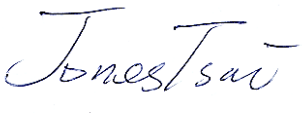
FCC RF Test Report

APPLICANT	:	Xiaomi Communications Co., Ltd.
EQUIPMENT	:	Mobile Phone
BRAND NAME	:	MI
MODEL NAME	:	M1803D5XA
FCC ID	:	2AFZZ-XMSD5X
STANDARD	:	FCC Part 15 Subpart E §15.407
CLASSIFICATION	:	(NII) Unlicensed National Information Infrastructure

The product was received on Feb. 09, 2018 and testing was completed on Mar. 22, 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

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR820915E	Rev. 01	Initial issue of report	Apr. 09, 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 3.05 dB at 5350.800 MHz
3.5	15.207	AC Conducted Emission	15.207(a)	Pass	Under limit 17.93 dB at 0.607 MHz
3.6	15.407(c)	Automatically Discontinue Transmission	Discontinue Transmission	Pass	-
3.7	15.203 & 15.407(a)	Antenna Requirement	N/A	Pass	-

1 General Description

1.1 Applicant

Xiaomi Communications Co., Ltd.

The Rainbow City of China Resources,NO.68,Qinghe Middle Street,Haidian District,Beijing,China

1.2 Manufacturer

Xiaomi Communications Co., Ltd.

The Rainbow City of China Resources,NO.68,Qinghe Middle Street,Haidian District,Beijing,China

1.3 Product Feature of Equipment Under Test

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

Product Specification subjective to this standard	
Antenna Type	WWAN: Coupling type (LDS) Antenna WLAN: Coupling type (LDS) Antenna Bluetooth: Coupling type (LDS) Antenna GPS/A-GPS/Glonass/BDS/Galileo/VOIP: Coupling type (LDS) Antenna NFC: Planar Antenna WPC: Loop Antenna

1.4 Modification of EUT

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

1.5 Testing Location

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

Test Site	SPORTON INTERNATIONAL INC.	
Test Site Location	No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. TEL: +886-3-327-3456 FAX: +886-3-328-4978	
Test Site No.	**Sporton Site No.**	
	TH05-HY	CO05-HY

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

Test Site	SPORTON INTERNATIONAL INC.
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd. Guishan Dist, Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855
Test Site No.	**Sporton Site No.**
	03CH12-HY

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

1.6 Applicable Standards

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

- FCC Part 15 Subpart E
- FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
- FCC KDB 662911 D01 Multiple Transmitter Output 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

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz), radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y plane) were recorded in this report.

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

2.1 Carrier Frequency and Channel

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

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

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

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

Note:

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

2.2 Test Mode

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

Single Mode

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

MIMO Mode

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

Test Cases	
AC Conducted Emission	Mode 1 :GSM850 Idle + Bluetooth Link + WLAN (2.4GHz) Link + Camera (Rear) + USB Cable 1 (Charging from Adapter) Mode 2 GSM850 Idle + Bluetooth Link + WLAN (2.4GHz) Link + Camera (Rear) + USB Cable 1 (Charging from Adapter) + Wireless Charger Pad

Remark:

1. The worst case of conducted emission is mode 1; only the test data of it was reported.

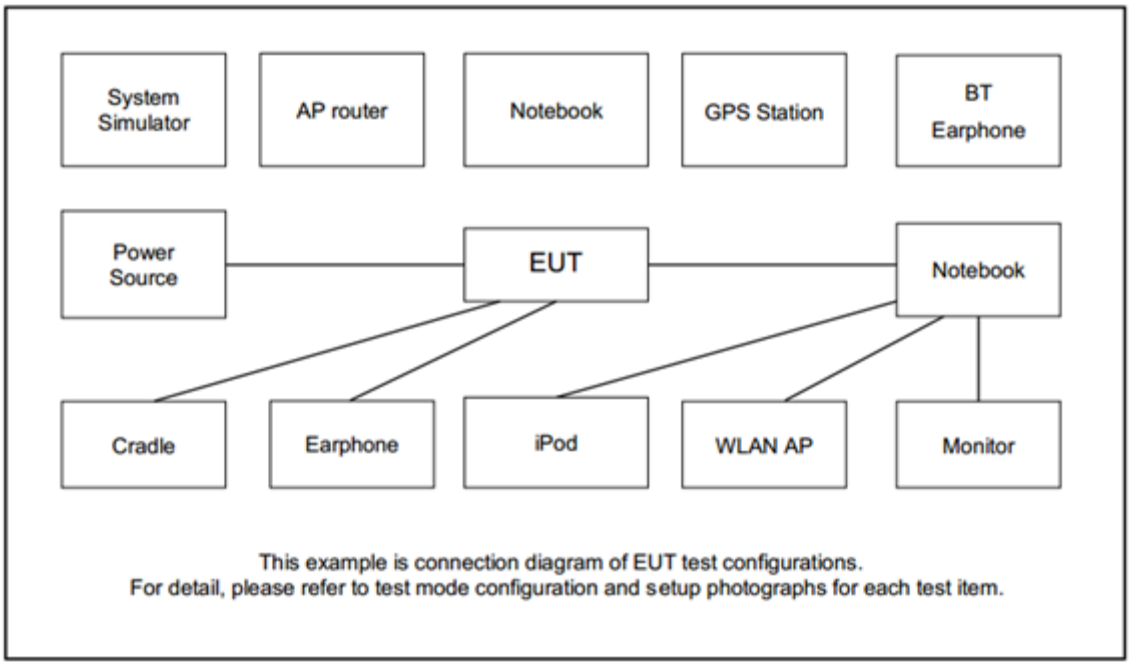
2. For Radiated Test Cases, The tests were performance with USB Cable 1.

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

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

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

2.3 Connection Diagram of Test System



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	Bluetooth Earphone	Sony Ericsson	MW600	PY7DDA-2029	N/A	N/A
3.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded,1.8m
4.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
5.	SD Card	SanDisk	MicroSD HC	FCC DoC	N/A	N/A

2.5 EUT Operation Test Setup

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

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example :

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

Offset = RF cable loss + attenuator factor.

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

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

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

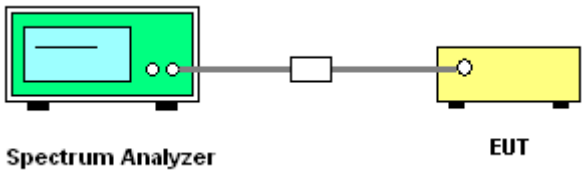
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

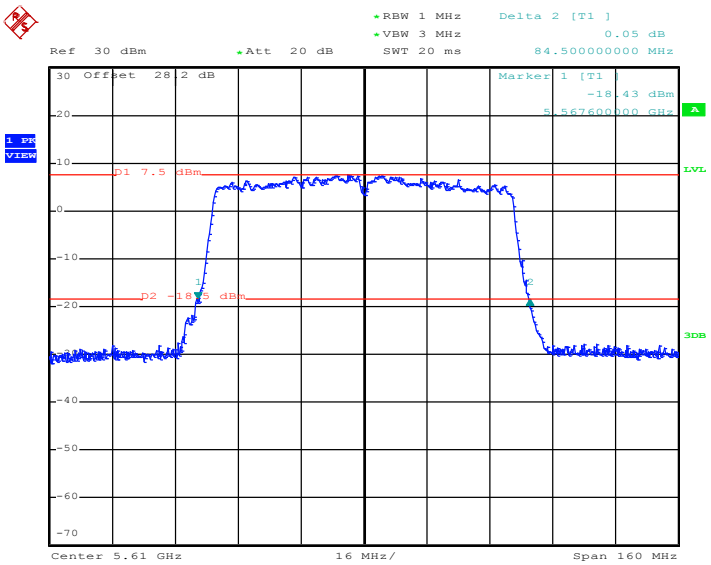
3.1.4 Test Setup



3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.

Maximum 26dB Bandwidth



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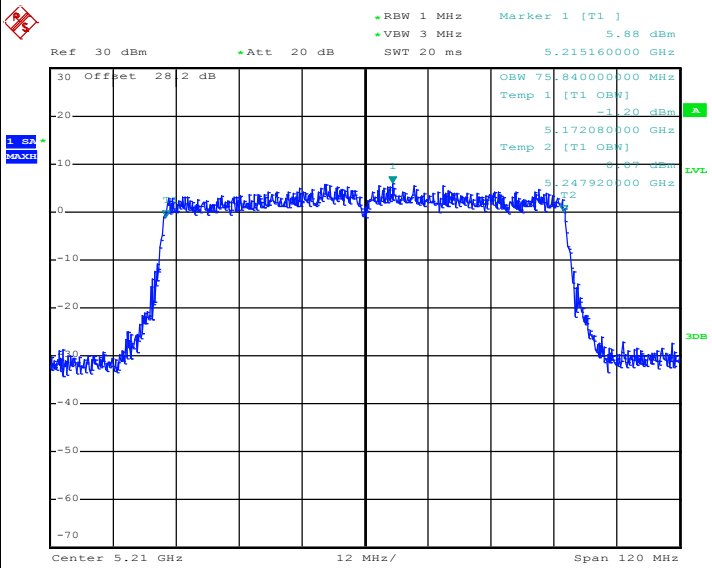
Maximum 99% Occupied Bandwidth



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

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

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

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

3.2.2 Measuring Instruments

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

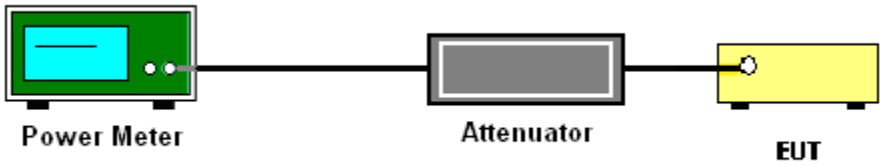
3.2.3 Test Procedures

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

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

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

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

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

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

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

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

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

 # Method SA-2 #

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

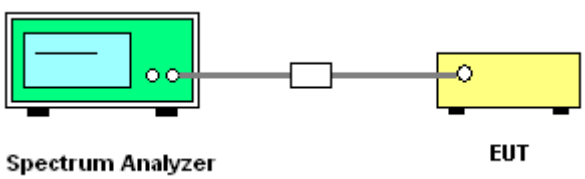
- Measure the duty cycle.
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz.
- Set VBW ≥ 3 MHz.
- Number of points in sweep ≥ 2 Span / RBW.
- Sweep time = auto.
- Detector = RMS
- Trace average at least 100 traces in power averaging mode.
- Add 10 log(1/x),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

1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.
3. For MIMO mode, calculation method follows FCC KDB 662911 D01 Multiple Transmitter Output v02r01.

   Method (a): Measure and sum the spectra across the outputs.

   The total final Power Spectral Density is from a device with 2 transmitter outputs. The spectrum measurements of the individual outputs are all performed with the same span and number of points, the spectrum value in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 to obtain the value for the first frequency bin of the summed spectrum.

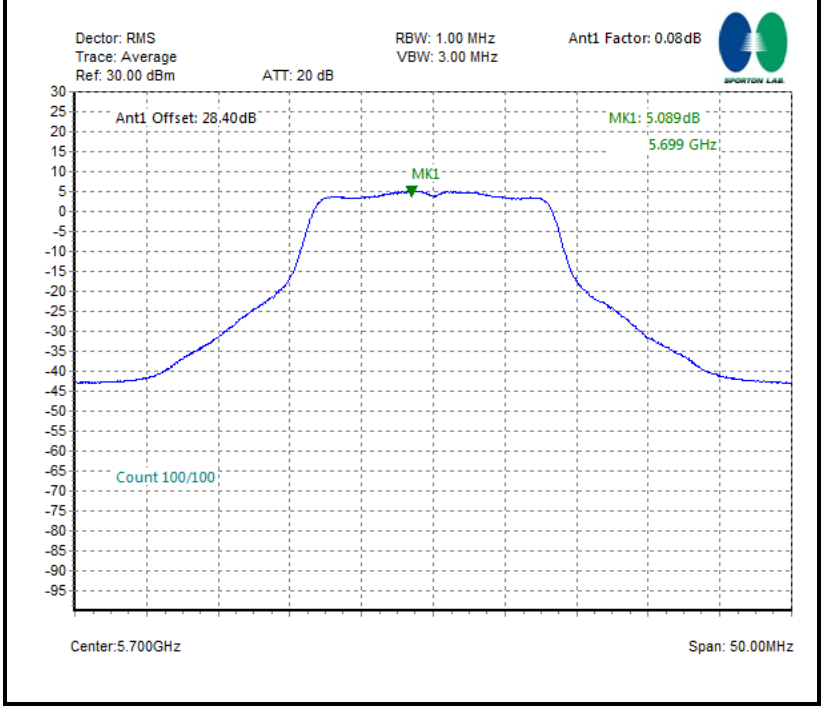
3.3.4 Test Setup



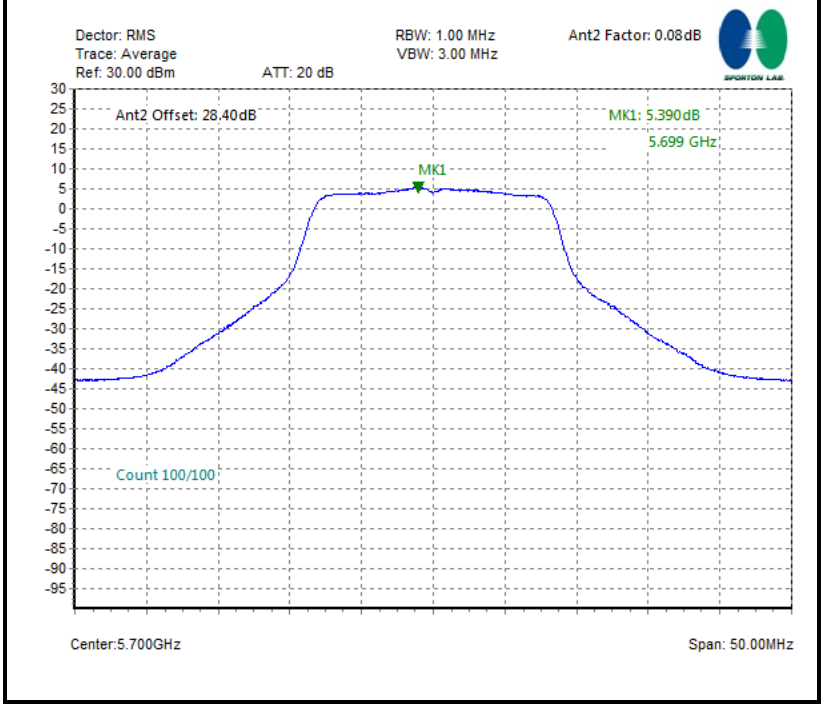
3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

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



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



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

3.4 Unwanted Emissions Measurement

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

3.4.1 Limit of Unwanted Emissions

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

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

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

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

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

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

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

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

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

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

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

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

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

3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

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

   (1) Procedure for Unwanted Emissions Measurements Below 1000MHz

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

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

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

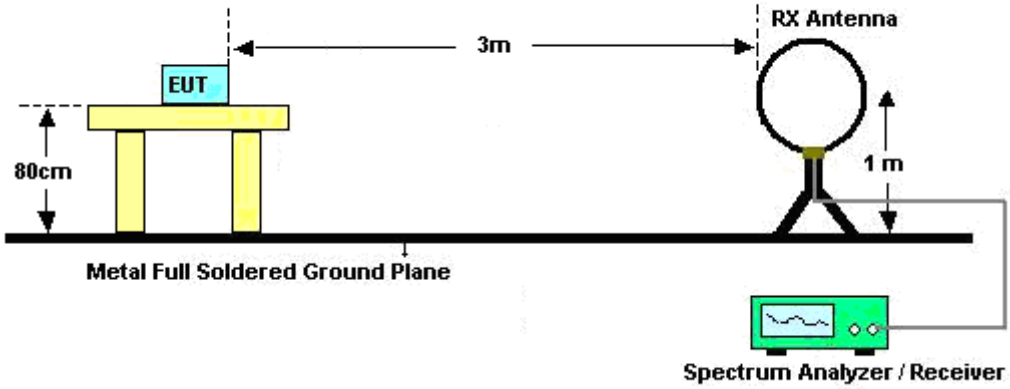
   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

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

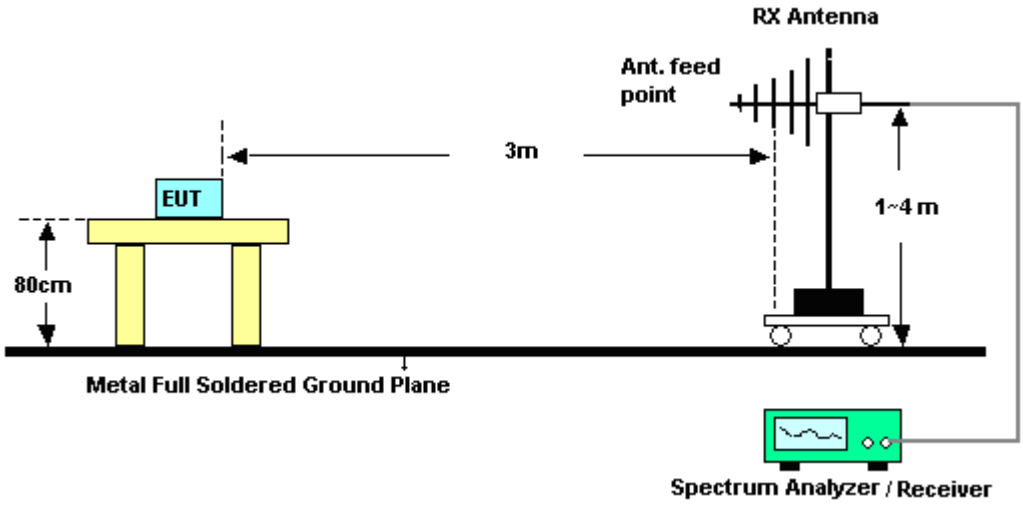
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

3.4.4 Test Setup

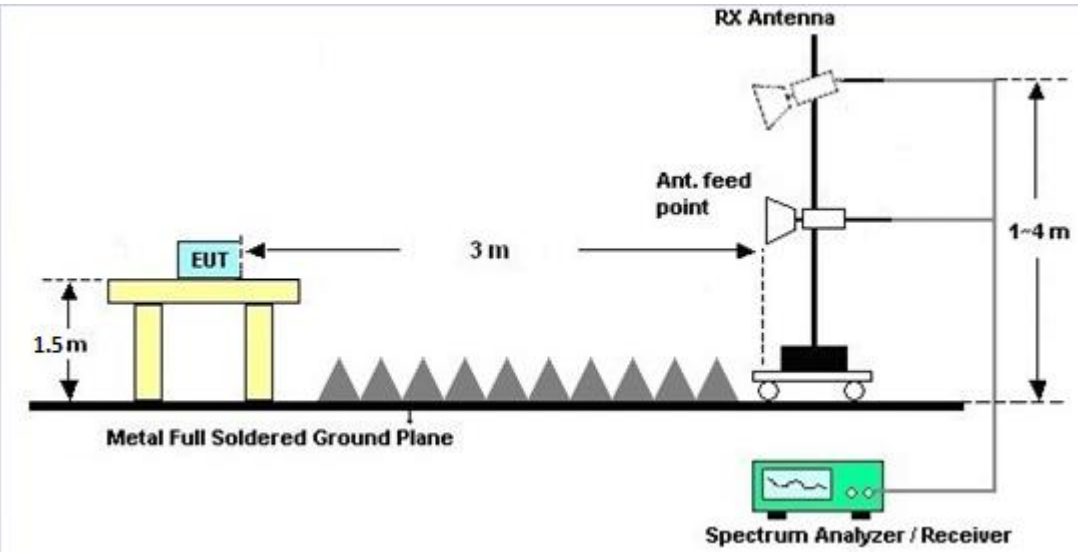
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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

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

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.4.7 Duty Cycle

Please refer to Appendix E.

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

Please refer to Appendix C and D.

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

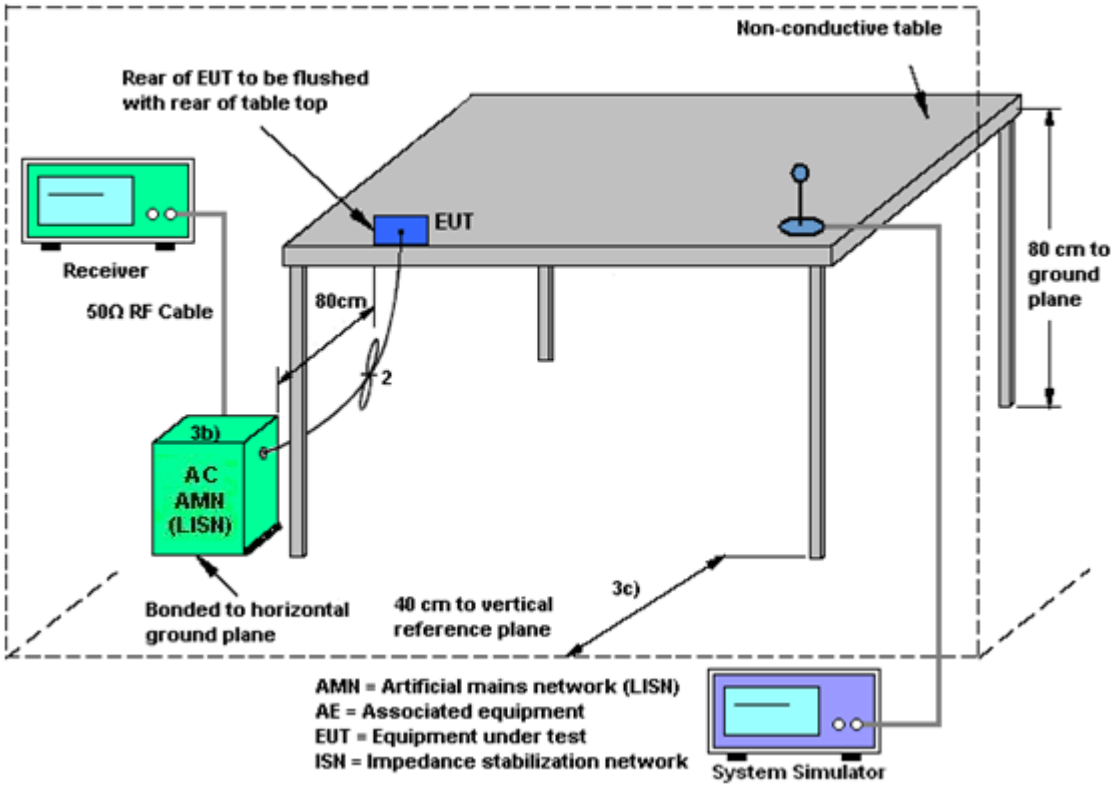
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

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

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Automatically Discontinue Transmission

3.6.1 Limit of Automatically Discontinue Transmission

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude the transmission of control or signaling information or the use of repetitive codes used by certain digital technologies to complete frame or burst intervals. Applicants shall include in their application for equipment authorization to describe how this requirement is met.

3.6.2 Measuring Instruments

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

3.6.3 Test Result of Automatically Discontinue Transmission

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

3.7 Antenna Requirements

3.7.1 Standard Applicable

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

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

<CDD Modes >

FCC KDB 662911 D01 Multiple Transmitter Output v02r01

For CDD transmissions, directional gain is calculated as

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

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

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

For power measurements on IEEE 802.11 devices,

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

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

The EUT supports CDD mode.

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

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

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

The directional gain “DG” is calculated as following table.

