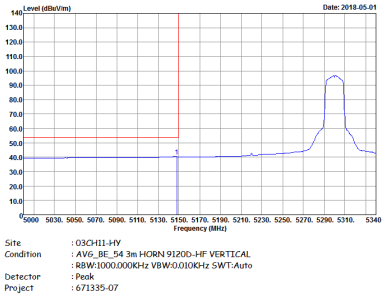
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

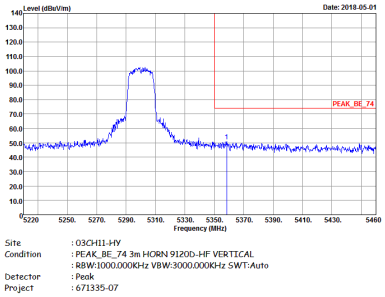
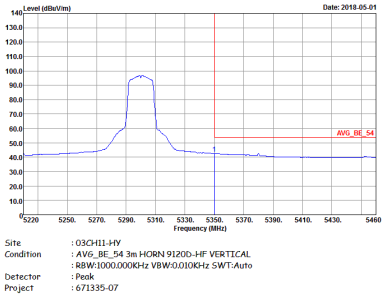
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

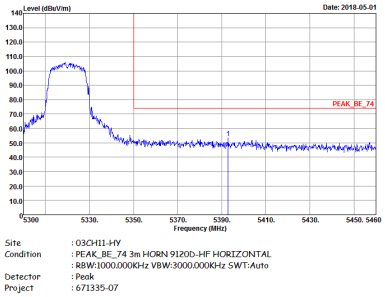
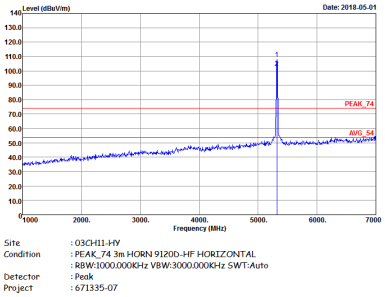
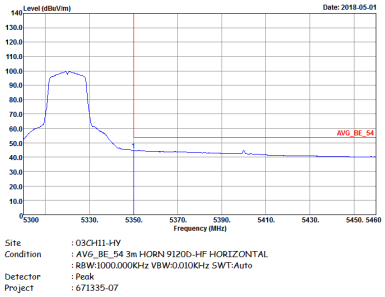
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

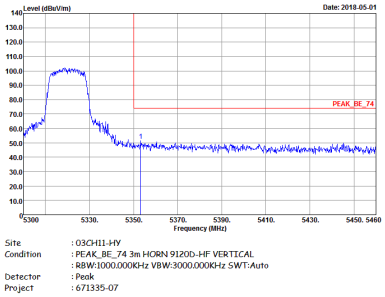
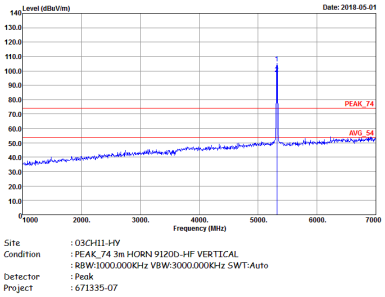
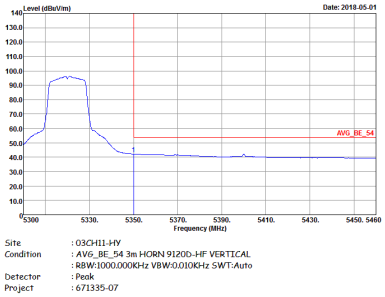
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

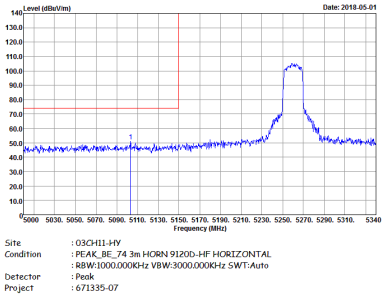
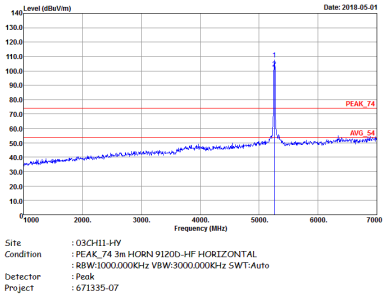
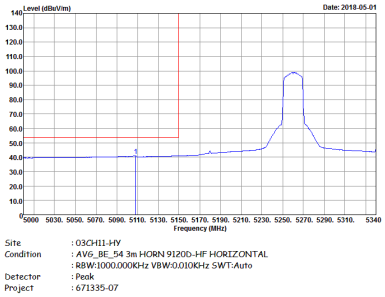
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

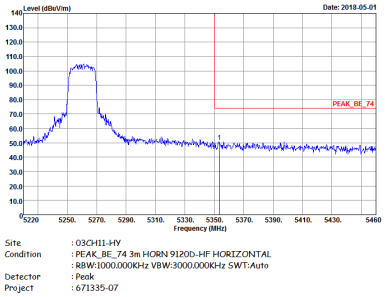
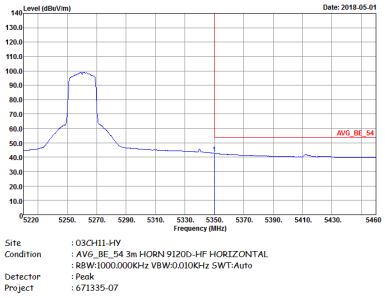
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

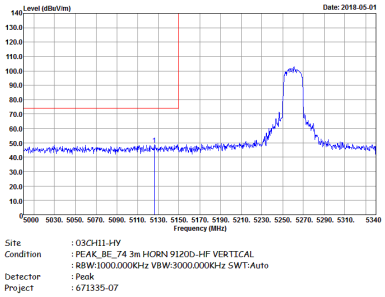
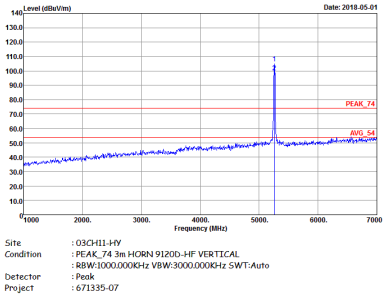
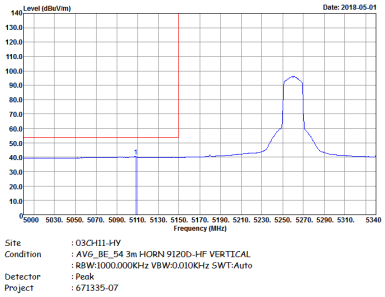
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

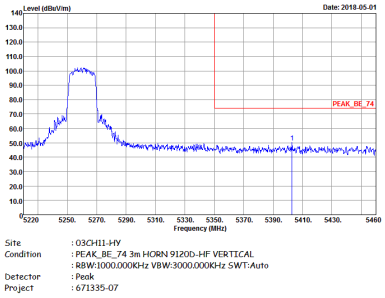
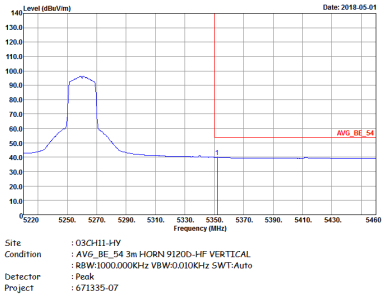
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

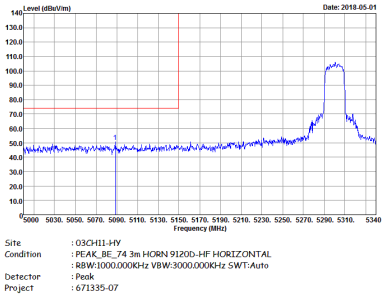
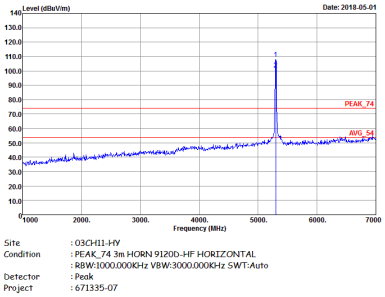
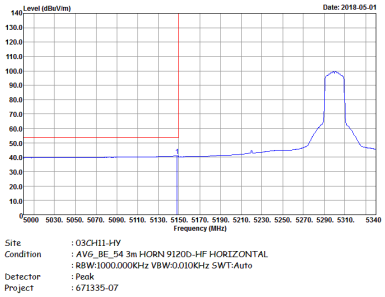
Band 2 5250~5350MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

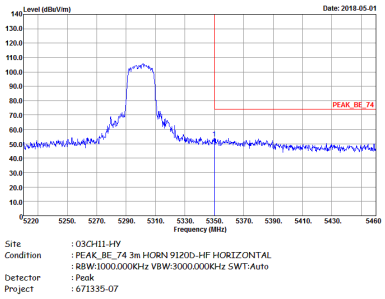
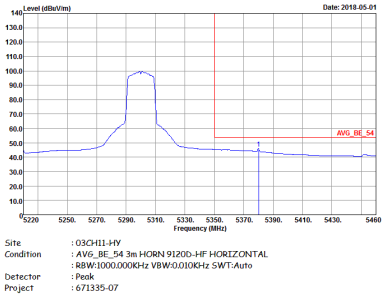
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

