FCC RADIO TEST REPORT

FCC ID	:	**2AP64-2872**
Equipment	:	**Digital Media Receiver**
Model Name	:	**C1125P**
Applicant	:	**Gargantuan LLC** **303 North Glenoaks Blvd., Ste 200** **Burbank, CA 91502**
Standard	:	**FCC Part 15 Subpart E §15.407**

The test was completed on Jul. 13, 2018. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

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

This report contains data that were produced under subcontract by accredited Sporton laboratory located in Taiwan.
Sporton Lab in Taiwan is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No.TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

Eric Shih

TESTING
NVLAP LAB CODE 600156-0

Approved by: Eric Shih / Manager

Sporton International (Shenzhen) Inc.
1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan Shenzhen City Guangdong Province 518055 China

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History of this test report

Report No.	Version	Description	Issued Date
FR840308-01H	01	Initial issue of report	Aug. 15, 2018

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)
3.1	15.407(b)	Unwanted Emissions	Pass
3.2	15.407 (c)	Automatically Discontinue Transmission	Pass
3.3	15.203 15.407(a)	Antenna Requirement	Pass

Reviewed by: Joseph Lin

Report Producer: Maggie Chiang

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Digital Media Receiver
Model Name	C1125P
FCC ID	2AP64-2872
EUT supports Radios application	WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE

1.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz
Antenna Type / Gain	**Ant. 1 :** Fixed Internal Antenna type with gain 3.70 dBi **Ant. 2 :** Fixed Internal Antenna type with gain 3.50 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)

1.3 Modification of EUT

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

1.4 Testing Location

Sporton International (Shenzhen) Inc. is accredited to ISO 17025 by National Voluntary Laboratory Accreditation Program (NVLAP code: 600156-0) and the FCC designation No are CN5018 and CN5019.

Test Site	Sporton International (Shenzhen) Inc.	
Test Site Location	No. 3 Bldg the third floor of south, Shahe River west, Fengzeyuan Warehouse, Nanshan District Shenzhen City Guangdong Province 518055 China TEL: +86-755-3320-2398	
Test Site No.	**Sporton Site No.**	**FCC Test Firm Registration No.**
	03CH04-SZ	577730

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

1.5 Applicable Standards

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

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

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

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

2.1 Carrier Frequency and Channel

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

Note:

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

2.2 Test Mode

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

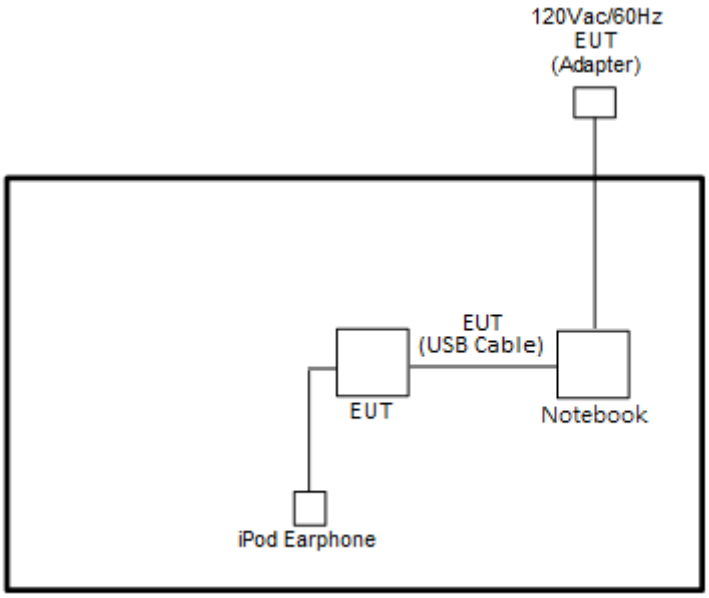
Modulation	Data Rate
802.11a	6 Mbps
802.11n HT20	MCS0
802.11n HT40	MCS0
802.11ac VHT20 (Covered by HT20)	MCS0
802.11ac VHT40 (Covered by HT40)	MCS0
802.11ac VHT80	MCS0

Ch. #		Band I：5150-5250 MHz	Band I：5150-5250 MHz
		802.11a	802.11n HT20
L	Low	36	36
M	Middle	44	44
H	High	48	48

Ch. #		Band I：5150-5250 MHz	Band I：5150-5250 MHz
		802.11n HT40	802.11ac VHT80
L	Low	38	-
M	Middle	-	42
H	High	46	-

2.3 Connection Diagram of Test System

<WLAN Tx Mode with Earphone>



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	iPod Earphone	Apple	N/A	Verification	Unshielded, 1.0 m	N/A
2.	Notebook	DELL	Latitude E3340	FCC DoC/ Contains FCC ID: PD97260NGU	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m

2.5 EUT Operation Test Setup

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

3 Test Result

3.1 Unwanted Emissions Measurement

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

3.1.1 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.

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

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

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

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

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

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

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

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

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

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

3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

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

   Section G) Unwanted emissions measurement.

   (1) Procedure for Unwanted Emissions Measurements Below 1000MHz

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

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

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

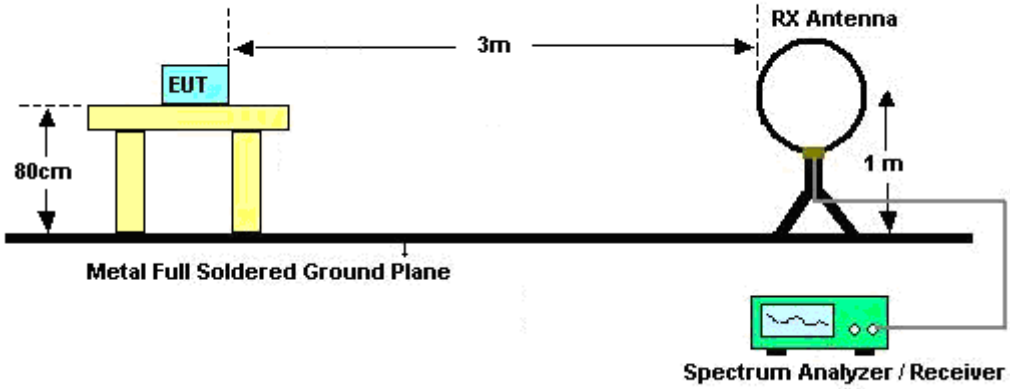
(3) Procedures for Average Unwanted Emissions Measurements Above 1000MHz

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

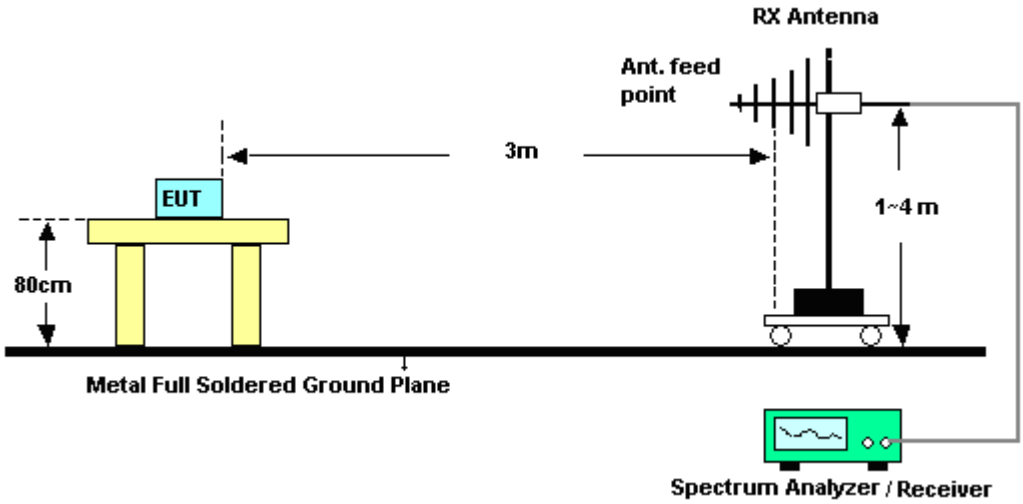
2. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
4. The antenna is a broadband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

3.1.4 Test Setup

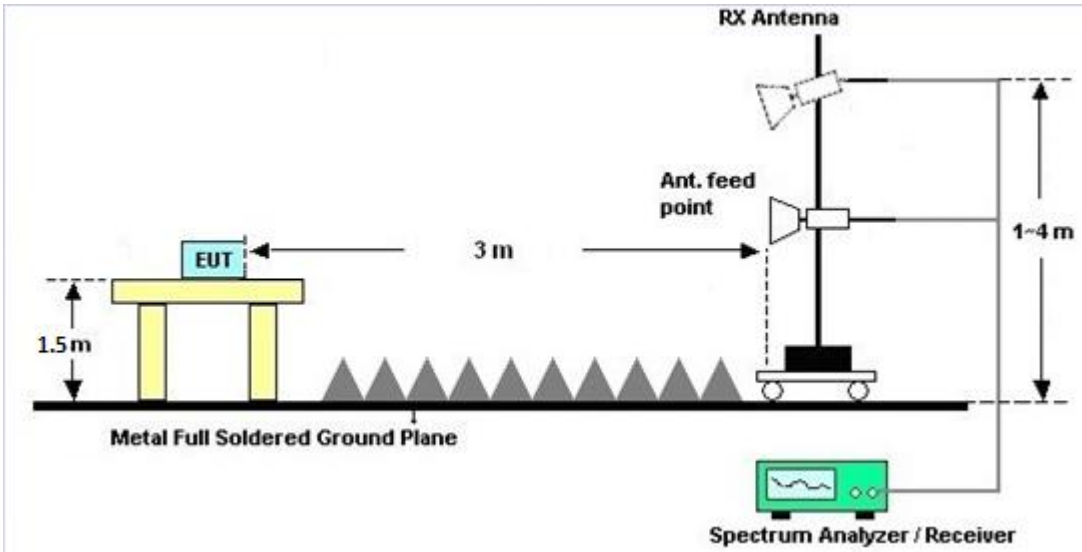
For radiated emissions below 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



3.1.5 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.

3.1.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix A and B.

3.1.7 Duty Cycle

Please refer to Appendix C.

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

Please refer to Appendix A and B.

3.2 Automatically Discontinue Transmission

3.2.1 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.

3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

3.2.3 Test Result of Automatically Discontinue Transmission

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

A. Information start: make EUT supply information to the access point.

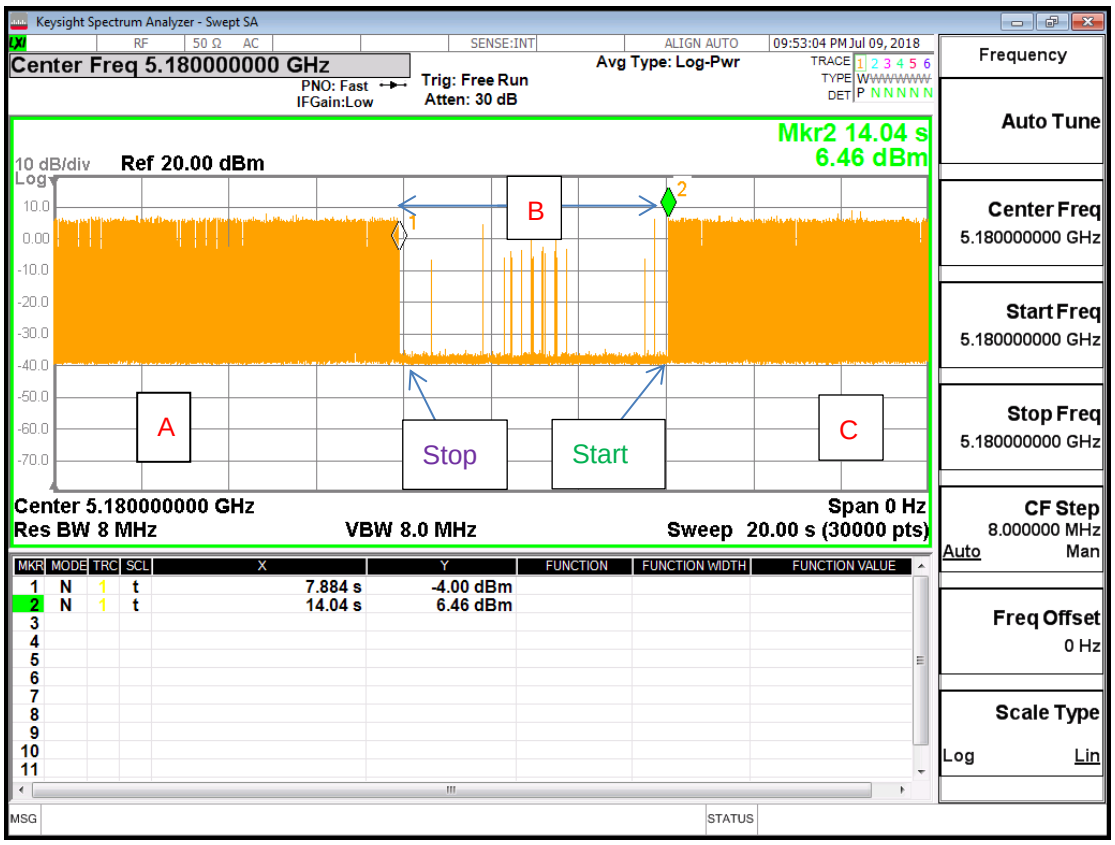
B. Information stop: stop supplying information to the access point.

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

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

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

5180MHz



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

3.3 Antenna Requirements

3.3.1 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.

3.3.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.3.3 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
EMI Test Receiver	R&S	ESR7	101404	9kHz~7GHz	Apr. 19, 2018	Jul. 01, 2018~ Jul. 13, 2018	Apr. 18, 2019	Radiation (03CH04-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Apr. 19, 2018	Jul. 01, 2018~ Jul. 13, 2018	Apr. 18, 2019	Radiation (03CH04-SZ)
Loop Antenna	R&S	HFH2-Z2	100354	9kHz~30MHz	May 14, 2018	Jul. 01, 2018~ Jul. 13, 2018	May 13, 2019	Radiation (03CH04-SZ)
Bilog Antenna	TeseQ	CBL6111D	41909	30MHz~1GHz	Aug. 29, 2017	Jul. 01, 2018~ Jul. 13, 2018	Aug. 28, 2018	Radiation (03CH04-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-1285	1GHz~18GHz	Dec. 13, 2017	Jul. 01, 2018~ Jul. 13, 2018	Dec. 12, 2018	Radiation (03CH04-SZ)
Horn Antenna	SCHWARZBECK	BBHA9170	9170#679	15GHz~40GHz	Apr. 20 2018	Jul. 01, 2018~ Jul. 13, 2018	Apr. 19, 2019	Radiation (03CH04-SZ)
Amplifier	Burgeon	BPA-530	102211	0.01Hz ~3000MHz	Oct.19, 2017	Jul. 01, 2018~ Jul. 13, 2018	Oct. 18, 2018	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	AMF-7D-00101800-30-10P-R	1989346	1GHz~18GHz	Jul. 27, 2017	Jul. 01, 2018~ Jul. 13, 2018	Jul. 26, 2018	Radiation (03CH04-SZ)
HF Amplifier	MITEQ	TTA1840-35-HG	1988315	18GHz~40GHz	Jul. 27, 2017	Jul. 01, 2018~ Jul. 13, 2018	Jul. 26, 2018	Radiation (03CH04-SZ
Amplifier	Agilent Technologies	83017A	MY53270156	500MHz~ 26.5GHz	Apr. 19, 2018	Jul. 01, 2018~ Jul. 13, 2018	Apr. 18, 2019	Radiation (03CH04-SZ)
AC Power Source	Chroma	61601	N/A	N/A	NCR	Jul. 01, 2018~ Jul. 13, 2018	NCR	Radiation (03CH04-SZ)
Turn Table	EM	EM1000	N/A	0~360 degree	NCR	Jul. 01, 2018~ Jul. 13, 2018	NCR	Radiation (03CH04-SZ)
Antenna Mast	EM	EM1000	N/A	1 m~4 m	NCR	Jul. 01, 2018~ Jul. 13, 2018	NCR	Radiation (03CH04-SZ)

5 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.80

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.10

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	3.90

Appendix A. Radiated Spurious Emission

Test Engineer :	Fuquan Wu	Temperature :	22~25℃
		Relative Humidity :	48~52%

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant.	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		5150	61.03	-12.97	74	51.35	32.24	6.04	28.6	104	236	P	H
		5150	51.3	-2.7	54	41.62	32.24	6.04	28.6	104	236	A	H
	*	5180	107.87	-	-	98.18	32.25	6.04	28.6	104	236	P	H
	*	5180	100.14	-	-	90.45	32.25	6.04	28.6	104	236	A	H
		5146.38	58.65	-15.35	74	48.97	32.24	6.04	28.6	349	138	P	V
		5150	50.9	-3.1	54	41.22	32.24	6.04	28.6	349	138	A	V
	*	5180	105.47	-	-	95.78	32.25	6.04	28.6	349	138	P	V
	*	5180	99.05	-	-	89.36	32.25	6.04	28.6	349	138	A	V
802.11a CH 44 5220MHz		5083.72	51.13	-22.87	74	41.46	32.22	6.05	28.6	103	236	P	H
		5150	41.79	-12.21	54	32.11	32.24	6.04	28.6	103	236	A	H
	*	5220	108.09	-	-	98.4	32.26	6.03	28.6	103	236	P	H
	*	5220	100.58	-	-	90.89	32.26	6.03	28.6	103	236	A	H
		5405.28	50.09	-23.91	74	40.36	32.32	6.01	28.6	103	236	P	H
		5447.76	40.77	-13.23	54	30.97	32.34	6.06	28.6	103	236	A	H
		5029.64	52.37	-21.63	74	42.7	32.21	6.06	28.6	349	138	P	V
		5000.78	41.68	-12.32	54	32.06	32.16	6.06	28.6	349	138	A	V
	*	5220	105.45	-	-	95.76	32.26	6.03	28.6	349	138	P	V
	*	5220	99.38	-	-	89.69	32.26	6.03	28.6	349	138	A	V
		5425.44	50.17	-23.83	74	40.43	32.33	6.01	28.6	349	138	P	V
		5453.76	40.63	-13.37	54	30.83	32.34	6.06	28.6	349	138	A	V

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 48 5240MHz		5012.74	51.39	-22.61	74	41.73	32.2	6.06	28.6	103	236	P	H
		5127.92	41.75	-12.25	54	32.07	32.24	6.04	28.6	103	236	A	H
	*	5240	108	-	-	98.3	32.27	6.03	28.6	103	236	P	H
	*	5240	100.49	-	-	90.79	32.27	6.03	28.6	103	236	A	H
		5443.44	49.56	-24.44	74	39.76	32.34	6.06	28.6	103	236	P	H
		5451.6	40.81	-13.19	54	31.01	32.34	6.06	28.6	103	236	A	H
		5019.24	51.55	-22.45	74	41.89	32.2	6.06	28.6	341	138	P	V
		5003.64	41.7	-12.3	54	32.04	32.2	6.06	28.6	341	138	A	V
	*	5240	106.78	-	-	97.08	32.27	6.03	28.6	341	138	P	V
	*	5240	99.84	-	-	90.14	32.27	6.03	28.6	341	138	A	V
		5441.52	51.01	-22.99	74	41.21	32.34	6.06	28.6	341	138	P	V
		5442.96	40.73	-13.27	54	30.93	32.34	6.06	28.6	341	138	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.	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		10360	42.52	-31.48	74	50.89	38.25	9.23	55.85	152	260	P	H
		15540	49.89	-24.11	74	55.75	38.94	11.93	56.73	189	238	P	H
		10360	41.14	-32.86	74	49.51	38.25	9.23	55.85	121	225	P	V
		15540	49.63	-24.37	74	55.49	38.94	11.93	56.73	185	210	P	V
802.11a CH 44 5220MHz		10440	41.92	-32.08	74	50.24	38.31	9.25	55.88	110	230	P	H
		15660	49.31	-24.69	74	55.19	38.54	12.07	56.49	160	228	P	H
		10440	42.29	-31.71	74	50.61	38.31	9.25	55.88	150	230	P	V
		15660	48.99	-25.01	74	54.87	38.54	12.07	56.49	160	225	P	V
802.11a CH 48 5240MHz		10480	41.75	-32.25	74	50.03	38.36	9.26	55.9	150	178	P	H
		15720	48.21	-25.79	74	54.14	38.31	12.11	56.35	200	89	P	H
		10480	42.05	-31.95	74	50.33	38.36	9.26	55.9	150	120	P	V
		15720	49.53	-24.47	74	55.46	38.31	12.11	56.35	200	174	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.	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)
802.11n HT20 CH 36 5180MHz		5149.24	62.32	-11.68	74	52.64	32.24	6.04	28.6	103	235	P	H
		5150	53.1	-0.9	54	43.42	32.24	6.04	28.6	103	235	A	H
	*	5180	107.02	-	-	97.33	32.25	6.04	28.6	103	235	P	H
	*	5180	100.14	-	-	90.45	32.25	6.04	28.6	103	235	A	H
		5147.16	61.78	-12.22	74	52.1	32.24	6.04	28.6	341	139	P	V
		5150	51.85	-2.15	54	42.17	32.24	6.04	28.6	341	139	A	V
	*	5180	105.1	-	-	95.41	32.25	6.04	28.6	341	139	P	V
	*	5180	98.7	-	-	89.01	32.25	6.04	28.6	341	139	A	V
802.11n HT20 CH 44 5220MHz		5145.86	52.66	-21.34	74	42.98	32.24	6.04	28.6	103	235	P	H
		5149.76	42	-12	54	32.32	32.24	6.04	28.6	103	235	A	H
	*	5220	107.25	-	-	97.56	32.26	6.03	28.6	103	235	P	H
	*	5220	100.18	-	-	90.49	32.26	6.03	28.6	103	235	A	H
		5418.24	50.03	-23.97	74	40.29	32.33	6.01	28.6	103	235	P	H
		5453.28	40.75	-13.25	54	30.95	32.34	6.06	28.6	103	235	A	H
		5121.16	51.9	-22.1	74	42.23	32.23	6.04	28.6	341	139	P	V
		5001.56	41.72	-12.28	54	32.1	32.16	6.06	28.6	341	139	A	V
	*	5220	105.52	-	-	95.83	32.26	6.03	28.6	341	139	P	V
	*	5220	98.92	-	-	89.23	32.26	6.03	28.6	341	139	A	V
		5394.48	49.58	-24.42	74	39.85	32.32	6.01	28.6	341	139	P	V
		5446.08	40.7	-13.3	54	30.9	32.34	6.06	28.6	341	139	A	V