<CDD Modes>

	Ant. 1 (dBi)	Ant. 2 (dBi)	DG for Power (dBi)	DG for PSD (dBi)	Power Limit Reduction (dB)	PSD Limit Reduction (dB)
Band I	1.01	-1.59	1.01	2.82	0.00	0.00
Band II	1.46	-1.60	1.46	3.07	0.00	0.00
Band III	0.11	-3.36	0.11	1.56	0.00	0.00

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

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

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	1240001	N/A	Sep. 07, 2017	Feb. 26, 2018 ~ Mar. 21, 2018	Sep. 06, 2018	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1207349	300MHz~40GHz	Sep. 07, 2017	Feb. 26, 2018 ~ Mar. 21, 2018	Sep. 06, 2018	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz~40GHz	Jun. 20, 2017	Feb. 26, 2018 ~ Mar. 21, 2018	Jun. 19, 2018	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Mar. 14, 2018 ~ Mar. 22, 2018	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	3.6GHz	Dec. 08, 2017	Mar. 14, 2018 ~ Mar. 22, 2018	Dec. 07, 2018	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 30, 2017	Mar. 14, 2018 ~ Mar. 22, 2018	Nov. 29, 2018	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Mar. 14, 2018 ~ Mar. 22, 2018	N/A	Conduction (CO05-HY)
Amplifier	MITEQ	TTA1840-35-HG	1871923	18GHz~40GHz, VSWR : 2.5:1 max	Jul. 18, 2017	Mar. 03, 2018 ~ Mar. 17, 2018	Jul. 17, 2018	Radiation (03CH12-HY)
Bilog Antenna	TESEQ	CBL 6111D&00800 N1D01N-06	40103&07	30MHz to 1GHz	Jan. 10, 2018	Mar. 03, 2018 ~ Mar. 17, 2018	Jan. 09, 2019	Radiation (03CH12-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Nov. 23, 2017	Mar. 03, 2018 ~ Mar. 17, 2018	Nov. 22, 2019	Radiation (03CH12-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100390	20Hz~26.5GHz	Dec. 25, 2017	Mar. 03, 2018 ~ Mar. 17, 2018	Dec. 24, 2018	Radiation (03CH12-HY)
Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1328	1GHz ~ 18GHz	Oct. 20, 2017	Mar. 03, 2018 ~ Mar. 17, 2018	Oct. 19, 2018	Radiation (03CH12-HY)
Preamplifier	COM-POWER	PA-103	161075	10MHz~1GHz	Mar. 23, 2017	Mar. 03, 2018 ~ Mar. 17, 2018	Mar. 22, 2018	Radiation (03CH12-HY)
Preamplifier	Keysight	83017A	MY53270148	1GHz~26.5GHz	Jan. 15, 2018	Mar. 03, 2018 ~ Mar. 17, 2018	Jan. 14, 2019	Radiation (03CH12-HY)
Preamplifier	MITEQ	AMF-7D-00101800	2025787	1GHZ~18GHZ	Feb. 13, 2017	Mar. 03, 2018 ~ Mar. 17, 2018	Feb. 12, 2019	Radiation (03CH12-HY)
Preamplifier	MITEQ	AMF-7D-00101800-30-10P	1590074	1GHz~18GHz	May 22, 2017	Mar. 03, 2018 ~ Mar. 17, 2018	May 21, 2018	Radiation (03CH12-HY)
Antenna Mast	EMEC	AM-BS-4500-B	N/A	1m~4m	N/A	Mar. 03, 2018 ~ Mar. 17, 2018	N/A	Radiation (03CH12-HY)
Turn Table	EMEC	TT2000	N/A	0~360 Degree	N/A	Mar. 03, 2018 ~ Mar. 17, 2018	N/A	Radiation (03CH12-HY)
Spectrum Analyzer	Keysight	N9010A	MY54200485	10Hz ~ 44GHz	Oct. 31, 2017	Mar. 03, 2018 ~ Mar. 17, 2018	Oct. 30, 2018	Radiation (03CH12-HY)
SHF-EHF Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170584	18GHz- 40GHz	Nov. 27, 2017	Mar. 03, 2018 ~ Mar. 17, 2018	Nov. 26, 2018	Radiation (03CH12-HY)
Software	Audix	E3 6.2009-8-24	RK-000989	Software	N/A	Mar. 03, 2018 ~ Mar. 17, 2018	N/A	Radiation (03CH12-HY)

5 Uncertainty of Evaluation

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.10**

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

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

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**4.70**

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Lena Lo / Luffy Lin / Derek Hsu/Reece Lin	Temperature:	21~25	°C
Test Date:	2018/02/26 ~ 2018/03/21	Relative Humidity:	51~54	%

Report Number : FR820915E

TEST RESULTS DATA
26dB and 99% OBW

Band I														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)			Note
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	36	5180	17.55	17.45	23.59	24.42	-		22.42			
11a	6Mbps	2	44	5220	17.35	17.35	24.60	24.00	-		22.39			
11a	6Mbps	2	48	5240	17.45	17.40	24.54	24.43	-		22.41			
HT20	MCS0	2	36	5180	18.60	18.60	25.77	25.03	-		22.70			
HT20	MCS0	2	44	5220	18.65	18.60	25.80	24.72	-		22.70			
HT20	MCS0	2	48	5240	18.50	18.60	25.50	24.96	-		22.67			
HT40	MCS0	2	38	5190	36.50	36.60	41.79	41.40	-		23.01			
HT40	MCS0	2	46	5230	36.70	36.60	41.58	41.76	-		23.01			
VHT80	MCS0	2	42	5210	75.84	75.84	84.33	83.44	-		23.01			

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TEST RESULTS DATA
Average Power Table

FCC Band I															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	36	5180	0.08	0.08	12.31	13.96		24.00	24.00	1.01	-1.59		Pass
11a	6Mbps	1	44	5220	0.08	0.08	12.11	14.10		24.00	24.00	1.01	-1.59		Pass
11a	6Mbps	1	48	5240	0.08	0.08	12.14	14.24		24.00	24.00	1.01	-1.59		Pass
HT20	MCS0	1	36	5180	0.09	0.09	11.74	13.54		24.00	24.00	1.01	-1.59		Pass
HT20	MCS0	1	44	5220	0.09	0.09	11.58	13.57		24.00	24.00	1.01	-1.59		Pass
HT20	MCS0	1	48	5240	0.09	0.09	11.61	13.70		24.00	24.00	1.01	-1.59		Pass
HT40	MCS0	1	38	5190	0.18	0.18	11.79	13.43		24.00	24.00	1.01	-1.59		Pass
HT40	MCS0	1	46	5230	0.18	0.18	11.59	13.59		24.00	24.00	1.01	-1.59		Pass
VHT20	MCS0	1	36	5180	0.09	0.09	11.70	13.51		24.00	24.00	1.01	-1.59		Pass
VHT20	MCS0	1	44	5220	0.09	0.09	11.54	13.55		24.00	24.00	1.01	-1.59		Pass
VHT20	MCS0	1	48	5240	0.09	0.09	11.59	13.68		24.00	24.00	1.01	-1.59		Pass
VHT40	MCS0	1	38	5190	0.18	0.18	11.77	13.41		24.00	24.00	1.01	-1.59		Pass
VHT40	MCS0	1	46	5230	0.18	0.18	11.58	13.57		24.00	24.00	1.01	-1.59		Pass
VHT80	MCS0	1	42	5210	0.33	0.33	11.59	11.59		24.00	24.00	1.01	-1.59		Pass
11a	6Mbps	2	36	5180	0.08	0.08	14.36	14.40	17.39	24.00		1.01			Pass
11a	6Mbps	2	44	5220	0.08	0.08	14.33	14.52	17.44	24.00		1.01			Pass
11a	6Mbps	2	48	5240	0.08	0.08	14.34	14.50	17.43	24.00		1.01			Pass
HT20	MCS0	2	36	5180	0.09	0.09	13.60	13.65	16.63	24.00		1.01			Pass
HT20	MCS0	2	44	5220	0.09	0.09	13.74	13.78	16.77	24.00		1.01			Pass
HT20	MCS0	2	48	5240	0.09	0.09	13.56	13.90	16.74	24.00		1.01			Pass
HT40	MCS0	2	38	5190	0.18	0.23	13.70	13.85	16.78	24.00		1.01			Pass
HT40	MCS0	2	46	5230	0.18	0.23	13.83	13.90	16.87	24.00		1.01			Pass
VHT20	MCS0	2	36	5180	0.17	0.17	13.57	13.63	16.61	24.00		1.01			Pass
VHT20	MCS0	2	44	5220	0.17	0.17	13.70	13.74	16.73	24.00		1.01			Pass
VHT20	MCS0	2	48	5240	0.17	0.17	13.54	13.88	16.73	24.00		1.01			Pass
VHT40	MCS0	2	38	5190	0.30	0.35	13.69	13.70	16.71	24.00		1.01			Pass
VHT40	MCS0	2	46	5230	0.30	0.35	13.80	13.87	16.85	24.00		1.01			Pass
VHT80	MCS0	2	42	5210	0.61	0.57	12.02	11.86	14.95	24.00		1.01			Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	36	5180	0.08	0.08			7.42	11.00		2.82			Pass
11a	6Mbps	2	44	5220	0.08	0.08			7.50	11.00		2.82			Pass
11a	6Mbps	2	48	5240	0.08	0.08			7.28	11.00		2.82			Pass
HT20	MCS0	2	36	5180	0.09	0.09			6.08	11.00		2.82			Pass
HT20	MCS0	2	44	5220	0.09	0.09			6.15	11.00		2.82			Pass
HT20	MCS0	2	48	5240	0.09	0.09			6.05	11.00		2.82			Pass
HT40	MCS0	2	38	5190	0.18	0.23			3.08	11.00		2.82			Pass
HT40	MCS0	2	46	5230	0.18	0.23			3.23	11.00		2.82			Pass
VHT80	MCS0	2	42	5210	0.61	0.57			-1.13	11.00		2.82			Pass

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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	2	52	5260	17.45	17.30	24.36	24.00	23.38		29.38		23.98		
11a	6Mbps	2	60	5300	17.40	17.50	24.28	24.26	23.41		29.41		23.98		
11a	6Mbps	2	64	5320	17.35	17.35	24.22	23.68	23.39		29.39		23.98		
HT20	MCS0	2	52	5260	18.50	18.60	25.33	24.66	23.67		29.67		23.98		
HT20	MCS0	2	60	5300	18.60	18.60	25.51	24.55	23.70		29.70		23.98		
HT20	MCS0	2	64	5320	18.50	18.45	25.20	24.70	23.66		29.66		23.98		
HT40	MCS0	2	54	5270	36.60	36.60	41.58	41.76	23.98		30.00		23.98		
HT40	MCS0	2	62	5310	36.60	36.60	41.58	41.58	23.98		30.00		23.98		
VHT80	MCS0	2	58	5290	75.84	75.72	84.48	83.30	23.98		30.00		23.98		

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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	0.08	0.08	12.12	14.35		23.98	23.98	1.46	-1.60	26.99	Pass
11a	6Mbps	1	60	5300	0.08	0.08	12.15	14.49		23.98	23.98	1.46	-1.60	26.99	Pass
11a	6Mbps	1	64	5320	0.08	0.08	12.18	14.37		23.98	23.98	1.46	-1.60	26.99	Pass
HT20	MCS0	1	52	5260	0.09	0.09	11.51	13.81		23.98	23.98	1.46	-1.60	26.99	Pass
HT20	MCS0	1	60	5300	0.09	0.09	11.57	13.97		23.98	23.98	1.46	-1.60	26.99	Pass
HT20	MCS0	1	64	5320	0.09	0.09	11.59	13.85		23.98	23.98	1.46	-1.60	26.99	Pass
HT40	MCS0	1	54	5270	0.18	0.18	11.60	13.83		23.98	23.98	1.46	-1.60	26.99	Pass
HT40	MCS0	1	62	5310	0.18	0.18	11.65	13.85		23.98	23.98	1.46	-1.60	26.99	Pass
VHT20	MCS0	1	52	5260	0.09	0.09	11.48	13.79		23.98	23.98	1.46	-1.60	26.99	Pass
VHT20	MCS0	1	60	5300	0.09	0.09	11.54	13.95		23.98	23.98	1.46	-1.60	26.99	Pass
VHT20	MCS0	1	64	5320	0.09	0.09	11.57	13.82		23.98	23.98	1.46	-1.60	26.99	Pass
VHT40	MCS0	1	54	5270	0.18	0.18	11.57	13.80		23.98	23.98	1.46	-1.60	26.99	Pass
VHT40	MCS0	1	62	5310	0.18	0.18	11.62	13.84		23.98	23.98	1.46	-1.60	26.99	Pass
VHT80	MCS0	1	58	5290	0.33	0.33	11.63	13.96		23.98	23.98	1.46	-1.60	26.99	Pass
11a	6Mbps	2	52	5260	0.08	0.08	14.13	14.58	17.37	23.98		1.46		26.99	Pass
11a	6Mbps	2	60	5300	0.08	0.08	14.11	14.84	17.50	23.98		1.46		26.99	Pass
11a	6Mbps	2	64	5320	0.08	0.08	14.20	14.80	17.52	23.98		1.46		26.99	Pass
HT20	MCS0	2	52	5260	0.09	0.09	13.45	13.97	16.73	23.98		1.46		26.99	Pass
HT20	MCS0	2	60	5300	0.09	0.09	13.61	14.21	16.93	23.98		1.46		26.99	Pass
HT20	MCS0	2	64	5320	0.09	0.09	13.45	14.25	16.88	23.98		1.46		26.99	Pass
HT40	MCS0	2	54	5270	0.18	0.23	13.71	13.98	16.85	23.98		1.46		26.99	Pass
HT40	MCS0	2	62	5310	0.18	0.23	13.65	14.28	16.98	23.98		1.46		26.99	Pass
VHT20	MCS0	2	52	5260	0.17	0.17	13.43	13.93	16.70	23.98		1.46		26.99	Pass
VHT20	MCS0	2	60	5300	0.17	0.17	13.53	14.20	16.89	23.98		1.46		26.99	Pass
VHT20	MCS0	2	64	5320	0.17	0.17	13.43	14.22	16.86	23.98		1.46		26.99	Pass
VHT40	MCS0	2	54	5270	0.30	0.35	13.69	13.95	16.83	23.98		1.46		26.99	Pass
VHT40	MCS0	2	62	5310	0.30	0.35	13.62	14.25	16.96	23.98		1.46		26.99	Pass
VHT80	MCS0	2	58	5290	0.61	0.57	13.76	14.17	16.98	23.98		1.46		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	2	52	5260	0.08	0.08			7.36	11.00		3.07			Pass
11a	6Mbps	2	60	5300	0.08	0.08			7.60	11.00		3.07			Pass
11a	6Mbps	2	64	5320	0.08	0.08			7.41	11.00		3.07			Pass
HT20	MCS0	2	52	5260	0.09	0.09			6.01	11.00		3.07			Pass
HT20	MCS0	2	60	5300	0.09	0.09			6.24	11.00		3.07			Pass
HT20	MCS0	2	64	5320	0.09	0.09			6.22	11.00		3.07			Pass
HT40	MCS0	2	54	5270	0.18	0.23			3.43	11.00		3.07			Pass
HT40	MCS0	2	62	5310	0.18	0.23			3.26	11.00		3.07			Pass
VHT80	MCS0	2	58	5290	0.61	0.57			0.37	11.00		3.07			Pass

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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	2	100	5500	17.50	17.60	24.29	24.28	23.43		29.43		23.98		----	----
11a	6Mbps	2	116	5580	17.40	17.40	24.34	24.64	23.41		29.41		23.98		----	----
11a	6Mbps	2	140	5700	17.55	17.45	24.76	24.63	23.42		29.42		23.98		----	----
HT20	MCS0	2	100	5500	18.55	18.65	25.83	24.96	23.68		29.68		23.98		----	----
HT20	MCS0	2	116	5580	18.40	18.50	25.58	24.96	23.65		29.65		23.98		----	----
HT20	MCS0	2	140	5700	18.65	18.65	25.74	24.90	23.71		29.71		23.98		----	----
HT40	MCS0	2	102	5510	36.50	36.60	41.58	41.40	23.98		30.00		23.98		----	----
HT40	MCS0	2	110	5550	36.60	36.70	41.40	41.67	23.98		30.00		23.98		----	----
HT40	MCS0	2	134	5670	36.60	36.50	41.40	41.58	23.98		30.00		23.98		----	----
VHT80	MCS0	2	106	5530	75.72	75.60	84.30	83.20	23.98		30.00		23.98		----	----
VHT80	MCS0	2	122	5610	75.84	75.84	84.50	83.46	23.98		30.00		23.98		----	----

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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	0.08	0.08	12.98	15.83		23.98	23.98	0.11	-3.36	26.99	Pass
11a	6Mbps	1	116	5580	0.08	0.08	12.66	15.89		23.98	23.98	0.11	-3.36	26.99	Pass
11a	6Mbps	1	140	5700	0.08	0.08	12.68	15.84		23.98	23.98	0.11	-3.36	26.99	Pass
HT20	MCS0	1	100	5500	0.09	0.09	12.37	15.20		23.98	23.98	0.11	-3.36	26.99	Pass
HT20	MCS0	1	116	5580	0.09	0.09	12.05	15.22		23.98	23.98	0.11	-3.36	26.99	Pass
HT20	MCS0	1	140	5700	0.09	0.09	12.02	15.19		23.98	23.98	0.11	-3.36	26.99	Pass
HT40	MCS0	1	102	5510	0.18	0.18	12.46	15.25		23.98	23.98	0.11	-3.36	26.99	Pass
HT40	MCS0	1	110	5550	0.18	0.18	12.13	15.21		23.98	23.98	0.11	-3.36	26.99	Pass
HT40	MCS0	1	134	5670	0.18	0.18	12.15	15.32		23.98	23.98	0.11	-3.36	26.99	Pass
VHT20	MCS0	1	100	5500	0.09	0.09	12.34	15.17		23.98	23.98	0.11	-3.36	26.99	Pass
VHT20	MCS0	1	116	5580	0.09	0.09	12.02	15.20		23.98	23.98	0.11	-3.36	26.99	Pass
VHT20	MCS0	1	140	5700	0.09	0.09	12.00	15.16		23.98	23.98	0.11	-3.36	26.99	Pass
VHT40	MCS0	1	102	5510	0.18	0.18	12.43	15.23		23.98	23.98	0.11	-3.36	26.99	Pass
VHT40	MCS0	1	110	5550	0.18	0.18	12.10	15.19		23.98	23.98	0.11	-3.36	26.99	Pass
VHT40	MCS0	1	134	5670	0.18	0.18	12.13	15.30		23.98	23.98	0.11	-3.36	26.99	Pass
VHT80	MCS0	1	106	5530	0.33	0.33	12.31	15.30		23.98	23.98	0.11	-3.36	26.99	Pass
VHT80	MCS0	1	122	5610	0.33	0.33	12.15	15.33		23.98	23.98	0.11	-3.36	26.99	Pass
11a	6Mbps	2	100	5500	0.08	0.08	16.03	16.09	19.07	23.98		0.11		26.99	Pass
11a	6Mbps	2	116	5580	0.08	0.08	15.75	15.92	18.85	23.98		0.11		26.99	Pass
11a	6Mbps	2	140	5700	0.08	0.08	15.64	15.86	18.76	23.98		0.11		26.99	Pass
HT20	MCS0	2	100	5500	0.09	0.09	15.39	15.40	18.40	23.98		0.11		26.99	Pass
HT20	MCS0	2	116	5580	0.09	0.09	15.29	15.34	18.32	23.98		0.11		26.99	Pass
HT20	MCS0	2	140	5700	0.09	0.09	15.10	15.21	18.16	23.98		0.11		26.99	Pass
HT40	MCS0	2	102	5510	0.18	0.23	15.31	15.56	18.44	23.98		0.11		26.99	Pass
HT40	MCS0	2	110	5550	0.18	0.23	15.26	15.38	18.33	23.98		0.11		26.99	Pass
HT40	MCS0	2	134	5670	0.18	0.23	15.10	15.37	18.24	23.98		0.11		26.99	Pass
VHT20	MCS0	2	100	5500	0.17	0.17	15.37	15.39	18.39	23.98		0.11		26.99	Pass
VHT20	MCS0	2	116	5580	0.17	0.17	15.27	15.33	18.31	23.98		0.11		26.99	Pass
VHT20	MCS0	2	140	5700	0.17	0.17	15.08	15.19	18.15	23.98		0.11		26.99	Pass
VHT40	MCS0	2	102	5510	0.30	0.35	15.30	15.53	18.43	23.98		0.11		26.99	Pass
VHT40	MCS0	2	110	5550	0.30	0.35	15.25	15.35	18.31	23.98		0.11		26.99	Pass
VHT40	MCS0	2	134	5670	0.30	0.35	15.07	15.33	18.21	23.98		0.11		26.99	Pass
VHT80	MCS0	2	106	5530	0.61	0.57	15.53	15.55	18.55	23.98		0.11		26.99	Pass
VHT80	MCS0	2	122	5610	0.61	0.57	15.25	15.42	18.34	23.98		0.11		26.99	Pass

TEST RESULTS DATA
Power Spectral Density

Band III															
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)			Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	2	100	5500	0.08	0.08			8.00	11.00		1.56			Pass
11a	6Mbps	2	116	5580	0.08	0.08			7.82	11.00		1.56			Pass
11a	6Mbps	2	140	5700	0.08	0.08			8.24	11.00		1.56			Pass
HT20	MCS0	2	100	5500	0.09	0.09			6.89	11.00		1.56			Pass
HT20	MCS0	2	116	5580	0.09	0.09			6.80	11.00		1.56			Pass
HT20	MCS0	2	140	5700	0.09	0.09			7.05	11.00		1.56			Pass
HT40	MCS0	2	102	5510	0.18	0.23			3.97	11.00		1.56			Pass
HT40	MCS0	2	110	5550	0.18	0.23			3.91	11.00		1.56			Pass
HT40	MCS0	2	142	5710	0.18	0.23			4.47	11.00		1.56			Pass
VHT80	MCS0	2	106	5530	0.61	0.57			2.35	11.00		1.56			Pass
VHT80	MCS0	2	122	5610	0.61	0.57			2.18	11.00		1.56			Pass

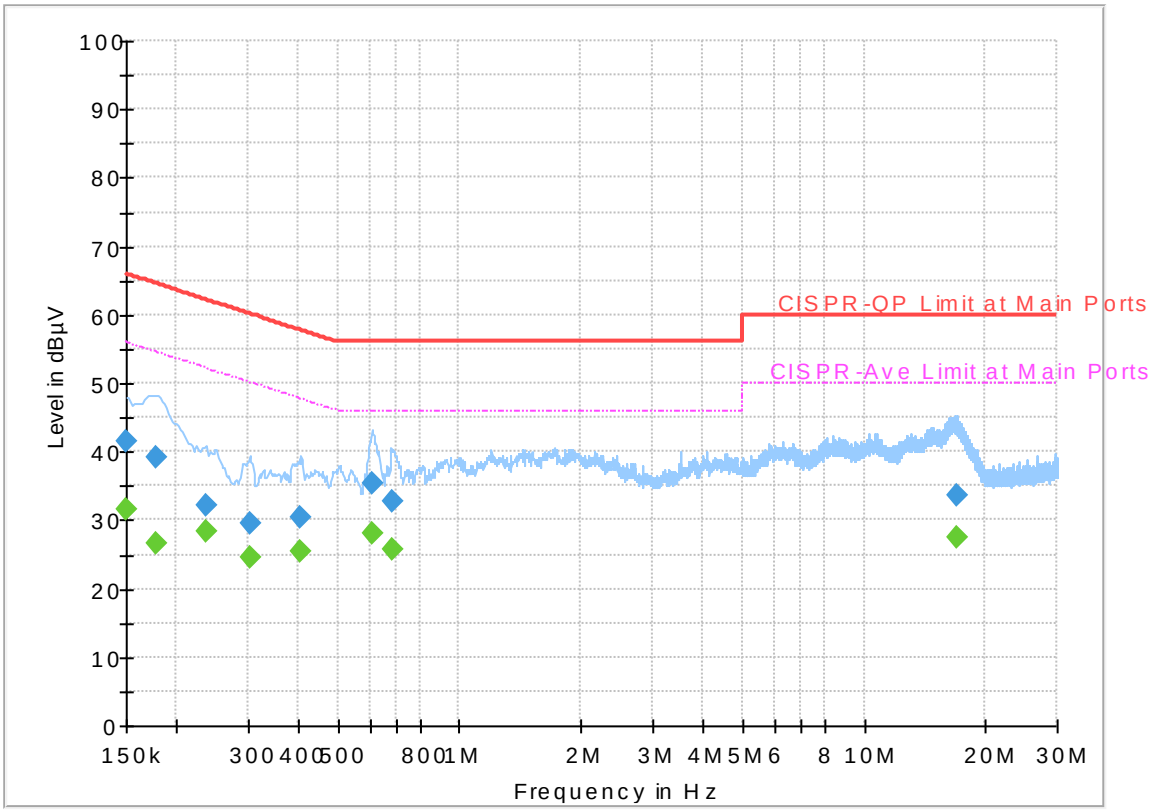
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Shareef Yu and Blue Lan	**Temperature :**	23~24℃
		Relative Humidity :	53~58%

