



HCT CO., LTD.

CERTIFICATE OF COMPLIANCE

FCC Certification

Applicant Name:
SAMSUNG Electronics Co., Ltd.

Address:
129, Samsung-ro, Yeongtong-gu Suwon-si,
Gyeonggi-do, 443-742 Rep. of Korea

Date of Issue:
June 18, 2013

Test Site/Location:
HCT CO., LTD., 74, Seoicheon-ro 578beon-gil, Majang-myeo, Icheon-si, Gyeonggi-do, Korea

Report No.: HCT-R-1406-F029

HCT FRN: 0005866421

IC Recognition No.: 5944A-3

FCC ID : A3LWEA403I
IC : 649E-WEA403I
APPLICANT : SAMSUNG Electronics Co., Ltd.

FCC/ IC Model(s): WEA403i

EUT Type: WLAN Access Point

Max RF Output Power

Port	Antenna	Mode	Peak(dBm)	Average(dBm)
Monitoring	Ant.0	802.11b	25.75	19.54
		802.11g	20.20	12.41
		802.11a	16.79	9.30
	Ant.1	802.11g	19.81	11.99
		802.11a	16.34	8.86
	Ant.2	802.11g	20.27	12.43
802.11a		16.67	9.22	
Service	Ant.0	802.11b	22.77	16.66
		802.11g	19.87	12.21
		802.11n(2.4 GHz)	20.43	11.96
		802.11a	19.22	11.86
		802.11n(5.8 GHz) HT20	19.23	11.53
		802.11n(5.8 GHz) HT40	18.30	10.45
		802.11ac(5.8 GHz) VHT20	18.70	10.94
		802.11ac(5.8 GHz) VHT40	20.54	12.87
		802.11ac(5.8 GHz) VHT80	15.35	7.80
	Ant.1	802.11g	19.20	11.52
		802.11n(2.4 GHz)	19.90	11.55
		802.11a	18.97	11.50
		802.11n(5.8 GHz) HT20	18.94	11.32
		802.11n(5.8 GHz) HT40	17.97	10.14
		802.11ac(5.8 GHz) VHT20	18.52	10.91
		802.11ac(5.8 GHz) VHT40	20.53	12.86
		802.11ac(5.8 GHz) VHT80	15.13	7.55
	Ant.2	802.11g	20.11	12.23
		802.11n(2.4 GHz)	20.67	12.11
		802.11a	19.11	11.56
		802.11n(5.8 GHz) HT20	19.02	11.40
		802.11n(5.8 GHz) HT40	18.01	10.33
		802.11ac(5.8 GHz) VHT20	18.79	11.06
		802.11ac(5.8 GHz) VHT40	20.59	12.96
802.11ac(5.8 GHz) VHT80	15.27	7.71		

FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I



Frequency Range: 2412 MHz - 2462 MHz (2.4 GHz Band)
5745 MHz - 5825 MHz (5.8 GHz Band)_20 MHz BW,
5755 MHz - 5795 MHz (5.8 GHz Band)_40 MHz BW
5775 MHz (5.8 GHz Band)_80 MHz BW

Modulation type CCK/DSSS/OFDM

FCC Classification: Digital Transmission System(DTS)

FCC Rule Part(s): Part 15.247

IC Rule : RSS-GEN Issue 3(December 2010), RSS-210 Issue 8(December 2010)

Engineering Statement:

The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them.

HCT CO., LTD. Certifies that no party to this application has subject to a denial of Federal benefits that includes FCC benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1998,21 U.S. C.853(a)

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FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Version

TEST REPORT NO.	DATE	DESCRIPTION
HCT-R-1406-F029	June 18, 2014	- First Approval Report

Table of Contents

1. GENERAL INFORMATION	5
2. EUT DESCRIPTION	5
2.1 EUT OPERATING MODE	6
3. TEST METHODOLOGY	7
3.1 EUT CONFIGURATION	7
3.2 EUT EXERCISE	7
3.3 GENERAL TEST PROCEDURES	7
3.4 DESCRIPTION OF TEST MODES	7
4. INSTRUMENT CALIBRATION.....	8
5. FACILITIES AND ACCREDITATIONS	8
5.1 FACILITIES	8
5.2 EQUIPMENT	8
6. ANTENNA REQUIREMENTS	8
7. SUMMARY TEST OF RESULTS	10
7.1 FCC Part	10
7.2 IC Part	11
8. TEST RESULT	12
8.1 DUTY CYCLE (802.11a/b/g/n/ac)	12
8.2 6dB BANDWIDTH (802.11a/b/g/n/ac)	16
8.3 99% BANDWIDTH (802.11a/b/g/n/ac).....	46
8.4 OUTPUT POWER (802.11a/b/g/n/ac).....	76
8.5 POWER SPECTRAL DENSITY (802.11a/b/g/n/ac).....	190
8.6 OUT OF BAND EMISSIONS AT THE BAND EDGE/ CONDUCTED SPURIOUS EMISSIONS	216
8.7 RADIATED MEASUREMENT.....	370
8.7.1 RADIATED SPURIOUS EMISSIONS.....	370
8.7.2 RECEIVER SPURIOUS EMISSIONS.....	397
8.7.3 RADIATED RESTRICTED BAND EDGES	398
8.8 POWERLINE CONDUCTED EMISSIONS	403
9. LIST OF TEST EQUIPMENT	408
9.1 LIST OF TEST EQUIPMENT(Conducted Test)	408
9.2 LIST OF TEST EQUIPMENT(Radiated Test).....	409

FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I



1. GENERAL INFORMATION

Applicant: SAMSUNG Electronics Co., Ltd.
Address: 129, Samsung-ro, Yeongtong-gu Suwon-si, Gyeonggi-do, 443-742 Rep. of Korea
FCC ID: A3LWEA403I
IC: 649E-WEA403I
EUT Type: WLAN Access Point
FCC/ IC Model name(s): WEA403i
Date(s) of Tests: May 15, 2014 ~ June 14, 2014
Place of Tests: HCT Co., Ltd.
74,Seoicheon-ro 578beon-gil,Majang-myeon, Icheon-si, Gyeonggi-do, Korea.
(IC Recognition No. : 5944A-3)

2. EUT DESCRIPTION

EUT Type	WLAN Access Point	
FCC/ IC Model Name	WEA403i	
Power Supply	AC adaptor : 100 V ~ 240 V, POE : DC 48 V	
Frequency Range	TX	: 2412 MHz~2462 MHz, 5745 MHz~5825 MHz_20 MHz, 5755 MHz~5795 MHz_40 MHz 5775 MHz_80 MHz
	RX	: 2412 MHz~2462 MHz, 5745 MHz~5825 MHz_20 MHz, 5755 MHz~5795 MHz_40 MHz 5775 MHz_80 MHz
Monitoring Port Ant.0 Max. RF Output Power	Peak	Wi-Fi 802.11b (25.75 dBm) / Wi-Fi 802.11g (20.20 dBm) / Wi-Fi 802.11a (5.8 GHz) (16.79 dBm)
	Average	Wi-Fi 802.11b (19.54 dBm) / Wi-Fi 802.11g (12.41 dBm) / Wi-Fi 802.11a (5.8 GHz) (9.30 dBm)
Monitoring Port Ant.1 Max. RF Output Power	Peak	Wi-Fi 802.11g (19.81 dBm) / Wi-Fi 802.11a (5.8 GHz) (16.34 dBm)
	Average	Wi-Fi 802.11g (11.99 dBm) / Wi-Fi 802.11a (5.8 GHz) (8.86 dBm)
Monitoring Port Ant.2 Max. RF Output Power	Peak	Wi-Fi 802.11g (20.27 dBm) / Wi-Fi 802.11a (5.8 GHz) (16.67 dBm)
	Average	Wi-Fi 802.11g (12.43 dBm) / Wi-Fi 802.11a (5.8 GHz) (9.22 dBm)
Service Port Ant.0 Max. RF Output Power	Peak	Wi-Fi 802.11b (22.77 dBm) / Wi-Fi 802.11g (19.87 dBm) / Wi-Fi 802.11n (2.4 GHz) (20.43 dBm) / Wi-Fi 802.11a (5.8 GHz) (19.22 dBm) / Wi-Fi 802.11n_20 MHz BW (5.8 GHz) (19.23 dBm) / Wi-Fi 802.11n_40 MHz BW (5.8 GHz) (18.30 dBm) / Wi-Fi 802.11ac_20 MHz BW (5.8 GHz) (18.70 dBm) / Wi-Fi 802.11ac_40 MHz BW (5.8 GHz) (20.54 dBm) / Wi-Fi 802.11ac_80 MHz BW (5.8 GHz) (15.35 dBm)
	Average	Wi-Fi 802.11b (16.66 dBm) / Wi-Fi 802.11g (12.21 dBm) / Wi-Fi 802.11n (2.4 GHz) (11.96 dBm) / Wi-Fi 802.11a (5.8 GHz) (11.86 dBm) / Wi-Fi 802.11n_20 MHz BW (5.8 GHz) (11.53 dBm) / Wi-Fi 802.11n_40 MHz BW (5.8 GHz) (10.45 dBm) / Wi-Fi 802.11ac_20 MHz BW (5.8 GHz) (10.94 dBm) / Wi-Fi 802.11ac_40 MHz BW (5.8 GHz) (12.87 dBm) / Wi-Fi 802.11ac_80 MHz BW (5.8 GHz) (7.80 dBm)
Service Port Ant.1 Max. RF Output Power	Peak	Wi-Fi 802.11g (19.20 dBm) / Wi-Fi 802.11n (2.4 GHz) (19.90 dBm) / Wi-Fi 802.11a (5.8 GHz) (18.97 dBm) / Wi-Fi 802.11n_20 MHz BW (5.8 GHz) (18.94 dBm) / Wi-Fi 802.11n_40 MHz BW (5.8 GHz) (17.97 dBm) / Wi-Fi 802.11ac_20 MHz BW (5.8 GHz) (18.52 dBm) / Wi-Fi 802.11ac_40 MHz BW (5.8 GHz) (20.53 dBm) / Wi-Fi 802.11ac_80 MHz BW (5.8 GHz) (15.13 dBm)
	Average	Wi-Fi 802.11g (11.52 dBm) / Wi-Fi 802.11n (2.4 GHz) (11.55 dBm) / Wi-Fi 802.11a (5.8 GHz) (11.50 dBm) / Wi-Fi 802.11n_20 MHz BW (5.8 GHz) (11.32 dBm) / Wi-Fi 802.11n_40 MHz BW (5.8 GHz) (10.14 dBm) / Wi-Fi 802.11ac_20 MHz BW (5.8 GHz) (10.91 dBm) / Wi-Fi 802.11ac_40 MHz BW (5.8 GHz) (12.86 dBm) / Wi-Fi 802.11ac_80 MHz BW (5.8 GHz) (7.55 dBm)
Service Port Ant.2 Max. RF Output Power	Peak	Wi-Fi 802.11g (20.11 dBm) / Wi-Fi 802.11n (2.4 GHz) (20.67 dBm) / Wi-Fi 802.11a (5.8 GHz) (19.11 dBm) / Wi-Fi 802.11n_20 MHz BW (5.8 GHz) (19.02 dBm) / Wi-Fi 802.11n_40 MHz BW (5.8 GHz) (18.01 dBm) / Wi-Fi 802.11ac_20 MHz BW (5.8 GHz) (18.79 dBm) / Wi-Fi 802.11ac_40 MHz BW (5.8 GHz) (20.59 dBm) / Wi-Fi 802.11ac_80 MHz BW (5.8 GHz) (15.27 dBm)
	Average	Wi-Fi 802.11g (12.23 dBm) / Wi-Fi 802.11n (2.4 GHz) (12.11 dBm) / Wi-Fi 802.11a (5.8 GHz) (11.56 dBm) / Wi-Fi 802.11n_20 MHz BW (5.8 GHz) (11.40 dBm) / Wi-Fi 802.11n_40 MHz BW (5.8 GHz) (10.33 dBm) / Wi-Fi 802.11ac_20 MHz BW (5.8 GHz) (11.06 dBm) / Wi-Fi 802.11ac_40 MHz BW (5.8 GHz) (12.96 dBm) / Wi-Fi 802.11ac_80 MHz BW (5.8 GHz) (7.71 dBm)
Modulation Type	DSSS/CCK(802.11b), OFDM(802.11a, 802.11g, 802.11n, 802.11ac)	
Antenna Specification	Manufacturer: ACE Technologyacetechology Antenna type: Internal Antenna Peak Gain : cf. Section 6	

FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

2.1 EUT OPERATING MODE

▣ Operating mode

2.4 GHz Band

Port	Operating Mode	Mode	Operating Ant.
Monitoring	802.11b	SISO	Ant 0
	802.11g	MIMO	Ant 0 & 1 & 2
Service	802.11b/g/n	SISO	Ant 0
			Ant 1
			Ant 2
	802.11g/n	MIMO	Ant 0 & 1
			Ant 0 & 1 & 2

5.8 GHz Band

Port	Mode	Operating Mode	Operating Ant.
Monitoring	802.11a	MIMO	Ant 0 & 1 & 2
Service	802.11a,n,ac	SISO	Ant 0
			Ant 1
			Ant 2
		MIMO	Ant 0 & 1
			Ant 0 & 1 & 2

Note :

1. This EUT is supported the AC adaptor and POE. Because worst case is AC adaptor, so we attached only the results for AC adaptor.
2. In case of radiation test, we have done all test case. Worst case is Ant 0 & 1 & 2 for 802.11a/g/n/ac. And in case of 802.11b, worst case is only Ant 0. So, we attached the results of only worst case.

3. TEST METHODOLOGY

FCC KDB 558074 D01 DTS Meas Guidance v03r01 dated April 09, 2013 entitled "Guidance for Performing Compliance Measurements on Digital Transmission Systems(DTS) and the measurement procedure described in the American National Standard for Testing Unlicensed Wireless Devices(ANSI C63.4-2003) Operating Under §15.247" were used in the measurement. For 802.11ac, KDB644545 D01 v01r02 dated October 31, 2013.

3.1 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

3.2 EUT EXERCISE

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.247 under the FCC Rules Part 15 Subpart C.

3.3 GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4. (Version :2003) Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

Radiated Emissions

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3 m away from the receiving antenna, which varied from 1 m to 4 m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes according to the requirements in Section 13.1.4.1 of ANSI C63.4. (Version: 2003)

Conducted Antenna Terminal

See Section from 9.1 to 9.2.(KDB 558074)

3.4 DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition. Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

Channel low, mid and high with highest data rate (worst case) is chosen for full testing.

FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

4. INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipments, which is traceable to recognized national standards.

5. FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

The SAC(Semi-Anechoic Chamber) and conducted measurement facility used to collect the radiated data are located at the 74, Seoicheon-ro 578beon-gil, Majang-myeon, Icheon-si, Gyeonggi-do, Korea The site is constructed in conformance with the requirements of ANSI C63.4. (Version :2003) and CISPR Publication 22. Detailed description of test facility was submitted to the Commission and accepted dated February 28, 2014 (Registration Number: 90661)

5.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of Linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements. Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers. Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

6. ANTENNA REQUIREMENTS

According to FCC 47 CFR §15.203:

"An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section."

* The antennas of this E.U.T are permanently attached.

*The E.U.T Complies with the requirement of §15.203

FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

▣ Directional Gain Calculations

- If any transmit signals are correlated with each other(802.11b/a/g/ac),

$$\text{Directional gain} = 10 \cdot \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N] \text{ dBi}$$

- If all transmit signals are completely uncorrelated with each other(802.11n/ac)

$$\text{Directional gain} = 10 \cdot \log[(10^{G1/10} + 10^{G2/10} + \dots + 10^{GN/10}) / N] \text{ dBi}$$

▣ Antenna Gain

2.4 GHz Band

Service	Antenna Gain	802.11b/g/n	Ant 0	2.7 dBi
		802.11g/n	Ant 1	4.18 dBi
			Ant 2	3.94 dBi
	Directional Antenna Gain	802.11g/n	Ant 0 & 1	6.48 dBi
			Ant 0 & 1 & 2	8.4 dBi
Monitor	Antenna Gain	802.11b/g	Ant 0	6.39 dBi
		802.11g	Ant 1	5.96 dBi
		802.11g	Ant 2	6.21 dBi
	Directional Antenna Gain	802.11g	Ant 0 & 1 & 2	10.96 dBi

5.8 GHz Band

Service	Antenna Gain	802.11a/n/ac	Ant 0	6.17 dBi
			Ant 1	5.46 dBi
			Ant 2	4.78 dBi
	Directional Antenna Gain		Ant 0 & 1	8.83 dBi
			Ant 0 & 1 & 2	10.26 dBi
Monitor	Antenna Gain	802.11a	Ant 0	7 dBi
			Ant 1	6.53 dBi
			Ant 2	5.82 dBi
	Directional Antenna Gain		Ant 0 & 1 & 2	11.23 dBi

7. SUMMARY TEST OF RESULTS

7.1 FCC Part

Test Description	FCC Part Section(s)	Test Limit	Test Condition	Test Result
6 dB Bandwidth	§15.247(a)(2)	> 500 kHz	CONDUCTED	PASS
Conducted Maximum Peak Output Power	§15.247(b)(3)	< 1 Watt		PASS
Power Spectral Density	§15.247(e)	< 8 dBm / 3 kHz Band		PASS
Band Edge(Out of Band Emissions)	§15.247(d)	Conducted > 20 dBc		PASS
AC Power line Conducted Emissions	§15.207	cf. Section 8.8		NA
Radiated Spurious Emissions	§15.205, 15.209	cf. Section 8.7.1	RADIATED	PASS
Radiated Restricted Band Edge	§15.247(d), 15.205, 15.209	cf. Section 8.7.3		PASS

7.2 IC Part

Test Description	IC Part Section(s)	Test Limit	Test Condition	Test Result
6 dB Bandwidth 99% Bandwidth	RSS-210 [A8.2] RSS-GEN 4.6.1	NA	CONDUCTED	PASS
Conducted Maximum Peak Output Power , e.i.r.p.	RSS-210 [A8.4]	< 1 Watt < 4 Watt(e.i.r.p.)		PASS
Power Spectral Density	RSS-210 [A8.2]	< 8 dBm / 3 kHz Band		PASS
Band Edge(Out of Band Emissions)	RSS-210 [A8.5]	Conducted > 20 dBc		PASS
AC Power line Conducted Emissions	RSS-GEN [7.2.2]	cf. Section 8.8		NA
Radiated Spurious Emissions	RSS-210 [A8.5]	cf. Section 8.7.1	RADIATED	PASS
Receiver Spurious Emissions	RSS-GEN, Section 7.2.3	cf. Section 8.7.2		PASS
Radiated Restricted Band Edge	RSS-210 [A8.5]	cf. Section 8.7.3		PASS

8. TEST RESULT

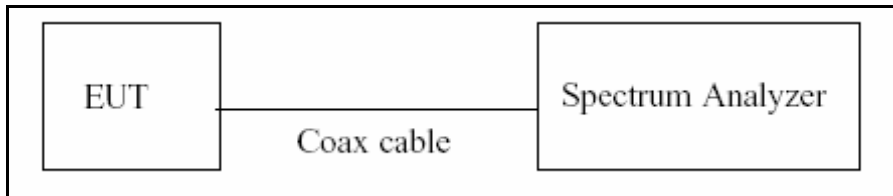
8.1 DUTY CYCLE (802.11a/b/g/n/ac)

▣ TEST PROCEDURE

According to KDB558074)6)b), issued 04/09/2013)

The zero-span mode on a spectrum analyzer or EMI receiver if the response time and spacing between bins on the sweep are sufficient to permit accurate measurements of the on and off times of the transmitted signal. Set the center frequency of the instrument to the center frequency of the transmission. Set RBW $\geq$ OBW if possible; otherwise, set RBW to the largest available value. Set VBW $\geq$ RBW. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are $> 50/T$ and the number of sweep points across duration T exceeds 100. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if $T \leq 16.7$ microseconds.)

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

The transmitter output is connected to the Spectrum Analyzer. We tested according to the zero-span measurement method, 6.0)b) in KDB 558074(issued 04/09/2013)

The largest available value of RBW is 8 MHz and VBW is 50 MHz. The zero-span method of measuring duty cycle shall not be used if $T \leq 6.25$ microseconds. ($50/6.25 = 8$)

The zero-span method was used because all measured T data are > 6.25 microseconds and both RBW and VBW are $> 50/T$.

1. RBW = 8 MHz (the largest available value)
2. VBW = 8 MHz ($\geq$ RBW)
3. SPAN = 0 Hz
4. Detector = Peak
5. Number of points in sweep > 100
6. Trace mode = Clear write
7. Measure T_{total} and T_{on}
8. Calculate Duty Cycle = T_{on} / T_{total} and Duty Cycle Factor = $10 \cdot \log(1/\text{Duty Cycle})$

FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Monitoring Port

▣ Duty Cycle Factor

Mode	Data Rate	T _{on} (ms)	T _{total} (ms)	Duty Cycle	Duty Cycle Factor (dB)
2.4 GHz Band 802.11b	1	12.400	13.060	0.94946401	0.225
	2	6.211	6.528	0.95143995	0.216
	5.5	2.320	2.441	0.95043015	0.221
	11	1.209	1.266	0.95497630	0.200
2.4 GHz Band 802.11g and 5.8 GHz Band 802.11a	6	2.060	2.170	0.94930876	0.226
	9	1.360	1.450	0.93793103	0.278
	12	1.025	1.095	0.93607306	0.287
	18	0.680	0.730	0.93150685	0.308
	24	0.524	0.558	0.93906810	0.273
	36	0.354	0.386	0.91709845	0.376
	48	0.272	0.302	0.90066225	0.454
	54	0.238	0.270	0.88148148	0.548

Service Port

▣ Duty Cycle Factor

Mode	Data Rate	T _{on} (ms)	T _{total} (ms)	Duty Cycle	Duty Cycle Factor (dB)
2.4 GHz Band 802.11b	1	12.400	13.060	0.94946401	0.225
	2	6.211	6.528	0.95143995	0.216
	5.5	2.320	2.441	0.95043015	0.221
	11	1.209	1.266	0.95497630	0.200
2.4 GHz Band 802.11g and 5.8 GHz Band 802.11a	6	2.060	2.170	0.94930876	0.226
	9	1.360	1.450	0.93793103	0.278
	12	1.025	1.095	0.93607306	0.287
	18	0.680	0.730	0.93150685	0.308
	24	0.524	0.558	0.93906810	0.273
	36	0.354	0.386	0.91709845	0.376
	48	0.272	0.302	0.90066225	0.454
	54	0.238	0.270	0.88148148	0.548
2.4 GHz Band 802.11n_20 MHz BW and 5.8 GHz Band 802.11n_20 MHz BW	6.5	1.920	2.015	0.95285360	0.210
	13	0.981	1.026	0.95614035	0.195
	19.5	0.664	0.698	0.95155511	0.216
	26	0.508	0.532	0.95488722	0.200
	39	0.352	0.376	0.93613624	0.287
	52	0.272	0.296	0.92047377	0.360
	58.5	0.248	0.272	0.91381215	0.391
	65	0.228	0.252	0.90461049	0.435
5.8 GHz Band 802.11n_40 MHz BW	13.5	0.944	1.042	0.90595010	0.429
	27	0.492	0.540	0.91111111	0.404
	40.5	0.339	0.373	0.90987124	0.410
	54	0.264	0.288	0.91826087	0.370
	81	0.188	0.212	0.88747045	0.518
	108	0.152	0.175	0.86643836	0.623
	121.5	0.140	0.163	0.85661765	0.672
	135	0.128	0.152	0.84356436	0.739
5.8 GHz Band 802.11ac_20 MHz BW	6.5	1.920	2.015	0.95285360	0.210
	13	0.981	1.026	0.95614035	0.195
	19.5	0.664	0.698	0.95155511	0.216
	26	0.508	0.532	0.95488722	0.200
	39	0.352	0.376	0.93613624	0.287
	52	0.272	0.296	0.92047377	0.360
	58.5	0.248	0.272	0.91381215	0.391
	65	0.228	0.252	0.90461049	0.435
	78	0.1998	0.2284	0.87478109	0.581

Mode	Data Rate	T _{on} (ms)	T _{total} (ms)	Duty Cycle	Duty Cycle Factor (dB)
5.8 GHz Band 802.11ac_40 MHz BW	13.5	0.944	1.042	0.90595010	0.429
	27	0.492	0.540	0.91111111	0.404
	40.5	0.339	0.373	0.90987124	0.410
	54	0.264	0.288	0.91826087	0.370
	81	0.188	0.212	0.88747045	0.518
	108	0.152	0.175	0.86643836	0.623
	121.5	0.140	0.163	0.85661765	0.672
	135	0.128	0.152	0.84356436	0.739
	162	0.116	0.144	0.80416667	0.947
	180	0.112	0.140	0.79928571	0.973
5.8 GHz Band 802.11ac_80 MHz BW	29.3	0.459	0.488	0.94057377	0.266
	58.5	0.251	0.280	0.89767442	0.469
	87.8	0.180	0.209	0.86330935	0.638
	117	0.148	0.176	0.83863636	0.764
	175.5	0.112	0.140	0.79871060	0.976
	234	0.096	0.124	0.76975060	1.136
	263.3	0.088	0.116	0.75537403	1.218
	292.5	0.084	0.113	0.74742451	1.264
	351	0.076	0.104	0.72974013	1.368
	390	0.072	0.100	0.71740000	1.442

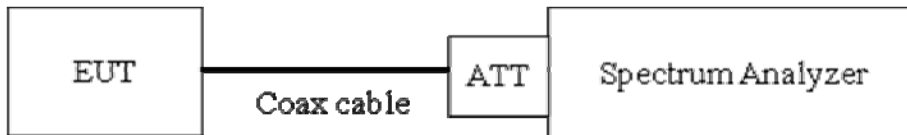
8.2 6dB BANDWIDTH (802.11a/b/g/n/ac)

Test Requirements and limit, §15.247(a)(2)

The bandwidth at 6dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the receive antenna while the EUT is operating in transmission mode at the appropriate frequencies.

The minimum permissible 6dB bandwidth is 500 kHz.

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

The transmitter output is connected to the Spectrum Analyzer.

The Spectrum Analyzer is set to (Page 5 in KDB 558074, issued 04/09/2013)

RBW = 100 kHz

VBW $\geq 3 \times$ RBW

Detector = Peak

Trace mode = max hold

Sweep = auto couple

Allow the trace to stabilize

Note : We tested 6 dB bandwidth using the automatic bandwidth measurement capability of a spectrum analyzer. X dB is set 6 dB.

Monitoring Port Ant.0

■ TEST RESULTS

2.4 GHz Band

Conducted 6dB Bandwidth Measurements for 802.11b

802.11b Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
2412	1	8.591	0.500	Pass
2437	6	9.109	0.500	Pass
2462	11	9.058	0.500	Pass

Conducted 6dB Bandwidth Measurements for 802.11g

802.11g Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
2412	1	16.39	0.500	Pass
2437	6	16.09	0.500	Pass
2462	11	16.08	0.500	Pass

5.8 GHz Band

Conducted 6 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Frequency [MHz]			
5745	149	16.39	0.500	Pass
5785	157	16.43	0.500	Pass
5825	165	16.37	0.500	Pass

Monitoring Port Ant.1

TEST RESULTS

2.4 GHz Band

Conducted 6dB Bandwidth Measurements for 802.11g

802.11g Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
2412	1	16.00	0.500	Pass
2437	6	16.43	0.500	Pass
2462	11	15.76	0.500	Pass

5.8 GHz Band

Conducted 6 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Frequency [MHz]			
5745	149	16.41	0.500	Pass
5785	157	16.37	0.500	Pass
5825	165	16.39	0.500	Pass

Monitoring Port Ant.2

TEST RESULTS

2.4 GHz Band

Conducted 6dB Bandwidth Measurements for 802.11g

802.11g Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
2412	1	16.36	0.500	Pass
2437	6	16.39	0.500	Pass
2462	11	15.52	0.500	Pass

5.8 GHz Band

Conducted 6 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Frequency [MHz]			
5745	149	16.35	0.500	Pass
5785	157	16.42	0.500	Pass
5825	165	16.42	0.500	Pass

Service Port Ant.0

▣ TEST RESULTS

2.4 GHz Band

Conducted 6dB Bandwidth Measurements for 802.11b

802.11b Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
2412	1	8.587	0.500	Pass
2437	6	8.633	0.500	Pass
2462	11	9.048	0.500	Pass

Conducted 6dB Bandwidth Measurements for 802.11g

802.11g Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
2412	1	16.37	0.500	Pass
2437	6	16.40	0.500	Pass
2462	11	15.81	0.500	Pass

Conducted 6dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
2412	1	17.61	0.500	Pass
2437	6	17.38	0.500	Pass
2462	11	16.30	0.500	Pass

5.8 GHz Band

Conducted 6 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Frequency [MHz]			
5745	149	16.41	0.500	Pass
5785	157	16.38	0.500	Pass
5825	165	16.46	0.500	Pass

Conducted 6 dB Bandwidth Measurements for 802.11n_20 MHz BW

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5745	149	17.56	0.500	Pass
5785	157	17.64	0.500	Pass
5825	165	17.60	0.500	Pass

Conducted 6 dB Bandwidth Measurements for 802.11n_40 MHz BW

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5755	151	36.38	0.500	Pass
5795	159	36.35	0.500	Pass

Conducted 6 dB Bandwidth Measurements for 802.11ac_20 MHz BW

802.11ac Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5745	149	17.64	0.500	Pass
5785	157	17.58	0.500	Pass
5825	165	17.62	0.500	Pass

Conducted 6 dB Bandwidth Measurements for 802.11ac_40 MHz BW

802.11ac Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5755	151	36.36	0.500	Pass
5795	159	36.35	0.500	Pass

Conducted 6 dB Bandwidth Measurements for 802.11ac_80 MHz BW

802.11ac Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5775	155	75.49	0.500	Pass

Service Port Ant.1

▣ TEST RESULTS

2.4 GHz Band

Conducted 6dB Bandwidth Measurements for 802.11g

802.11g Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
2412	1	16.13	0.500	Pass
2437	6	16.39	0.500	Pass
2462	11	15.75	0.500	Pass

Conducted 6dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
2412	1	16.71	0.500	Pass
2437	6	17.63	0.500	Pass
2462	11	16.37	0.500	Pass

5.8 GHz Band

Conducted 6 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Frequency [MHz]			
5745	149	16.35	0.500	Pass
5785	157	16.42	0.500	Pass
5825	165	16.40	0.500	Pass

Conducted 6 dB Bandwidth Measurements for 802.11n_20 MHz BW

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5745	149	17.65	0.500	Pass
5785	157	17.65	0.500	Pass
5825	165	17.68	0.500	Pass

Conducted 6 dB Bandwidth Measurements for 802.11n_40 MHz BW

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5755	151	36.36	0.500	Pass
5795	159	36.38	0.500	Pass

Conducted 6 dB Bandwidth Measurements for 802.11ac_20 MHz BW

802.11ac Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5745	149	17.60	0.500	Pass
5785	157	17.57	0.500	Pass
5825	165	17.62	0.500	Pass

Conducted 6 dB Bandwidth Measurements for 802.11ac_40 MHz BW

802.11ac Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5755	151	36.36	0.500	Pass
5795	159	36.33	0.500	Pass

Conducted 6 dB Bandwidth Measurements for 802.11ac_80 MHz BW

802.11ac Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5775	155	75.35	0.500	Pass

Service Port Ant.2

▣ TEST RESULTS

2.4 GHz Band

Conducted 6dB Bandwidth Measurements for 802.11g

802.11g Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
2412	1	16.36	0.500	Pass
2437	6	16.38	0.500	Pass
2462	11	16.03	0.500	Pass

Conducted 6dB Bandwidth Measurements for 802.11n_20 MHz BW

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
2412	1	17.36	0.500	Pass
2437	6	17.64	0.500	Pass
2462	11	17.32	0.500	Pass

5.8 GHz Band

Conducted 6 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Frequency [MHz]			
5745	149	16.45	0.500	Pass
5785	157	16.42	0.500	Pass
5825	165	16.41	0.500	Pass

Conducted 6 dB Bandwidth Measurements for 802.11n_20 MHz BW

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5745	149	17.62	0.500	Pass
5785	157	17.62	0.500	Pass
5825	165	17.60	0.500	Pass

Conducted 6 dB Bandwidth Measurements for 802.11n_40 MHz BW

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5755	151	36.46	0.500	Pass
5795	159	36.35	0.500	Pass

Conducted 6 dB Bandwidth Measurements for 802.11ac_20 MHz BW

802.11ac Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5745	149	17.55	0.500	Pass
5785	157	17.63	0.500	Pass
5825	165	17.63	0.500	Pass

Conducted 6 dB Bandwidth Measurements for 802.11ac_40 MHz BW

802.11ac Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5755	151	36.37	0.500	Pass
5795	159	36.36	0.500	Pass

Conducted 6 dB Bandwidth Measurements for 802.11ac_80 MHz BW

802.11ac Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5775	155	75.33	0.500	Pass

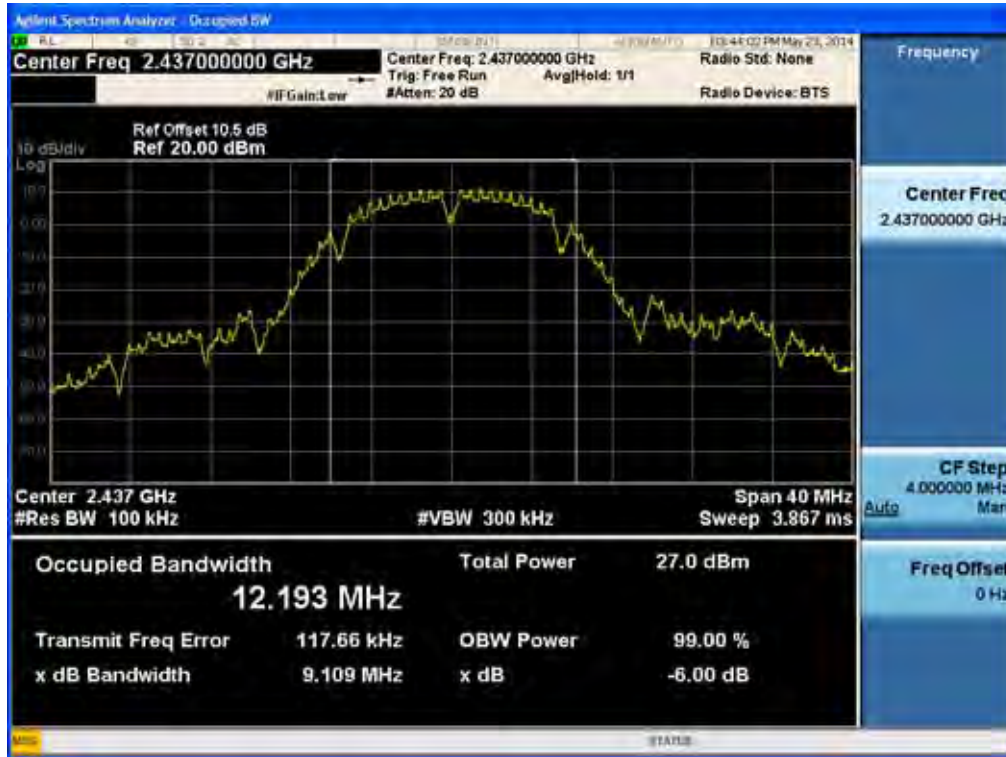
Note : In order to simplify the report, attached plots were only the most wide 6 dB BW channel.

Monitoring Port Ant.0

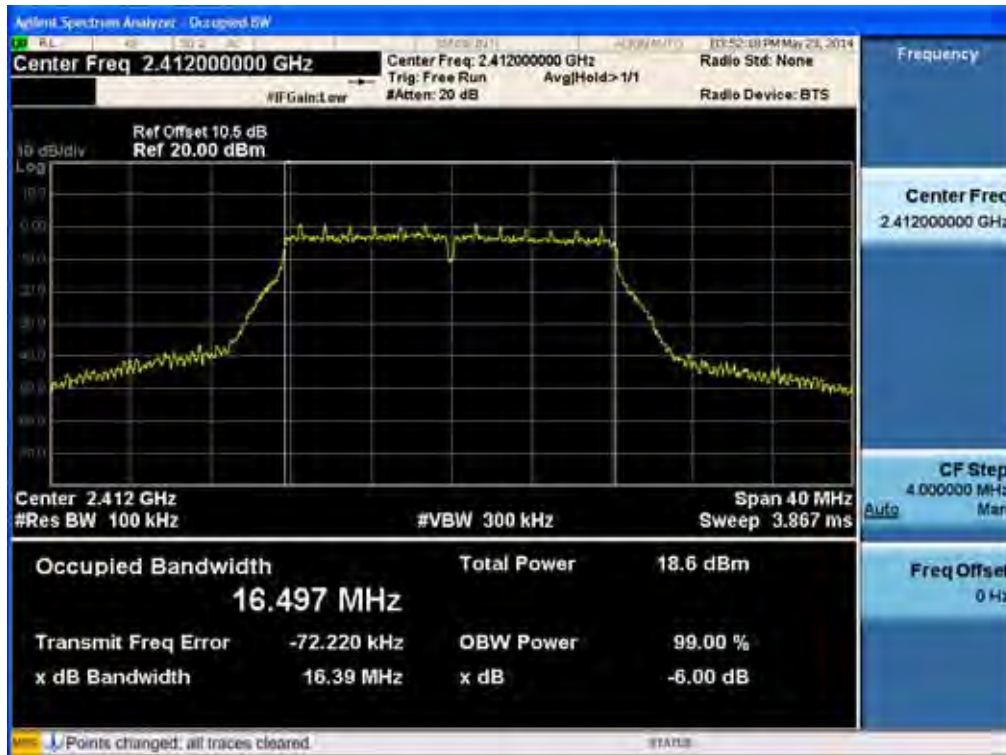
RESULT PLOTS

2.4 GHz Band

6dB Bandwidth plot (802.11b-CH 6)

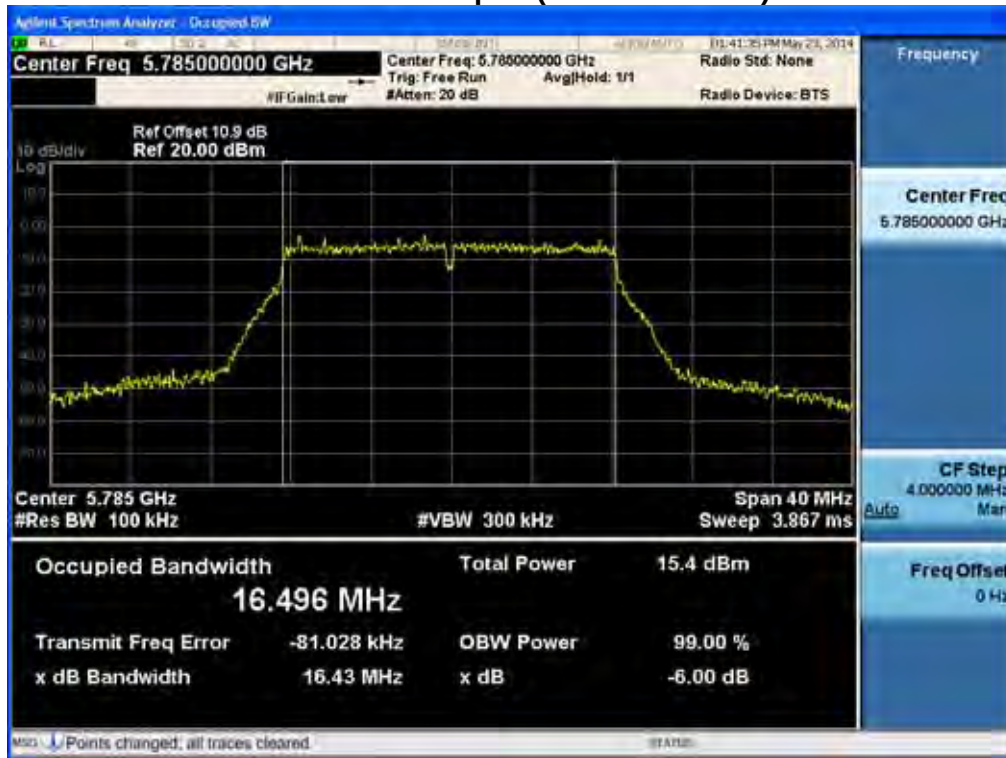


6dB Bandwidth plot (802.11g-CH 1)



5.8 GHz Band

6dB Bandwidth plot (802.11a-CH 157)



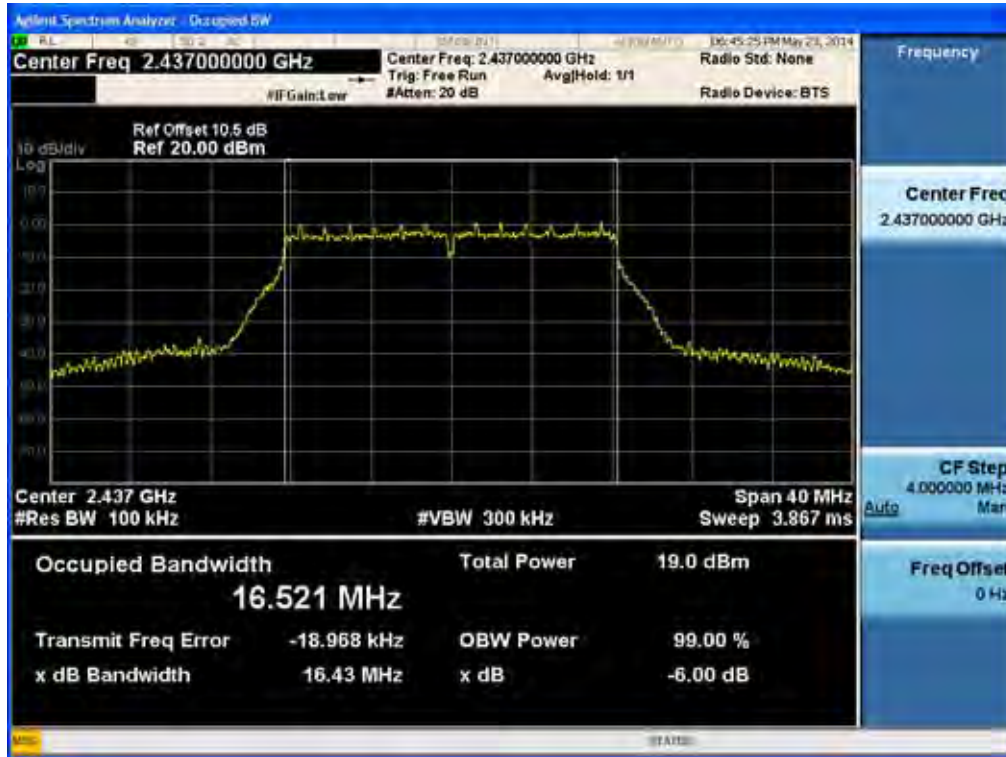
FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Monitoring Port Ant.1

RESULT PLOTS

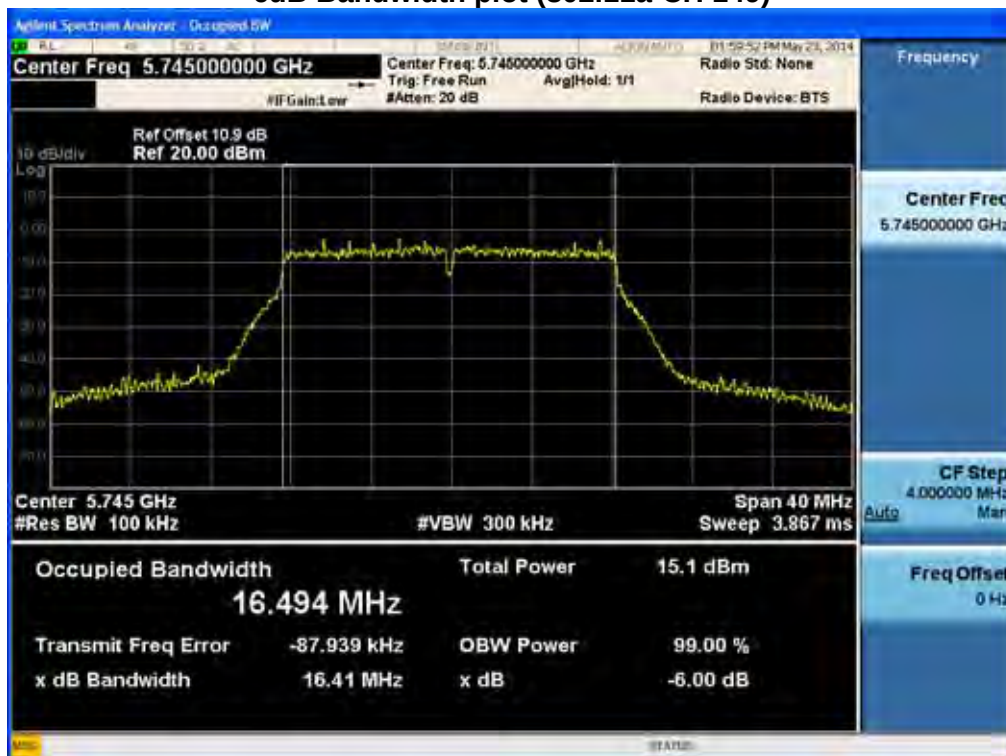
2.4 GHz Band

6dB Bandwidth plot (802.11g-CH 6)



5.8 GHz Band

6dB Bandwidth plot (802.11a-CH 149)

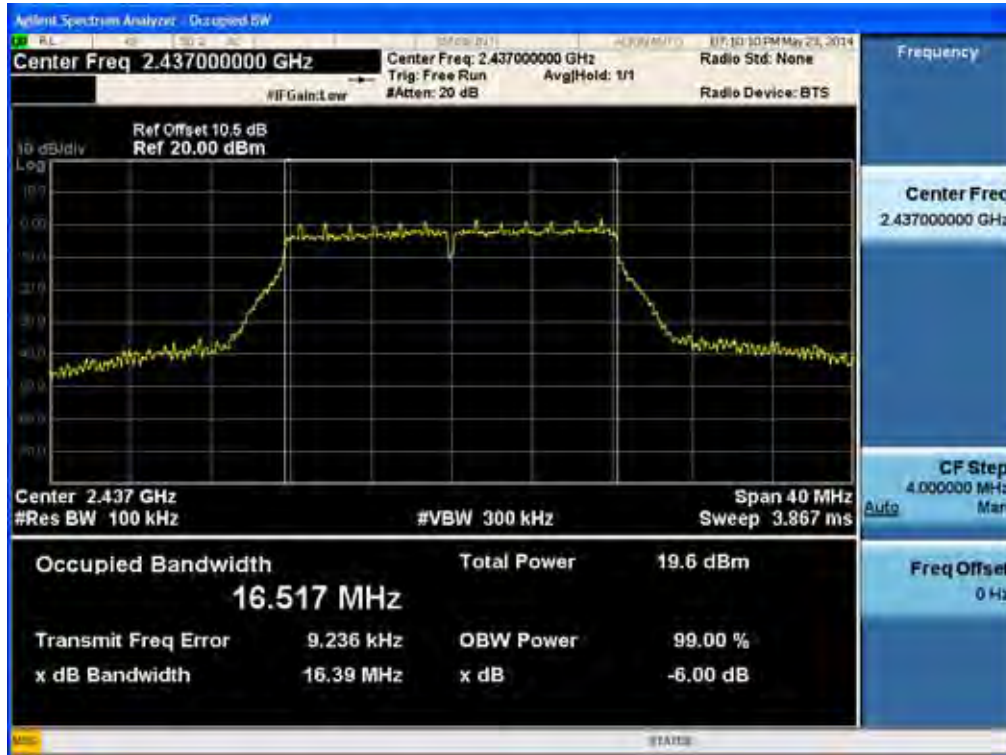


Monitoring Port Ant.2

RESULT PLOTS

2.4 GHz Band

6dB Bandwidth plot (802.11g-CH 6)



5.8 GHz Band

6dB Bandwidth plot (802.11a-CH 157)



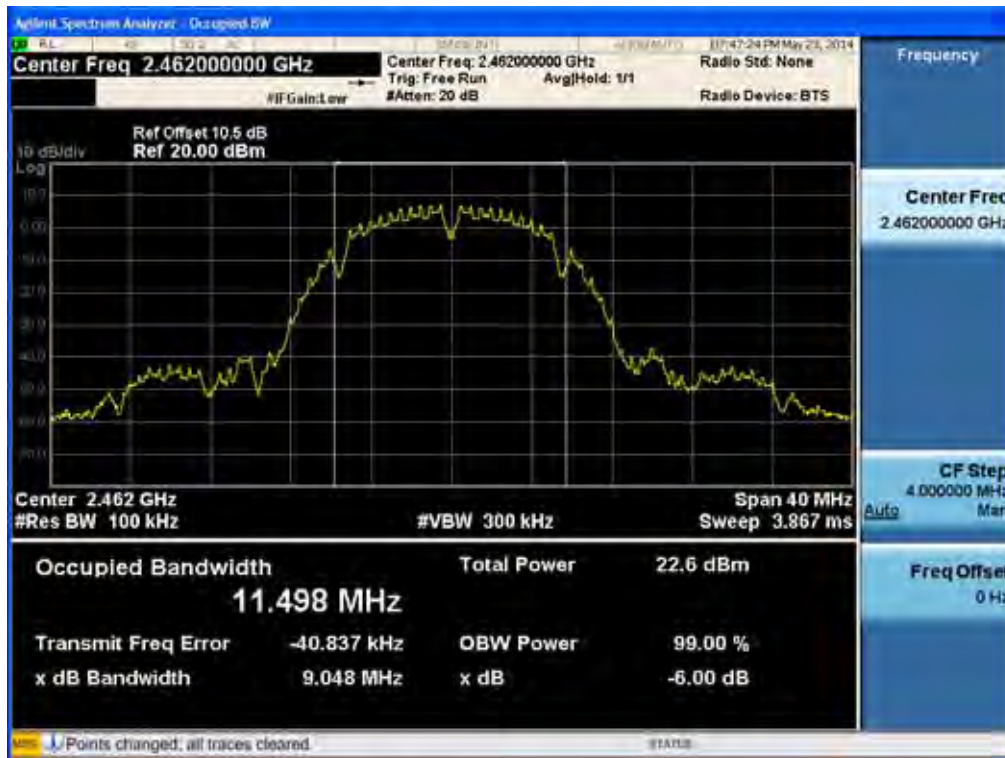
FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Service Port Ant.0

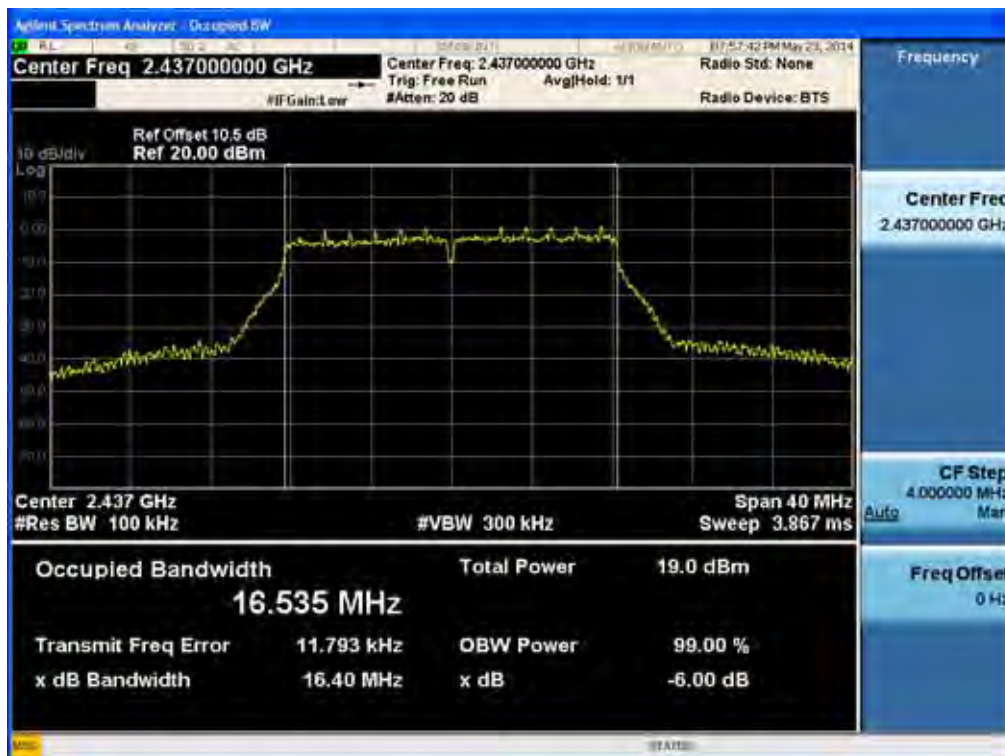
▣ RESULT PLOTS

2.4 GHz Band

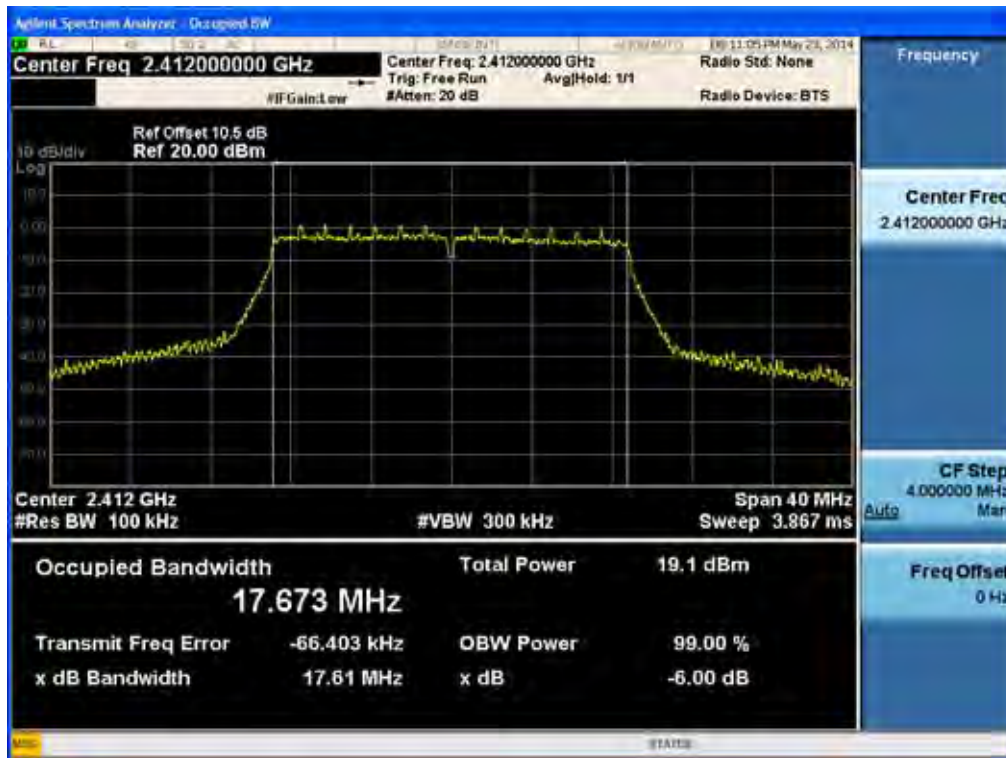
6dB Bandwidth plot (802.11b-CH 11)



6dB Bandwidth plot (802.11g-CH 6)