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)
802.11n HT20 CH 48 5240MHz		5093.34	51.03	-22.97	74	41.35	32.23	6.05	28.6	101	236	P	H
		5128.44	41.83	-12.17	54	32.15	32.24	6.04	28.6	101	236	A	H
	*	5240	107.29	-	-	97.59	32.27	6.03	28.6	101	236	P	H
	*	5240	100.23	-	-	90.53	32.27	6.03	28.6	101	236	A	H
		5459.04	50.49	-23.51	74	40.69	32.34	6.06	28.6	101	236	P	H
		5445.12	40.81	-13.19	54	31.01	32.34	6.06	28.6	101	236	A	H
		5071.76	51.71	-22.29	74	42.04	32.22	6.05	28.6	341	139	P	V
		5003.12	41.68	-12.32	54	32.06	32.16	6.06	28.6	341	139	A	V
	*	5240	106.85	-	-	97.14	32.28	6.03	28.6	341	139	P	V
	*	5240	99.66	-	-	89.95	32.28	6.03	28.6	341	139	A	V
		5373.84	49.98	-24.02	74	40.26	32.31	6.01	28.6	341	139	P	V
		5442.72	40.7	-13.3	54	30.9	32.34	6.06	28.6	341	139	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.	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)
802.11n		10360	43.19	-30.81	74	51.56	38.25	9.23	55.85	178	225	P	H
HT20		15540	50.47	-23.53	74	56.33	38.94	11.93	56.73	185	210	P	H
CH 36		10360	41.65	-32.35	74	50.02	38.25	9.23	55.85	152	260	P	V
5180MHz		15540	48.69	-25.31	74	54.55	38.94	11.93	56.73	189	97	P	V
802.11n		10440	41.13	-32.87	74	49.45	38.31	9.25	55.88	147	230	P	H
HT20		15660	48.85	-25.15	74	54.73	38.54	12.07	56.49	160	225	P	H
CH 44		10440	41.18	-32.82	74	49.5	38.31	9.25	55.88	110	230	P	V
5220MHz		15660	49.88	-24.12	74	55.76	38.54	12.07	56.49	160	84	P	V
802.11n		10480	42.28	-31.72	74	50.56	38.36	9.26	55.9	189	12	P	H
HT20		15720	49.33	-24.67	74	55.26	38.31	12.11	56.35	198	226	P	H
CH 48		10480	41.21	-32.79	74	49.49	38.36	9.26	55.9	150	120	P	V
5240MHz		15720	48.75	-25.25	74	54.68	38.31	12.11	56.35	200	89	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.	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)
802.11n HT40 CH 38 5190MHz		5147.42	62.22	-11.78	74	52.54	32.24	6.04	28.6	100	240	P	H
		5150	53.28	-0.72	54	43.6	32.24	6.04	28.6	100	240	A	H
	*	5190	99.78	-	-	90.09	32.25	6.04	28.6	100	240	P	H
	*	5190	92.86	-	-	83.17	32.25	6.04	28.6	100	240	A	H
		5414.64	49.39	-24.61	74	39.65	32.33	6.01	28.6	100	240	P	H
		5451.88	40.85	-13.15	54	31.05	32.34	6.06	28.6	100	240	A	H
		5146.64	62.73	-11.27	74	53.05	32.24	6.04	28.6	349	134	P	V
		5150	51.87	-2.13	54	42.19	32.24	6.04	28.6	349	134	A	V
	*	5190	99.92	-	-	90.23	32.25	6.04	28.6	349	134	P	V
	*	5190	92.43	-	-	82.74	32.25	6.04	28.6	349	134	A	V
		5439.56	50.12	-23.88	74	40.32	32.34	6.06	28.6	349	134	P	V
		5445.44	40.85	-13.15	54	31.05	32.34	6.06	28.6	349	134	A	V
802.11n HT40 CH 46 5230MHz		5147.68	54.64	-19.36	74	44.96	32.24	6.04	28.6	100	241	P	H
		5150	46.83	-7.17	54	37.15	32.24	6.04	28.6	100	241	A	H
	*	5230	103.01	-	-	93.31	32.27	6.03	28.6	100	241	P	H
	*	5230	96.59	-	-	86.89	32.27	6.03	28.6	100	241	A	H
		5401.48	50.97	-23.03	74	41.24	32.32	6.01	28.6	100	241	P	H
		5459.44	40.82	-13.18	54	31.02	32.34	6.06	28.6	100	241	A	H
		5144.3	52.51	-21.49	74	42.83	32.24	6.04	28.6	344	135	P	V
		5150	45.72	-8.28	54	36.04	32.24	6.04	28.6	344	135	A	V
	*	5230	103.56	-	-	93.86	32.27	6.03	28.6	344	135	P	V
	*	5230	96.46	-	-	86.76	32.27	6.03	28.6	344	135	A	V
		5424.72	49.84	-24.16	74	40.1	32.33	6.01	28.6	344	135	P	V
		5453.84	40.79	-13.21	54	30.99	32.34	6.06	28.6	344	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 HT40 (Harmonic @ 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)
802.11n HT40 CH 38 5190MHz		10380	46.77	-27.23	74	55.13	38.26	9.24	55.86	120	360	P	H
		15570	49.62	-24.38	74	55.48	38.82	11.98	56.66	155	32	P	H
		10380	47.44	-26.56	74	55.8	38.26	9.24	55.86	150	360	P	V
		15570	48.81	-25.19	74	54.67	38.82	11.98	56.66	155	360	P	V
802.11n HT40 CH 46 5230MHz		10460	47.67	-26.33	74	55.97	38.32	9.26	55.88	151	360	P	H
		15690	48.95	-25.05	74	54.84	38.42	12.11	56.42	159	241	P	H
		10460	47.34	-26.66	74	55.64	38.32	9.26	55.88	151	360	P	V
		15690	48.78	-25.22	74	54.67	38.42	12.11	56.42	159	241	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (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)
802.11ac VHT80 CH 42 5210MHz		5145.86	65.35	-8.65	74	55.67	32.24	6.04	28.6	100	241	P	H
		5150	52.71	-1.29	54	43.03	32.24	6.04	28.6	100	241	A	H
	*	5210	95.13	-	-	85.44	32.26	6.03	28.6	100	241	P	H
	*	5210	88.94	-	-	79.25	32.26	6.03	28.6	100	241	A	H
		5367.36	50.78	-23.22	74	41.06	32.31	6.01	28.6	100	241	P	H
		5444.16	40.85	-13.15	54	31.05	32.34	6.06	28.6	100	241	A	H
		5145.34	65.7	-8.3	74	56.02	32.24	6.04	28.6	324	133	P	V
		5150	52.05	-1.95	54	42.37	32.24	6.04	28.6	324	133	A	V
	*	5210	95.08	-	-	85.39	32.26	6.03	28.6	324	133	P	V
	*	5210	88.55	-	-	78.86	32.26	6.03	28.6	324	133	A	V
		5456.16	50.39	-23.61	74	40.59	32.34	6.06	28.6	324	133	P	V
		5459.76	40.79	-13.21	54	30.99	32.34	6.06	28.6	324	133	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant.	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)
802.11ac		10420	46.84	-27.16	74	55.17	38.29	9.25	55.87	150	360	P	H
VHT80		15630	49.29	-24.71	74	55.2	38.59	12.02	56.52	155	360	P	H
CH 42		10420	46.94	-27.06	74	55.27	38.29	9.25	55.87	150	360	P	V
5210MHz		15630	49	-25	74	54.91	38.59	12.02	56.52	155	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 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)
802.11n HT40 LF		30	24.92	-15.08	40	31.74	24.9	0.25	31.97	-	-	P	H
		199.75	24.59	-18.91	43.5	39.01	15.3	1.61	31.33	-	-	P	H
		233.7	27.65	-18.35	46	40.4	16.84	1.68	31.27	-	-	P	H
		299.66	30.3	-15.7	46	40.27	19.4	1.85	31.22	-	-	P	H
		374.35	32.78	-13.22	46	40.58	21.27	2.13	31.2	-	-	P	H
		796.3	34.92	-11.08	46	34.5	28.43	3.15	31.16	100	48	P	H
		41.64	31.06	-8.94	40	43.43	19.16	0.44	31.97	100	74	P	V
		85.29	28.21	-11.79	40	44.79	14.3	0.93	31.81	-	-	P	V
		136.7	29.01	-14.49	43.5	41.79	17.59	1.22	31.59	-	-	P	V
		299.66	31.83	-14.17	46	41.8	19.4	1.85	31.22	-	-	P	V
		497.54	33.32	-12.68	46	38.19	23.94	2.42	31.23	-	-	P	V
		796.3	33.09	-12.91	46	32.67	28.43	3.15	31.16	-	-	P	V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												

Band 1 - 5150~5250MHz

WIFI 802.11a (Band Edge @ 3m)

WIFI Ant. 2	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		5148.46	62.04	-11.96	74	52.36	32.24	6.04	28.6	104	171	P	H
		5150	52.93	-1.07	54	43.25	32.24	6.04	28.6	104	171	A	H
	*	5180	107.98	-	-	98.29	32.25	6.04	28.6	104	171	P	H
	*	5180	101.58	-	-	91.89	32.25	6.04	28.6	104	171	A	H
		5144.3	59.76	-14.24	74	50.08	32.24	6.04	28.6	316	203	P	V
		5150	51.06	-2.94	54	41.38	32.24	6.04	28.6	316	203	A	V
	*	5180	106.97	-	-	97.28	32.25	6.04	28.6	316	203	P	V
	*	5180	100.03	-	-	90.34	32.25	6.04	28.6	316	203	A	V
802.11a CH 44 5220MHz		5068.9	51.35	-22.65	74	41.68	32.22	6.05	28.6	105	171	P	H
		5150	42.1	-11.9	54	32.42	32.24	6.04	28.6	105	171	A	H
	*	5220	108.45	-	-	98.76	32.26	6.03	28.6	105	171	P	H
	*	5220	101.63	-	-	91.94	32.26	6.03	28.6	105	171	A	H
		5438.44	50.35	-23.65	74	40.55	32.34	6.06	28.6	105	171	P	H
		5449.64	40.79	-13.21	54	30.99	32.34	6.06	28.6	105	171	A	H
		5012.22	52.03	-21.97	74	42.37	32.2	6.06	28.6	313	221	P	V
		5002.86	41.81	-12.19	54	32.19	32.16	6.06	28.6	313	221	A	V
	*	5220	106.21	-	-	96.52	32.26	6.03	28.6	313	221	P	V
	*	5220	99.66	-	-	89.97	32.26	6.03	28.6	313	221	A	V
		5398.96	48.99	-25.01	74	39.26	32.32	6.01	28.6	313	221	P	V
		5460	40.8	-13.2	54	31	32.34	6.06	28.6	313	221	A	V

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 48 5240MHz		5131.56	51.3	-22.7	74	41.62	32.24	6.04	28.6	105	172	P	H
		5002.34	41.94	-12.06	54	32.32	32.16	6.06	28.6	105	172	A	H
	*	5240	108.42	-	-	98.72	32.27	6.03	28.6	105	172	P	H
	*	5240	101.94	-	-	92.24	32.27	6.03	28.6	105	172	A	H
		5364.8	50.57	-23.43	74	40.85	32.31	6.01	28.6	105	172	P	H
		5451.6	40.85	-13.15	54	31.05	32.34	6.06	28.6	105	172	A	H
		5044.72	51.25	-22.75	74	41.59	32.21	6.05	28.6	293	207	P	V
		5001.3	41.82	-12.18	54	32.2	32.16	6.06	28.6	293	207	A	V
	*	5240	106.93	-	-	97.23	32.27	6.03	28.6	293	207	P	V
	*	5240	100.72	-	-	91.02	32.27	6.03	28.6	293	207	A	V
		5424.44	49.33	-24.67	74	39.59	32.33	6.01	28.6	293	207	P	V
		5454.96	40.82	-13.18	54	31.02	32.34	6.06	28.6	293	207	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.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11a CH 36 5180MHz		10360	48.66	-25.34	74	57.03	38.25	9.23	55.85	121	225	P	H
		15540	49.83	-24.17	74	55.69	38.94	11.93	56.73	185	210	P	H
		10360	47.92	-26.08	74	56.29	38.25	9.23	55.85	152	260	P	V
		15540	49.05	-24.95	74	54.91	38.94	11.93	56.73	189	238	P	V
802.11a CH 44 5220MHz		10440	49.37	-24.63	74	57.69	38.31	9.25	55.88	150	230	P	H
		15660	49.57	-24.43	74	55.45	38.54	12.07	56.49	160	225	P	H
		10440	48.2	-25.8	74	56.52	38.31	9.25	55.88	150	230	P	V
		15660	49.79	-24.21	74	55.67	38.54	12.07	56.49	160	225	P	V
802.11a CH 48 5240MHz		10480	48.48	-25.52	74	56.76	38.36	9.26	55.9	150	120	P	H
		15720	49.8	-24.2	74	55.73	38.31	12.11	56.35	200	89	P	H
		10480	48.33	-25.67	74	56.61	38.36	9.26	55.9	189	12	P	V
		15720	49.96	-24.04	74	55.89	38.31	12.11	56.35	198	226	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.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT20 CH 36 5180MHz		5147.68	60.51	-13.49	74	50.83	32.24	6.04	28.6	103	171	P	H
		5150	52.92	-1.08	54	43.24	32.24	6.04	28.6	103	171	A	H
	*	5180	107.42	-	-	97.73	32.25	6.04	28.6	103	171	P	H
	*	5180	100.83	-	-	91.14	32.25	6.04	28.6	103	171	A	H
		5147.42	59.81	-14.19	74	50.13	32.24	6.04	28.6	312	231	P	V
		5150	52.72	-1.28	54	43.04	32.24	6.04	28.6	312	231	A	V
	*	5180	106.75	-	-	97.06	32.25	6.04	28.6	312	231	P	V
	*	5180	99.69	-	-	90	32.25	6.04	28.6	312	231	A	V
802.11n HT20 CH 44 5220MHz		5017.42	52.5	-21.5	74	42.84	32.2	6.06	28.6	103	172	P	H
		5150	42.13	-11.87	54	32.45	32.24	6.04	28.6	103	172	A	H
	*	5220	108.07	-	-	98.38	32.26	6.03	28.6	103	172	P	H
	*	5220	100.92	-	-	91.23	32.26	6.03	28.6	103	172	A	H
		5417.76	50.51	-23.49	74	40.77	32.33	6.01	28.6	103	172	P	H
		5448.48	40.85	-13.15	54	31.05	32.34	6.06	28.6	103	172	A	H
		5001.56	52.12	-21.88	74	42.5	32.16	6.06	28.6	312	231	P	V
		5069.42	41.91	-12.09	54	32.24	32.22	6.05	28.6	312	231	A	V
	*	5220	107.19	-	-	97.5	32.26	6.03	28.6	312	231	P	V
	*	5220	100.1	-	-	90.41	32.26	6.03	28.6	312	231	A	V
		5456.16	50.56	-23.44	74	40.76	32.34	6.06	28.6	312	231	P	V
		5454.48	40.87	-13.13	54	31.07	32.34	6.06	28.6	312	231	A	V

WIFI Ant. 2	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 48 5240MHz		5126.88	50.96	-23.04	74	41.28	32.24	6.04	28.6	103	172	P	H
		5128.44	41.95	-12.05	54	32.27	32.24	6.04	28.6	103	172	A	H
	*	5240	108.45	-	-	98.75	32.27	6.03	28.6	103	172	P	H
	*	5240	101.15	-	-	91.45	32.27	6.03	28.6	103	172	A	H
		5365.68	50.08	-23.92	74	40.36	32.31	6.01	28.6	103	172	P	H
		5451.6	40.87	-13.13	54	31.07	32.34	6.06	28.6	103	172	A	H
		5026.78	51.8	-22.2	74	42.13	32.21	6.06	28.6	312	231	P	V
		5067.86	41.86	-12.14	54	32.19	32.22	6.05	28.6	312	231	A	V
	*	5240	106.46	-	-	96.76	32.27	6.03	28.6	312	231	P	V
	*	5240	99.66	-	-	89.96	32.27	6.03	28.6	312	231	A	V
		5372.4	50.74	-23.26	74	41.02	32.31	6.01	28.6	312	231	P	V
		5451.12	40.86	-13.14	54	31.06	32.34	6.06	28.6	312	231	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.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n		10360	48.1	-25.9	74	56.47	38.25	9.23	55.85	152	260	P	H
HT20		15540	49.45	-24.55	74	55.31	38.94	11.93	56.73	189	238	P	H
CH 36		10360	47.92	-26.08	74	56.29	38.25	9.23	55.85	121	225	P	V
5180MHz		15540	48.05	-25.95	74	53.91	38.94	11.93	56.73	185	210	P	V
802.11n		10440	47.57	-26.43	74	55.89	38.31	9.25	55.88	185	185	P	H
HT20		15660	49.21	-24.79	74	55.09	38.54	12.07	56.49	148	69	P	H
CH 44		10440	48.72	-25.28	74	57.04	38.31	9.25	55.88	110	230	P	V
5220MHz		15660	49.18	-24.82	74	55.06	38.54	12.07	56.49	160	228	P	V
802.11n		10480	47.73	-26.27	74	56.01	38.36	9.26	55.9	189	12	P	H
HT20		15720	49.03	-24.97	74	54.96	38.31	12.11	56.35	198	226	P	H
CH 48		10480	47.91	-26.09	74	56.19	38.36	9.26	55.9	150	120	P	V
5240MHz		15720	49.58	-24.42	74	55.51	38.31	12.11	56.35	200	89	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.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 38 5190MHz		5148.72	62.97	-11.03	74	53.29	32.24	6.04	28.6	103	172	P	H
		5150	53.23	-0.77	54	43.55	32.24	6.04	28.6	103	172	A	H
	*	5190	100.72	-	-	91.03	32.25	6.04	28.6	103	172	P	H
	*	5190	93.69	-	-	84	32.25	6.04	28.6	103	172	A	H
		5412.68	50.13	-23.87	74	40.39	32.33	6.01	28.6	103	172	P	H
		5452.72	40.89	-13.11	54	31.09	32.34	6.06	28.6	103	172	A	H
		5150	59.64	-14.36	74	49.96	32.24	6.04	28.6	312	231	P	V
		5150	51.79	-2.21	54	42.11	32.24	6.04	28.6	312	231	A	V
	*	5190	99.8	-	-	90.11	32.25	6.04	28.6	312	231	P	V
	*	5190	92.56	-	-	82.87	32.25	6.04	28.6	312	231	A	V
		5451.32	51.06	-22.94	74	41.26	32.34	6.06	28.6	312	231	P	V
		5436.2	40.7	-13.3	54	30.9	32.34	6.06	28.6	312	231	A	V
802.11n HT40 CH 46 5230MHz		5149.24	56.17	-17.83	74	46.49	32.24	6.04	28.6	103	172	P	H
		5150	47.68	-6.32	54	38	32.24	6.04	28.6	103	172	A	H
	*	5230	104.59	-	-	94.89	32.27	6.03	28.6	103	172	P	H
	*	5230	96.8	-	-	87.1	32.27	6.03	28.6	103	172	A	H
		5457.36	50.11	-23.89	74	40.31	32.34	6.06	28.6	103	172	P	H
		5442	40.94	-13.06	54	31.14	32.34	6.06	28.6	103	172	A	H
		5149.24	55.54	-18.46	74	45.86	32.24	6.04	28.6	312	231	P	V
		5150	46.77	-7.23	54	37.09	32.24	6.04	28.6	312	231	A	V
	*	5230	103.78	-	-	94.08	32.27	6.03	28.6	312	231	P	V
	*	5230	95.82	-	-	86.12	32.27	6.03	28.6	312	231	A	V
		5368.8	50.19	-23.81	74	40.47	32.31	6.01	28.6	312	231	P	V
		5421.84	40.63	-13.37	54	30.89	32.33	6.01	28.6	312	231	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.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
2		(MHz)	(dBµV/m)	(dB)	(dBµV/m)	(dBµV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11n HT40 CH 38 5190MHz		10380	47.59	-26.41	74	55.95	38.26	9.24	55.86	150	360	P	H
		15570	49.52	-24.48	74	55.38	38.82	11.98	56.66	155	360	P	H
		10380	47.82	-26.18	74	56.18	38.26	9.24	55.86	120	360	P	V
		15570	49.27	-24.73	74	55.13	38.82	11.98	56.66	155	32	P	V
802.11n HT40 CH 46 5230MHz		10460	47.59	-26.41	74	55.89	38.32	9.26	55.88	150	360	P	H
		15690	48.59	-25.41	74	54.48	38.42	12.11	56.42	150	225	P	H
		10460	47.64	-26.36	74	55.94	38.32	9.26	55.88	151	360	P	V
		15690	49.24	-24.76	74	55.13	38.42	12.11	56.42	159	241	P	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (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.
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 CH 42 5210MHz		5148.98	63.17	-10.83	74	53.49	32.24	6.04	28.6	103	172	P	H
		5149.76	52.58	-1.42	54	42.9	32.24	6.04	28.6	103	172	A	H
	*	5210	96.12	-	-	86.43	32.26	6.03	28.6	103	172	P	H
	*	5210	88.79	-	-	79.1	32.26	6.03	28.6	103	172	A	H
		5350.08	50.36	-23.64	74	40.64	32.31	6.01	28.6	103	172	P	H
		5451.84	40.94	-13.06	54	31.14	32.34	6.06	28.6	103	172	A	H
		5148.98	62.89	-11.11	74	53.21	32.24	6.04	28.6	312	231	P	V
		5150	50.82	-3.18	54	41.14	32.24	6.04	28.6	312	231	A	V
	*	5210	95.13	-	-	85.44	32.26	6.03	28.6	312	231	P	V
	*	5210	88.67	-	-	78.98	32.26	6.03	28.6	312	231	A	V
		5425.44	49.57	-24.43	74	39.83	32.33	6.01	28.6	312	231	P	V
		5442	40.95	-13.05	54	31.15	32.34	6.06	28.6	312	231	A	V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												

Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant.	Note	Frequency	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	Ant Pos	Table Pos	Peak Avg.	Pol.
2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11ac VHT80 CH 42 5210MHz		10420	46.2	-27.8	74	54.53	38.29	9.25	55.87	180	62	P	H
		15630	49.61	-24.39	74	55.52	38.59	12.02	56.52	174	96	P	H
		10420	46.47	-27.53	74	54.8	38.29	9.25	55.87	150	360	P	V
		15630	49.7	-24.3	74	55.61	38.59	12.02	56.52	155	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 Ant. 2	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 LF		30	24.92	-15.08	40	31.74	24.9	0.25	31.97	-	-	P	H
		80.44	24.59	-15.41	40	41.98	13.6	0.85	31.84	-	-	P	H
		198.78	28.43	-15.07	43.5	42.88	15.28	1.6	31.33	-	-	P	H
		299.66	30.3	-15.7	46	40.27	19.4	1.85	31.22	-	-	P	H
		374.35	32.78	-13.22	46	40.58	21.27	2.13	31.2	-	-	P	H
		799.21	36.15	-9.85	46	35.67	28.48	3.16	31.16	100	45	P	H
		43.58	31.59	-8.41	40	44.95	18.13	0.48	31.97	100	61	P	V
		85.29	28.21	-11.79	40	44.79	14.3	0.93	31.81	-	-	P	V
		136.7	28.01	-15.49	43.5	40.79	17.59	1.22	31.59	-	-	P	V
		299.66	30.83	-15.17	46	40.8	19.4	1.85	31.22	-	-	P	V
		497.54	32.32	-13.68	46	37.19	23.94	2.42	31.23	-	-	P	V
		898.15	33.35	-12.65	46	31.85	29.28	3.38	31.16	-	-	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 B. Radiated Spurious Emission

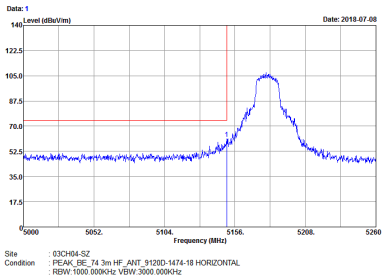
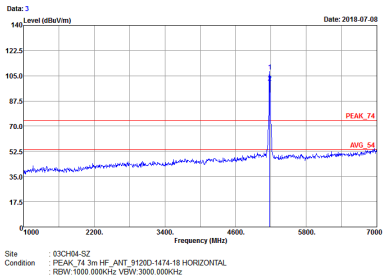
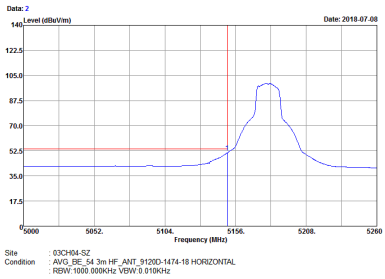
Test Engineer :	Fuquan Wu	**Temperature :**	22~25℃
		Relative Humidity :	48~52%

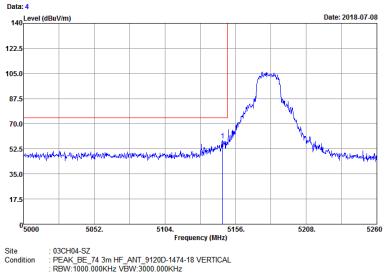
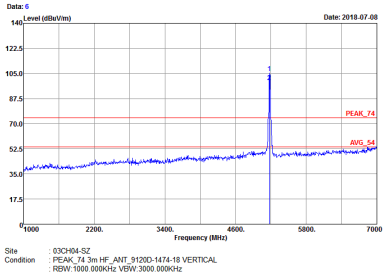
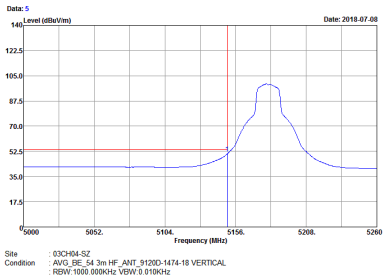
Note symbol

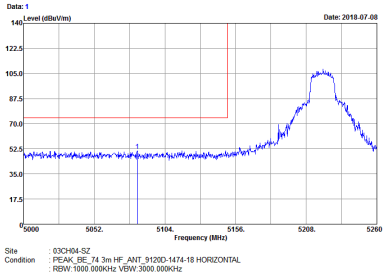
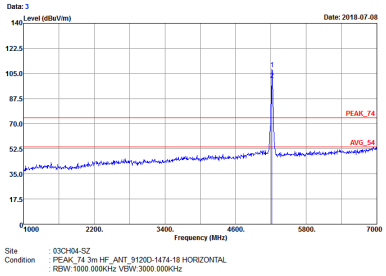
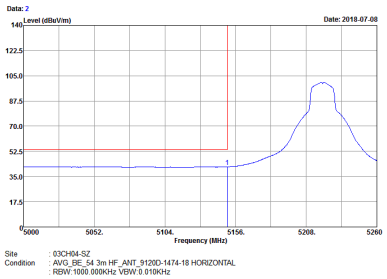
-L	**Low channel location**
-R	**High channel location**

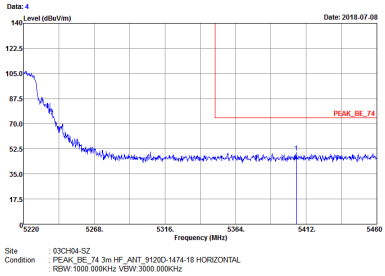
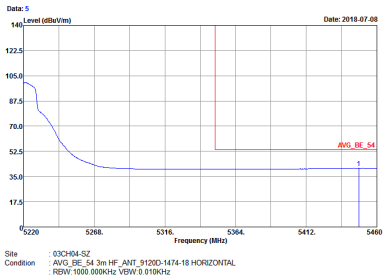
Band 1 - 5150~5250MHz

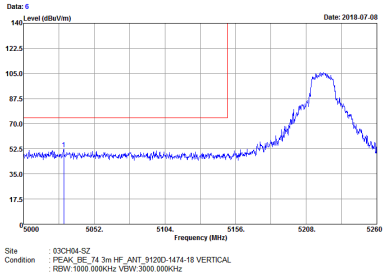
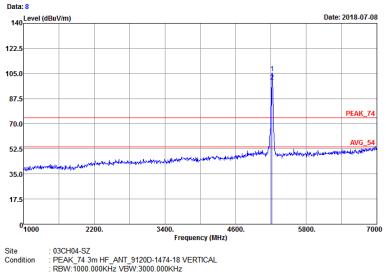
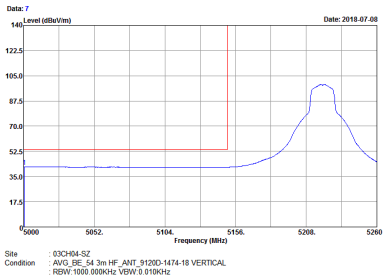
WIFI 802.11a (Band Edge @ 3m)

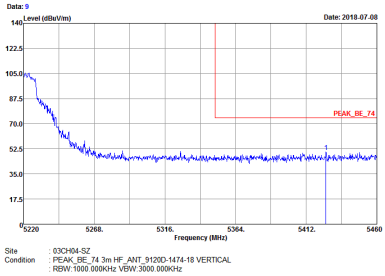
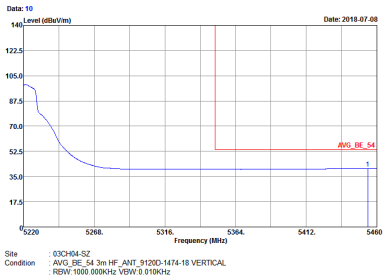
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

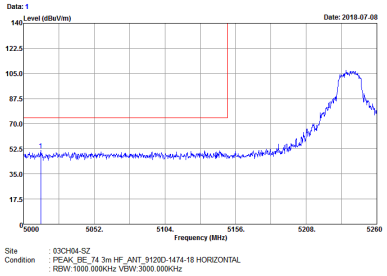
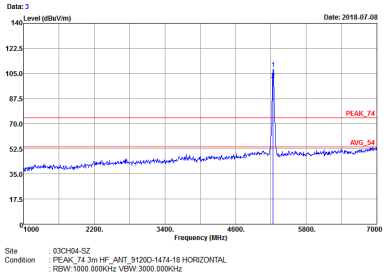
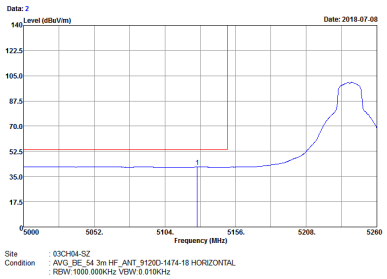
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

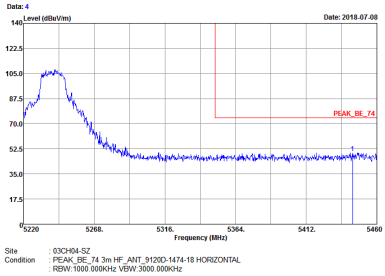
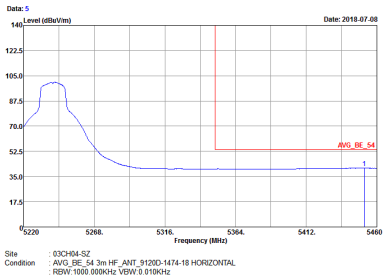
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

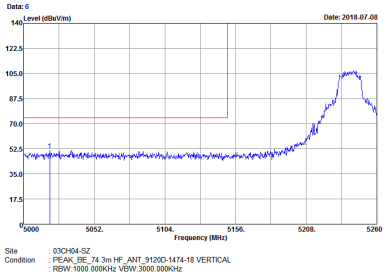
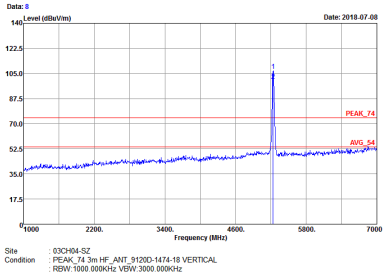
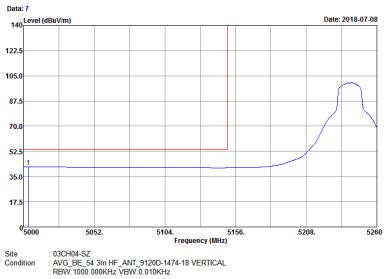
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

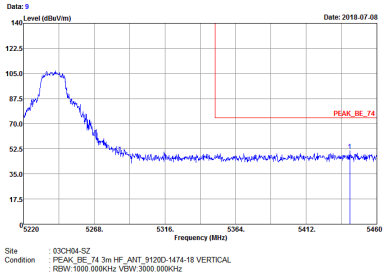
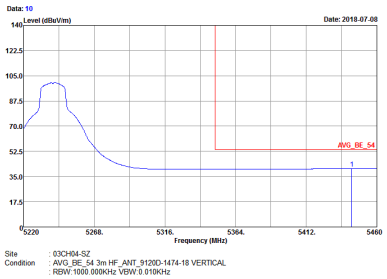
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

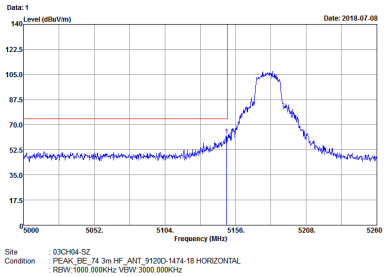
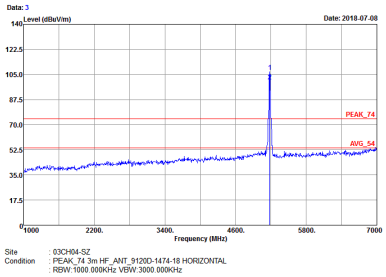
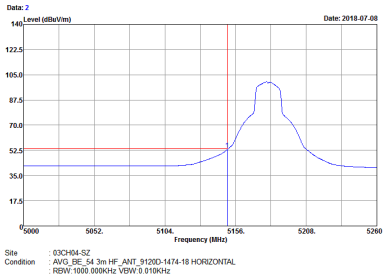
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

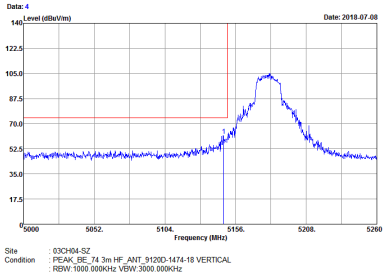
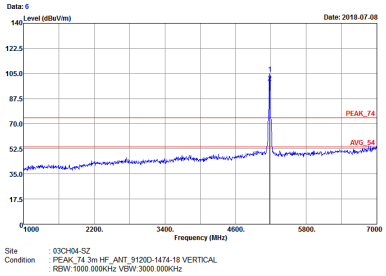
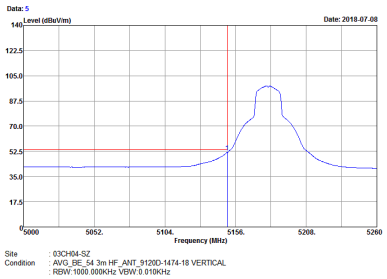
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

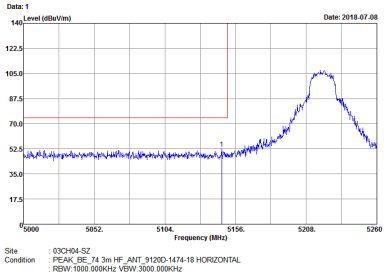
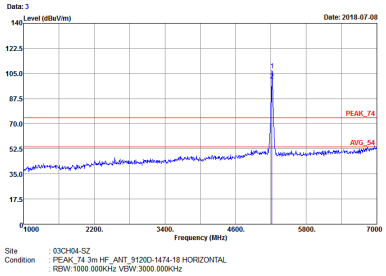
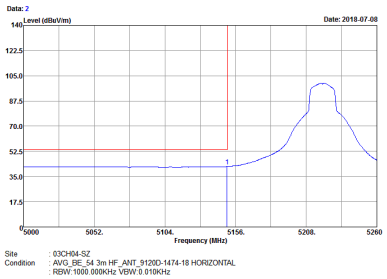
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

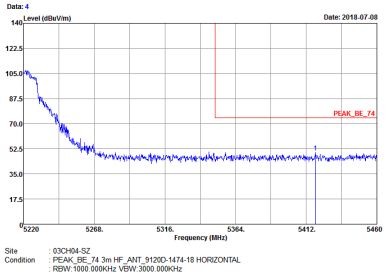
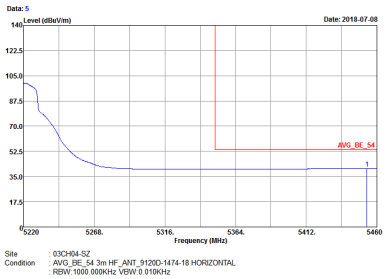
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

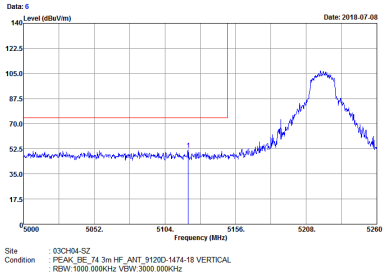
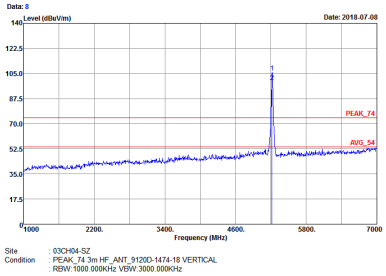
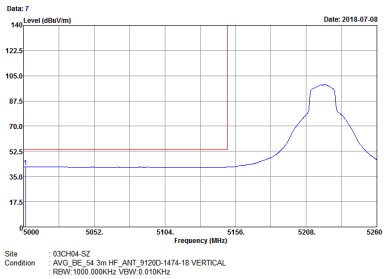
Band 1 5150~5250MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

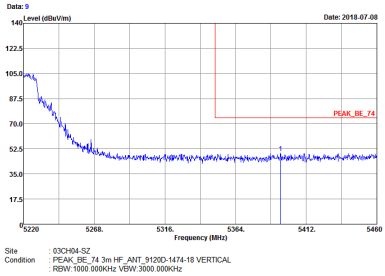
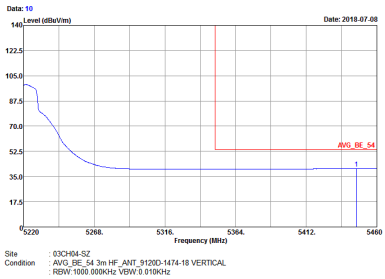
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

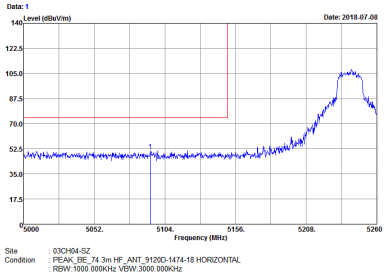
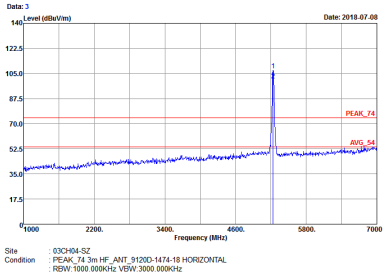
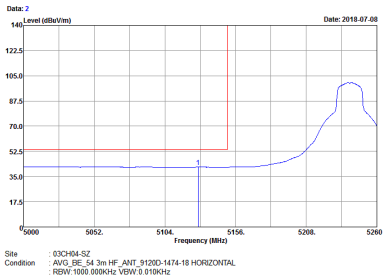
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

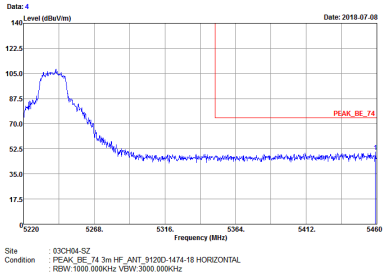
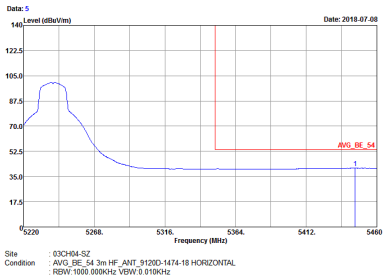
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

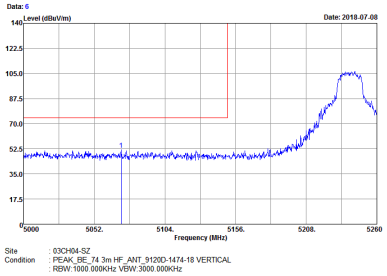
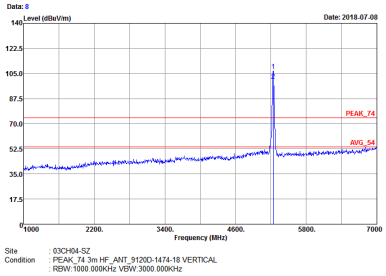
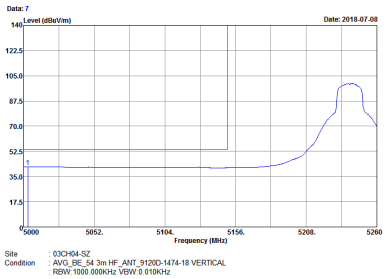
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

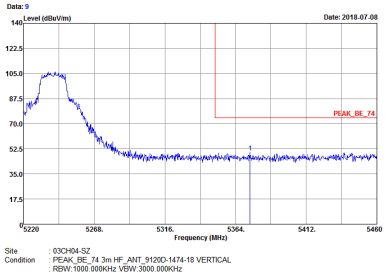
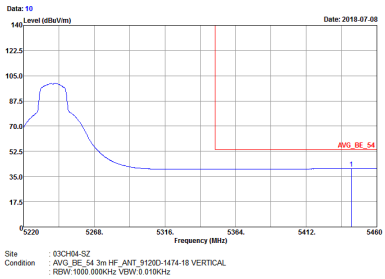
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