EUT Information

Report NO :	820915
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

Full Spectrum



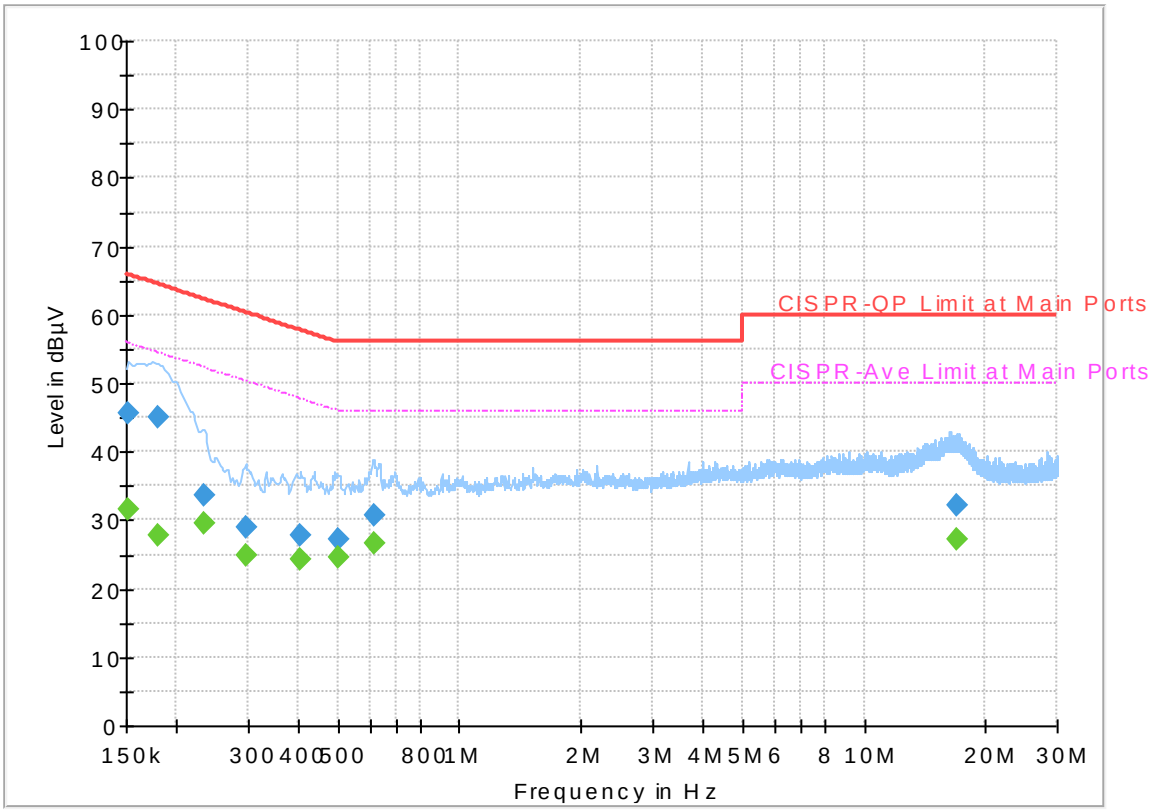
Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.150000	---	31.47	56.00	24.53	L1	OFF	19.5
0.150000	41.43	---	66.00	24.57	L1	OFF	19.5
0.177000	---	26.73	54.63	27.90	L1	OFF	19.5
0.177000	39.11	---	64.63	25.52	L1	OFF	19.5
0.235500	---	28.35	52.25	23.90	L1	OFF	19.5
0.235500	32.31	---	62.25	29.94	L1	OFF	19.5
0.303000	---	24.62	50.16	25.54	L1	OFF	19.5
0.303000	29.43	---	60.16	30.73	L1	OFF	19.5
0.406500	---	25.38	47.72	22.34	L1	OFF	19.5
0.406500	30.55	---	57.72	27.17	L1	OFF	19.5
0.606750	---	28.07	46.00	17.93	L1	OFF	19.5
0.606750	35.48	---	56.00	20.52	L1	OFF	19.5
0.681000	---	25.76	46.00	20.24	L1	OFF	19.5
0.681000	32.63	---	56.00	23.37	L1	OFF	19.5
16.977750	---	27.52	50.00	22.48	L1	OFF	19.8
16.977750	33.61	---	60.00	26.39	L1	OFF	19.8

EUT Information

Report NO :	820915
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	31.68	55.88	24.20	N	OFF	19.5
0.152250	45.70	---	65.88	20.18	N	OFF	19.5
0.179250	---	27.87	54.52	26.65	N	OFF	19.5
0.179250	45.14	---	64.52	19.38	N	OFF	19.5
0.233250	---	29.57	52.33	22.76	N	OFF	19.5
0.233250	33.64	---	62.33	28.69	N	OFF	19.5
0.296250	---	24.75	50.35	25.60	N	OFF	19.5
0.296250	28.83	---	60.35	31.52	N	OFF	19.5
0.404250	---	24.15	47.77	23.62	N	OFF	19.5
0.404250	27.76	---	57.77	30.01	N	OFF	19.5
0.503250	---	24.52	46.00	21.48	N	OFF	19.5
0.503250	27.28	---	56.00	28.72	N	OFF	19.5
0.613500	---	26.61	46.00	19.39	N	OFF	19.5
0.613500	30.78	---	56.00	25.22	N	OFF	19.5
16.946250	---	27.17	50.00	22.83	N	OFF	19.8
16.946250	32.20	---	60.00	27.80	N	OFF	19.8

Appendix C. Radiated Spurious Emission

Test Engineer :	Watt Tseng, Karl Hou, and Nick Yu	Temperature :	22 ~ 28 ℃
		Relative Humidity :	53 ~ 57 %

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5149.24	52.61	-21.39	74	45.97	31.79	5.99	31.14	251	0	P	H
		5150	41.76	-12.24	54	35.12	31.79	5.99	31.14	251	0	A	H
	*	5180	111.8	-	-	105.11	31.81	6.02	31.14	251	0	P	H
	*	5180	99.59	-	-	92.9	31.81	6.02	31.14	251	0	A	H
													H
													H
		5150	50.56	-23.44	74	43.92	31.79	5.99	31.14	220	21	P	V
		5150	39.37	-14.63	54	32.73	31.79	5.99	31.14	220	21	A	V
	*	5180	107.78	-	-	101.09	31.81	6.02	31.14	220	21	P	V
	*	5180	95.82	-	-	89.13	31.81	6.02	31.14	220	21	A	V
													V
													V
802.11a CH 44 5220MHz		5148.2	50.01	-23.99	74	43.37	31.79	5.99	31.14	248	0	P	H
		5150	38.72	-15.28	54	32.08	31.79	5.99	31.14	248	0	A	H
	*	5220	112.57	-	-	105.84	31.83	6.04	31.14	248	0	P	H
	*	5220	100.78	-	-	94.05	31.83	6.04	31.14	248	0	A	H
		5409.88	49.96	-24.04	74	43.01	31.94	6.16	31.15	248	0	P	H
		5453	39.15	-14.85	54	32.12	31.97	6.21	31.15	248	0	A	H
		5124.54	48.38	-25.62	74	41.76	31.78	5.98	31.14	204	38	P	V
		5150	37.47	-16.53	54	30.83	31.79	5.99	31.14	204	38	A	V
	*	5220	107.87	-	-	101.14	31.83	6.04	31.14	204	38	P	V
	*	5220	96.09	-	-	89.36	31.83	6.04	31.14	204	38	A	V
		5380.76	49.88	-24.12	74	42.95	31.93	6.15	31.15	204	38	P	V
		5453	36.8	-17.2	54	29.77	31.97	6.21	31.15	204	38	A	V

802.11a CH 48 5240MHz		5142.48	49.93	-24.07	74	43.29	31.79	5.99	31.14	246	0	P	H
		5149.76	37.65	-16.35	54	31.01	31.79	5.99	31.14	246	0	A	H
	*	5240	112.78	-	-	106.03	31.84	6.05	31.14	246	0	P	H
	*	5240	100.83	-	-	94.08	31.84	6.05	31.14	246	0	A	H
		5365.64	50.18	-23.82	74	43.27	31.92	6.14	31.15	246	0	P	H
		5453	39.39	-14.61	54	32.36	31.97	6.21	31.15	246	0	A	H
		5137.28	48.99	-25.01	74	42.37	31.78	5.98	31.14	206	38	P	V
		5149.76	37.05	-16.95	54	30.41	31.79	5.99	31.14	206	38	P	V
	*	5240	107.41	-	-	100.66	31.84	6.05	31.14	206	38	P	V
	*	5240	95.81	-	-	89.06	31.84	6.05	31.14	206	38	A	V
		5390.56	49.01	-24.99	74	42.08	31.93	6.15	31.15	206	38	P	V
		5350	36.79	-17.21	54	29.91	31.91	6.12	31.15	206	38	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10360	48.23	-25.77	74	63.78	39.86	9.79	65.2	100	0	P	H
		15540	47.51	-26.49	74	60.73	38.53	12.23	63.98	100	0	P	H
													H
													H
		10360	48.52	-25.48	74	64.07	39.86	9.79	65.2	100	0	P	V
		15540	45.8	-28.2	74	59.02	38.53	12.23	63.98	100	0	P	V
													V
													V
802.11a CH 44 5220MHz		10440	47.81	-26.19	74	63.21	39.98	9.82	65.2	100	0	P	H
		15660	46.69	-27.31	74	60.36	38.29	12.28	64.24	100	0	P	H
													H
													H
		10440	47.11	-26.89	74	62.51	39.98	9.82	65.2	100	0	P	V
		15660	46.64	-27.36	74	60.31	38.29	12.28	64.24	100	0	P	V
													V
													V
802.11a CH 48 5240MHz		10480	49.15	-24.85	74	64.43	40.07	9.85	65.2	100	0	P	H
		15720	46.9	-27.1	74	60.84	38.15	12.3	64.39	100	0	P	H
													H
													H
		10480	47.35	-26.65	74	62.63	40.07	9.85	65.2	100	0	P	V
		15720	45.69	-28.31	74	59.63	38.15	12.3	64.39	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5149.76	60.97	-13.03	74	54.33	31.79	5.99	31.14	206	21	P	H
		5150	49.97	-4.03	54	43.33	31.79	5.99	31.14	206	21	A	H
	*	5190	109.74	-	-	103.05	31.81	6.02	31.14	206	21	P	H
	*	5190	98.75	-	-	92.06	31.81	6.02	31.14	206	21	A	H
		5350	50.53	-23.47	74	43.65	31.91	6.12	31.15	206	21	P	H
		5453	40.28	-13.72	54	33.25	31.97	6.21	31.15	206	21	A	H
		5149.76	54.79	-19.21	74	48.15	31.79	5.99	31.14	105	8	P	V
		5150	45.36	-8.64	54	38.72	31.79	5.99	31.14	105	8	A	V
	*	5190	104.38	-	-	97.69	31.81	6.02	31.14	105	8	P	V
	*	5190	93.45	-	-	86.76	31.81	6.02	31.14	105	8	A	V
		5403.44	48.48	-25.52	74	41.53	31.94	6.16	31.15	105	8	P	V
		5403.72	39.13	-14.87	54	32.18	31.94	6.16	31.15	105	8	A	V
		5148.2	50.94	-23.06	74	44.3	31.79	5.99	31.14	188	20	P	H
		5150	40.25	-13.75	54	33.61	31.79	5.99	31.14	188	20	A	H
	*	5230	108.61	-	-	101.87	31.84	6.04	31.14	188	20	P	H
	*	5230	98.43	-	-	91.69	31.84	6.04	31.14	188	20	A	H
		5414.08	49.97	-24.03	74	42.99	31.95	6.18	31.15	188	20	P	H
		5453	40.42	-13.58	54	33.39	31.97	6.21	31.15	188	20	A	H
		5146.64	49.7	-24.3	74	43.06	31.79	5.99	31.14	101	9	P	V
		5148.98	39.15	-14.85	54	32.51	31.79	5.99	31.14	101	9	A	V
	*	5230	103.64	-	-	96.9	31.84	6.04	31.14	101	9	P	V
	*	5230	92.94	-	-	86.2	31.84	6.04	31.14	101	9	A	V
		5413.52	49.24	-24.76	74	42.26	31.95	6.18	31.15	101	9	P	V
		5405.96	38.19	-15.81	54	31.24	31.94	6.16	31.15	101	9	A	V

802.11n HT40 CH 38 5190MHz

802.11n HT40 CH 46 5230MHz

Remark

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

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5148.2	58.36	-15.64	74	51.72	31.79	5.99	31.14	188	20	P	H
		5147.42	49.79	-4.21	54	43.15	31.79	5.99	31.14	188	20	A	H
	*	5210	105.52	-	-	98.8	31.83	6.03	31.14	188	20	P	H
	*	5210	94.61	-	-	87.89	31.83	6.03	31.14	188	20	A	H
802.11ac		5384.12	49.69	-24.31	74	42.76	31.93	6.15	31.15	188	20	P	H
VHT80		5452.72	41.49	-12.51	54	34.46	31.97	6.21	31.15	188	20	A	H
CH 42		5147.42	54.47	-19.53	74	47.83	31.79	5.99	31.14	201	22	P	V
5210MHz		5147.16	46.39	-7.61	54	39.75	31.79	5.99	31.14	201	22	A	V
	*	5210	99.66	-	-	92.94	31.83	6.03	31.14	201	22	P	V
	*	5210	89.07	-	-	82.35	31.83	6.03	31.14	201	22	A	V
		5373.48	48.35	-25.65	74	41.44	31.92	6.14	31.15	201	22	P	V
		5414.36	39.49	-14.51	54	32.51	31.95	6.18	31.15	201	22	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 52 5260MHz		5129.2	48.62	-25.38	74	42	31.78	5.98	31.14	188	19	P	H
		5145.52	37.32	-16.68	54	30.68	31.79	5.99	31.14	188	19	A	H
	*	5260	112.56	-	-	105.78	31.86	6.07	31.15	188	19	P	H
	*	5260	100.66	-	-	93.88	31.86	6.07	31.15	188	19	A	H
		5359.92	49.99	-24.01	74	43.09	31.91	6.14	31.15	188	19	P	H
		5452.8	39.5	-14.5	54	32.47	31.97	6.21	31.15	188	19	A	H
		5023.46	48.5	-25.5	74	42.02	31.72	5.9	31.14	203	32	P	V
		5149.6	36.59	-17.41	54	29.95	31.79	5.99	31.14	203	32	A	V
	*	5260	106.62	-	-	99.84	31.86	6.07	31.15	203	32	P	V
	*	5260	94.48	-	-	87.7	31.86	6.07	31.15	203	32	A	V
		5451.36	48.58	-25.42	74	41.55	31.97	6.21	31.15	203	32	P	V
		5350.8	36.76	-17.24	54	29.88	31.91	6.12	31.15	203	32	A	V
802.11a CH 60 5300MHz		5116.28	48.69	-25.31	74	42.09	31.77	5.97	31.14	185	19	P	H
		5145.52	36.99	-17.01	54	30.35	31.79	5.99	31.14	185	19	A	H
	*	5300	113.37	-	-	106.55	31.88	6.09	31.15	185	19	P	H
	*	5300	100.77	-	-	93.95	31.88	6.09	31.15	185	19	A	H
		5366.4	52.44	-21.56	74	45.53	31.92	6.14	31.15	185	19	P	H
		5350.56	41.61	-12.39	54	34.73	31.91	6.12	31.15	185	19	A	H
		5119.34	48.47	-25.53	74	41.87	31.77	5.97	31.14	199	43	P	V
		5149.94	36.51	-17.49	54	29.87	31.79	5.99	31.14	199	43	A	V
	*	5300	106.07	-	-	99.25	31.88	6.09	31.15	199	43	P	V
	*	5300	93.92	-	-	87.1	31.88	6.09	31.15	199	43	A	V
		5353.44	49.1	-24.9	74	42.22	31.91	6.12	31.15	199	43	P	V
		5350.32	37.77	-16.23	54	30.89	31.91	6.12	31.15	199	43	A	V

802.11a CH 64 5320MHz	*	5320	112.49	-	-	105.65	31.89	6.1	31.15	196	20	P	H
	*	5320	90.6	-	-	83.76	31.89	6.1	31.15	196	20	A	H
		5366.88	54.71	-19.29	74	47.8	31.92	6.14	31.15	196	20	P	H
		5352.48	42.36	-11.64	54	35.48	31.91	6.12	31.15	196	20	A	H
													H
													H
	*	5320	106.18	-	-	99.34	31.89	6.1	31.15	209	59	P	V
	*	5320	93.92	-	-	87.08	31.89	6.1	31.15	209	59	A	V
		5367.52	50.55	-23.45	74	43.64	31.92	6.14	31.15	209	59	P	V
		5352.8	38.34	-15.66	54	31.46	31.91	6.12	31.15	209	59	A	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		10520	49.89	-24.11	74	65.11	40.11	9.87	65.2	100	0	P	H
		15780	45.34	-28.66	74	59.48	38.05	12.32	64.51	100	0	P	H
													H
													H
		10520	47.76	-26.24	74	62.98	40.11	9.87	65.2	100	0	P	V
		15780	45.33	-28.67	74	59.47	38.05	12.32	64.51	100	0	P	V
													V
													V
802.11a CH 60 5300MHz		10600	49.44	-24.56	74	64.54	40.18	9.9	65.18	100	0	P	H
		15900	45.99	-28.01	74	60.58	37.81	12.37	64.77	100	0	P	H
													H
													H
		10600	47.54	-26.46	74	62.64	40.18	9.9	65.18	100	0	P	V
		15900	45.22	-28.78	74	59.81	37.81	12.37	64.77	100	0	P	V
													V
													V
802.11a CH 64 5320MHz		10640	48.56	-25.44	74	63.61	40.21	9.91	65.17	100	0	P	H
		15960	44.63	-29.37	74	59.5	37.67	12.38	64.92	100	0	P	H
													H
													H
		10640	47.52	-26.48	74	62.57	40.21	9.91	65.17	100	0	P	V
		15960	43.66	-30.34	74	58.53	37.67	12.38	64.92	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 54 5270MHz		5145.52	49.08	-24.92	74	42.44	31.79	5.99	31.14	193	18	P	H
		5141.78	38.82	-15.18	54	32.19	31.79	5.98	31.14	193	18	A	H
	*	5270	109.04	-	-	102.25	31.86	6.08	31.15	193	18	P	H
	*	5270	98.52	-	-	91.73	31.86	6.08	31.15	193	18	A	H
		5352.48	52.07	-21.93	74	45.19	31.91	6.12	31.15	193	18	P	H
		5350.08	42.89	-11.11	54	36.01	31.91	6.12	31.15	193	18	A	H
		5127.16	48.41	-25.59	74	41.79	31.78	5.98	31.14	202	32	P	V
		5142.8	38.21	-15.79	54	31.57	31.79	5.99	31.14	202	32	A	V
	*	5270	102.58	-	-	95.79	31.86	6.08	31.15	202	32	P	V
	*	5270	92.14	-	-	85.35	31.86	6.08	31.15	202	32	A	V
		5352.24	49.76	-24.24	74	42.88	31.91	6.12	31.15	202	32	P	V
		5350.8	39.19	-14.81	54	32.31	31.91	6.12	31.15	202	32	A	V
802.11n HT40 CH 62 5310MHz		5104.72	48.6	-25.4	74	42.03	31.76	5.95	31.14	183	17	P	H
		5145.52	38.1	-15.9	54	31.46	31.79	5.99	31.14	183	17	A	H
	*	5310	108.91	-	-	102.07	31.89	6.1	31.15	183	17	P	H
	*	5310	98.68	-	-	91.84	31.89	6.1	31.15	183	17	A	H
		5354.4	60.55	-13.45	74	53.67	31.91	6.12	31.15	183	17	P	H
		5356.32	49.57	-4.43	54	42.69	31.91	6.12	31.15	183	17	A	H
		5094.86	48.59	-25.41	74	42.02	31.76	5.95	31.14	207	335	P	V
		5146.88	37.86	-16.14	54	31.22	31.79	5.99	31.14	207	335	A	V
	*	5310	102.55	-	-	95.71	31.89	6.1	31.15	207	335	P	V
	*	5310	92.16	-	-	85.32	31.89	6.1	31.15	207	335	A	V
		5350.08	52.98	-21.02	74	46.1	31.91	6.12	31.15	207	335	P	V
		5350.08	43.75	-10.25	54	36.87	31.91	6.12	31.15	207	335	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11ac VHT80 CH 58 5290MHz		5033.66	48.16	-25.84	74	41.68	31.72	5.9	31.14	182	18	P	H
		5113.56	39.55	-14.45	54	32.95	31.77	5.97	31.14	182	18	A	H
	*	5290	104.22	-	-	97.41	31.87	6.09	31.15	182	18	P	H
	*	5290	93.47	-	-	86.66	31.87	6.09	31.15	182	18	A	H
		5352.24	59.67	-14.33	74	52.79	31.91	6.12	31.15	182	18	P	H
		5350.8	50.95	-3.05	54	44.07	31.91	6.12	31.15	182	18	A	H
		5035.7	47.93	-26.07	74	41.43	31.72	5.92	31.14	201	34	P	V
		5147.22	39.38	-14.62	54	32.74	31.79	5.99	31.14	201	34	A	V
	*	5290	97.76	-	-	90.95	31.87	6.09	31.15	201	34	P	V
	*	5290	86.99	-	-	80.18	31.87	6.09	31.15	201	34	A	V
		5352.96	52.76	-21.24	74	45.88	31.91	6.12	31.15	201	34	P	V
		5352.72	43.82	-10.18	54	36.94	31.91	6.12	31.15	201	34	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+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 100 5500MHz		5453.2	51.76	-22.24	74	44.73	31.97	6.21	31.15	198	33	P	H
		5467.44	52.97	-15.23	68.2	45.91	31.98	6.23	31.15	198	33	P	H
		5452.88	41.51	-12.49	54	34.48	31.97	6.21	31.15	198	33	A	H
	*	5500	112.38	-	-	105.29	32	6.24	31.15	198	33	P	H
	*	5500	102.01	-	-	94.92	32	6.24	31.15	198	33	A	H
													H
		5448.4	50.46	-23.54	74	43.43	31.97	6.21	31.15	124	340	P	V
		5468.4	49.18	-19.02	68.2	42.12	31.98	6.23	31.15	124	340	P	V
		5452.88	37.56	-16.44	54	30.53	31.97	6.21	31.15	124	340	A	V
	*	5500	103.41	-	-	96.32	32	6.24	31.15	124	340	P	V
	*	5500	92.85	-	-	85.76	32	6.24	31.15	124	340	A	V
													V
802.11a CH 116 5580MHz		5399.68	49.81	-24.19	74	42.86	31.94	6.16	31.15	182	19	P	H
		5468.32	48.83	-19.37	68.2	41.77	31.98	6.23	31.15	182	19	P	H
		5452.72	40.19	-13.81	54	33.16	31.97	6.21	31.15	182	19	A	H
	*	5580	113.62	-	-	106.4	32.1	6.32	31.2	182	19	P	H
	*	5580	101.48	-	-	94.26	32.1	6.32	31.2	182	19	A	H
		5727.515	49.55	-18.65	68.2	42.13	32.31	6.37	31.26	182	19	P	H
		5358.16	48.48	-25.52	74	41.58	31.91	6.14	31.15	102	342	P	V
		5461.6	48.25	-19.95	68.2	41.22	31.97	6.21	31.15	102	342	P	V
		5452.72	36.75	-17.25	54	29.72	31.97	6.21	31.15	102	342	A	V
	*	5580	102.98	-	-	95.76	32.1	6.32	31.2	102	342	P	V
	*	5580	90.58	-	-	83.36	32.1	6.32	31.2	102	342	A	V
		5740.745	49	-19.2	68.2	41.56	32.34	6.37	31.27	102	342	P	V

