



FCC RADIO TEST REPORT

FCC ID : A4RGXCA6
Equipment : Wireless Device
Model Name : GXCA6
Applicant : Google LLC
1600 Amphitheatre Parkway,
Mountain View, California, 94043 USA
Standard : FCC Part 15 Subpart E §15.407

The product was received on Feb. 13, 2020 and testing was started from Mar. 12, 2020 and completed on May 28, 2020. We, SPORTON INTERNATIONAL INC., EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

Louis Wu

Approved by: Louis Wu

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



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History of this test report

Report No.	Version	Description	Issued Date
FR990608-02E	01	Initial issue of report	May 22, 2020
FR990608-02E	02	Add test data	Jun. 03, 2020
FR990608-02E	03	Revising the TAF description in cover page.	Jul. 01, 2020

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.403 (i)	6dB & 26dB Bandwidth	Pass	-
3.1	2.1049	99% Occupied Bandwidth	Reporting only	-
3.2	15.407 (a)	Maximum Conducted Output Power	Pass	-
3.3	15.407 (a)	Power Spectral Density	Pass	-
3.4	15.407(b)	Unwanted Emissions	Pass	Under limit 4.88 dB at 3856.667 MHz
3.5	15.207	AC Conducted Emission	Pass	Under limit 12.66 dB at 0.634 MHz
3.6	15.407 (c)	Automatically Discontinue Transmission	Pass	-
0	15.203 & 15.407 (a)	Antenna Requirement	Pass	-

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

Reviewed by: Wii Chang

Report Producer: Jessie Ho



1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Wireless Device
Model Name	GXCA6
FCC ID	A4RGXCA6
EUT supports Radios application	WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE

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

EUT Information List	
S/N	Performed Test Item
N/A	Conducted Measurement
01231HFDDL014DB	Radiated Spurious Emission
01171HFDDL013LG	Conducted Emission

1.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Channel Frequency Range	5745 MHz ~ 5825 MHz
Maximum Output Power	<Ant. 1> 802.11a : 14.90 dBm / 0.0309 W 802.11n HT20 : 14.90 dBm / 0.0309 W 802.11n HT40 : 13.90 dBm / 0.0245 W 802.11ac VHT20: 14.80 dBm / 0.0302 W 802.11ac VHT40: 13.80 dBm / 0.0240 W 802.11ac VHT80: 10.90 dBm / 0.0123 W <Ant. 2> 802.11a : 14.70 dBm / 0.0295 W 802.11n HT20 : 14.80 dBm / 0.0302 W 802.11n HT40 : 13.70 dBm / 0.0234 W 802.11ac VHT20: 14.70 dBm / 0.0295 W 802.11ac VHT40: 13.60 dBm / 0.0229 W 802.11ac VHT80: 10.90 dBm / 0.0123 W
99% Occupied Bandwidth	<Ant. 1> 802.11a : 17.05 MHz 802.11n HT20 : 17.80 MHz 802.11n HT40 : 36.60 MHz 802.11ac VHT80 : 77.16 MHz <Ant. 2> 802.11a : 17.05 MHz 802.11n HT20 : 17.85 MHz 802.11n HT40 : 36.60 MHz 802.11ac VHT80 : 76.92 MHz
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)
Antenna Type / Gain	<Ant. 1> PCB PIFA Antenna type with gain 7.20 dBi <Ant. 2> PCB PIFA Antenna type with gain 6.40 dBi

1.3 Modification of EUT

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



1.4 Testing Location

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory		
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978		
Test Site No.	Sporton Site No.		
	TH05-HY	CO05-HY	DFS02-HY

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

Test Site	SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory		
Test Site Location	No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855		
Test Site No.	Sporton Site No.		
	03CH15-HY		

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

FCC designation No.: TW1190 and TW0007

1.5 Applicable Standards

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

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

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. The TAF code is not including all the FCC KDB listed without accreditation

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

2.1 Carrier Frequency and Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
5725-5850 MHz Band 4 (U-NII-3)	149	5745	157	5785
	151*	5755	159*	5795
	153	5765	161	5805
	155 [#]	5775	165	5825

Note:

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

2.2 Test Mode

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

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

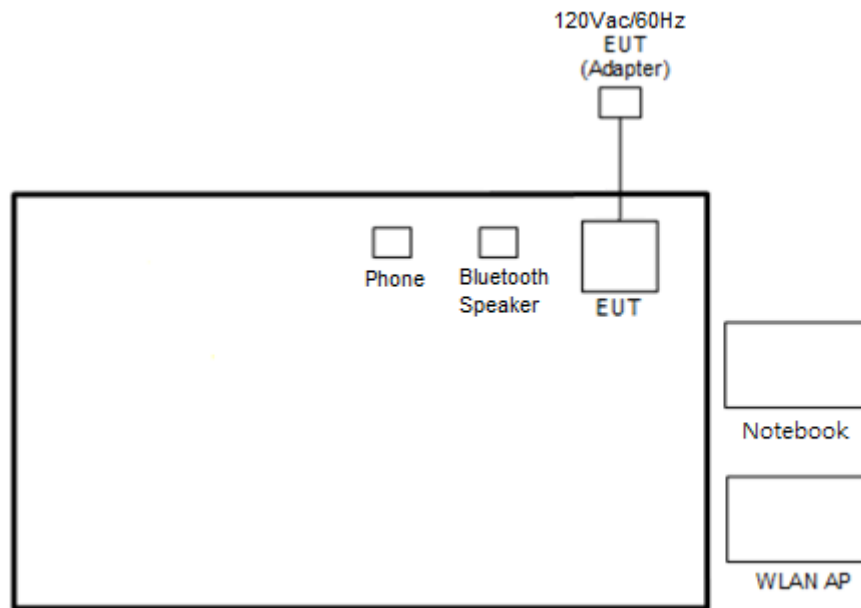
Test Cases	
AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + Bluetooth Link + Max. Volum + Streaming music through WLAN and Bluetooth Speaker + AC Adapter 2
Remark: For Radiated Test Cases, the tests were performed with Adapter 1.	

Ch. #		Band IV : 5725-5850 MHz			
		802.11a	802.11n HT20	802.11n HT40	802.11ac VHT80
L	Low	149	149	151	-
M	Middle	157	157	-	155
H	High	165	165	159	-

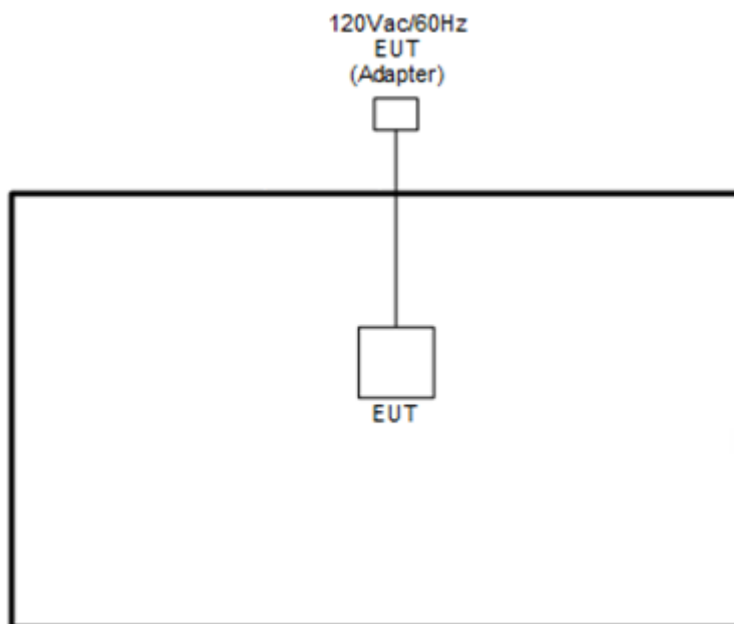
Remark: For radiation spurious emission, the final modulation and the worst data rate was reference the max RF conducted power.

2.3 Connection Diagram of Test System

<AC Conducted Emission Mode>



<WLAN TX Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
2.	Notebook	Dell	Latitude 3400	FCC DoC	N/A	AC I/P : Unshielded, 1.2m DC O/P : Shielded, 1.8m
3.	Bluetooth Speaker	KINGONE	K5	N/A	N/A	Unshielded, 1.8 m
4.	Phone	Google	Pixel 4 XL	N/A	N/A	Unshielded, 1.8 m

2.5 EUT Operation Test Setup

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

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example :

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

Offset = RF cable loss + attenuator factor.

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

$$\begin{aligned}
 \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\
 &= 4.2 + 10 = 14.2 \text{ (dB)}
 \end{aligned}$$

3 Test Result

3.1 6dB and 26dB and 99% Occupied Bandwidth Measurement

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

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

26dB and 99% Occupied bandwidth are reporting only.

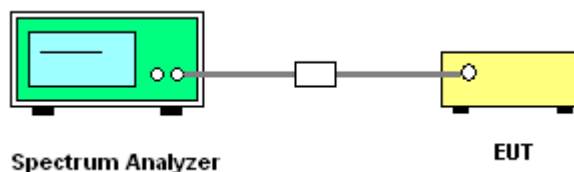
3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

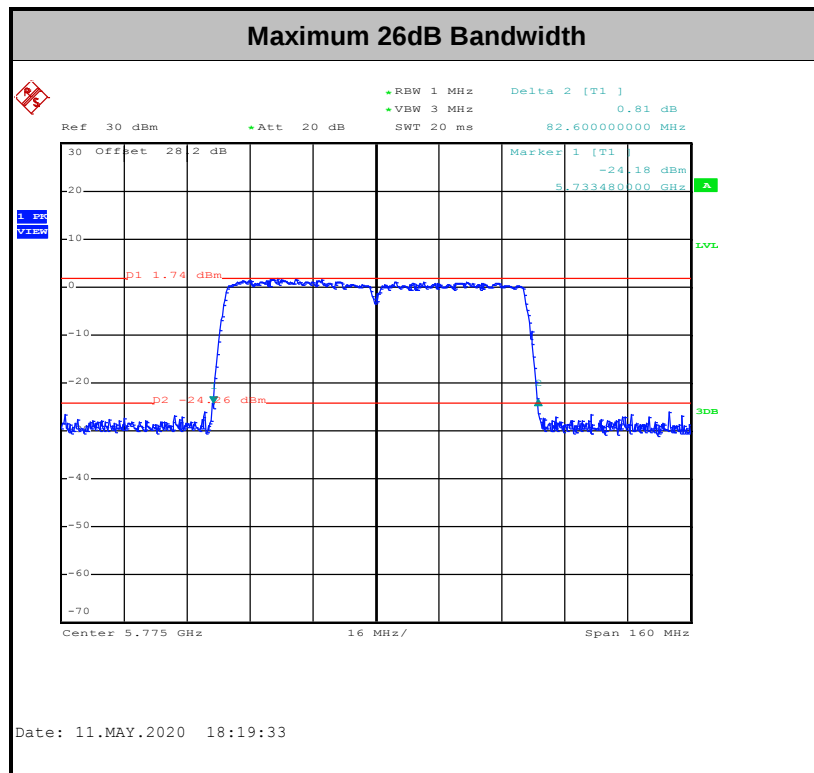
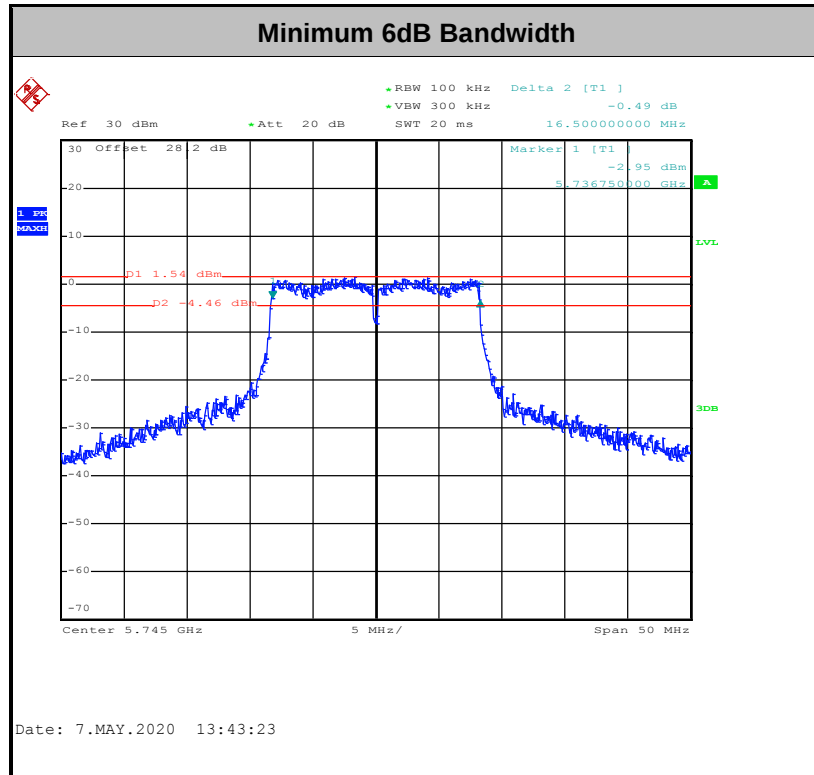
1. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
Section C) Emission bandwidth for the band 5.725-5.85GHz
2. Set RBW = 100kHz.
3. Set the VBW $\geq 3 \times$ RBW.
4. Detector = Peak.
5. Trace mode = max hold
6. Measure the maximum width of the emission that is 6 dB down from the peak of the emission.
7. Measure and record the results in the test report.

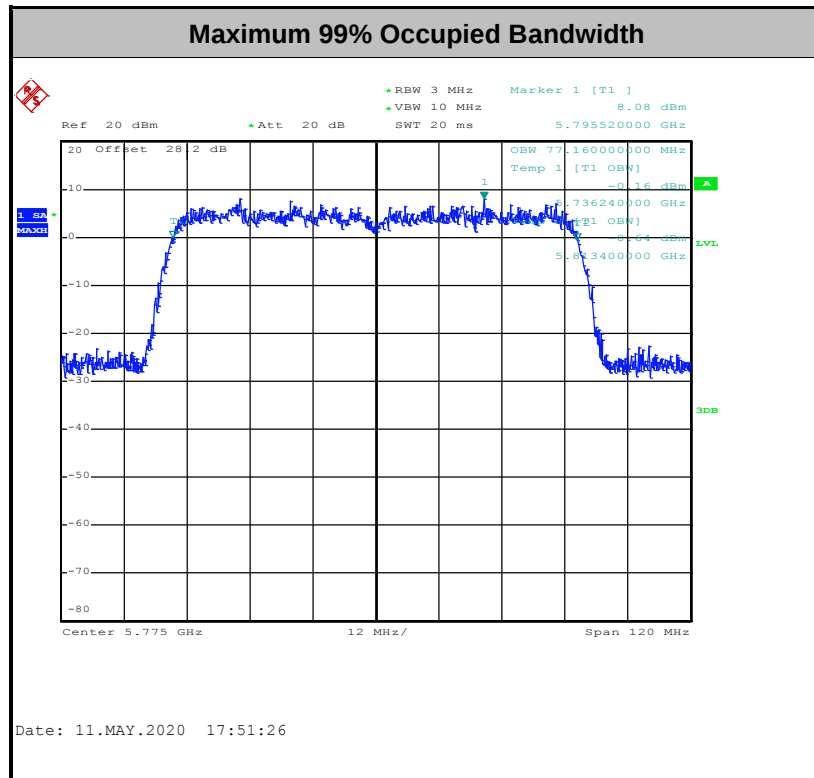
3.1.4 Test Setup



3.1.5 Test Result of 6dB and 26dB and 99% Occupied Bandwidth

Please refer to Appendix A.





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

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

For the band 5.725–5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W.

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

3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

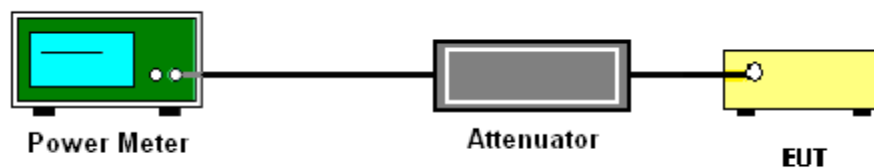
3.2.3 Test Procedures

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

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

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

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

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

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

3.3.2 Measuring Instruments

See list of measuring equipment of this test report.

3.3.3 Test Procedures

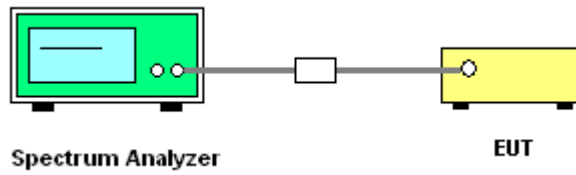
The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
Section F) Maximum power spectral density.

Method SA-3

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

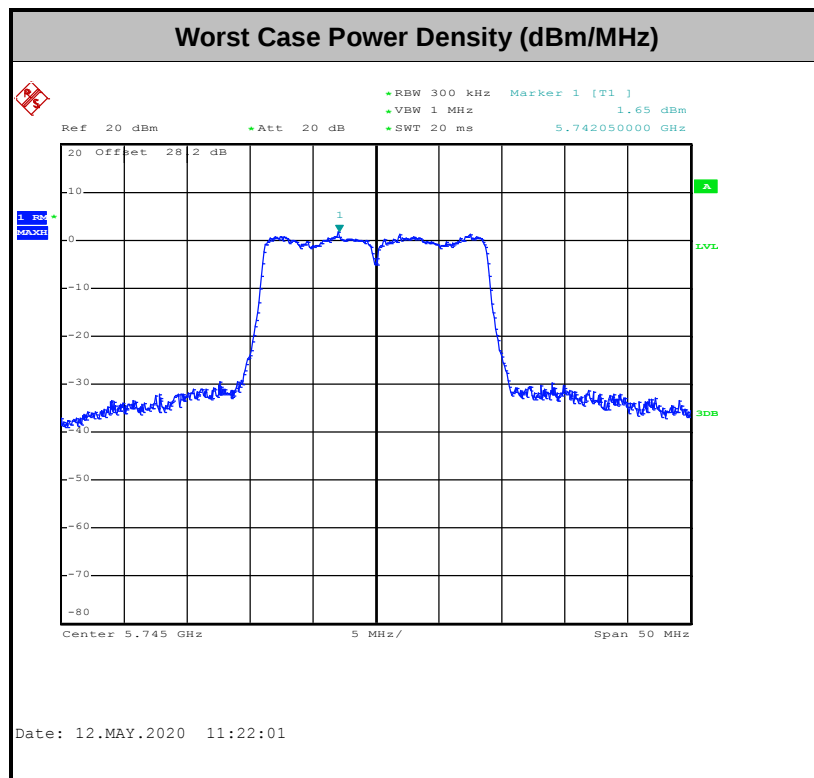
- Set span to encompass the entire emission bandwidth (EBW) of the signal.
 - Set RBW = 300 kHz.
 - Set VBW $\geq$ 1 MHz.
 - Number of points in sweep $\geq$ 2 Span / RBW.
 - Sweep time $\leq$ (number of points in sweep) $\times$ T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.
 - Detector = power averaging (rms).
 - Trace mode = max hold.
 - Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.
1. The RF output of EUT was connected to the spectrum analyzer by a low loss cable.
 2. Each plot has already offset with cable loss, and attenuator loss. Measure the PPSD and record it.

