FCC RF Test Report

APPLICANT	**:**	**A2Z Development Center, Inc. dba**
EQUIPMENT	**:**	**Tablet**
MODEL NAME	**:**	**K29A5E**
FCC ID	**:**	**2ATNY-8330**
STANDARD	**:**	**FCC Part 15 Subpart E §15.407**
CLASSIFICATION	**:**	**(NII) Unlicensed National Information Infrastructure**

The product was completed on Jun. 10, 2019. We, Sporton International (Kunshan) Inc., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (Kunshan) Inc., the test report shall not be reproduced except in full.

Jason Jia

Reviewed by: Jason Jia / Supervisor

James Huang

Approved by: James Huang / Manager

ACCREDITED Cert #5145.02

Sporton International (Kunshan) Inc.
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People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR932118-02D	Rev. 01	Initial issue of report	Jul. 15, 2019

SUMMARY OF TEST RESULT

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

1 General Description

1.1 Applicant

A2Z Development Center, Inc. dba
1100 Enterprise way , Sunnyvale, CA, USA

1.2 Product Feature of Equipment Under Test

Product Feature	
Equipment	Tablet
Model Name	K29A5E
FCC ID	2ATNY-8330
EUT supports Radios application	WLAN 2.4GHz 802.11b/g/n HT20 WLAN 5GHz 802.11a/n HT20/HT40 Bluetooth BR/EDR/LE
SW Version	userdebug 6.0 NS6 100 1854

Note: There are three types of EUT, sample 1/3 are the 1st source, the difference between the two types are just for flash memory, the sample 2 is the 2nd source, the difference between 1st source and 2nd source are for speakerBox1/2. According to the difference, we only choose sample 3 to perform full tests.

1.3 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz 5260 MHz ~ 5320 MHz 5500 MHz ~ 5700 MHz
Maximum Output Power to Antenna	**<5180 MHz ~ 5240 MHz>** 802.11a : 13.24 dBm / 0.0211 W 802.11n HT20 : 13.18 dBm / 0.0208 W 802.11n HT40 : 12.91 dBm / 0.0195 W **<5260 MHz ~ 5320 MHz>** 802.11a : 13.03 dBm / 0.0201 W 802.11n HT20 : 13.22 dBm / 0.0210 W 802.11n HT40 : 13.46 dBm / 0.0222 W **<5500 MHz ~ 5700 MHz >** 802.11a : 13.44 dBm / 0.0221 W 802.11n HT20 : 13.26 dBm / 0.0212 W 802.11n HT40 : 13.18 dBm / 0.0208 W
99% Occupied Bandwidth	**<5180 MHz ~ 5240 MHz>** 802.11a : 17.43 MHz 802.11n HT20 : 18.23 MHz 802.11n HT40 : 36.36 MHz **<5260 MHz ~ 5320 MHz>** 802.11a : 17.78 MHz 802.11n HT20 : 18.28 MHz 802.11n HT40 : 36.36 MHz **<5500 MHz ~ 5700 MHz >** 802.11a : 17.63 MHz 802.11n HT20 : 18.38 MHz 802.11n HT40 : 36.46 MHz
Antenna Type / Gain	**<5150 MHz ~ 5250 MHz>** Fixed internal Antenna with gain -0.43 dBi **<5250 MHz ~ 5350 MHz>** Fixed internal Antenna with gain -0.43 dBi **<5470 MHz ~ 5725 MHz>** Fixed internal Antenna with gain -0.51 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM)

1.4 Modification of EUT

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

1.5 Testing Location

Sporton International (Kunshan) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International (Kunshan) Inc.		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	CO01-KS 03CH06-KS TH01-KS	CN1257	314309

1.6 Applicable Standards

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

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

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

2 Test Configuration of Equipment Under Test

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

2.1 Carrier Frequency and Channel

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

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

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

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

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

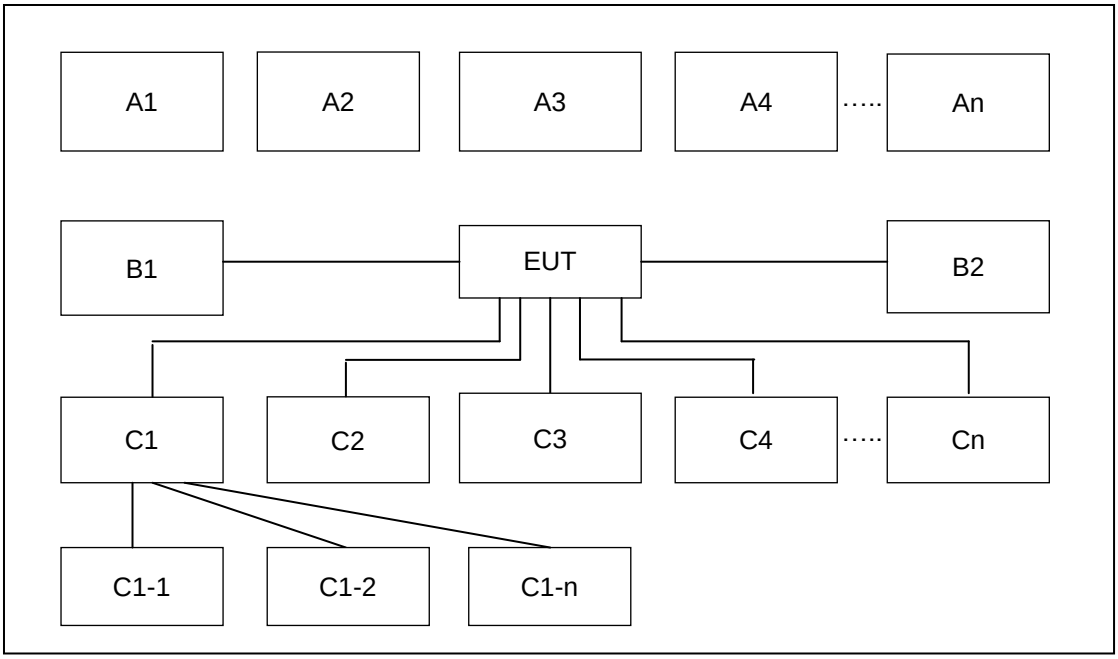
Test Cases	
AC Conducted Emission	Mode 1 : WLAN Link (5G)+ Bluetooth Link + Earphone + USB Cable(Charging from Adapter)

Ch. #		Band I：5180-5240 MHz	Band II：5260-5320 MHz	Band III：5500-5700MHz
		802.11a	802.11a	802.11a
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

Ch. #		Band I：5180-5240 MHz	Band II：5260-5320 MHz	Band III：5500-5700MHz
		802.11n HT20	802.11n HT20	802.11n HT20
L	Low	36	52	100
M	Middle	44	60	116
H	High	48	64	140

Ch. #		Band I：5180-5240 MHz	Band II：5260-5320 MHz	Band III：5500-5700MHz
		802.11n HT40	802.11n HT40	802.11n HT40
L	Low	38	54	102
M	Middle	-	-	110
H	High	46	62	134

2.3 Connection Diagram of Test System



Radiation Test Setup for Band I/II/III										
No.	**Wireless Station**	**Connection Type**	**Test Mode(11a/an HT20/HT40)**								
			1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
A1	Bluetooth speaker	Bluetooth	-	-	-						
A2	WLAN AP	WiFi	-	-	-						
A3	Bluetooth Base Station	Bluetooth	-	-	-						
No.	**Power Source**	**Connection Type**	**1**	**2**	**3**	**4**	**5**	**6**	**7**		
B1	AC : 120V/60Hz	AC Power Cable	X	X	X						
No.	**Setup Peripherals**	**Connection Type**	**1**	**2**	**3**	**4**	**5**	**6**	**7**		
C1	Notebook	USB Cable	-	-	-						
C1-1	USB HD	USB Cable to C1	-	-	-						
C1-2	WLAN AP	RJ-45 Cable to C1	-	-	-						
C2	Earphone	Earphone jack	X	X	X						
C3	SD card	SD I/O interface without Cable	-	-	-						

Note: Mode 1/2/3 means low/middle/high test channels.

Conduction Test Setup										
No.	Wireless Station	Connection Type	Test Mode							
			1	2	3	4	5	6	7	
A1	Bluetooth speaker	Bluetooth	X							
A2	WLAN AP	WiFi	X							
A3	Notebook	WiFi	X							
No.	**Power Source**	**Connection Type**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	
B1	AC : 120V/60Hz	AC Power Cable	X							
No.	**Setup Peripherals**	**Connection Type**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	
C1	Notebook	USB Cable	-							
C1-1	USB HD	USB Cable to C1	-							
C1-2	WLAN AP	RJ-45 Cable to C1	-							
C2	Earphone	Earphone jack	X							
C3	SD card	SD I/O interface without Cable	-							

2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	Bluetooth Speaker	JAWBONE	JAMBOX	N/A	N/A	N/A
2.	Notebook	Lenovo	G480	N/A	N/A	shielded cable DC O/P 1.8m , Unshielded AC I/P cable 1.8m
3.	WLAN AP	D-Link	DIR-855	KA2DIR855A2	N/A	Unshielded,1.8m
4.	Earphone	Lenovo	SH100	N/A	Unshielded,1.2m	N/A
5.	Adapter	N/A	FANA7R	N/A	N/A	N/A
6.	USB cable	Lenovo	N/A	N/A	Shielded,1.0m	N/A

2.5 EUT Operation Test Setup

For WLAN RF test items, an engineering test program was provided and enabled to make EUT continuously transmit/receive.

For AC power line conducted emissions, the EUT was set to connect with the WLAN AP under large package sizes transmission.

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 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
Offset = RF cable loss.
Following shows an offset computation example with cable loss 6.9 dB.

Offset(dB) = RF cable loss(dB).
= 6.9 (dB)

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

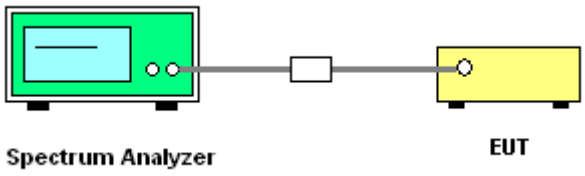
3.1.2 Measuring Instruments

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

3.1.3 Test Procedures

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

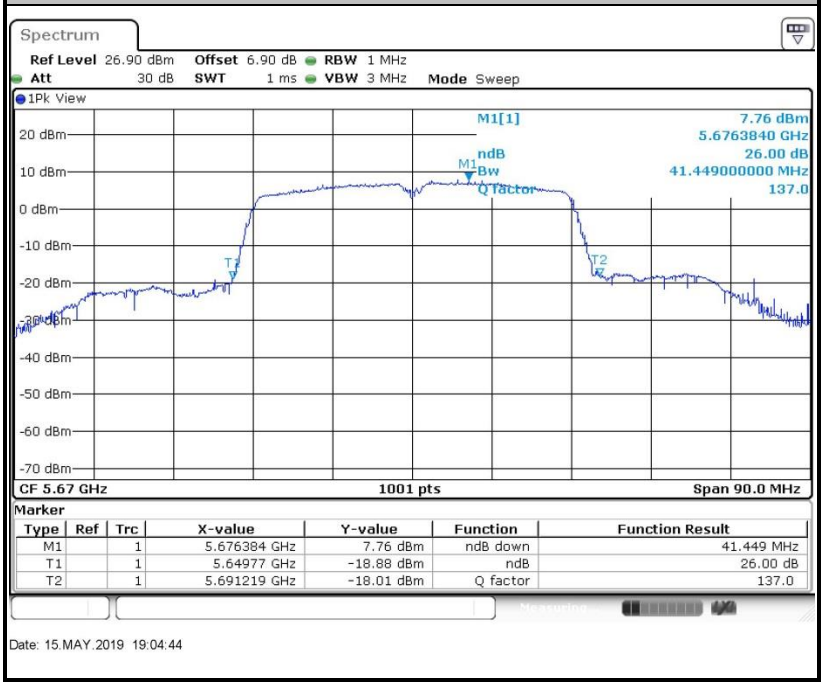
3.1.4 Test Setup



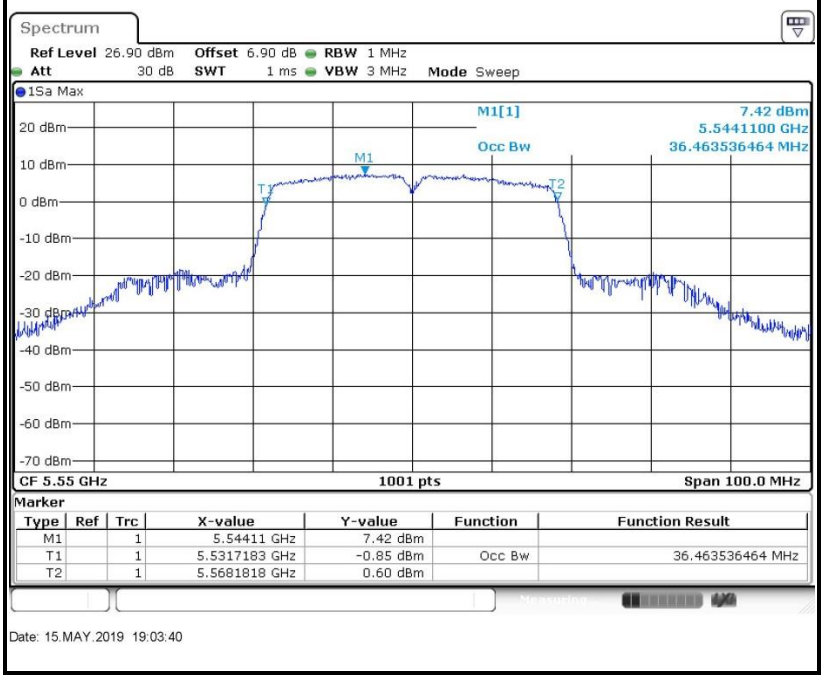
3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.

Maximum 26dB Bandwidth



Maximum 99% Occupied Bandwidth



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

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

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

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

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

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

3.2.2 Measuring Instruments

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

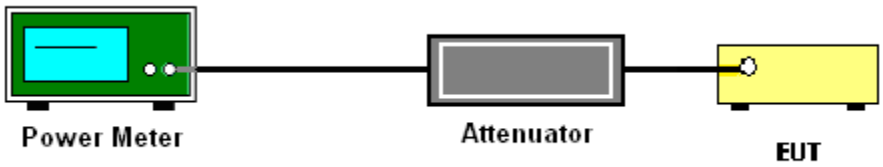
3.2.3 Test Procedures

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

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

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

3.2.4 Test Setup



3.2.5 Test Result of Maximum Conducted Output Power

Please refer to Appendix A.

3.3 Power Spectral Density Measurement

3.3.1 Limit of Power Spectral Density

<FCC 14-30 CFR 15.407>

For mobile and portable client devices in the 5.15–5.25 GHz band, the maximum power spectral density shall not exceed 11dBm in any 1 megahertz band.

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

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

3.3.2 Measuring Instruments

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

3.3.3 Test Procedures

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

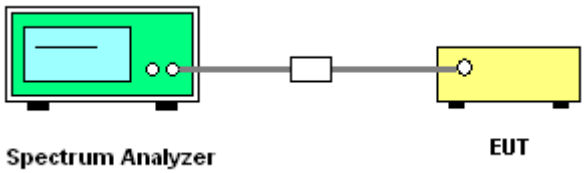
 # Method SA-2 #

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

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

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

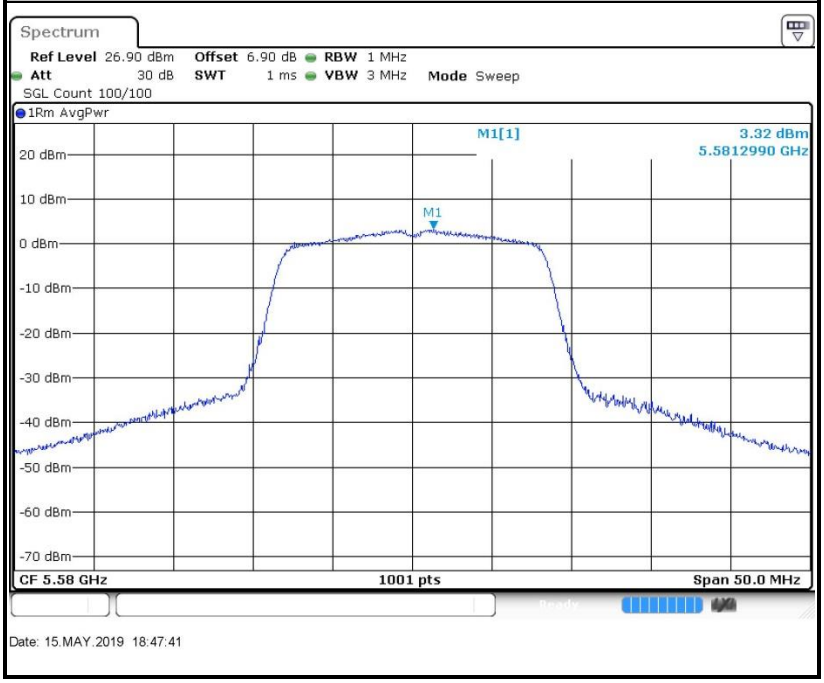
3.3.4 Test Setup



3.3.5 Test Result of Power Spectral Density

Please refer to Appendix A.

Worst Case Power Density (dBm/MHz)



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

3.4 Unwanted Emissions Measurement

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

3.4.1 Limit of Unwanted Emissions

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

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

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

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

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

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

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

$$EIRP = E_{Meas} + 20\log(d_{Meas}) - 104.7$$

where

EIRP is the equivalent isotropically radiated power, in dBm

E_{Meas} is the field strength of the emission at the measurement distance, in dBμV/m

d_{Meas} is the measurement distance, in m

(3) ANSI C63.10-2013 clause 12.7.3 note 97

As specified by regulatory requirements, emissions above 1000 MHz that are outside of the restricted bands are subject to a peak emission limit. However, an out-of-band emission that complies with both the average and peak general regulatory limits is not required to satisfy the peak emission limit.

3.4.2 Measuring Instruments

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

3.4.3 Test Procedures

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

   (1) Procedure for Unwanted Emissions Measurements Below 1000MHz
   - RBW = 120 kHz
   - VBW = 300 kHz
   - Detector = Peak
   - Trace mode = max hold

   (2) Procedure for Peak Unwanted Emissions Measurements Above 1000 MHz
   - RBW = 1 MHz
   - VBW ≥ 3 MHz
   - Detector = Peak
   - Sweep time = auto
   - Trace mode = max hold

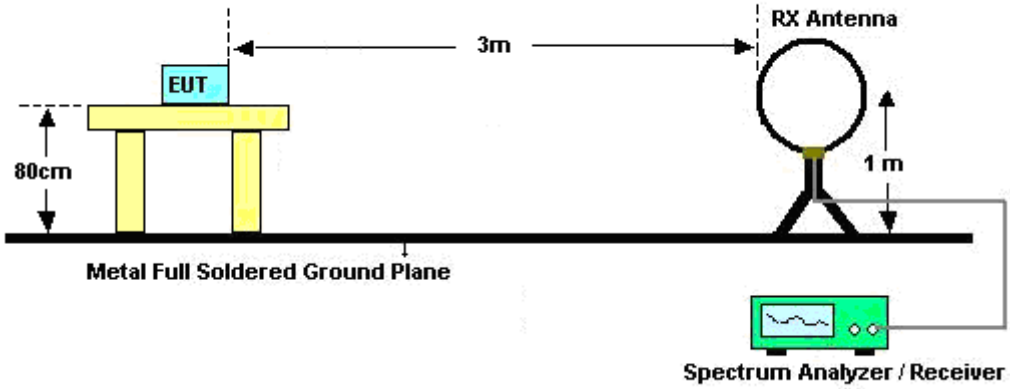
   (3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz
   - RBW = 1 MHz
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.

