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:
November 06, 2013

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

Report No.: HCTR1311FR03

HCT FRN: 0005866421

FCC ID	**: A3LWEA303I**
APPLICANT	**: SAMSUNG Electronics Co., Ltd.**

FCC Model(s):	WEA303e
EUT Type:	WLAN Access Point
Monitoring Port 1	Wi-Fi 802.11a (5260~5320) (5.95 dBm)/ Wi-Fi 802.11a (5500~5700) (6.07 dBm)/
Max. RF Output Power:	Wi-Fi 802.11n_20 MHz BW(5260~5320)(5.98 dBm)/ Wi-Fi 802.11n_20 MHz BW(5500~5700)(6.22 dBm)/ Wi-Fi 802.11n_40 MHz BW (5270~5310) (3.69 dBm)/ Wi-Fi 802.11n_40 MHz BW (5510~5670) (4.00 dBm)
Monitoring Port 2	Wi-Fi 802.11a (5260~5320) (5.57 dBm)/ Wi-Fi 802.11a (5500~5700) (5.12 dBm)/
Max. RF Output Power:	Wi-Fi 802.11n_20 MHz BW(5260~5320)(5.58 dBm)/ Wi-Fi 802.11n_20 MHz BW(5500~5700)(5.08 dBm)/ Wi-Fi 802.11n_40 MHz BW (5270~5310) (3.97 dBm)/ Wi-Fi 802.11n_40 MHz BW (5510~5670) (3.05 dBm)
Service Port 1	Wi-Fi 802.11a (5260~5320) (3.82 dBm)/ Wi-Fi 802.11a (5500~5700) (6.09 dBm)/
Max. RF Output Power:	Wi-Fi 802.11n_20 MHz BW(5260~5320)(3.15 dBm)/ Wi-Fi 802.11n_20 MHz BW(5500~5700)(5.97 dBm)/ Wi-Fi 802.11n_40 MHz BW (5270~5310) (3.37 dBm)/ Wi-Fi 802.11n_40 MHz BW (5510~5670) (5.92 dBm)
Service Port 2	Wi-Fi 802.11a (5260~5320) (6.51 dBm)/ Wi-Fi 802.11a (5500~5700) (7.60 dBm)/
Max. RF Output Power:	Wi-Fi 802.11n_20 MHz BW(5260~5320)(5.90 dBm)/ Wi-Fi 802.11n_20 MHz BW(5500~5700)(7.37 dBm)/ Wi-Fi 802.11n_40 MHz BW (5270~5310) (6.29 dBm)/ Wi-Fi 802.11n_40 MHz BW (5510~5670) (7.44 dBm)
Service Port 3	Wi-Fi 802.11a (5260~5320) (6.94 dBm)/ Wi-Fi 802.11a (5500~5700) (8.39 dBm)/
Max. RF Output Power:	Wi-Fi 802.11n_20 MHz BW(5260~5320)(6.35 dBm)/ Wi-Fi 802.11n_20 MHz BW(5500~5700)(8.41 dBm)/ Wi-Fi 802.11n_40 MHz BW (5270~5310) (6.14 dBm)/ Wi-Fi 802.11n_40 MHz BW (5510~5670) (8.44 dBm)
Frequency Range:	20 MHz BW: 5260 MHz - 5320 MHz (UNII 2)/ 5500 MHz - 5700 MHz (UNII 2e) 40 MHz BW: 5270 MHz - 5310 MHz (UNII 2)/ 5510 MHz - 5670 MHz (UNII 2e)
Modulation type	OFDM
FCC Classification:	Unlicensed National Information Infrastructure(UNII)
FCC Rule Part(s):	Part 15.407

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)

Report prepared by
: Jong Seok Lee
Test engineer of RF Team

Approved by
: Chang Seok Choi
Manager of RF Team

Version

TEST REPORT NO.	DATE	DESCRIPTION
HCTR1311FR03	November 06, 2013	- First Approval Report

