

FCC PART 15C TEST REPORT FOR CERTIFICATION
On Behalf of

Altai Technologies Limited

Altai Clan Super WiFi CPE

Model Number: WA1011N-A

FCC ID: UCC-WA1011N-A

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Date of Report : Aug.26, 2014

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TEST REPORT CERTIFICATION

Applicant : Altai Technologies Limited
Manufacturer : Altai Technologies Limited
EUT Description : Altai Clan Super WiFi CPE
FCC ID : UCC-WA1011N-A
(A) MODEL NO. : WA1011N-A
(B) SERIAL NO. : N/A
(C) POWER SUPPLY : AC 100-240V, 50/60Hz
(D) TEST VOLTAGE : DC 18V From Adapter Input AC 120V/60Hz

Tested for comply with:
FCC Rules and Regulations Part 15 Subpart C: 2013

Test procedure used:
ANSI C63.10:2009

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to confirm comply with all the FCC Part 15 Subpart C requirements. The test results are contained in this test report and AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these tests. This report contains data that are not covered by the NVLAP accreditation. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC and IC requirements.

This Report is made under FCC Part 2.1075. No modifications were required during testing to bring this product into compliance.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

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

Date of Test : Aug.05~17, 2014 Report of date: Aug.26, 2014

Prepared by : Kayli He Reviewed by : Sunny Lu
Kayli He / Assistant Manager Sunny Lu / Assistant Manager

AUDIX[®] 信華科技(深圳)有限公司
Audix Technology (Shenzhen) Co., Ltd.

EMC 部門報告專用章

Stamp only for EMC Dept. Report

Signature: David Jin

Approved & Authorized Signer : David Jin
David Jin / Manager

1. SUMMARY OF STANDARDS AND RESULTS

1.1. Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION		
Description of Test Item	Standard	Results
Power Line Conducted Emission	FCC Part 15: 15.207 ANSI C63.10: 2009	PASS
Radiated Emission	FCC Part 15: 15.209 ANSI C63.10: 2009	PASS
Band Edge Compliance	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Conducted spurious emissions	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
6dB Bandwidth	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Peak Output Power	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Power Spectral Density	FCC Part 15: 15.247 ANSI C63.10: 2009	PASS
Antenna requirement	FCC Part 15: 15.203	PASS

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Product Name	: Altai Clan Super WiFi CPE
Model Number	: WA1011N-A
FCC ID	: UCC-WA1011N-A
Radio	: IEEE802.11 a/n
Operation Frequency	: IEEE 802.11a: 5745MHz—5825MHz IEEE 802.11nHT20: 5745MHz—5825MHz IEEE 802.11nHT40: 5755MHz—5795MHz
Modulation Technology	: IEEE 802.11a: DSSS(CCK, DQPSK, DBPSK) IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM, QPSK,BPSK)
Antenna Assembly	: 5G: Integrated 5GHz 15dBi sector, dual slant +-45 degree
Applicant	: Altai Technologies Limited Units 209, 2/F, Lakeside 2, 10 Science Park West Avenue, Hong Kong Science Park, Shatin, Hong Kong, China
Manufacturer	: Altai Technologies Limited Units 209, 2/F, Lakeside 2, 10 Science Park West Avenue, Hong Kong Science Park, Shatin, Hong Kong, China
Adapter	: Manufacturer: Keen, M/N: S09-012-0180-00660 DC Cable: Unshielded, Detachable, 1.8m
Date of Test	: Aug.05~17, 2014
Date of Receipt	: Apr.27, 2014
Sample Type	: Prototype production

2.2.Test Information

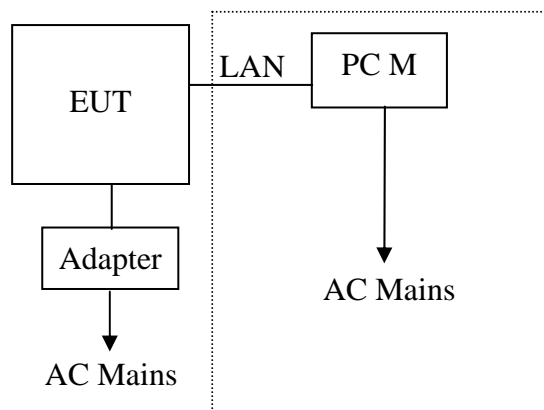
A special test software was used to control EUT work in Continuous TX mode(100% duty cycle), and select test channel, wireless mode and data rate.

Tested mode, channel, and data rate information			
Mode	data rate (Mbps)(see Note)	Channel	Frequency (MHz)
IEEE 802.11a	6	Low :CH149	5745
	6	Middle: CH157	5785
	6	High: CH165	5825
IEEE 802.11n HT20	6.5	Low :CH149	5745
	6.5	Middle: CH157	5785
	6.5	High: CH165	5825
IEEE 802.11n HT40	13.5	Low :CH151	5755
	13.5	High : CH159	5795
<p>Note 1: According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.</p> <p>Note 2: In 11a mode test Radiated emission and Band edge use chain which has the worse case emission test with two antenna transmit simultaneously in 11n mode.</p>			

2.3. Tested Supporting System Details

No.	Description	ACS No.	Manufacturer	Model	Serial Number	Approved type
1	Personal Computer	Test PC M	DELL	Studio 540	224XK2X	<input checked="" type="checkbox"/> FCC DoC <input checked="" type="checkbox"/> BSMI ID:R33002
		Power Cord: Unshielded, Detachable, 1.8m Display Card: HD3450 (DVI+VGA+HDMI)				
2	Monitor	ACS-EMC-LM04R	DELL	1907FPt	CN-009759-7161 8-6AP-ACPP	<input checked="" type="checkbox"/> FCC DoC <input checked="" type="checkbox"/> BSMI ID: R3A002
		Power Cord: Unshielded, Detachable, 1.8m VGA Cable: Shielded, Detachable, 2.0m (with two cores) DVI Cable: Shielded, Detachable, 2.0m (with two cores)				
3	USB Mouse	ACS-EMC-M04R	DELL	M0C5UO	512024282	<input checked="" type="checkbox"/> FCC DoC <input checked="" type="checkbox"/> BSMI ID: R41108
		Power Cord: shielded, Undetachable, 1.8m				
4	USB Keyboard	ACS-EMC- K04R	DELL	SK-8115	CN-ODJ313-716 16-6BB-049J	<input checked="" type="checkbox"/> FCC DoC <input checked="" type="checkbox"/> BSMI ID: T3A002
		Power Cord: shielded, Undetachable, 2.0m				

2.4. Block Diagram of Test Setup



(EUT: Altai Clan Super WiFi CPE)

2.5. Test Facility

Site Description

Name of Firm	:	Audix Technology (Shenzhen) Co., Ltd. No. 6, Ke Feng Rd., 52 Block, Shenzhen Science & Industrial Park, Nantou, Shenzhen, Guangdong, China
3m Anechoic Chamber	:	Certificated by FCC, USA Registration Number: 90454 Valid Date: Feb.22, 2015
3m & 10m Anechoic Chamber	:	Certificated by FCC, USA Registration Number: 794232 Valid Date: Oct.31, 2015
EMC Lab.	:	Certificated by Industry Canada Registration Number: IC 5183A-1 Valid Date: May.14, 2017
	:	Certificated by DAkkS, Germany Registration No: D-PL-12151-01-00 Valid Date: Dec.15, 2016
	:	Accredited by NVLAP, USA NVLAP Code: 200372-0 Valid Date: Mar.31, 2015

2.6. Measurement Uncertainty (95% confidence levels, k=2)

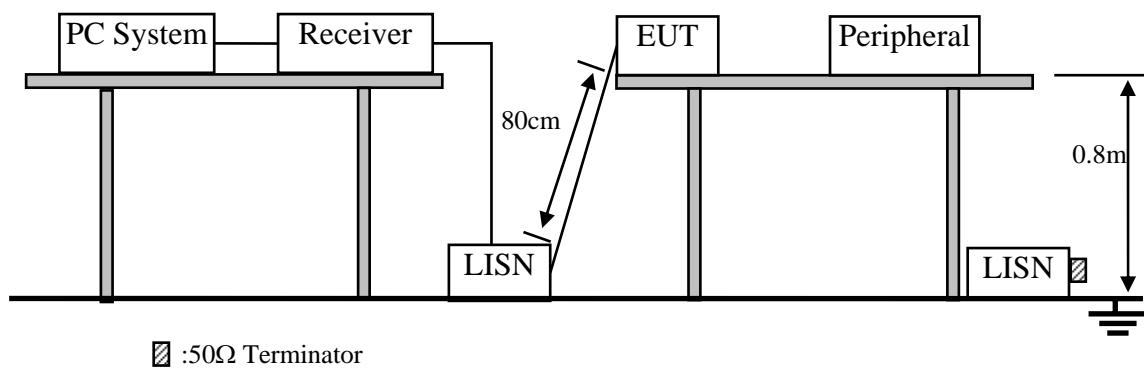
Test Item	Uncertainty
Uncertainty for Radiation Emission test in 3m chamber	3.22 dB(30~200MHz, Polarize: H)
	3.23 dB(30~200MHz, Polarize: V)
	3.49 dB(200M~1GHz, Polarize: H)
	3.39 dB(200M~1GHz, Polarize: V)
Uncertainty for Radiation Emission test in 3m chamber (1GHz-18GHz)	4.97 dB(1~6GHz, Distance: 3m)
	4.99 dB(6~18GHz, Distance: 3m)
Uncertainty for Radiated Spurious Emission test in RF chamber	3.57 dB
Uncertainty for Conduction Spurious emission test	2.00 dB
Uncertainty for Output power test	0.73 dB
Uncertainty for Bandwidth test	83 kHz
Uncertainty for DC power test	0.038 %
Uncertainty for test site temperature and humidity	0.6°C
	3%

3. POWER LINE CONDUCTED EMISSION TEST

3.1.Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	1# Shielding Room	AUDIX	N/A	N/A	Apr.17,14	1 Year
2.	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Oct.31, 13	1 Year
3.	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	100429	Jan.22, 14	1 Year
4.	L.I.S.N.#3	Kyoritsu	KNW-242C	8-1920-1	Apr. 28,14	1 Year
5.	Terminator	Hubersuhner	50Ω	No. 1	Apr. 28,14	1 Year
6.	Terminator	Hubersuhner	50Ω	No. 2	Apr. 28,14	1 Year
7.	RF Cable	Hubersuhner	RG58	0100.6954.20#	Jan.22, 14	1 Year
8.	Coaxial Switch	Anritsu	MP59B	6200298346	Apr. 28,14	1 Year
9.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	101838	Jan.22, 14	1 Year

3.2.Block Diagram of Test Setup



3.3.Power Line Conducted Emission Test Limits

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Notes: 1. * Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

3.4.Configuration of EUT on Test

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

3.4.1. Altai Clan Super WiFi CPE (EUT)

Model Number : WA1011N-A

Serial Number : N/A

3.4.2.Support Equipment: As Tested Supporting System Details, in Section 2.2.

3.5.Operating Condition of EUT

- 3.5.1. Setup the EUT and simulator as shown as Section 3.2.
- 3.5.2. Turned on the power of all equipment.
- 3.5.3. PC run test software to control EUT work in Tx mode.

3.6.Test Procedure

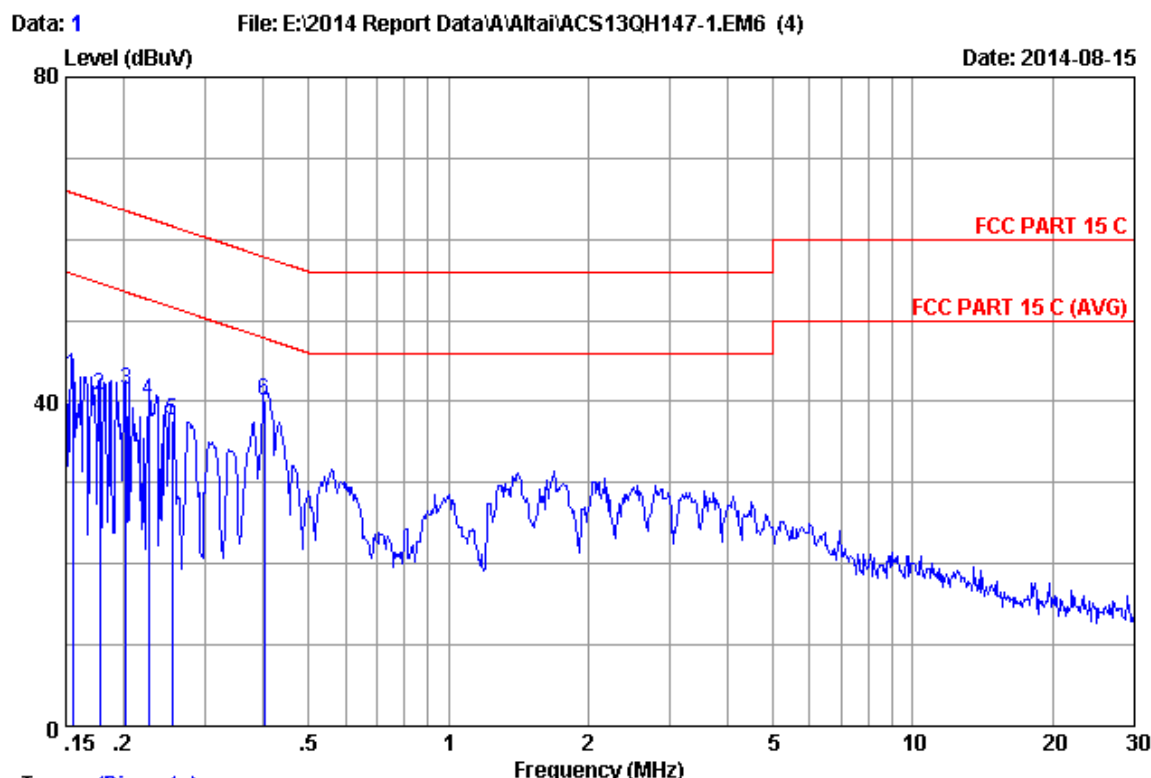
The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power Via PC connected to the power mains through a line impedance stabilization network (L.I.S.N. 1#). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2009 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS10) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

3.7.Power Line Conducted Emission Test Results

PASS. (All emissions not reported below are too low against the prescribed limits.)

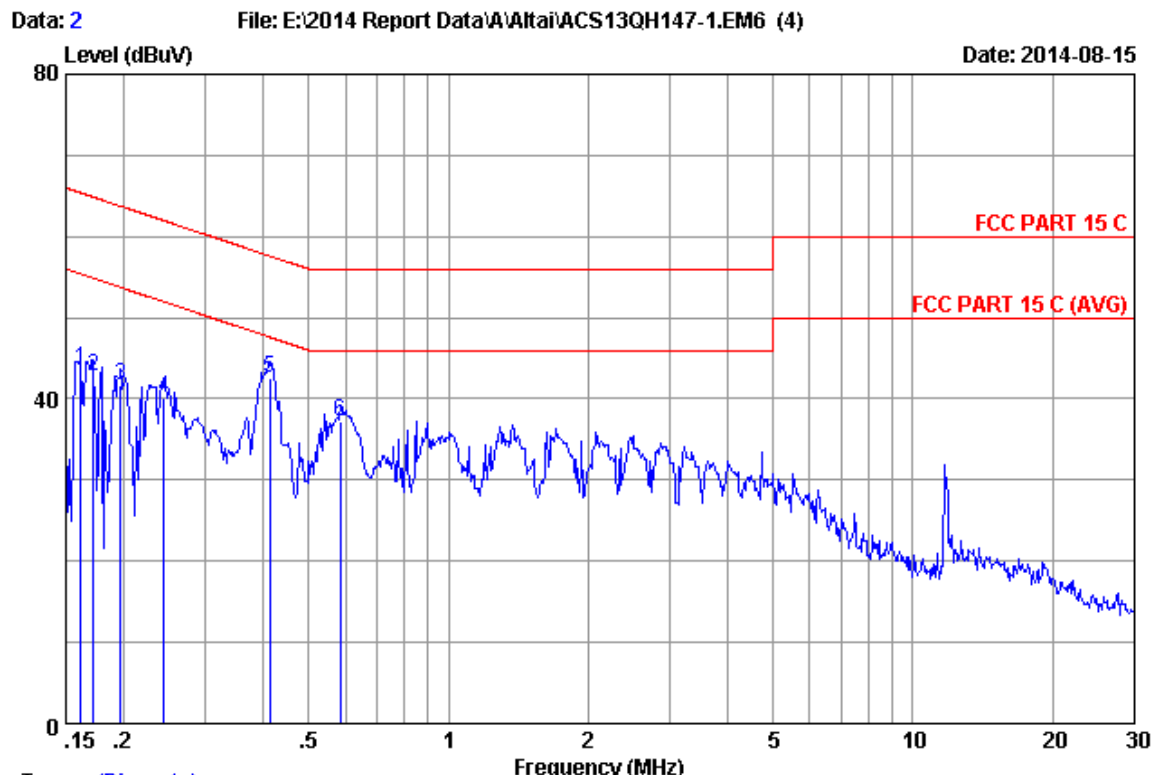


Trace: (Discrete)

Site no :1#conduction Data No :1
Dis./Ant. :2014 ESH2-Z5 LINE
Limit :FCC PART 15 C
Env./Ins. :24.6°C/53% Engineer :Nick_Huang
EUT :Altai Clan Super WiFi CPE
Power Rating :DC 18V From Adapter Input AC 120V/60Hz
Test Mode :Tx Mode
M/N:WA1011N-A

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15485	0.12	9.87	33.16	43.15	65.74	22.59	QP
2	0.17772	0.13	9.88	30.76	40.77	64.59	23.82	QP
3	0.20181	0.13	9.88	31.51	41.52	63.54	22.02	QP
4	0.22556	0.13	9.88	30.02	40.03	62.61	22.58	QP
5	0.25345	0.14	9.88	27.60	37.62	61.64	24.02	QP
6	0.40187	0.15	9.88	30.10	40.13	57.81	17.68	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)
+Reading.
2.If the average limit is met when using a quasi-peak detector.
the EUT shall be deemed to meet both limits and measurement
with average detector is unnecessary.


Trace: (Discrete)

Site no :1#conduction Data No :2
 Dis./Ant. :2014 ESH2-Z5 NEUTRAL
 Limit :FCC PART 15 C
 Env./Ins. :24.6°C/53% Engineer :Nick_Huang
 EUT :Altai Clan Super WiFi CPE
 Power Rating :DC 18V From Adapter Input AC 120V/60Hz
 Test Mode :Tx Mode
 M/N:WA1011N-A

No	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.16155	0.13	9.87	33.75	43.75	65.38	21.63	QP
2	0.17215	0.13	9.87	32.79	42.79	64.86	22.07	QP
3	0.19654	0.13	9.88	31.62	41.63	63.76	22.13	QP
4	0.24422	0.13	9.88	30.15	40.16	61.95	21.79	QP
5	0.41266	0.15	9.88	32.64	42.67	57.59	14.92	QP
6	0.58540	0.15	9.88	27.18	37.21	56.00	18.79	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit)
 +Reading.
 2.If the average limit is met when using a quasi-peak detector,
 the EUT shall be deemed to meet both limits and measurement
 with average detector is unnecessary.

4. RADIATED EMISSION TEST

4.1. Test Equipment

4.1.1. For frequency range 30MHz~1000MHz (At Anechoic Chamber)

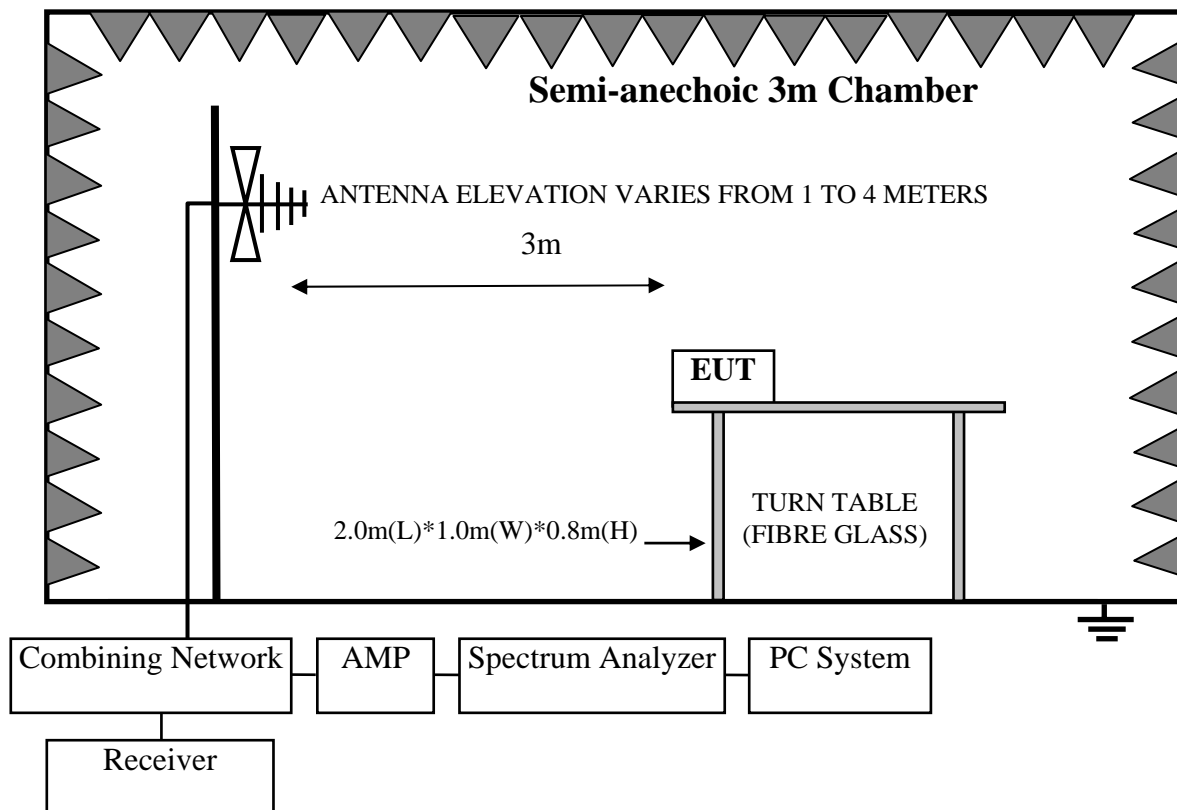
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	3#Chamber	AUDIX	N/A	N/A	Nov.24, 13	1 Year
2.	EMI Spectrum	Agilent	E4407B	MY41440292	Apr. 28,14	1 Year
3.	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	Apr. 28,14	1 Year
4.	Amplifier	HP	8447D	2648A04738	Apr. 28,14	1 Year
5.	Bilog Antenna	TESEQ	CBL6112D	35375	Jun. 18, 14	1 Year
6.	RF Cable	MIYAZAKI	CFD400-NL	3# Chamber No.1	Apr. 28,14	1 Year
7.	Coaxial Switch	Anritsu	MP59B	6200313662	Apr. 28,14	1 Year

4.1.2. For frequency range above 1GHz (At Anechoic Chamber)

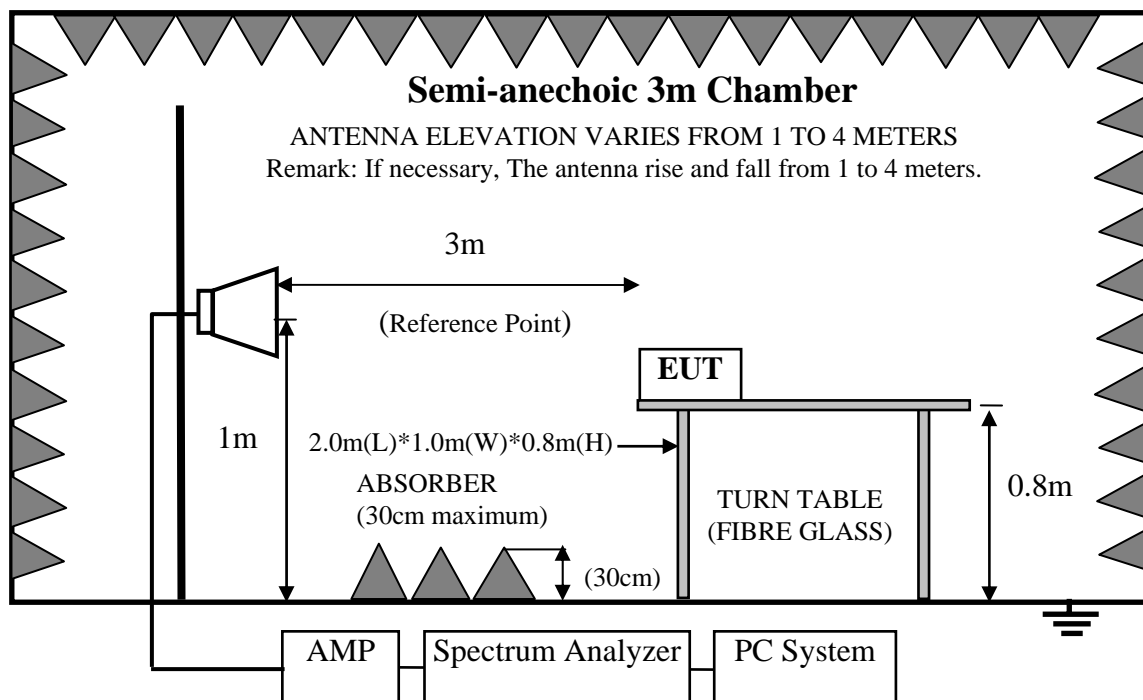
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	3#Chamber	AUDIX	N/A	N/A	Nov.03, 13	1 Year
2.	Spectrum Analyzer	Agilent	E4407B	MY41440292	Apr. 28,14	1 Year
3.	Horn Antenna	ETS	3115	9607-4877	Aug.27, 13	1 Year
4.	Amplifier	Agilent	8449B	3008A00863	Apr. 28,14	1 Year
5.	RF Cable	Hubersuhner	SUCOFLEX106	77977/6	Apr. 28,14	1 Year
6.	RF Cable	Hubersuhner	SUCOFLEX106	28616/2	Apr. 28,14	1 Year
7.	Horn Antenna	ETS	3116	00060089	Aug.27, 13	1 Year

4.2. Block Diagram of Test Setup

4.2.1. For frequency range 30MHz-1000MHz



4.2.2. For frequency range above 1GHz



4.3.Radiated Emission Limit

4.3.1. 15.247&209 limits

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		$\mu\text{V/m}$	$\text{dB}(\mu\text{V})/\text{m}$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 $\text{dB}(\mu\text{V})/\text{m}$ (Peak) 54.0 $\text{dB}(\mu\text{V})/\text{m}$ (Average)	

Remark : (1) Emission level $\text{dB}\mu\text{V} = 20 \log$ Emission level $\mu\text{V/m}$

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

4.3.2. 15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

4.4.EUT Configuration on Test

The configurations of EUT are listed in Section 3.5.

4.5.Operating Condition of EUT

Same as Conducted Emission test that is listed in Section 3.6. except the test set up replaced by Section 4.2.

4.6.Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and

down between 1 meter and 4 meters to find out the maximum emission level.

Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna are set on test.

This test was performed with EUT in X, Y, Z position, and the worse case was found when EUT in X position as test photo indicated.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 3MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

The frequency range from 30MHz to 10th harmonic (40GHz) are checked. and no any emissions were found from 18GHz to 40 GHz, So the radiated emissions from 18GHz to 40GHz were not record

4.7.Radiated Emission Test Results

PASS.

All the emissions from 30MHz to 40 GHz were comply with 15.209 limits.

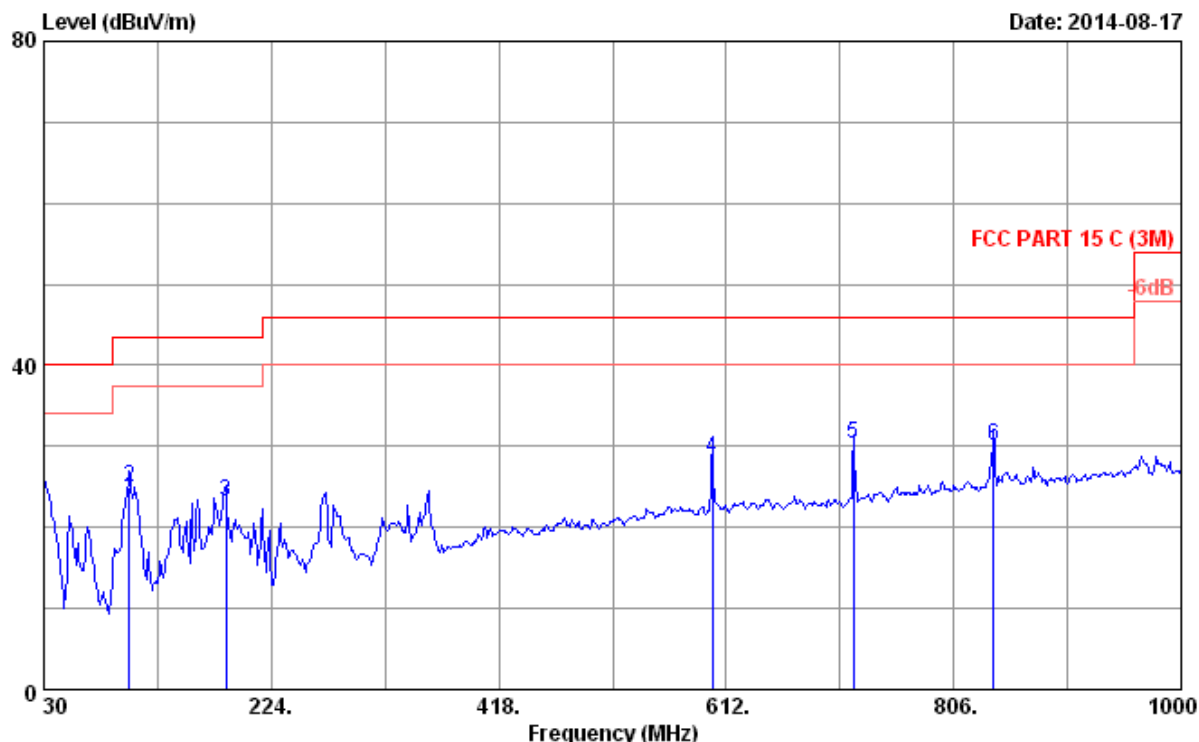
Note: For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

Frequency: 30MHz~1GHz

Data: 1

File: E:\2014 Report Data\A\Altai\ACS13QH147-RF.EM6 (6)

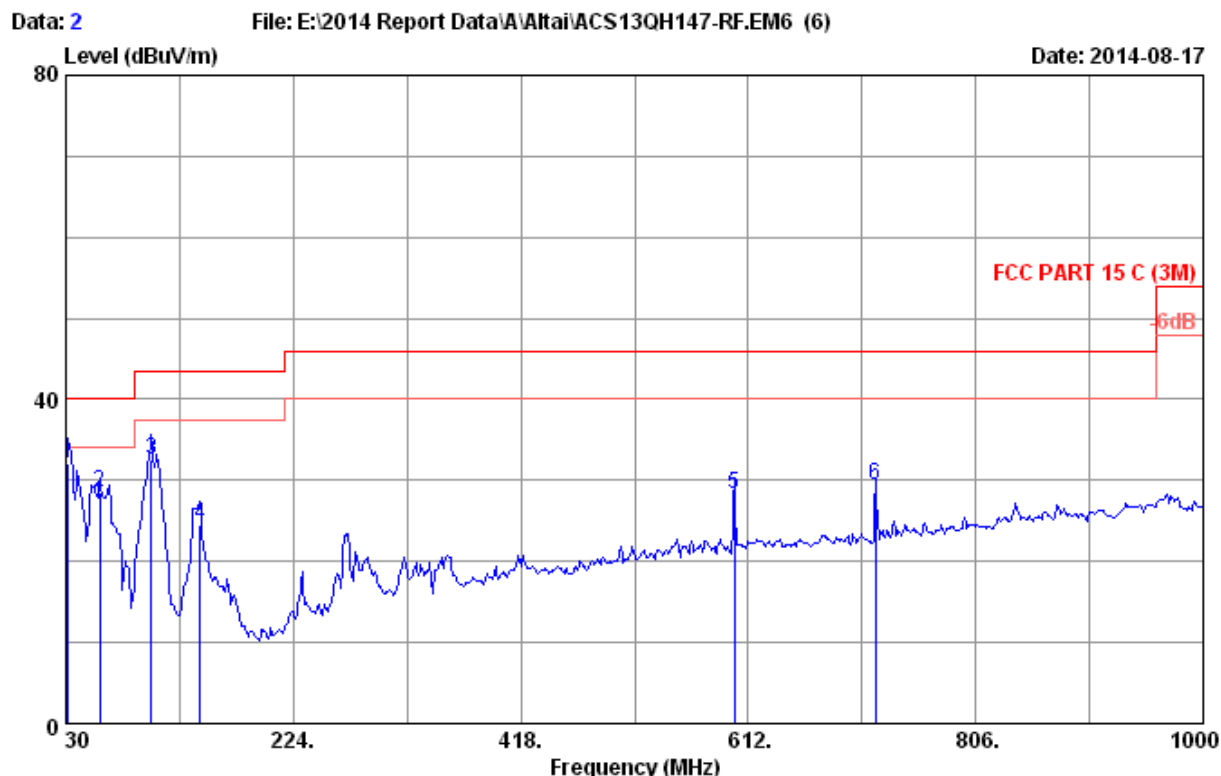
Date: 2014-08-17



Site no. : 3m Chamber Data no. : 1
Dis. / Ant. : 3m 2014 CBL6112D 35375 Ant. pol. : HORIZONTAL
Limit : FCC PART 15 C (3M)
Env. / Ins. : 23.4°C/42% Engineer : Leo-Li
EUT : Altai Clan Super WiFi CPE
Power rating : DC 18V From Adapter Input AC 120V/60Hz
Test Mode : Tx Mode
M/N:WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	30.000	19.60	0.60	2.45	22.65	40.00	17.35	QP
2	102.750	11.54	1.14	12.36	25.04	43.50	18.46	QP
3	185.200	9.70	1.76	11.67	23.13	43.50	20.37	QP
4	600.360	19.21	3.71	5.53	28.45	46.00	17.55	QP
5	720.640	20.01	4.20	6.14	30.35	46.00	15.65	QP
6	839.950	21.40	4.64	3.98	30.02	46.00	15.98	QP

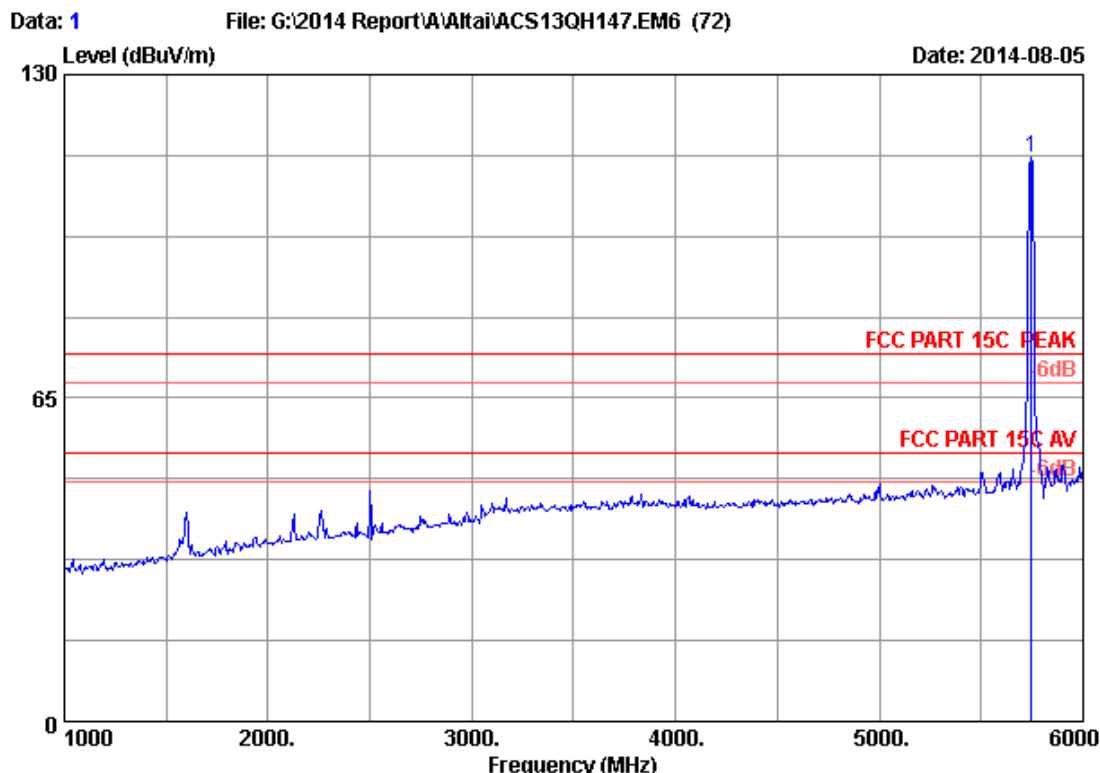
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. The emission levels that are 20dB below the official limit are not reported.



Site no. : 3m Chamber Data no. : 2
 Dis. / Ant. : 3m 2014 CBL6112D 35375 Ant. pol. : VERTICAL
 Limit : FCC PART 15 C (3M)
 Env. / Ins. : 23.4°C/42% Engineer : Leo-Li
 EUT : Altai Cian Super WiFi CPE
 Power rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : Tx Mode
 M/N:WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	31.940	18.82	0.62	12.72	32.16	40.00	7.84	QP
2	59.100	6.64	0.85	20.93	28.42	40.00	11.58	QP
3	102.750	11.54	1.14	19.89	32.57	43.50	10.93	QP
4	144.460	11.58	1.50	11.40	24.48	43.50	19.02	QP
5	600.360	19.21	3.71	5.43	28.35	46.00	17.65	QP
6	720.640	20.01	4.20	5.21	29.42	46.00	16.58	QP

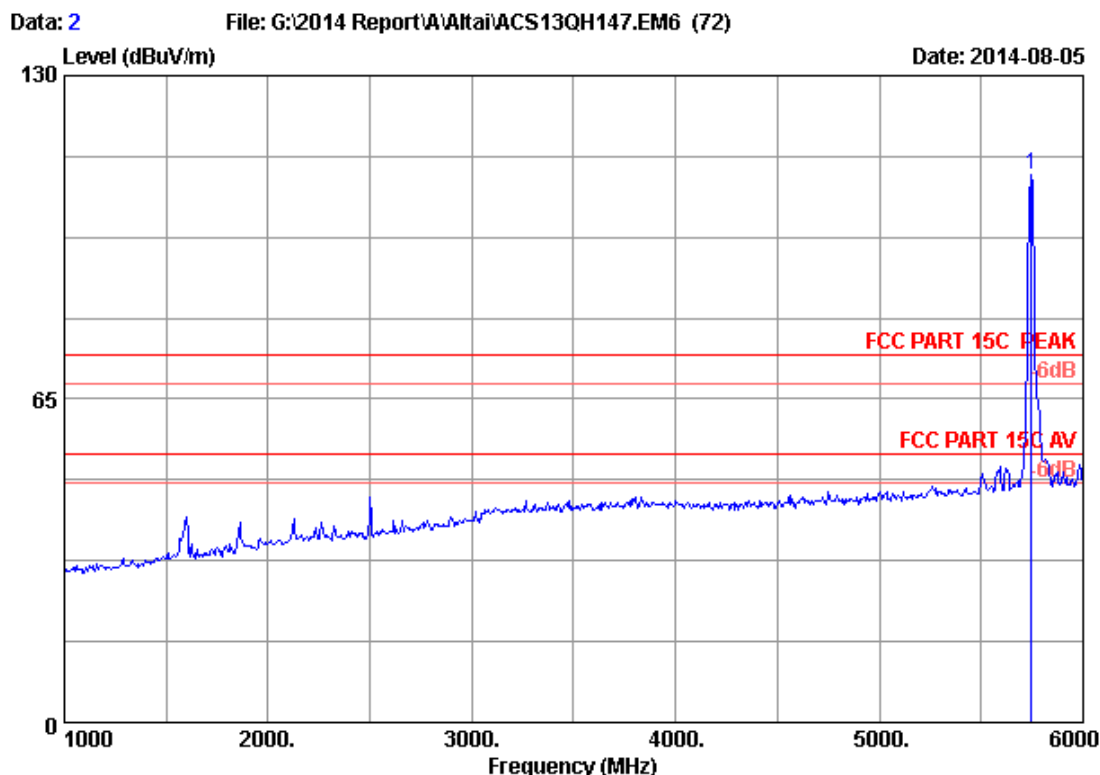
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. The emission levels that are 20dB below the official limit are not reported.

Frequency: 1GHz~18GHz


Site no. : 3m Chamber Data no. : 1
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH149 5745MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Emission				Remark
					Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	
1	5745.000	34.10	9.55	35.70	105.52	113.47	74.00	-39.47	Peak

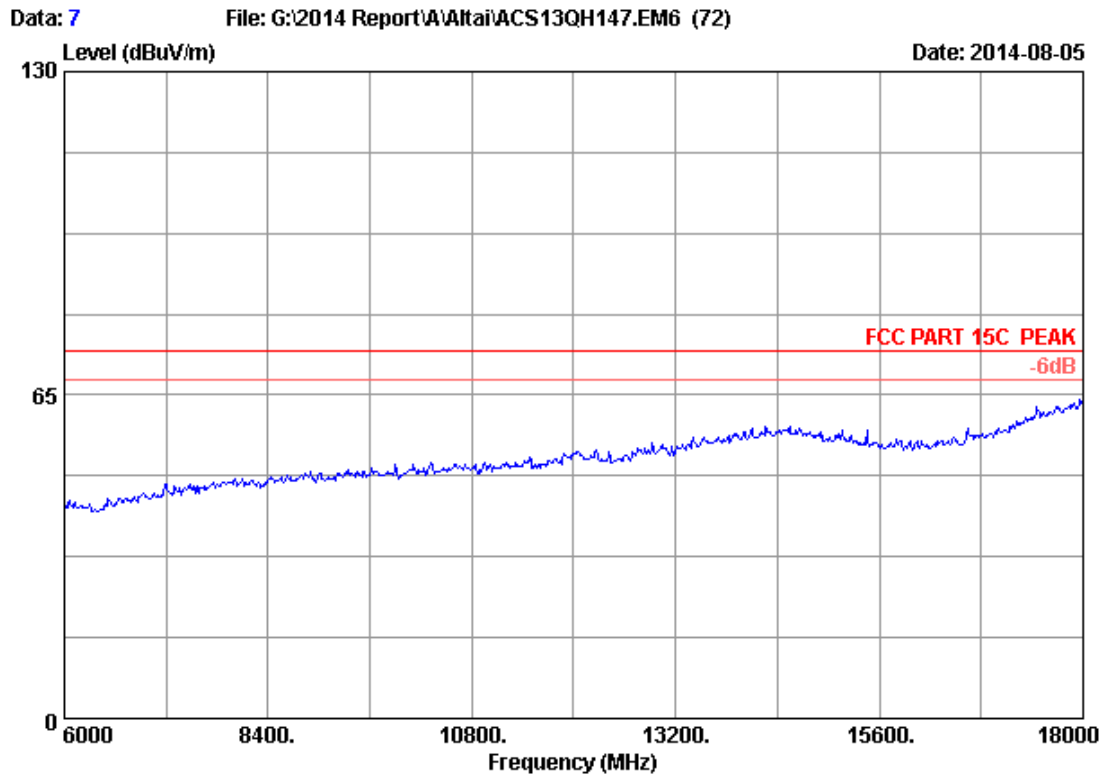
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



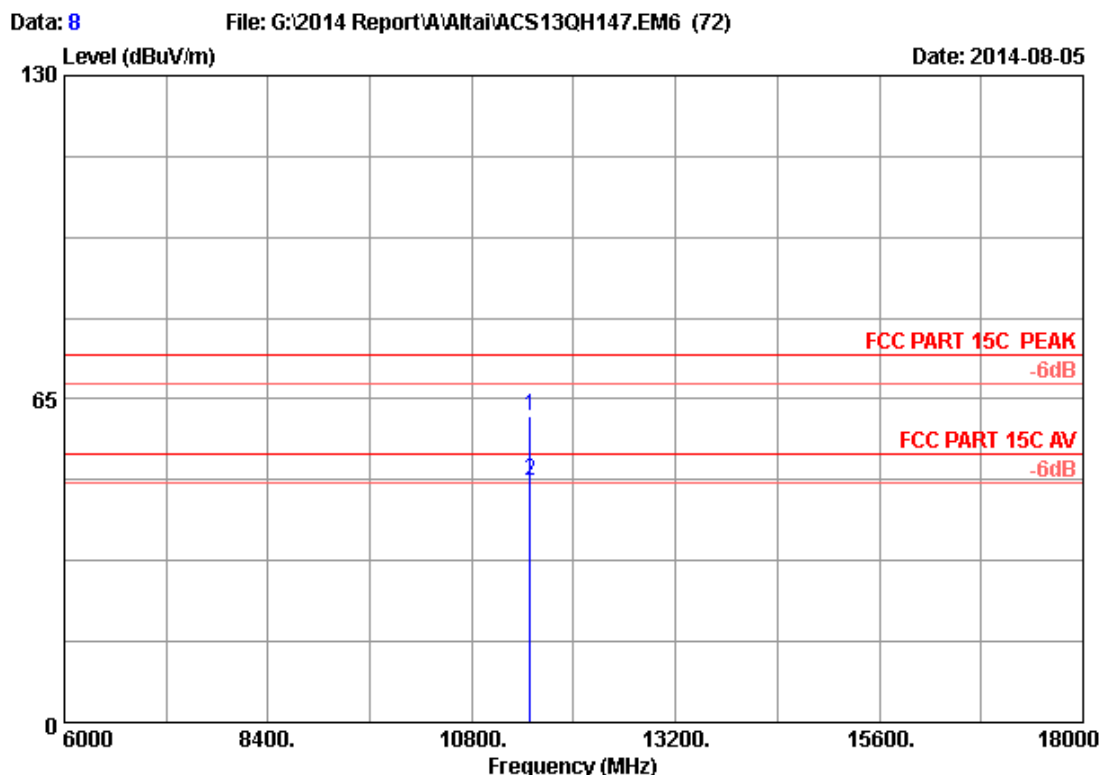
Site no. : 3m Chamber Data no. : 2
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH149 5745MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5745.000	34.10	9.55	35.70	102.14	110.09	74.00	-36.09	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



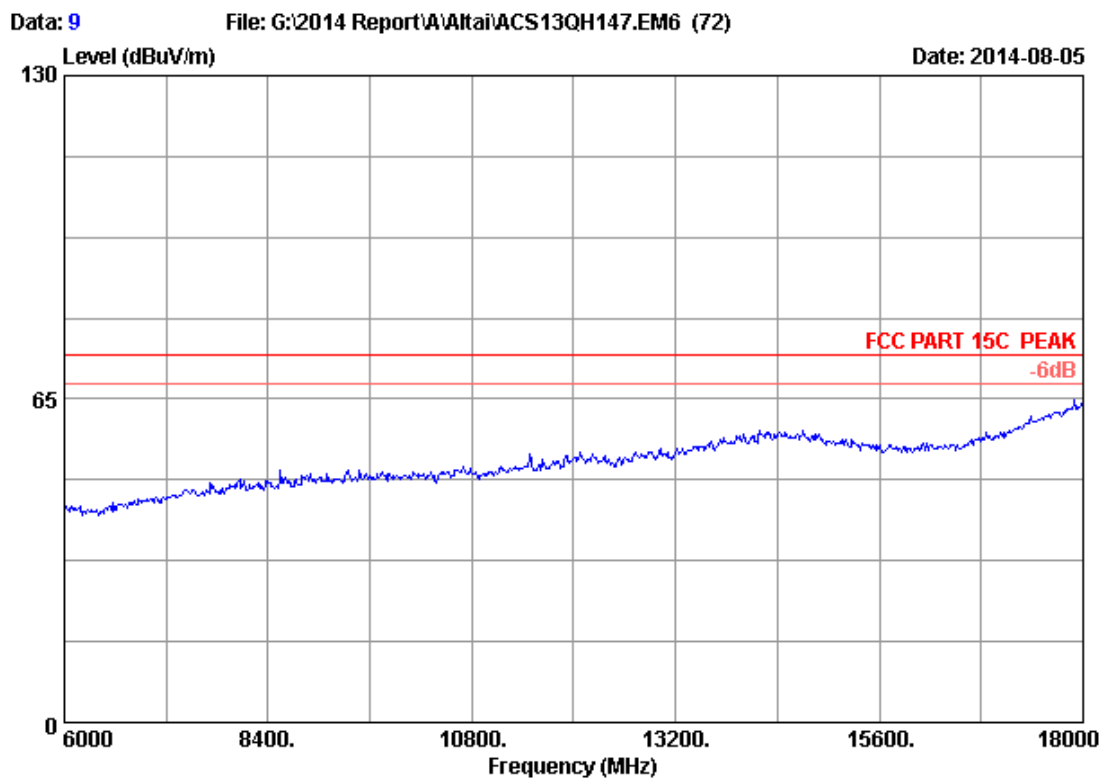
Site no.	: 3m Chamber	Data no.	: 7
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Kevin_Hu
EUT	: Altai Clan Super WiFi CPE		
Power Rating	: DC 18V From Adapter Input AC 120V/60Hz		
Test Mode	: IEEE802.11a CH149 5745MHz Tx		
M/N	: WA1011N-A		



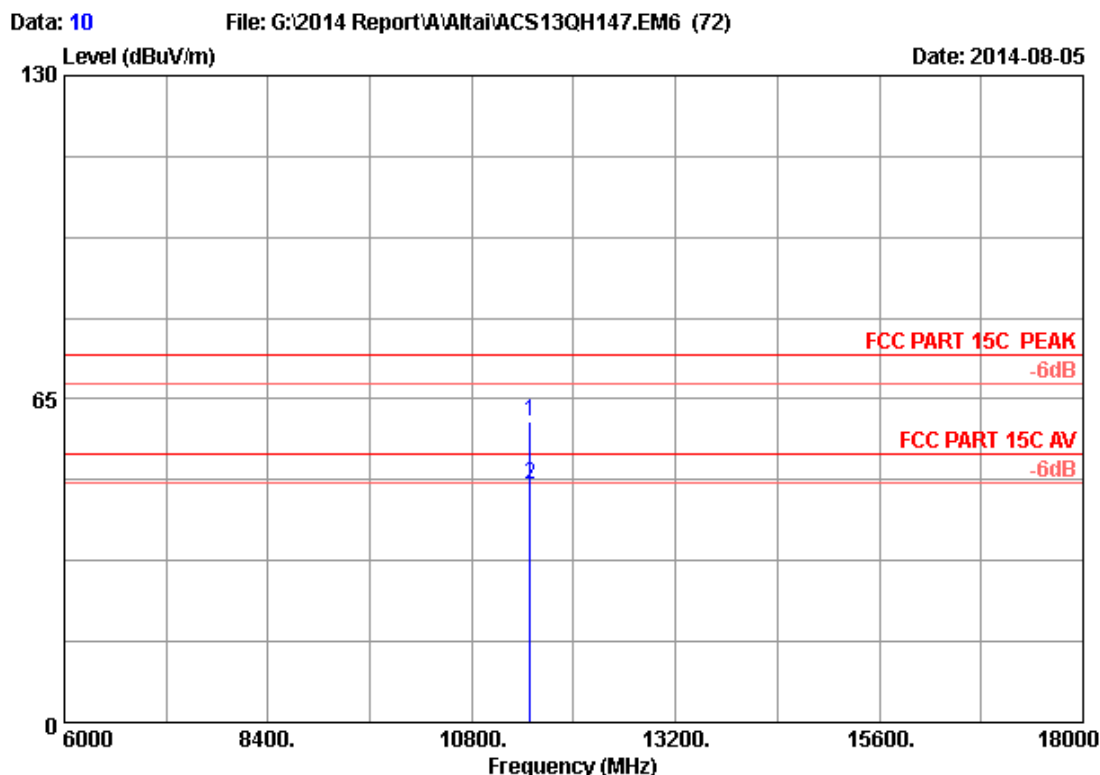
Site no. : 3m Chamber Data no. : 8
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH149 5745MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	11490.000	38.69	13.28	35.28	44.82	61.51	74.00	12.49	Peak
2	11490.000	38.69	13.28	35.28	31.66	48.35	54.00	5.65	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