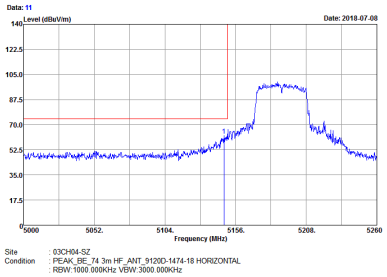
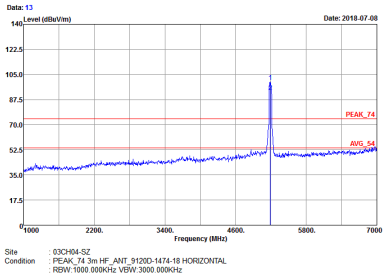
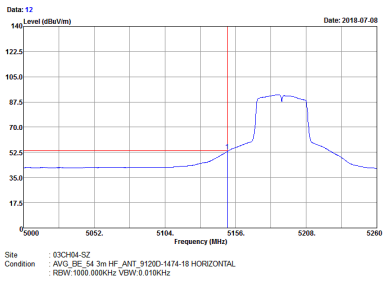
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

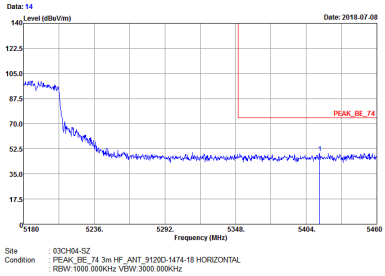
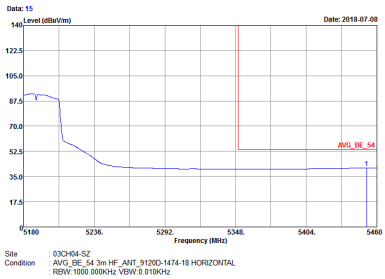
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

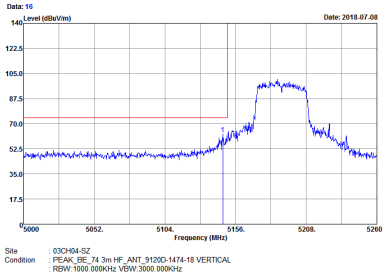
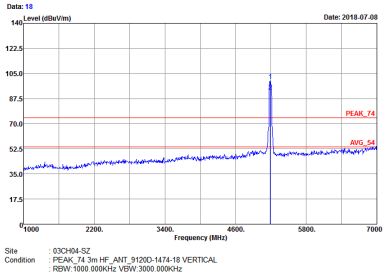
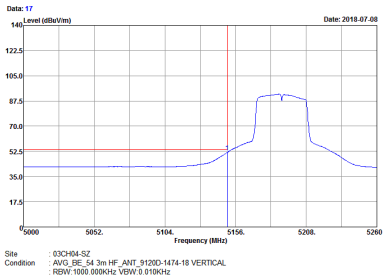
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

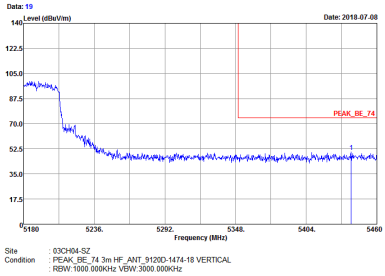
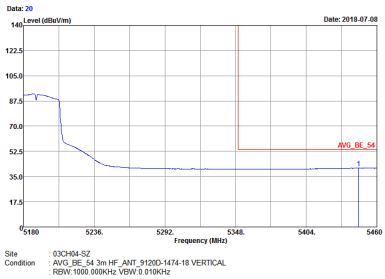
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

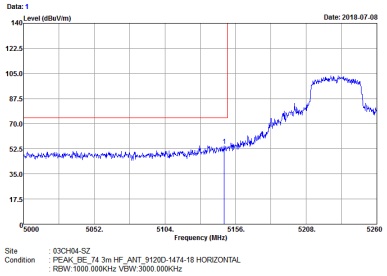
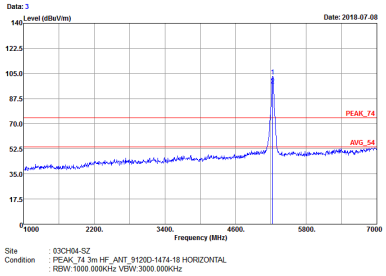
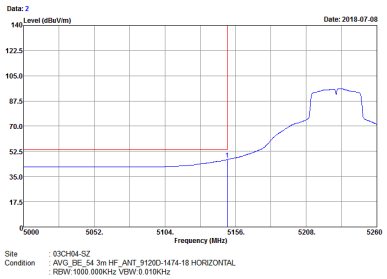
Band 1 5150~5250MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

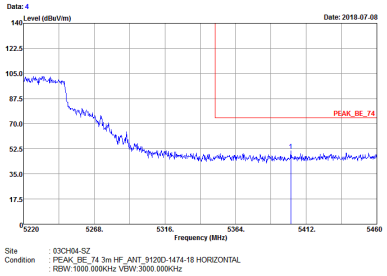
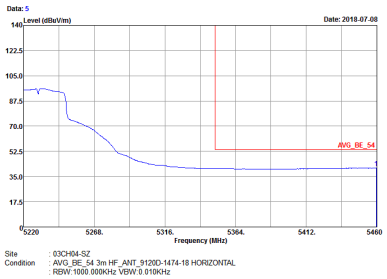
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

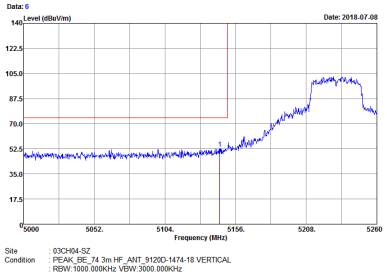
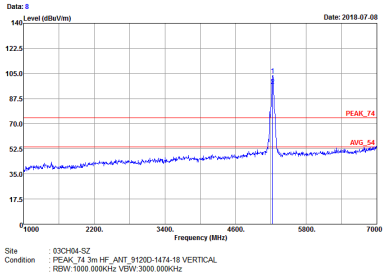
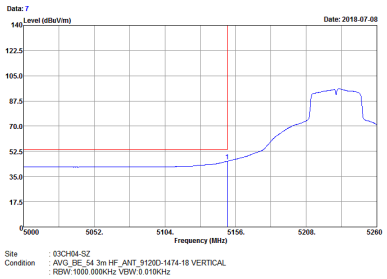
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

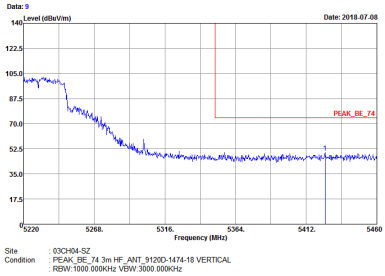
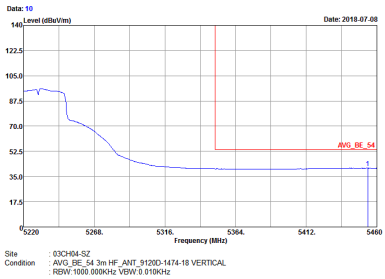
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

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

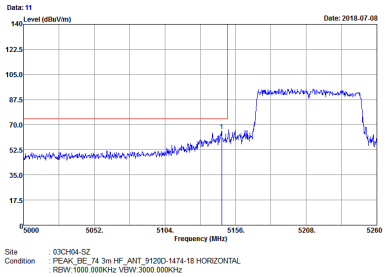
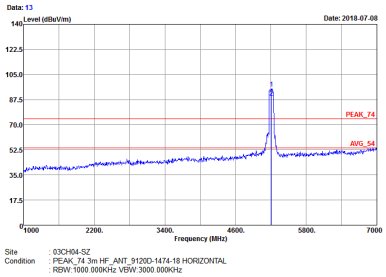
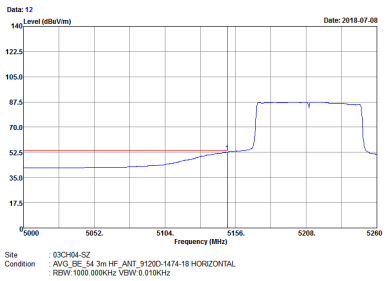
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
1	Horizontal	Fundamental
Peak		
Avg.		Left blank

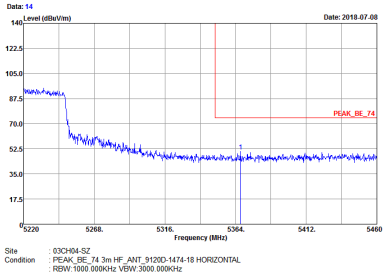
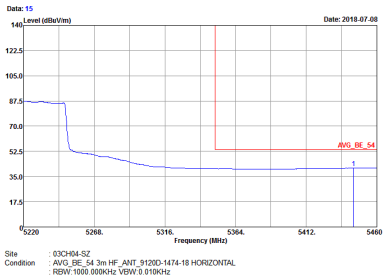
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

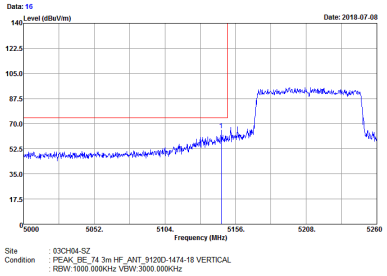
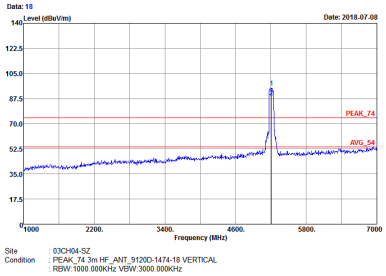
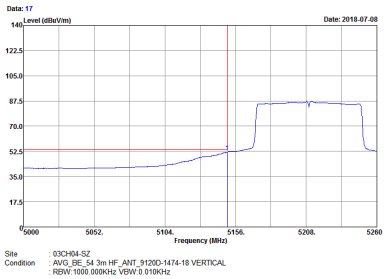
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

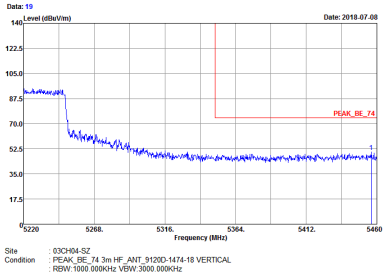
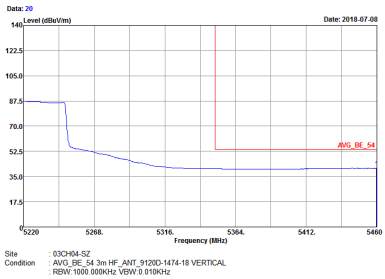
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 5150~5250MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

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

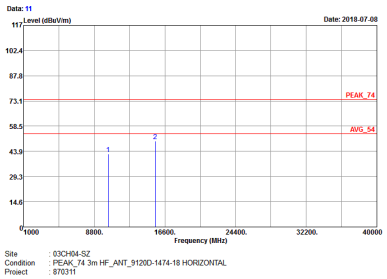
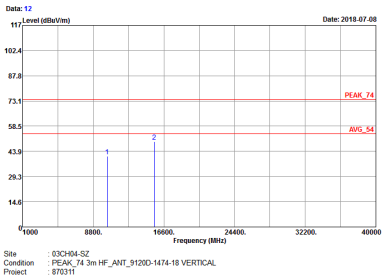
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

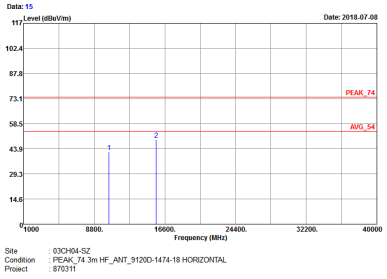
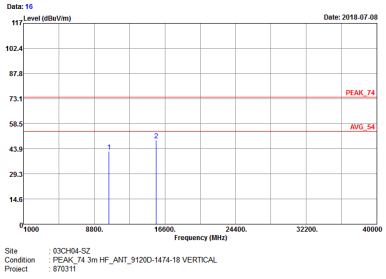
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
1	Vertical	Fundamental
Peak		
Avg.		Left blank

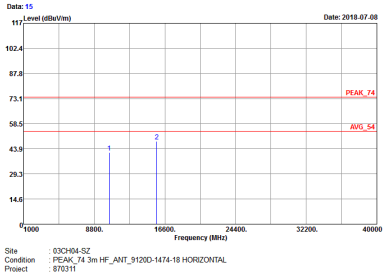
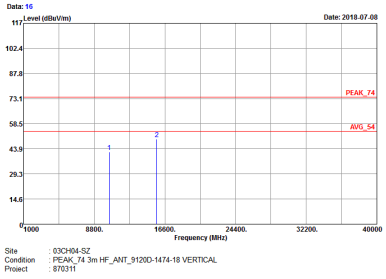
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
1	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

Band 1 - 5150~5250MHz

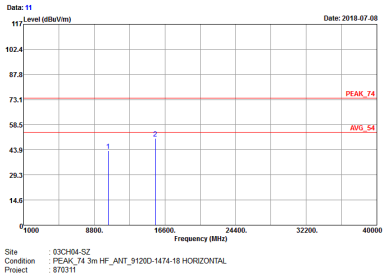
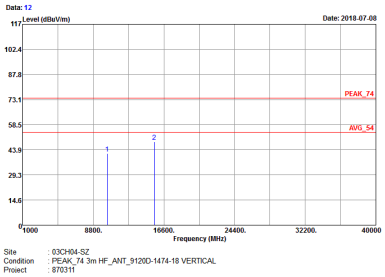
WIFI 802.11a (Harmonic @ 3m)

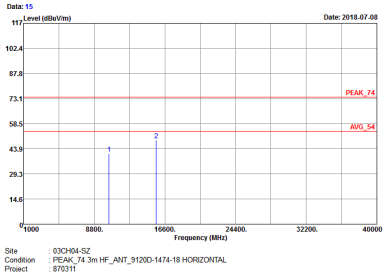
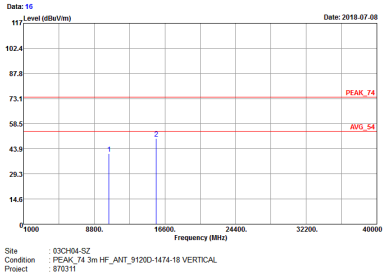
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
1	Horizontal	Vertical
Peak Avg.		

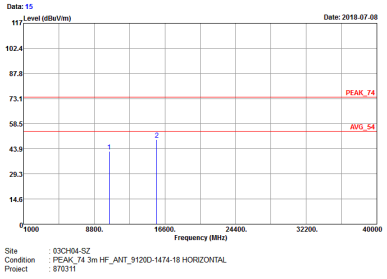
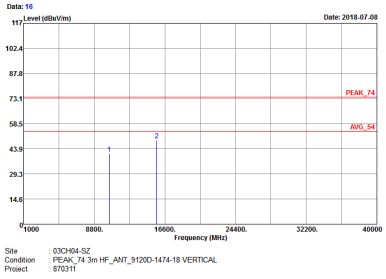
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
1	Horizontal	Vertical
Peak Avg.		

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

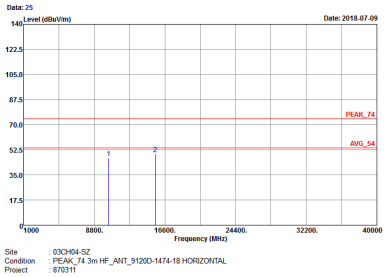
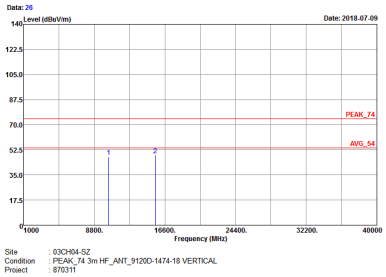
Band 1 5150~5250MHz
WIFI 802.11n HT20 (Harmonic @ 3m)

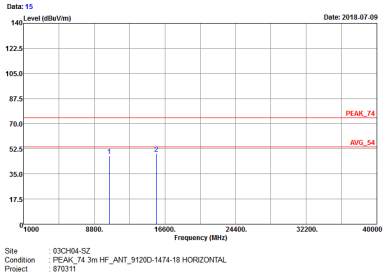
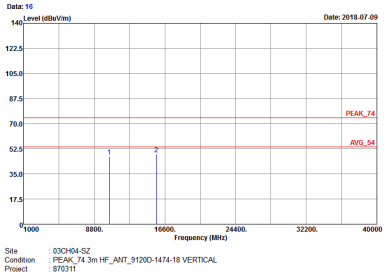
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
1	Horizontal	Vertical
Peak Avg.		

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

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

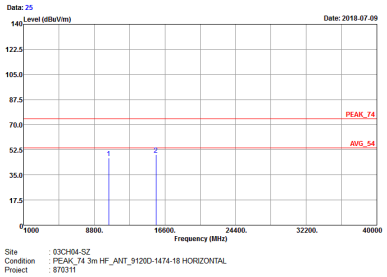
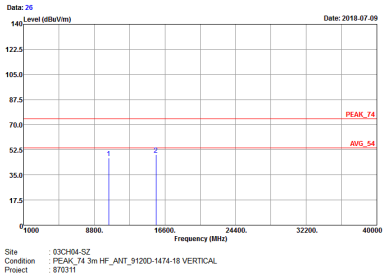
Band 1 5150~5250MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

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

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

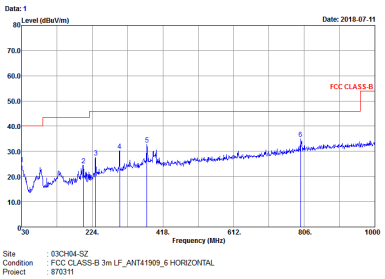
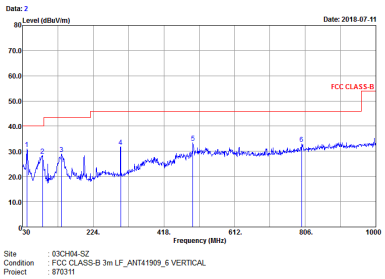
Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

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

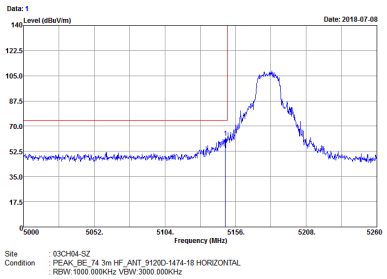
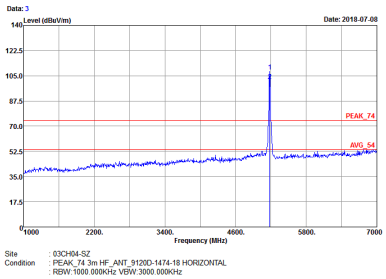
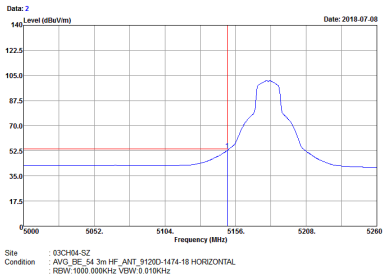
Emission below 1GHz

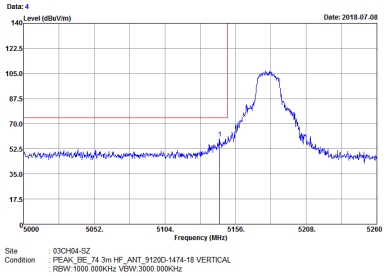
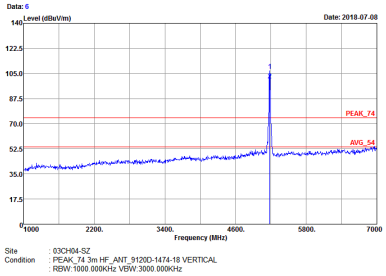
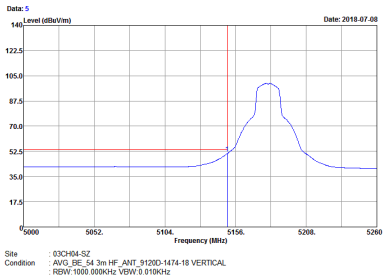
5GHz WIFI 802.11n HT40 (LF)

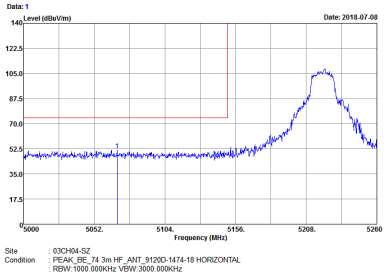
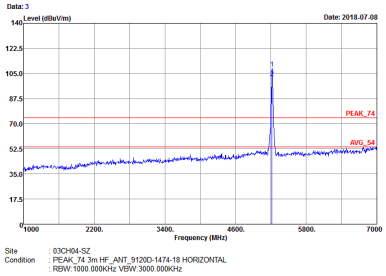
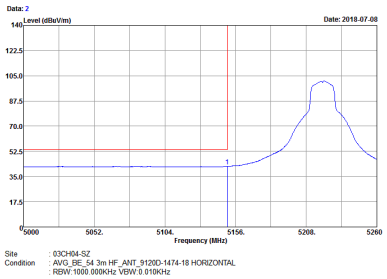
WIFI	5GHz WIFI	
ANT	802.11n HT40 LF	
1	Horizontal	Vertical
QP / Peak		

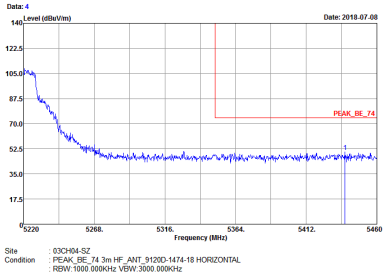
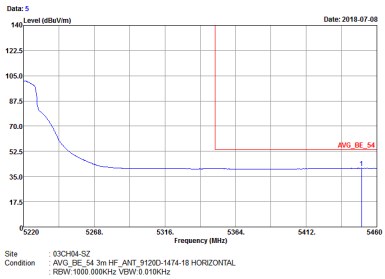
Band 1 - 5150~5250MHz