     Detector = power averaging (rms)
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

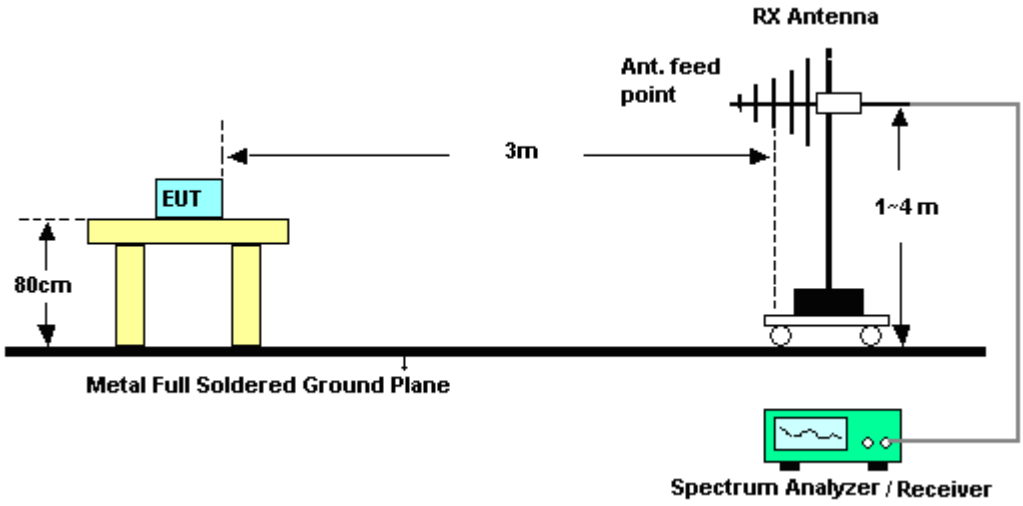
     Detector = peak.
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna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

3.4.4 Test Setup

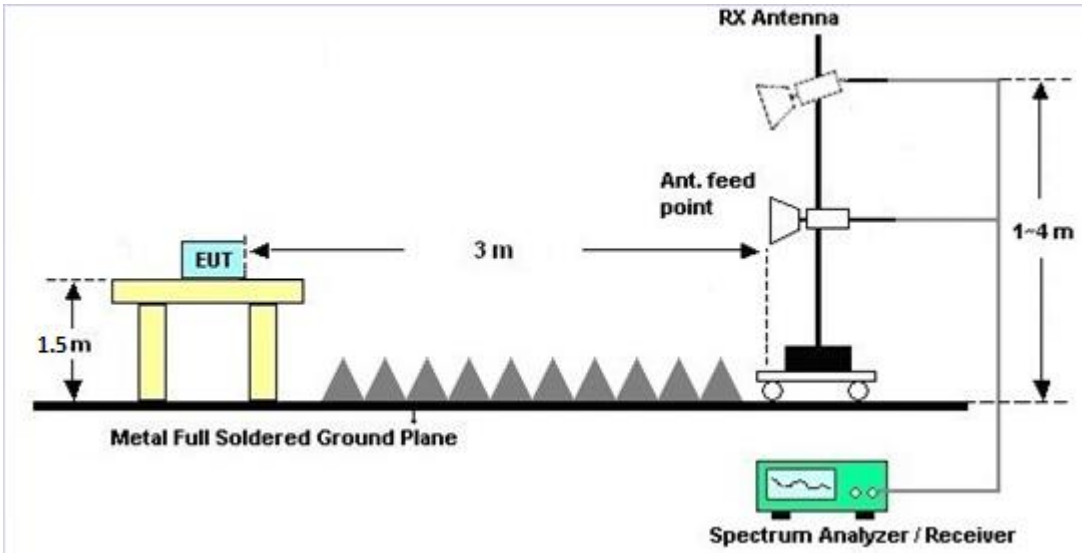
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



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

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

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

3.4.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix C and D.

3.4.7 Duty Cycle

Please refer to Appendix E.

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

Please refer to Appendix C and D.

3.5 AC Conducted Emission Measurement

3.5.1 Limit of AC Conducted Emission

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

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

*Decreases with the logarithm of the frequency.

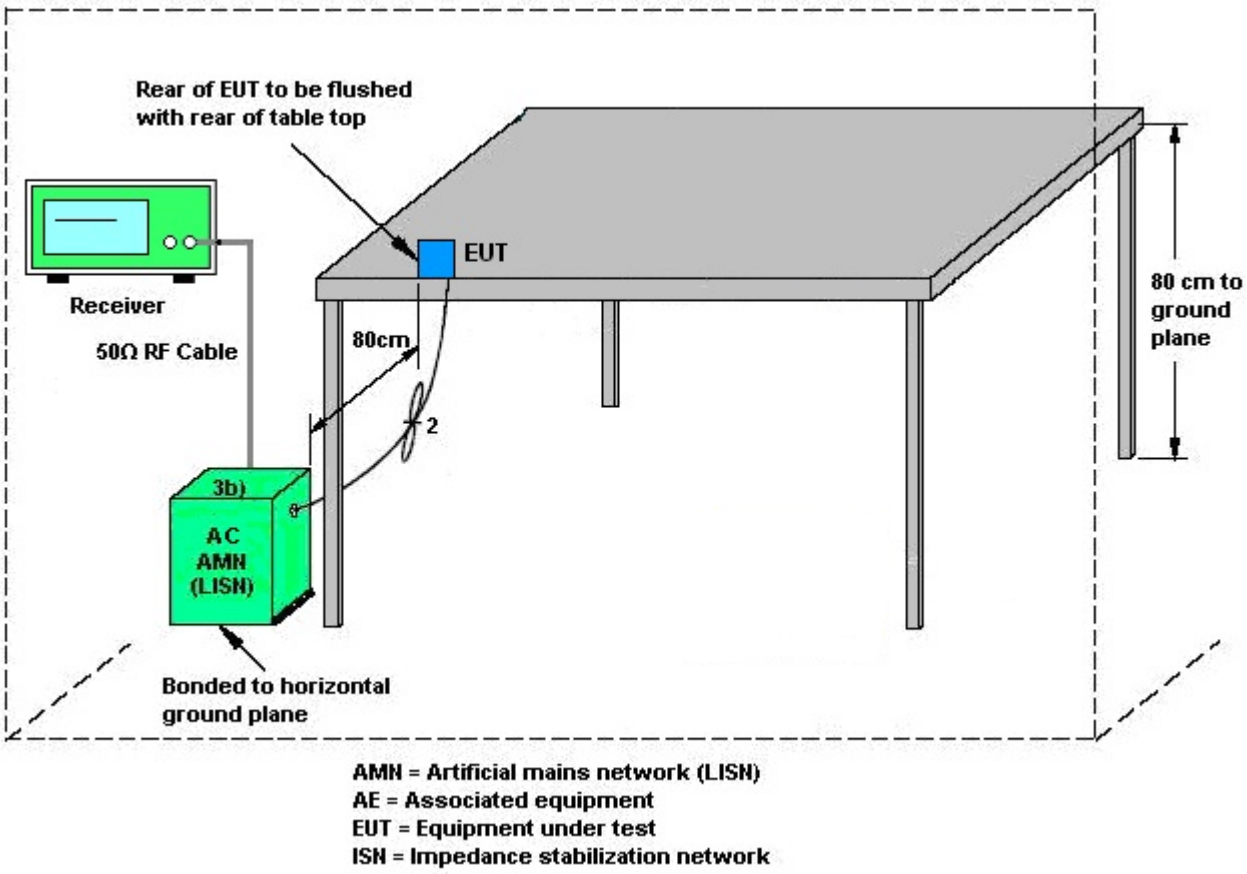
3.5.2 Measuring Instruments

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

3.5.3 Test Procedures

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

3.5.4 Test Setup



3.5.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.6 Automatically Discontinue Transmission

3.6.1 Limit of Automatically Discontinue Transmission

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

3.6.2 Measuring Instruments

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

3.6.3 Test Result of Automatically Discontinue Transmission

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

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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
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Aug. 07, 2018	May 15, 2019	Aug. 06, 2019	Conducted (TH01-KS)
Pulse Power Senor	Anritsu	MA2411B	0917070	300MHz~40GHz	Jan. 14, 2019	May 15, 2019	Jan. 13, 2020	Conducted (TH01-KS)
Power Meter	Anritsu	ML2495A	1005002	50MHz Bandwidth	Jan. 14, 2019	May 15, 2019	Jan. 13, 2020	Conducted (TH01-KS)
EMI Test Receiver	Keysight	N9038A	MY56400023	3Hz~8.5GHz;Max 30dBm	Oct. 12, 2018	Jun. 07, 2019	Oct. 11, 2019	Radiation (03CH06-KS)
EXA Spectrum Analyzer	Keysight	N9010B	MY57471084	10Hz-44GHz	Jun. 25, 2018	Jun. 07, 2019	Jun. 24, 2019	Radiation (03CH06-KS)
Loop Antenna	R&S	HFH2-Z2	100321	9kHz~30MHz	Oct. 19, 2018	Jun. 07, 2019	Oct. 18, 2019	Radiation (03CH06-KS)
Bilog Antenna	TeseQ	CBL6111D	44483	30MHz-1GHz	Dec. 28, 2018	Jun. 07, 2019	Dec. 27, 2019	Radiation (03CH06-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Oct. 20, 2018	Jun. 07, 2019	Oct. 19, 2019	Radiation (03CH06-KS)
SHF-EHF Horn	Com-power	AH-840	101070	18GHz~40GHz	Jan. 05, 2019	Jun. 07, 2019	Jan. 04, 2020	Radiation (03CH06-KS)
Amplifier	SONOMA	310N	187289	9KHz ~1GHZ	Aug. 06, 2018	Jun. 07, 2019	Aug. 05, 2019	Radiation (03CH06-KS)
Amplifier	MITEQ	TTA1840-35-HG	2014749	18~40GHz	Jan. 14, 2019	Jun. 07, 2019	Jan. 13, 2020	Radiation (03CH06-KS)
high gain Amplifier	MITEQ	AMF-7D-00101800-30-10P	2025788	1Ghz-18Ghz	Apr. 17, 2019	Jun. 07, 2019	Apr. 16, 2020	Radiation (03CH06-KS)
Amplifier	Keysight	83017A	MY53270203	500MHz~26.5GHz	Apr. 15, 2019	Jun. 07, 2019	Apr. 14, 2020	Radiation (03CH06-KS)
AC Power Source	Chroma	61601	F104090004	N/A	NCR	Jun. 07, 2019	NCR	Radiation (03CH06-KS)
Turn Table	ChamPro	EM 1000-T	060762-T	0~360 degree	NCR	Jun. 07, 2019	NCR	Radiation (03CH06-KS)
Antenna Mast	ChamPro	EM 1000-A	060762-A	1 m~4 m	NCR	Jun. 07, 2019	NCR	Radiation (03CH06-KS)
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 16, 2019	Jun. 10, 2019	Apr. 15, 2020	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 12, 2018	Jun. 10, 2019	Oct. 11, 2019	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Nov. 19, 2018	Jun. 10, 2019	Nov. 18, 2019	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 12, 2018	Jun. 10, 2019	Oct. 11, 2019	Conduction (CO01-KS)

NCR: No Calibration Required

5 Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.10-2013. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.9dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.0dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.0dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**5.0dB**

Appendix A. Conducted test results

Test Engineer:	Lex Wu	Temperature:	21~25	°C
Test Date:	2019/5/15	Relative Humidity:	51~54	%

TEST RESULTS DATA
26dB and 99% OBW

Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)		
11a	6Mbps	1	36	5180	17.33	20.63	-	22.39		
11a	6Mbps	1	44	5220	17.43	20.78	-	22.41		
11a	6Mbps	1	48	5240	17.43	20.83	-	22.41		
HT20	MCS0	1	36	5180	18.18	21.78	-	22.60		
HT20	MCS0	1	44	5220	18.18	21.43	-	22.60		
HT20	MCS0	1	48	5240	18.23	21.53	-	22.61		
HT40	MCS0	1	38	5190	36.36	40.55	-	23.01		
HT40	MCS0	1	46	5230	36.36	40.64	-	23.01		

TEST RESULTS DATA
Average Power Table

FCC Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)		Pass/Fail
11a	6Mbps	1	36	5180	0.00	13.24	24.00	-0.43		Pass
11a	6Mbps	1	44	5220	0.00	12.65	24.00	-0.43		Pass
11a	6Mbps	1	48	5240	0.00	12.68	24.00	-0.43		Pass
HT20	MCS0	1	36	5180	0.00	13.18	24.00	-0.43		Pass
HT20	MCS0	1	44	5220	0.00	12.88	24.00	-0.43		Pass
HT20	MCS0	1	48	5240	0.00	12.96	24.00	-0.43		Pass
HT40	MCS0	1	38	5190	0.00	11.54	24.00	-0.43		Pass
HT40	MCS0	1	46	5230	0.00	12.91	24.00	-0.43		Pass

TEST RESULTS DATA
Power Spectral Density

FCC Band I										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)	-	Pass/Fail
11a	6Mbps	1	36	5180	0.00	2.82	11.00	-0.43		Pass
11a	6Mbps	1	44	5220	0.00	2.68	11.00	-0.43		Pass
11a	6Mbps	1	48	5240	0.00	2.86	11.00	-0.43		Pass
HT20	MCS0	1	36	5180	0.00	2.90	11.00	-0.43		Pass
HT20	MCS0	1	44	5220	0.00	2.52	11.00	-0.43		Pass
HT20	MCS0	1	48	5240	0.00	2.61	11.00	-0.43		Pass
HT40	MCS0	1	38	5190	0.00	-0.50	11.00	-0.43		Pass
HT40	MCS0	1	46	5230	0.00	-0.75	11.00	-0.43		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	52	5260	17.48	20.83	23.43	29.43	23.98	
11a	6M bps	1	60	5300	17.78	20.73	23.50	29.50	23.98	
11a	6M bps	1	64	5320	17.48	20.73	23.43	29.43	23.98	
HT20	MCS 0	1	52	5260	18.23	21.58	23.61	29.61	23.98	
HT20	MCS 0	1	60	5300	18.23	21.68	23.61	29.61	23.98	
HT20	MCS 0	1	64	5320	18.28	21.83	23.62	29.62	23.98	
HT40	MCS 0	1	54	5270	36.06	40.64	23.98	30.00	23.98	
HT40	MCS 0	1	62	5310	36.36	40.73	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

FCC Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	52	5260	0.00	13.03	23.98	-0.43	26.99	Pass
11a	6M bps	1	60	5300	0.00	12.88	23.98	-0.43	26.99	Pass
11a	6M bps	1	64	5320	0.00	12.86	23.98	-0.43	26.99	Pass
HT20	MCS 0	1	52	5260	0.00	13.22	23.98	-0.43	26.99	Pass
HT20	MCS 0	1	60	5300	0.00	12.88	23.98	-0.43	26.99	Pass
HT20	MCS 0	1	64	5320	0.00	12.92	23.98	-0.43	26.99	Pass
HT40	MCS 0	1	54	5270	0.00	13.46	23.98	-0.43	26.99	Pass
HT40	MCS 0	1	62	5310	0.00	10.81	23.98	-0.43	26.99	Pass

TEST RESULTS DATA
Power Spectral Density

Band II										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6M bps	1	52	5260	0.00	3.07	11.00	-0.43		Pass
11a	6M bps	1	60	5300	0.00	2.70	11.00	-0.43		Pass
11a	6M bps	1	64	5320	0.00	2.49	11.00	-0.43		Pass
HT20	MCS 0	1	52	5260	0.00	2.63	11.00	-0.43		Pass
HT20	MCS 0	1	60	5300	0.00	2.33	11.00	-0.43		Pass
HT20	MCS 0	1	64	5320	0.00	2.35	11.00	-0.43		Pass
HT40	MCS 0	1	54	5270	0.00	-0.98	11.00	-0.43		Pass
HT40	MCS 0	1	62	5310	0.00	-1.62	11.00	-0.43		Pass

TEST RESULTS DATA
26dB and 99% OBW

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)	26 dB Bandwidth (MHz)	IC 99% Bandwidth Power Limit (dBm)	IC 99% Bandwidth EIRP Limit (dBm)	FCC 26dB Bandwidth Power Limit (dBm)	Note
11a	6M bps	1	100	5500	17.63	20.78	23.46	29.46	23.98	
11a	6M bps	1	116	5580	17.63	20.98	23.46	29.46	23.98	
11a	6M bps	1	140	5700	17.63	20.73	23.46	29.46	23.98	
HT20	MCS 0	1	100	5500	18.28	22.43	23.62	29.62	23.98	
HT20	MCS 0	1	116	5580	18.28	21.43	23.62	29.62	23.98	
HT20	MCS 0	1	140	5700	18.38	22.08	23.64	29.64	23.98	
HT40	MCS 0	1	102	5510	36.36	40.73	23.98	30.00	23.98	
HT40	MCS 0	1	110	5550	36.46	41.00	23.98	30.00	23.98	
HT40	MCS 0	1	134	5670	36.26	41.45	23.98	30.00	23.98	

TEST RESULTS DATA
Average Power Table

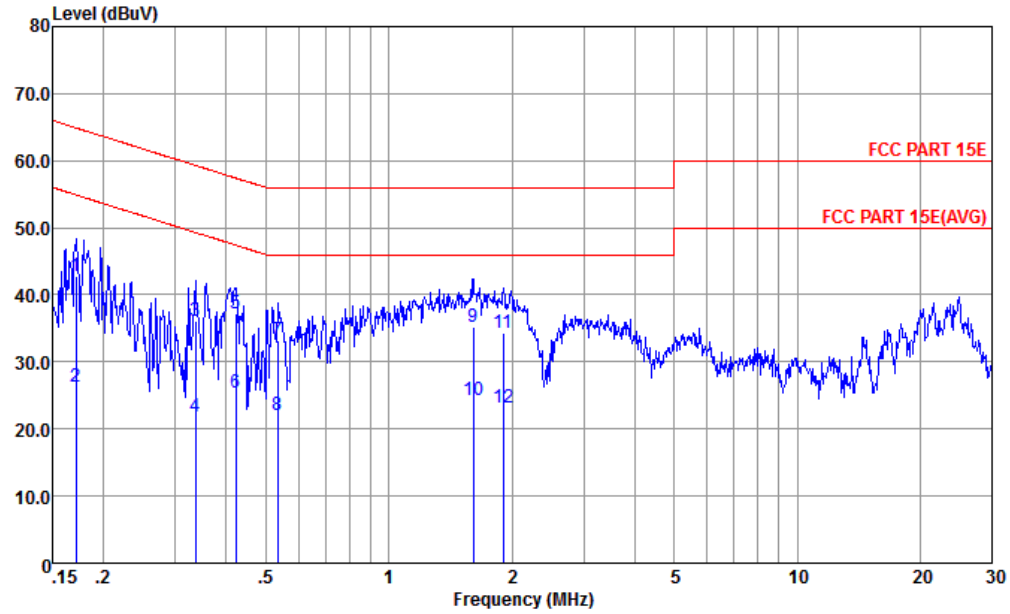
FCC Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Conducted Power (dBm)	FCC Conducted Power Limit (dBm)	DG (dBi)	EIRP Power Limit (dBm)	Pass/Fail
11a	6M bps	1	100	5500	0.00	12.68	23.98	-0.51	26.99	Pass
11a	6M bps	1	116	5580	0.00	13.44	23.98	-0.51	26.99	Pass
11a	6M bps	1	140	5700	0.00	12.71	23.98	-0.51	26.99	Pass
HT20	MCS 0	1	100	5500	0.00	13.15	23.98	-0.51	26.99	Pass
HT20	MCS 0	1	116	5580	0.00	13.26	23.98	-0.51	26.99	Pass
HT20	MCS 0	1	140	5700	0.00	12.89	23.98	-0.51	26.99	Pass
HT40	MCS 0	1	102	5510	0.00	13.18	23.98	-0.51	26.99	Pass
HT40	MCS 0	1	110	5550	0.00	13.02	23.98	-0.51	26.99	Pass
HT40	MCS 0	1	134	5670	0.00	12.68	23.98	-0.51	26.99	Pass

TEST RESULTS DATA
Power Spectral Density

Band III										
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)	Average Power Density (dBm/MHz)	Average PSD Limit (dBm/MHz)	DG (dBi)		Pass/Fail
11a	6M bps	1	100	5500	0.00	2.86	11.00	-0.51		Pass
11a	6M bps	1	116	5580	0.00	3.32	11.00	-0.51		Pass
11a	6M bps	1	140	5700	0.00	2.74	11.00	-0.51		Pass
HT20	MCS 0	1	100	5500	0.00	3.15	11.00	-0.51		Pass
HT20	MCS 0	1	116	5580	0.00	2.86	11.00	-0.51		Pass
HT20	MCS 0	1	140	5700	0.00	3.29	11.00	-0.51		Pass
HT40	MCS 0	1	102	5510	0.00	-0.42	11.00	-0.51		Pass
HT40	MCS 0	1	110	5550	0.00	-0.46	11.00	-0.51		Pass
HT40	MCS 0	1	134	5670	0.00	-0.98	11.00	-0.51		Pass

Appendix B. AC Conducted Emission Test Results

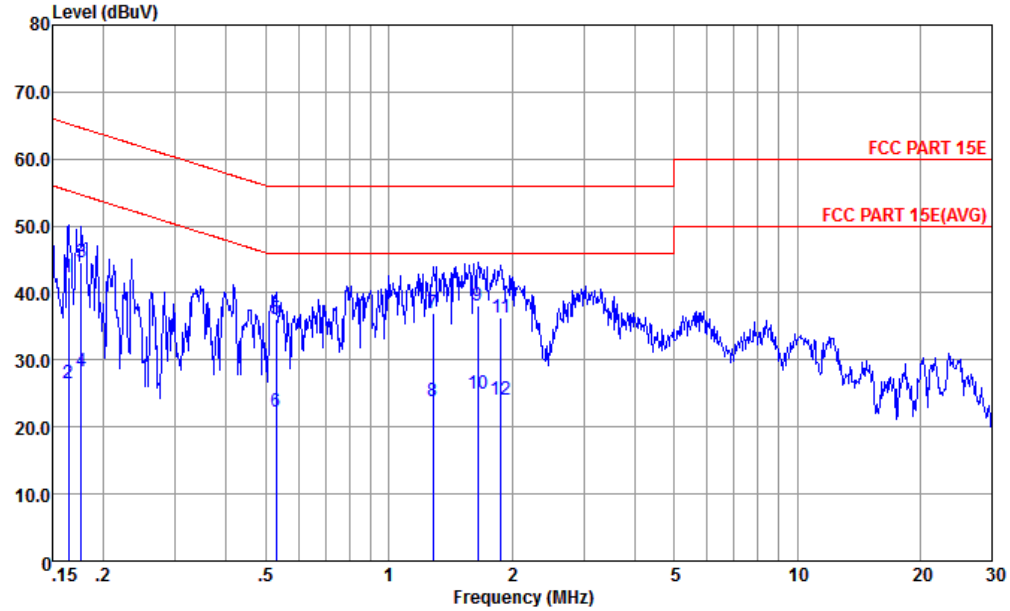
Test Engineer :	Morris Zhang	**Temperature :**	25.3~26.2℃
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line