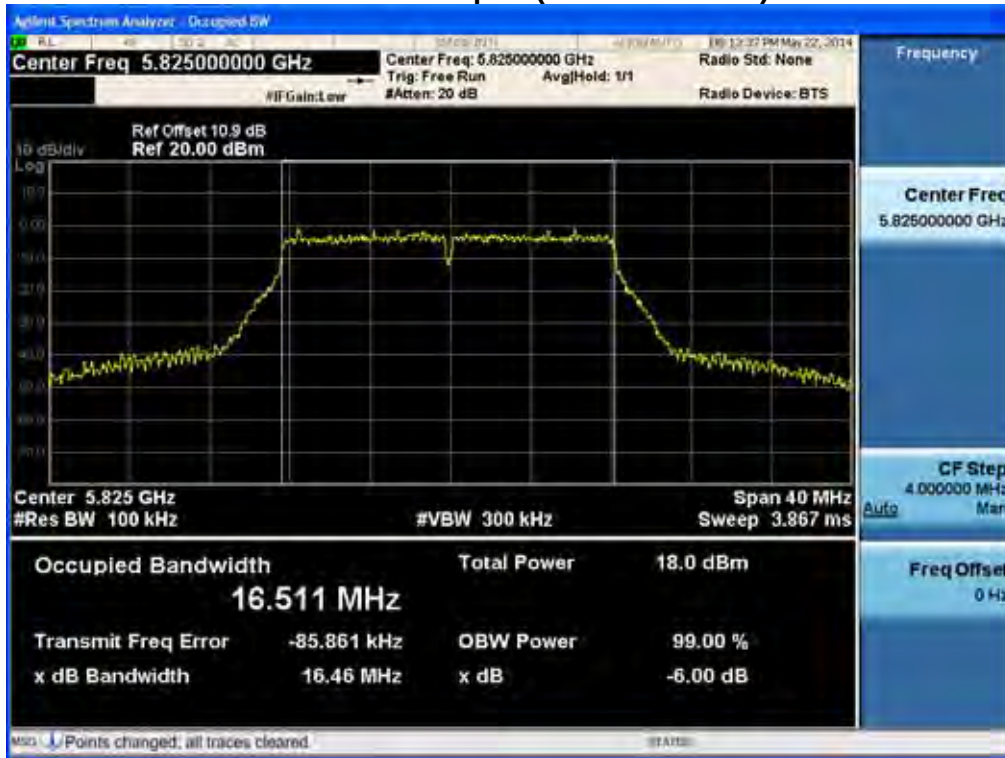
6dB Bandwidth plot (802.11n-CH 1)



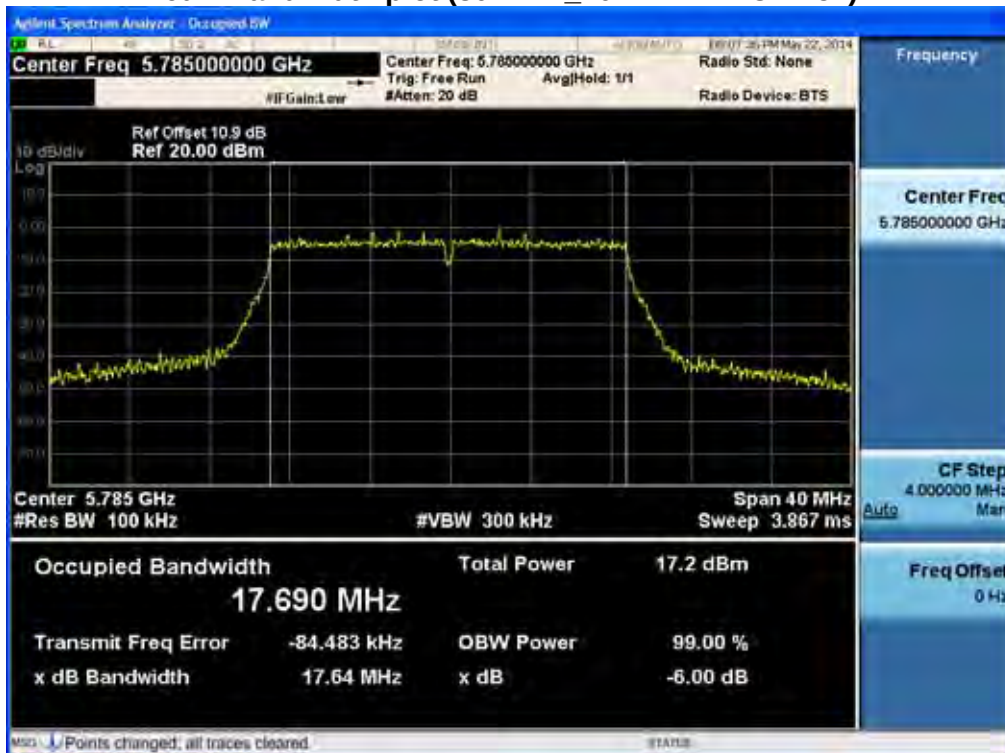
FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

5.8 GHz Band

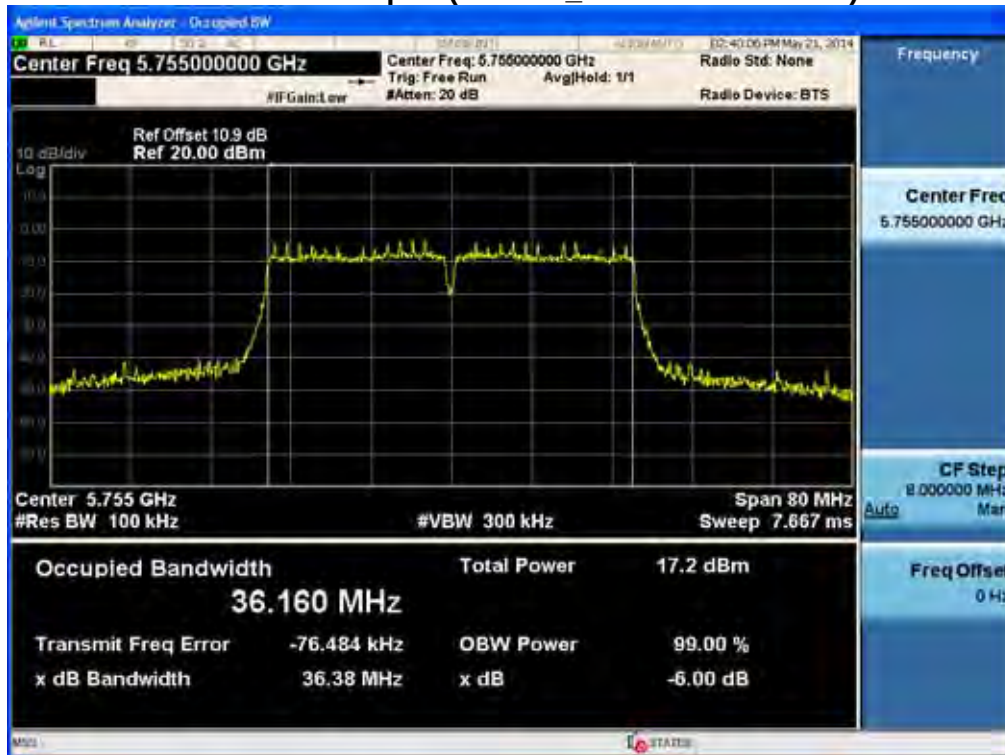
6dB Bandwidth plot (802.11a-CH 165)



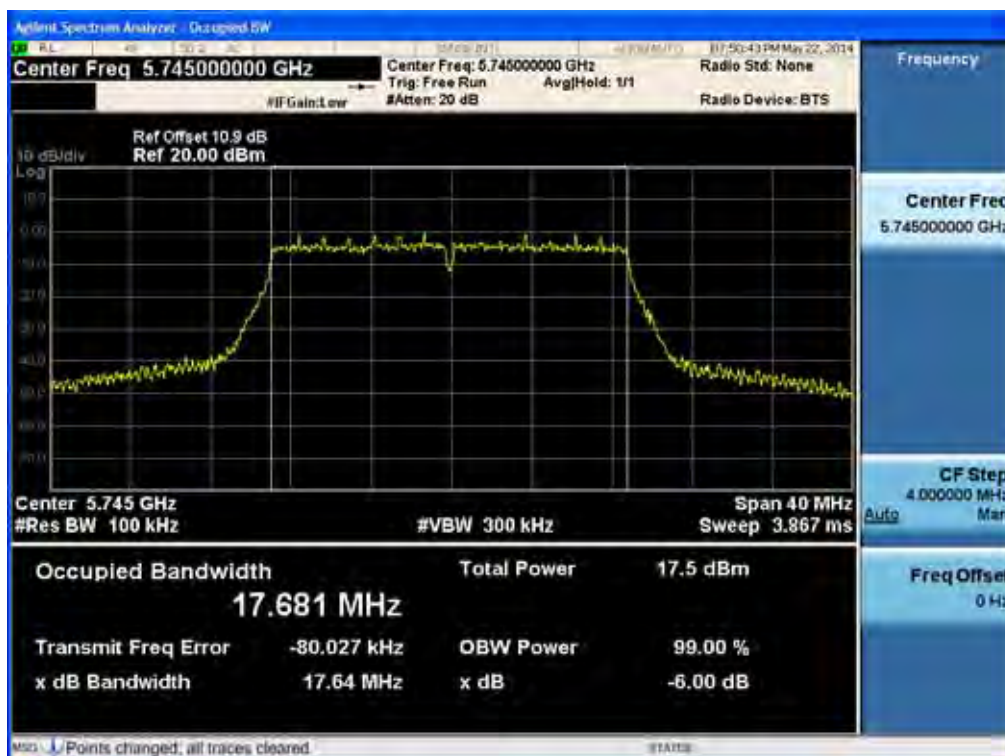
6dB Bandwidth plot (802.11n_20 MHz BW-CH 157)



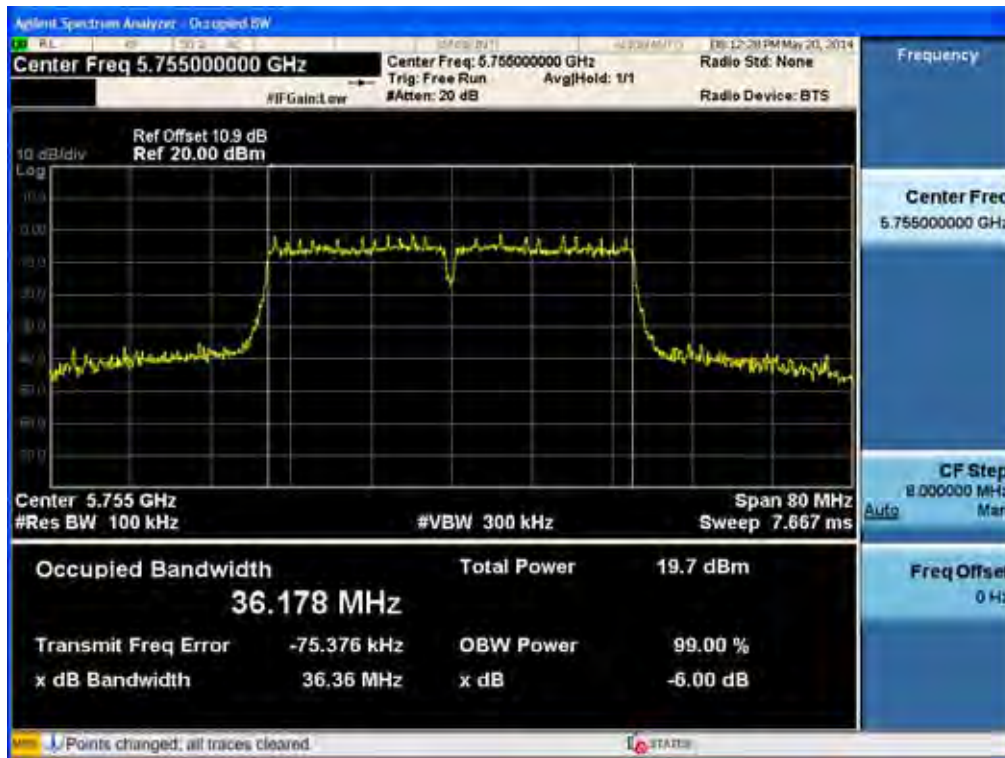
6dB Bandwidth plot (802.11n_40 MHz BW-CH 151)



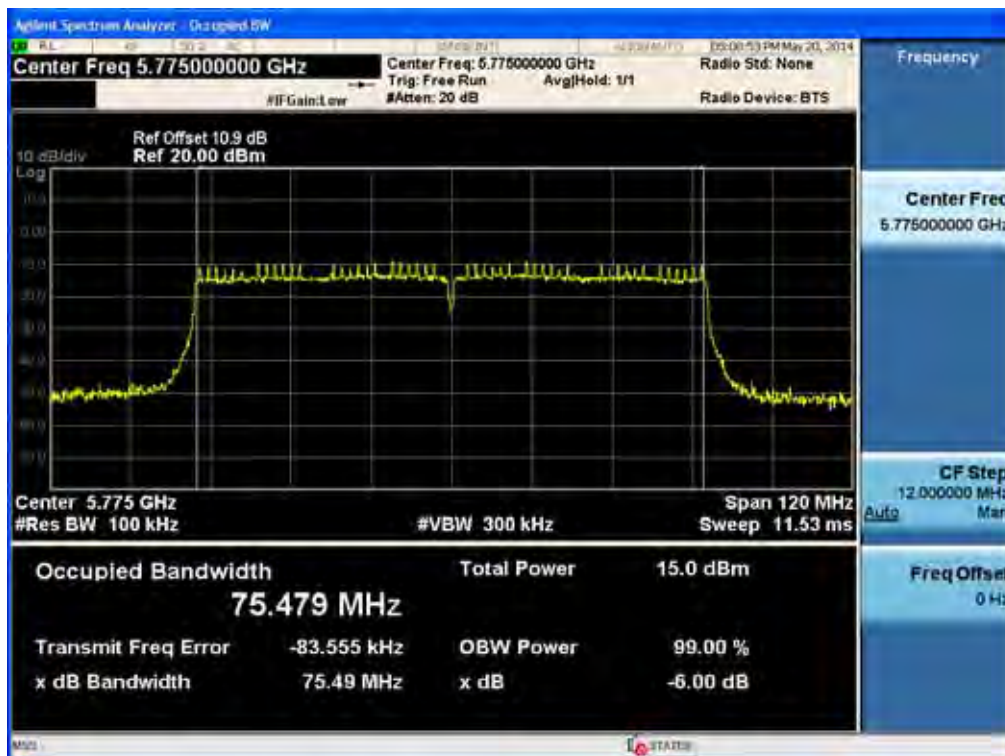
6dB Bandwidth plot (802.11ac_20 MHz BW-CH 149)



6dB Bandwidth plot (802.11ac_40 MHz BW-CH 151)



6dB Bandwidth plot (802.11ac_80 MHz BW-CH 155)

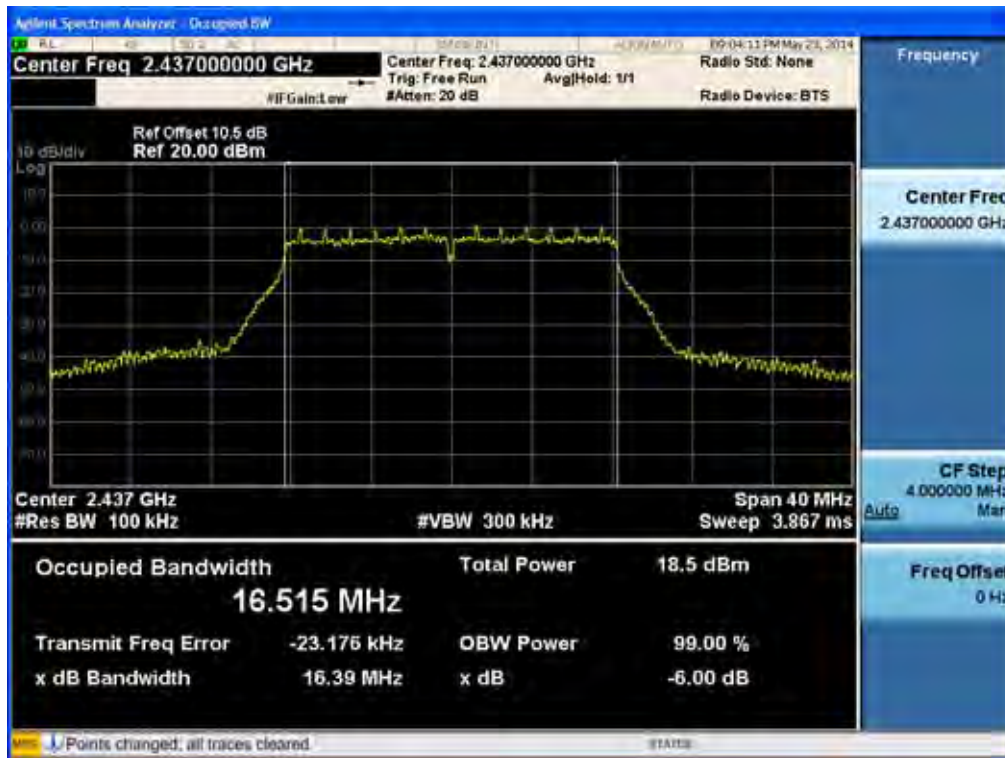


Service Port Ant.1

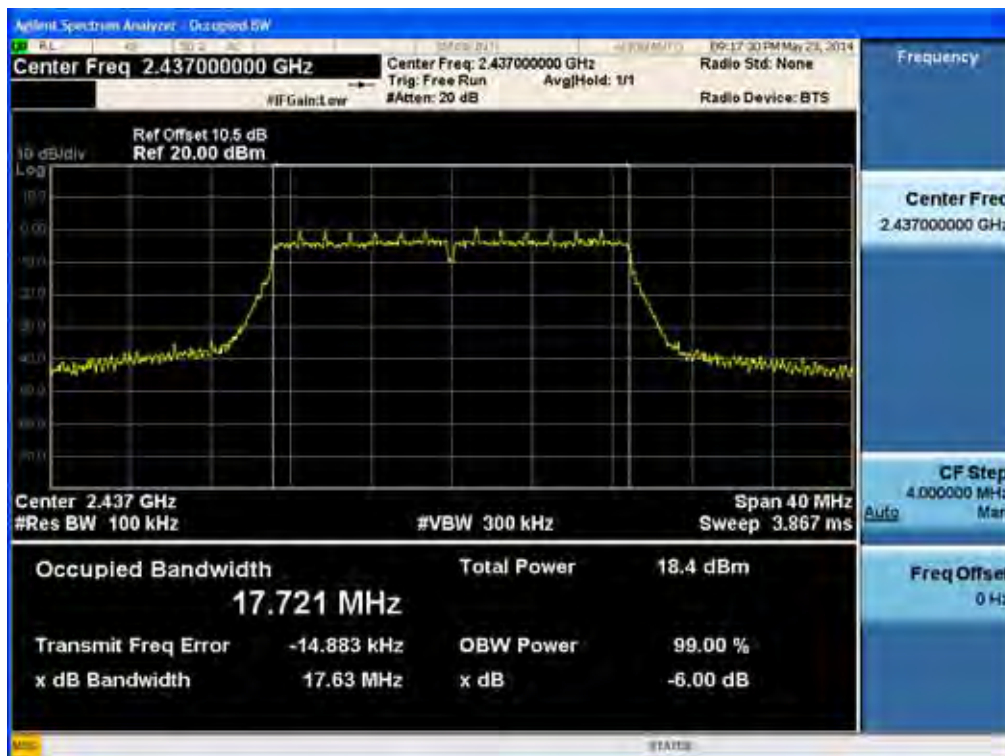
RESULT PLOTS

2.4 GHz Band

6dB Bandwidth plot (802.11g-CH 6)

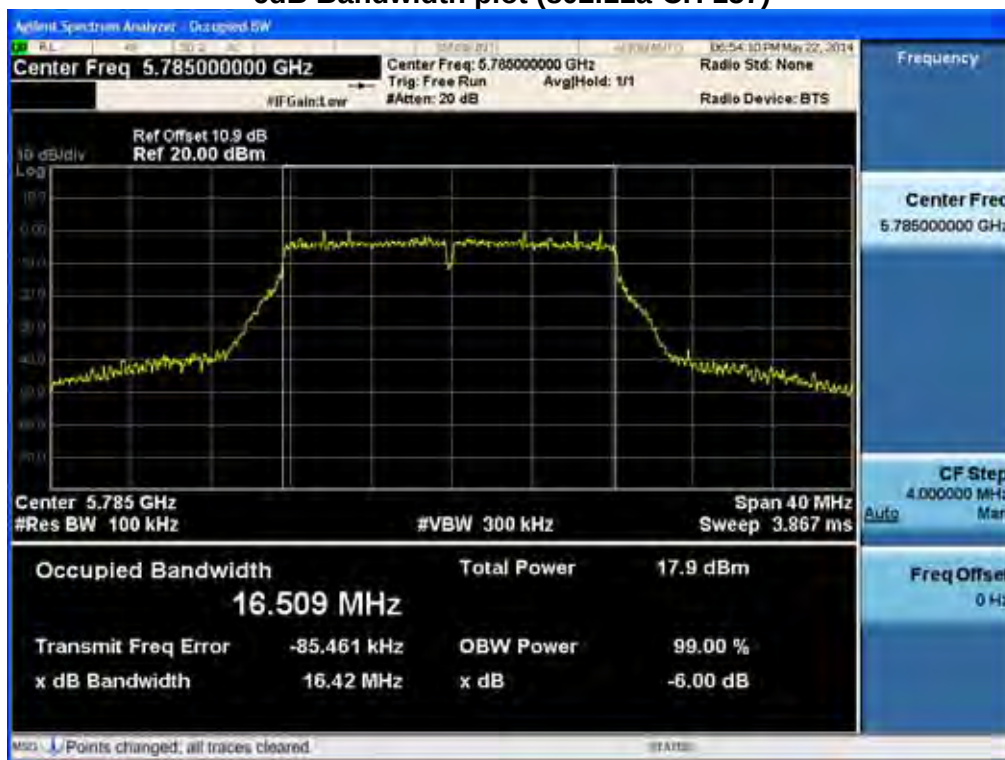


6dB Bandwidth plot (802.11n-CH 6)

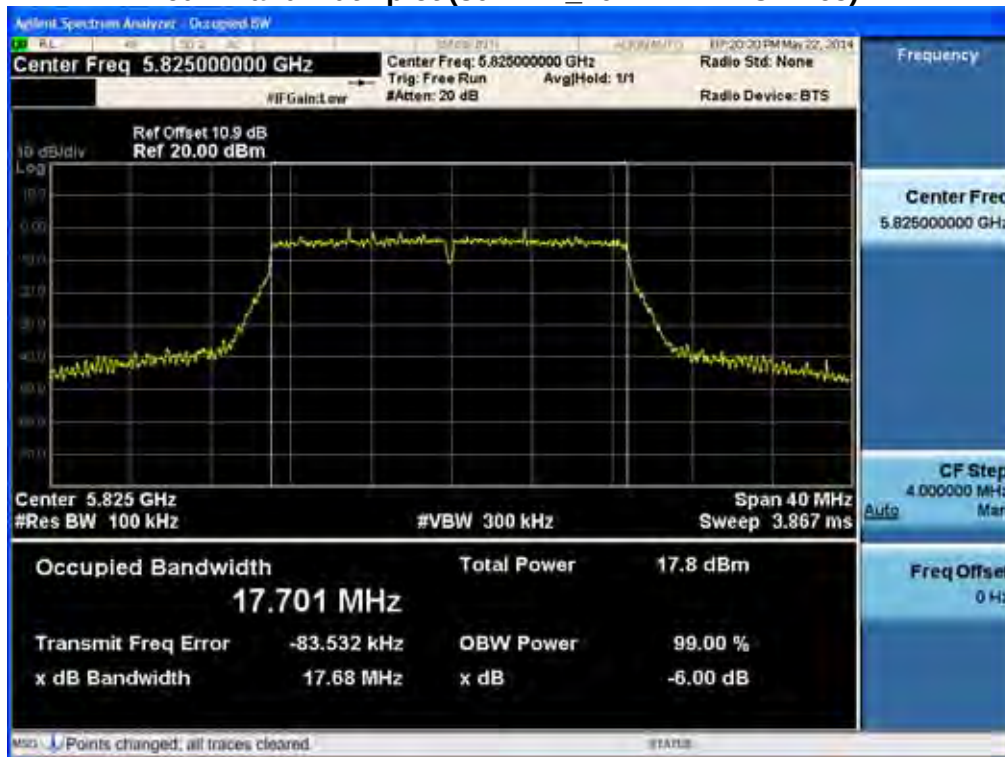


5.8 GHz Band

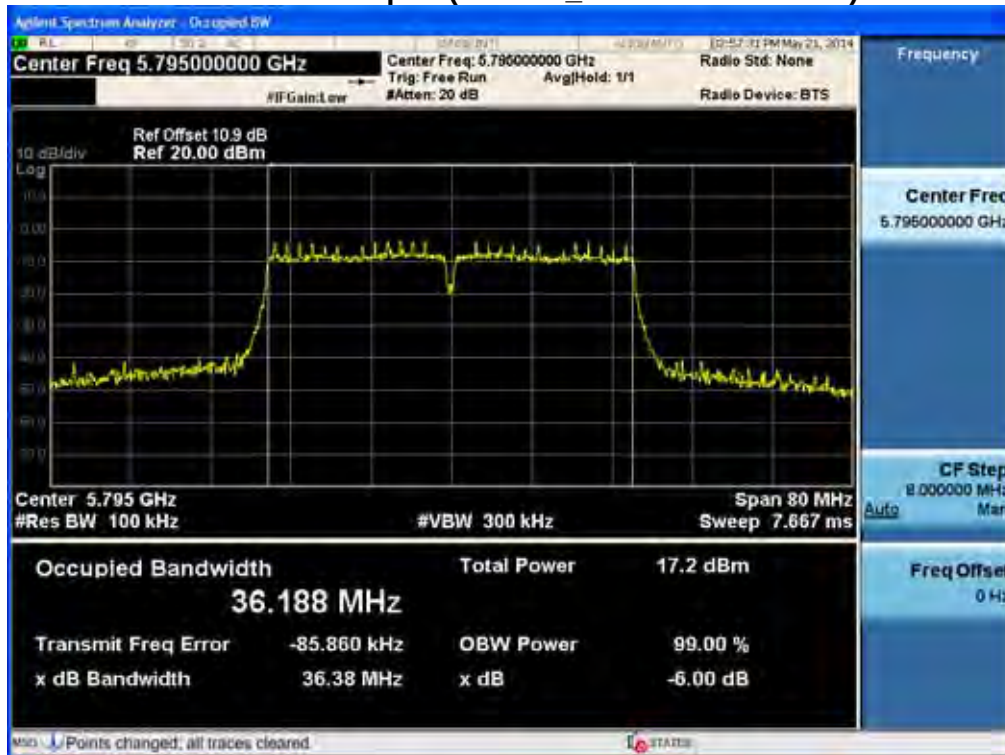
6dB Bandwidth plot (802.11a-CH 157)



6dB Bandwidth plot (802.11n_20 MHz BW-CH 165)



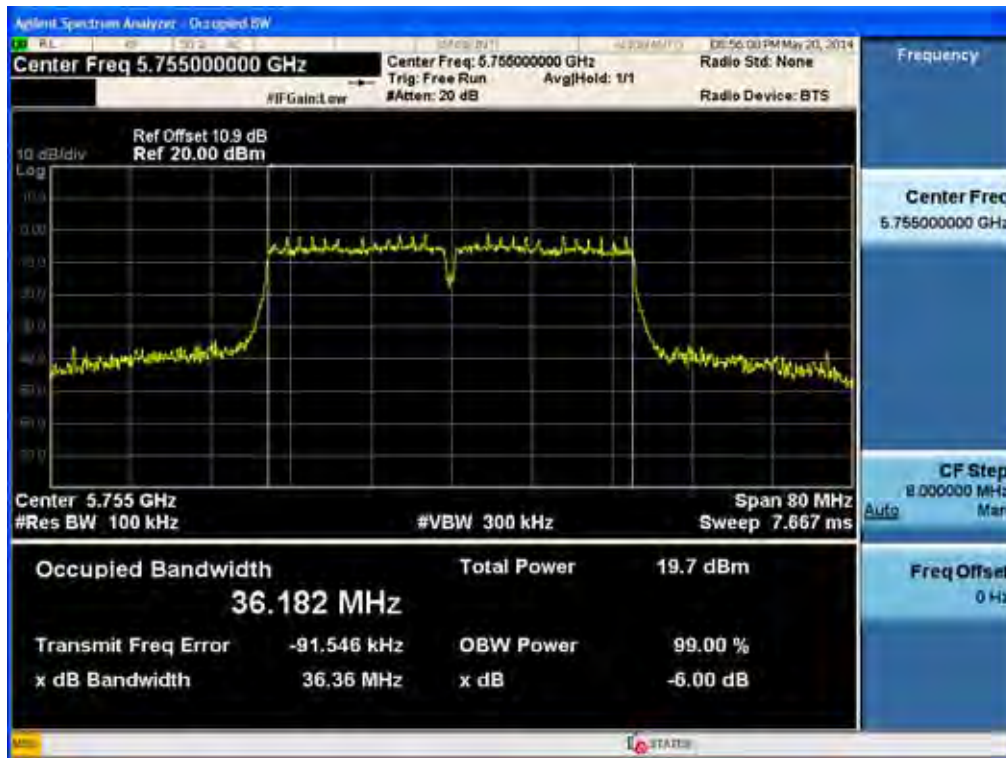
6dB Bandwidth plot (802.11n_40 MHz BW-CH 159)



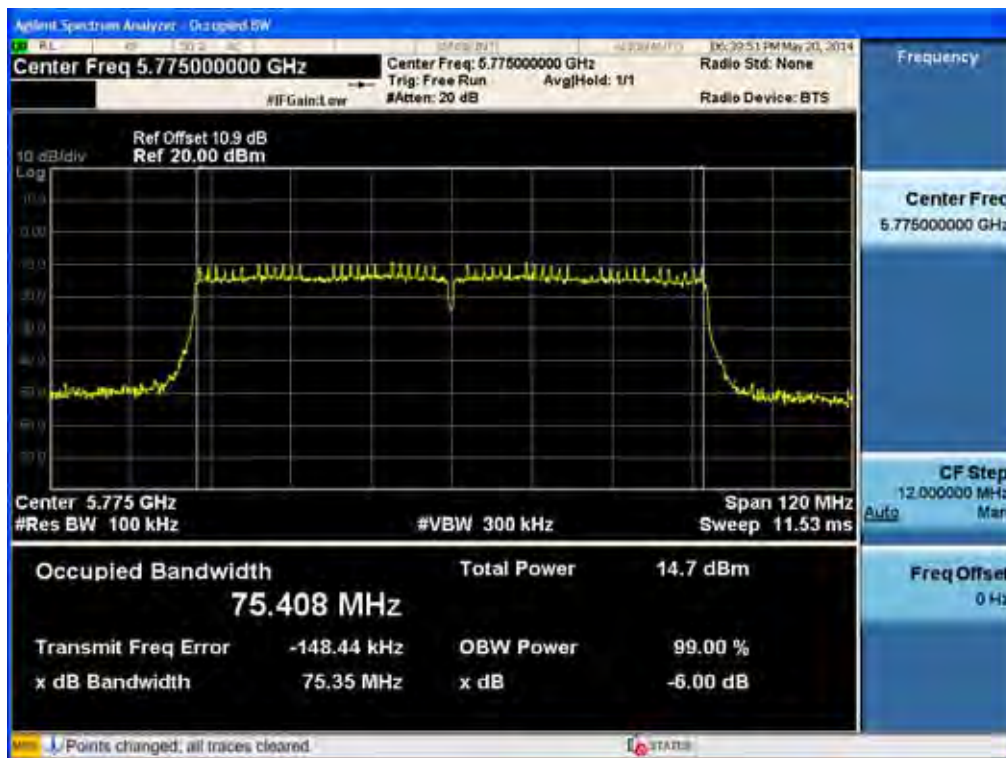
6dB Bandwidth plot (802.11ac_20 MHz BW-CH 165)



6dB Bandwidth plot (802.11ac_40 MHz BW-CH 151)



6dB Bandwidth plot (802.11ac_80 MHz BW-CH 155)

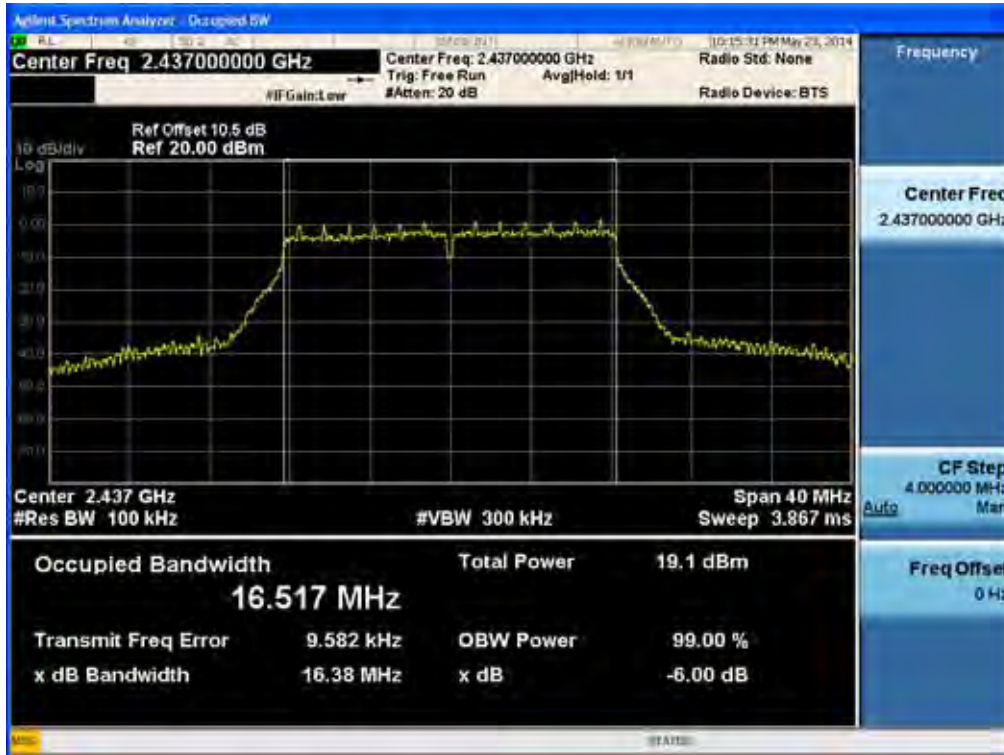


Service Port Ant.2

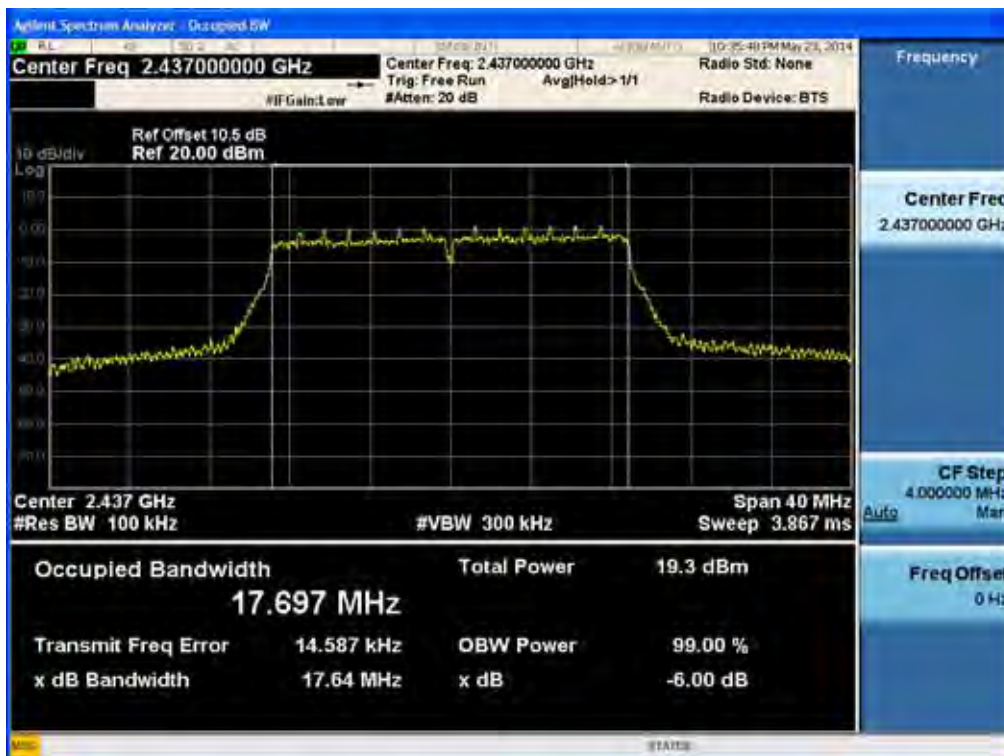
RESULT PLOTS

2.4 GHz Band

6dB Bandwidth plot (802.11g-CH 6)

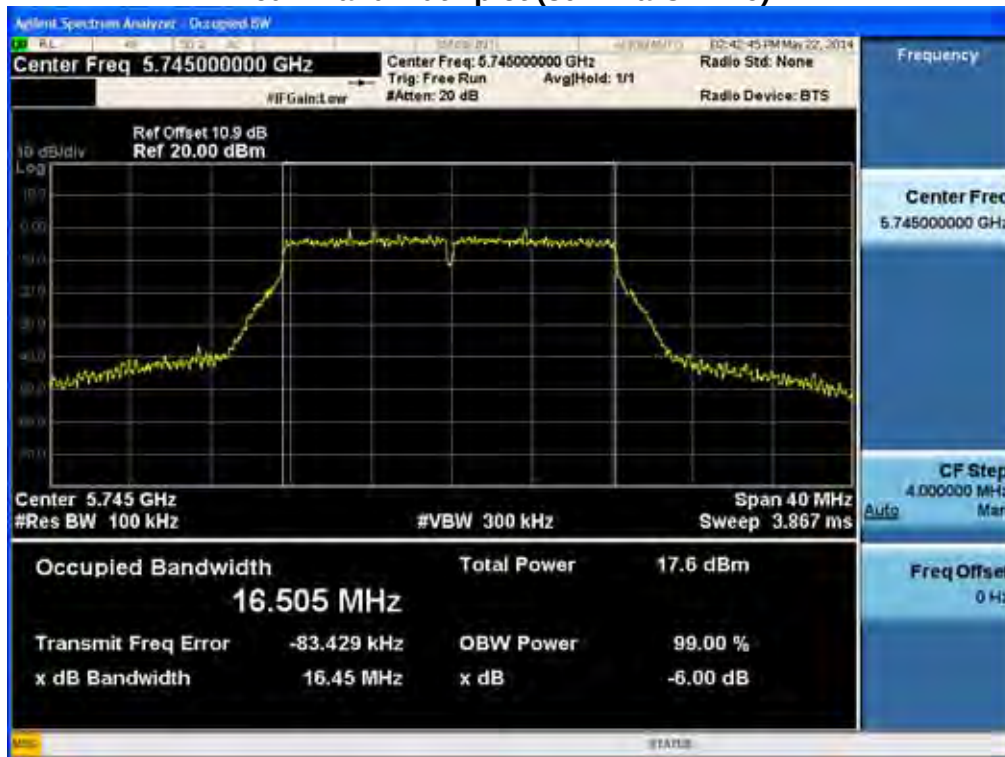


6dB Bandwidth plot (802.11n-CH 6)

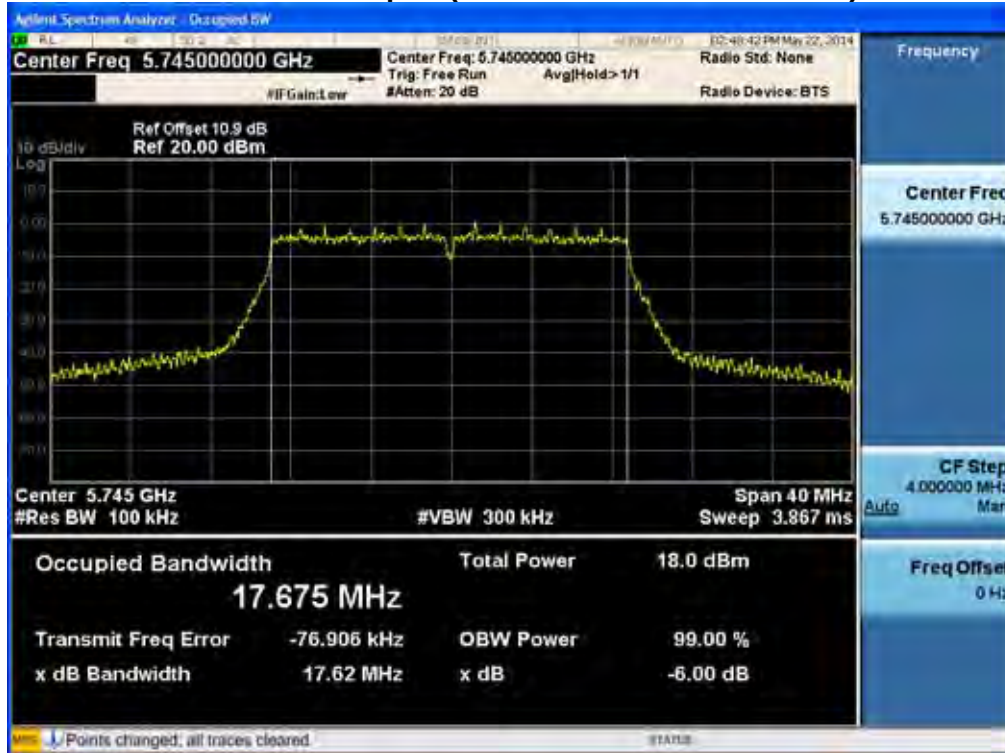


5.8 GHz Band

6dB Bandwidth plot (802.11a-CH 149)

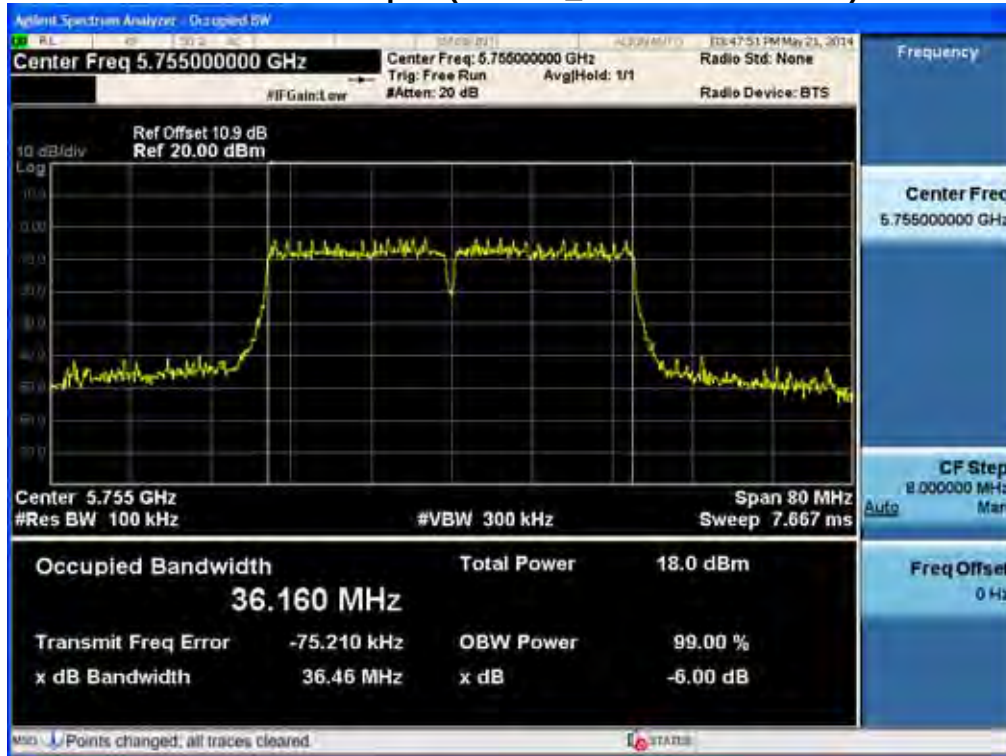


6dB Bandwidth plot (802.11n_20 MHz BW-CH 149)

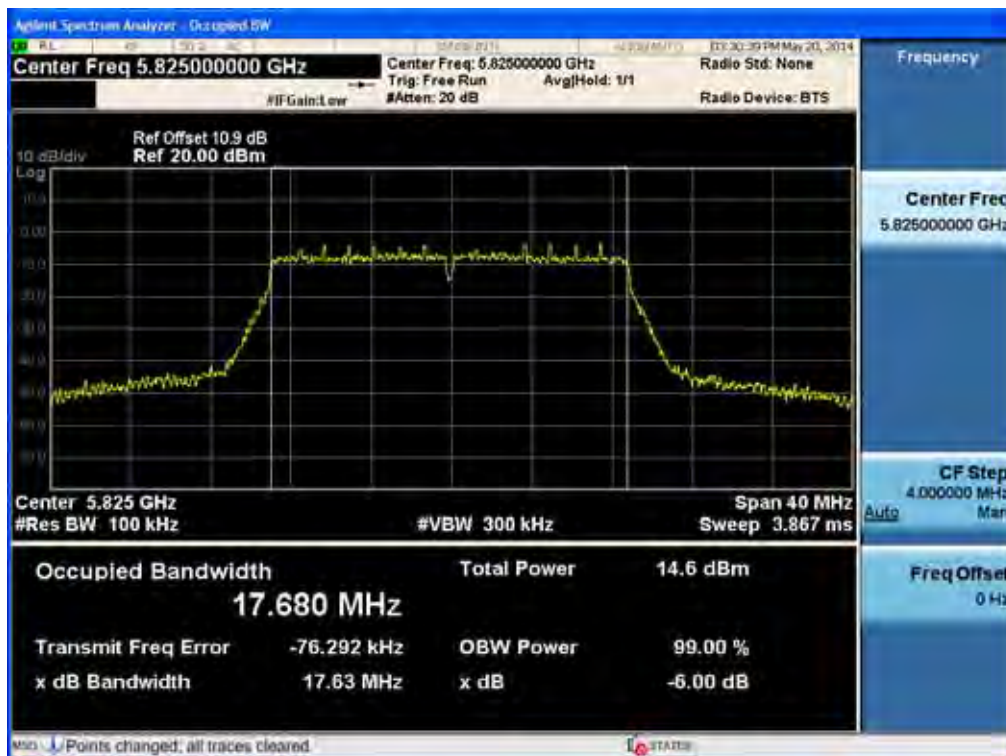


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

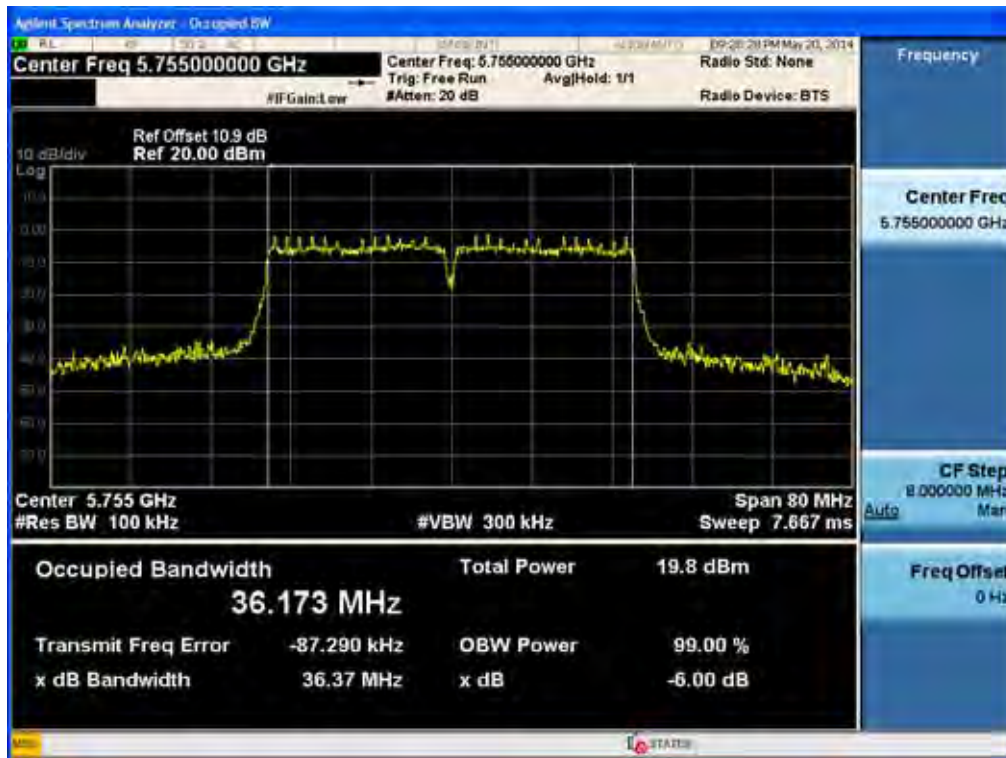
6dB Bandwidth plot (802.11n_40 MHz BW-CH 151)



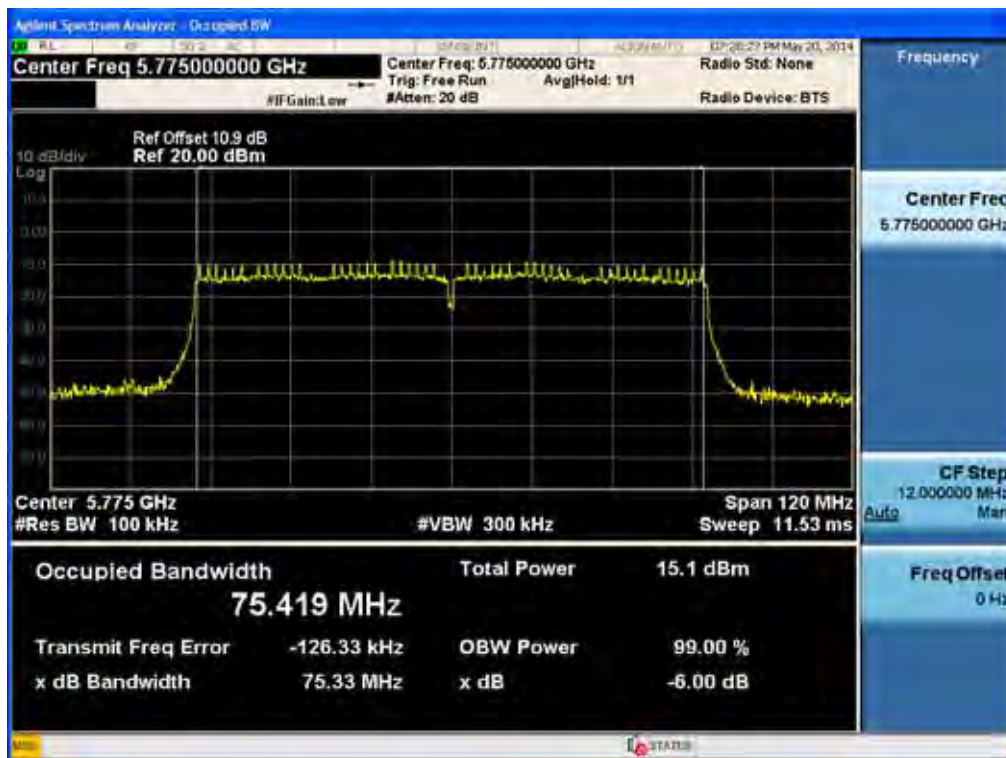
6dB Bandwidth plot (802.11ac_20 MHz BW-CH 165)



6dB Bandwidth plot (802.11ac_40 MHz BW-CH 151)



6dB Bandwidth plot (802.11ac_80 MHz BW-CH 155)

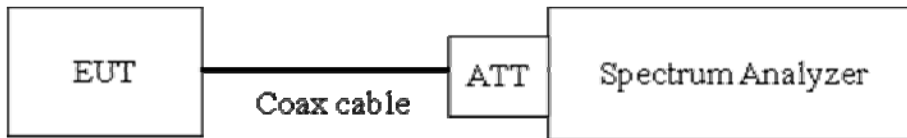


8.3 99% BANDWIDTH (802.11a/b/g/n/ac)

limit

None; for IC reporting purposes only

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. The RBW is set to as close to 1% of the selected span. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

RBW = 1% of the total span

VBW $\geq 3 \times$ RBW

Detector = Peak

Trace mode = max hold

Sweep = auto couple

Allow the trace to stabilize

FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Monitoring Port Ant.0

■ TEST RESULTS

2.4 GHz Band

Conducted 99% Bandwidth Measurements for 802.11b

802.11b Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
2412	1	11.412
2437	6	11.470
2462	11	10.951

Conducted 99% Bandwidth Measurements for 802.11g

802.11g Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
2412	1	16.537
2437	6	16.544
2462	11	16.485

5.8 GHz Band

Conducted 99% Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5745	149	16.532
5785	157	16.545
5825	165	16.564

Monitoring Port Ant.1

▣ TEST RESULTS

2.4 GHz Band

Conducted 99% Bandwidth Measurements for 802.11g

802.11g Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
2412	1	16.490
2437	6	16.556
2462	11	16.466

5.8 GHz Band

Conducted 99% Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5745	149	16.558
5785	157	16.516
5825	165	16.535

Monitoring Port Ant.2

■ TEST RESULTS

Conducted 99% Bandwidth Measurements for 802.11g

802.11g Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
2412	1	16.505
2437	6	16.578
2462	11	16.471

5.8 GHz Band

Conducted 99% Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5745	149	16.544
5785	157	16.527
5825	165	16.547

Service Port Ant.0

▣ TEST RESULTS

2.4 GHz Band

Conducted 99% Bandwidth Measurements for 802.11b

802.11b Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
2412	1	11.257
2437	6	11.526
2462	11	11.117

Conducted 99% Bandwidth Measurements for 802.11g

802.11g Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
2412	1	16.542
2437	6	16.558
2462	11	16.467

Conducted 99% Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
2412	1	17.700
2437	6	17.728
2462	11	17.658

5.8 GHz Band

Conducted 99% Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5745	149	16.556
5785	157	16.532
5825	165	16.531

Conducted 99% Bandwidth Measurements for 802.11n_20 MHz BW

802.11n Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5745	149	17.764
5785	157	17.742
5825	165	17.743

Conducted 99% Bandwidth Measurements for 802.11n_40 MHz BW

802.11n Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5755	151	36.430
5795	159	36.398

Conducted 99% Bandwidth Measurements for 802.11ac_20 MHz BW

802.11ac Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5745	149	17.728
5785	157	17.708
5825	165	17.720

Conducted 99% Bandwidth Measurements for 802.11ac_40 MHz BW

802.11ac Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5755	151	36.427
5795	159	36.430

Conducted 99% Bandwidth Measurements for 802.11ac_80 MHz BW

802.11ac Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5775	155	75.965

Service Port Ant.1

▣ TEST RESULTS

2.4 GHz Band

Conducted 99% Bandwidth Measurements for 802.11g

802.11g Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
2412	1	16.496
2437	6	16.579
2462	11	16.504

Conducted 99% Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
2412	1	17.720
2437	6	17.782
2462	11	17.628

5.8 GHz Band

Conducted 99% Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5745	149	16.522
5785	157	16.551
5825	165	16.514

Conducted 99% Bandwidth Measurements for 802.11n_20 MHz BW

802.11n Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5745	149	17.729
5785	157	17.675
5825	165	17.749

Conducted 99% Bandwidth Measurements for 802.11n_40 MHz BW

802.11n Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5755	151	36.420
5795	159	36.391

Conducted 99% Bandwidth Measurements for 802.11ac_20 MHz BW

802.11ac Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5745	149	17.735
5785	157	17.719
5825	165	17.723

Conducted 99% Bandwidth Measurements for 802.11ac_40 MHz BW

802.11ac Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5755	151	36.367
5795	159	36.413

Conducted 99% Bandwidth Measurements for 802.11ac_80 MHz BW

802.11ac Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5775	155	75.987

Service Port Ant.2

■ TEST RESULTS

Conducted 99% Bandwidth Measurements for 802.11g

802.11g Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
2412	1	16.541
2437	6	16.546
2462	11	16.401

Conducted 99% Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
2412	1	17.700
2437	6	17.746
2462	11	17.634

5.8 GHz Band

Conducted 99% Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5745	149	16.518
5785	157	16.555
5825	165	16.522

Conducted 99% Bandwidth Measurements for 802.11n_20 MHz BW

802.11n Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5745	149	17.721
5785	157	17.745
5825	165	17.722

Conducted 99% Bandwidth Measurements for 802.11n_40 MHz BW

802.11n Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5755	151	36.406
5795	159	36.424

Conducted 99% Bandwidth Measurements for 802.11ac_20 MHz BW

802.11ac Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5745	149	17.725
5785	157	17.730
5825	165	17.729

Conducted 99% Bandwidth Measurements for 802.11ac_40 MHz BW

802.11ac Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5755	151	36.360
5795	159	36.448

Conducted 99% Bandwidth Measurements for 802.11ac_80 MHz BW

802.11ac Mode		Measured Bandwidth [MHz]
Frequency [MHz]	Channel No.	
5775	155	75.933

Note : In order to simplify the report, attached plots were only the most wide 99 % BW channel.