Table of Contents

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:	A3LWEA303I
EUT Type:	WLAN Access Point
Model name(s):	WEA303e
Date(s) of Tests:	October 21, 2013 ~ November 05, 2013
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 Model Name	WEA303e	
Power Supply	Adaptor : 100 V ~ 250 V, POE : 100 V ~ 240 V	
Frequency Range	TX_20 MHz BW:	5260 MHz - 5320 MHz (UNII 2)/ 5500 MHz - 5700 MHz (UNII 2e)
	40 MHz BW:	5270 MHz - 5310 MHz (UNII 2)/ 5510 MHz - 5670 MHz (UNII 2e)
	RX_20 MHz BW:	5260 MHz - 5320 MHz (UNII 2)/ 5500 MHz - 5700 MHz (UNII 2e)
	40 MHz BW:	5270 MHz - 5310 MHz (UNII 2)/ 5510 MHz - 5670 MHz (UNII 2e)
Monitoring Port 1 Max. RF Output Power	Wi-Fi 802.11a (5260~5320) (5.95 dBm)/ Wi-Fi 802.11a (5500~5700) (6.07 dBm)/ Wi-Fi 802.11n_20 MHz BW(5260~5320)(5.98 dBm)/ Wi-Fi 802.11n_20 MHz BW(5500~5700)(6.22 dBm)/ Wi-Fi 802.11n_40 MHz BW (5270~5310) (3.69 dBm)/ Wi-Fi 802.11n_40 MHz BW (5510~5670) (4.00 dBm)	
Monitoring Port 2 Max. RF Output Power	Wi-Fi 802.11a (5260~5320) (5.57 dBm)/ Wi-Fi 802.11a (5500~5700) (5.12 dBm)/ Wi-Fi 802.11n_20 MHz BW(5260~5320)(5.58 dBm)/ Wi-Fi 802.11n_20 MHz BW(5500~5700)(5.08 dBm)/ Wi-Fi 802.11n_40 MHz BW (5270~5310) (3.97 dBm)/ Wi-Fi 802.11n_40 MHz BW (5510~5670) (3.05 dBm)	
Service Port 1 Max. RF Output Power	Wi-Fi 802.11a (5260~5320) (3.82 dBm)/ Wi-Fi 802.11a (5500~5700) (6.09 dBm)/ Wi-Fi 802.11n_20 MHz BW(5260~5320)(3.15 dBm)/ Wi-Fi 802.11n_20 MHz BW(5500~5700)(5.97 dBm)/ Wi-Fi 802.11n_40 MHz BW (5270~5310) (3.37 dBm)/ Wi-Fi 802.11n_40 MHz BW (5510~5670) (5.92 dBm)	
Service Port 2 Max. RF Output Power	Wi-Fi 802.11a (5260~5320) (6.51 dBm)/ Wi-Fi 802.11a (5500~5700) (7.60 dBm)/ Wi-Fi 802.11n_20 MHz BW(5260~5320)(5.90 dBm)/ Wi-Fi 802.11n_20 MHz BW(5500~5700)(7.37 dBm)/ Wi-Fi 802.11n_40 MHz BW (5270~5310) (6.29 dBm)/ Wi-Fi 802.11n_40 MHz BW (5510~5670) (7.44 dBm)	
Service Port 3 Max. RF Output Power	Wi-Fi 802.11a (5260~5320) (6.94 dBm)/ Wi-Fi 802.11a (5500~5700) (8.39 dBm)/ Wi-Fi 802.11n_20 MHz BW(5260~5320)(6.35 dBm)/ Wi-Fi 802.11n_20 MHz BW(5500~5700)(8.41 dBm)/ Wi-Fi 802.11n_40 MHz BW (5270~5310) (6.14 dBm)/ Wi-Fi 802.11n_40 MHz BW (5510~5670) (8.44 dBm)	
Modulation Type	OFDM(802.11a, 802.11n)	
Antenna Specification	Manufacturer: ACE Technologyacetechnology Antenna type: Internal Antenna Peak Gain : cf. Section 6	

Note : Max. RF output power is a high value between the adaptor results and POE results.

3. TEST METHODOLOGY

The measurement procedure described in FCC KDB 789033 D01 General UNII Test Procedures v01r03 dated April 08, 2013 entitled " Guidelines for Compliance Testing of Unlicensed National Information Infrastructure (U-NII) Devices, the American National Standard for Testing Unlicensed Wireless Devices(ANSI C63.4-2003) – Part 15, Subpart E" were used in the measurement.

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 15.407 under the FCC Rules Part 15 Subpart E.

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 8.1 to 8.4.(KDB 789033)

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.