Site : CO01-KS
Condition : FCC PART 15E LISN-L-181119-060105 LINE

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.171	42.83	-22.07	64.90	32.30	0.10	10.43	QP
2		0.171	26.23	-28.67	54.90	15.70	0.10	10.43	Average
3		0.336	36.04	-23.27	59.31	25.60	0.15	10.29	QP
4		0.336	21.74	-27.57	49.31	11.30	0.15	10.29	Average
5	*	0.421	37.22	-20.20	57.42	26.80	0.16	10.26	QP
6		0.421	25.32	-22.10	47.42	14.90	0.16	10.26	Average
7		0.535	33.21	-22.79	56.00	22.80	0.17	10.24	QP
8		0.535	22.11	-23.89	46.00	11.70	0.17	10.24	Average
9		1.610	35.24	-20.76	56.00	24.80	0.21	10.23	QP
10		1.610	24.34	-21.66	46.00	13.90	0.21	10.23	Average
11		1.908	34.35	-21.65	56.00	23.90	0.22	10.23	QP
12		1.908	23.15	-22.85	46.00	12.70	0.22	10.23	Average

Test Engineer :	Morris Zhang	**Temperature :**	25.3~26.2℃
		Relative Humidity :	38~40%
Test Voltage :	120Vac / 60Hz	**Phase :**	Neutral



Site : CO01-KS
Condition : FCC PART 15E LISN-N-181119-060105 NEUTRAL

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1		0.164	42.42	-22.83	65.25	31.80	0.18	10.44	QP
2		0.164	26.62	-28.63	55.25	16.00	0.18	10.44	Average
3		0.177	44.49	-20.15	64.64	33.90	0.18	10.41	QP
4		0.177	28.39	-26.25	54.64	17.80	0.18	10.41	Average
5		0.529	36.18	-19.82	56.00	25.79	0.15	10.24	QP
6		0.529	22.28	-23.72	46.00	11.89	0.15	10.24	Average
7		1.282	37.07	-18.93	56.00	26.70	0.14	10.23	QP
8		1.282	23.77	-22.23	46.00	13.40	0.14	10.23	Average
9	*	1.654	38.17	-17.83	56.00	27.80	0.14	10.23	QP
10		1.654	24.97	-21.03	46.00	14.60	0.14	10.23	Average
11		1.878	36.28	-19.72	56.00	25.90	0.15	10.23	QP
12		1.878	24.08	-21.92	46.00	13.70	0.15	10.23	Average

Appendix C. Radiated Spurious Emission

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		5146.88	55.86	-18.14	74	43.87	34.3	8.15	30.46	127	247	P	H
		5149.5	46.06	-7.94	54	34.07	34.3	8.15	30.46	127	247	A	H
	*	5180	104.59	-	-	92.5	34.37	8.16	30.44	127	247	P	H
		5180	97.75	-	-	85.66	34.37	8.16	30.44	127	247	A	H
		5137.12	56.8	-17.2	74	44.85	34.27	8.15	30.47	304	114	P	V
		5149.5	46.32	-7.68	54	34.33	34.3	8.15	30.46	304	114	A	V
	*	5182	105.45	-	-	93.36	34.37	8.16	30.44	304	114	P	V
		5182	98.71	-	-	86.62	34.37	8.16	30.44	304	114	A	V
802.11a CH 44 5220MHz		5125.44	55.44	-18.56	74	43.49	34.27	8.15	30.47	118	245	P	H
		5140	45.32	-8.68	54	33.34	34.3	8.15	30.47	118	245	A	H
	*	5222	104.64	-	-	92.46	34.43	8.17	30.42	118	245	P	H
		5222	97.52	-	-	85.34	34.43	8.17	30.42	118	245	A	H
		5398.38	52.37	-21.63	74	39.69	34.7	8.31	30.33	118	245	P	H
		5373.18	42.67	-11.33	54	30.04	34.7	8.28	30.35	118	245	A	H
		5142.08	54.57	-19.43	74	42.59	34.3	8.15	30.47	296	116	P	V
		5140	44.89	-9.11	54	32.91	34.3	8.15	30.47	296	116	A	V
	*	5218	104.14	-	-	91.97	34.43	8.17	30.43	296	116	P	V
		5218	96.95	-	-	84.78	34.43	8.17	30.43	296	116	A	V
		5372.64	52.33	-21.67	74	39.7	34.7	8.28	30.35	296	116	P	V
		5372.64	42.57	-11.43	54	29.94	34.7	8.28	30.35	296	116	A	V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 48 5240MHz		5378.76	52.56	-21.44	74	39.91	34.7	8.28	30.33	127	241	P	H
		5393.7	42.89	-11.11	54	30.21	34.7	8.31	30.33	127	241	A	H
	*	5240	105	-	-	92.75	34.47	8.2	30.42	127	241	P	H
		5240	97.62	-	-	85.37	34.47	8.2	30.42	127	241	A	H
		5359.14	52.33	-21.67	74	39.7	34.7	8.28	30.35	296	132	P	V
		5392.44	42.74	-11.26	54	30.06	34.7	8.31	30.33	296	132	A	V
	*	5238	104.24	-	-	91.99	34.47	8.2	30.42	296	132	P	V
		5238	96.73	-	-	84.48	34.47	8.2	30.42	296	132	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 36 5180MHz		10360	40.92	-27.38	68.3	54.12	37.67	11.7	62.57	100	360	P	H
		10360	40.76	-27.54	68.3	53.96	37.67	11.7	62.57	100	360	P	V
802.11a CH 44 5220MHz		10440	41.29	-27.01	68.3	54.39	37.73	11.76	62.59	100	360	P	H
		10440	41.53	-26.77	68.3	54.63	37.73	11.76	62.59	100	360	P	V
802.11a CH 48 5240MHz		10480	41.68	-26.62	68.3	54.71	37.78	11.79	62.6	100	360	P	H
		10480	41.81	-26.49	68.3	54.84	37.78	11.79	62.6	100	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5130.4	57.12	-16.88	74	45.17	34.27	8.15	30.47	103	245	P	H
		5149.98	47.36	-6.64	54	35.37	34.3	8.15	30.46	103	245	A	H
802.11n	*	5178	106.77	-	-	94.68	34.37	8.16	30.44	103	245	P	H
HT20		5178	100.36	-	-	88.27	34.37	8.16	30.44	103	245	A	H
CH 36		5148.32	57.42	-16.58	74	45.43	34.3	8.15	30.46	190	79	P	V
5180MHz		5149.98	46.89	-7.11	54	34.9	34.3	8.15	30.46	190	79	A	V
	*	5178	106.05	-	-	93.96	34.37	8.16	30.44	190	79	P	V
		5178	99.87	-	-	87.78	34.37	8.16	30.44	190	79	A	V
		5149.28	55.63	-18.37	74	43.64	34.3	8.15	30.46	102	243	P	H
		5140	45.82	-8.18	54	33.84	34.3	8.15	30.47	102	243	A	H
	*	5222	106.18	-	-	94	34.43	8.17	30.42	102	243	P	H
		5222	98.82	-	-	86.64	34.43	8.17	30.42	102	243	A	H
802.11n		5360.4	52.44	-21.56	74	39.81	34.7	8.28	30.35	102	243	P	H
HT20		5371.92	42.9	-11.1	54	30.27	34.7	8.28	30.35	102	243	A	H
CH 44		5130.08	55.69	-18.31	74	43.74	34.27	8.15	30.47	231	132	P	V
5220MHz		5140	46.29	-7.71	54	34.31	34.3	8.15	30.47	231	132	A	V
	*	5220	107.41	-	-	95.24	34.43	8.17	30.43	231	132	P	V
		5220	100.11	-	-	87.94	34.43	8.17	30.43	231	132	A	V
		5369.76	53.51	-20.49	74	40.88	34.7	8.28	30.35	231	132	P	V
		5371.92	43.59	-10.41	54	30.96	34.7	8.28	30.35	231	132	A	V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5358.24	52.7	-21.3	74	40.07	34.7	8.28	30.35	100	242	P	H
		5392.8	43.49	-10.51	54	30.81	34.7	8.31	30.33	100	242	A	H
802.11n	*	5240	104.46	-	-	92.21	34.47	8.2	30.42	100	242	P	H
HT20		5240	97.27	-	-	85.02	34.47	8.2	30.42	100	242	A	H
CH 48		5362.38	52.61	-21.39	74	39.98	34.7	8.28	30.35	233	135	P	V
5240MHz		5392.26	44	-10	54	31.32	34.7	8.31	30.33	233	135	A	V
	*	5242	105.71	-	-	93.43	34.5	8.2	30.42	233	135	P	V
		5242	98.79	-	-	86.51	34.5	8.2	30.42	233	135	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 36 5180MHz		10360	40.97	-27.33	68.3	54.17	37.67	11.7	62.57	100	360	P	H
		10360	40.06	-28.24	68.3	53.26	37.67	11.7	62.57	100	360	P	V
802.11n HT20 CH 44 5220MHz		10440	41.56	-26.74	68.3	54.66	37.73	11.76	62.59	100	360	P	H
		10440	40.62	-27.68	68.3	53.72	37.73	11.76	62.59	100	360	P	V
802.11n HT20 CH 48 5240MHz		10480	40.64	-27.66	68.3	53.67	37.78	11.79	62.6	100	360	P	H
		10480	40.42	-27.88	68.3	53.45	37.78	11.79	62.6	100	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		5149.92	62.75	-11.25	74	50.76	34.3	8.15	30.46	100	238	P	H
		5149.98	49.93	-4.07	54	37.94	34.3	8.15	30.46	100	238	A	H
	*	5186	98.7	-	-	86.61	34.37	8.16	30.44	100	238	P	H
		5186	91.25	-	-	79.16	34.37	8.16	30.44	100	238	A	H
		5398.38	52.03	-21.97	74	39.35	34.7	8.31	30.33	100	238	P	H
		5397.48	42.29	-11.71	54	29.61	34.7	8.31	30.33	100	238	A	H
		5148.64	59.66	-14.34	74	47.67	34.3	8.15	30.46	104	149	P	V
		5149.98	49.61	-4.39	54	37.62	34.3	8.15	30.46	104	149	A	V
	*	5184	98.99	-	-	86.9	34.37	8.16	30.44	104	149	P	V
		5184	91.46	-	-	79.37	34.37	8.16	30.44	104	149	A	V
		5373.54	52.33	-21.67	74	39.68	34.7	8.28	30.33	104	149	P	V
		5367.42	42.42	-11.58	54	29.79	34.7	8.28	30.35	104	149	A	V
802.11n HT40 CH 46 5230MHz		5145.44	55.17	-18.83	74	43.18	34.3	8.15	30.46	100	240	P	H
		5149.92	44.8	-9.2	54	32.81	34.3	8.15	30.46	100	240	A	H
	*	5214	100.23	-	-	88.06	34.43	8.17	30.43	100	240	P	H
		5214	92.59	-	-	80.42	34.43	8.17	30.43	100	240	A	H
		5362.56	52	-22	74	39.37	34.7	8.28	30.35	100	240	P	H
		5376.24	42.53	-11.47	54	29.88	34.7	8.28	30.33	100	240	A	H
		5139.36	54.37	-19.63	74	42.42	34.27	8.15	30.47	120	140	P	V
		5149.98	44.52	-9.48	54	32.53	34.3	8.15	30.46	120	140	A	V
	*	5224	100.59	-	-	88.41	34.43	8.17	30.42	120	140	P	V
		5224	93.15	-	-	80.97	34.43	8.17	30.42	120	140	A	V
		5376.42	53.1	-20.9	74	40.45	34.7	8.28	30.33	120	140	P	V
		5377.14	43.03	-10.97	54	30.38	34.7	8.28	30.33	120	140	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 38 5190MHz		10380	41.52	-26.78	68.3	54.69	37.68	11.73	62.58	100	360	P	H
		10380	40.12	-28.18	68.3	53.29	37.68	11.73	62.58	100	360	P	V
802.11n HT40 CH 46 5230MHz		10460	40.65	-27.65	68.3	53.7	37.75	11.79	62.59	100	360	P	H
		10460	40.59	-27.71	68.3	53.64	37.75	11.79	62.59	100	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 - 5250~5350MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 52 5260MHz		5138.88	54.59	-19.41	74	42.64	34.27	8.15	30.47	142	240	P	H
		5107.2	44.47	-9.53	54	32.58	34.23	8.15	30.49	142	240	A	H
	*	5262	105.22	-	-	92.89	34.53	8.2	30.4	142	240	P	H
		5262	97.72	-	-	85.39	34.53	8.2	30.4	142	240	A	H
		5140.96	54.37	-19.63	74	42.39	34.3	8.15	30.47	291	104	P	V
		5107.36	44.45	-9.55	54	32.56	34.23	8.15	30.49	291	104	A	V
	*	5262	105.55	-	-	93.22	34.53	8.2	30.4	291	104	P	V
		5262	97.97	-	-	85.64	34.53	8.2	30.4	291	104	A	V
802.11a CH 60 5300MHz		5134.88	53.9	-20.1	74	41.95	34.27	8.15	30.47	143	236	P	H
		5147.52	44.28	-9.72	54	32.29	34.3	8.15	30.46	143	236	A	H
	*	5302	105.75	-	-	93.29	34.6	8.23	30.37	143	236	P	H
		5302	98.25	-	-	85.79	34.6	8.23	30.37	143	236	A	H
		5354.5	53.79	-20.21	74	41.16	34.7	8.28	30.35	143	236	P	H
		5380	44.26	-9.74	54	31.61	34.7	8.28	30.33	143	236	A	H
		5128.32	54.92	-19.08	74	42.97	34.27	8.15	30.47	273	134	P	V
		5147.52	44	-10	54	32.01	34.3	8.15	30.46	273	134	A	V
	*	5298	104.85	-	-	92.39	34.6	8.23	30.37	273	134	P	V
		5298	97.98	-	-	85.52	34.6	8.23	30.37	273	134	A	V
		5354.9	54.05	-19.95	74	41.42	34.7	8.28	30.35	273	134	P	V
		5380.1	44.36	-9.64	54	31.71	34.7	8.28	30.33	273	134	A	V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 64 5320MHz		5377	53.96	-20.04	74	41.31	34.7	8.28	30.33	148	238	P	H
		5350	44.7	-9.3	54	32.07	34.7	8.28	30.35	148	238	A	H
	*	5318	104.61	-	-	92.1	34.63	8.25	30.37	148	238	P	H
		5318	97.71	-	-	85.2	34.63	8.25	30.37	148	238	A	H
		5384.8	55.53	-18.47	74	42.88	34.7	8.28	30.33	258	107	P	V
		5350	44.9	-9.1	54	32.27	34.7	8.28	30.35	258	107	A	V
	*	5318	105.09	-	-	92.58	34.63	8.25	30.37	258	107	P	V
		5318	97.58	-	-	85.07	34.63	8.25	30.37	258	107	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 52 5260MHz		10520	41	-27.3	68.3	53.96	37.82	11.83	62.61	100	360	P	H
		10520	41.03	-27.27	68.3	53.99	37.82	11.83	62.61	100	360	P	V
802.11a CH 60 5300MHz		10600	40.85	-27.45	68.3	53.69	37.9	11.89	62.63	100	360	P	H
		10600	41.01	-27.29	68.3	53.85	37.9	11.89	62.63	100	360	P	V
802.11a CH 64 5320MHz		10640	40.13	-33.87	74	52.95	37.9	11.92	62.64	100	360	P	H
		10640	39.99	-34.01	74	52.81	37.9	11.92	62.64	100	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5147.84	54.57	-19.43	74	42.58	34.3	8.15	30.46	100	242	P	H
		5108.16	44.69	-9.31	54	32.8	34.23	8.15	30.49	100	242	A	H
802.11n	*	5262	104.25	-	-	91.92	34.53	8.2	30.4	100	242	P	H
HT20		5262	96.69	-	-	84.36	34.53	8.2	30.4	100	242	A	H
CH 52		5112.48	53.71	-20.29	74	41.82	34.23	8.15	30.49	229	132	P	V
5260MHz		5108.32	44.09	-9.91	54	32.2	34.23	8.15	30.49	229	132	A	V
	*	5262	104.56	-	-	92.23	34.53	8.2	30.4	229	132	P	V
		5262	97.98	-	-	85.65	34.53	8.2	30.4	229	132	A	V
		5125.28	53.74	-20.26	74	41.79	34.27	8.15	30.47	102	245	P	H
		5148.32	44.29	-9.71	54	32.3	34.3	8.15	30.46	102	245	A	H
	*	5300	103.54	-	-	91.08	34.6	8.23	30.37	102	245	P	H
		5300	96.48	-	-	84.02	34.6	8.23	30.37	102	245	A	H
802.11n		5363.7	53.46	-20.54	74	40.83	34.7	8.28	30.35	102	245	P	H
HT20		5350.1	44.09	-9.91	54	31.46	34.7	8.28	30.35	102	245	A	H
CH 60		5136.96	54.07	-19.93	74	42.12	34.27	8.15	30.47	240	134	P	V
5300MHz		5148.16	44.25	-9.75	54	32.26	34.3	8.15	30.46	240	134	A	V
	*	5302	105.82	-	-	93.36	34.6	8.23	30.37	240	134	P	V
		5302	98.64	-	-	86.18	34.6	8.23	30.37	240	134	A	V
		5351.5	54.45	-19.55	74	41.82	34.7	8.28	30.35	240	134	P	V
		5350.1	45.21	-8.79	54	32.58	34.7	8.28	30.35	240	134	A	V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 64 5320MHz		5399.7	54.1	-19.9	74	41.41	34.7	8.31	30.32	100	242	P	H
		5350.3	44.71	-9.29	54	32.08	34.7	8.28	30.35	100	242	A	H
	*	5318	103.46	-	-	90.95	34.63	8.25	30.37	100	242	P	H
		5318	96.25	-	-	83.74	34.63	8.25	30.37	100	242	A	H
		5371.2	56.32	-17.68	74	43.69	34.7	8.28	30.35	210	146	P	V
		5350.1	46.3	-7.7	54	33.67	34.7	8.28	30.35	210	146	A	V
	*	5318	105.88	-	-	93.37	34.63	8.25	30.37	210	146	P	V
		5318	97.65	-	-	85.14	34.63	8.25	30.37	210	146	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 52 5260MHz		10520	41.37	-26.93	68.3	54.33	37.82	11.83	62.61	100	360	P	H
		10520	40.78	-27.52	68.3	53.74	37.82	11.83	62.61	100	360	P	V
802.11n HT20 CH 60 5300MHz		10600	40.84	-27.46	68.3	53.68	37.9	11.89	62.63	100	360	P	H
		10600	41.55	-26.75	68.3	54.39	37.9	11.89	62.63	100	360	P	V
802.11n HT20 CH 64 5320MHz		10640	39.71	-34.29	74	52.53	37.9	11.92	62.64	100	360	P	H
		10640	40.61	-33.39	74	53.43	37.9	11.92	62.64	100	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 54 5270MHz		5103.2	54.13	-19.87	74	42.27	34.2	8.15	30.49	102	306	P	H
		5120.96	43.8	-10.2	54	31.89	34.23	8.15	30.47	102	306	A	H
	*	5272	99.59	-	-	87.22	34.53	8.23	30.39	102	306	P	H
		5272	92.06	-	-	79.69	34.53	8.23	30.39	102	306	A	H
		5363.7	52.8	-21.2	74	40.17	34.7	8.28	30.35	102	306	P	H
		5350	42.86	-11.14	54	30.23	34.7	8.28	30.35	102	306	A	H
		5119.04	54.56	-19.44	74	42.65	34.23	8.15	30.47	215	133	P	V
		5121.12	44.72	-9.28	54	32.81	34.23	8.15	30.47	215	133	A	V
	*	5266	103.96	-	-	91.63	34.53	8.2	30.4	215	133	P	V
		5266	96.28	-	-	83.95	34.53	8.2	30.4	215	133	A	V
		5360.1	53.82	-20.18	74	41.19	34.7	8.28	30.35	215	133	P	V
		5350	44.31	-9.69	54	31.68	34.7	8.28	30.35	215	133	A	V
802.11n HT40 CH 62 5310MHz		5119.36	53.64	-20.36	74	41.73	34.23	8.15	30.47	109	304	P	H
		5132.64	43.43	-10.57	54	31.48	34.27	8.15	30.47	109	304	A	H
	*	5312	97.59	-	-	85.08	34.63	8.25	30.37	109	304	P	H
		5312	90.1	-	-	77.59	34.63	8.25	30.37	109	304	A	H
		5354.9	55.85	-18.15	74	43.22	34.7	8.28	30.35	109	304	P	H
		5350	46.2	-7.8	54	33.57	34.7	8.28	30.35	109	304	A	H
		5133.76	53.37	-20.63	74	41.42	34.27	8.15	30.47	140	143	P	V
		5133.12	43.84	-10.16	54	31.89	34.27	8.15	30.47	140	143	A	V
	*	5308	100.8	-	-	88.34	34.6	8.23	30.37	140	143	P	V
		5308	93.34	-	-	80.88	34.6	8.23	30.37	140	143	A	V
		5354	58.46	-15.54	74	45.83	34.7	8.28	30.35	140	143	P	V
		5350	48.8	-5.2	54	36.17	34.7	8.28	30.35	140	143	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 2 5250~5350MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 54 5270MHz		10540	40.11	-28.19	68.3	53.03	37.83	11.86	62.61	100	360	P	H
		10540	40.64	-27.66	68.3	53.56	37.83	11.86	62.61	100	360	P	V
802.11n HT40 CH 62 5310MHz		10620	41.57	-32.43	74	54.38	37.9	11.92	62.63	300	360	P	H
		10620	39.85	-34.15	74	52.66	37.9	11.92	62.63	100	0	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 100 5500MHz		5451.44	54.79	-19.21	74	42.06	34.7	8.32	30.29	145	237	P	H
		5462.64	53.51	-14.79	68.3	40.78	34.7	8.32	30.29	145	237	P	H
	*	5502	103.53	-	-	90.77	34.7	8.32	30.26	145	237	P	H
		5502	96.75	-	-	83.99	34.7	8.32	30.26	145	237	A	H
		5458.48	45.53	-8.47	54	32.8	34.7	8.32	30.29	145	237	A	H
		5428.56	54.96	-19.04	74	42.24	34.7	8.32	30.3	209	142	P	V
		5460.88	54.75	-13.55	68.3	42.02	34.7	8.32	30.29	209	142	P	V
	*	5500	104.96	-	-	92.22	34.7	8.32	30.28	209	142	P	V
		5500	98.22	-	-	85.48	34.7	8.32	30.28	209	142	A	V
		5458.48	45.57	-8.43	54	32.84	34.7	8.32	30.29	209	142	A	V
802.11a CH 116 5580MHz		5430.48	53.08	-20.92	74	40.36	34.7	8.32	30.3	121	299	P	H
		5461.36	52.45	-15.85	68.3	39.72	34.7	8.32	30.29	121	299	P	H
		5459.6	43.08	-10.92	54	30.35	34.7	8.32	30.29	121	299	A	H
	*	5578	104.86	-	-	92.08	34.67	8.33	30.22	121	299	P	H
		5578	98.03	-	-	85.25	34.67	8.33	30.22	121	299	A	H
		5735.08	54.54	-13.76	68.3	41.58	34.8	8.42	30.26	121	299	P	H
		5447.12	52.67	-21.33	74	39.95	34.7	8.32	30.3	199	142	P	V
		5466.48	52.61	-15.69	68.3	39.88	34.7	8.32	30.29	199	142	P	V
		5426.96	43.64	-10.36	54	30.92	34.7	8.32	30.3	199	142	A	V
	*	5580	106.43	-	-	93.65	34.67	8.33	30.22	199	142	P	V
		5580	98.99	-	-	86.21	34.67	8.33	30.22	199	142	A	V
		5736.6	54.19	-14.11	68.3	41.23	34.8	8.42	30.26	199	142	P	V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 140 5700MHz		5727.48	60.47	-7.83	68.3	47.52	34.77	8.42	30.24	116	308	P	H
	*	5698	104.13	-	-	91.26	34.7	8.4	30.23	116	308	P	H
		5698	97.34	-	-	84.47	34.7	8.4	30.23	116	308	A	H
		5726.68	61.47	-6.83	68.3	48.52	34.77	8.42	30.24	159	135	P	V
	*	5700	104.78	-	-	91.89	34.7	8.42	30.23	159	135	P	V
		5700	97.34	-	-	84.45	34.7	8.42	30.23	159	135	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11a (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11a CH 100 5500MHz		11000	40.9	-33.1	74	53.52	37.9	12.21	62.73	100	360	P	H
		11000	40.94	-33.06	74	53.56	37.9	12.21	62.73	100	360	P	V
802.11a CH 116 5580MHz		11160	39.52	-34.48	74	52.04	37.9	12.35	62.77	100	360	P	H
		11160	39.57	-34.43	74	52.09	37.9	12.35	62.77	100	360	P	V
802.11a CH 140 5700MHz		11400	39.9	-34.1	74	52.21	38	12.52	62.83	100	360	P	H
		11400	39.8	-34.2	74	52.11	38	12.52	62.83	100	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5459.12	54.52	-19.48	74	41.79	34.7	8.32	30.29	128	243	P	H
		5468.56	55.16	-13.14	68.3	42.43	34.7	8.32	30.29	128	243	P	H
	*	5500	103.78	-	-	91.04	34.7	8.32	30.28	128	243	P	H
802.11n		5500	97.97	-	-	85.23	34.7	8.32	30.28	128	243	A	H
HT20		5459.6	45.22	-8.78	54	32.49	34.7	8.32	30.29	128	243	A	H
CH 100		5456.4	54.99	-19.01	74	42.26	34.7	8.32	30.29	216	131	P	V
5500MHz		5464.08	54.97	-13.33	68.3	42.24	34.7	8.32	30.29	216	131	P	V
	*	5498	104.57	-	-	91.83	34.7	8.32	30.28	216	131	P	V
		5498	97.85	-	-	85.11	34.7	8.32	30.28	216	131	A	V
		5459.76	45.77	-8.23	54	33.04	34.7	8.32	30.29	216	131	A	V
		5454.16	52.48	-21.52	74	39.75	34.7	8.32	30.29	131	238	P	H
		5461.04	52.91	-15.39	68.3	40.18	34.7	8.32	30.29	131	238	P	H
		5459.76	43.11	-10.89	54	30.38	34.7	8.32	30.29	131	238	A	H
	*	5582	103.38	-	-	90.64	34.63	8.33	30.22	131	238	P	H
802.11n		5582	96.44	-	-	83.7	34.63	8.33	30.22	131	238	A	H
HT20		5737.8	54.32	-13.98	68.3	41.36	34.8	8.42	30.26	131	238	P	H
CH 116		5428.08	53.08	-20.92	74	40.36	34.7	8.32	30.3	206	138	P	V
5580MHz		5496.08	54.11	-14.19	68.3	41.37	34.7	8.32	30.28	206	138	P	V
		5458.96	43.37	-10.63	54	30.64	34.7	8.32	30.29	206	138	A	V
	*	5582	105.38	-	-	92.64	34.63	8.33	30.22	206	138	P	V
		5582	99.02	-	-	86.28	34.63	8.33	30.22	206	138	A	V
		5730.68	54.6	-13.7	68.3	41.67	34.77	8.42	30.26	206	138	P	V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 140 5700MHz		5725.32	60.81	-7.49	68.3	47.86	34.77	8.42	30.24	127	248	P	H
	*	5702	104.62	-	-	91.7	34.73	8.42	30.23	127	248	P	H
		5702	97.35	-	-	84.43	34.73	8.42	30.23	127	248	A	H
		5725.72	62.35	-5.95	68.3	49.4	34.77	8.42	30.24	217	146	P	V
	*	5702	105.45	-	-	92.53	34.73	8.42	30.23	217	146	P	V
		5702	98.64	-	-	85.72	34.73	8.42	30.23	217	146	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT20 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT20 CH 100 5500MHz		11000	40.58	-33.42	74	53.2	37.9	12.21	62.73	100	360	P	H
		11000	41.04	-32.96	74	53.66	37.9	12.21	62.73	100	360	P	V
802.11n HT20 CH 116 5580MHz		11160	40.64	-33.36	74	53.16	37.9	12.35	62.77	100	360	P	H
		11160	40.88	-33.12	74	53.4	37.9	12.35	62.77	100	360	P	V
802.11n HT20 CH 140 5700MHz		11400	39.21	-34.79	74	51.52	38	12.52	62.83	100	360	P	H
		11400	40.83	-33.17	74	53.14	38	12.52	62.83	100	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Band Edge @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 102 5510MHz		5460.08	56.1	-12.2	68.3	43.37	34.7	8.32	30.29	111	300	P	H
		5469.52	61.1	-7.2	68.3	48.37	34.7	8.32	30.29	111	300	P	H
	*	5512	101.18	-	-	88.41	34.7	8.33	30.26	111	300	P	H
		5512	93.89	-	-	81.12	34.7	8.33	30.26	111	300	A	H
		5734.04	53.79	-14.51	68.3	40.86	34.77	8.42	30.26	111	300	P	H
		5459.28	57.33	-16.67	74	44.6	34.7	8.32	30.29	184	137	P	V
		5470	62.84	-5.46	68.3	50.11	34.7	8.32	30.29	184	137	P	V
		5459.5	47.77	-6.23	54	35.04	34.7	8.32	30.29	184	137	A	V
	*	5516	102.7	-	-	89.93	34.7	8.33	30.26	184	137	P	V
		5516	95.39	-	-	82.62	34.7	8.33	30.26	184	137	A	V
		5736.68	54.59	-13.71	68.3	41.63	34.8	8.42	30.26	184	137	P	V
802.11n HT40 CH 110 5550MHz		5426.8	53.33	-20.67	74	40.61	34.7	8.32	30.3	103	301	P	H
		5464.08	53.17	-15.13	68.3	40.44	34.7	8.32	30.29	103	301	P	H
		5459.5	43.76	-10.24	54	31.03	34.7	8.32	30.29	103	301	A	H
	*	5552	101.49	-	-	88.69	34.7	8.33	30.23	103	301	P	H
		5552	94.14	-	-	81.34	34.7	8.33	30.23	103	301	A	H
		5735.64	53.94	-14.36	68.3	40.98	34.8	8.42	30.26	103	301	P	H
		5459.76	54.18	-19.82	74	41.45	34.7	8.32	30.29	192	133	P	V
		5463.76	54.04	-14.26	68.3	41.31	34.7	8.32	30.29	192	133	P	V
		5459.76	43.99	-10.01	54	31.26	34.7	8.32	30.29	192	133	A	V
	*	5558	102.23	-	-	89.43	34.7	8.33	30.23	192	133	P	V
		5558	94.93	-	-	82.13	34.7	8.33	30.23	192	133	A	V
		5729.32	54.25	-14.05	68.3	41.3	34.77	8.42	30.24	192	133	P	V