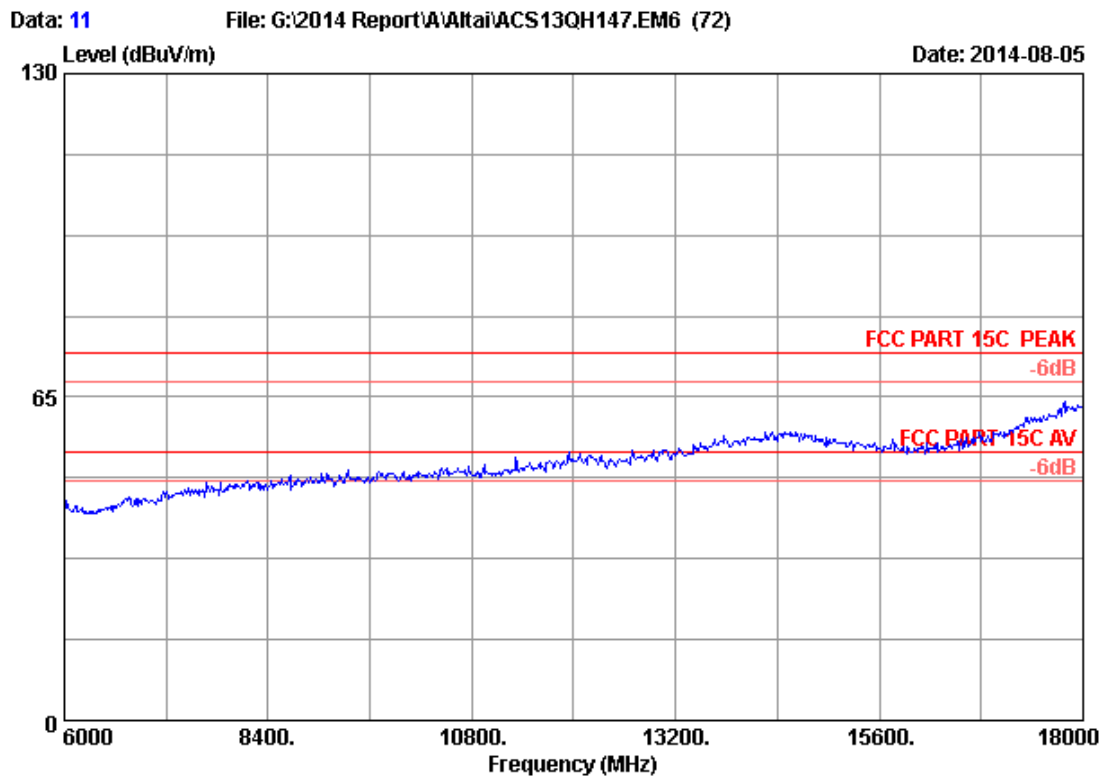
Site no.	: 3m Chamber	Data no.	: 9
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Kevin_Hu
EUT	: Altai Clan Super WiFi CPE		
Power Rating	: DC 18V From Adapter Input AC 120V/60Hz		
Test Mode	: IEEE802.11a CH149 5745MHz Tx		
M/N	: WA1011N-A		



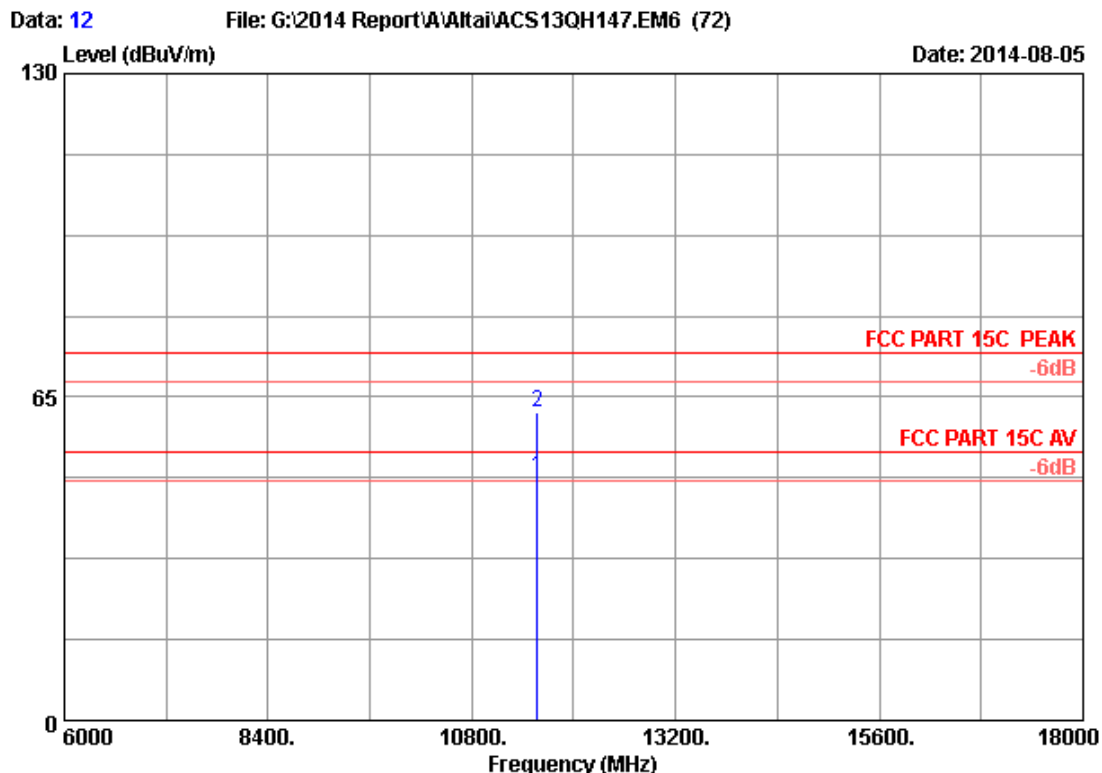
Site no. : 3m Chamber Data no. : 10
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH149 5745MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	11490.000	38.69	13.28	35.28	43.76	60.45	74.00	13.55	Peak
2	11490.000	38.69	13.28	35.28	31.15	47.84	54.00	6.16	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



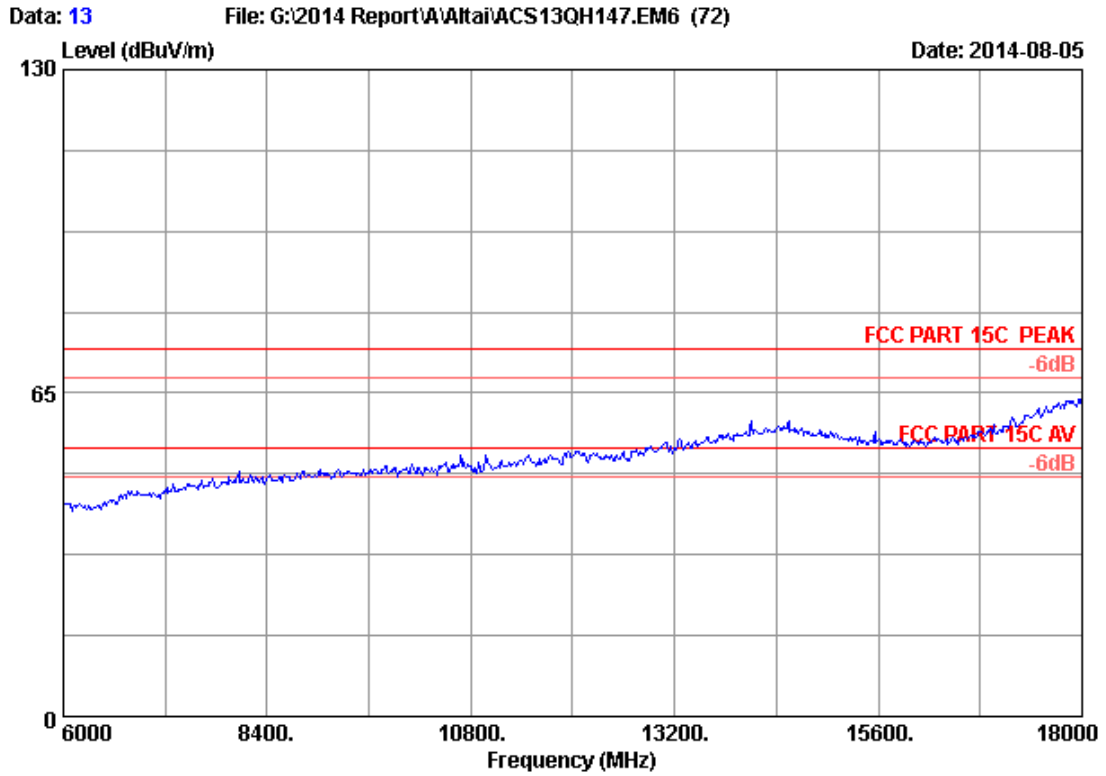
Site no.	: 3m Chamber	Data no.	: 11
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Kevin_Hu
EUT	: Altai Clan Super WiFi CPE		
Power Rating	: DC 18V From Adapter Input AC 120V/60Hz		
Test Mode	: IEEE802.11a CH157 5785MHz Tx		
M/N	: WA1011N-A		



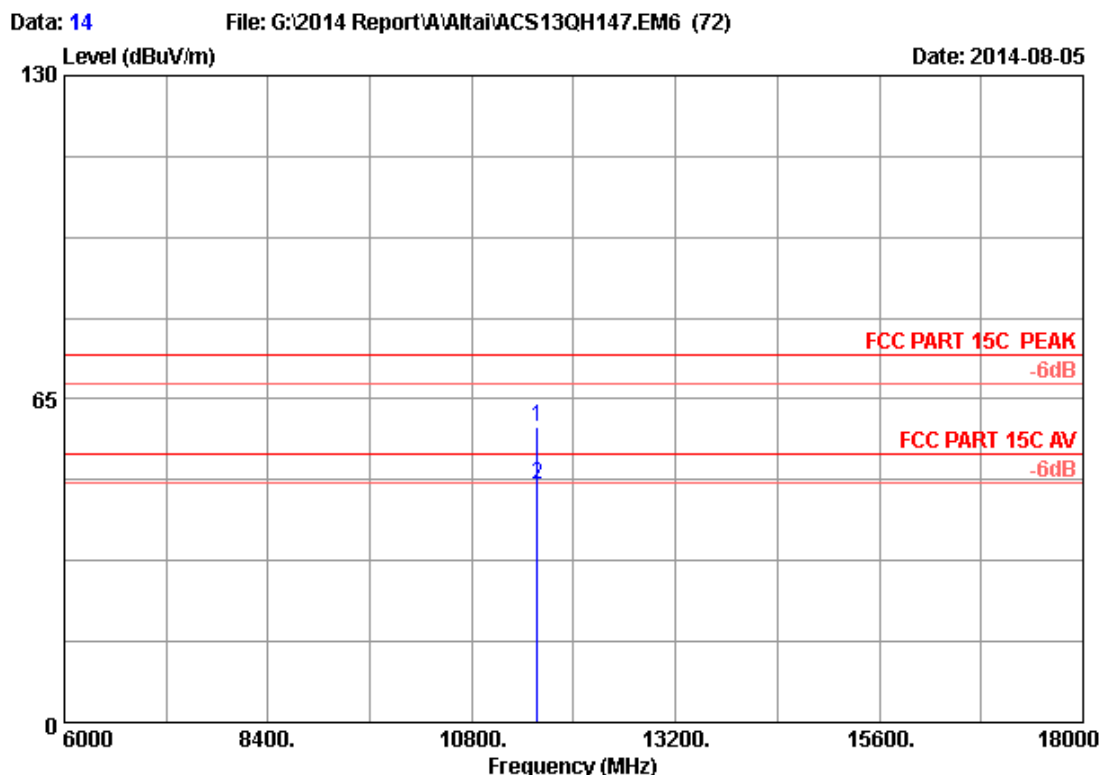
Site no. : 3m Chamber Data no. : 12
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH157 5785MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	11570.000	38.80	13.32	35.26	32.03	48.89	54.00	5.11	Average
2	11570.000	38.80	13.32	35.26	45.16	62.02	74.00	11.98	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



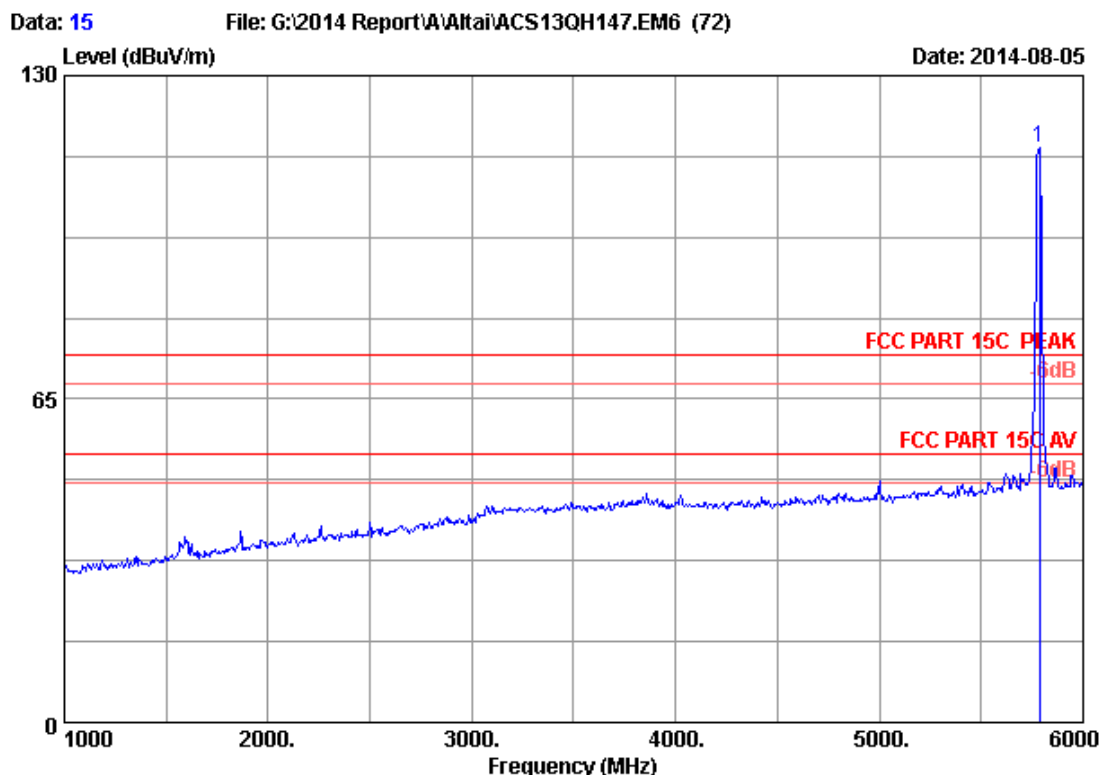
Site no.	: 3m Chamber	Data no.	: 13
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Kevin_Hu
EUT	: Altai Clan Super WiFi CPE		
Power Rating	: DC 18V From Adapter Input AC 120V/60Hz		
Test Mode	: IEEE802.11a CH157 5785MHz Tx		
M/N	: WA1011N-A		



Site no. : 3m Chamber Data no. : 14
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH157 5785MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	11570.000	38.80	13.32	35.26	42.62	59.48	74.00	14.52	Peak
2	11570.000	38.80	13.32	35.26	31.07	47.93	54.00	6.07	Average

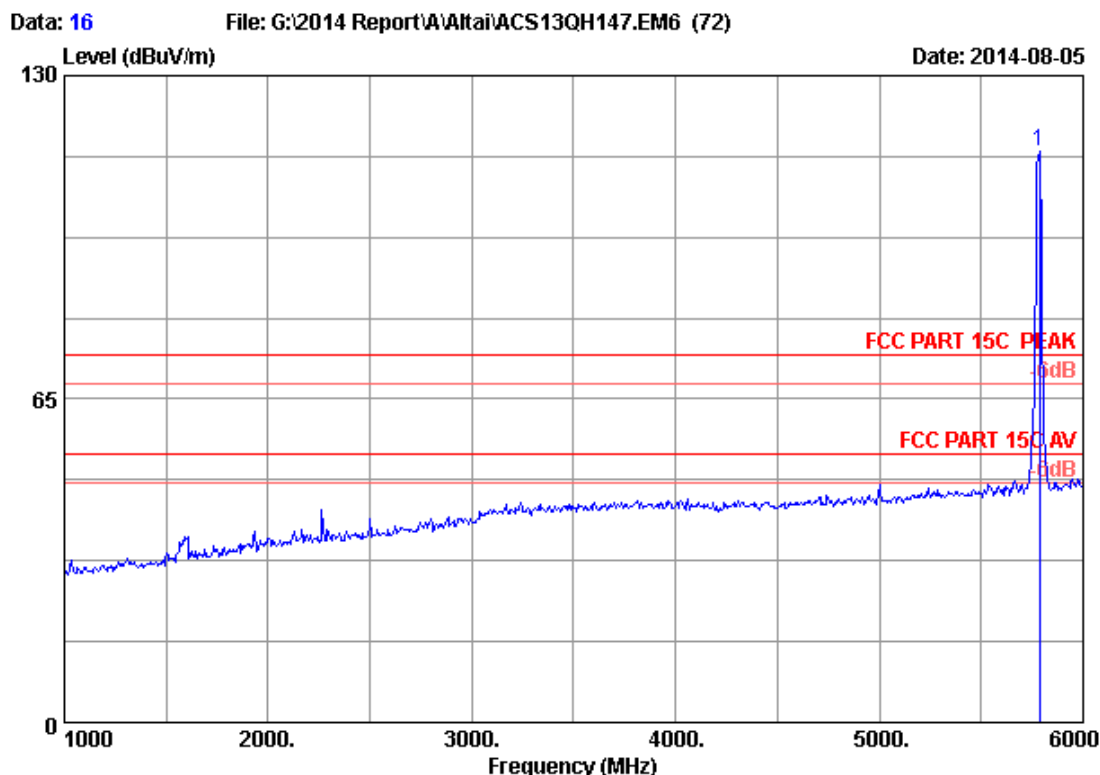
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 15
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH157 5785MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission			
						Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5785.000	34.11	9.59	35.70	107.35	115.35	74.00	-41.35	Peak

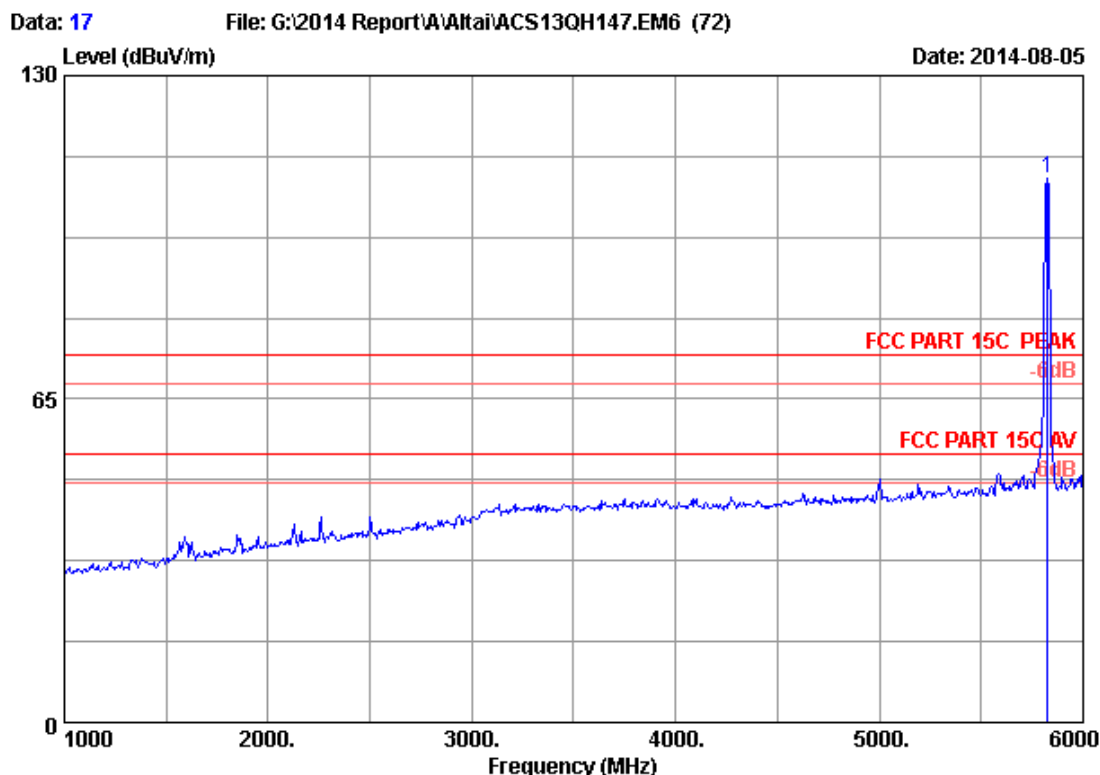
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 16
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH157 5785MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission			
						Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5785.000	34.11	9.59	35.70	106.83	114.83	74.00	-40.83	Peak

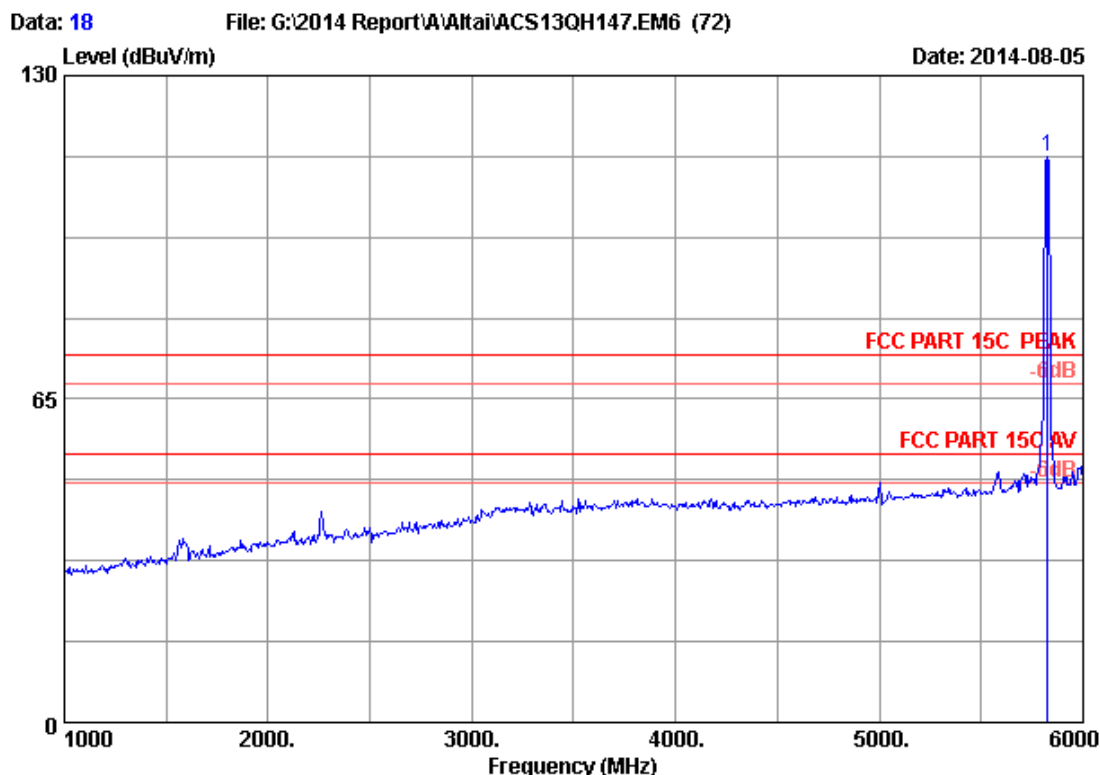
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 17
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH165 5825MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5825.000	34.13	9.63	35.70	101.24	109.30	74.00	-35.30	Peak

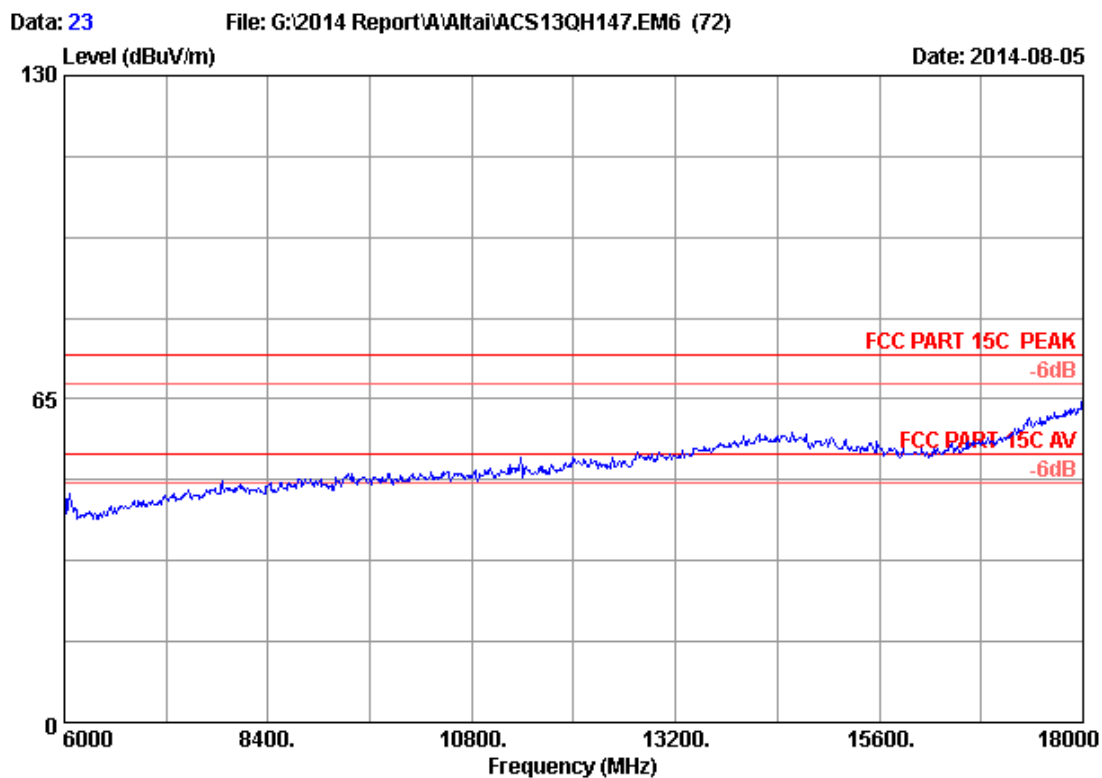
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



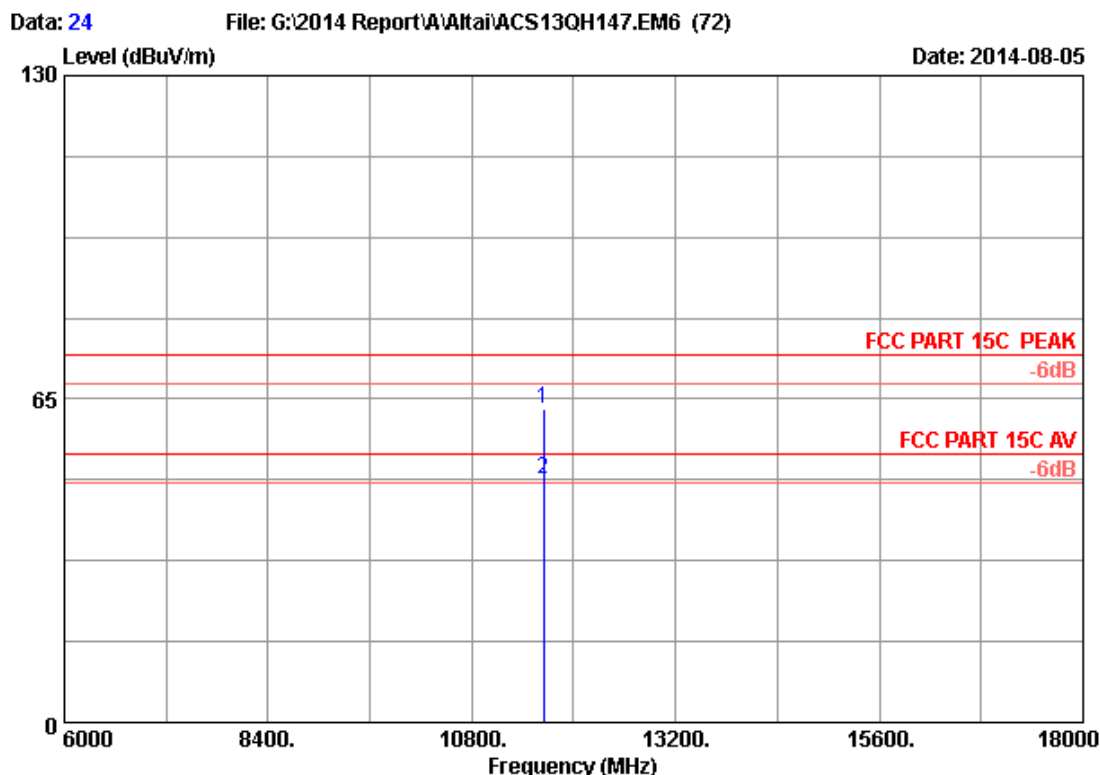
Site no. : 3m Chamber Data no. : 18
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH165 5825MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant.	Cable	AMP	Reading (dBuV)	Emission			
		Factor (dB/m)	Loss (dB)	factor (dB)		Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5825.000	34.13	9.63	35.70	105.77	113.83	74.00	-39.83	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



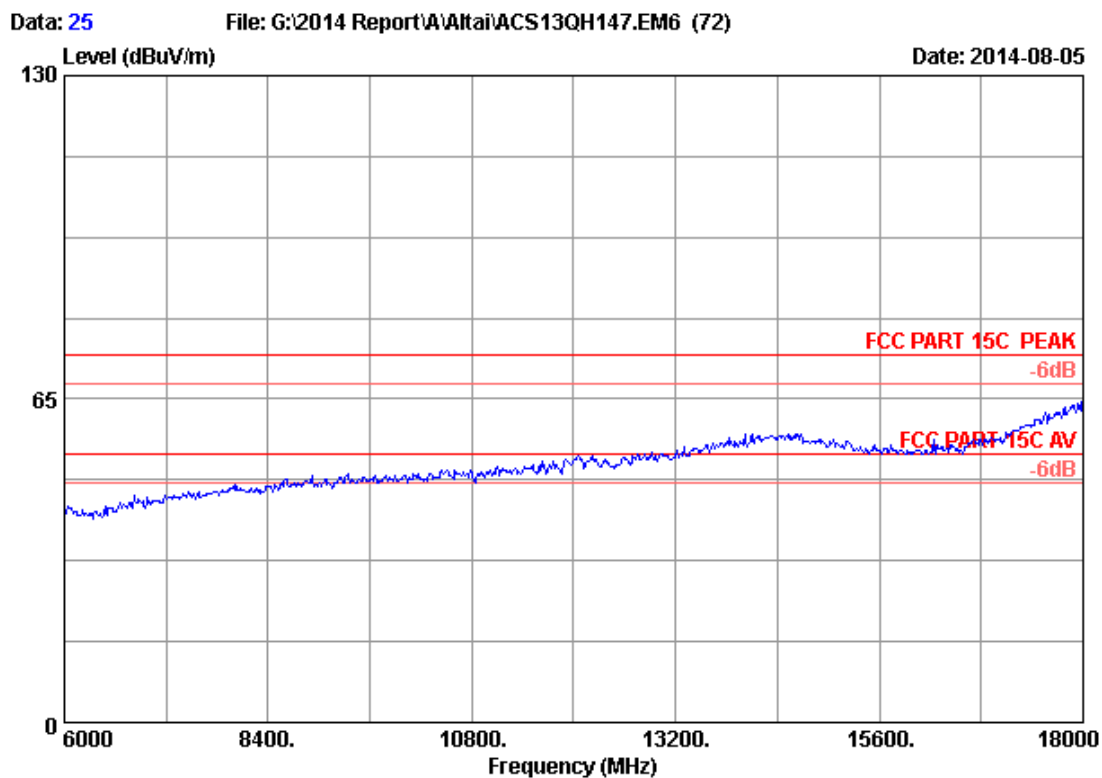
Site no.	: 3m Chamber	Data no.	: 23
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Kevin_Hu
EUT	: Altai Clan Super WiFi CPE		
Power Rating	: DC 18V From Adapter Input AC 120V/60Hz		
Test Mode	: IEEE802.11a CH165 5825MHz Tx		
M/N	: WA1011N-A		



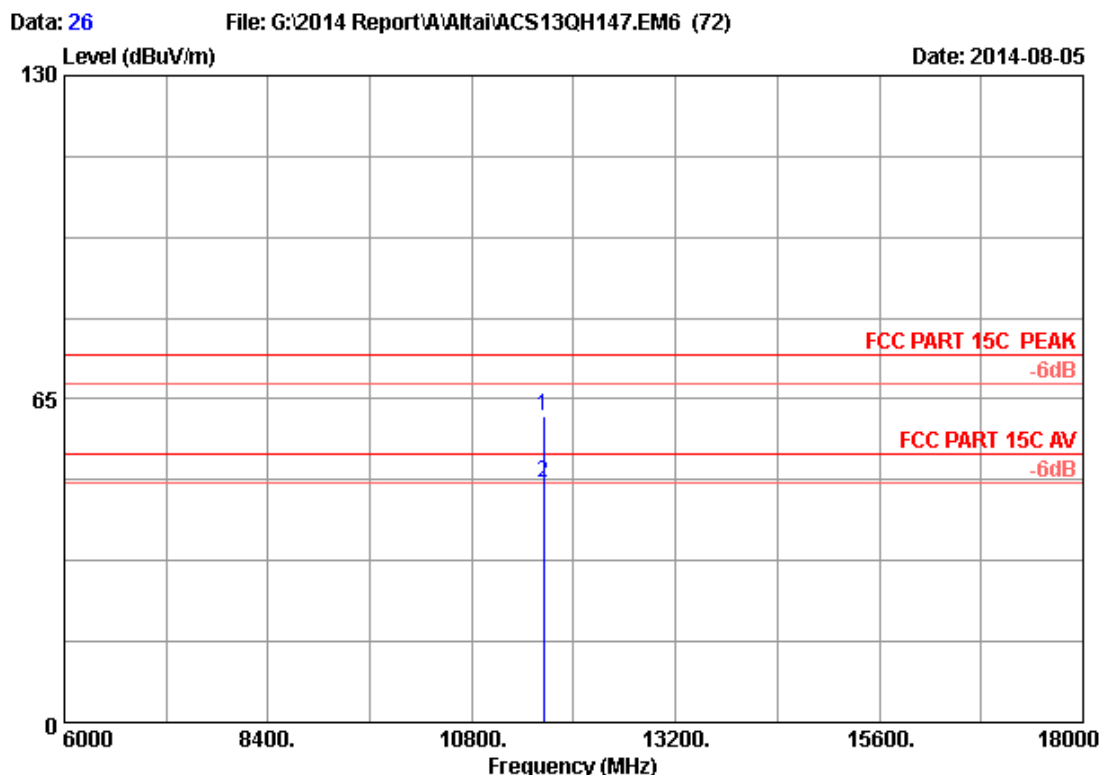
Site no. : 3m Chamber Data no. : 24
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH165 5825MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Remark
1	11650.000	38.91	13.37	35.25	45.82	62.85	74.00	11.15	Peak
2	11650.000	38.91	13.37	35.25	31.89	48.92	54.00	5.08	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



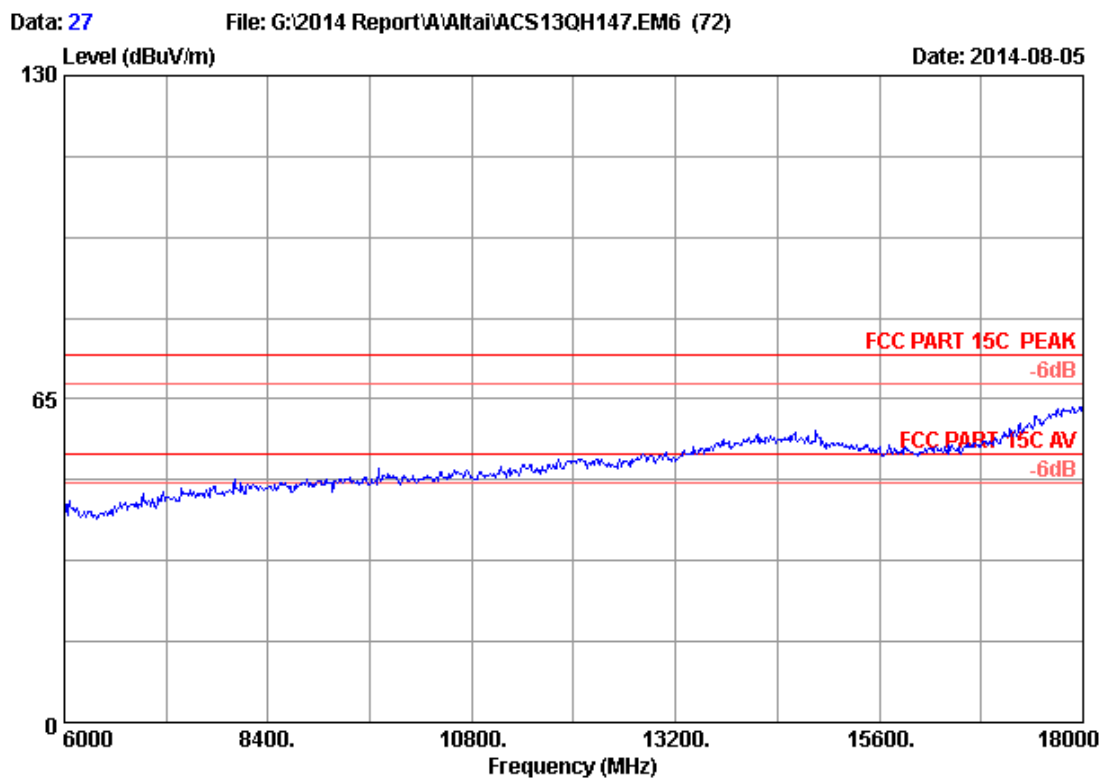
Site no.	: 3m Chamber	Data no.	: 25
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Kevin_Hu
EUT	: Altai Clan Super WiFi CPE		
Power Rating	: DC 18V From Adapter Input AC 120V/60Hz		
Test Mode	: IEEE802.11a CH165 5825MHz Tx		
M/N	: WA1011N-A		



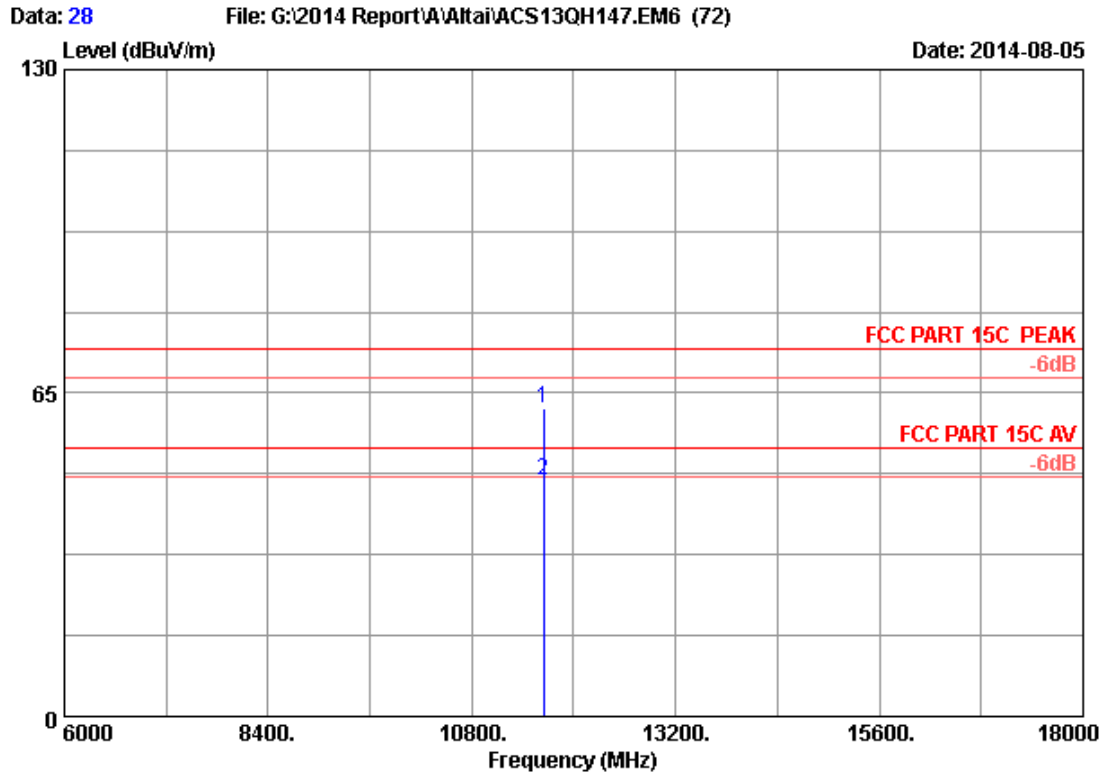
Site no. : 3m Chamber Data no. : 26
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH165 5825MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	11650.000	38.91	13.37	35.25	44.71	61.74	74.00	12.26	Peak
2	11650.000	38.91	13.37	35.25	30.97	48.00	54.00	6.00	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



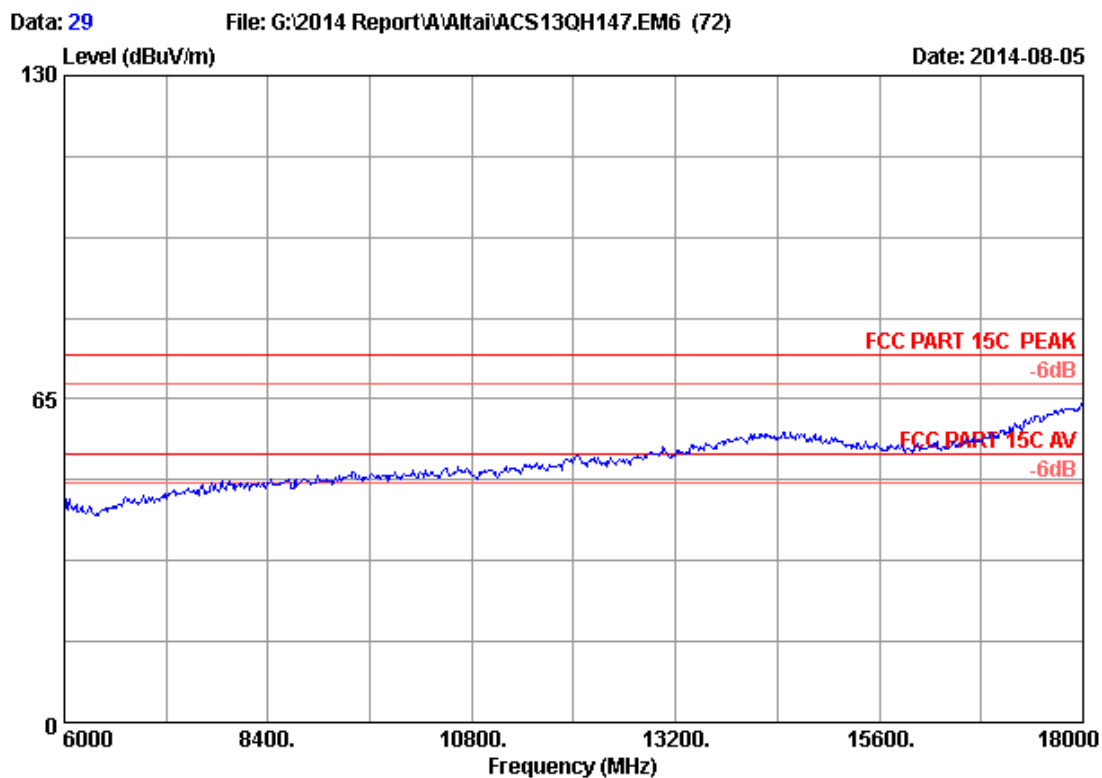
Site no.	: 3m Chamber	Data no.	: 27
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Kevin_Hu
EUT	: Altai Clan Super WiFi CPE		
Power Rating	: DC 18V From Adapter Input AC 120V/60Hz		
Test Mode	: IEEE802.11nHT20 CH165 5825MHz Tx		
M/N	: WA1011N-A		



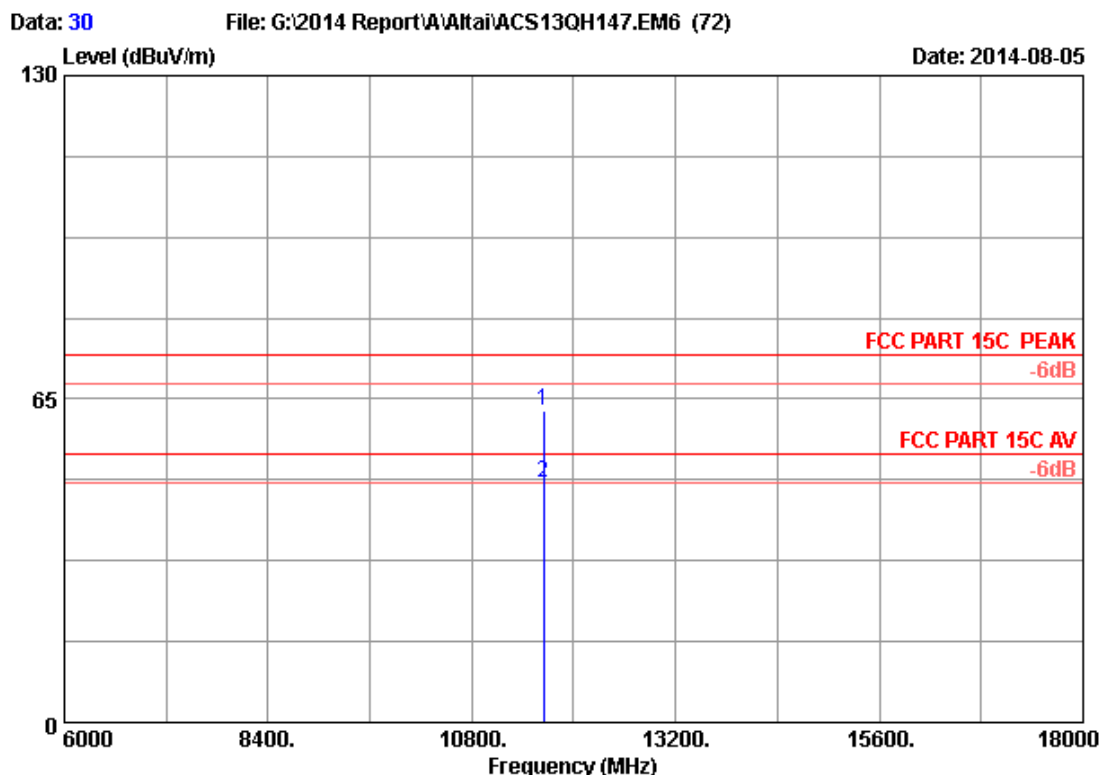
Site no. : 3m Chamber Data no. : 28
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH165 5825MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Remark
1	11650.000	38.91	13.37	35.25	44.82	61.85	74.00	12.15	Peak
2	11650.000	38.91	13.37	35.25	30.45	47.48	54.00	6.52	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



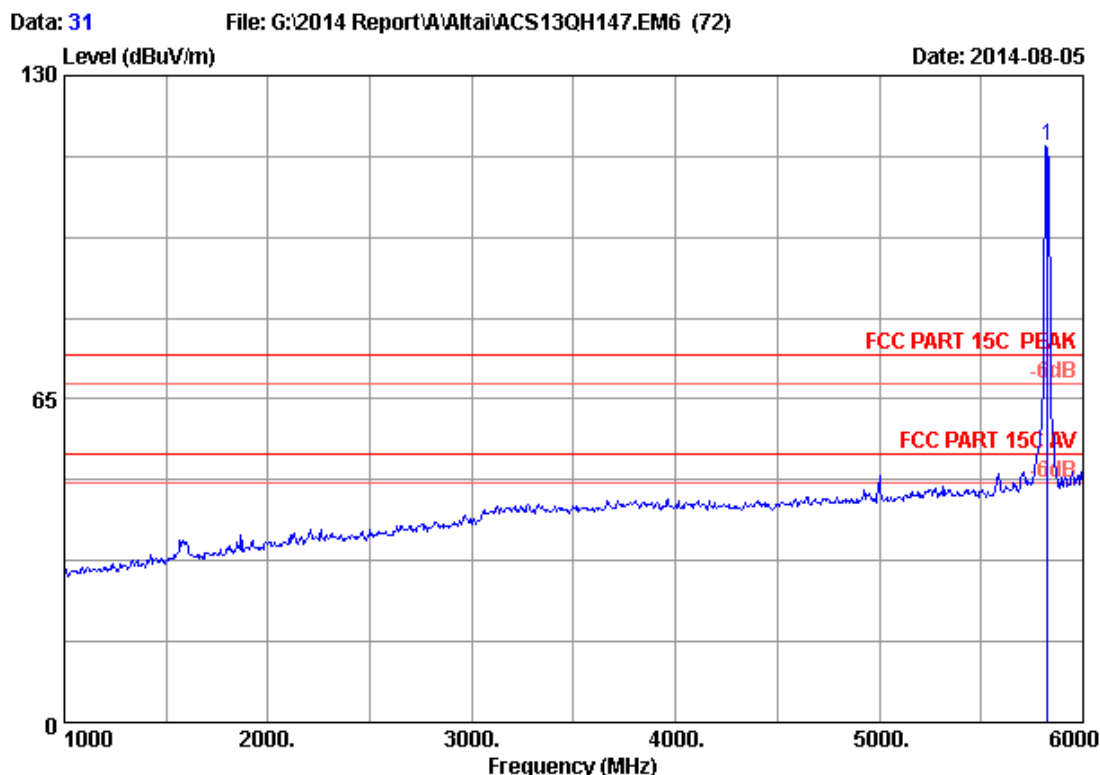
Site no.	: 3m Chamber	Data no.	: 29
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Kevin_Hu
EUT	: Altai Clan Super WiFi CPE		
Power Rating	: DC 18V From Adapter Input AC 120V/60Hz		
Test Mode	: IEEE802.11nHT20 CH165 5825MHz Tx		
M/N	: WA1011N-A		