Monitoring Port Ant.0

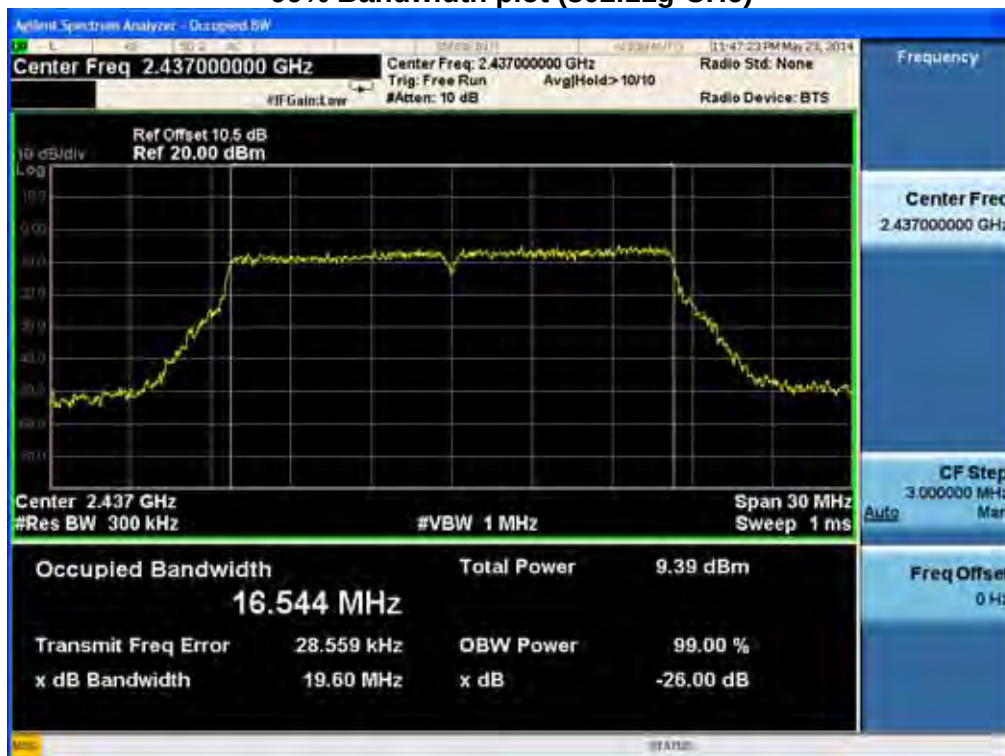
RESULT PLOTS

2.4 GHz Band

99% Bandwidth plot (802.11b-CH6)



99% Bandwidth plot (802.11g-CH6)



5.8 GHz Band

99% Bandwidth plot (802.11a-CH165)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Monitoring Port Ant.1

RESULT PLOTS

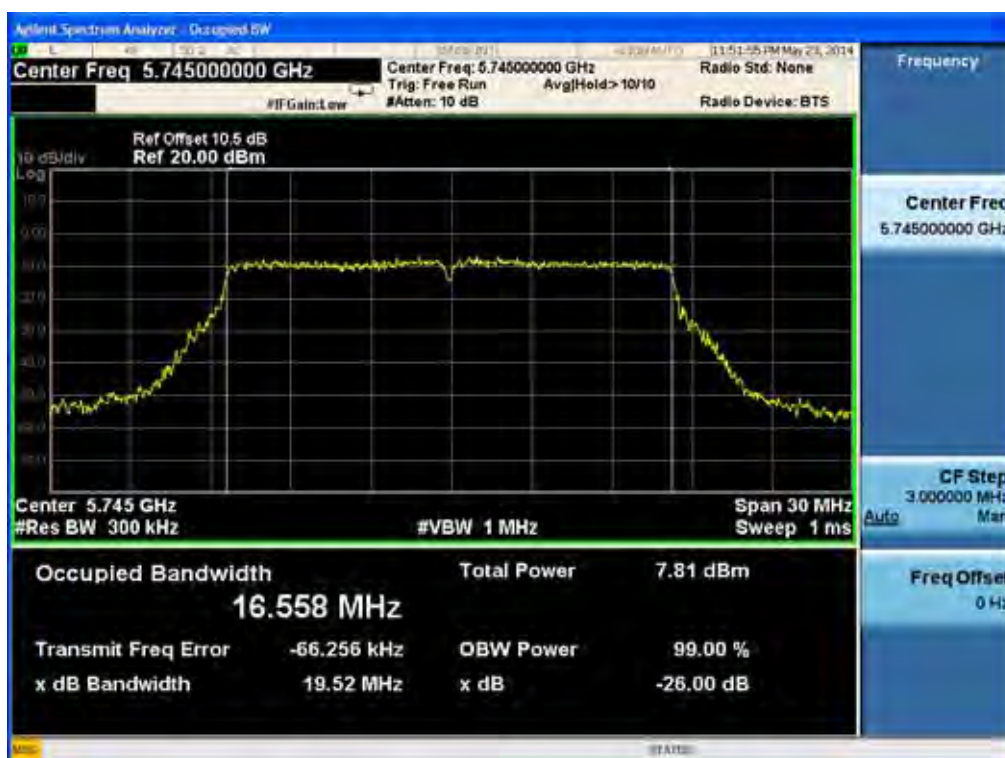
2.4 GHz Band

99% Bandwidth plot (802.11g-CH6)



5.8 GHz Band

99% Bandwidth plot (802.11a-CH149)



Monitoring Port Ant.2

RESULT PLOTS

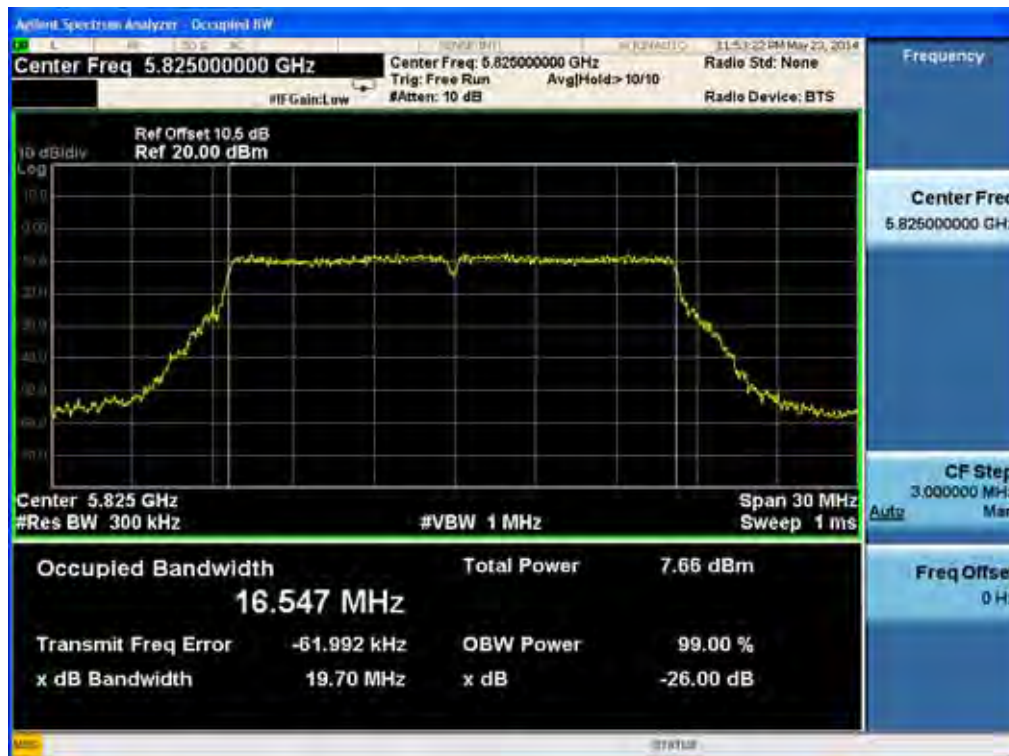
2.4 GHz Band

99% Bandwidth plot (802.11g-CH6)



5.8 GHz Band

99% Bandwidth plot (802.11a-CH165)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Service Port Ant.0

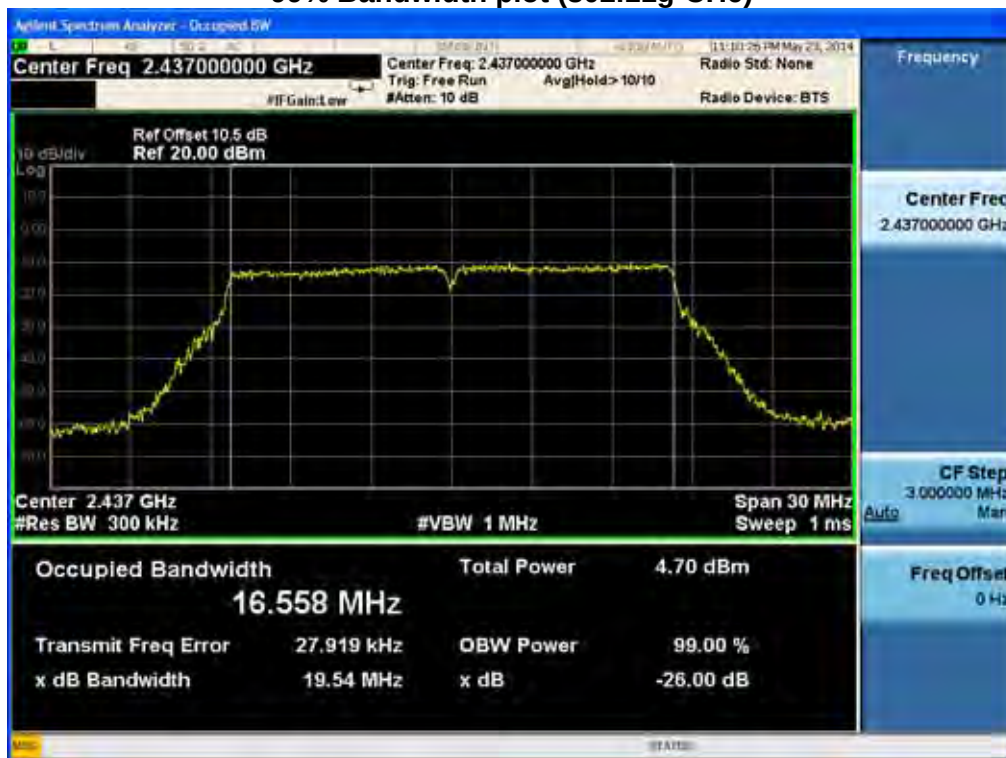
▣ RESULT PLOTS

2.4 GHz Band

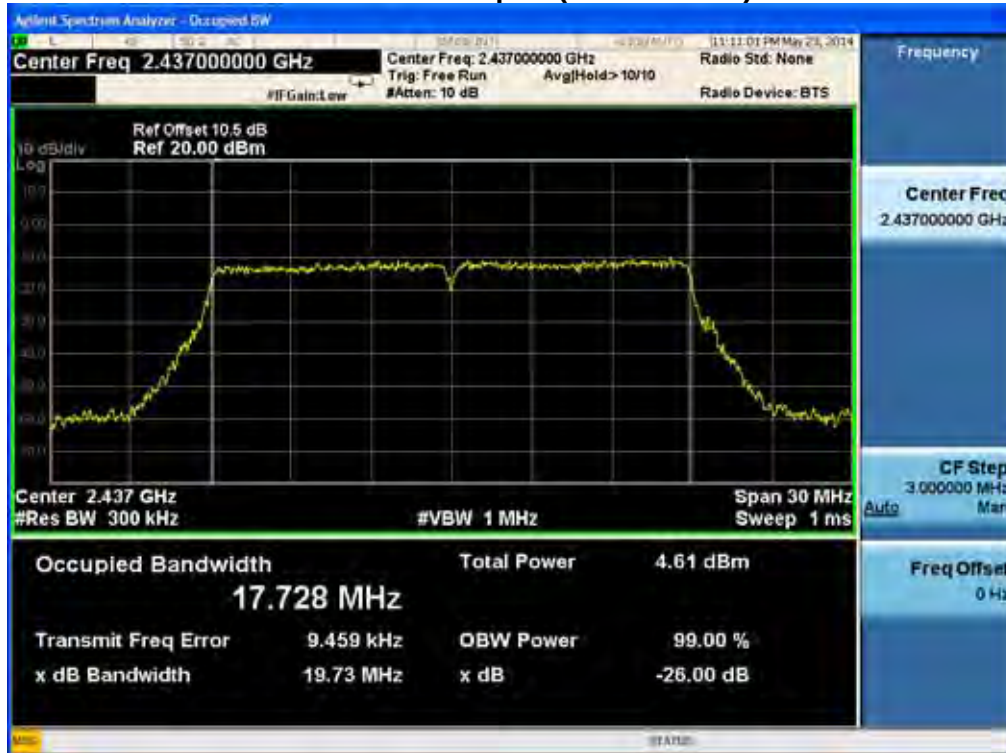
99% Bandwidth plot (802.11b-CH6)



99% Bandwidth plot (802.11g-CH6)



99% Bandwidth plot (802.11n-CH6)



5.8 GHz Band

99% Bandwidth plot (802.11a-CH149)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

99% Bandwidth plot (802.11n-CH149) _20 MHz BW



99% Bandwidth plot (802.11n-CH151) _40 MHz BW



99% Bandwidth plot (802.11ac-CH149) _20 MHz BW



99% Bandwidth plot (802.11ac-CH159) _40 MHz BW



99% Bandwidth plot (802.11ac-CH155) _80 MHz BW



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Service Port Ant.1

RESULT PLOTS

2.4 GHz Band

99% Bandwidth plot (802.11g-CH6)



99% Bandwidth plot (802.11n-CH6)

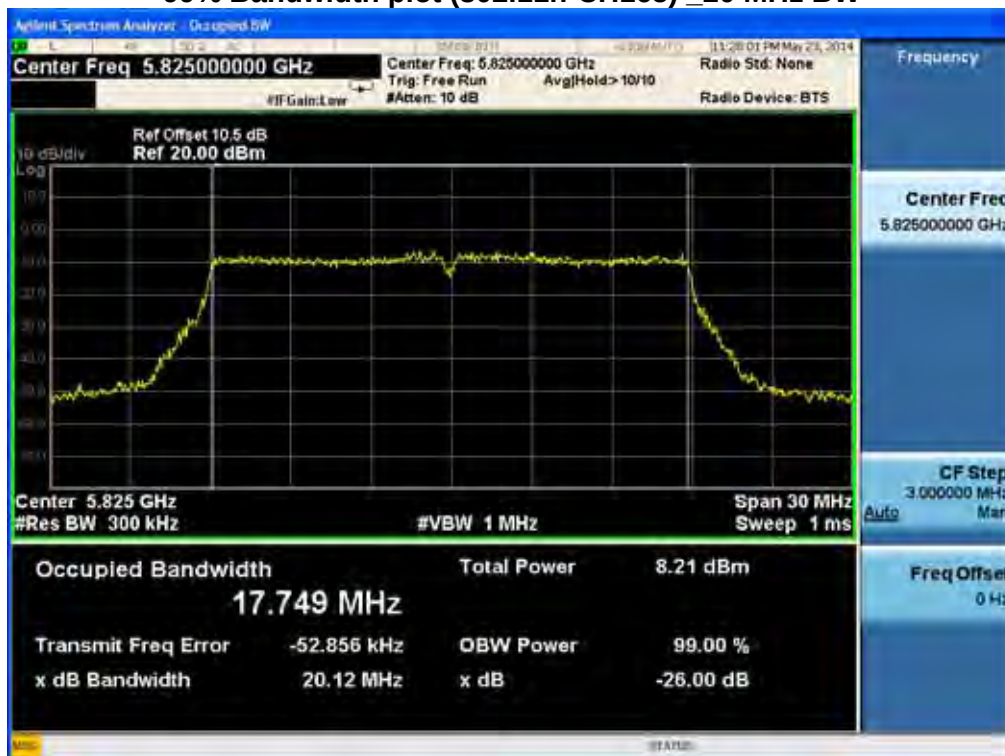


5.8 GHz Band

99% Bandwidth plot (802.11a-CH157)



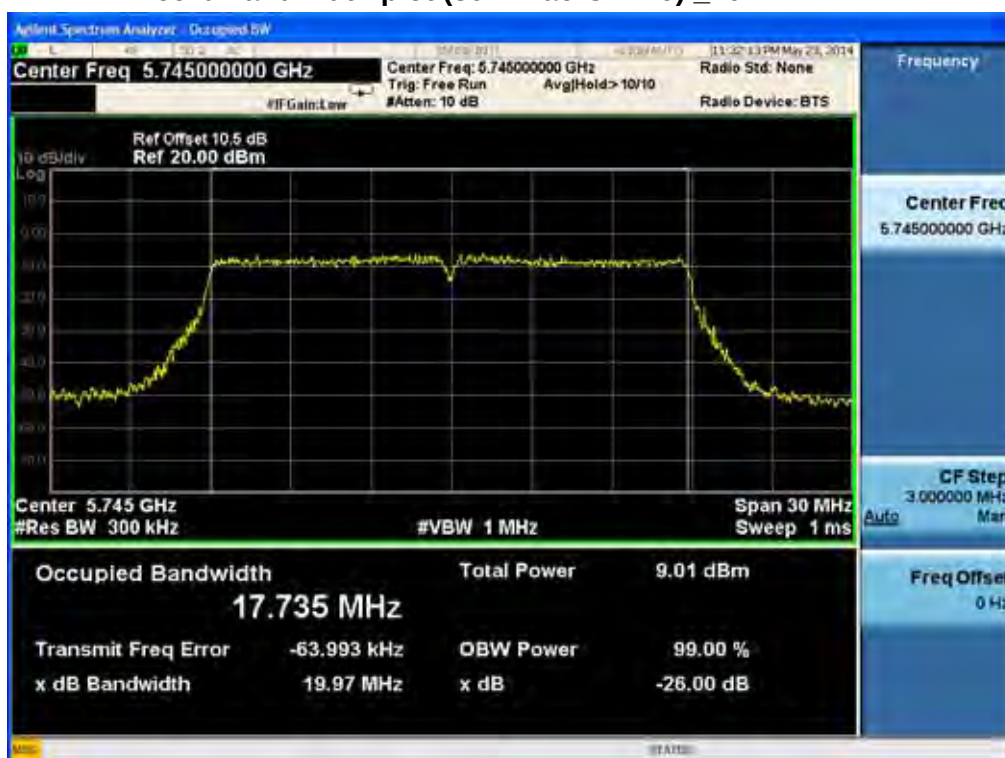
99% Bandwidth plot (802.11n-CH165) 20 MHz BW



99% Bandwidth plot (802.11n-CH151) _40 MHz BW



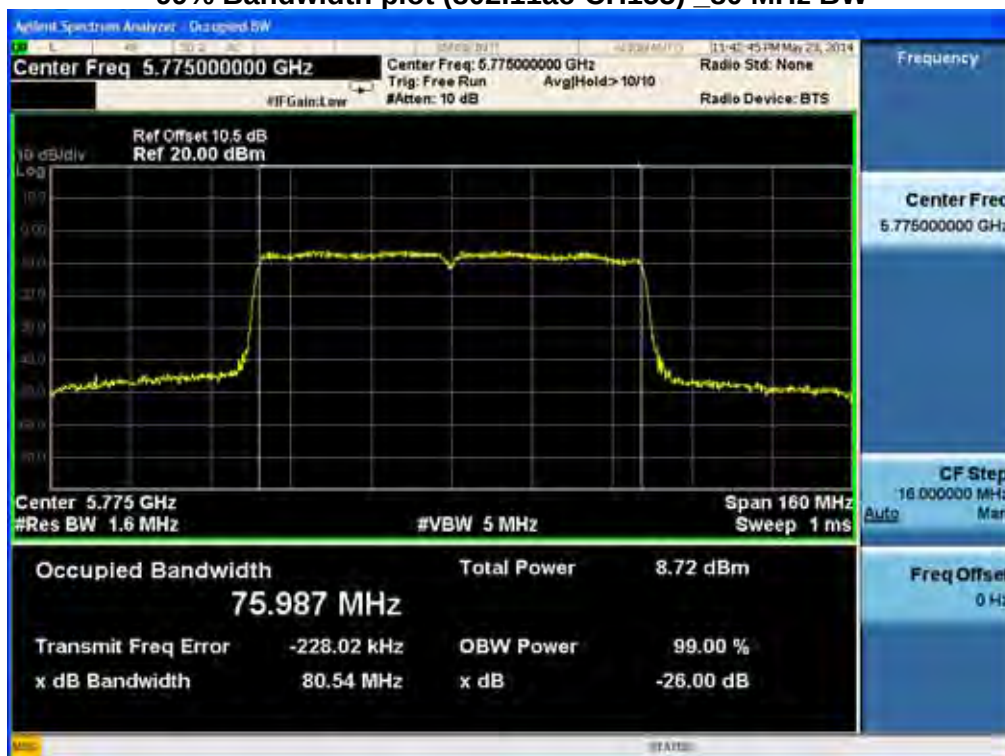
99% Bandwidth plot (802.11ac-CH149) _20 MHz BW



99% Bandwidth plot (802.11ac-CH159) _40 MHz BW



99% Bandwidth plot (802.11ac-CH155) _80 MHz BW



Service Port Ant.2

▣ RESULT PLOTS

2.4 GHz Band

99% Bandwidth plot (802.11g-CH6)



99% Bandwidth plot (802.11n-CH6)



5.8 GHz Band

99% Bandwidth plot (802.11a-CH157)



99% Bandwidth plot (802.11n-CH157) _20 MHz BW



99% Bandwidth plot (802.11n-CH159) _40 MHz BW



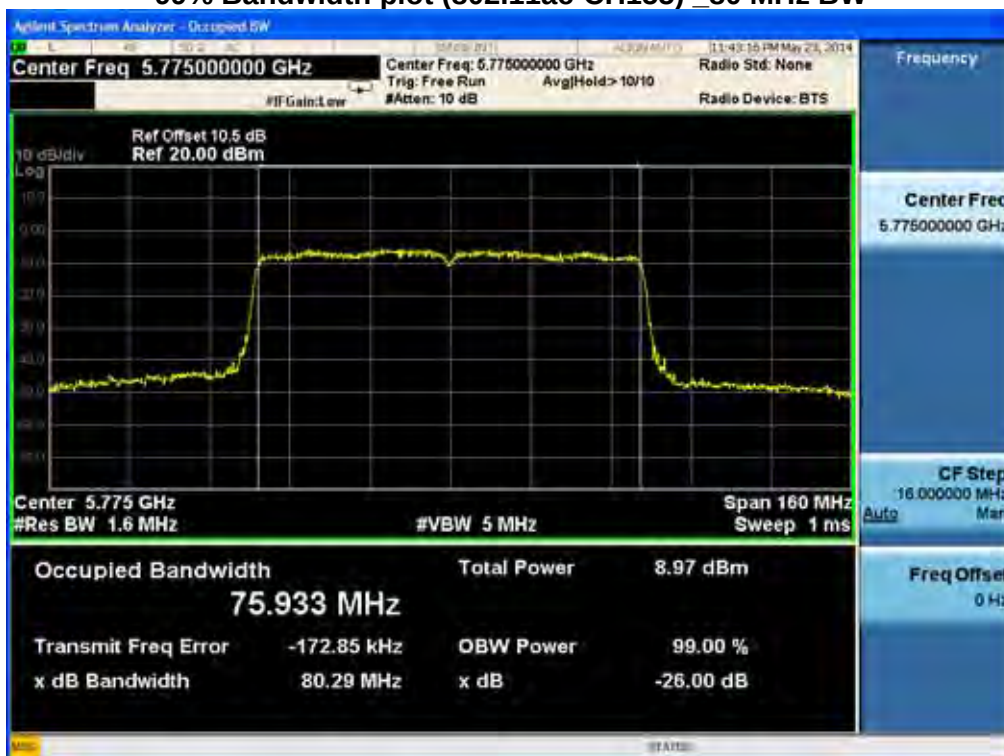
99% Bandwidth plot (802.11ac-CH157) _20 MHz BW



99% Bandwidth plot (802.11ac-CH159) _40 MHz BW



99% Bandwidth plot (802.11ac-CH155) _80 MHz BW



8.4 OUTPUT POWER (802.11a/b/g/n/ac)

Test Requirements and limit, §15.247(b)(3)

The transmitter output is connected to the input of an RF power sensor. Measurement is made using a broadband power meter capable of making peak and average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

▣ Limit(CDD)

1. Maximum Conducted Output Power(for FCC & IC)

2.4 GHz Band

Operating Mode	Mode	Antenna	Ant. Gain(dBi)	Limit(dBm)
SISO : Monitoring	802.11b	Ant.0	6.39	29.61
SISO : Service	802.11b/g/n 802.11g/n	Ant.0	2.7	30
		Ant.1	4.18	30
		Ant.2	3.94	30
MIMO(3 TX) : Monitoring	802.11g	Ant.0 & 1 & 2	10.96	25.04
MIMO(2 TX) : Service	802.11g/n	Ant.0 & 1	6.48	29.52
MIMO(3 TX) : Service	802.11g/n	Ant.0 & 1 & 2	8.4	27.6

Note : Above the limits is calculated according to antenna gain. Because antenna gain is higher than 6 dBi.

5.8 GHz Band

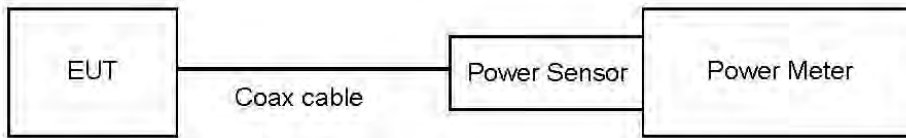
Operating Mode	Mode	Antenna	Ant. Gain(dBi)	Limt(dBm)
SISO : Service	802.11a/n/ac	Ant.0	6.17	29.83
		Ant.1	5.46	30
		Ant.2	4.78	30
MIMO(3 TX) : Monitoring	802.11a	Ant.0 & 1 & 2	11.23	24.77
MIMO(2 TX) : Service	802.11a/n/ac	Ant.0 & 1	8.83	27.17
MIMO(3 TX) : Service	802.11a/n/ac	Ant.0 & 1 & 2	10.26	25.74

Note : Above the limits is calculated according to antenna gain. Because antenna gain is higher than 6 dBi.

2. Maximum EIRP(for & IC) : 4 W

Note : The limits of conducted power were applied the antenna gain. Therefore, if conducted power is pass, EIRP is also pass. So, we attached only conducted power table.

■ TEST CONFIGURATION(20 MHz BW)



■ TEST PROCEDURE(20 MHz BW)

- Peak Power (Procedure 9.1.3 in KDB 558074, issued 04/09/2013)
 1. Measure the peak power of the transmitter.
- Average Power (Procedure 9.2.3.1 in KDB 558074, issued 04/09/2013)
 1. Measure the duty cycle.
 2. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
 3. Add $10 \log (1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Note :

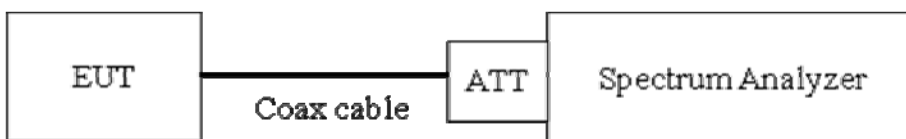
1. We apply to the offset in the 2.4 GHz and 5.8 GHz range that was rounded off to the closest tenth dB.

Actual value of loss for the attenuator and cable combination is below table. We used the particular cable type that is supported by manufacture.

Band	Loss(dB)
2.4 GHz	10.5
5.8 GHz	10.9

(Actual value of loss for the attenuator and cable combination)

■ TEST CONFIGURATION(40 MHz & 80 MHz BW)



■ TEST PROCEDURE(40 MHz & 80 MHz BW)

The transmitter output is connected to the Spectrum Analyzer. We use the spectrum analyzer's integrated band power measurement function.

The Spectrum Analyzer is set to

- Peak Power (Procedure 9.1.2 in KDB 558074, issued 04/09/2013)
 - RBW = 1 MHz
 - VBW $\geq 3 \times$ RBW
 - SPAN $\geq 1.5 \times$ DTS bandwidth
 - Detector Mode = Peak
 - Sweep = auto couple

FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I



Trace Mode = max hold

Allow trace to fully stabilize.

Use the instrument's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges (for some instruments, this may require a manual override to select peak detector).

▪ Average Power (Procedure 9.2.2.4 in KDB 558074, issued 04/09/2013)

Measure the duty cycle

Set span to at least 1.5 times the OBW

RBW = 1-5 % of the OBW, not to exceed 1 MHz.

VBW $\geq 3 \times$ RBW.

Number of points in sweep $\geq 2 \times$ span / RBW. (This gives bin-to-bin spacing $\leq$ RBW/2, so that narrowband signals are not lost between frequency bins.)

Sweep time = auto.

Detector = RMS(i.e., power averaging)

Do not use sweep triggering. Allow the sweep to "free run".

Trace average at least 100 traces in power averaging(RMS) mode.

Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function with band limits set equal to the OBW band edges.

Add $10 \log (1/x)$, where x is the duty cycle, to the measured power in order to compute the average power during the actual transmission times.

Note :

1. Spectrum reading values are not plot data. The power results in plot is already including the actual values of loss for the attenuator and cable combination.
2. Spectrum offset = Attenuator loss + Cable loss
3. We apply to the offset in the 2.4 GHz and 5.8 GHz range that was rounded off to the closest tenth dB.

Actual value of loss for the attenuator and cable combination is below table. We used the particular cable type that is supported by manufacture.

Band	Loss(dB)
2.4 GHz	10.5
5.8 GHz	10.9

(Actual value of loss for the attenuator and cable combination)

▣ **Sample Calculation (Conducted)**

Output Power = Reading Value + ATT loss + Cable loss(1 ea) + Duty Cycle Factor

▣ **Sample Calculation (EIRP)**

Output Power = Reading Value + ATT loss + Cable loss(1 ea) + Duty Cycle Factor + Ant. Gain

FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Monitoring Port

▣ TEST RESULTS-Peak

2.4 GHz Band

▣ Ant.0

Conducted Output Power Measurements (802.11b Mode)

802.11b Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
2412	1	1 Mbps	20.10	29.61
		2 Mbps	20.97	29.61
		5.5 Mbps	22.44	29.61
		11 Mbps	24.25	29.61
2437	6	1 Mbps	22.11	29.61
		2 Mbps	22.44	29.61
		5.5 Mbps	23.95	29.61
		11 Mbps	25.75	29.61
2462	11	1 Mbps	21.43	29.61
		2 Mbps	22.31	29.61
		5.5 Mbps	23.82	29.61
		11 Mbps	25.67	29.61

Ant 0

Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate (Mbps)	Measured Power(dBm)
Frequency[MHz]	Channel No.		
2412	1	6 Mbps	19.31
		9 Mbps	19.04
		12 Mbps	18.91
		18 Mbps	19.08
		24 Mbps	19.15
		36 Mbps	19.23
		48 Mbps	19.26
		54 Mbps	19.25
2437	6	6 Mbps	20.08
		9 Mbps	20.01
		12 Mbps	19.90
		18 Mbps	19.95
		24 Mbps	19.85
		36 Mbps	20.20
		48 Mbps	20.02
		54 Mbps	19.93
2462	11	6 Mbps	19.37
		9 Mbps	19.23
		12 Mbps	19.06
		18 Mbps	18.97
		24 Mbps	19.43
		36 Mbps	19.23
		48 Mbps	19.53
		54 Mbps	19.20

■ Ant 1

Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate (Mbps)	Measured Power(dBm)
Frequency[MHz]	Channel No.		
2412	1	6 Mbps	18.55
		9 Mbps	18.49
		12 Mbps	18.43
		18 Mbps	18.45
		24 Mbps	18.63
		36 Mbps	18.68
		48 Mbps	18.71
		54 Mbps	18.66
2437	6	6 Mbps	19.59
		9 Mbps	19.57
		12 Mbps	19.44
		18 Mbps	19.52
		24 Mbps	19.70
		36 Mbps	19.75
		48 Mbps	19.81
		54 Mbps	19.77
2462	11	6 Mbps	18.72
		9 Mbps	18.64
		12 Mbps	18.52
		18 Mbps	18.52
		24 Mbps	18.74
		36 Mbps	18.86
		48 Mbps	18.88
		54 Mbps	18.55

■ Ant 2

Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate (Mbps)	Measured Power(dBm)
Frequency[MHz]	Channel No.		
2412	1	6 Mbps	19.35
		9 Mbps	19.33
		12 Mbps	19.22
		18 Mbps	19.27
		24 Mbps	19.21
		36 Mbps	19.49
		48 Mbps	19.33
		54 Mbps	19.26
2437	6	6 Mbps	20.25
		9 Mbps	20.00
		12 Mbps	20.06
		18 Mbps	19.95
		24 Mbps	20.13
		36 Mbps	20.20
		48 Mbps	20.27
		54 Mbps	20.21
2462	11	6 Mbps	19.24
		9 Mbps	19.18
		12 Mbps	19.11
		18 Mbps	19.19
		24 Mbps	19.29
		36 Mbps	19.42
		48 Mbps	19.40
		54 Mbps	19.34

■ Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
2412	1	6 Mbps	23.86	29.61
		9 Mbps	23.74	29.61
		12 Mbps	23.64	29.61
		18 Mbps	23.72	29.61
		24 Mbps	23.78	29.61
		36 Mbps	23.92	29.61
		48 Mbps	23.88	29.61
		54 Mbps	23.84	29.61
2437	6	6 Mbps	24.75	29.61
		9 Mbps	24.64	29.61
		12 Mbps	24.58	29.61
		18 Mbps	24.58	29.61
		24 Mbps	24.67	29.61
		36 Mbps	24.83	29.61
		48 Mbps	24.81	29.61
		54 Mbps	24.75	29.61
2462	11	6 Mbps	23.89	29.61
		9 Mbps	23.80	29.61
		12 Mbps	23.68	29.61
		18 Mbps	23.67	29.61
		24 Mbps	23.93	29.61
		36 Mbps	23.95	29.61
		48 Mbps	24.05	29.61
		54 Mbps	23.81	29.61

5.8 GHz Band

Ant.0

Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)
Frequency[MHz]	Channel No.		
5745	149	6 Mbps	16.49
		9 Mbps	16.47
		12 Mbps	16.19
		18 Mbps	16.27
		24 Mbps	16.49
		36 Mbps	16.30
		48 Mbps	16.70
		54 Mbps	16.68
5785	157	6 Mbps	16.36
		9 Mbps	16.03
		12 Mbps	15.99
		18 Mbps	15.95
		24 Mbps	16.06
		36 Mbps	16.11
		48 Mbps	16.33
		54 Mbps	16.24
5825	165	6 Mbps	16.67
		9 Mbps	16.57
		12 Mbps	16.23
		18 Mbps	16.30
		24 Mbps	16.54
		36 Mbps	16.53
		48 Mbps	16.79
		54 Mbps	16.62

Ant.1

Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)
Frequency[MHz]	Channel No.		
5745	149	6 Mbps	16.00
		9 Mbps	16.00
		12 Mbps	15.67
		18 Mbps	15.73
		24 Mbps	16.03
		36 Mbps	16.07
		48 Mbps	16.16
		54 Mbps	16.06
5785	157	6 Mbps	15.86
		9 Mbps	15.52
		12 Mbps	15.24
		18 Mbps	15.28
		24 Mbps	15.61
		36 Mbps	15.60
		48 Mbps	15.81
		54 Mbps	15.72
5825	165	6 Mbps	16.25
		9 Mbps	16.23
		12 Mbps	15.80
		18 Mbps	15.86
		24 Mbps	16.11
		36 Mbps	16.16
		48 Mbps	16.34
		54 Mbps	16.20

Ant.2

Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)
Frequency[MHz]	Channel No.		
5745	149	6 Mbps	16.51
		9 Mbps	16.47
		12 Mbps	16.09
		18 Mbps	16.13
		24 Mbps	16.41
		36 Mbps	16.37
		48 Mbps	16.67
		54 Mbps	16.55
5785	157	6 Mbps	16.24
		9 Mbps	16.22
		12 Mbps	15.84
		18 Mbps	15.95
		24 Mbps	15.98
		36 Mbps	16.18
		48 Mbps	16.18
		54 Mbps	16.24
5825	165	6 Mbps	16.36
		9 Mbps	16.32
		12 Mbps	16.04
		18 Mbps	16.12
		24 Mbps	16.31
		36 Mbps	16.35
		48 Mbps	16.59
		54 Mbps	16.51

■ Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6 Mbps	21.11	24.77
		9 Mbps	21.09	24.77
		12 Mbps	20.76	24.77
		18 Mbps	20.82	24.77
		24 Mbps	21.09	24.77
		36 Mbps	21.02	24.77
		48 Mbps	21.29	24.77
		54 Mbps	21.21	24.77
5785	157	6 Mbps	20.93	24.77
		9 Mbps	20.70	24.77
		12 Mbps	20.47	24.77
		18 Mbps	20.51	24.77
		24 Mbps	20.66	24.77
		36 Mbps	20.74	24.77
		48 Mbps	20.88	24.77
		54 Mbps	20.84	24.77
5825	165	6 Mbps	21.20	24.77
		9 Mbps	21.15	24.77
		12 Mbps	20.80	24.77
		18 Mbps	20.87	24.77
		24 Mbps	21.09	24.77
		36 Mbps	21.12	24.77
		48 Mbps	21.35	24.77
		54 Mbps	21.22	24.77

Service Port

▣ TEST RESULTS-Peak

2.4 GHz Band

▣ Ant.0

Conducted Output Power Measurements (802.11b Mode)

802.11b Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
2412	1	1 Mbps	18.81	30
		2 Mbps	19.65	30
		5.5 Mbps	21.12	30
		11 Mbps	22.77	30
2437	6	1 Mbps	17.73	30
		2 Mbps	18.60	30
		5.5 Mbps	19.83	30
		11 Mbps	21.69	30
2462	11	1 Mbps	17.80	30
		2 Mbps	18.87	30
		5.5 Mbps	20.35	30
		11 Mbps	22.21	30

Ant 0

Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
2412	1	6 Mbps	19.58	30
		9 Mbps	19.41	30
		12 Mbps	19.36	30
		18 Mbps	19.39	30
		24 Mbps	19.56	30
		36 Mbps	19.63	30
		48 Mbps	19.67	30
		54 Mbps	19.65	30
2437	6	6 Mbps	19.66	30
		9 Mbps	19.57	30
		12 Mbps	19.50	30
		18 Mbps	19.52	30
		24 Mbps	19.71	30
		36 Mbps	19.78	30
		48 Mbps	19.83	30
		54 Mbps	19.77	30
2462	11	6 Mbps	19.78	30
		9 Mbps	19.62	30
		12 Mbps	19.55	30
		18 Mbps	19.67	30
		24 Mbps	19.73	30
		36 Mbps	19.83	30
		48 Mbps	19.87	30
		54 Mbps	19.79	30

■ Ant 1

Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
2412	1	6 Mbps	19.03	30
		9 Mbps	18.98	30
		12 Mbps	18.86	30
		18 Mbps	18.86	30
		24 Mbps	18.87	30
		36 Mbps	18.95	30
		48 Mbps	19.04	30
		54 Mbps	18.99	30
2437	6	6 Mbps	19.13	30
		9 Mbps	18.82	30
		12 Mbps	18.78	30
		18 Mbps	18.77	30
		24 Mbps	18.97	30
		36 Mbps	19.04	30
		48 Mbps	19.07	30
		54 Mbps	19.05	30
2462	11	6 Mbps	19.10	30
		9 Mbps	19.07	30
		12 Mbps	18.98	30
		18 Mbps	19.02	30
		24 Mbps	19.13	30
		36 Mbps	19.17	30
		48 Mbps	19.18	30
		54 Mbps	19.20	30

■ Ant 2

Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
2412	1	6 Mbps	19.70	30
		9 Mbps	19.41	30
		12 Mbps	19.32	30
		18 Mbps	19.38	30
		24 Mbps	19.71	30
		36 Mbps	19.64	30
		48 Mbps	19.70	30
		54 Mbps	19.78	30
2437	6	6 Mbps	19.75	30
		9 Mbps	19.71	30
		12 Mbps	19.48	30
		18 Mbps	19.66	30
		24 Mbps	19.82	30
		36 Mbps	19.67	30
		48 Mbps	19.98	30
		54 Mbps	19.90	30
2462	11	6 Mbps	20.11	30
		9 Mbps	19.75	30
		12 Mbps	19.76	30
		18 Mbps	19.70	30
		24 Mbps	19.89	30
		36 Mbps	19.97	30
		48 Mbps	20.01	30
		54 Mbps	19.95	30

■ Sum Data of Ant.0 and Ant.1

Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
2412	1	6 Mbps	22.32	29.52
		9 Mbps	22.21	29.52
		12 Mbps	22.13	29.52
		18 Mbps	22.14	29.52
		24 Mbps	22.24	29.52
		36 Mbps	22.31	29.52
		48 Mbps	22.38	29.52
		54 Mbps	22.34	29.52
2437	6	6 Mbps	22.41	29.52
		9 Mbps	22.22	29.52
		12 Mbps	22.17	29.52
		18 Mbps	22.17	29.52
		24 Mbps	22.37	29.52
		36 Mbps	22.44	29.52
		48 Mbps	22.48	29.52
		54 Mbps	22.44	29.52
2462	11	6 Mbps	22.46	29.52
		9 Mbps	22.36	29.52
		12 Mbps	22.28	29.52
		18 Mbps	22.37	29.52
		24 Mbps	22.45	29.52
		36 Mbps	22.52	29.52
		48 Mbps	22.55	29.52
		54 Mbps	22.52	29.52

■ Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
2412	1	6 Mbps	24.22	27.60
		9 Mbps	24.04	27.60
		12 Mbps	23.96	27.60
		18 Mbps	23.99	27.60
		24 Mbps	24.17	27.60
		36 Mbps	24.19	27.60
		48 Mbps	24.25	27.60
		54 Mbps	24.26	27.60
2437	6	6 Mbps	24.29	27.60
		9 Mbps	24.16	27.60
		12 Mbps	24.04	27.60
		18 Mbps	24.11	27.60
		24 Mbps	24.29	27.60
		36 Mbps	24.28	27.60
		48 Mbps	24.42	27.60
		54 Mbps	24.36	27.60
2462	11	6 Mbps	24.45	27.60
		9 Mbps	24.26	27.60
		12 Mbps	24.21	27.60
		18 Mbps	24.25	27.60
		24 Mbps	24.37	27.60
		36 Mbps	24.44	27.60
		48 Mbps	24.47	27.60
		54 Mbps	24.43	27.60

■ Ant 0

Conducted Output Power Measurements (802.11n Mode)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
2412	1	6.5 Mbps	19.64	30
		13 Mbps	19.77	30
		19.5 Mbps	19.80	30
		26 Mbps	20.35	30
		39 Mbps	20.30	30
		52 Mbps	20.43	30
		58.5 Mbps	20.38	30
		65 Mbps	20.37	30
2437	6	6.5 Mbps	19.75	30
		13 Mbps	19.89	30
		19.5 Mbps	19.74	30
		26 Mbps	20.19	30
		39 Mbps	20.24	30
		52 Mbps	20.40	30
		58.5 Mbps	20.31	30
		65 Mbps	20.23	30
2462	11	6.5 Mbps	19.62	30
		13 Mbps	19.79	30
		19.5 Mbps	19.83	30
		26 Mbps	20.24	30
		39 Mbps	20.24	30
		52 Mbps	20.33	30
		58.5 Mbps	20.33	30
		65 Mbps	20.24	30

■ Ant 1

Conducted Output Power Measurements (802.11n Mode)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
2412	1	6.5 Mbps	18.94	30
		13 Mbps	18.90	30
		19.5 Mbps	18.98	30
		26 Mbps	19.37	30
		39 Mbps	19.37	30
		52 Mbps	19.47	30
		58.5 Mbps	19.74	30
		65 Mbps	19.42	30
2437	6	6.5 Mbps	19.16	30
		13 Mbps	19.21	30
		19.5 Mbps	19.21	30
		26 Mbps	19.70	30
		39 Mbps	19.71	30
		52 Mbps	19.79	30
		58.5 Mbps	19.78	30
		65 Mbps	19.74	30
2462	11	6.5 Mbps	19.18	30
		13 Mbps	19.10	30
		19.5 Mbps	19.14	30
		26 Mbps	19.55	30
		39 Mbps	19.60	30
		52 Mbps	19.90	30
		58.5 Mbps	19.70	30
		65 Mbps	19.81	30

Ant 2

Conducted Output Power Measurements (802.11n Mode)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
2412	1	6.5 Mbps	19.69	30
		13 Mbps	19.87	30
		19.5 Mbps	19.74	30
		26 Mbps	20.21	30
		39 Mbps	20.21	30
		52 Mbps	20.50	30
		58.5 Mbps	20.35	30
		65 Mbps	20.29	30
2437	6	6.5 Mbps	19.99	30
		13 Mbps	19.93	30
		19.5 Mbps	19.97	30
		26 Mbps	20.36	30
		39 Mbps	20.39	30
		52 Mbps	20.49	30
		58.5 Mbps	20.48	30
		65 Mbps	20.46	30
2462	11	6.5 Mbps	19.91	30
		13 Mbps	20.01	30
		19.5 Mbps	20.12	30
		26 Mbps	20.56	30
		39 Mbps	20.54	30
		52 Mbps	20.59	30
		58.5 Mbps	20.67	30
		65 Mbps	20.61	30

■ Sum Data of Ant.0 and Ant.1

Conducted Output Power Measurements (802.11n Mode)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
2412	1	6.5 Mbps	22.31	29.52
		13 Mbps	22.37	29.52
		19.5 Mbps	22.42	29.52
		26 Mbps	22.90	29.52
		39 Mbps	22.87	29.52
		52 Mbps	22.99	29.52
		58.5 Mbps	23.08	29.52
		65 Mbps	22.93	29.52
2437	6	6.5 Mbps	22.48	29.52
		13 Mbps	22.57	29.52
		19.5 Mbps	22.49	29.52
		26 Mbps	22.96	29.52
		39 Mbps	22.99	29.52
		52 Mbps	23.12	29.52
		58.5 Mbps	23.06	29.52
		65 Mbps	23.00	29.52
2462	11	6.5 Mbps	22.42	29.52
		13 Mbps	22.47	29.52
		19.5 Mbps	22.51	29.52
		26 Mbps	22.92	29.52
		39 Mbps	22.94	29.52
		52 Mbps	23.13	29.52
		58.5 Mbps	23.04	29.52
		65 Mbps	23.04	29.52

■ Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11n Mode)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
2412	1	6.5 Mbps	24.21	27.60
		13 Mbps	24.31	27.60
		19.5 Mbps	24.29	27.60
		26 Mbps	24.77	27.60
		39 Mbps	24.75	27.60
		52 Mbps	24.93	27.60
		58.5 Mbps	24.94	27.60
		65 Mbps	24.82	27.60
2437	6	6.5 Mbps	24.42	27.60
		13 Mbps	24.46	27.60
		19.5 Mbps	24.42	27.60
		26 Mbps	24.86	27.60
		39 Mbps	24.89	27.60
		52 Mbps	25.01	27.60
		58.5 Mbps	24.97	27.60
		65 Mbps	24.92	27.60
2462	11	6.5 Mbps	24.35	27.60
		13 Mbps	24.42	27.60
		19.5 Mbps	24.49	27.60
		26 Mbps	24.91	27.60
		39 Mbps	24.92	27.60
		52 Mbps	25.05	27.60
		58.5 Mbps	25.02	27.60
		65 Mbps	25.00	27.60

5.8 GHz Band

Ant.0

Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6 Mbps	18.39	29.83
		9 Mbps	18.24	29.83
		12 Mbps	17.99	29.83
		18 Mbps	18.02	29.83
		24 Mbps	18.33	29.83
		36 Mbps	18.38	29.83
		48 Mbps	18.55	29.83
		54 Mbps	18.44	29.83
5785	157	6 Mbps	19.18	29.83
		9 Mbps	19.12	29.83
		12 Mbps	18.45	29.83
		18 Mbps	18.62	29.83
		24 Mbps	18.97	29.83
		36 Mbps	19.00	29.83
		48 Mbps	19.03	29.83
		54 Mbps	18.94	29.83
5825	165	6 Mbps	18.97	29.83
		9 Mbps	18.83	29.83
		12 Mbps	18.34	29.83
		18 Mbps	18.46	29.83
		24 Mbps	18.91	29.83
		36 Mbps	18.78	29.83
		48 Mbps	19.22	29.83
		54 Mbps	18.82	29.83

Ant.1

Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6 Mbps	18.51	30
		9 Mbps	18.50	30
		12 Mbps	18.13	30
		18 Mbps	17.98	30
		24 Mbps	18.18	30
		36 Mbps	18.53	30
		48 Mbps	18.43	30
		54 Mbps	18.50	30
5785	157	6 Mbps	18.84	30
		9 Mbps	18.80	30
		12 Mbps	18.50	30
		18 Mbps	18.52	30
		24 Mbps	18.82	30
		36 Mbps	18.89	30
		48 Mbps	18.93	30
		54 Mbps	18.97	30
5825	165	6 Mbps	18.70	30
		9 Mbps	18.77	30
		12 Mbps	18.39	30
		18 Mbps	18.51	30
		24 Mbps	18.79	30
		36 Mbps	18.77	30
		48 Mbps	18.84	30
		54 Mbps	18.77	30

Ant.2

Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6 Mbps	18.57	30
		9 Mbps	18.50	30
		12 Mbps	18.01	30
		18 Mbps	18.11	30
		24 Mbps	18.31	30
		36 Mbps	18.38	30
		48 Mbps	18.75	30
		54 Mbps	18.47	30
5785	157	6 Mbps	18.85	30
		9 Mbps	19.08	30
		12 Mbps	18.66	30
		18 Mbps	18.61	30
		24 Mbps	18.83	30
		36 Mbps	19.00	30
		48 Mbps	19.11	30
		54 Mbps	18.95	30
5825	165	6 Mbps	18.95	30
		9 Mbps	18.98	30
		12 Mbps	18.61	30
		18 Mbps	18.56	30
		24 Mbps	18.82	30
		36 Mbps	18.89	30
		48 Mbps	18.96	30
		54 Mbps	19.07	30

■ Sum Data of Ant.0 and Ant.1

Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6 Mbps	21.46	27.17
		9 Mbps	21.38	27.17
		12 Mbps	21.07	27.17
		18 Mbps	21.01	27.17
		24 Mbps	21.27	27.17
		36 Mbps	21.47	27.17
		48 Mbps	21.50	27.17
		54 Mbps	21.48	27.17
5785	157	6 Mbps	22.02	27.17
		9 Mbps	21.97	27.17
		12 Mbps	21.49	27.17
		18 Mbps	21.58	27.17
		24 Mbps	21.91	27.17
		36 Mbps	21.96	27.17
		48 Mbps	21.99	27.17
		54 Mbps	21.97	27.17
5825	165	6 Mbps	21.85	27.17
		9 Mbps	21.81	27.17
		12 Mbps	21.38	27.17
		18 Mbps	21.50	27.17
		24 Mbps	21.86	27.17
		36 Mbps	21.79	27.17
		48 Mbps	22.04	27.17
		54 Mbps	21.81	27.17

■ Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6 Mbps	23.26	25.74
		9 Mbps	23.19	25.74
		12 Mbps	22.81	25.74
		18 Mbps	22.81	25.74
		24 Mbps	23.05	25.74
		36 Mbps	23.20	25.74
		48 Mbps	23.35	25.74
		54 Mbps	23.24	25.74
5785	157	6 Mbps	23.73	25.74
		9 Mbps	23.77	25.74
		12 Mbps	23.31	25.74
		18 Mbps	23.35	25.74
		24 Mbps	23.65	25.74
		36 Mbps	23.73	25.74
		48 Mbps	23.80	25.74
		54 Mbps	23.72	25.74
5825	165	6 Mbps	23.65	25.74
		9 Mbps	23.63	25.74
		12 Mbps	23.22	25.74
		18 Mbps	23.28	25.74
		24 Mbps	23.61	25.74
		36 Mbps	23.58	25.74
		48 Mbps	23.78	25.74
		54 Mbps	23.66	25.74

■ Ant.0

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5745~5825)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6.5 Mbps	18.41	29.83
		13 Mbps	18.02	29.83
		19.5 Mbps	18.04	29.83
		26 Mbps	18.51	29.83
		39 Mbps	18.52	29.83
		52 Mbps	18.61	29.83
		58.5 Mbps	18.61	29.83
		65 Mbps	18.59	29.83
5785	157	6.5 Mbps	18.15	29.83
		13 Mbps	17.66	29.83
		19.5 Mbps	17.84	29.83
		26 Mbps	18.21	29.83
		39 Mbps	18.15	29.83
		52 Mbps	18.18	29.83
		58.5 Mbps	18.22	29.83
		65 Mbps	18.18	29.83
5825	165	6.5 Mbps	18.93	29.83
		13 Mbps	18.70	29.83
		19.5 Mbps	18.58	29.83
		26 Mbps	19.23	29.83
		39 Mbps	19.18	29.83
		52 Mbps	19.07	29.83
		58.5 Mbps	19.12	29.83
		65 Mbps	19.12	29.83

■ Ant.1

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5745~5825)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6.5 Mbps	18.42	30
		13 Mbps	17.93	30
		19.5 Mbps	17.95	30
		26 Mbps	18.40	30
		39 Mbps	18.43	30
		52 Mbps	18.63	30
		58.5 Mbps	18.48	30
		65 Mbps	18.44	30
5785	157	6.5 Mbps	17.91	30
		13 Mbps	17.78	30
		19.5 Mbps	17.67	30
		26 Mbps	17.96	30
		39 Mbps	18.05	30
		52 Mbps	18.10	30
		58.5 Mbps	18.08	30
		65 Mbps	18.04	30
5825	165	6.5 Mbps	18.79	30
		13 Mbps	18.40	30
		19.5 Mbps	18.52	30
		26 Mbps	18.94	30
		39 Mbps	18.94	30
		52 Mbps	18.90	30
		58.5 Mbps	18.94	30
		65 Mbps	18.91	30

■ Ant.2

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5745~5825)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6.5 Mbps	18.58	30
		13 Mbps	18.04	30
		19.5 Mbps	18.17	30
		26 Mbps	18.77	30
		39 Mbps	18.72	30
		52 Mbps	18.63	30
		58.5 Mbps	18.68	30
		65 Mbps	18.65	30
5785	157	6.5 Mbps	17.93	30
		13 Mbps	17.83	30
		19.5 Mbps	17.84	30
		26 Mbps	18.28	30
		39 Mbps	18.29	30
		52 Mbps	18.28	30
		58.5 Mbps	18.31	30
		65 Mbps	18.45	30
5825	165	6.5 Mbps	18.90	30
		13 Mbps	18.43	30
		19.5 Mbps	18.46	30
		26 Mbps	18.96	30
		39 Mbps	18.97	30
		52 Mbps	18.99	30
		58.5 Mbps	18.94	30
		65 Mbps	19.02	30

■ Sum Data of Ant.0 and Ant.1

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5745~5825)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6.5 Mbps	21.43	27.17
		13 Mbps	20.99	27.17
		19.5 Mbps	21.01	27.17
		26 Mbps	21.47	27.17
		39 Mbps	21.49	27.17
		52 Mbps	21.63	27.17
		58.5 Mbps	21.56	27.17
		65 Mbps	21.53	27.17
5785	157	6.5 Mbps	21.04	27.17
		13 Mbps	20.73	27.17
		19.5 Mbps	20.77	27.17
		26 Mbps	21.10	27.17
		39 Mbps	21.11	27.17
		52 Mbps	21.15	27.17
		58.5 Mbps	21.16	27.17
		65 Mbps	21.12	27.17
5825	165	6.5 Mbps	21.87	27.17
		13 Mbps	21.56	27.17
		19.5 Mbps	21.56	27.17
		26 Mbps	22.10	27.17
		39 Mbps	22.07	27.17
		52 Mbps	22.00	27.17
		58.5 Mbps	22.04	27.17
		65 Mbps	22.03	27.17

■ Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5745~5825)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6.5 Mbps	23.24	25.74
		13 Mbps	22.77	25.74
		19.5 Mbps	22.83	25.74
		26 Mbps	23.33	25.74
		39 Mbps	23.33	25.74
		52 Mbps	23.39	25.74
		58.5 Mbps	23.36	25.74
		65 Mbps	23.33	25.74
5785	157	6.5 Mbps	22.77	25.74
		13 Mbps	22.53	25.74
		19.5 Mbps	22.56	25.74
		26 Mbps	22.92	25.74
		39 Mbps	22.94	25.74
		52 Mbps	22.96	25.74
		58.5 Mbps	22.98	25.74
		65 Mbps	23.00	25.74
5825	165	6.5 Mbps	23.64	25.74
		13 Mbps	23.28	25.74
		19.5 Mbps	23.29	25.74
		26 Mbps	23.82	25.74
		39 Mbps	23.80	25.74
		52 Mbps	23.76	25.74
		58.5 Mbps	23.77	25.74
		65 Mbps	23.79	25.74