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 134 5670MHz		5435.28	53.19	-20.81	74	40.47	34.7	8.32	30.3	109	294	P	H
		5469.04	52.91	-15.39	68.3	40.18	34.7	8.32	30.29	109	294	P	H
		5459.92	42.94	-11.06	54	30.21	34.7	8.32	30.29	109	294	A	H
	*	5672	102.28	-	-	89.39	34.7	8.4	30.21	109	294	P	H
		5672	94.78	-	-	81.89	34.7	8.4	30.21	109	294	A	H
		5725.08	58.89	-9.41	68.3	45.94	34.77	8.42	30.24	109	294	P	H
		5435.6	54.13	-19.87	74	41.41	34.7	8.32	30.3	195	137	P	V
		5461.52	53.37	-14.93	68.3	40.64	34.7	8.32	30.29	195	137	P	V
		5458.64	43.02	-10.98	54	30.29	34.7	8.32	30.29	195	137	A	V
	*	5672	102.67	-	-	89.78	34.7	8.4	30.21	195	137	P	V
		5672	95.41	-	-	82.52	34.7	8.4	30.21	195	137	A	V
		5727.96	57.45	-10.85	68.3	44.5	34.77	8.42	30.24	195	137	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 3 - 5470~5725MHz

WIFI 802.11n HT40 (Harmonic @ 3m)

WIFI Ant. 1	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
802.11n HT40 CH 102 5510MHz		11020	41.04	-32.96	74	53.63	37.9	12.24	62.73	100	360	P	H
		11020	41.09	-32.91	74	53.68	37.9	12.24	62.73	100	360	P	V
802.11n HT40 CH 110 5550MHz		11100	41.2	-32.8	74	53.75	37.9	12.3	62.75	100	360	P	H
		11100	41.18	-32.82	74	53.73	37.9	12.3	62.75	100	360	P	V
802.11n HT40 CH 134 5670MHz		11340	40.89	-33.11	74	53.3	37.93	12.47	62.81	100	360	P	H
		11340	40.18	-33.82	74	52.59	37.93	12.47	62.81	100	360	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Emission below 1GHz

WIFI 802.11n HT40 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 LF		61.04	19.88	-20.12	40	39.5	12.52	0.8	32.94			P	H
		89.17	20.67	-22.83	43.5	38.05	14.59	0.95	32.92			P	H
		191.02	21.79	-21.71	43.5	37.77	15.47	1.47	32.92			P	H
		450.98	21.43	-24.57	46	29.81	22.62	2.23	33.23			P	H
		633.34	23.53	-22.47	46	29.46	24.7	2.69	33.32			P	H
		870.99	26.57	-19.43	46	29.51	26.38	3.16	32.48	100	360	P	H
		54.25	30.91	-9.09	40	49.76	13.34	0.77	32.96	100	0	P	V
		88.2	22.28	-21.22	43.5	39.87	14.38	0.95	32.92			P	V
		185.2	17.5	-26	43.5	33.61	15.38	1.43	32.92			P	V
		261.83	17.92	-28.08	46	29.45	19.71	1.76	33			P	V
		575.14	22.43	-23.57	46	28.89	24.32	2.55	33.33			P	V
		850.62	25.27	-20.73	46	28.45	26.3	3.1	32.58			P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Note symbol

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

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

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

1. Level(dBμV/m) =

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

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

For Peak Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 55.45 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 55.45(dBμV/m) – 74(dBμV/m)

= -18.55(dB)

For Average Limit @ 2390MHz:

1. Level(dBμV/m)

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

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

= 43.54 (dBμV/m)

2. Over Limit(dB)

= Level(dBμV/m) – Limit Line(dBμV/m)

= 43.54(dBμV/m) – 54(dBμV/m)

= -10.46(dB)

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

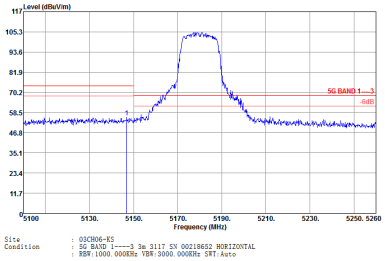
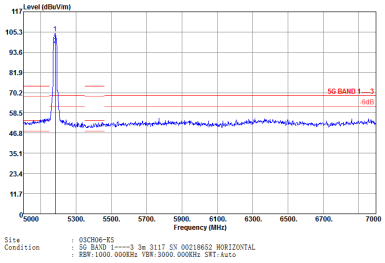
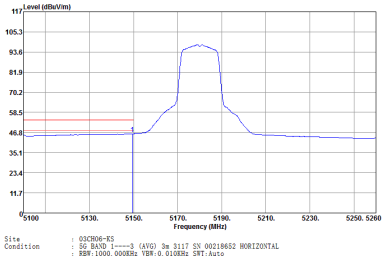
Appendix D. Radiated Spurious Emission

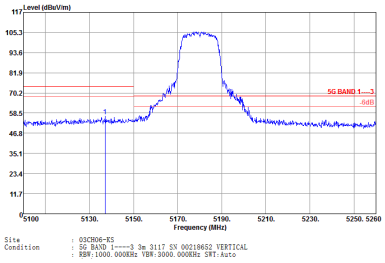
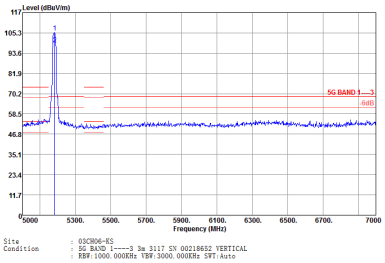
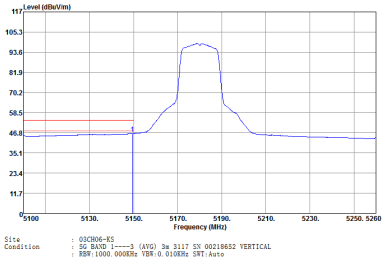
Note symbol

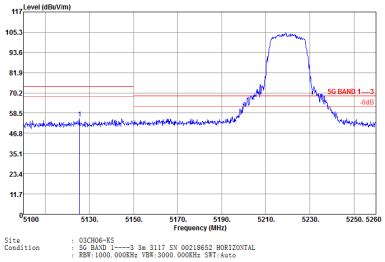
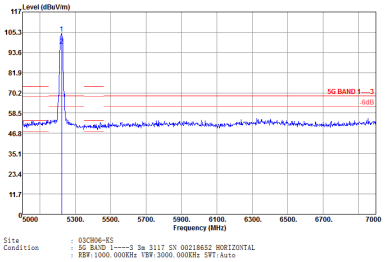
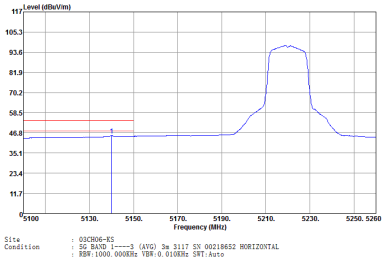
-L	**Low channel location**
-R	**High channel location**

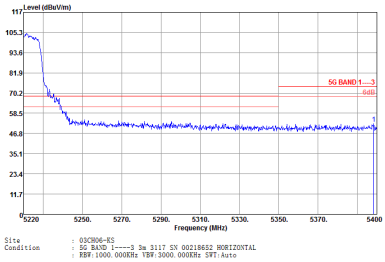
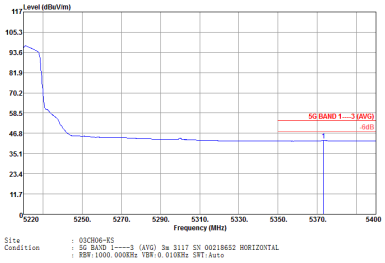
Band 1 - 5150~5250MHz

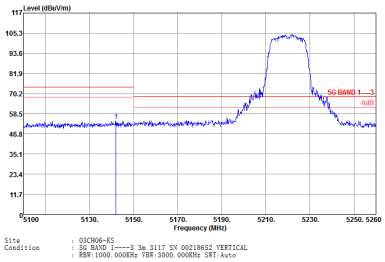
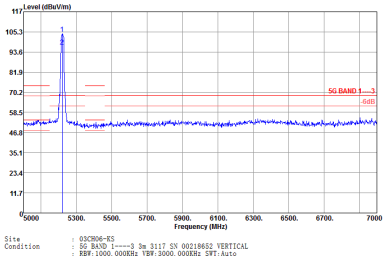
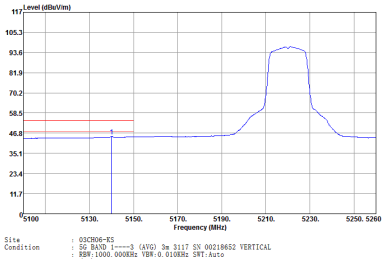
WIFI 802.11a (Band Edge @ 3m)

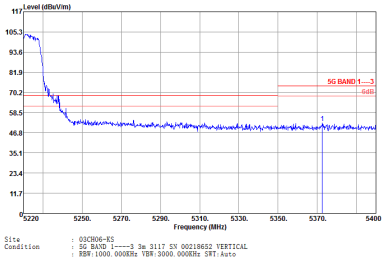
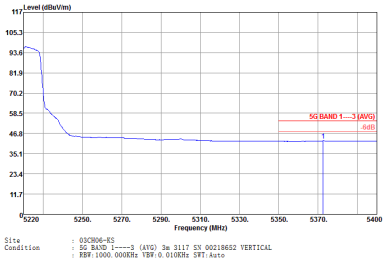
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1	Horizontal	Fundamental
Peak/ Avg		
Avg.		-

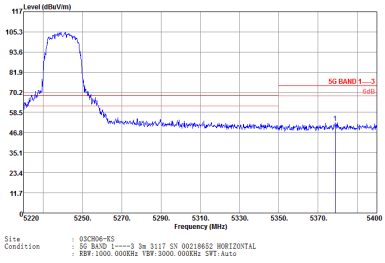
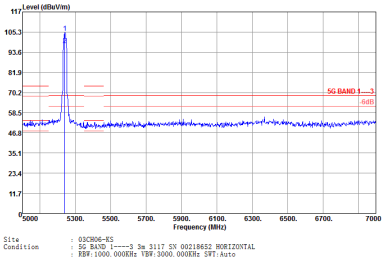
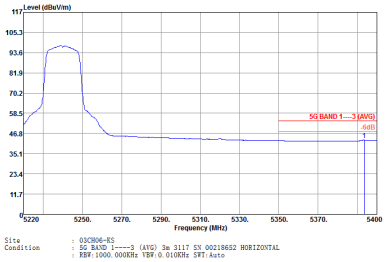
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1	Vertical	Fundamental
Peak/ Avg		
Avg.		-

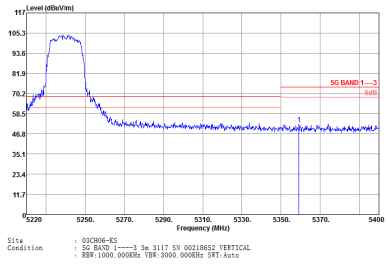
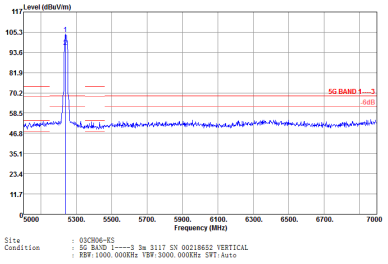
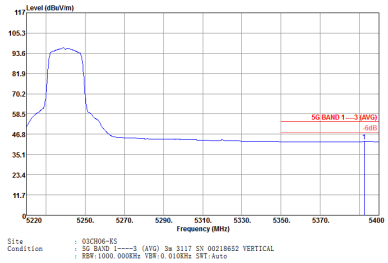
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1	Horizontal	Fundamental
Peak/ Avg		
Avg.		-