3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.



3.4 Unwanted Emissions Measurement

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

3.4.1 Limit of Unwanted Emissions

- (1) For transmitters operating in the 5.725-5.85 GHz band:

15.407(b)(4)(i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

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

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

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

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

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

- (i) Sections 15.407(b)(1-3) specifies the unwanted emissions limit for the U-NII-1 and U-NII-2 bands. As specified, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit of -27 dBm/MHz.
- (ii) Section 15.407(b)(4) specifies the unwanted emissions limit for the U-NII-3 band. A band emissions mask is specified in Section 15.407(b)(4)(i). The emission limits are based on the use of a peak detector.

3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

3.4.3 Test Procedures

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

(1) Procedure for Unwanted Emissions Measurements Below 1000MHz

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

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

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

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

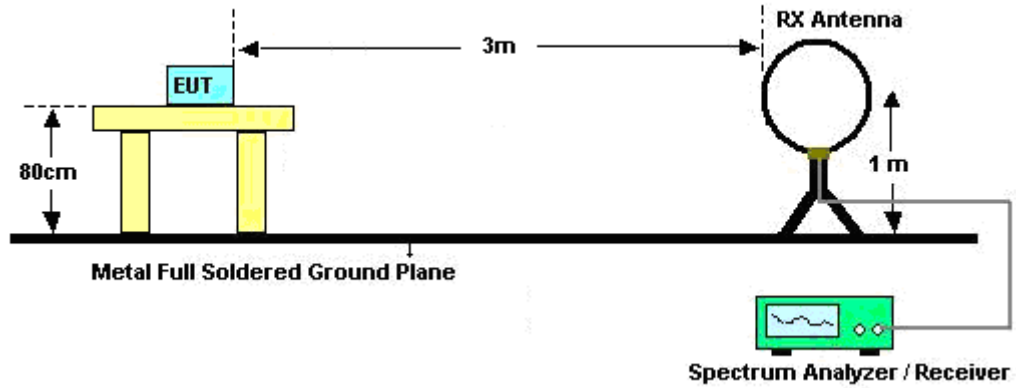
- RBW = 1 MHz
- VBW = 10 Hz, when duty cycle is no less than 98 percent.
- VBW $\geq$ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.



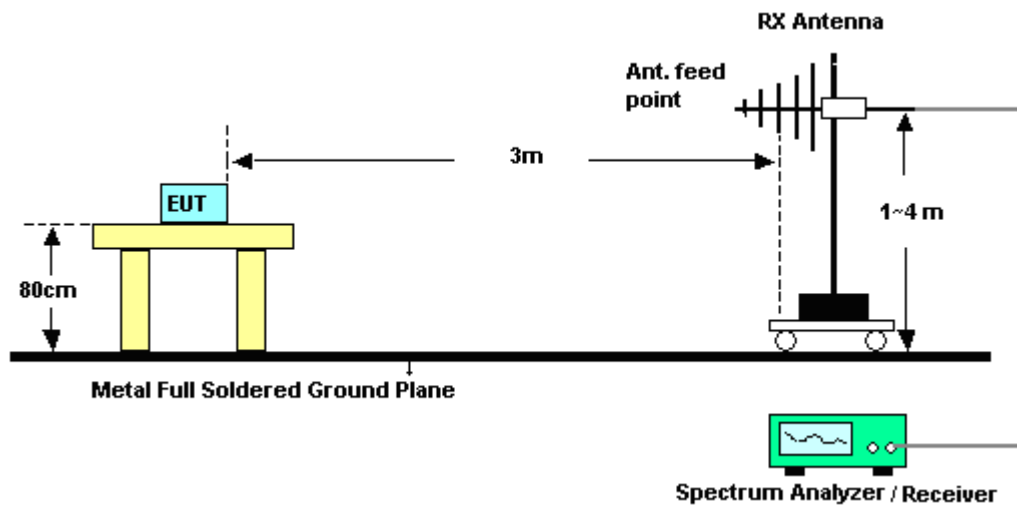
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

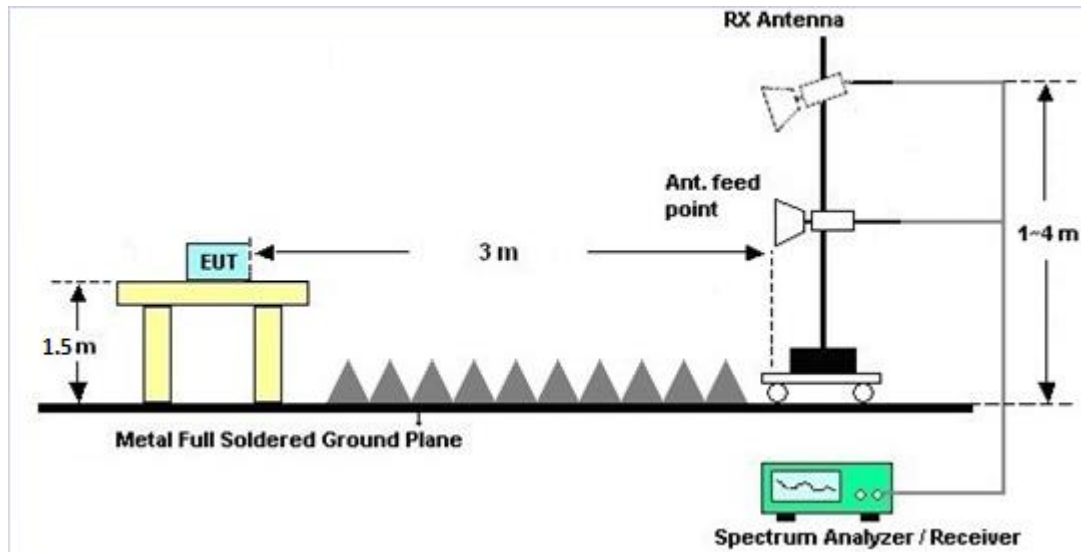
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.

3.4.6 Test Result of Radiated Band Edges

Please refer to Appendix C and D.

3.4.7 Duty Cycle

Please refer to Appendix E.

3.4.8 Test Result of Unwanted Radiated Emission (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 (dB μ V)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

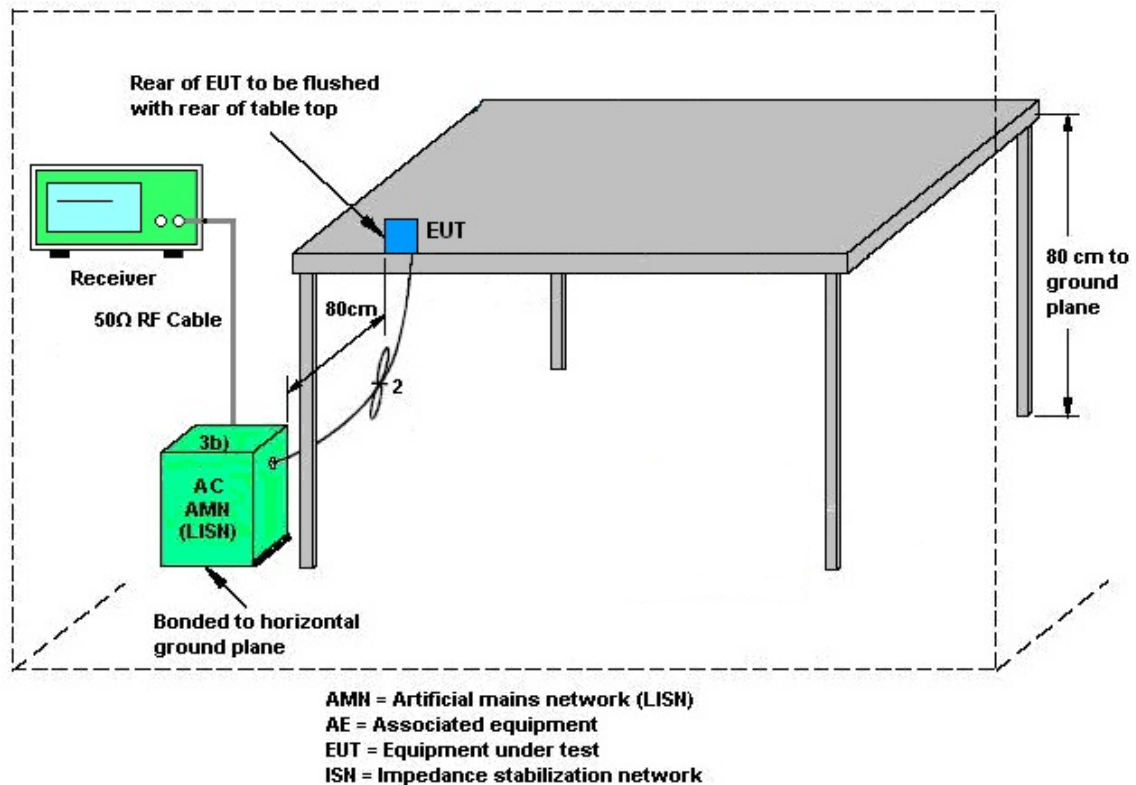
3.5.2 Measuring Instruments

See list of measuring equipment of this test report.

3.5.3 Test Procedures

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

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Automatically Discontinue Transmission

3.6.1 Limit of Automatically Discontinue Transmission

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

3.6.2 Measuring Instruments

See list of measuring equipment of this test report.

3.6.3 Test Result of Automatically Discontinue Transmission

EUT is verified this characteristic during the function check of normal sample associated with an access point:

- A. Information start: make EUT supply information to the access point.
- B. Information stop: stop supplying information to the access point.

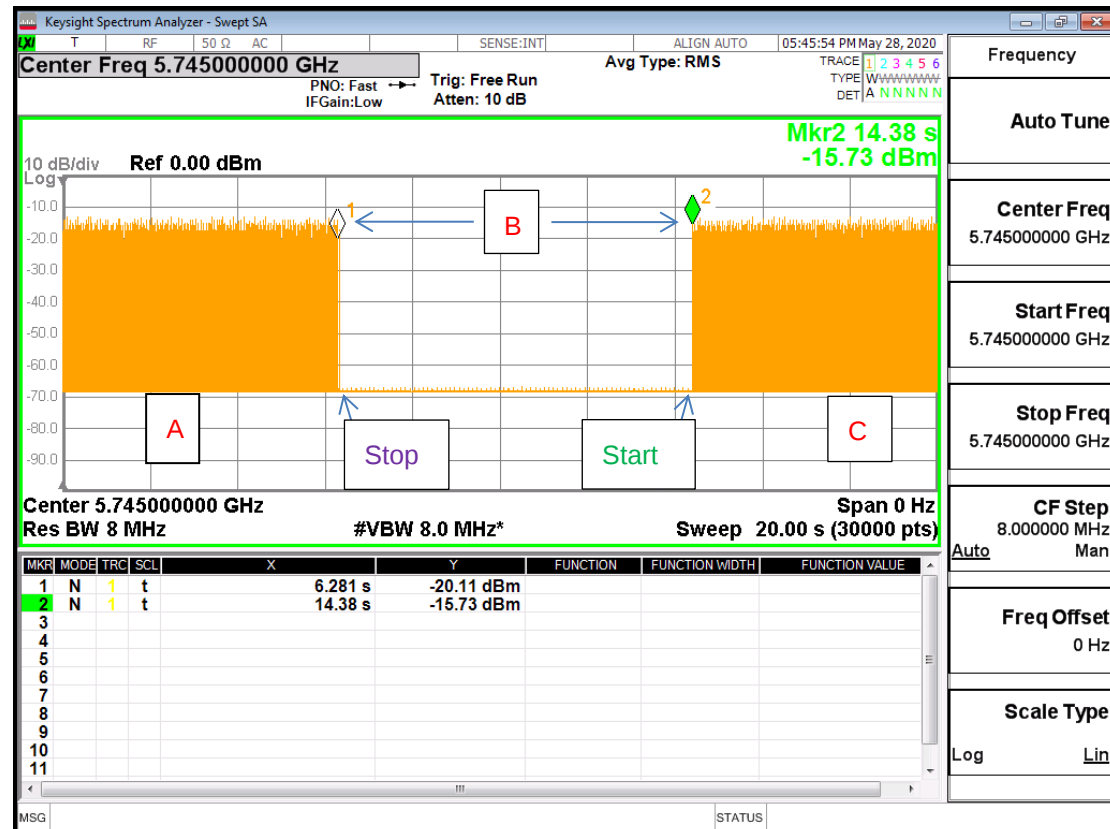
While the EUT is not transmitting any information, the EUT can automatically discontinue transmission and become standby mode for power saving.

- C. Information start: make EUT supply information to the access point again.

The EUT can detect the controlling signal of ACK message transmitting from remote device and verify whether it shall resend or discontinue transmission.



5745MHz



Note: The control / signalling information during the period B is precluded.



3.7 Antenna Requirements

3.7.1 Standard Applicable

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

3.7.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.7.3 Antenna Gain

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



4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	Testo	608-H2	41410069	N/A	Jun. 17, 2019	May 01, 2020~ May 12, 2020	Jun. 16, 2020	Conducted (TH05-HY)
Power Sensor	DARE	RPR3006W	16I00054S NO10	10MHz~6GHz	Dec. 23, 2019	May 01, 2020~ May 12, 2020	Dec. 22, 2020	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100055	9kHz-40GHz	Aug. 14, 2019	May 01, 2020~ May 12, 2020	Aug. 13, 2020	Conducted (TH05-HY)
Switch Control Manframe	Burgeon	ETF-058	EC130048 4	N/A	Aug. 22, 2019	May 01, 2020~ May 12, 2020	Aug. 21, 2020	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Mar. 12, 2020	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	9kHz~3.6GHz	Nov. 15, 2019	Mar. 12, 2020	Nov. 14, 2020	Conduction (CO05-HY)
Hygrometer	Testo	608-H1	34913912	N/A	Mar. 19, 2019	Mar. 12, 2020	Mar. 18, 2020	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 20, 2019	Mar. 12, 2020	Nov. 19, 2020	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Mar. 12, 2020	N/A	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Jan. 02, 2020	Mar. 12, 2020	Jan. 01, 2021	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Jan. 02, 2020	Mar. 12, 2020	Jan. 01, 2021	Conduction (CO05-HY)



Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100488	9 kHz~30 MHz	Jan. 09, 2020	Apr. 28, 2020~ Apr. 30, 2020	Jan. 08, 2021	Radiation (03CH15-HY)
Bilog Antenna	TESEQ	CBL6111D&0 0800N1D01N- 06	41912&05	30MHz to 1GHz	Feb. 09, 2020	Apr. 28, 2020~ Apr. 30, 2020	Feb. 08, 2021	Radiation (03CH15-HY)
Horn Antenna	SCHWARZBE CK	BBHA 9120 D	9120D-211 4	1-18GHz	Jul. 31, 2019	Apr. 28, 2020~ Apr. 30, 2020	Jul. 30, 2020	Radiation (03CH15-HY)
SHF-EHF Horn Antenna	SCHWARZBE CK	BBHA 9170	BBHA9170 584	18GHz- 40GHz	Dec. 10, 2019	Apr. 28, 2020~ Apr. 30, 2020	Dec. 09, 2020	Radiation (03CH15-HY)
Amplifier	SONOMA	310N	363440	9kHz~1GHz	Dec. 27, 2019	Apr. 28, 2020~ Apr. 30, 2020	Dec. 26, 2020	Radiation (03CH15-HY)
Preamplifier	Jet-Power	JPA0118-55-3 03	171000180 0055007	1GHz~18GHz	Mar. 31, 2020	Apr. 28, 2020~ Apr. 30, 2020	Mar. 30, 2021	Radiation (03CH15-HY)
Preamplifier	Keysight	83017A	MY532701 95	1GHz~26.5GHz	Aug. 23, 2019	Apr. 28, 2020~ Apr. 30, 2020	Aug. 22, 2020	Radiation (03CH15-HY)
Preamplifier	EMEC	EM18G40G	060715	18GHz ~ 40GHz	Dec. 13, 2019	Apr. 28, 2020~ Apr. 30, 2020	Dec. 12, 2020	Radiation (03CH15-HY)
EMI Test Receiver	Keysight	N9038A(MXE)	MY541300 85	20MHz~8.4GHz	Nov. 01, 2019	Apr. 28, 2020~ Apr. 30, 2020	Oct. 31, 2020	Radiation (03CH15-HY)
EMI Test Receiver	Rohde & Schwarz	ESU26	100390	20Hz~26.5GHz	Feb. 25, 2020	Apr. 28, 2020~ Apr. 30, 2020	Feb. 24, 2021	Radiation (03CH15-HY)
Antenna Mast	ChainTek	MBS-520-1	N/A	1m~4m	N/A	Apr. 28, 2020~ Apr. 30, 2020	N/A	Radiation (03CH15-HY)
Turn Table	ChainTek	T-200-S-1	N/A	0~360 Degree	N/A	Apr. 28, 2020~ Apr. 30, 2020	N/A	Radiation (03CH15-HY)
Software	Audix	E3 6.2009-8-24(k 5)	RK-00045 1	N/A	N/A	Apr. 28, 2020~ Apr. 30, 2020	N/A	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY36980/ 4	30M-18G	Apr. 14, 2020	Apr. 28, 2020~ Apr. 30, 2020	Apr. 13, 2021	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY9838/4 PE	30M-18G	Apr. 14, 2020	Apr. 28, 2020~ Apr. 30, 2020	Apr. 13, 2021	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY802430 /4	30M~18GHz	Apr. 14, 2020	Apr. 28, 2020~ Apr. 30, 2020	Apr. 13, 2021	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	505134/2	30MHz-40GHz	Feb. 25, 2020	Apr. 28, 2020~ Apr. 30, 2020	Feb. 24, 2021	Radiation (03CH15-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	800740/2	30MHz-40GHz	Feb. 25, 2020	Apr. 28, 2020~ Apr. 30, 2020	Feb. 24, 2021	Radiation (03CH15-HY)
Filter	Wainwright	WLK4-1000-1 530-8000-40S S	SN4	1.53G Low Pass	Jul. 04, 2019	Apr. 28, 2020~ Apr. 30, 2020	Jul. 03, 2020	Radiation (03CH15-HY)
Filter	Wainwright	WHKX8-5872. 5-6750-18000 -40ST	SN6	6.75GHz High Pass Filter	Jul. 02, 2019	Apr. 28, 2020~ Apr. 30, 2020	Jul. 01, 2020	Radiation (03CH15-HY)
Spectrum Analyzer	Keysight	N9010A	MY560704 12	10Hz~7GHz	Aug. 27, 2019	May 28, 2020	Aug. 26, 2020	DFS (DFS02-HY)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	2.3
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Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.0
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Uncertainty of Radiated Emission Measurement (1000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.4
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Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$)	5.0
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Appendix A. Test Result of Conducted Test Items