Ant.0

Conducted Output Power Measurements (802.11n_40 MHz BW Mode: 5755~5795)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5755	151	13.5 Mbps	17.79	29.83
		27 Mbps	17.41	29.83
		40.5 Mbps	17.29	29.83
		54 Mbps	17.72	29.83
		81 Mbps	17.84	29.83
		108 Mbps	17.88	29.83
		121.5 Mbps	17.82	29.83
		135 Mbps	17.84	29.83
5795	159	13.5 Mbps	17.96	29.83
		27 Mbps	17.47	29.83
		40.5 Mbps	17.66	29.83
		54 Mbps	17.88	29.83
		81 Mbps	18.20	29.83
		108 Mbps	18.30	29.83
		121.5 Mbps	18.16	29.83
		135 Mbps	18.25	29.83

Ant.1

Conducted Output Power Measurements (802.11n_40 MHz BW Mode: 5755~5795)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5755	151	13.5 Mbps	17.35	30
		27 Mbps	17.04	30
		40.5 Mbps	17.01	30
		54 Mbps	17.45	30
		81 Mbps	17.54	30
		108 Mbps	17.57	30
		121.5 Mbps	17.76	30
		135 Mbps	17.66	30
5795	159	13.5 Mbps	17.70	30
		27 Mbps	17.35	30
		40.5 Mbps	17.50	30
		54 Mbps	17.88	30
		81 Mbps	17.77	30
		108 Mbps	17.97	30
		121.5 Mbps	17.77	30
		135 Mbps	17.77	30

Ant.2

Conducted Output Power Measurements (802.11n_40 MHz BW Mode: 5755~5795)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5755	151	13.5 Mbps	17.64	30
		27 Mbps	17.13	30
		40.5 Mbps	17.24	30
		54 Mbps	17.90	30
		81 Mbps	17.66	30
		108 Mbps	17.63	30
		121.5 Mbps	17.71	30
		135 Mbps	17.59	30
5795	159	13.5 Mbps	17.72	30
		27 Mbps	17.64	30
		40.5 Mbps	17.52	30
		54 Mbps	17.88	30
		81 Mbps	17.78	30
		108 Mbps	17.86	30
		121.5 Mbps	18.01	30
		135 Mbps	17.83	30

■ Sum Data of Ant.0 and Ant.1

Conducted Output Power Measurements (802.11n_40 MHz BW Mode: 5755~5795)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5755	151	13.5 Mbps	20.59	27.17
		27 Mbps	20.24	27.17
		40.5 Mbps	20.16	27.17
		54 Mbps	20.60	27.17
		81 Mbps	20.70	27.17
		108 Mbps	20.74	27.17
		121.5 Mbps	20.80	27.17
		135 Mbps	20.76	27.17
5795	159	13.5 Mbps	20.84	27.17
		27 Mbps	20.42	27.17
		40.5 Mbps	20.59	27.17
		54 Mbps	20.89	27.17
		81 Mbps	21.00	27.17
		108 Mbps	21.15	27.17
		121.5 Mbps	20.98	27.17
		135 Mbps	21.03	27.17

■ Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11n_40 MHz BW Mode: 5755~5795)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5755	151	13.5 Mbps	22.37	25.74
		27 Mbps	21.97	25.74
		40.5 Mbps	21.95	25.74
		54 Mbps	22.47	25.74
		81 Mbps	22.45	25.74
		108 Mbps	22.47	25.74
		121.5 Mbps	22.53	25.74
		135 Mbps	22.47	25.74
5795	159	13.5 Mbps	22.57	25.74
		27 Mbps	22.26	25.74
		40.5 Mbps	22.33	25.74
		54 Mbps	22.65	25.74
		81 Mbps	22.69	25.74
		108 Mbps	22.82	25.74
		121.5 Mbps	22.75	25.74
		135 Mbps	22.73	25.74

■ Ant.0

Conducted Output Power Measurements (802.11ac_20 MHz BW Mode: 5745~5825)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6.5	18.31	29.83
		13	17.99	29.83
		19.5	18.07	29.83
		26	18.55	29.83
		39	18.50	29.83
		52	18.56	29.83
		58.5	18.57	29.83
		65	18.55	29.83
		78	18.70	29.83
5785	157	6.5	15.46	29.83
		13	15.33	29.83
		19.5	15.07	29.83
		26	15.63	29.83
		39	15.60	29.83
		52	15.83	29.83
		58.5	15.78	29.83
		65	15.69	29.83
		78	15.78	29.83
5825	165	6.5	15.41	29.83
		13	15.25	29.83
		19.5	15.24	29.83
		26	15.64	29.83
		39	15.65	29.83
		52	15.72	29.83
		58.5	15.75	29.83
		65	15.83	29.83
		78	15.73	29.83

■ Ant.1

Conducted Output Power Measurements (802.11ac_20 MHz BW Mode: 5745~5825)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6.5	18.21	30
		13	18.00	30
		19.5	17.91	30
		26	18.46	30
		39	18.52	30
		52	18.51	30
		58.5	18.50	30
		65	18.51	30
		78	18.41	30
5785	157	6.5	15.50	30
		13	15.24	30
		19.5	15.20	30
		26	15.62	30
		39	15.72	30
		52	15.87	30
		58.5	15.80	30
		65	15.79	30
		78	15.83	30
5825	165	6.5	15.57	30
		13	15.33	30
		19.5	15.11	30
		26	15.69	30
		39	15.68	30
		52	15.84	30
		58.5	15.77	30
		65	15.79	30
		78	15.71	30

Ant.2

Conducted Output Power Measurements (802.11ac_20 MHz BW Mode: 5745~5825)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6.5	18.56	30
		13	18.12	30
		19.5	18.09	30
		26	18.61	30
		39	18.70	30
		52	18.66	30
		58.5	18.69	30
		65	18.79	30
		78	18.59	30
5785	157	6.5	15.55	30
		13	15.35	30
		19.5	15.35	30
		26	15.79	30
		39	15.82	30
		52	15.76	30
		58.5	15.86	30
		65	15.55	30
		78	15.82	30
5825	165	6.5	15.29	30
		13	15.30	30
		19.5	15.15	30
		26	15.72	30
		39	15.67	30
		52	15.75	30
		58.5	15.94	30
		65	15.71	30
		78	15.74	30

■ Sum Data of Ant.0 and Ant.1

Conducted Output Power Measurements (802.11ac_20 MHz BW Mode: 5745~5825)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6.5	21.27	27.17
		13	21.01	27.17
		19.5	21.00	27.17
		26	21.52	27.17
		39	21.52	27.17
		52	21.55	27.17
		58.5	21.55	27.17
		65	21.54	27.17
		78	21.57	27.17
5785	157	6.5	18.49	27.17
		13	18.30	27.17
		19.5	18.15	27.17
		26	18.64	27.17
		39	18.67	27.17
		52	18.86	27.17
		58.5	18.80	27.17
		65	18.75	27.17
		78	18.82	27.17
5825	165	6.5	18.50	27.17
		13	18.30	27.17
		19.5	18.19	27.17
		26	18.68	27.17
		39	18.68	27.17
		52	18.79	27.17
		58.5	18.77	27.17
		65	18.82	27.17
		78	18.73	27.17

■ Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11ac_20 MHz BW Mode: 5745~5825)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6.5	23.13	25.74
		13	22.81	25.74
		19.5	22.80	25.74
		26	23.31	25.74
		39	23.35	25.74
		52	23.35	25.74
		58.5	23.36	25.74
		65	23.39	25.74
		78	23.34	25.74
5785	157	6.5	20.27	25.74
		13	20.08	25.74
		19.5	19.98	25.74
		26	20.45	25.74
		39	20.49	25.74
		52	20.59	25.74
		58.5	20.58	25.74
		65	20.45	25.74
		78	20.58	25.74
5825	165	6.5	20.20	25.74
		13	20.06	25.74
		19.5	19.94	25.74
		26	20.45	25.74
		39	20.44	25.74
		52	20.54	25.74
		58.5	20.59	25.74
		65	20.55	25.74
		78	20.50	25.74

■ Ant.0

Conducted Output Power Measurements (802.11ac_40 MHz BW Mode: 5755~5795)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5755	151	13.5	20.20	29.83
		27	20.00	29.83
		40.5	19.89	29.83
		54	20.39	29.83
		81	20.35	29.83
		108	20.41	29.83
		121.5	20.41	29.83
		135	20.09	29.83
		162	20.54	29.83
		180	20.34	29.83
5795	159	13.5	18.58	29.83
		27	18.31	29.83
		40.5	18.41	29.83
		54	19.00	29.83
		81	18.85	29.83
		108	18.92	29.83
		121.5	18.64	29.83
		135	18.88	29.83
		162	18.94	29.83
		180	18.93	29.83

■ Ant.1

Conducted Output Power Measurements (802.11ac_40 MHz BW Mode: 5755~5795)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5755	151	13.5	20.19	30
		27	19.92	30
		40.5	19.95	30
		54	20.32	30
		81	20.34	30
		108	20.44	30
		121.5	20.40	30
		135	20.40	30
		162	20.38	30
		180	20.53	30
5795	159	13.5	18.44	30
		27	18.29	30
		40.5	18.32	30
		54	18.72	30
		81	18.72	30
		108	18.78	30
		121.5	18.70	30
		135	18.63	30
		162	18.64	30
		180	18.77	30

■ Ant.2

Conducted Output Power Measurements (802.11ac_40 MHz BW Mode: 5755~5795)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5755	151	13.5	20.28	30
		27	20.07	30
		40.5	20.00	30
		54	20.49	30
		81	20.51	30
		108	20.54	30
		121.5	20.53	30
		135	20.48	30
		162	20.52	30
		180	20.59	30
5795	159	13.5	18.73	30
		27	18.53	30
		40.5	18.41	30
		54	18.95	30
		81	18.90	30
		108	18.95	30
		121.5	18.97	30
		135	18.83	30
		162	18.91	30
		180	18.94	30

■ Sum Data of Ant.0 and Ant.1

Conducted Output Power Measurements (802.11ac_40 MHz BW Mode: 5755~5795)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5755	151	13.5	23.21	27.17
		27	22.97	27.17
		40.5	22.93	27.17
		54	23.37	27.17
		81	23.36	27.17
		108	23.44	27.17
		121.5	23.42	27.17
		135	23.26	27.17
		162	23.47	27.17
		180	23.45	27.17
5795	159	13.5	21.52	27.17
		27	21.31	27.17
		40.5	21.38	27.17
		54	21.87	27.17
		81	21.80	27.17
		108	21.86	27.17
		121.5	21.68	27.17
		135	21.77	27.17
		162	21.80	27.17
		180	21.86	27.17

■ Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11ac_40 MHz BW Mode: 5755~5795)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5755	151	13.5	24.99	25.74
		27	24.77	25.74
		40.5	24.72	25.74
		54	25.17	25.74
		81	25.17	25.74
		108	25.23	25.74
		121.5	25.22	25.74
		135	25.10	25.74
		162	25.25	25.74
		180	25.26	25.74
5795	159	13.5	23.36	25.74
		27	23.15	25.74
		40.5	23.15	25.74
		54	23.66	25.74
		81	23.60	25.74
		108	23.66	25.74
		121.5	23.54	25.74
		135	23.55	25.74
		162	23.60	25.74
		180	23.65	25.74

Ant.0

Conducted Output Power Measurements (802.11ac_80 MHz BW Mode: 5775)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5775	155	29.3	15.21	29.83
		58.5	15.13	29.83
		87.8	15.03	29.83
		117	15.35	29.83
		175.5	15.31	29.83
		234	15.35	29.83
		263.3	15.24	29.83
		292.5	15.27	29.83
		351	15.24	29.83
		390	15.14	29.83

■ Ant.1

Conducted Output Power Measurements (802.11ac_80 MHz BW Mode: 5775)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5775	155	29.3	14.90	30
		58.5	14.77	30
		87.8	14.61	30
		117	15.04	30
		175.5	15.05	30
		234	14.93	30
		263.3	15.00	30
		292.5	14.87	30
		351	15.13	30
		390	14.80	30

Ant.2

Conducted Output Power Measurements (802.11ac_80 MHz BW Mode: 5775)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5775	155	29.3	15.22	30
		58.5	14.89	30
		87.8	14.88	30
		117	15.27	30
		175.5	15.15	30
		234	15.19	30
		263.3	15.12	30
		292.5	15.13	30
		351	15.15	30
		390	14.98	30

■ Sum Data of Ant.0 and Ant.1

Conducted Output Power Measurements (802.11ac_80 MHz BW Mode: 5775)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5775	155	29.3	18.07	27.17
		58.5	17.96	27.17
		87.8	17.84	27.17
		117	18.21	27.17
		175.5	18.19	27.17
		234	18.16	27.17
		263.3	18.13	27.17
		292.5	18.08	27.17
		351	18.20	27.17
		390	17.98	27.17

■ Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11ac_80 MHz BW Mode: 5775)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5775	155	29.3	19.88	25.74
		58.5	19.70	25.74
		87.8	19.61	25.74
		117	19.99	25.74
		175.5	19.94	25.74
		234	19.93	25.74
		263.3	19.89	25.74
		292.5	19.86	25.74
		351	19.94	25.74
		390	19.75	25.74

Monitoring Port

■ TEST RESULTS-Average

2.4 GHz Band

■ Ant.0

Conducted Output Power Measurements (802.11b Mode)

802.11b Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
2412	1	1 Mbps	17.28	0.225	17.51	29.61
		2 Mbps	17.85	0.216	18.07	29.61
		5.5 Mbps	18.02	0.221	18.24	29.61
		11 Mbps	17.97	0.200	18.17	29.61
2437	6	1 Mbps	19.18	0.225	19.41	29.61
		2 Mbps	19.24	0.216	19.45	29.61
		5.5 Mbps	19.32	0.221	19.54	29.61
		11 Mbps	19.26	0.200	19.46	29.61
2462	11	1 Mbps	18.46	0.225	18.68	29.61
		2 Mbps	19.04	0.216	19.25	29.61
		5.5 Mbps	19.10	0.221	19.32	29.61
		11 Mbps	19.06	0.200	19.26	29.61

■ Ant.0

Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor
Frequency [MHz]	Channel No.				
2412	1	6 Mbps	11.02	0.226	11.24
		9 Mbps	10.96	0.278	11.24
		12 Mbps	10.97	0.287	11.26
		18 Mbps	11.14	0.308	11.45
		24 Mbps	10.97	0.273	11.25
		36 Mbps	10.96	0.376	11.33
		48 Mbps	10.97	0.454	11.43
		54 Mbps	10.88	0.548	11.42
2437	6	6 Mbps	11.74	0.226	11.97
		9 Mbps	12.02	0.278	12.30
		12 Mbps	12.04	0.287	12.33
		18 Mbps	12.07	0.308	12.38
		24 Mbps	11.78	0.273	12.05
		36 Mbps	12.04	0.376	12.41
		48 Mbps	11.80	0.454	12.26
		54 Mbps	11.68	0.548	12.23
2462	11	6 Mbps	11.27	0.226	11.49
		9 Mbps	11.12	0.278	11.40
		12 Mbps	11.15	0.287	11.43
		18 Mbps	11.03	0.308	11.34
		24 Mbps	11.26	0.273	11.54
		36 Mbps	10.99	0.376	11.37
		48 Mbps	11.28	0.454	11.74
		54 Mbps	11.02	0.548	11.56

■ Ant.1

Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor
Frequency [MHz]	Channel No.				
2412	1	6 Mbps	10.36	0.226	10.58
		9 Mbps	10.47	0.278	10.75
		12 Mbps	10.65	0.287	10.94
		18 Mbps	10.48	0.308	10.79
		24 Mbps	10.47	0.273	10.74
		36 Mbps	10.42	0.376	10.80
		48 Mbps	10.47	0.454	10.92
		54 Mbps	10.33	0.548	10.88
2437	6	6 Mbps	11.32	0.226	11.55
		9 Mbps	11.51	0.278	11.78
		12 Mbps	11.54	0.287	11.83
		18 Mbps	11.55	0.308	11.86
		24 Mbps	11.52	0.273	11.79
		36 Mbps	11.48	0.376	11.86
		48 Mbps	11.54	0.454	11.99
		54 Mbps	11.41	0.548	11.95
2462	11	6 Mbps	10.72	0.226	10.95
		9 Mbps	10.63	0.278	10.90
		12 Mbps	10.67	0.287	10.95
		18 Mbps	10.68	0.308	10.99
		24 Mbps	10.65	0.273	10.92
		36 Mbps	10.62	0.376	11.00
		48 Mbps	10.64	0.454	11.10
		54 Mbps	10.40	0.548	10.95

■ Ant.2

Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor
Frequency [MHz]	Channel No.				
2412	1	6 Mbps	11.39	0.226	11.62
		9 Mbps	11.27	0.278	11.54
		12 Mbps	11.29	0.287	11.58
		18 Mbps	11.34	0.308	11.65
		24 Mbps	11.05	0.273	11.32
		36 Mbps	11.24	0.376	11.62
		48 Mbps	11.27	0.454	11.72
		54 Mbps	11.16	0.548	11.70
2437	6	6 Mbps	12.18	0.226	12.41
		9 Mbps	12.07	0.278	12.35
		12 Mbps	12.13	0.287	12.42
		18 Mbps	12.03	0.308	12.33
		24 Mbps	11.99	0.273	12.26
		36 Mbps	11.96	0.376	12.33
		48 Mbps	11.98	0.454	12.43
		54 Mbps	11.88	0.548	12.43
2462	11	6 Mbps	11.33	0.226	11.55
		9 Mbps	11.19	0.278	11.47
		12 Mbps	11.27	0.287	11.56
		18 Mbps	11.29	0.308	11.59
		24 Mbps	11.23	0.273	11.50
		36 Mbps	11.15	0.376	11.52
		48 Mbps	11.23	0.454	11.68
		54 Mbps	11.11	0.548	11.65

■ Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
2412	1	6 Mbps	15.94	25.04
		9 Mbps	15.96	25.04
		12 Mbps	16.04	25.04
		18 Mbps	16.08	25.04
		24 Mbps	15.88	25.04
		36 Mbps	16.03	25.04
		48 Mbps	16.14	25.04
		54 Mbps	16.12	25.04
2437	6	6 Mbps	16.76	25.04
		9 Mbps	16.92	25.04
		12 Mbps	16.97	25.04
		18 Mbps	16.97	25.04
		24 Mbps	16.81	25.04
		36 Mbps	16.98	25.04
		48 Mbps	17.00	25.04
		54 Mbps	16.98	25.04
2462	11	6 Mbps	16.11	25.04
		9 Mbps	16.04	25.04
		12 Mbps	16.09	25.04
		18 Mbps	16.08	25.04
		24 Mbps	16.10	25.04
		36 Mbps	16.07	25.04
		48 Mbps	16.29	25.04
		54 Mbps	16.17	25.04

5.8 GHz Band

Ant.0

Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor
Frequency [MHz]	Channel No.				
5745	149	6 Mbps	8.82	0.226	9.04
		9 Mbps	8.77	0.278	9.05
		12 Mbps	8.82	0.287	9.11
		18 Mbps	8.82	0.308	9.13
		24 Mbps	8.77	0.273	9.04
		36 Mbps	8.71	0.376	9.08
		48 Mbps	8.74	0.454	9.20
		54 Mbps	8.64	0.548	9.19
5785	157	6 Mbps	8.68	0.226	8.90
		9 Mbps	8.41	0.278	8.69
		12 Mbps	8.65	0.287	8.93
		18 Mbps	8.68	0.308	8.98
		24 Mbps	8.37	0.273	8.64
		36 Mbps	8.35	0.376	8.73
		48 Mbps	8.39	0.454	8.84
		54 Mbps	8.25	0.548	8.79
5825	165	6 Mbps	8.91	0.226	9.13
		9 Mbps	9.01	0.278	9.29
		12 Mbps	9.01	0.287	9.30
		18 Mbps	8.88	0.308	9.18
		24 Mbps	8.91	0.273	9.19
		36 Mbps	8.76	0.376	9.13
		48 Mbps	8.79	0.454	9.25
		54 Mbps	8.71	0.548	9.26

■ Ant.1

Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor
Frequency [MHz]	Channel No.				
5745	149	6 Mbps	8.28	0.226	8.51
		9 Mbps	8.26	0.278	8.53
		12 Mbps	8.31	0.287	8.59
		18 Mbps	8.35	0.308	8.66
		24 Mbps	8.28	0.273	8.55
		36 Mbps	8.22	0.376	8.59
		48 Mbps	8.24	0.454	8.70
		54 Mbps	8.13	0.548	8.68
5785	157	6 Mbps	8.11	0.226	8.34
		9 Mbps	7.79	0.278	8.07
		12 Mbps	8.02	0.287	8.31
		18 Mbps	7.82	0.308	8.13
		24 Mbps	7.90	0.273	8.17
		36 Mbps	7.91	0.376	8.29
		48 Mbps	7.90	0.454	8.36
		54 Mbps	7.79	0.548	8.34
5825	165	6 Mbps	8.50	0.226	8.72
		9 Mbps	8.55	0.278	8.83
		12 Mbps	8.54	0.287	8.83
		18 Mbps	8.42	0.308	8.73
		24 Mbps	8.38	0.273	8.65
		36 Mbps	8.36	0.376	8.74
		48 Mbps	8.34	0.454	8.80
		54 Mbps	8.32	0.548	8.86

■ Ant.2

Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor
Frequency [MHz]	Channel No.				
5745	149	6 Mbps	8.75	0.226	8.97
		9 Mbps	8.82	0.278	9.10
		12 Mbps	8.66	0.287	8.94
		18 Mbps	8.62	0.308	8.92
		24 Mbps	8.69	0.273	8.96
		36 Mbps	8.57	0.376	8.95
		48 Mbps	8.76	0.454	9.22
		54 Mbps	8.50	0.548	9.04
5785	157	6 Mbps	8.52	0.226	8.75
		9 Mbps	8.52	0.278	8.79
		12 Mbps	8.45	0.287	8.74
		18 Mbps	8.37	0.308	8.68
		24 Mbps	8.42	0.273	8.69
		36 Mbps	8.34	0.376	8.72
		48 Mbps	8.35	0.454	8.81
		54 Mbps	8.26	0.548	8.80
5825	165	6 Mbps	8.62	0.226	8.85
		9 Mbps	8.65	0.278	8.93
		12 Mbps	8.66	0.287	8.95
		18 Mbps	8.71	0.308	9.01
		24 Mbps	8.60	0.273	8.87
		36 Mbps	8.56	0.376	8.93
		48 Mbps	8.60	0.454	9.05
		54 Mbps	8.48	0.548	9.03

■ Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6 Mbps	13.62	24.77
		9 Mbps	13.67	24.77
		12 Mbps	13.66	24.77
		18 Mbps	13.68	24.77
		24 Mbps	13.63	24.77
		36 Mbps	13.65	24.77
		48 Mbps	13.82	24.77
		54 Mbps	13.75	24.77
5785	157	6 Mbps	13.44	24.77
		9 Mbps	13.30	24.77
		12 Mbps	13.44	24.77
		18 Mbps	13.38	24.77
		24 Mbps	13.28	24.77
		36 Mbps	13.36	24.77
		48 Mbps	13.45	24.77
		54 Mbps	13.42	24.77
5825	165	6 Mbps	13.67	24.77
		9 Mbps	13.79	24.77
		12 Mbps	13.80	24.77
		18 Mbps	13.75	24.77
		24 Mbps	13.68	24.77
		36 Mbps	13.71	24.77
		48 Mbps	13.81	24.77
		54 Mbps	13.82	24.77

Service Port

■ TEST RESULTS-Average

2.4 GHz Band

■ Ant.0

Conducted Output Power Measurements (802.11b Mode)

802.11b Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
2412	1	1 Mbps	15.74	0.225	15.97	30
		2 Mbps	16.37	0.216	16.59	30
		5.5 Mbps	16.44	0.221	16.66	30
		11 Mbps	16.34	0.200	16.54	30
2437	6	1 Mbps	14.88	0.225	15.11	30
		2 Mbps	15.40	0.216	15.62	30
		5.5 Mbps	15.27	0.221	15.49	30
		11 Mbps	15.27	0.200	15.47	30
2462	11	1 Mbps	14.82	0.225	15.05	30
		2 Mbps	15.39	0.216	15.61	30
		5.5 Mbps	15.57	0.221	15.79	30
		11 Mbps	15.61	0.200	15.81	30

■ Ant.0

Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
2412	1	6 Mbps	11.55	0.226	11.78	30
		9 Mbps	11.37	0.278	11.65	30
		12 Mbps	11.41	0.287	11.69	30
		18 Mbps	11.41	0.308	11.72	30
		24 Mbps	11.39	0.273	11.66	30
		36 Mbps	11.36	0.376	11.74	30
		48 Mbps	11.40	0.454	11.86	30
		54 Mbps	11.28	0.548	11.83	30
2437	6	6 Mbps	11.45	0.226	11.68	30
		9 Mbps	11.55	0.278	11.82	30
		12 Mbps	11.60	0.287	11.88	30
		18 Mbps	11.60	0.308	11.91	30
		24 Mbps	11.59	0.273	11.86	30
		36 Mbps	11.55	0.376	11.93	30
		48 Mbps	11.59	0.454	12.05	30
		54 Mbps	11.46	0.548	12.01	30
2462	11	6 Mbps	11.72	0.226	11.94	30
		9 Mbps	11.83	0.278	12.11	30
		12 Mbps	11.66	0.287	11.95	30
		18 Mbps	11.91	0.308	12.21	30
		24 Mbps	11.65	0.273	11.92	30
		36 Mbps	11.62	0.376	11.99	30
		48 Mbps	11.65	0.454	12.10	30
		54 Mbps	11.52	0.548	12.07	30

■ Ant.1

Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
2412	1	6 Mbps	11.08	0.226	11.31	30
		9 Mbps	10.95	0.278	11.22	30
		12 Mbps	10.92	0.287	11.21	30
		18 Mbps	11.00	0.308	11.31	30
		24 Mbps	10.80	0.273	11.07	30
		36 Mbps	10.68	0.376	11.06	30
		48 Mbps	10.86	0.454	11.31	30
		54 Mbps	10.62	0.548	11.16	30
2437	6	6 Mbps	11.14	0.226	11.36	30
		9 Mbps	10.79	0.278	11.07	30
		12 Mbps	11.04	0.287	11.33	30
		18 Mbps	10.83	0.308	11.14	30
		24 Mbps	10.80	0.273	11.07	30
		36 Mbps	10.77	0.376	11.14	30
		48 Mbps	10.79	0.454	11.24	30
		54 Mbps	10.69	0.548	11.23	30
2462	11	6 Mbps	11.19	0.226	11.41	30
		9 Mbps	11.06	0.278	11.34	30
		12 Mbps	11.14	0.287	11.42	30
		18 Mbps	11.12	0.308	11.43	30
		24 Mbps	11.10	0.273	11.37	30
		36 Mbps	11.06	0.376	11.44	30
		48 Mbps	11.06	0.454	11.52	30
		54 Mbps	10.96	0.548	11.51	30

■ Ant.2

Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
2412	1	6 Mbps	11.56	0.226	11.79	30
		9 Mbps	11.47	0.278	11.75	30
		12 Mbps	11.41	0.287	11.69	30
		18 Mbps	11.45	0.308	11.76	30
		24 Mbps	11.54	0.273	11.81	30
		36 Mbps	11.49	0.376	11.87	30
		48 Mbps	11.42	0.454	11.88	30
		54 Mbps	11.47	0.548	12.01	30
2437	6	6 Mbps	11.77	0.226	12.00	30
		9 Mbps	11.66	0.278	11.94	30
		12 Mbps	11.68	0.287	11.97	30
		18 Mbps	11.74	0.308	12.05	30
		24 Mbps	11.72	0.273	11.99	30
		36 Mbps	11.43	0.376	11.81	30
		48 Mbps	11.73	0.454	12.19	30
		54 Mbps	11.62	0.548	12.17	30
2462	11	6 Mbps	11.99	0.226	12.21	30
		9 Mbps	11.75	0.278	12.03	30
		12 Mbps	11.87	0.287	12.16	30
		18 Mbps	11.79	0.308	12.10	30
		24 Mbps	11.76	0.273	12.03	30
		36 Mbps	11.85	0.376	12.23	30
		48 Mbps	11.74	0.454	12.20	30
		54 Mbps	11.63	0.548	12.18	30

■ Sum Data of Ant.0 and Ant.1

Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
2412	1	6 Mbps	14.56	29.52
		9 Mbps	14.45	29.52
		12 Mbps	14.47	29.52
		18 Mbps	14.53	29.52
		24 Mbps	14.39	29.52
		36 Mbps	14.42	29.52
		48 Mbps	14.60	29.52
		54 Mbps	14.52	29.52
2437	6	6 Mbps	14.53	29.52
		9 Mbps	14.47	29.52
		12 Mbps	14.62	29.52
		18 Mbps	14.55	29.52
		24 Mbps	14.49	29.52
		36 Mbps	14.56	29.52
		48 Mbps	14.67	29.52
		54 Mbps	14.65	29.52
2462	11	6 Mbps	14.69	29.52
		9 Mbps	14.75	29.52
		12 Mbps	14.70	29.52
		18 Mbps	14.85	29.52
		24 Mbps	14.66	29.52
		36 Mbps	14.73	29.52
		48 Mbps	14.83	29.52
		54 Mbps	14.81	29.52

■ Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
2412	1	6 Mbps	16.40	27.60
		9 Mbps	16.32	27.60
		12 Mbps	16.31	27.60
		18 Mbps	16.37	27.60
		24 Mbps	16.30	27.60
		36 Mbps	16.34	27.60
		48 Mbps	16.46	27.60
		54 Mbps	16.45	27.60
2437	6	6 Mbps	16.46	27.60
		9 Mbps	16.40	27.60
		12 Mbps	16.51	27.60
		18 Mbps	16.49	27.60
		24 Mbps	16.43	27.60
		36 Mbps	16.41	27.60
		48 Mbps	16.62	27.60
		54 Mbps	16.59	27.60
2462	11	6 Mbps	16.64	27.60
		9 Mbps	16.61	27.60
		12 Mbps	16.63	27.60
		18 Mbps	16.70	27.60
		24 Mbps	16.55	27.60
		36 Mbps	16.67	27.60
		48 Mbps	16.72	27.60
		54 Mbps	16.70	27.60

Ant.0

Conducted Output Power Measurements (802.11n Mode)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
2412	1	6.5 Mbps	11.43	0.210	11.64	30
		13 Mbps	11.49	0.195	11.69	30
		19.5 Mbps	11.49	0.216	11.71	30
		26 Mbps	11.56	0.200	11.76	30
		39 Mbps	11.47	0.287	11.75	30
		52 Mbps	11.44	0.360	11.80	30
		58.5 Mbps	11.42	0.391	11.81	30
		65 Mbps	11.39	0.435	11.83	30
2437	6	6.5 Mbps	11.63	0.210	11.84	30
		13 Mbps	11.62	0.195	11.82	30
		19.5 Mbps	11.45	0.216	11.67	30
		26 Mbps	11.50	0.200	11.70	30
		39 Mbps	11.63	0.287	11.91	30
		52 Mbps	11.58	0.360	11.94	30
		58.5 Mbps	11.37	0.391	11.76	30
		65 Mbps	11.35	0.435	11.78	30
2462	11	6.5 Mbps	11.52	0.210	11.73	30
		13 Mbps	11.60	0.195	11.79	30
		19.5 Mbps	11.62	0.216	11.83	30
		26 Mbps	11.66	0.200	11.86	30
		39 Mbps	11.62	0.287	11.91	30
		52 Mbps	11.58	0.360	11.94	30
		58.5 Mbps	11.55	0.391	11.94	30
		65 Mbps	11.52	0.435	11.96	30

■ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11n Mode)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
2412	1	6.5 Mbps	10.86	0.210	11.07	30
		13 Mbps	10.83	0.195	11.03	30
		19.5 Mbps	10.94	0.216	11.16	30
		26 Mbps	10.72	0.200	10.92	30
		39 Mbps	10.80	0.287	11.09	30
		52 Mbps	10.81	0.360	11.17	30
		58.5 Mbps	10.87	0.391	11.26	30
		65 Mbps	10.55	0.435	10.99	30
2437	6	6.5 Mbps	10.93	0.210	11.14	30
		13 Mbps	11.10	0.195	11.29	30
		19.5 Mbps	10.86	0.216	11.08	30
		26 Mbps	10.89	0.200	11.09	30
		39 Mbps	10.85	0.287	11.13	30
		52 Mbps	10.80	0.360	11.16	30
		58.5 Mbps	10.78	0.391	11.17	30
		65 Mbps	10.77	0.435	11.21	30
2462	11	6.5 Mbps	11.17	0.210	11.38	30
		13 Mbps	11.07	0.195	11.27	30
		19.5 Mbps	10.94	0.216	11.15	30
		26 Mbps	10.93	0.200	11.13	30
		39 Mbps	10.92	0.287	11.21	30
		52 Mbps	11.16	0.360	11.52	30
		58.5 Mbps	10.85	0.391	11.25	30
		65 Mbps	11.11	0.435	11.55	30

■ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11n Mode)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
2412	1	6.5 Mbps	11.56	0.210	11.77	30
		13 Mbps	11.59	0.195	11.78	30
		19.5 Mbps	11.62	0.216	11.83	30
		26 Mbps	11.67	0.200	11.88	30
		39 Mbps	11.62	0.287	11.91	30
		52 Mbps	11.56	0.360	11.92	30
		58.5 Mbps	11.56	0.391	11.95	30
		65 Mbps	11.34	0.435	11.78	30
2437	6	6.5 Mbps	11.81	0.210	12.01	30
		13 Mbps	11.62	0.195	11.81	30
		19.5 Mbps	11.64	0.216	11.86	30
		26 Mbps	11.63	0.200	11.83	30
		39 Mbps	11.57	0.287	11.86	30
		52 Mbps	11.62	0.360	11.98	30
		58.5 Mbps	11.52	0.391	11.91	30
		65 Mbps	11.49	0.435	11.92	30
2462	11	6.5 Mbps	11.70	0.210	11.91	30
		13 Mbps	11.73	0.195	11.93	30
		19.5 Mbps	11.76	0.216	11.97	30
		26 Mbps	11.80	0.200	12.00	30
		39 Mbps	11.75	0.287	12.04	30
		52 Mbps	11.71	0.360	12.07	30
		58.5 Mbps	11.68	0.391	12.07	30
		65 Mbps	11.67	0.435	12.11	30

■ TEST RESULTS_Sum Data of Ant.0 and Ant.1

Conducted Output Power Measurements (802.11n Mode)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
2412	1	6.5 Mbps	14.37	29.52
		13 Mbps	14.38	29.52
		19.5 Mbps	14.45	29.52
		26 Mbps	14.37	29.52
		39 Mbps	14.44	29.52
		52 Mbps	14.51	29.52
		58.5 Mbps	14.55	29.52
		65 Mbps	14.44	29.52
2437	6	6.5 Mbps	14.51	29.52
		13 Mbps	14.57	29.52
		19.5 Mbps	14.40	29.52
		26 Mbps	14.42	29.52
		39 Mbps	14.55	29.52
		52 Mbps	14.58	29.52
		58.5 Mbps	14.49	29.52
		65 Mbps	14.51	29.52
2462	11	6.5 Mbps	14.57	29.52
		13 Mbps	14.55	29.52
		19.5 Mbps	14.51	29.52
		26 Mbps	14.52	29.52
		39 Mbps	14.58	29.52
		52 Mbps	14.75	29.52
		58.5 Mbps	14.62	29.52
		65 Mbps	14.77	29.52

■ TEST RESULTS_Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11n Mode)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
2412	1	6.5 Mbps	16.28	27.60
		13 Mbps	16.28	27.60
		19.5 Mbps	16.35	27.60
		26 Mbps	16.31	27.60
		39 Mbps	16.37	27.60
		52 Mbps	16.41	27.60
		58.5 Mbps	16.45	27.60
		65 Mbps	16.32	27.60
2437	6	6.5 Mbps	16.45	27.60
		13 Mbps	16.42	27.60
		19.5 Mbps	16.32	27.60
		26 Mbps	16.32	27.60
		39 Mbps	16.42	27.60
		52 Mbps	16.48	27.60
		58.5 Mbps	16.40	27.60
		65 Mbps	16.42	27.60
2462	11	6.5 Mbps	16.45	27.60
		13 Mbps	16.44	27.60
		19.5 Mbps	16.44	27.60
		26 Mbps	16.45	27.60
		39 Mbps	16.51	27.60
		52 Mbps	16.62	27.60
		58.5 Mbps	16.54	27.60
		65 Mbps	16.65	27.60

5.8 GHz Band

■ Ant.0

Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5745	149	6 Mbps	10.66	0.226	10.88	29.83
		9 Mbps	10.60	0.278	10.88	29.83
		12 Mbps	10.56	0.287	10.84	29.83
		18 Mbps	10.61	0.308	10.91	29.83
		24 Mbps	10.50	0.273	10.77	29.83
		36 Mbps	10.48	0.376	10.85	29.83
		48 Mbps	10.50	0.454	10.95	29.83
		54 Mbps	10.36	0.548	10.90	29.83
5785	157	6 Mbps	11.44	0.226	11.67	29.83
		9 Mbps	11.37	0.278	11.64	29.83
		12 Mbps	11.49	0.287	11.77	29.83
		18 Mbps	11.17	0.308	11.47	29.83
		24 Mbps	11.26	0.273	11.53	29.83
		36 Mbps	11.22	0.376	11.60	29.83
		48 Mbps	11.40	0.454	11.86	29.83
		54 Mbps	10.95	0.548	11.50	29.83
5825	165	6 Mbps	11.23	0.226	11.45	29.83
		9 Mbps	11.18	0.278	11.46	29.83
		12 Mbps	11.16	0.287	11.45	29.83
		18 Mbps	11.05	0.308	11.35	29.83
		24 Mbps	11.20	0.273	11.47	29.83
		36 Mbps	10.97	0.376	11.34	29.83
		48 Mbps	11.26	0.454	11.71	29.83
		54 Mbps	10.86	0.548	11.41	29.83

■ Ant.1

Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5745	149	6 Mbps	10.70	0.226	10.92	30
		9 Mbps	10.74	0.278	11.02	30
		12 Mbps	10.75	0.287	11.03	30
		18 Mbps	10.71	0.308	11.02	30
		24 Mbps	10.63	0.273	10.91	30
		36 Mbps	10.64	0.376	11.02	30
		48 Mbps	10.45	0.454	10.90	30
		54 Mbps	10.47	0.548	11.02	30
5785	157	6 Mbps	11.22	0.226	11.45	30
		9 Mbps	11.08	0.278	11.36	30
		12 Mbps	11.14	0.287	11.43	30
		18 Mbps	11.14	0.308	11.45	30
		24 Mbps	11.13	0.273	11.41	30
		36 Mbps	11.05	0.376	11.43	30
		48 Mbps	10.93	0.454	11.38	30
		54 Mbps	10.95	0.548	11.50	30
5825	165	6 Mbps	11.02	0.226	11.25	30
		9 Mbps	11.08	0.278	11.36	30
		12 Mbps	11.10	0.287	11.39	30
		18 Mbps	11.13	0.308	11.44	30
		24 Mbps	11.11	0.273	11.38	30
		36 Mbps	10.92	0.376	11.30	30
		48 Mbps	10.86	0.454	11.31	30
		54 Mbps	10.76	0.548	11.30	30

■ Ant.2

Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5745	149	6 Mbps	10.82	0.226	11.05	30
		9 Mbps	10.92	0.278	11.20	30
		12 Mbps	10.61	0.287	10.90	30
		18 Mbps	10.75	0.308	11.06	30
		24 Mbps	10.57	0.273	10.84	30
		36 Mbps	10.68	0.376	11.06	30
		48 Mbps	10.74	0.454	11.20	30
		54 Mbps	10.47	0.548	11.02	30
5785	157	6 Mbps	11.14	0.226	11.36	30
		9 Mbps	11.20	0.278	11.48	30
		12 Mbps	11.21	0.287	11.50	30
		18 Mbps	11.20	0.308	11.51	30
		24 Mbps	11.13	0.273	11.41	30
		36 Mbps	11.13	0.376	11.50	30
		48 Mbps	11.10	0.454	11.55	30
		54 Mbps	11.01	0.548	11.56	30
5825	165	6 Mbps	11.18	0.226	11.41	30
		9 Mbps	11.21	0.278	11.49	30
		12 Mbps	11.17	0.287	11.46	30
		18 Mbps	11.25	0.308	11.56	30
		24 Mbps	11.09	0.273	11.36	30
		36 Mbps	11.06	0.376	11.44	30
		48 Mbps	10.99	0.454	11.44	30
		54 Mbps	10.95	0.548	11.50	30

■ Sum Data of Ant.0 and Ant.1

Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6 Mbps	13.91	27.17
		9 Mbps	13.96	27.17
		12 Mbps	13.95	27.17
		18 Mbps	13.98	27.17
		24 Mbps	13.85	27.17
		36 Mbps	13.95	27.17
		48 Mbps	13.94	27.17
		54 Mbps	13.97	27.17
5785	157	6 Mbps	14.57	27.17
		9 Mbps	14.51	27.17
		12 Mbps	14.61	27.17
		18 Mbps	14.47	27.17
		24 Mbps	14.48	27.17
		36 Mbps	14.53	27.17
		48 Mbps	14.64	27.17
		54 Mbps	14.51	27.17
5825	165	6 Mbps	14.36	27.17
		9 Mbps	14.42	27.17
		12 Mbps	14.43	27.17
		18 Mbps	14.41	27.17
		24 Mbps	14.44	27.17
		36 Mbps	14.33	27.17
		48 Mbps	14.52	27.17
		54 Mbps	14.37	27.17

■ Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6 Mbps	15.72	25.74
		9 Mbps	15.81	25.74
		12 Mbps	15.70	25.74
		18 Mbps	15.77	25.74
		24 Mbps	15.61	25.74
		36 Mbps	15.75	25.74
		48 Mbps	15.79	25.74
		54 Mbps	15.75	25.74
5785	157	6 Mbps	16.27	25.74
		9 Mbps	16.27	25.74
		12 Mbps	16.34	25.74
		18 Mbps	16.25	25.74
		24 Mbps	16.22	25.74
		36 Mbps	16.28	25.74
		48 Mbps	16.37	25.74
		54 Mbps	16.29	25.74
5825	165	6 Mbps	16.14	25.74
		9 Mbps	16.21	25.74
		12 Mbps	16.20	25.74
		18 Mbps	16.22	25.74
		24 Mbps	16.17	25.74
		36 Mbps	16.13	25.74
		48 Mbps	16.26	25.74
		54 Mbps	16.18	25.74

■ Ant.0

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5745~5825)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5745	149	6.5 Mbps	10.60	0.210	10.81	29.83
		13 Mbps	10.56	0.195	10.75	29.83
		19.5 Mbps	10.57	0.216	10.78	29.83
		26 Mbps	10.59	0.200	10.79	29.83
		39 Mbps	10.52	0.287	10.81	29.83
		52 Mbps	10.53	0.360	10.89	29.83
		58.5 Mbps	10.46	0.391	10.85	29.83
		65 Mbps	10.49	0.435	10.93	29.83
5785	157	6.5 Mbps	10.43	0.210	10.64	29.83
		13 Mbps	10.32	0.195	10.52	29.83
		19.5 Mbps	10.43	0.216	10.65	29.83
		26 Mbps	10.25	0.200	10.45	29.83
		39 Mbps	10.16	0.287	10.45	29.83
		52 Mbps	10.14	0.360	10.50	29.83
		58.5 Mbps	10.09	0.391	10.48	29.83
		65 Mbps	10.07	0.435	10.51	29.83
5825	165	6.5 Mbps	11.21	0.210	11.42	29.83
		13 Mbps	11.28	0.195	11.47	29.83
		19.5 Mbps	11.13	0.216	11.34	29.83
		26 Mbps	11.33	0.200	11.53	29.83
		39 Mbps	11.21	0.287	11.49	29.83
		52 Mbps	11.00	0.360	11.36	29.83
		58.5 Mbps	11.03	0.391	11.42	29.83
		65 Mbps	10.99	0.435	11.43	29.83

■ Ant.1

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5745~5825)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5745	149	6.5 Mbps	10.81	0.210	11.02	30
		13 Mbps	10.48	0.195	10.68	30
		19.5 Mbps	10.63	0.216	10.84	30
		26 Mbps	10.53	0.200	10.73	30
		39 Mbps	10.51	0.287	10.80	30
		52 Mbps	10.55	0.360	10.91	30
		58.5 Mbps	10.41	0.391	10.80	30
		65 Mbps	10.31	0.435	10.74	30
5785	157	6.5 Mbps	10.24	0.210	10.45	30
		13 Mbps	10.33	0.195	10.53	30
		19.5 Mbps	10.30	0.216	10.52	30
		26 Mbps	10.10	0.200	10.31	30
		39 Mbps	10.25	0.287	10.53	30
		52 Mbps	10.16	0.360	10.51	30
		58.5 Mbps	9.99	0.391	10.38	30
		65 Mbps	9.95	0.435	10.38	30
5825	165	6.5 Mbps	11.11	0.210	11.32	30
		13 Mbps	10.96	0.195	11.15	30
		19.5 Mbps	11.00	0.216	11.22	30
		26 Mbps	11.01	0.200	11.21	30
		39 Mbps	10.95	0.287	11.23	30
		52 Mbps	10.88	0.360	11.24	30
		58.5 Mbps	10.83	0.391	11.22	30
		65 Mbps	10.83	0.435	11.26	30

■ Ant.2

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5745~5825)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5745	149	6.5 Mbps	10.87	0.210	11.08	30
		13 Mbps	10.60	0.195	10.80	30
		19.5 Mbps	10.78	0.216	10.99	30
		26 Mbps	10.80	0.200	11.00	30
		39 Mbps	10.75	0.287	11.03	30
		52 Mbps	10.55	0.360	10.91	30
		58.5 Mbps	10.52	0.391	10.91	30
		65 Mbps	10.53	0.435	10.96	30
5785	157	6.5 Mbps	10.22	0.210	10.43	30
		13 Mbps	10.37	0.195	10.57	30
		19.5 Mbps	10.35	0.216	10.57	30
		26 Mbps	10.44	0.200	10.64	30
		39 Mbps	10.33	0.287	10.61	30
		52 Mbps	10.27	0.360	10.63	30
		58.5 Mbps	10.17	0.391	10.56	30
		65 Mbps	10.25	0.435	10.68	30
5825	165	6.5 Mbps	11.19	0.210	11.40	30
		13 Mbps	11.01	0.195	11.21	30
		19.5 Mbps	11.03	0.216	11.24	30
		26 Mbps	11.04	0.200	11.24	30
		39 Mbps	10.99	0.287	11.28	30
		52 Mbps	10.93	0.360	11.29	30
		58.5 Mbps	10.90	0.391	11.29	30
		65 Mbps	10.86	0.435	11.30	30

■ Sum Data of Ant.0 and Ant.1

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5745~5825)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6.5 Mbps	13.93	27.17
		13 Mbps	13.73	27.17
		19.5 Mbps	13.82	27.17
		26 Mbps	13.77	27.17
		39 Mbps	13.82	27.17
		52 Mbps	13.91	27.17
		58.5 Mbps	13.84	27.17
		65 Mbps	13.85	27.17
5785	157	6.5 Mbps	13.56	27.17
		13 Mbps	13.54	27.17
		19.5 Mbps	13.60	27.17
		26 Mbps	13.39	27.17
		39 Mbps	13.50	27.17
		52 Mbps	13.52	27.17
		58.5 Mbps	13.44	27.17
		65 Mbps	13.46	27.17
5825	165	6.5 Mbps	14.38	27.17
		13 Mbps	14.32	27.17
		19.5 Mbps	14.29	27.17
		26 Mbps	14.38	27.17
		39 Mbps	14.37	27.17
		52 Mbps	14.31	27.17
		58.5 Mbps	14.33	27.17
		65 Mbps	14.36	27.17

■ TEST RESULTS_Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5745~5825)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6.5 Mbps	15.74	25.74
		13 Mbps	15.51	25.74
		19.5 Mbps	15.64	25.74
		26 Mbps	15.61	25.74
		39 Mbps	15.65	25.74
		52 Mbps	15.67	25.74
		58.5 Mbps	15.62	25.74
		65 Mbps	15.65	25.74
5785	157	6.5 Mbps	15.28	25.74
		13 Mbps	15.31	25.74
		19.5 Mbps	15.35	25.74
		26 Mbps	15.24	25.74
		39 Mbps	15.30	25.74
		52 Mbps	15.32	25.74
		58.5 Mbps	15.25	25.74
		65 Mbps	15.30	25.74
5825	165	6.5 Mbps	16.15	25.74
		13 Mbps	16.05	25.74
		19.5 Mbps	16.04	25.74
		26 Mbps	16.10	25.74
		39 Mbps	16.11	25.74
		52 Mbps	16.07	25.74
		58.5 Mbps	16.08	25.74
		65 Mbps	16.10	25.74

■ TEST RESULTS_Ant.0

Conducted Output Power Measurements (802.11n_40 MHz BW Mode: 5755~5795)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5755	151	13.5 Mbps	9.65	0.429	10.08	29.83
		27 Mbps	9.71	0.404	10.11	29.83
		40.5 Mbps	9.62	0.410	10.03	29.83
		54 Mbps	9.68	0.370	10.05	29.83
		81 Mbps	9.61	0.518	10.13	29.83
		108 Mbps	9.48	0.623	10.10	29.83
		121.5 Mbps	9.43	0.672	10.11	29.83
		135 Mbps	9.43	0.739	10.17	29.83
5795	159	13.5 Mbps	9.78	0.429	10.21	29.83
		27 Mbps	9.76	0.404	10.17	29.83
		40.5 Mbps	9.87	0.410	10.28	29.83
		54 Mbps	9.75	0.370	10.12	29.83
		81 Mbps	9.88	0.518	10.40	29.83
		108 Mbps	9.79	0.623	10.41	29.83
		121.5 Mbps	9.65	0.672	10.32	29.83
		135 Mbps	9.71	0.739	10.45	29.83

■ Ant.1

Conducted Output Power Measurements (802.11n_40 MHz BW Mode: 5755~5795)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5755	151	13.5 Mbps	9.35	0.429	9.78	30
		27 Mbps	9.41	0.404	9.82	30
		40.5 Mbps	9.35	0.410	9.76	30
		54 Mbps	9.29	0.370	9.66	30
		81 Mbps	9.30	0.518	9.82	30
		108 Mbps	9.26	0.623	9.88	30
		121.5 Mbps	9.34	0.672	10.01	30
		135 Mbps	9.13	0.739	9.87	30
5795	159	13.5 Mbps	9.71	0.429	10.14	30
		27 Mbps	9.64	0.404	10.04	30
		40.5 Mbps	9.54	0.410	9.96	30
		54 Mbps	9.76	0.370	10.13	30
		81 Mbps	9.57	0.518	10.09	30
		108 Mbps	9.50	0.623	10.12	30
		121.5 Mbps	9.46	0.672	10.13	30
		135 Mbps	9.31	0.739	10.05	30

■ Ant.2

Conducted Output Power Measurements (802.11n_40 MHz BW Mode: 5755~5795)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5755	151	13.5 Mbps	9.62	0.429	10.05	30
		27 Mbps	9.43	0.404	9.83	30
		40.5 Mbps	9.56	0.410	9.97	30
		54 Mbps	9.65	0.370	10.02	30
		81 Mbps	9.43	0.518	9.95	30
		108 Mbps	9.47	0.623	10.09	30
		121.5 Mbps	9.27	0.672	9.94	30
		135 Mbps	9.25	0.739	9.99	30
5795	159	13.5 Mbps	9.76	0.429	10.19	30
		27 Mbps	9.87	0.404	10.28	30
		40.5 Mbps	9.81	0.410	10.22	30
		54 Mbps	9.84	0.370	10.21	30
		81 Mbps	9.63	0.518	10.15	30
		108 Mbps	9.56	0.623	10.18	30
		121.5 Mbps	9.59	0.672	10.26	30
		135 Mbps	9.59	0.739	10.33	30

■ Sum Data of Ant.0 and Ant.1

Conducted Output Power Measurements (802.11n_40 MHz BW Mode: 5755~5795)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5755	151	13.5 Mbps	12.94	27.17
		27 Mbps	12.98	27.17
		40.5 Mbps	12.91	27.17
		54 Mbps	12.87	27.17
		81 Mbps	12.99	27.17
		108 Mbps	13.00	27.17
		121.5 Mbps	13.07	27.17
		135 Mbps	13.03	27.17
5795	159	13.5 Mbps	13.19	27.17
		27 Mbps	13.12	27.17
		40.5 Mbps	13.13	27.17
		54 Mbps	13.14	27.17
		81 Mbps	13.26	27.17
		108 Mbps	13.28	27.17
		121.5 Mbps	13.24	27.17
		135 Mbps	13.26	27.17

■ Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11n_40 MHz BW Mode: 5755~5795)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5755	151	13.5 Mbps	14.74	25.74
		27 Mbps	14.69	25.74
		40.5 Mbps	14.69	25.74
		54 Mbps	14.68	25.74
		81 Mbps	14.74	25.74
		108 Mbps	14.80	25.74
		121.5 Mbps	14.79	25.74
		135 Mbps	14.78	25.74
5795	159	13.5 Mbps	14.95	25.74
		27 Mbps	14.94	25.74
		40.5 Mbps	14.93	25.74
		54 Mbps	14.92	25.74
		81 Mbps	14.99	25.74
		108 Mbps	15.01	25.74
		121.5 Mbps	15.01	25.74
		135 Mbps	15.05	25.74

Ant.0

Conducted Output Power Measurements (802.11ac_20 MHz BW Mode: 5745~5825)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5745	149	6.5	10.73	0.210	10.94	29.83
		13	10.61	0.195	10.80	29.83
		19.5	10.67	0.216	10.89	29.83
		26	10.59	0.200	10.79	29.83
		39	10.52	0.287	10.80	29.83
		52	10.34	0.360	10.70	29.83
		58.5	10.31	0.391	10.70	29.83
		65	10.36	0.435	10.80	29.83
		78	10.32	0.581	10.91	29.83
5785	157	6.5	7.88	0.210	8.09	29.83
		13	7.87	0.195	8.06	29.83
		19.5	7.69	0.216	7.90	29.83
		26	7.67	0.200	7.87	29.83
		39	7.61	0.287	7.90	29.83
		52	7.74	0.360	8.10	29.83
		58.5	7.62	0.391	8.01	29.83
		65	7.50	0.435	7.94	29.83
		78	7.50	0.581	8.08	29.83
5825	165	6.5	7.89	0.210	8.10	29.83
		13	7.81	0.195	8.00	29.83
		19.5	7.91	0.216	8.13	29.83
		26	7.71	0.200	7.91	29.83
		39	7.62	0.287	7.91	29.83
		52	7.57	0.360	7.93	29.83
		58.5	7.64	0.391	8.03	29.83
		65	7.63	0.435	8.07	29.83
		78	7.46	0.581	8.04	29.83

Ant.1

Conducted Output Power Measurements (802.11ac_20 MHz BW Mode: 5745~5825)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5745	149	6.5	10.64	0.210	10.85	30
		13	10.69	0.195	10.88	30
		19.5	10.53	0.216	10.75	30
		26	10.50	0.200	10.70	30
		39	10.63	0.287	10.91	30
		52	10.35	0.360	10.71	30
		58.5	10.30	0.391	10.69	30
		65	10.35	0.435	10.78	30
		78	10.20	0.581	10.79	30
5785	157	6.5	7.88	0.210	8.09	30
		13	7.80	0.195	8.00	30
		19.5	7.77	0.216	7.99	30
		26	7.74	0.200	7.94	30
		39	7.80	0.287	8.09	30
		52	7.70	0.360	8.06	30
		58.5	7.55	0.391	7.94	30
		65	7.68	0.435	8.12	30
		78	7.56	0.581	8.14	30
5825	165	6.5	7.99	0.210	8.20	30
		13	7.94	0.195	8.13	30
		19.5	7.71	0.216	7.92	30
		26	7.76	0.200	7.96	30
		39	7.73	0.287	8.02	30
		52	7.69	0.360	8.05	30
		58.5	7.47	0.391	7.86	30
		65	7.65	0.435	8.09	30
		78	7.59	0.581	8.17	30