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

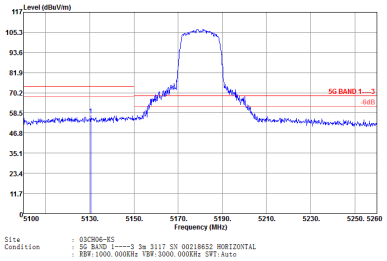
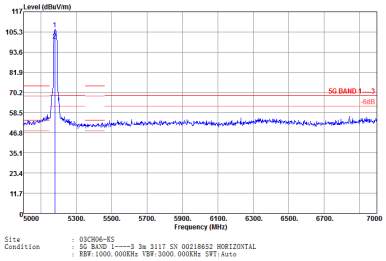
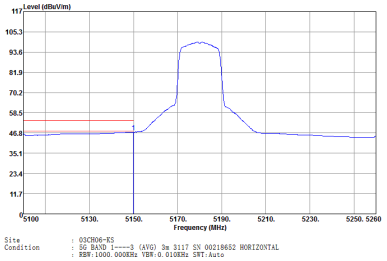
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		-

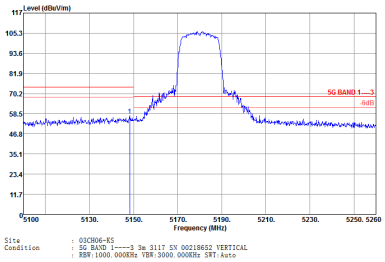
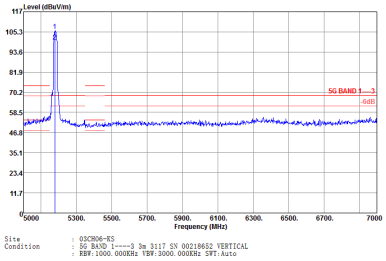
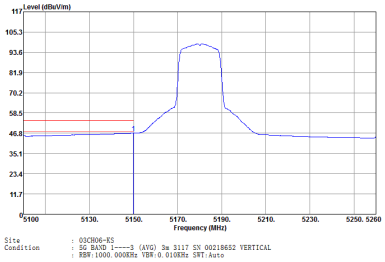
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1	Vertical	Fundamental
Peak		-
Avg.		-

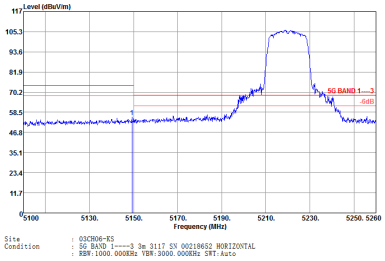
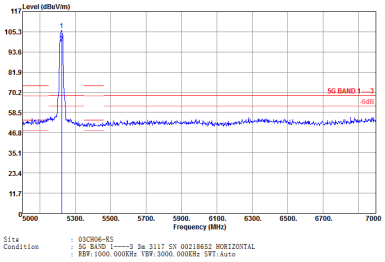
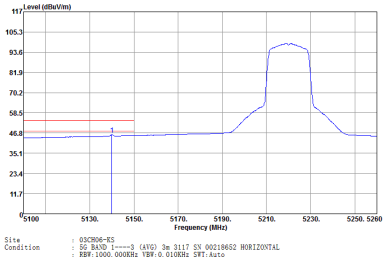
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz	
1	Horizontal	Fundamental
Peak/ Avg		
Avg.		-

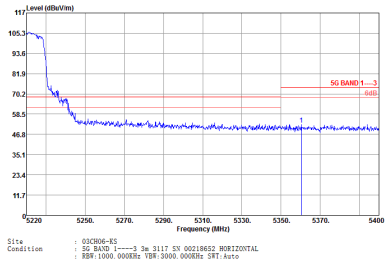
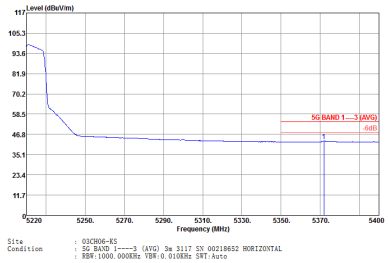
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz	
1	Vertical	Fundamental
Peak		
Avg.		-

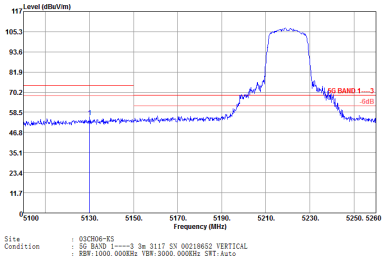
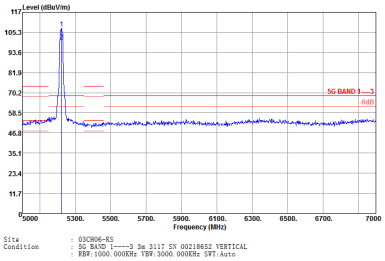
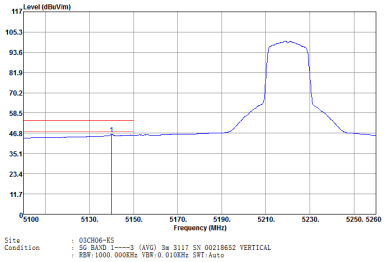
Band 1 5150~5250MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

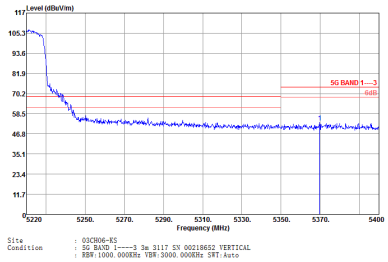
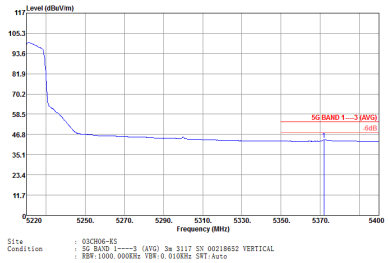
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1	Horizontal	Fundamental
Peak/ Avg.		
Avg.		-

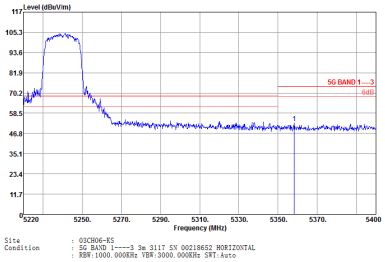
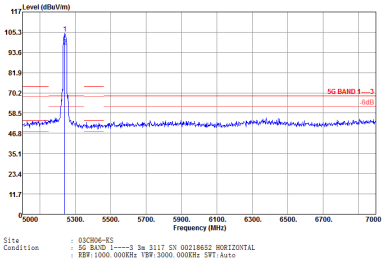
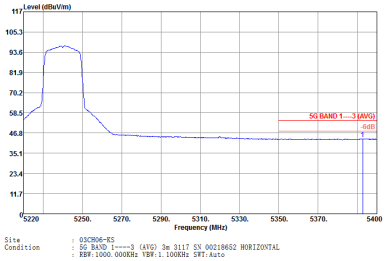
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1	Vertical	Fundamental
Peak/ Avg.		
Avg.		-

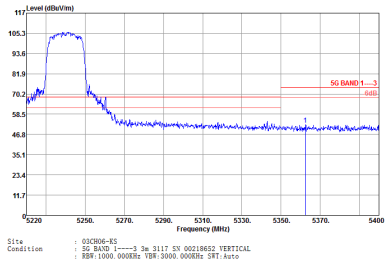
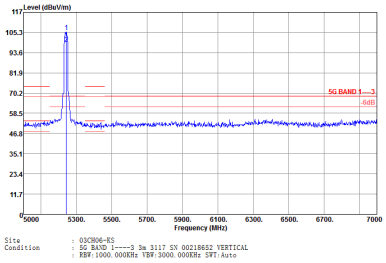
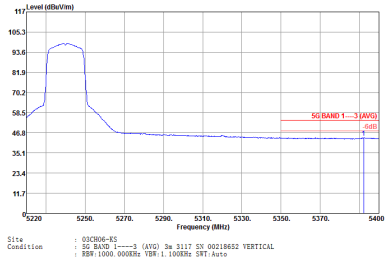
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1	Horizontal	Fundamental
Peak/ Avg.		
Avg.		-

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

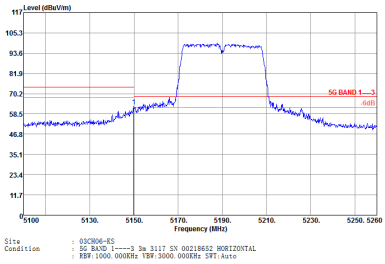
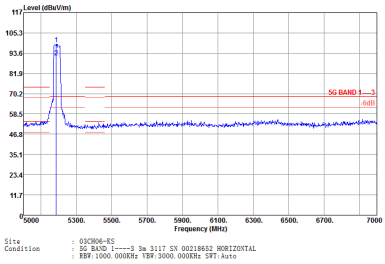
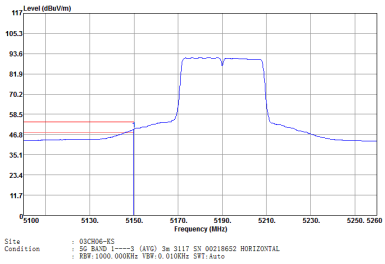
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1	Vertical	Fundamental
Peak/ Avg.		
Avg.		-

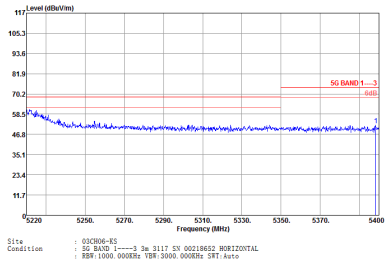
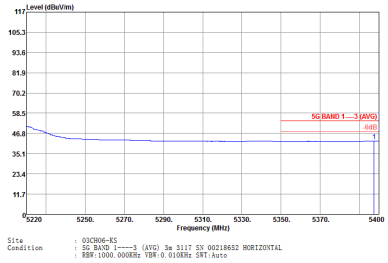
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
1	Vertical	Fundamental
Peak		-
Avg.		-

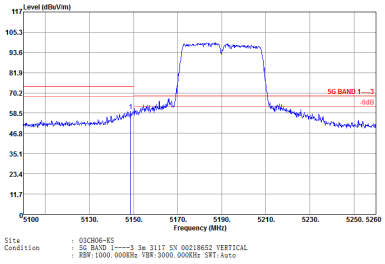
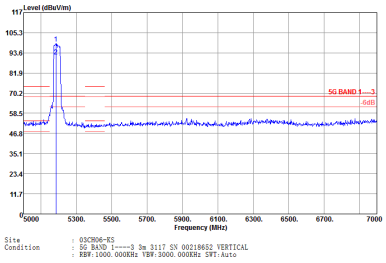
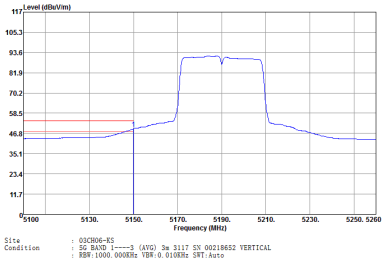
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz	
1	Horizontal	Fundamental
Peak/ Avg.		
Avg.		-

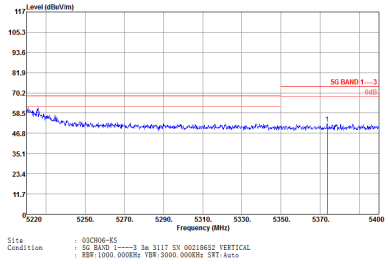
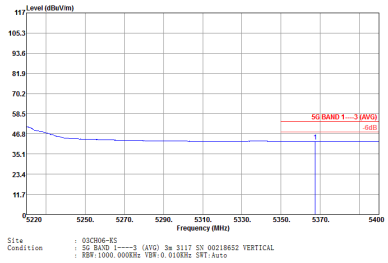
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz	
1	Vertical	Fundamental
Peak		
Avg.		-

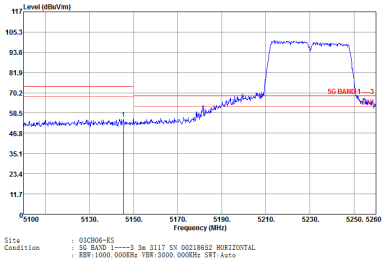
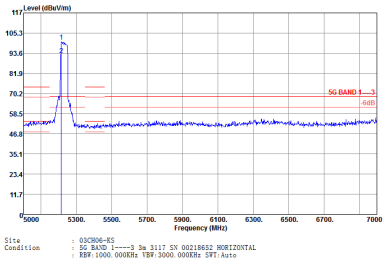
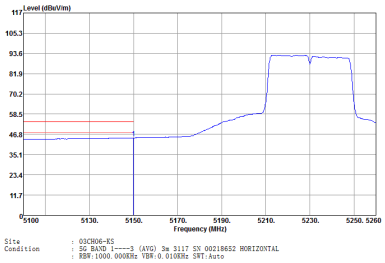
Band 1 5150~5250MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

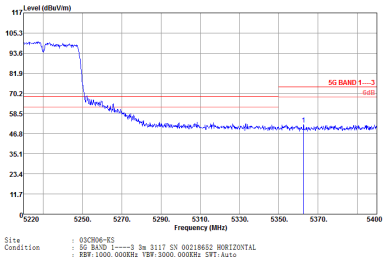
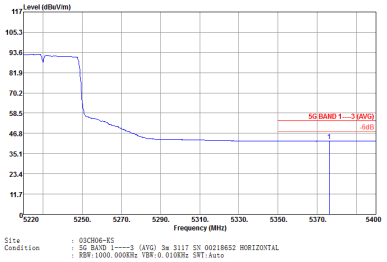
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1	Horizontal	Fundamental
Peak/ Avg.		
Avg.		-

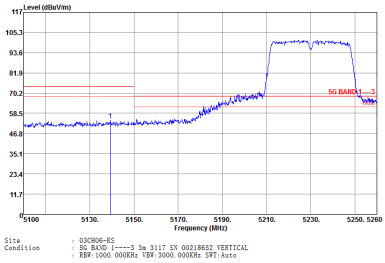
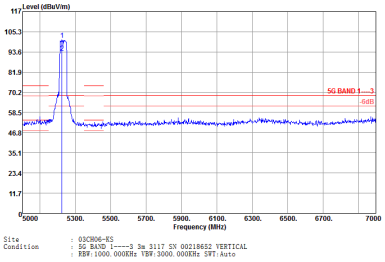
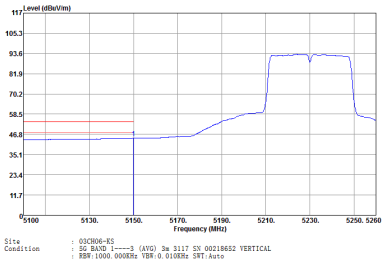
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1	Horizontal	Fundamental
Peak		-
Avg.		-

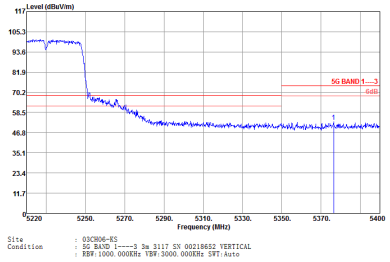
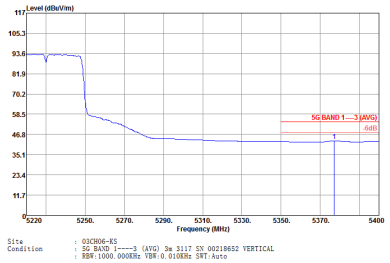
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1	Vertical	Fundamental
Peak/ Avg.		
Avg.		-

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

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

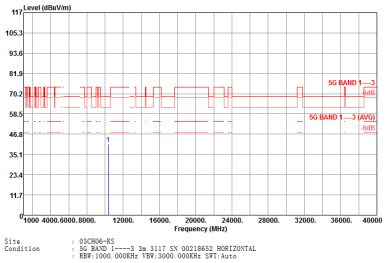
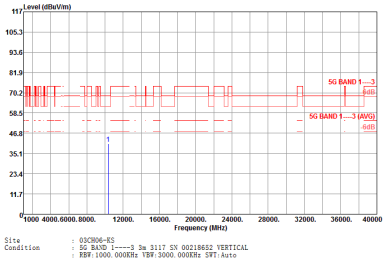
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1	Horizontal	Fundamental
Peak		-
Avg.		-

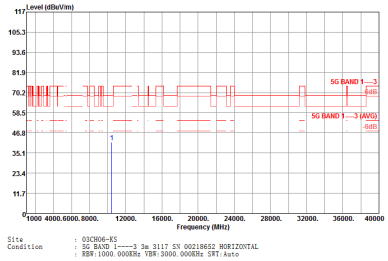
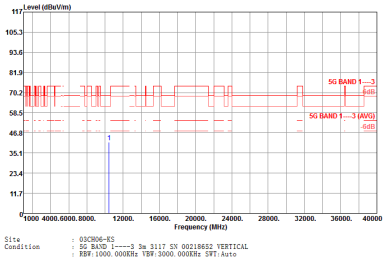
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
1	Vertical	Fundamental
Peak/ Avg.		
Avg.		-

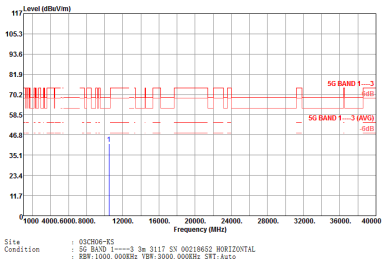
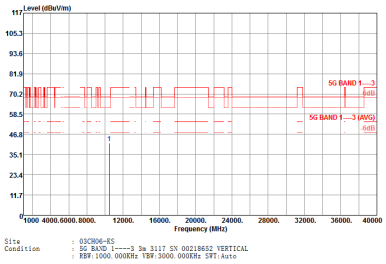
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1	Vertical	Fundamental
Peak		-
Avg.		-

Band 1 - 5150~5250MHz

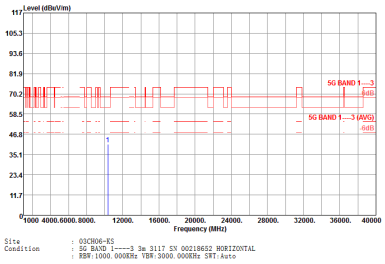
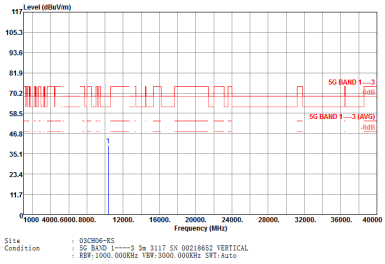
WIFI 802.11a (Harmonic @ 3m)

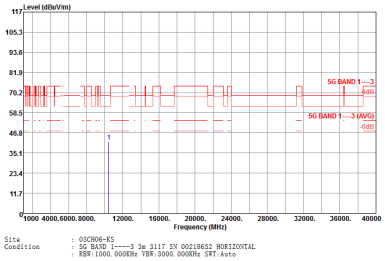
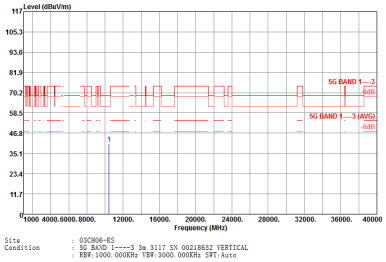
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
1	Horizontal	Vertical
Peak Avg.		

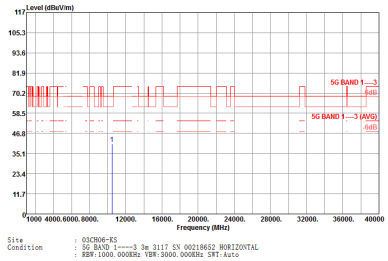
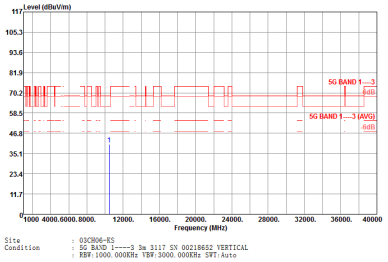
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
1	Horizontal	Vertical
Peak Avg.		

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

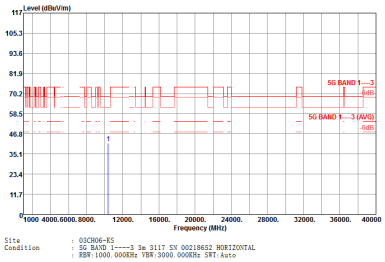
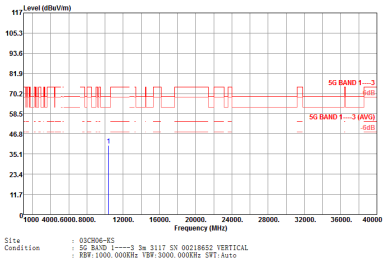
Band 1 5150~5250MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

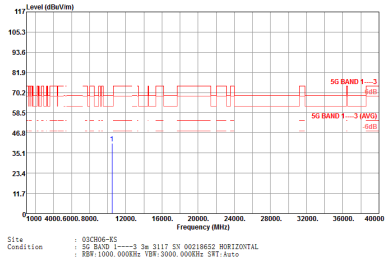
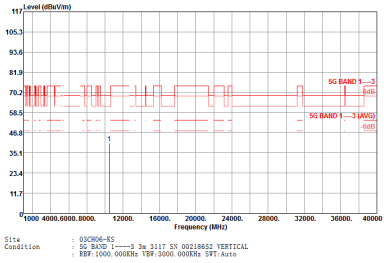
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1	Horizontal	Vertical
Peak Avg.		