Site no. : 3m Chamber Data no. : 30
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH165 5825MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Remark
1	11650.000	38.91	13.37	35.25	45.76	62.79	74.00	11.21	Peak
2	11650.000	38.91	13.37	35.25	31.10	48.13	54.00	5.87	Average

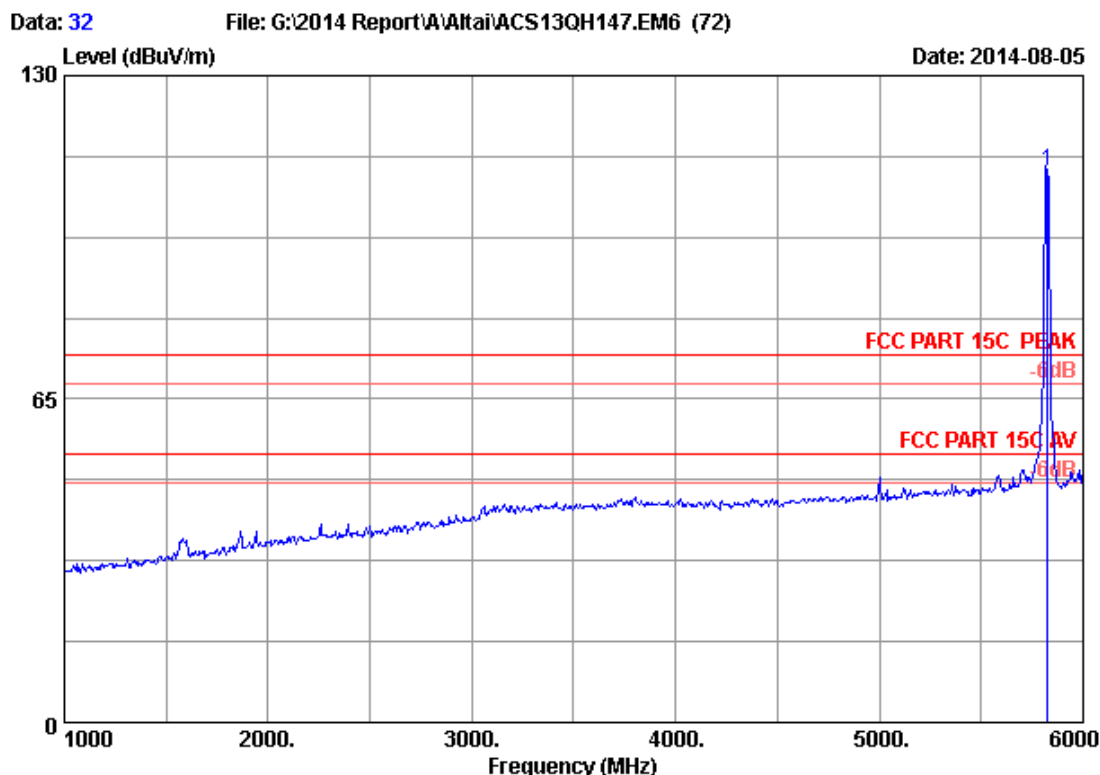
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 31
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH165 5825MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission			
						Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5825.000	34.13	9.63	35.70	107.71	115.77	74.00	-41.77	Peak

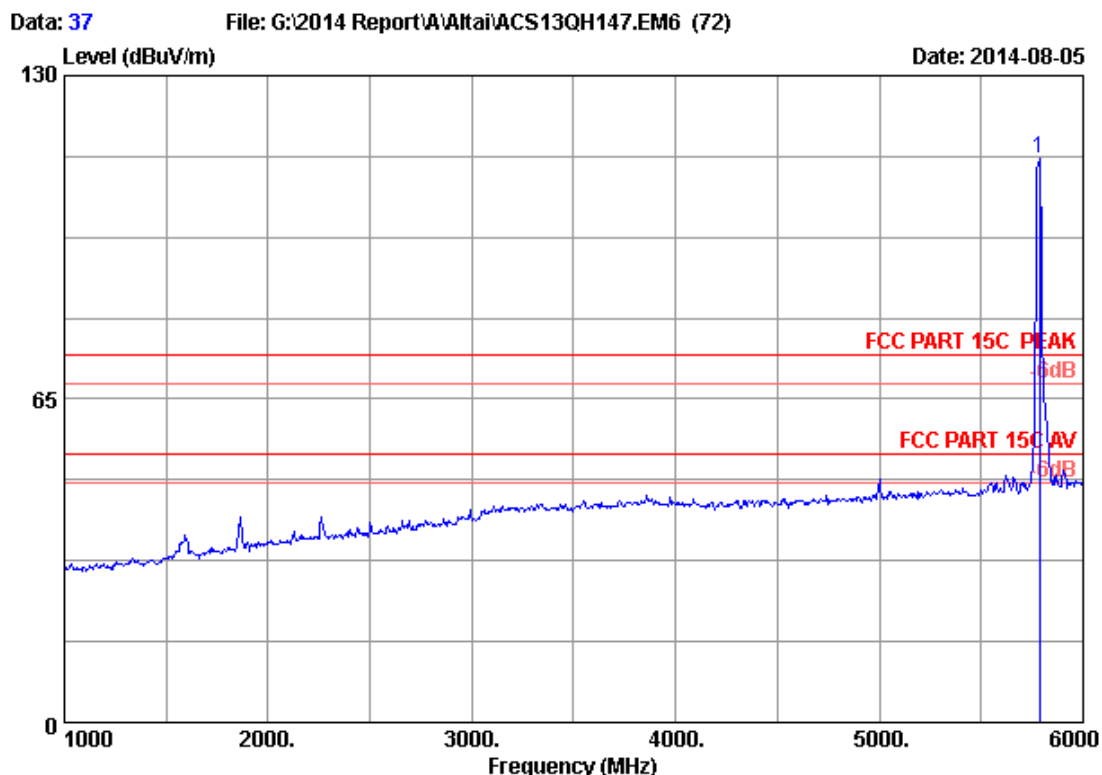
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 32
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH165 5825MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5825.000	34.13	9.63	35.70	102.70	110.76	74.00	-36.76	Peak

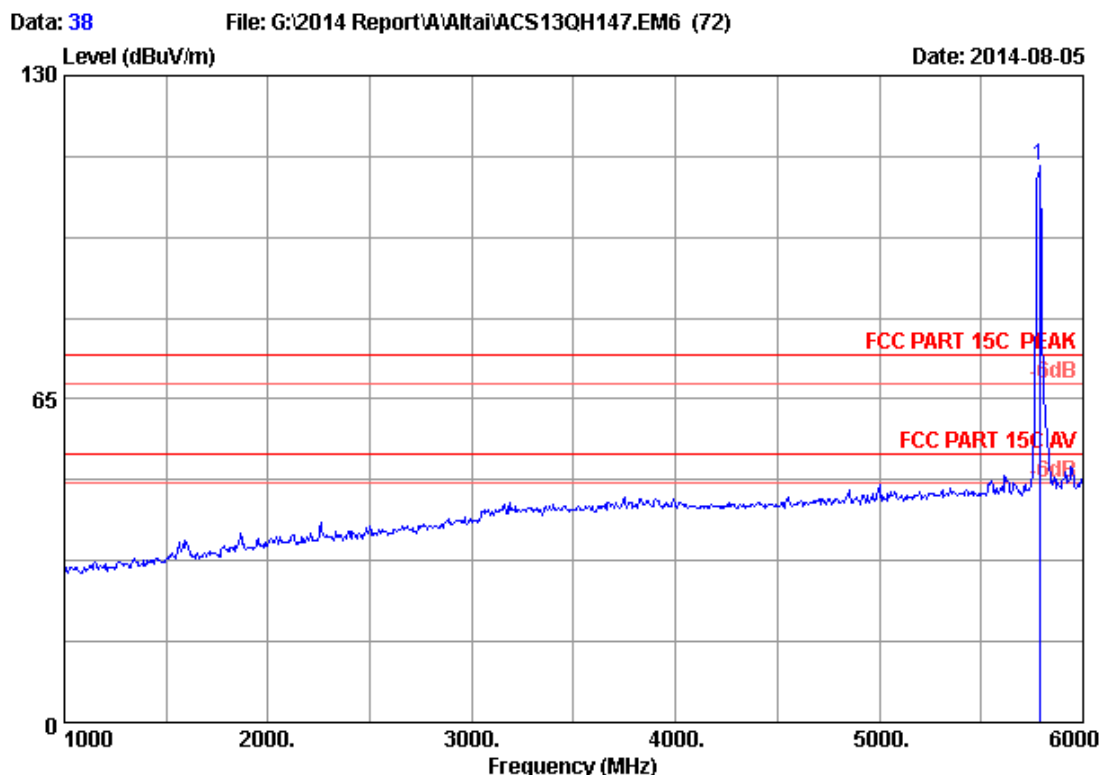
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 37
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH157 5785MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission			
						Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5785.000	34.11	9.59	35.70	105.44	113.44	74.00	-39.44	Peak

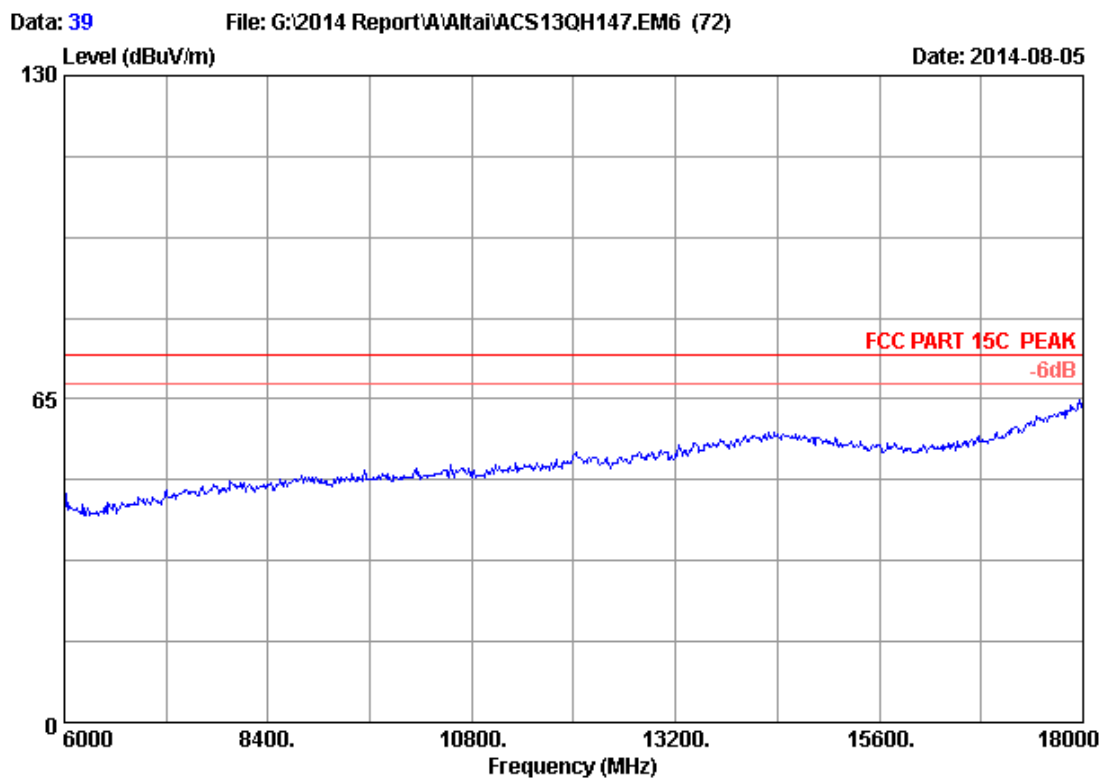
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



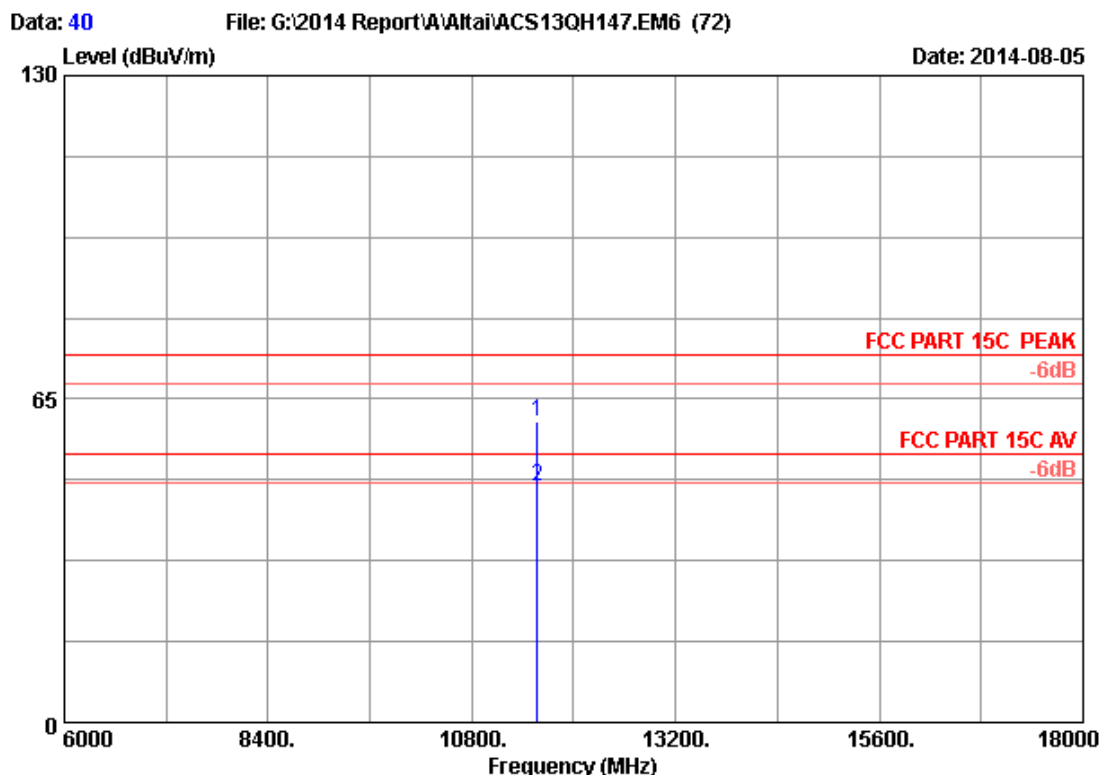
Site no. : 3m Chamber Data no. : 38
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH157 5785MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5785.000	34.11	9.59	35.70	103.82	111.82	74.00	-37.82	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



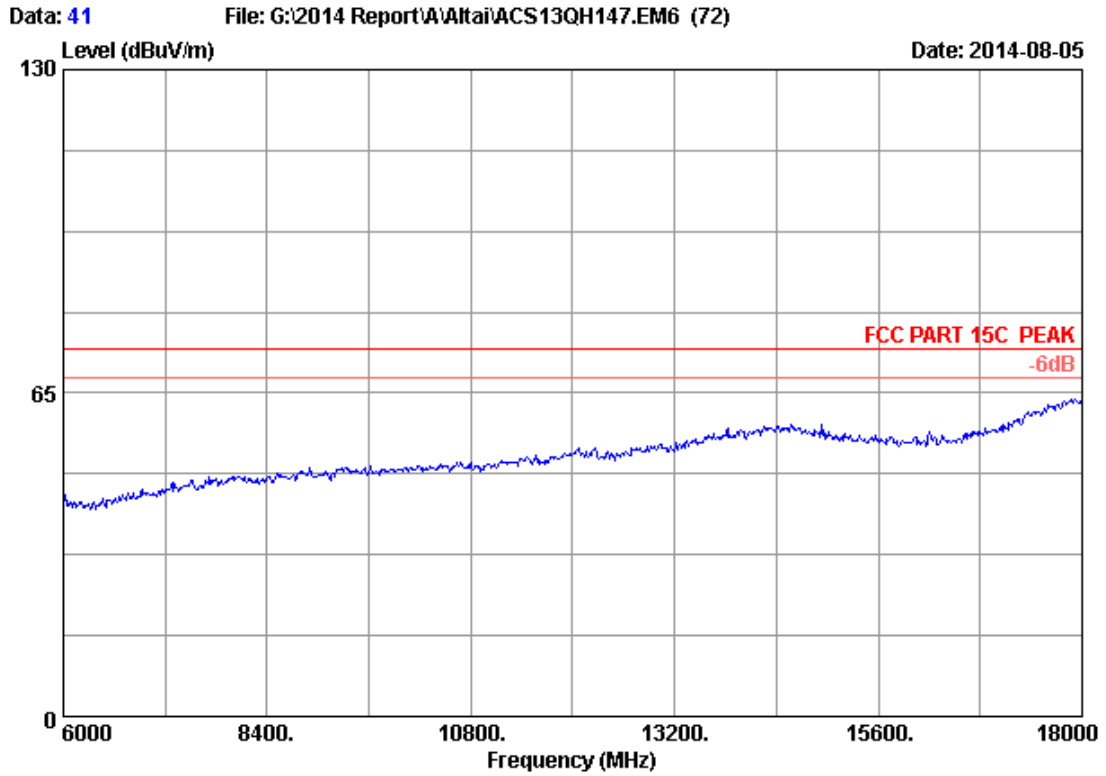
Site no.	: 3m Chamber	Data no.	: 39
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Kevin_Hu
EUT	: Altai Clan Super WiFi CPE		
Power Rating	: DC 18V From Adapter Input AC 120V/60Hz		
Test Mode	: IEEE802.11nHT20 CH157 5785MHz Tx		
M/N	: WA1011N-A		



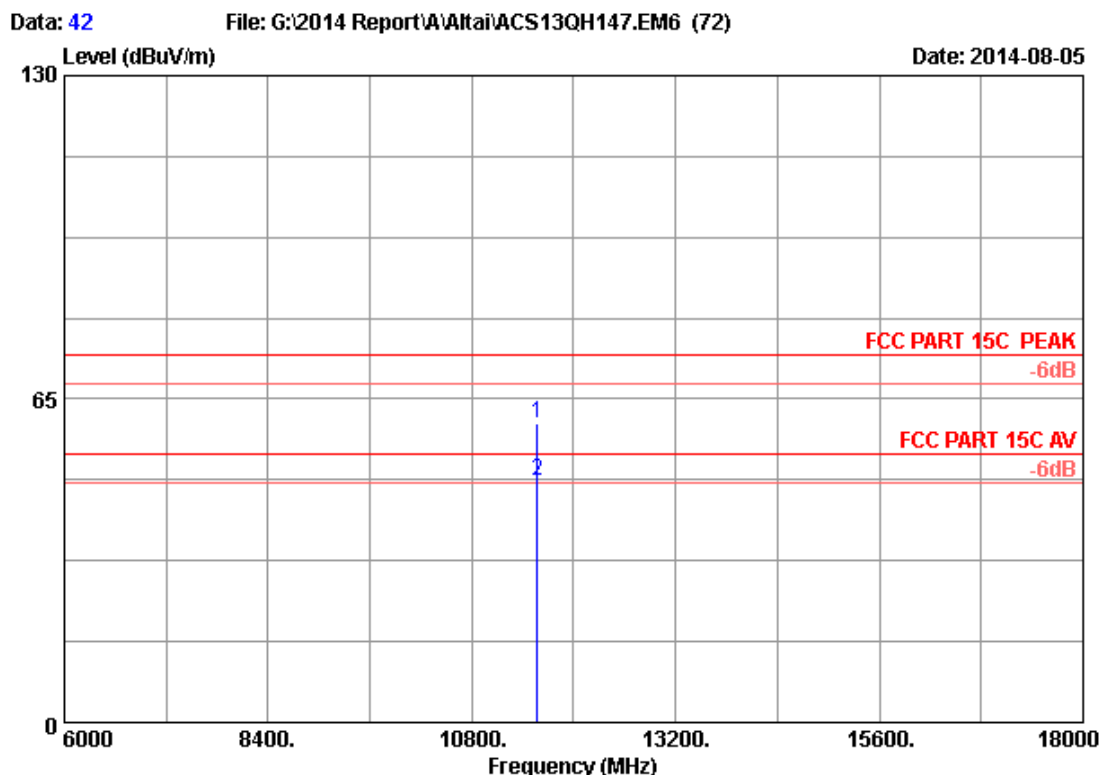
Site no. : 3m Chamber Data no. : 40
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH157 5785MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Remark
1	11570.000	38.80	13.32	35.26	43.55	60.41	74.00	13.59	Peak
2	11570.000	38.80	13.32	35.26	30.54	47.40	54.00	6.60	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



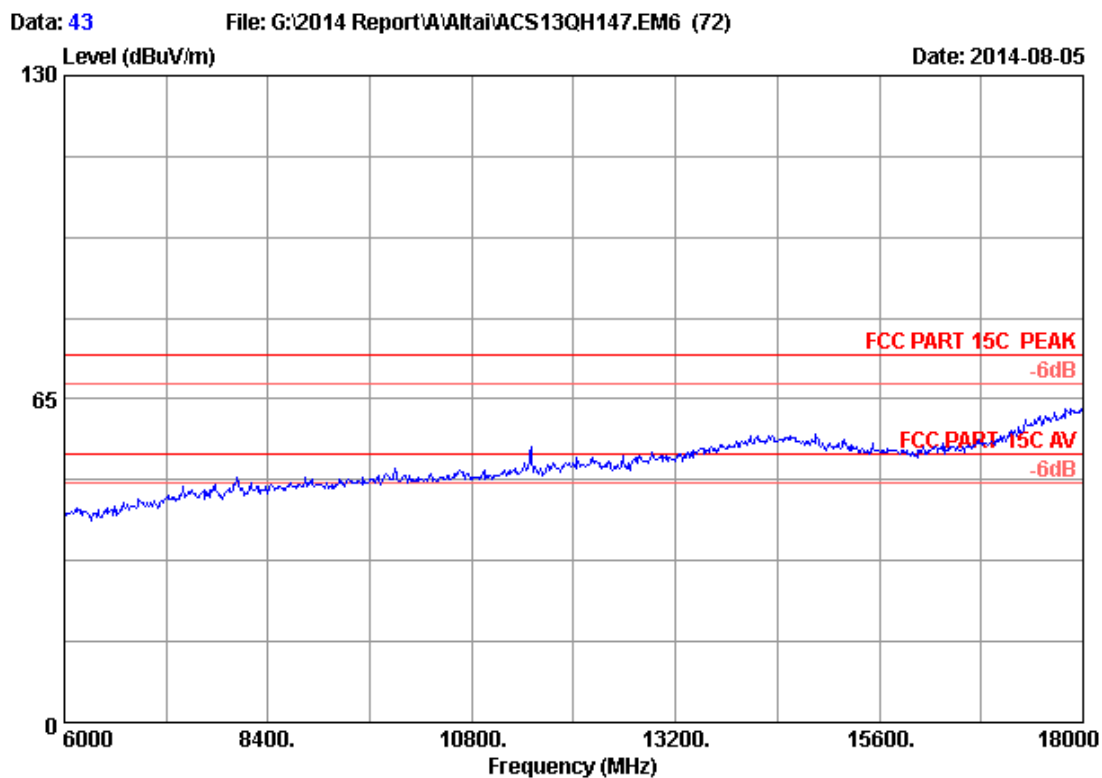
Site no.	: 3m Chamber	Data no.	: 41
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Kevin_Hu
EUT	: Altai Clan Super WiFi CPE		
Power Rating	: DC 18V From Adapter Input AC 120V/60Hz		
Test Mode	: IEEE802.11nHT20 CH157 5785MHz Tx		
M/N	: WA1011N-A		



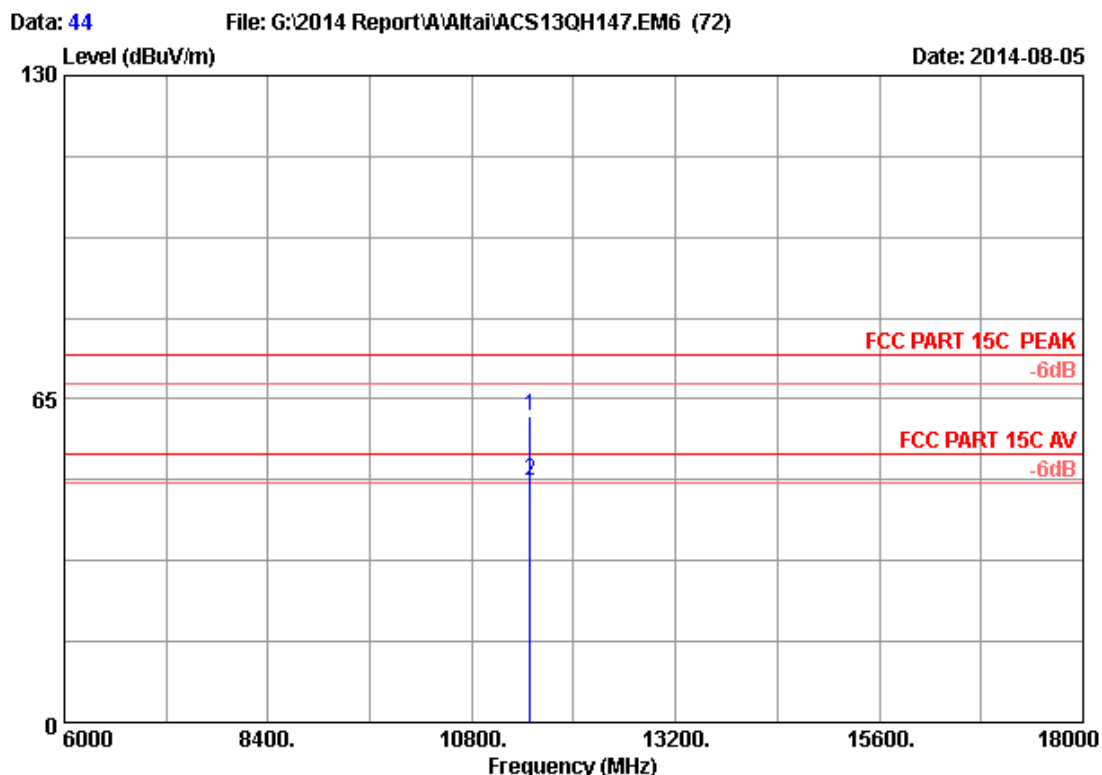
Site no. : 3m Chamber Data no. : 42
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH157 5785MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	11570.000	38.80	13.32	35.26	43.24	60.10	74.00	13.90	Peak
2	11570.000	38.80	13.32	35.26	31.75	48.61	54.00	5.39	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



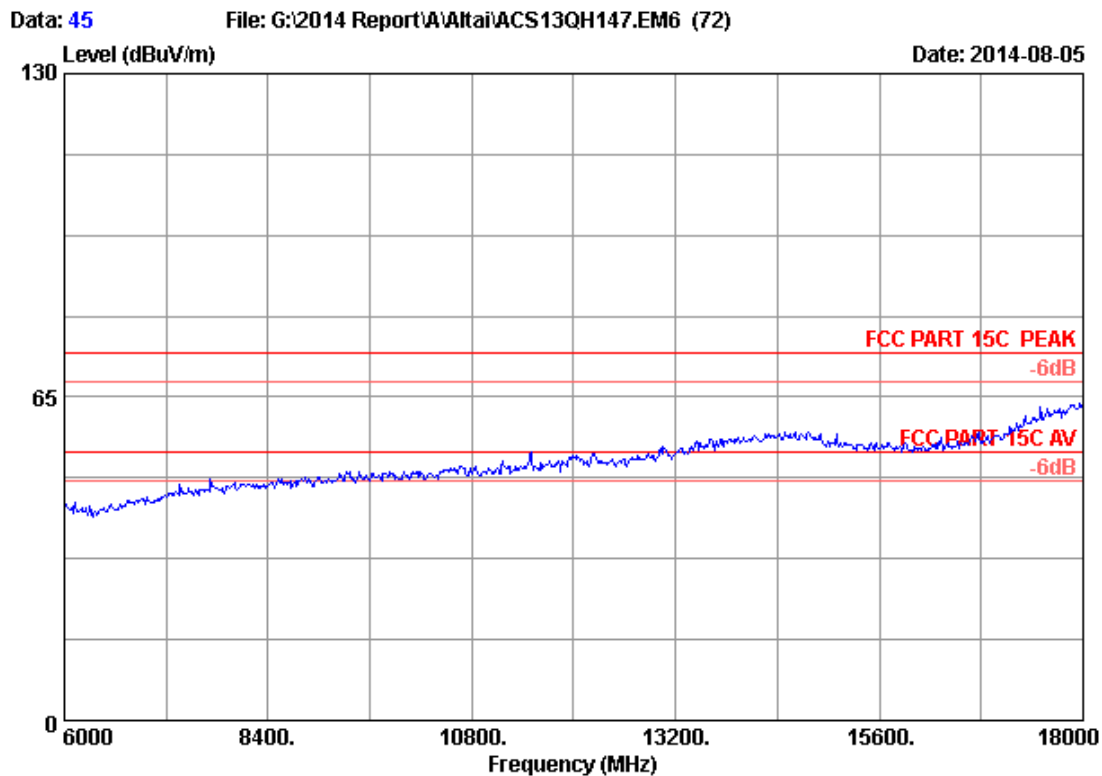
Site no.	: 3m Chamber	Data no.	: 43
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Kevin_Hu
EUT	: Altai Clan Super WiFi CPE		
Power Rating	: DC 18V From Adapter Input AC 120V/60Hz		
Test Mode	: IEEE802.11nHT20 CH149 5745MHz Tx		
M/N	: WA1011N-A		



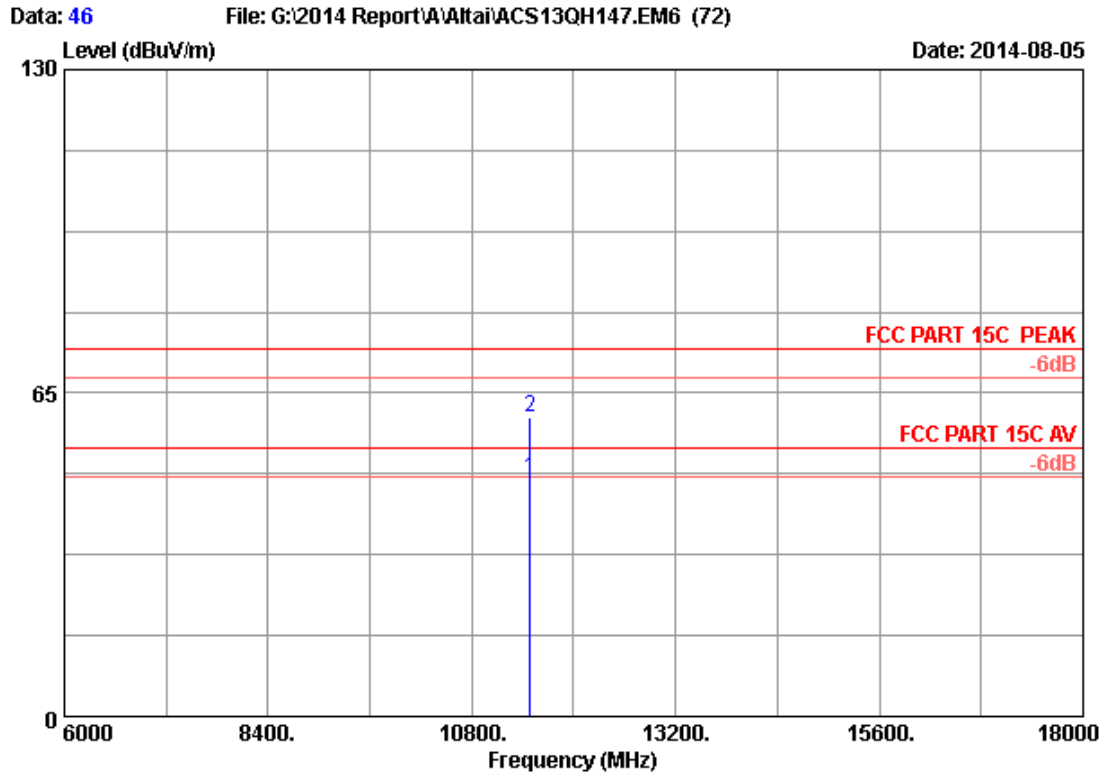
Site no. : 3m Chamber Data no. : 44
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH149 5745MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Remark
1	11490.000	38.69	13.28	35.28	44.73	61.42	74.00	12.58	Peak
2	11490.000	38.69	13.28	35.28	31.83	48.52	54.00	5.48	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



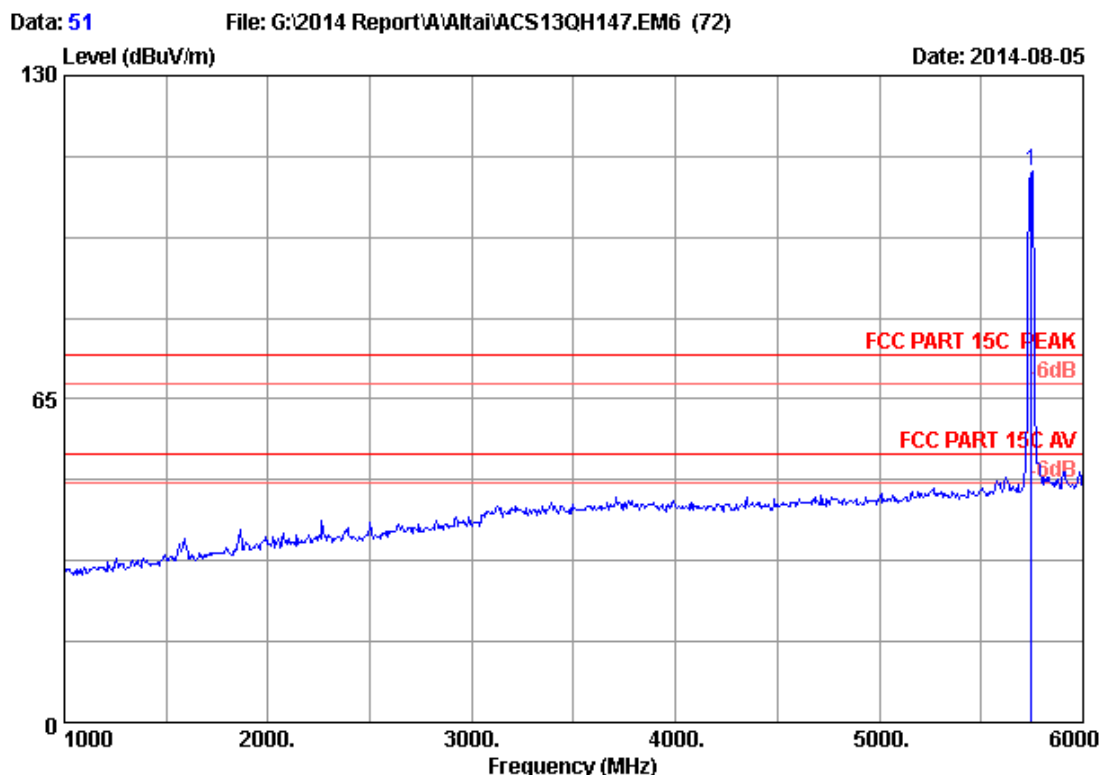
Site no.	: 3m Chamber	Data no.	: 45
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Kevin_Hu
EUT	: Altai Clan Super WiFi CPE		
Power Rating	: DC 18V From Adapter Input AC 120V/60Hz		
Test Mode	: IEEE802.11nHT20 CH149 5745MHz Tx		
M/N	: WA1011N-A		



Site no. : 3m Chamber Data no. : 46
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH149 5745MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	11490.000	38.69	13.28	35.28	31.01	47.70	54.00	6.30	Average
2	11490.000	38.69	13.28	35.28	43.58	60.27	74.00	13.73	Peak

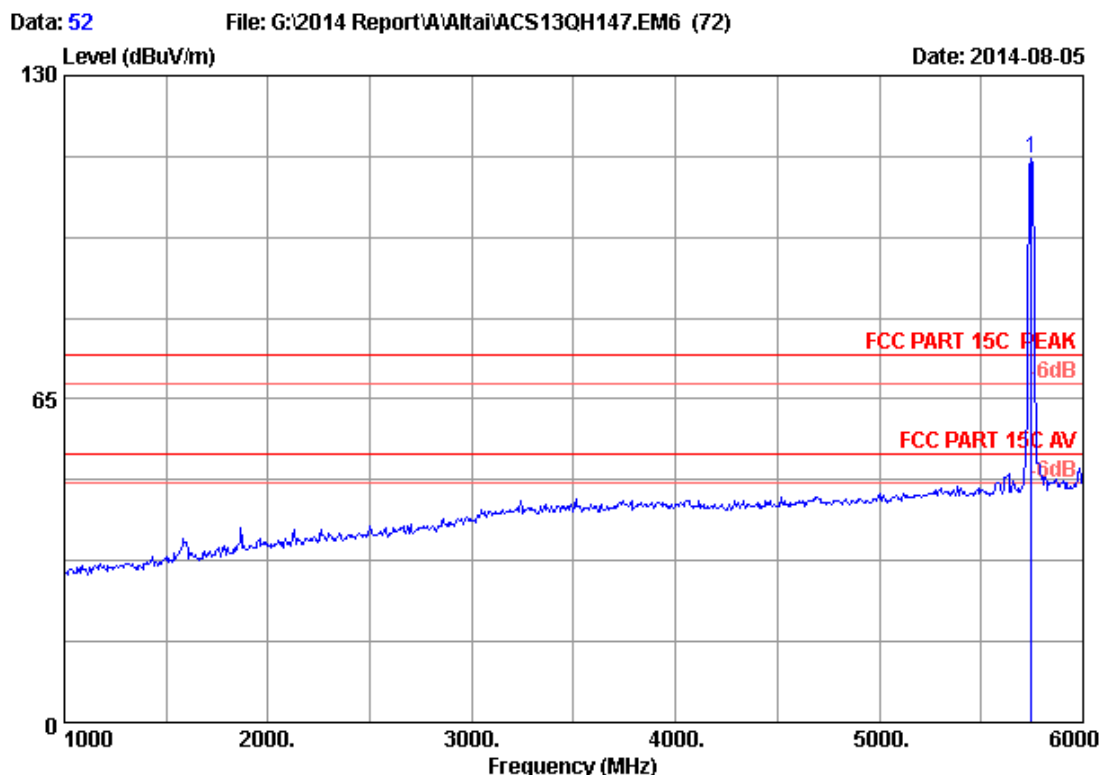
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 51
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH149 5745MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5745.000	34.10	9.55	35.70	102.91	110.86	74.00	-36.86	Peak

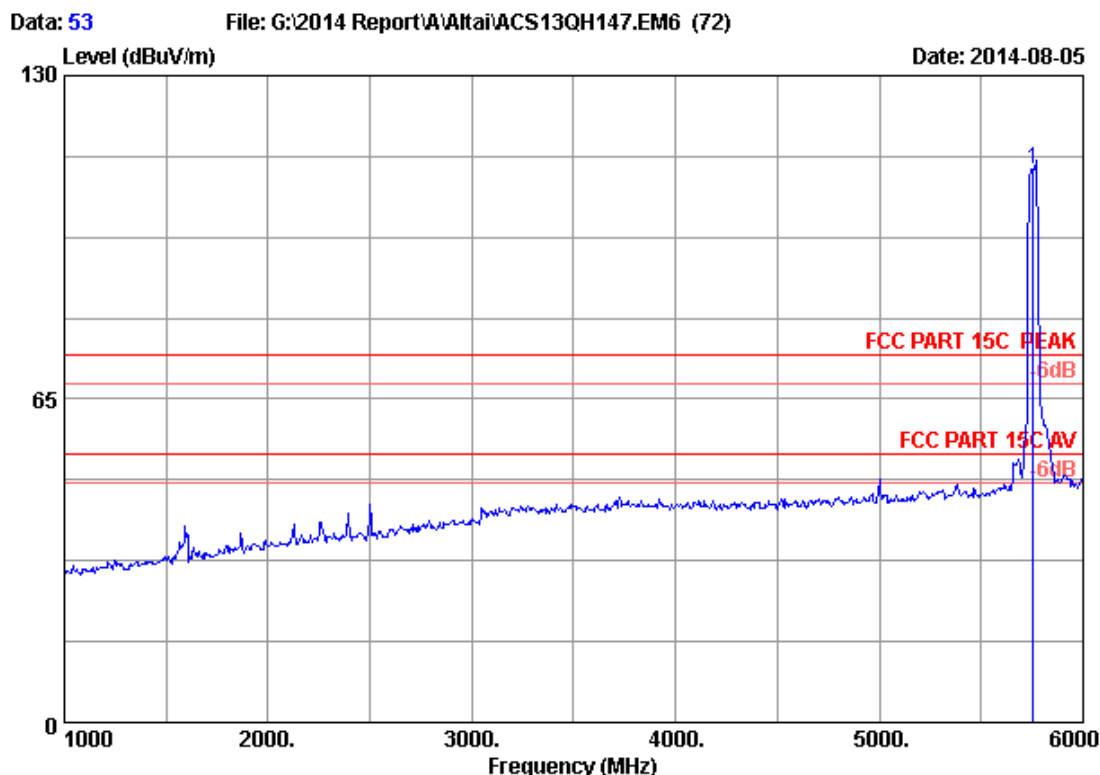
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 52
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH149 5745MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5745.000	34.10	9.55	35.70	105.33	113.28	74.00	-39.28	Peak

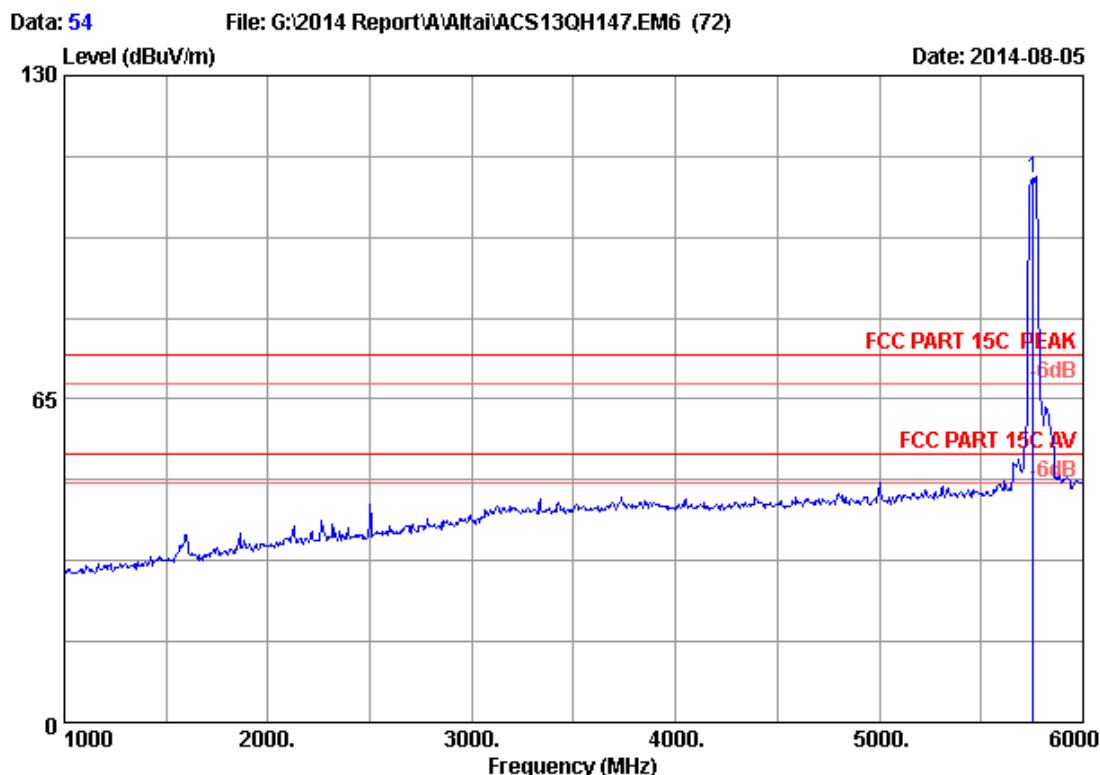
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 53
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT40 CH151 5755MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant.	Cable	AMP	Reading (dBuV)	Emission			Margin	Remark
		Factor (dB/m)	Loss (dB)	factor (dB)		Level (dBuV/m)	Limits (dBuV/m)			
1	5755.000	34.10	9.56	35.70	103.32	111.28	74.00	-37.28	Peak	

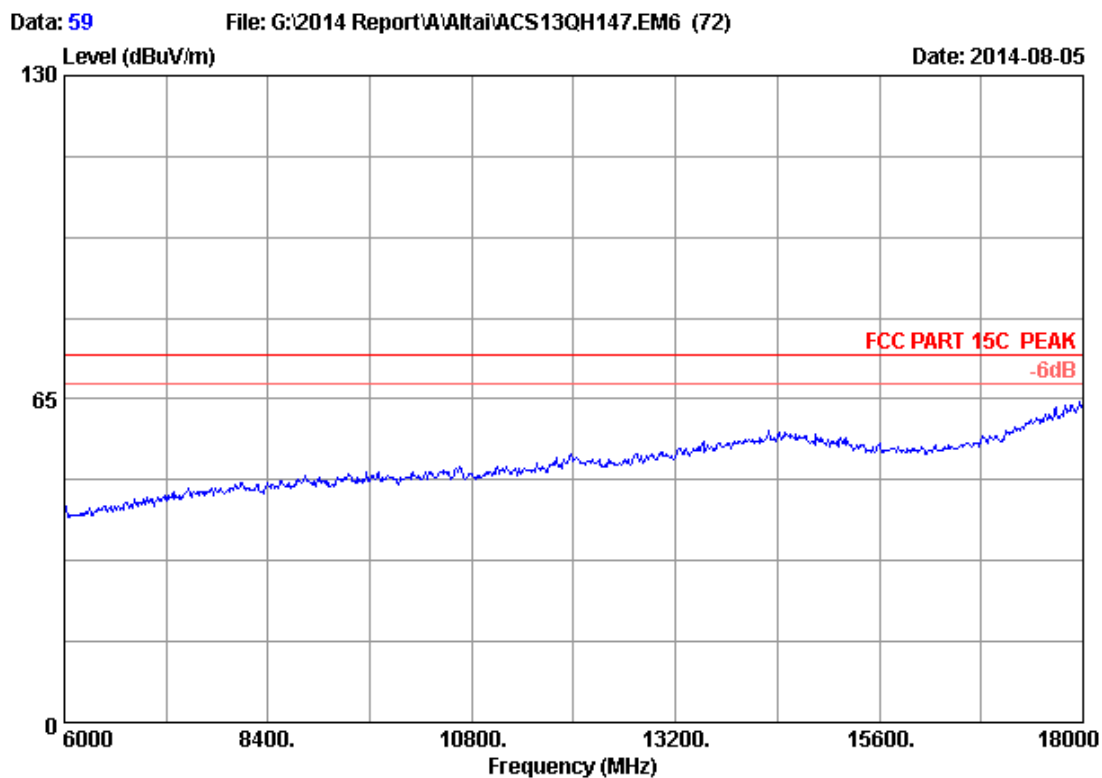
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



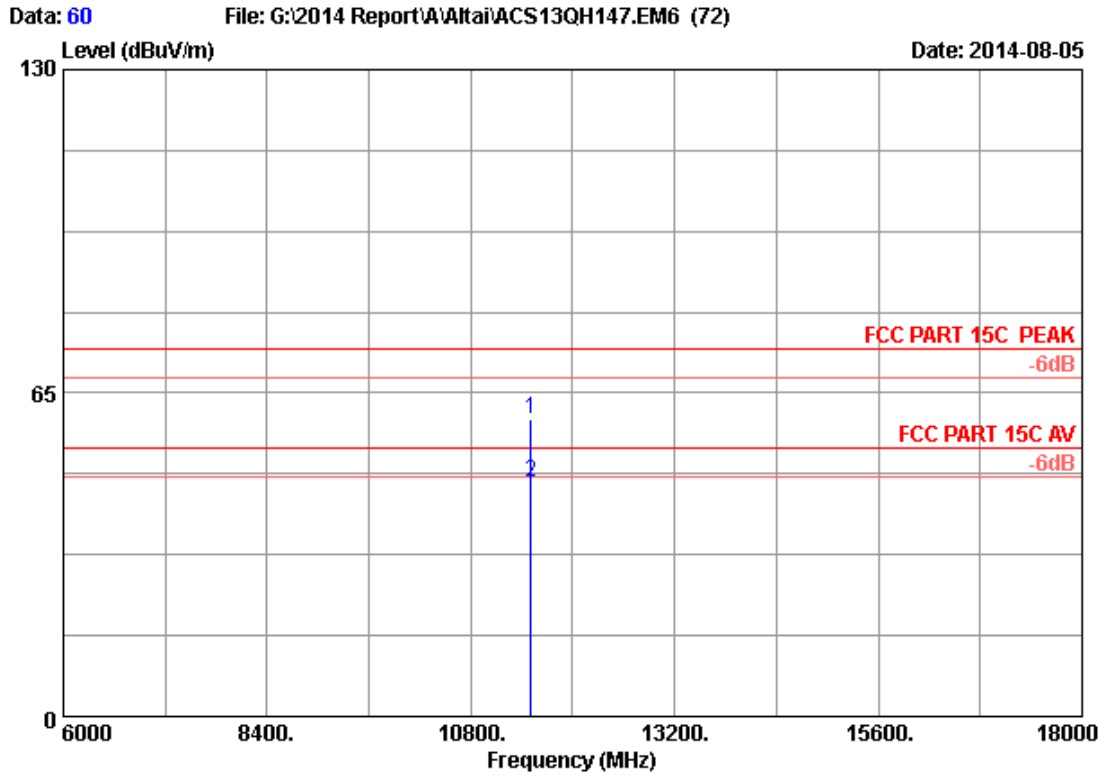
Site no. : 3m Chamber Data no. : 54
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT40 CH151 5755MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5755.000	34.10	9.56	35.70	101.40	109.36	74.00	-35.36	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