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 June 21, 2011 (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

▣ Directional Gain Calculations

▪ If any transmit signals are correlated with each other(802.11a),

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

▪ If all transmit signals are completely uncorrelated with each other(802.11n)

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

▣ Antenna Gain

Service	Antenna Gain	Ant 1	8
		Ant 2	8
		Ant 3	8
	Directional Antenna Gain	Ant 1 & 2	11.01 dBi(802.11a), 8 dBi(802.11n)
		Ant 1 & 2 & 3	12.77 dBi(802.11a), 8 dBi(802.11n)
Monitor	Antenna Gain	Ant 1	8
		Ant 2	8
	Directional Antenna Gain	Ant 1 & 2	11.01 dBi(802.11a), 8 dBi(802.11n)

7. SUMMARY OF TEST RESULTS

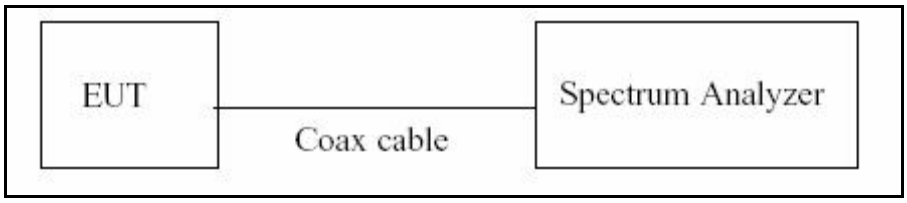
Test Description	FCC Part Section(s)	Test Limit	Test Condition	Test Result
TRANSMITTER MODE(TX)			CONDUCTED	
26dB Bandwidth	NA	NA		PASS
Maximum Conducted Output Power	§15.407(a)(1)	< 4+10 log $_{10}$ (BW) dBm (5150-5250 MHz) < 11+10 log $_{10}$ (BW) dBm (5250-5350 MHz) < 11+10 log $_{10}$ (BW) dBm (5470-5725 MHz)		PASS
Peak Power Spectral Density	§15.407(a)(1), (5)	<4 dBm/ MHz (5150-5250) <11 dBm/ MHz (5250-5350) <11 dBm/ MHz (5470-5725)		PASS
Peak Excursion	§15.407(a)(6)	<13 dB/ MHz maximum difference		PASS
Frequency Stability	§15.407(g)	NA		PASS
Undesirable Emissions	§15.407(b)(1), (2), (3)	<-27 dBm/ MHz EIRP (5150-5350 MHz, 5470-5725 MHz)	RADIATED	PASS
General Field Strength Limits(Restricted Bands and Radiated Emission Limits)	15.205, 5.407(b)(1), (5), (6)	Emissions in restricted bands must meet the radiated limits detailed in 15.209		PASS
AC Conducted Emissions 150 kHz-30 MHz	15.207	<FCC 15.207 limits	LINE CONDUCTED	PASS

8. TEST RESULT(Adaptor)

8.1 DUTY CYCLE

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 ≥ EBW if possible; otherwise, set RBW to the largest available value. Set VBW ≥ RBW. Set detector = peak or average. The zero-span measurement method shall not be used unless both RBW and VBW are > 50/*T*, where *T* is defined in section B)1)a), 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* ≤ 16.7 microseconds.)

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

The transmitter output is connected to the Spectrum Analyzer. We tested accroding to the zero-span measurement method, B)2) in KDB 789033(issued 04/08/2013)
The largest availble 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 ≤ 6.25 microseconds. (50/6.25 = 8)
The zero-span method was used becaure all measured T data are > 6.25 microseconds and both RBW and VBW are > 50/*T*.

1. RBW = 8 MHz (the largest availble value)
2. VBW = 8 MHz (≥ 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*log(1/Duty Cycle)