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

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

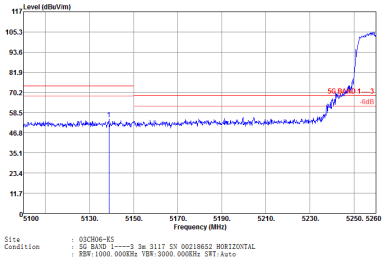
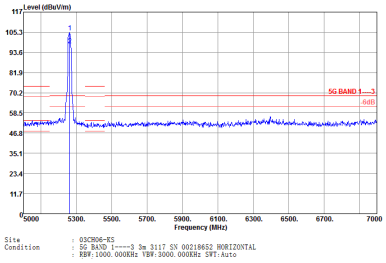
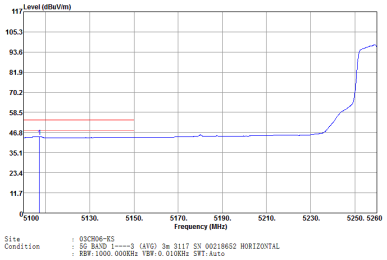
Band 1 5150~5250MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

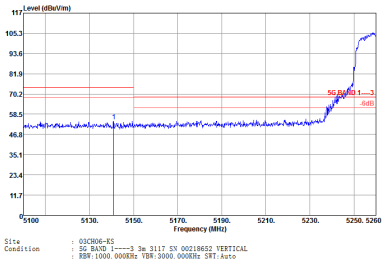
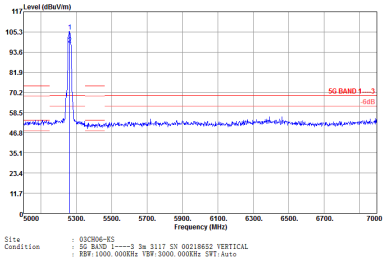
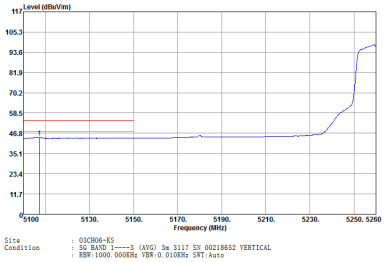
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH38 5190MHz	
1	Horizontal	Vertical
Peak Avg.		

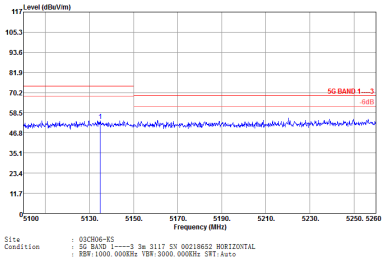
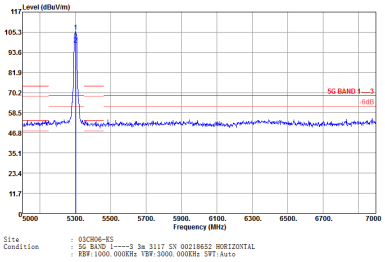
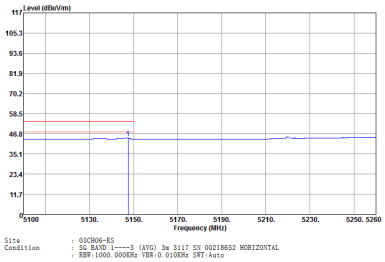
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT40 CH46 5230MHz	
1	Horizontal	Vertical
Peak Avg.		

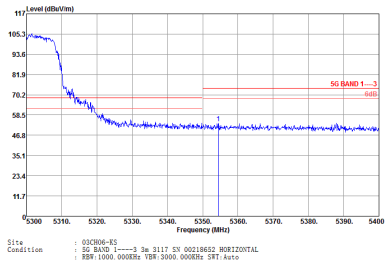
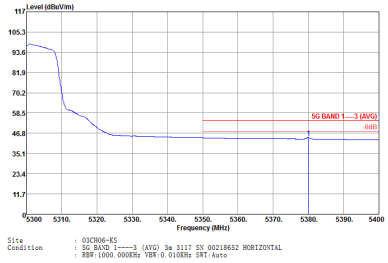
Band 2 - 5250~5350MHz

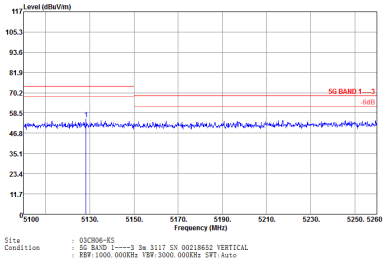
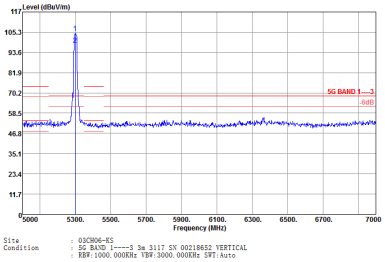
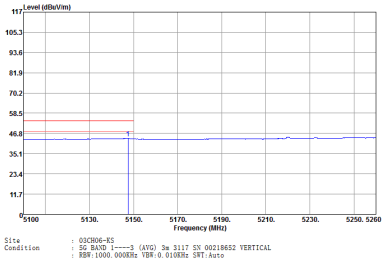
WIFI 802.11a (Band Edge @ 3m)

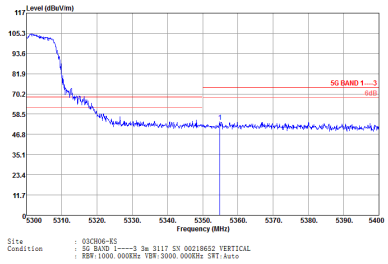
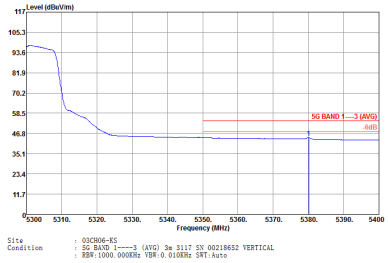
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz	
1	Horizontal	Fundamental
Peak		
Avg.		-

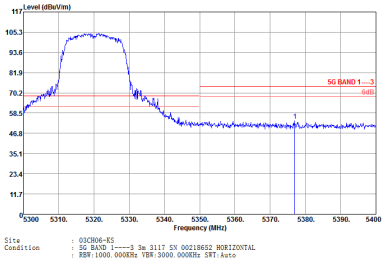
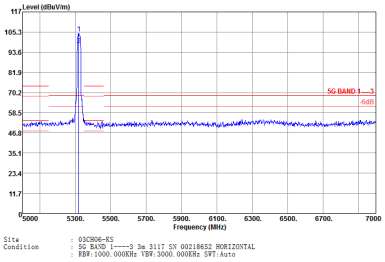
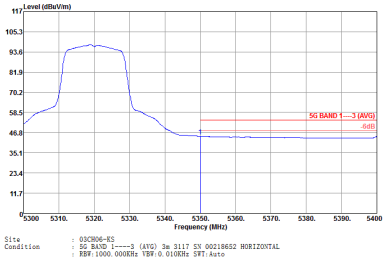
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH52 5260MHz	
1	Vertical	Fundamental
Peak		
Avg.		-

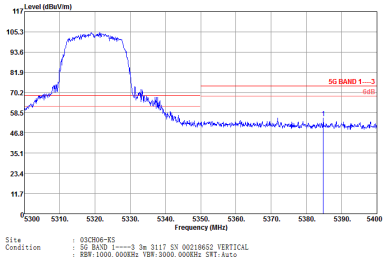
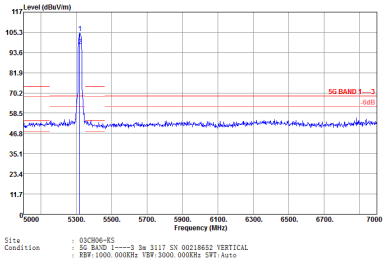
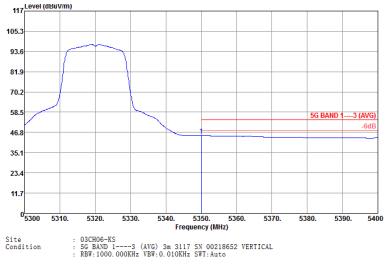
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
1	Horizontal	Fundamental
Peak/ Avg.		
Avg.		-

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

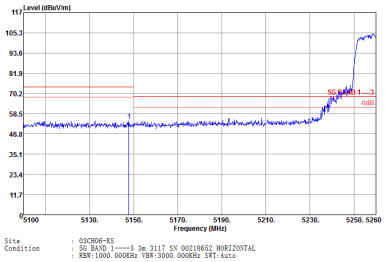
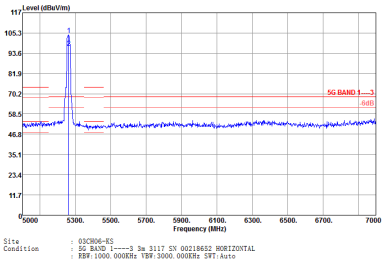
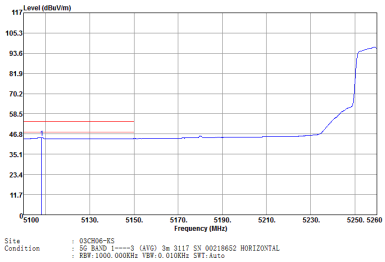
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - L	
1	Vertical	Fundamental
Peak/ Avg.		
Avg.		-

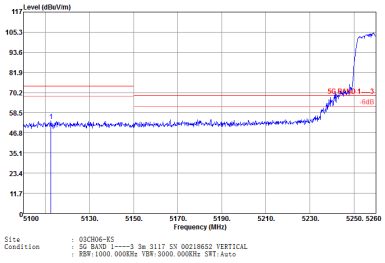
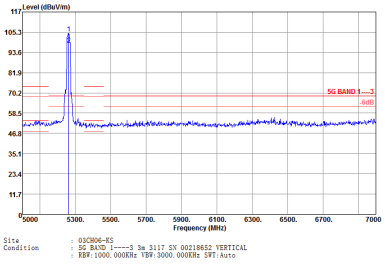
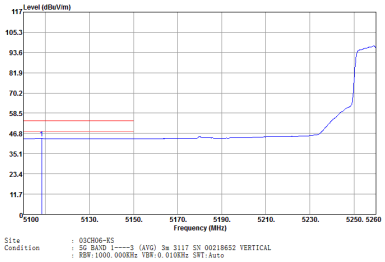
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH60 5300MHz - R	
1	Vertical	Fundamental
Peak		-
Avg.		-

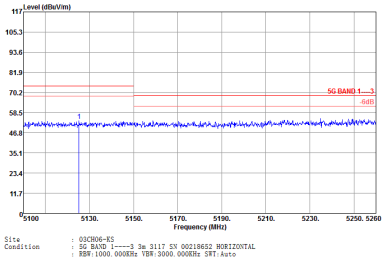
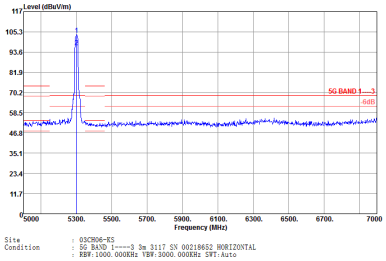
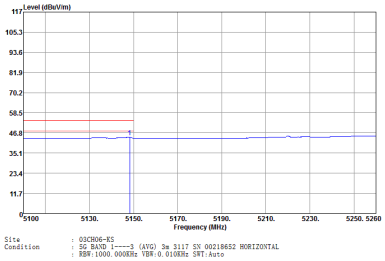
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1	Horizontal	Fundamental
Peak/ Avg.		
Avg.		

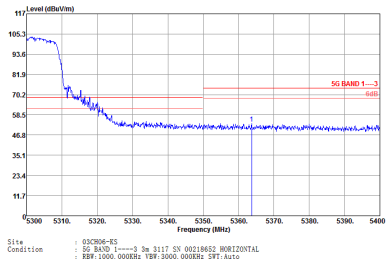
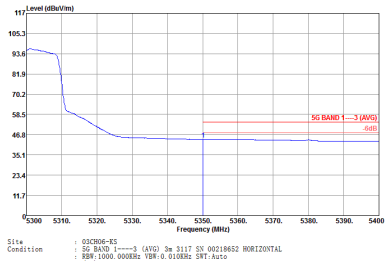
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11a CH64 5320MHz	
1	Vertical	Fundamental
Peak/ Avg.		
Avg.		

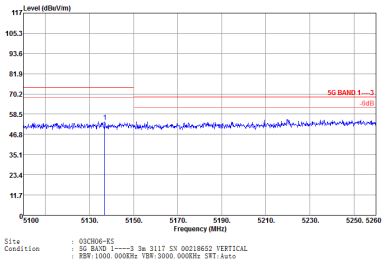
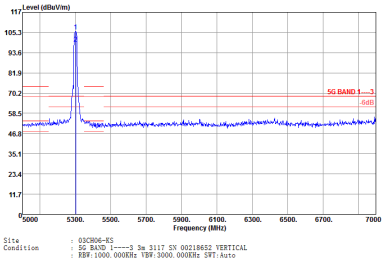
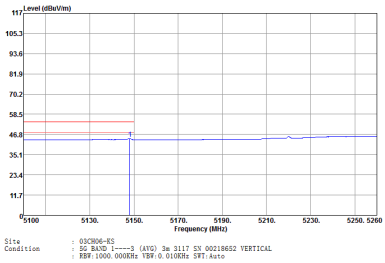
Band 2 5250~5350MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

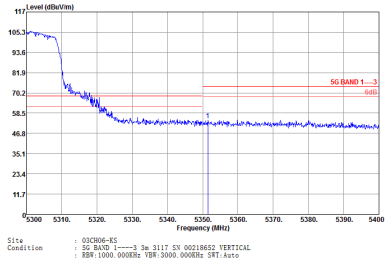
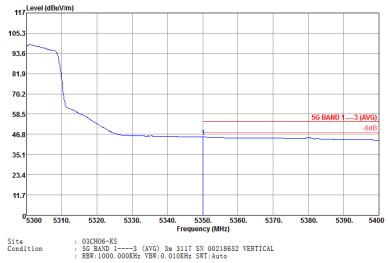
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz	
1	Horizontal	Fundamental
Peak/ Avg.		
Avg.		-

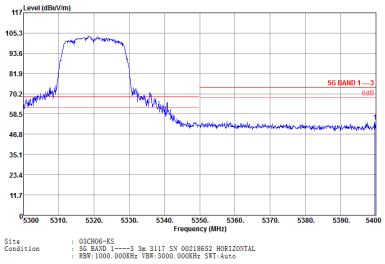
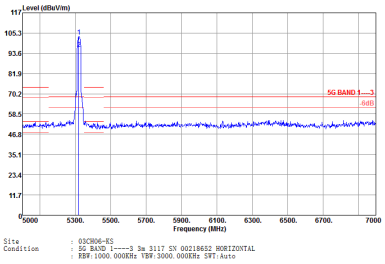
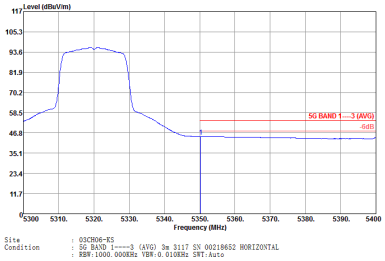
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH52 5260MHz - R	
1	Vertical	Fundamental
Peak/ Avg.		
Avg.		-

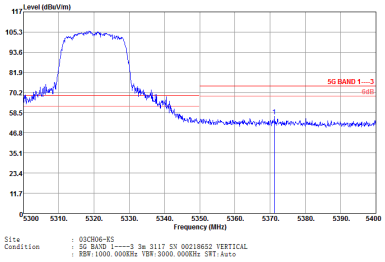
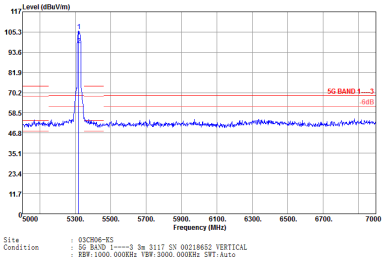
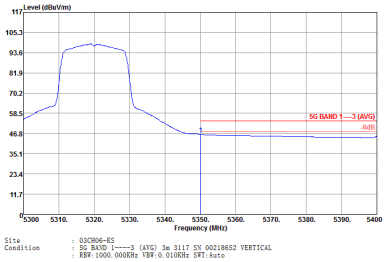
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - L	
1	Horizontal	Fundamental
Peak/ Avg.		
Avg.		-

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

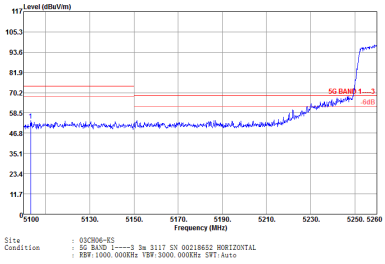
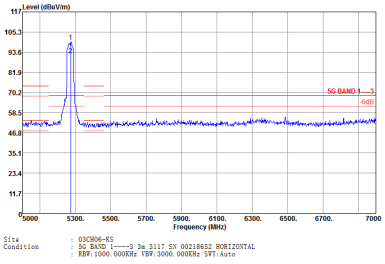
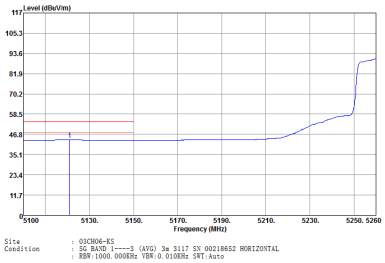
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - L	
1	Vertical	Fundamental
Peak/ Avg.		
Avg.		-

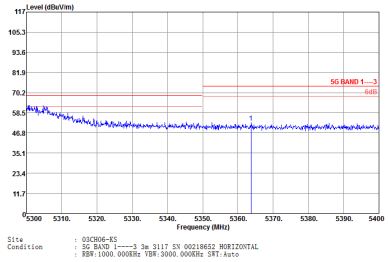
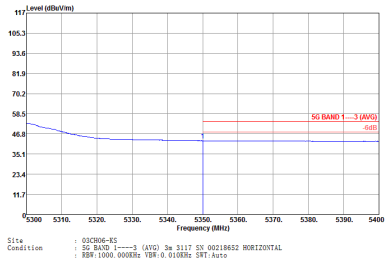
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH60 5300MHz - R	
1	Vertical	Fundamental
Peak		-
Avg.		-

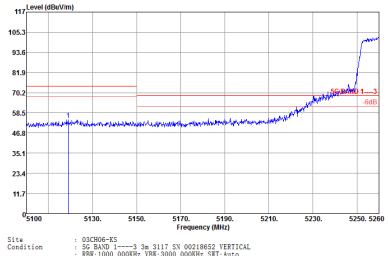
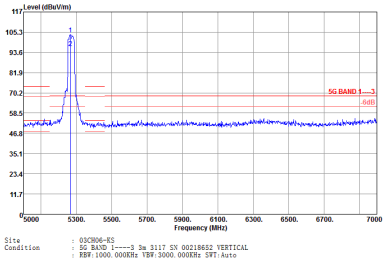
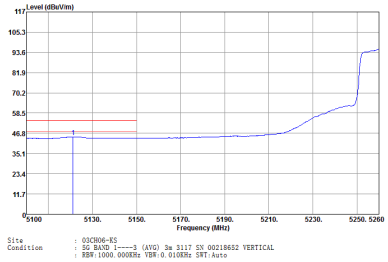
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1	Horizontal	Fundamental
Peak/ Avg.		
Avg.		

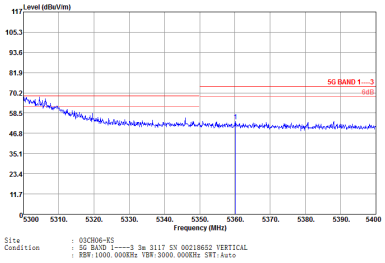
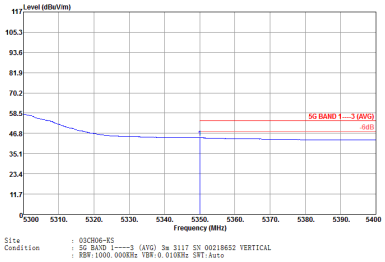
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT20 CH64 5320MHz	
1	Vertical	Fundamental
Peak/ Avg.		
Avg.		