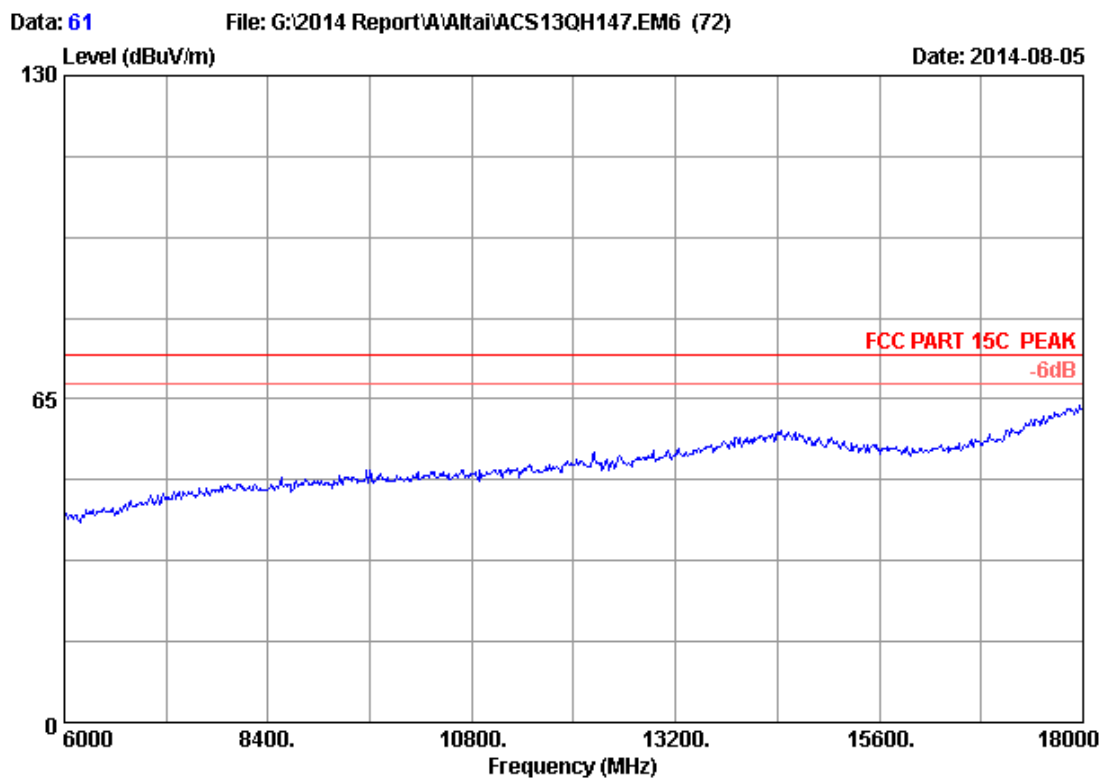
Site no.	: 3m Chamber	Data no.	: 59
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Kevin_Hu
EUT	: Altai Clan Super WiFi CPE		
Power Rating	: DC 18V From Adapter Input AC 120V/60Hz		
Test Mode	: IEEE802.11nHT40 CH151 5755MHz Tx		
M/N	: WA1011N-A		



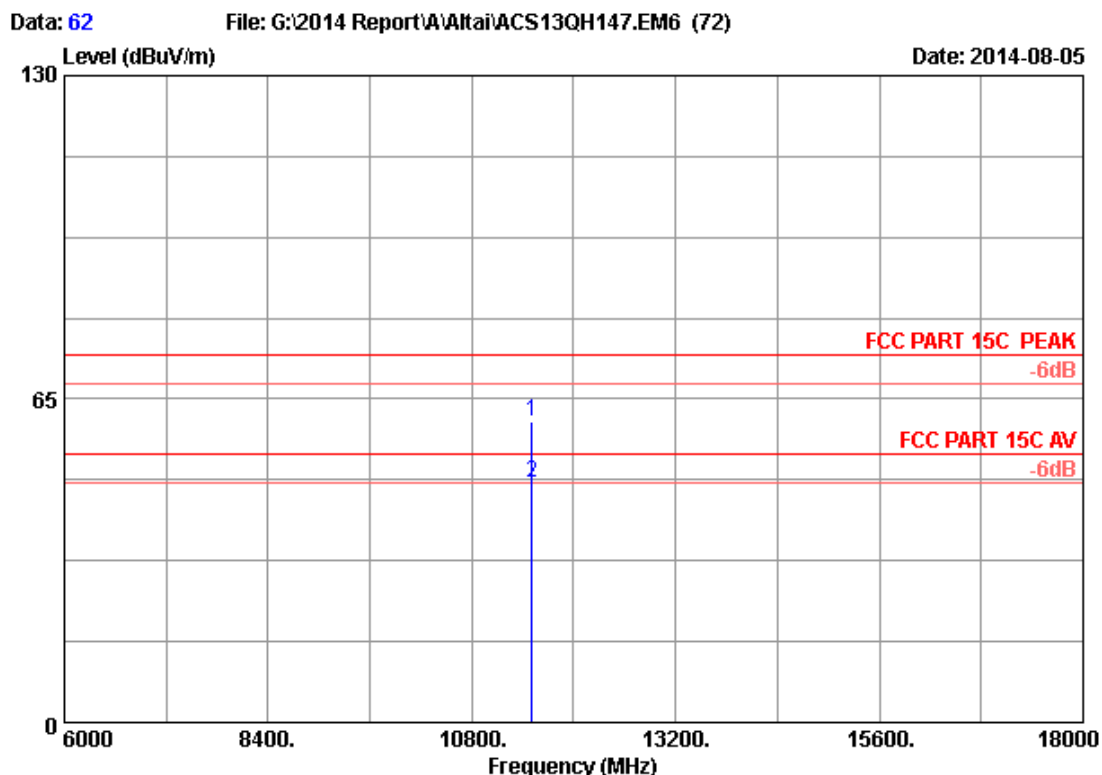
Site no. : 3m Chamber Data no. : 60
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT40 CH151 5755MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	11510.000	38.71	13.29	35.27	42.89	59.62	74.00	14.38	Peak
2	11510.000	38.71	13.29	35.27	30.41	47.14	54.00	6.86	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



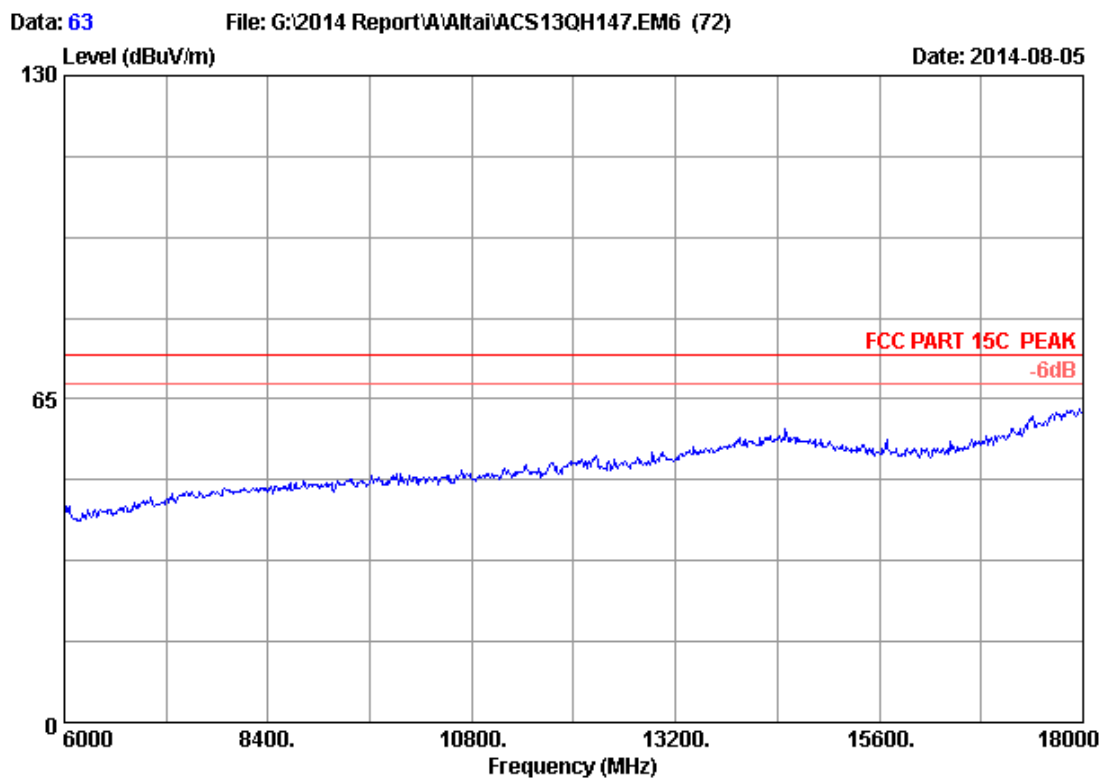
Site no.	: 3m Chamber	Data no.	: 61
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Kevin_Hu
EUT	: Altai Clan Super WiFi CPE		
Power Rating	: DC 18V From Adapter Input AC 120V/60Hz		
Test Mode	: IEEE802.11nHT40 CH151 5755MHz Tx		
M/N	: WA1011N-A		



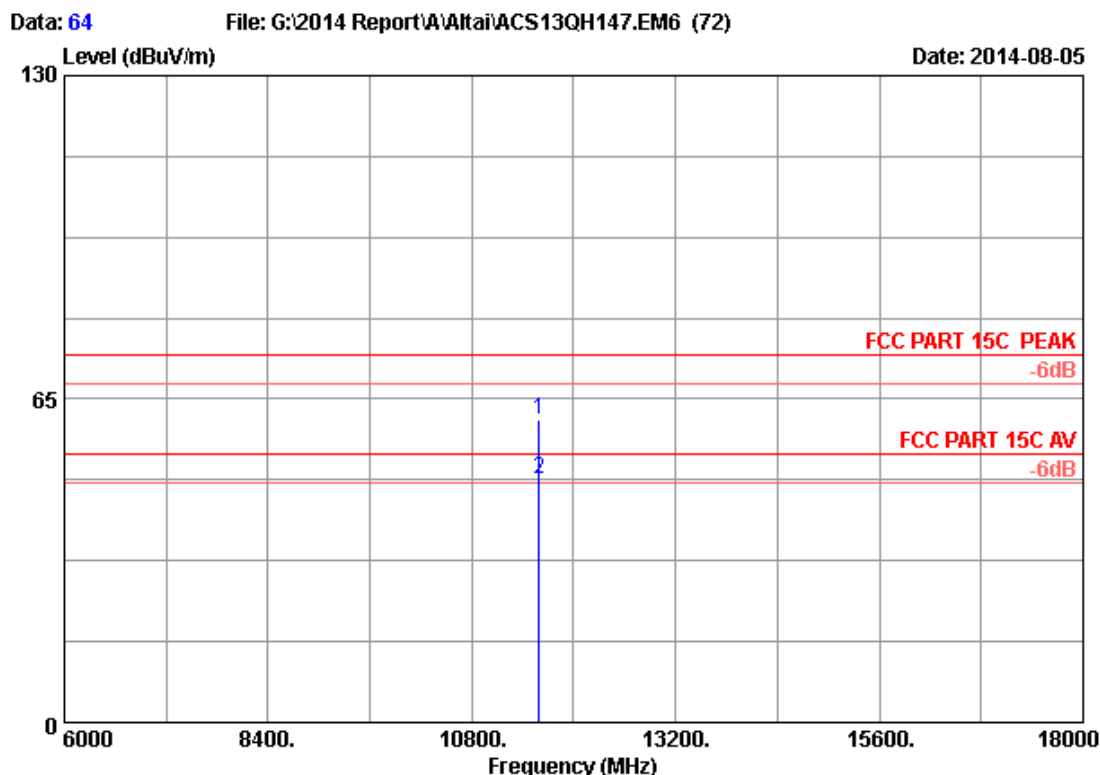
Site no. : 3m Chamber Data no. : 62
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT40 CH151 5755MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	11510.000	38.71	13.29	35.27	43.71	60.44	74.00	13.56	Peak
2	11510.000	38.71	13.29	35.27	31.57	48.30	54.00	5.70	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



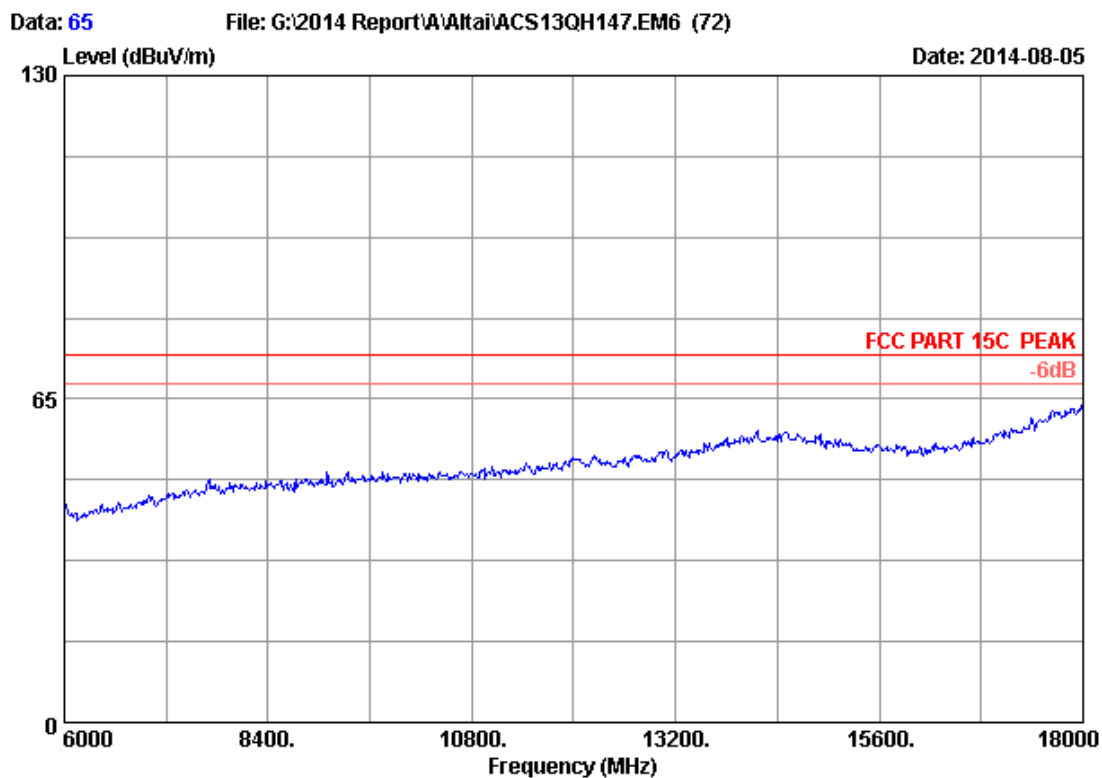
Site no.	: 3m Chamber	Data no.	: 63
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: VERTICAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Kevin_Hu
EUT	: Altai Clan Super WiFi CPE		
Power Rating	: DC 18V From Adapter Input AC 120V/60Hz		
Test Mode	: IEEE802.11nHT40 CH159 5795MHz Tx		
M/N	: WA1011N-A		



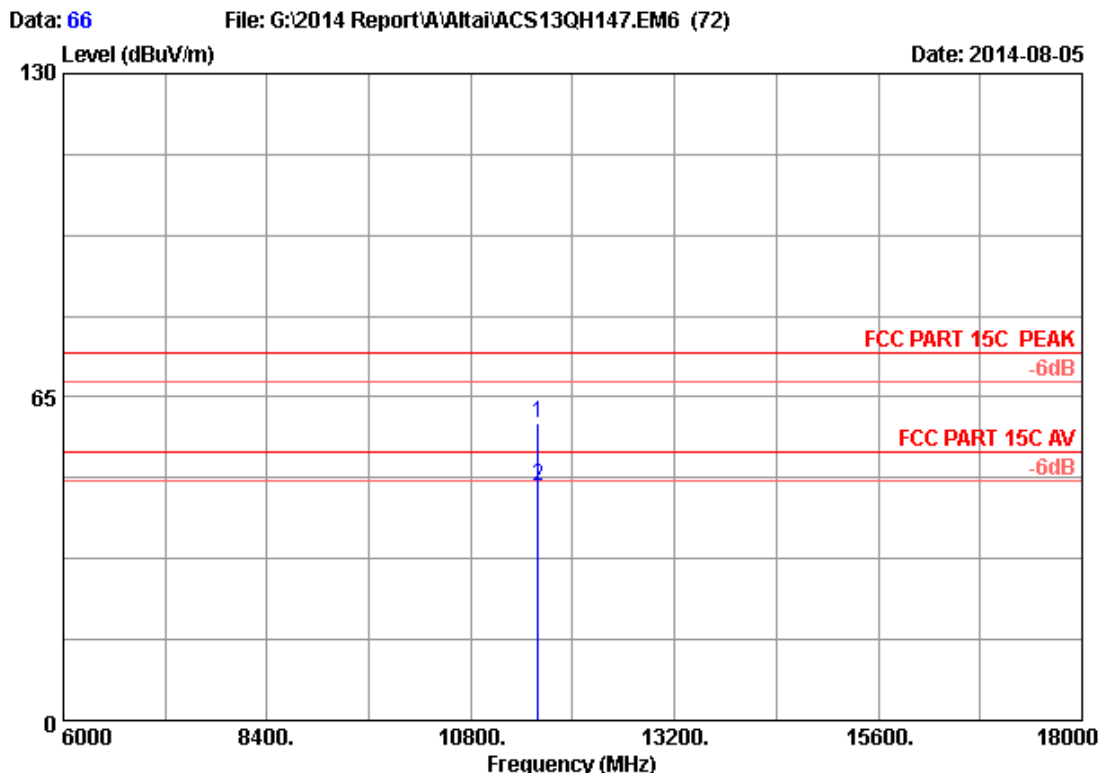
Site no. : 3m Chamber Data no. : 64
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT40 CH159 5795MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	11590.000	38.83	13.34	35.26	44.04	60.95	74.00	13.05	Peak
2	11590.000	38.83	13.34	35.26	31.84	48.75	54.00	5.25	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



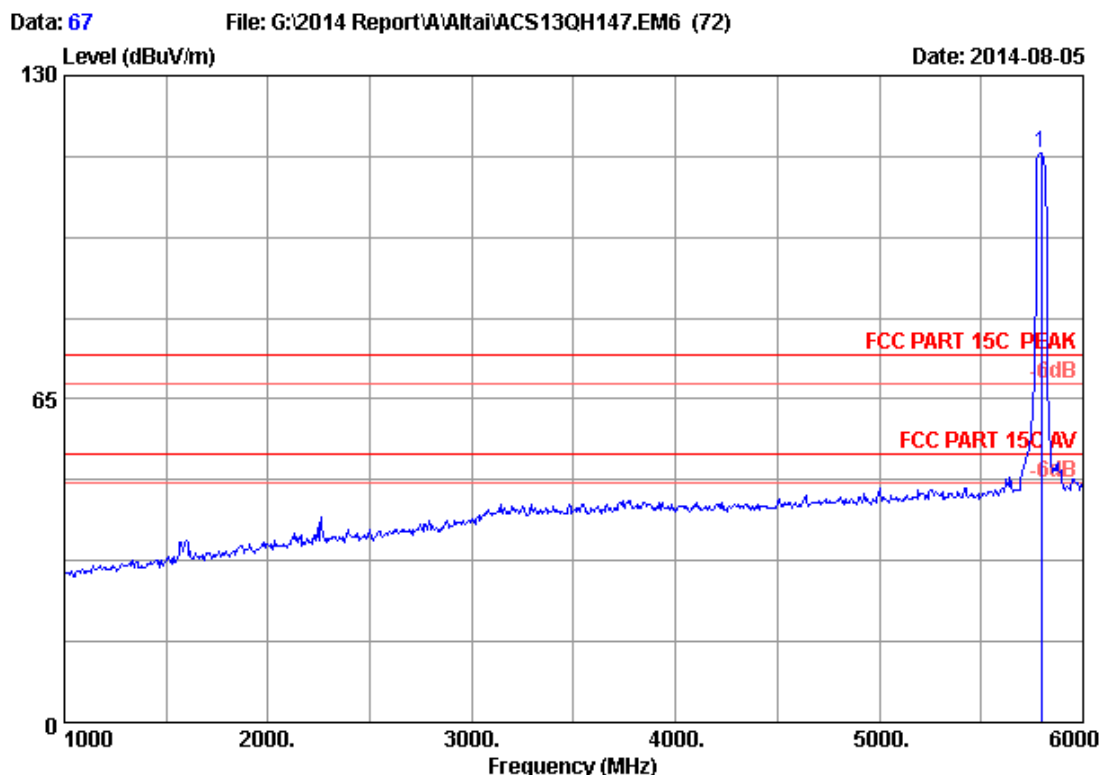
Site no.	: 3m Chamber	Data no.	: 65
Dis. / Ant.	: 3m 2013 3115 (4580)	Ant. pol.	: HORIZONTAL
Limit	: FCC PART 15C PEAK		
Env. / Ins.	: 24°C/56%	Engineer	: Kevin_Hu
EUT	: Altai Clan Super WiFi CPE		
Power Rating	: DC 18V From Adapter Input AC 120V/60Hz		
Test Mode	: IEEE802.11nHT40 CH159 5795MHz Tx		
M/N	: WA1011N-A		



Site no. : 3m Chamber Data no. : 66
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT40 CH159 5795MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBUV)	Emission Level (dBUV/m)	Limits (dBUV/m)	Margin (dB)	Remark
1	11590.000	38.83	13.34	35.26	42.94	59.85	74.00	14.15	Peak
2	11590.000	38.83	13.34	35.26	30.14	47.05	54.00	6.95	Average

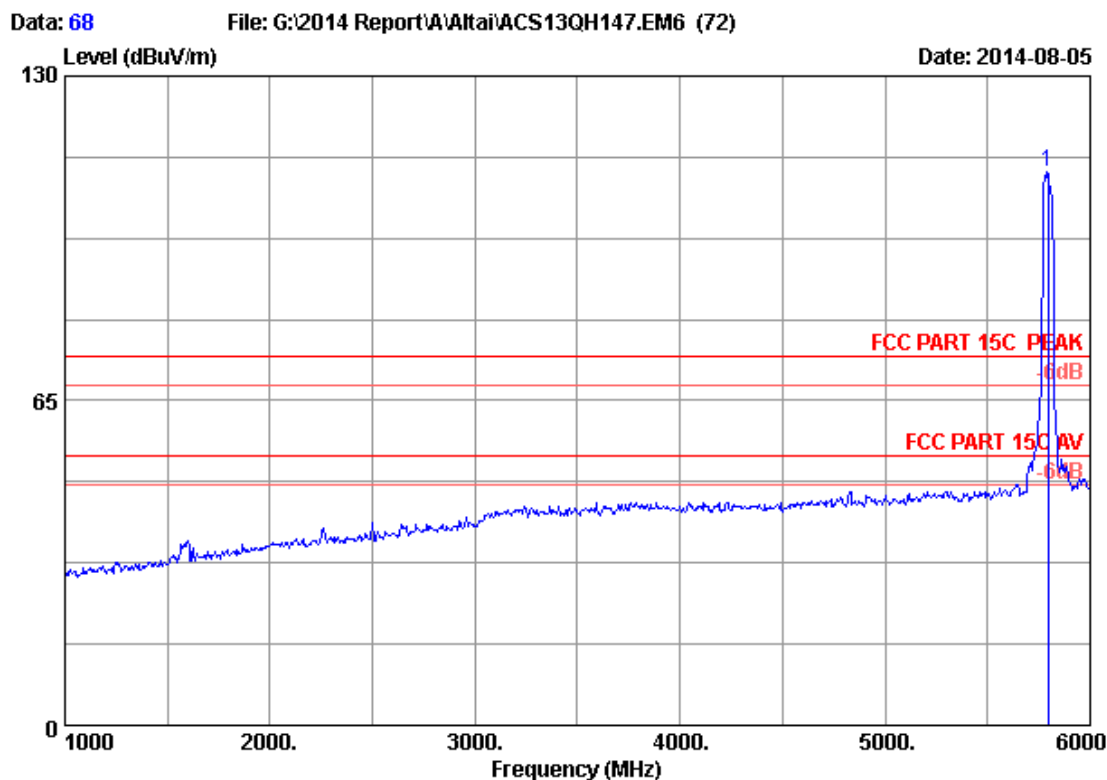
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 67
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT40 CH159 5795MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant.	Cable	AMP	Reading (dBuV)	Emission			Margin	Remark
		Factor (dB/m)	Loss (dB)	factor (dB)		Level (dBuV/m)	Limits (dBuV/m)			
1	5795.000	34.12	9.60	35.70	106.54	114.56	74.00	-40.56	Peak	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 68
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT40 CH159 5795MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission			
						Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5795.000	34.12	9.60	35.70	102.66	110.68	74.00	-36.68	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.

5. CONDUCTED SPURIOUS EMISSIONS

5.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	N9030A	MY51380221	Oct.31, 13	1 Year
2.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr. 28,14	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	Apr. 28,14	1 Year

5.2.Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power.

5.3.Test Procedure

The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz and measure all the emissions detected.

Note: The cable loss and attenuator loss were offset into spectrum analyzer as an amplitude offset.

The frequency range from 30MHz to 10th harmonic (40GHz) are checked. and no any emissions were found from 25GHz to 40 GHz, So the conducted spurious emissions from 25GHz to 40GHz were not record.

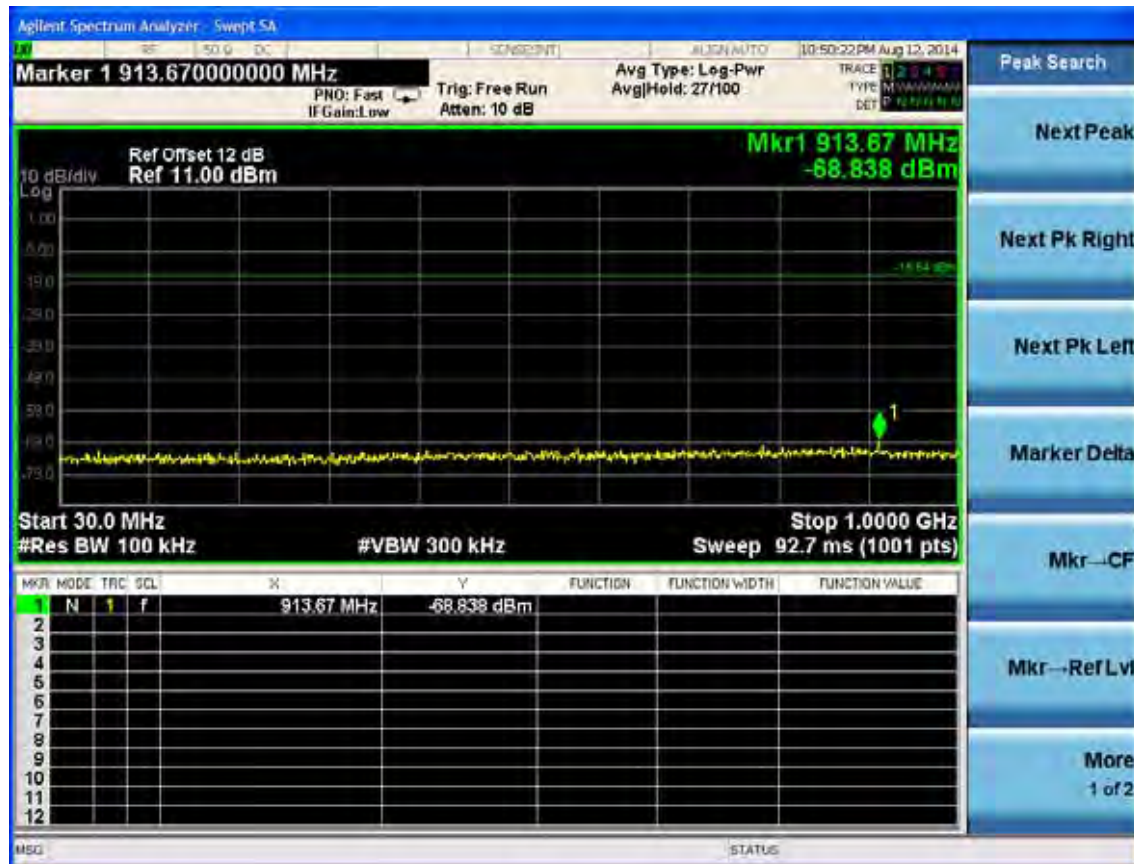
5.4.Test result

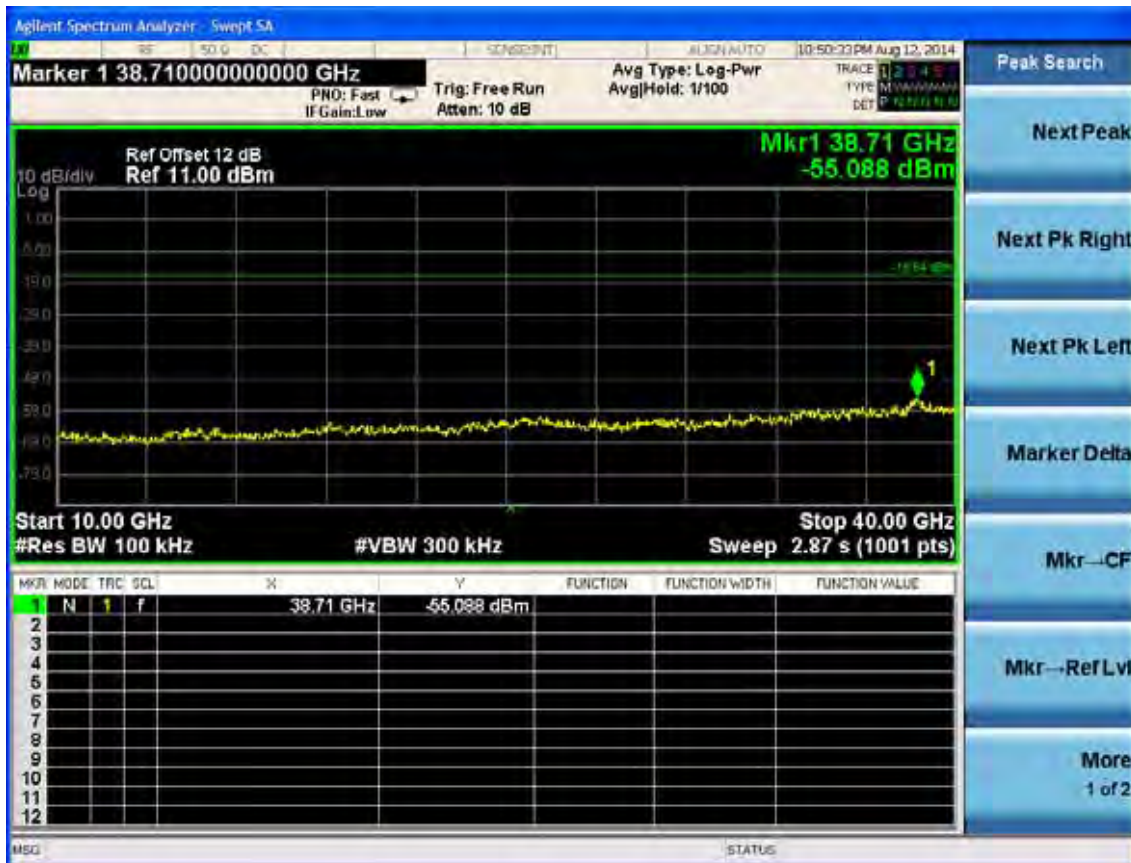
PASS (The testing data was attached in the next pages.)

ANT0:

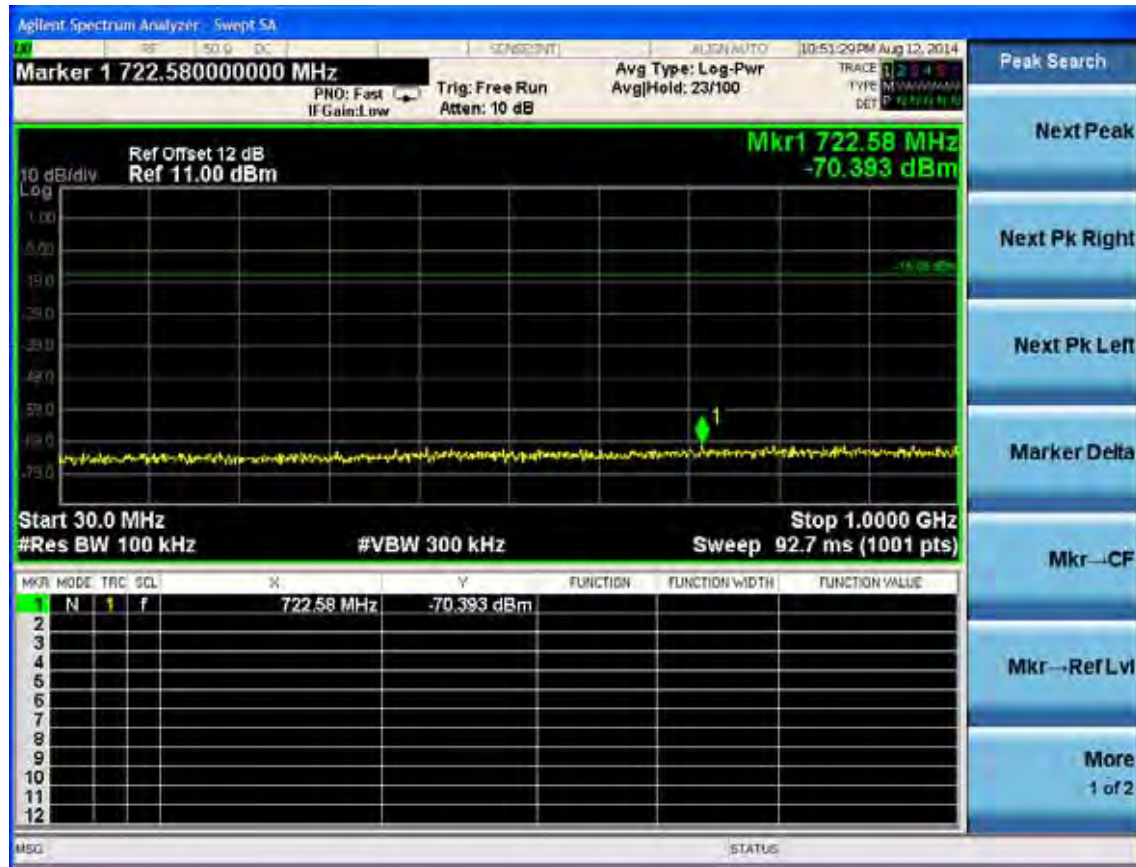
Test Mode: IEEE 802.11a TX

Test CH149: 5745MHz



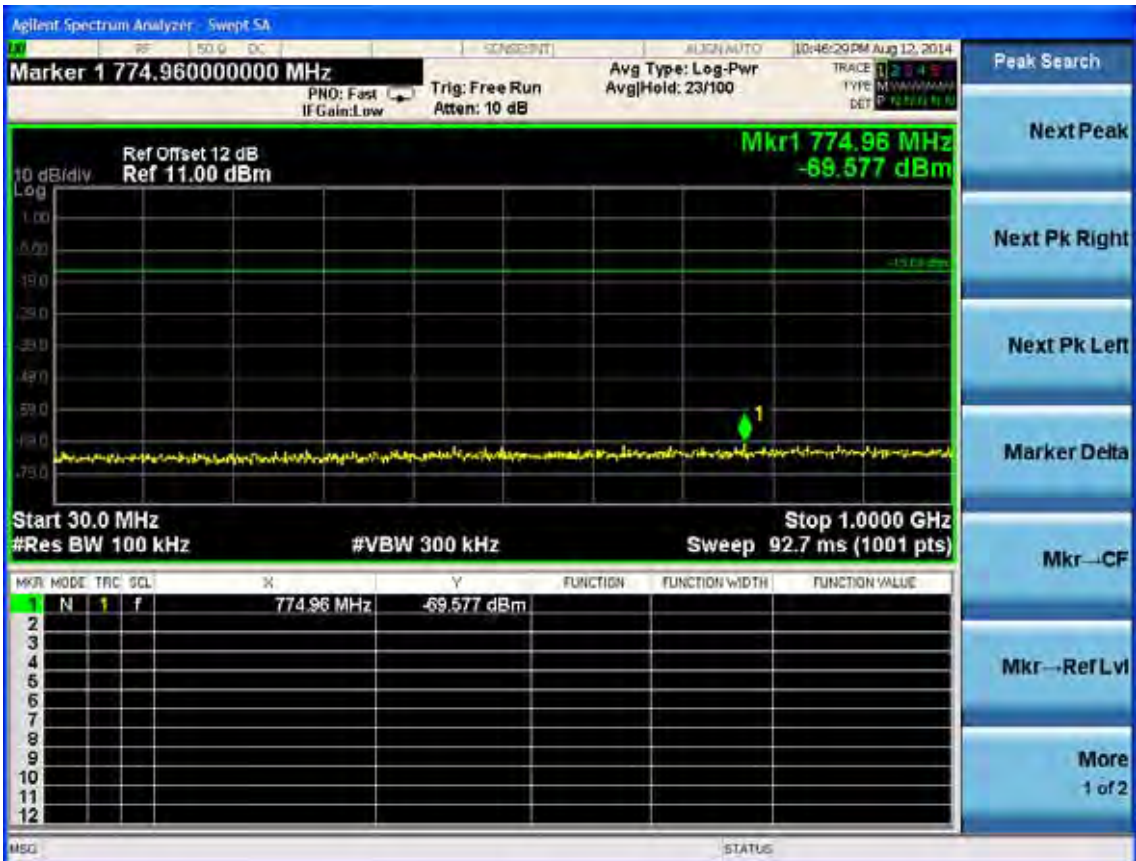


Test CH157: 5785MHz

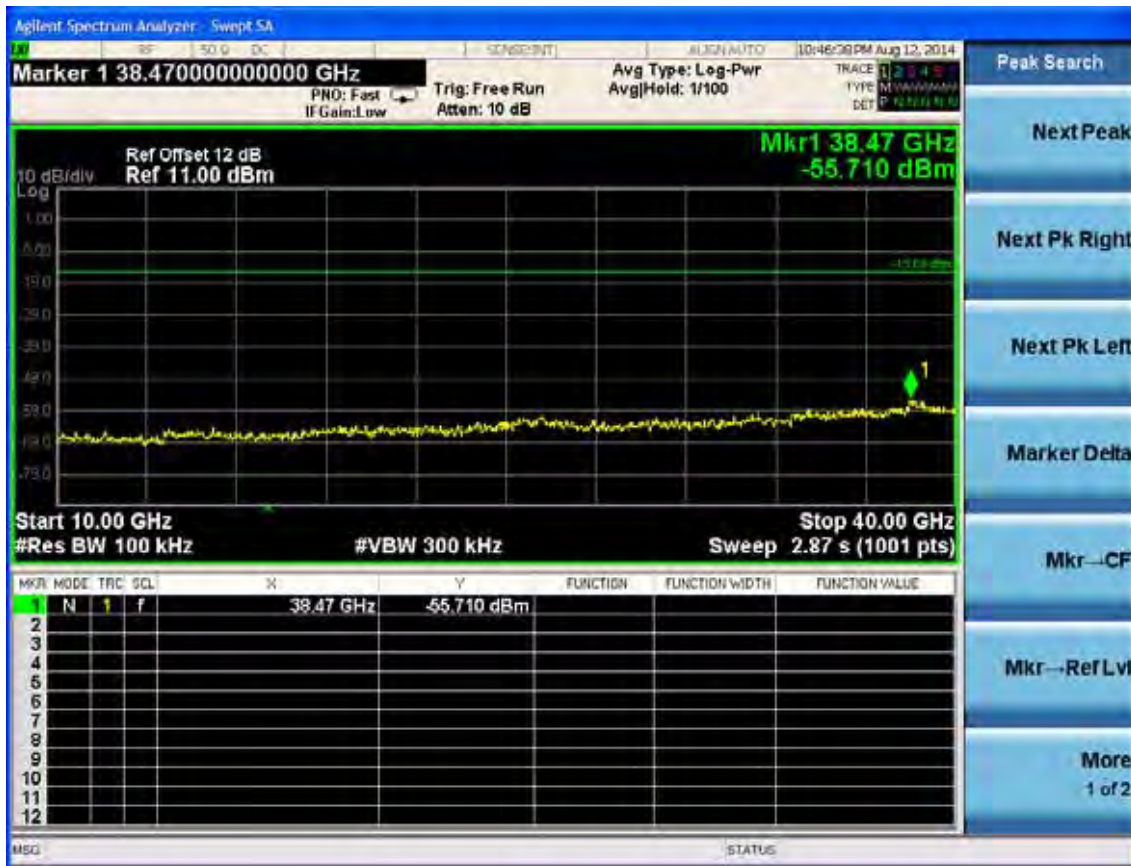




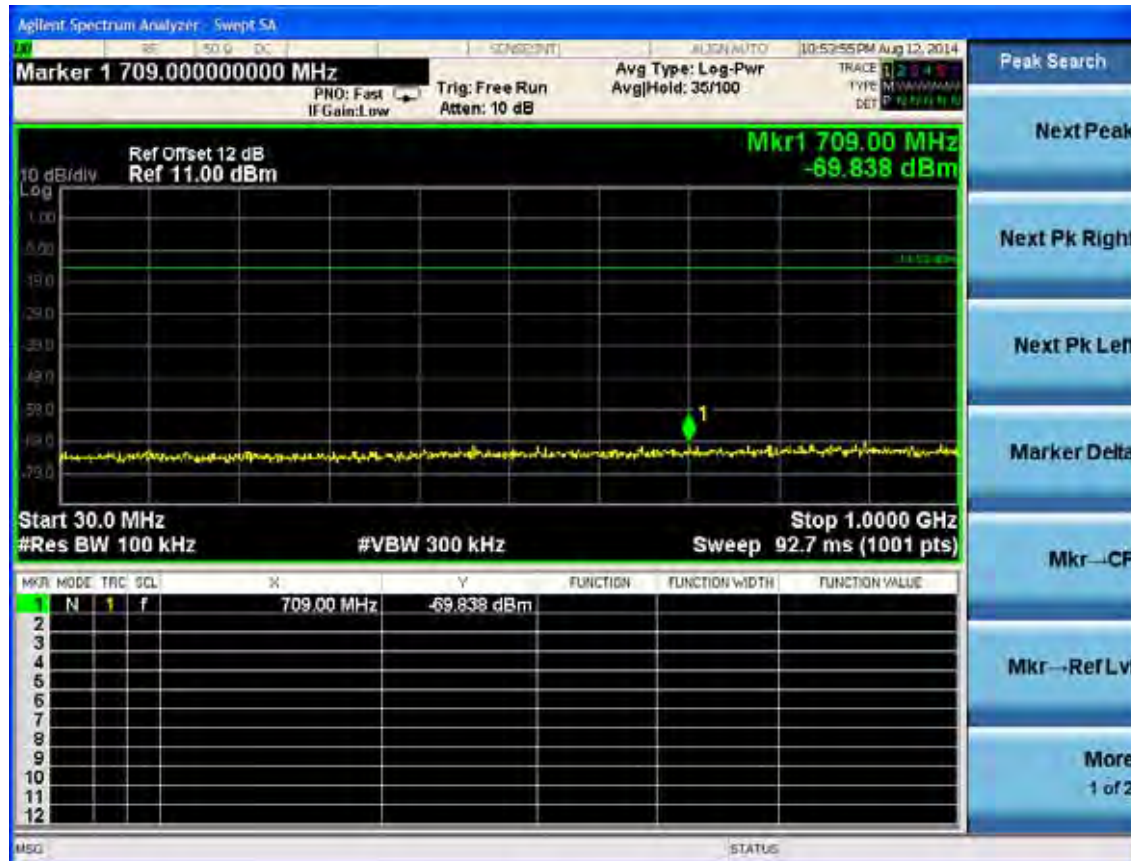
Test CH165: 5825MHz

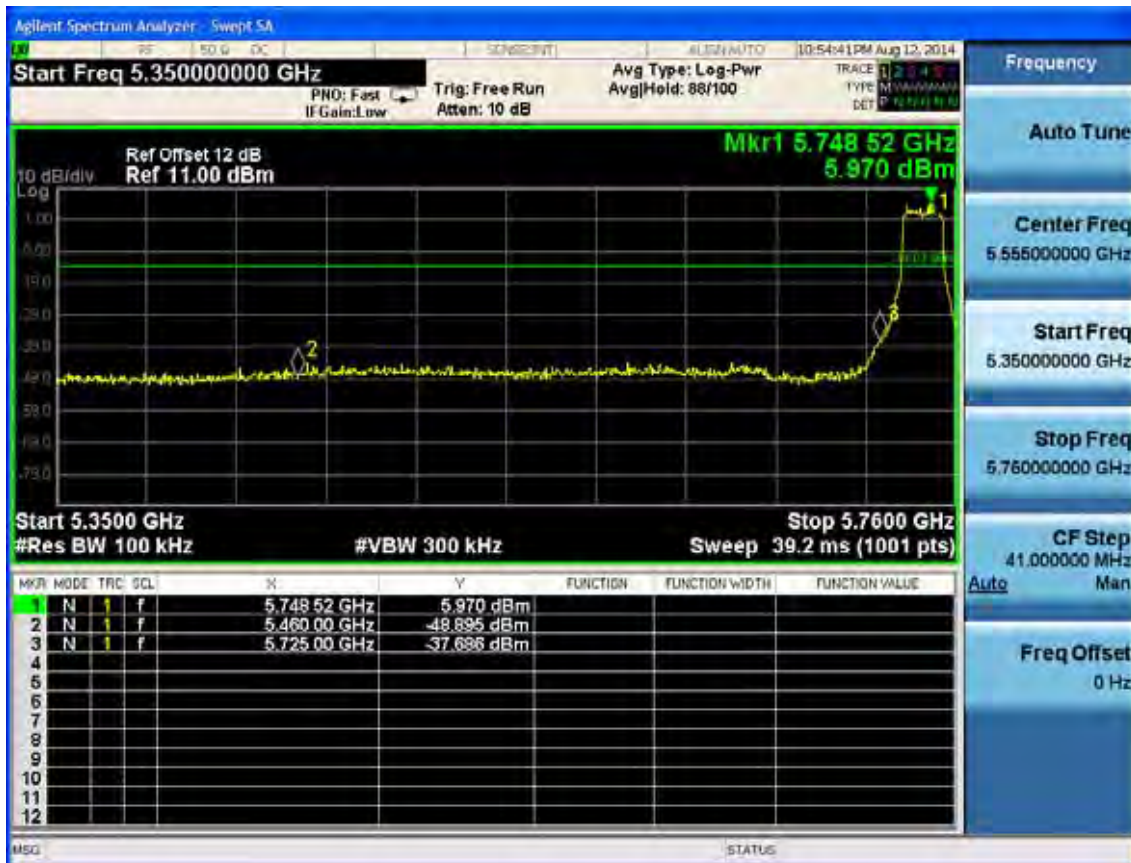


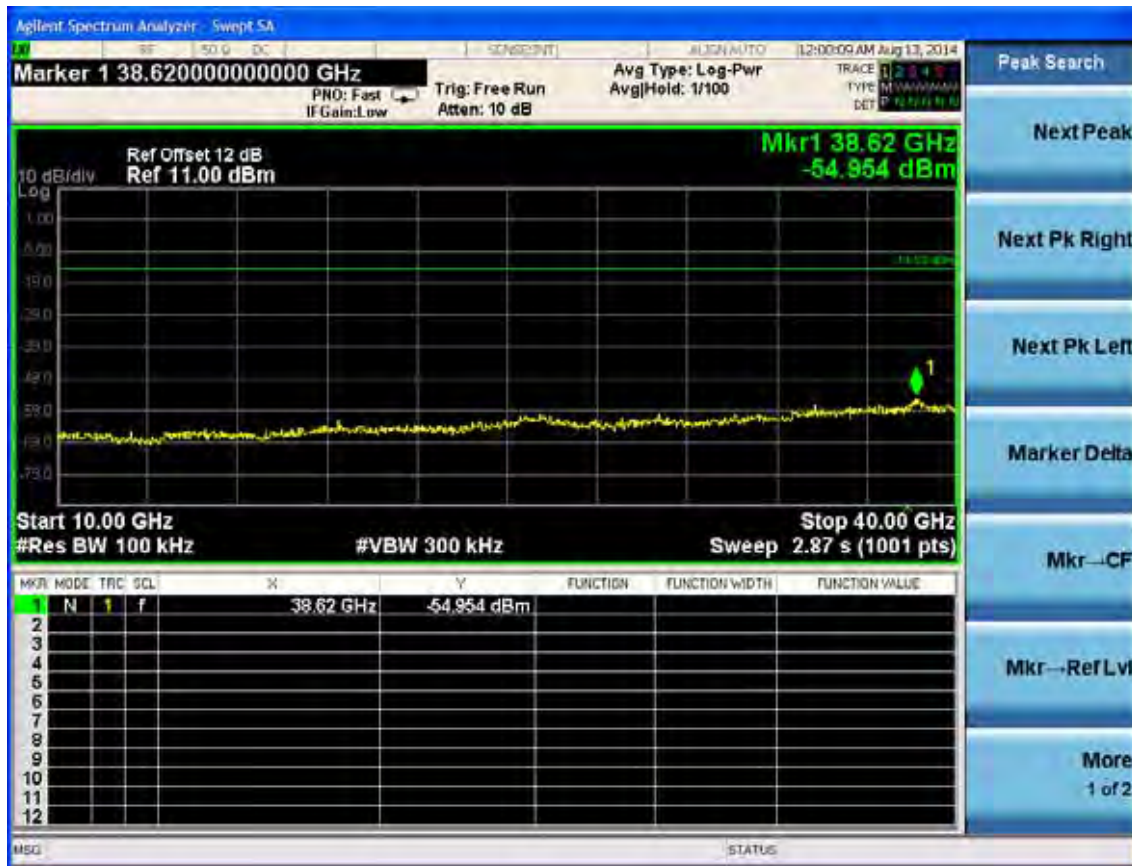




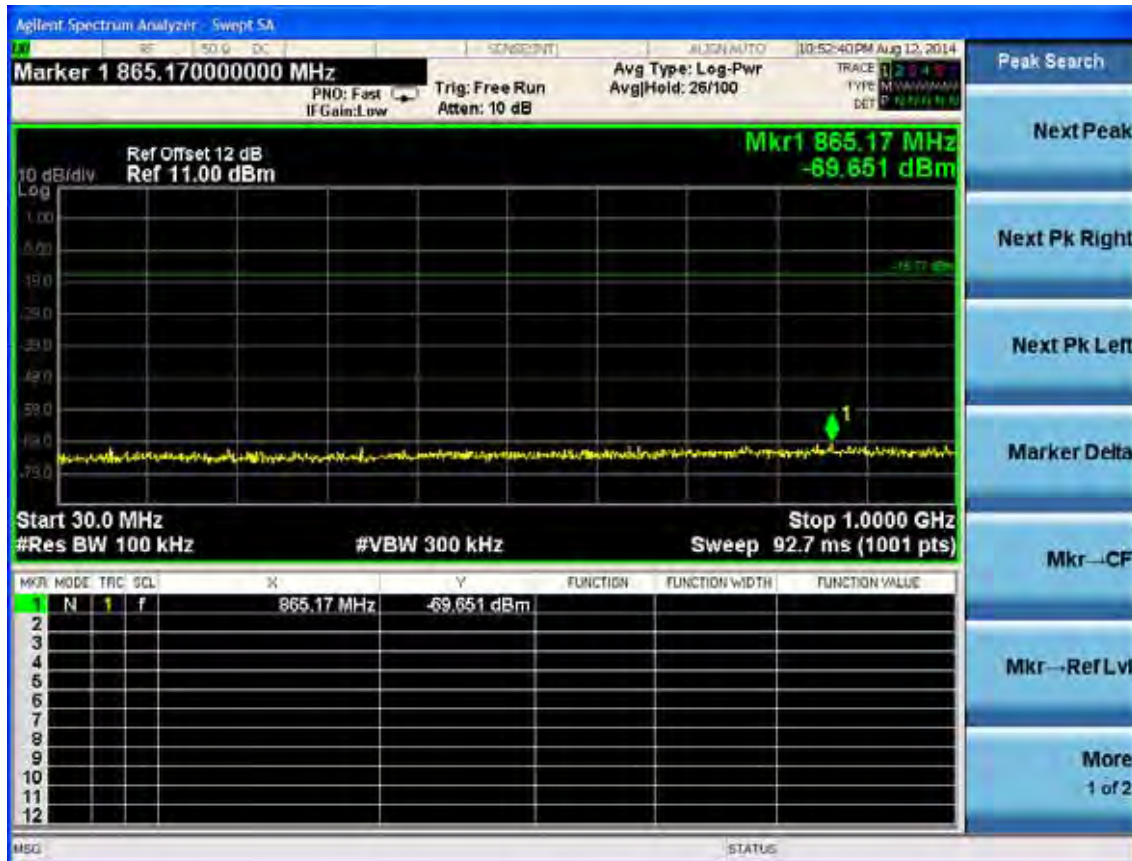
Test Mode: IEEE 802.11n HT20 TX
Test CH149: 5745MHz