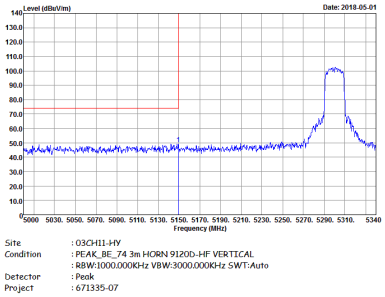
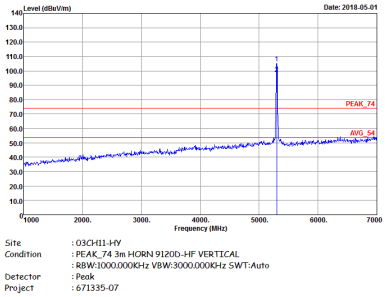
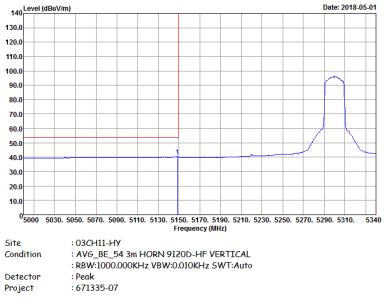
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

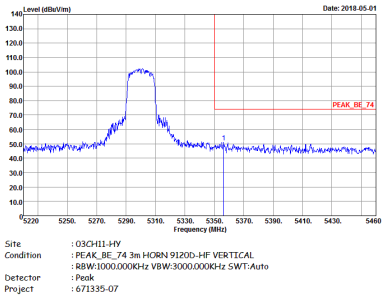
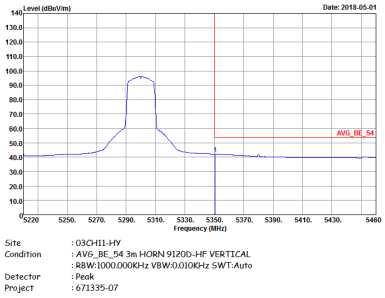
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

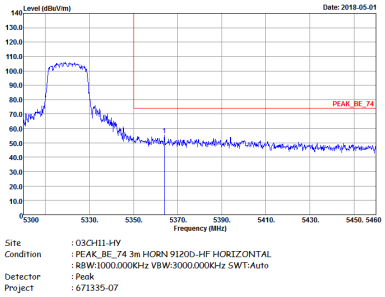
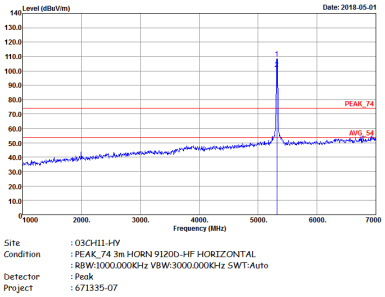
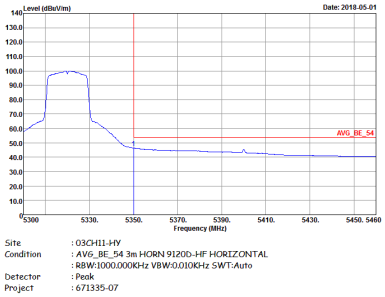
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

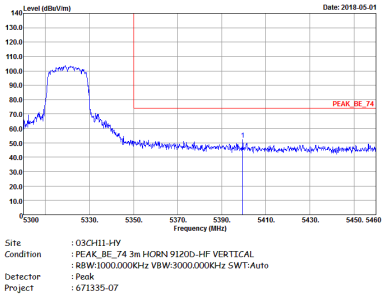
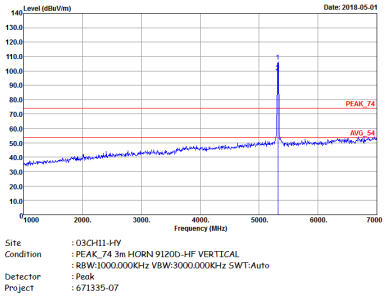
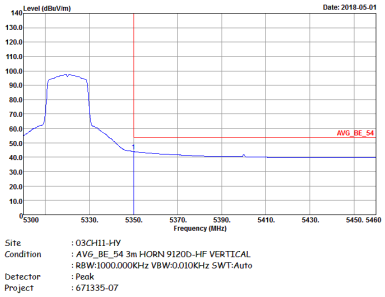
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

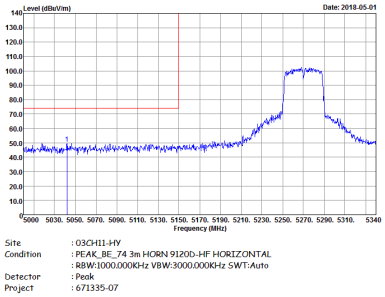
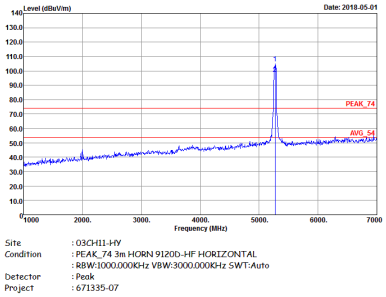
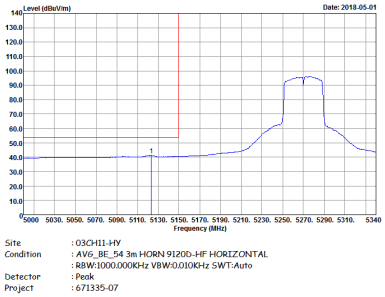
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

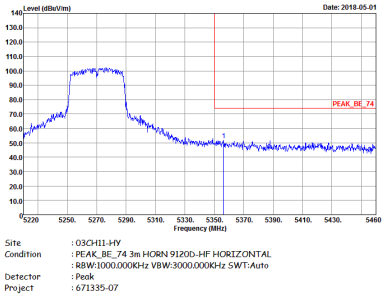
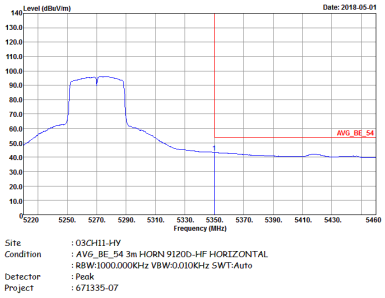
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

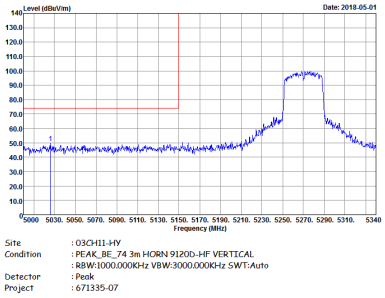
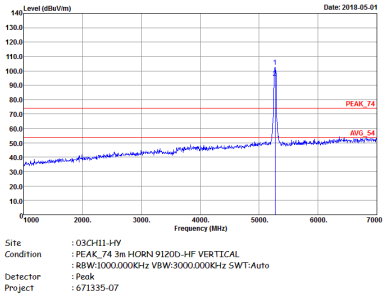
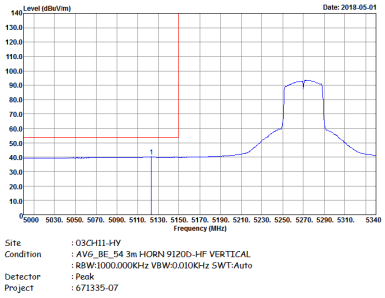
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

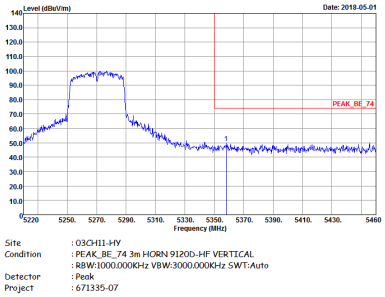
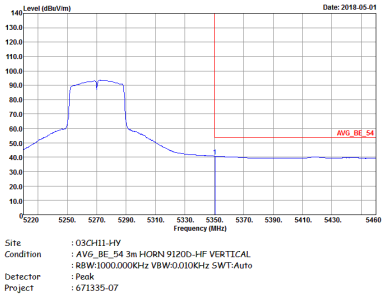
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

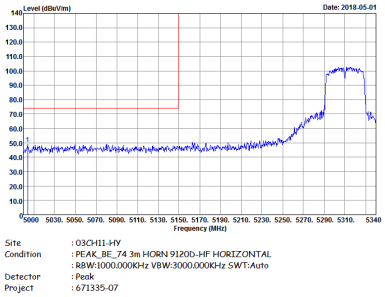
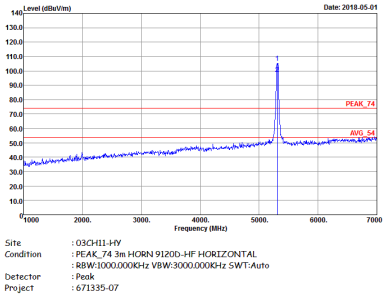
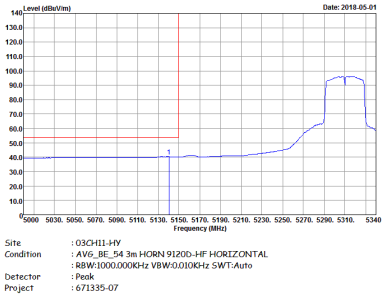
Band 2 5250~5350MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

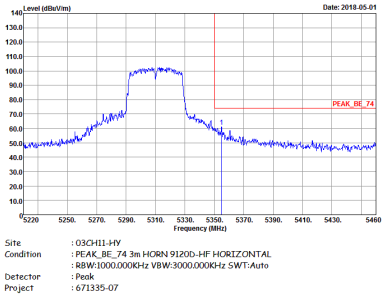
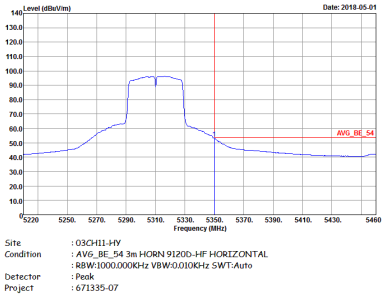
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