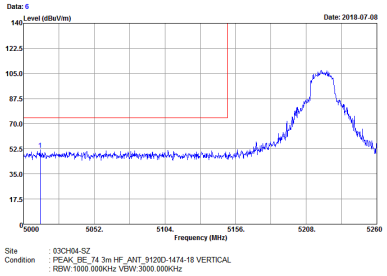
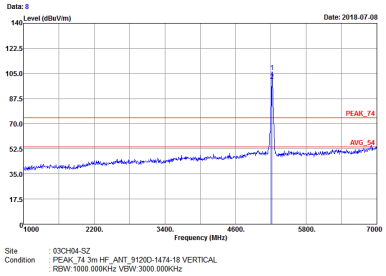
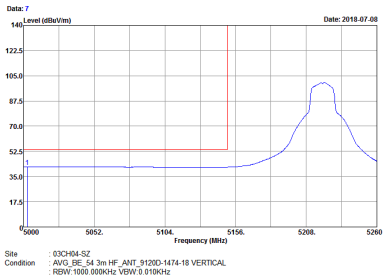
WIFI 802.11a (Band Edge @ 3m)

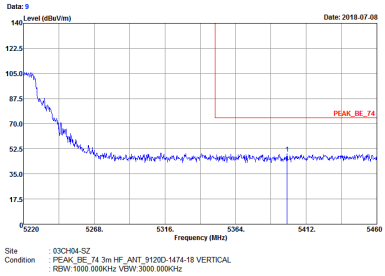
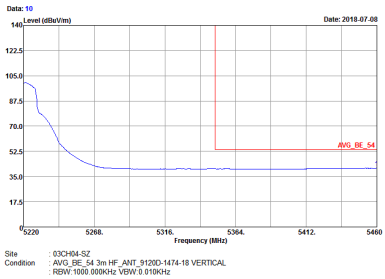
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
2	Horizontal	Fundamental
Peak		
Avg.		Left blank

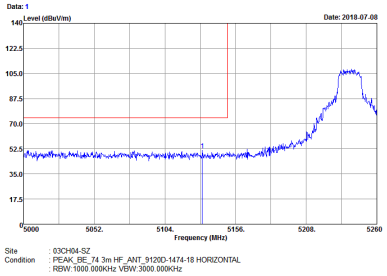
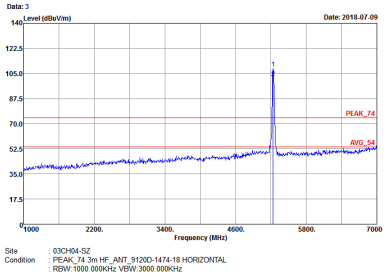
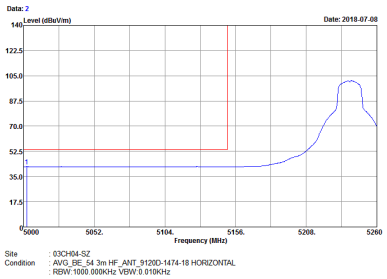
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH36 5180MHz	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

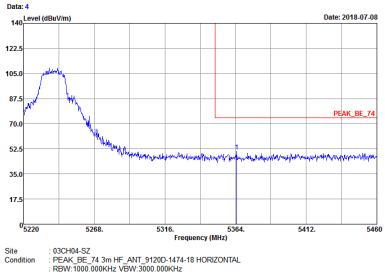
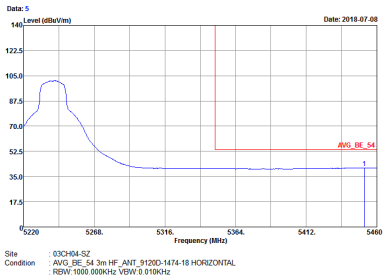
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
2	Horizontal	Fundamental
Peak		
Avg.		Left blank

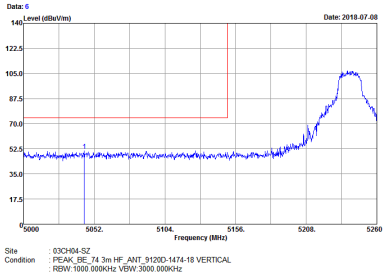
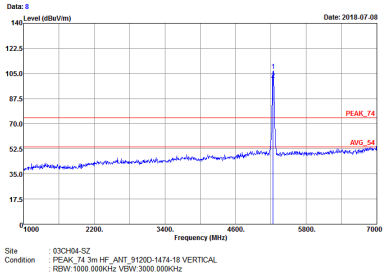
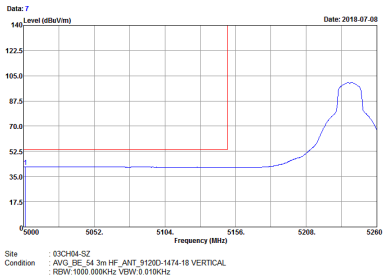
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - R	
2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

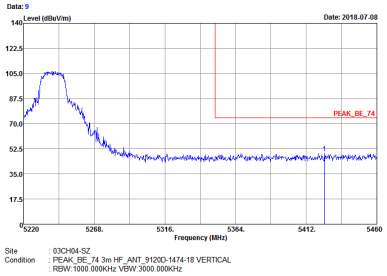
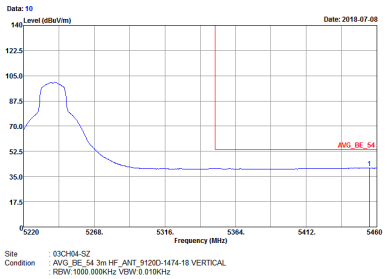
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH44 5220MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

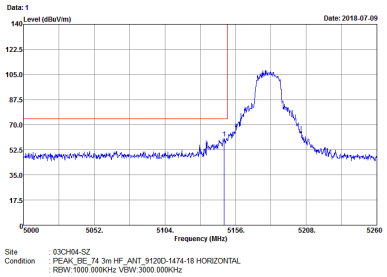
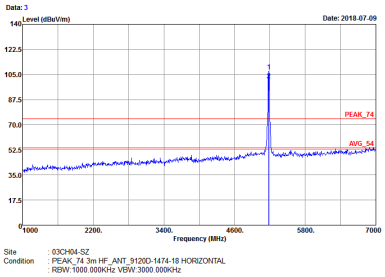
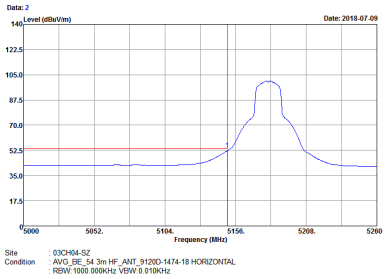
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
2	Horizontal	Fundamental
Peak		
Avg.		Left blank

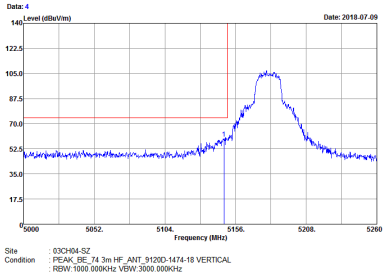
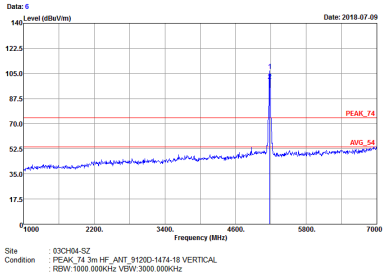
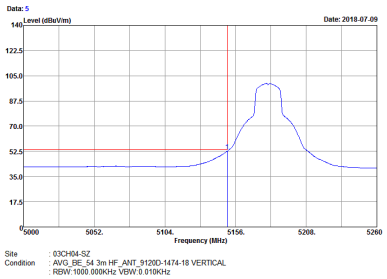
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

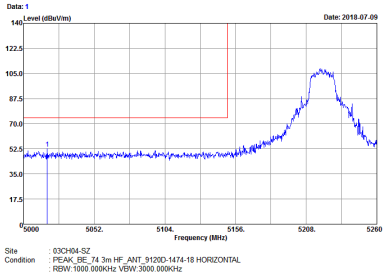
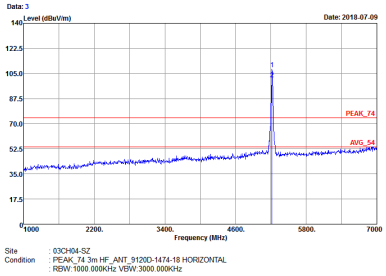
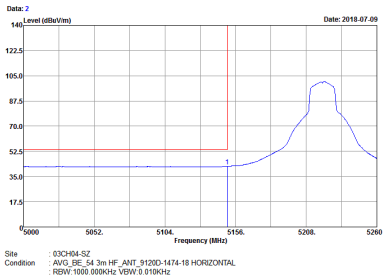
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

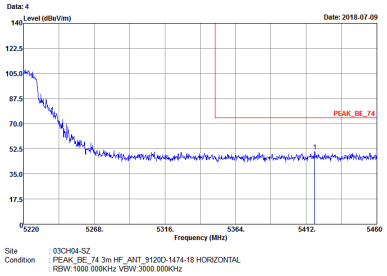
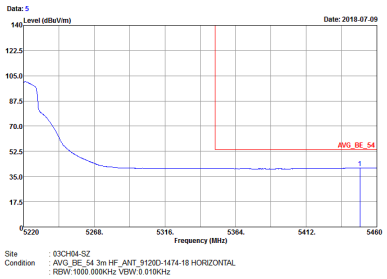
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11a CH48 5240MHz - R	
2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

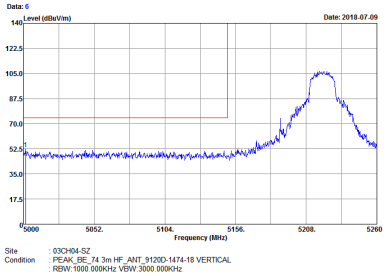
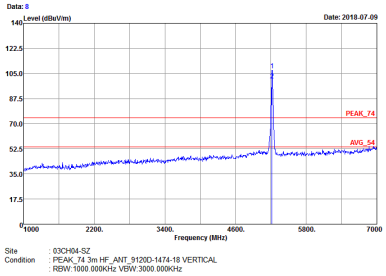
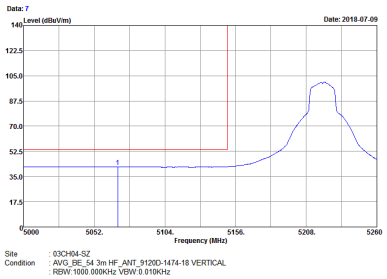
Band 1 5150~5250MHz
WIFI 802.11n HT20 (Band Edge @ 3m)

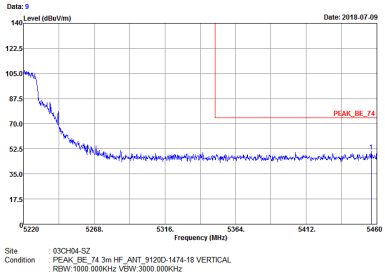
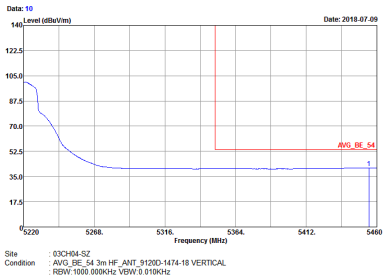
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
2	Horizontal	Fundamental
Peak		
Avg.		Left blank

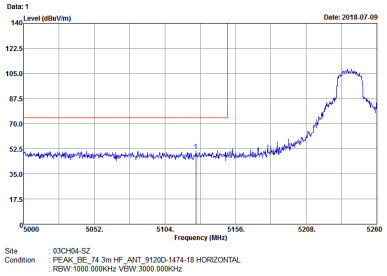
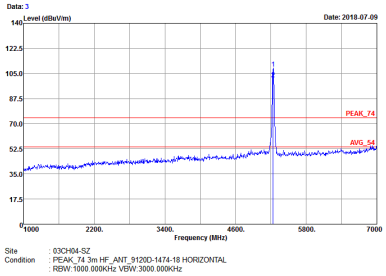
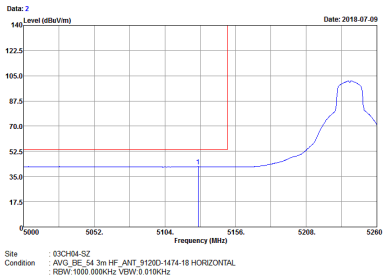
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

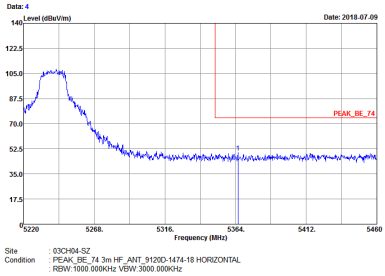
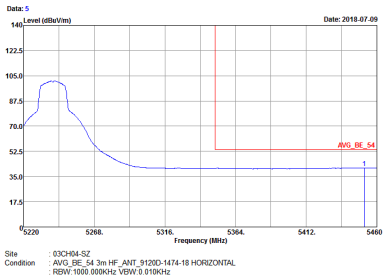
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
2	Horizontal	Fundamental
Peak		
Avg.		Left blank

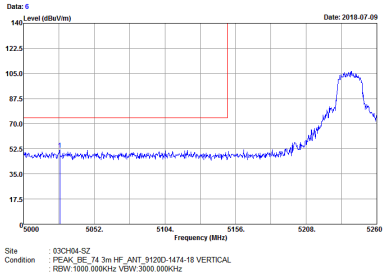
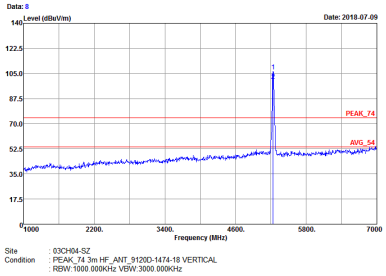
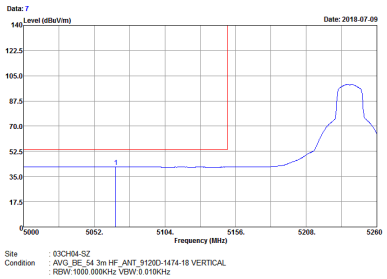
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - R	
2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

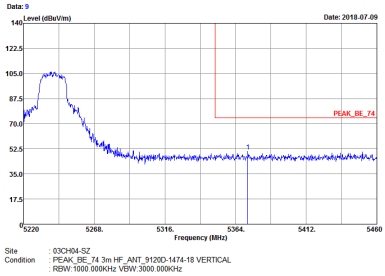
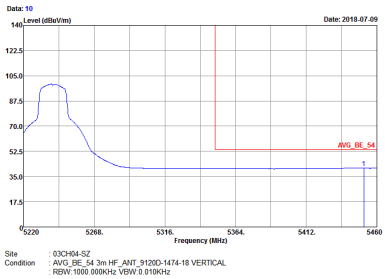
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH44 5220MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

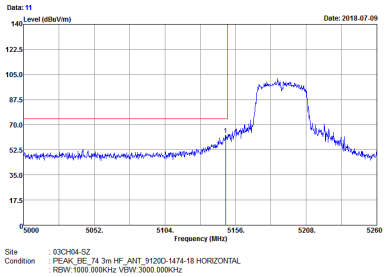
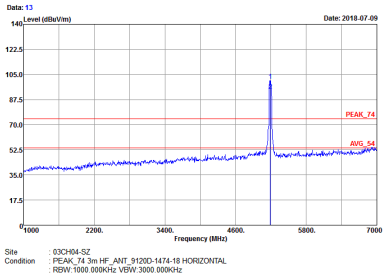
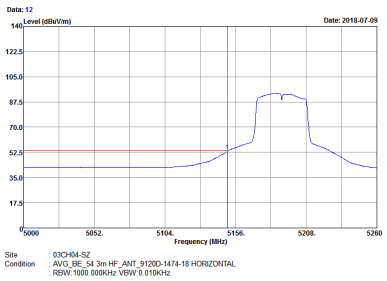
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
2	Horizontal	Fundamental
Peak		
Avg.		Left blank

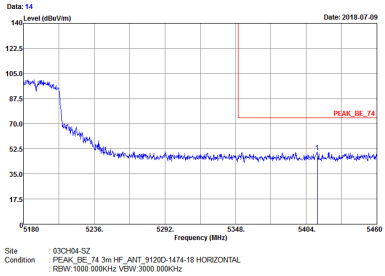
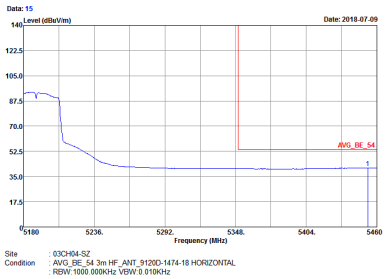
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

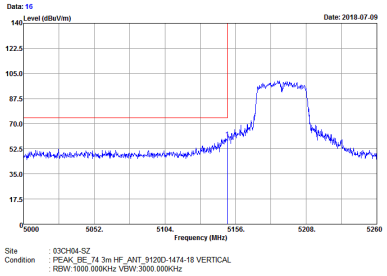
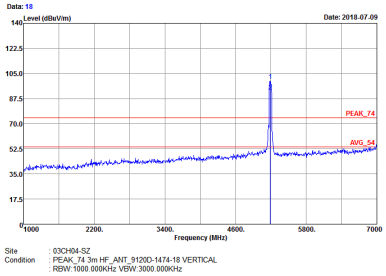
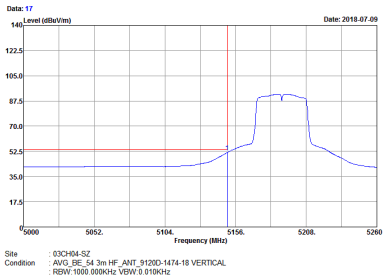
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

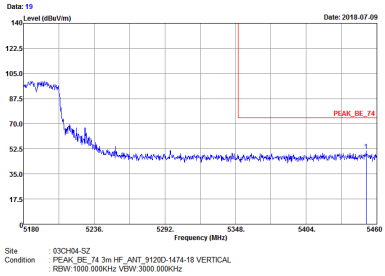
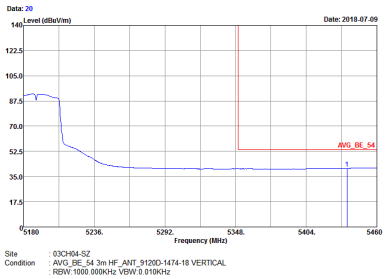
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT20 CH48 5240MHz - R	
2	Vertical	Fundamental
Peak		Left blank
Avg.		Left blank

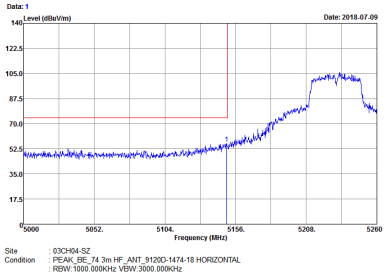
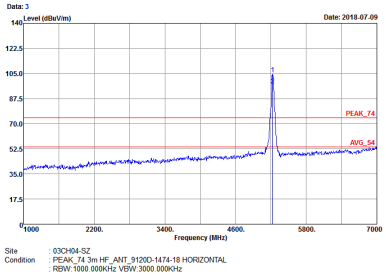
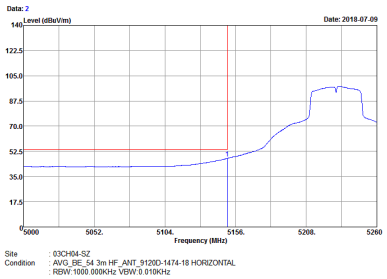
Band 1 5150~5250MHz
WIFI 802.11n HT40 (Band Edge @ 3m)

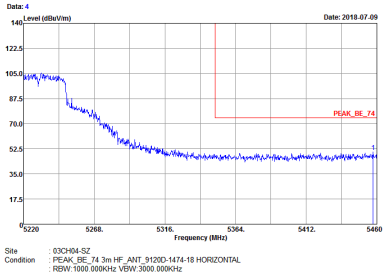
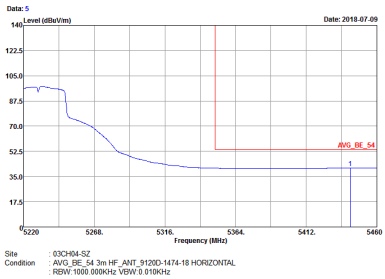
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
2	Horizontal	Fundamental
Peak		
Avg.		Left blank

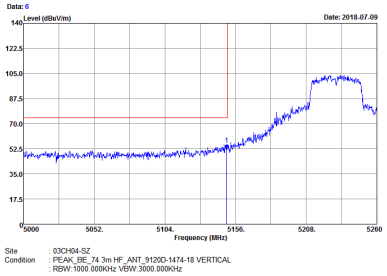
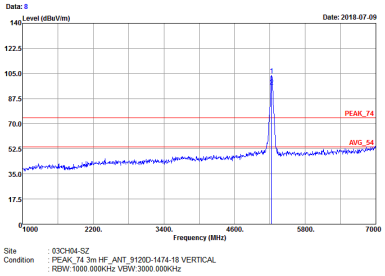
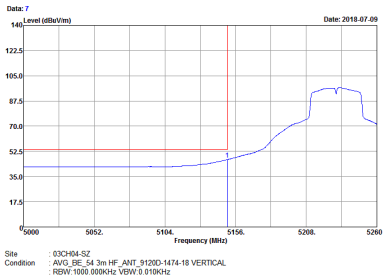
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - R	
2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