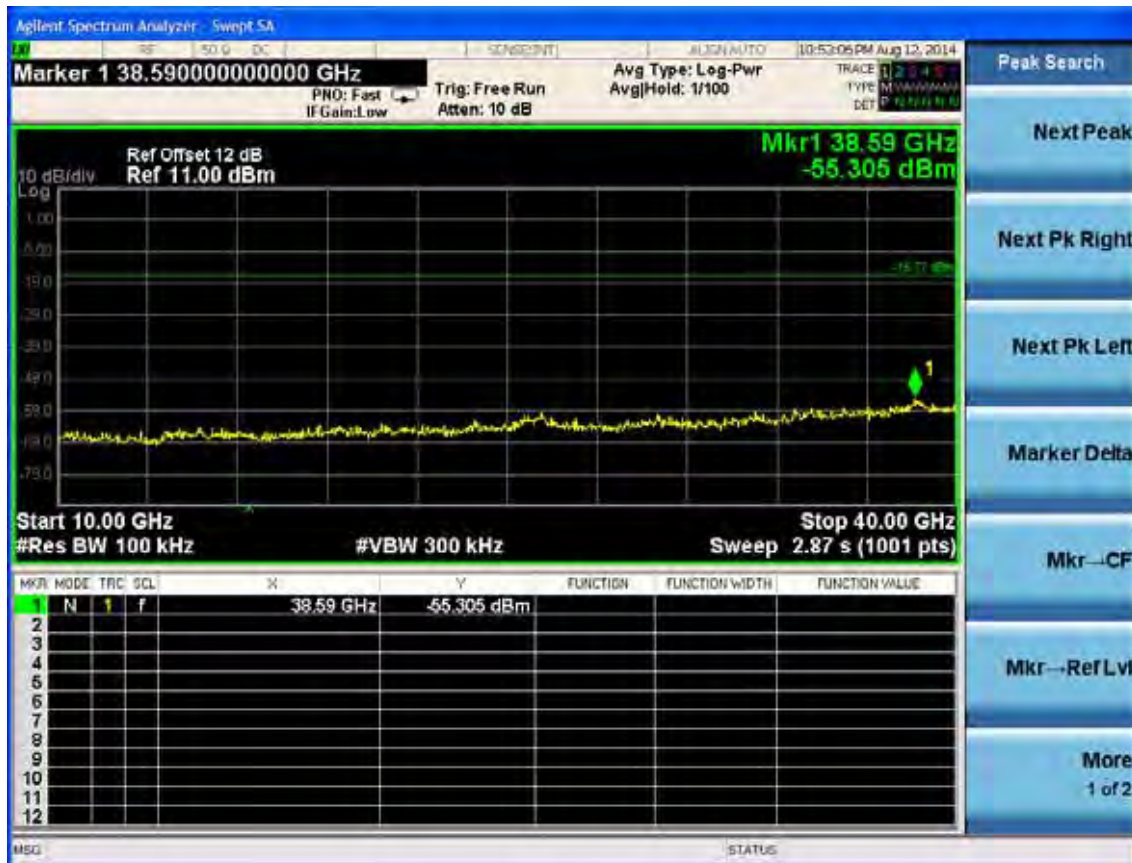




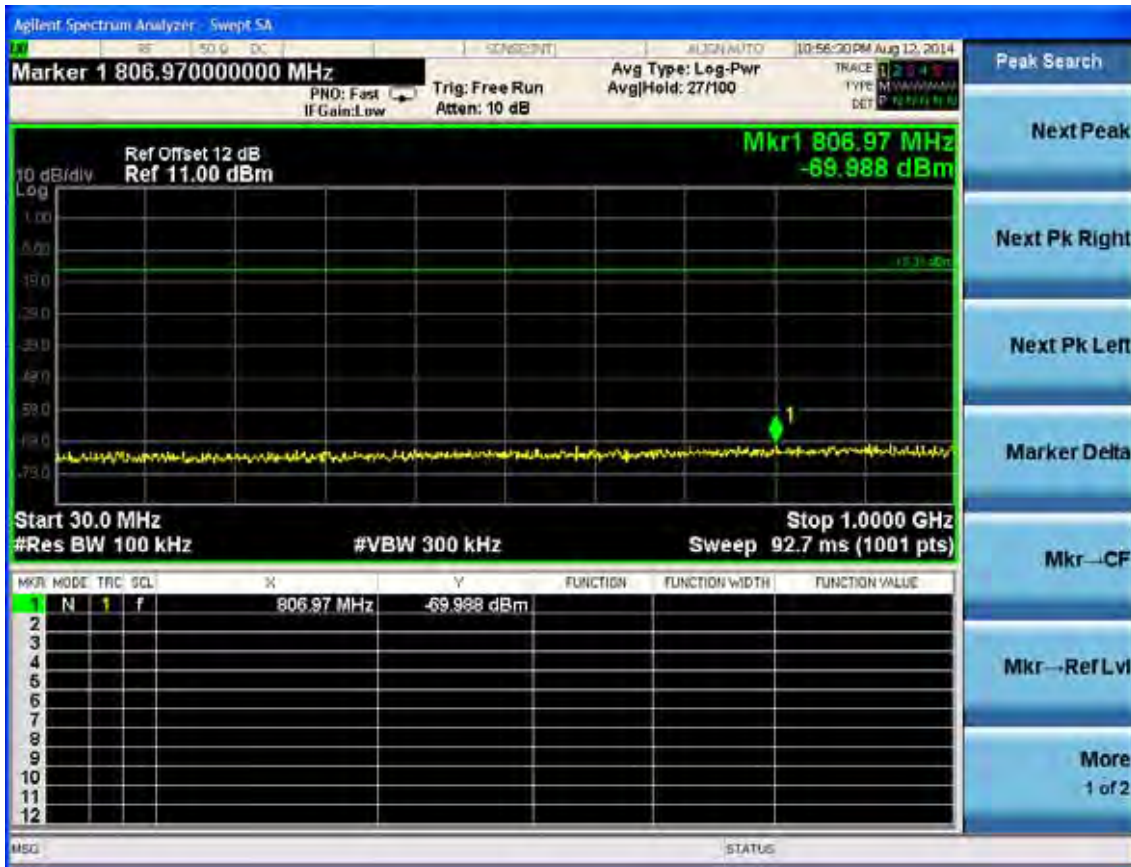


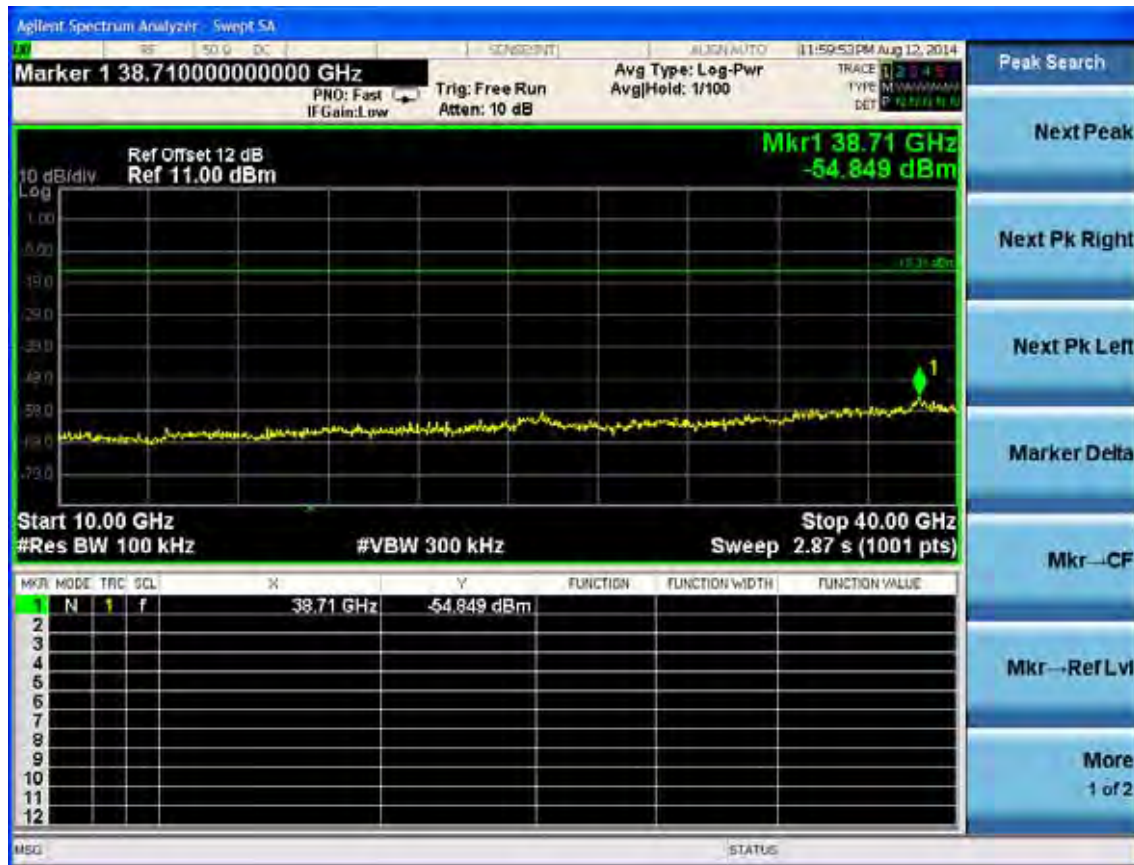
Test CH157: 5785MHz



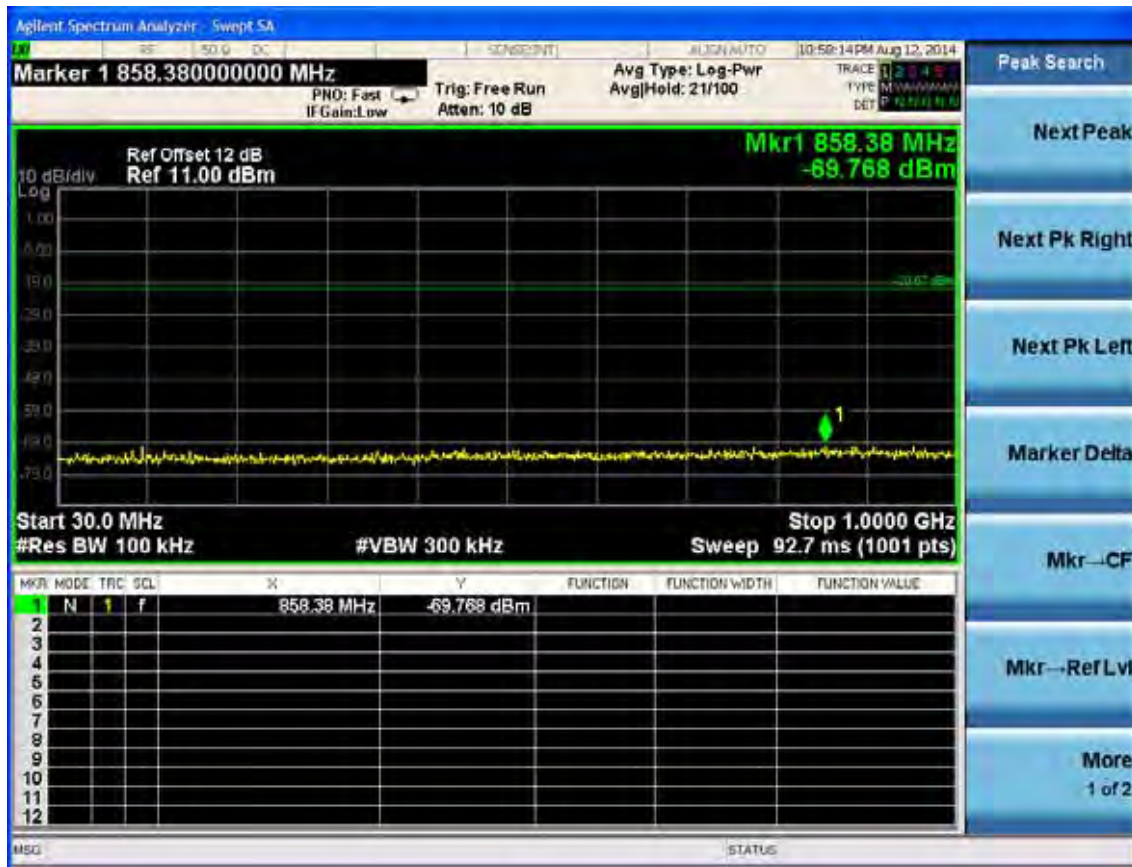


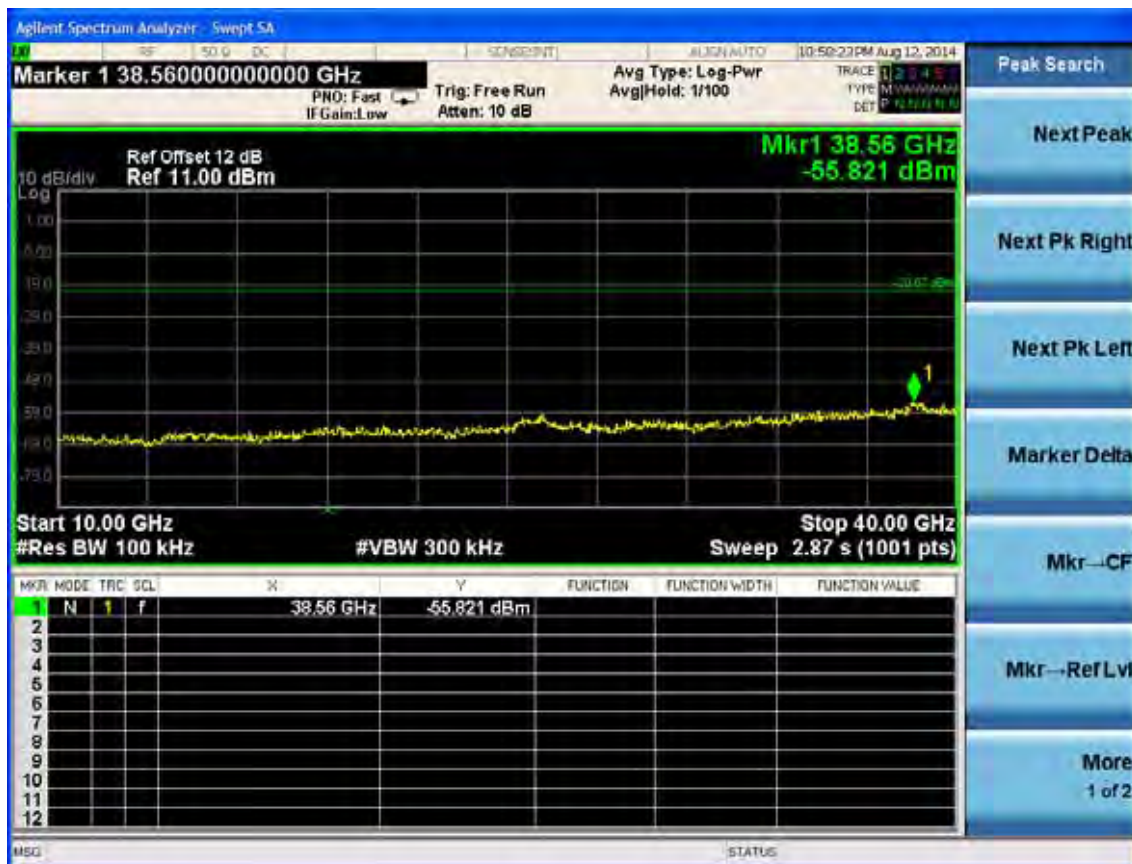
Test CH165: 5825MHz



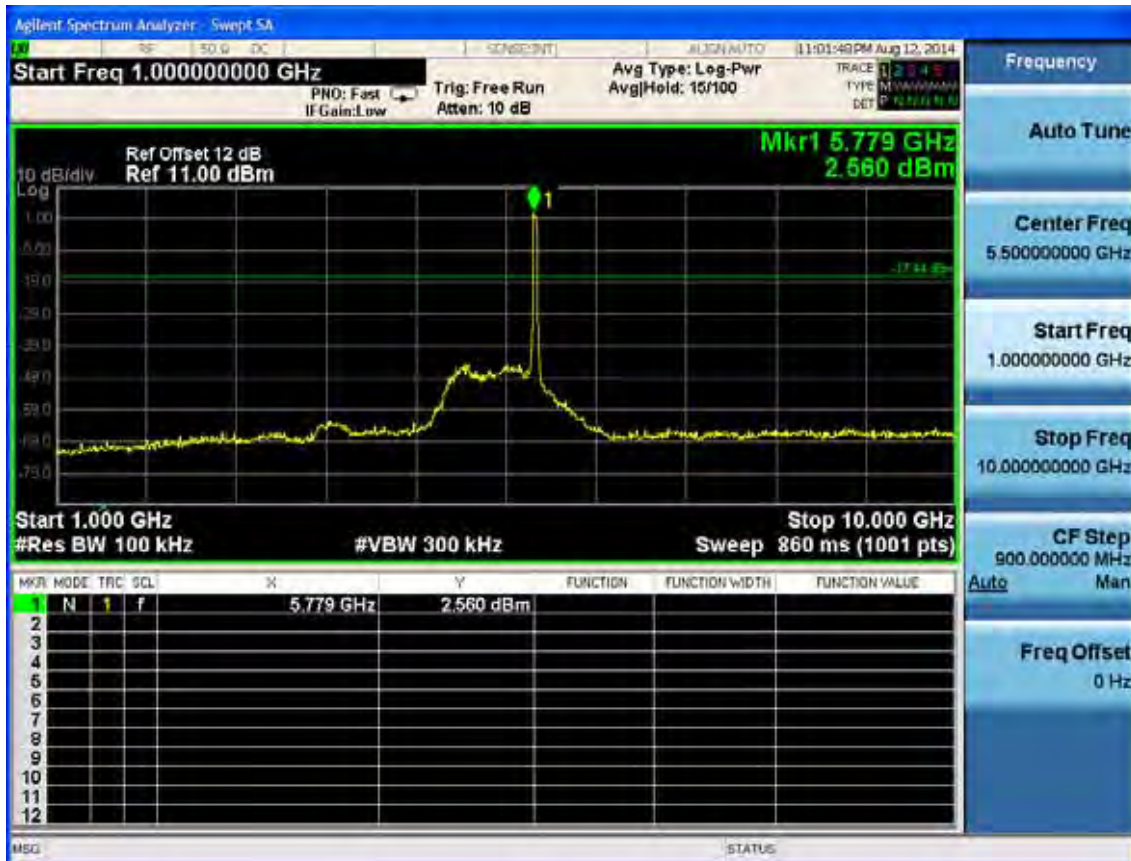
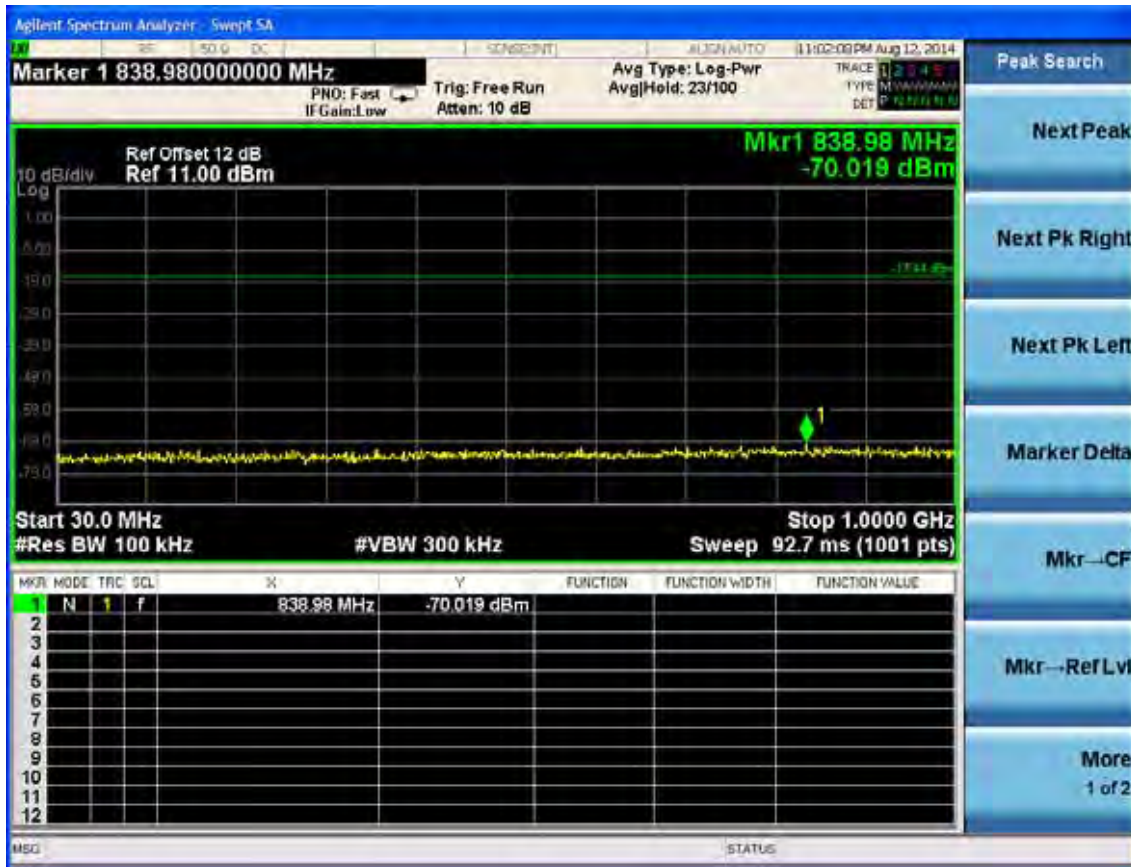


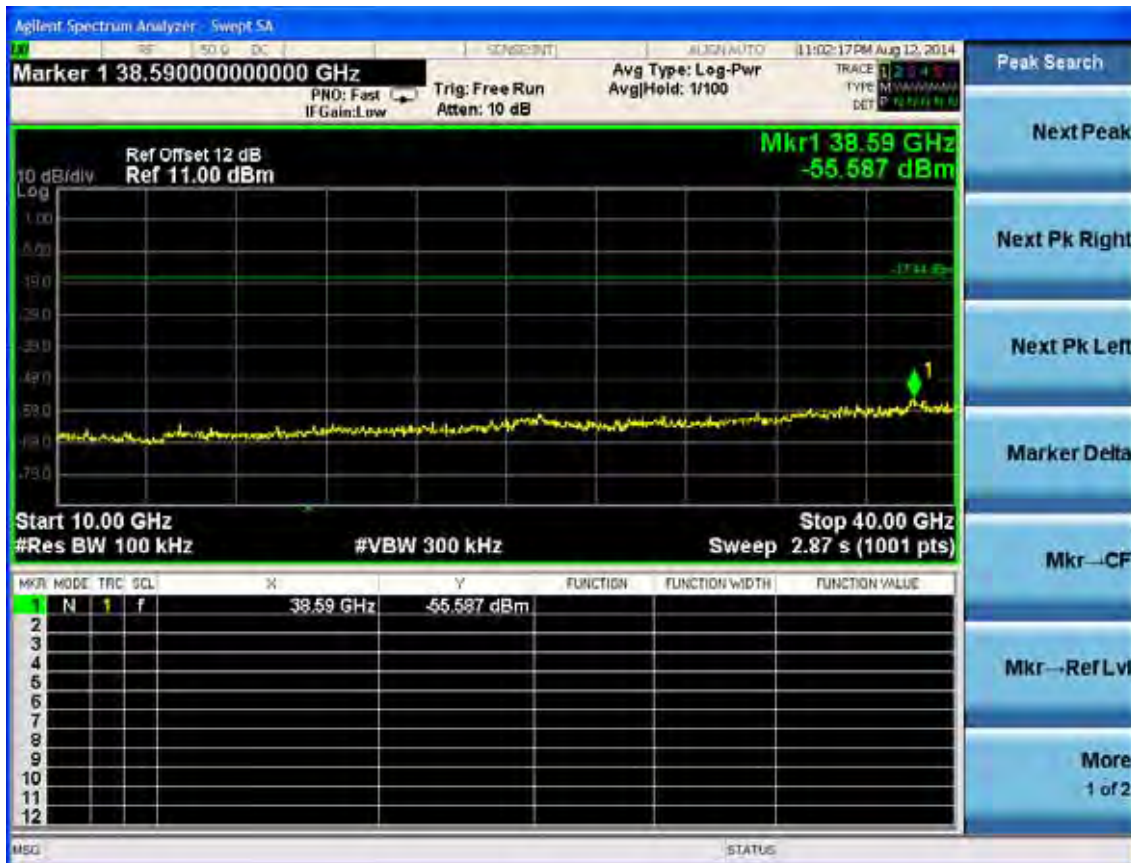
Test Mode: IEEE 802.11n HT40 TX
Test CH151: 5755MHz





Test CH159: 5795MHz

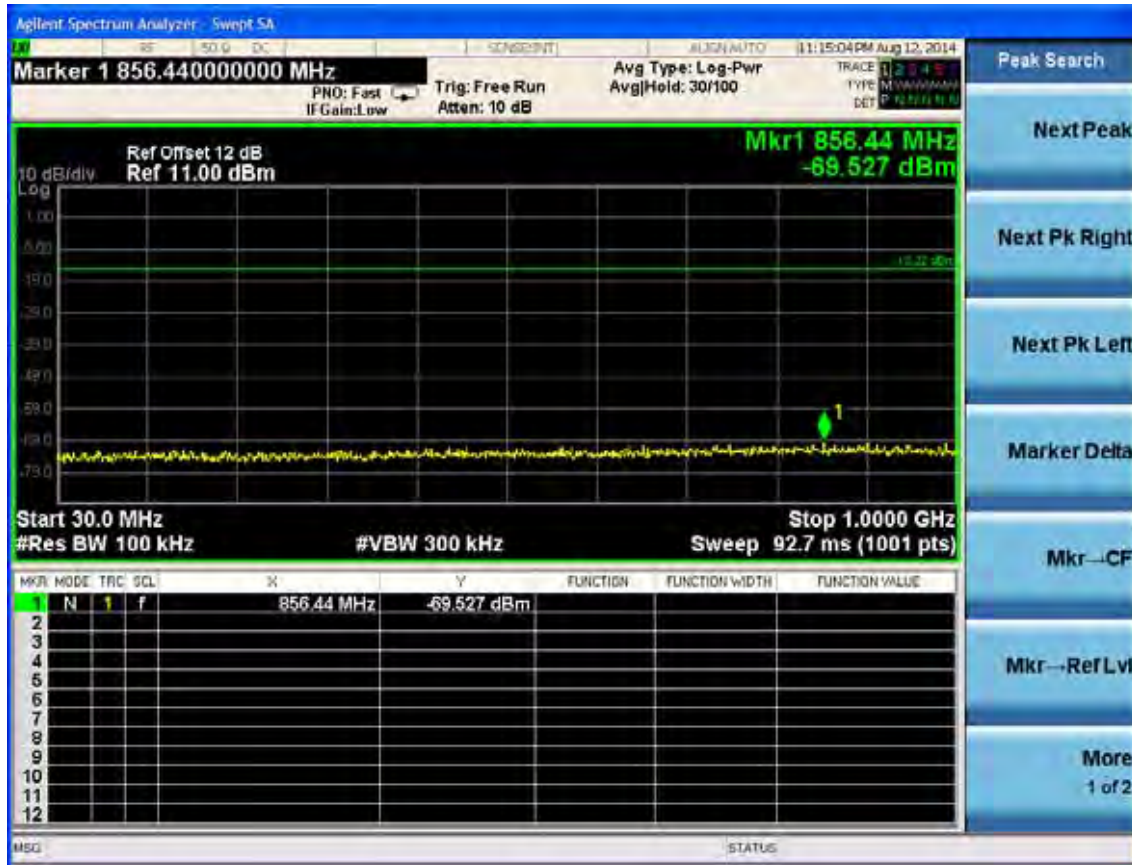


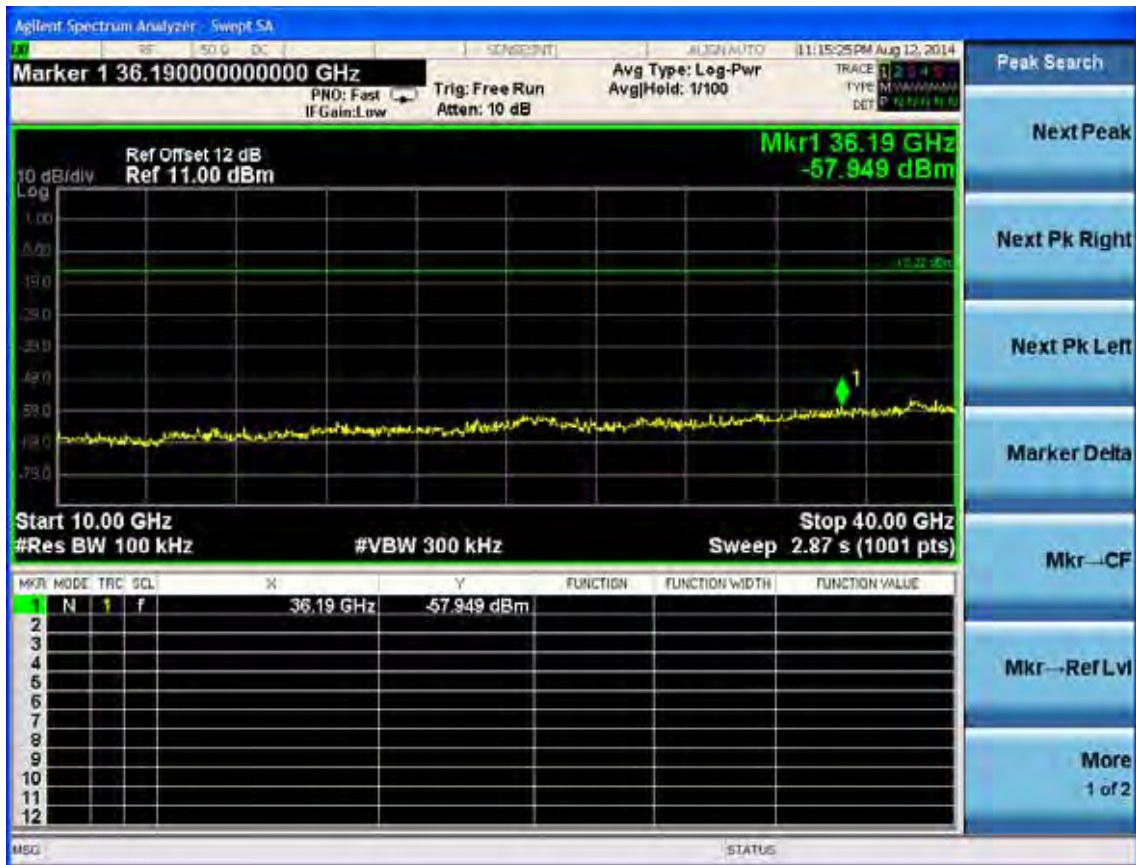


ANT1:

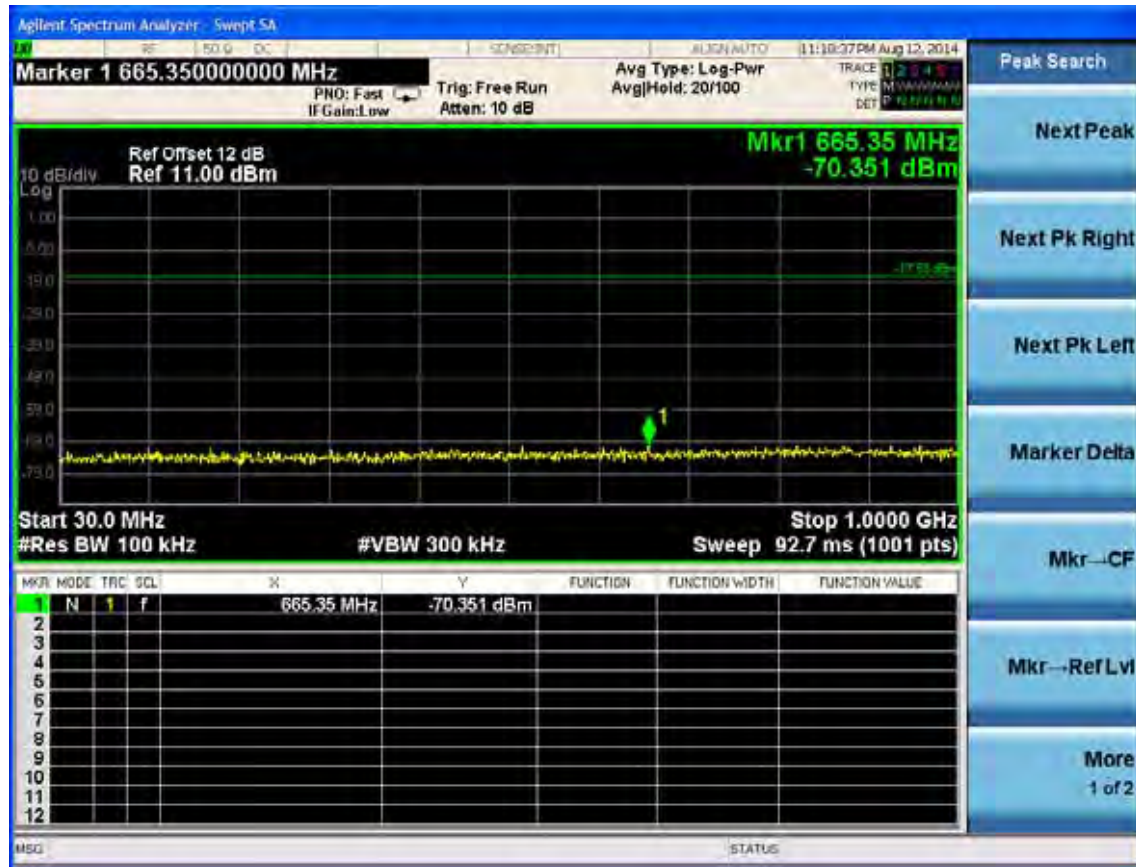
Test Mode: IEEE 802.11a TX

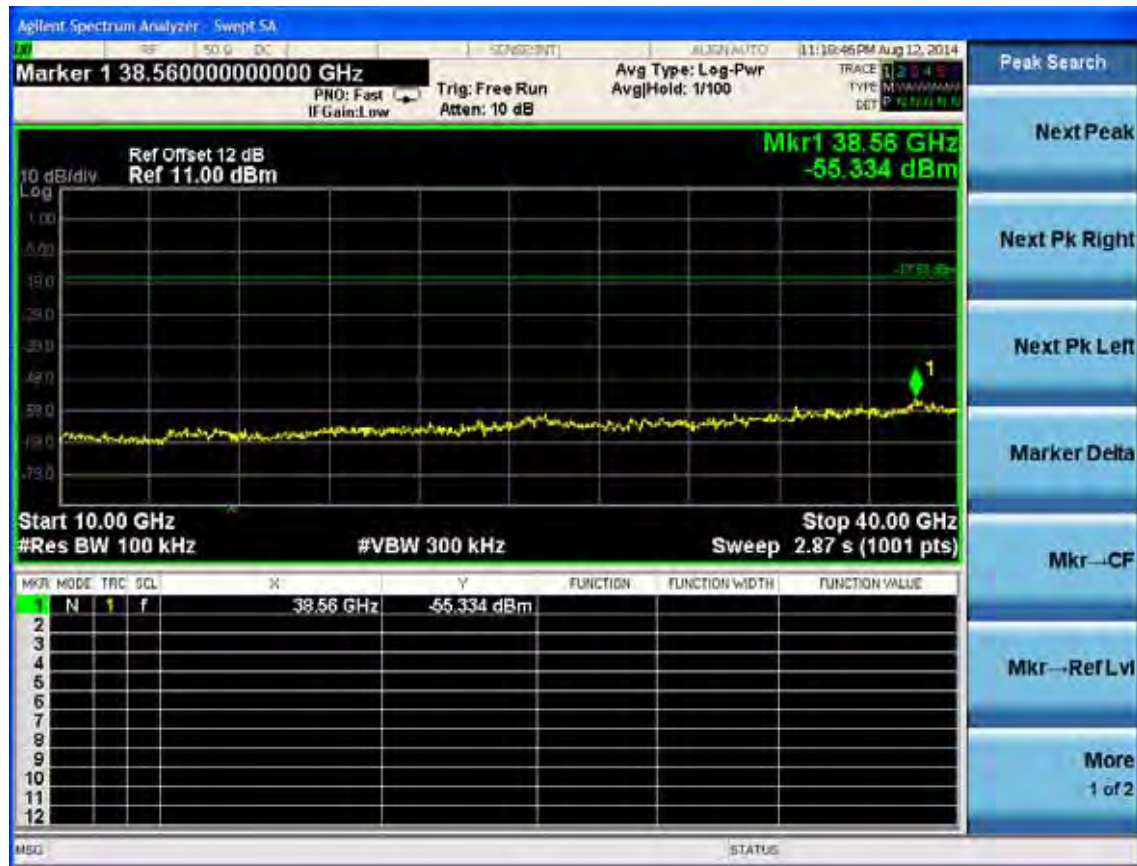
Test CH149: 5745MHz





Test CH157: 5785MHz

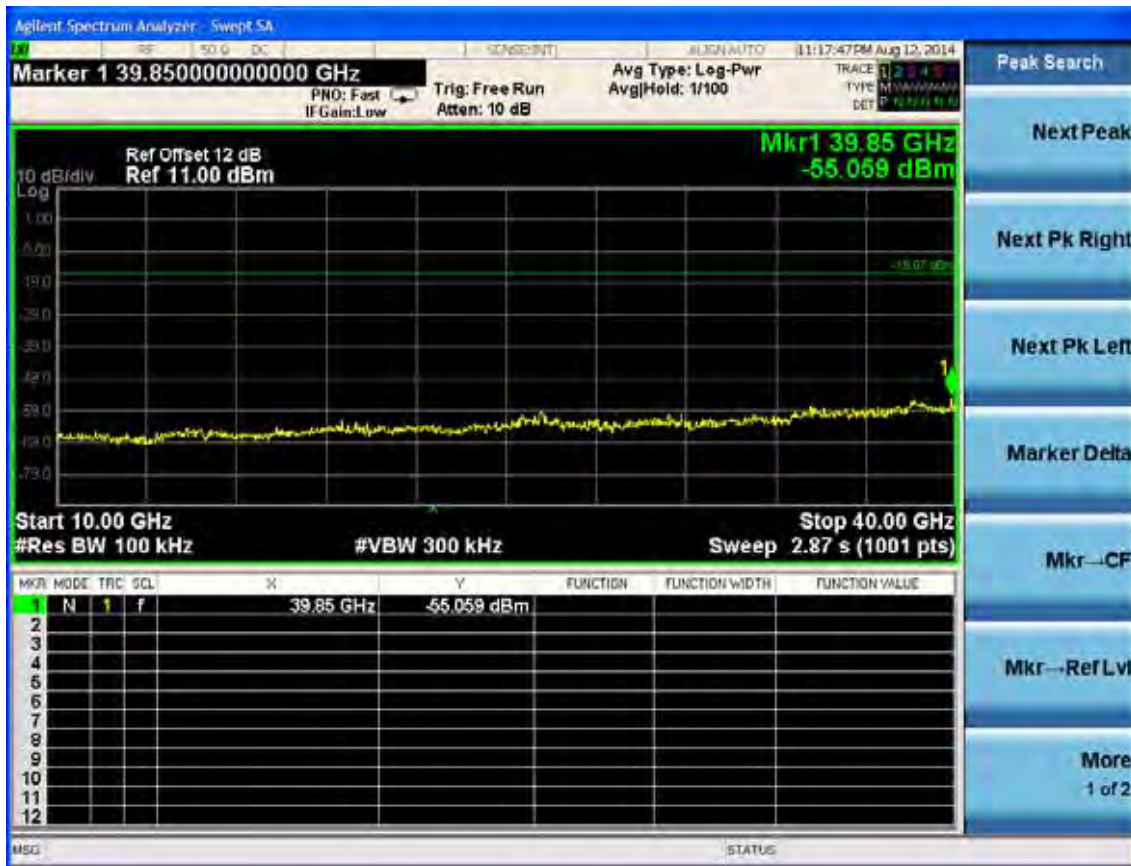




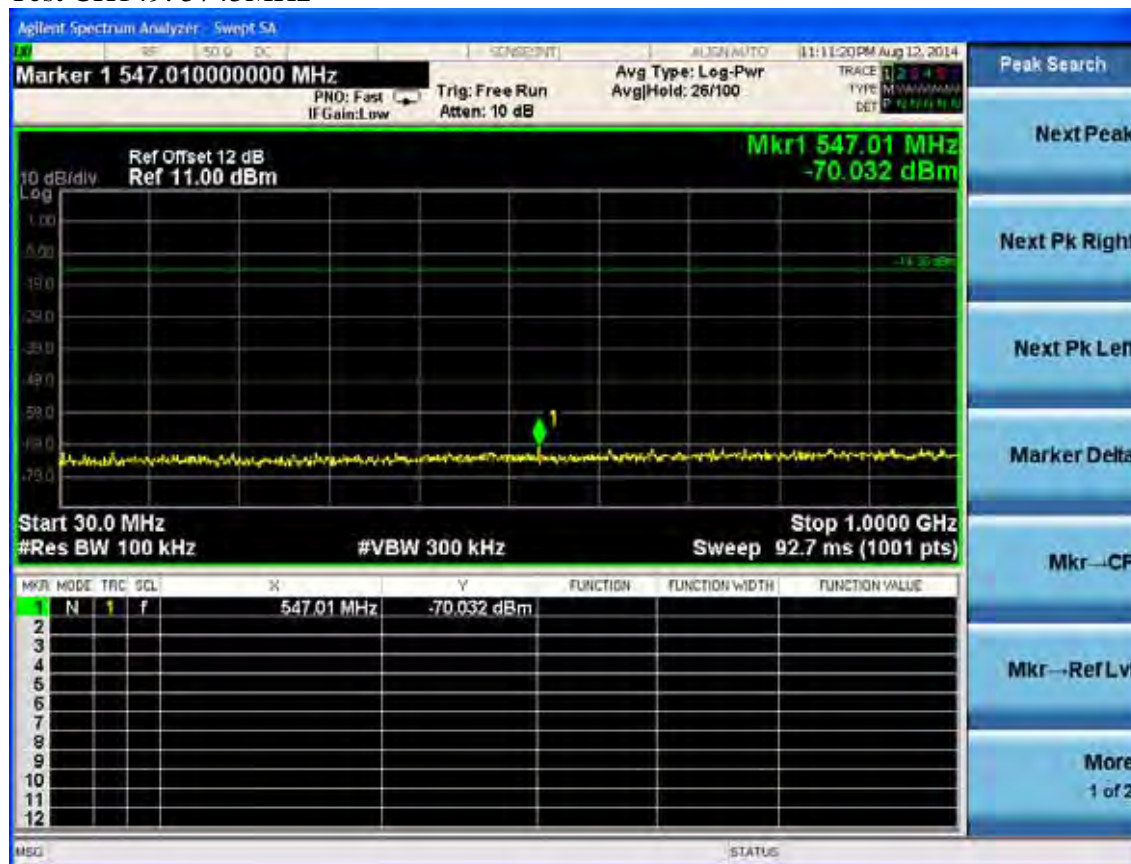
Test CH165: 5825MHz



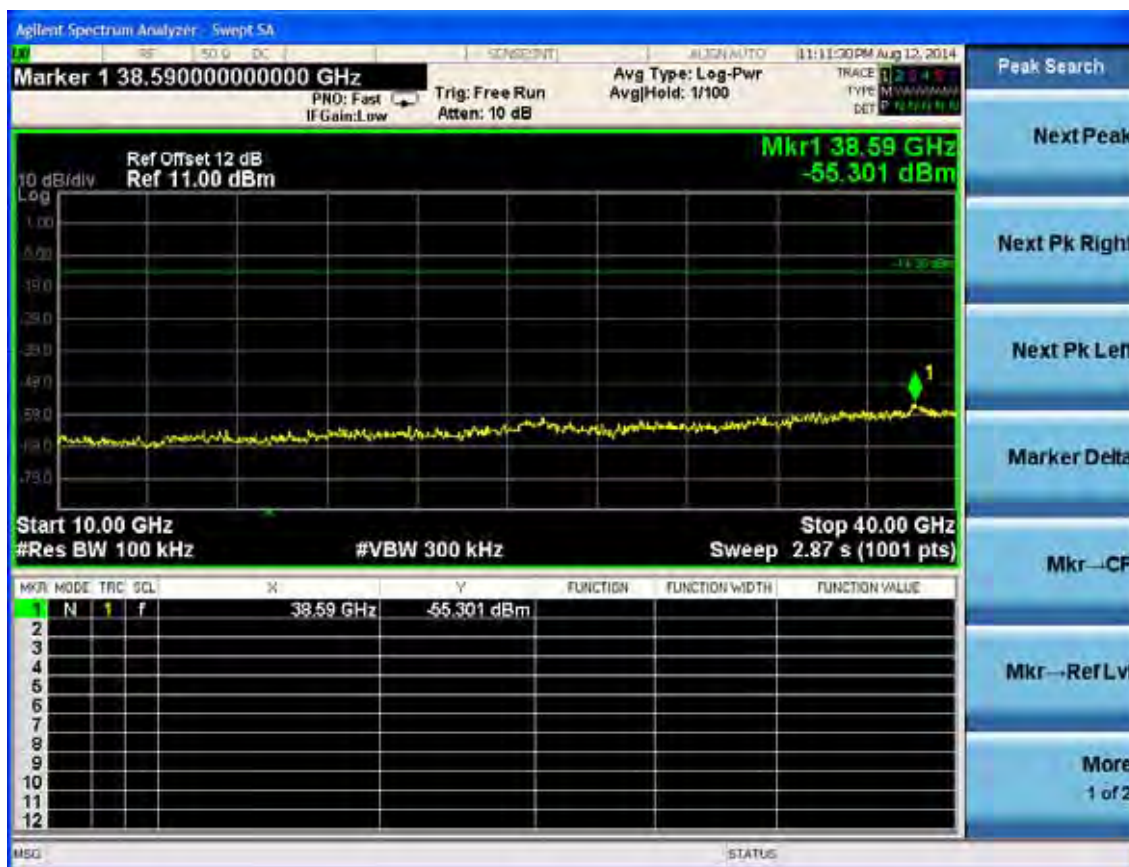




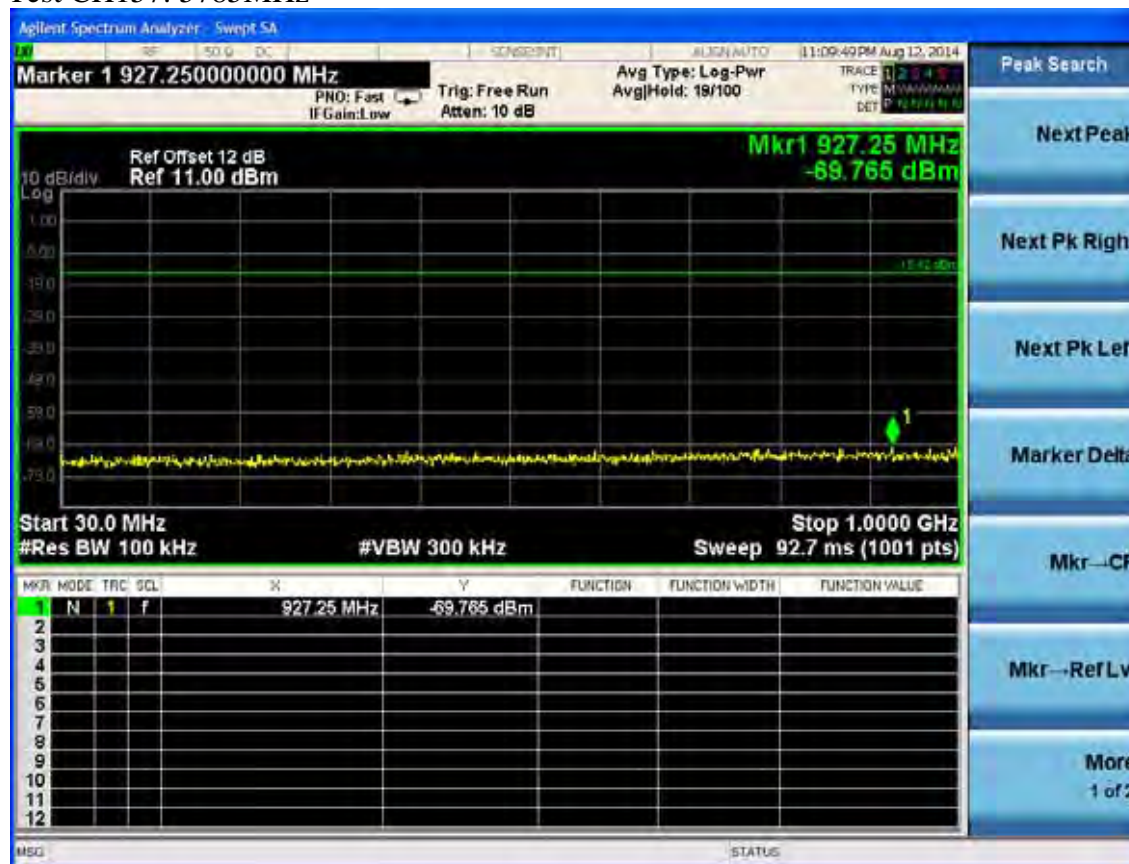
Test Mode: IEEE 802.11n HT20 TX
Test CH149: 5745MHz