▣ Duty Cycle Factor

Monitoring Port

Mode	Data Rate	T_{on} (ms)	T_{total} (ms)	Duty Cycle	Duty Cycle Factor
802.11a	6	2.020	2.070	0.97584541	0.106
	9	1.353	1.401	0.96573876	0.151
	12	1.020	1.068	0.95505618	0.200
	18	0.686	0.732	0.93715847	0.282
	24	0.523	0.569	0.91915641	0.366
	36	0.354	0.400	0.88500000	0.531
	48	0.271	0.316	0.85759494	0.667
	54	0.243	0.288	0.84375000	0.738
802.11n_20 MHz BW	6.5	1.885	1.930	0.97668394	0.102
	13	0.962	1.008	0.95436508	0.203
	19.5	0.654	0.700	0.93428571	0.295
	26	0.498	0.544	0.91544118	0.384
	39	0.347	0.392	0.88520408	0.530
	52	0.267	0.312	0.85576923	0.676
	58.5	0.243	0.289	0.84083045	0.753
	65	0.224	0.268	0.83582090	0.779
802.11n_40 MHz BW	13.5	0.926	0.960	0.96458333	0.157
	27	0.482	0.516	0.93410853	0.296
	40.5	0.335	0.368	0.91032609	0.408
	54	0.260	0.292	0.89041096	0.504
	81	0.187	0.220	0.85000000	0.706
	108	0.147	0.180	0.81666667	0.880
	121.5	0.136	0.168	0.80952381	0.918
	135	0.128	0.160	0.80000000	0.969

Service Port

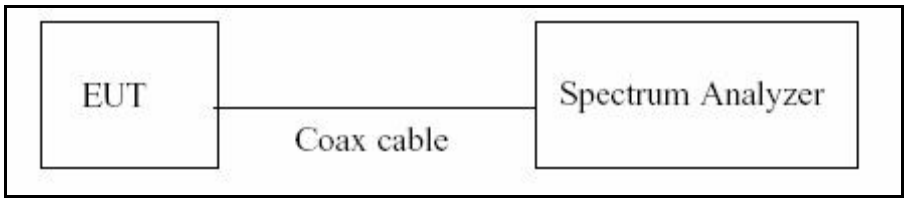
Mode	Data Rate	T_{on} (ms)	T_{total} (ms)	Duty Cycle	Duty Cycle Factor
802.11a	6	1.335	1.405	0.95017794	0.222
	9	0.909	0.957	0.94984326	0.223
	12	0.690	0.735	0.93877551	0.274
	18	0.466	0.512	0.91015625	0.409
	24	0.354	0.400	0.88500000	0.531
	36	0.243	0.288	0.84375000	0.738
	48	0.187	0.232	0.80603448	0.936
	54	0.171	0.216	0.79166667	1.015
802.11n_20 MHz BW	6.5	1.269	1.317	0.96355353	0.161
	13	0.655	0.701	0.93437946	0.295
	19.5	0.446	0.492	0.90650407	0.426
	26	0.348	0.393	0.88549618	0.528
	39	0.244	0.289	0.84429066	0.735
	52	0.192	0.236	0.81355932	0.896
	58.5	0.176	0.220	0.80000000	0.969
	65	0.159	0.204	0.77941176	1.082
802.11n_40 MHz BW	13.5	0.630	0.664	0.94879518	0.228
	27	0.334	0.368	0.90760870	0.421
	40.5	0.236	0.268	0.88059701	0.552
	54	0.188	0.220	0.85454545	0.683
	81	0.135	0.168	0.80357143	0.950
	108	0.112	0.144	0.77777778	1.091
	121.5	0.104	0.136	0.76470588	1.165
	135	0.096	0.128	0.75000000	1.249

8.2 26 dB BANDWIDTH MEASUREMENT

The bandwidth at 26 dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating at its maximum power control level, as defined in KDB 789033(issued 04/08/2013), at the appropriate frequencies. The spectrum analyzer's bandwidth measurement function is configured to measure the 26 dB bandwidth.

The 26 dB bandwidth is used to determine the conducted power limits.

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

The transmitter output is connected to the Spectrum Analyzer.

The Spectrum Analyzer is set to(Page 3 in KDB 789033, issued 04/08/2013)

1. RBW = approximately 1 % of the emission bandwidth
2. VBW > RBW
3. Detector = Peak
4. Trace mode = max hold
5. Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1 %.

Monitoring Port Ant.1

▣ TEST RESULTS

20 MHz BW

Conducted 26 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	22.74	N/A	Pass
5300	60	23.69	N/A	Pass
5320	64	23.15	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5500	100	23.66	N/A	Pass
5600	120	23.19	N/A	Pass
5700	140	22.92	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	23.95	N/A	Pass
5300	60	24.14	N/A	Pass
5320	64	24.11	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5500	100	23.23	N/A	Pass
5600	120	23.96	N/A	Pass
5700	140	23.94	N/A	Pass

40 MHz BW

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5270	54	48.80	N/A	Pass
5310	62	48.24	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5510	102	46.78	N/A	Pass
5590	118	47.87	N/A	Pass
5670	134	48.32	N/A	Pass