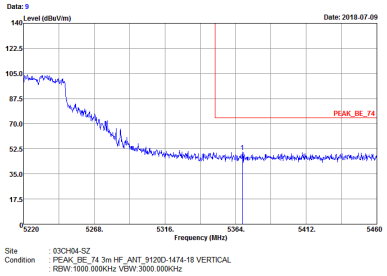
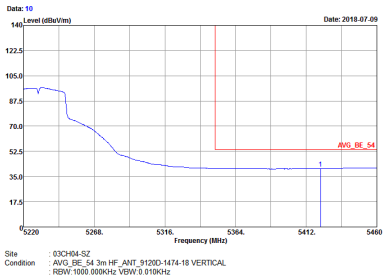
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH38 5190MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

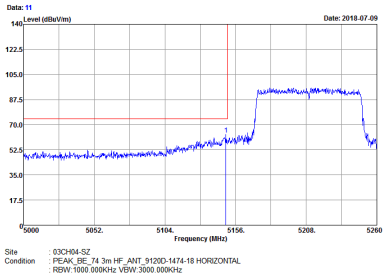
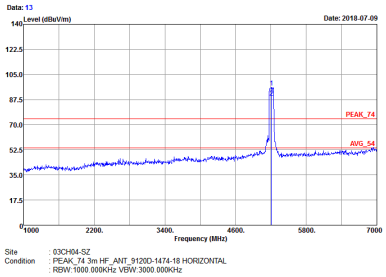
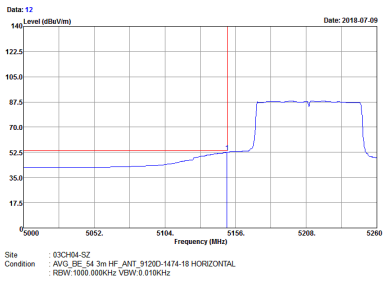
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
2	Horizontal	Fundamental
Peak		
Avg.		Left blank

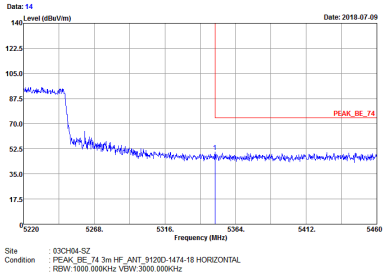
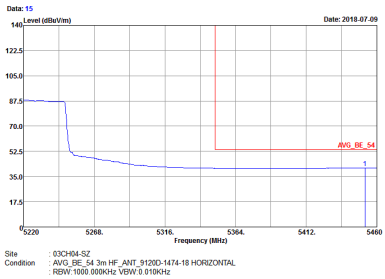
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - R	
2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

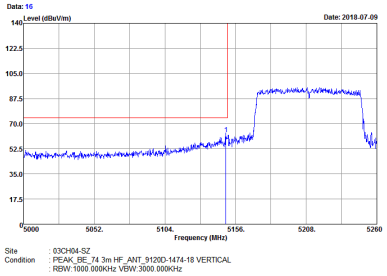
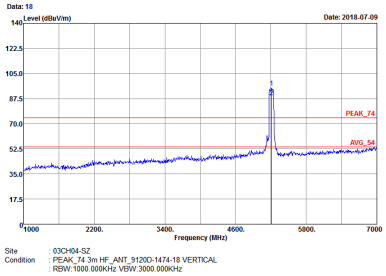
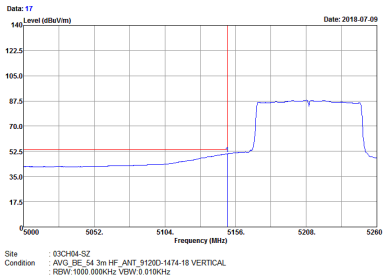
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11n HT40 CH46 5230MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

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

Band 1 5150~5250MHz
WIFI 802.11ac VHT80 (Band Edge @ 3m)

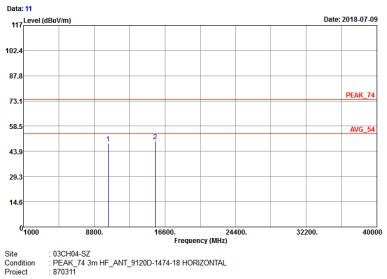
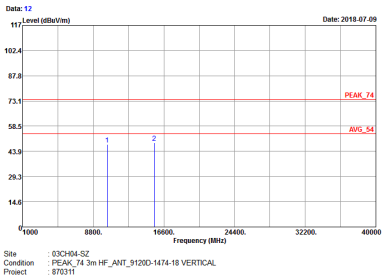
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
2	Horizontal	Fundamental
Peak		
Avg.		Left blank

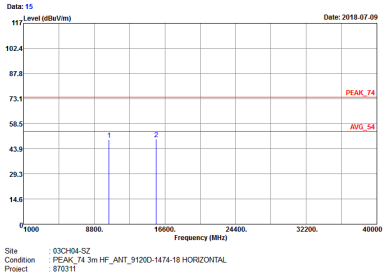
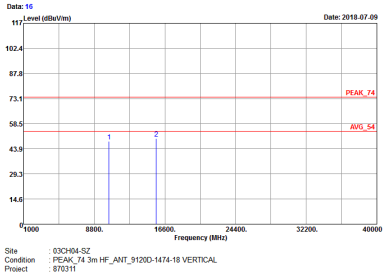
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - R	
2	Horizontal	Fundamental
Peak		Left blank
Avg.		Left blank

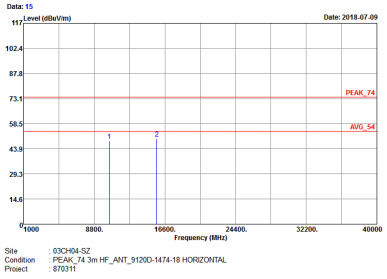
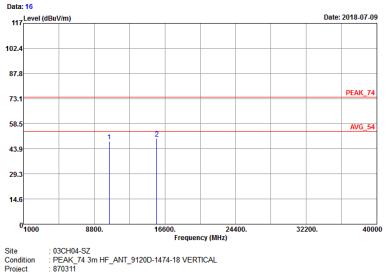
WIFI	Band 1 5150~5250MHz Band Edge @ 3m	
ANT	802.11ac VHT80 CH42 5210MHz - L	
2	Vertical	Fundamental
Peak		
Avg.		Left blank

Band 1 - 5150~5250MHz

WIFI 802.11a (Harmonic @ 3m)

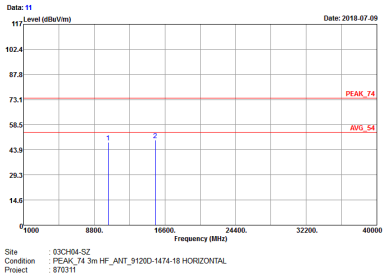
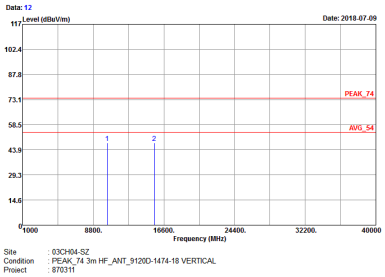
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH36 5180MHz	
2	Horizontal	Vertical
Peak Avg.		

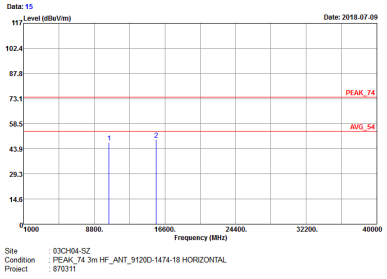
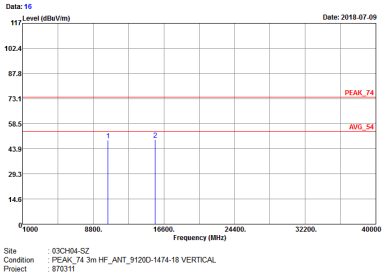
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH44 5220MHz	
2	Horizontal	Vertical
Peak Avg.		

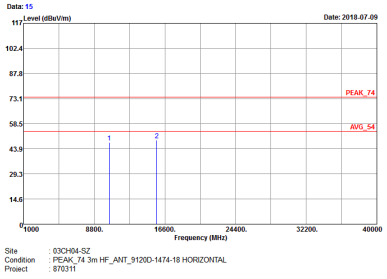
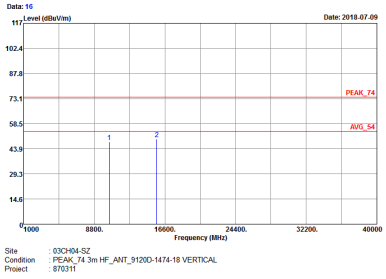
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11a CH48 5240MHz	
2	Horizontal	Vertical
Peak Avg.		

Band 1 5150~5250MHz

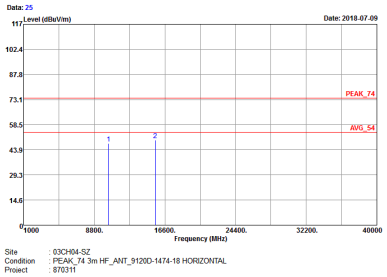
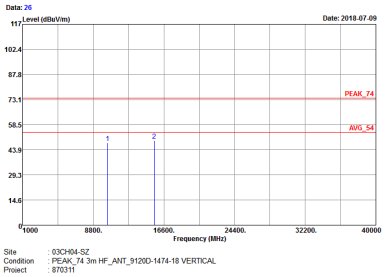
WIFI 802.11n HT20 (Harmonic @ 3m)

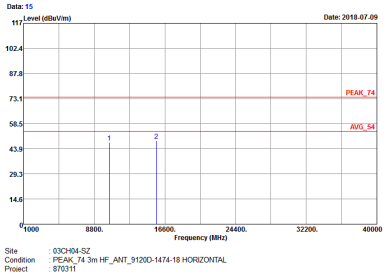
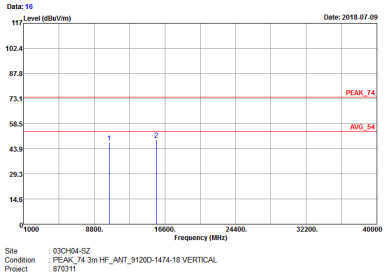
WIFI	Band 1 5150~5250MHz Harmonic @ 3m	
ANT	802.11n HT20 CH36 5180MHz	
2	Horizontal	Vertical
Peak Avg.		

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

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

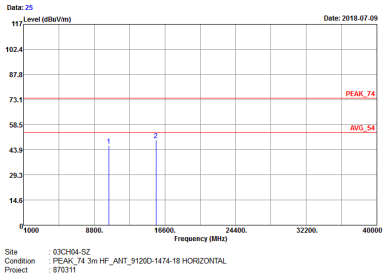
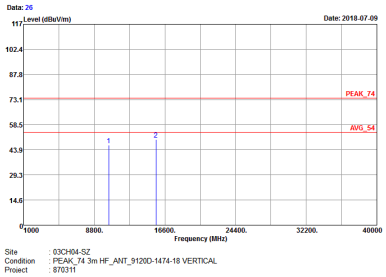
Band 1 5150~5250MHz
WIFI 802.11n HT40 (Harmonic @ 3m)

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

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

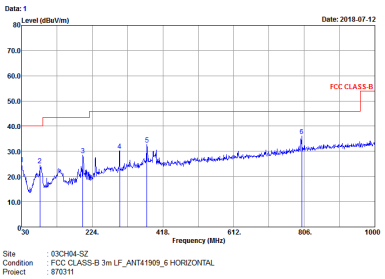
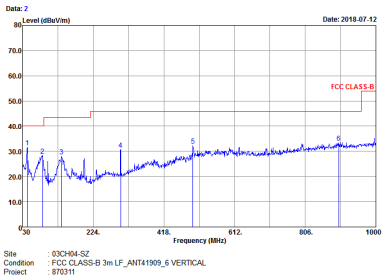
Band 1 5150~5250MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

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

Emission below 1GHz

5GHz WIFI 802.11n HT40 (LF)

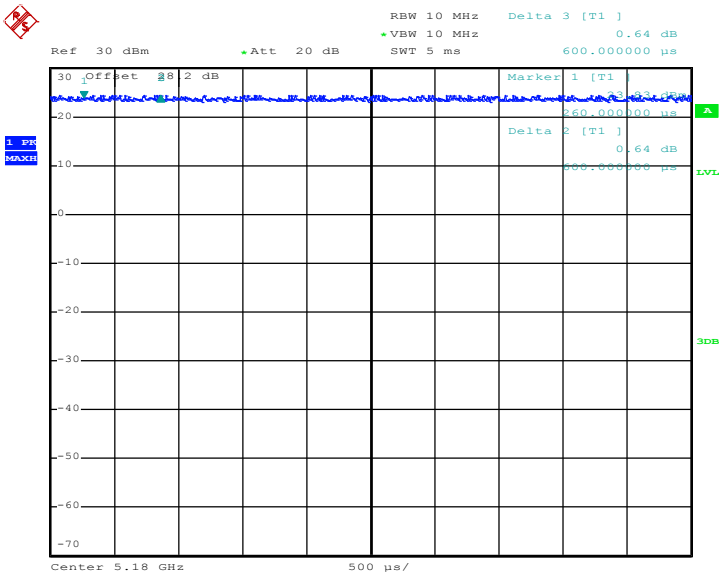
WIFI	5GHz WIFI	
ANT	802.11n HT40 LF	
2	Horizontal	Vertical
QP / Peak		

Appendix C. Duty Cycle Plots

Antenna	Band	Duty Cycle(%)	T(us)	1/T(kHz)	VBW Setting	Duty Factor(dB)
1	802.11a	100.00	-	-	10Hz	0.00
2	802.11a	100.00	-	-	10Hz	0.00
1	5GHz 802.11n HT20	100.00	-	-	10Hz	0.00
2	5GHz 802.11n HT20	100.00	-	-	10Hz	0.00
1	5GHz 802.11n HT40	100.00	-	-	10Hz	0.00
2	5GHz 802.11n HT40	100.00	-	-	10Hz	0.00
1	5GHz 802.11ac VHT20	100.00	-	-	10Hz	0.00
2	5GHz 802.11ac VHT20	100.00	-	-	10Hz	0.00
1	5GHz 802.11ac VHT40	100.00	-	-	10Hz	0.00
2	5GHz 802.11ac VHT40	100.00	-	-	10Hz	0.00
1	5GHz 802.11ac VHT80	100.00	-	-	10Hz	0.00
2	5GHz 802.11ac VHT80	100.00	-	-	10Hz	0.00

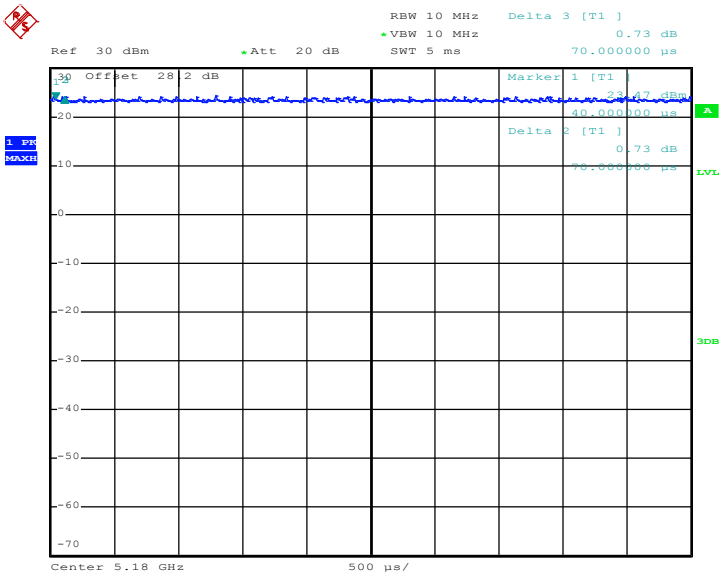
<Ant. 1>

802.11a



Date: 4.JUL.2018 02:49:04

802.11n HT20



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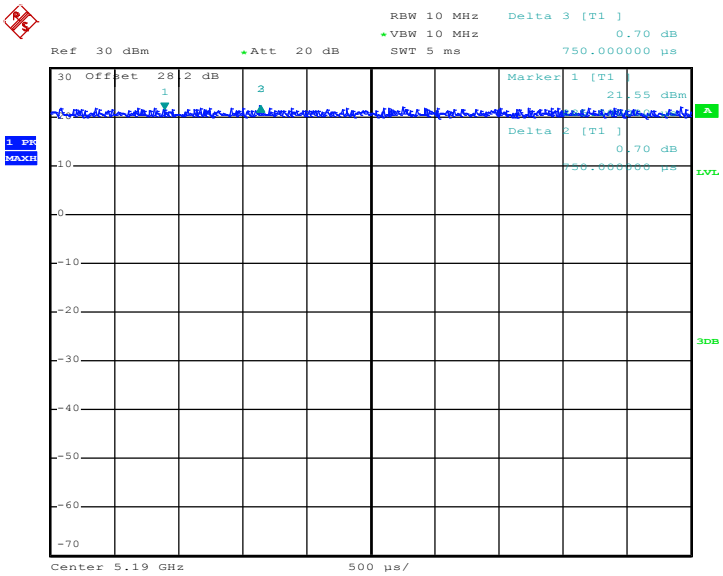
802.11n HT40



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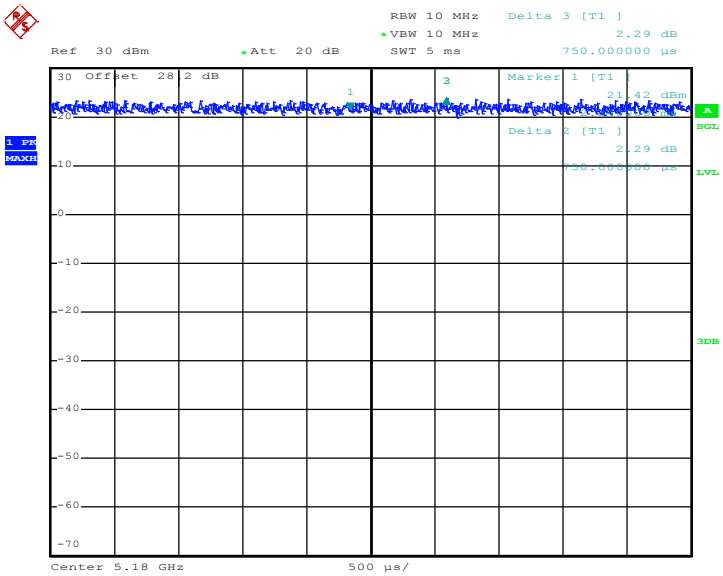
802.11ac VHT20



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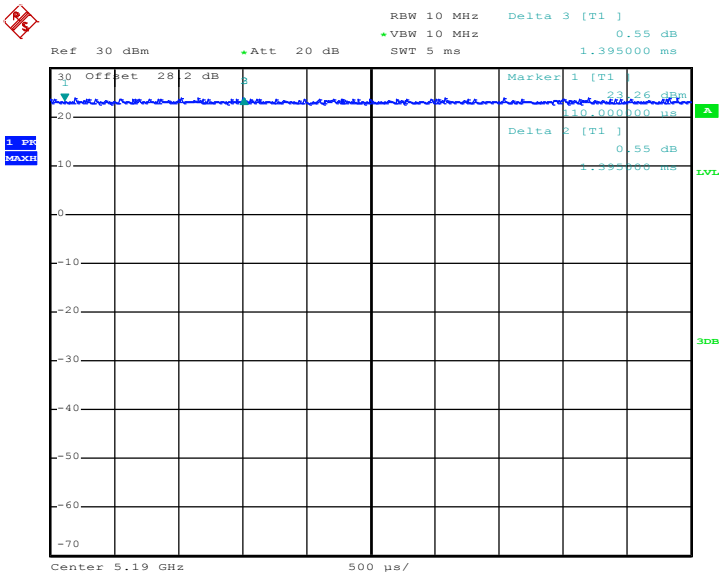

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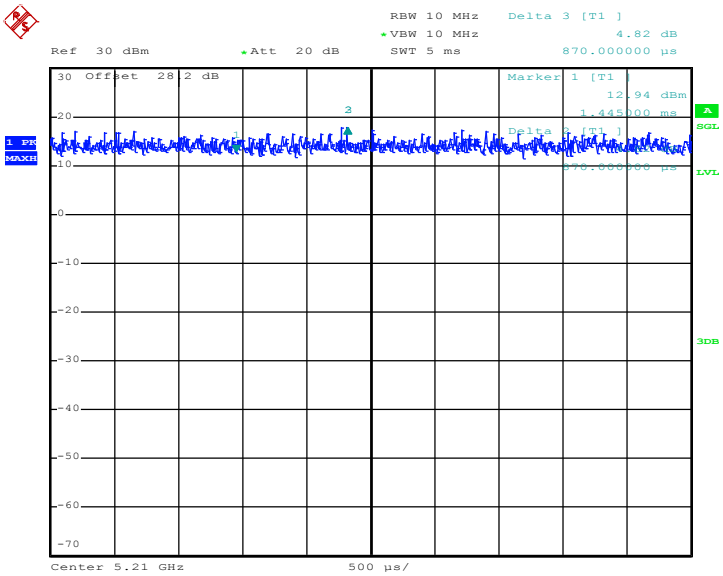