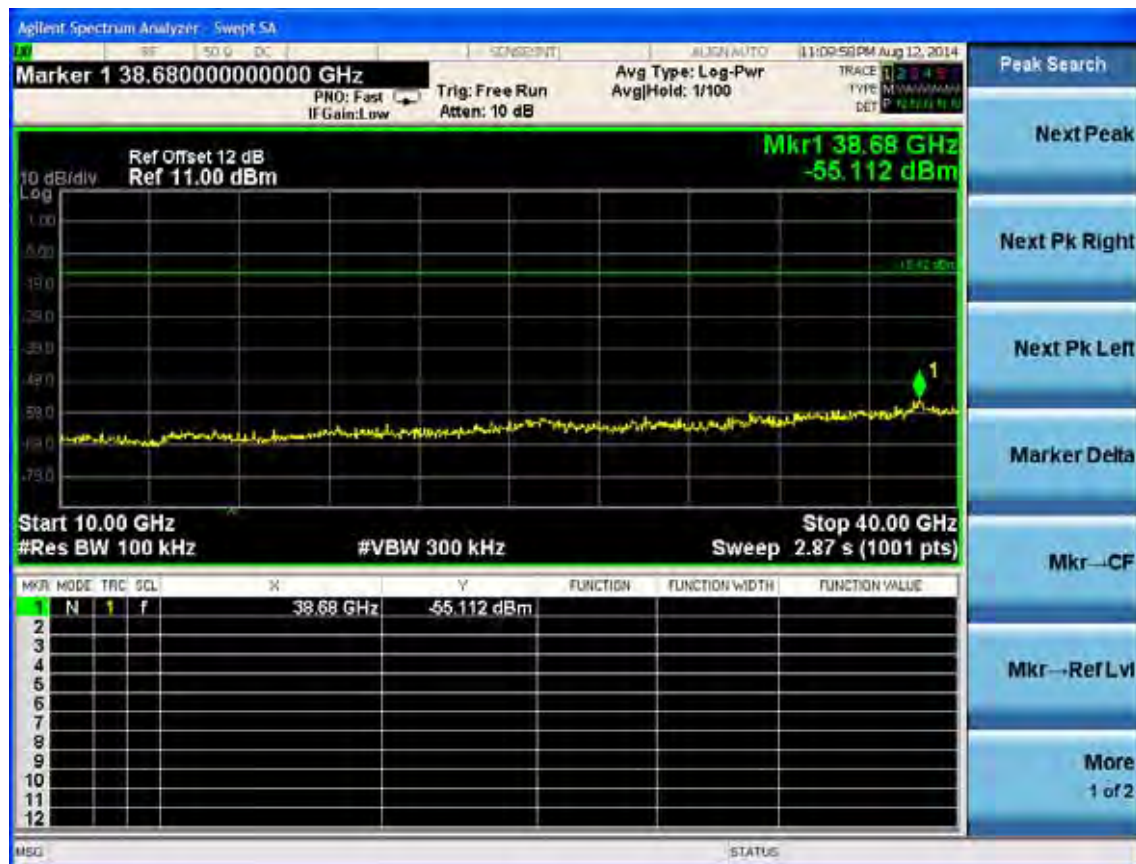




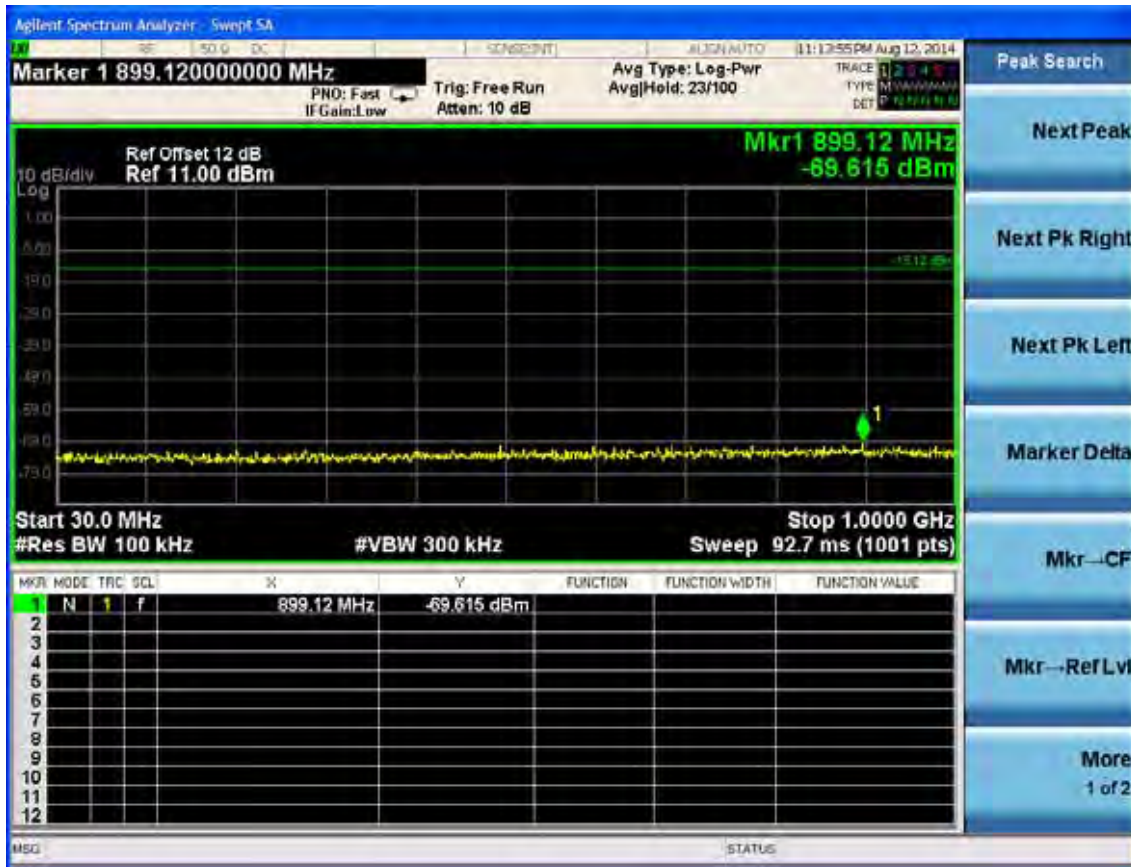


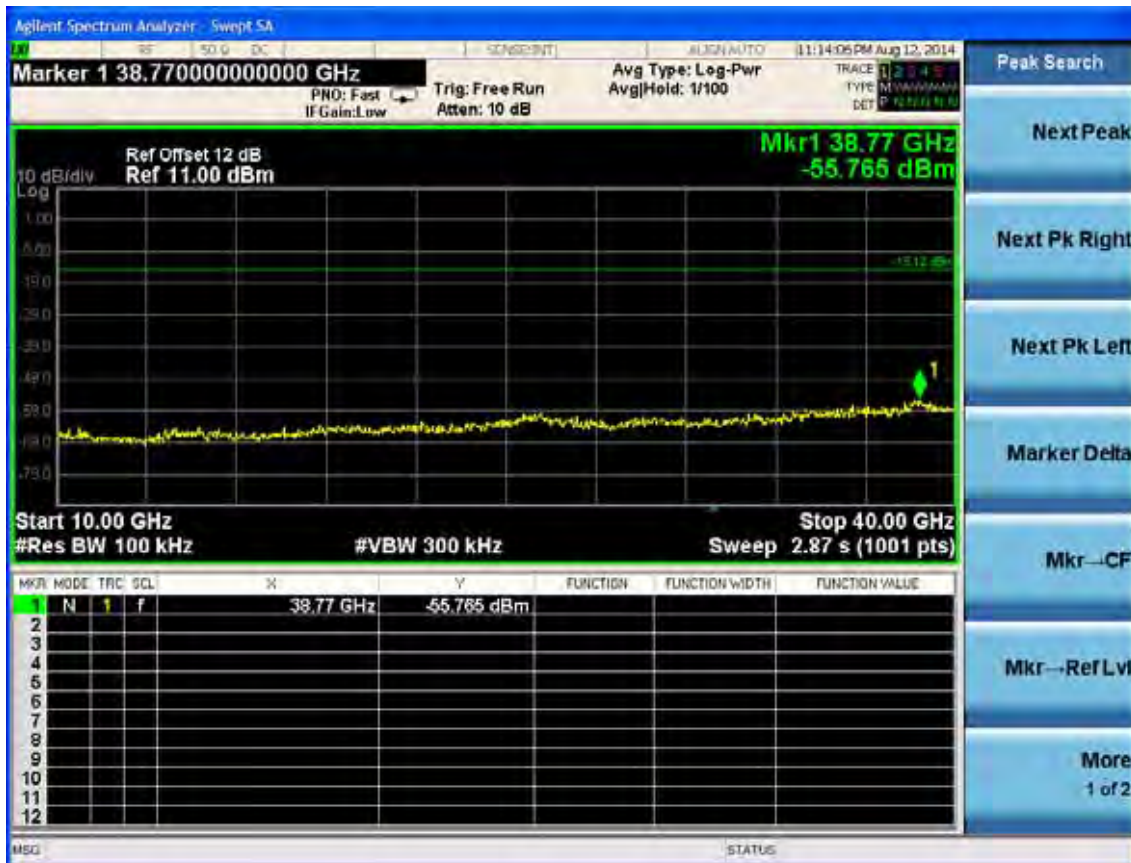
Test CH157: 5785MHz



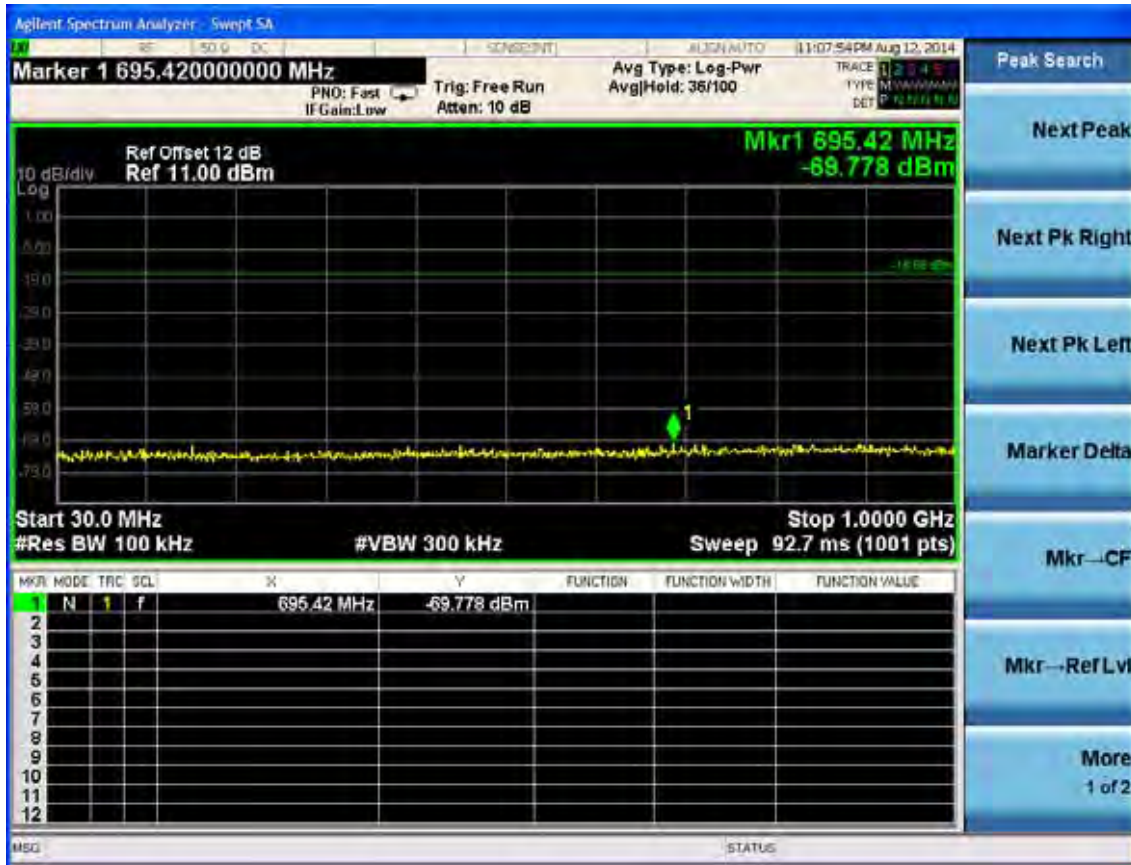


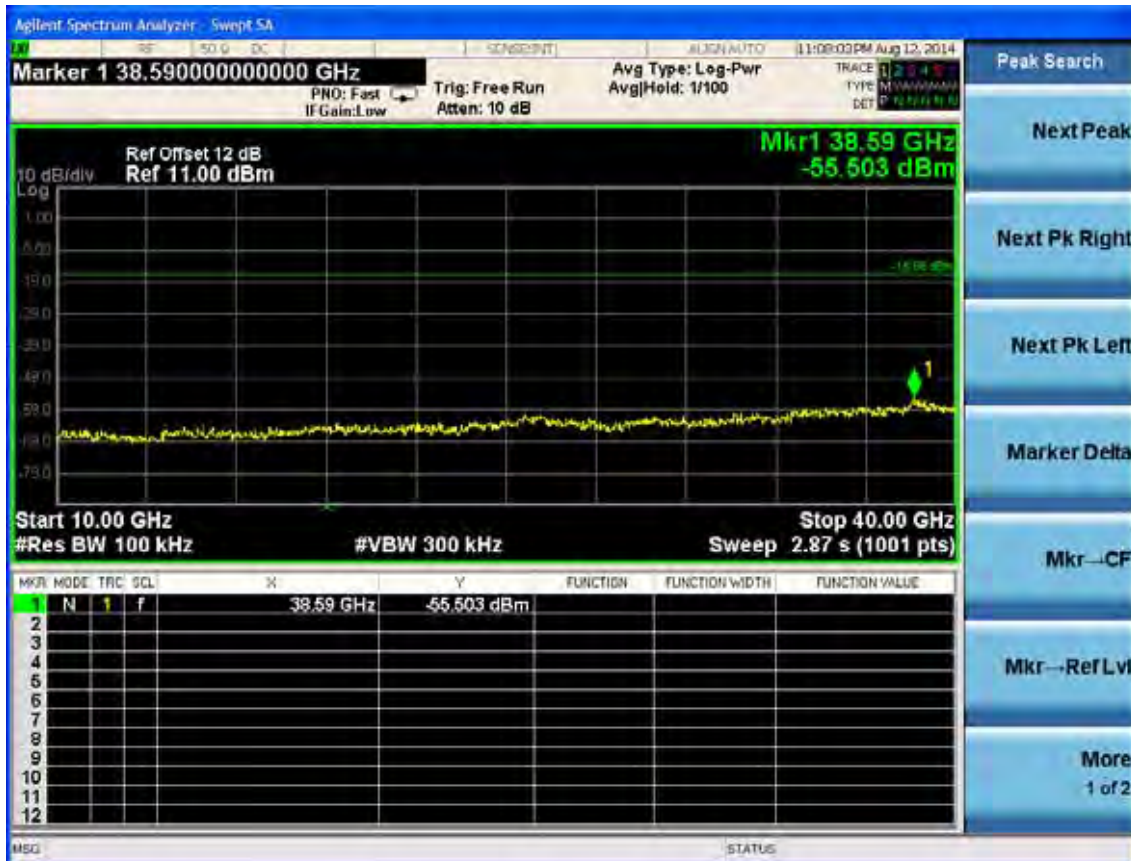
Test CH165: 5825MHz



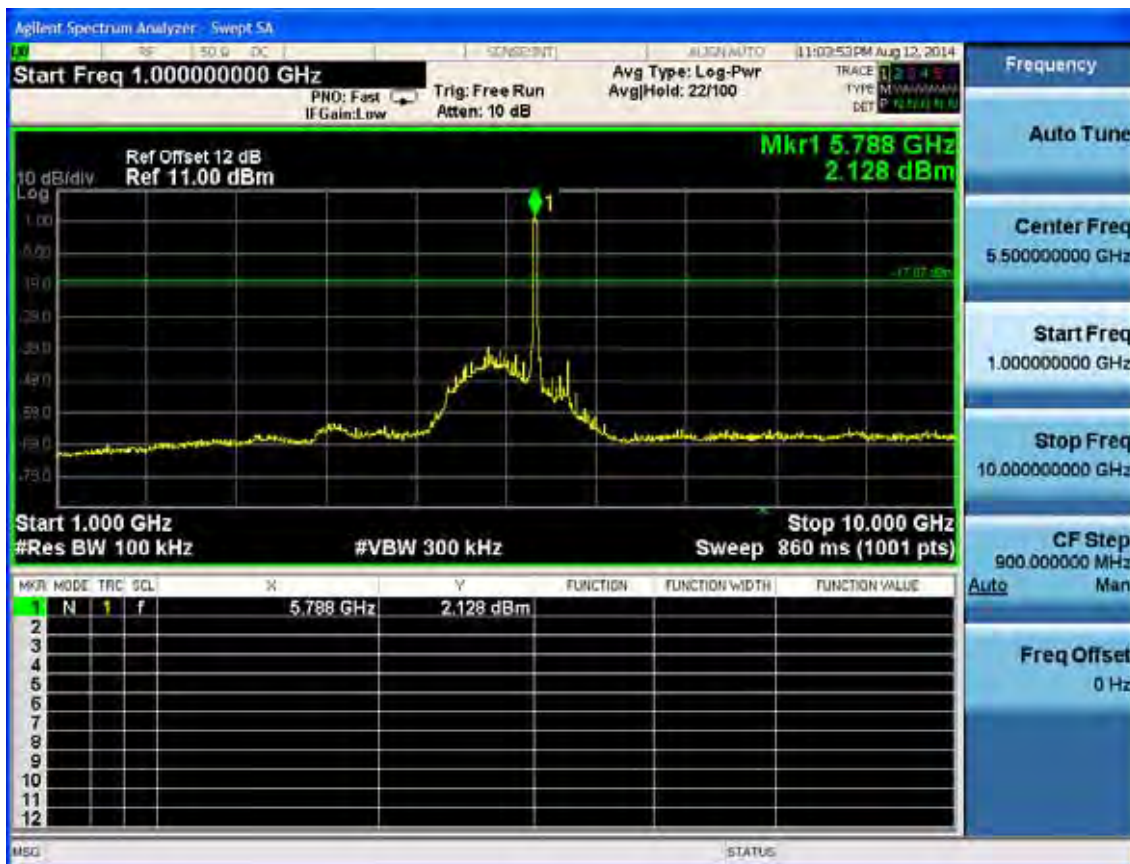
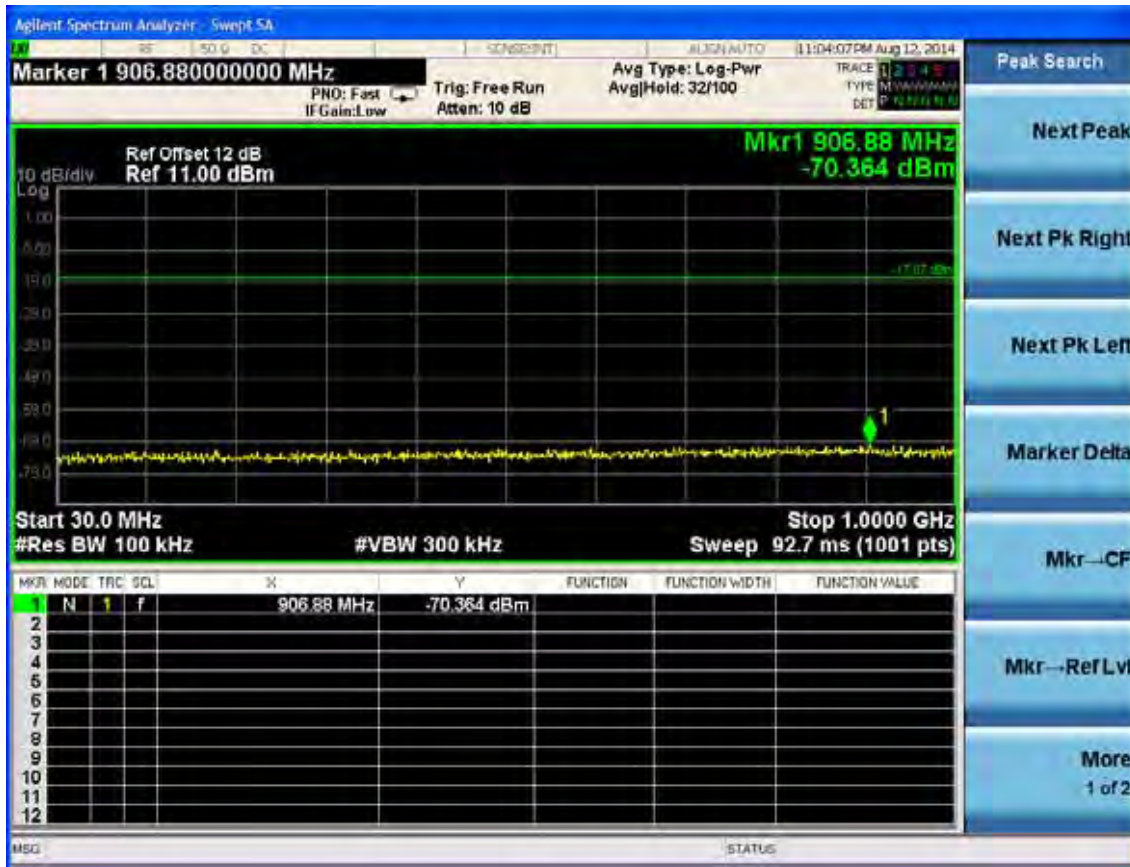


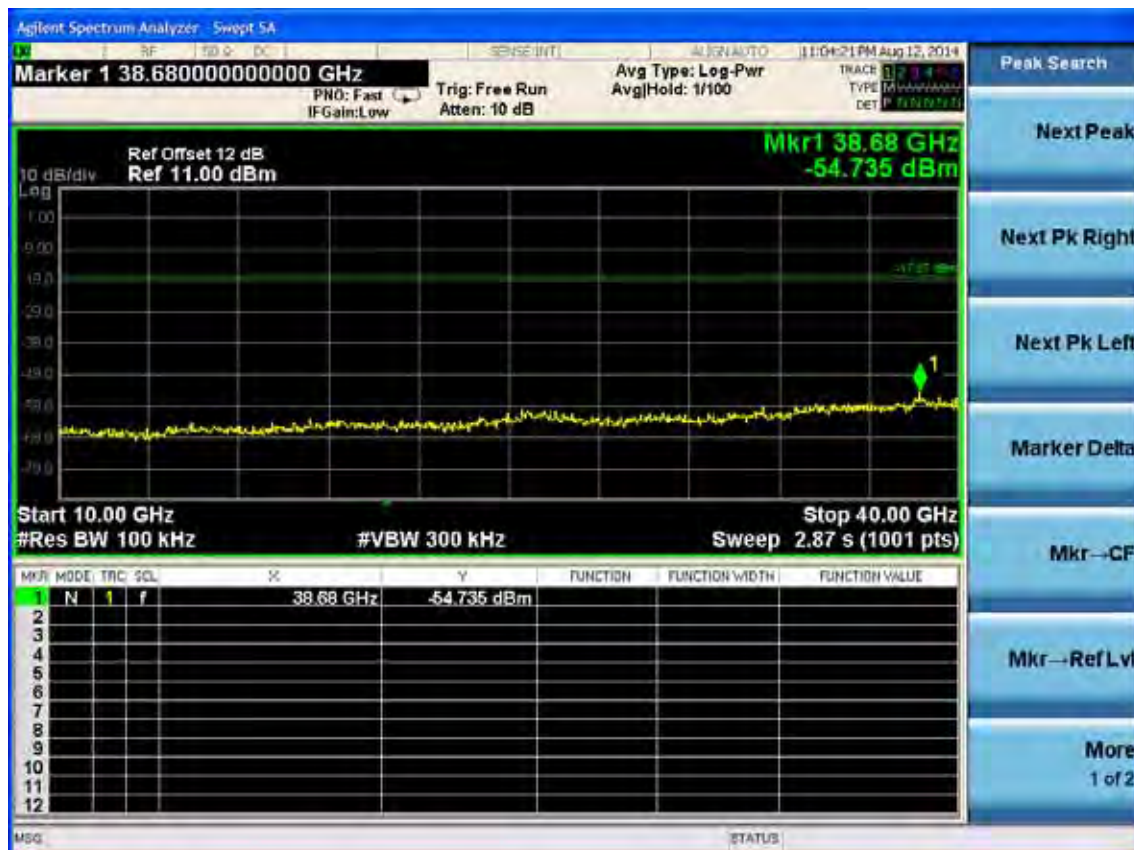
Test Mode: IEEE 802.11n HT40 TX
Test CH151: 5755MHz





Test CH159: 5795MHz





6. BAND EDGE COMPLIANCE TEST

6.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Amp	HP	8449B	3008A02495	Apr. 28,14	1 Year
2.	Horn Antenna	ETS	3115	9510-4580	Jun. 06, 14	1 Year
3.	HF Cable	Hubersuhner	Sucoflex104	274094/4	Apr. 28,14	1 Year
4.	RF Cable	Hubersuhner	Sucoflex102	28610/2	Apr. 28,14	1 Year

6.2. Limit

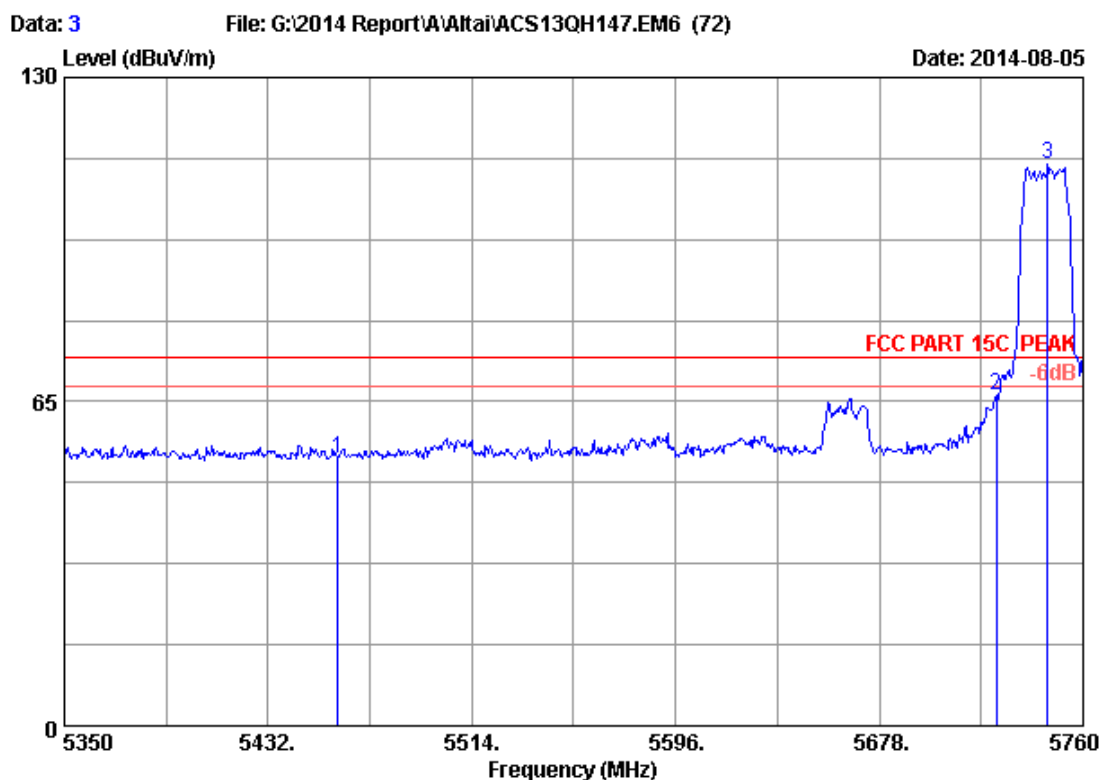
All the lower and upper band-edges emissions appearing within 5.35-5.46GHz and 7.25-7.75GHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 5725MHz to 5850MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

6.3. Test Produce

1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.
2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
4. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - (a) PEAK: RBW=1MHz; VBW=3MHz; Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz; VBW=10Hz; Sweep=AUTO

6.4. Test Results

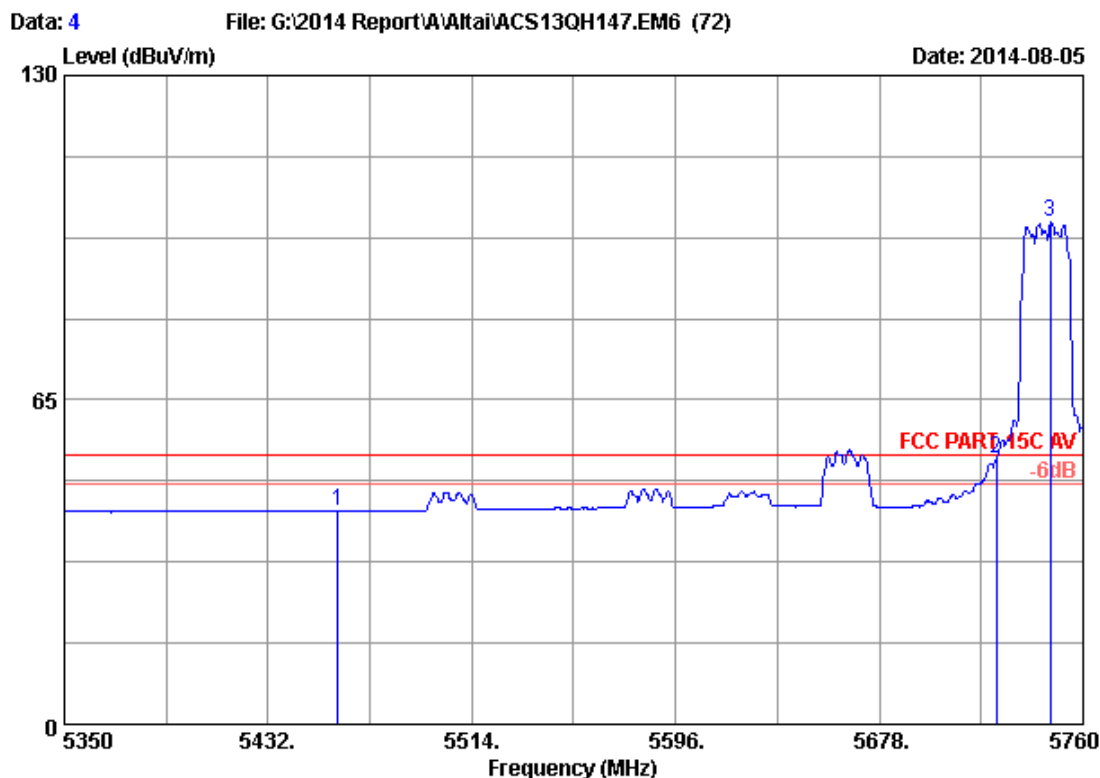
Pass (The testing data was attached in the next pages.)



Site no. : 3m Chamber Data no. : 3
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH149 5745MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	33.94	9.25	35.70	46.02	53.51	74.00	20.49	Peak
2	5725.000	34.09	9.52	35.70	58.45	66.36	74.00	7.64	Peak
3	5745.650	34.10	9.55	35.70	104.63	112.58	74.00	-38.58	Peak

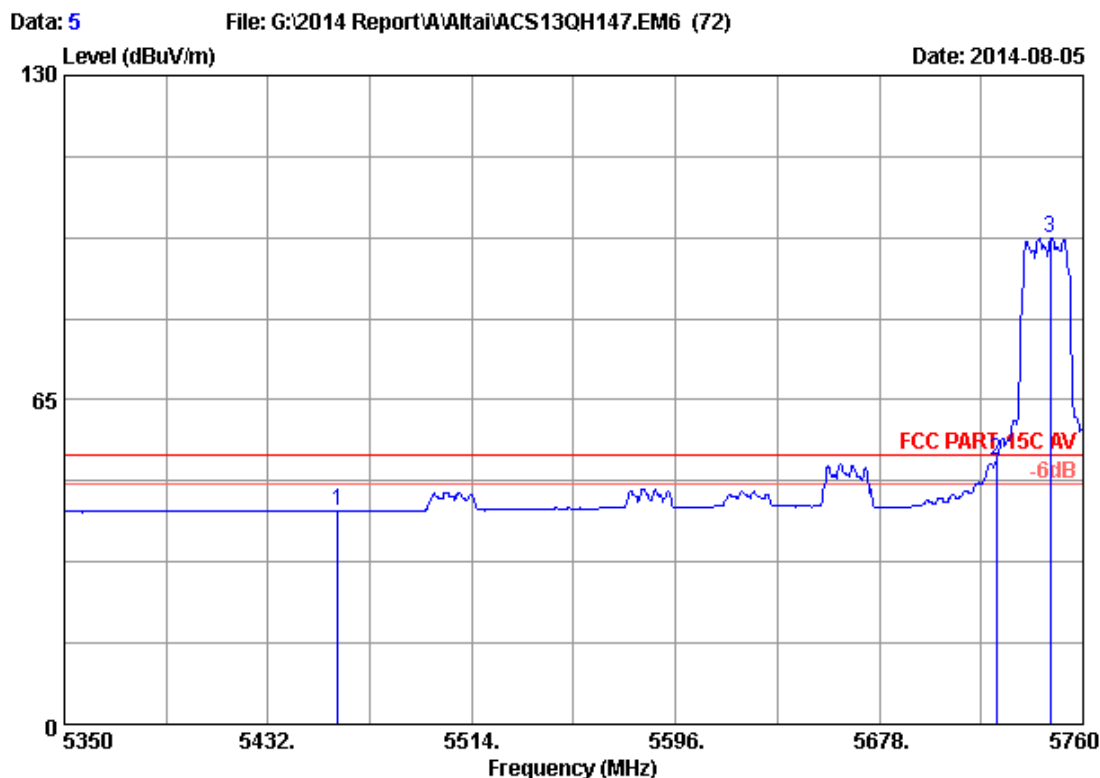
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 4
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH149 5745MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	33.94	9.25	35.70	35.17	42.66	54.00	11.34	Average
2	5725.000	34.09	9.52	35.70	45.23	53.14	54.00	0.86	Average
3	5746.880	34.10	9.55	35.70	92.55	100.50	54.00	-46.50	Average

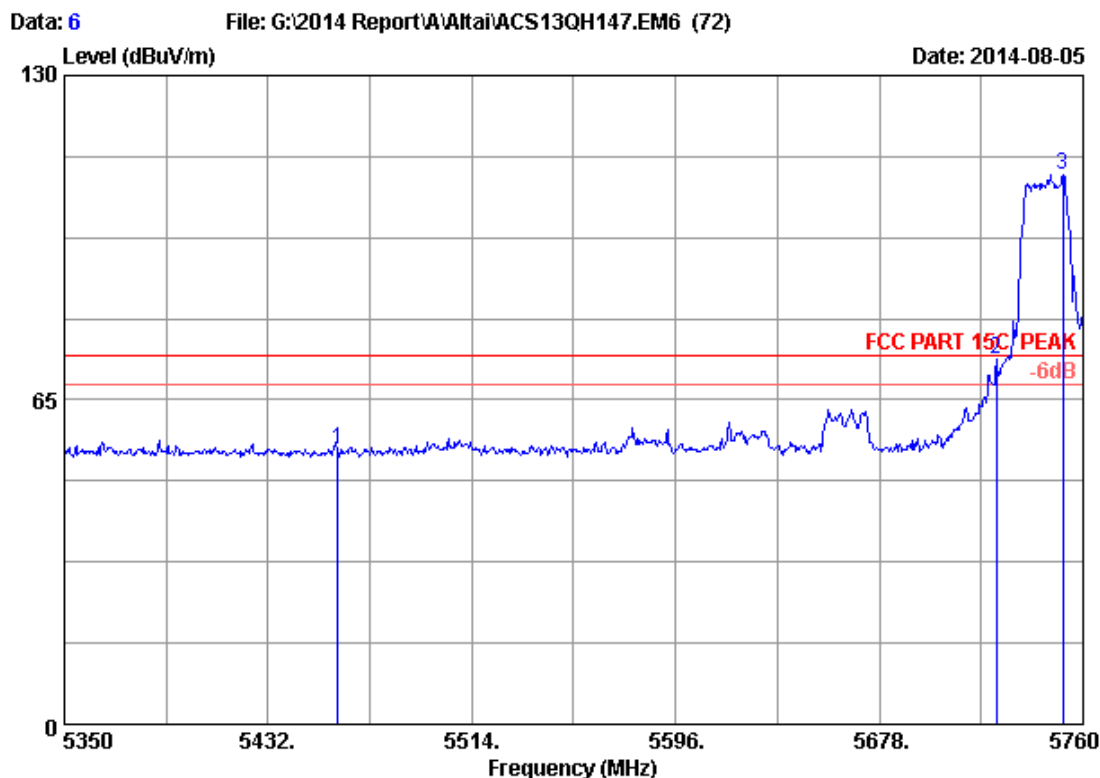
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 5
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH149 5745MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	33.94	9.25	35.70	35.19	42.68	54.00	11.32	Average
2	5725.000	34.09	9.52	35.70	44.81	52.72	54.00	1.28	Average
3	5746.880	34.10	9.55	35.70	89.56	97.51	54.00	-43.51	Average

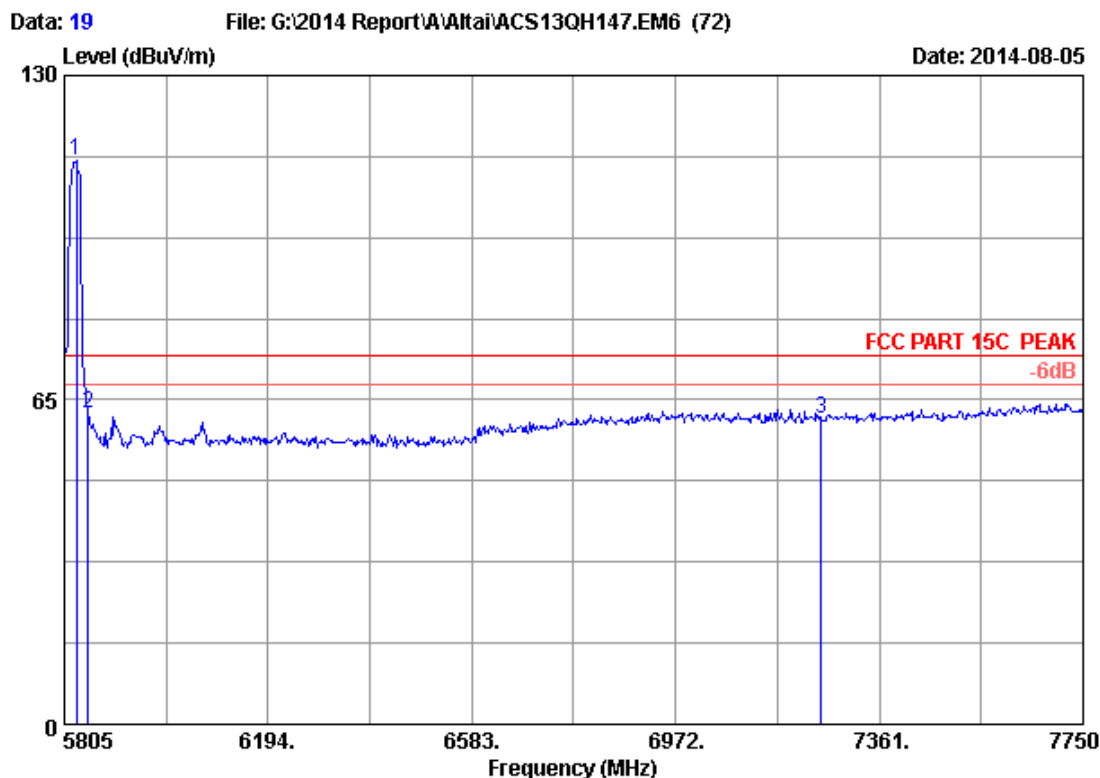
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 6
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH149 5745MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant.	Cable	AMP	Emission				
		Factor (dB/m)	Loss (dB)	factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	33.94	9.25	35.70	47.64	55.13	74.00	18.87	Peak
2	5725.000	34.09	9.52	35.70	65.31	73.22	74.00	0.78	Peak
3	5751.800	34.10	9.55	35.70	102.07	110.02	74.00	-36.02	Peak

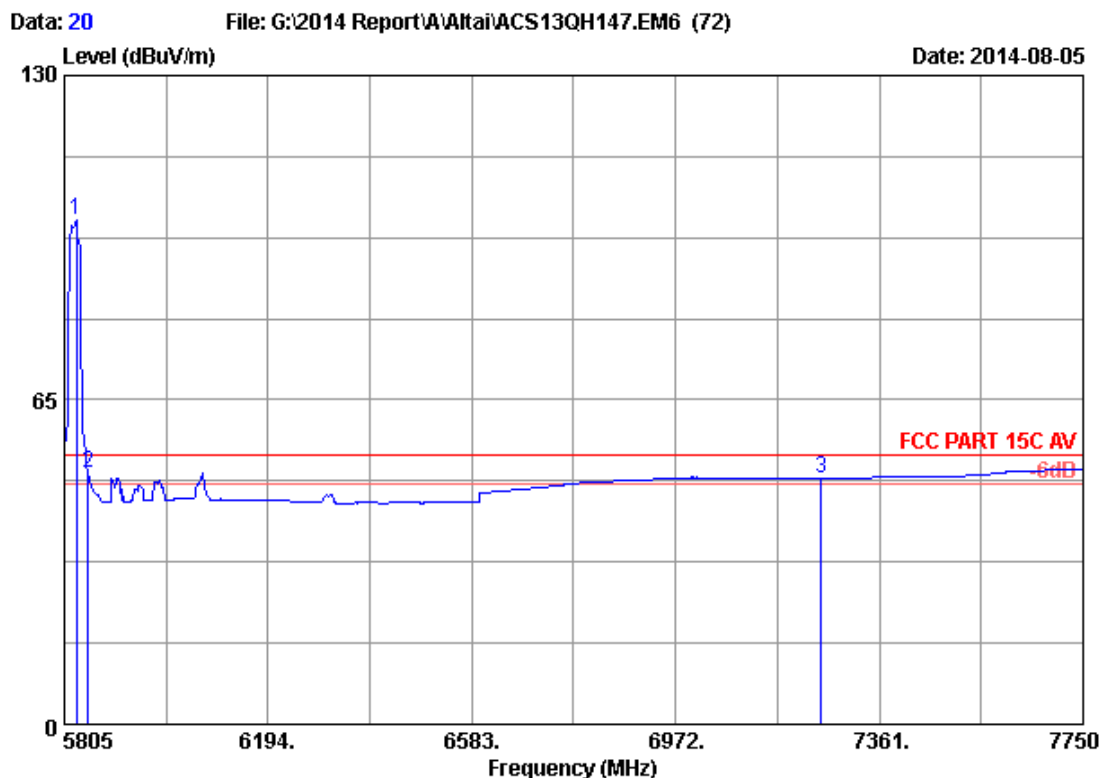
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 19
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH165 5825MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission			
						Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5828.340	34.13	9.63	35.70	104.76	112.82	74.00	-38.82	Peak
2	5850.000	34.14	9.66	35.70	54.07	62.17	74.00	11.83	Peak
3	7250.000	36.05	10.99	35.45	49.68	61.27	74.00	12.73	Peak

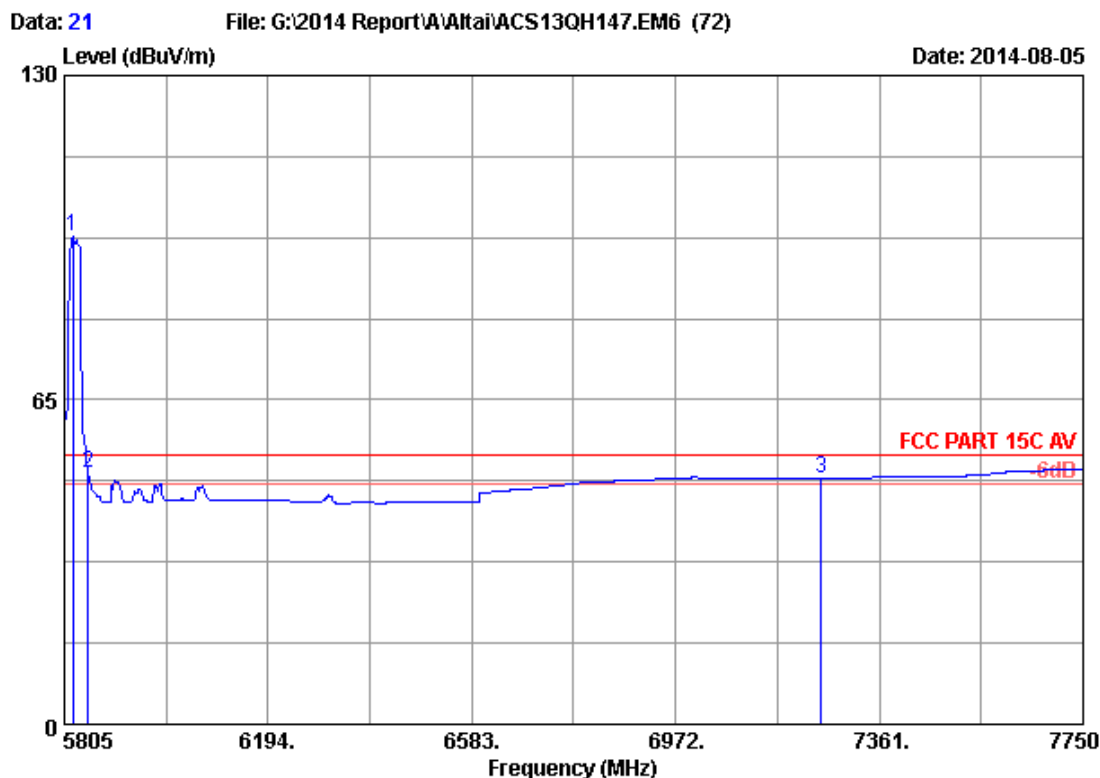
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 20
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH165 5825MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5828.340	34.13	9.63	35.70	92.80	100.86	54.00	-46.86	Average
2	5850.000	34.14	9.66	35.70	42.29	50.39	54.00	3.61	Average
3	7250.000	36.05	10.99	35.45	37.74	49.33	54.00	4.67	Average

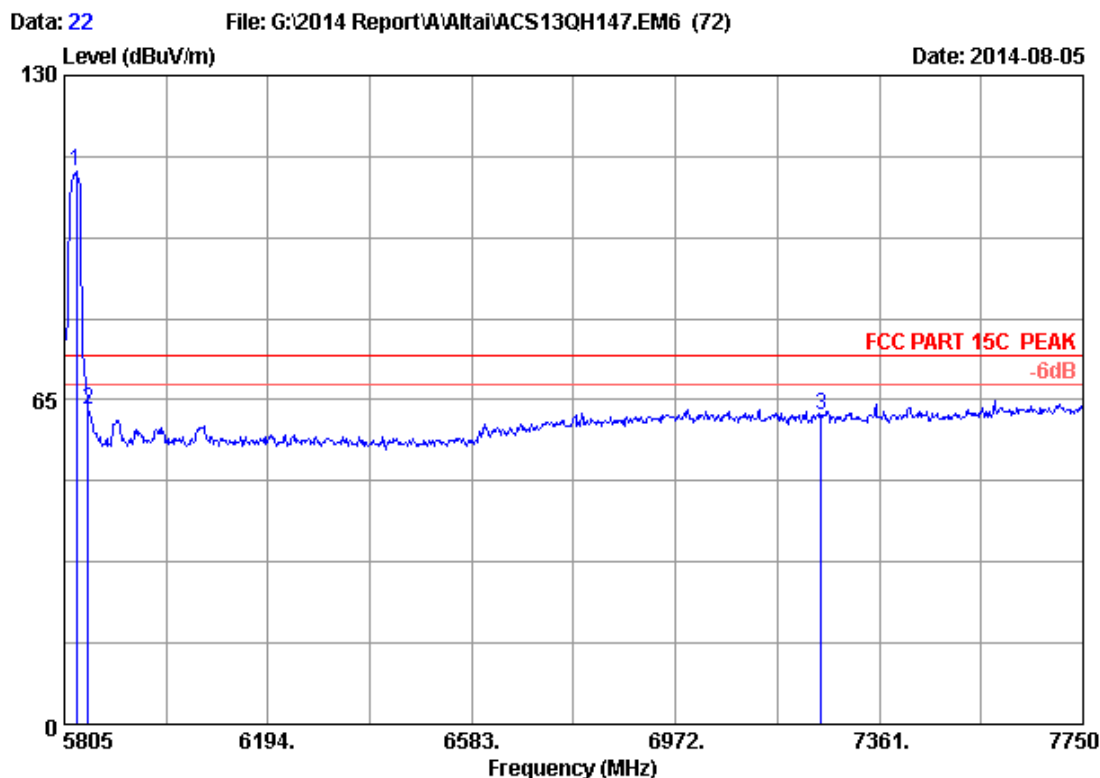
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 21
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH165 5825MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5820.560	34.13	9.62	35.70	89.65	97.70	54.00	-43.70	Average
2	5850.000	34.14	9.66	35.70	42.38	50.48	54.00	3.52	Average
3	7250.000	36.05	10.99	35.45	37.74	49.33	54.00	4.67	Average

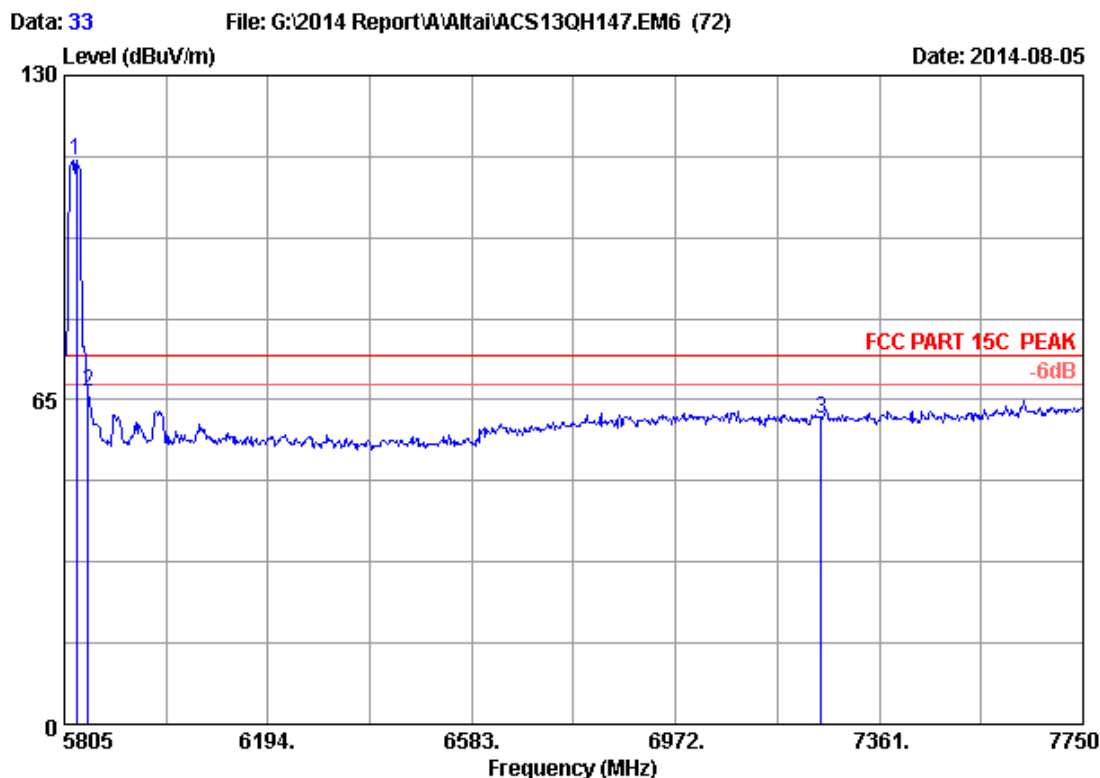
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 22
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11a CH165 5825MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5828.340	34.13	9.63	35.70	102.79	110.85	74.00	-36.85	Peak
2	5850.000	34.14	9.66	35.70	54.92	63.02	74.00	10.98	Peak
3	7250.000	36.05	10.99	35.45	50.38	61.97	74.00	12.03	Peak