Test Engineer:	Shiming Liu	Temperature:	21~25	°C
Test Date:	2020/05/01~2020/05/12	Relative Humidity:	51~54	%

TEST RESULTS DATA
6dB and 26dB EBW and 99% OBW

Band IV single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26dB Bandwidth (MHz)		6 dB Bandwidth (MHz)		6 dB Bandwidth Min. Limit (MHz)	Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	149	5745	16.95	17.00	35.20	35.40	16.50	16.50	0.5	Pass
11a	6Mbps	1	157	5785	17.05	17.05	35.35	35.85	16.50	16.50	0.5	Pass
11a	6Mbps	1	165	5825	17.05	17.00	35.65	35.70	16.50	16.50	0.5	Pass
HT20	MCS0	1	149	5745	17.80	17.85	27.70	26.75	17.70	17.75	0.5	Pass
HT20	MCS0	1	157	5785	17.75	17.80	26.20	25.75	17.60	17.70	0.5	Pass
HT20	MCS0	1	165	5825	17.80	17.85	27.80	27.40	17.70	17.75	0.5	Pass
HT40	MCS0	1	151	5755	36.60	36.60	41.67	42.05	36.48	36.41	0.5	Pass
HT40	MCS0	1	159	5795	36.60	36.60	41.94	41.76	36.36	36.36	0.5	Pass
VHT80	MCS0	1	155	5775	77.16	76.92	82.60	82.24	76.64	76.31	0.5	Pass

TEST RESULTS DATA
Average Power Table

Band IV single antenna												
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Average Conducted Power (dBm)			FCC Conducted Power Limit (dBm)		DG (dBi)		Pass/Fail
					Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	149	5745	14.90	14.70		28.80	29.60	7.20	6.40	Pass
11a	6Mbps	1	157	5785	14.60	14.60		28.80	29.60	7.20	6.40	Pass
11a	6Mbps	1	165	5825	14.60	14.60		28.80	29.60	7.20	6.40	Pass
HT20	MCS0	1	149	5745	14.90	14.80		28.80	29.60	7.20	6.40	Pass
HT20	MCS0	1	157	5785	14.70	14.70		28.80	29.60	7.20	6.40	Pass
HT20	MCS0	1	165	5825	14.80	14.70		28.80	29.60	7.20	6.40	Pass
HT40	MCS0	1	151	5755	13.90	13.70		28.80	29.60	7.20	6.40	Pass
HT40	MCS0	1	159	5795	13.70	13.70		28.80	29.60	7.20	6.40	Pass
VHT20	MCS0	1	149	5745	14.80	14.70		28.80	29.60	7.20	6.40	Pass
VHT20	MCS0	1	157	5785	14.60	14.60		28.80	29.60	7.20	6.40	Pass
VHT20	MCS0	1	165	5825	14.70	14.60		28.80	29.60	7.20	6.40	Pass
VHT40	MCS0	1	151	5755	13.80	13.60		28.80	29.60	7.20	6.40	Pass
VHT40	MCS0	1	159	5795	13.60	13.60		28.80	29.60	7.20	6.40	Pass
VHT80	MCS0	1	155	5775	10.90	10.90		28.80	29.60	7.20	6.40	Pass

TEST RESULTS DATA
Power Spectral Density

Band IV single antenna														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	10log (500kHz /RBW) Factor (dB)		Average Power Density (dBm/500kHz)			Average PSD Limit (dBm/500kHz)		DG (dBi)		Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	SUM	Ant 1	Ant 2	Ant 1	Ant 2	
11a	6Mbps	1	149	5745	2.22	2.22	3.28	3.57		28.80	29.60	7.20	6.40	Pass
11a	6Mbps	1	157	5785	2.22	2.22	2.87	3.30		28.80	29.60	7.20	6.40	Pass
11a	6Mbps	1	165	5825	2.22	2.22	2.85	3.19		28.80	29.60	7.20	6.40	Pass
HT20	MCS0	1	149	5745	2.22	2.22	3.52	3.87		28.80	29.60	7.20	6.40	Pass
HT20	MCS0	1	157	5785	2.22	2.22	3.37	3.49		28.80	29.60	7.20	6.40	Pass
HT20	MCS0	1	165	5825	2.22	2.22	3.15	3.07		28.80	29.60	7.20	6.40	Pass
HT40	MCS0	1	151	5755	2.22	2.22	-1.22	-0.93		28.80	29.60	7.20	6.40	Pass
HT40	MCS0	1	159	5795	2.22	2.22	-1.63	-1.48		28.80	29.60	7.20	6.40	Pass
VHT80	MCS0	1	155	5775	2.22	2.22	-7.29	-7.56		28.80	29.60	7.20	6.40	Pass



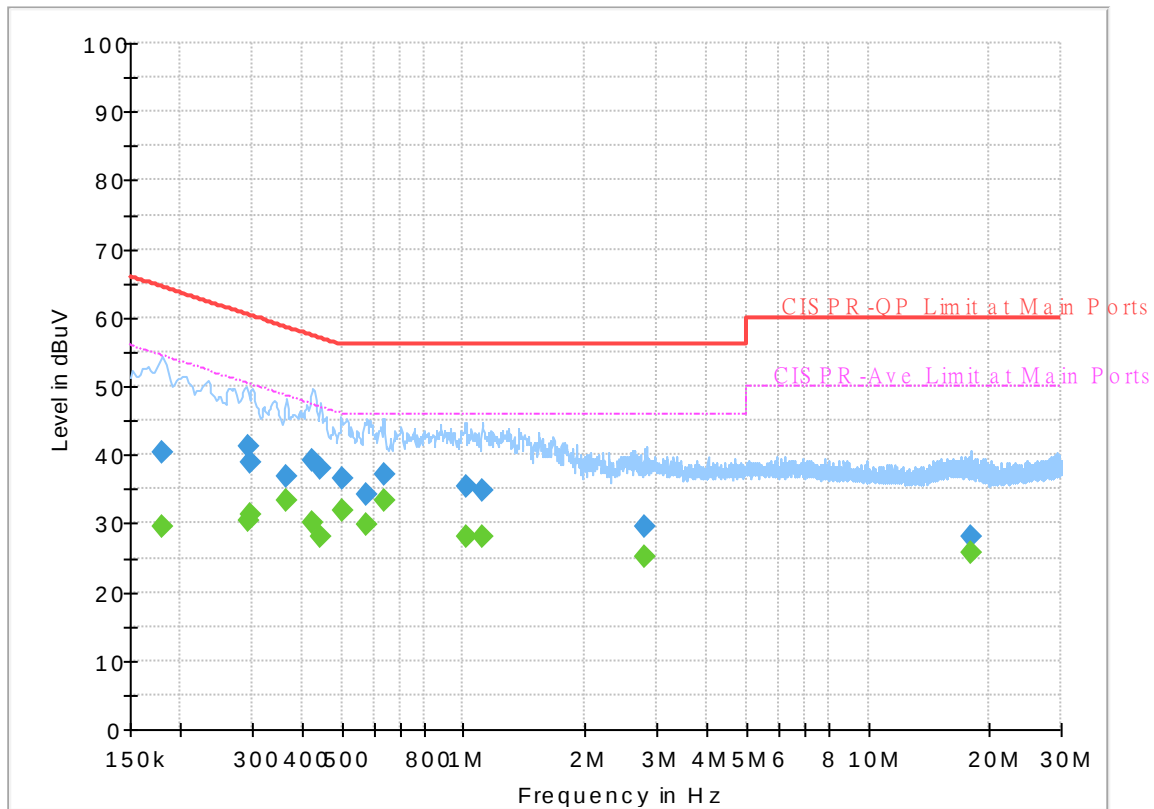
Appendix B. AC Conducted Emission Test Results

Test Engineer :	Tom Lee	Temperature :	21~25℃
		Relative Humidity :	42~50%

EUT Information

Test Mode : Mode 1
 Test Voltage : 120Vac/60Hz
 Phase : Line

Full Spectrum



Final_Result

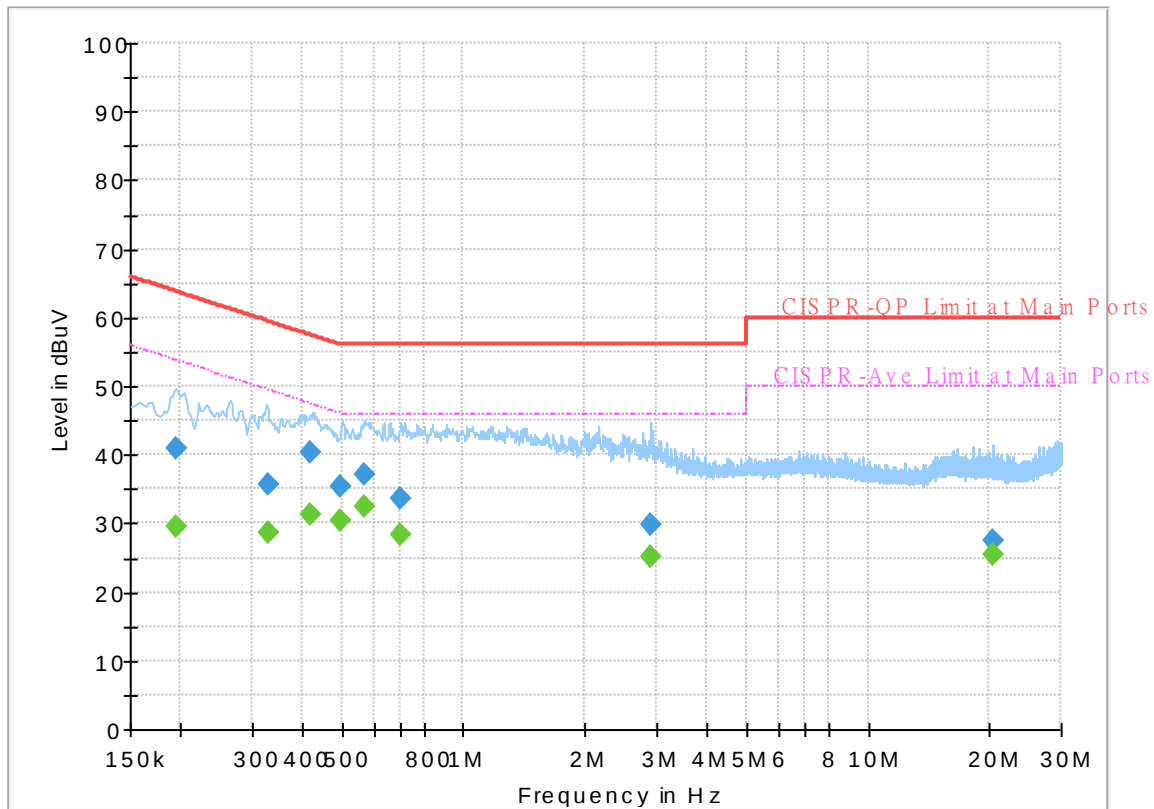
Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.179610	---	29.48	54.50	25.02	L1	OFF	19.5
0.179610	40.43	---	64.50	24.07	L1	OFF	19.5
0.294000	---	30.53	50.41	19.88	L1	OFF	19.5
0.294000	41.19	---	60.41	19.22	L1	OFF	19.5
0.296610	---	31.36	50.34	18.98	L1	OFF	19.5
0.296610	38.82	---	60.34	21.52	L1	OFF	19.5
0.364470	---	33.39	48.63	15.24	L1	OFF	19.5
0.364470	36.81	---	58.63	21.82	L1	OFF	19.5
0.423690	---	30.08	47.38	17.30	L1	OFF	19.5
0.423690	39.21	---	57.38	18.17	L1	OFF	19.5
0.444750	---	27.95	46.97	19.02	L1	OFF	19.5
0.444750	37.88	---	56.97	19.09	L1	OFF	19.5
0.501900	---	31.93	46.00	14.07	L1	OFF	19.5
0.501900	36.55	---	56.00	19.45	L1	OFF	19.5
0.573000	---	29.95	46.00	16.05	L1	OFF	19.5
0.573000	34.14	---	56.00	21.86	L1	OFF	19.5
0.634470	---	33.34	46.00	12.66	L1	OFF	19.5
0.634470	37.25	---	56.00	18.75	L1	OFF	19.5
1.012020	---	28.09	46.00	17.91	L1	OFF	19.6
1.012020	35.25	---	56.00	20.75	L1	OFF	19.6
1.110660	---	27.94	46.00	18.06	L1	OFF	19.6

1.110660	34.81	---	56.00	21.19	L1	OFF	19.6
2.811210	---	25.13	46.00	20.87	L1	OFF	19.7
2.811210	29.59	---	56.00	26.41	L1	OFF	19.7
18.017250	---	25.61	50.00	24.39	L1	OFF	20.2
18.017250	28.21	---	60.00	31.79	L1	OFF	20.2

EUT Information

Test Mode : Mode 1
 Test Voltage : 120Vac/60Hz
 Phase : Neutral

Full Spectrum



Final_Result

Frequency (MHz)	QuasiPeak (dBuV)	CAverage (dBuV)	Limit (dBuV)	Margin (dB)	Line	Filter	Corr. (dB)
0.194370	---	29.41	53.85	24.44	N	OFF	19.6
0.194370	40.82	---	63.85	23.03	N	OFF	19.6
0.329280	---	28.52	49.47	20.95	N	OFF	19.6
0.329280	35.57	---	59.47	23.90	N	OFF	19.6
0.420000	---	31.16	47.45	16.29	N	OFF	19.6
0.420000	40.47	---	57.45	16.98	N	OFF	19.6
0.496950	---	30.27	46.05	15.78	N	OFF	19.6
0.496950	35.39	---	56.05	20.66	N	OFF	19.6
0.570300	---	32.39	46.00	13.61	N	OFF	19.6
0.570300	37.00	---	56.00	19.00	N	OFF	19.6
0.696750	---	28.46	46.00	17.54	N	OFF	19.6
0.696750	33.54	---	56.00	22.46	N	OFF	19.6
2.904270	---	25.15	46.00	20.85	N	OFF	19.6
2.904270	29.95	---	56.00	26.05	N	OFF	19.6
20.476500	---	25.42	50.00	24.58	N	OFF	20.4
20.476500	27.55	---	60.00	32.45	N	OFF	20.4



Appendix C. Radiated Spurious Emission

Test Engineer :	Leo Lee, Mancy Chou, Bigshow Wang	Temperature :	24.3~24.7°C
		Relative Humidity :	55~61%

Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5625.4	51.68	-16.52	68.2	39.45	31.85	10.89	30.51	185	353	P	H
		5667	53.22	-27.6	80.82	41	31.87	10.88	30.53	185	353	P	H
		5716.4	51.43	-58.36	109.79	39.12	32	10.87	30.56	185	353	P	H
		5721.8	52.42	-62.48	114.9	40.12	32	10.87	30.57	185	353	P	H
	*	5745	98.04	29.84	68.2	85.76	32	10.86	30.58	185	353	P	H
	*	5745	90.18	36.18	54	77.9	32	10.86	30.58	185	353	A	H
													H
													H
		5630.4	52.36	-15.84	68.2	40.14	31.84	10.89	30.51	185	3	P	V
		5675.2	51.89	-35	86.89	39.65	31.9	10.88	30.54	185	3	P	V
		5712.6	53.16	-55.57	108.73	40.85	32	10.87	30.56	185	3	P	V
		5722.8	53.02	-64.16	117.18	40.72	32	10.87	30.57	185	3	P	V
	*	5745	101.02	32.82	68.2	88.74	32	10.86	30.58	185	3	P	V
	*	5745	93.05	39.05	54	80.77	32	10.86	30.58	185	3	A	V
													V
													V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 157 5785MHz		5639.8	53.61	-14.59	68.2	41.42	31.82	10.89	30.52	242	357	P	H
		5659.2	52.55	-22.48	75.03	40.36	31.84	10.88	30.53	242	357	P	H
		5712.8	53.19	-55.6	108.79	40.88	32	10.87	30.56	242	357	P	H
		5724.4	54.18	-66.65	120.83	41.88	32	10.87	30.57	242	357	P	H
	*	5785	109.88	-	-	97.5	32.14	10.85	30.61	242	357	P	H
	*	5785	102.11	-	-	89.73	32.14	10.85	30.61	242	357	A	H
		5852.2	58.51	-58.67	117.18	45.97	32.21	10.98	30.65	242	357	P	H
		5855	58.19	-52.61	110.8	45.63	32.22	10.99	30.65	242	357	P	H
		5876.8	54.58	-49.28	103.86	41.89	32.31	11.04	30.66	242	357	P	H
		5946	53.19	-15.01	68.2	40.19	32.49	11.22	30.71	242	357	P	H
													H
													H
		5639.6	53.11	-15.09	68.2	40.92	31.82	10.89	30.52	200	328	P	V
		5661.2	53.25	-23.27	76.52	41.06	31.84	10.88	30.53	200	328	P	V
		5706	55.11	-51.77	106.88	42.8	32	10.87	30.56	200	328	P	V
		5724.8	54.68	-67.06	121.74	42.38	32	10.87	30.57	200	328	P	V
	*	5785	111.04	-	-	98.66	32.14	10.85	30.61	200	328	P	V
	*	5785	103.23	-	-	90.85	32.14	10.85	30.61	200	328	A	V
		5851.8	59.02	-59.08	118.1	46.48	32.21	10.98	30.65	200	328	P	V
		5855.6	58.71	-51.92	110.63	46.15	32.22	10.99	30.65	200	328	P	V
		5876.4	56.27	-47.89	104.16	43.58	32.31	11.04	30.66	200	328	P	V
		5926.2	54.18	-14.02	68.2	41.25	32.45	11.17	30.69	200	328	P	V
													V
													V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 165 5825MHz	*	5825	109.49	-	-	97.01	32.2	10.91	30.63	250	352	P	H
	*	5825	101.62	-	-	89.14	32.2	10.91	30.63	250	352	A	H
		5852.6	75.29	-40.98	116.27	62.75	32.21	10.98	30.65	250	352	P	H
		5855.4	70.92	-39.77	110.69	58.36	32.22	10.99	30.65	250	352	P	H
		5877.4	61.58	-41.84	103.42	48.89	32.31	11.04	30.66	250	352	P	H
		5936	54.23	-13.97	68.2	41.27	32.47	11.19	30.7	250	352	P	H
													H
													H
	*	5825	111.3	-	-	98.82	32.2	10.91	30.63	200	5	P	V
	*	5825	100.92	-	-	88.44	32.2	10.91	30.63	200	5	A	V
		5852.2	77.81	-39.37	117.18	65.27	32.21	10.98	30.65	200	5	P	V
		5855.8	71.79	-38.79	110.58	59.23	32.22	10.99	30.65	200	5	P	V
		5886.8	62.48	-33.96	96.44	49.73	32.35	11.07	30.67	200	5	P	V
		5926.4	55.82	-12.38	68.2	42.89	32.45	11.17	30.69	200	5	P	V
													V
													V
													V
Remark 1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		11490	49.98	-24.02	74	56.24	40.48	14.85	61.59	100	0	P	H
		17235	53.14	-15.06	68.2	52.35	40.94	18.67	58.82	100	0	P	H
													H
													H
		11490	49.94	-24.06	74	56.2	40.48	14.85	61.59	100	0	P	V
		17235	53.92	-14.28	68.2	53.13	40.94	18.67	58.82	100	0	P	V
													V
													V
802.11a CH 157 5785MHz		4338.8	55.58	-18.42	74	45.97	30.38	9.76	30.53	200	33	P	H
		4338.8	45.78	-8.22	54	36.17	30.38	9.76	30.53	200	33	A	H
		11570	49.49	-24.51	74	55.91	40.29	14.91	61.62	100	0	P	H
		17355	52.23	-15.97	68.2	50.22	41.75	18.79	58.53	100	0	P	H
		4338.8	57.42	-16.58	74	47.81	30.38	9.76	30.53	200	328	P	V
		4338.8	47.52	-6.48	54	37.91	30.38	9.76	30.53	200	328	A	V
		11570	49.97	-24.03	74	56.39	40.29	14.91	61.62	100	0	P	V
		17355	54.15	-14.05	68.2	52.14	41.75	18.79	58.53	100	0	P	V
802.11a CH 165 5825MHz		4369	55.38	-18.62	74	45.68	30.44	9.78	30.52	200	347	P	H
		4369	45.73	-8.27	54	36.03	30.44	9.78	30.52	200	347	A	H
		11650	49.46	-24.54	74	56.28	39.85	14.96	61.63	100	0	P	H
		17475	54.63	-13.57	68.2	51.5	42.5	18.86	58.23	100	0	P	H
		4369	57.74	-16.26	74	48.04	30.44	9.78	30.52	250	337	P	V
		4369	47.82	-6.18	54	38.12	30.44	9.78	30.52	250	337	A	V
		11650	49.93	-24.07	74	56.75	39.85	14.96	61.63	100	0	P	V
		17475	53.46	-14.74	68.2	50.33	42.5	18.86	58.23	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 149 5745MHz		5648.4	53.7	-14.5	68.2	41.53	31.8	10.89	30.52	232	356	P	H
		5699	58.56	-45.9	104.46	46.24	32	10.87	30.55	232	356	P	H
		5717.8	71.08	-39.1	110.18	58.78	32	10.87	30.57	232	356	P	H
		5723.4	75.24	-43.31	118.55	62.94	32	10.87	30.57	232	356	P	H
	*	5745	109.36	-	-	97.08	32	10.86	30.58	232	356	P	H
	*	5745	101.92	-	-	89.64	32	10.86	30.58	232	356	A	H
													H
													H
		5622.8	54.19	-14.01	68.2	41.96	31.85	10.89	30.51	201	357	P	V
		5694.2	58.06	-42.86	100.92	45.75	31.98	10.88	30.55	201	357	P	V
		5720	72.04	-38.76	110.8	59.74	32	10.87	30.57	201	357	P	V
		5723.2	75.99	-42.11	118.1	63.69	32	10.87	30.57	201	357	P	V
	*	5745	110.69	-	-	98.41	32	10.86	30.58	201	357	P	V
	*	5745	103.13	-	-	90.85	32	10.86	30.58	201	357	A	V
													V
													V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 157 5785MHz		5617.8	53.44	-14.76	68.2	41.19	31.86	10.89	30.5	242	358	P	H
		5698.4	52.81	-51.21	104.02	40.5	31.99	10.87	30.55	242	358	P	H
		5713.4	53.9	-55.05	108.95	41.59	32	10.87	30.56	242	358	P	H
		5724.6	55.2	-66.09	121.29	42.9	32	10.87	30.57	242	358	P	H
	*	5785	109.29	-	-	96.91	32.14	10.85	30.61	242	358	P	H
	*	5785	101.84	-	-	89.46	32.14	10.85	30.61	242	358	A	H
		5851.2	57.56	-61.9	119.46	45.03	32.2	10.98	30.65	242	358	P	H
		5857	57.37	-52.87	110.24	44.8	32.23	10.99	30.65	242	358	P	H
		5888.6	55.2	-39.9	95.1	42.45	32.35	11.07	30.67	242	358	P	H
		5937.6	53.47	-14.73	68.2	40.49	32.48	11.2	30.7	242	358	P	H
													H
													H
		5642.4	55.15	-13.05	68.2	42.96	31.82	10.89	30.52	173	4	P	V
		5690.2	53.3	-44.67	97.97	41.01	31.96	10.88	30.55	173	4	P	V
		5705	54.89	-51.71	106.6	42.58	32	10.87	30.56	173	4	P	V
		5724.6	53.94	-67.35	121.29	41.64	32	10.87	30.57	173	4	P	V
	*	5785	110.41	-	-	98.03	32.14	10.85	30.61	173	4	P	V
	*	5785	103.08	-	-	90.7	32.14	10.85	30.61	173	4	A	V
		5850.4	57.69	-63.6	121.29	45.16	32.2	10.98	30.65	173	4	P	V
		5857	56.47	-53.77	110.24	43.9	32.23	10.99	30.65	173	4	P	V
		5878.2	54.96	-47.86	102.82	42.26	32.31	11.05	30.66	173	4	P	V
		5949.8	54.13	-14.07	68.2	41.11	32.5	11.23	30.71	173	4	P	V
													V
													V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 165 5825MHz	*	5825	105.68	-	-	93.2	32.2	10.91	30.63	189	334	P	H
	*	5825	97.48	-	-	85	32.2	10.91	30.63	189	334	A	H
		5851	69.21	-50.71	119.92	56.68	32.2	10.98	30.65	189	334	P	H
		5855.8	69.53	-41.05	110.58	56.97	32.22	10.99	30.65	189	334	P	H
		5884	58.15	-40.37	98.52	45.42	32.34	11.06	30.67	189	334	P	H
		5948.4	52.97	-15.23	68.2	39.96	32.5	11.22	30.71	189	334	P	H
													H
													H
	*	5825	110.88	-	-	98.4	32.2	10.91	30.63	168	3	P	V
	*	5825	103.11	-	-	90.63	32.2	10.91	30.63	168	3	A	V
		5850.4	74.61	-46.68	121.29	62.08	32.2	10.98	30.65	168	3	P	V
		5855.6	74.59	-36.04	110.63	62.03	32.22	10.99	30.65	168	3	P	V
		5880	61.95	-39.54	101.49	49.25	32.32	11.05	30.67	168	3	P	V
		5948.8	54.28	-13.92	68.2	41.27	32.5	11.22	30.71	168	3	P	V
													V
													V
Remark 1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



Band 4 5725~5850MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 149 5745MHz		11490	49.87	-24.13	74	56.13	40.48	14.85	61.59	100	0	P	H
		17235	53.42	-14.78	68.2	52.63	40.94	18.67	58.82	100	0	P	H
													H
		11490	49.96	-24.04	74	56.22	40.48	14.85	61.59	100	0	P	V
		17235	52.21	-15.99	68.2	51.42	40.94	18.67	58.82	100	0	P	V
													V
802.11n HT20 CH 157 5785MHz		4339	54.67	-19.33	74	45.06	30.38	9.76	30.53	204	2	P	H
		4339	44.59	-9.41	54	34.98	30.38	9.76	30.53	204	2	A	H
		11570	49.87	-24.13	74	56.29	40.29	14.91	61.62	100	0	P	H
		17355	53.89	-14.31	68.2	51.88	41.75	18.79	58.53	100	0	P	H
		4339	55.3	-18.7	74	45.69	30.38	9.76	30.53	300	306	P	V
		4339	46.22	-7.78	54	36.61	30.38	9.76	30.53	300	306	A	V
		11570	49.95	-24.05	74	56.37	40.29	14.91	61.62	100	0	P	V
		17355	52.98	-15.22	68.2	50.97	41.75	18.79	58.53	100	0	P	V
802.11n HT20 CH 165 5825MHz		3883	55.41	-18.59	74	46.96	29.77	9.4	30.72	181	2	P	H
		3883	44.69	-9.31	54	36.24	29.77	9.4	30.72	181	2	A	H
		4368.75	56.26	-17.74	74	46.56	30.44	9.78	30.52	173	1	P	H
		4368.75	46.48	-7.52	54	36.78	30.44	9.78	30.52	173	1	A	H
		11650	49.43	-24.57	74	56.25	39.85	14.96	61.63	100	0	P	H
		17475	53.52	-14.68	68.2	50.39	42.5	18.86	58.23	100	0	P	H
		3883	55.08	-18.92	74	46.63	29.77	9.4	30.72	223	16	P	V
		3883	44.3	-9.7	54	35.85	29.77	9.4	30.72	223	16	A	V
		4368.75	57.92	-16.08	74	48.22	30.44	9.78	30.52	179	333	P	V
		4368.75	48.29	-5.71	54	38.59	30.44	9.78	30.52	179	333	A	V
		11650	49.92	-24.08	74	56.74	39.85	14.96	61.63	100	0	P	V
		17475	53.57	-14.63	68.2	50.44	42.5	18.86	58.23	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 151 5755MHz		5649.2	54.25	-13.95	68.2	42.08	31.8	10.89	30.52	250	357	P	H
		5700	61.66	-43.54	105.2	49.34	32	10.87	30.55	250	357	P	H
		5719.2	67.93	-42.65	110.58	55.63	32	10.87	30.57	250	357	P	H
		5721	71.06	-42.02	113.08	58.76	32	10.87	30.57	250	357	P	H
	*	5755	105.43	-	-	93.14	32.02	10.86	30.59	250	357	P	H
	*	5755	98.03	-	-	85.74	32.02	10.86	30.59	250	357	A	H
		5853.8	54.16	-59.38	113.54	41.6	32.22	10.99	30.65	250	357	P	H
		5867.6	55.03	-52.24	107.27	42.4	32.27	11.02	30.66	250	357	P	H
		5880.4	54.21	-46.98	101.19	41.51	32.32	11.05	30.67	250	357	P	H
		5935.4	53.4	-14.8	68.2	40.44	32.47	11.19	30.7	250	357	P	H
													H
													H
		5629.6	53.98	-14.22	68.2	41.76	31.84	10.89	30.51	206	2	P	V
		5696.2	60.98	-41.42	102.4	48.68	31.98	10.87	30.55	206	2	P	V
		5718.8	72.68	-37.78	110.46	60.38	32	10.87	30.57	206	2	P	V
		5721.6	72.54	-41.91	114.45	60.24	32	10.87	30.57	206	2	P	V
	*	5755	106.8	-	-	94.51	32.02	10.86	30.59	206	2	P	V
	*	5755	99.34	-	-	87.05	32.02	10.86	30.59	206	2	A	V
		5852.8	55.83	-59.99	115.82	43.29	32.21	10.98	30.65	206	2	P	V
		5868	56.07	-51.09	107.16	43.44	32.27	11.02	30.66	206	2	P	V
		5882.4	55.09	-44.61	99.7	42.37	32.33	11.06	30.67	206	2	P	V
		5938.4	54.02	-14.18	68.2	41.04	32.48	11.2	30.7	206	2	P	V
													V
													V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 159 5795MHz		5627.8	53.54	-14.66	68.2	41.32	31.84	10.89	30.51	209	357	P	H
		5657.4	53.22	-20.48	73.7	41.04	31.83	10.88	30.53	209	357	P	H
		5711.2	53.36	-54.98	108.34	41.05	32	10.87	30.56	209	357	P	H
		5724.8	54.89	-66.85	121.74	42.59	32	10.87	30.57	209	357	P	H
	*	5795	105.16	-	-	92.74	32.18	10.85	30.61	209	357	P	H
	*	5795	97.72	-	-	85.3	32.18	10.85	30.61	209	357	A	H
		5851	66.11	-53.81	119.92	53.58	32.2	10.98	30.65	209	357	P	H
		5856	62.41	-48.11	110.52	49.85	32.22	10.99	30.65	209	357	P	H
		5875.2	57.22	-47.83	105.05	44.54	32.3	11.04	30.66	209	357	P	H
		5931.2	54.03	-14.17	68.2	41.09	32.46	11.18	30.7	209	357	P	H
													H
													H
		5618.8	54.12	-14.08	68.2	41.87	31.86	10.89	30.5	192	4	P	V
		5697.6	54.04	-49.39	103.43	41.73	31.99	10.87	30.55	192	4	P	V
		5710	55.78	-52.22	108	43.47	32	10.87	30.56	192	4	P	V
		5724.2	57.55	-62.83	120.38	45.25	32	10.87	30.57	192	4	P	V
	*	5795	107.17	-	-	94.75	32.18	10.85	30.61	192	4	P	V
	*	5795	99.56	-	-	87.14	32.18	10.85	30.61	192	4	A	V
		5850.8	67.64	-52.74	120.38	55.11	32.2	10.98	30.65	192	4	P	V
		5859.4	65.84	-43.73	109.57	53.25	32.24	11	30.65	192	4	P	V
		5889	57.76	-37.05	94.81	45	32.36	11.07	30.67	192	4	P	V
		5949.6	55.05	-13.15	68.2	42.03	32.5	11.23	30.71	192	4	P	V
													V
													V
Remark	1. No other spurious found.												
	2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 151 5755MHz		11510	49.97	-24.03	74	56.24	40.47	14.86	61.6	100	0	P	H
		17265	52.31	-15.89	68.2	51.3	41.06	18.7	58.75	100	0	P	H
													H
													H
		11510	52.12	-21.88	74	58.39	40.47	14.86	61.6	127	8	P	V
		11510	38.56	-15.44	54	44.83	40.47	14.86	61.6	127	8	A	V
		17265	51.69	-16.51	68.2	50.68	41.06	18.7	58.75	100	0	P	V
													V
802.11n HT40 CH 159 5795MHz		11590	49.94	-24.06	74	56.41	40.23	14.92	61.62	100	0	P	H
		17385	53.16	-15.04	68.2	50.76	42.05	18.8	58.45	100	0	P	H
													H
													H
		11590	49.9	-24.1	74	56.37	40.23	14.92	61.62	100	0	P	V
		17385	52.3	-15.9	68.2	49.9	42.05	18.8	58.45	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 CH 155 5775MHz		5615.8	57.41	-10.79	68.2	45.15	31.87	10.89	30.5	253	357	P	H
		5693.2	63.58	-36.61	100.19	51.28	31.97	10.88	30.55	253	357	P	H
		5711.8	62.88	-45.63	108.51	50.57	32	10.87	30.56	253	357	P	H
		5724.2	63.6	-56.78	120.38	51.3	32	10.87	30.57	253	357	P	H
	*	5775	100.23	-	-	87.87	32.1	10.86	30.6	253	357	P	H
	*	5775	91.82	-	-	79.46	32.1	10.86	30.6	253	357	A	H
		5853.6	63.04	-50.95	113.99	50.49	32.21	10.99	30.65	253	357	P	H
		5870.6	61.57	-44.86	106.43	48.92	32.28	11.03	30.66	253	357	P	H
		5875.2	57.52	-47.53	105.05	44.84	32.3	11.04	30.66	253	357	P	H
		5931.6	54.27	-13.93	68.2	41.33	32.46	11.18	30.7	253	357	P	H
													H
													H
		5642.4	57.29	-10.91	68.2	45.1	31.82	10.89	30.52	172	332	P	V
		5696.4	63.39	-39.16	102.55	51.08	31.99	10.87	30.55	172	332	P	V
		5715.8	63.92	-45.71	109.63	51.61	32	10.87	30.56	172	332	P	V
		5724	64.51	-55.41	119.92	52.21	32	10.87	30.57	172	332	P	V
	*	5775	101.99	-	-	89.63	32.1	10.86	30.6	172	332	P	V
	*	5775	93.33	-	-	80.97	32.1	10.86	30.6	172	332	A	V
		5850	63.88	-58.32	122.2	51.35	32.2	10.98	30.65	172	332	P	V
		5855.6	64.06	-46.57	110.63	51.5	32.22	10.99	30.65	172	332	P	V
		5875.4	58.21	-46.69	104.9	45.53	32.3	11.04	30.66	172	332	P	V
		5930.4	54.73	-13.47	68.2	41.79	32.46	11.18	30.7	172	332	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 CH 155 5775MHz		11550	49.31	-24.69	74	55.67	40.35	14.9	61.61	100	0	P	H
		17325	51.02	-17.18	68.2	49.4	41.45	18.77	58.6	100	0	P	H
													H
													H
		11550	49.55	-24.45	74	55.91	40.35	14.9	61.61	100	0	P	V
		17325	51.38	-16.82	68.2	49.76	41.45	18.77	58.6	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**Emission above 18GHz****5GHz WIFI 802.11a**