802.11a CH 140 5700MHz	*	5700	112.21	-	-	104.83	32.27	6.36	31.25	194	25	P	H
	*	5700	100.6	-	-	93.22	32.27	6.36	31.25	194	25	A	H
		5726.76	56.59	-11.61	68.2	49.17	32.31	6.37	31.26	194	25	P	H
													H
													H
													H
	*	5700	103.12	-	-	95.74	32.27	6.36	31.25	172	316	P	V
	*	5700	91.17	-	-	83.79	32.27	6.36	31.25	172	316	A	V
		5755.64	50.67	-17.53	68.2	43.21	32.36	6.37	31.27	172	316	P	V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		11000	53.63	-20.37	74	68.15	40.5	10.08	65.1	100	0	P	H
		11000	38.78	-15.22	54	53.3	40.5	10.08	65.1	189	330	A	H
		16500	45.45	-22.75	68.2	58.46	39.6	12.49	65.1	100	0	P	H
													H
		11000	49.03	-24.97	74	63.55	40.5	10.08	65.1	100	0	P	V
		16504	45.14	-23.06	68.2	58.15	39.6	12.49	65.1	100	0	P	V
													V
													V
802.11a CH 116 5580MHz		11160	48.97	-25.03	74	63.64	40.37	10.16	65.2	100	0	P	H
		16740	44.05	-24.15	68.2	56.26	40.13	12.52	64.86	100	0	P	H
													H
													H
		11160	48.08	-25.92	74	62.75	40.37	10.16	65.2	100	0	P	V
		16740	44.19	-24.01	68.2	56.4	40.13	12.52	64.86	100	0	P	V
													V
													V
802.11a CH 140 5700MHz		11400	48.56	-25.44	74	63.43	40.18	10.29	65.34	100	0	P	H
		17100	48.44	-19.76	68.2	59.2	41.06	12.64	64.46	100	0	P	H
													H
													H
		11400	47.78	-26.22	74	62.65	40.18	10.29	65.34	100	0	P	V
		17100	49.24	-18.96	68.2	60	41.06	12.64	64.46	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5458.24	55	-19	74	47.97	31.97	6.21	31.15	200	30	P	H
		5464.72	55.05	-13.15	68.2	48.01	31.98	6.21	31.15	200	30	P	H
		5452.72	44.71	-9.29	54	37.68	31.97	6.21	31.15	200	30	A	H
	*	5510	109.52	-	-	102.42	32	6.26	31.16	200	30	P	H
802.11n	*	5510	98.56	-	-	91.46	32	6.26	31.16	200	30	A	H
HT40		5726.57	50.12	-18.08	68.2	42.7	32.31	6.37	31.26	200	30	P	H
CH 102		5459.68	49.69	-24.31	74	42.66	31.97	6.21	31.15	100	311	P	V
5510MHz		5460.64	49.39	-18.81	68.2	42.36	31.97	6.21	31.15	100	311	P	V
		5458.96	38.92	-15.08	54	31.89	31.97	6.21	31.15	100	311	A	V
	*	5510	98.85	-	-	91.75	32	6.26	31.16	100	311	P	V
	*	5510	87.54	-	-	80.44	32	6.26	31.16	100	311	A	V
		5727.83	48.95	-19.25	68.2	41.53	32.31	6.37	31.26	100	311	P	V
		5449.6	51.79	-22.21	74	44.76	31.97	6.21	31.15	189	23	P	H
		5467.36	52.32	-15.88	68.2	45.26	31.98	6.23	31.15	189	23	P	H
		5452.72	42.29	-11.71	54	35.26	31.97	6.21	31.15	189	23	A	H
	*	5550	110.93	-	-	103.74	32.07	6.29	31.17	189	23	P	H
802.11n	*	5550	99.98	-	-	92.79	32.07	6.29	31.17	189	23	A	H
HT40		5742.95	50.2	-18	68.2	42.76	32.34	6.37	31.27	189	23	P	H
CH 110		5454.4	48.43	-25.57	74	41.4	31.97	6.21	31.15	100	313	P	V
5550MHz		5466.88	48.22	-19.98	68.2	41.16	31.98	6.23	31.15	100	313	P	V
		5413.12	38.47	-15.53	54	31.49	31.95	6.18	31.15	100	313	A	V
	*	5550	99.69	-	-	92.5	32.07	6.29	31.17	100	313	P	V
	*	5550	88.68	-	-	81.49	32.07	6.29	31.17	100	313	A	V
		5757.44	48.71	-19.49	68.2	41.26	32.36	6.37	31.28	100	313	P	V

		5368.9	49.01	-24.99	74	42.1	31.92	6.14	31.15	191	34	P	H
		5463.75	48.74	-19.46	68.2	41.7	31.98	6.21	31.15	191	34	P	H
		5452.9	39.43	-14.57	54	32.4	31.97	6.21	31.15	191	34	A	H
	*	5670	110.77	-	-	103.41	32.24	6.35	31.23	191	34	P	H
802.11n	*	5670	99.81	-	-	92.45	32.24	6.35	31.23	191	34	A	H
HT40		5728.425	55.52	-12.68	68.2	48.1	32.31	6.37	31.26	191	34	P	H
CH 134		5441.35	48.38	-25.62	74	41.38	31.96	6.19	31.15	164	328	P	V
5670MHz		5466.2	47.2	-21	68.2	40.14	31.98	6.23	31.15	164	328	P	V
		5422.45	38.26	-15.74	54	31.28	31.95	6.18	31.15	164	328	A	V
	*	5670	100.01	-	-	92.65	32.24	6.35	31.23	164	328	P	V
	*	5670	89.27	-	-	81.91	32.24	6.35	31.23	164	328	A	V
		5730.175	49.98	-18.22	68.2	42.56	32.31	6.37	31.26	164	328	P	V

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

Band 3 - 5470~5725MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Path Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5455.36	56.66	-17.34	74	49.63	31.97	6.21	31.15	194	32	P	H
		5470	57.27	-10.93	68.2	50.21	31.98	6.23	31.15	194	32	P	H
		5459.2	47.76	-6.24	54	40.73	31.97	6.21	31.15	194	32	A	H
	*	5530	106.24	-	-	99.12	32.02	6.27	31.17	194	32	P	H
802.11ac	*	5530	95.55	-	-	88.43	32.02	6.27	31.17	194	32	A	H
VHT80		5727.515	50.15	-18.05	68.2	42.73	32.31	6.37	31.26	194	32	P	H
CH 106		5452	49.81	-24.19	74	42.78	31.97	6.21	31.15	108	343	P	V
5530MHz		5468.56	50.94	-17.26	68.2	43.88	31.98	6.23	31.15	108	343	P	V
		5458.96	41.4	-12.6	54	34.37	31.97	6.21	31.15	108	343	A	V
	*	5530	95.82	-	-	88.7	32.02	6.27	31.17	108	343	P	V
	*	5530	84.83	-	-	77.71	32.02	6.27	31.17	108	343	A	V
		5755.235	49.3	-18.9	68.2	41.84	32.36	6.37	31.27	108	343	P	V
		5390.8	50.05	-23.95	74	43.12	31.93	6.15	31.15	190	33	P	H
		5468.56	50.05	-18.15	68.2	42.99	31.98	6.23	31.15	190	33	P	H
		5452.72	42.01	-11.99	54	34.98	31.97	6.21	31.15	190	33	A	H
	*	5610	107.15	-	-	99.88	32.14	6.34	31.21	190	33	P	H
802.11ac	*	5610	95.74	-	-	88.47	32.14	6.34	31.21	190	33	A	H
VHT80		5730.35	51.66	-16.54	68.2	44.25	32.31	6.37	31.27	190	33	P	H
CH 122		5389.6	48.27	-25.73	74	41.34	31.93	6.15	31.15	100	342	P	V
5610MHz		5464.24	47.98	-20.22	68.2	40.94	31.98	6.21	31.15	100	342	P	V
		5394.4	39.7	-14.3	54	32.76	31.93	6.16	31.15	100	342	A	V
	*	5610	95.76	-	-	88.49	32.14	6.34	31.21	100	342	P	V
	*	5610	85.12	-	-	77.85	32.14	6.34	31.21	100	342	A	V
		5761.85	49.01	-19.19	68.2	41.56	32.36	6.37	31.28	100	342	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11n VHT80 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n VHT80 LF		93.18	32.81	-10.69	43.5	47	15.36	0.86	30.41	-	-	P	H
		158.52	20.25	-23.25	43.5	32.64	16.76	1.17	30.32	-	-	P	H
		233.31	22.02	-23.98	46	34.2	16.67	1.38	30.23	-	-	P	H
		499.5	24.51	-21.49	46	28.49	23.95	1.86	29.79	-	-	P	H
		747.3	37.72	-8.28	46	36.9	27.95	2.31	29.44	100	0	P	H
		972.7	32.23	-21.77	54	27.67	30.84	2.74	29.02	-	-	P	H
													H
													H
													H
													H
													H
													H
													V
		45.93	29.03	-10.97	40	42.37	16.45	0.61	30.4	100	0	P	V
		92.1	30.57	-12.93	43.5	44.89	15.27	0.82	30.41	-	-	P	V
		265.17	20.59	-25.41	46	29.59	19.73	1.46	30.19	-	-	P	V
		560.4	25.76	-20.24	46	27.46	25.98	2.03	29.71	-	-	P	V
		747.3	33.12	-12.88	46	32.3	27.95	2.31	29.44	-	-	P	V
		951	32.47	-13.53	46	28.15	30.65	2.73	29.06	-	-	P	V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

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

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b CH 01 2412MHz		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 43.54 (dBμV/m)

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

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

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

Appendix D. Radiated Spurious Emission

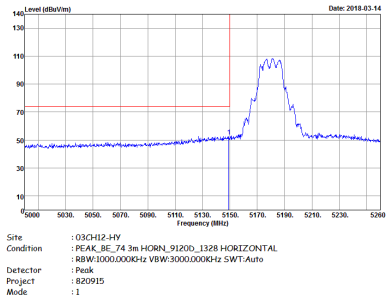
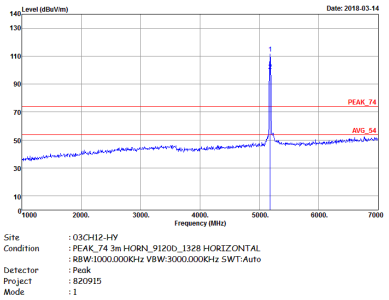
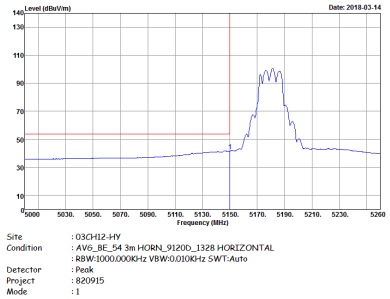
Test Engineer :	Watt Tseng, Karl Hou, and Nick Yu	**Temperature :**	22 ~ 28 ℃
		Relative Humidity :	53 ~ 57 %

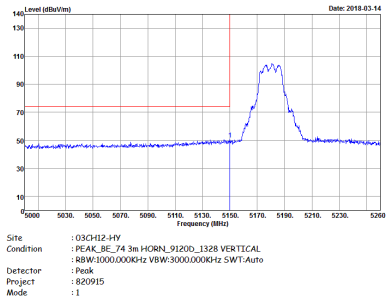
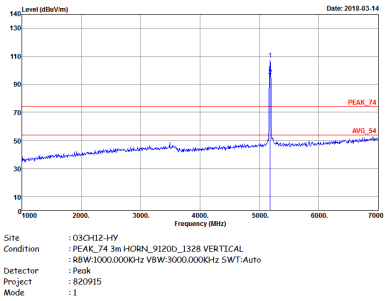
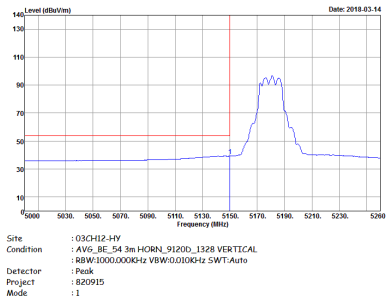
Note symbol

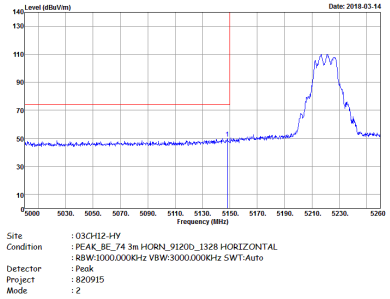
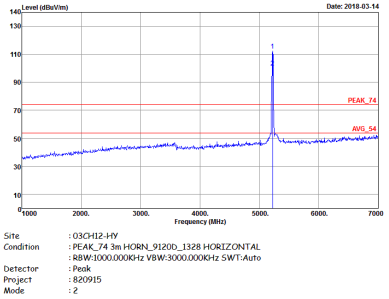
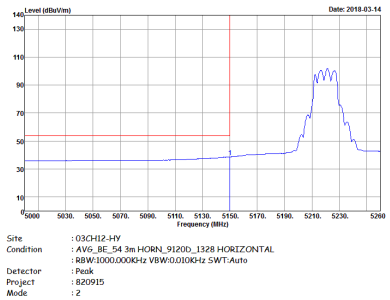
-L	**Low channel location**
-R	**High channel location**

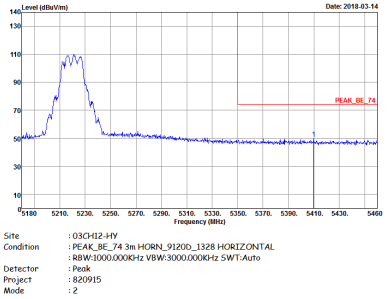
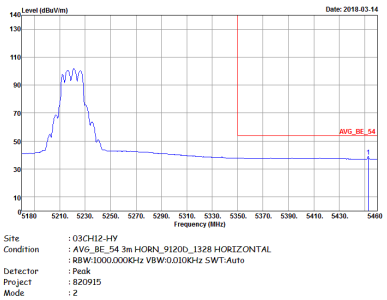
Band 1 - 5150~5250MHz

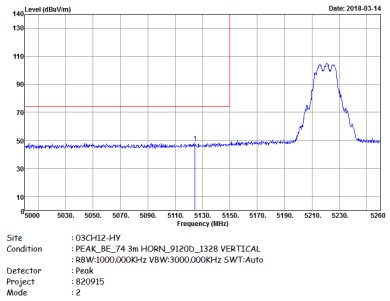
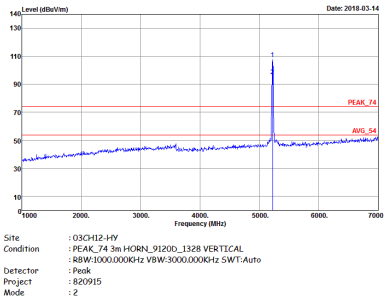
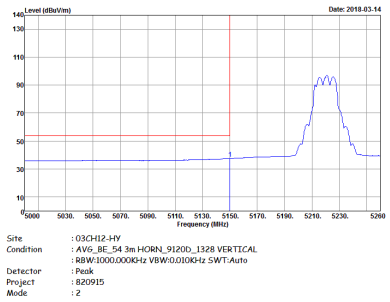
WIFI 802.11a (Band Edge @ 3m)

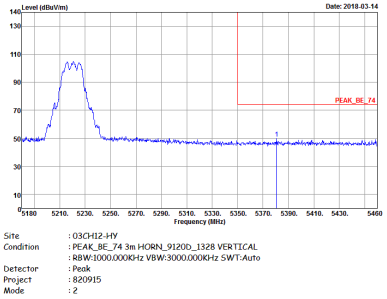
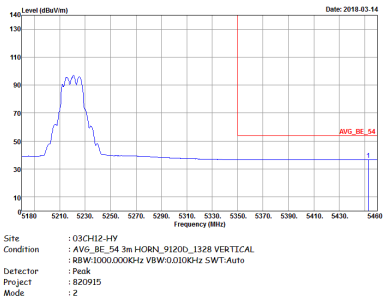
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

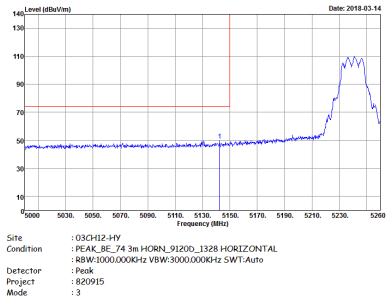
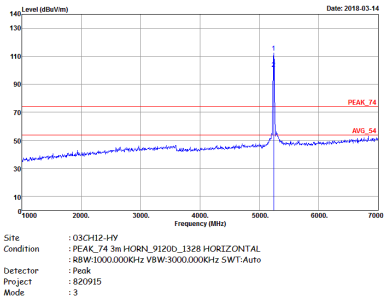
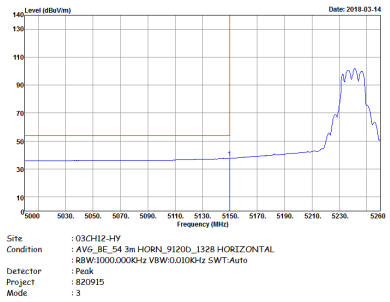
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

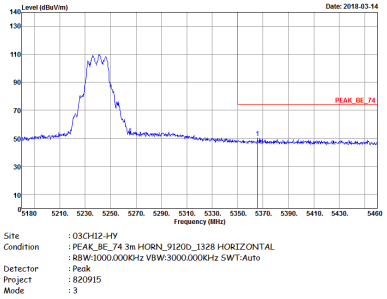
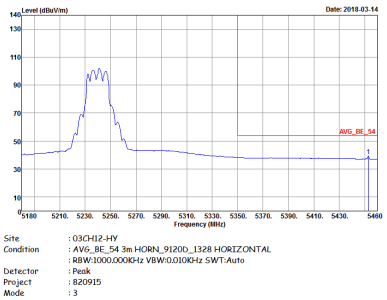
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

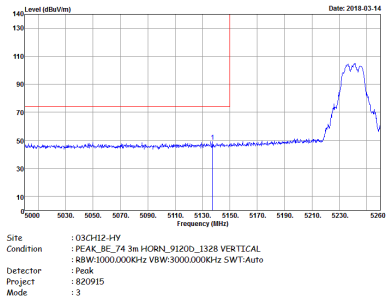
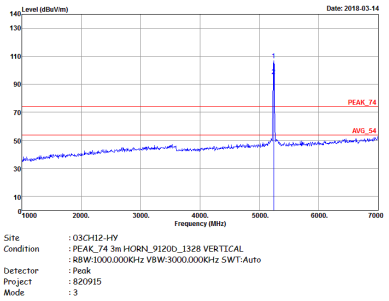
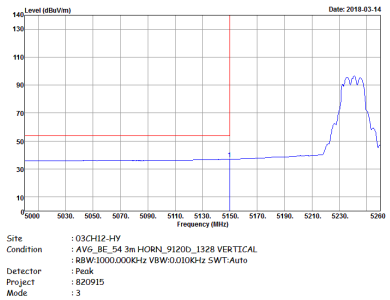
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

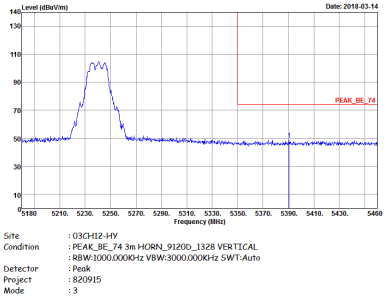
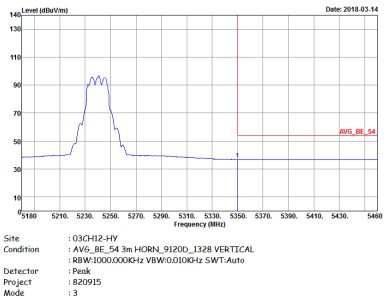
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

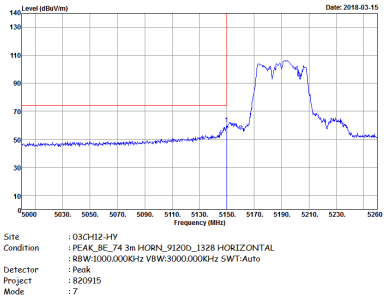
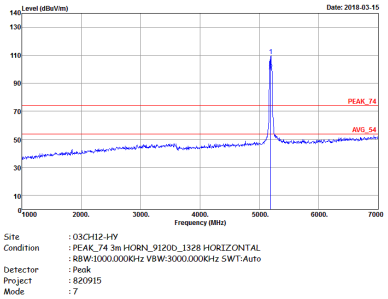
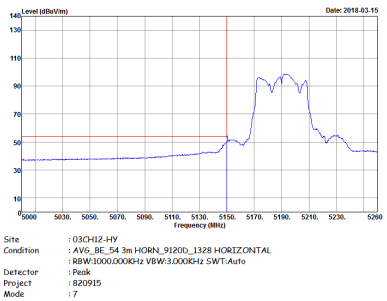
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

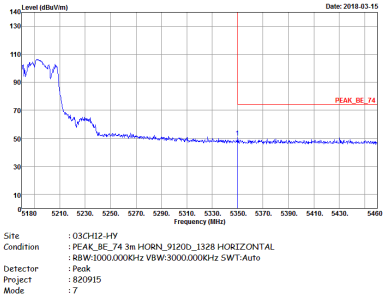
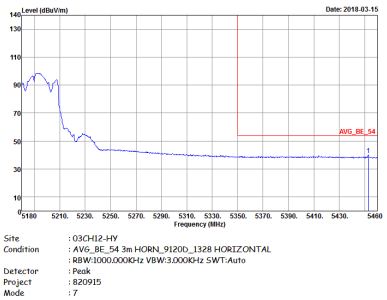
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

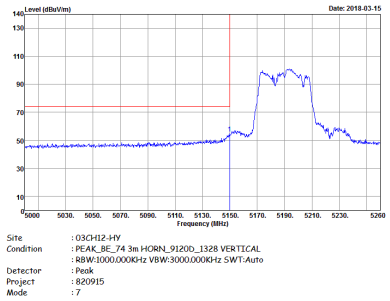
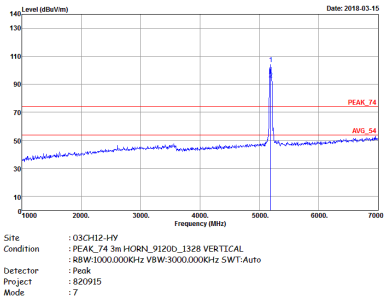
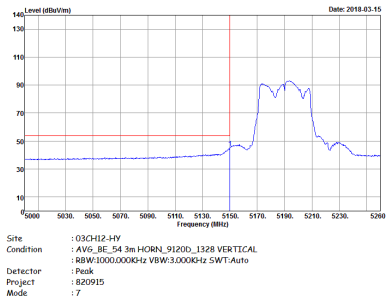
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

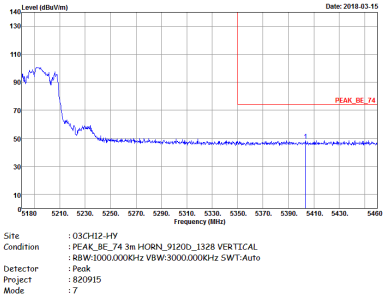
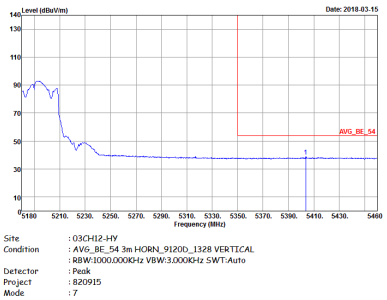
Band 1 5150~5250MHz