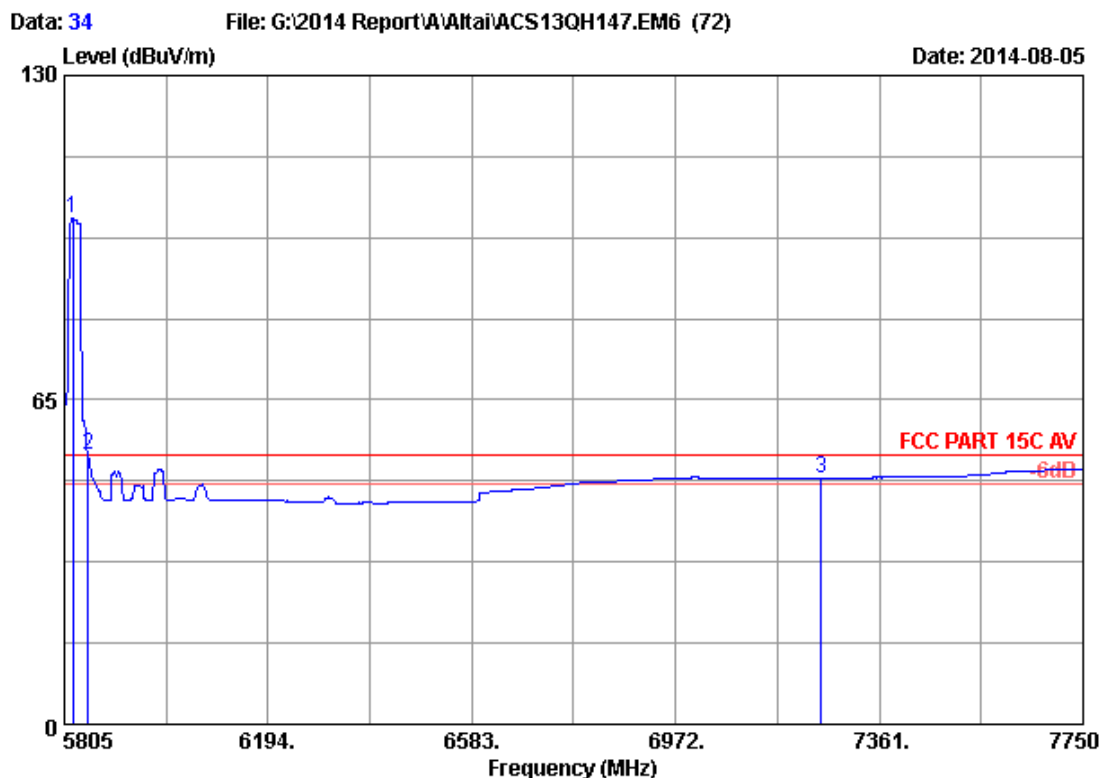
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 33
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH165 5825MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Emission				
					Reading (dBuV)	Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5828.340	34.13	9.63	35.70	104.80	112.86	74.00	-38.86	Peak
2	5850.000	34.14	9.66	35.70	58.65	66.75	74.00	7.25	Peak
3	7250.000	36.05	10.99	35.45	49.48	61.07	74.00	12.93	Peak

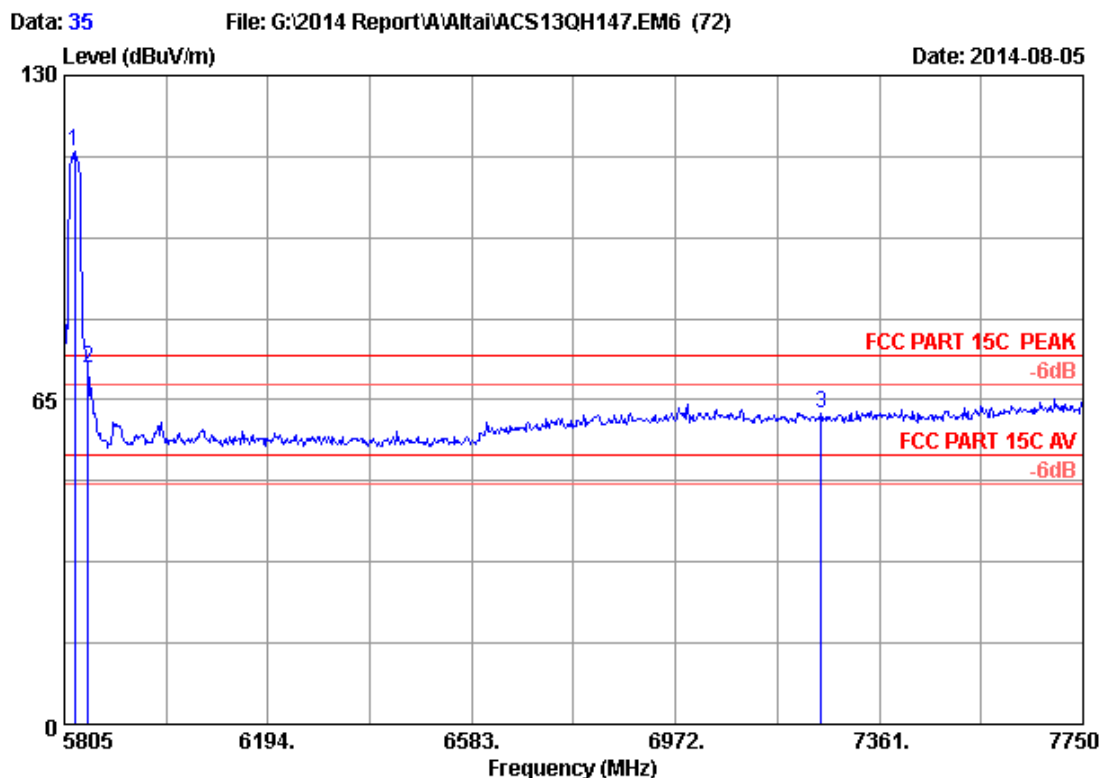
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 34
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH165 5825MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission		Margin (dB)	Remark
						Level (dBuV/m)	Limits (dBuV/m)		
1	5820.560	34.13	9.62	35.70	93.46	101.51	54.00	-47.51	Average
2	5850.000	34.14	9.66	35.70	46.00	54.10	54.00	-0.10	Average
3	7250.000	36.05	10.99	35.45	37.74	49.33	54.00	4.67	Average

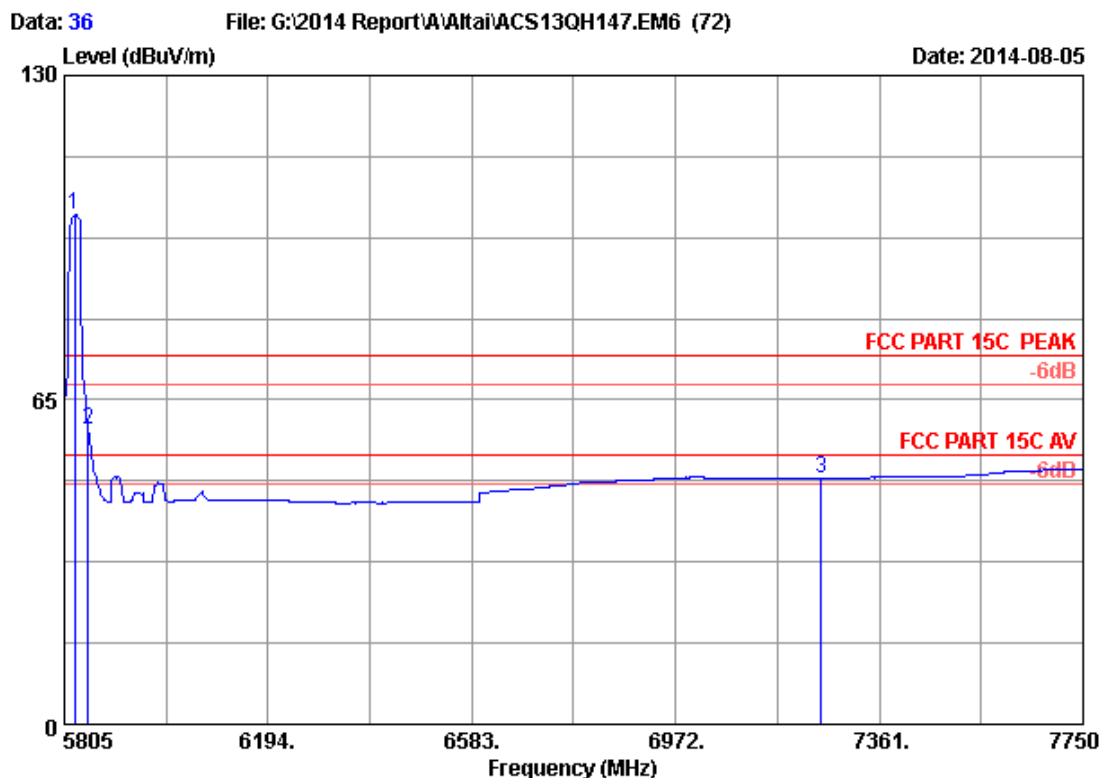
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 35
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH165 5825MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5824.450	34.13	9.63	35.70	106.66	114.72	74.00	-40.72	Peak
2	5850.000	34.14	9.66	35.70	63.09	71.19	74.00	2.81	Peak
3	7250.000	36.05	10.99	35.45	50.73	62.32	74.00	11.68	Peak

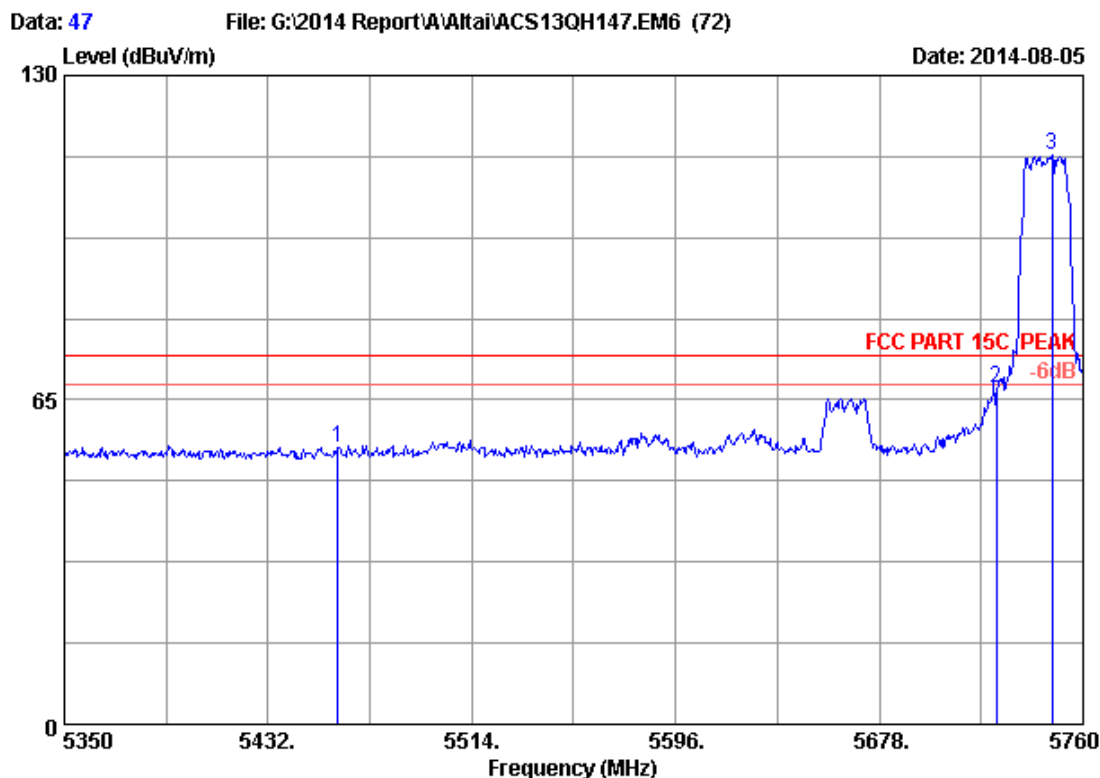
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 36
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH165 5825MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission			
						Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5824.450	34.13	9.63	35.70	94.15	102.21	54.00	-48.21	Average
2	5850.000	34.14	9.66	35.70	51.03	59.13	54.00	-5.13	Average
3	7250.000	36.05	10.99	35.45	37.76	49.35	54.00	4.65	Average

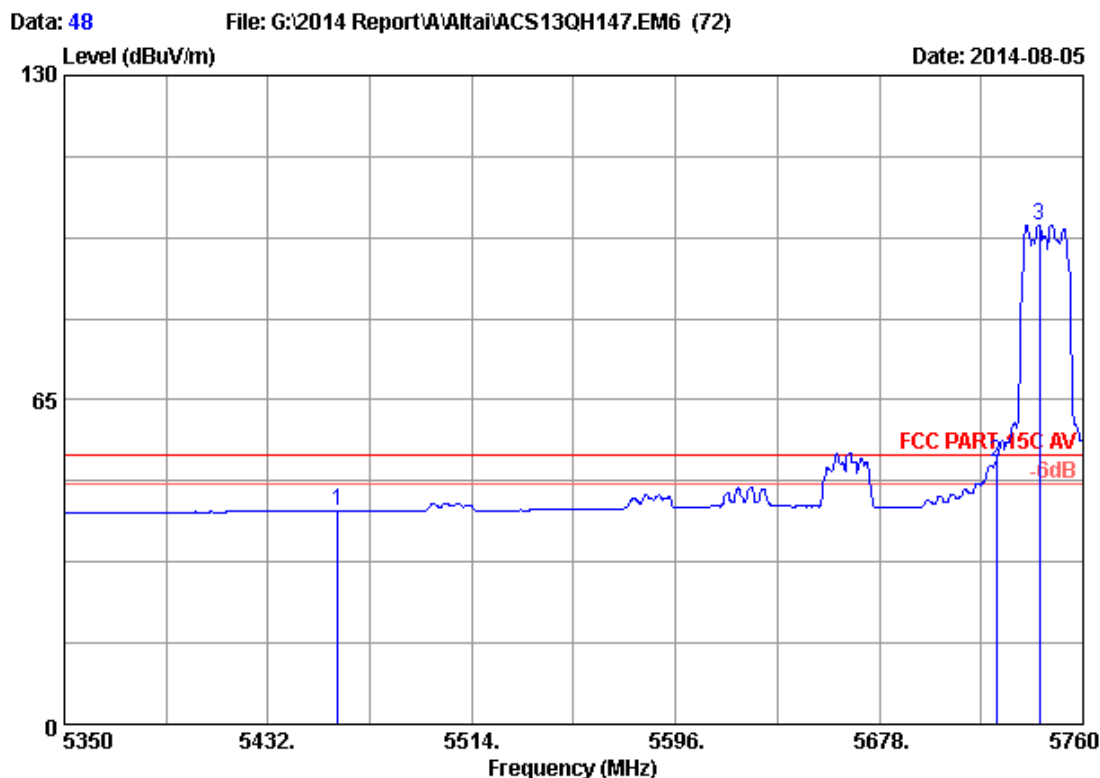
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 47
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH149 5745MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	33.94	9.25	35.70	47.97	55.46	74.00	18.54	Peak
2	5725.000	34.09	9.52	35.70	59.45	67.36	74.00	6.64	Peak
3	5747.700	34.10	9.55	35.70	106.27	114.22	74.00	-40.22	Peak

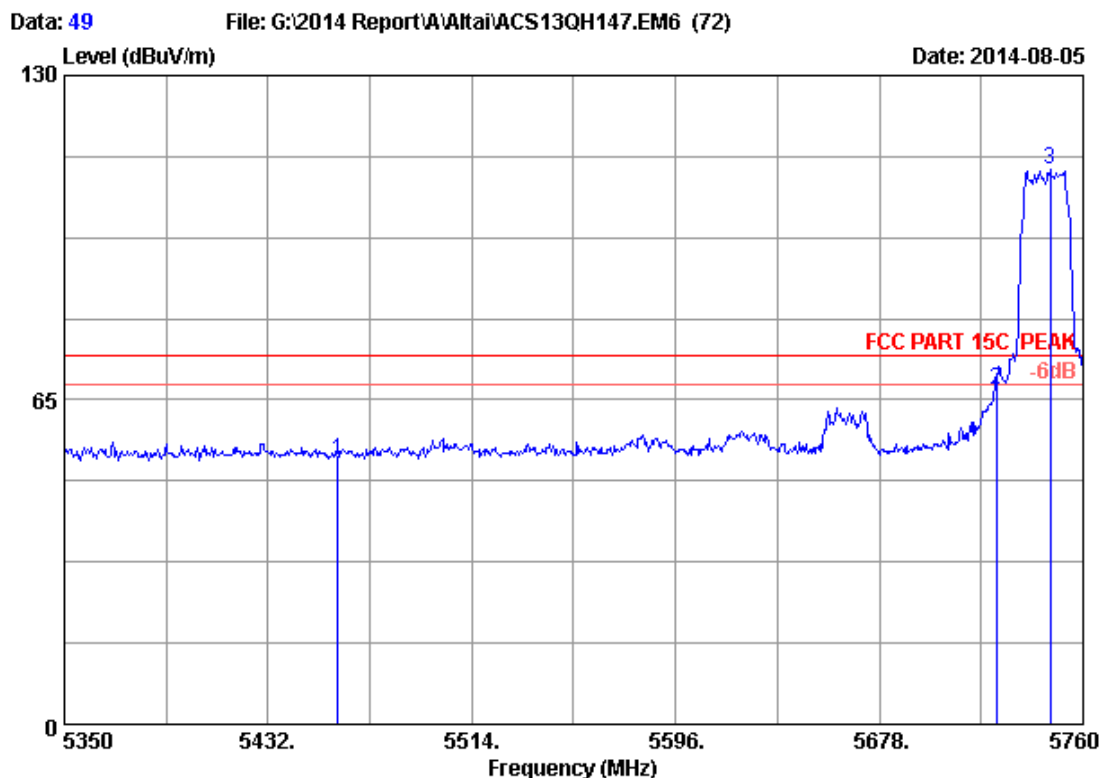
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 48
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH149 5745MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission			
						Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	33.94	9.25	35.70	35.17	42.66	54.00	11.34	Average
2	5725.000	34.09	9.52	35.70	44.76	52.67	54.00	1.33	Average
3	5742.370	34.10	9.54	35.70	92.17	100.11	54.00	-46.11	Average

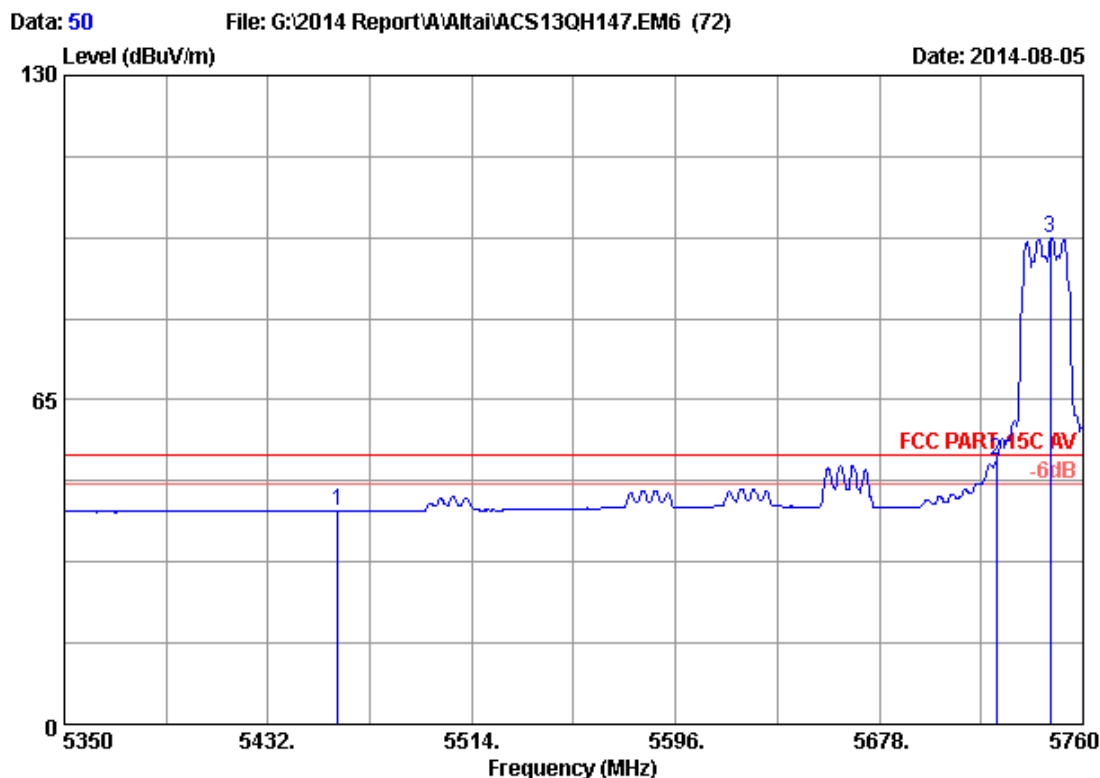
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 49
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH149 5745MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	33.94	9.25	35.70	45.51	53.00	74.00	21.00	Peak
2	5725.000	34.09	9.52	35.70	58.93	66.84	74.00	7.16	Peak
3	5746.880	34.10	9.55	35.70	103.10	111.05	74.00	-37.05	Peak

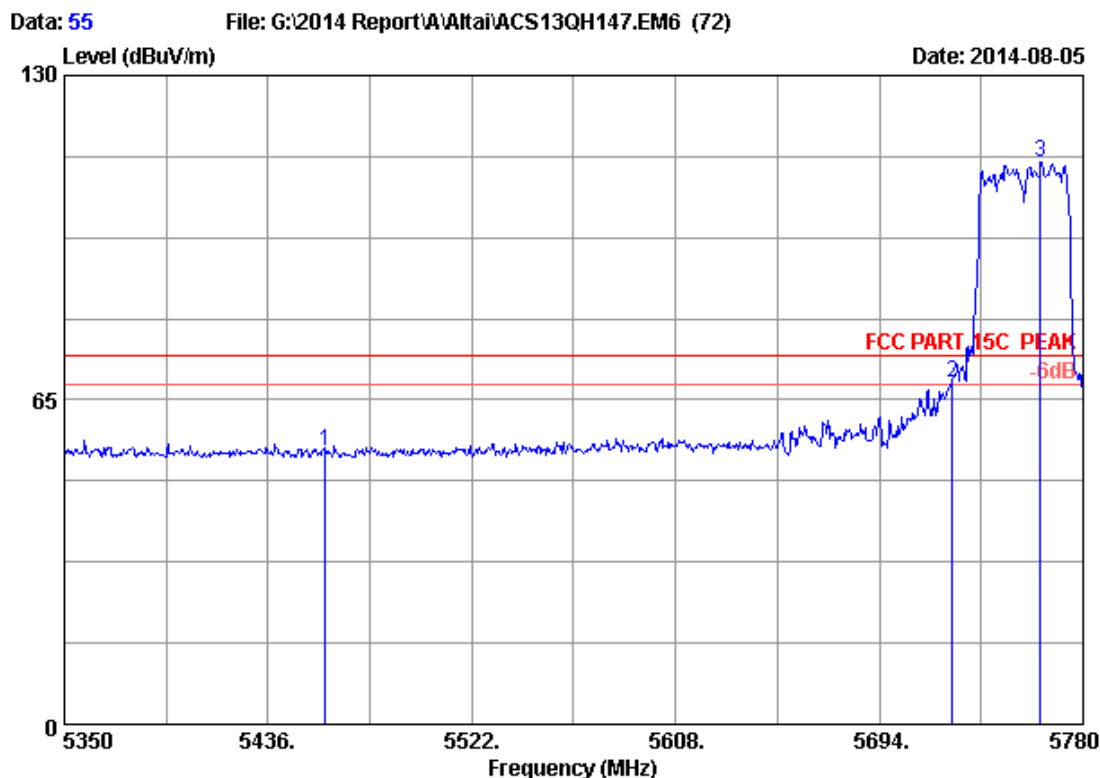
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 50
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT20 CH149 5745MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	33.94	9.25	35.70	35.17	42.66	54.00	11.34	Average
2	5725.000	34.09	9.52	35.70	44.89	52.80	54.00	1.20	Average
3	5746.880	34.10	9.55	35.70	89.50	97.45	54.00	-43.45	Average

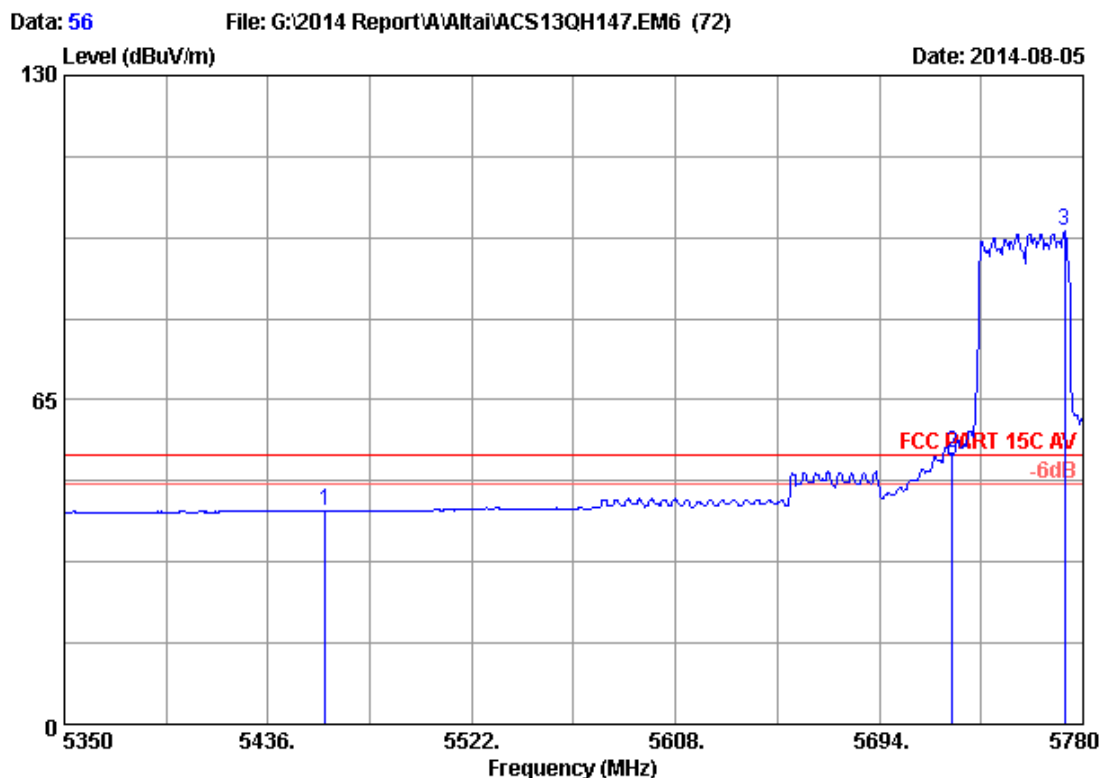
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 55
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT40 CH151 5755MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	33.94	9.25	35.70	47.27	54.76	74.00	19.24	Peak
2	5725.000	34.09	9.52	35.70	60.70	68.61	74.00	5.39	Peak
3	5761.940	34.10	9.56	35.70	104.61	112.57	74.00	-38.57	Peak

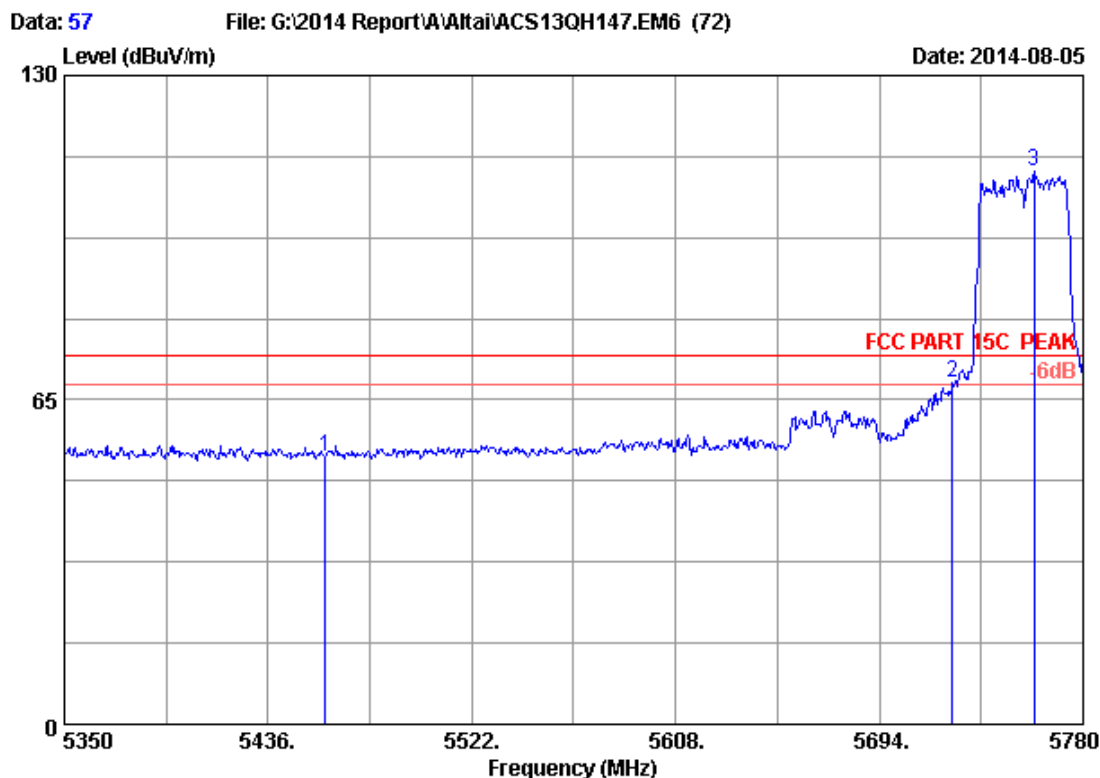
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 56
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT40 CH151 5755MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	33.94	9.25	35.70	35.11	42.60	54.00	11.40	Average
2	5725.000	34.09	9.52	35.70	46.35	54.26	54.00	-0.26	Average
3	5772.260	34.11	9.57	35.70	90.79	98.77	54.00	-44.77	Average

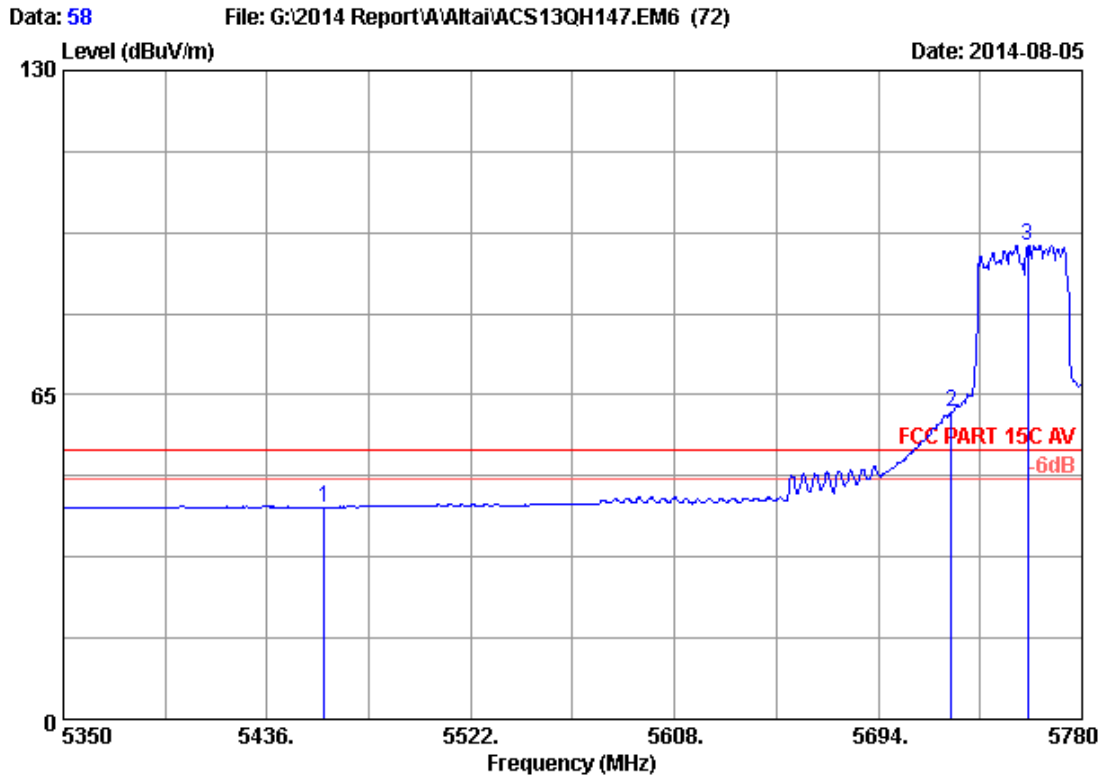
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 57
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT40 CH151 5755MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	33.94	9.25	35.70	46.23	53.72	74.00	20.28	Peak
2	5725.000	34.09	9.52	35.70	60.62	68.53	74.00	5.47	Peak
3	5759.360	34.10	9.56	35.70	102.73	110.69	74.00	-36.69	Peak

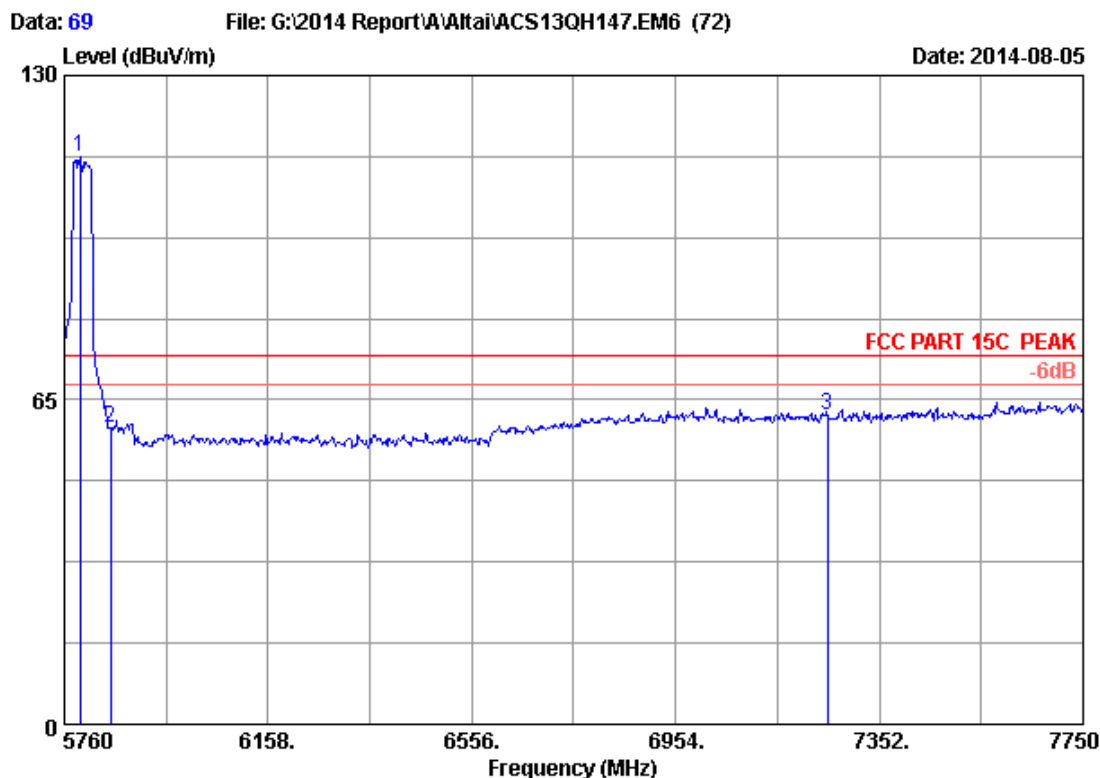
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 58
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT40 CH151 5755MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5460.000	33.94	9.25	35.70	35.00	42.49	54.00	11.51	Average
2	5725.000	34.09	9.52	35.70	53.67	61.58	54.00	-7.58	Average
3	5757.210	34.10	9.56	35.70	87.08	95.04	54.00	-41.04	Average

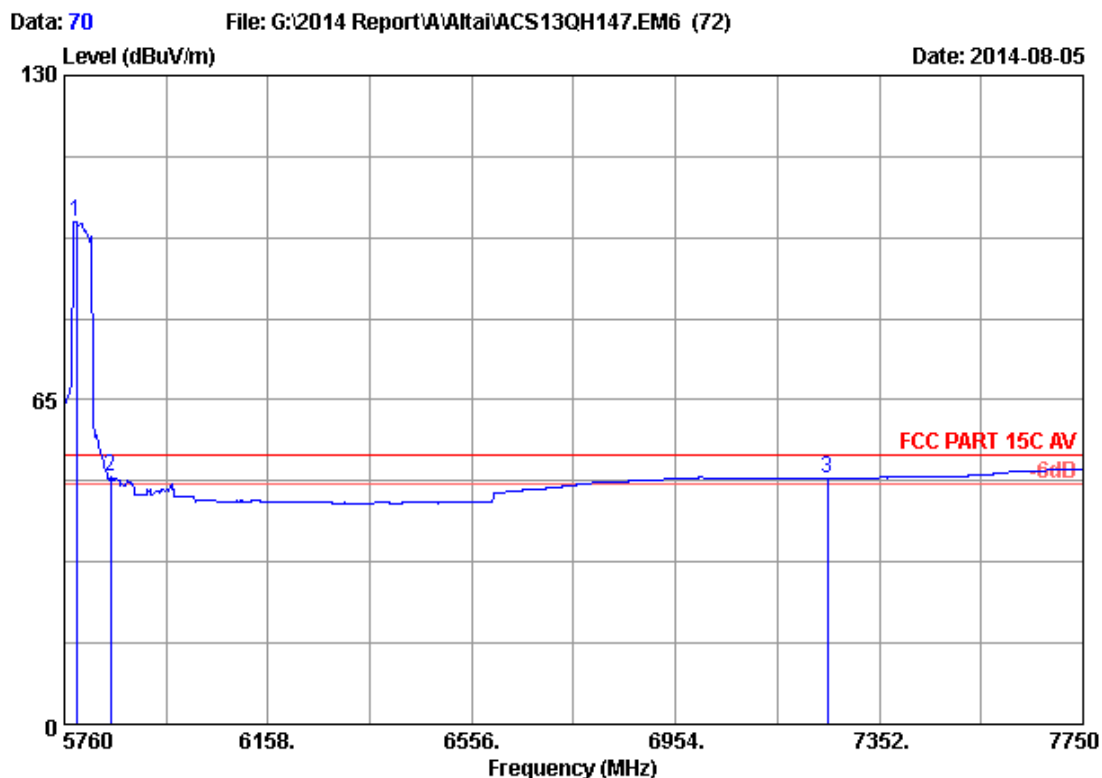
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 69
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT40 CH159 5795MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5789.850	34.12	9.59	35.70	105.64	113.65	74.00	-39.65	Peak
2	5850.000	34.14	9.66	35.70	51.32	59.42	74.00	14.58	Peak
3	7250.000	36.05	10.99	35.45	50.37	61.96	74.00	12.04	Peak

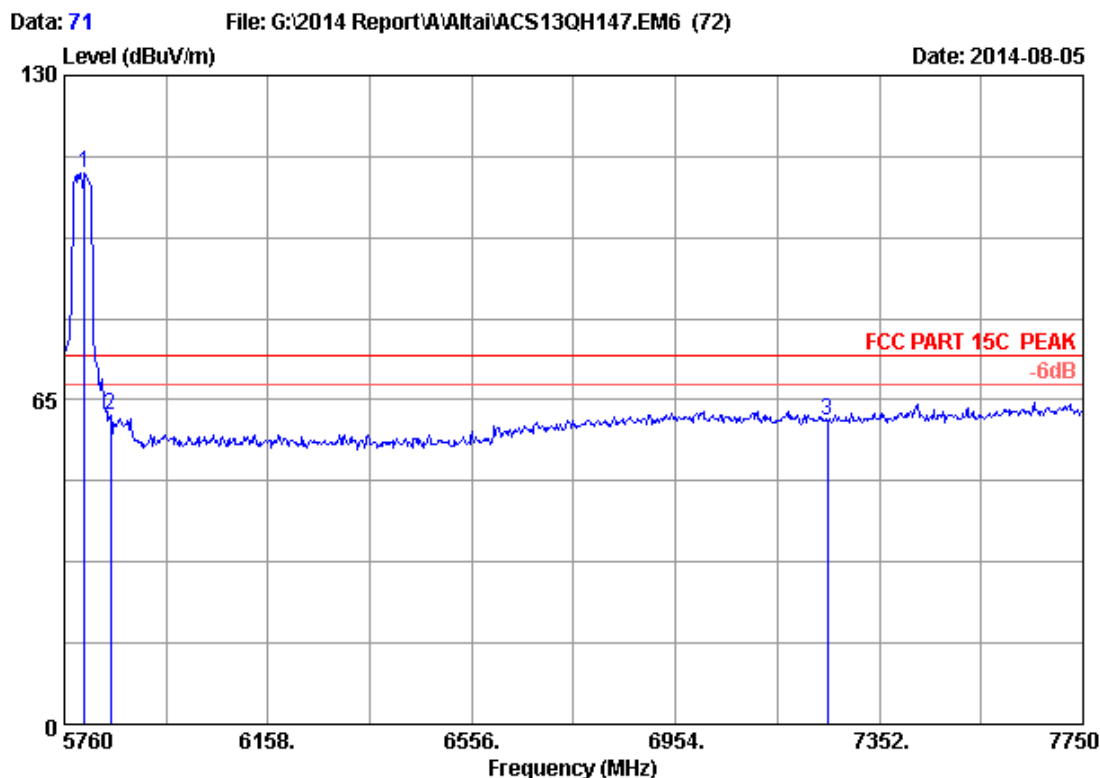
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 70
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : VERTICAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT40 CH159 5795MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5783.880	34.11	9.59	35.70	92.80	100.80	54.00	-46.80	Average
2	5850.000	34.14	9.66	35.70	41.38	49.48	54.00	4.52	Average
3	7250.000	36.05	10.99	35.45	37.73	49.32	54.00	4.68	Average

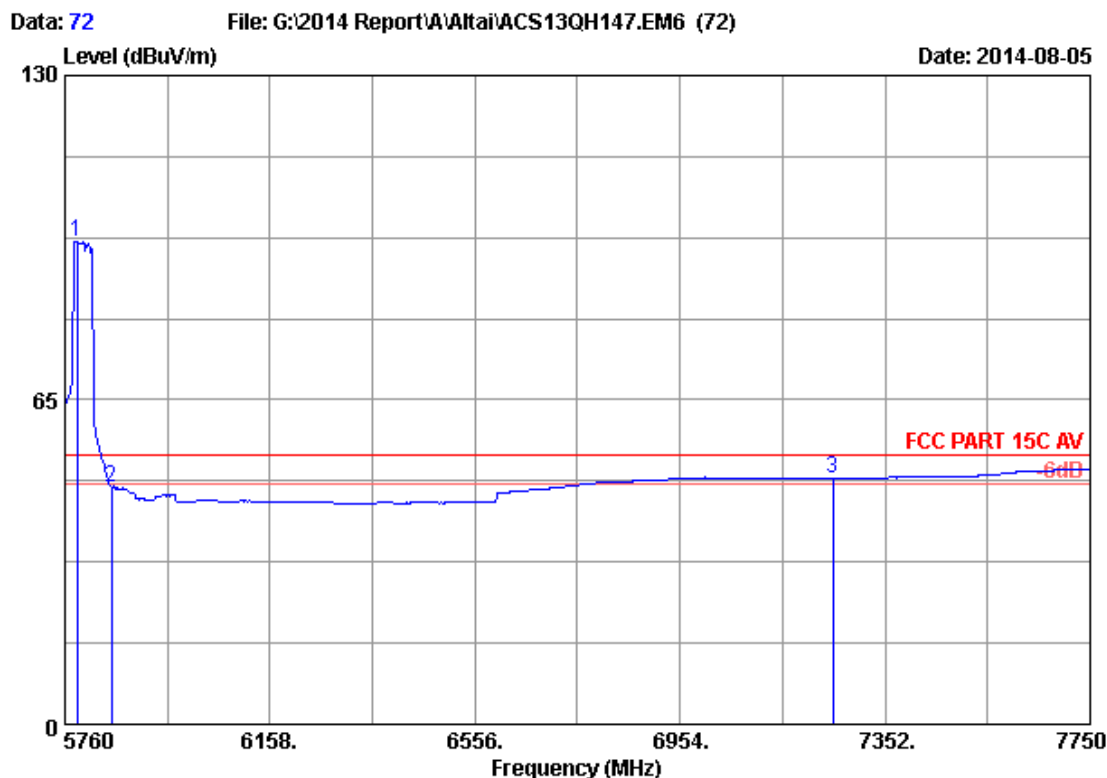
Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 71
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C PEAK
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT40 CH159 5795MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5799.800	34.12	9.60	35.70	102.40	110.42	74.00	-36.42	Peak
2	5850.000	34.14	9.66	35.70	53.69	61.79	74.00	12.21	Peak
3	7250.000	36.05	10.99	35.45	49.32	60.91	74.00	13.09	Peak

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.



Site no. : 3m Chamber Data no. : 72
 Dis. / Ant. : 3m 2013 3115 (4580) Ant. pol. : HORIZONTAL
 Limit : FCC PART 15C AV
 Env. / Ins. : 24°C/56% Engineer : Kevin_Hu
 EUT : Altai Clan Super WiFi CPE
 Power Rating : DC 18V From Adapter Input AC 120V/60Hz
 Test Mode : IEEE802.11nHT40 CH159 5795MHz Tx
 M/N : WA1011N-A

No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	AMP factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	5783.880	34.11	9.59	35.70	88.82	96.82	54.00	-42.82	Average
2	5850.000	34.14	9.66	35.70	39.33	47.43	54.00	6.57	Average
3	7250.000	36.05	10.99	35.45	37.70	49.29	54.00	4.71	Average

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading
 -Amp Factor
 2. The emission levels that are 20dB below the official
 limit are not reported.