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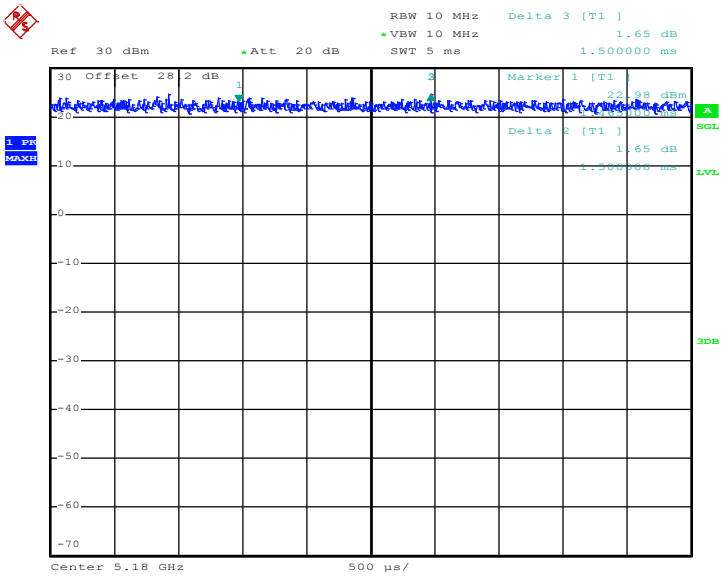
<Ant. 2>

802.11a



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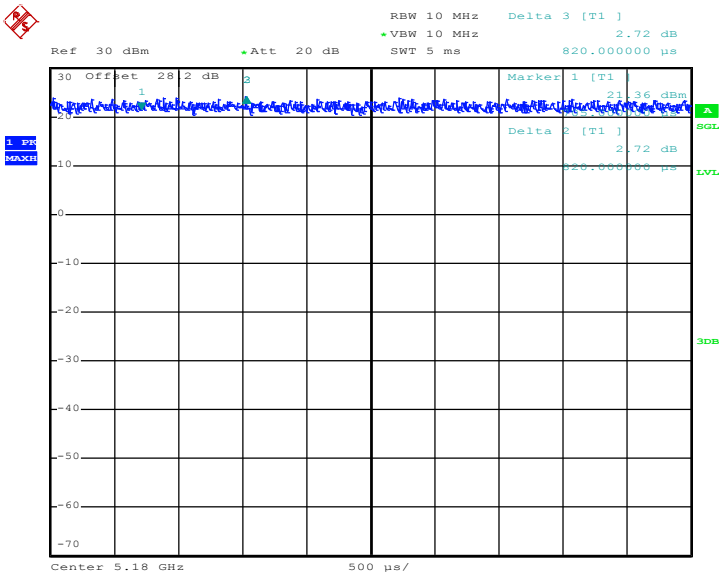
802.11n HT20



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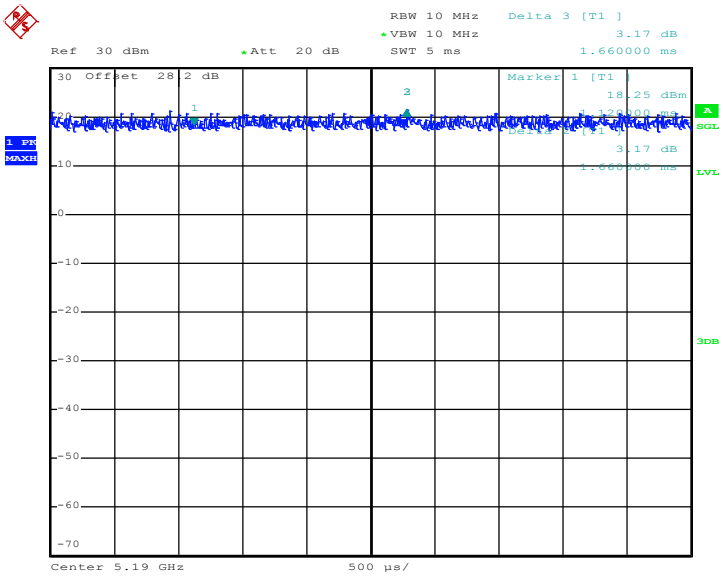
802.11n HT40



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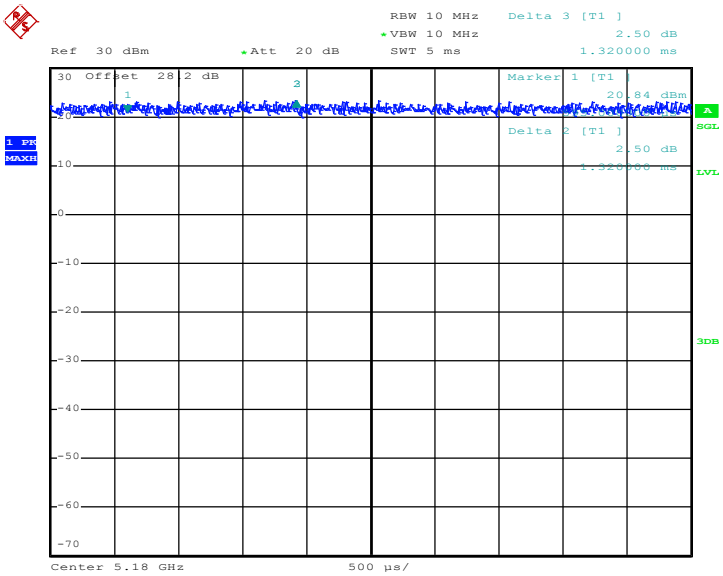

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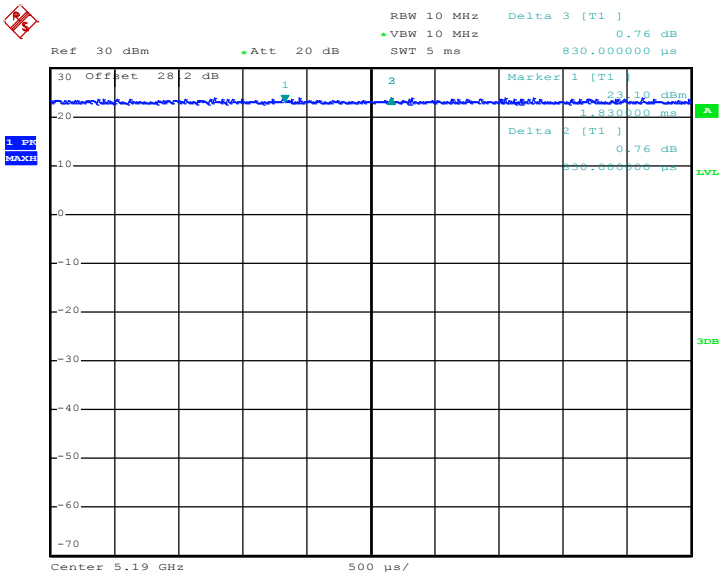
802.11ac VHT40



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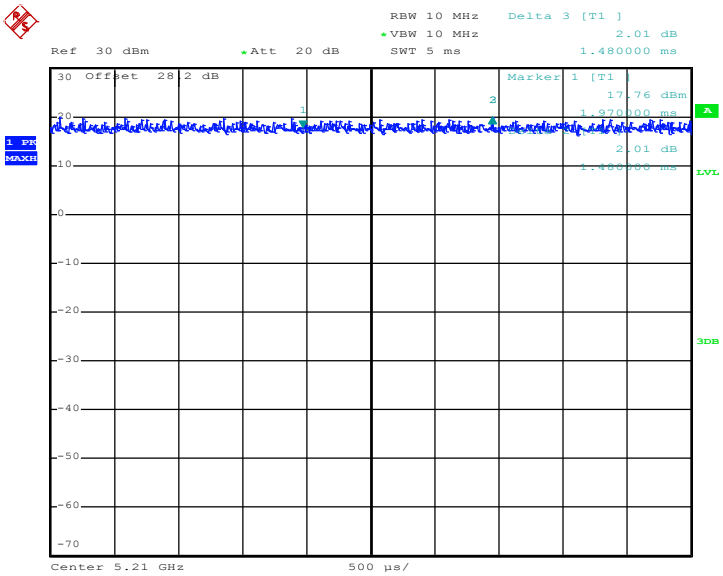
802.11ac VHT80



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——THE END——

Appendix D. External Subcontractors to Perform Testing Data

The test report as below presents all the conducted test item and conduction emission test data performed by the subcontracted Sporton laboratory located in Taiwan.

FCC RADIO TEST REPORT

FCC ID	:	**2AP64-2872**
Equipment	:	**Digital Media Receiver**
Model Name	:	**C1125P**
Applicant	:	**Gargantuan LLC** **303 North Glenoaks Blvd., Ste 200** **Burbank, CA 91502**
Standard	:	**FCC Part 15 Subpart E §15.407**

The test was completed on Aug. 03, 2018. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

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

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

Jones Tsai

Approved by: Jones Tsai

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

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Appendix A. Conducted Test Results
Appendix B. AC Conducted Emission Test Result

History of this test report

Report No.	Version	Description	Issued Date
FR840308-01G	01	Initial issue of report	Aug. 15, 2018

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)
3.1	15.403(i)	26dB Bandwidth	Pass
3.1	2.1049	99% Occupied Bandwidth	Reporting only
3.2	15.407(a)	Maximum Conducted Output Power	Pass
3.3	15.407(a)	Power Spectral Density	Pass
3.4	15.207	AC Conducted Emission	Pass
3.5	15.407(c)	Automatically Discontinue Transmission	Pass
3.6	15.203 15.407(a)	Antenna Requirement	Pass

Reviewed by: Joseph Lin

Report Producer: Maggie Chiang

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Digital Media Receiver
Model Name	C1125P
FCC ID	2AP64-2872
EUT supports Radios application	WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE

1.2 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx/Rx Frequency Range	5180 MHz ~ 5240 MHz
Maximum Output Power to Antenna	**<Ant. 1>** 802.11a : 19.28 dBm / 0.0847 W 802.11n HT20 : 19.12 dBm / 0.0817 W 802.11n HT40 : 18.50 dBm / 0.0708 W 802.11ac VHT20 : 19.10 dBm / 0.0813 W 802.11ac VHT40 : 18.48 dBm / 0.0705 W 802.11ac VHT80 : 13.52 dBm / 0.0225 W **<Ant. 2>** 802.11a : 19.72 dBm / 0.0938 W 802.11n HT20 : 19.52 dBm / 0.0895 W 802.11n HT40 : 18.80 dBm / 0.0759 W 802.11ac VHT20 : 19.48 dBm / 0.0887 W 802.11ac VHT40 : 18.78 dBm / 0.0755 W 802.11ac VHT80 : 13.49 dBm / 0.0223 W
99% Occupied Bandwidth	**<Ant. 1>** 802.11a : 19.65 MHz 802.11n HT20 : 19.80 MHz 802.11n HT40 : 37.30 MHz 802.11ac VHT80 : 76.92 MHz **<Ant. 2>** 802.11a : 19.50 MHz 802.11n HT20 : 19.95 MHz 802.11n HT40 : 38.00 MHz 802.11ac VHT80 : 77.04 MHz
Antenna Type / Gain	**Ant. 1 :** Fixed Internal Antenna type with gain 3.70 dBi **Ant. 2 :** Fixed Internal Antenna type with gain 3.50 dBi
Type of Modulation	802.11a/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac : OFDM (BPSK / QPSK / 16QAM / 64QAM / 256QAM)

1.3 Modification of EUT

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

1.4 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1190 and 2353 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

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

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

1.5 Applicable Standards

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

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

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

2 Test Configuration of Equipment Under Test

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: conduction emission (150 kHz to 30 MHz),

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

2.1 Carrier Frequency and Channel

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

Note:

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

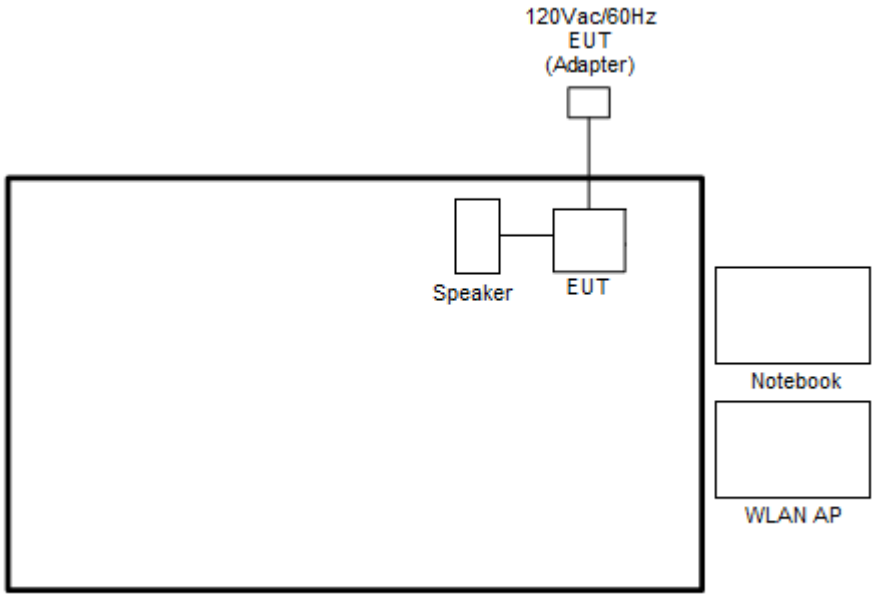
2.2 Test Mode

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

Test Cases	
AC Conducted Emission	Mode 1 : WLAN (5GHz) Link + Play News + External Speaker + USB Cable (Charging from Adapter)

2.3 Connection Diagram of Test System

<AC Conducted Emission Mode>



2.4 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	ASUS	RT-AC66U	MSQ-RTAC66U	N/A	Unshielded, 1.8 m
2.	Notebook	DELL	Latitude E6320	FCC DoC/ Contains FCC ID: QDS-BRCM1054	N/A	AC I/P: Unshielded, 1.2 m DC O/P: Shielded, 1.8 m
3.	Speaker	JAWBONE	JAMBOX	V3J-JBE	Shielded, 0.5 m	N/A

2.5 EUT Operation Test Setup

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

2.6 Measurement Results Explanation Example

For all conducted test items:

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

Example :

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

Offset = RF cable loss + attenuator factor.

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

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

= 4.2 + 10 = 14.2 (dB)

3 Test Result

3.1 26dB & 99% Occupied Bandwidth Measurement

3.1.1 Description of 26dB & 99% Occupied Bandwidth

This section is for reporting purpose only.

There is no restriction limits for bandwidth.

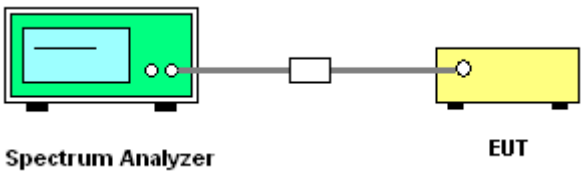
3.1.2 Measuring Instruments

See list of measuring equipment of this test report.

3.1.3 Test Procedures

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

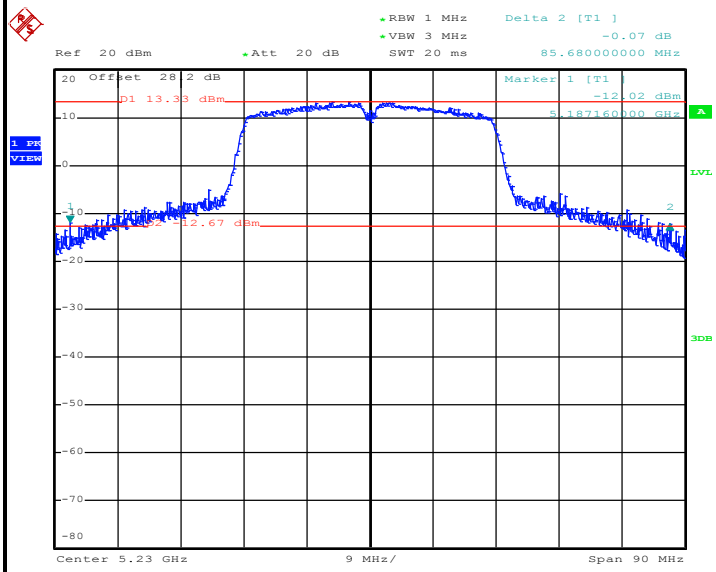
3.1.4 Test Setup



3.1.5 Test Result of 26dB & 99% Occupied Bandwidth

Please refer to Appendix A.

Maximum 26dB Bandwidth



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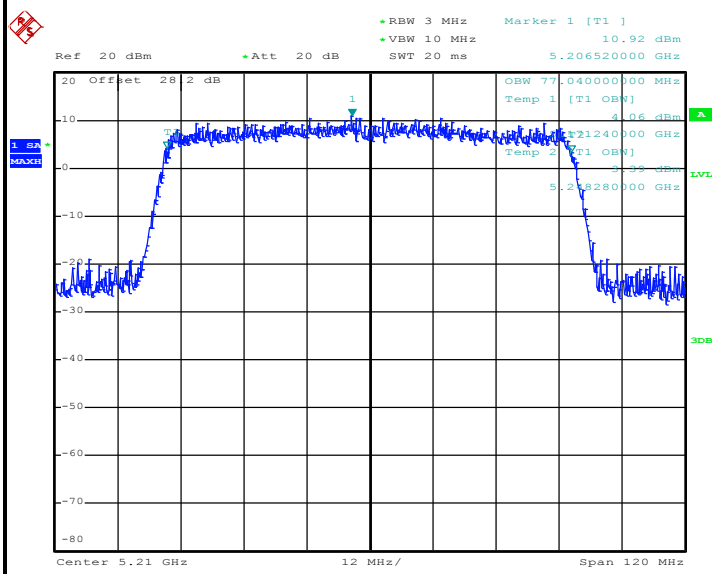
Maximum 99% Occupied Bandwidth



Date: 16.JUL.2018 14:17:58

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

3.2 Maximum Conducted Output Power Measurement

3.2.1 Limit of Maximum Conducted Output Power

<FCC 14-30 CFR 15.407>

For the 5.15–5.25 GHz bands:

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

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

3.2.2 Measuring Instruments

See list of measuring equipment of this test report.

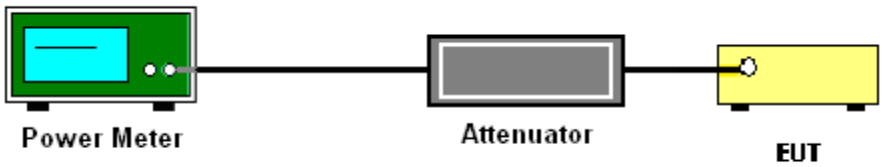
3.2.3 Test Procedures

The testing follows Method PM 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 the 5.15–5.25 GHz bands:

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

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

3.3.2 Measuring Instruments

See list of measuring equipment of this test report.

3.3.3 Test Procedures

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

Section F) Maximum power spectral density.

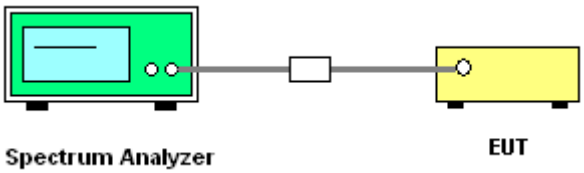
 # Method SA-2 #

(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.

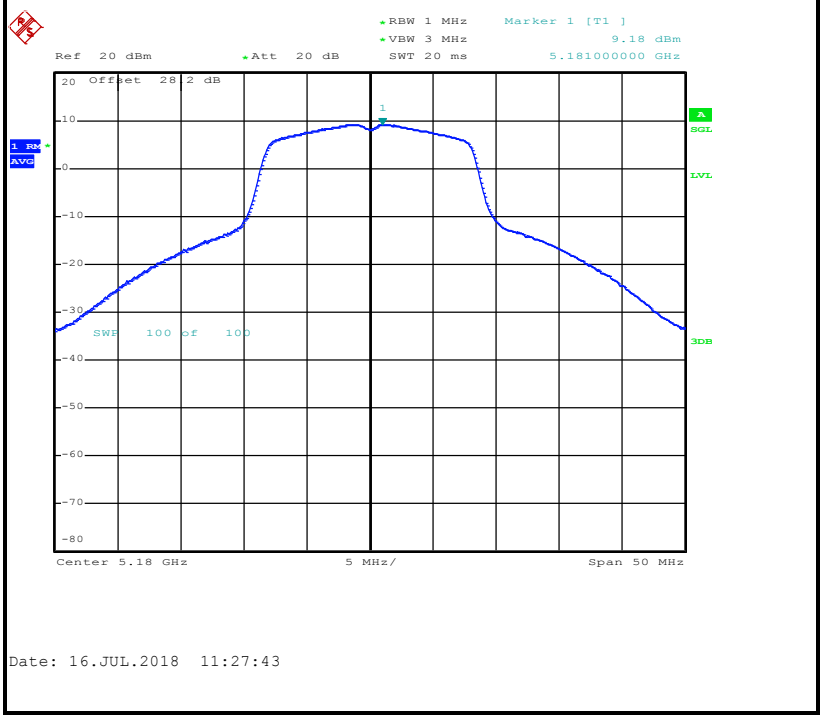
3.3.4 Test Setup



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 AC Conducted Emission Measurement

3.4.1 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.