Ant.2

Conducted Output Power Measurements (802.11ac_20 MHz BW Mode: 5745~5825)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5745	149	6.5	10.85	0.210	11.06	30
		13	10.73	0.195	10.93	30
		19.5	10.70	0.216	10.92	30
		26	10.64	0.200	10.84	30
		39	10.71	0.287	10.99	30
		52	10.52	0.360	10.88	30
		58.5	10.51	0.391	10.90	30
		65	10.55	0.435	10.98	30
		78	10.36	0.581	10.94	30
5785	157	6.5	8.00	0.210	8.21	30
		13	7.96	0.195	8.15	30
		19.5	7.89	0.216	8.10	30
		26	7.86	0.200	8.06	30
		39	7.83	0.287	8.12	30
		52	7.69	0.360	8.05	30
		58.5	7.66	0.391	8.05	30
		65	7.39	0.435	7.83	30
		78	7.61	0.581	8.19	30
5825	165	6.5	7.71	0.210	7.92	30
		13	7.89	0.195	8.09	30
		19.5	7.88	0.216	8.09	30
		26	7.79	0.200	7.99	30
		39	7.70	0.287	7.99	30
		52	7.65	0.360	8.01	30
		58.5	7.61	0.391	8.00	30
		65	7.54	0.435	7.98	30
		78	7.49	0.581	8.08	30

■ Sum Data of Ant.0 and Ant.1

Conducted Output Power Measurements (802.11ac_20 MHz BW Mode: 5745~5825)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6.5	13.91	27.17
		13	13.85	27.17
		19.5	13.83	27.17
		26	13.76	27.17
		39	13.87	27.17
		52	13.72	27.17
		58.5	13.71	27.17
		65	13.80	27.17
		78	13.86	27.17
5785	157	6.5	11.10	27.17
		13	11.04	27.17
		19.5	10.96	27.17
		26	10.92	27.17
		39	11.01	27.17
		52	11.09	27.17
		58.5	10.99	27.17
		65	11.04	27.17
		78	11.12	27.17
5825	165	6.5	11.16	27.17
		13	11.08	27.17
		19.5	11.04	27.17
		26	10.95	27.17
		39	10.98	27.17
		52	11.00	27.17
		58.5	10.96	27.17
		65	11.09	27.17
		78	11.12	27.17

■ Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11ac_20 MHz BW Mode: 5745~5825)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5745	149	6.5	15.72	25.74
		13	15.64	25.74
		19.5	15.63	25.74
		26	15.55	25.74
		39	15.67	25.74
		52	15.54	25.74
		58.5	15.54	25.74
		65	15.63	25.74
		78	15.65	25.74
5785	157	6.5	12.90	25.74
		13	12.84	25.74
		19.5	12.77	25.74
		26	12.73	25.74
		39	12.81	25.74
		52	12.84	25.74
		58.5	12.77	25.74
		65	12.74	25.74
		78	12.91	25.74
5825	165	6.5	12.85	25.74
		13	12.84	25.74
		19.5	12.82	25.74
		26	12.72	25.74
		39	12.74	25.74
		52	12.77	25.74
		58.5	12.74	25.74
		65	12.82	25.74
		78	12.87	25.74

■ Ant.0

Conducted Output Power Measurements (802.11ac_40 MHz BW Mode: 5755~5795)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5755	151	13.5	12.44	0.429	12.87	29.83
		27	12.39	0.404	12.80	29.83
		40.5	12.23	0.410	12.64	29.83
		54	12.19	0.370	12.56	29.83
		81	12.06	0.518	12.58	29.83
		108	11.93	0.623	12.55	29.83
		121.5	11.91	0.672	12.59	29.83
		135	11.91	0.739	12.65	29.83
		162	11.74	0.947	12.68	29.83
		180	11.73	0.973	12.70	29.83
5795	159	13.5	10.93	0.429	11.36	29.83
		27	10.71	0.404	11.11	29.83
		40.5	10.70	0.410	11.11	29.83
		54	10.65	0.370	11.02	29.83
		81	10.53	0.518	11.05	29.83
		108	10.39	0.623	11.02	29.83
		121.5	10.27	0.672	10.94	29.83
		135	10.32	0.739	11.06	29.83
		162	10.19	0.947	11.13	29.83
		180	10.18	0.973	11.15	29.83

Ant.1

Conducted Output Power Measurements (802.11ac_40 MHz BW Mode: 5755~5795)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5755	151	13.5	12.43	0.429	12.86	30
		27	12.32	0.404	12.73	30
		40.5	12.24	0.410	12.65	30
		54	12.10	0.370	12.47	30
		81	12.05	0.518	12.56	30
		108	11.89	0.623	12.52	30
		121.5	11.89	0.672	12.56	30
		135	11.83	0.739	12.57	30
		162	11.71	0.947	12.66	30
		180	11.80	0.973	12.78	30
5795	159	13.5	10.67	0.429	11.10	30
		27	10.72	0.404	11.13	30
		40.5	10.63	0.410	11.04	30
		54	10.52	0.370	10.89	30
		81	10.38	0.518	10.90	30
		108	10.27	0.623	10.89	30
		121.5	10.19	0.672	10.87	30
		135	10.15	0.739	10.89	30
		162	9.94	0.947	10.89	30
		180	10.07	0.973	11.05	30

■ Ant.2

Conducted Output Power Measurements (802.11ac_40 MHz BW Mode: 5755~5795)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5755	151	13.5	12.54	0.429	12.96	30
		27	12.43	0.404	12.83	30
		40.5	12.44	0.410	12.85	30
		54	12.26	0.370	12.63	30
		81	12.14	0.518	12.66	30
		108	12.16	0.623	12.79	30
		121.5	11.99	0.672	12.66	30
		135	11.90	0.739	12.64	30
		162	11.77	0.947	12.72	30
		180	11.86	0.973	12.83	30
5795	159	13.5	10.95	0.429	11.38	30
		27	10.88	0.404	11.29	30
		40.5	10.62	0.410	11.03	30
		54	10.66	0.370	11.03	30
		81	10.56	0.518	11.08	30
		108	10.45	0.623	11.08	30
		121.5	10.43	0.672	11.10	30
		135	10.32	0.739	11.05	30
		162	10.17	0.947	11.12	30
		180	10.18	0.973	11.16	30

■ Sum Data of Ant.0 and Ant.1

Conducted Output Power Measurements (802.11ac_40 MHz BW Mode: 5755~5795)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5755	151	13.5	15.88	27.17
		27	15.78	27.17
		40.5	15.66	27.17
		54	15.53	27.17
		81	15.58	27.17
		108	15.55	27.17
		121.5	15.59	27.17
		135	15.62	27.17
		162	15.68	27.17
		180	15.75	27.17
5795	159	13.5	14.24	27.17
		27	14.13	27.17
		40.5	14.09	27.17
		54	13.97	27.17
		81	13.99	27.17
		108	13.97	27.17
		121.5	13.92	27.17
		135	13.99	27.17
		162	14.02	27.17
		180	14.11	27.17

■ Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11ac_40 MHz BW Mode: 5755~5795)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5755	151	13.5	17.67	25.74
		27	17.56	25.74
		40.5	17.49	25.74
		54	17.33	25.74
		81	17.37	25.74
		108	17.39	25.74
		121.5	17.37	25.74
		135	17.39	25.74
		162	17.46	25.74
		180	17.54	25.74
5795	159	13.5	16.05	25.74
		27	15.95	25.74
		40.5	15.83	25.74
		54	15.75	25.74
		81	15.78	25.74
		108	15.77	25.74
		121.5	15.74	25.74
		135	15.77	25.74
		162	15.82	25.74
		180	15.89	25.74

Ant.0

Conducted Output Power Measurements (802.11ac_80 MHz BW Mode: 5775)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5775	155	29.3	7.38	0.266	7.64	29.83
		58.5	7.24	0.469	7.71	29.83
		87.8	7.11	0.638	7.74	29.83
		117	6.95	0.764	7.72	29.83
		175.5	6.73	0.976	7.71	29.83
		234	6.64	1.136	7.77	29.83
		263.3	6.58	1.218	7.80	29.83
		292.5	6.51	1.264	7.77	29.83
		351	6.38	1.368	7.75	29.83
		390	6.36	1.442	7.80	29.83

Ant.1

Conducted Output Power Measurements (802.11ac_80 MHz BW Mode: 5775)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5775	155	29.3	7.02	0.266	7.28	30
		58.5	6.90	0.469	7.37	30
		87.8	6.80	0.638	7.44	30
		117	6.68	0.764	7.44	30
		175.5	6.55	0.976	7.53	30
		234	6.29	1.136	7.43	30
		263.3	6.21	1.218	7.43	30
		292.5	6.18	1.264	7.44	30
		351	6.19	1.368	7.55	30
		390	6.01	1.442	7.45	30

Ant.2

Conducted Output Power Measurements (802.11ac_80 MHz BW Mode: 5775)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5775	155	29.3	7.36	0.266	7.62	30
		58.5	7.09	0.469	7.56	30
		87.8	7.07	0.638	7.71	30
		117	6.86	0.764	7.63	30
		175.5	6.63	0.976	7.61	30
		234	6.46	1.136	7.60	30
		263.3	6.42	1.218	7.64	30
		292.5	6.31	1.264	7.57	30
		351	6.26	1.368	7.63	30
		390	6.08	1.442	7.53	30

■ TEST RESULTS_Sum Data of Ant.0 and Ant.1

Conducted Output Power Measurements (802.11ac_80 MHz BW Mode: 5775)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5775	155	29.3	10.47	27.17
		58.5	10.55	27.17
		87.8	10.60	27.17
		117	10.59	27.17
		175.5	10.63	27.17
		234	10.61	27.17
		263.3	10.63	27.17
		292.5	10.62	27.17
		351	10.66	27.17
		390	10.64	27.17

■ TEST RESULTS_Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Output Power Measurements (802.11ac_80 MHz BW Mode: 5775)

802.11ac Mode		Rate (Mbps)	Measured Power(dBm)	Limit (dBm)
Frequency[MHz]	Channel No.			
5775	155	29.3	12.29	25.74
		58.5	12.32	25.74
		87.8	12.40	25.74
		117	12.37	25.74
		175.5	12.39	25.74
		234	12.37	25.74
		263.3	12.40	25.74
		292.5	12.37	25.74
		351	12.42	25.74
		390	12.37	25.74

Note : In order to simplify the report, attached plots were only the highest conducted power channel and data rate.

RESULT PLOTS-Peak Ant.0

40 MHz BW

(5755 MHz ~5795 MHz)

Conducted Output Power (802.11n-CH 159) 108 Mbps



Conducted Output Power (802.11ac-CH 151) 162 Mbps



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

80 MHz BW
(5775 MHz)

Conducted Output Power (802.11ac-CH 155) 234 Mbps



RESULT PLOTS-Peak Ant.1
 40 MHz BW
 (5755 MHz ~5795 MHz)

Conducted Output Power (802.11n-CH 159) 108 Mbps



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Conducted Output Power (802.11ac-CH 151) 180 Mbps



80 MHz BW
 (5775 MHz)

Conducted Output Power (802.11ac-CH 155) 351 Mbps



RESULT PLOTS-Peak Ant.2

40 MHz BW

(5755 MHz ~5795 MHz)

Conducted Output Power (802.11n-CH 159) 121.5 Mbps



Conducted Output Power (802.11ac-CH 151) 180 Mbps



80 MHz BW

(5775 MHz)

Conducted Output Power (802.11ac-CH 155) 117 Mbps



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

RESULT PLOTS-Average Ant.0

40 MHz BW

(5755 MHz ~5795 MHz)

Conducted Output Power (802.11n-CH 159) 135 Mbps



Conducted Output Power (802.11ac-CH 151) 13.5 Mbps



80 MHz BW
(5775 MHz)

Conducted Output Power (802.11ac-CH 155) 263.3 Mbps



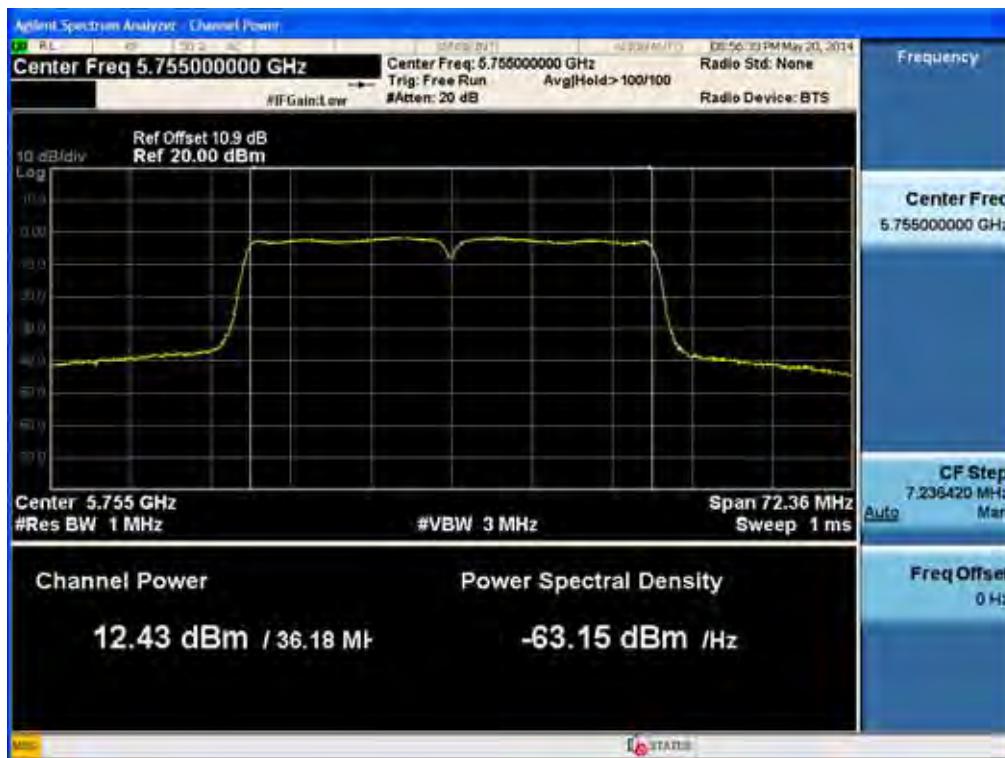
RESULT PLOTS-Average Ant.1

40 MHz BW
(5755 MHz ~5795 MHz)

Conducted Output Power (802.11n-CH 159) 13.5 Mbps



Conducted Output Power (802.11ac-CH 151) 13.5 Mbps



80 MHz BW
 (5775 MHz)

Conducted Output Power (802.11ac-CH 155) 351 Mbps



RESULT PLOTS-Average Ant.2

40 MHz BW

(5755 MHz ~5795 MHz)

Conducted Output Power (802.11n-CH 159) 135 Mbps



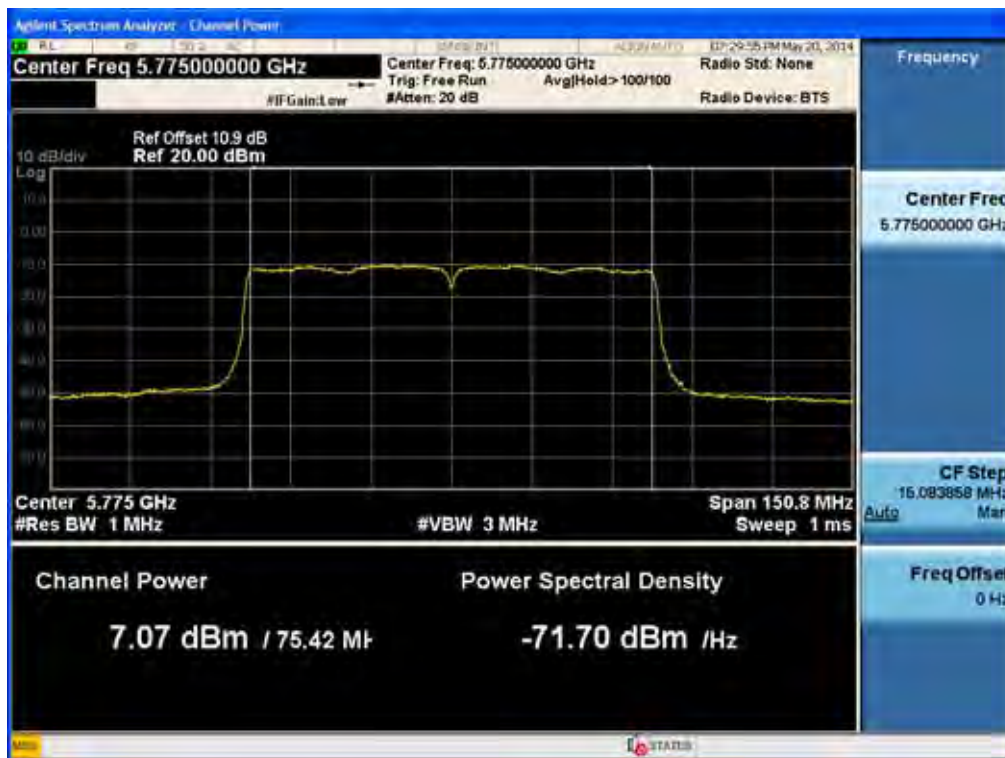
Conducted Output Power (802.11ac-CH 151) 13.5 Mbps



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

80 MHz BW
(5775 MHz)

Conducted Output Power (802.11ac-CH 155) 87.8 Mbps



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

8.5 POWER SPECTRAL DENSITY (802.11a/b/g/n/ac)

Test Requirements and limit, §15.247(e)

The peak power spectral density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating in transmission mode at the appropriate frequencies.

Minimum Standard – the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

▣ Limit(CDD)

2.4 GHz Band

Operating Mode	Mode	Antenna	Ant. Gain(dBi)	Limt(dBm)
SISO : Monitoring	802.11b	Ant.0	6.39	7.69
SISO : Service	802.11b/g/n	Ant.0	2.7	8
	802.11g/n	Ant.1	4.18	8
		Ant.2	3.94	8
MIMO(3 TX) : Monitoring	802.11g	Ant.0 & 1 & 2	10.96	3.04
MIMO(2 TX) : Service	802.11g/n	Ant.0 & 1	6.48	7.52
MIMO(3 TX) : Service	802.11g/n	Ant.0 & 1 & 2	8.4	3.6

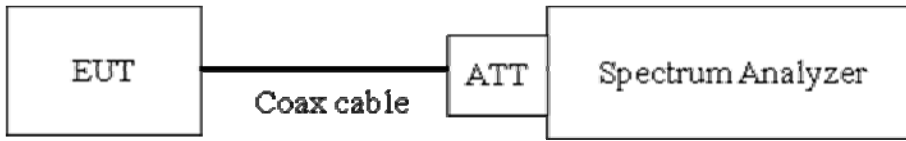
Note : Above the limits is calculated according to antenna gain. Because antenna gain is higher than 6 dBi.

5.8 GHz Band

Operating Mode	Mode	Antenna	Ant. Gain(dBi)	Limt(dBm)
SISO : Service	802.11a/n/ac	Ant.0	6.17	7.83
		Ant.1	5.46	8
		Ant.2	4.78	8
MIMO(3 TX) : Monitoring	802.11a	Ant.0 & 1 & 2	11.23	2.77
MIMO(2 TX) : Service	802.11a/n/ac	Ant.0 & 1	8.83	5.17
MIMO(3 TX) : Service	802.11a/n/ac	Ant.0 & 1 & 2	10.26	3.74

Note : Above the limits is calculated according to antenna gain. Because antenna gain is higher than 6 dBi.

■ TEST CONFIGURATION



■ TEST PROCEDURE

We tested according to Procedure 10.2 in KDB 558074, issued 04/09/2013

The spectrum analyzer is set to :

Set analyzer center frequency to DTS channel center frequency.

Span = 1.5 times the DTS channel bandwidth.

RBW = 3 kHz ≤ RBW ≤ 100 kHz.

VBW ≥ 3 × RBW.

Sweep = auto couple

Detector = peak

Trace Mode = max hold

Allow trace to fully stabilize.

Use the peak marker function to determine the maximum amplitude level within the RBW.

If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

■ Sample Calculation

PSD = Reading Value + ATT loss + Cable loss(1 ea)

Output Power = -5 dBm + 10 dB + 0.8 dB = 5.8 dBm

Note :

1. Spectrum reading values are not plot data. The PSD results in plot is already including the actual values of loss for the attenuator and cable combination.
2. Spectrum offset = Attenuator loss + Cable loss
3. We apply to the offset in the 2.4 GHz and 5.8 GHz range that was rounded off to the closest tenth dB.

Actual value of loss for the attenuator and cable combination is below table. We used the particular cable type that is supported by manufacture.

Band	Loss(dB)
2.4 GHz	10.5
5.8 GHz	10.9

(Actual value of loss for the attenuator and cable combination)

Monitoring Port

■ TEST RESULTS_Ant.0

Conducted Power Density Measurements

Frequency (MHz)	Channel No.	Mode	Test Result		
			PSD (dBm)	Limit (dBm)	Pass/Fail
2412	1	802.11b	-5.214	7.69	Pass
2437	6		-3.194		Pass
2462	11		-3.109		Pass
2412	1	802.11g	-13.419	-	-
2437	6		-12.549		
2462	11		-14.527		
5745	149	802.11a	-16.522		
5785	157		-15.228		
5825	165		-16.335		

■ TEST RESULTS_Ant.1

Conducted Power Density Measurements

Frequency (MHz)	Channel No.	Mode	Test Result		
			PSD (dBm)	Limit (dBm)	Pass/Fail
2412	1	802.11g	-13.837	-	-
2437	6		-14.388		
2462	11		-14.454		
5745	149	802.11a	-17.337		
5785	157		-17.518		
5825	165		-16.955		

■ TEST RESULTS_Ant.2

Conducted Power Density Measurements

Frequency (MHz)	Channel No.	Mode	Test Result		
			PSD (dBm)	Limit (dBm)	Pass/Fail
2412	1	802.11g	-13.569	-	-
2437	6		-12.962		
2462	11		-14.439		
5745	149	802.11a	-16.531		
5785	157		-17.074		
5825	165		-16.848		

■ TEST RESULTS_Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Power Density Measurements

Frequency (MHz)	Channel No.	Mode	Test Result		
			PSD (dBm)	Limit (dBm)	Pass/Fail
2412	1	802.11g	-8.83	3.04	Pass
2437	6		-8.46		Pass
2462	11		-9.70		Pass
5745	149	802.11a	-12.01	2.77	Pass
5785	157		-11.72		Pass
5825	165		-11.93		Pass

Service Port

■ TEST RESULTS_Ant.0

Conducted Power Density Measurements

Frequency (MHz)	Channel No.	Mode	Test Result		
			PSD (dBm)	Limit (dBm)	Pass/Fail
2412	1	802.11b	-4.957	8	Pass
2437	6		-7.926		Pass
2462	11		-6.425		Pass
2412	1	802.11g	-13.791		Pass
2437	6		-13.263		Pass
2462	11		-13.568		Pass
2412	1	802.11n 2.4 GHz Band	-12.647		Pass
2437	6		-12.743		Pass
2462	11		-13.209		Pass
5745	149	802.11a	-14.688	7.83	Pass
5785	157		-12.859		Pass
5825	165		-14.330		Pass
5745	149	802.11n_20 MHz BW 5.8 GHz Band	-15.125		Pass
5785	157		-14.906		Pass
5825	165		-13.360		Pass
5755	151	802.11n_40 MHz BW 5.8 GHz Band	-17.733		Pass
5795	159		-17.129		Pass
5745	149	802.11ac_20 MHz BW 5.8 GHz Band	-14.422		Pass
5785	157		-16.633		Pass
5825	165		-16.787		Pass
5755	151	802.11ac_40 MHz BW 5.8 GHz Band	-13.640		Pass
5795	159		-17.055		Pass
5775	155	802.11ac_80 MHz BW 5.8 GHz Band	-21.425		Pass

■ TEST RESULTS_Ant.1

Conducted Power Density Measurements

Frequency (MHz)	Channel No.	Mode	Test Result		
			PSD (dBm)	Limit (dBm)	Pass/Fail
2412	1	802.11g	-14.114	8	Pass
2437	6		-13.764		Pass
2462	11		-14.023		Pass
2412	1	802.11n 2.4 GHz Band	-13.894		Pass
2437	6		-13.871		Pass
2462	11		-13.808		Pass
5745	149	802.11a	-14.239		Pass
5785	157		-14.582		Pass
5825	165		-14.328		Pass
5745	149	802.11n_20 MHz BW 5.8 GHz Band	-14.205		Pass
5785	157		-13.658		Pass
5825	165		-13.342		Pass
5755	151	802.11n_40 MHz BW 5.8 GHz Band	-18.338		Pass
5795	159		-17.215		Pass
5745	149	802.11ac_20 MHz BW 5.8 GHz Band	-13.673		Pass
5785	157		-17.472		Pass
5825	165		-17.163		Pass
5755	151	802.11ac_40 MHz BW 5.8 GHz Band	-14.324		Pass
5795	159		-15.832		Pass
5775	155	802.11ac_80 MHz BW 5.8 GHz Band	-21.896		Pass

▣ TEST RESULTS_Ant.2

Conducted Power Density Measurements

Frequency (MHz)	Channel No.	Mode	Test Result		
			PSD (dBm)	Limit (dBm)	Pass/Fail
2412	1	802.11g	-13.989	8	Pass
2437	6		-13.873		Pass
2462	11		-11.961		Pass
2412	1	802.11n 2.4 GHz Band	-13.593		Pass
2437	6		-13.546		Pass
2462	11		-13.044		Pass
5745	149	802.11a	-14.868		Pass
5785	157		-14.307		Pass
5825	165		-14.378		Pass
5745	149	802.11n_20 MHz BW 5.8 GHz Band	-14.095		Pass
5785	157		-13.863		Pass
5825	165		-13.338		Pass
5755	151	802.11n_40 MHz BW 5.8 GHz Band	-17.965		Pass
5795	159		-16.651		Pass
5745	149	802.11ac_20 MHz BW 5.8 GHz Band	-14.053		Pass
5785	157		-17.368		Pass
5825	165		-17.409		Pass
5755	151	802.11ac_40 MHz BW 5.8 GHz Band	-14.215		Pass
5795	159		-15.869		Pass
5775	155	802.11ac_80 MHz BW 5.8 GHz Band	-22.748		Pass

■ TEST RESULTS_Sum Data of Ant.0 and Ant.1

Conducted Power Density Measurements

Frequency (MHz)	Channel No.	Mode	Test Result		
			PSD (dBm)	Limit (dBm)	Pass/Fail
2412	1	802.11g	-10.94	7.52	Pass
2437	6		-10.50		Pass
2462	11		-10.78		Pass
2412	1	802.11n(20M) 2.4 GHz Band	-10.22		Pass
2437	6		-10.26		Pass
2462	11		-10.49		Pass
5745	149	802.11a	-11.45	5.17	Pass
5785	157		-10.63		Pass
5825	165		-11.32		Pass
5745	149	802.11n_20 MHz BW 5.8 GHz Band	-11.63		Pass
5785	157		-11.23		Pass
5825	165		-10.34		Pass
5755	151	802.11n_40 MHz BW 5.8 GHz Band	-15.01		Pass
5795	159		-14.16		Pass
5745	149	802.11ac_20 MHz BW 5.8 GHz Band	-11.02		Pass
5785	157		-14.02		Pass
5825	165		-13.96		Pass
5755	151	802.11ac_40 MHz BW 5.8 GHz Band	-10.96		Pass
5795	159		-13.39		Pass
5775	155	802.11ac_80 MHz BW 5.8 GHz Band	-18.64		Pass

■ TEST RESULTS_Sum Data of Ant.0, Ant.1 and Ant.2

Conducted Power Density Measurements

Frequency (MHz)	Channel No.	Mode	Test Result		
			PSD (dBm)	Limit (dBm)	Pass/Fail
2412	1	802.11g	-9.19	3.6	Pass
2437	6		-8.85		Pass
2462	11		-8.32		Pass
2412	1	802.11n(20M) 2.4 GHz Band	-8.57		Pass
2437	6		-8.59		Pass
2462	11		-8.57		Pass
5745	149	802.11a	-9.82	3.74	Pass
5785	157		-9.08		Pass
5825	165		-9.57		Pass
5745	149	802.11n_20 MHz BW 5.8 GHz Band	-9.68		Pass
5785	157		-9.34		Pass
5825	165		-8.58		Pass
5755	151	802.11n_40 MHz BW 5.8 GHz Band	-13.23		Pass
5795	159		-12.22		Pass
5745	149	802.11ac_20 MHz BW 5.8 GHz Band	-9.27		Pass
5785	157		-12.37		Pass
5825	165		-12.34		Pass
5755	151	802.11ac_40 MHz BW 5.8 GHz Band	-9.28		Pass
5795	159		-11.44		Pass
5775	155	802.11ac_80 MHz BW 5.8 GHz Band	-17.22		Pass

Note :

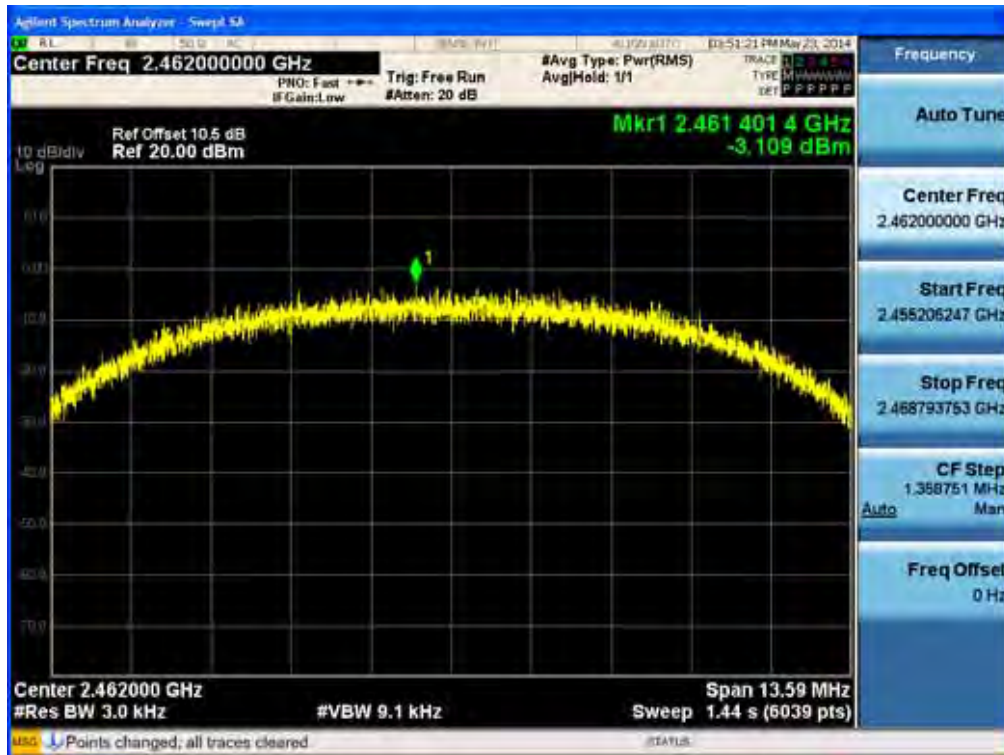
1. In order to simplify the report, attached plots were only the highest PSD channel.

Monitoring Port Ant.0

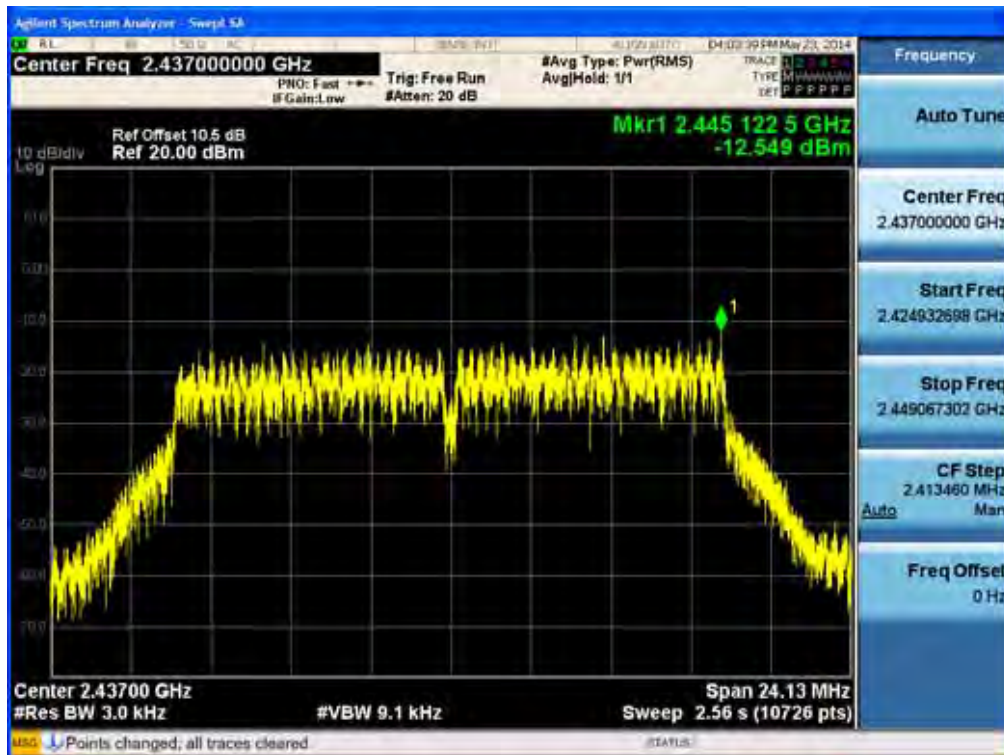
RESULT PLOTS

2.4 GHz Band

Power Spectral Density (802.11b-CH 11)

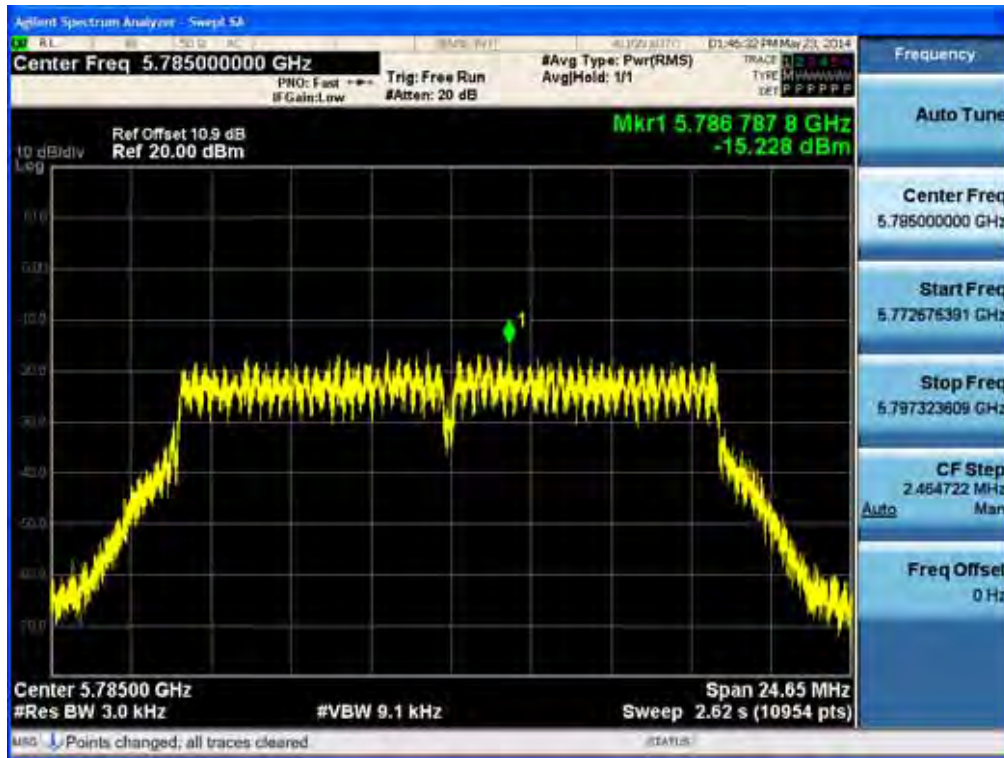


Power Spectral Density (802.11g-CH 6)



5.8 GHz Band

Power Spectral Density (802.11a-CH 157)



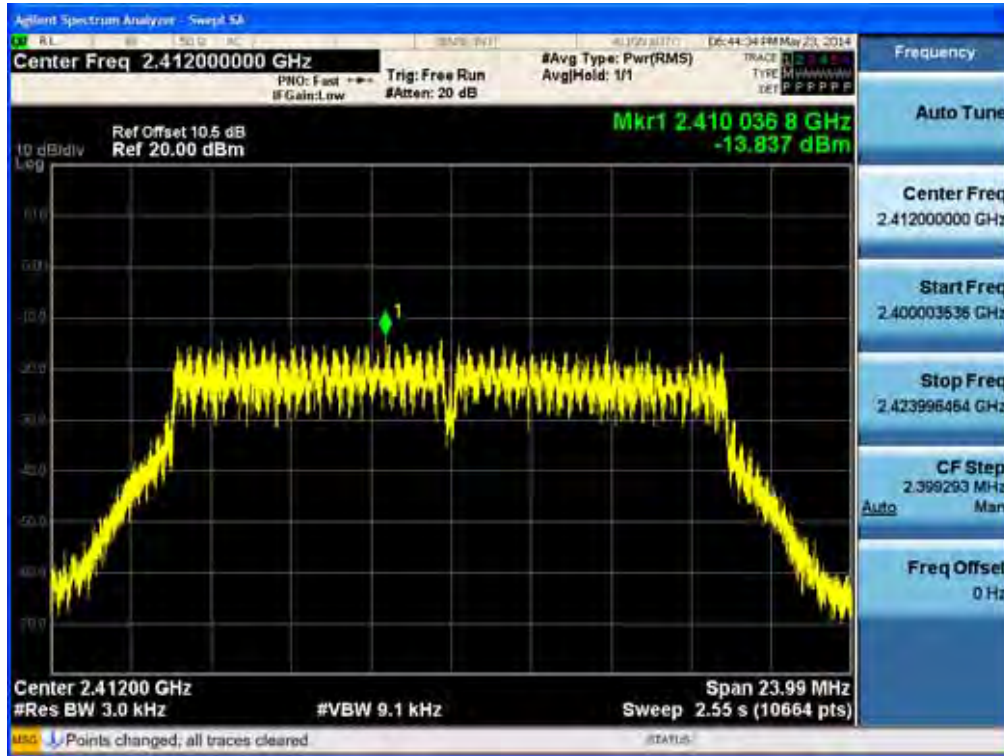
FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Monitoring Port Ant.1

RESULT PLOTS

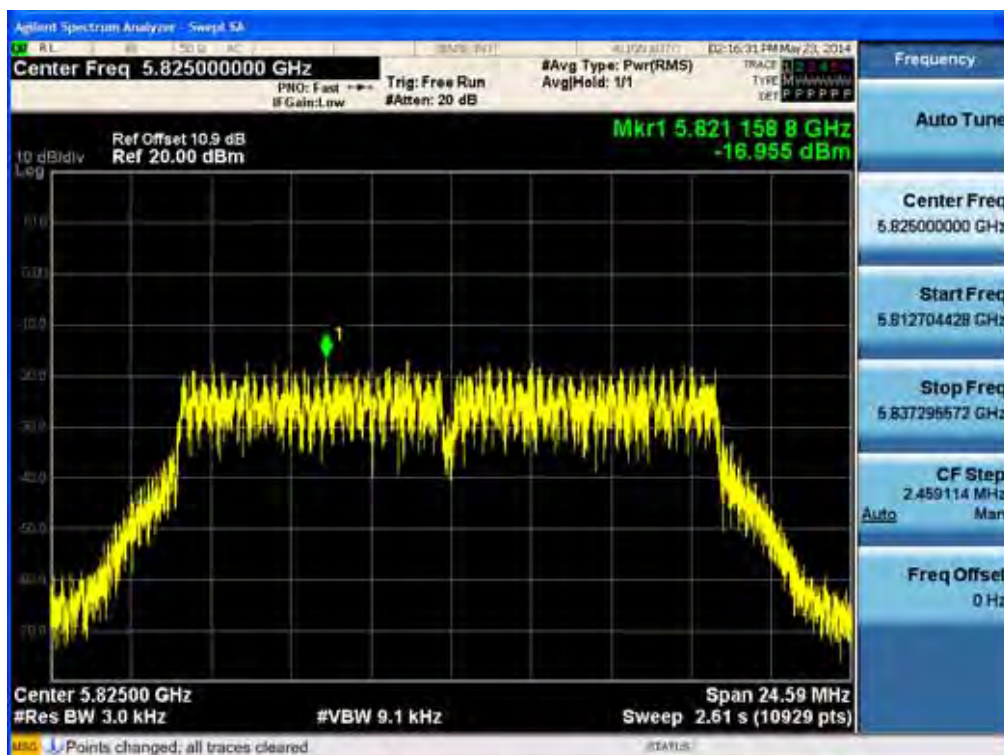
2.4 GHz Band

Power Spectral Density (802.11g-CH 1)



5.8 GHz Band

Power Spectral Density (802.11a-CH 165)



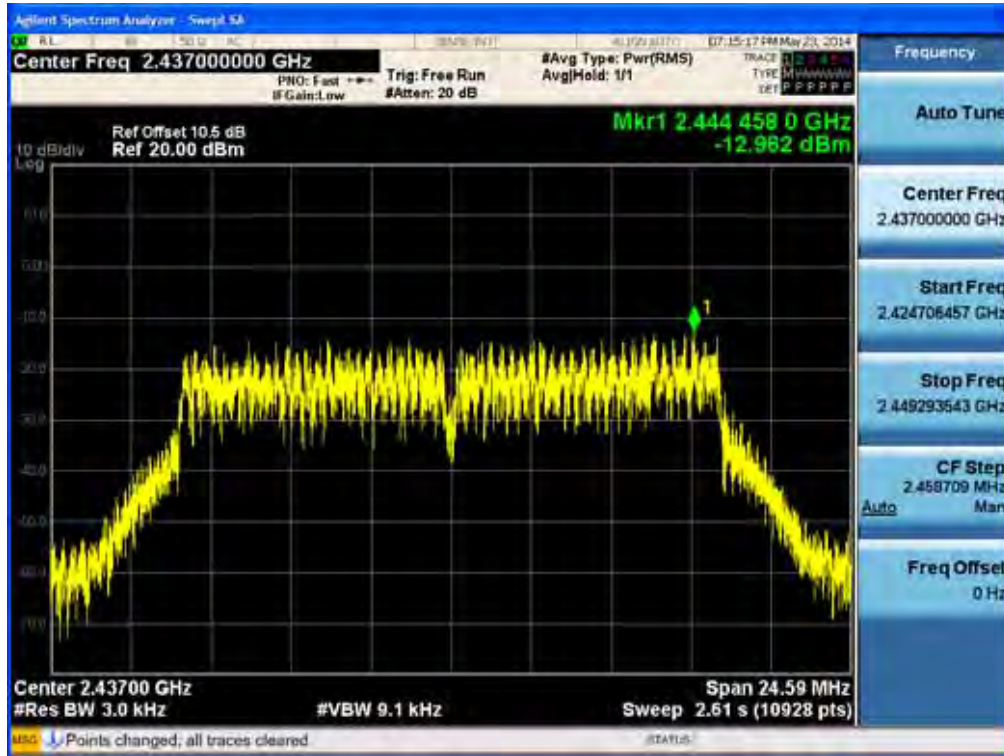
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Monitoring Port Ant.2

RESULT PLOTS

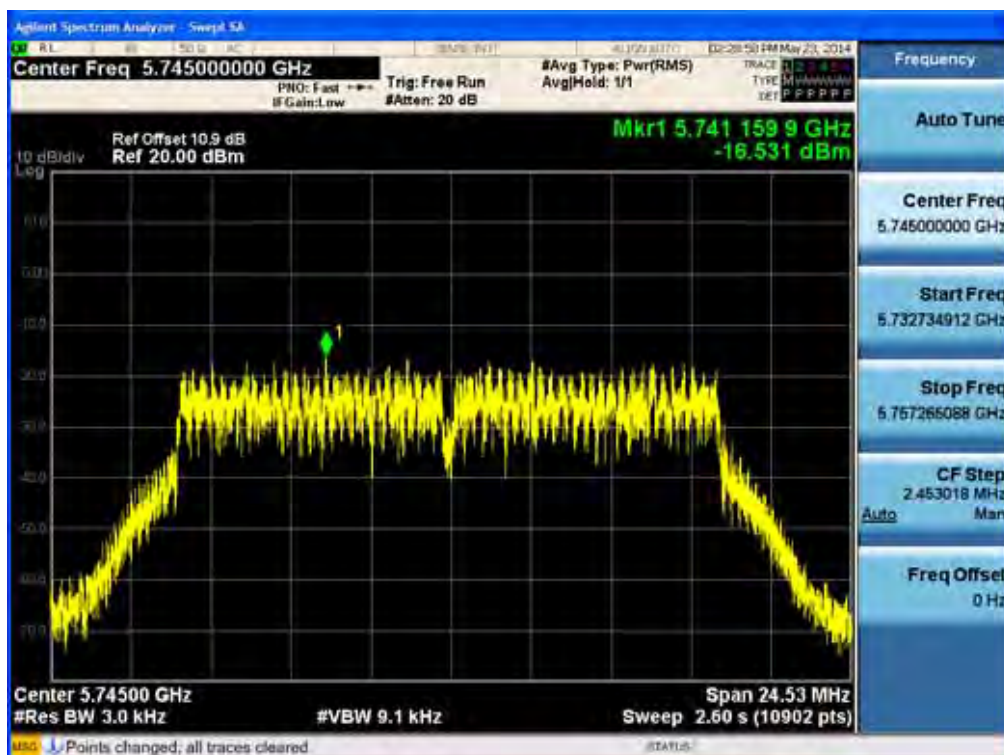
2.4 GHz Band

Power Spectral Density (802.11g-CH 6)



5.8 GHz Band

Power Spectral Density (802.11a-CH 149)



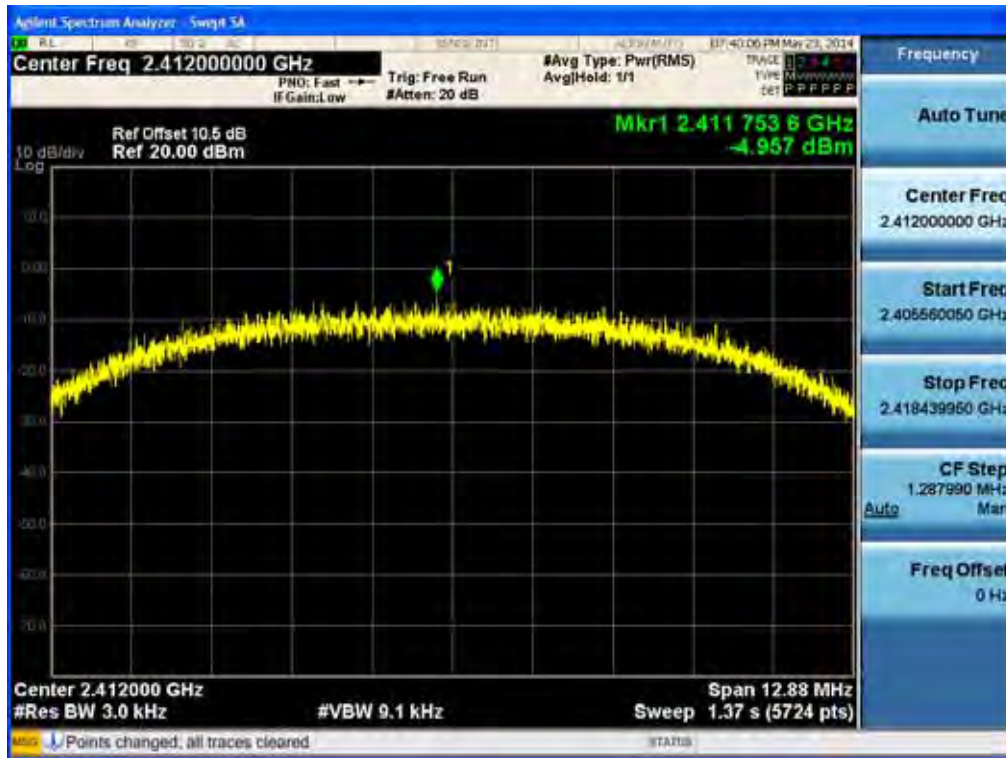
FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
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Service Port Ant.0

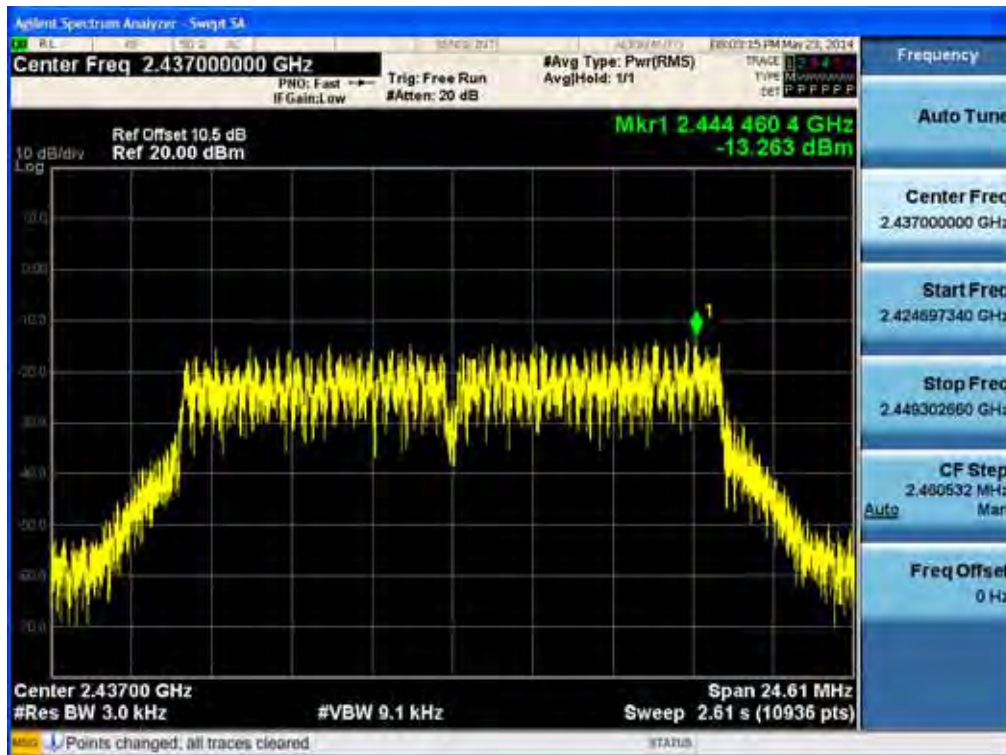
▣ RESULT PLOTS

2.4 GHz Band

Power Spectral Density (802.11b-CH 1)

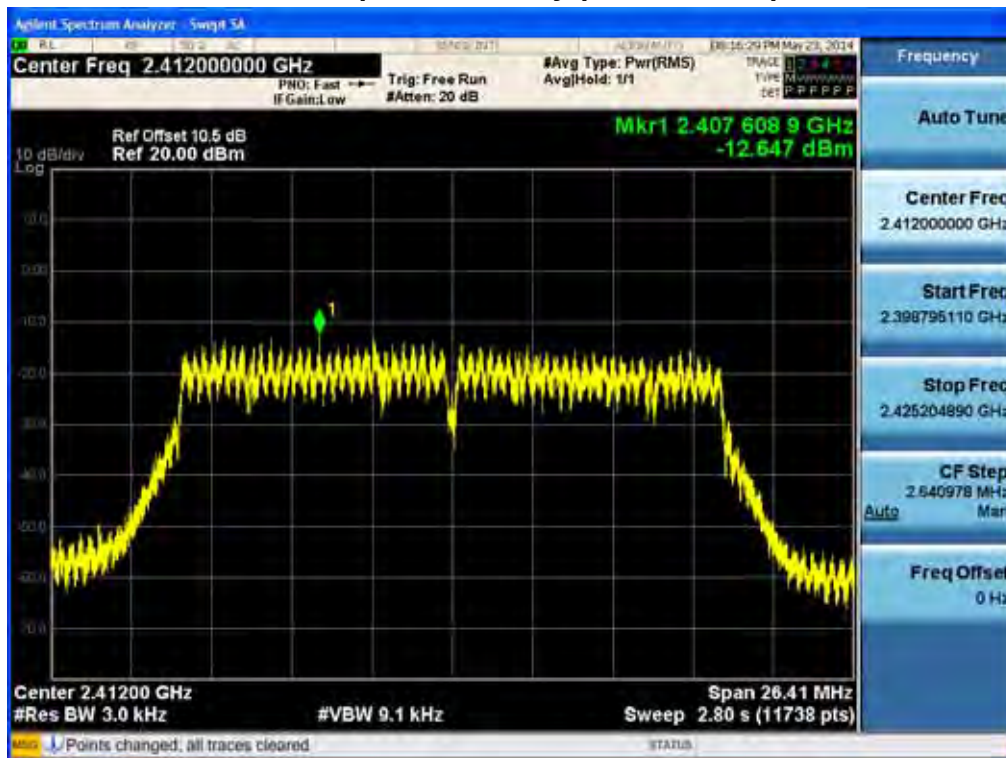


Power Spectral Density (802.11g-CH 6)



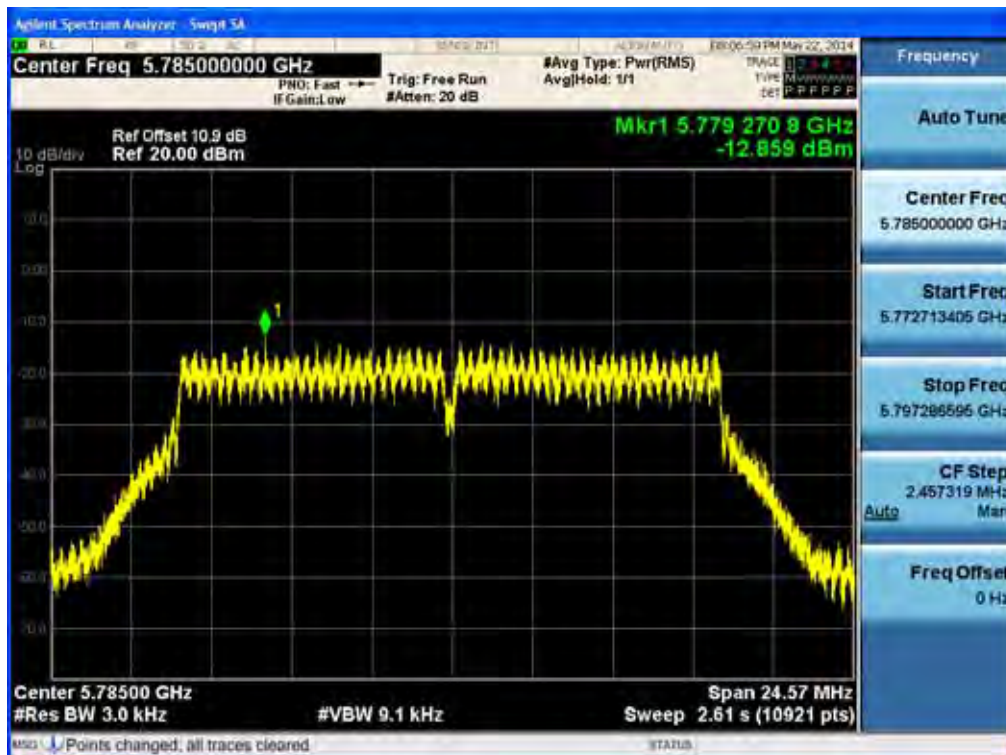
FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Power Spectral Density (802.11n-CH 1)