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamplifier Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
5GHz 802.11a		23610	41.81	-32.19	74	42.24	39.85	13.02	53.3	150	0	P	H
		39780	49.85	-24.15	74	39.53	45.01	19.96	54.65	150	0	P	H
													H
													H
		23522	41.65	-26.55	68.2	42.19	39.73	13.03	53.3	150	0	P	V
		39890	49.89	-24.11	74	39.14	45.06	20.17	54.48	150	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Emission below 1GHz

5GHz WIFI 802.11n HT20 (LF @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
5GHz 802.11n HT20 LF		66.86	26.58	-13.42	40	45.24	12.39	1.05	32.1	-	-	P	H
		112.45	31.88	-11.62	43.5	45.67	17.22	1.36	32.37	-	-	P	H
		159.01	25.06	-18.44	43.5	38.93	16.79	1.76	32.42	-	-	P	H
		360.77	25.19	-20.81	46	34.51	20.5	2.56	32.38	-	-	P	H
		517.91	33.38	-12.62	46	38.85	23.77	3.14	32.38	-	-	P	H
		914.64	37.92	-8.08	46	36.46	28.87	4.32	31.73	100	0	P	H
													H
													H
													H
													H
													H
													H
													H
		35.82	29.53	-10.47	40	40.11	21.05	0.7	32.33	-	-	P	V
		65.89	25.36	-14.64	40	43.97	12.29	1.04	31.94	-	-	P	V
		111.48	34.79	-8.71	43.5	48.61	17.18	1.36	32.36	-	-	P	V
		160.95	22.5	-21	43.5	36.53	16.62	1.77	32.42	-	-	P	V
		357.86	27.99	-18.01	46	37.41	20.42	2.55	32.39	-	-	P	V
		517.91	38.15	-7.85	46	43.62	23.77	3.14	32.38	100	0	P	V
													V
													V
													V
													V
												V	
												V	
												V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Band 4 - 5725~5850MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		5634.4	54.81	-13.39	68.2	42.6	31.83	10.89	30.51	159	2	P	H
		5697.6	60.14	-43.29	103.43	47.83	31.99	10.87	30.55	159	2	P	H
		5719.8	71.15	-39.59	110.74	58.85	32	10.87	30.57	159	2	P	H
		5724.6	77.59	-43.7	121.29	65.29	32	10.87	30.57	159	2	P	H
	*	5745	110.06	-	-	97.78	32	10.86	30.58	159	2	P	H
	*	5745	102.1	-	-	89.82	32	10.86	30.58	159	2	A	H
													H
													H
		5637.4	55.42	-12.78	68.2	43.22	31.83	10.89	30.52	203	33	P	V
		5699.6	62.75	-42.16	104.91	50.43	32	10.87	30.55	203	33	P	V
		5718.4	74.16	-36.19	110.35	61.86	32	10.87	30.57	203	33	P	V
		5724.6	78.68	-42.61	121.29	66.38	32	10.87	30.57	203	33	P	V
	*	5745	112.28	-	-	100	32	10.86	30.58	203	33	P	V
	*	5745	104.39	-	-	92.11	32	10.86	30.58	203	33	A	V
													V
													V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 157 5785MHz		5625.2	54.52	-13.68	68.2	42.29	31.85	10.89	30.51	152	3	P	H
		5666.4	52.53	-27.84	80.37	40.31	31.87	10.88	30.53	152	3	P	H
		5709.2	53.73	-54.05	107.78	41.42	32	10.87	30.56	152	3	P	H
		5720.8	56.82	-55.8	112.62	44.52	32	10.87	30.57	152	3	P	H
	*	5785	109.45	-	-	97.07	32.14	10.85	30.61	152	3	P	H
	*	5785	101.55	-	-	89.17	32.14	10.85	30.61	152	3	A	H
		5853	59.72	-55.64	115.36	47.18	32.21	10.98	30.65	152	3	P	H
		5855.6	57.77	-52.86	110.63	45.21	32.22	10.99	30.65	152	3	P	H
		5886.2	54.26	-42.62	96.88	41.52	32.34	11.07	30.67	152	3	P	H
		5947.2	53.5	-14.7	68.2	40.5	32.49	11.22	30.71	152	3	P	H
													H
													H
		5628	54.58	-13.62	68.2	42.36	31.84	10.89	30.51	195	32	P	V
		5688.8	54.47	-42.47	96.94	42.18	31.96	10.88	30.55	195	32	P	V
		5718.4	57.4	-52.95	110.35	45.1	32	10.87	30.57	195	32	P	V
		5724.4	57.19	-63.64	120.83	44.89	32	10.87	30.57	195	32	P	V
	*	5785	112.03	-	-	99.65	32.14	10.85	30.61	195	32	P	V
	*	5785	104.12	-	-	91.74	32.14	10.85	30.61	195	32	A	V
		5853	59.8	-55.56	115.36	47.26	32.21	10.98	30.65	195	32	P	V
		5855.6	59.34	-51.29	110.63	46.78	32.22	10.99	30.65	195	32	P	V
		5875.6	56.83	-47.92	104.75	44.15	32.3	11.04	30.66	195	32	P	V
		5940.4	54.09	-14.11	68.2	41.11	32.48	11.2	30.7	195	32	P	V
													V
													V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 165 5825MHz	*	5825	109.26	-	-	96.78	32.2	10.91	30.63	169	1	P	H
	*	5825	101.31	-	-	88.83	32.2	10.91	30.63	169	1	A	H
		5851.2	75.19	-44.27	119.46	62.66	32.2	10.98	30.65	169	1	P	H
		5856.8	69.46	-40.84	110.3	56.89	32.23	10.99	30.65	169	1	P	H
		5875	63.41	-41.79	105.2	50.73	32.3	11.04	30.66	169	1	P	H
		5941	53.56	-14.64	68.2	40.58	32.48	11.2	30.7	169	1	P	H
													H
													H
	*	5825	111.53	-	-	99.05	32.2	10.91	30.63	192	5	P	V
	*	5825	103.63	-	-	91.15	32.2	10.91	30.63	192	5	A	V
		5852	79.44	-38.2	117.64	66.9	32.21	10.98	30.65	192	5	P	V
		5855.8	73.89	-36.69	110.58	61.33	32.22	10.99	30.65	192	5	P	V
		5882.6	65.29	-34.27	99.56	52.57	32.33	11.06	30.67	192	5	P	V
		5935.2	56.31	-11.89	68.2	43.35	32.47	11.19	30.7	192	5	P	V
													V
													V
													V
Remark - No other spurious found. - All results are PASS against Peak and Average limit line.													



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 149 5745MHz		4308.75	54.7	-19.3	74	45.19	30.32	9.74	30.55	191	343	P	H
		4308.75	44.19	-9.81	54	34.68	30.32	9.74	30.55	191	343	A	H
		11490	52.37	-21.63	74	58.63	40.48	14.85	61.59	280	76	P	H
		11490	38.68	-15.32	54	44.94	40.48	14.85	61.59	280	76	A	H
		17235	53.25	-14.95	68.2	52.46	40.94	18.67	58.82	100	0	P	H
		4308.75	56.39	-17.61	74	46.88	30.32	9.74	30.55	191	26	P	V
		4308.75	45.45	-8.55	54	35.94	30.32	9.74	30.55	191	26	A	V
		11490	49.87	-24.13	74	56.13	40.48	14.85	61.59	100	0	P	V
		17235	53.41	-14.79	68.2	52.62	40.94	18.67	58.82	100	0	P	V
802.11a CH 157 5785MHz		3856.667	60.66	-13.34	74	52.31	29.71	9.36	30.72	187	346	P	H
		3856.667	49.12	-4.88	54	40.77	29.71	9.36	30.72	187	346	A	H
		4338.75	55.37	-18.63	74	45.76	30.38	9.76	30.53	187	335	P	H
		4338.75	45.39	-8.61	54	35.78	30.38	9.76	30.53	187	335	A	H
		11570	49.08	-24.92	74	55.5	40.29	14.91	61.62	100	0	P	H
		17355	53.42	-14.78	68.2	51.41	41.75	18.79	58.53	100	0	P	H
		3856.667	59.17	-14.83	74	50.82	29.71	9.36	30.72	209	29	P	V
		3856.667	46.76	-7.24	54	38.41	29.71	9.36	30.72	209	29	A	V
		4338.75	57.12	-16.88	74	47.51	30.38	9.76	30.53	210	28	P	V
		4338.75	47.46	-6.54	54	37.85	30.38	9.76	30.53	210	28	A	V
		11570	49.94	-24.06	74	56.36	40.29	14.91	61.62	100	0	P	V
		17355	54.17	-14.03	68.2	52.16	41.75	18.79	58.53	100	0	P	V



802.11a CH 165 5825MHz		3883.333	58.55	-15.45	74	50.1	29.77	9.4	30.72	175	346	P	H
		3883.333	47.5	-6.5	54	39.05	29.77	9.4	30.72	175	346	A	H
		4368.75	56.47	-17.53	74	46.77	30.44	9.78	30.52	200	28	P	H
		4368.75	45.85	-8.15	54	36.15	30.44	9.78	30.52	200	28	A	H
		11650	49.96	-24.04	74	56.78	39.85	14.96	61.63	100	0	P	H
		17475	54.67	-13.53	68.2	51.54	42.5	18.86	58.23	100	0	P	H
		3883.333	56.83	-17.17	74	48.38	29.77	9.4	30.72	226	27	P	V
		3883.333	45.49	-8.51	54	37.04	29.77	9.4	30.72	226	27	A	V
		4368.75	57.56	-16.44	74	47.86	30.44	9.78	30.52	208	26	P	V
		4368.75	48.2	-5.8	54	38.5	30.44	9.78	30.52	208	26	A	V
		11650	49.63	-24.37	74	56.45	39.85	14.96	61.63	100	0	P	V
		17475	54.04	-14.16	68.2	50.91	42.5	18.86	58.23	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 149 5745MHz		5633.6	55.06	-13.14	68.2	42.85	31.83	10.89	30.51	260	320	P	H
		5699.4	60.84	-43.92	104.76	48.52	32	10.87	30.55	260	320	P	H
		5717.2	72.25	-37.77	110.02	59.94	32	10.87	30.56	260	320	P	H
		5724.4	76.8	-44.03	120.83	64.5	32	10.87	30.57	260	320	P	H
	*	5745	109.38	-	-	97.1	32	10.86	30.58	260	320	P	H
	*	5745	101.88	-	-	89.6	32	10.86	30.58	260	320	A	H
													H
													H
		5608	56.18	-12.02	68.2	43.9	31.88	10.9	30.5	203	33	P	V
		5697	63.02	-39.97	102.99	50.71	31.99	10.87	30.55	203	33	P	V
		5718.2	75.11	-35.19	110.3	62.81	32	10.87	30.57	203	33	P	V
		5725	79.65	-42.55	122.2	67.35	32	10.87	30.57	203	33	P	V
	*	5745	112.45	-	-	100.17	32	10.86	30.58	203	33	P	V
	*	5745	104.63	-	-	92.35	32	10.86	30.58	203	33	A	V
													V
													V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 157 5785MHz		5622.8	53.82	-14.38	68.2	41.59	31.85	10.89	30.51	331	317	P	H
		5681.6	53.54	-38.08	91.62	41.27	31.93	10.88	30.54	331	317	P	H
		5713.2	54.01	-54.89	108.9	41.7	32	10.87	30.56	331	317	P	H
		5725	55.45	-66.75	122.2	43.15	32	10.87	30.57	331	317	P	H
	*	5785	109.44	-	-	97.06	32.14	10.85	30.61	331	317	P	H
	*	5785	101.89	-	-	89.51	32.14	10.85	30.61	331	317	A	H
		5850.6	54.94	-65.89	120.83	42.41	32.2	10.98	30.65	331	317	P	H
		5861.6	56.98	-51.97	108.95	44.37	32.25	11.01	30.65	331	317	P	H
		5878.2	53.82	-49	102.82	41.12	32.31	11.05	30.66	331	317	P	H
		5932.4	54.19	-14.01	68.2	41.25	32.46	11.18	30.7	331	317	P	H
													H
													H
		5647.4	55.18	-13.02	68.2	43	31.81	10.89	30.52	209	29	P	V
		5685.8	54.93	-39.79	94.72	42.66	31.94	10.88	30.55	209	29	P	V
		5715.8	55.72	-53.91	109.63	43.41	32	10.87	30.56	209	29	P	V
		5723.8	57.83	-61.63	119.46	45.53	32	10.87	30.57	209	29	P	V
	*	5785	111.77	-	-	99.39	32.14	10.85	30.61	209	29	P	V
	*	5785	104.28	-	-	91.9	32.14	10.85	30.61	209	29	A	V
		5853.8	59.58	-53.96	113.54	47.02	32.22	10.99	30.65	209	29	P	V
		5855.2	57.71	-53.03	110.74	45.15	32.22	10.99	30.65	209	29	P	V
		5887.2	55.49	-40.65	96.14	42.74	32.35	11.07	30.67	209	29	P	V
		5943.4	54.44	-13.76	68.2	41.44	32.49	11.21	30.7	209	29	P	V
													V
													V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 165 5825MHz	*	5825	109.01	-	-	96.53	32.2	10.91	30.63	283	322	P	H
	*	5825	101.5	-	-	89.02	32.2	10.91	30.63	283	322	A	H
		5853.2	73.82	-41.08	114.9	61.28	32.21	10.98	30.65	283	322	P	H
		5855.4	74.04	-36.65	110.69	61.48	32.22	10.99	30.65	283	322	P	H
		5879	62.45	-39.78	102.23	49.74	32.32	11.05	30.66	283	322	P	H
		5925.6	54.66	-13.54	68.2	41.73	32.45	11.17	30.69	283	322	P	H
													H
													H
	*	5825	111.29	-	-	98.81	32.2	10.91	30.63	200	23	P	V
	*	5825	103.58	-	-	91.1	32.2	10.91	30.63	200	23	A	V
		5850	76.15	-46.05	122.2	63.62	32.2	10.98	30.65	200	23	P	V
		5857.8	73.68	-36.33	110.01	61.1	32.23	11	30.65	200	23	P	V
		5879.6	63.62	-38.16	101.78	50.92	32.32	11.05	30.67	200	23	P	V
		5942.4	55.91	-12.29	68.2	42.92	32.48	11.21	30.7	200	23	P	V
													V
													V
Remark		1. No other spurious found. 2. All results are PASS against Peak and Average limit line.											



Band 4 5725~5850MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 149 5745MHz		4309	53.92	-20.08	74	44.41	30.32	9.74	30.55	296	345	P	H
		4309	43.7	-10.3	54	34.19	30.32	9.74	30.55	296	345	A	H
		11490	49.9	-24.1	74	56.16	40.48	14.85	61.59	100	0	P	H
		17235	52.91	-15.29	68.2	52.12	40.94	18.67	58.82	100	0	P	H
		4309	55.4	-18.6	74	45.89	30.32	9.74	30.55	211	28	P	V
		4309	45.23	-8.77	54	35.72	30.32	9.74	30.55	211	28	A	V
		11490	49.96	-24.04	74	56.22	40.48	14.85	61.59	100	0	P	V
		17235	51.26	-16.94	68.2	50.47	40.94	18.67	58.82	100	0	P	V
802.11n HT20 CH 157 5785MHz		4339	54.12	-19.88	74	44.51	30.38	9.76	30.53	200	351	P	H
		4339	43.76	-10.24	54	34.15	30.38	9.76	30.53	200	351	A	H
		11570	49.78	-24.22	74	56.2	40.29	14.91	61.62	100	0	P	H
		17355	52.94	-15.26	68.2	50.93	41.75	18.79	58.53	100	0	P	H
		4339	56.65	-17.35	74	47.04	30.38	9.76	30.53	240	29	P	V
		4339	46.14	-7.86	54	36.53	30.38	9.76	30.53	240	29	A	V
		11570	49.9	-24.1	74	56.32	40.29	14.91	61.62	100	0	P	V
		17355	52.17	-16.03	68.2	50.16	41.75	18.79	58.53	100	0	P	V



802.11n HT20 CH 165 5825MHz		3883	57.23	-16.77	74	48.78	29.77	9.4	30.72	200	353	P	H
		3883	46.92	-7.08	54	38.47	29.77	9.4	30.72	200	353	A	H
		4369	55.83	-18.17	74	46.13	30.44	9.78	30.52	219	343	P	H
		4369	46.05	-7.95	54	36.35	30.44	9.78	30.52	219	343	A	H
		11650	49.6	-24.4	74	56.42	39.85	14.96	61.63	100	0	P	H
		17475	52.67	-15.53	68.2	49.54	42.5	18.86	58.23	100	0	P	H
		3883	54.58	-19.42	74	46.13	29.77	9.4	30.72	200	48	P	V
		3883	44.37	-9.63	54	35.92	29.77	9.4	30.72	200	48	A	V
		4369	58.13	-15.87	74	48.43	30.44	9.78	30.52	250	38	P	V
		4369	48.28	-5.72	54	38.58	30.44	9.78	30.52	250	38	A	V
		11650	48.48	-25.52	74	55.3	39.85	14.96	61.63	100	0	P	V
		17475	53.13	-15.07	68.2	50	42.5	18.86	58.23	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 151 5755MHz		5601.2	53.2	-15	68.2	40.89	31.9	10.9	30.49	266	321	P	H
		5699.6	63.9	-41.01	104.91	51.58	32	10.87	30.55	266	321	P	H
		5719	72.12	-38.4	110.52	59.82	32	10.87	30.57	266	321	P	H
		5723.6	70.89	-48.12	119.01	58.59	32	10.87	30.57	266	321	P	H
	*	5755	105.06	-	-	92.77	32.02	10.86	30.59	266	321	P	H
	*	5755	97.78	-	-	85.49	32.02	10.86	30.59	266	321	A	H
		5852.6	54.4	-61.87	116.27	41.86	32.21	10.98	30.65	266	321	P	H
		5874.4	56.4	-48.97	105.37	43.72	32.3	11.04	30.66	266	321	P	H
		5899.8	54.15	-32.66	86.81	41.33	32.4	11.1	30.68	266	321	P	H
		5943	53.37	-14.83	68.2	40.37	32.49	11.21	30.7	266	321	P	H
													H
													H
		5637.8	54.96	-13.24	68.2	42.77	31.82	10.89	30.52	200	39	P	V
		5700	65.31	-39.89	105.2	52.99	32	10.87	30.55	200	39	P	V
		5719.6	72.35	-38.34	110.69	60.05	32	10.87	30.57	200	39	P	V
		5720.8	73.25	-39.37	112.62	60.95	32	10.87	30.57	200	39	P	V
	*	5755	107.27	-	-	94.98	32.02	10.86	30.59	200	39	P	V
	*	5755	99.75	-	-	87.46	32.02	10.86	30.59	200	39	A	V
		5850.6	56.14	-64.69	120.83	43.61	32.2	10.98	30.65	200	39	P	V
		5858.6	55.7	-54.09	109.79	43.12	32.23	11	30.65	200	39	P	V
		5882.4	54.73	-44.97	99.7	42.01	32.33	11.06	30.67	200	39	P	V
		5932.6	52.51	-15.69	68.2	39.56	32.47	11.18	30.7	200	39	P	V
													V
													V



WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 159 5795MHz		5633	53.46	-14.74	68.2	41.25	31.83	10.89	30.51	270	322	P	H
		5658	52.63	-21.51	74.14	40.45	31.83	10.88	30.53	270	322	P	H
		5719.4	55.94	-54.69	110.63	43.64	32	10.87	30.57	270	322	P	H
		5723.4	55.77	-62.78	118.55	43.47	32	10.87	30.57	270	322	P	H
	*	5795	105.25	-	-	92.83	32.18	10.85	30.61	270	322	P	H
	*	5795	97.79	-	-	85.37	32.18	10.85	30.61	270	322	A	H
		5853.8	67.24	-46.3	113.54	54.68	32.22	10.99	30.65	270	322	P	H
		5856	66.35	-44.17	110.52	53.79	32.22	10.99	30.65	270	322	P	H
		5875.8	58.26	-46.35	104.61	45.58	32.3	11.04	30.66	270	322	P	H
		5925	53.96	-14.24	68.2	41.04	32.45	11.16	30.69	270	322	P	H
													H
													H
		5600.8	54.12	-14.08	68.2	41.81	31.9	10.9	30.49	200	24	P	V
		5666	54.57	-25.51	80.08	42.36	31.86	10.88	30.53	200	24	P	V
		5720	58.3	-52.5	110.8	46	32	10.87	30.57	200	24	P	V
		5720	58.3	-52.5	110.8	46	32	10.87	30.57	200	24	P	V
	*	5795	107.19	-	-	94.77	32.18	10.85	30.61	200	24	P	V
	*	5795	99.72	-	-	87.3	32.18	10.85	30.61	200	24	A	V
		5850.6	70.14	-50.69	120.83	57.61	32.2	10.98	30.65	200	24	P	V
		5856.2	68.99	-41.47	110.46	56.43	32.22	10.99	30.65	200	24	P	V
		5875	60.07	-45.13	105.2	47.39	32.3	11.04	30.66	200	24	P	V
		5950	53.81	-14.39	68.2	40.79	32.5	11.23	30.71	200	24	P	V
													V
													V
Remark 1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



Band 4 5725~5850MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 151 5755MHz		11510	49.54	-24.46	74	55.81	40.47	14.86	61.6	100	0	P	H
		17265	50.9	-17.3	68.2	49.89	41.06	18.7	58.75	100	0	P	H
													H
													H
		11510	49.86	-24.14	74	56.13	40.47	14.86	61.6	100	0	P	V
		17265	50.52	-17.68	68.2	49.51	41.06	18.7	58.75	100	0	P	V
													V
													V
802.11n HT40 CH 159 5795MHz		11590	48.87	-25.13	74	55.34	40.23	14.92	61.62	100	0	P	H
		17385	52.05	-16.15	68.2	49.65	42.05	18.8	58.45	100	0	P	H
													H
													H
		11590	49.87	-24.13	74	56.34	40.23	14.92	61.62	100	0	P	V
		17385	51.73	-16.47	68.2	49.33	42.05	18.8	58.45	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



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

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 CH 155 5775MHz		5625.2	56.9	-11.3	68.2	44.67	31.85	10.89	30.51	263	321	P	H
		5693.4	65.43	-34.9	100.33	53.13	31.97	10.88	30.55	263	321	P	H
		5707	63.87	-43.29	107.16	51.56	32	10.87	30.56	263	321	P	H
		5725	64.19	-58.01	122.2	51.89	32	10.87	30.57	263	321	P	H
	*	5775	99.52	-	-	87.16	32.1	10.86	30.6	263	321	P	H
	*	5775	91.37	-	-	79.01	32.1	10.86	30.6	263	321	A	H
		5854	64.9	-48.18	113.08	52.34	32.22	10.99	30.65	263	321	P	H
		5867.6	62.93	-44.34	107.27	50.3	32.27	11.02	30.66	263	321	P	H
		5882	56.72	-43.28	100	44	32.33	11.06	30.67	263	321	P	H
		5932.6	53.65	-14.55	68.2	40.7	32.47	11.18	30.7	263	321	P	H
													H
													H
		5607.4	58.56	-9.64	68.2	46.27	31.89	10.9	30.5	200	24	P	V
		5692.8	65.37	-34.52	99.89	53.07	31.97	10.88	30.55	200	24	P	V
		5716.4	65.89	-43.9	109.79	53.58	32	10.87	30.56	200	24	P	V
		5724	66.33	-53.59	119.92	54.03	32	10.87	30.57	200	24	P	V
	*	5775	102	-	-	89.64	32.1	10.86	30.6	200	24	P	V
	*	5775	93.48	-	-	81.12	32.1	10.86	30.6	200	24	A	V
		5854.4	64.73	-47.44	112.17	52.17	32.22	10.99	30.65	200	24	P	V
		5856.6	65.24	-45.11	110.35	52.67	32.23	10.99	30.65	200	24	P	V
		5878	58.87	-44.1	102.97	46.17	32.31	11.05	30.66	200	24	P	V
		5929.8	53.34	-14.86	68.2	40.4	32.46	11.18	30.7	200	24	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Path	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 CH 155 5775MHz		11550	49.35	-24.65	74	55.71	40.35	14.9	61.61	100	0	P	H
		17325	50.36	-17.84	68.2	48.74	41.45	18.77	58.6	100	0	P	H
													H
													H
		11550	49.93	-24.07	74	56.29	40.35	14.9	61.61	100	0	P	V
		17325	50.13	-18.07	68.2	48.51	41.45	18.77	58.6	100	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

**Emission above 18GHz****5GHz WIFI 802.11a**

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
5GHz 802.11a		23610	41.81	-32.19	74	42.24	39.85	13.02	53.3	150	0	P	H
		39780	49.85	-24.15	74	39.53	45.01	19.96	54.65	150	0	P	H
													H
													H
		23522	41.65	-26.55	68.2	42.19	39.73	13.03	53.3	150	0	P	V
		39890	49.89	-24.11	74	39.14	45.06	20.17	54.48	150	0	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Emission below 1GHz

5GHz WIFI 802.11a (LF @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Path Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
5GHz 802.11a LF		83.35	26.87	-13.13	40	44.14	13.97	1.21	32.45	-	-	P	H
		111.48	33.06	-10.44	43.5	46.88	17.18	1.36	32.36	-	-	P	H
		159.01	26.15	-17.35	43.5	40.02	16.79	1.76	32.42	-	-	P	H
		369.5	28.58	-17.42	46	37.71	20.6	2.59	32.32	-	-	P	H
		517.91	33.9	-12.1	46	39.37	23.77	3.14	32.38	-	-	P	H
		914.64	38.65	-7.35	46	37.19	28.87	4.32	31.73	100	0	P	H
													H
													H
													H
													H
													H
													H
													H
		35.82	30.09	-9.91	40	40.67	21.05	0.7	32.33	-	-	P	V
		111.48	36.43	-7.07	43.5	50.25	17.18	1.36	32.36	100	0	P	V
		357.86	29.2	-16.8	46	38.62	20.42	2.55	32.39	-	-	P	V
		517.91	38.27	-7.73	46	43.74	23.77	3.14	32.38	-	-	P	V
		703.18	33.89	-12.11	46	36.34	26.28	3.67	32.4	-	-	P	V
		914.64	37.35	-8.65	46	35.89	28.87	4.32	31.73	-	-	P	V
													V
													V
													V
												V	
												V	
												V	
												V	
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Note symbol

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

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

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

Test Engineer :	Leo Lee, Mancy Chou, Bigshow Wang	Temperature :	24.3~24.7°C
		Relative Humidity :	55~61%

Note symbol

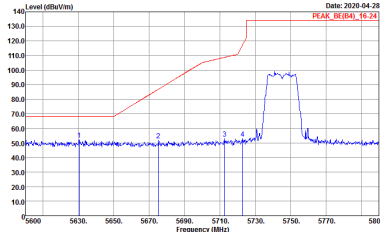
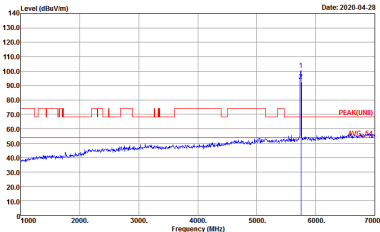
-L	Low channel location
-R	High channel location



Band 4 - 5725~5850MHz
WIFI 802.11a (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1	Horizontal	Fundamental
Peak	Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

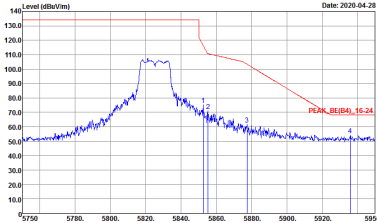
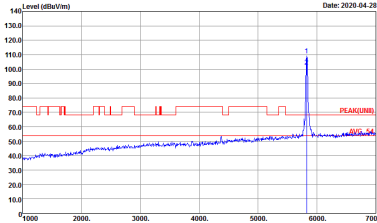


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1	Horizontal	Fundamental
Peak	Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site Condition : 03CH15-HY : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
1	Vertical	Fundamental
Peak	Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site Condition : 03CH15-HY : PEAK(UNIT) 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank



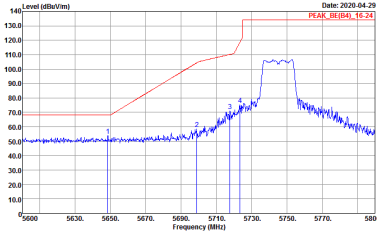
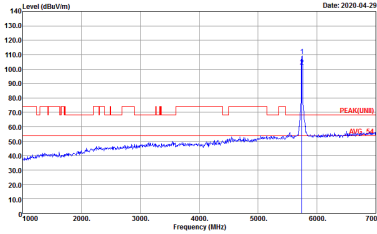
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



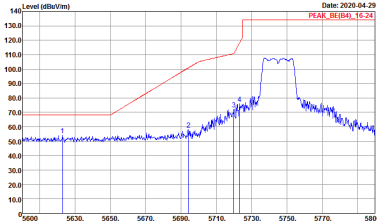
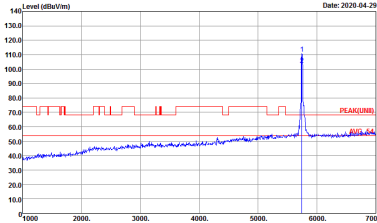
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
1	Vertical	Fundamental
Peak	Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



Band 4 5725~5850MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1	Horizontal	Fundamental
Peak	 Site : 09CH15-HY Condition : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 09CH15-HY Condition : PEAK(LIN)_3m 91200_15_1620 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

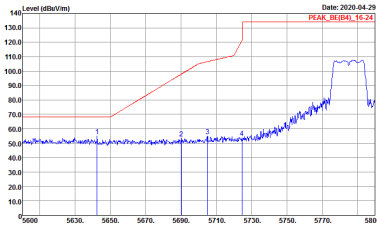
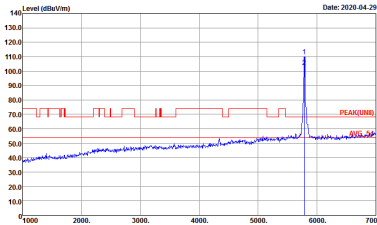
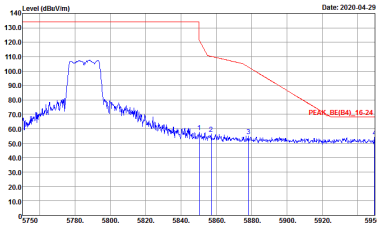


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

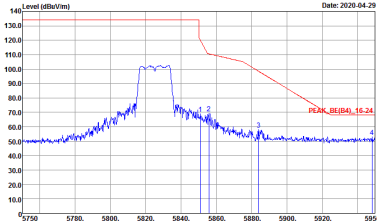
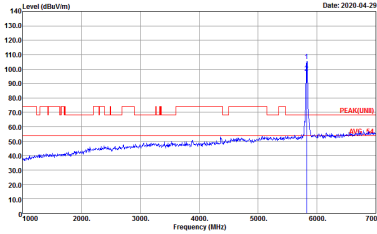


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1	Horizontal	Fundamental
Peak	Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site Condition : 03CH15-HY : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

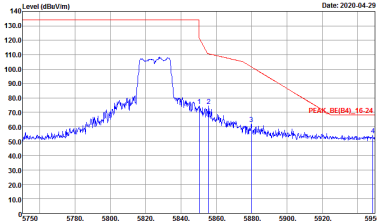
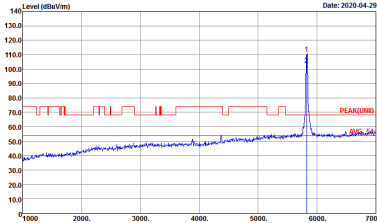


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1	Vertical	Fundamental
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site Condition : 03CH15-HY : PEAK(UNIT) 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank



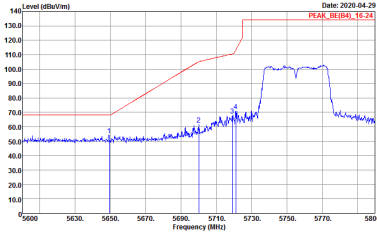
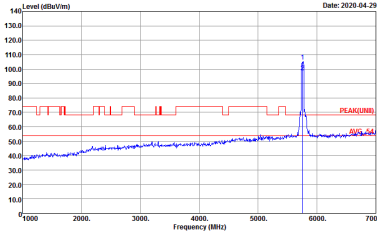
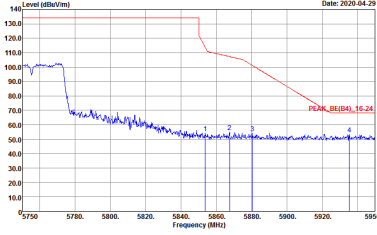
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



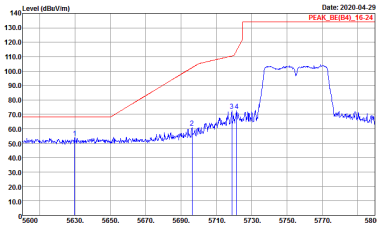
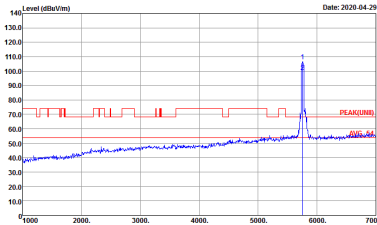
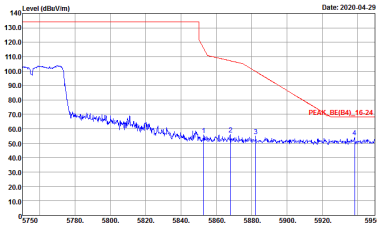
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



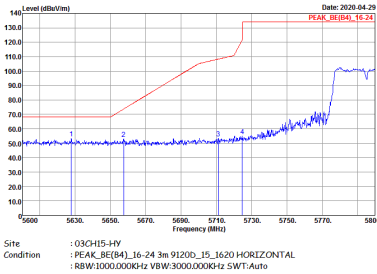
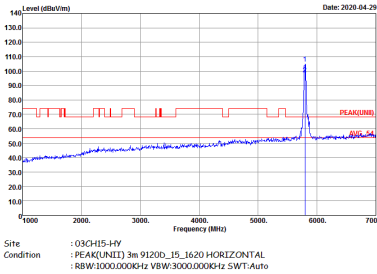
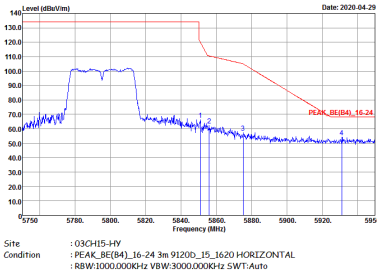
Band 4 5725~5850MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

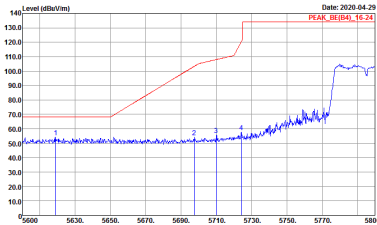
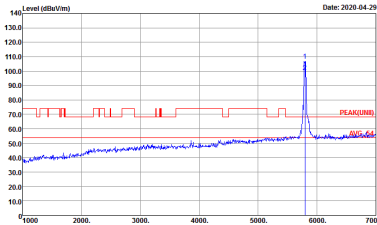
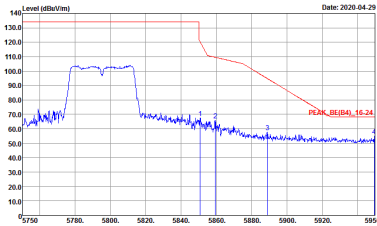
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_15_1620 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_15_1620 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_15_1620 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1	Vertical	Fundamental
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site Condition : 03CH15-HY : PEAK(UNIT) 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