Monitoring Port Ant.2

▣ TEST RESULTS

20 MHz BW

Conducted 26 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	23.34	N/A	Pass
5300	60	23.73	N/A	Pass
5320	64	24.09	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5500	100	23.09	N/A	Pass
5600	120	23.03	N/A	Pass
5700	140	22.41	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	24.00	N/A	Pass
5300	60	23.31	N/A	Pass
5320	64	24.49	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5500	100	22.52	N/A	Pass
5600	120	23.48	N/A	Pass
5700	140	23.32	N/A	Pass

40 MHz BW

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5270	54	48.43	N/A	Pass
5310	62	49.23	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5510	102	46.63	N/A	Pass
5590	118	47.20	N/A	Pass
5670	134	48.04	N/A	Pass

Service Port Ant.1

▣ TEST RESULTS

20 MHz BW

Conducted 26 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	22.29	N/A	Pass
5300	60	22.37	N/A	Pass
5320	64	22.13	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5500	100	22.10	N/A	Pass
5600	120	21.98	N/A	Pass
5700	140	21.67	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	22.30	N/A	Pass
5300	60	23.50	N/A	Pass
5320	64	23.01	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5500	100	22.99	N/A	Pass
5600	120	22.81	N/A	Pass
5700	140	22.60	N/A	Pass

40 MHz BW

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5270	54	45.91	N/A	Pass
5310	62	46.64	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5510	102	45.70	N/A	Pass
5590	118	46.90	N/A	Pass
5670	134	46.27	N/A	Pass

Service Port Ant.2

▣ TEST RESULTS

20 MHz BW

Conducted 26 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	21.47	N/A	Pass
5300	60	21.44	N/A	Pass
5320	64	21.11	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5500	100	21.17	N/A	Pass
5600	120	21.94	N/A	Pass
5700	140	22.05	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	22.46	N/A	Pass
5300	60	22.32	N/A	Pass
5320	64	22.04	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5500	100	21.91	N/A	Pass
5600	120	22.29	N/A	Pass
5700	140	22.55	N/A	Pass

40 MHz BW

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5270	54	44.26	N/A	Pass
5310	62	44.69	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5510	102	46.03	N/A	Pass
5590	118	45.21	N/A	Pass
5670	134	44.92	N/A	Pass

Service Port Ant.3

▣ TEST RESULTS

20 MHz BW

Conducted 26 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	21.60	N/A	Pass
5300	60	21.36	N/A	Pass
5320	64	21.91	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5500	100	21.25	N/A	Pass
5600	120	21.46	N/A	Pass
5700	140	21.71	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	22.59	N/A	Pass
5300	60	23.24	N/A	Pass
5320	64	22.62	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5500	100	22.70	N/A	Pass
5600	120	22.59	N/A	Pass
5700	140	22.79	N/A	Pass

40 MHz BW

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5270	54	45.58	N/A	Pass
5310	62	46.20	N/A	Pass

Conducted 26 dB Bandwidth Measurements for 802.11n

802.11n Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5510	102	46.39	N/A	Pass
5590	118	45.55	N/A	Pass
5670	134	45.49	N/A	Pass

Note :

1. **In order to simplify the report, attached plots were only the most wide channel.**

Monitoring Port Ant.1

▣ 20 dB BW TEST RESULTS(Additional Test)

Conducted 20 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	19.30	N/A	Pass

Conducted 20 dB Bandwidth Measurements for 802.11n_20 MHz BW

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	19.80	N/A	Pass

Conducted 20 dB Bandwidth Measurements for 802.11n_40 MHz BW

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5270	54	39.89	N/A	Pass

Note : We performed the 20 dB BW test to prove that no part of the fundamental emissions of any UNII2 band signal lies within the UNII band 1.

Monitoring Port Ant.2

▣ 20 dB BW TEST RESULTS(Additional Test)

Conducted 20 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	19.21	N/A	Pass

Conducted 20 dB Bandwidth Measurements for 802.11n_20 MHz BW

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	19.89	N/A	Pass

Conducted 20 dB Bandwidth Measurements for 802.11n_40 MHz BW

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5270	54	39.48	N/A	Pass

Note : We performed the 20 dB BW test to prove that no part of the fundamental emissions of any UNII2 band signal lies within the UNII band 1.