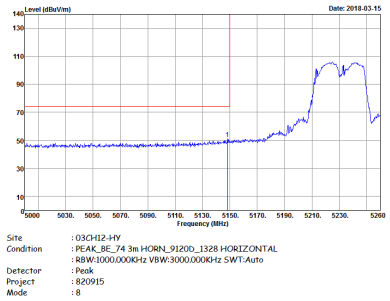
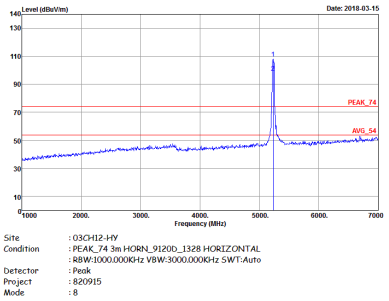
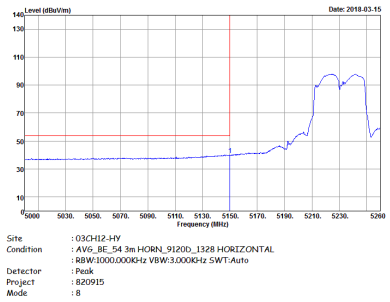
WIFI 802.11n HT40 (Band Edge @ 3m)

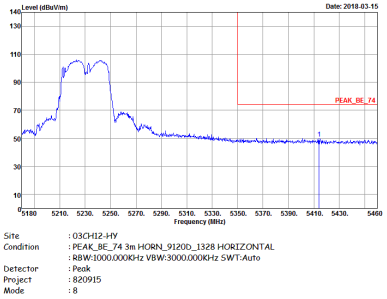
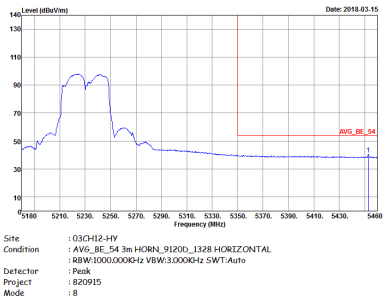
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

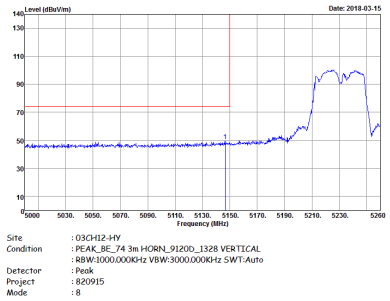
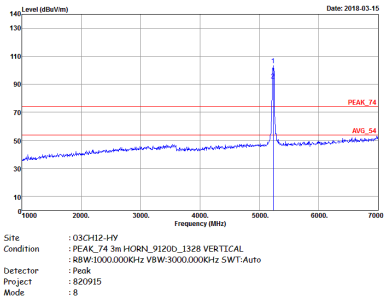
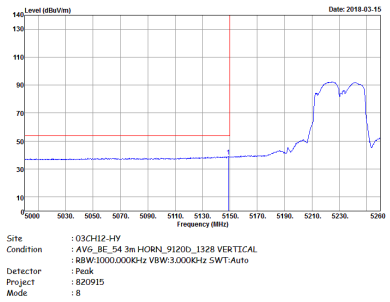
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

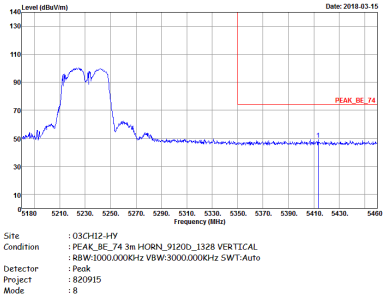
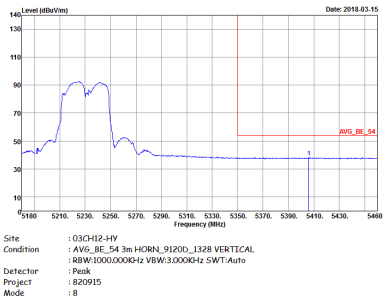
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

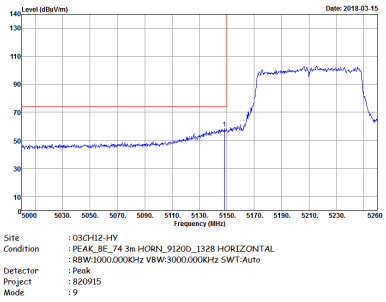
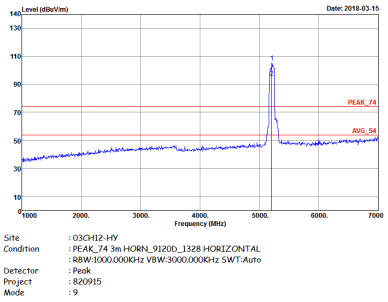
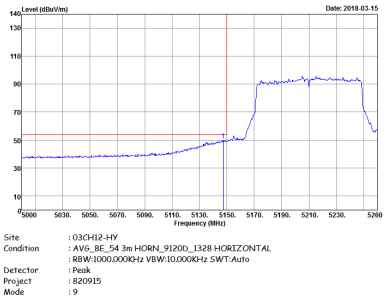
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

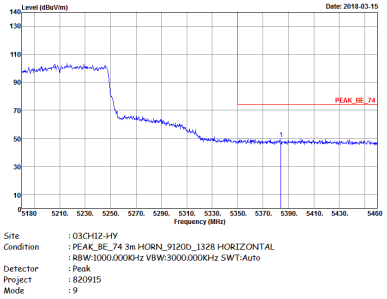
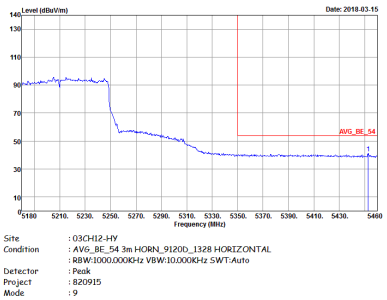
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

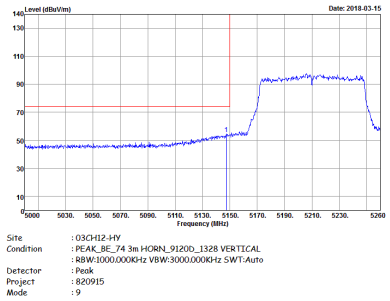
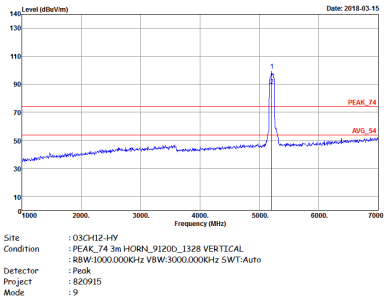
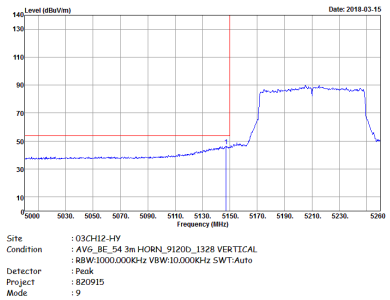
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

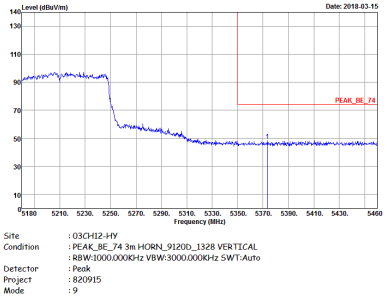
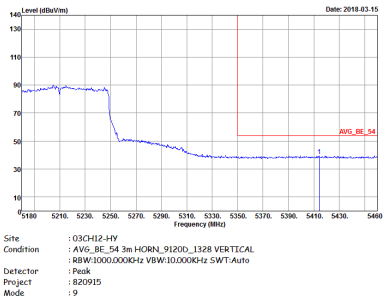
Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

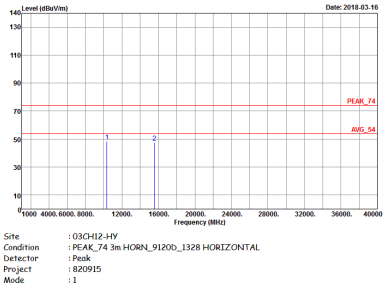
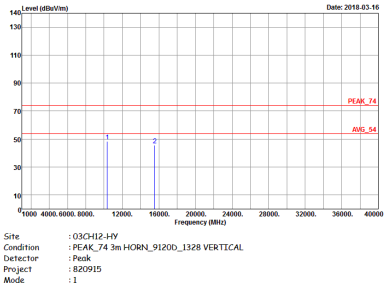
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

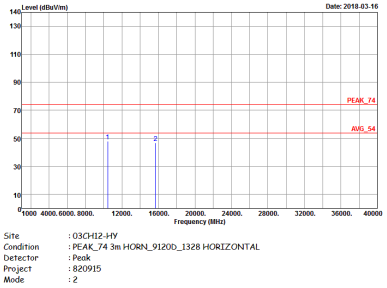
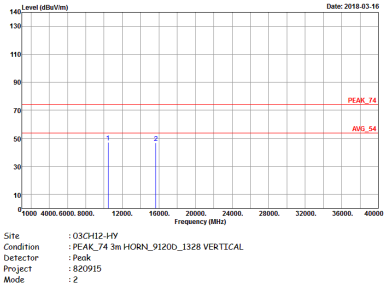
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

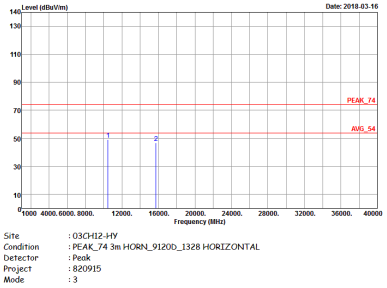
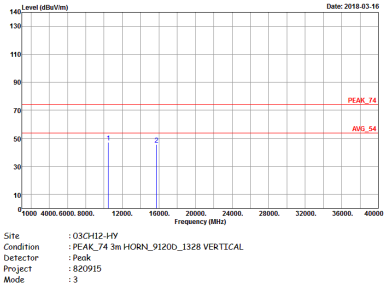
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

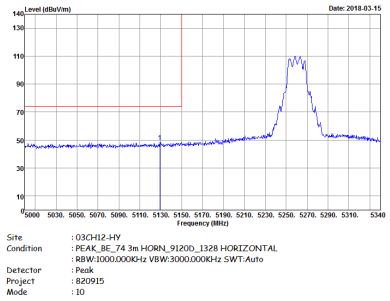
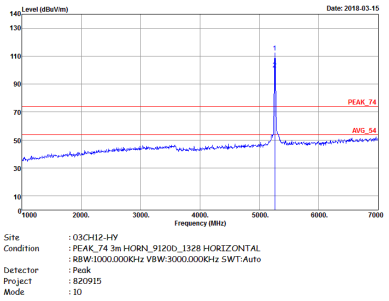
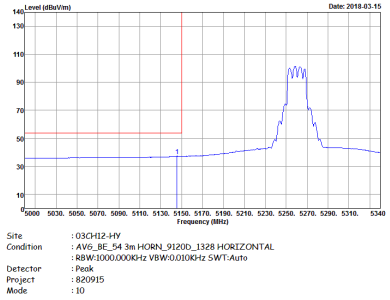
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
1+2	Horizontal	Vertical
Peak Avg.		

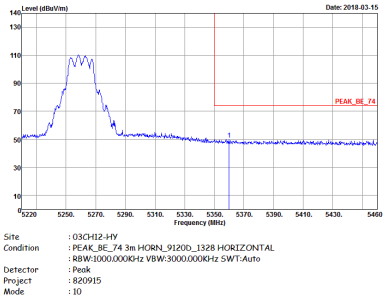
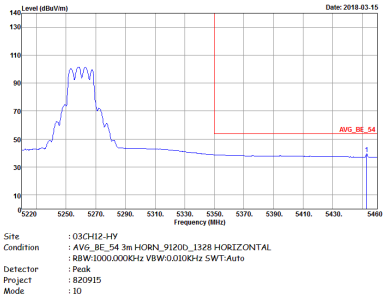
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
1+2	Horizontal	Vertical
Peak Avg.		

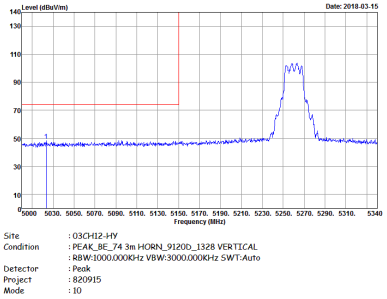
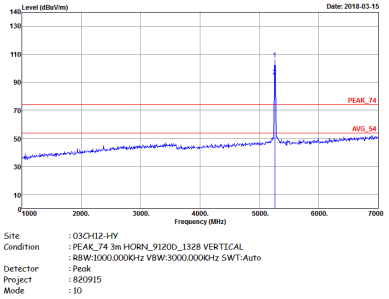
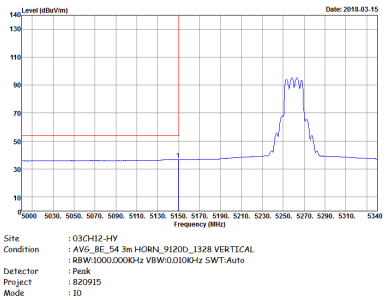
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
1+2	Horizontal	Vertical
Peak Avg.		

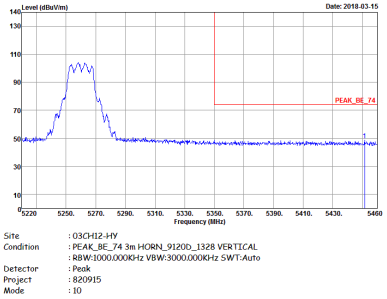
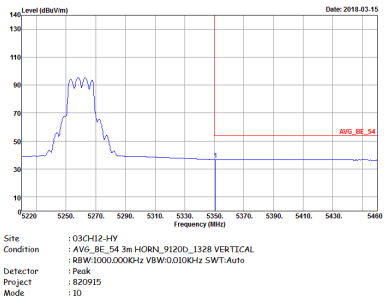
Band 2 - 5250~5350MHz

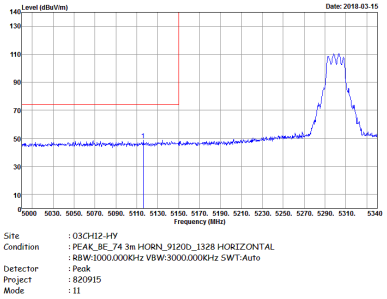
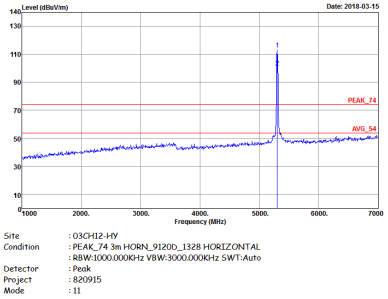
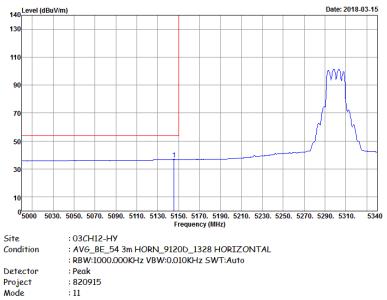
WIFI 802.11a (Band Edge @ 3m)

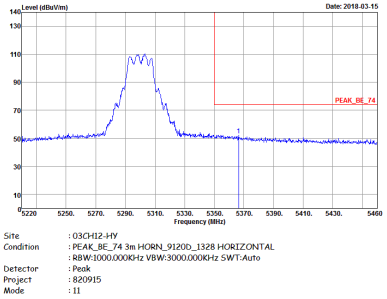
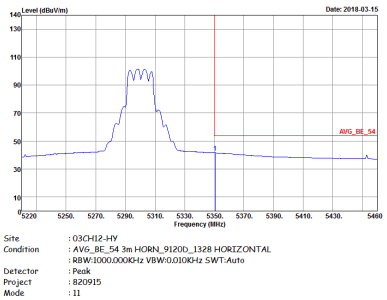
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

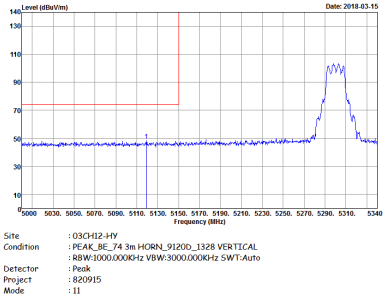
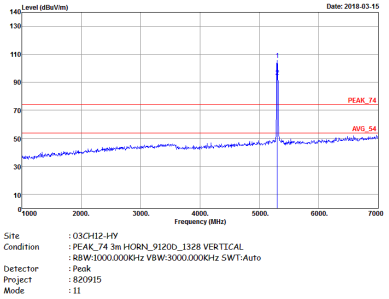
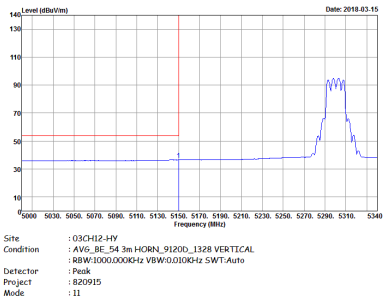
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

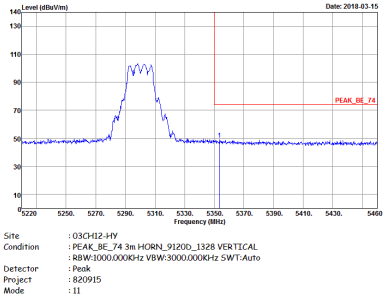
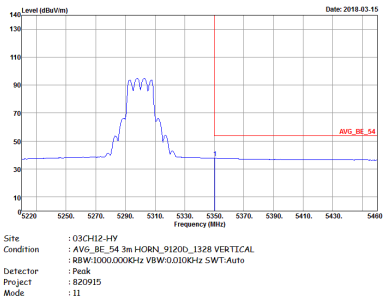
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

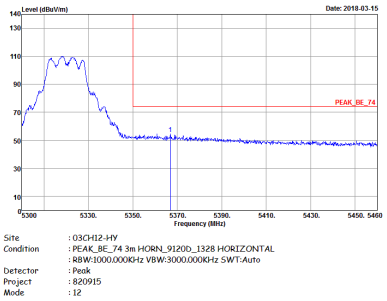
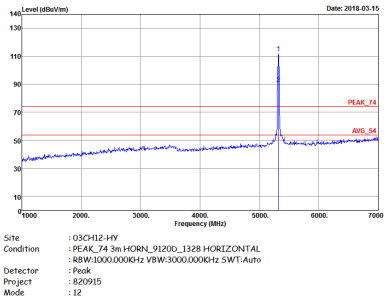
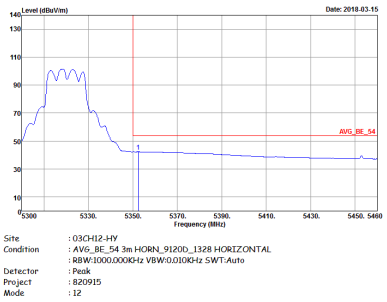
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

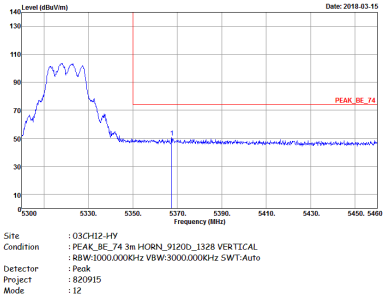
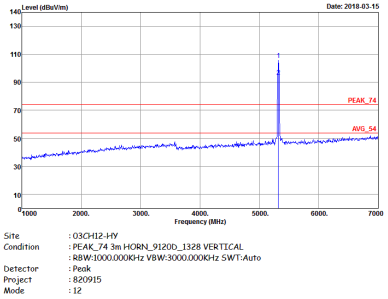
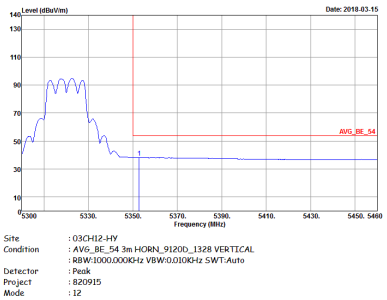
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

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

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

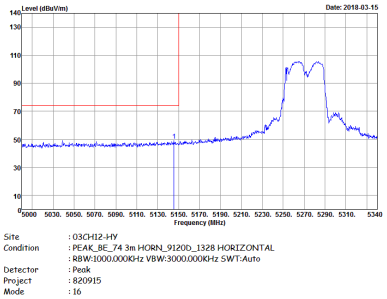
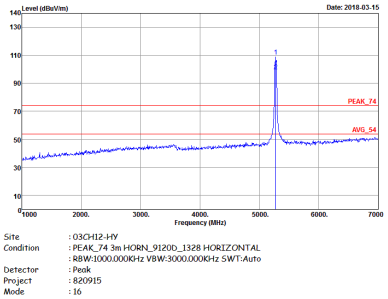
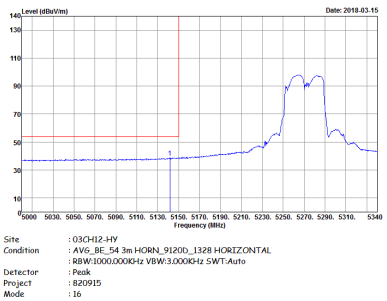
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

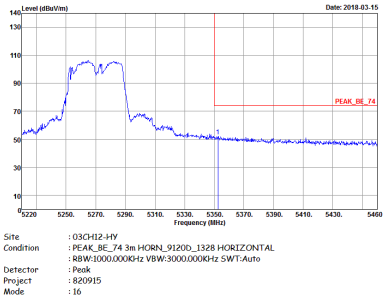
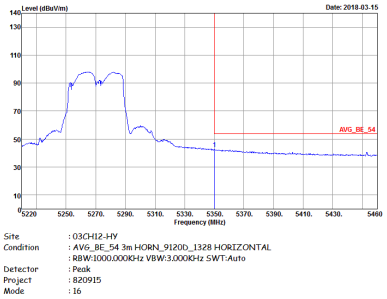
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

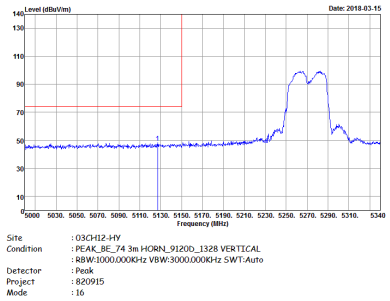
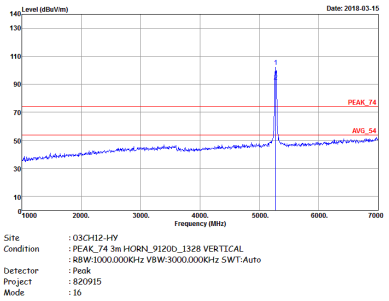
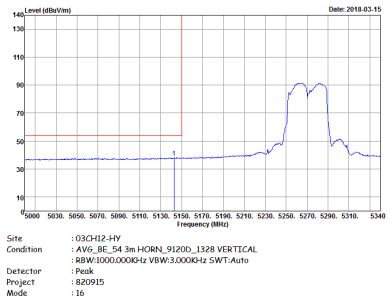
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

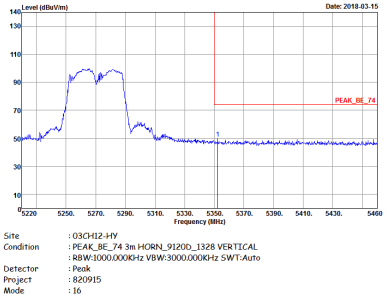
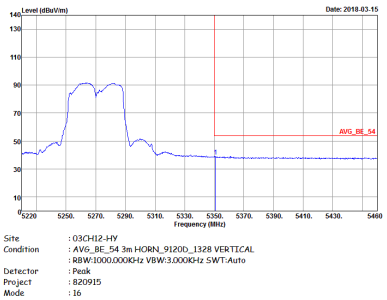
Band 2 5250~5350MHz