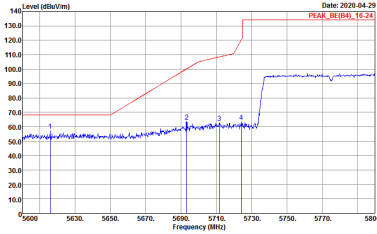
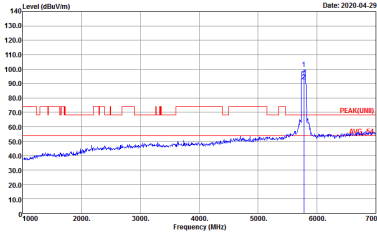
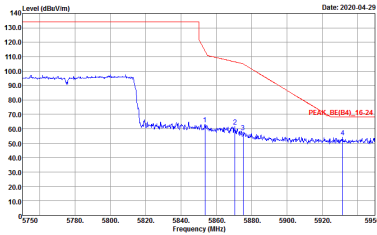


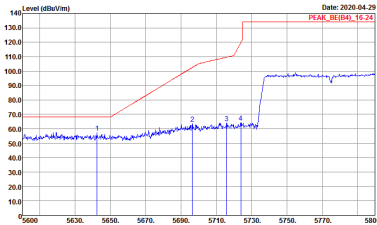
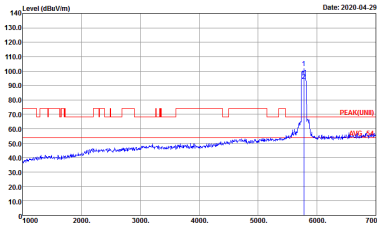
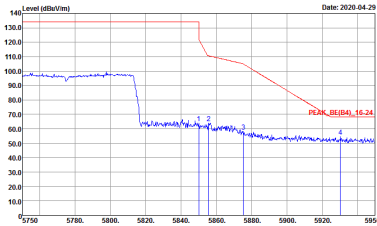
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
1	Horizontal	Fundamental
Peak		
		Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
1	Vertical	Fundamental
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site Condition : 03CH15-HY : PEAK(UNIT) 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank



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

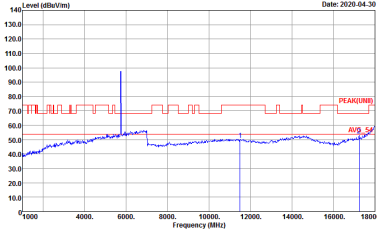
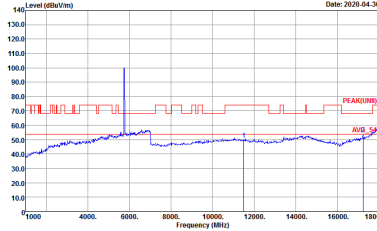
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(B4)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site : 03CH15-HY Condition : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1	Vertical	Fundamental
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site Condition : 03CH15-HY : PEAK(UNIT) 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

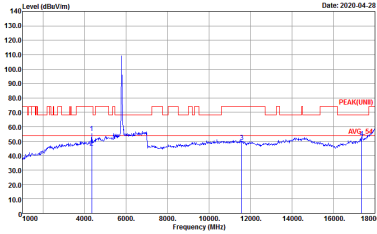
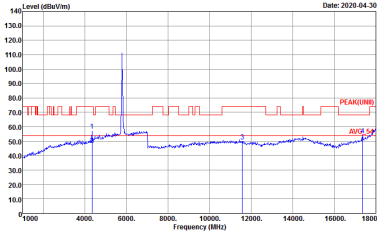


Band 4 - 5725~5850MHz

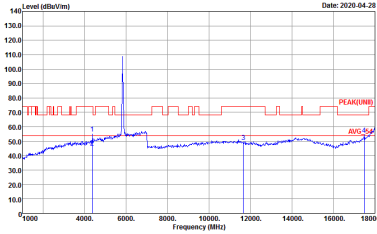
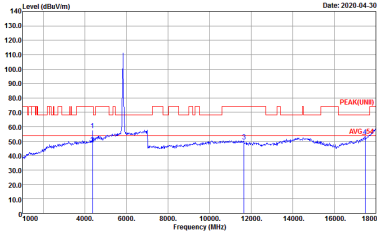
WIFI 802.11a (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak



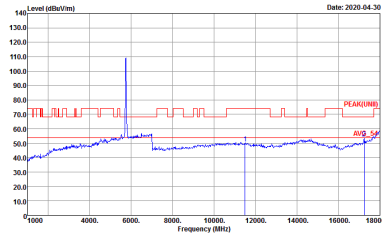
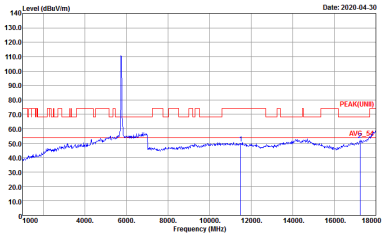
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak



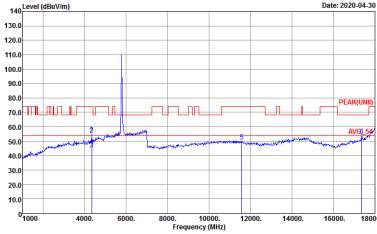
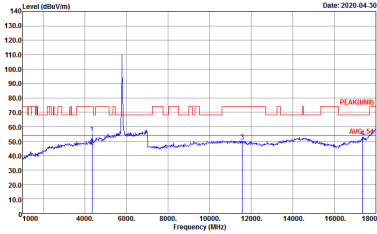
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak



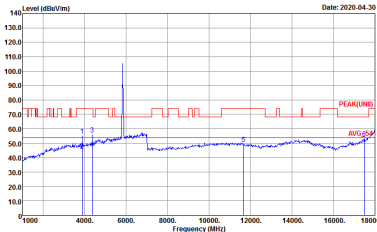
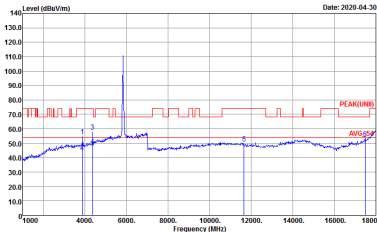
Band 4 5725~5850MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak



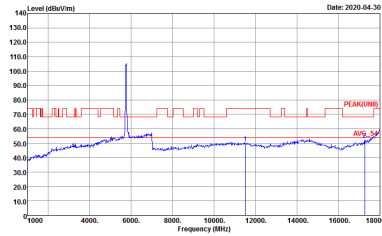
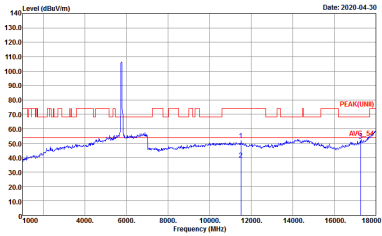
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak



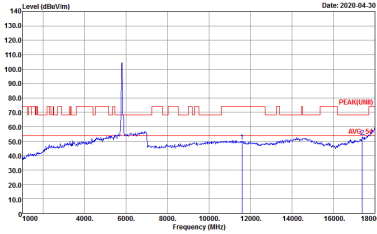
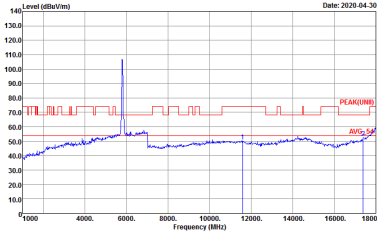
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak



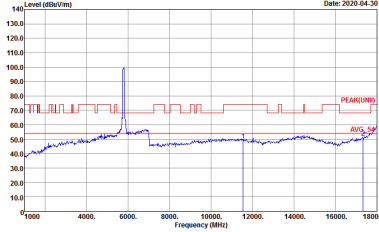
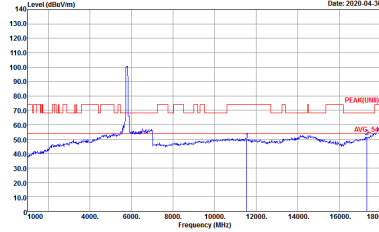
Band 4 5725~5850MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak



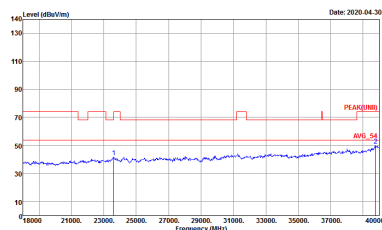
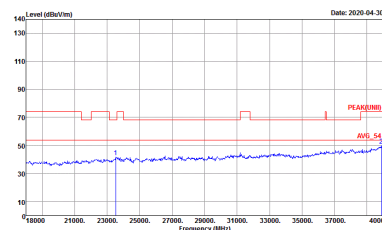
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak

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

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
1	Horizontal	Vertical
Peak Avg.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak

Emission above 18GHz

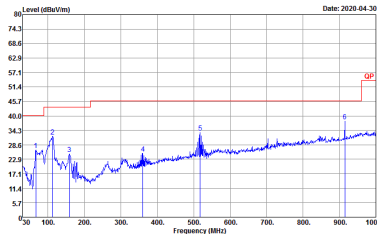
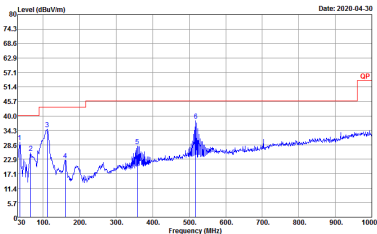
5GHz WIFI 802.11a

WIFI	5GHz 5725~5850MHz	
ANT	802.11a	
1	Horizontal	Vertical
Peak Avg.		



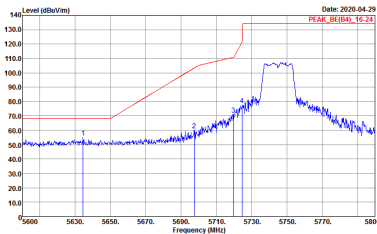
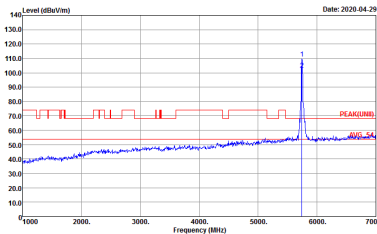
Emission below 1GHz

5GHz WIFI 802.11a (LF)

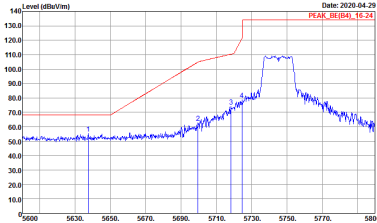
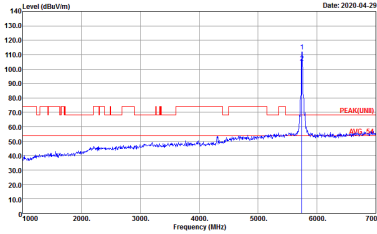
WIFI	5GHz 5725~5850MHz	
ANT	802.11a LF	
1	Horizontal	Vertical
QP / Peak	 Site : 03CH15-HY Condition : QP 3m B1LO6_15_41912 HORIZONTAL Detector : Peak	 Site : 03CH15-HY Condition : QP 3m B1LO6_15_41912 VERTICAL Detector : Peak



Band 4 - 5725~5850MHz
WIFI 802.11a (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
2	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH149 5745MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

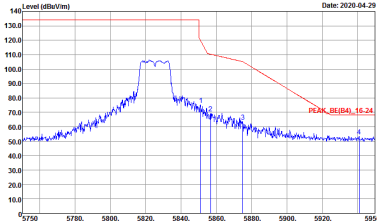
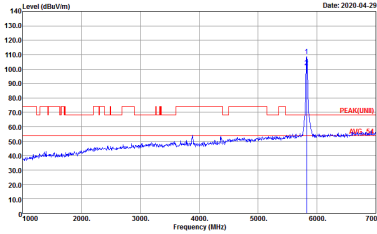


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
2	Horizontal	Fundamental
Peak	Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site Condition : 03CH15-HY : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

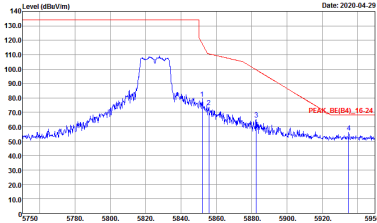
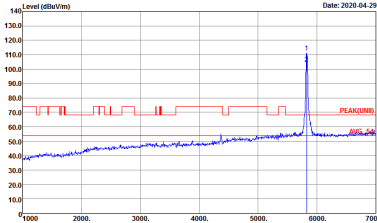


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH157 5785MHz	
2	Vertical	Fundamental
Peak	Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site Condition : 03CH15-HY : PEAK(UNIT) 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

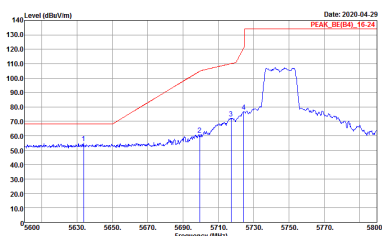
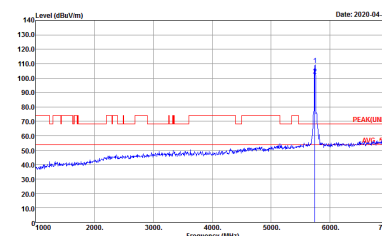


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
2	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

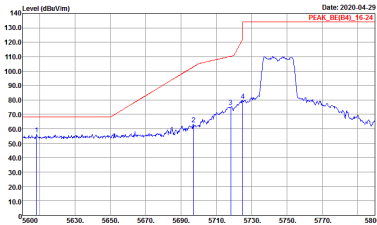
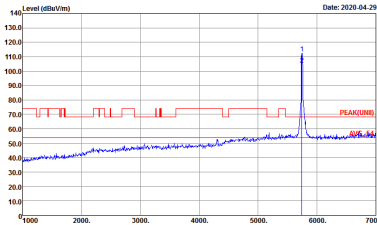


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11a CH165 5825MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

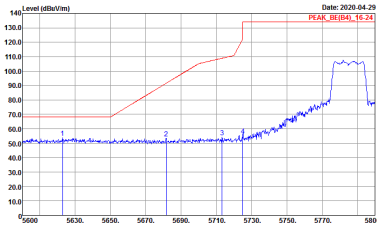
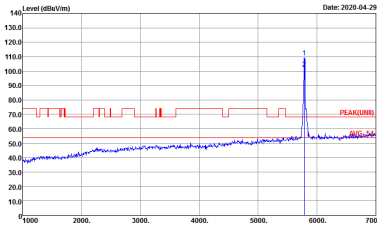
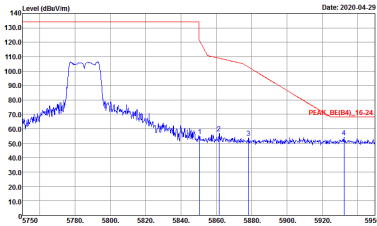
Band 4 5725~5850MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
2	Horizontal	Fundamental
Peak	 Site : 09CH15-HY Condition : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 09CH15-HY Condition : PEAK(B4)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
2	Vertical	Fundamental
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site Condition : 03CH15-HY : PEAK(UNIT) 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

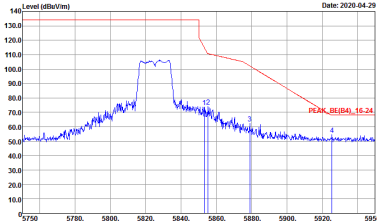
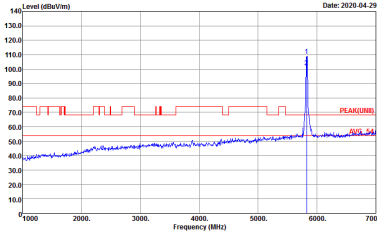


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
2	Horizontal	Fundamental
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site Condition : 03CH15-HY : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

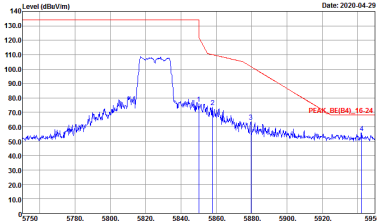
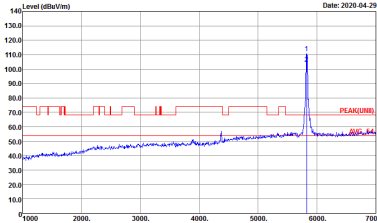


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
2	Vertical	Fundamental
Peak	Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Site Condition : 03CH15-HY : PEAK(UNIT) 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank



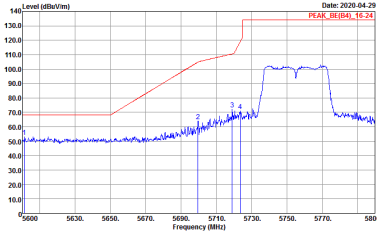
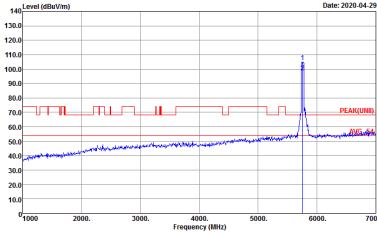
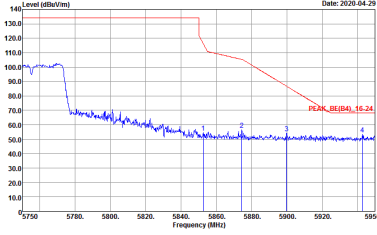
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
2	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



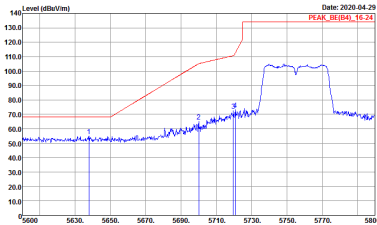
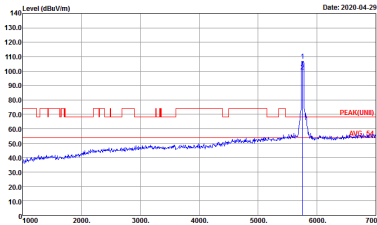
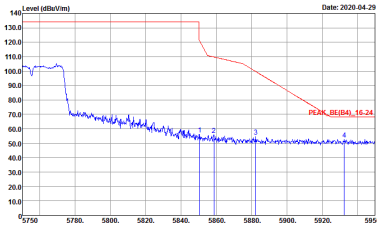
WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
2	Vertical	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto