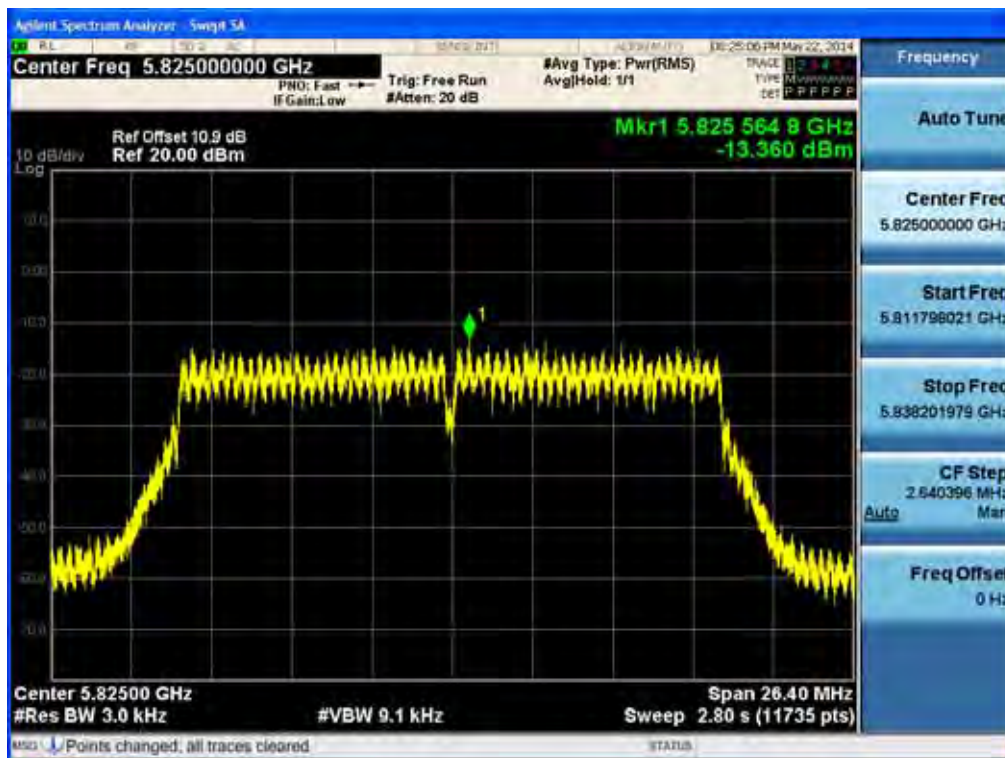
5.8 GHz Band

Power Spectral Density (802.11a-CH 157)

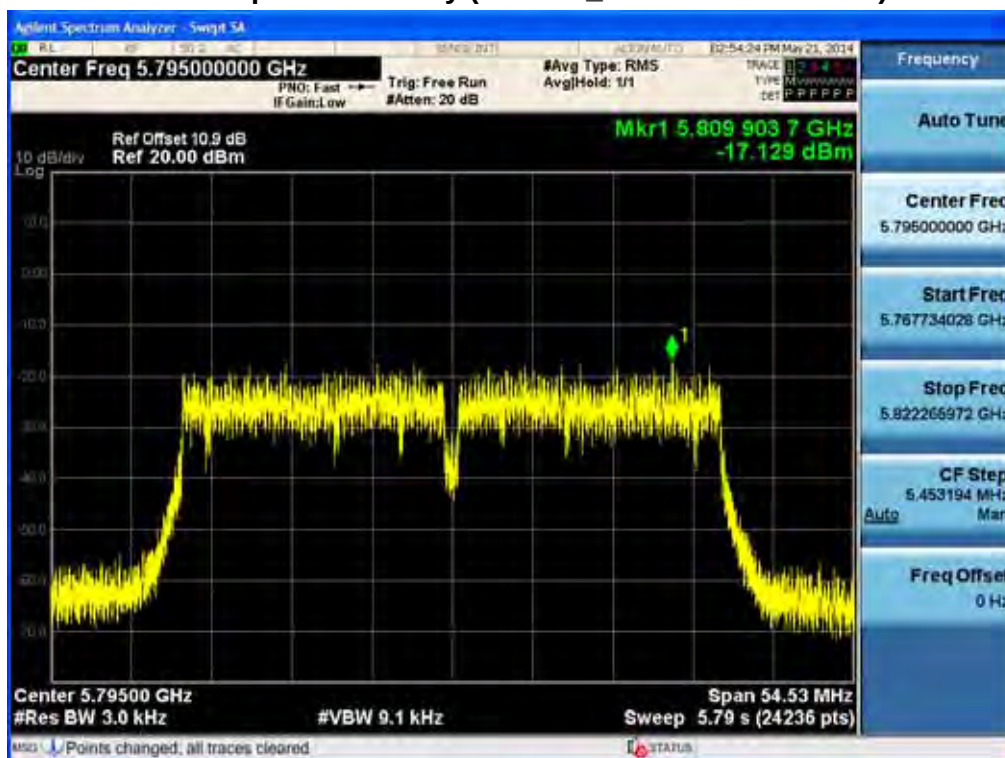


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Power Spectral Density (802.11n_20 MHz BW -CH 165)

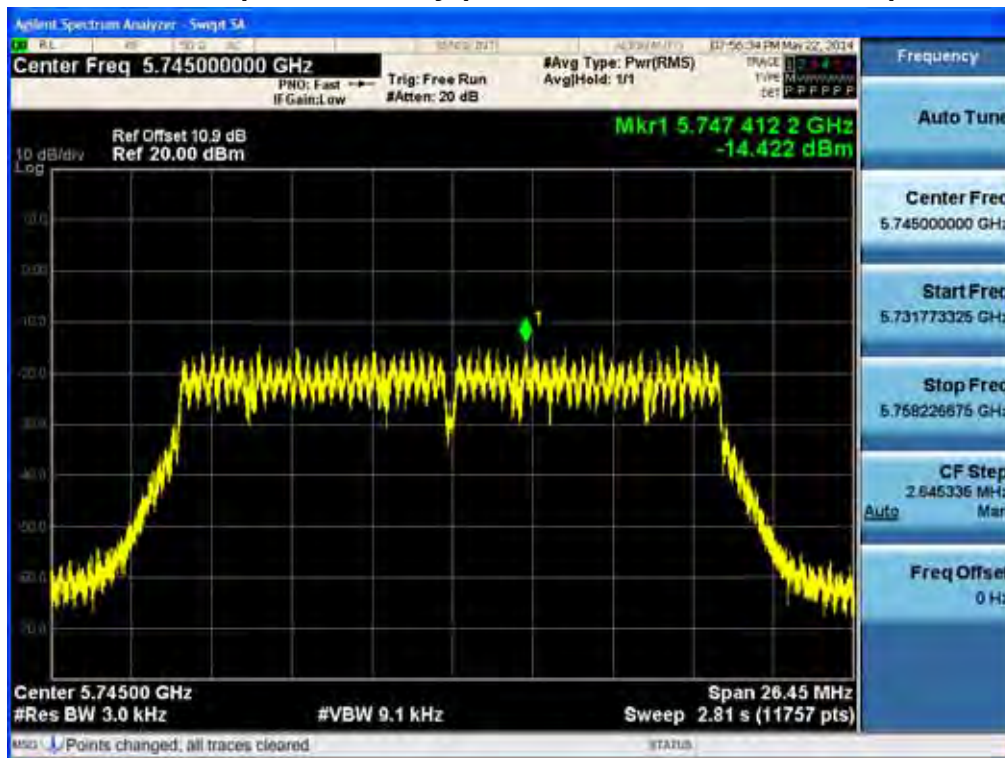


Power Spectral Density (802.11n_40 MHz BW -CH 159)

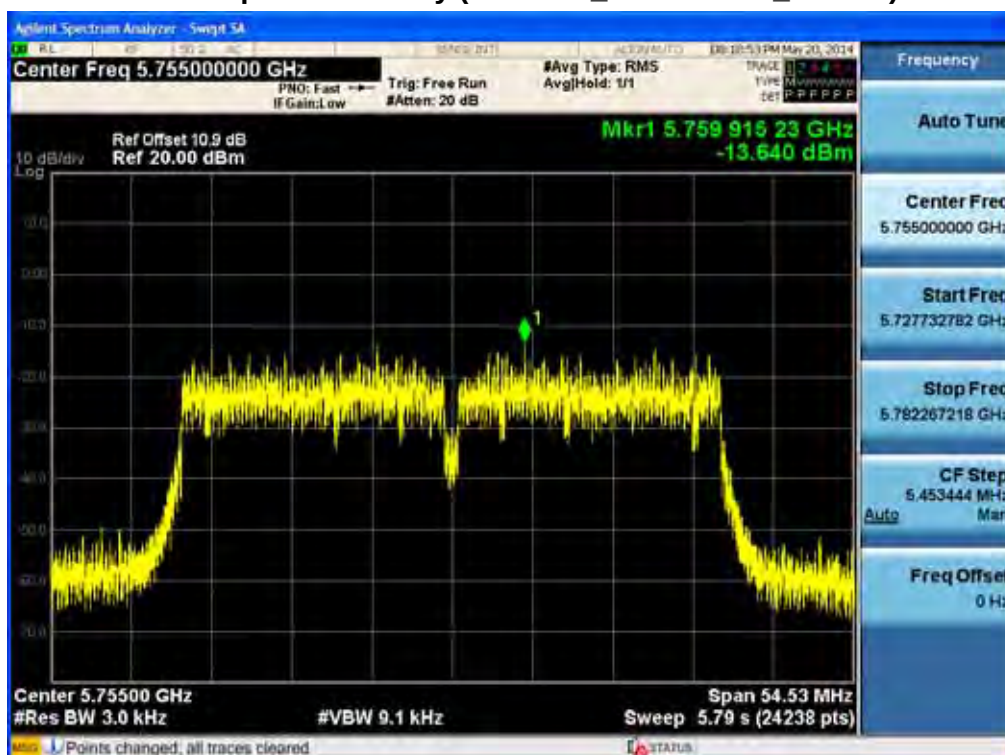


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Power Spectral Density (802.11ac_20 MHz BW _CH 149)

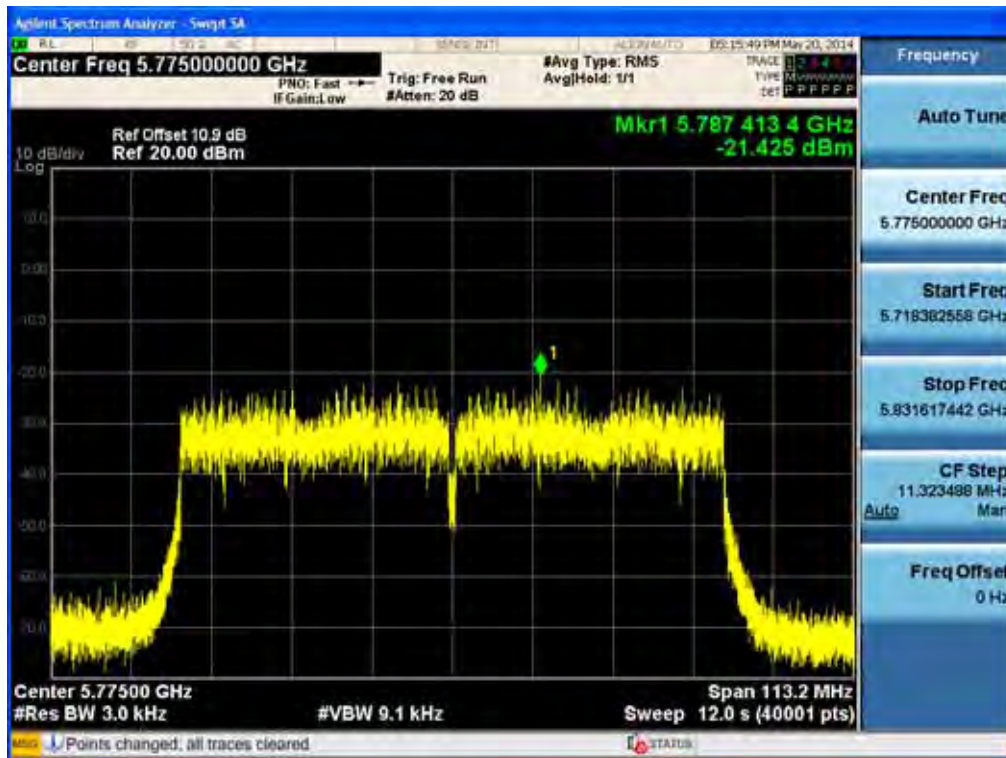


Power Spectral Density (802.11ac_40 MHz BW _CH 151)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Power Spectral Density (802.11ac_80 MHz BW _CH 155)

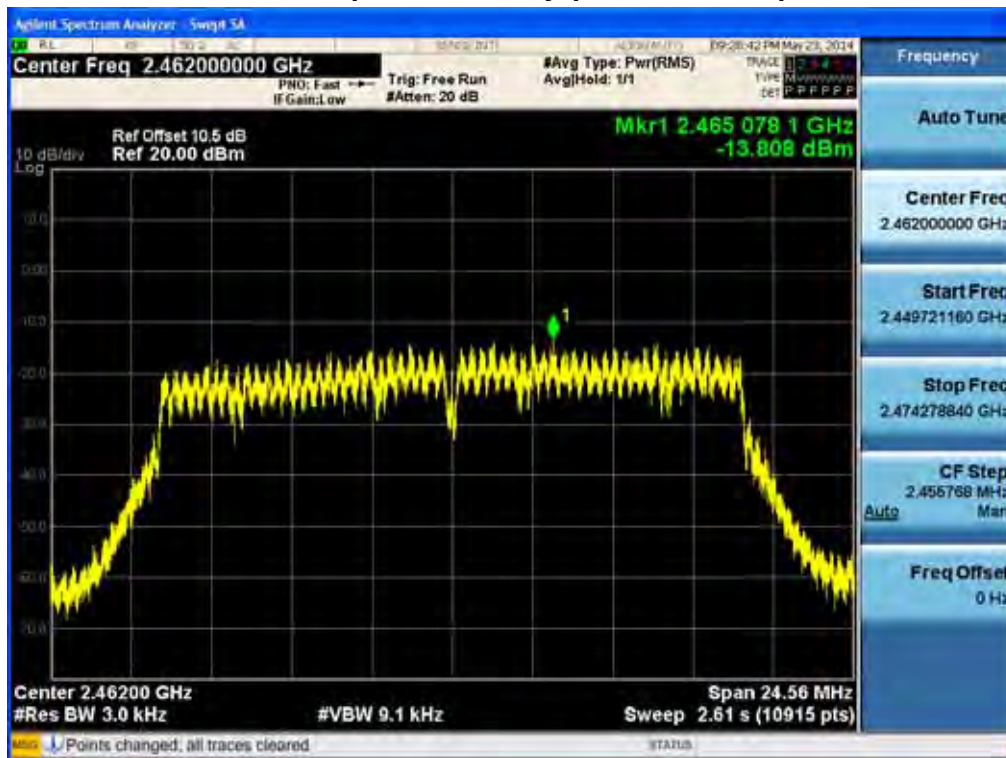


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Power Spectral Density (802.11g-CH 6)

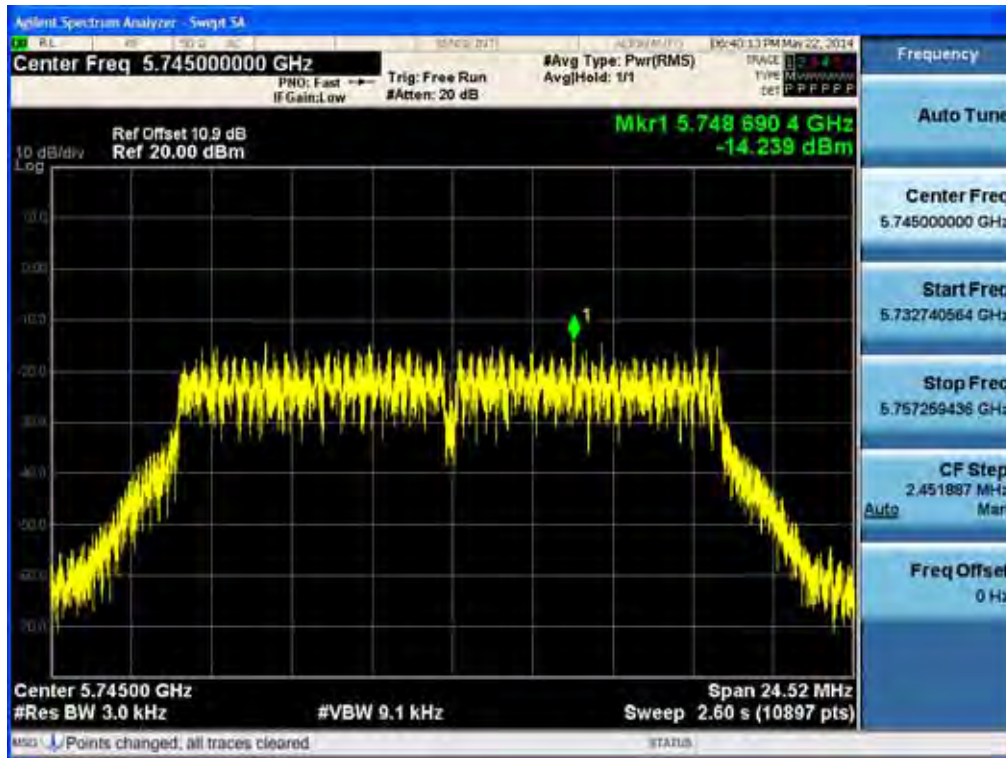


Power Spectral Density (802.11n-CH 11)

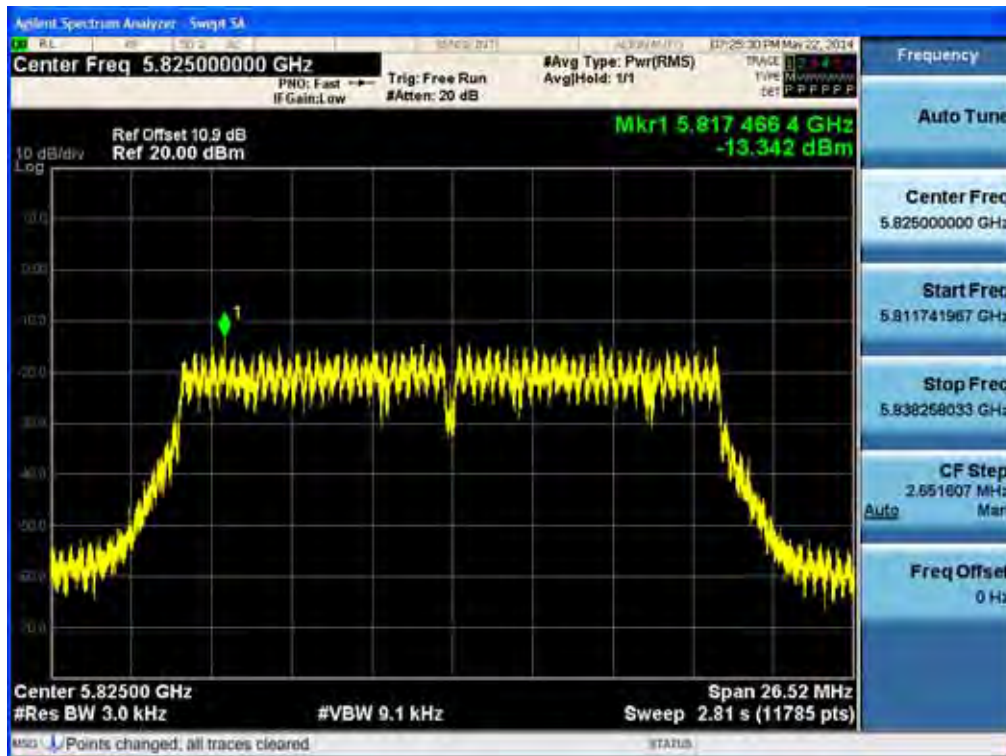


5.8 GHz Band

Power Spectral Density (802.11a-CH 149)

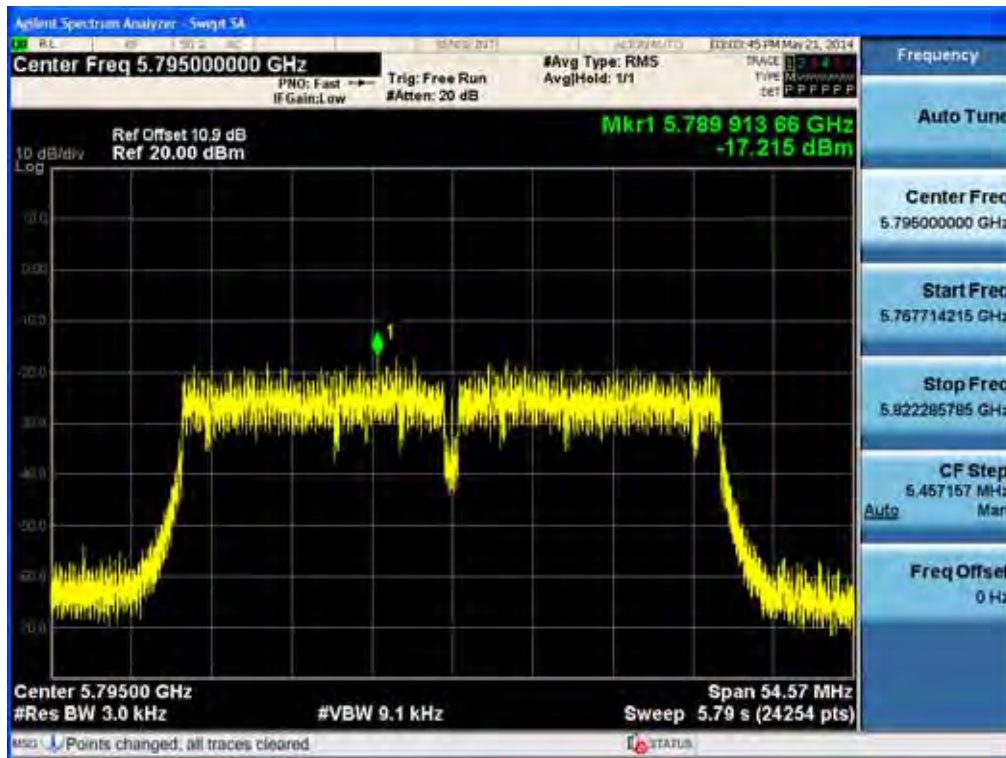


Power Spectral Density (802.11n_20 MHz BW CH 165)

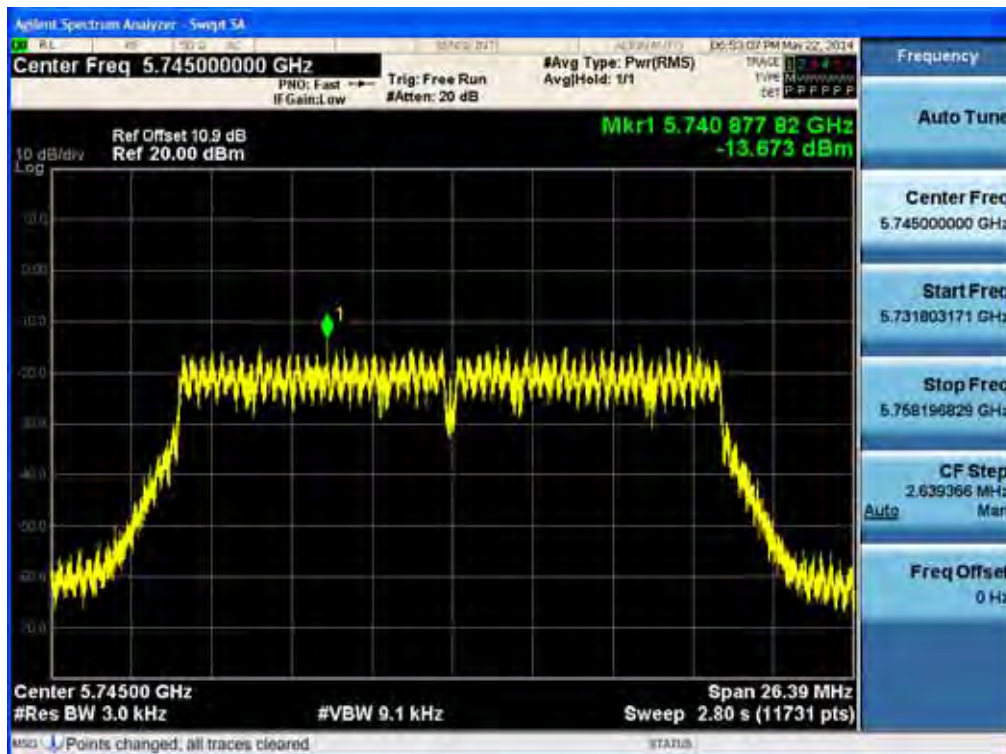


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Power Spectral Density (802.11n_40 MHz BW CH 159)

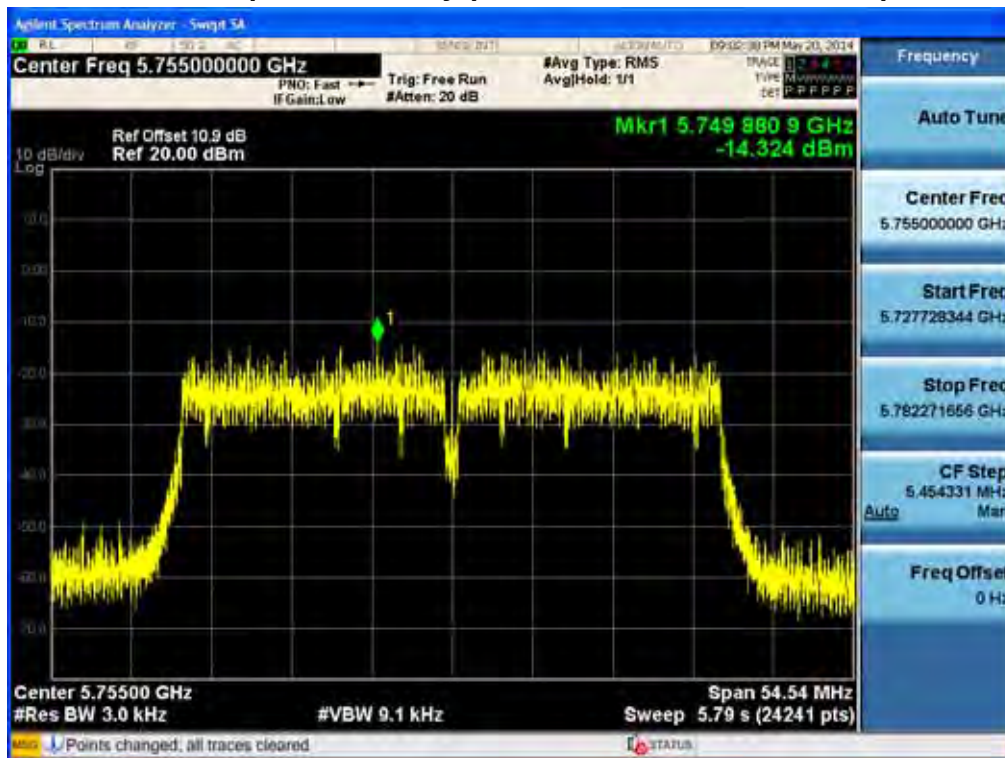


Power Spectral Density (802.11ac_20 MHz BW CH 149)

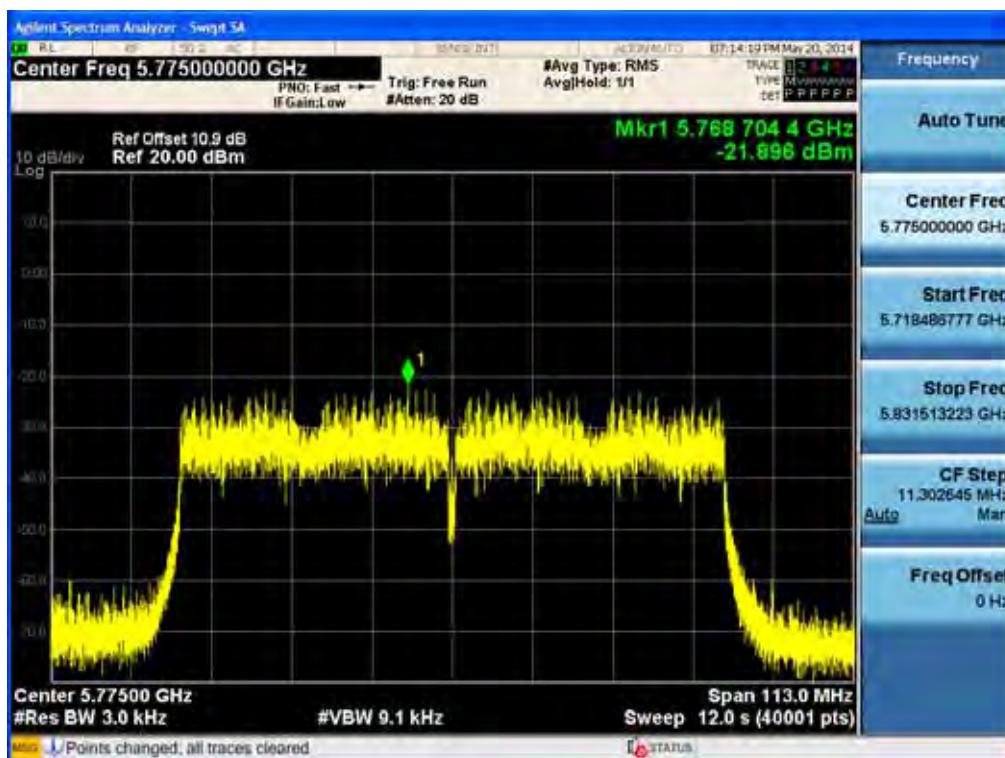


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Power Spectral Density (802.11ac_40 MHz BW CH 151)



Power Spectral Density (802.11ac_80 MHz BW CH 155)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

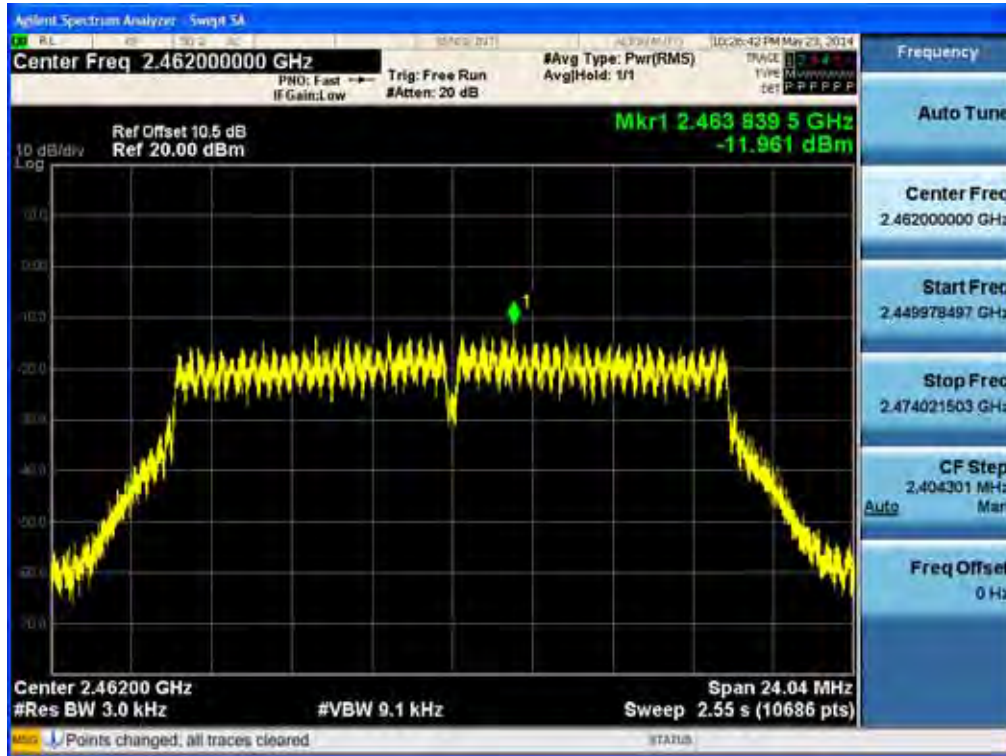


Service Port Ant.2

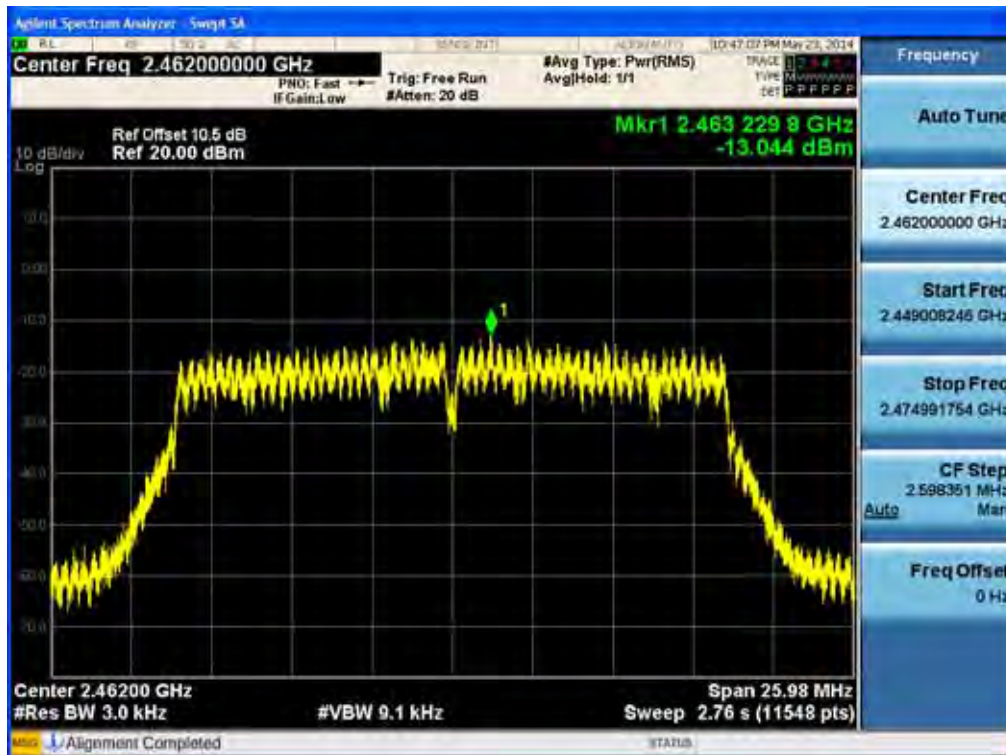
▣ RESULT PLOTS

2.4 GHz Band

Power Spectral Density (802.11g-CH 11)



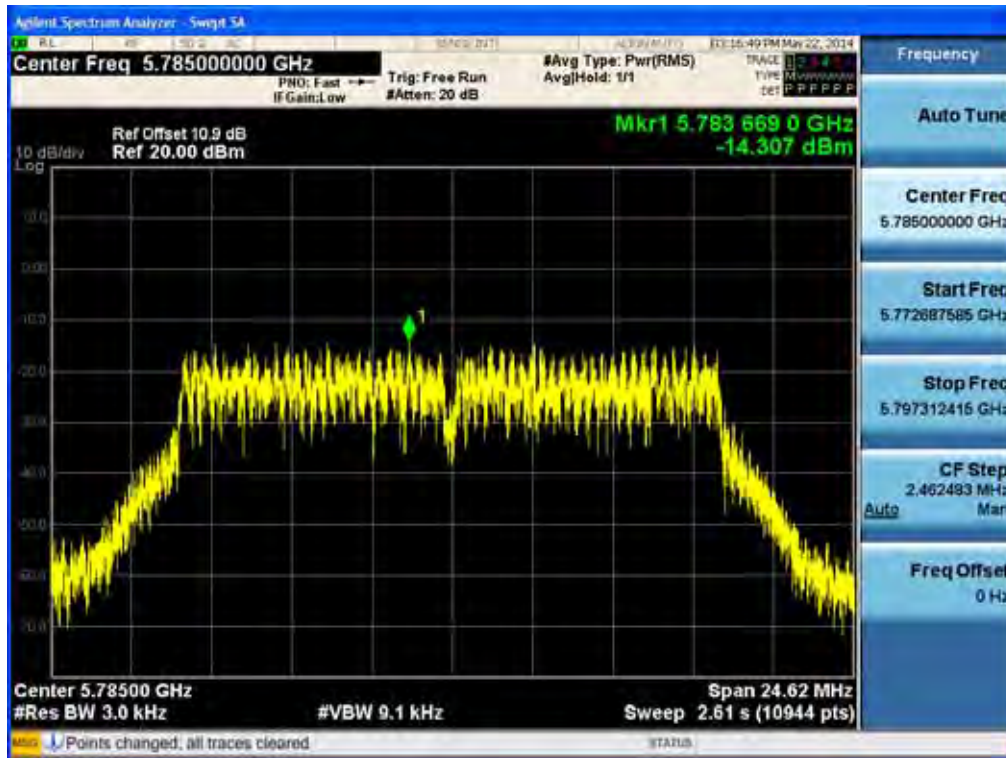
Power Spectral Density (802.11n-CH 11)



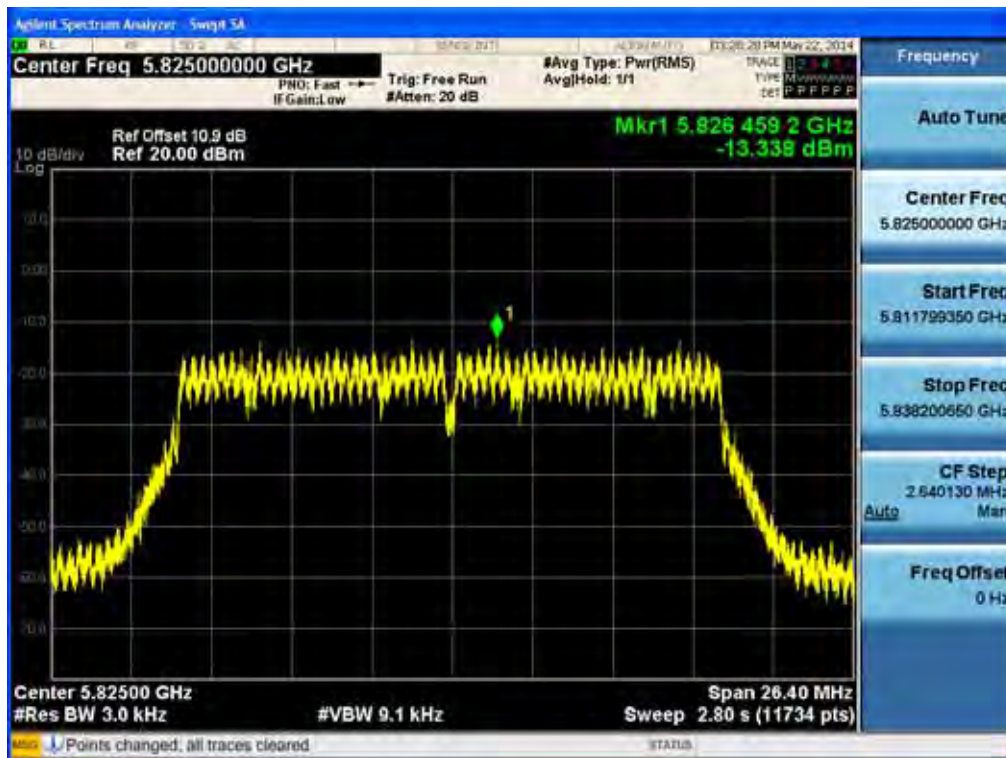
FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

5.8 GHz Band

Power Spectral Density (802.11a-CH 157)

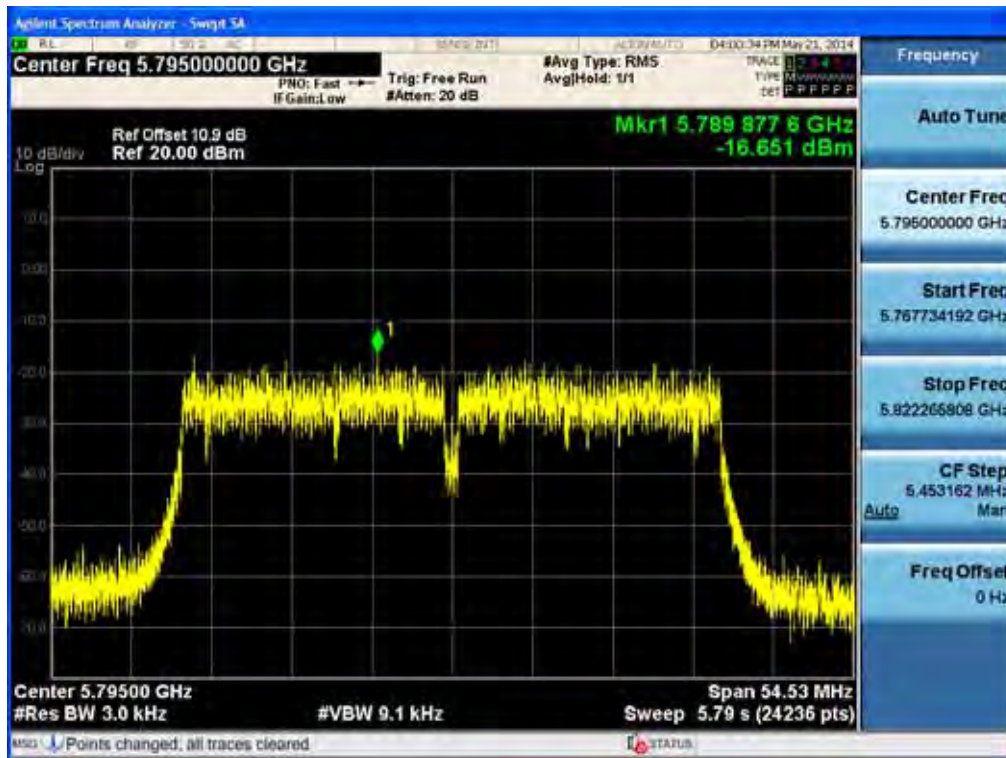


Power Spectral Density (802.11n_20 MHz BW -CH 165)

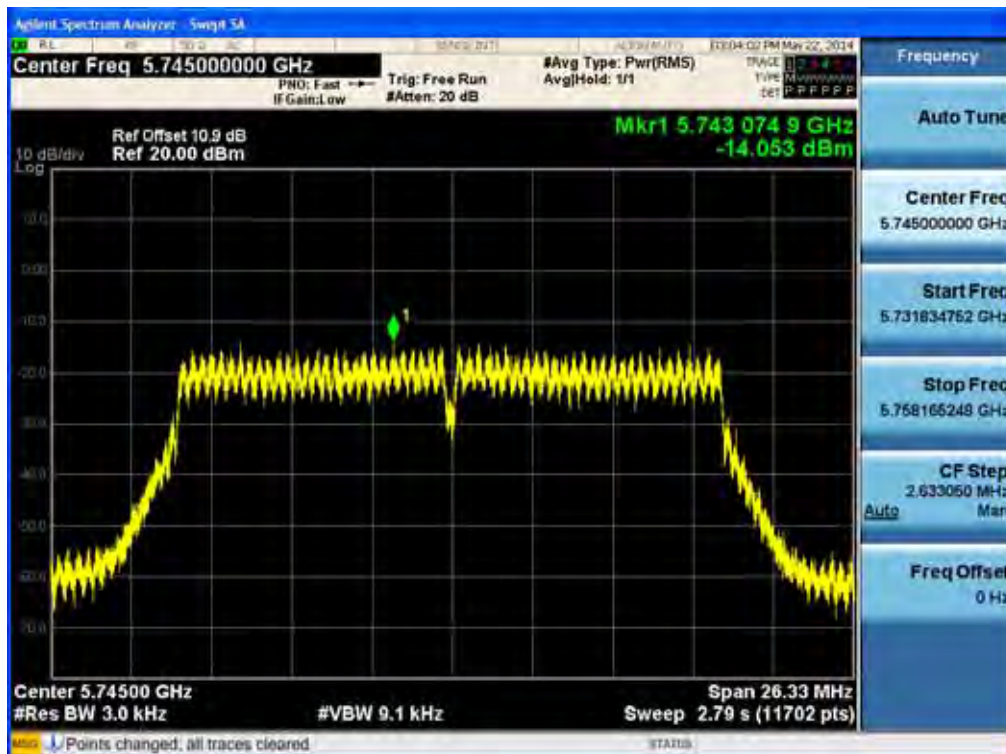


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Power Spectral Density (802.11n_40 MHz BW -CH 159)

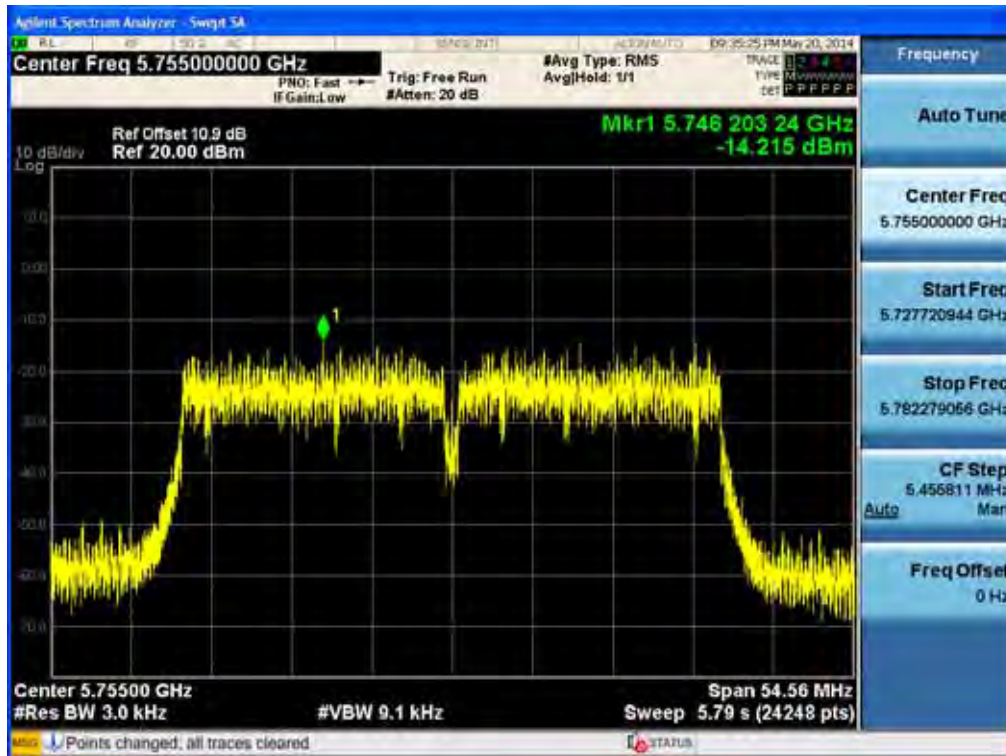


Power Spectral Density (802.11ac_20 MHz BW _CH 149)

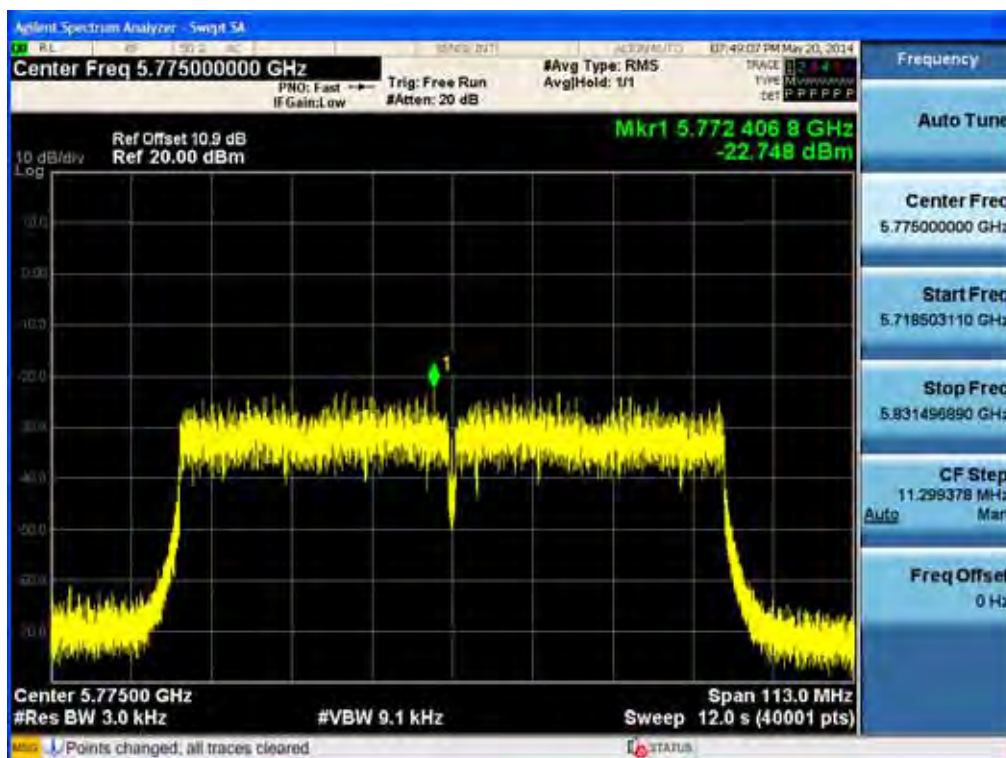


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Power Spectral Density (802.11ac_40 MHz BW _CH 151)



Power Spectral Density (802.11ac_80 MHz BW _CH 155)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

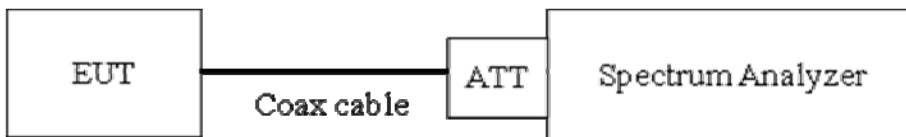
8.6 OUT OF BAND EMISSIONS AT THE BAND EDGE/ CONDUCTED SPURIOUS EMISSIONS

Test Requirements and limit, §15.247(d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Limit : 20 dBc

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. (Procedure 11.0 in KDB 558074, issued 04/09/2013)

RBW = 100 kHz

VBW $\geq 3 \times$ RBW

Set span to encompass the spectrum to be examined

Detector = Peak

Trace Mode = max hold

Sweep time = auto couple

Ensure that the number of measurement points $\geq$ Span/RBW

Allow trace to fully stabilize.

Use peak marker function to determine the maximum amplitude level.

Measurements are made over the 30 MHz to 10th harmonic range with the transmitter set to the lowest, middle, and highest channels.

Note :

1. The band edge results in plot is already including the actual values of loss for the attenuator and cable combination.
2. Spectrum offset = Attenuator loss + Cable loss
3. We apply to the offset in the 2.4 GHz and 5.8 GHz range that was rounded off to the closest tenth dB.

FCC PT.15.247 TEST REPORT		FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point		FCC ID: A3LWEA403I	IC: 649E-WEA403I



Actual value of loss for the attenuator and cable combination is below table. We used the particular cable type that is supported by manufacture.