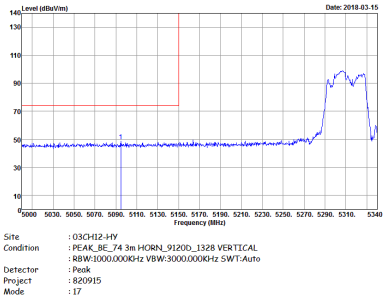
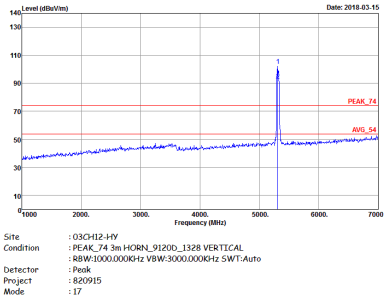
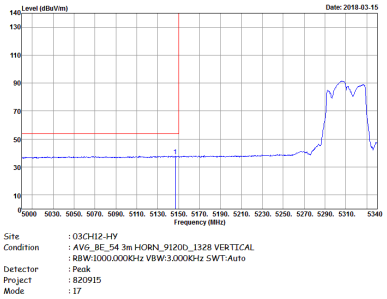
WIFI 802.11n HT40 (Band Edge @ 3m)

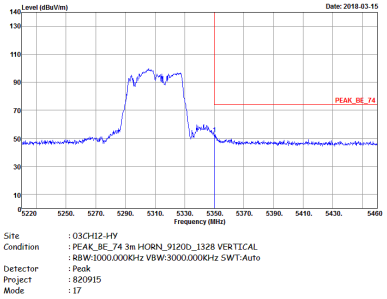
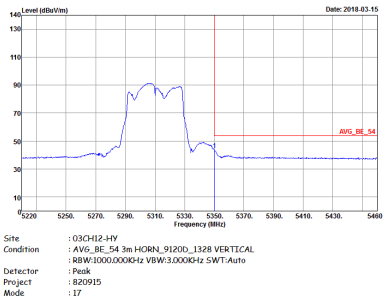
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

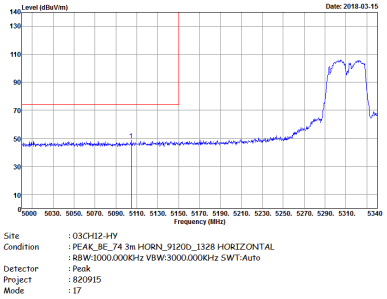
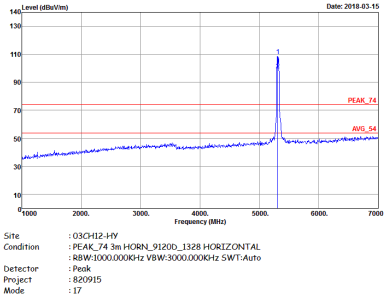
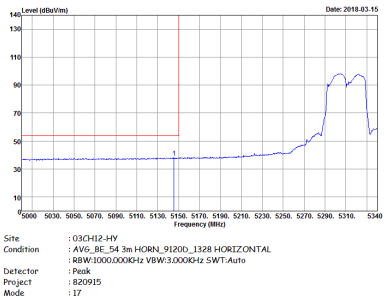
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

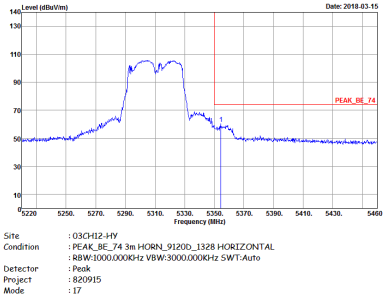
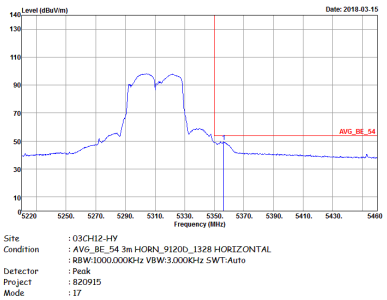
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - L	
1+2	Vertical	Vertical
Peak		
Avg.		Left blank

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

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

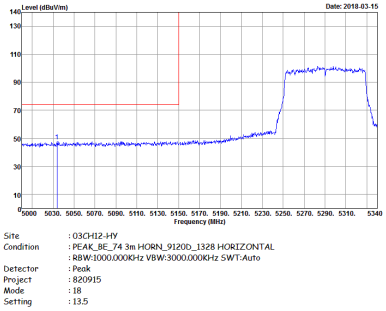
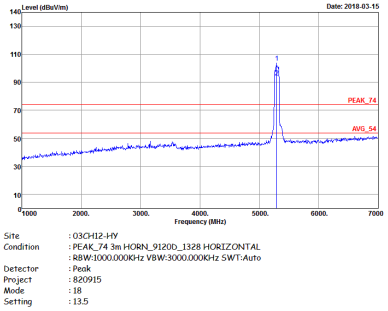
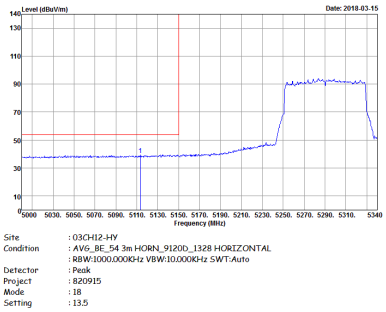
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - R	
1+2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

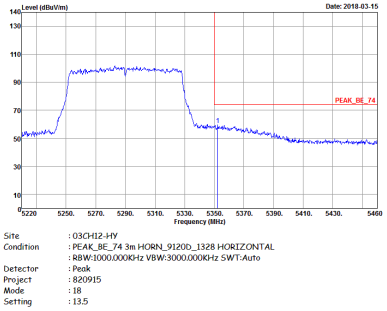
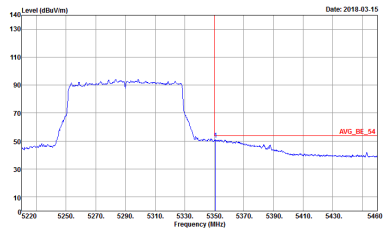
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

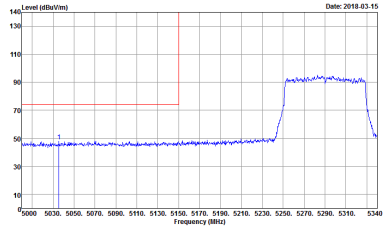
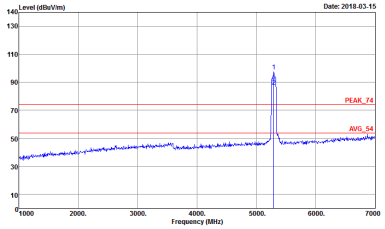
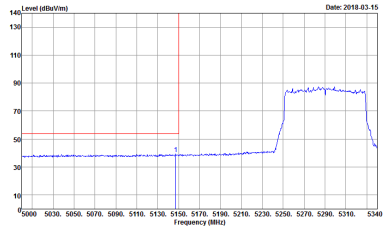
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - R	
1+2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

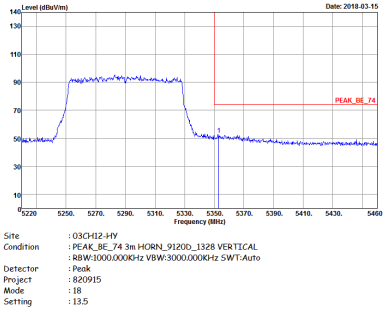
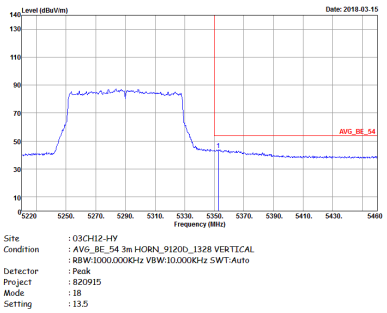
Band 2 5250~5350MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

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

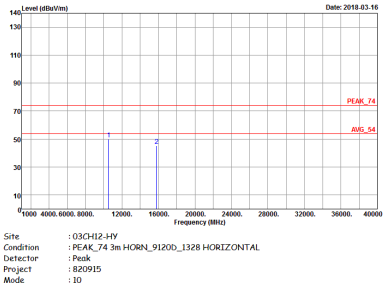
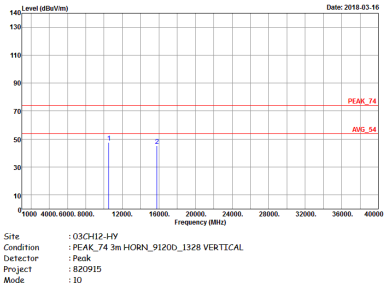
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - R	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 820915 Mode : 18 Setting : 13.5	Left blank
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto Detector : Peak Project : 820915 Mode : 18 Setting : 13.5	Left blank

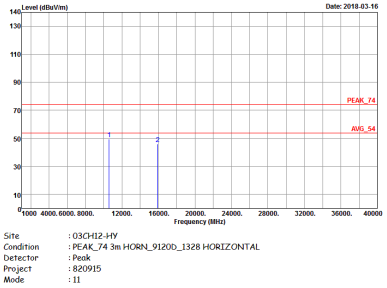
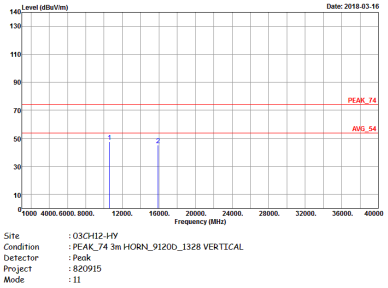
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - L	
1+2	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 820915 Mode : 18 Setting : 13.5	 Site : 03CH12-HY Condition : PEAK_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 820915 Mode : 18 Setting : 13.5
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto Detector : Peak Project : 820915 Mode : 18 Setting : 13.5	Left blank

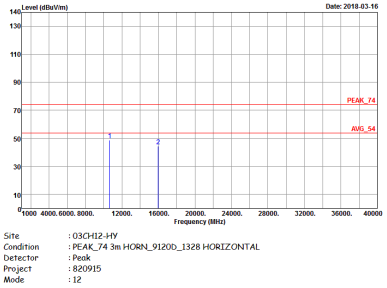
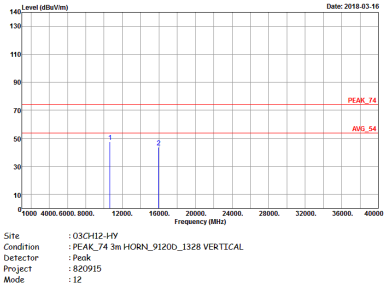
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH58 5290MHz - R	
1+2	Vertical	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE_74 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 820915 Mode : 18 Setting : 13.5	Left blank
Avg.	 Site : 03CH12-HY Condition : AVG_BE_54 3m HORN_9120D_1328 VERTICAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto Detector : Peak Project : 820915 Mode : 18 Setting : 13.5	Left blank

Band 2 - 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

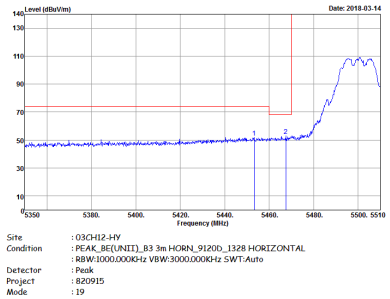
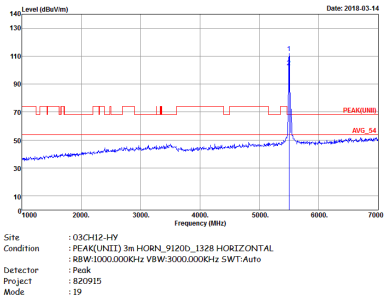
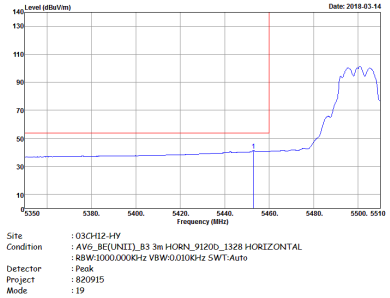
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH52 5260MHz	
1+2	Horizontal	Vertical
Peak Avg.		

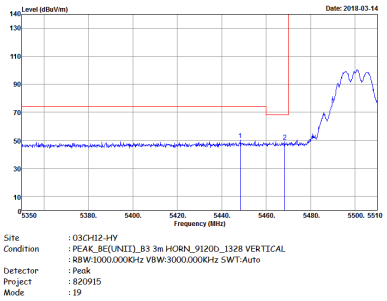
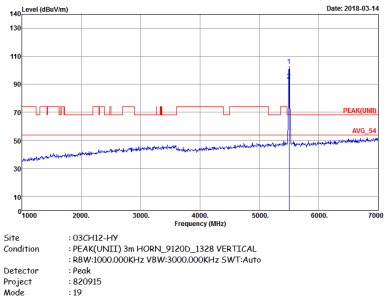
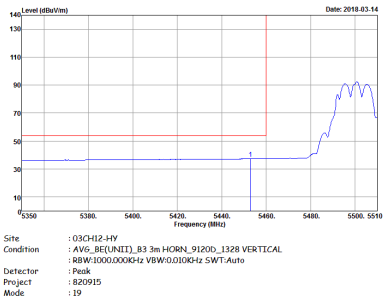
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH60 5300MHz	
1+2	Horizontal	Vertical
Peak Avg.		

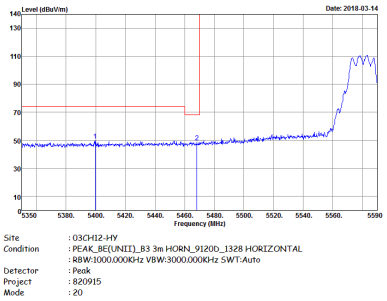
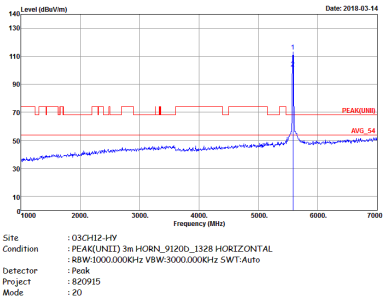
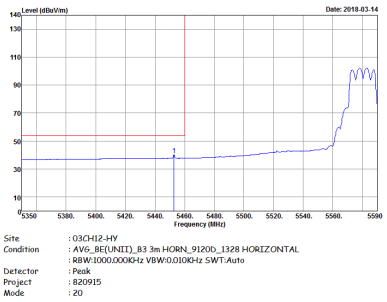
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH64 5320MHz	
1+2	Horizontal	Vertical
Peak Avg.		

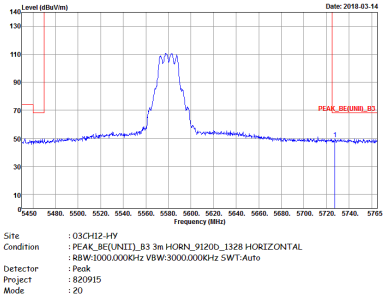
Band 3 - 5470~5725MHz

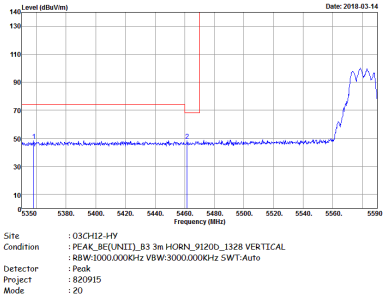
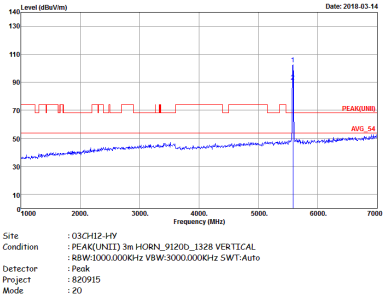
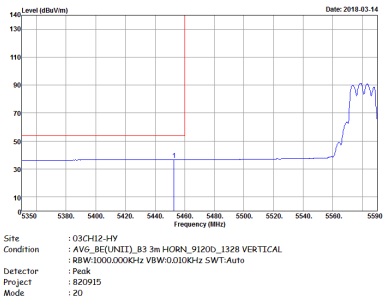
WIFI 802.11a (Band Edge @ 3m)

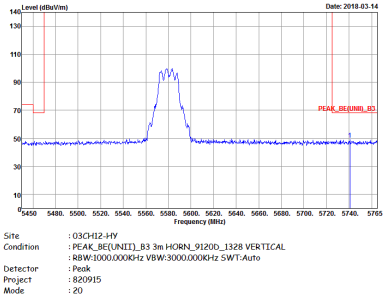
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

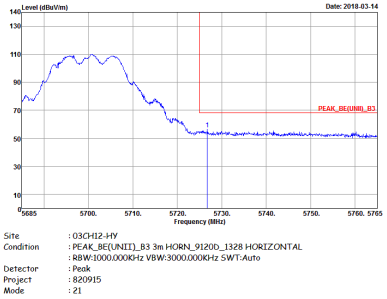
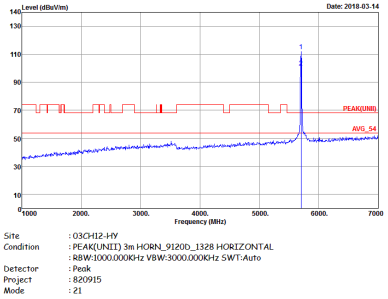
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

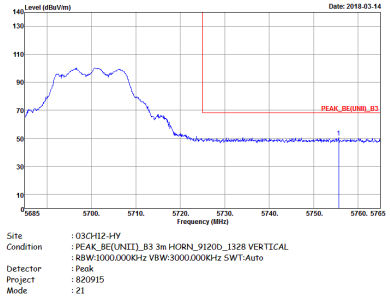
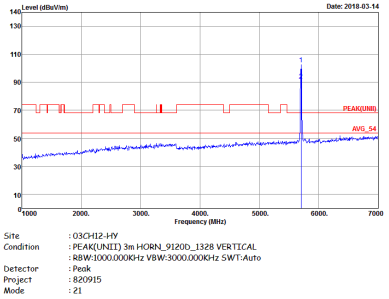
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

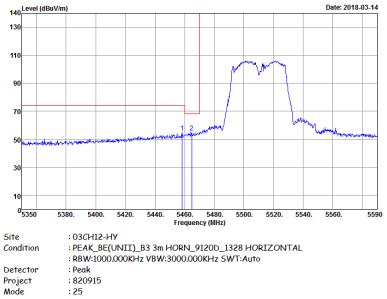
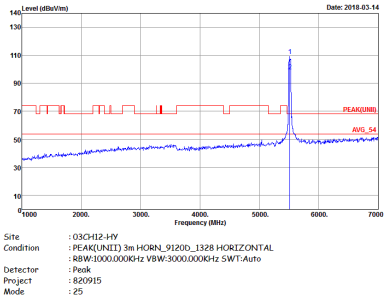
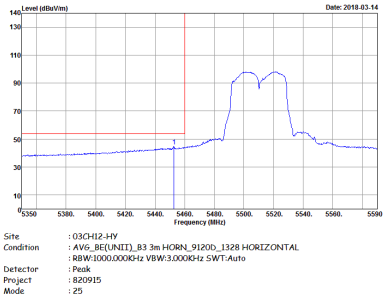
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank

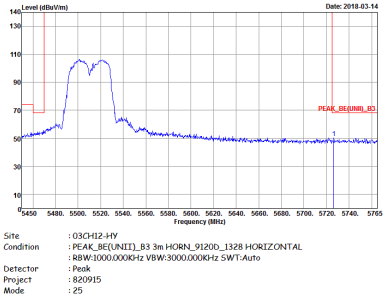
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1+2	Horizontal	Fundamental
Peak		

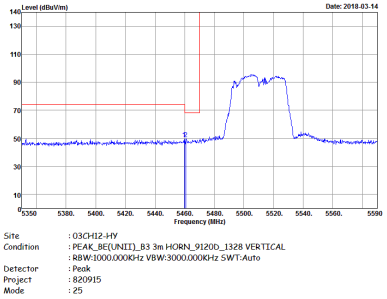
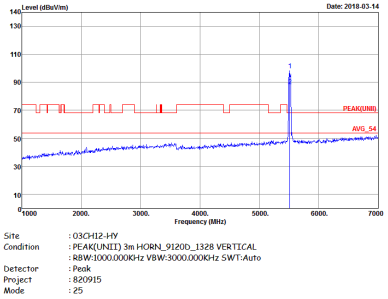
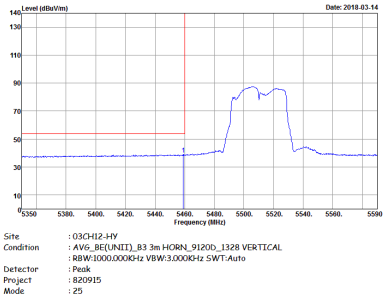
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1+2	Vertical	Fundamental
Peak		

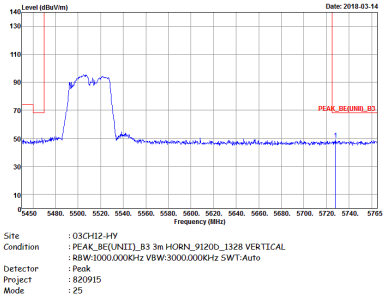
Band 3 5470~5725MHz

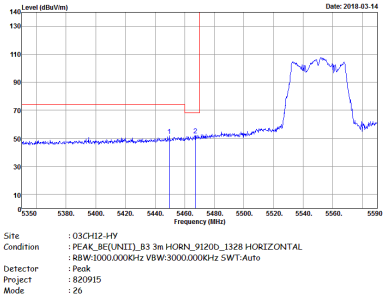
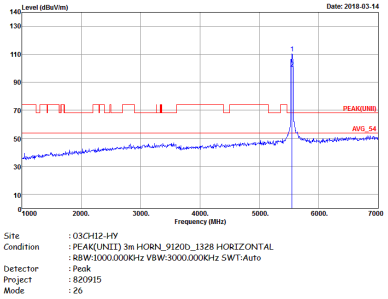
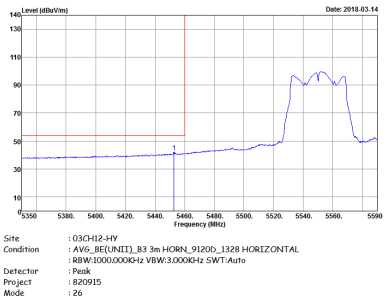
WIFI 802.11n HT40 (Band Edge @ 3m)

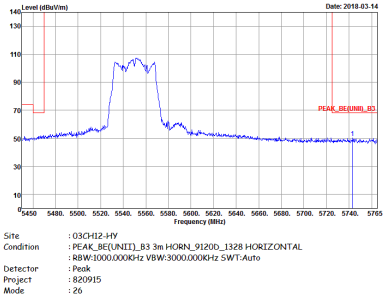
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

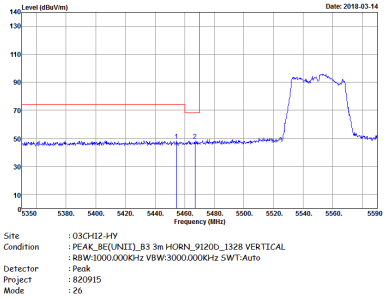
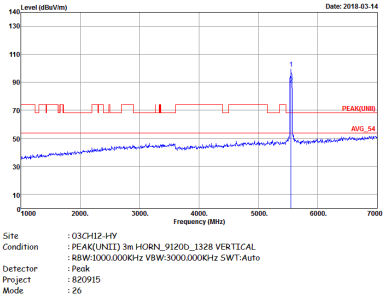
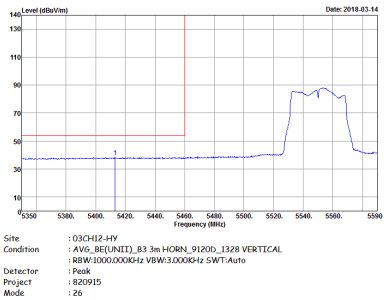
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank

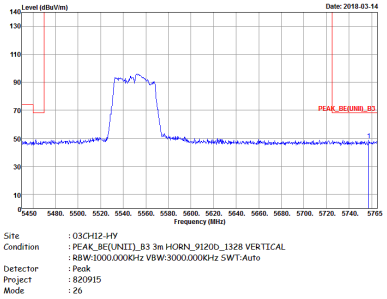
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