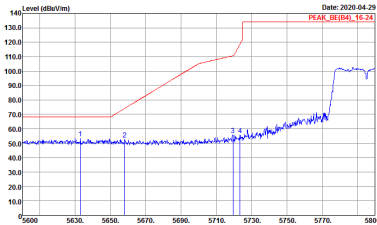
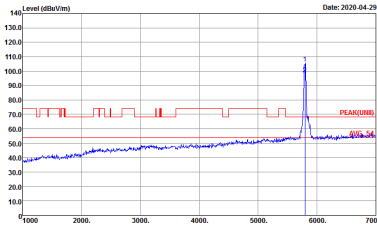
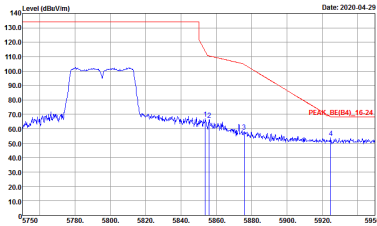
Band 4 5725~5850MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
2	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_15_1620 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_15_1620 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site : 03CH15-HY Condition : PEAK_BE(84)_16-24 3m 91200_15_1620 HORIZONTAL RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

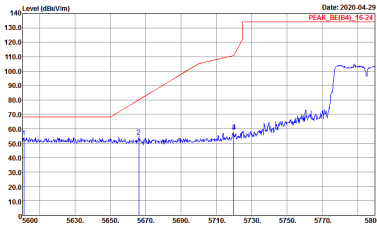
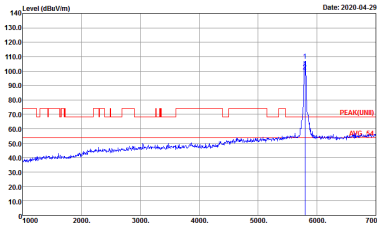
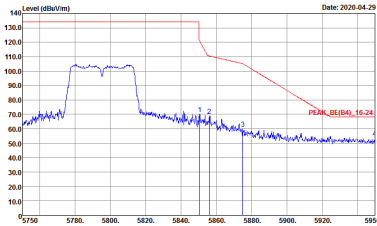


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
2	Vertical	Fundamental
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site Condition : 03CH15-HY : PEAK(UNIT) 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

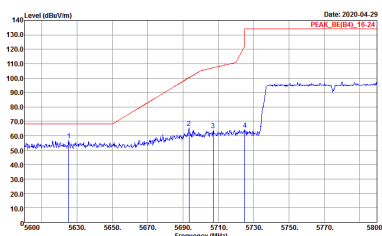
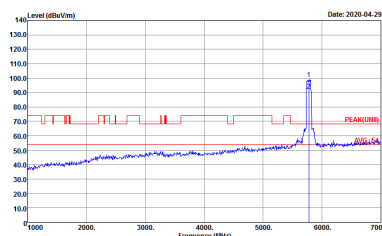
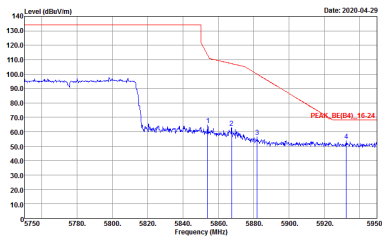


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
2	Horizontal	Fundamental
Peak		
Peak		Left blank

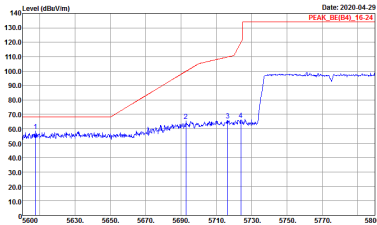
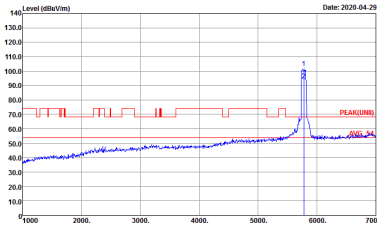
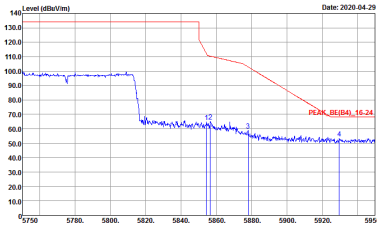


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
2	Vertical	Fundamental
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site Condition : 03CH15-HY : PEAK(UNIT) 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

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

WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
2	Horizontal	Fundamental
Peak	 Site : 03CH15-HY Condition : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site : 03CH15-HY Condition : PEAK(B4)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
Peak	 Site : 03CH15-HY Condition : PEAK_BE(B4)_16-24 3m 91200_15_1620 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank

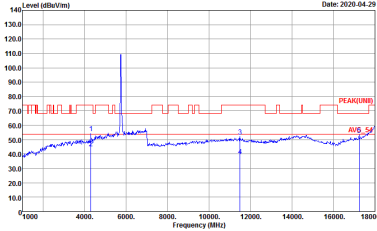
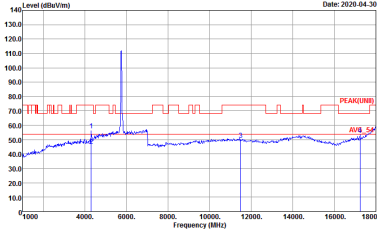


WIFI	Band 4 5725~5850MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
2	Vertical	Fundamental
Peak	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	 Site Condition : 03CH15-HY : PEAK(UNIT) 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto
	 Site Condition : 03CH15-HY : PEAK_BE(B4)_16-24 3m 91200_15_1620 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Left blank



Band 4 - 5725~5850MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH149 5745MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak



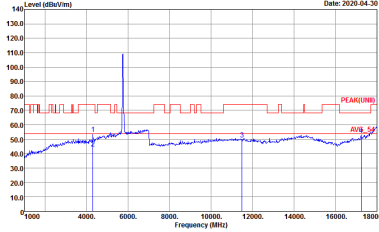
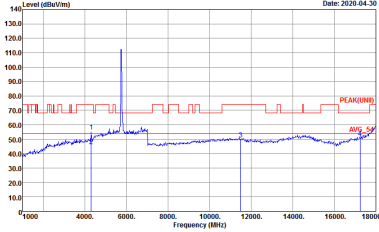
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH157 5785MHz	
2	Horizontal	Vertical
Peak Avg.	Level (dBm/100) Date: 2020-04-29 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak	Level (dBm/100) Date: 2020-04-30 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak



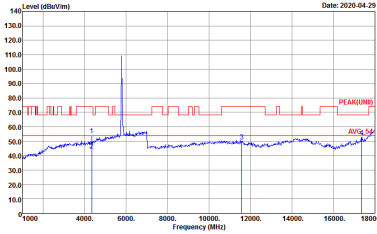
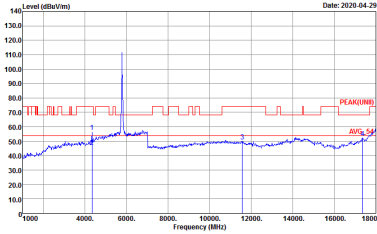
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11a CH165 5825MHz	
2	Horizontal	Vertical
Peak Avg.	Level (dBm/100) Date: 2020-04-29 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak	Level (dBm/100) Date: 2020-04-30 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak



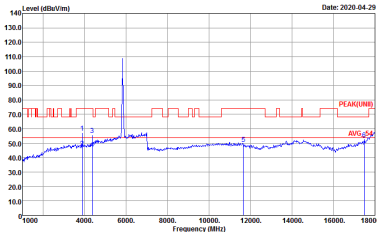
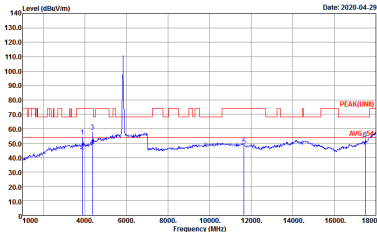
Band 4 5725~5850MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH149 5745MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak



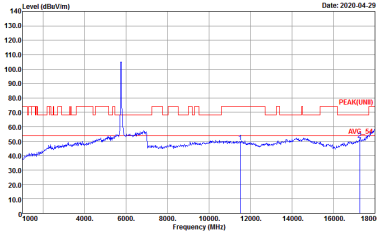
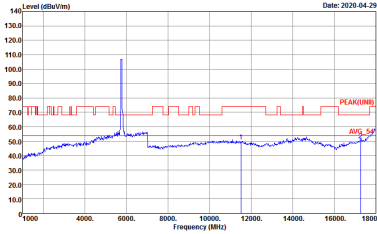
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH157 5785MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak



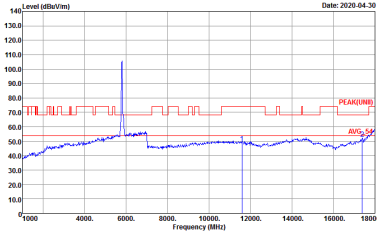
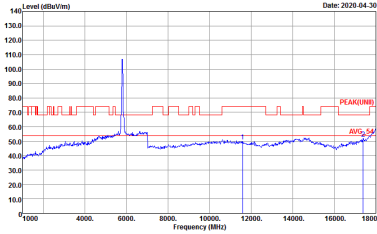
WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT20 CH165 5825MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak



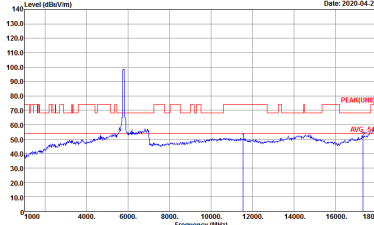
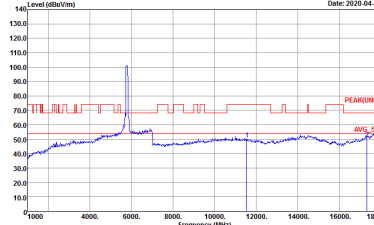
Band 4 5725~5850MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT40 CH151 5755MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak



WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11n HT40 CH159 5795MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak

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

WIFI	Band 4 5725~5850MHz Harmonic @ 3m	
ANT	802.11ac VHT80 CH155 5775MHz	
2	Horizontal	Vertical
Peak Avg.	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 HORIZONTAL Detector : Peak	 Site : 03CH15-HY Condition : PEAK(UNIT) 3m 91200_15_1620 VERTICAL Detector : Peak

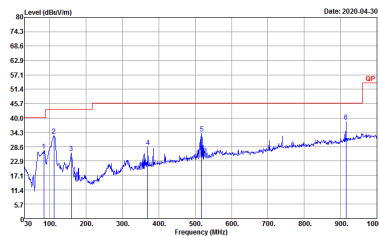
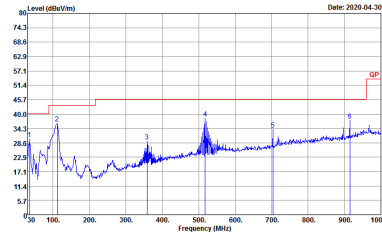


Emission above 18GHz

5GHz WIFI 802.11a

WIFI	5GHz 5725~5850MHz	
ANT	802.11a	
2	Horizontal	Vertical
Peak Avg.	Level (dBuV/m) Date: 2020-04-30 Site : 03CH15-HY Condition : PEAK(UNIT) 3m SHF HORN 88HA9170584 HORIZONTAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto	Level (dBuV/m) Date: 2020-04-30 Site : 03CH15-HY Condition : PEAK(UNIT) 3m SHF HORN 88HA9170584 VERTICAL : RBW:1000.000KHz VBW:3000.000KHz SWT:Auto

Emission below 1GHz
5GHz WIFI 802.11a (LF)

WIFI	5GHz 5725~5850MHz	
ANT	802.11a LF	
2	Horizontal	Vertical
QP / Peak	 Site : 03CH15-HY Condition : QP 3m BILOG_15_41912 HORIZONTAL Detector : Peak	c  Site : 03CH15-HY Condition : QP 3m BILOG_15_41912 VERTICAL Detector : Peak Project : 990608-02



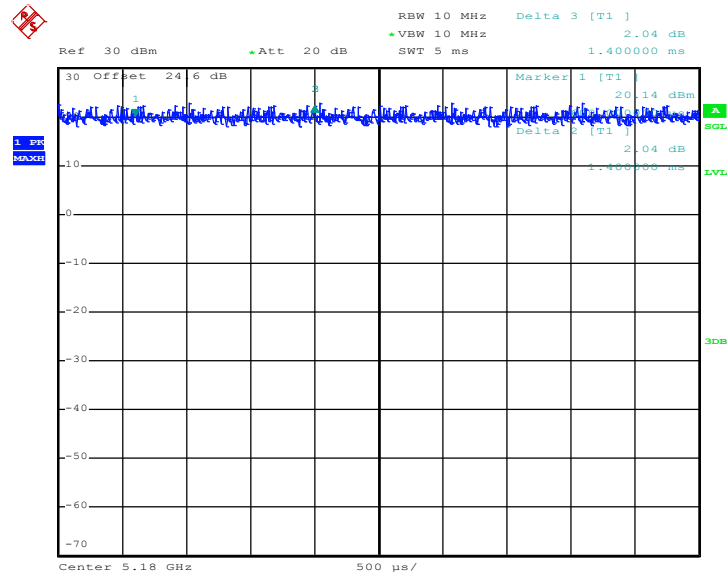
Appendix E. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
1	802.11a	100.00	-	-	10Hz	0.00
2	802.11a	100.00	-	-	10Hz	0.00
1	5GHz 802.11n HT20	100.00	-	-	10Hz	0.00
2	5GHz 802.11n HT20	100.00	-	-	10Hz	0.00
1	5GHz 802.11n HT40	100.00	-	-	10Hz	0.00
2	5GHz 802.11n HT40	100.00	-	-	10Hz	0.00
1	5GHz 802.11ac VHT80	100.00	-	-	10Hz	0.00
2	5GHz 802.11ac VHT80	100.00	-	-	10Hz	0.00



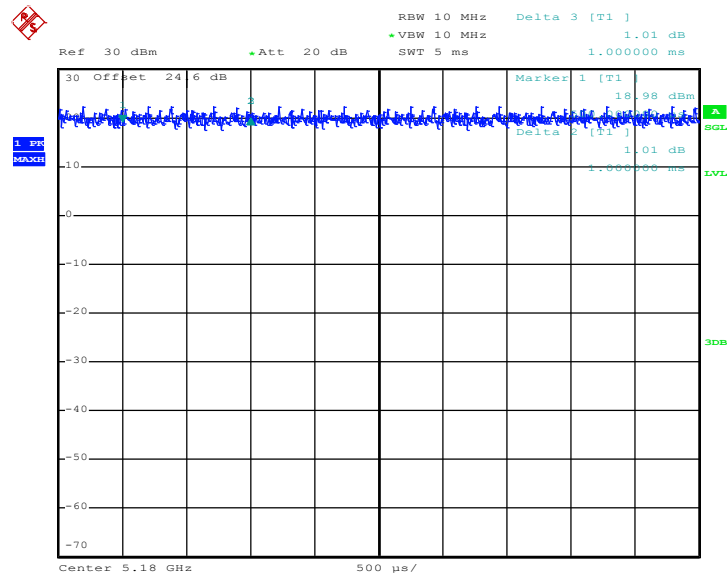
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802.11a



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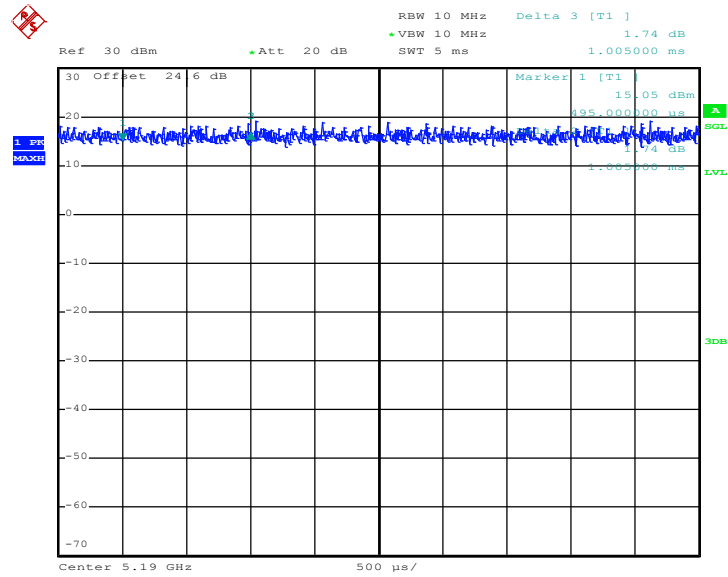
802.11n HT20



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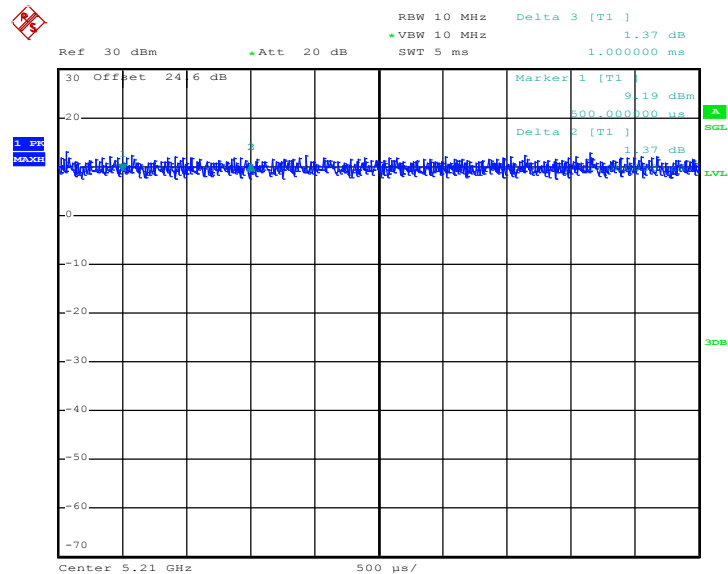


802.11n HT40



Date: 18.FEB.2020 00:59:01

802.11ac VHT80



Date: 18.FEB.2020 02:11:14





802.11ac VHT80



————THE END————