Band	Loss(dB)
2.4 GHz	10.5
5.8 GHz	10.9

(Actual value of loss for the attenuator and cable combination)

4. In order to simplify the report, attached plots were only the worst case channel and data rate.

FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Monitoring Port Ant.0

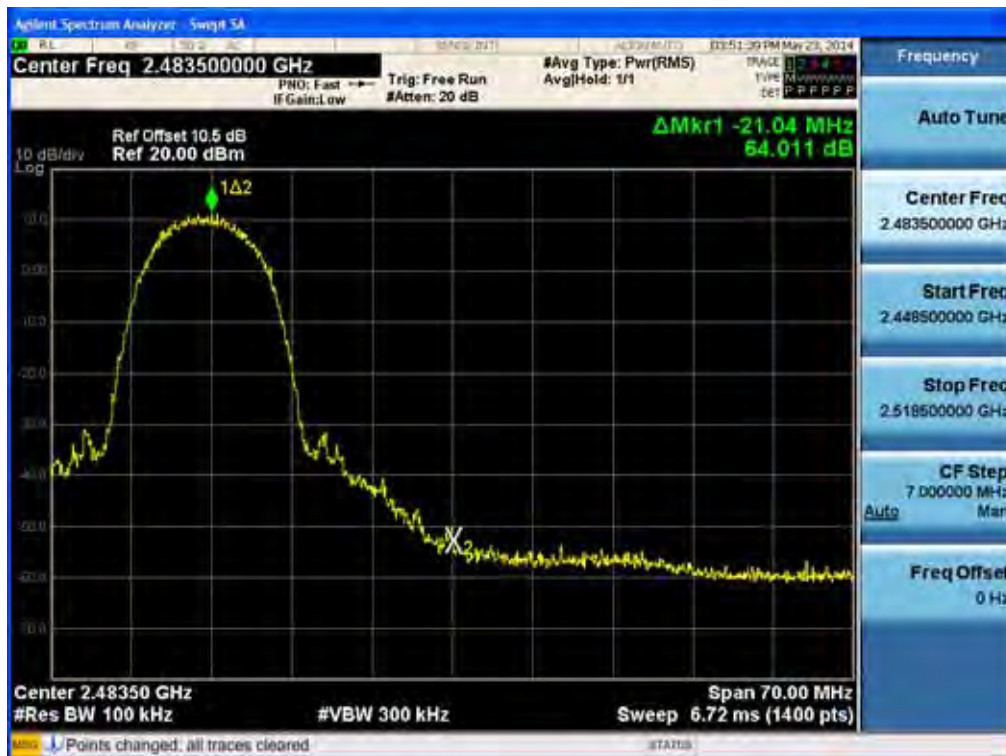
RESULT PLOTS

2.4 GHz Band

BandEdge (802.11b-CH1)



BandEdge (802.11b-CH11)

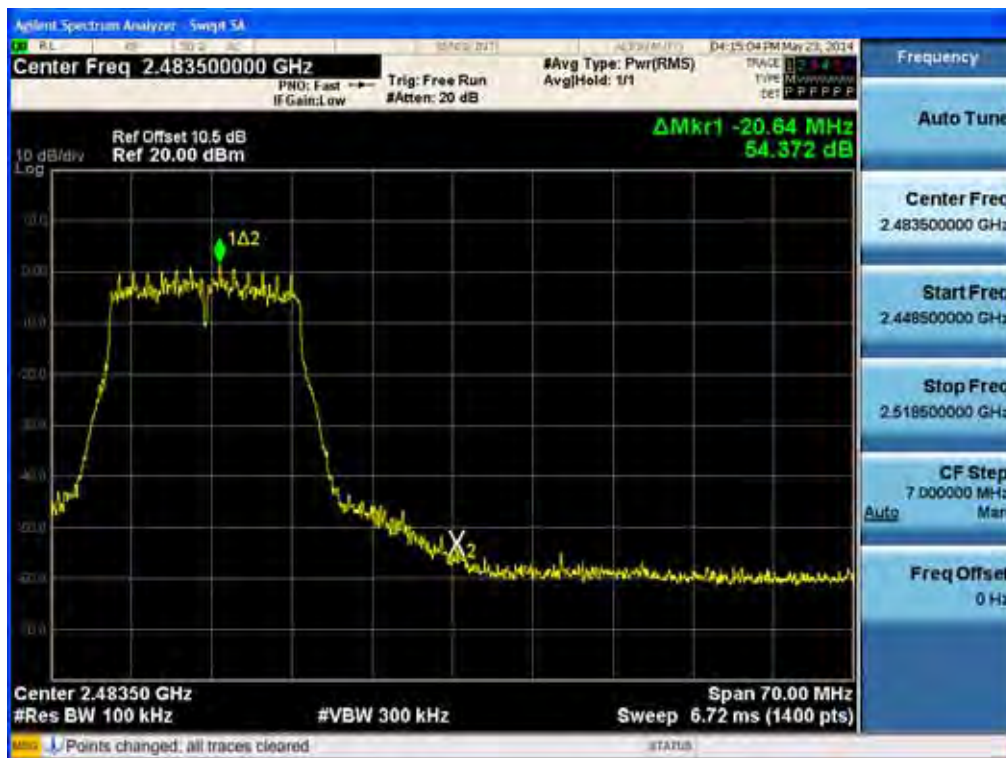


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

BandEdge (802.11g-CH1)



BandEdge (802.11g-CH11)



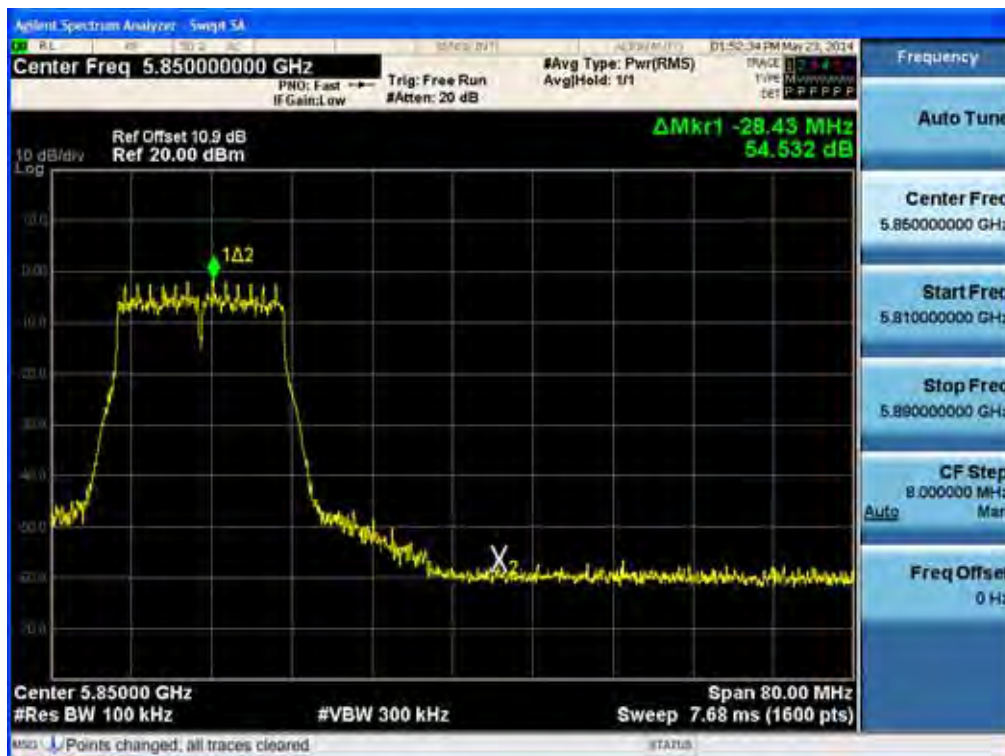
FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

5.8 GHz Band

BandEdge (802.11a-CH 149)



BandEdge (802.11a-CH 165)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

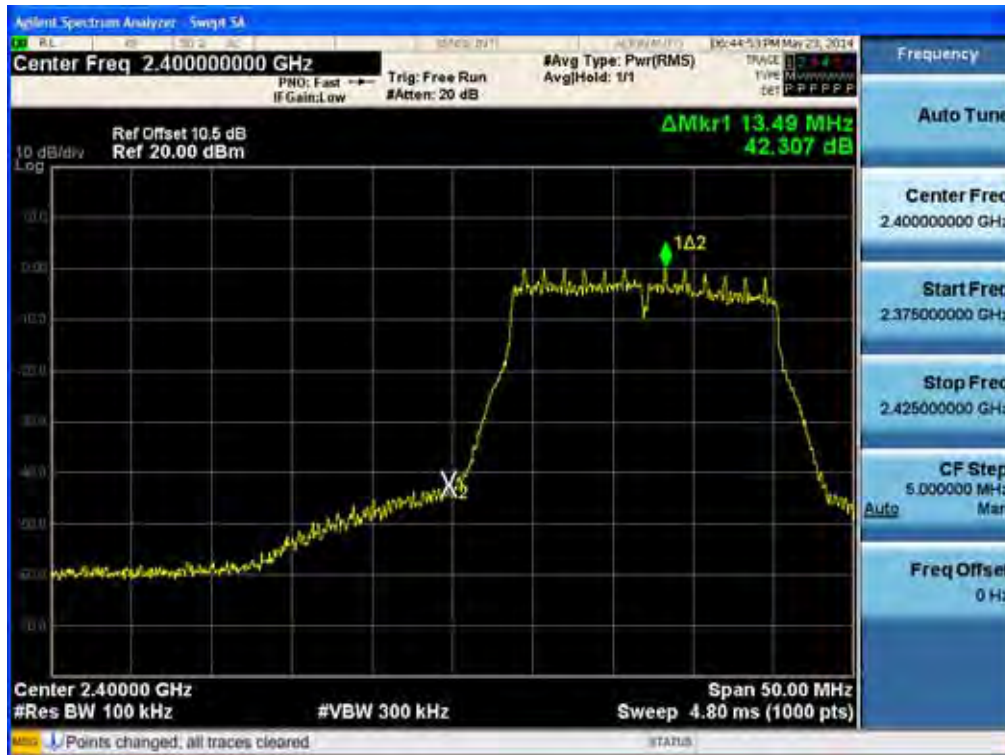


Monitoring Port Ant.1

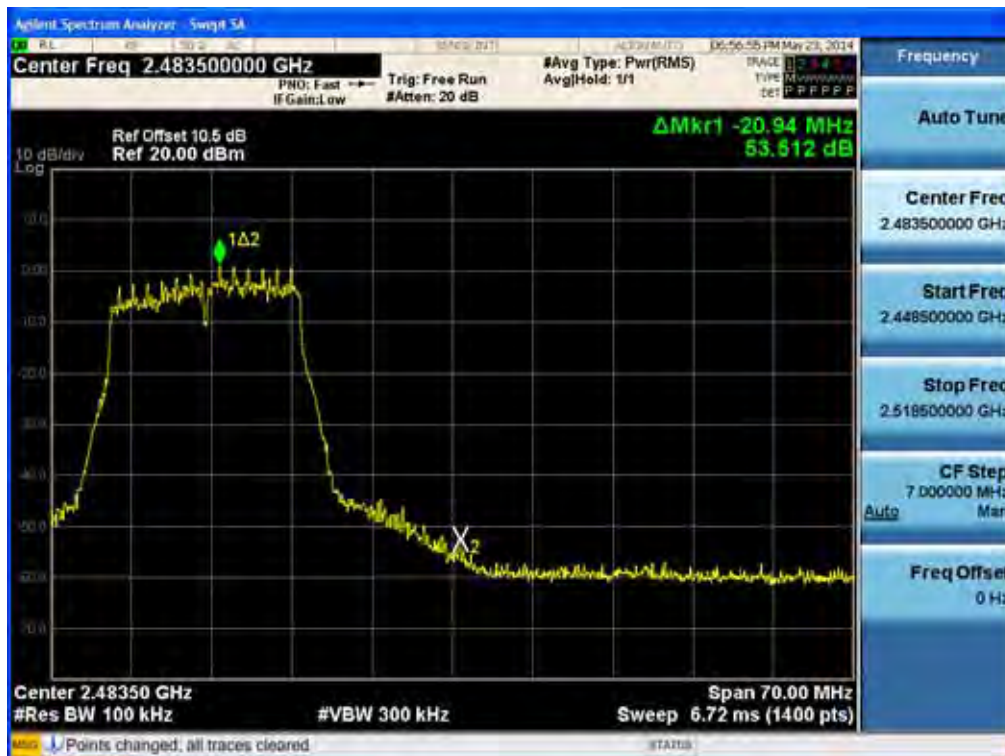
RESULT PLOTS

2.4 GHz Band

BandEdge (802.11g-CH1)



BandEdge (802.11g-CH11)



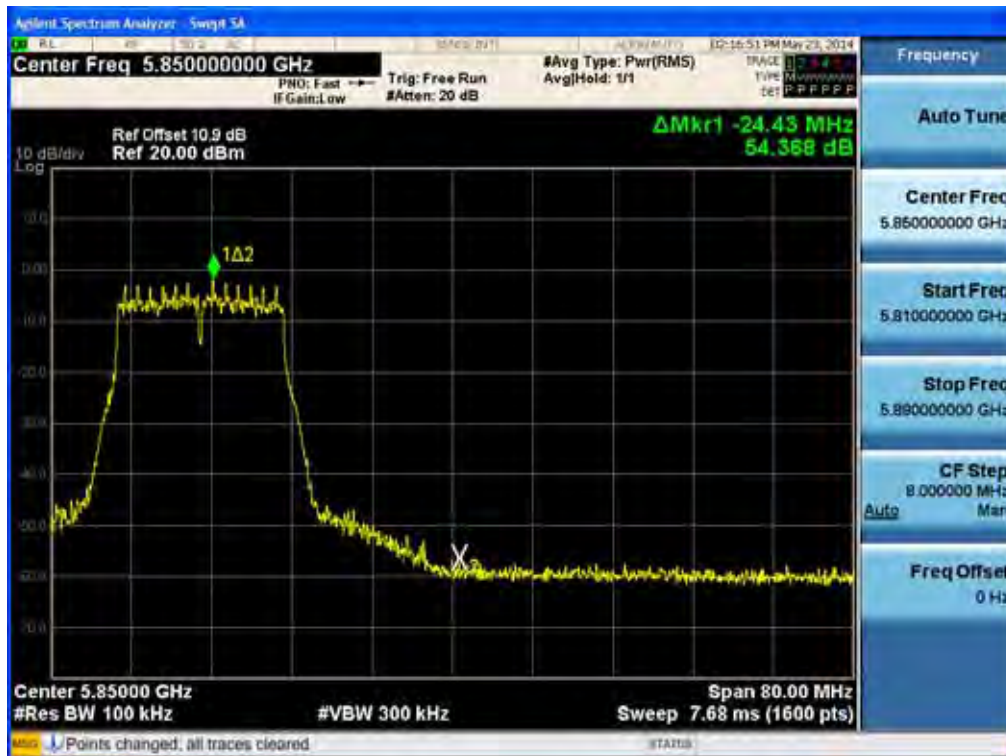
FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

5.8 GHz Band

BandEdge (802.11a-CH 149)



BandEdge (802.11a-CH 165)



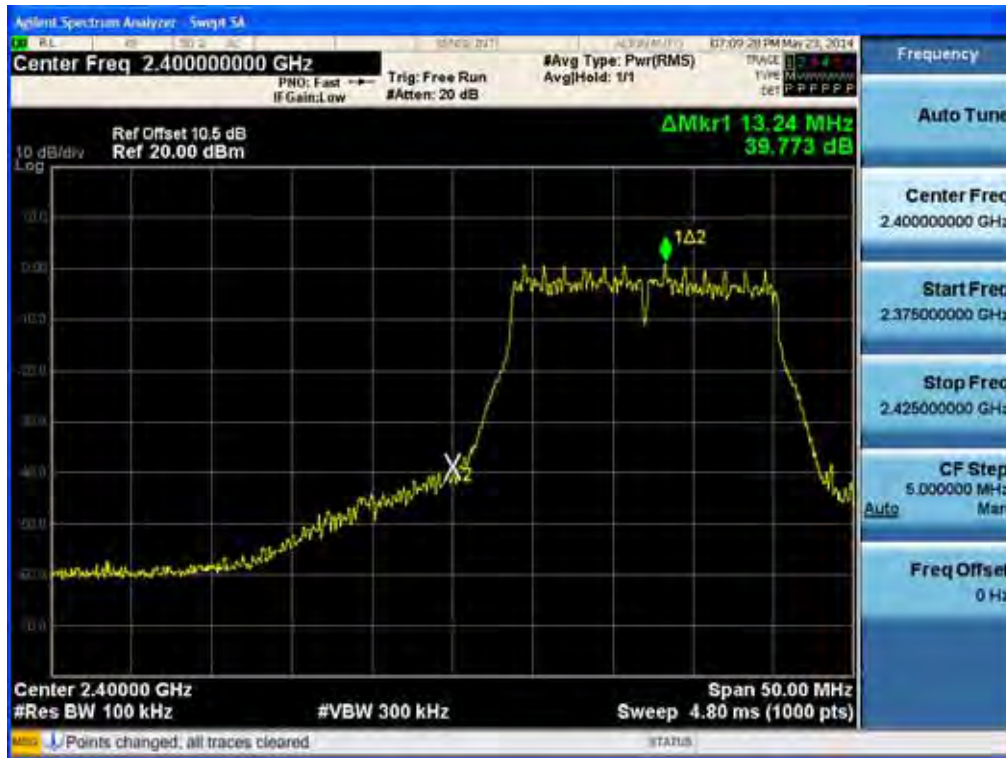
FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Monitoring Port Ant.2

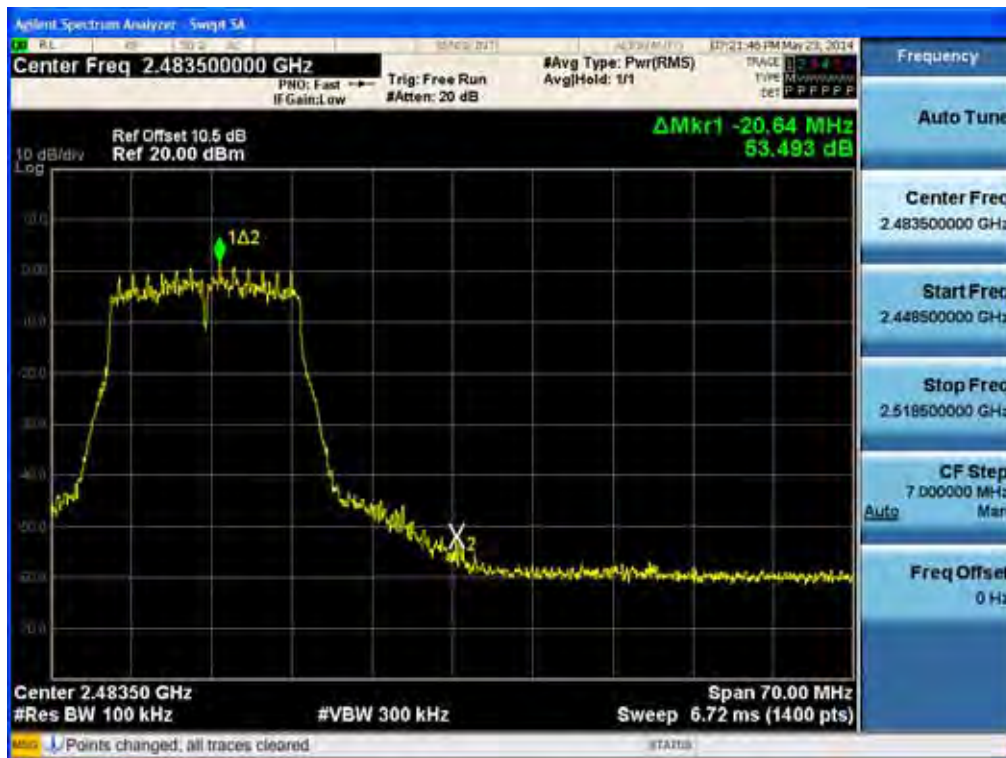
RESULT PLOTS

2.4 GHz Band

BandEdge (802.11g-CH1)



BandEdge (802.11g-CH11)



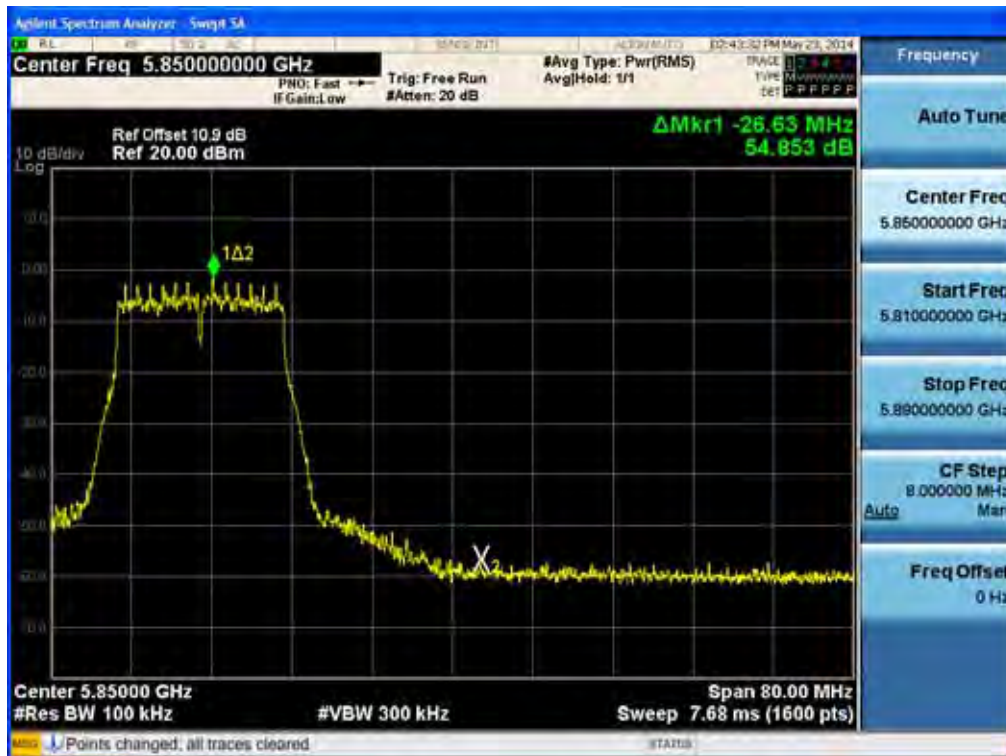
FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

5.8 GHz Band

BandEdge (802.11a-CH 149)



BandEdge (802.11a-CH 165)

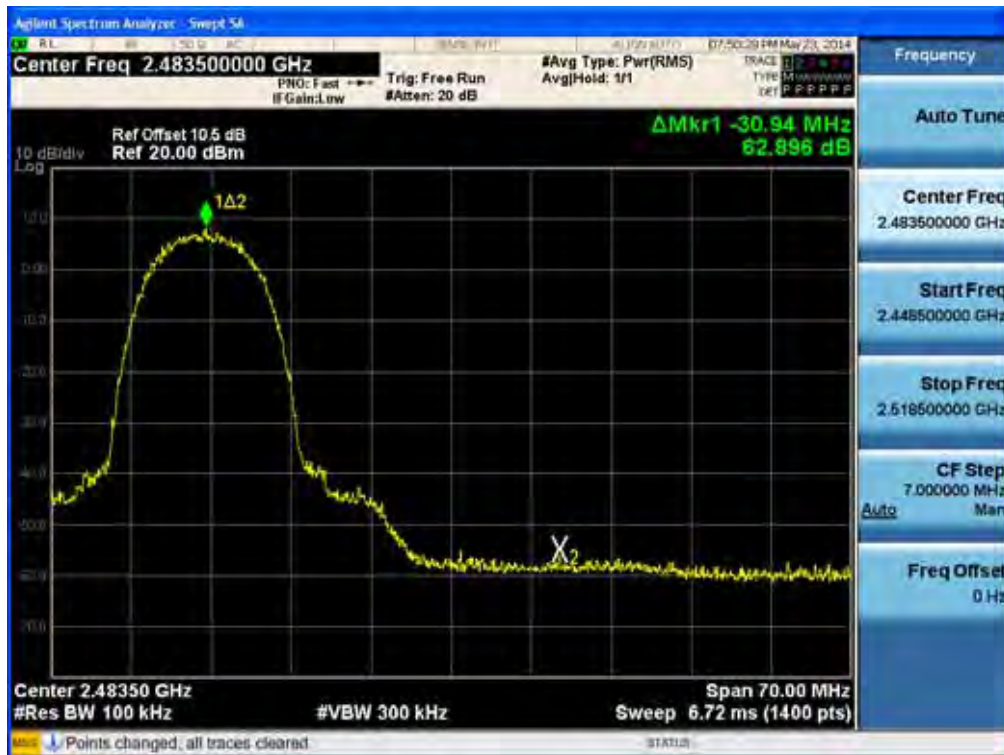


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

BandEdge (802.11b-CH1)



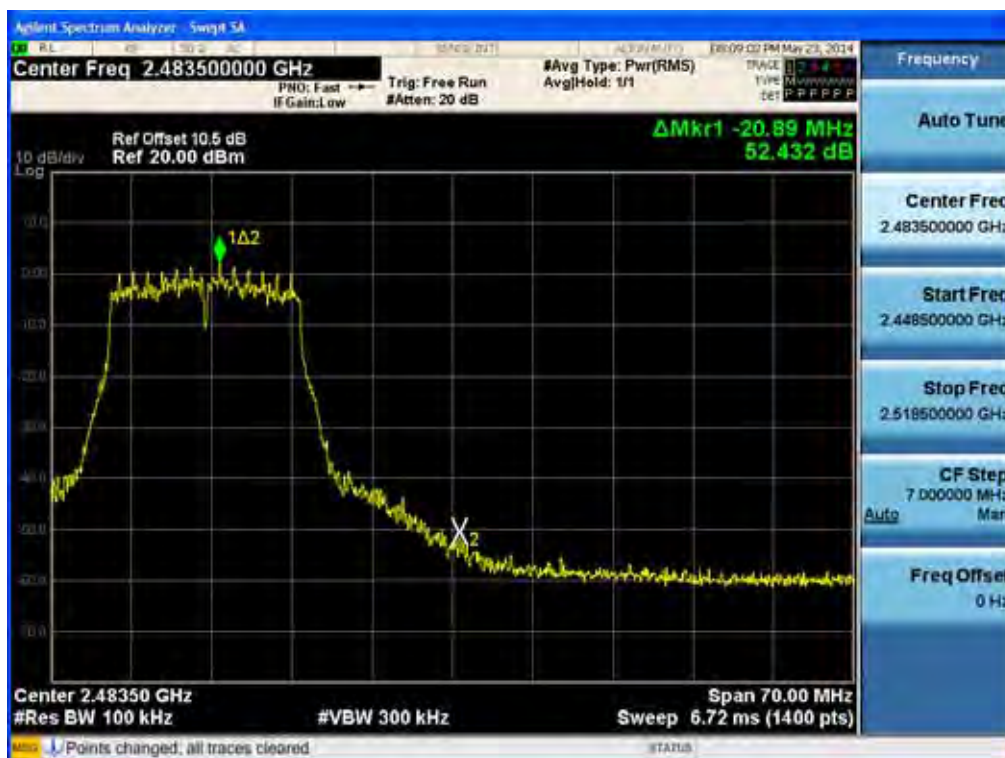
BandEdge (802.11b-CH11)



BandEdge (802.11g-CH1)



BandEdge (802.11g-CH11)

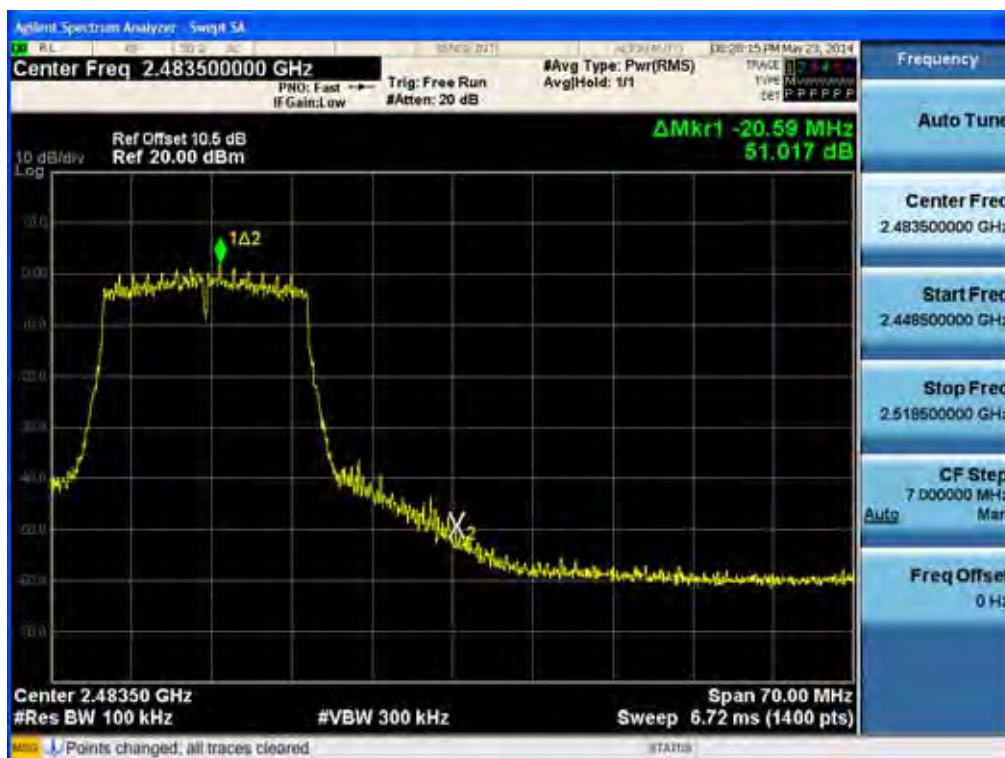


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

BandEdge (802.11n-CH1)



BandEdge (802.11n-CH11)



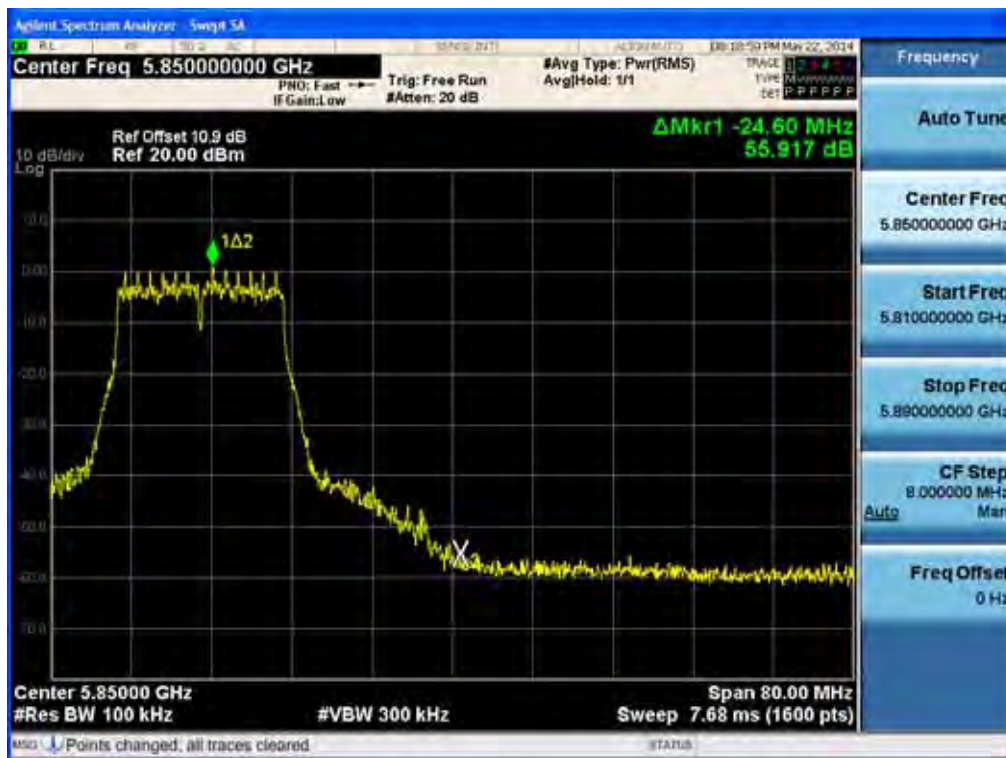
FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

5.8 GHz Band

BandEdge (802.11a-CH 149)



BandEdge (802.11a-CH 165)

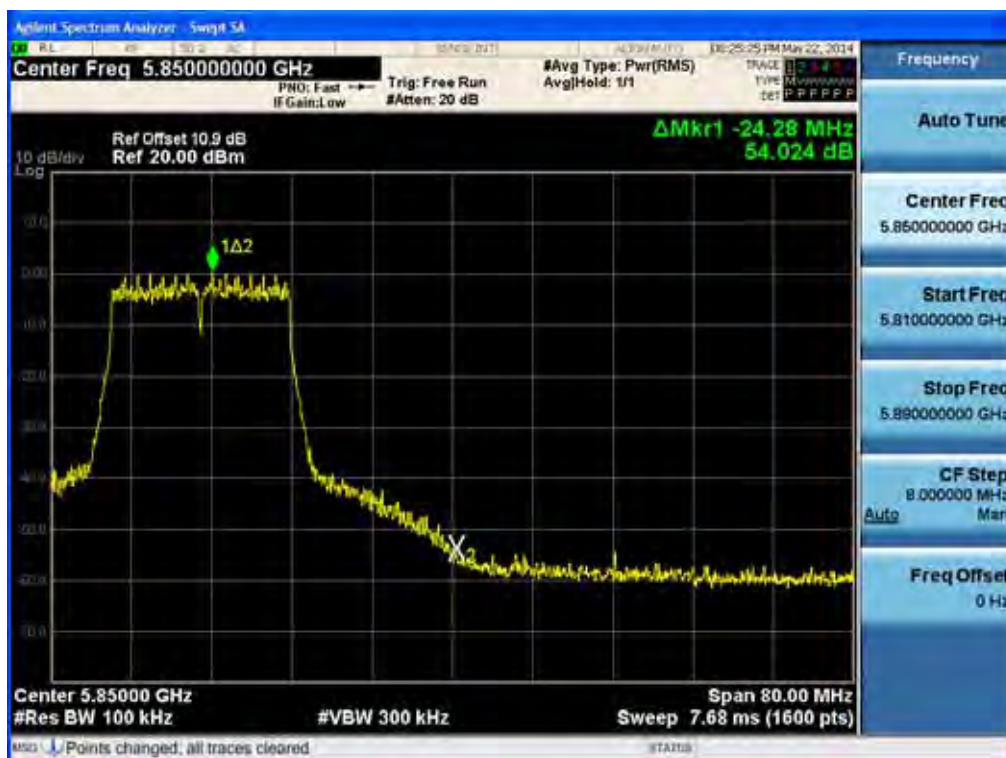


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

BandEdge (802.11n_20 MHz BW -CH 149)



BandEdge (802.11n_20 MHz BW -CH 165)



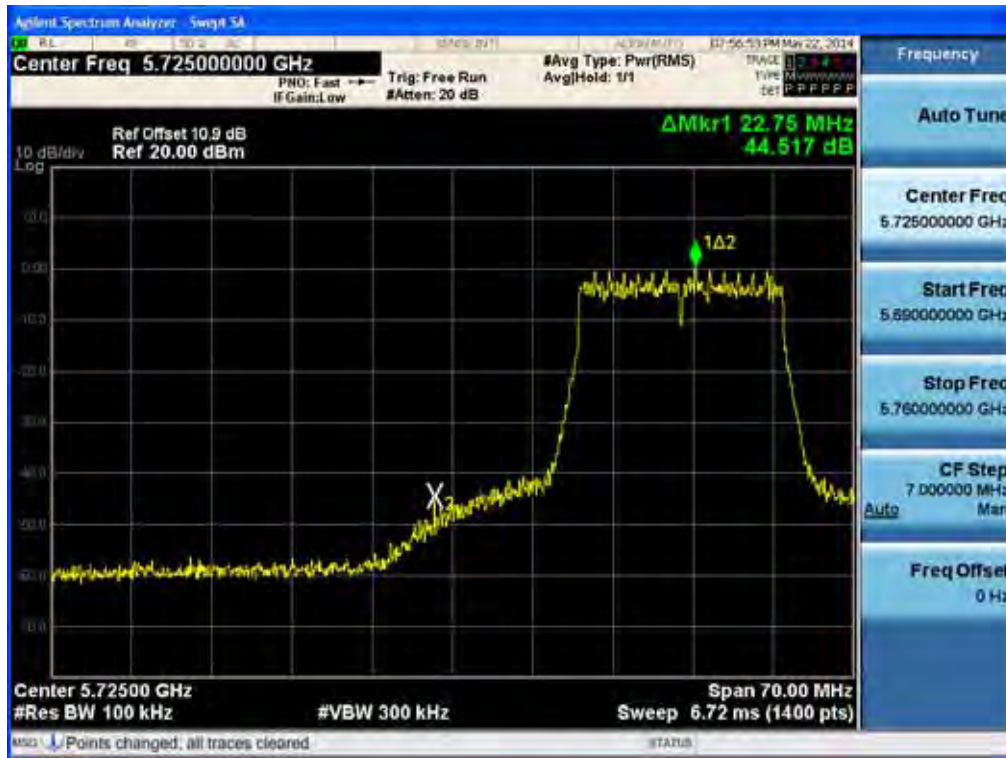
BandEdge (802.11n_40 MHz BW -CH 151)



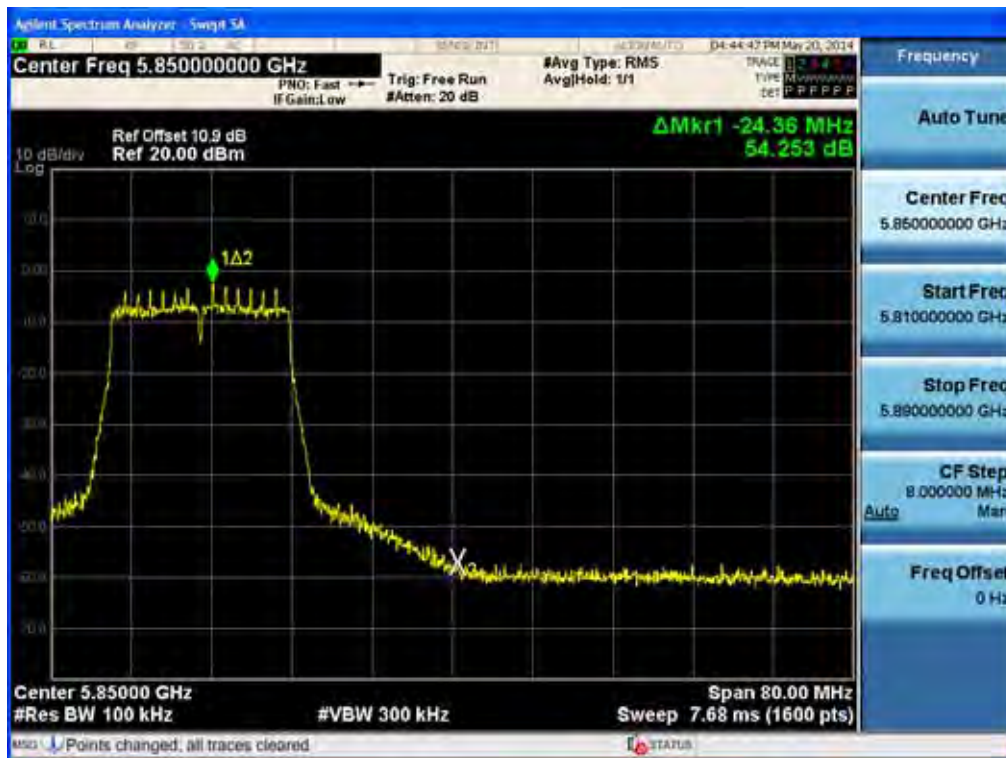
BandEdge (802.11n_40 MHz BW -CH 159)



BandEdge (802.11ac_20 MHz BW -CH 149)



BandEdge (802.11ac_20 MHz BW -CH 165)



BandEdge (802.11ac_40 MHz BW -CH 151)

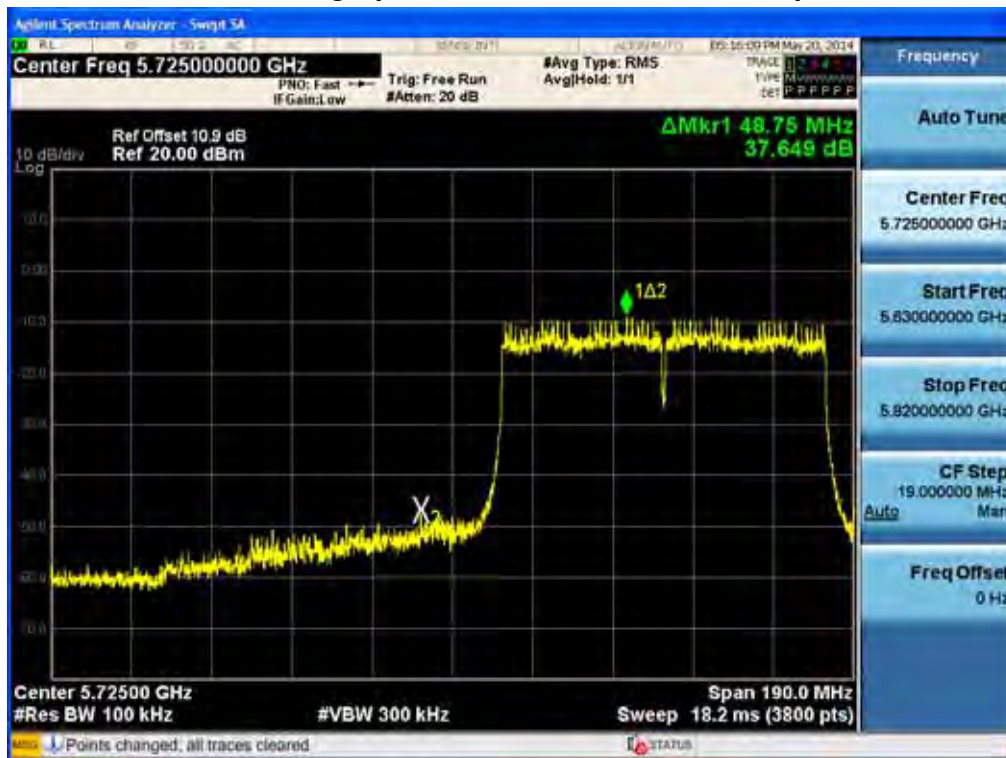


BandEdge (802.11ac_40 MHz BW -CH 159)

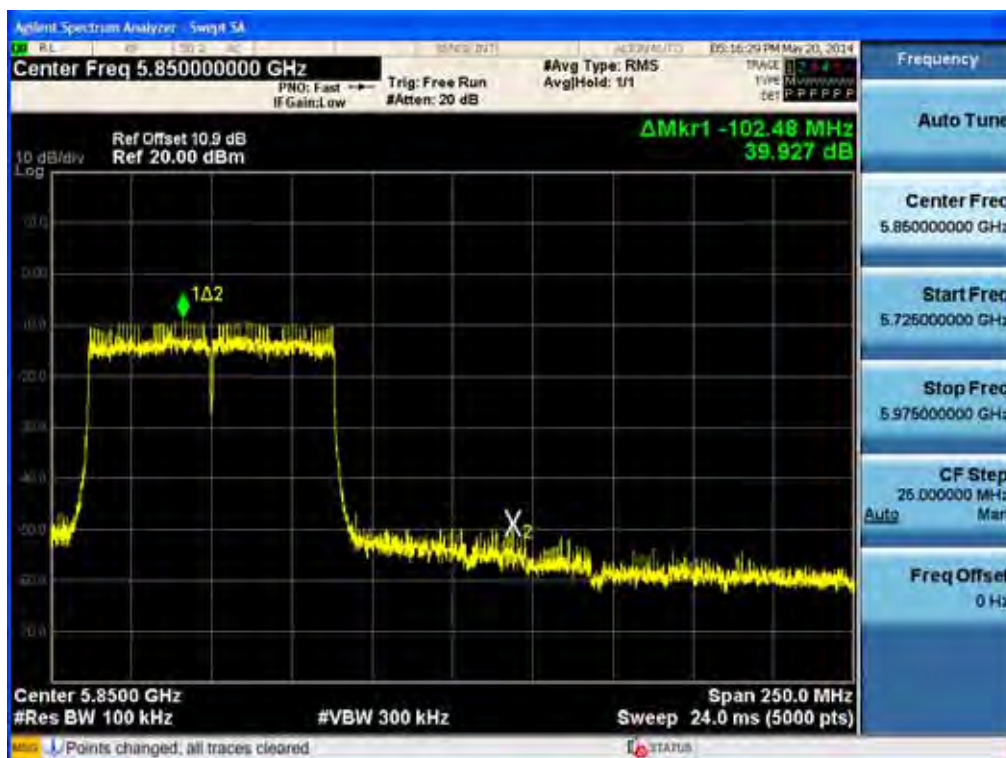


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

BandEdge (802.11ac_80 MHz BW -CH 155)



BandEdge (802.11ac_80 MHz BW -CH 155)



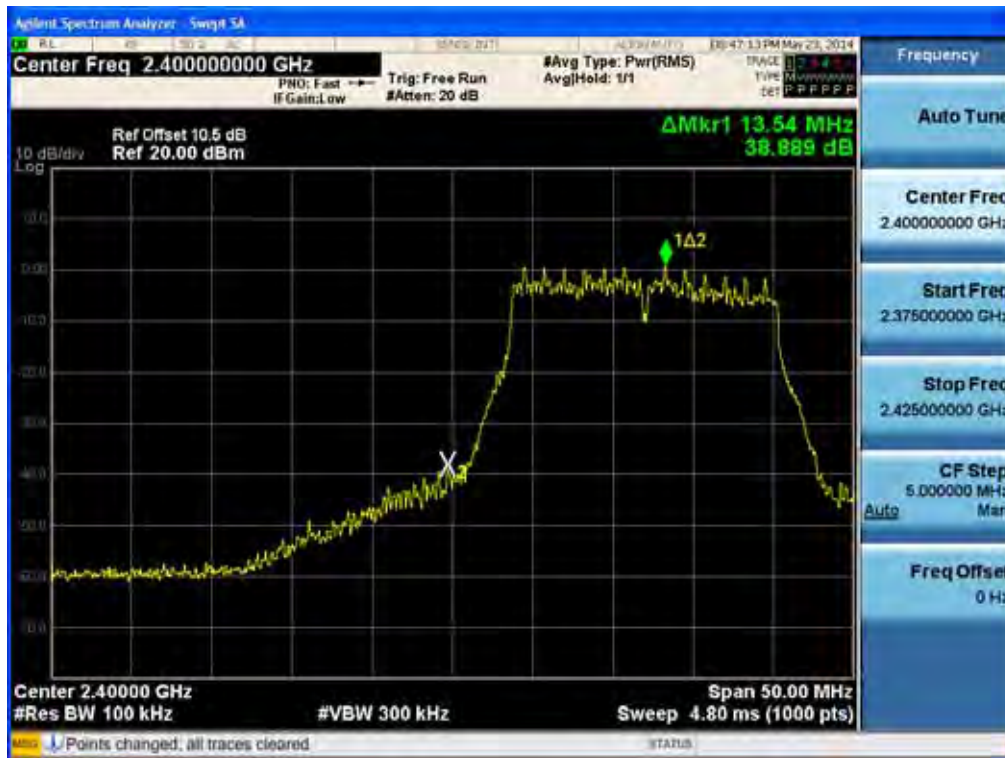
FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Service Port Ant.1

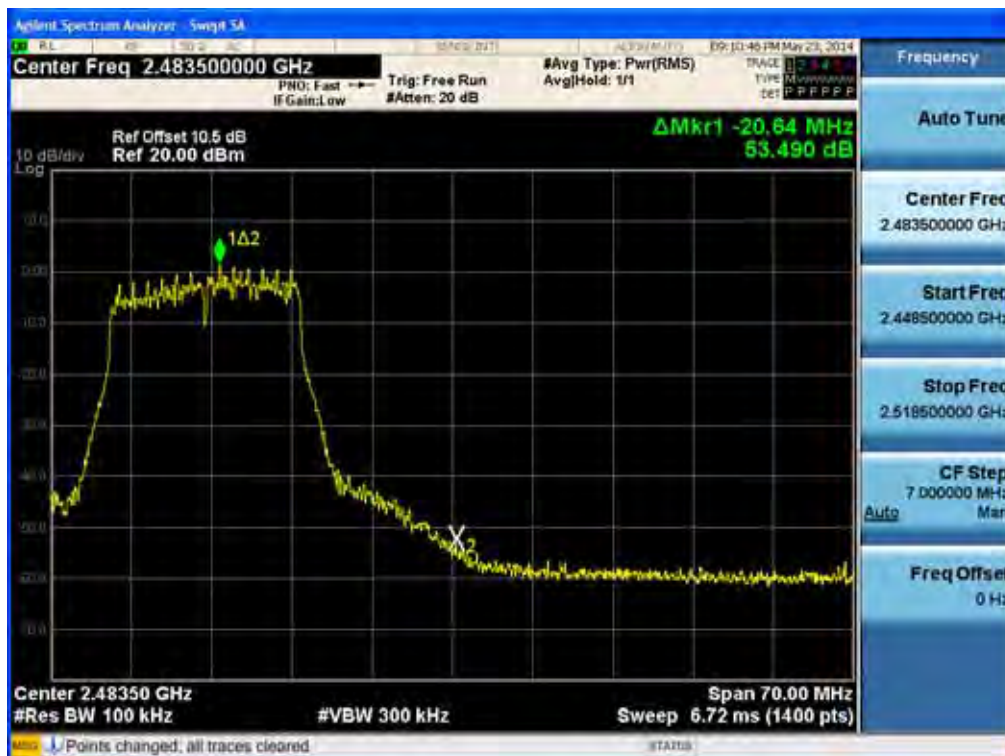
RESULT PLOTS

2.4 GHz Band

BandEdge (802.11g-CH1)



BandEdge (802.11g-CH11)

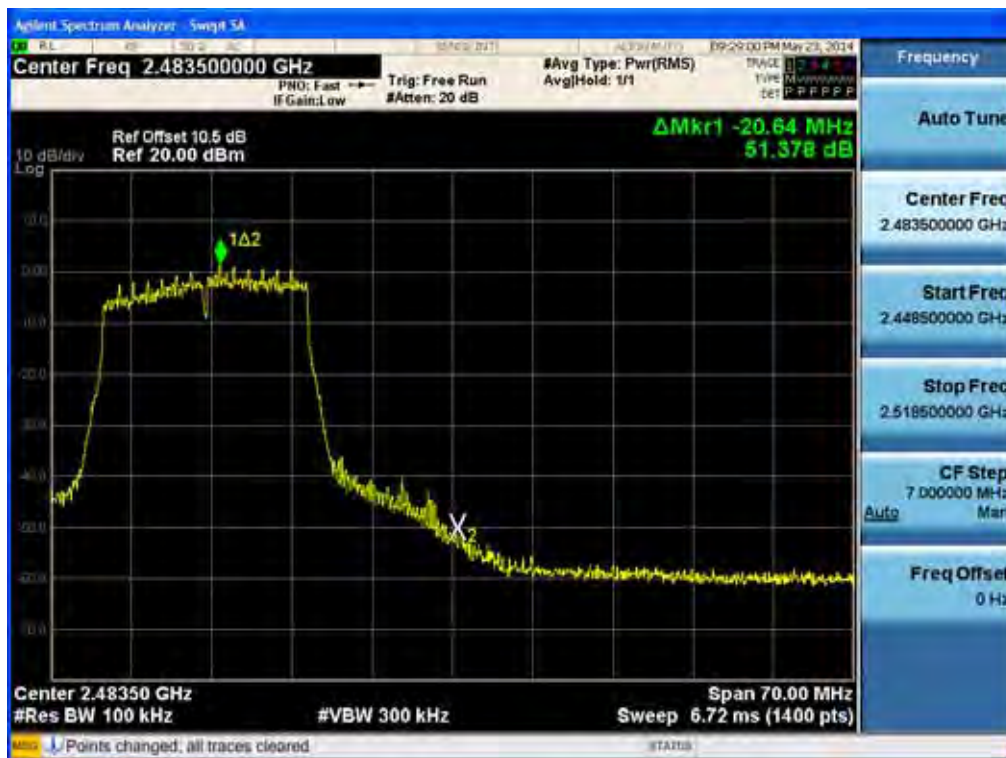


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

BandEdge (802.11n-CH1)



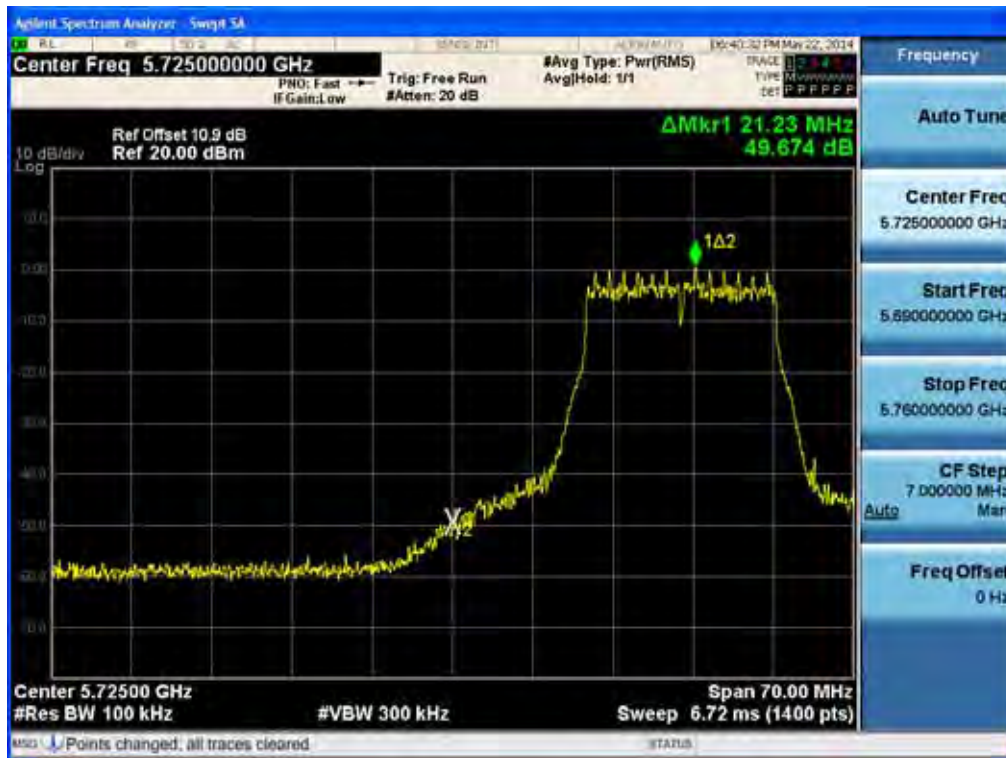
BandEdge (802.11n-CH11)



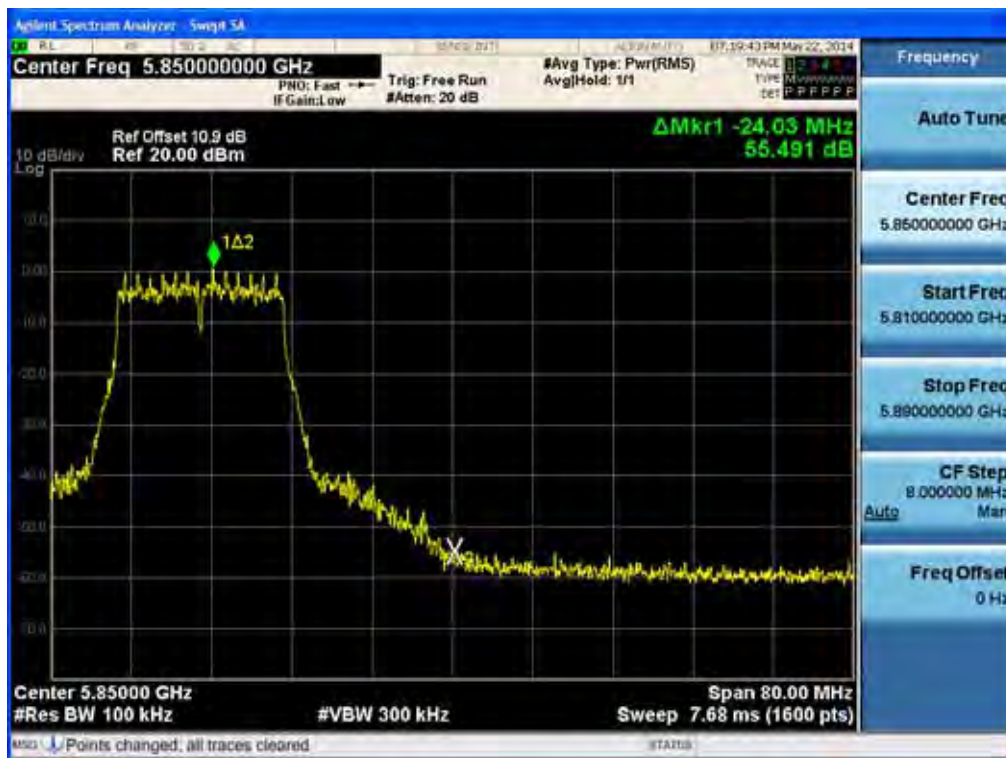
FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

5.8 GHz Band

BandEdge (802.11a-CH 149)

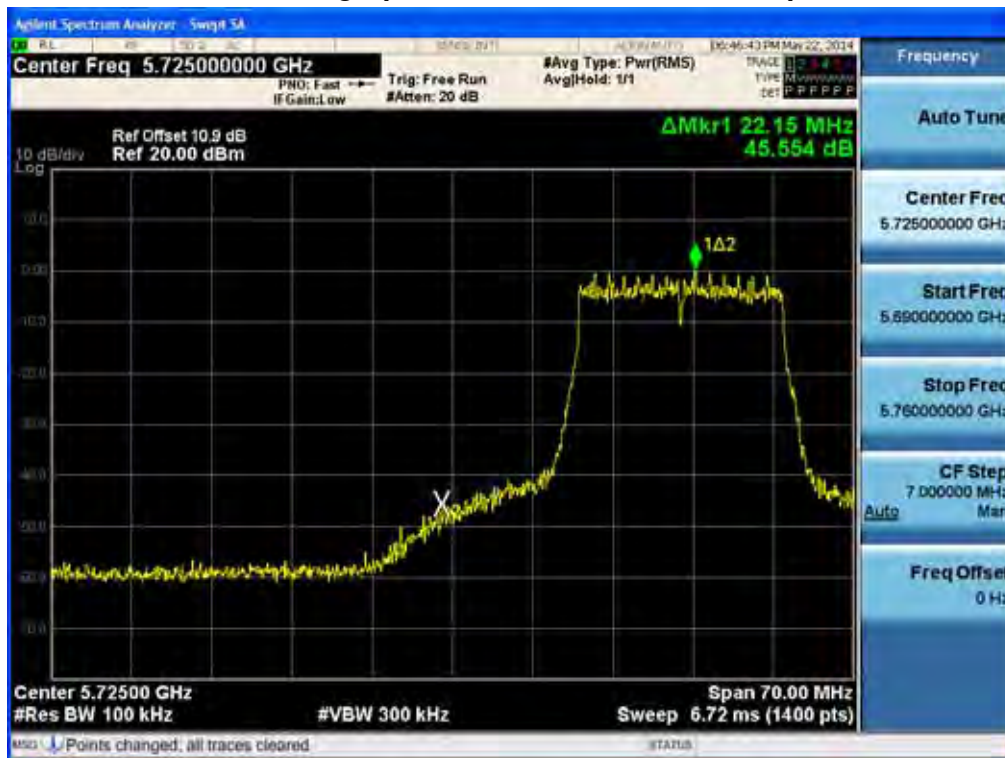


BandEdge (802.11a-CH 165)

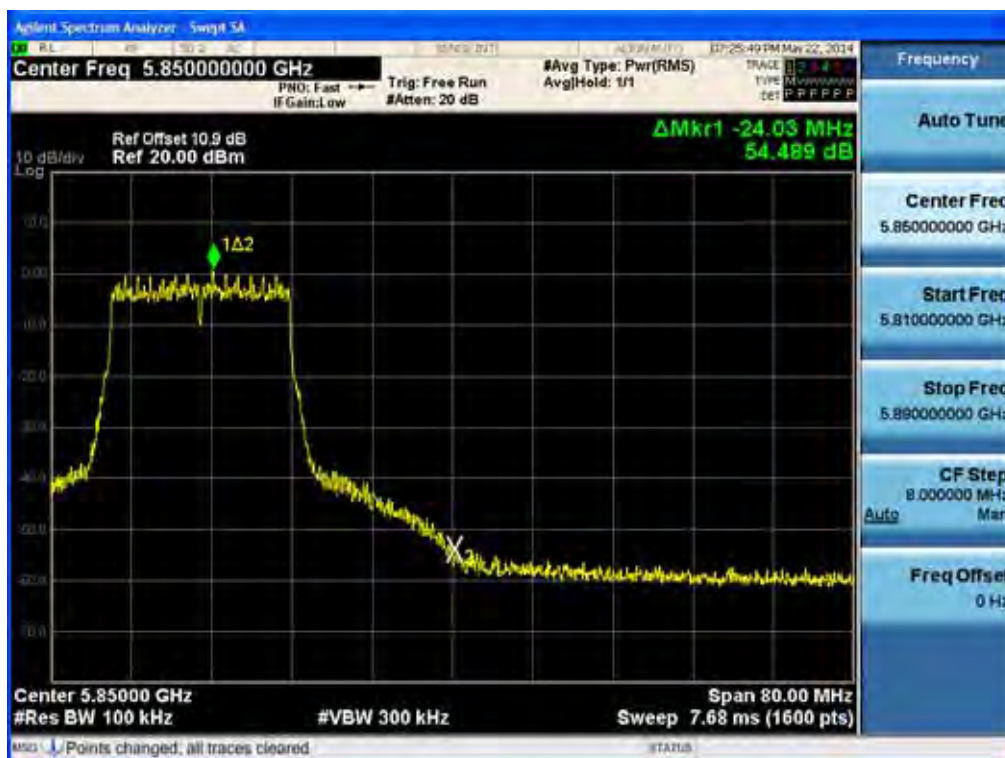


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

BandEdge (802.11n_20 MHz BW -CH 149)