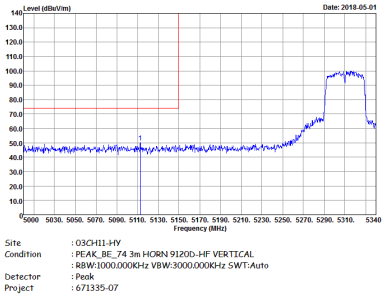
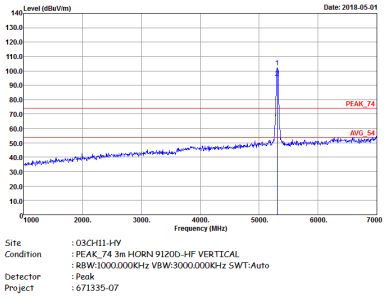
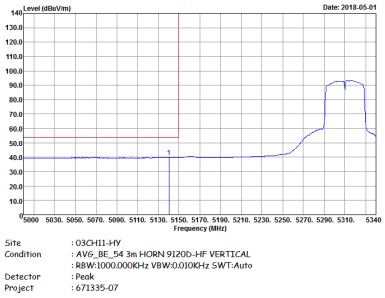
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

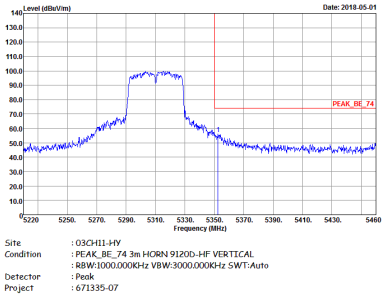
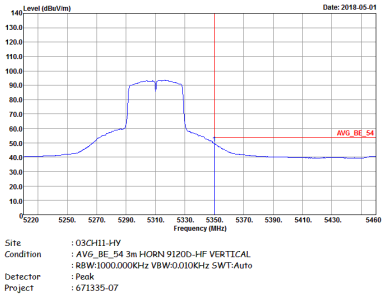
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270MHz - L	
1	Vertical	Vertical
Peak		
Avg.		Left blank

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

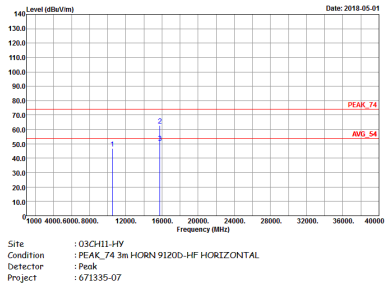
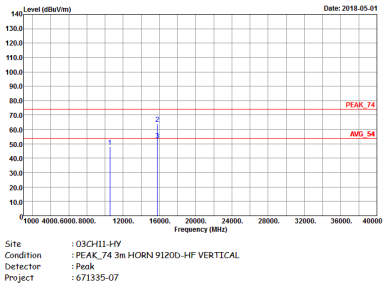
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

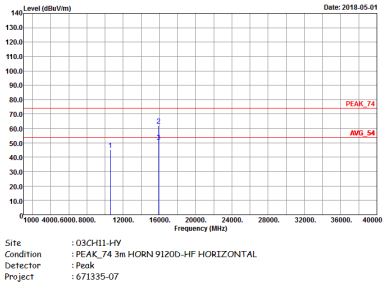
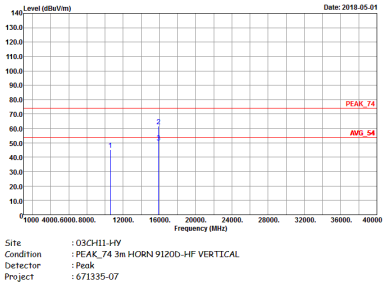
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

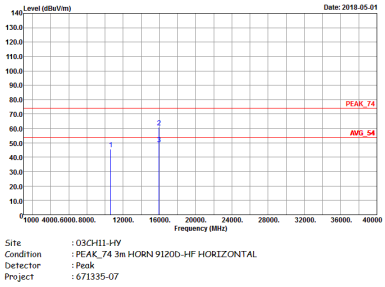
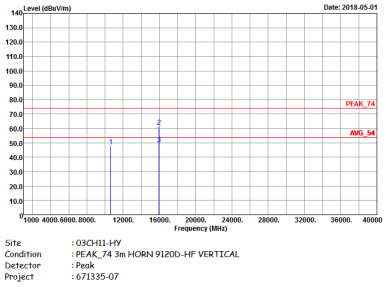
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 2 - 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

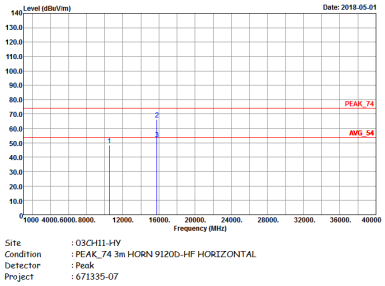
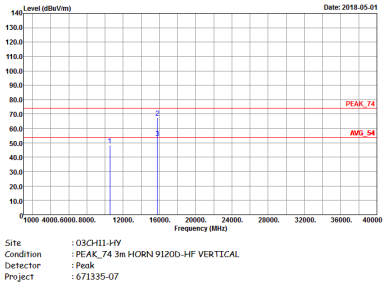
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH52 5260MHz	
1	Horizontal	Vertical
Peak Avg.		

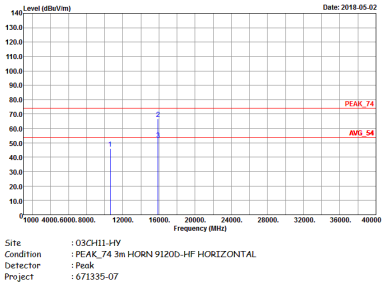
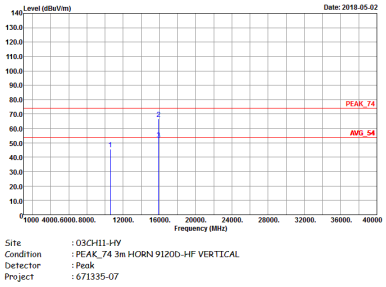
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH60 5300MHz	
1	Horizontal	Vertical
Peak Avg.		

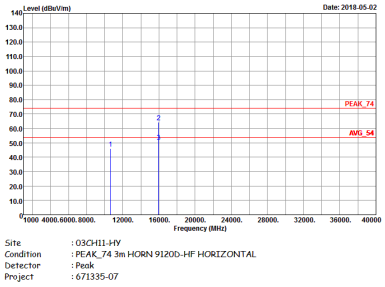
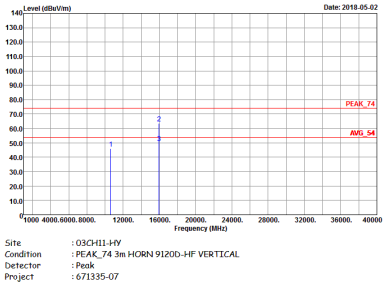
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH64 5320MHz	
1	Horizontal	Vertical
Peak Avg.		

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

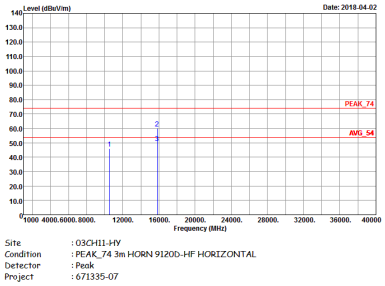
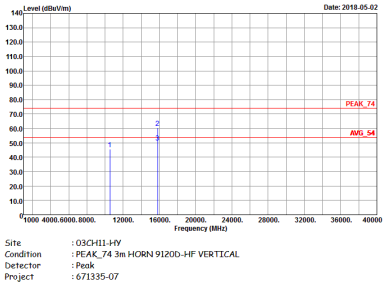
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH52 5260MHz	
1	Horizontal	Vertical
Peak Avg.		

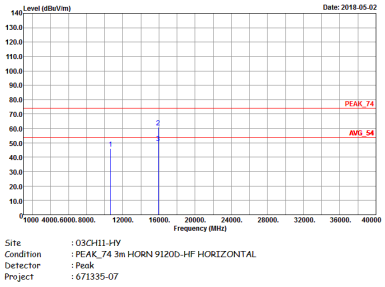
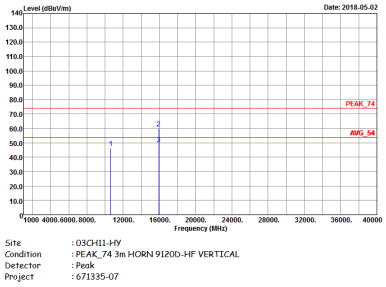
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH60 5300MHz	
1	Horizontal	Vertical
Peak Avg.		

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

Band 2 5250~5350MHz

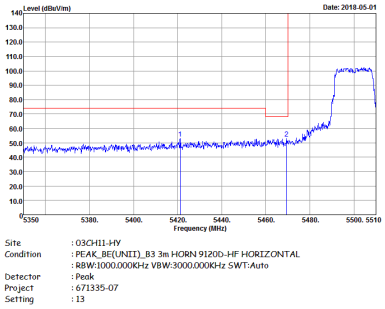
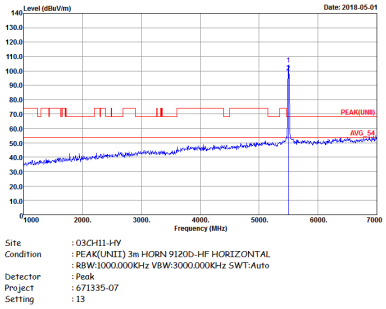
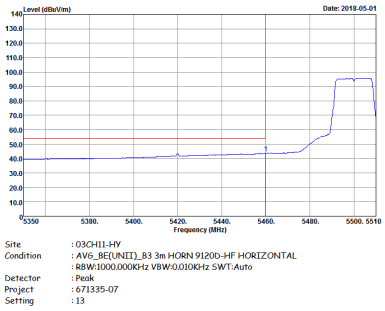
WIFI 802.11n HT40 (Harmonic @ 3m)

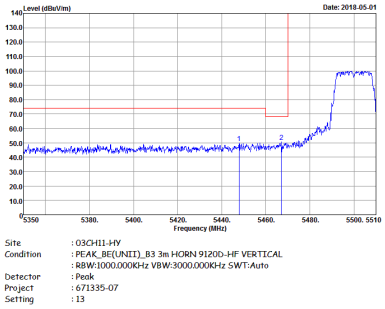
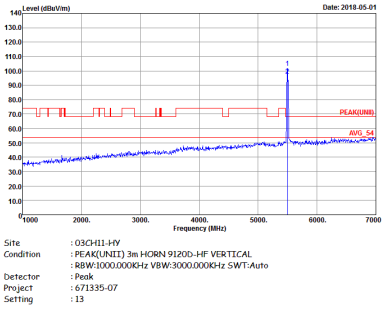
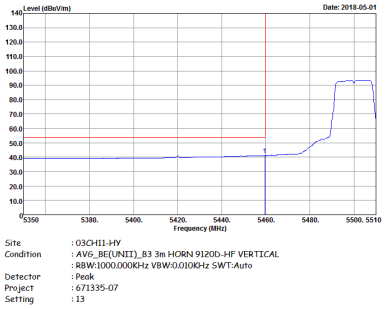
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT40 CH54 5270MHz	
1	Horizontal	Vertical
Peak Avg.		