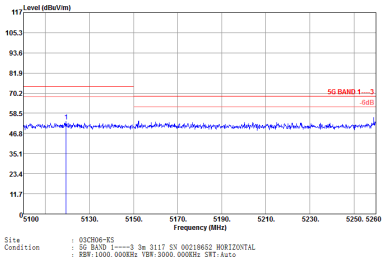
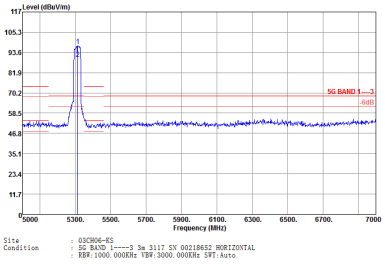
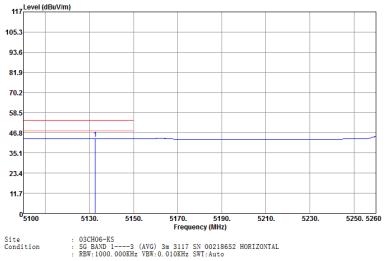
Band 2 5250~5350MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

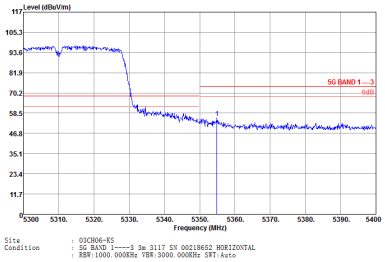
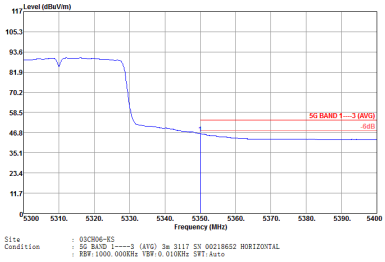
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - L	
1	Horizontal	Fundamental
Peak/ Avg.		
Avg.		-

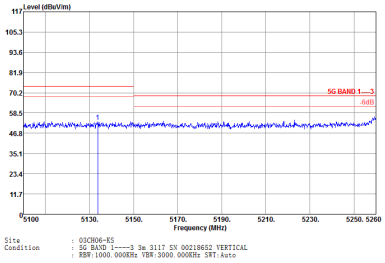
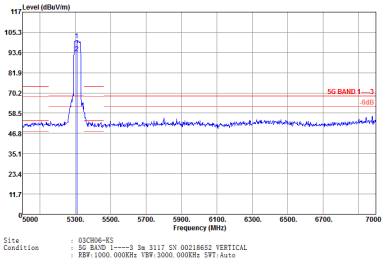
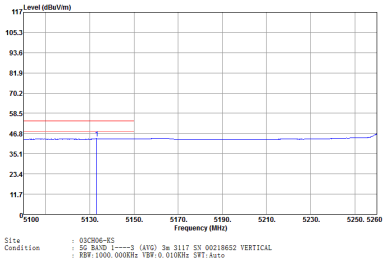
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - R	
1	Horizontal	Fundamental
Peak		-
Avg.		-

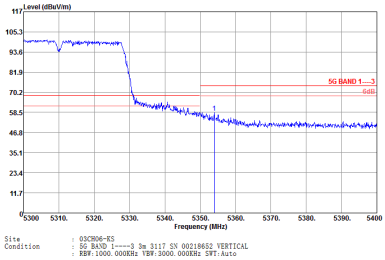
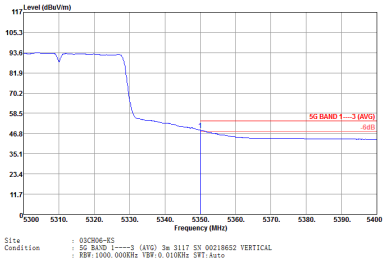
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH54 5270 - L	
1	Vertical	Vertical
Peak/ Avg.		
Avg.		-

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

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

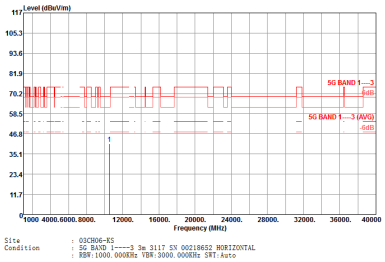
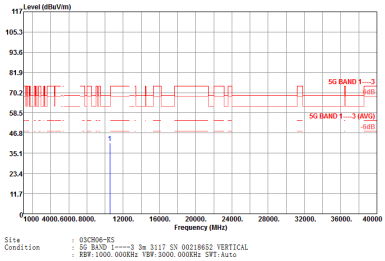
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - R	
1	Horizontal	Fundamental
Peak		-
Avg.		-

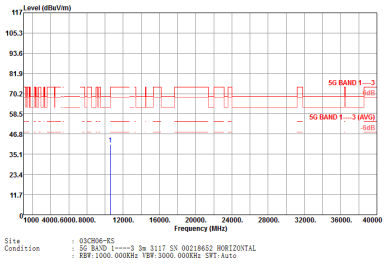
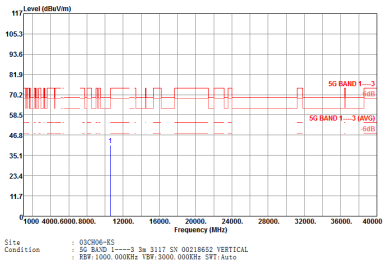
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - L	
1	Vertical	Fundamental
Peak/ Avg.		
Avg.		-

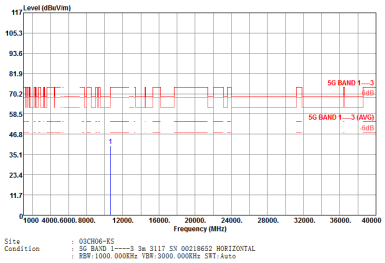
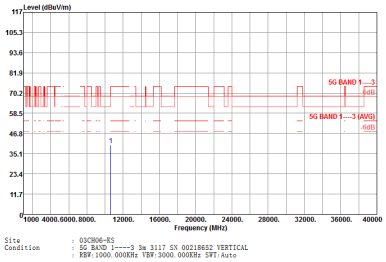
WIFI	Band 2 5250~5350MHz Band Edge @ 3m	
ANT	802.11n HT40 CH62 5310 - R	
1	Vertical	Fundamental
Peak		-
Avg.		-

Band 2 - 5250~5350MHz

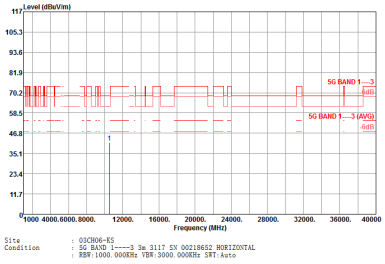
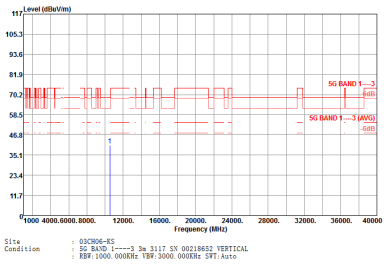
WIFI 802.11a (Harmonic @ 3m)

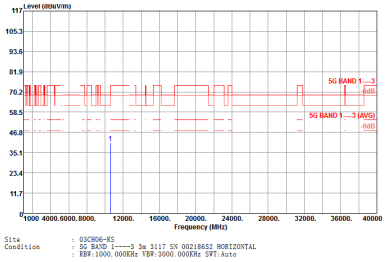
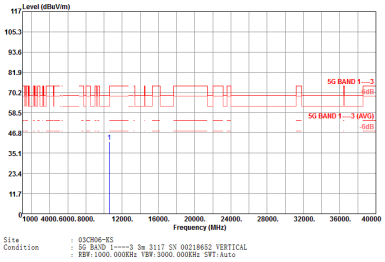
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH52 5260MHz	
1	Horizontal	Vertical
Peak Avg.		

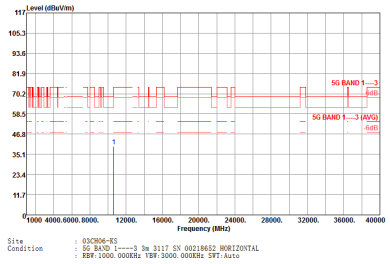
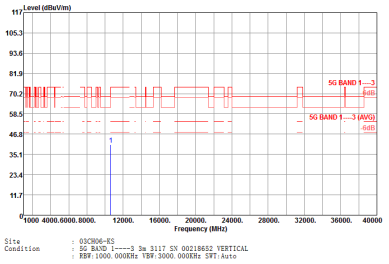
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11a CH60 5300MHz	
1	Horizontal	Vertical
Peak Avg.		

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

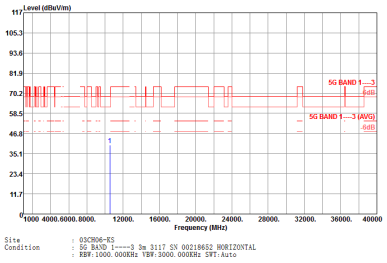
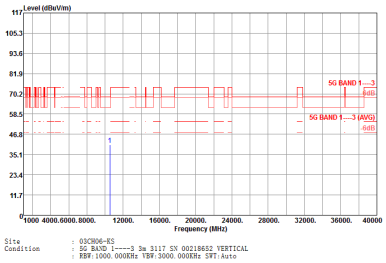
Band 2 5250~5350MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

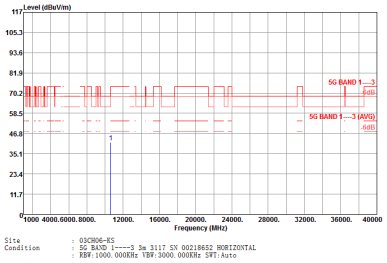
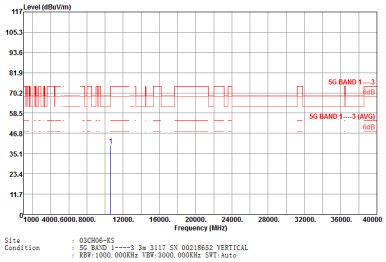
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT20 CH52 5260MHz	
1	Horizontal	Vertical
Peak Avg.		

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

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

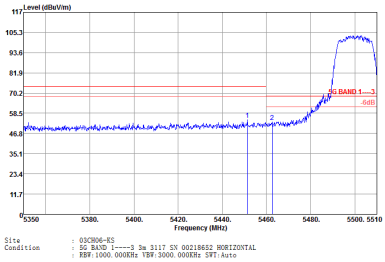
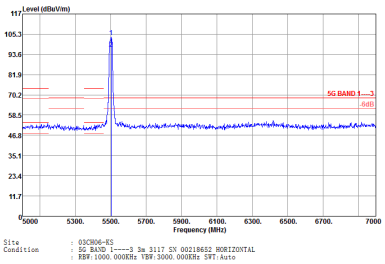
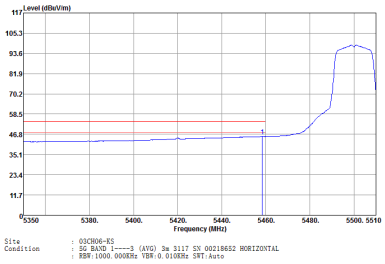
Band 2 5250~5350MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

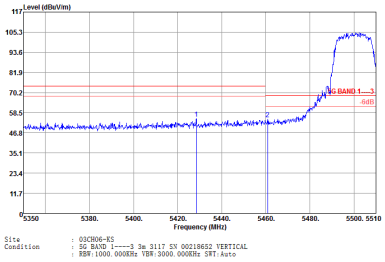
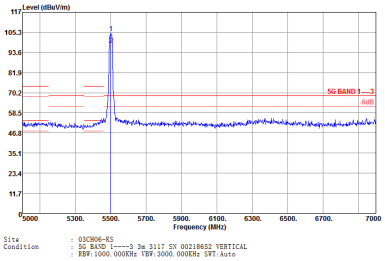
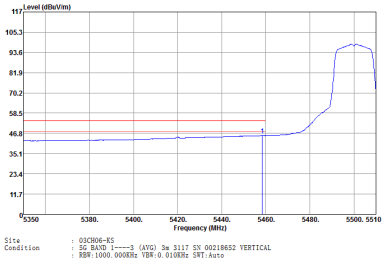
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT40 CH54 5270	
1	Horizontal	Vertical
Peak Avg.		

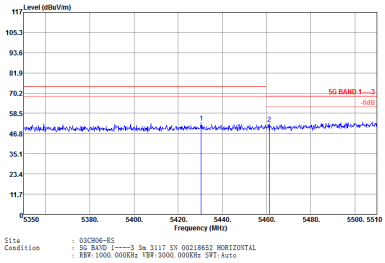
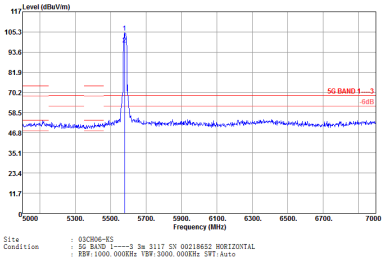
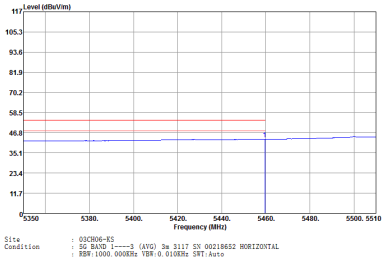
WIFI	Band 2 5250~5350MHz Harmonic @ 3m	
ANT	802.11n HT40 CH62 5310	
1	Horizontal	Vertical
Peak Avg.		

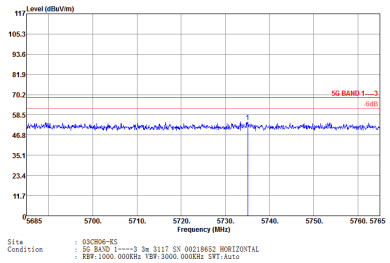
Band 3 - 5470~5725MHz

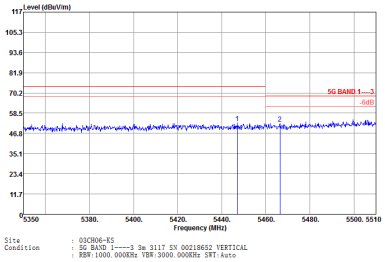
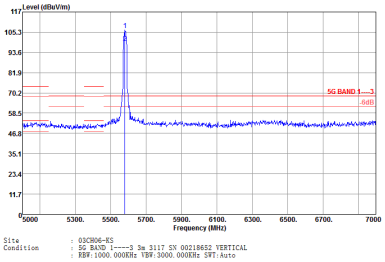
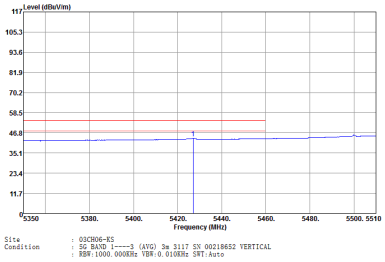
WIFI 802.11a (Band Edge @ 3m)

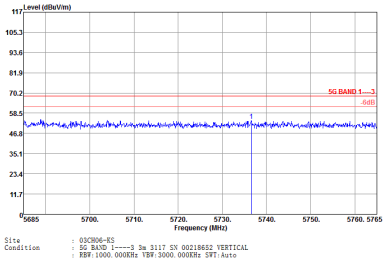
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1	Horizontal	Fundamental
Peak/ Avg.		
Avg.		

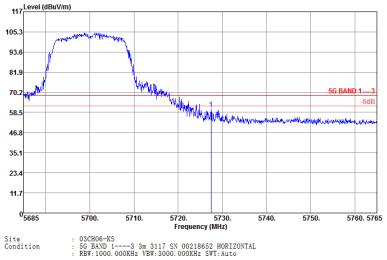
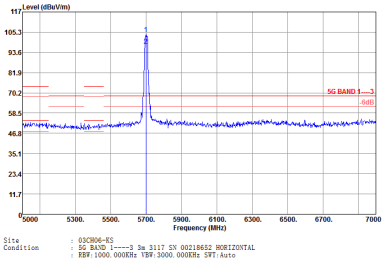
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH100 5500MHz	
1	Vertical	Fundamental
Peak/ Avg.		
Avg.		

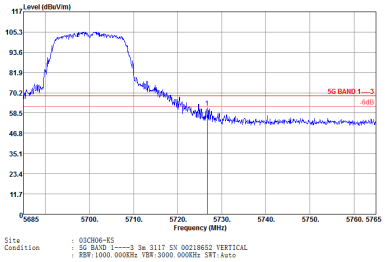
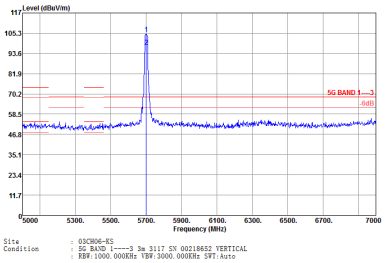
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
1	Horizontal	Fundamental
Peak/ Avg.		
Avg.		-

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

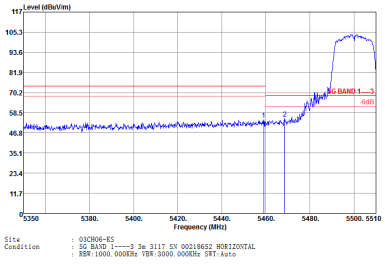
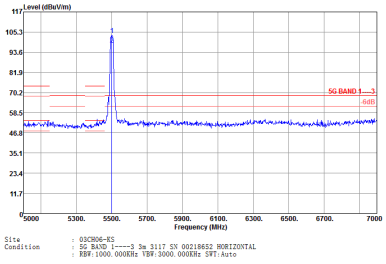
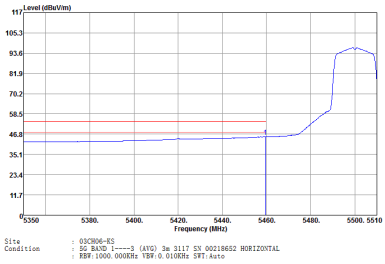
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - L	
1	Vertical	Fundamental
Peak/ Avg.		
Avg.		-

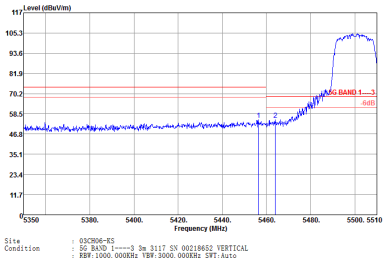
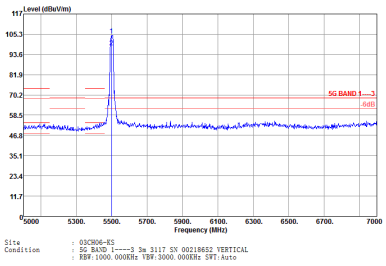
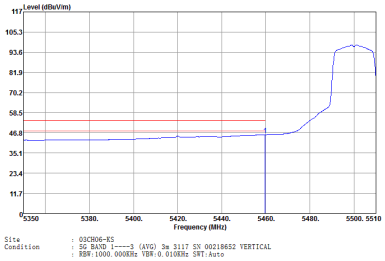
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH116 5580MHz - R	
1	Vertical	Fundamental
Peak		-

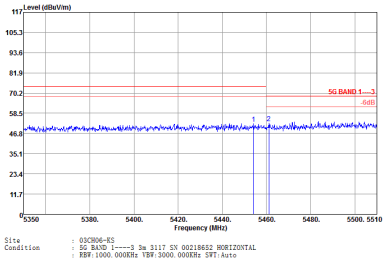
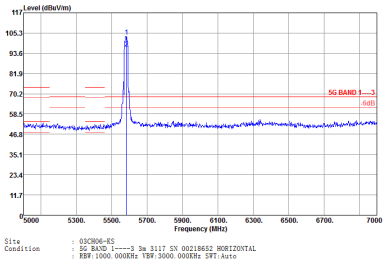
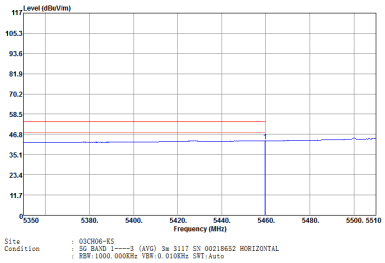
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1	Horizontal	Fundamental
Peak/ Avg.		

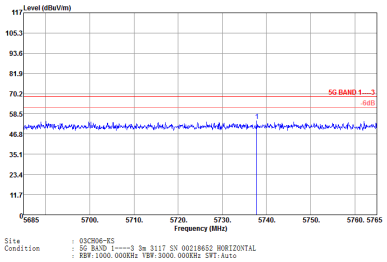
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11a CH140 5700MHz	
1	Vertical	Fundamental
Peak/ Avg.		

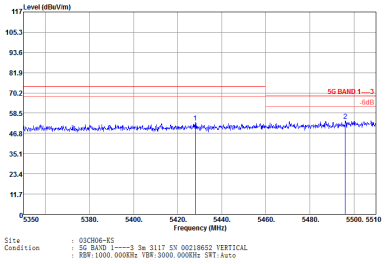
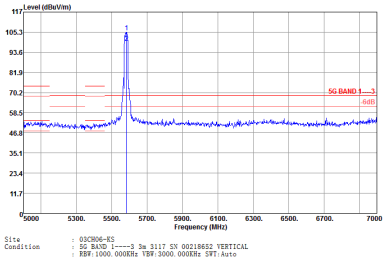
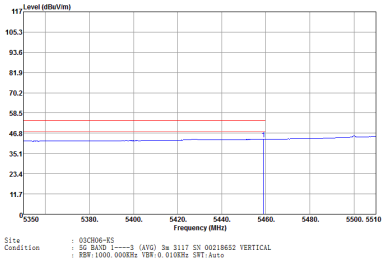
Band 3 5470~5725MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

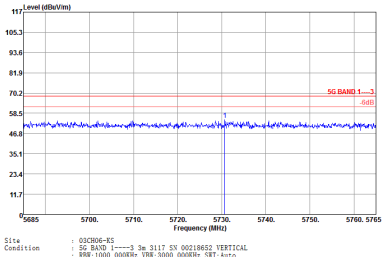
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1	Horizontal	Fundamental
Peak/ Avg.		
Avg.		

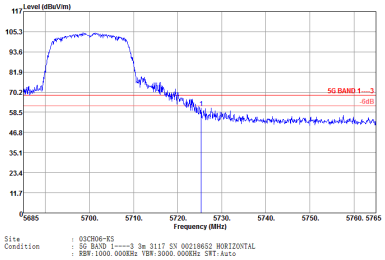
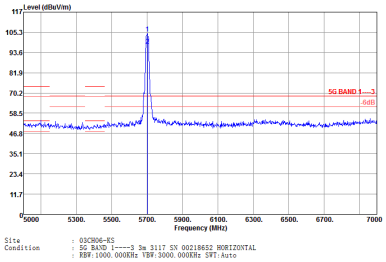
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1	Vertical	Fundamental
Peak/ Avg.		
Avg.		