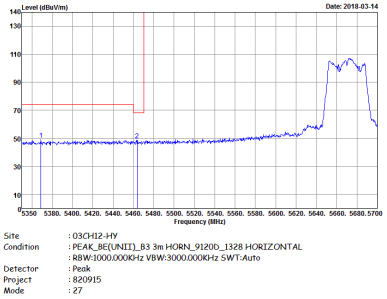
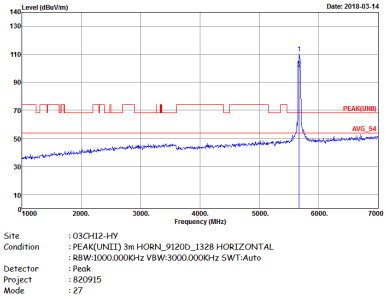
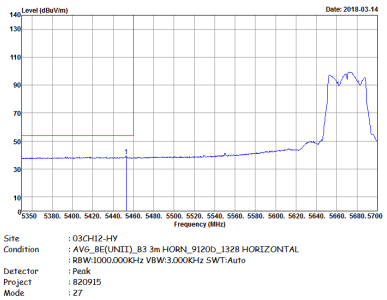
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank

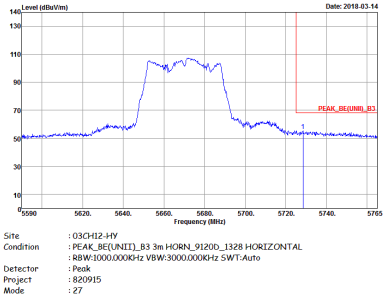
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

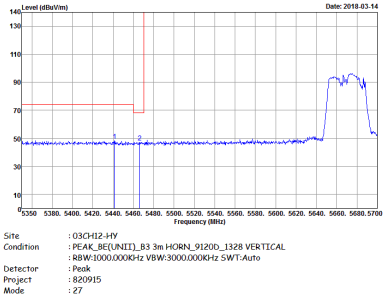
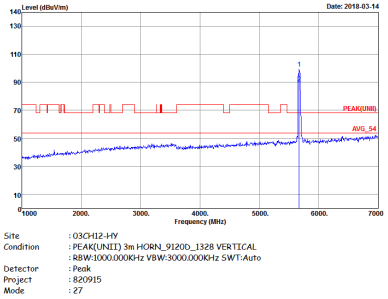
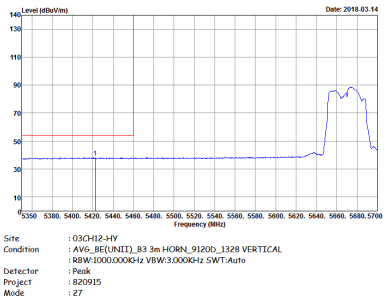
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank

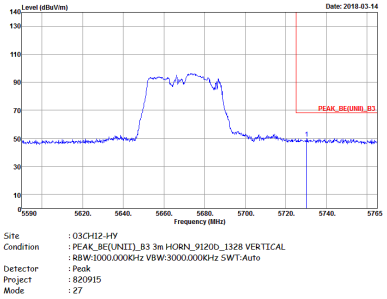
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

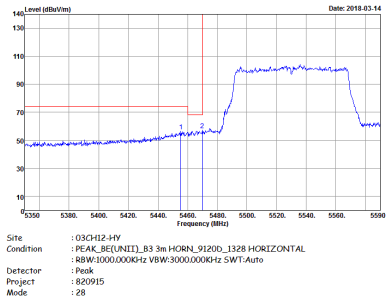
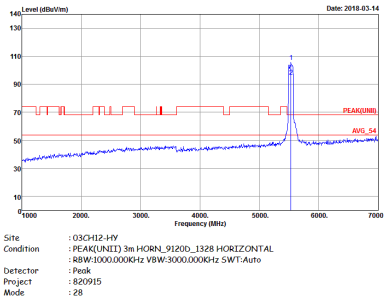
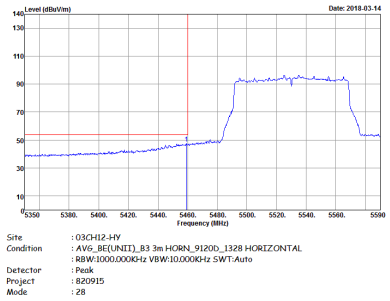
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank

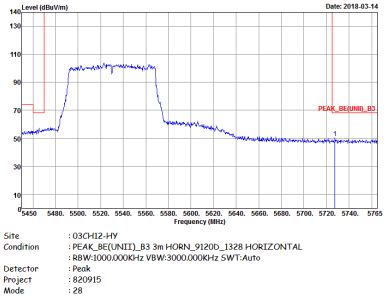
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

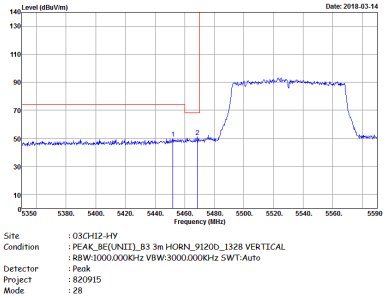
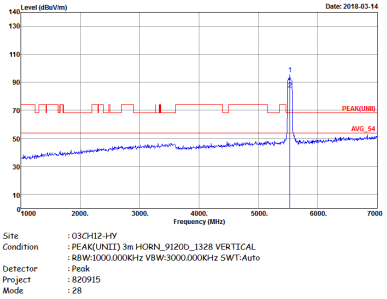
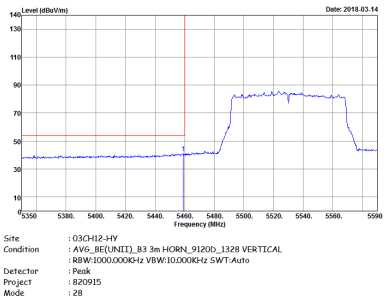
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank

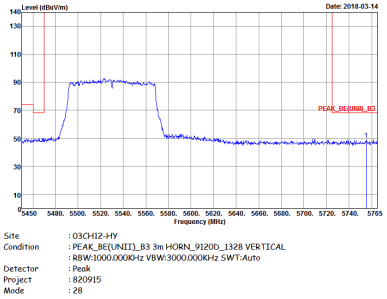
Band 3 5470~5725MHz

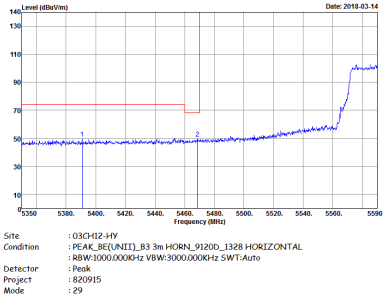
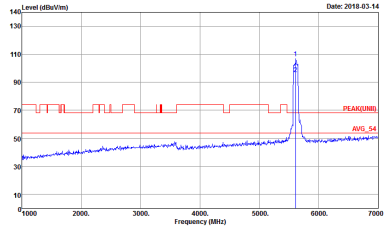
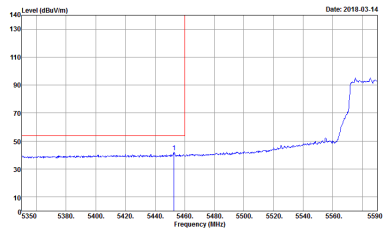
WIFI 802.11ac VHT80 (Band Edge @ 3m)

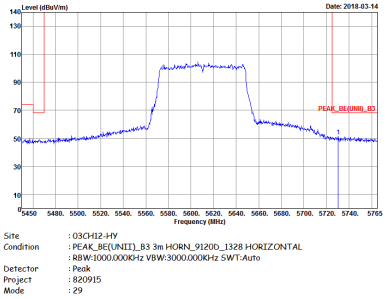
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - L	
1+2	Horizontal	Fundamental
Peak		
Avg.		Left blank

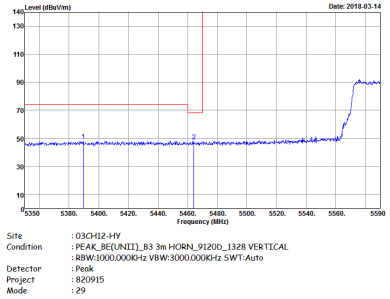
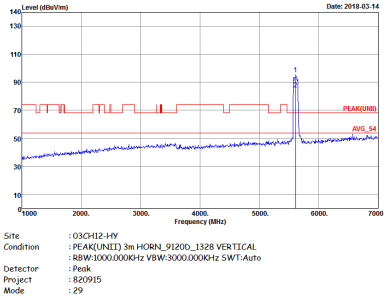
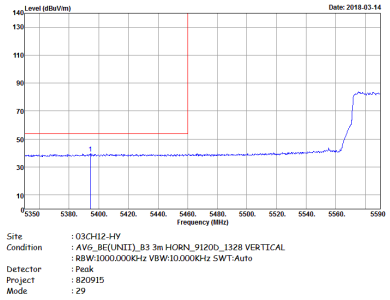
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank

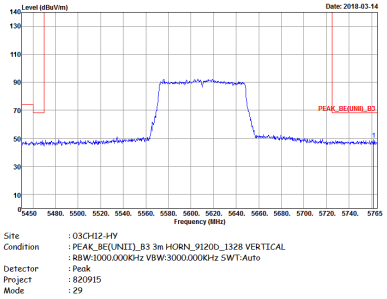
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH106 5530MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank

WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - L	
1+2	Horizontal	Fundamental
Peak	 Site : 03CH12-HY Condition : PEAK_BE(UNII)_B3 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 820915 Mode : 29	 Site : 03CH12-HY Condition : PEAK(UNII) 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto Detector : Peak Project : 820915 Mode : 29
Avg.	 Site : 03CH12-HY Condition : AVG_BE(UNII)_B3 3m HORN_9120D_1328 HORIZONTAL : RBW:1000.000KHz VBW:10.000KHz SWT:Auto Detector : Peak Project : 820915 Mode : 29	Left blank

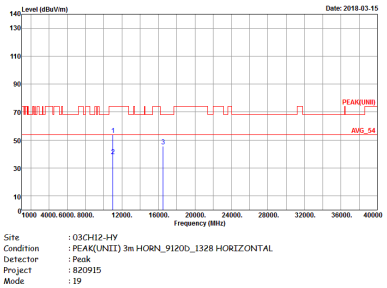
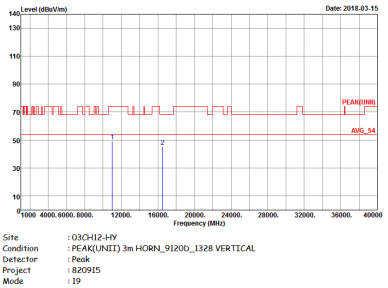
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - R	
1+2	Horizontal	Fundamental
Peak		Left blank

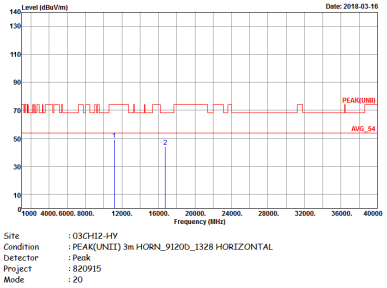
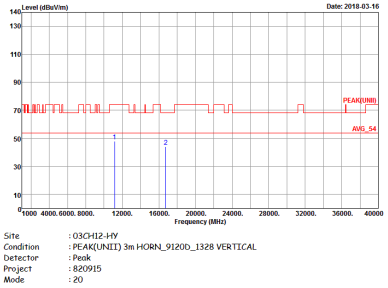
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - L	
1+2	Vertical	Fundamental
Peak		
Avg.		Left blank

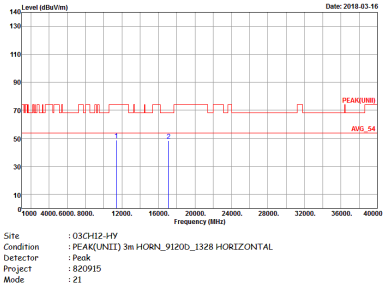
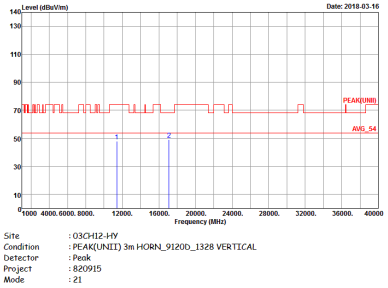
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH122 5610MHz - R	
1+2	Vertical	Fundamental
Peak		Left blank

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

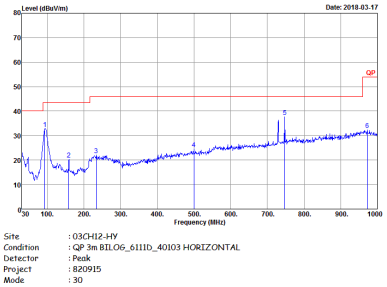
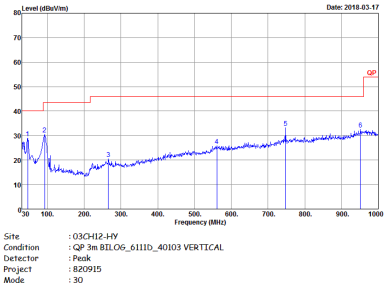
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH100 5500MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH116 5580MHz	
1+2	Horizontal	Vertical
Peak Avg.		

WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH140 5700MHz	
1+2	Horizontal	Vertical
Peak Avg.		

Emission below 1GHz

5GHz WIFI 802.11ac VHT80 (LF)

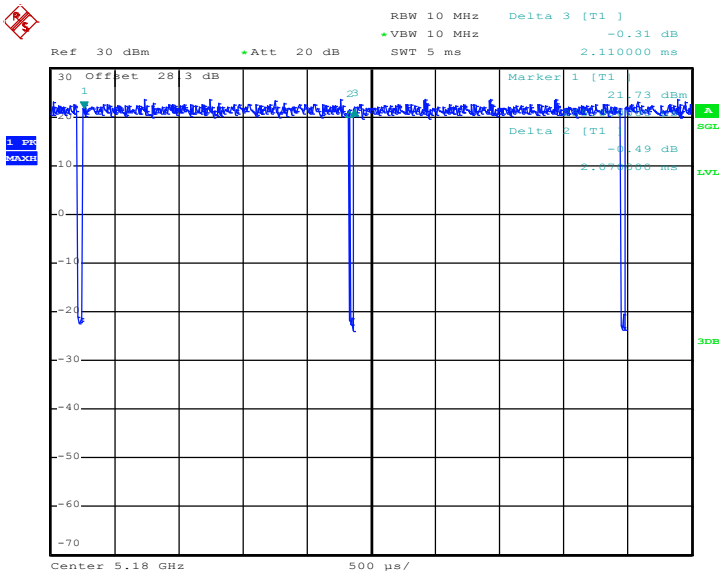
WIFI	5GHz WIFI	
ANT	802.11ac VHT80 LF	
1+2	Horizontal	Vertical
QP / Peak		

Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
1	802.11a	98.10	-	-	10Hz	0.08
1	5GHz 802.11n HT20	97.97	1930	0.52	1kHz	0.09
1	5GHz 802.11n HT40	95.96	950	1.05	3kHz	0.18
1	5GHz 802.11ac VHT20	97.98	1940	0.52	1kHz	0.09
1	5GHz 802.11ac VHT40	96.00	960	1.04	3kHz	0.18
1	5GHz 802.11ac VHT80	92.77	462	2.16	3kHz	0.33
2	802.11a	98.10	-	-	10Hz	0.08
2	5GHz 802.11n HT20	97.97	1930	0.52	1kHz	0.09
2	5GHz 802.11n HT40	95.96	950	1.05	3kHz	0.18
2	5GHz 802.11ac VHT20	97.98	1940	0.52	1kHz	0.09
2	5GHz 802.11ac VHT40	95.96	950	1.05	3kHz	0.18
2	5GHz 802.11ac VHT80	92.77	462	2.16	3kHz	0.33
1+2	802.11a for Ant. 1	98.10	-	-	10Hz	0.08
1+2	5GHz 802.11n HT20 for Ant. 1	97.97	1930	0.52	1kHz	0.09
1+2	5GHz 802.11n HT40 for Ant. 1	95.96	950	1.05	3kHz	0.18
1+2	5GHz 802.11ac VHT20 for Ant. 1	96.12	990	1.01	3kHz	0.17
1+2	5GHz 802.11ac VHT40 for Ant. 1	93.30	501	2.00	3kHz	0.30
1+2	5GHz 802.11ac VHT80 for Ant. 1	86.99	254	3.94	10kHz	0.61
1+2	802.11a for Ant. 2	98.11	-	-	10Hz	0.08
1+2	5GHz 802.11n HT20 for Ant. 2	97.96	1925	0.52	1kHz	0.09
1+2	5GHz 802.11n HT40 for Ant. 2	94.95	940	1.06	3kHz	0.23
1+2	5GHz 802.11ac VHT20 for Ant. 2	96.12	990	1.01	3kHz	0.17
1+2	5GHz 802.11ac VHT40 for Ant. 2	92.22	498	2.01	3kHz	0.35
1+2	5GHz 802.11ac VHT80 for Ant. 2	87.67	256	3.91	10kHz	0.57

<Ant. 1>

802.11a



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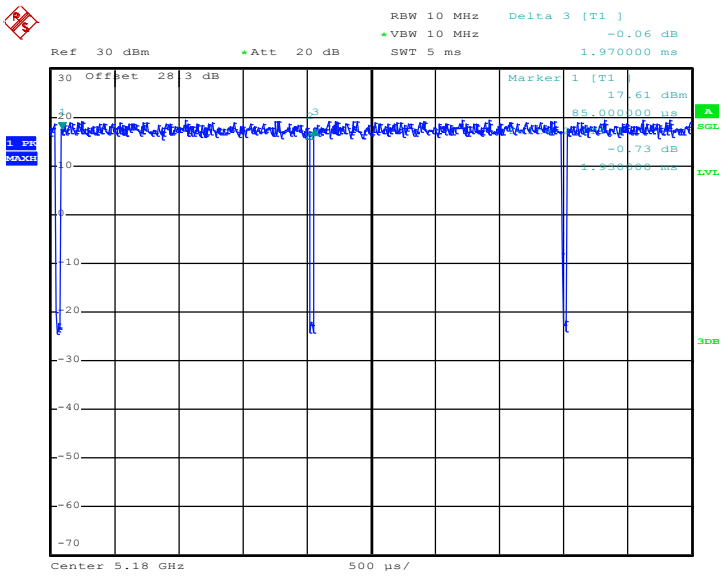
802.11n HT20



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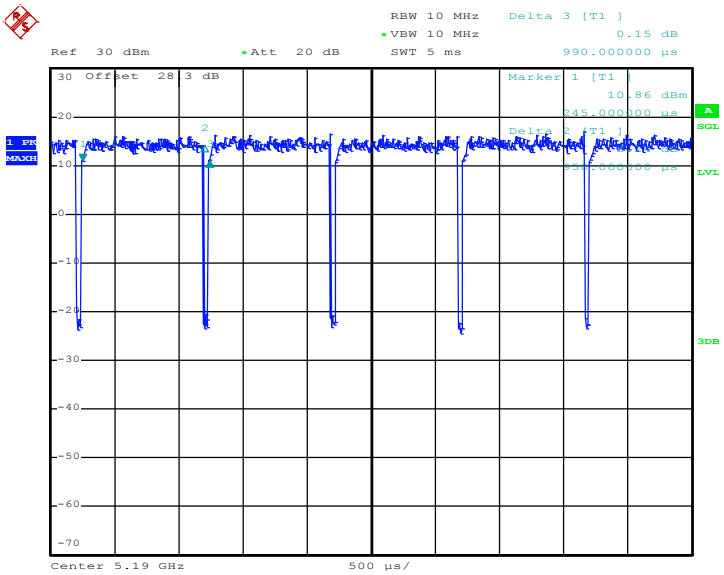

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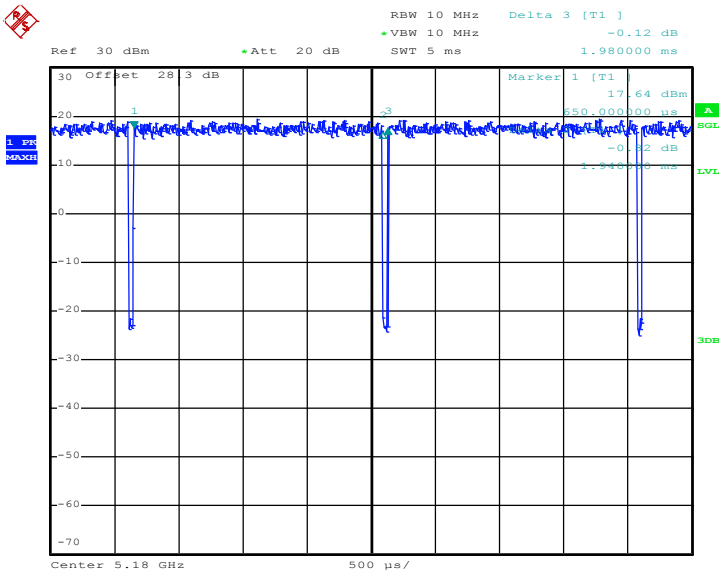

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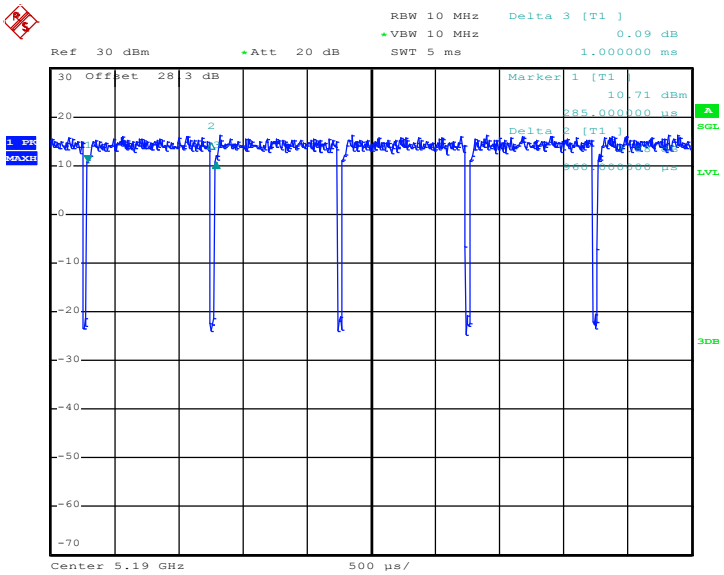

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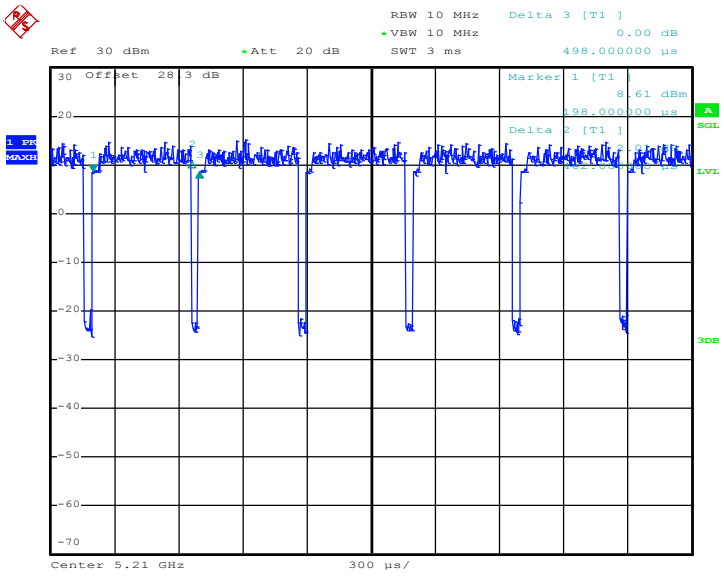