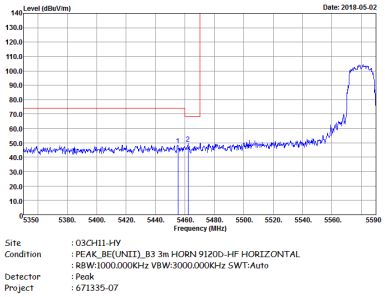
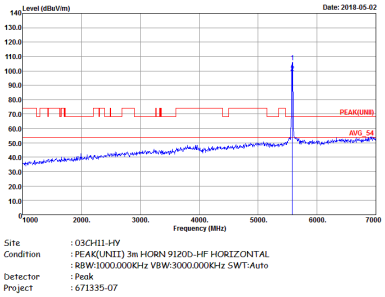
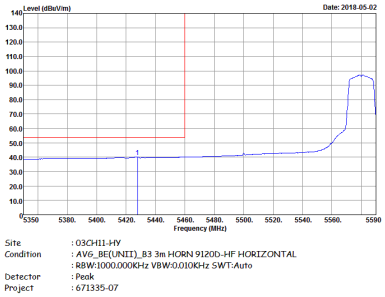
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT40 CH62 5310MHz	
1	Horizontal	Vertical
Peak Avg.		

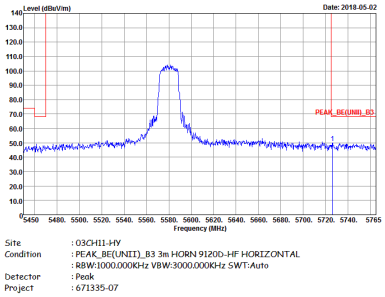
Band 3 - 5470~5725MHz

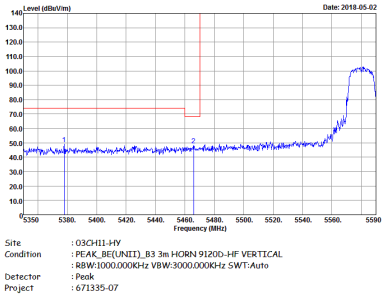
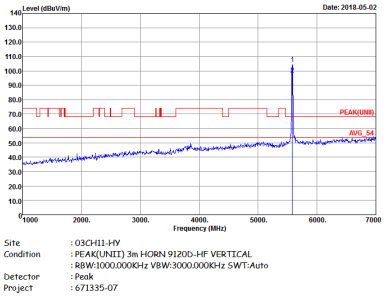
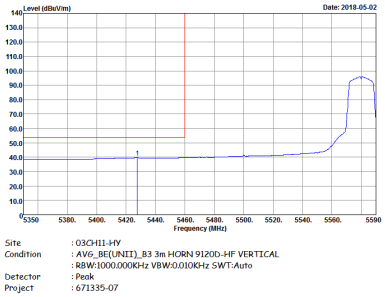
WIFI 802.11a (Band Edge @ 3m)

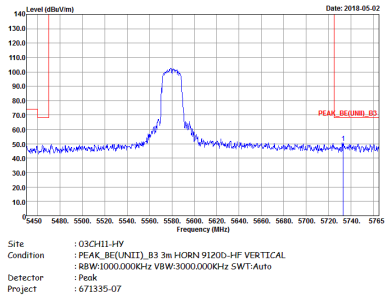
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

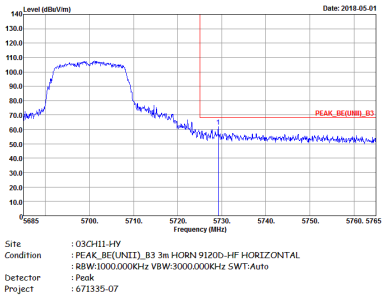
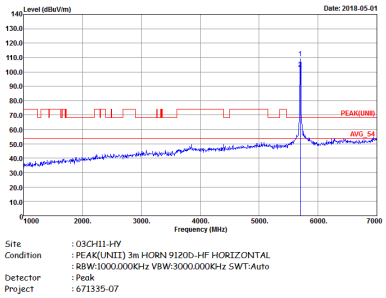
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

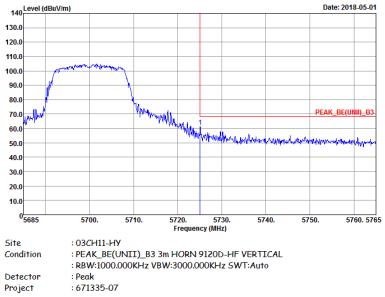
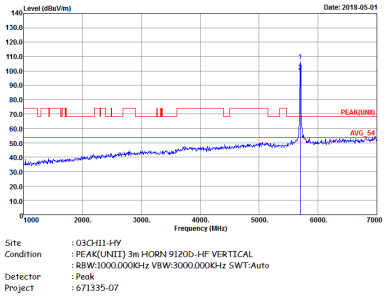
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

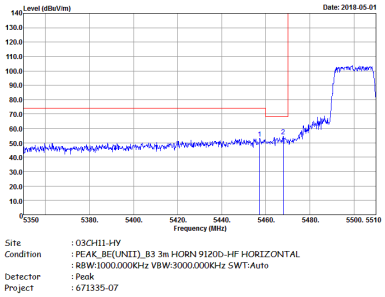
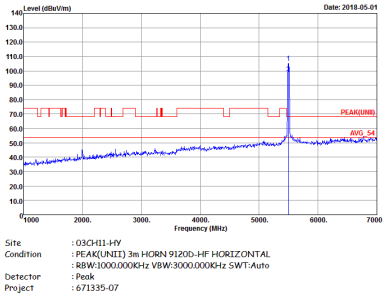
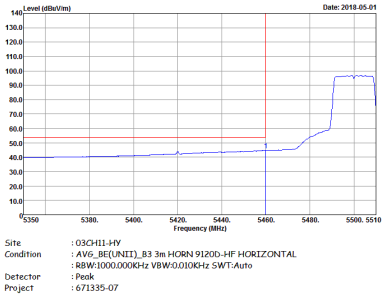
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

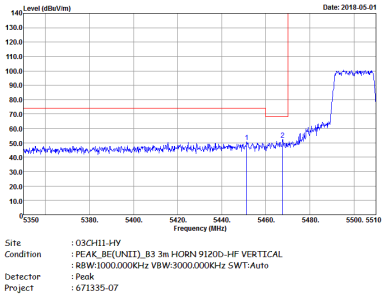
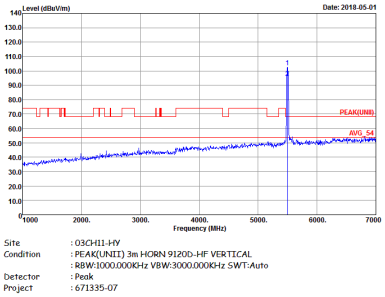
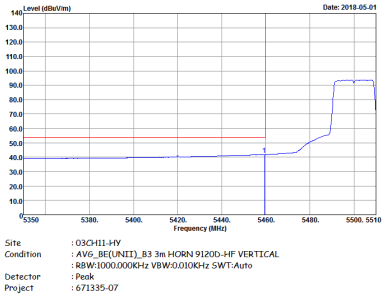
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
1	Vertical	Fundamental
Peak		Left blank

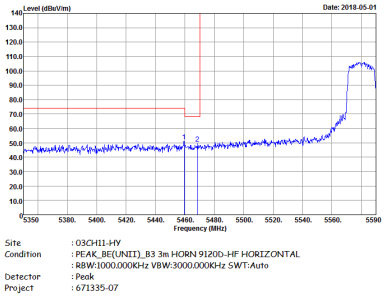
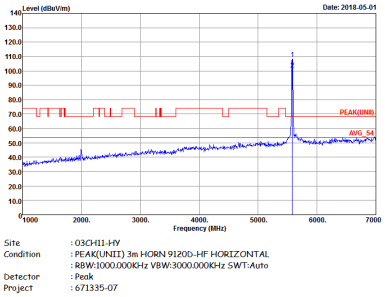
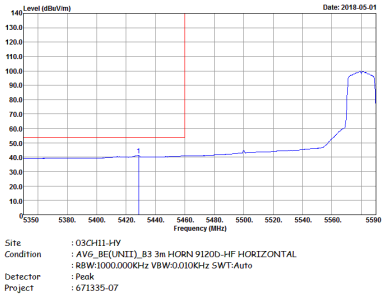
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1	Horizontal	Fundamental
Peak		