BandEdge (802.11n_20 MHz BW -CH 165)



BandEdge (802.11n_40 MHz BW -CH 151)



BandEdge (802.11n_40 MHz BW -CH 159)



BandEdge (802.11ac_20 MHz BW -CH 149)

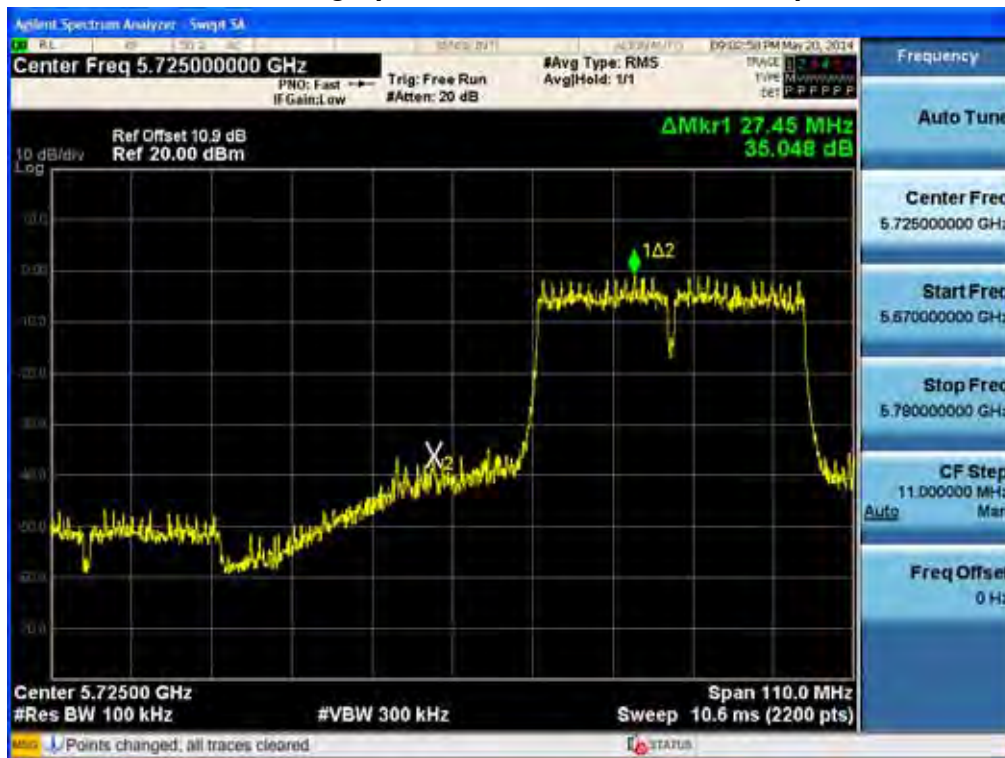


BandEdge (802.11ac_20 MHz BW -CH 165)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

BandEdge (802.11ac_40 MHz BW -CH 151)



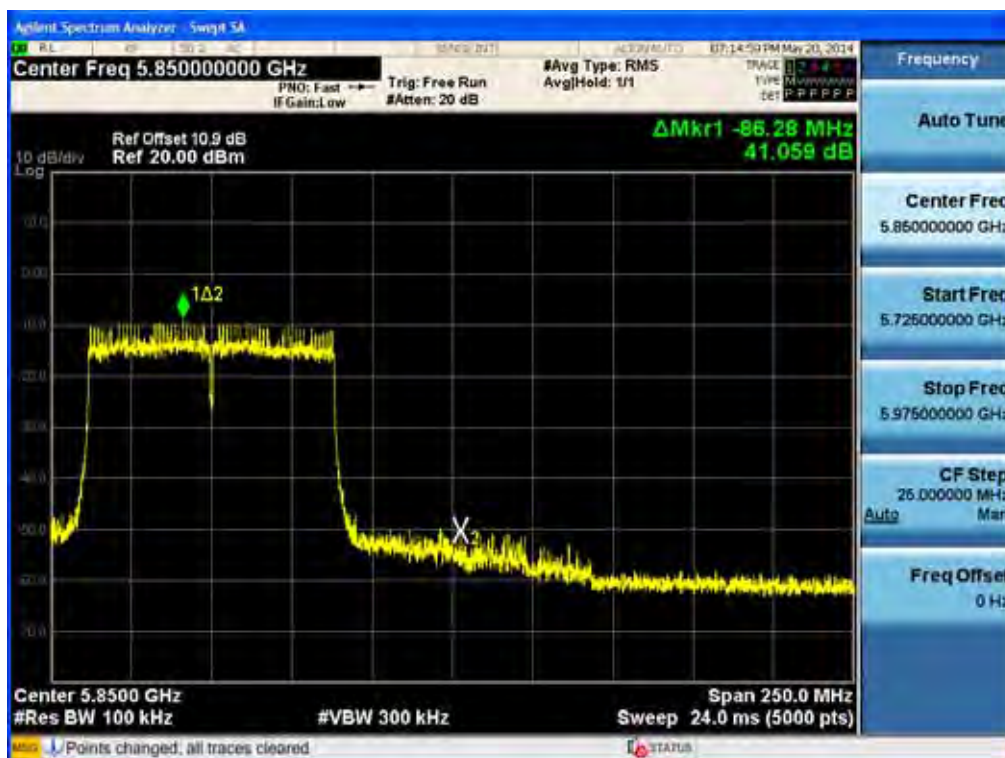
BandEdge (802.11ac_40 MHz BW -CH 159)



BandEdge (802.11ac_80 MHz BW -CH 155)



BandEdge (802.11ac_80 MHz BW -CH 155)



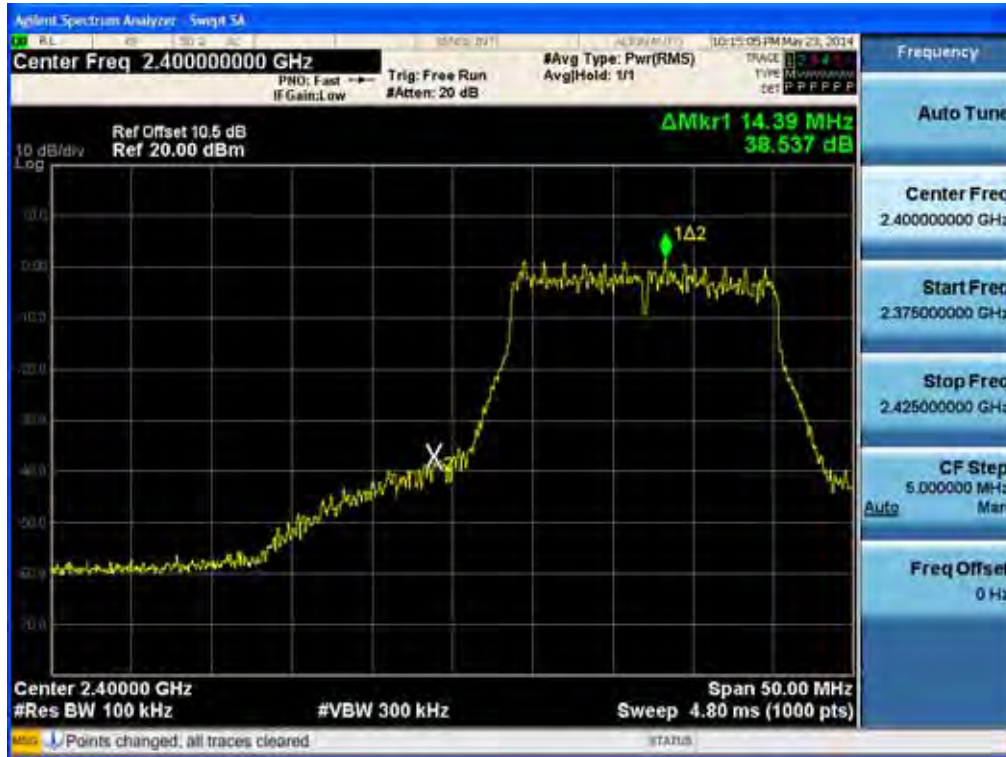
FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Service Port Ant.2

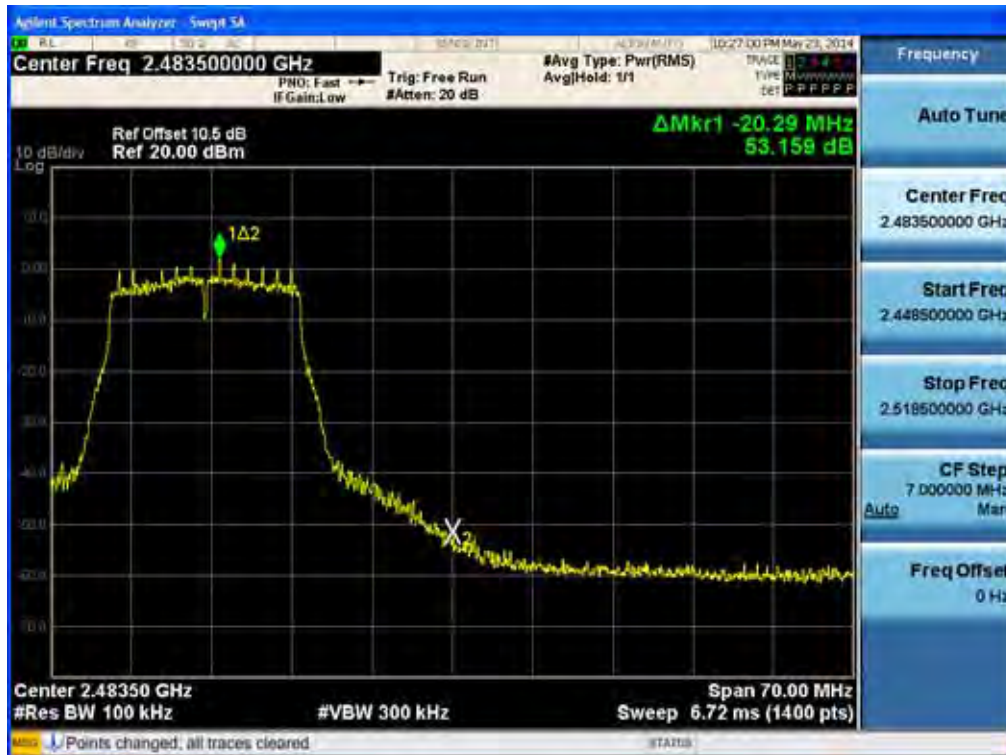
RESULT PLOTS

2.4 GHz Band

BandEdge (802.11g-CH1)



BandEdge (802.11g-CH11)

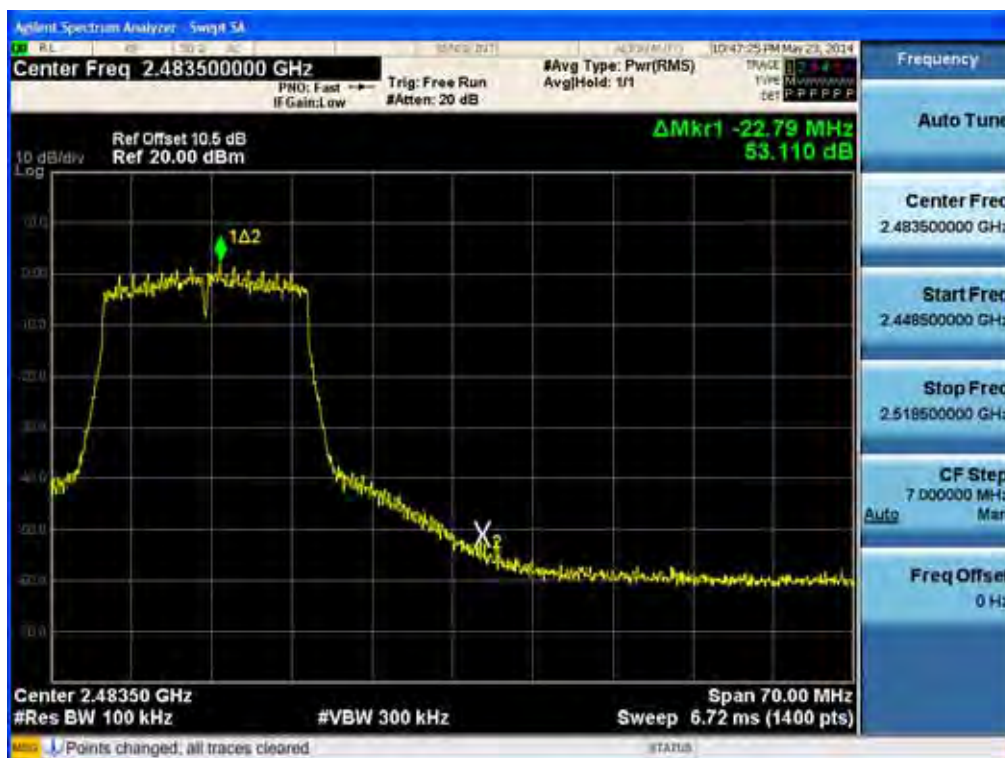


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

BandEdge (802.11n-CH1)



BandEdge (802.11n-CH11)



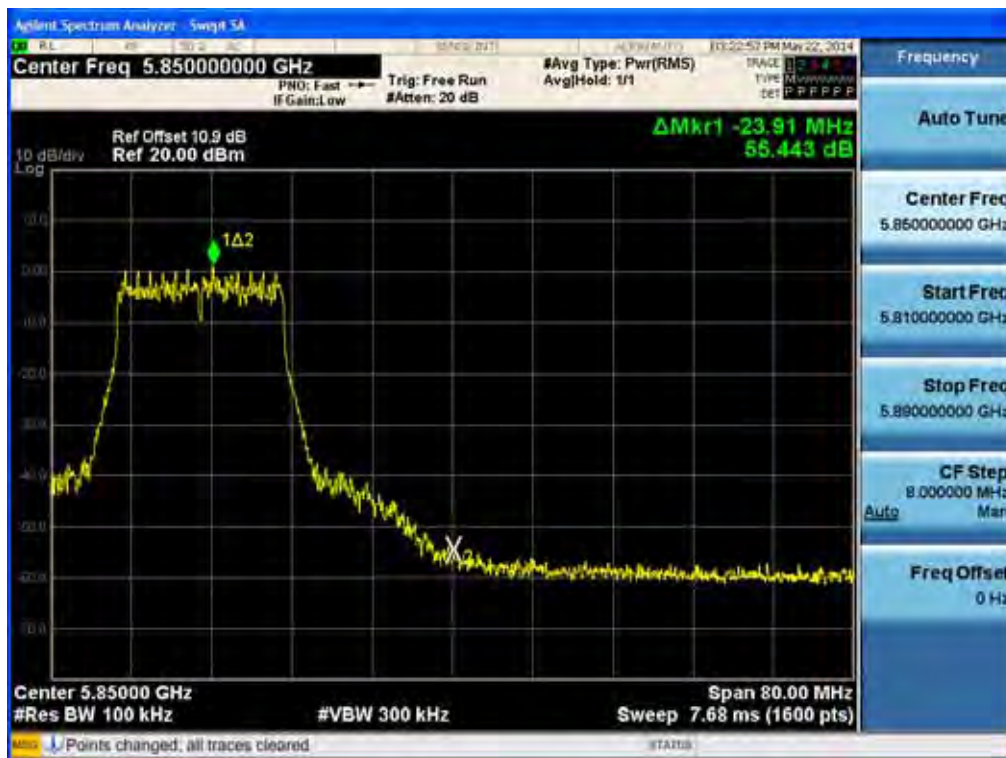
FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

5.8 GHz Band

BandEdge (802.11a-CH 149)

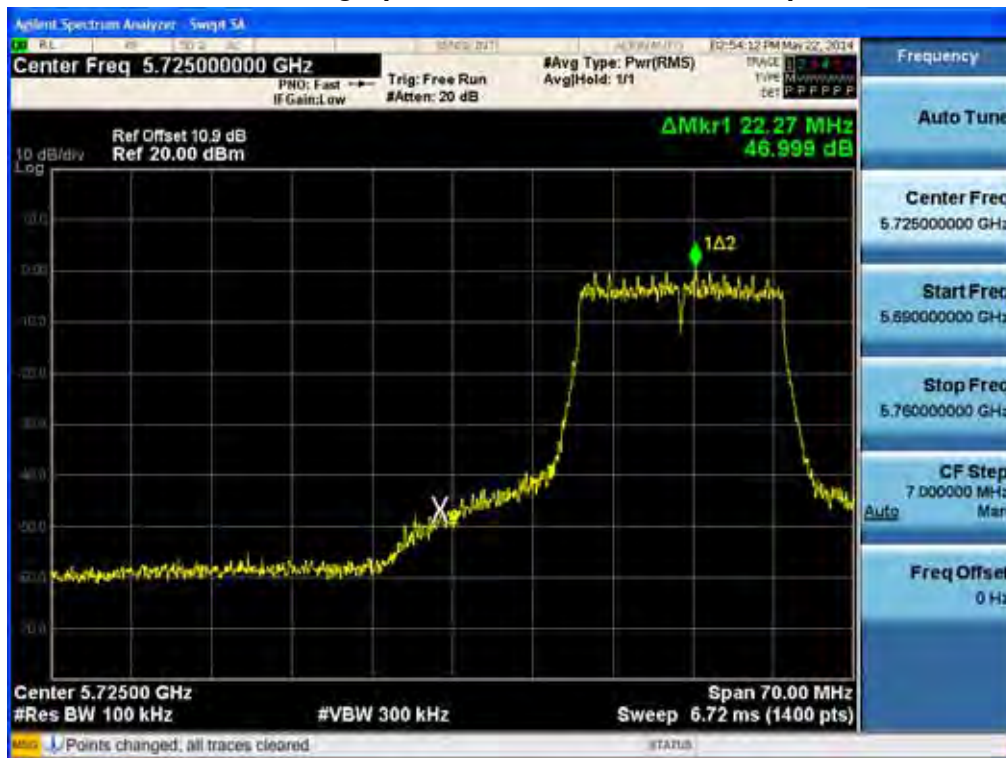


BandEdge (802.11a-CH 165)

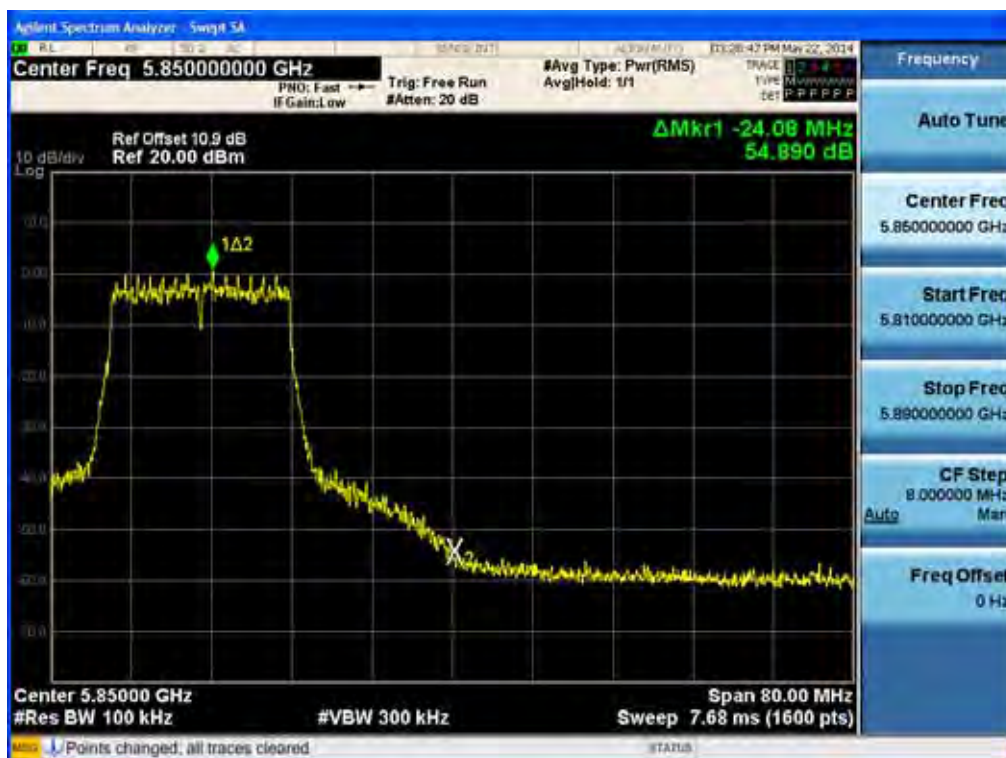


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

BandEdge (802.11n_20 MHz BW -CH 149)



BandEdge (802.11n_20 MHz BW -CH 165)



BandEdge (802.11n_40 MHz BW -CH 151)

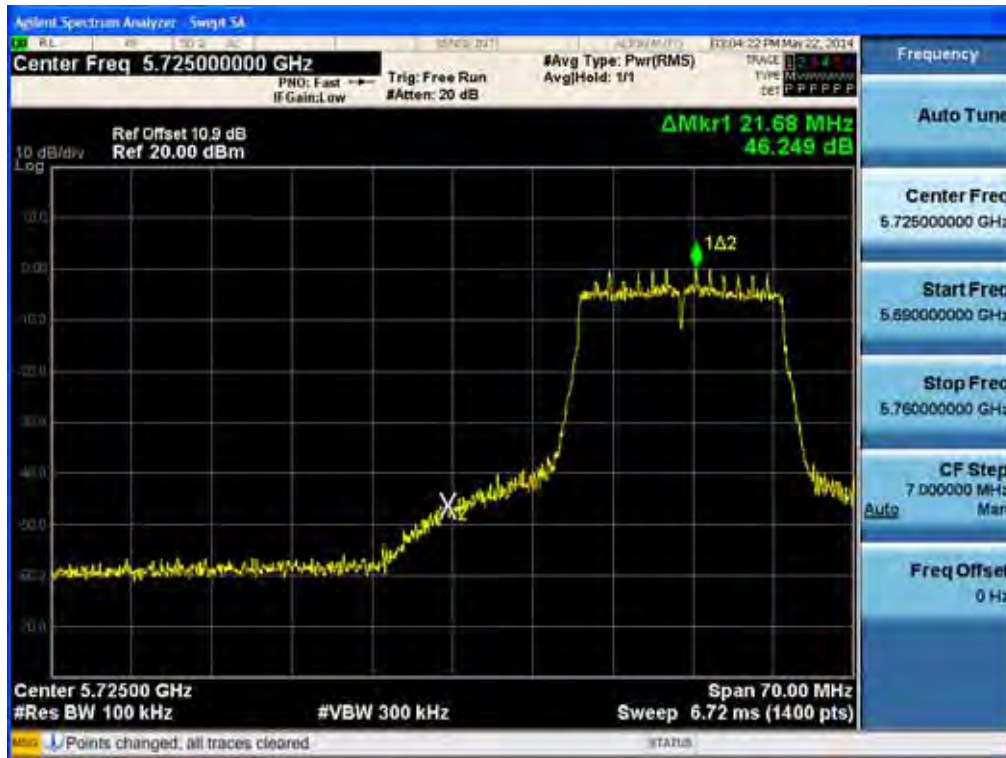


BandEdge (802.11n_40 MHz BW -CH 159)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

BandEdge (802.11ac_20 MHz BW -CH 149)



BandEdge (802.11ac_20 MHz BW -CH 165)



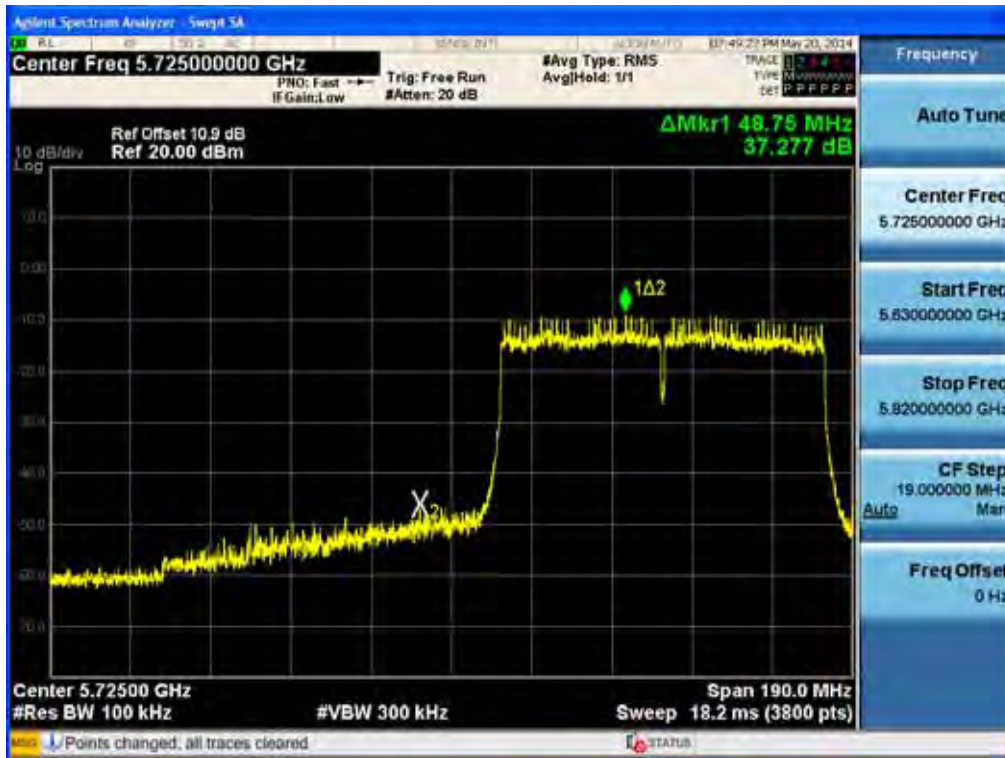
BandEdge (802.11ac_40 MHz BW -CH 151)



BandEdge (802.11ac_40 MHz BW -CH 159)



BandEdge (802.11ac_80 MHz BW -CH 155)



BandEdge (802.11ac_80 MHz BW -CH 155)



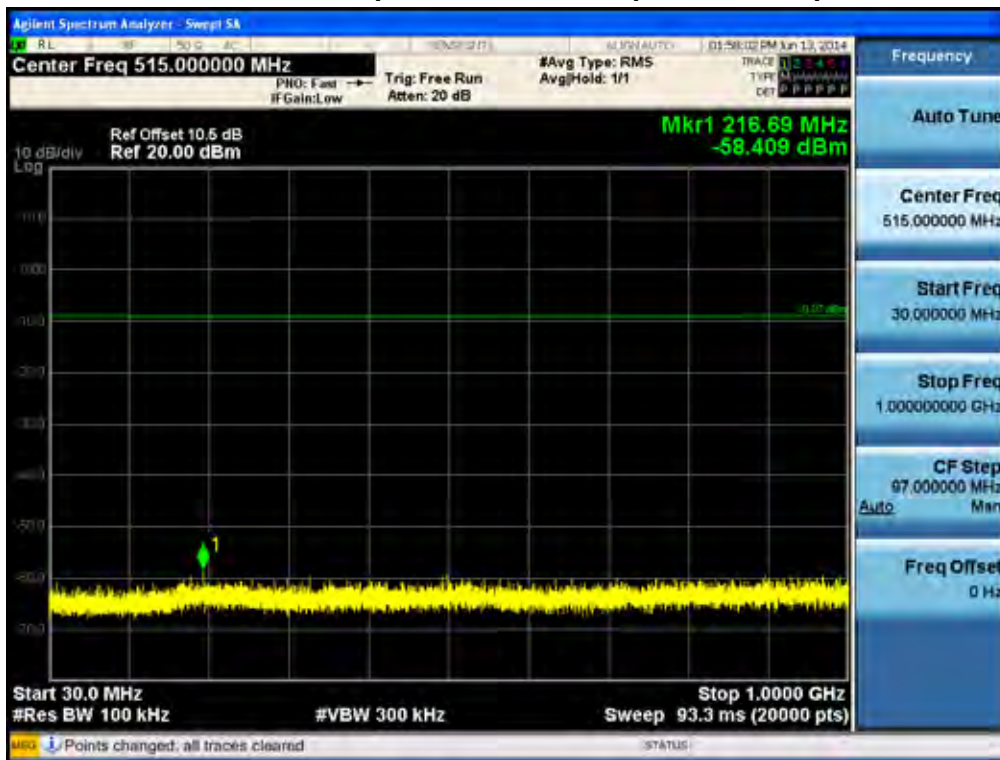
FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

Monitoring Port Ant.0

2.4 GHz Band

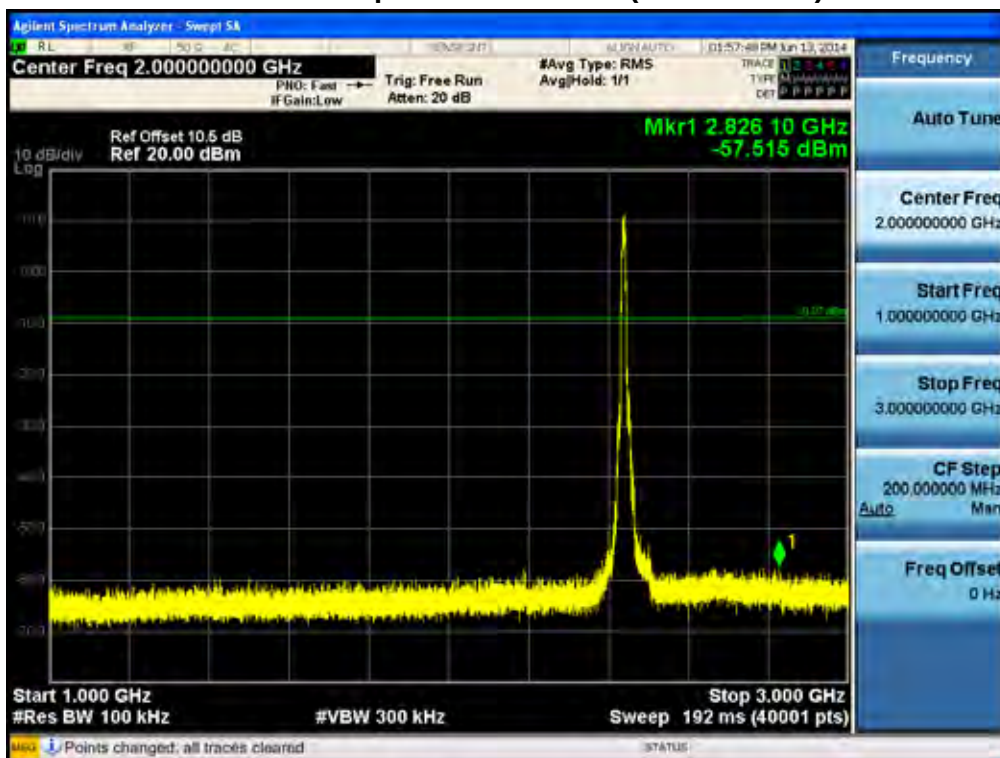
30 MHz ~ 1 GHz

Conducted Spurious Emission (802.11b-CH6)



1 GHz ~ 3 GHz

Conducted Spurious Emission (802.11b-CH6)



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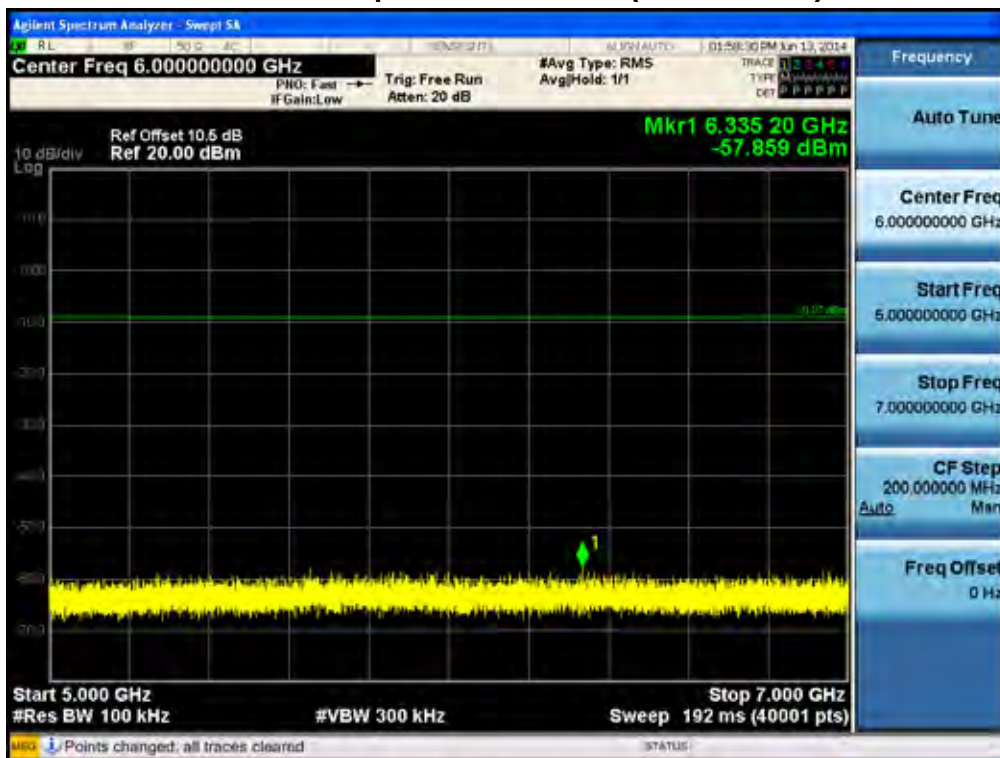
3 GHz ~ 5 GHz

Conducted Spurious Emission (802.11b-CH6)



5 GHz ~ 7 GHz

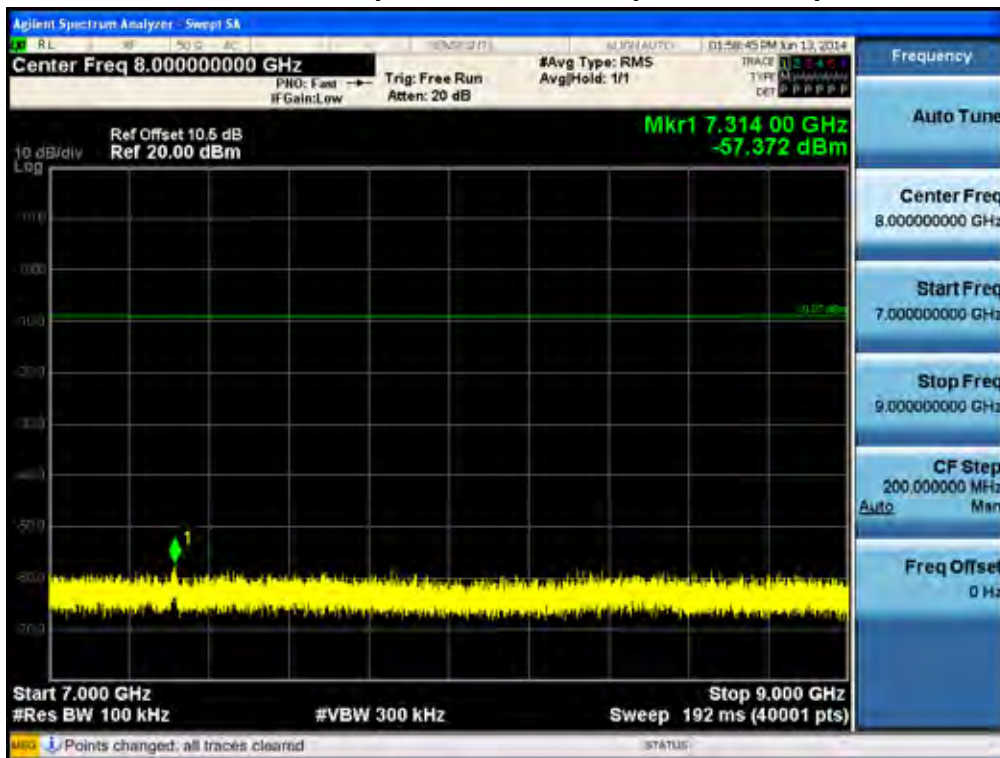
Conducted Spurious Emission (802.11b-CH6)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

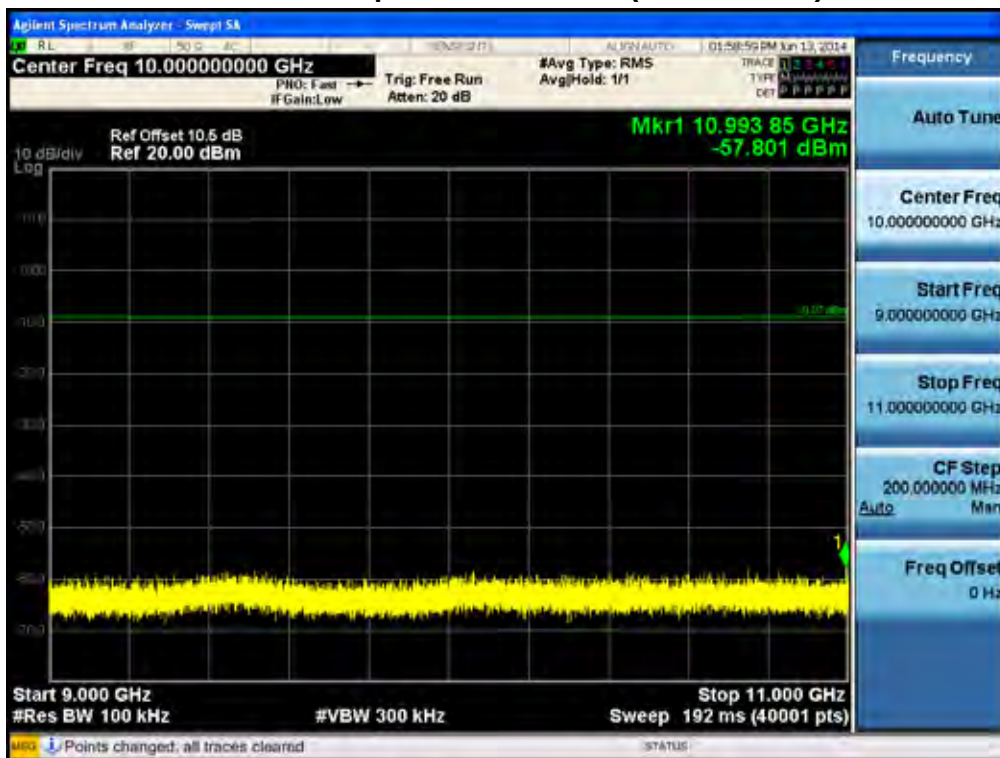
7 GHz ~ 9 GHz

Conducted Spurious Emission (802.11b-CH6)



9 GHz ~ 11 GHz

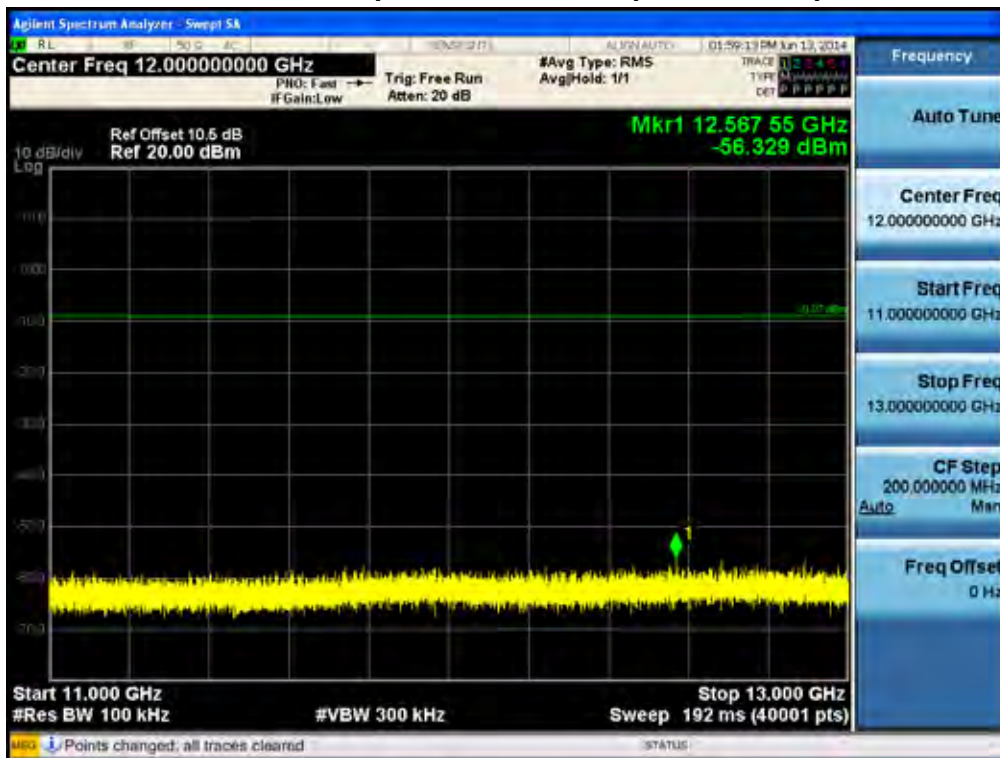
Conducted Spurious Emission (802.11b-CH6)



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Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

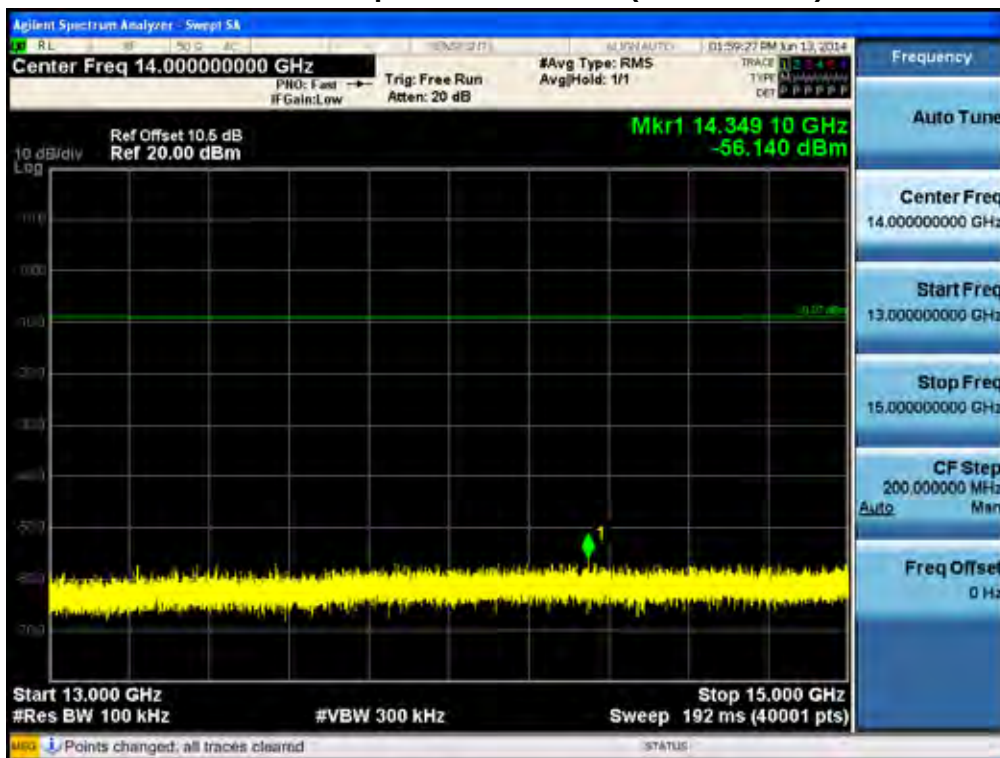
11 GHz ~ 13 GHz

Conducted Spurious Emission (802.11b-CH6)



13 GHz ~ 15 GHz

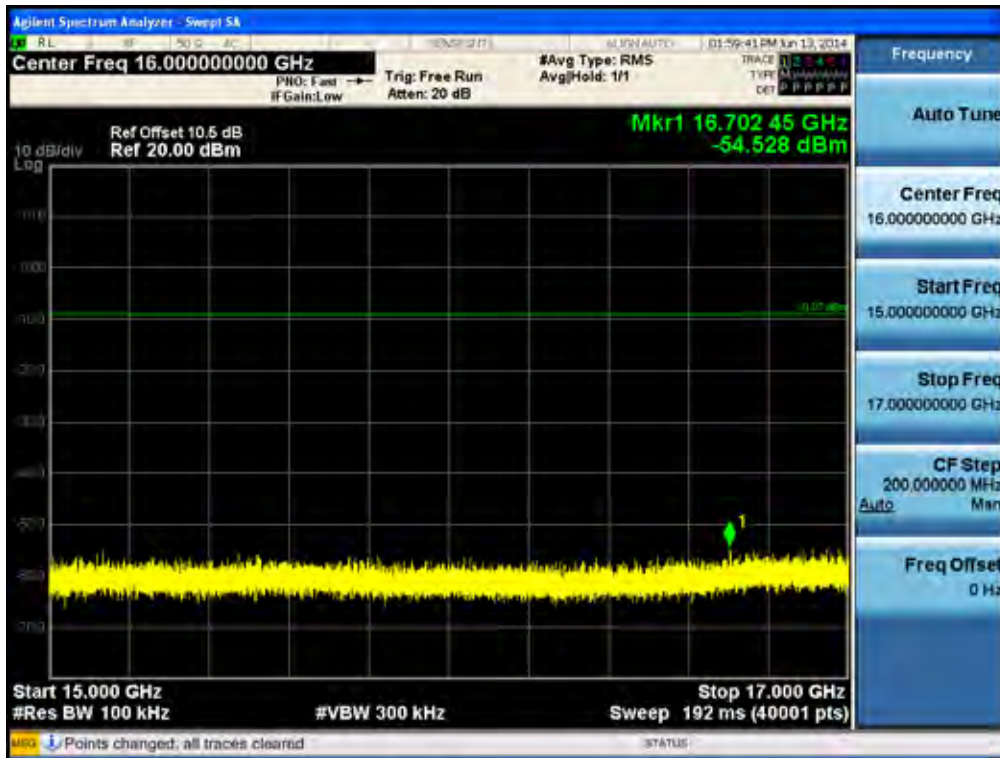
Conducted Spurious Emission (802.11b-CH6)



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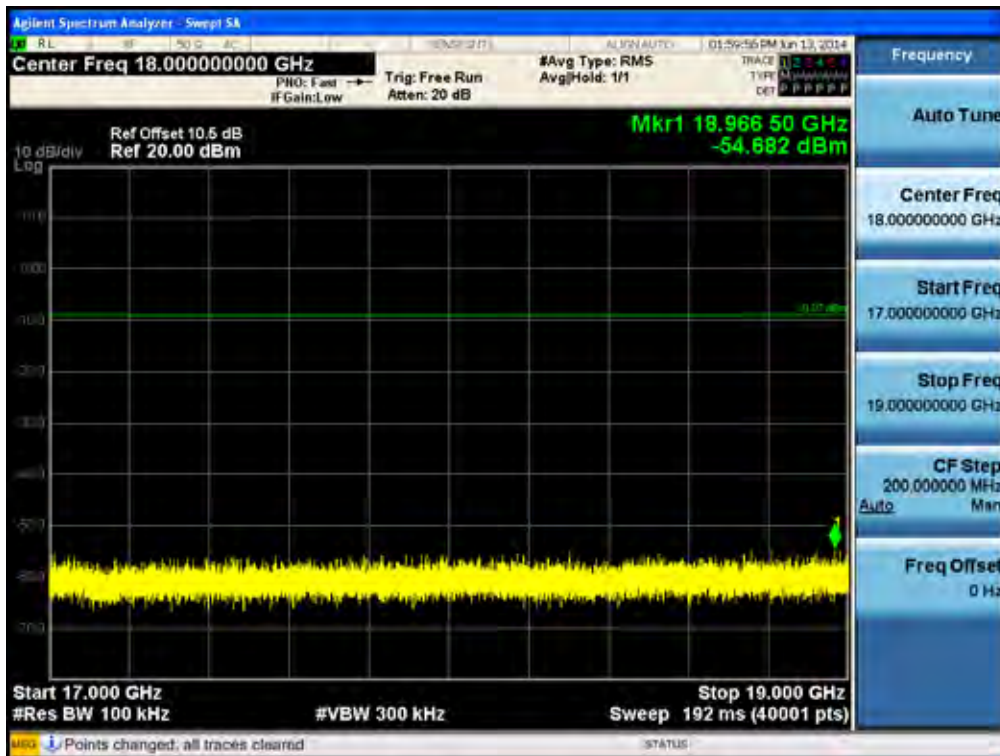
15 GHz ~ 17 GHz

Conducted Spurious Emission (802.11b-CH6)



17 GHz ~ 19 GHz

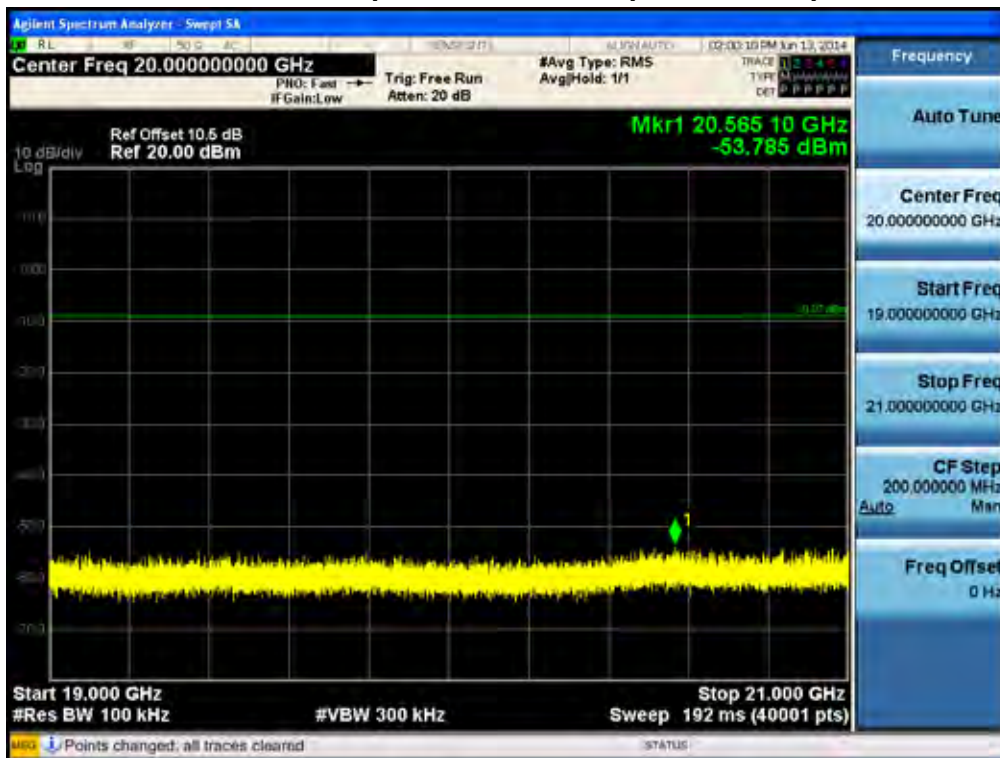
Conducted Spurious Emission (802.11b-CH6)



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Test Report No. HCT-R-1406-F029	Date of Issue: June 18, 2014	EUT Type: WLAN Access Point	FCC ID: A3LWEA403I	IC: 649E-WEA403I

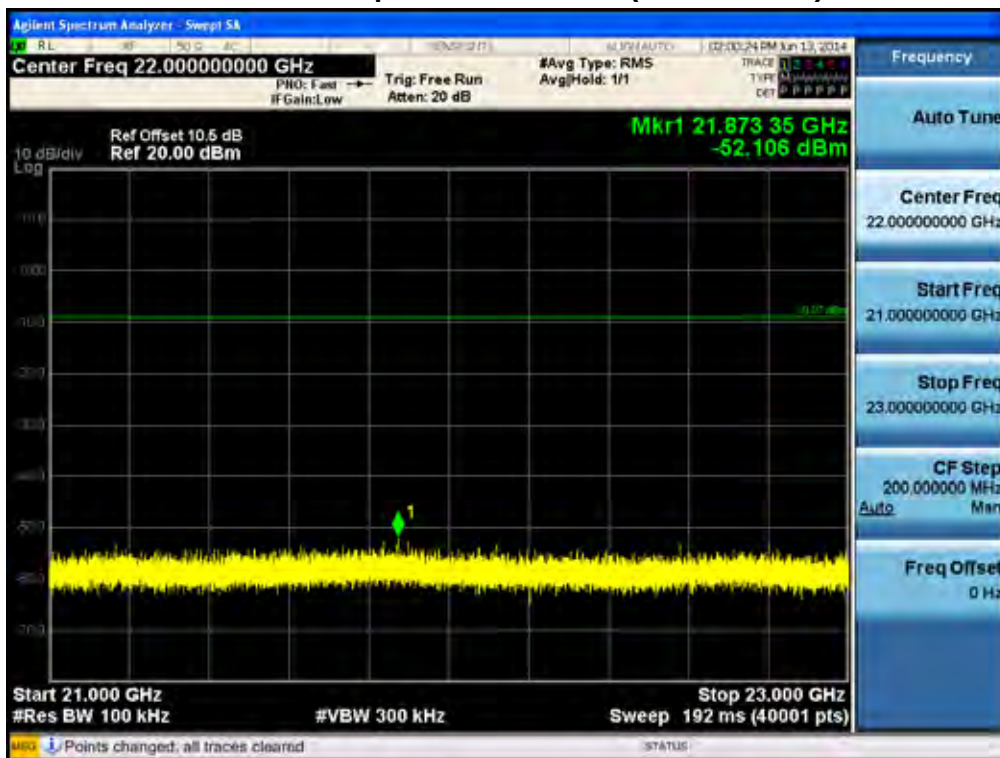
19 GHz ~ 21 GHz

Inducted Spurious Emission (802.11b-CH6)



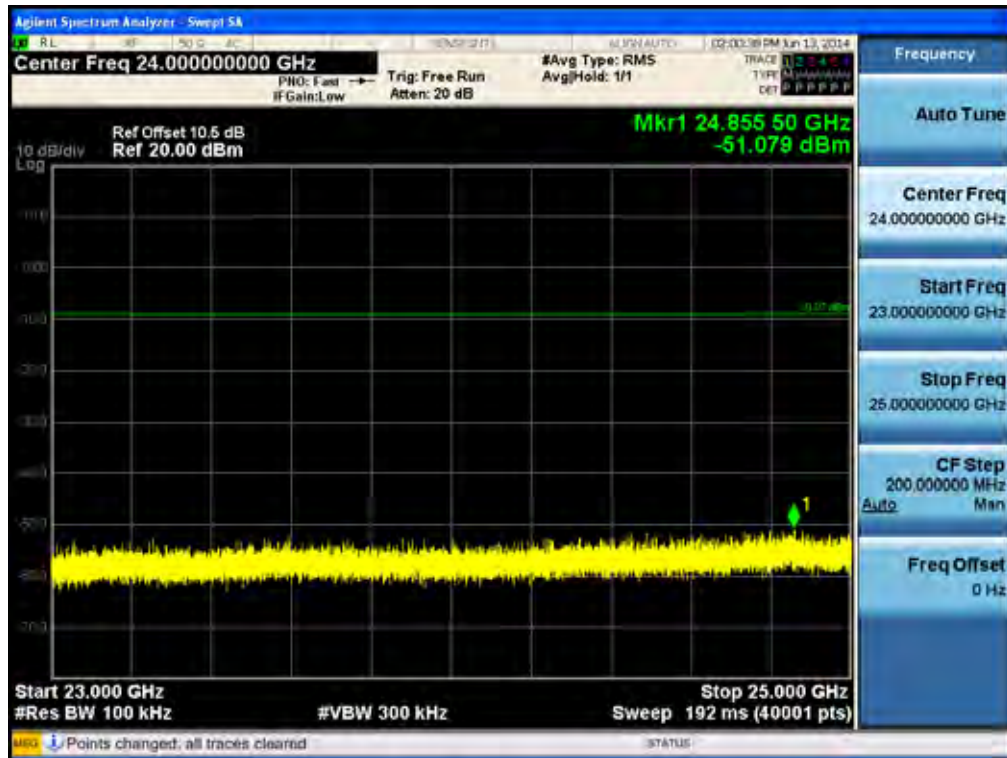
21 GHz ~ 23 GHz

Conducted Spurious Emission (802.11b-CH6)



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Conducted Spurious Emission (802.11b-CH6)



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