7. 6dB Bandwidth Test

7.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	Apr. 28,14	1 Year
2.	Spectrum	Agilent	N9030A	MY51380221	Oct.31, 13	1Year
3.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr. 28,14	1 Year
4.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	Apr. 28,14	1 Year

7.2. Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz

7.3. Test Procedure

The transmitter output was connected to a spectrum analyzer, The bandwidth of the fundamental frequency was measured by spectrum analyzer with 300kHz RBW and 1MHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

7.4. Test Results

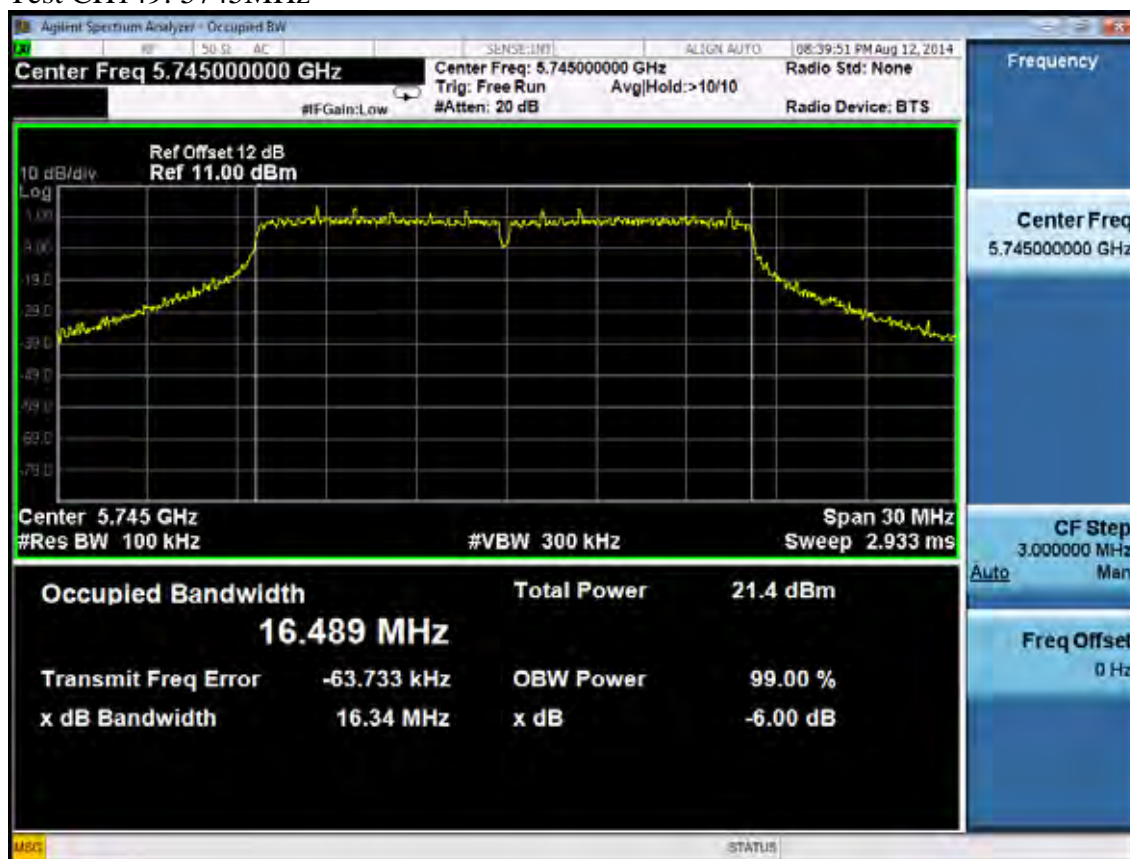
EUT: Altai Clan Super WiFi CPE		
M/N: WA1011N-A		
Test date: 2014-08-12	Pressure: 101.4±1.0 kpa	Humidity: 53.1±3.0%
Tested by: Kevin_Hu	Test site: RF site	Temperature:22.5±0.6 °C

Cable loss: 1 dB		Attenuator loss: 10 dB		
Test Mode	Frequency (MHz)	6dB bandwidth (MHz)		Limit (KHz)
		ANT0	ANT1	
11a	5745	16.34	16.36	>500
	5785	16.38	16.37	>500
	5825	16.37	16.36	>500
11n HT20	5745	17.58	17.58	>500
	5785	17.57	17.40	>500
	5825	17.58	17.58	>500
11n HT40	5755	36.45	36.43	>500
	5795	36.30	36.39	>500
Conclusion : PASS				

ANT0:

Test Mode: IEEE 802.11a TX

Test CH149: 5745MHz



Test CH157: 5785MHz

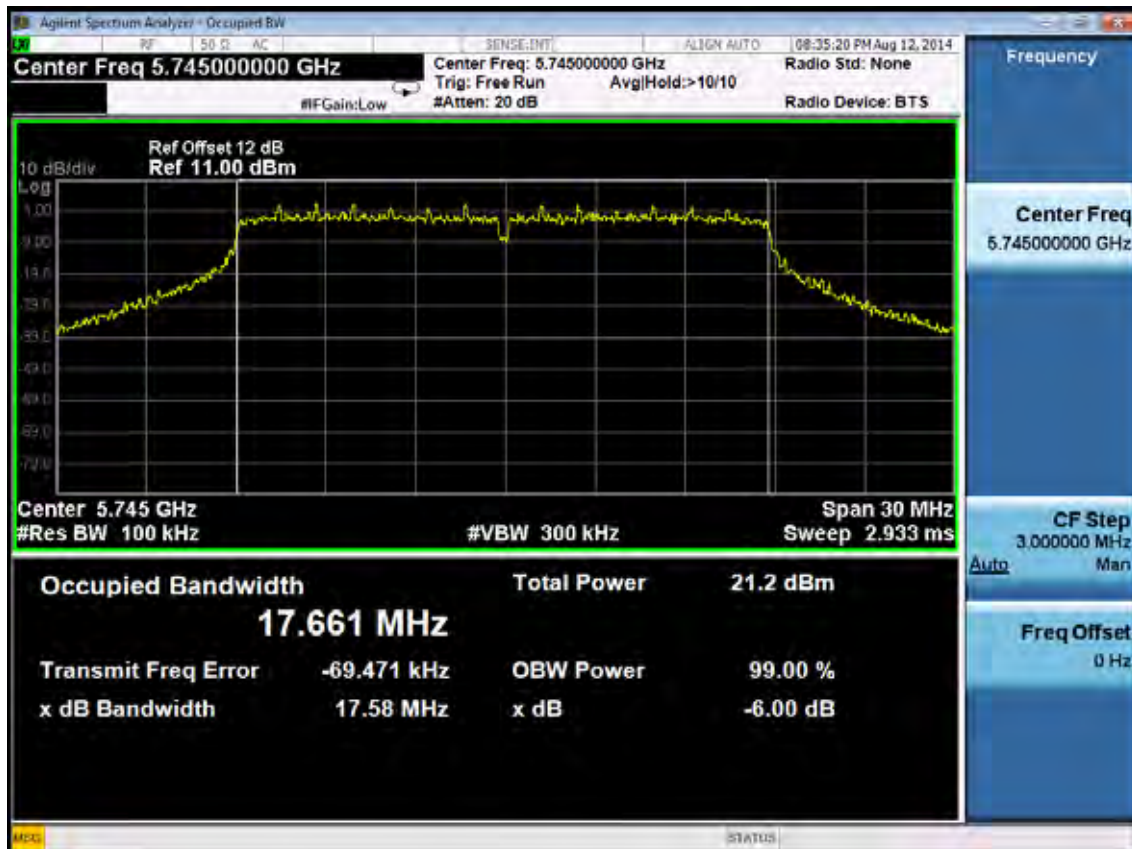


Test CH165: 5825MHz

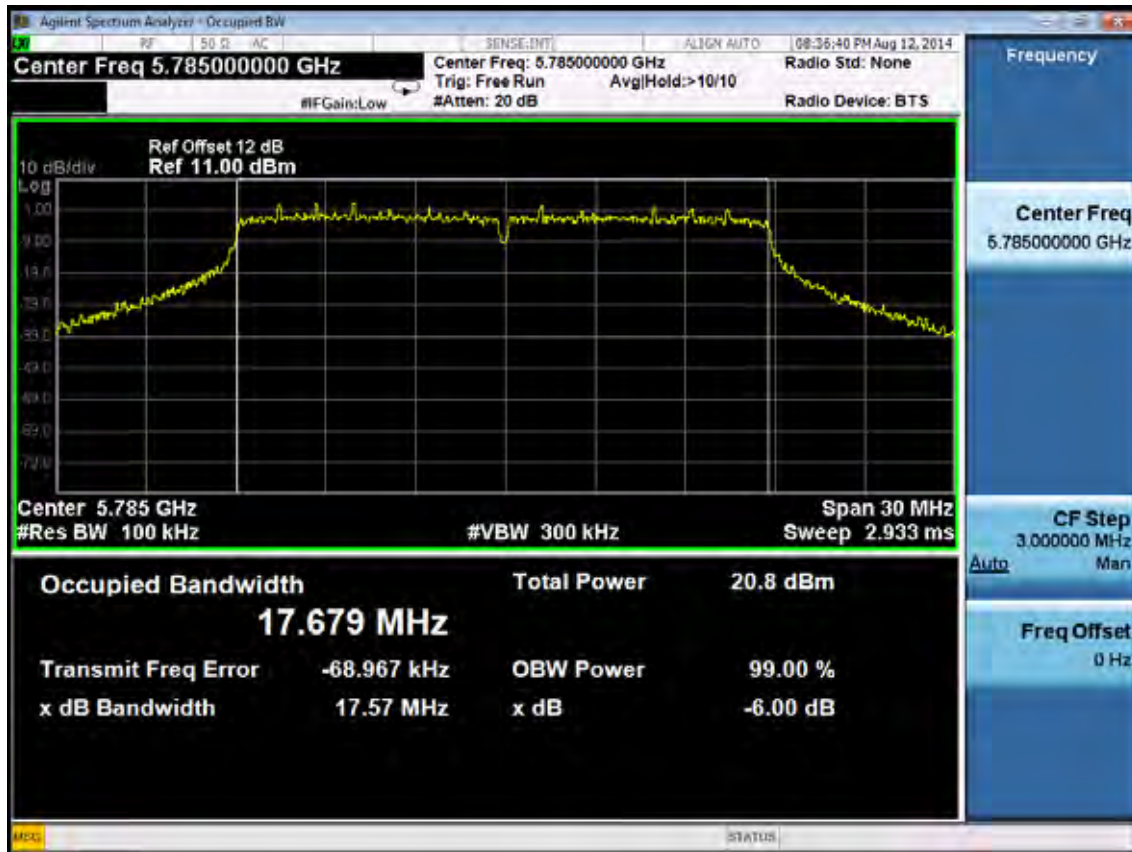


Test Mode: IEEE 802.11n HT20 TX

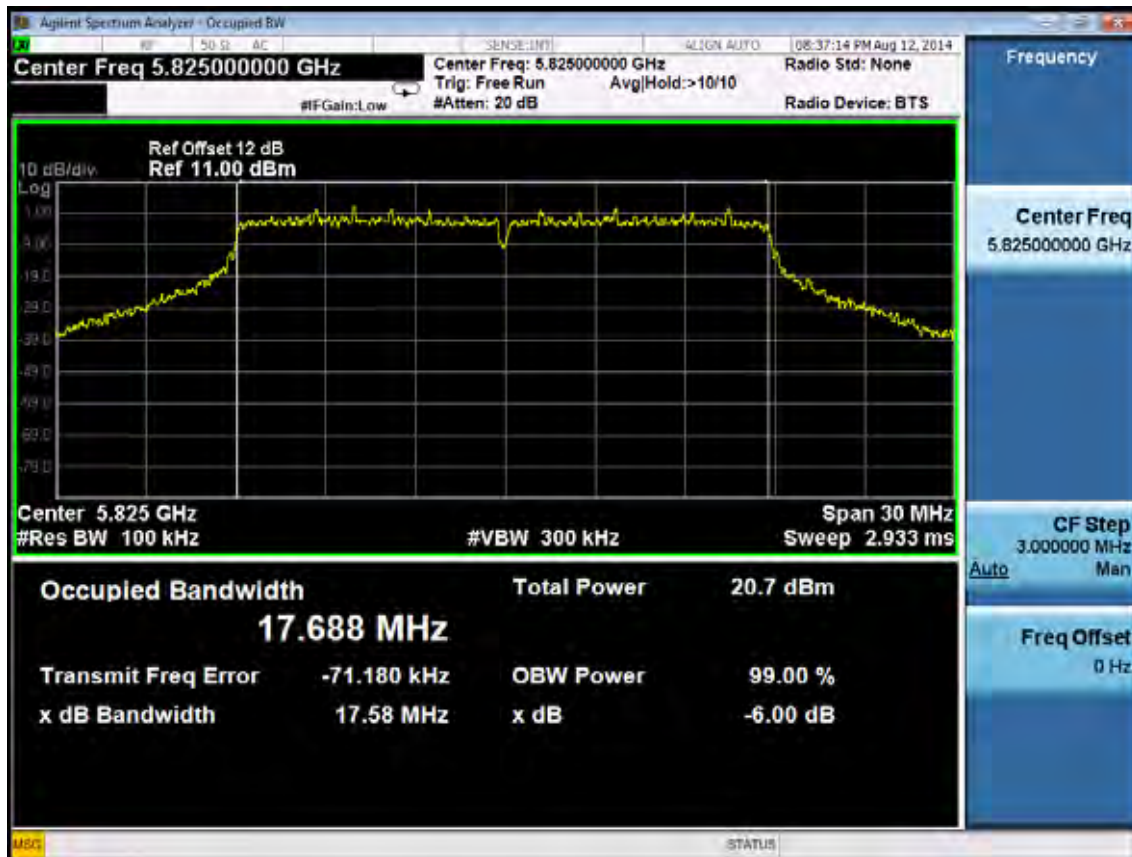
Test CH149: 5745MHz



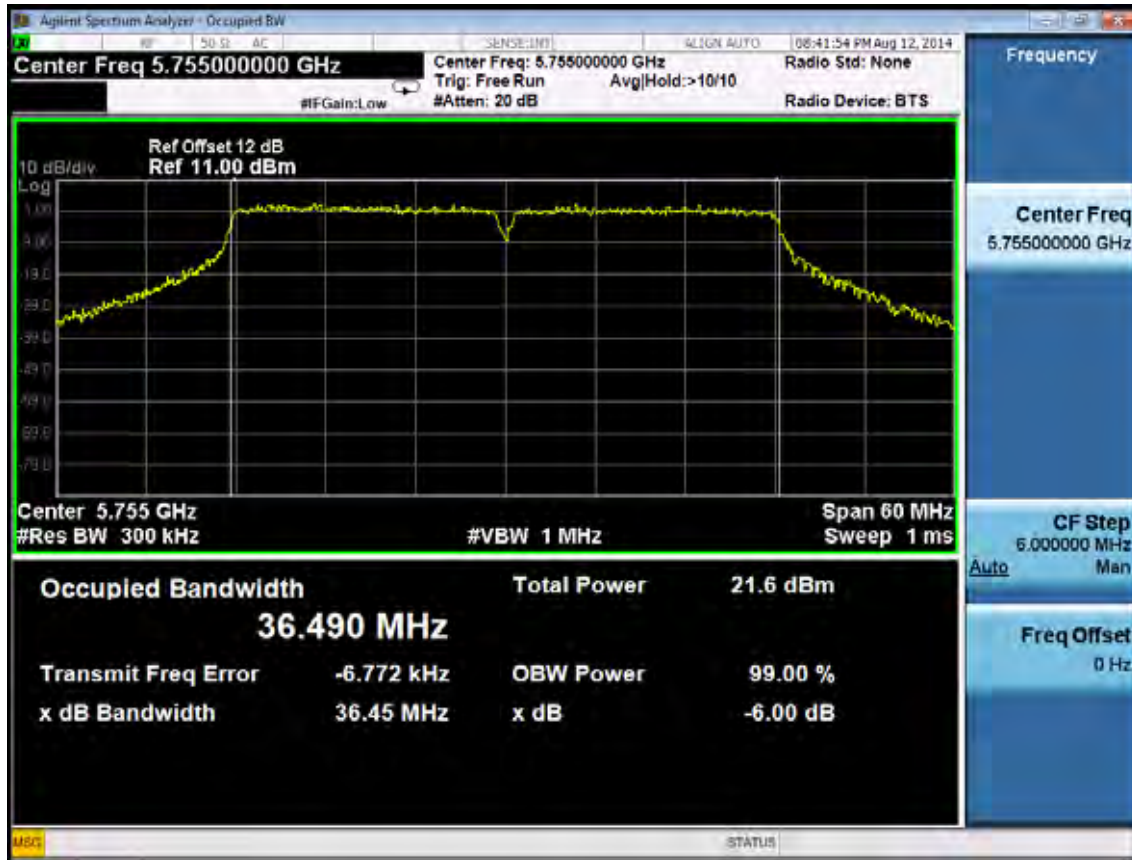
Test CH157: 5785MHz



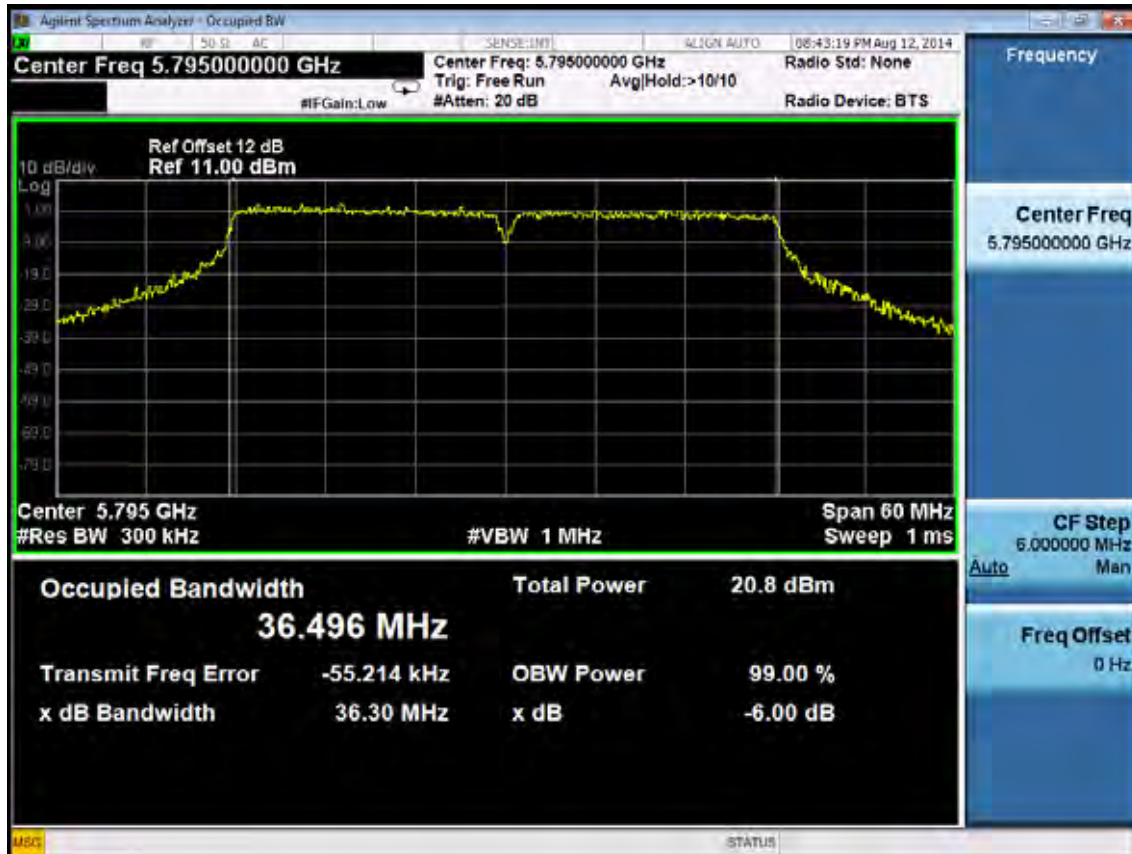
Test CH165: 5825MHz



Test Mode: IEEE 802.11n HT40 TX
Test CH151: 5755MHz



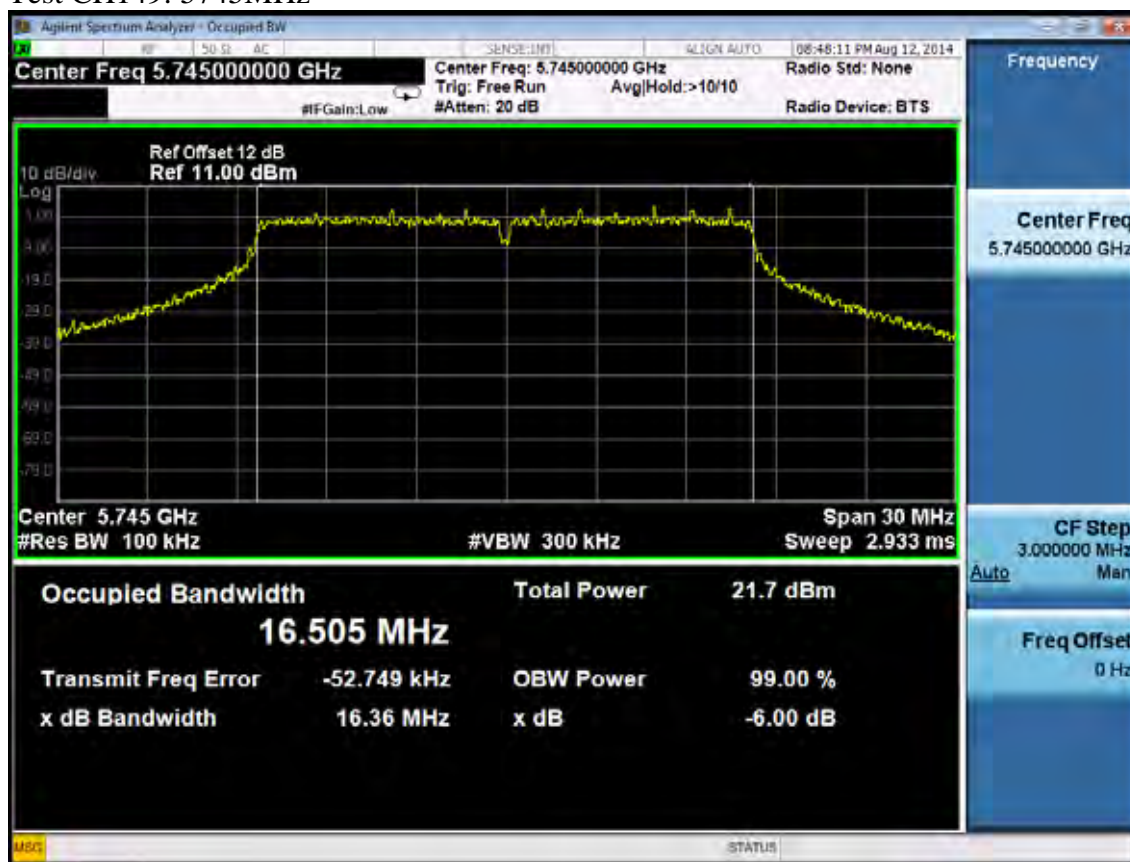
Test CH159: 5795MHz



ANT1:

Test Mode: IEEE 802.11a TX

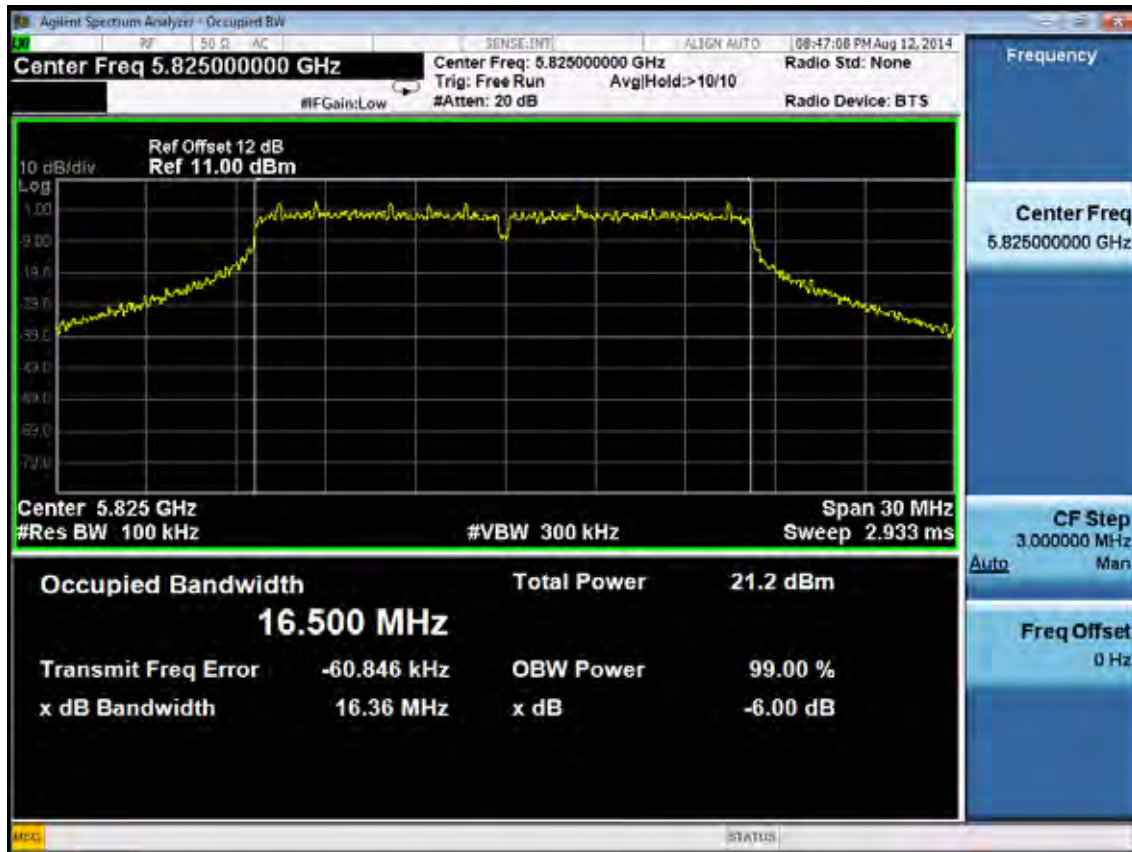
Test CH149: 5745MHz



Test CH157: 5785MHz

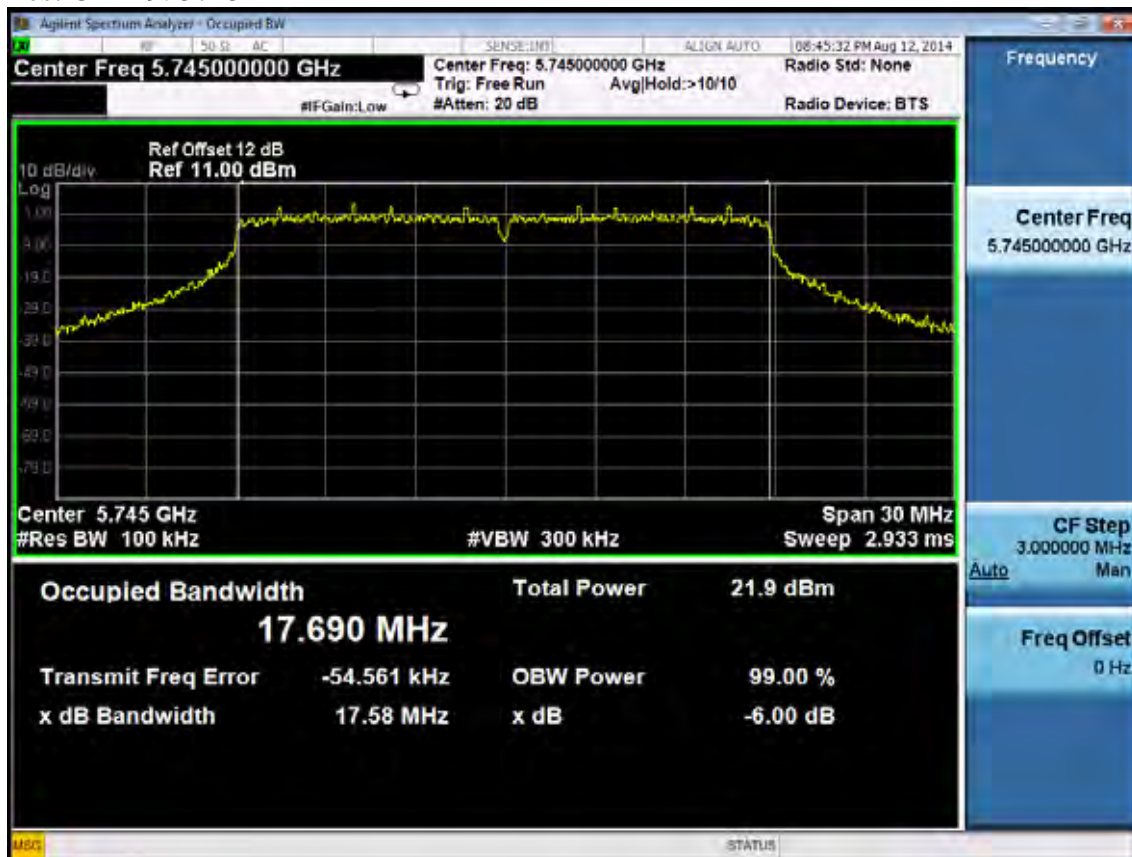


Test CH165: 5825MHz



Test Mode: IEEE 802.11n HT20 TX

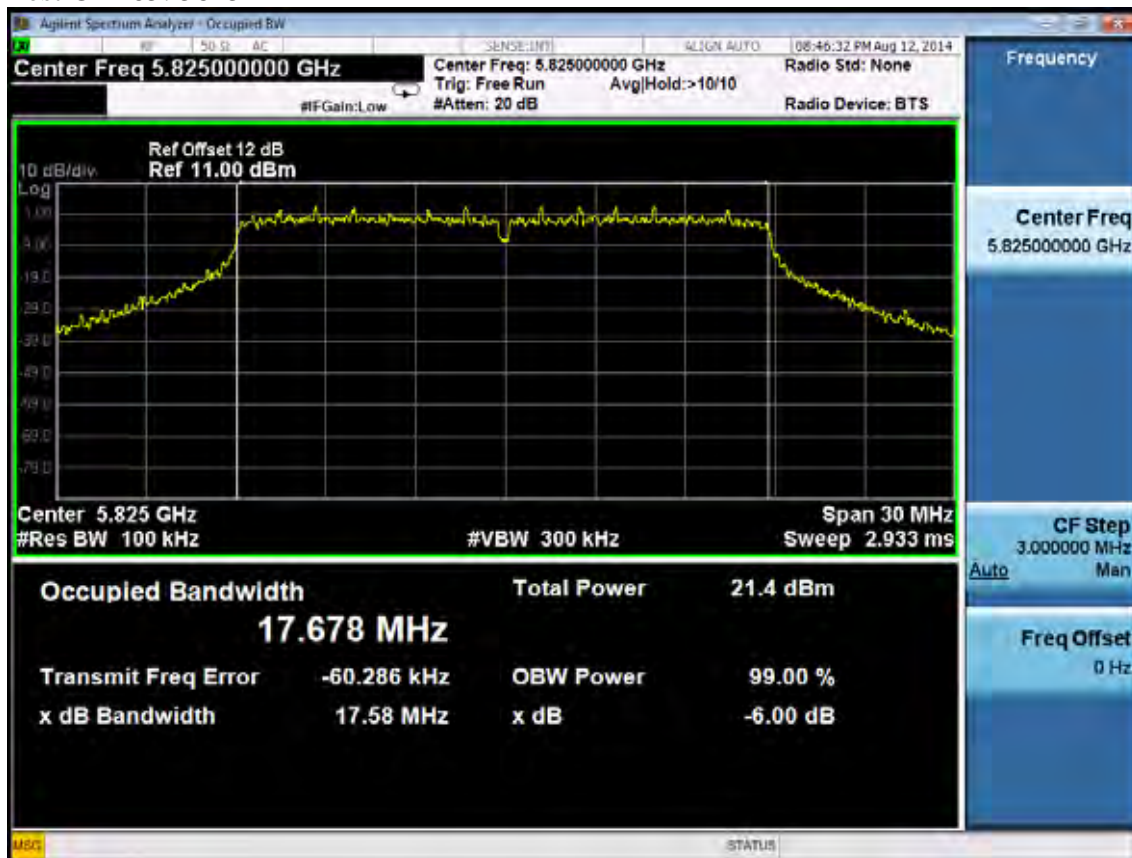
Test CH149: 5745MHz



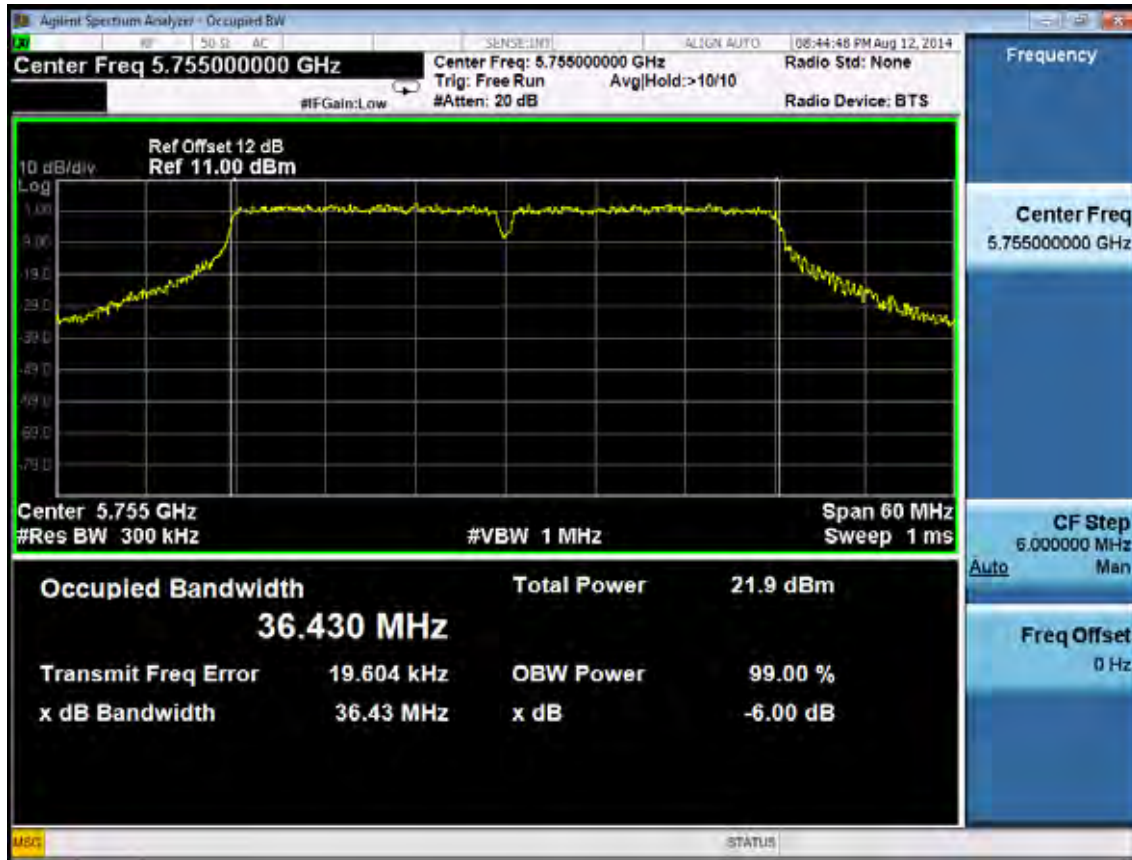
Test CH157: 5785MHz



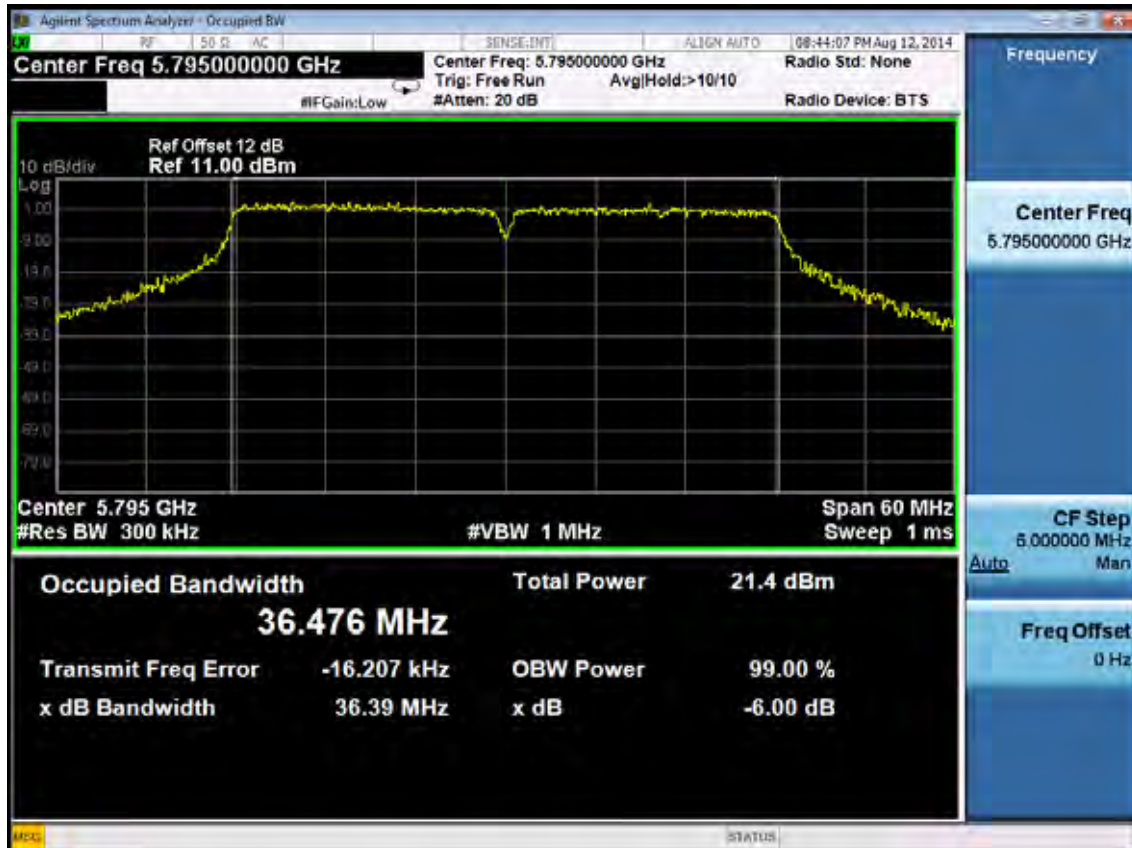
Test CH165: 5825MHz



Test Mode: IEEE 802.11n HT40 TX
Test CH151: 5755MHz



Test CH159: 5795MHz



8. OUTPUT POWER TEST

8.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	Apr. 28,14	1 Year
2.	Spectrum	Agilent	N9030A	MY51380221	Oct.31, 13	1 Year
3.	Power meter	Anritsu	ML2487A	6K00002472	Apr. 28,14	1 Year
4.	Power sensor	Anritsu	MA2491A	0033005	Apr. 28,14	1 Year
5.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr. 28,14	1 Year
6	RF Cable	Hubersuhner	SUCOFLEX102	28610/2	Apr. 28,14	1 Year

8.2. Limit (FCC Part 15C 15.247 b(3))

For systems using digital modulation in the 5725-5850MHz, The Peak out put Power shall not exceed 1W(30dBm)

Antenna gain $\geq 6\text{dBi}$, Output Power Limit=30dBm-(antenna gain-6dBi)

8.3. Test Procedure

- 1, Connected the EUT's antenna port to measure device by 26dB attenuator.
- 2, For IEEE 802.11b/g and IEEE802.11n HT20 mode, use a PK power meter which's bandwidth is 20MHz and above 26dB bandwidth of signal to measure out each test modes' PK output power.
- 3, For IEEE802.11n HT40 mode, because the signal's bandwidth is about 40MHz and above 20MHz bandwidth of power sensor ML2491A. So use the test method described in KDB558074 clause 9.1.2.
 - 1) Set the RBW=1MHz and VBW =3MHz
 - 2) Set the span to a value that is 5-30% greater than EBW
 - 3) Detector = peak
 - 4) Sweep time = auto couple
 - 5) Trace Mode = max hold
 - 6) allow trace to fully stabilize
 - 7) use the spectrum analyser's integrated band power measurement function with band limits set equal to the EBW band edges.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

8.4. Test Results

EUT: Altai Clan Super WiFi CPE					
M/N: WA1011N-A					
Test date: 2014-08-12		Pressure: 101.3±1.0kpa		Humidity: 52.4±3.0%	
Tested by: Kevin_Hu		Test site: RF site		Temperature: 22.6±0.6 °C	
Cable loss: 2 dB		Attenuator loss: 10 dB			
Test Mode	Frequency (MHz)	Peak Output Power (dBm)			Limit (dBm)
		ANT0	ANT1	Total	
11a	5745	17.42	19.29	21.47	22
	5785	17.32	18.59	21.01	22
	5825	17.29	18.70	21.06	22
11n HT20	5745	17.23	19.31	21.40	22
	5785	17.63	18.33	21.00	22
	5825	17.32	19.30	21.43	22
11n HT40	5755	16.55	19.22	21.10	22
	5795	17.00	19.35	21.34	22
Conclusion: PASS					

ANT0

Test Mode: IEEE 802.11n HT40



ANT1

Test Mode: IEEE 802.11n HT40



9. POWER SPECTRAL DENSITY TEST

9.1. Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	Apr. 28,14	1 Year
2.	Spectrum	Agilent	N9030A	MY51380221	Oct.31, 13	1Year
4.	Attenuator (20dB)	Agilent	8491B	MY39262165	Apr. 28,14	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX102	28610/2	Apr. 28,14	1 Year

9.2. Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

9.3. Test Procedure

1. Connected the EUT's antenna port to spectrum analyzer device by 20dB attenuator.
2. Set the test frequency as center frequency, Set RBW=3KHz, VBW=10KHz, Span large enough capture the entire frequency, Read out maximum peak level frequency
3. Set the frequency read from produce 2 as center frequency, then set the span=300KHz, Sweep time=Span/RBW, Then Max hold, read out each mode and each chain's Power density.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude

9.4.Test Results

EUT: Altai Clan Super WiFi CPE		
M/N: WA1011N-A		
Test date: 2014-08-12	Pressure: 101.3±1.0kpa	Humidity: 52.5±3.0%
Tested by: Kevin_Hu	Test site: RF site	Temperature: 22.4±0.6 °C

Cable loss: 2 dB		Attenuator loss: 10 dB		
Test Mode	Frequency (MHz)	ANT0	ANT1	Limit
		(dBm/MHz)	(dBm/MHz)	(dBm/MHz)
11a	5745	-10.222	-9.383	8
	5785	-10.145	-9.231	8
	5825	-8.862	-9.465	8
11n HT20	5745	-8.252	-7.190	8
	5785	-9.164	-8.014	8
	5825	-9.969	-8.566	8
11n HT40	5755	-11.809	-11.364	8
	5795	-11.241	-9.872	8
Conclusion: PASS				

ANT0:

Test Mode: IEEE 802.11a TX

Test CH149: 5745MHz



Test CH157: 5785MHz



Test CH165: 5825MHz



Test Mode: IEEE 802.11n HT20 TX

Test CH149: 5745MHz



Test CH157: 5785MHz



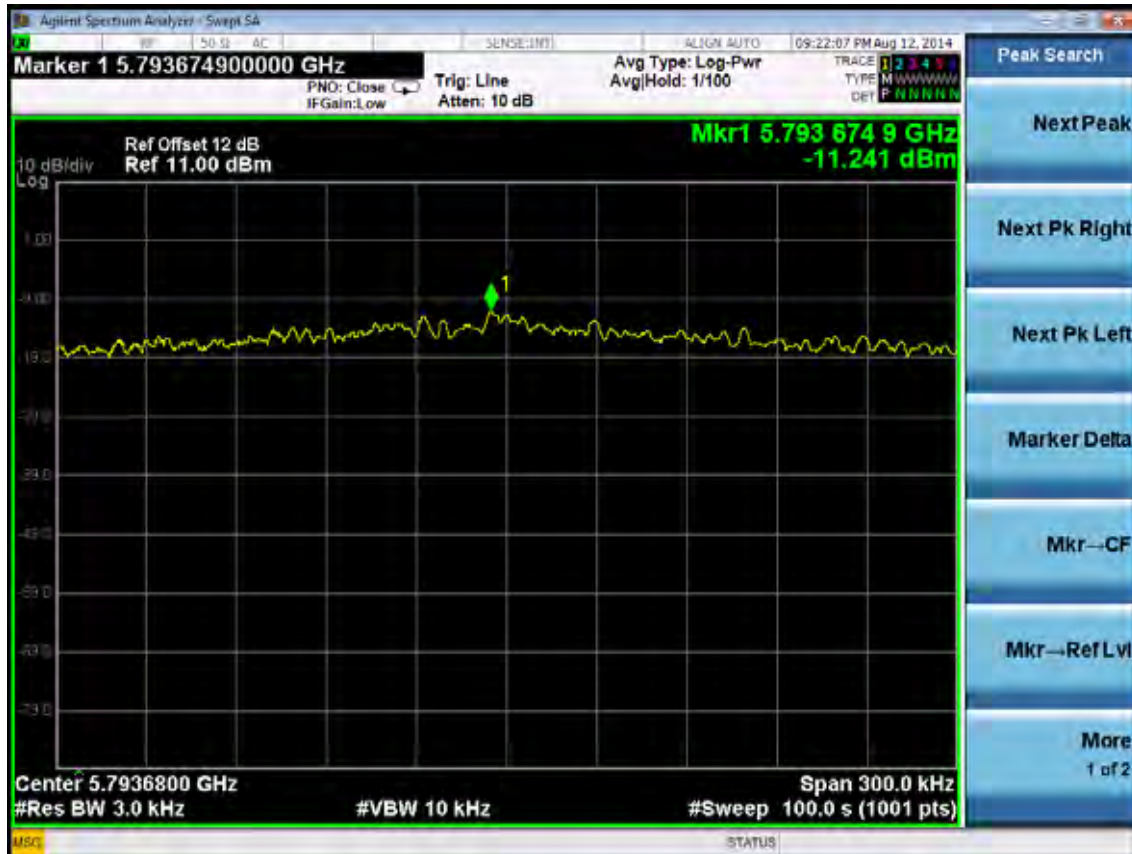
Test CH165: 5825MHz



Test Mode: IEEE 802.11n HT40 TX
Test CH151: 5755MHz



Test CH159: 5795MHz



ANT1:

Test Mode: IEEE 802.11a TX

Test CH149: 5745MHz



Test CH157: 5785MHz

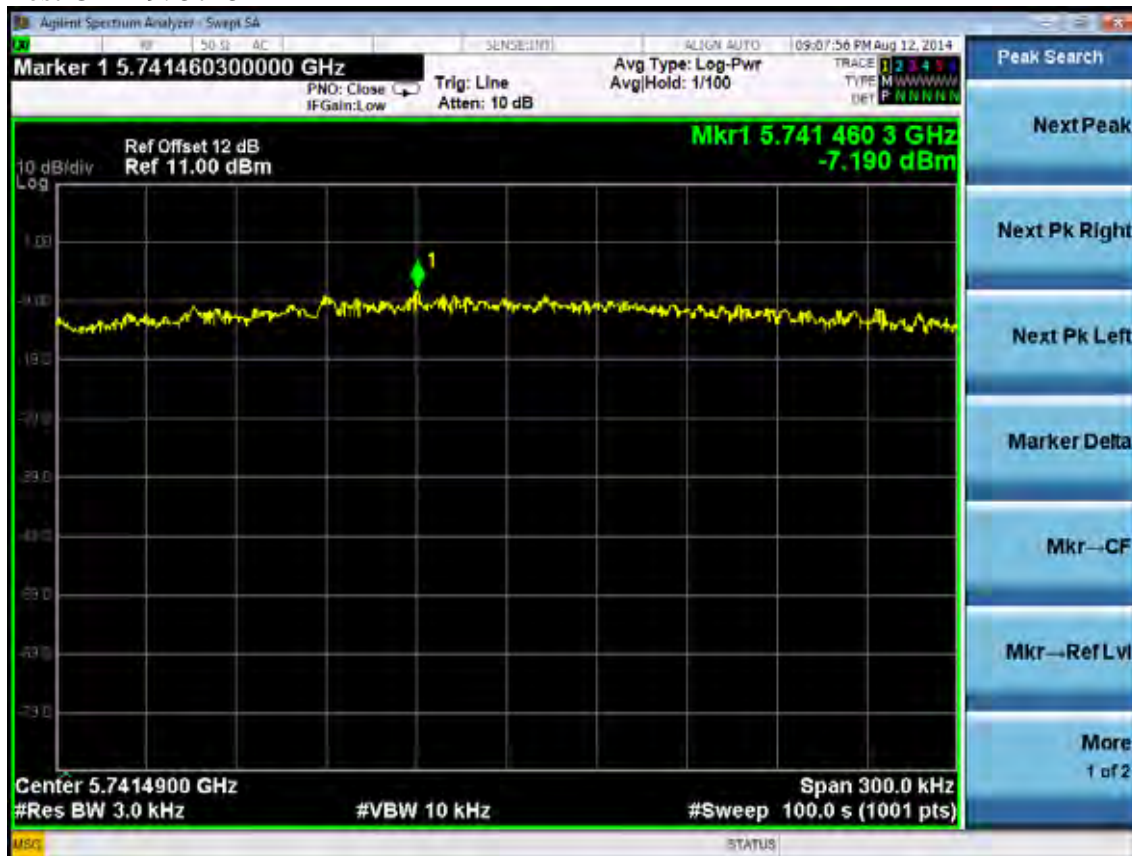


Test CH165: 5825MHz



Test Mode: IEEE 802.11n HT20 TX

Test CH149: 5745MHz



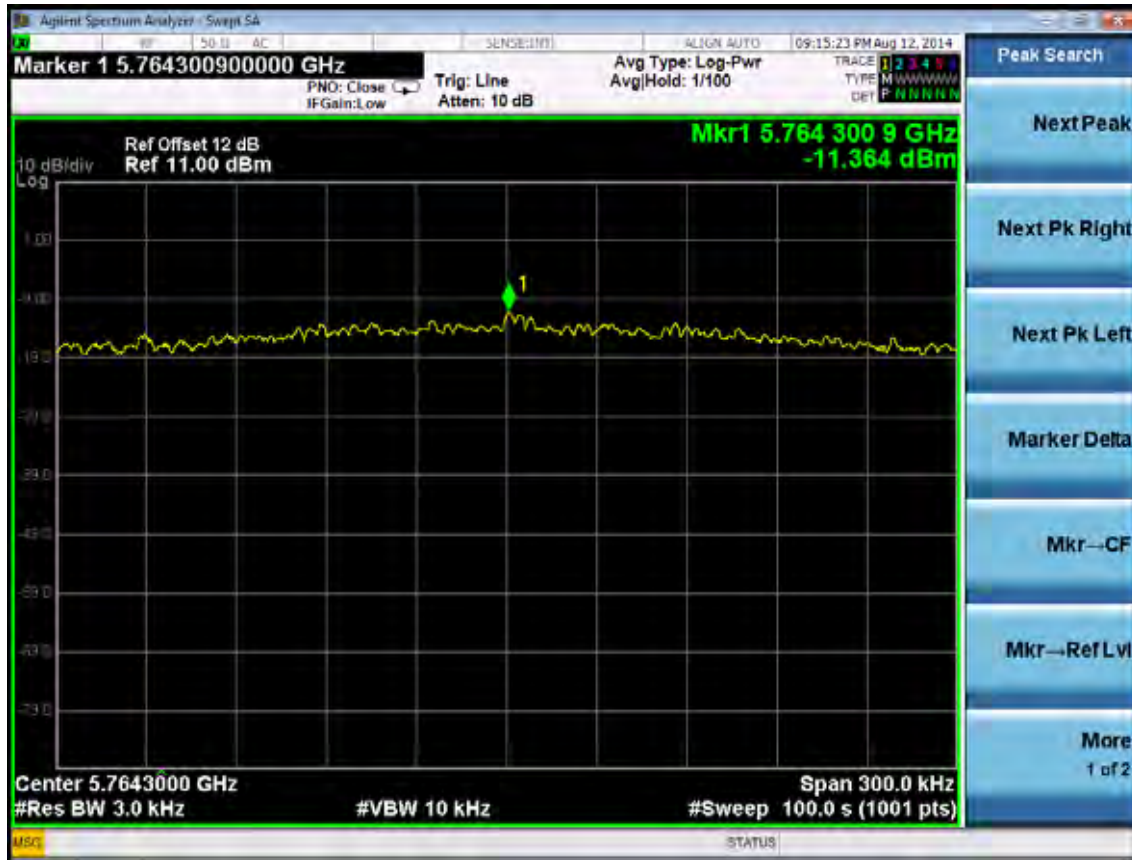
Test CH157: 5785MHz



Test CH165: 5825MHz



Test Mode: IEEE 802.11n HT40 TX
Test CH151: 5755MHz



Test CH159: 5795MHz



10.MPE ESTIMATION

10.1.Limit for General Population/ Uncontrolled Exposures

Frequency	Power density (mW/ cm ²)	Averaging time(minutes)
300MHz----1.5GHz	F/1500	30
1.5GHz---100GHz	1.0	30

Frequency(MHz)	Power density (mW/ cm ²)	Averaging time(minutes)
2412	1	30
2437	1	30
2462	1	30

Note: F= Frequency in MHz Estimation Result

EUT: Altai Clan Super WiFi CPE		
M/N: WA1011N-A		
Test date: 2014-08-12	Pressure: 101.2±1.0kpa	Humidity: 49.8±3.0%
Tested by: Kevin_Hu	Test site: RF site	Temperature: 22.2±0.6 °C

Cable loss: 1 dB		Attenuator loss: 10 dB				Antenna Gain: 14dBi	
Test Mode	CH	Frequency (MHz)	Peak Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Antenna Gain (Linear)	MPE
11a	CH149	5745	21.47	140.28	14	25.12	0.7014
	CH157	5785	21.01	126.18	14	25.12	0.6309
	CH165	5825	21.06	127.64	14	25.12	0.6382
11n HT20	CH149	5745	21.40	138.04	14	25.12	0.6902
	CH157	5785	21.00	125.89	14	25.12	0.6294
	CH165	5825	21.43	139.00	14	25.12	0.6949
11n HT40	CH151	5755	21.10	128.82	14	25.12	0.6441
	CH159	5795	21.34	136.14	14	25.12	0.6807

11.ANTENNA REQUIREMENT

11.1. STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

11.2. ANTENNA CONNECTED CONSTRUCTION

The antennas used for this product are Built-in antenna that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna for 5.8GHz is 14dBi..

12.DEVIATION TO TEST SPECIFICATIONS

[NONE]