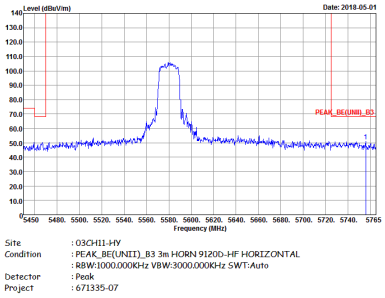
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1	Vertical	Fundamental
Peak		

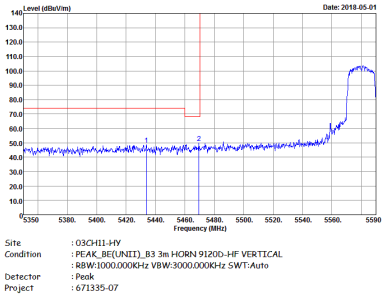
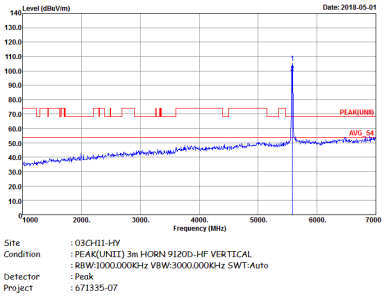
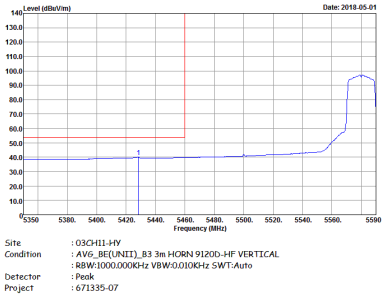
Band 3 5470~5725MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

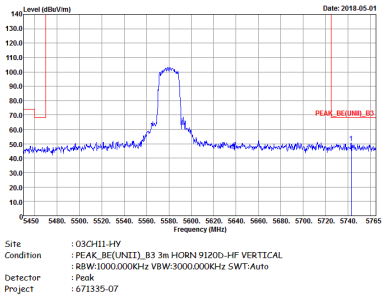
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

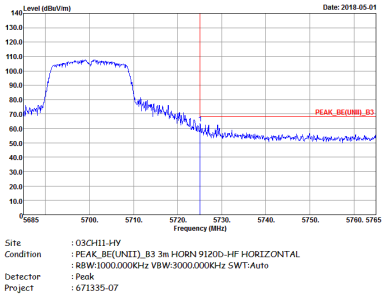
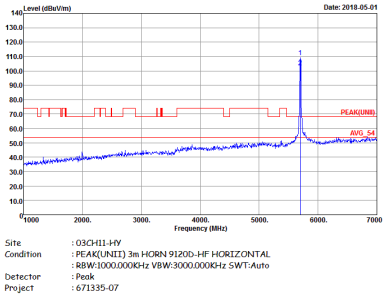
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

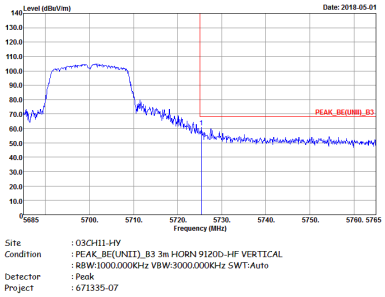
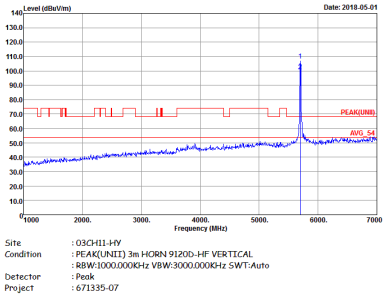
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

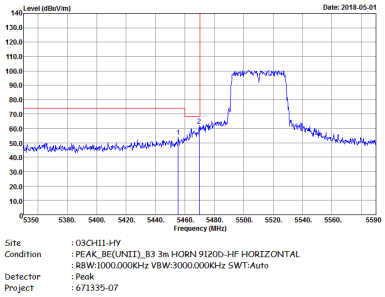
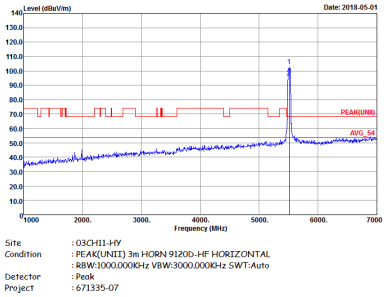
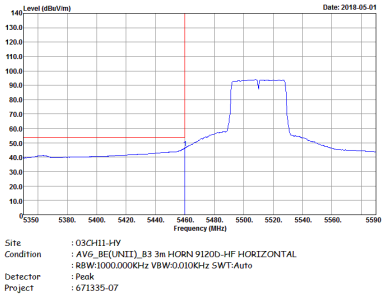
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

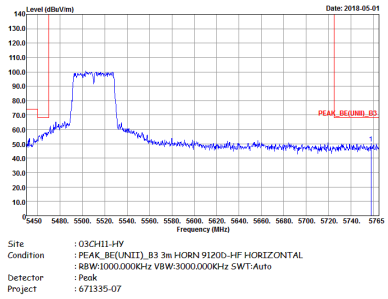
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - R	
1	Vertical	Fundamental
Peak		Left blank

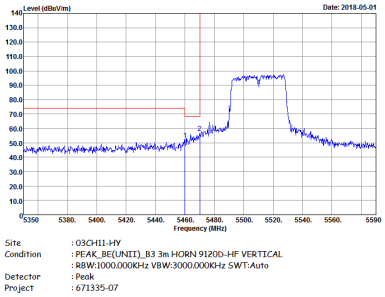
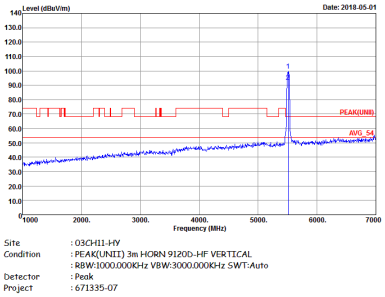
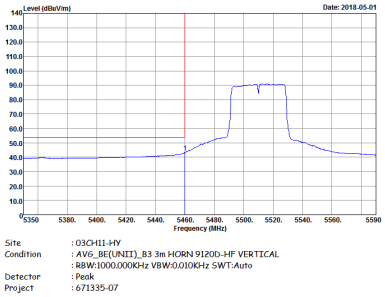
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1	Horizontal	Fundamental
Peak		

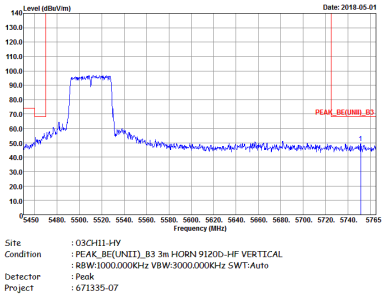
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1	Vertical	Fundamental
Peak.		

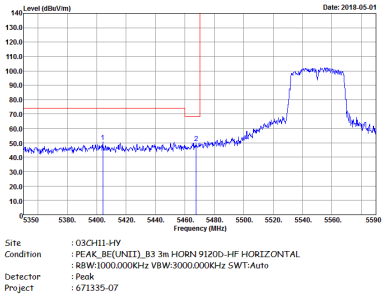
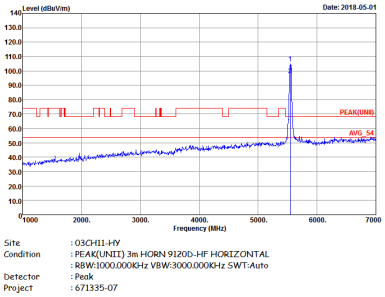
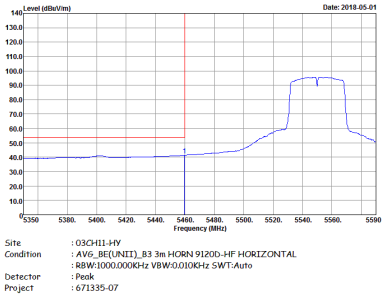
Band 3 5470~5725MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

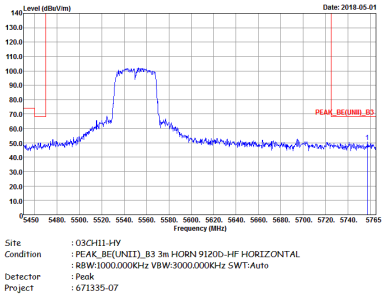
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

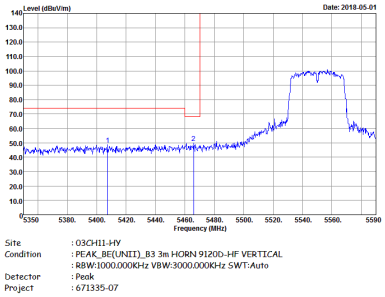
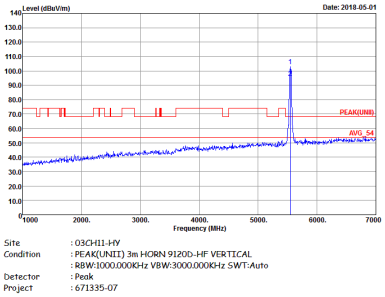
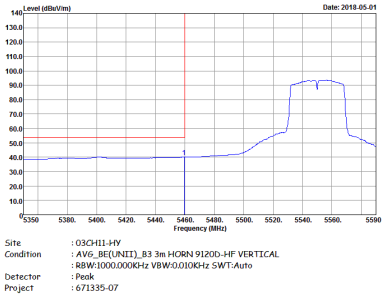
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

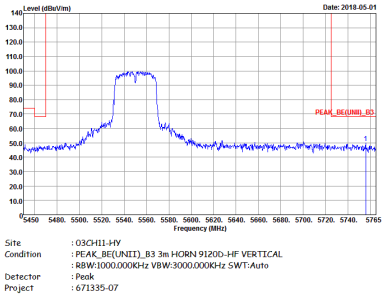
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