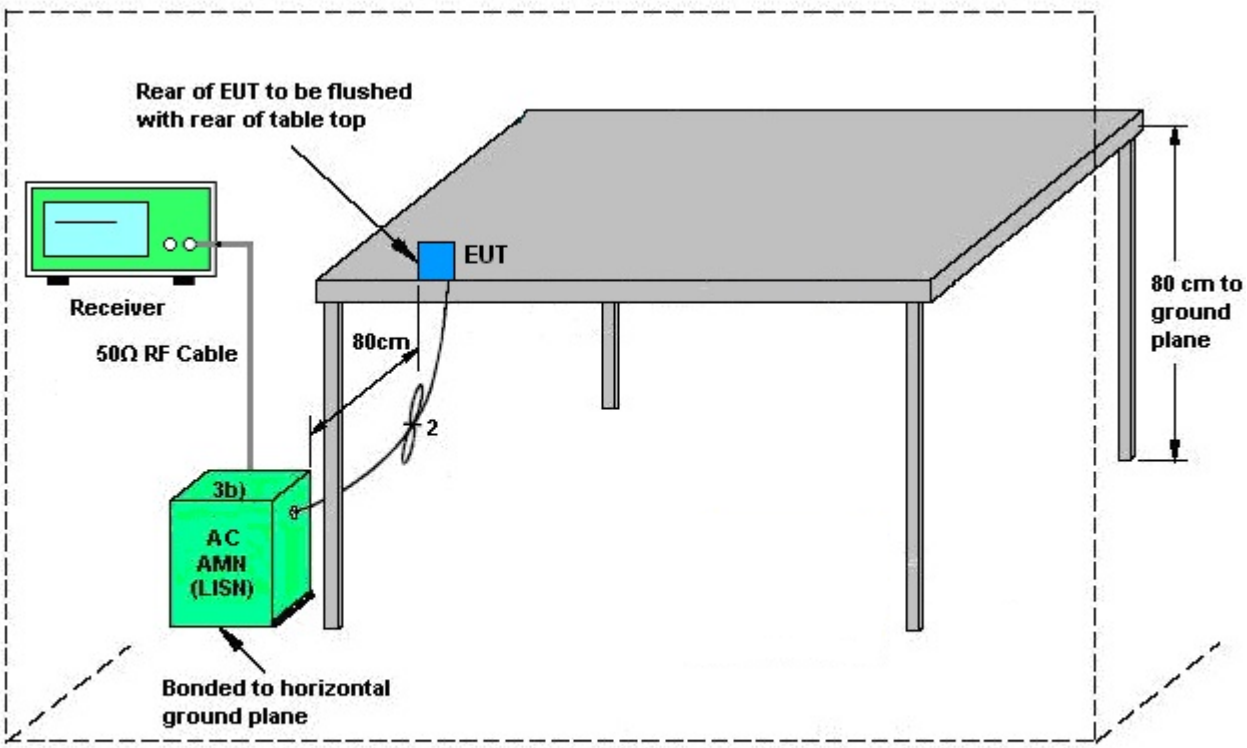
3.4.2 Measuring Instruments

See list of measuring equipment of this test report.

3.4.3 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.

3.4.4 Test Setup



AMN = Artificial mains network (LISN)
AE = Associated equipment
EUT = Equipment under test
ISN = Impedance stabilization network

3.4.5 Test Result of AC Conducted Emission

Please refer to Appendix B.

3.5 Automatically Discontinue Transmission

3.5.1 Limit of Automatically Discontinue Transmission

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

3.5.2 Measuring Instruments

See list of measuring equipment of this test report.

3.5.3 Test Result of Automatically Discontinue Transmission

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

A. Information start: make EUT supply information to the access point.

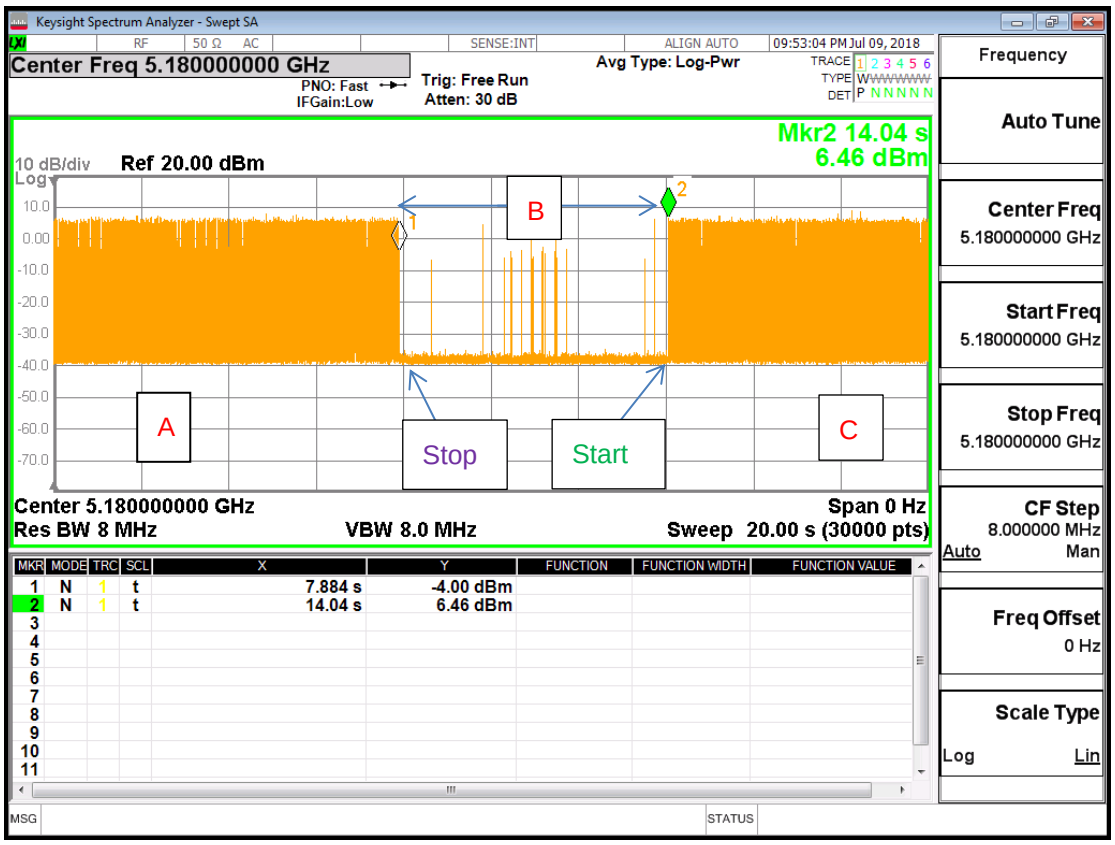
B. Information stop: stop supplying information to the access point.

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

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

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

5180MHz



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

3.6 Antenna Requirements

3.6.1 Standard Applicable

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

3.6.2 Antenna Anti-Replacement Construction

An embedded-in antenna design is used.

3.6.3 Antenna Gain

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

4 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Power Meter	Anritsu	ML2495A	1240001	N/A	Sep. 07, 2017	Jun. 26, 2018~ Aug. 03, 2018	Sep. 06, 2018	Conducted (TH05-HY)
Power Sensor	Anritsu	MA2411B	1207349	300MHz~40GHz	Sep. 07, 2017	Jun. 26, 2018~ Aug. 03, 2018	Sep. 06, 2018	Conducted (TH05-HY)
Spectrum Analyzer	Rohde & Schwarz	FSP40	100057	9kHz-40GHz	Nov. 21, 2017	Jun. 26, 2018~ Aug. 03, 2018	Nov. 20, 2018	Conducted (TH05-HY)
Switch Box & RF Cable	Burgeon	ETF-058	EC1300484	N/A	Mar. 01, 2018	Jun. 26, 2018~ Aug. 03, 2018	Feb. 28, 2019	Conducted (TH05-HY)
AC Power Source	ChainTek	APC-1000W	N/A	N/A	N/A	Jun. 25, 2018	N/A	Conduction (CO05-HY)
EMI Test Receiver	Rohde & Schwarz	ESR3	102388	3.6GHz	Dec. 08, 2017	Jun. 25, 2018	Dec. 07, 2018	Conduction (CO05-HY)
LISN	Rohde & Schwarz	ENV216	100080	9kHz~30MHz	Nov. 30, 2017	Jun. 25, 2018	Nov. 29, 2018	Conduction (CO05-HY)
Software	Rohde & Schwarz	EMC32 V10.30	N/A	N/A	N/A	Jun. 25, 2018	N/A	Conduction (CO05-HY)
LF Cable	HUBER + SUHNER	RG-214/U	LF01	N/A	Jan. 03, 2018	Jun. 25, 2018	Jan. 02, 2019	Conduction (CO05-HY)
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100851	N/A	Jan. 03, 2018	Jun. 25, 2018	Jan. 02, 2019	Conduction (CO05-HY)

5 Uncertainty of Evaluation

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

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

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Kai Liao / Luffy Lin/Shiang Wang	Temperature:	21~25	°C
Test Date:	2018/6/26 ~ 2018/8/03	Relative Humidity:	51~54	%

TEST RESULTS DATA
26dB and 99% OBW

Band I														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	99% Bandwidth (MHz)		26 dB Bandwidth (MHz)		IC 99% Bandwidth Power Limit (dBm)		IC 99% Bandwidth EIRP Limit (dBm)			Note
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	36	5180	19.05	19.50	40.40	40.80	-		22.80	22.90		
11a	6Mbps	1	44	5220	19.30	19.20	41.20	40.90	-		22.86	22.83		
11a	6Mbps	1	48	5240	19.65	19.00	41.00	41.10	-		22.93	22.79		
HT20	MCS0	1	36	5180	19.80	19.10	42.00	41.75	-		22.97	22.81		
HT20	MCS0	1	44	5220	19.55	19.95	42.30	42.45	-		22.91	23.00		
HT20	MCS0	1	48	5240	19.55	19.90	43.80	42.40	-		22.91	22.99		
HT40	MCS0	1	38	5190	36.60	36.50	46.80	46.35	-		23.01	23.01		
HT40	MCS0	1	46	5230	37.30	38.00	85.68	84.78	-		23.01	23.01		
VHT80	MCS0	1	42	5210	76.92	77.04	81.92	81.92	-		23.01	23.01		

Report Number : FR840308-01G

TEST RESULTS DATA
Average Power Table

FCC Band I														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Conducted Power (dBm)		FCC Conducted Power Limit (dBm)		DG (dBi)			Pass/Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	36	5180	0.00	0.00	19.17	19.45	24.00	24.00	3.70	3.50		Pass
11a	6Mbps	1	44	5220	0.00	0.00	19.28	19.53	24.00	24.00	3.70	3.50		Pass
11a	6Mbps	1	48	5240	0.00	0.00	19.26	19.72	24.00	24.00	3.70	3.50		Pass
HT20	MCS0	1	36	5180	0.00	0.00	19.04	19.34	24.00	24.00	3.70	3.50		Pass
HT20	MCS0	1	44	5220	0.00	0.00	19.08	19.48	24.00	24.00	3.70	3.50		Pass
HT20	MCS0	1	48	5240	0.00	0.00	19.12	19.52	24.00	24.00	3.70	3.50		Pass
HT40	MCS0	1	38	5190	0.00	0.00	15.04	14.94	24.00	24.00	3.70	3.50		Pass
HT40	MCS0	1	46	5230	0.00	0.00	18.50	18.80	24.00	24.00	3.70	3.50		Pass
VHT20	MCS0	1	36	5180	0.00	0.00	18.96	19.32	24.00	24.00	3.70	3.50		Pass
VHT20	MCS0	1	44	5220	0.00	0.00	19.05	19.40	24.00	24.00	3.70	3.50		Pass
VHT20	MCS0	1	48	5240	0.00	0.00	19.10	19.48	24.00	24.00	3.70	3.50		Pass
VHT40	MCS0	1	38	5190	0.00	0.00	14.99	14.89	24.00	24.00	3.70	3.50		Pass
VHT40	MCS0	1	46	5230	0.00	0.00	18.48	18.78	24.00	24.00	3.70	3.50		Pass
VHT80	MCS0	1	42	5210	0.00	0.00	13.52	13.49	24.00	24.00	3.70	3.50		Pass

Report Number : FR840308-01G

TEST RESULTS DATA
Power Spectral Density

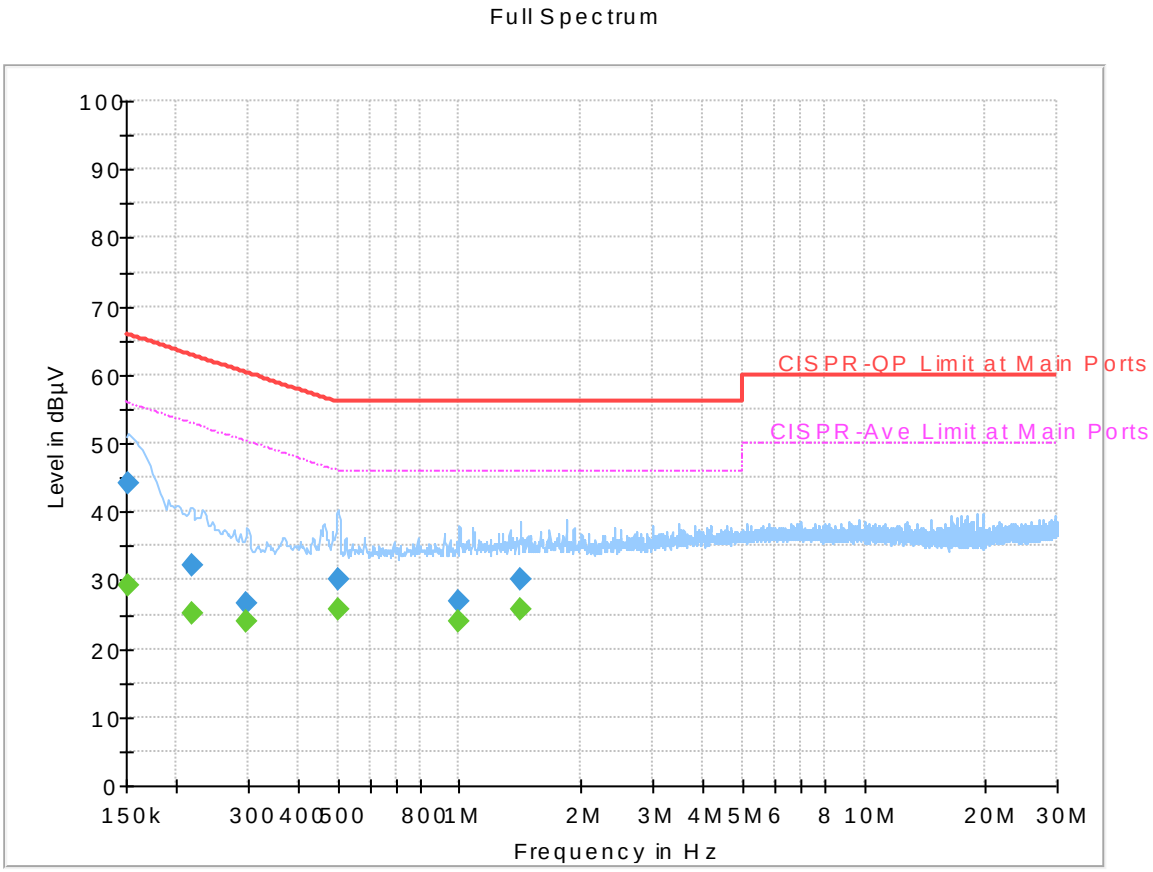
FCC Band I														
Mod.	Data Rate	NTX	CH.	Freq. (MHz)	Duty Factor (dB)		Average Power Density (dBm/MHz)		Average PSD Limit (dBm/MHz)		DG (dBi)			Pass /Fail
					Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2	Ant 1	Ant 2		
11a	6Mbps	1	36	5180	0.00	0.00	8.53	9.18	11.00	11.00	3.70	3.50		Pass
11a	6Mbps	1	44	5220	0.00	0.00	8.39	9.02	11.00	11.00	3.70	3.50		Pass
11a	6Mbps	1	48	5240	0.00	0.00	8.59	8.88	11.00	11.00	3.70	3.50		Pass
HT20	MCS0	1	36	5180	0.00	0.00	8.16	8.65	11.00	11.00	3.70	3.50		Pass
HT20	MCS0	1	44	5220	0.00	0.00	8.38	8.78	11.00	11.00	3.70	3.50		Pass
HT20	MCS0	1	48	5240	0.00	0.00	8.40	8.71	11.00	11.00	3.70	3.50		Pass
HT40	MCS0	1	38	5190	0.00	0.00	1.26	1.39	11.00	11.00	3.70	3.50		Pass
HT40	MCS0	1	46	5230	0.00	0.00	4.39	4.94	11.00	11.00	3.70	3.50		Pass
VHT80	MCS0	1	42	5210	0.00	0.00	-3.82	-3.87	11.00	11.00	3.70	3.50		Pass

Appendix B. AC Conducted Emission Test Results

Test Engineer :	Kai-Chun Chu	**Temperature :**	25~27℃
		Relative Humidity :	50~52%

EUT Information

Report NO :	840308-01
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Line

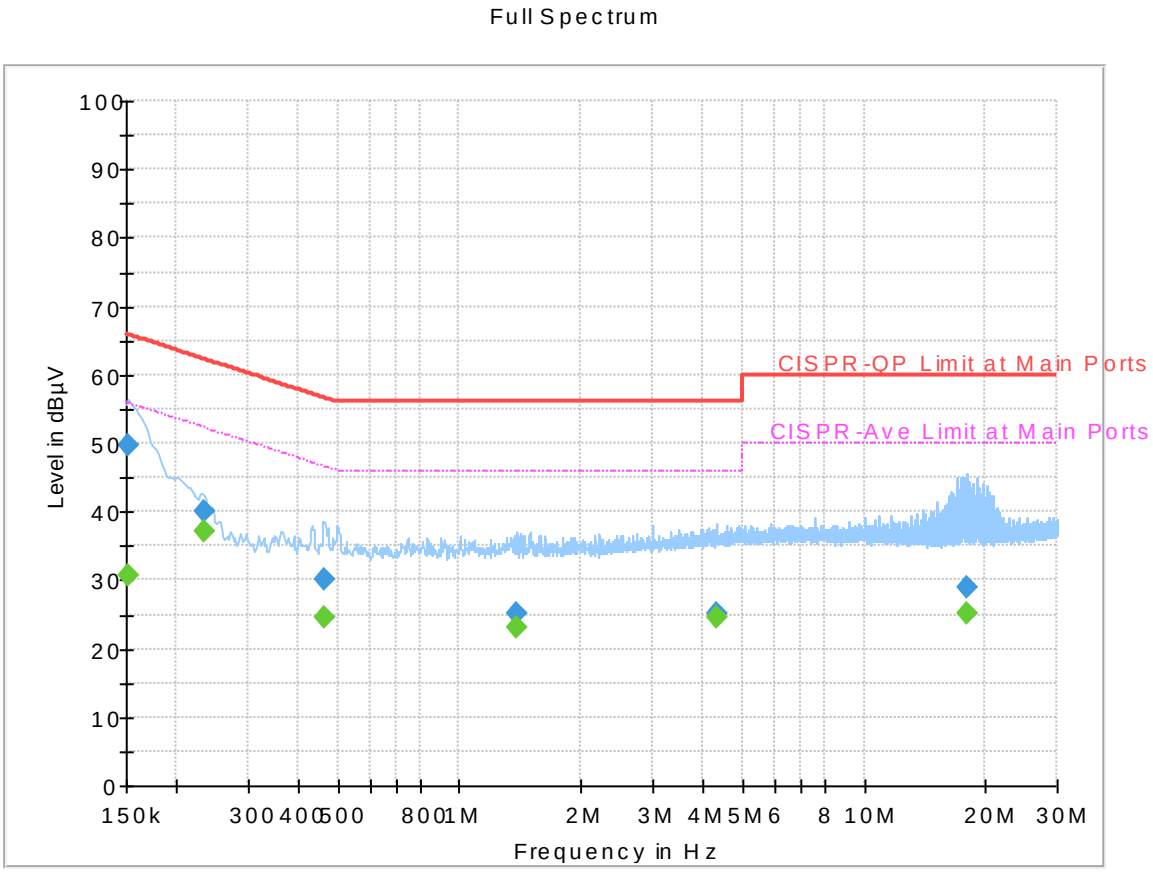


Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	29.38	55.88	26.50	L1	OFF	19.5
0.152250	44.01	---	65.88	21.87	L1	OFF	19.5
0.217500	---	25.24	52.91	27.67	L1	OFF	19.5
0.217500	32.04	---	62.91	30.87	L1	OFF	19.5
0.298500	---	23.99	50.28	26.29	L1	OFF	19.5
0.298500	26.67	---	60.28	33.61	L1	OFF	19.5
0.501000	---	25.63	46.00	20.37	L1	OFF	19.5
0.501000	30.00	---	56.00	26.00	L1	OFF	19.5
0.998250	---	24.05	46.00	21.95	L1	OFF	19.6
0.998250	26.87	---	56.00	29.13	L1	OFF	19.6
1.414500	---	25.85	46.00	20.15	L1	OFF	19.6
1.414500	30.19	---	56.00	25.81	L1	OFF	19.6

EUT Information

Report NO :	840308-01
Test Mode :	Mode 1
Test Voltage :	120Vac/60Hz
Phase :	Neutral



Final_Result

Frequency (MHz)	QuasiPeak (dBµV)	CAverage (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.152250	---	30.57	55.88	25.31	N	OFF	19.5
0.152250	49.72	---	65.88	16.16	N	OFF	19.5
0.233250	---	37.08	52.33	15.25	N	OFF	19.5
0.233250	39.97	---	62.33	22.36	N	OFF	19.5
0.465000	---	24.58	46.60	22.02	N	OFF	19.5
0.465000	30.11	---	56.60	26.49	N	OFF	19.5
1.387500	---	23.13	46.00	22.87	N	OFF	19.6
1.387500	25.00	---	56.00	31.00	N	OFF	19.6
4.310250	---	24.45	46.00	21.55	N	OFF	19.7
4.310250	25.01	---	56.00	30.99	N	OFF	19.7
17.922750	---	25.16	50.00	24.84	N	OFF	20.2
17.922750	29.08	---	60.00	30.92	N	OFF	20.2

THE END