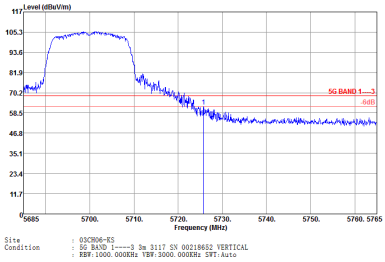
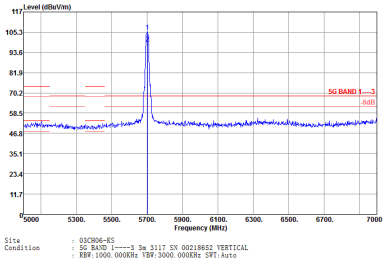
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - L	
1	Horizontal	Fundamental
Peak/ Avg.		
Avg.		-

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

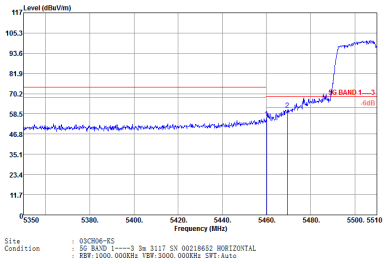
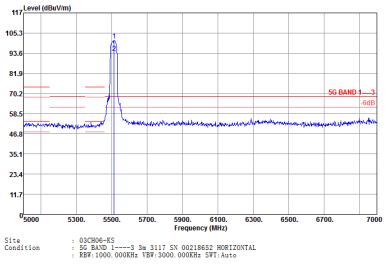
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - L	
1	Vertical	Fundamental
Peak/ Avg		
Avg.		-

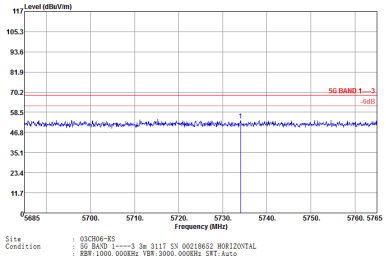
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH116 5580MHz - R	
1	Vertical	Fundamental
Peak		-

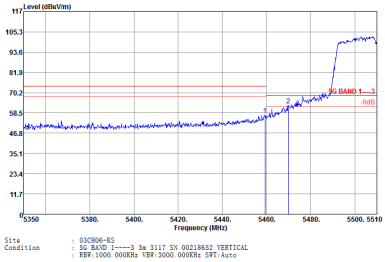
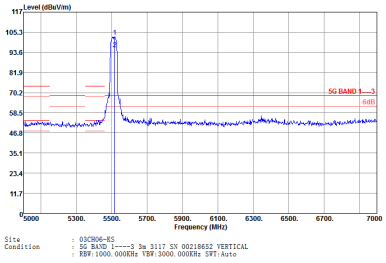
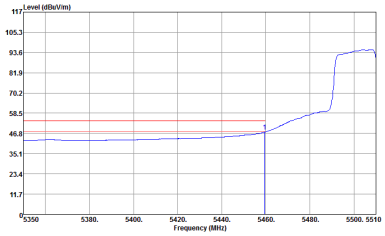
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1	Horizontal	Fundamental
Peak/ Avg.		

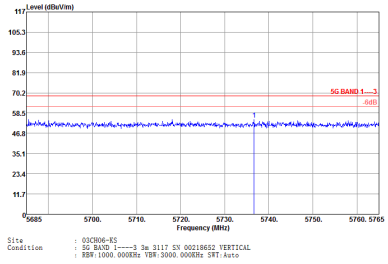
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT20 CH140 5700MHz	
1	Vertical	Fundamental
Peak/ Avg.		

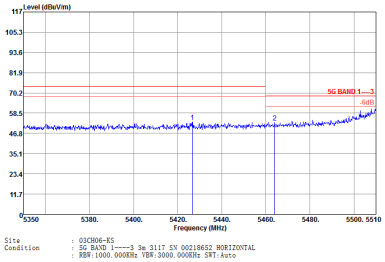
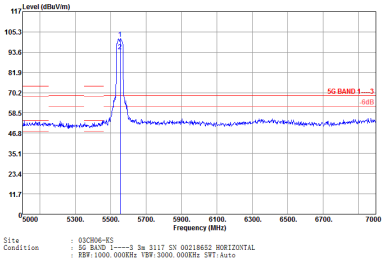
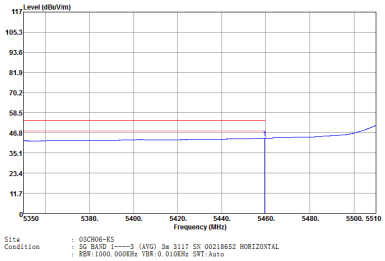
Band 3 5470~5725MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

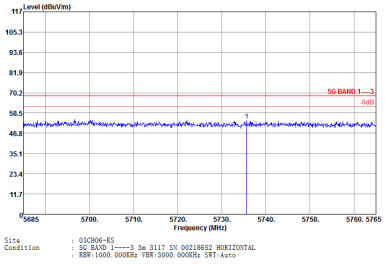
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1	Horizontal	Fundamental
Peak/ Avg.		

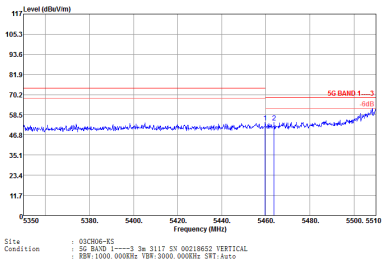
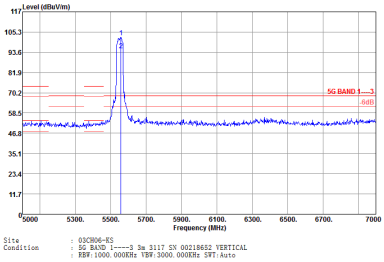
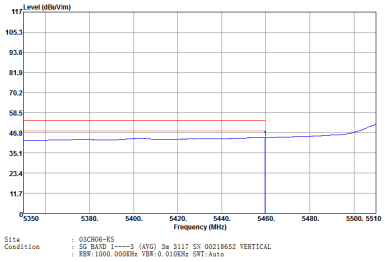
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1	Horizontal	Fundamental
Peak		-

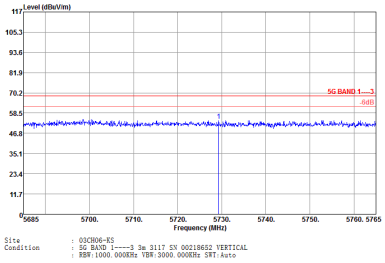
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - L	
1	Vertical	Fundamental
Peak/ Avg.		
Avg.		-

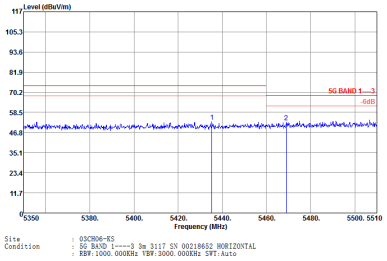
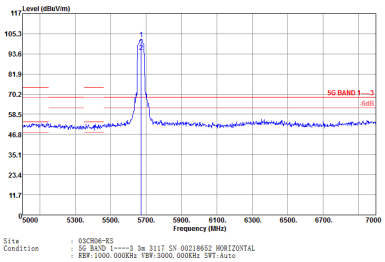
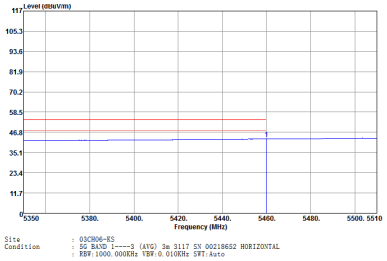
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH102 5510MHz - R	
1	Vertical	Fundamental
Peak		-

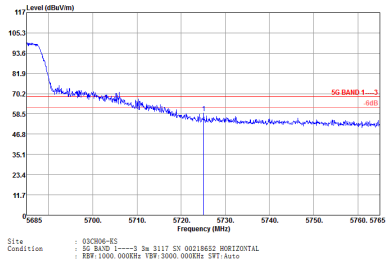
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1	Horizontal	Fundamental
Peak/ Avg.		
Avg.		-

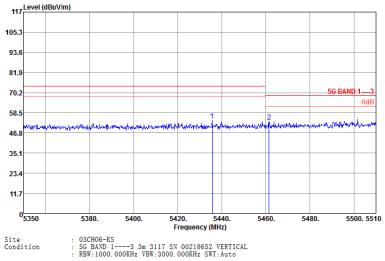
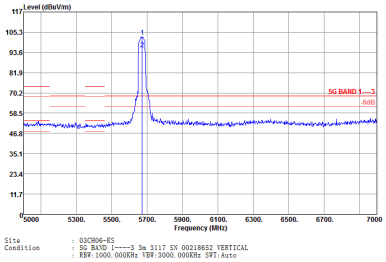
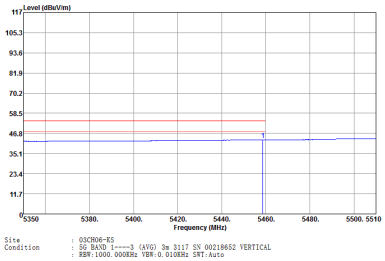
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - R	
1	Horizontal	Fundamental
Peak		-

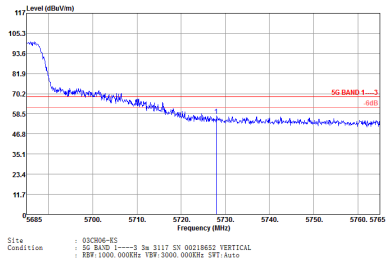
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH110 5550MHz - L	
1	Vertical	Fundamental
Peak/ Avg.		
Avg.		-

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

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

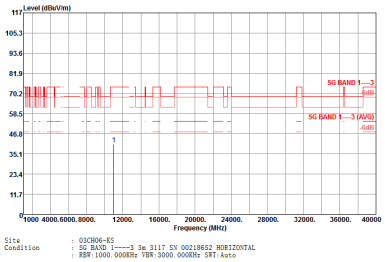
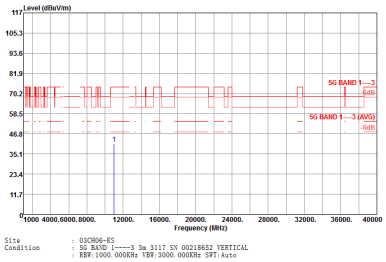
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1	Horizontal	Fundamental
Peak		-

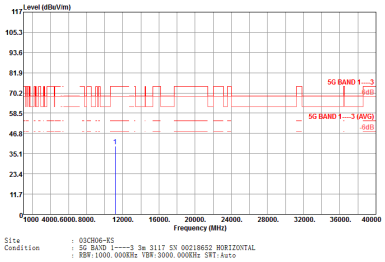
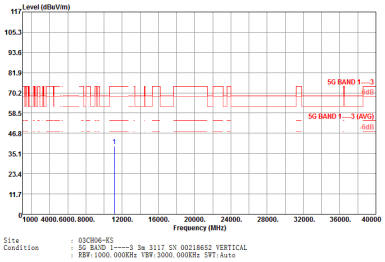
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - L	
1	Vertical	Fundamental
Peak/ Avg.		
Avg.		-

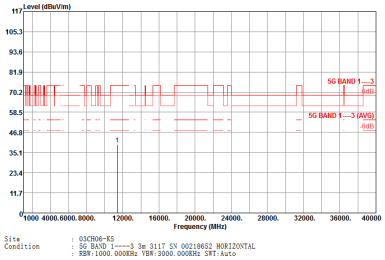
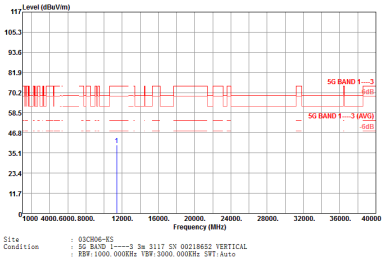
WIFI	Band 3 5470~5725MHz Band Edge @ 3m	
ANT	802.11n HT40 CH134 5670MHz - R	
1	Vertical	Fundamental
Peak		-

Band 3 - 5470~5725MHz

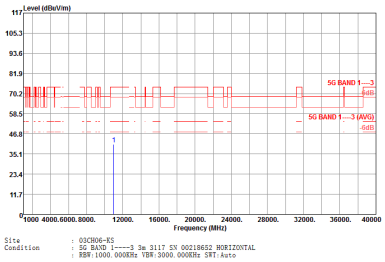
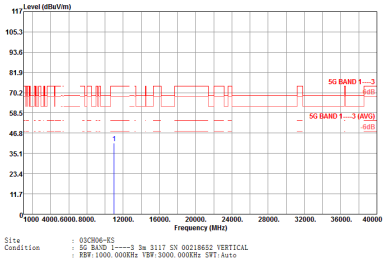
WIFI 802.11a (Harmonic @ 3m)

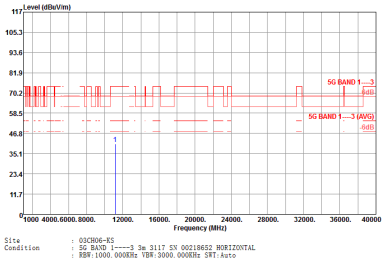
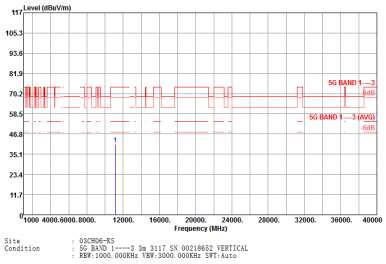
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH100 5500MHz	
1	Horizontal	Vertical
Peak Avg.		

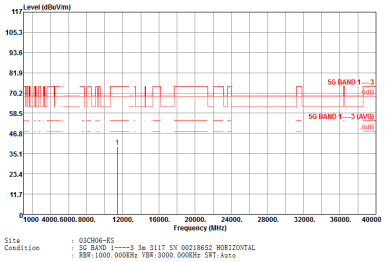
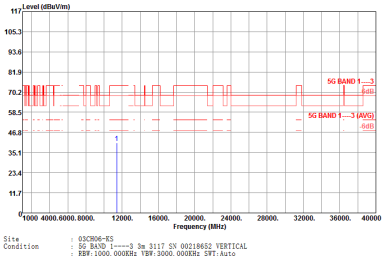
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11a CH116 5580MHz	
1	Horizontal	Vertical
Peak Avg.		

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

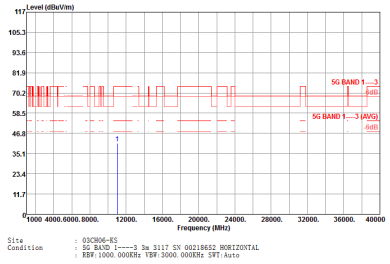
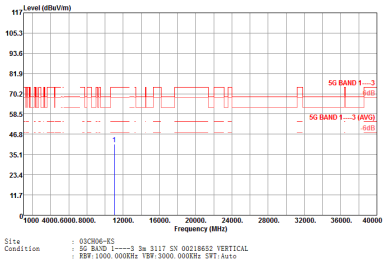
Band 3 5470~5725MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

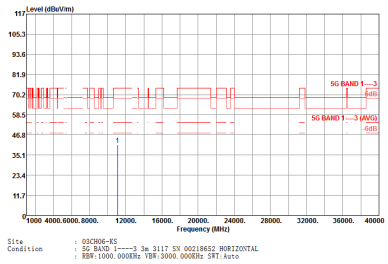
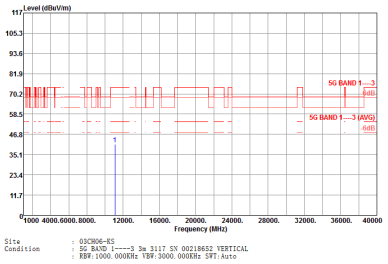
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH100 5500MHz	
1	Horizontal	Vertical
Peak Avg.		

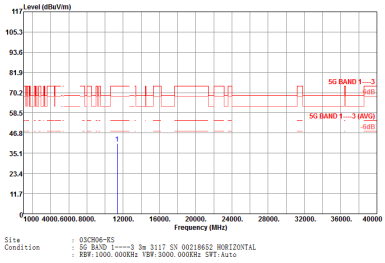
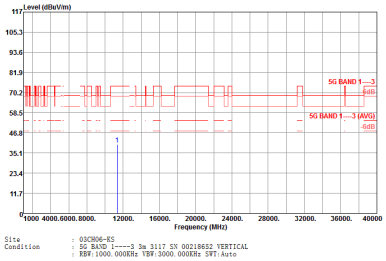
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT20 CH116 5580MHz	
1	Horizontal	Vertical
Peak Avg.		

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

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

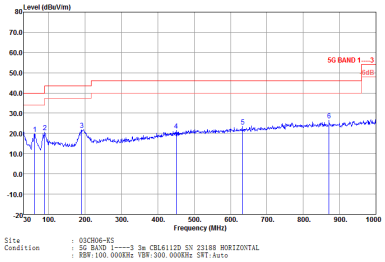
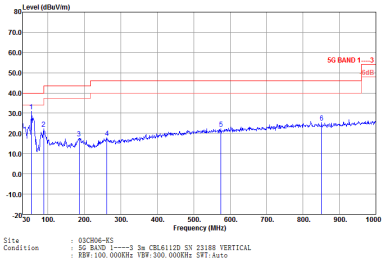
WIFI	Band 3 5470~5725MHz Harmonic @ 3m	
ANT	802.11n HT40 CH102 5510MHz	
1	Horizontal	Vertical
Peak Avg.		

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

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

Emission below 1GHz

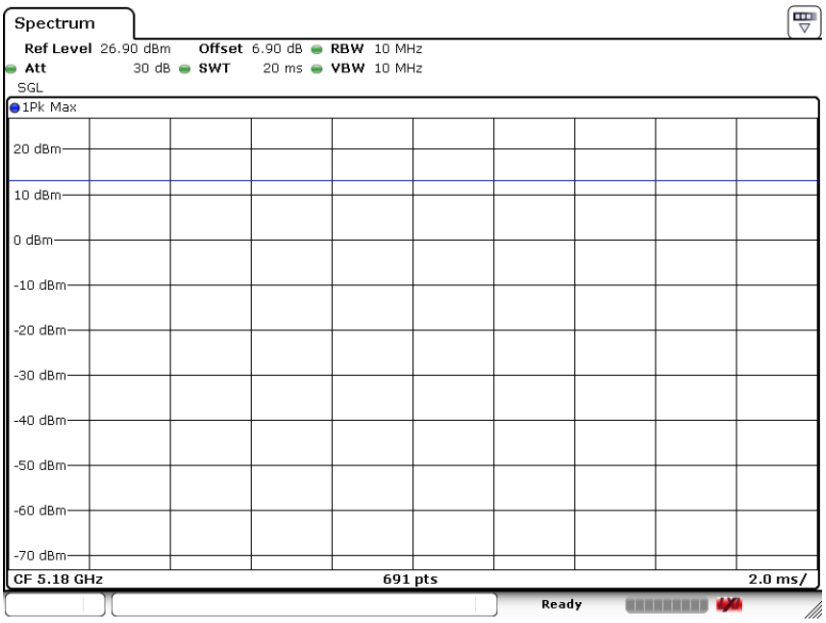
5GHz WIFI 802.11n HT40 (LF)

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

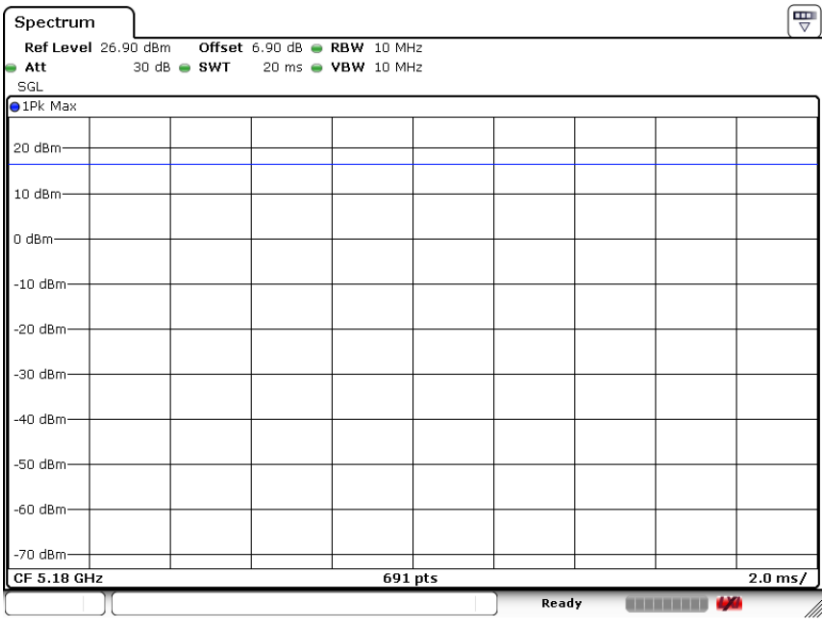
Appendix E. Duty Cycle Plots

Band	Duty Cycle(%)	Duty factor(dB)	T(ms)	1/T(kHz)	VBW Setting
802.11a	100	0	-	-	10Hz
802.11an HT20	100	0	-	-	10Hz
802.11an HT40	100	0	-	-	10Hz

802.11a



802.11an HT20



802.11an HT40