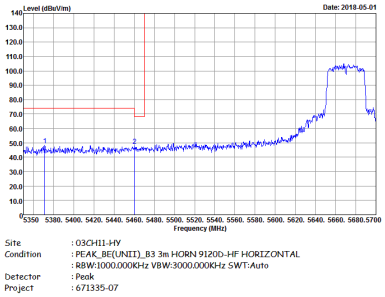
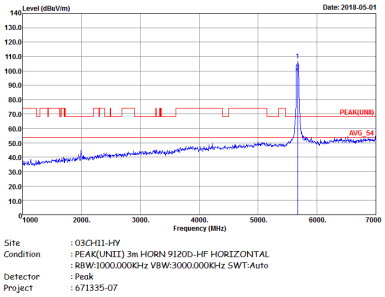
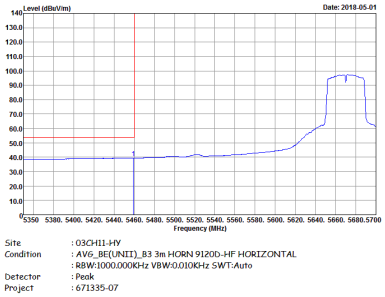
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1	Vertical	Fundamental
Peak		Left blank

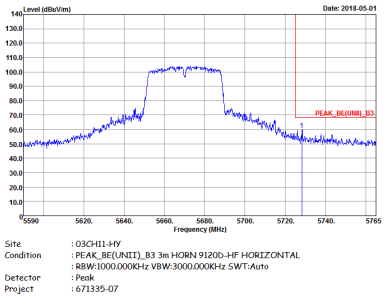
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

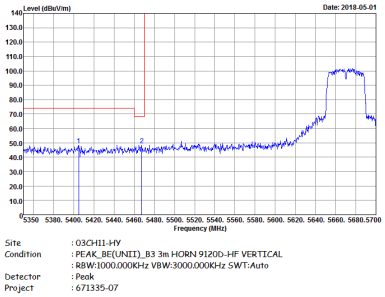
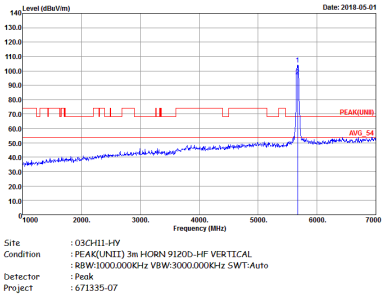
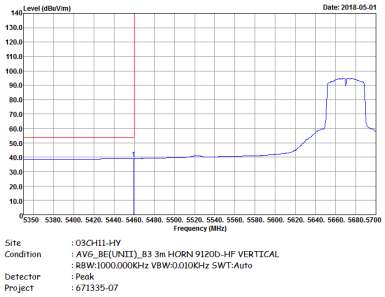
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

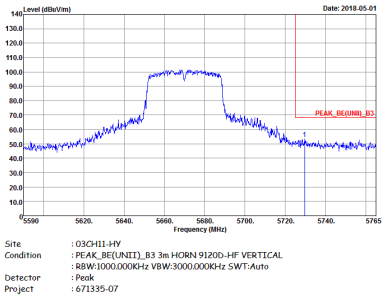
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

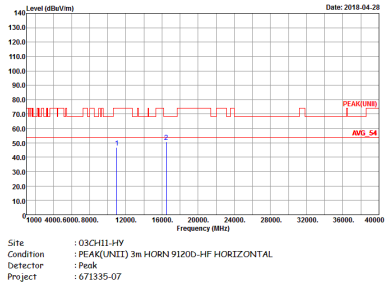
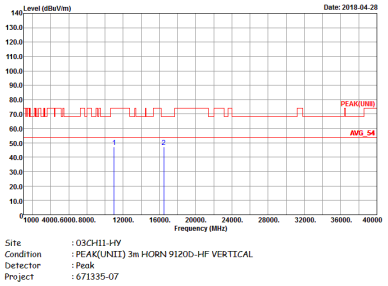
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

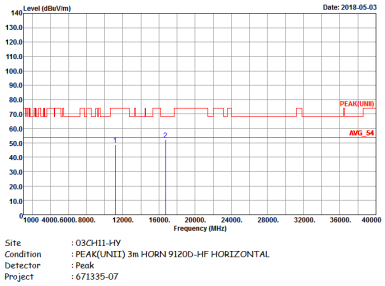
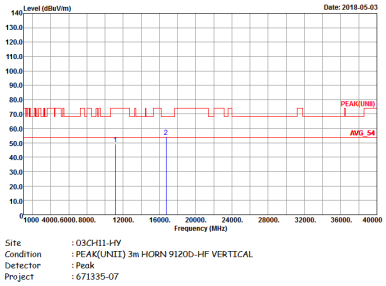
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

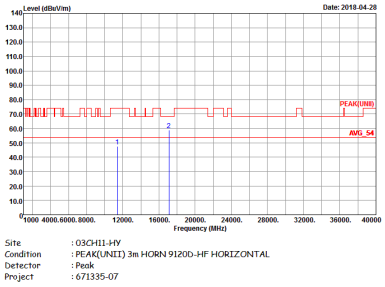
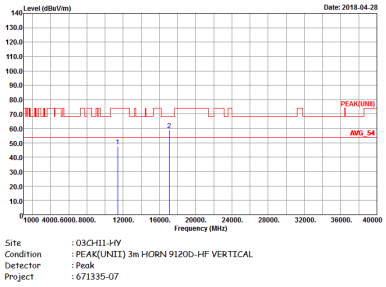
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1	Vertical	Fundamental
Peak		Left blank

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

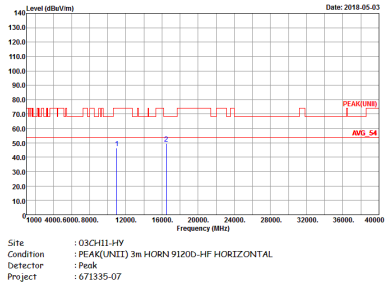
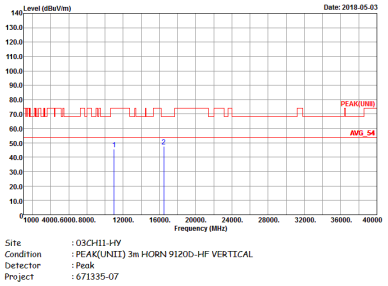
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH100 5500MHz	
1	Horizontal	Vertical
Peak Avg.		

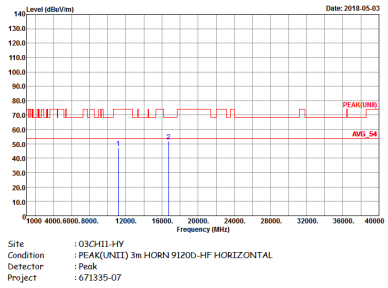
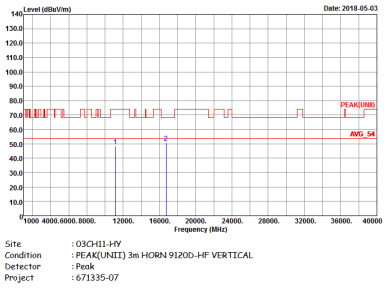
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH116 5580MHz	
1	Horizontal	Vertical
Peak Avg.		

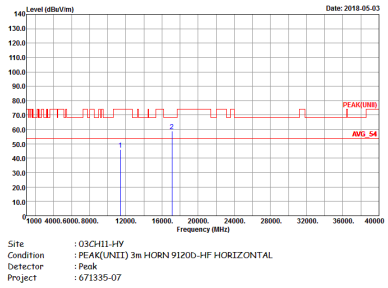
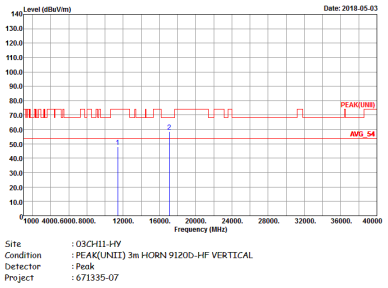
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH140 5700MHz	
1	Horizontal	Vertical
Peak Avg.		

Band 3 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

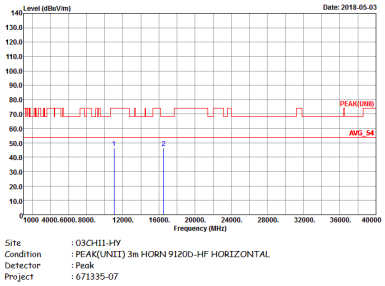
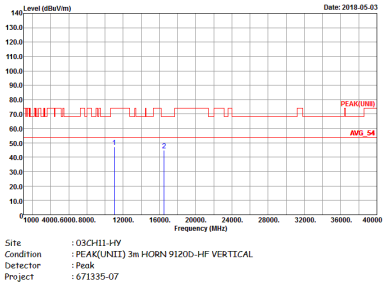
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1	Horizontal	Vertical
Peak Avg.		

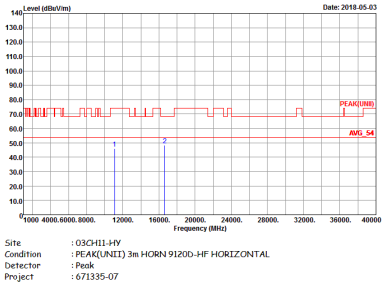
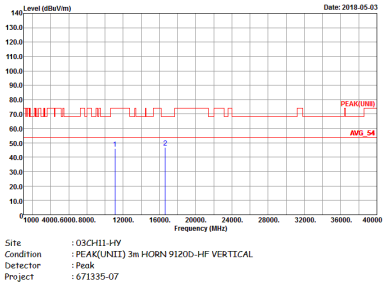
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH116 5580MHz	
1	Horizontal	Vertical
Peak Avg.		