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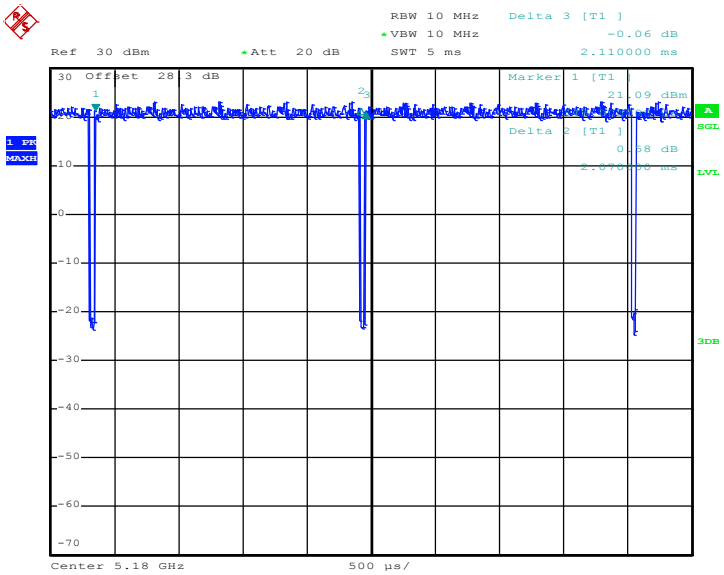
<Ant. 2>

802.11a



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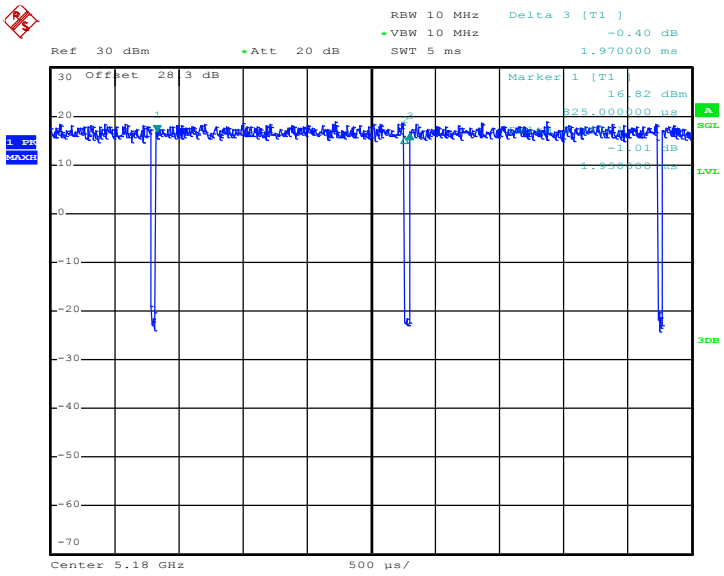

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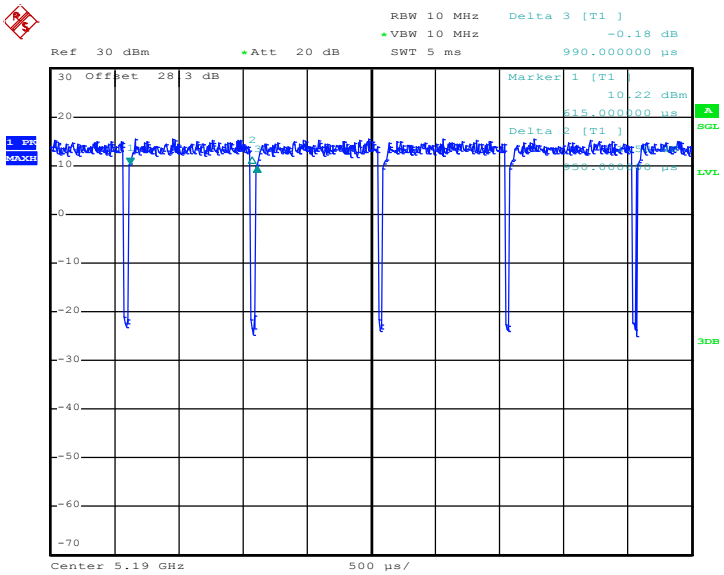

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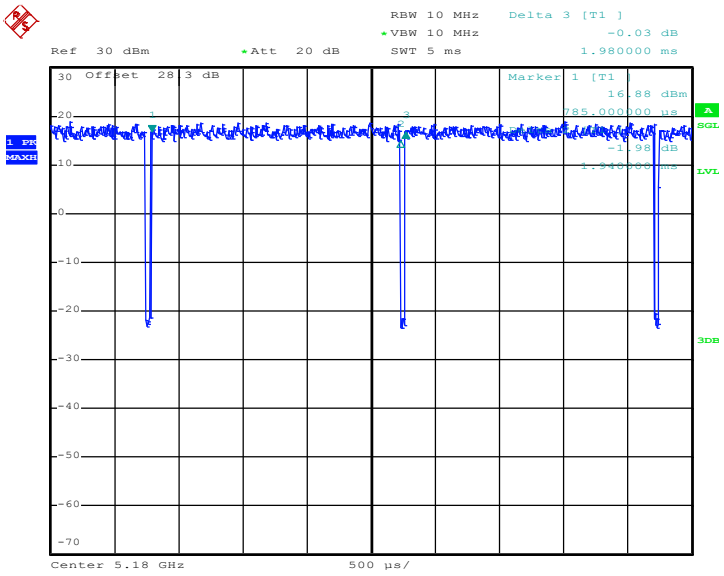

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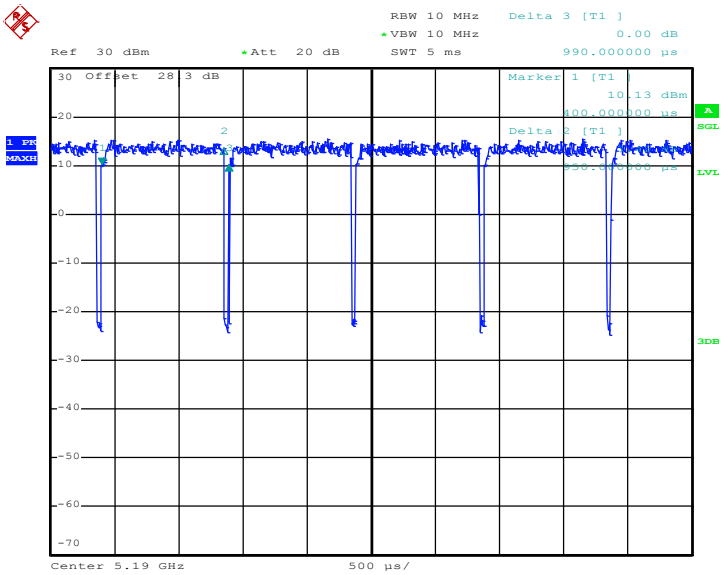
802.11ac VHT40



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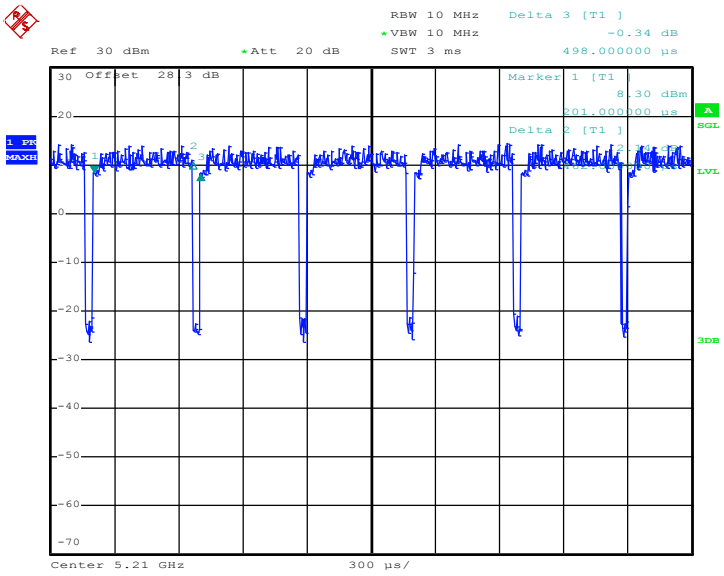
802.11ac VHT80



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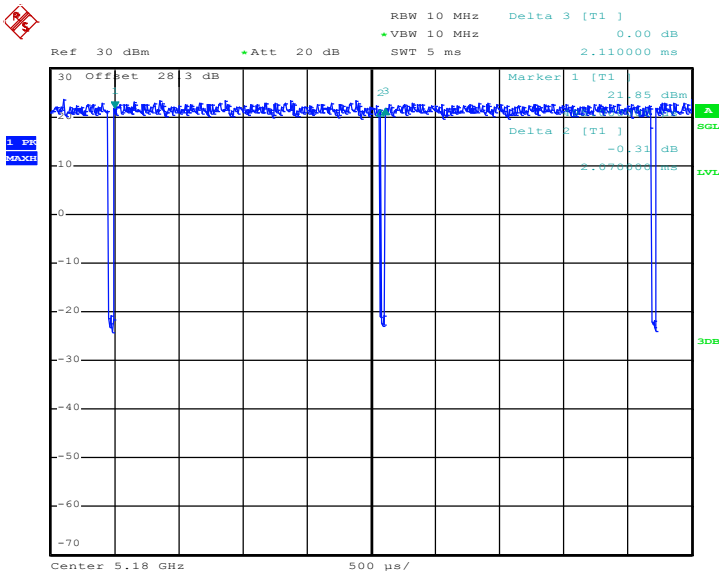
802.11a



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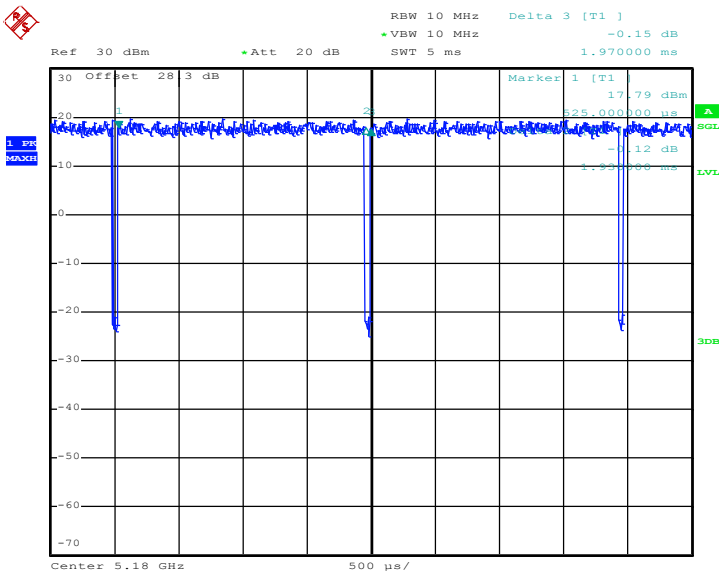

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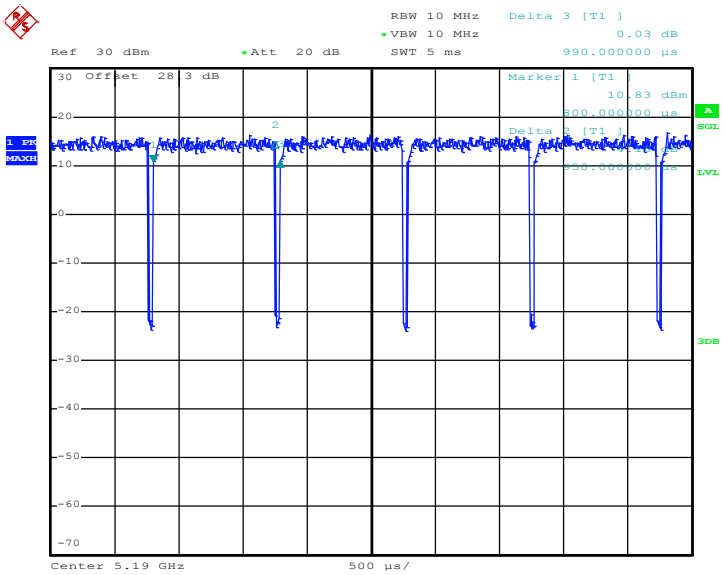

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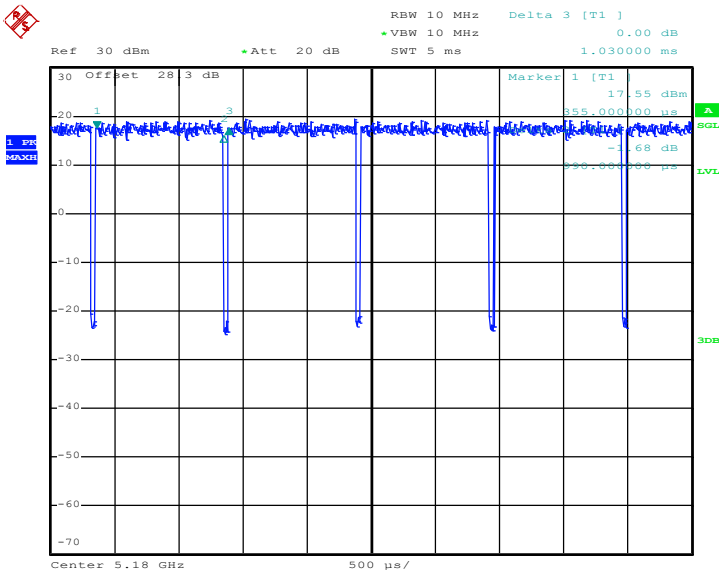
802.11ac VHT20



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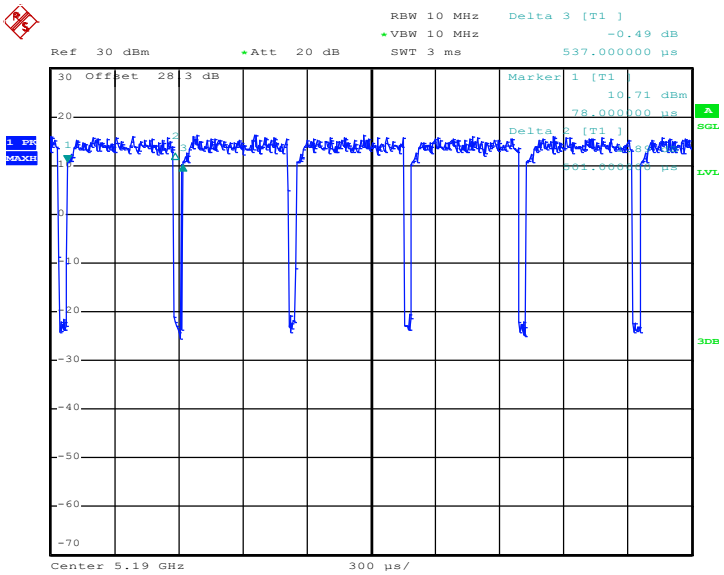
802.11ac VHT40



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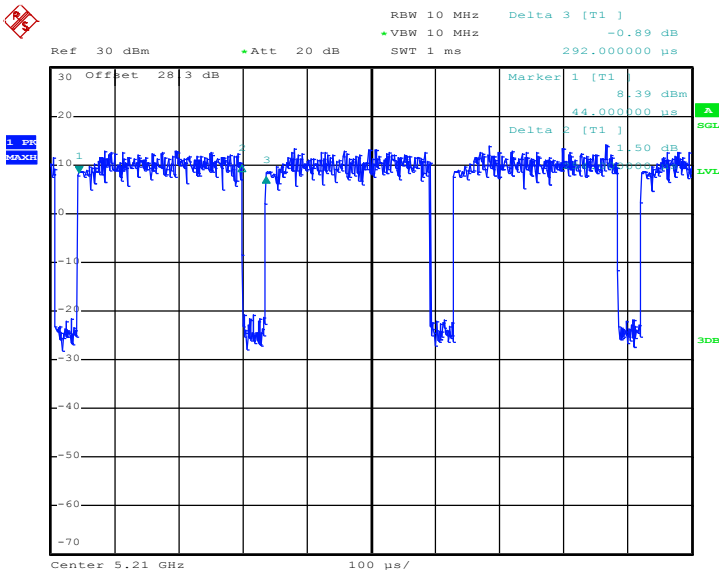

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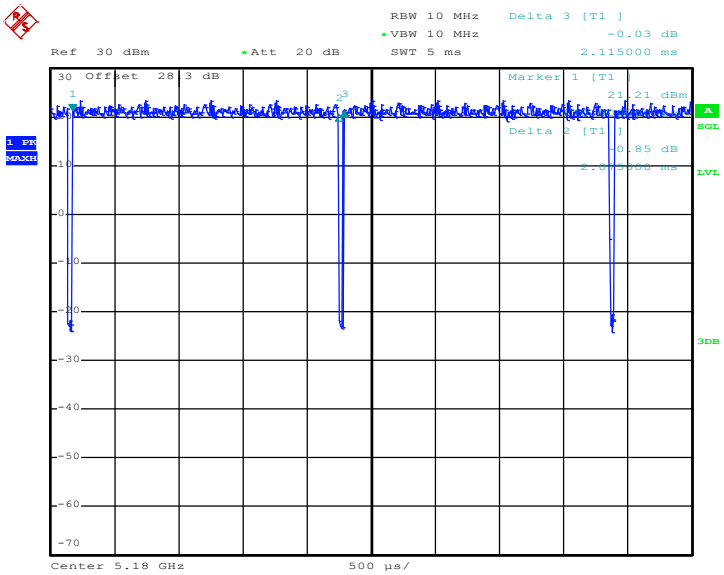
MIMO <Ant. 1+2(2)>

802.11a



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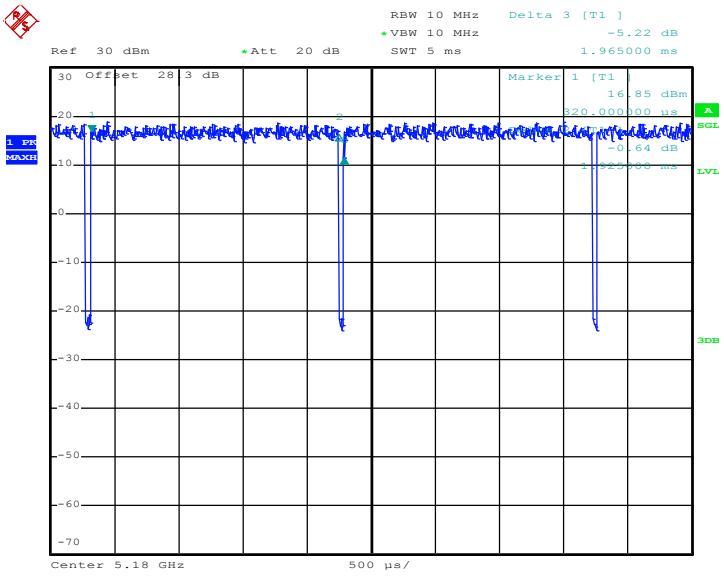

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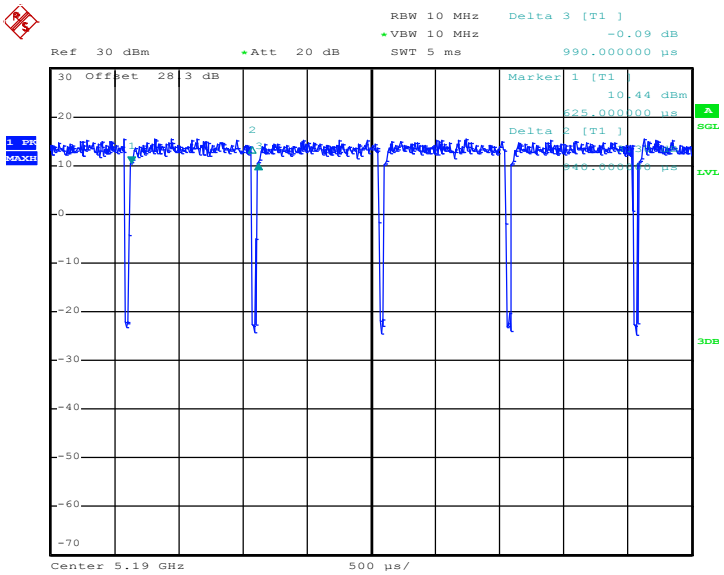

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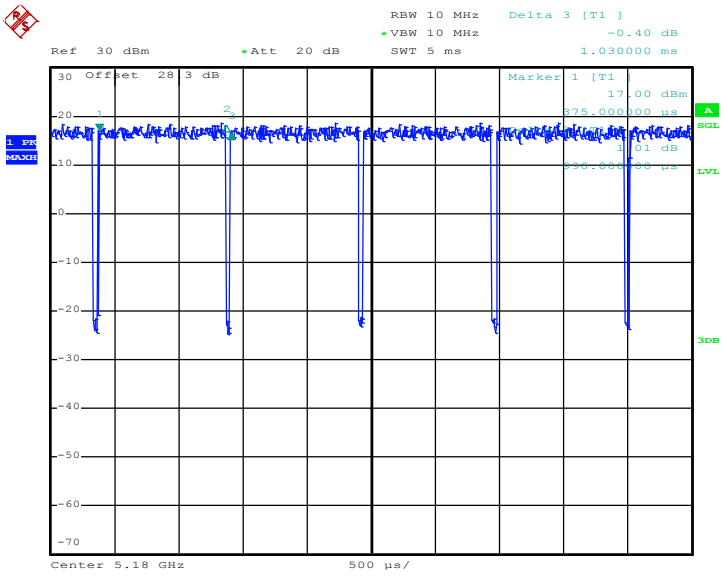

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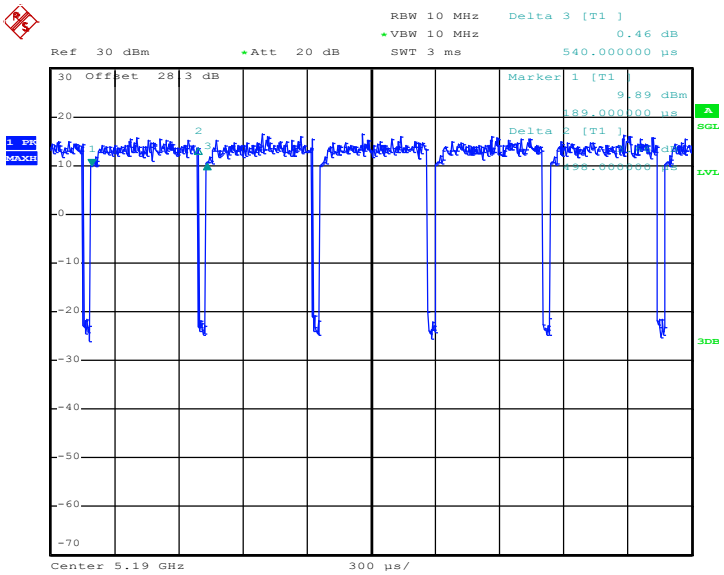

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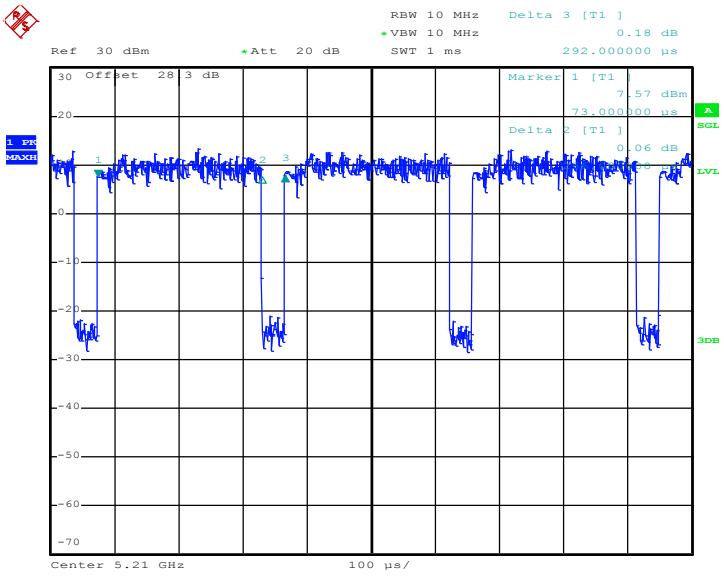

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