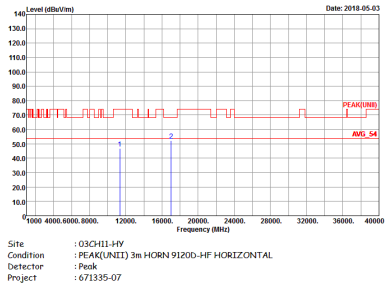
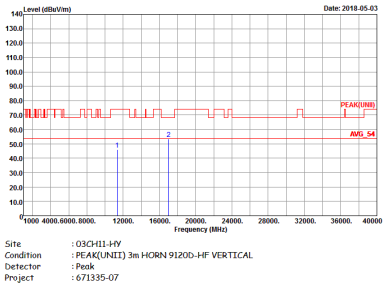
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1	Horizontal	Vertical
Peak Avg.		

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.		

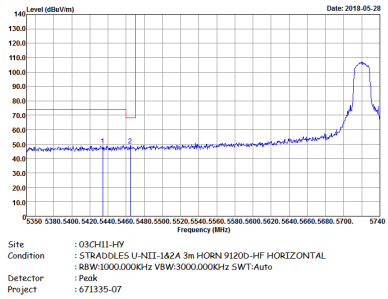
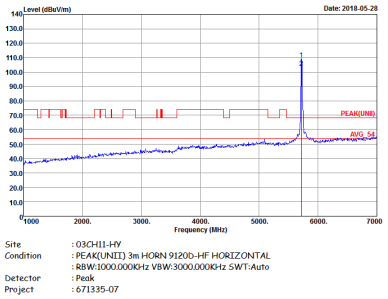
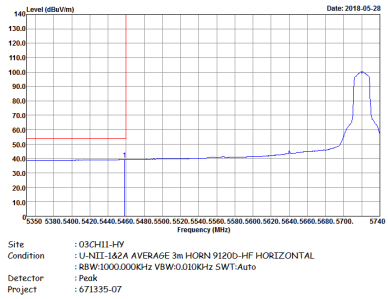
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT40 CH110 5550MHz	
1	Horizontal	Vertical
Peak Avg.		

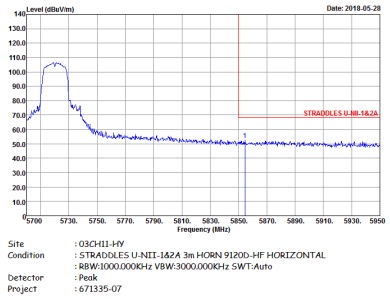
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT40 CH134 5670MHz	
1	Horizontal	Vertical
Peak Avg.		

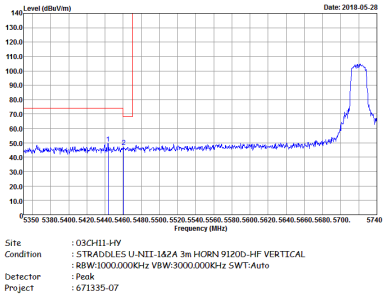
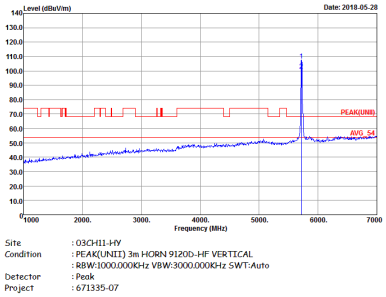
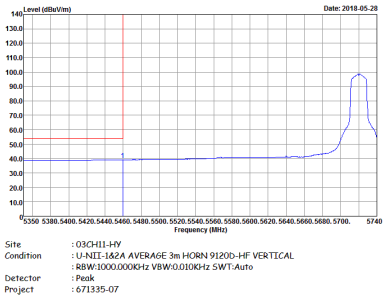
Band 3 5470~5725MHz

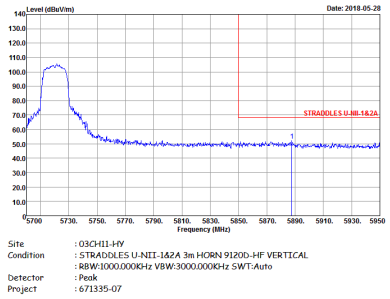
Band 3 - Straddle Channel

WIFI 802.11a (Band Edge @ 3m)

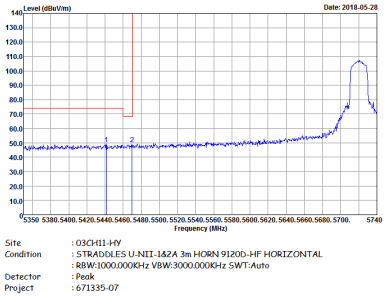
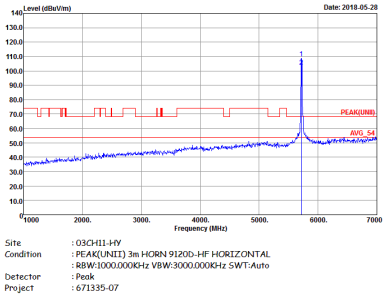
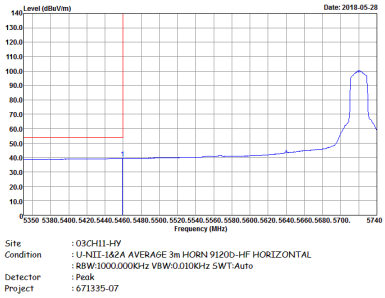
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz- L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

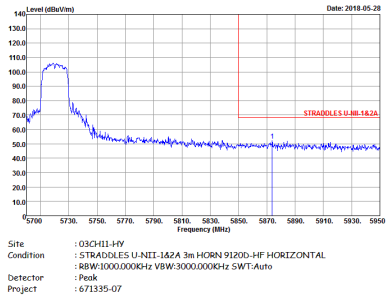
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz- R	
1	Horizontal	Fundamental
Peak		Left blank

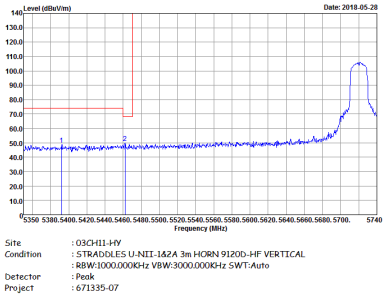
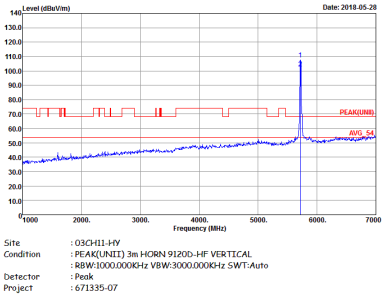
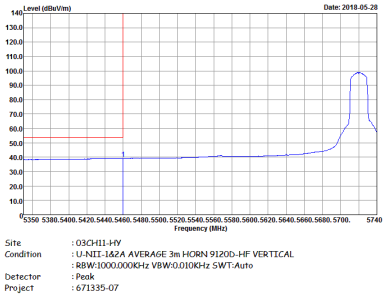
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz- L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

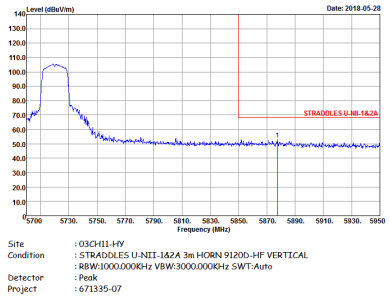
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11a CH144 5720MHz- R	
1	Vertical	Fundamental
Peak		Left blank

Band 3 – Straddle Channel
WIFI 802.11n HT20 (Band Edge @ 3m)

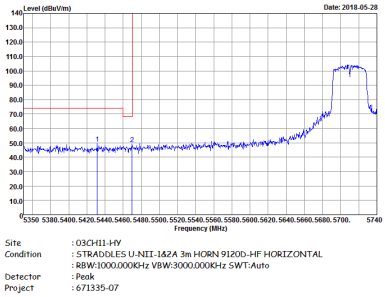
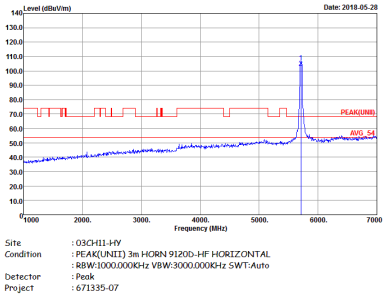
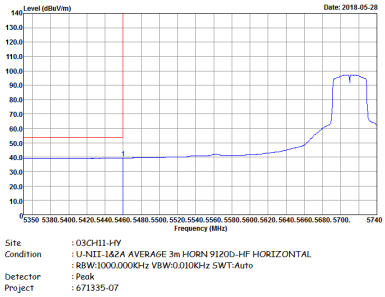
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n HT20 CH144 5720MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

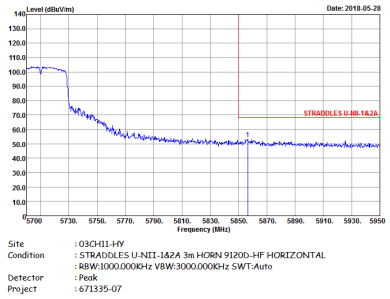
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n HT20 CH144 5720MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

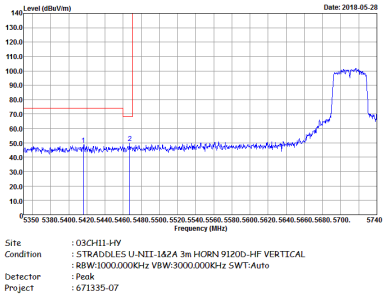
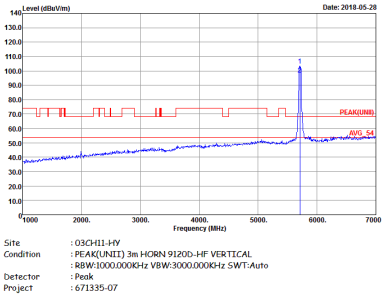
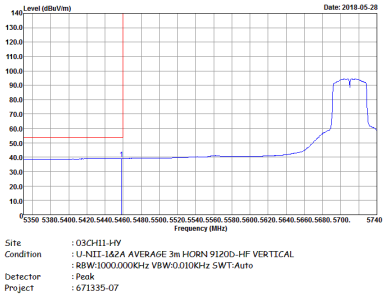
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n HT20 CH144 5720MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

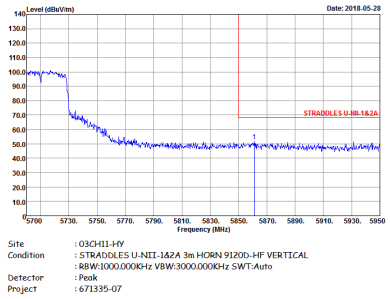
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n HT20 CH144 5720MHz - R	
1	Vertical	Fundamental
Peak		Left blank

Band 3 – Straddle Channel
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n HT40 CH142 5710MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

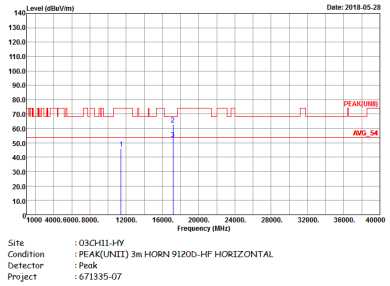
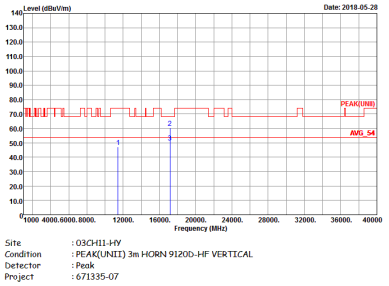
WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n HT40 CH142 5710MHz - R	
1	Horizontal	Fundamental
Peak		Left blank

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n HT40 CH142 5710MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 Straddle Channel Band Edge @ 3m	
ANT	802.11n HT40 CH142 5710MHz - R	
1	Vertical	Fundamental
Peak		Left blank

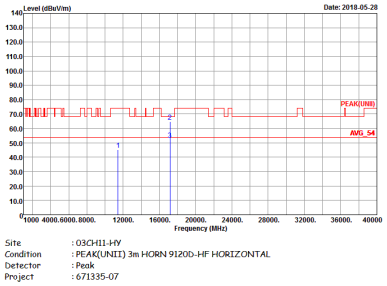
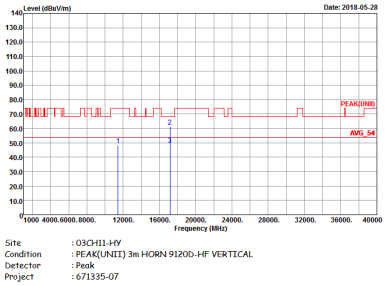
Band 3 - Straddle Channel

WIFI 802.11a (Harmonic @ 3m)

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

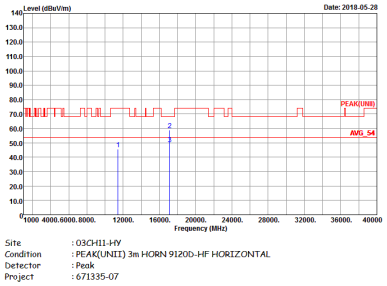
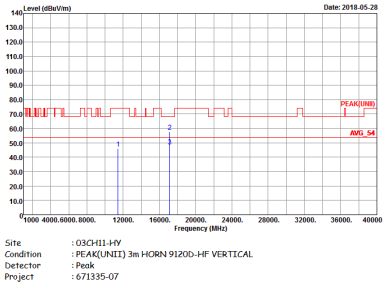
Band 3 – Straddle Channel

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Band 3 Straddle Channel Harmonic @ 3m	
ANT	802.11n HT20 CH144 5720MHz	
1	Horizontal	Vertical
Peak Avg.		

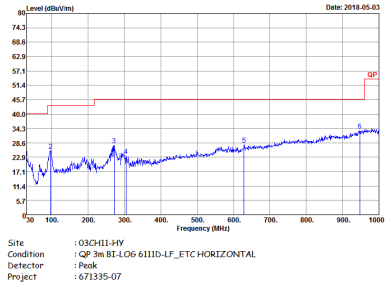
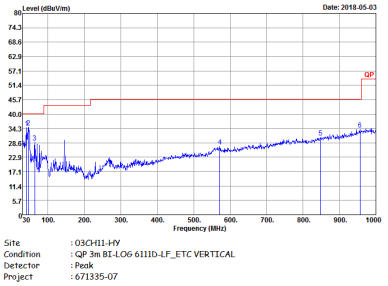
Band 3 – Straddle Channel

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 3 Straddle Channel Harmonic @ 3m	
ANT	802.11n HT40 CH142 5710MHz	
1	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

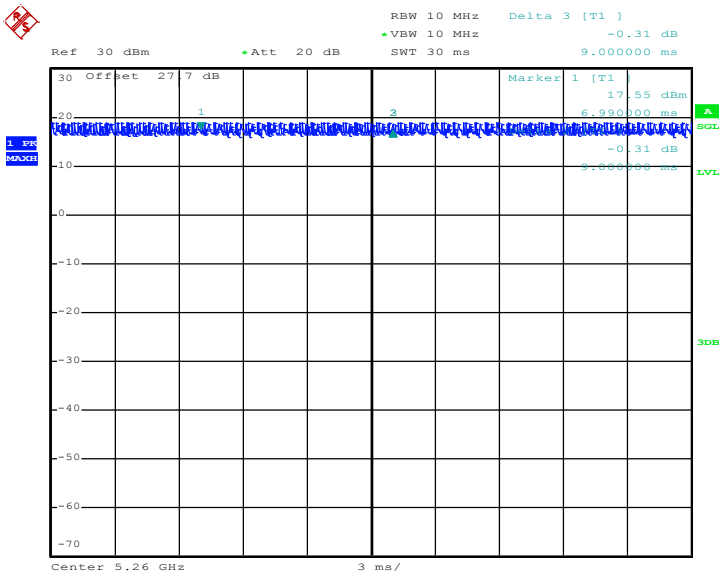
5GHz WIFI 802.11n HT20 (LF)

WIFI	5GHz WIFI	
ANT	802.11n HT20 LF	
1	Horizontal	Vertical
QP / Peak		

Appendix D. Duty Cycle Plots

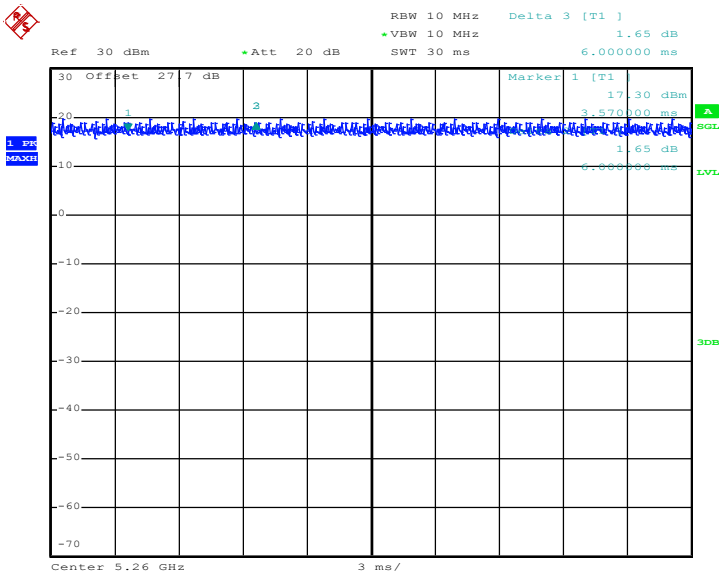
Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
802.11a	100.00	9000	0.11	10Hz	0.00
5GHz 802.11n HT20	100.00	6000	0.167	10Hz	0.00
5GHz 802.11n HT40	100.00	9000	0.11	10Hz	0.00

802.11a



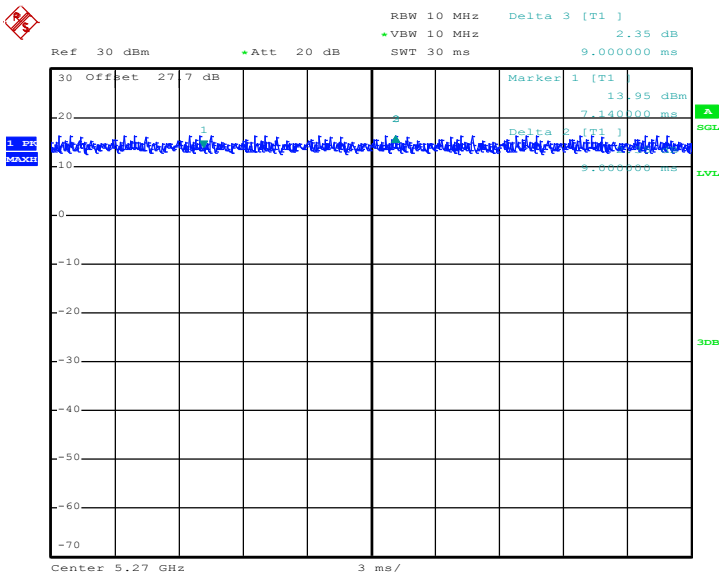
Date: 17.APR.2018 13:50:39

802.11n HT20



Date: 17.APR.2018 15:41:41

802.11n HT40



Date: 17.APR.2018 17:05:25