Service Port Ant.1

▣ 20 dB BW TEST RESULTS(Additional Test)

Conducted 20 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	19.17	N/A	Pass

Conducted 20 dB Bandwidth Measurements for 802.11n_20 MHz BW

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	19.67	N/A	Pass

Conducted 20 dB Bandwidth Measurements for 802.11n_40 MHz BW

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5270	54	39.95	N/A	Pass

Note : We performed the 20 dB BW test to prove that no part of the fundamental emissions of any UNII2 band signal lies within the UNII band 1.

Service Port Ant.2

▣ 20 dB BW TEST RESULTS(Additional Test)

Conducted 20 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	18.77	N/A	Pass

Conducted 20 dB Bandwidth Measurements for 802.11n_20 MHz BW

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	19.75	N/A	Pass

Conducted 20 dB Bandwidth Measurements for 802.11n_40 MHz BW

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5270	54	39.53	N/A	Pass

Note : We performed the 20 dB BW test to prove that no part of the fundamental emissions of any UNII2 band signal lies within the UNII band 1.

Service Port Ant.3

▣ 20 dB BW TEST RESULTS(Additional Test)

Conducted 20 dB Bandwidth Measurements for 802.11a

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	19.10	N/A	Pass

Conducted 20 dB Bandwidth Measurements for 802.11n_20 MHz BW

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5260	52	19.65	N/A	Pass

Conducted 20 dB Bandwidth Measurements for 802.11n_40 MHz BW

802.11a Mode		Measured Bandwidth [MHz]	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
5270	54	39.57	N/A	Pass

Note : We performed the 20 dB BW test to prove that no part of the fundamental emissions of any UNII2 band signal lies within the UNII band 1.

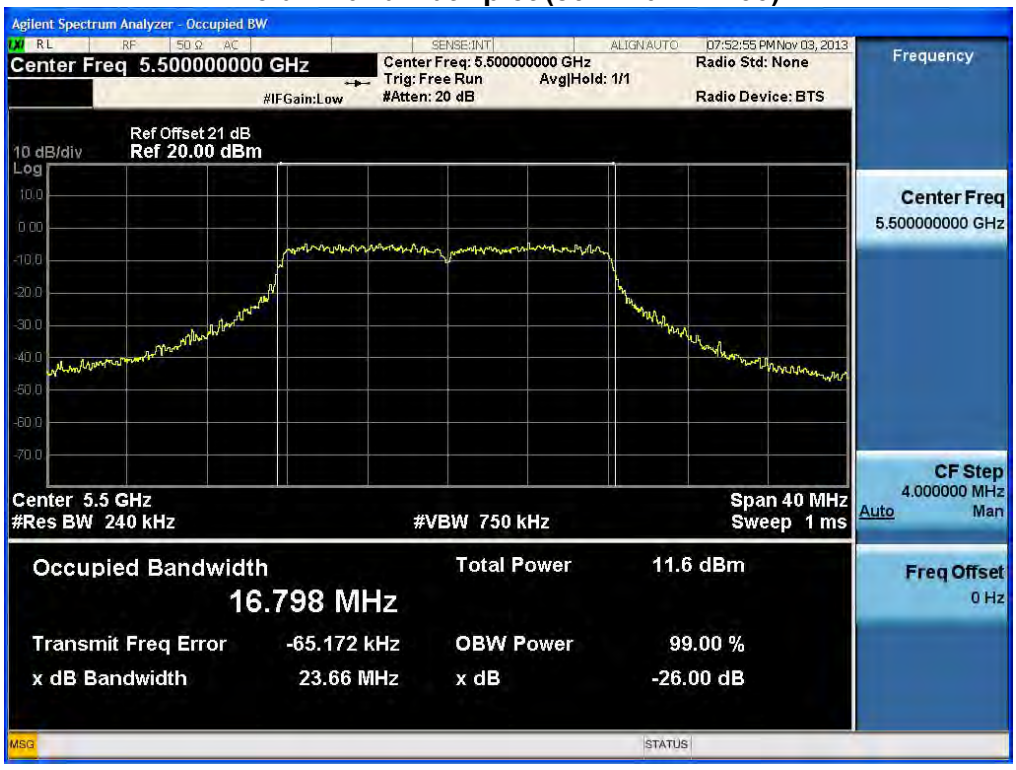
Monitoring Port Ant.1

▣ RESULT PLOTS

20 MHz BW

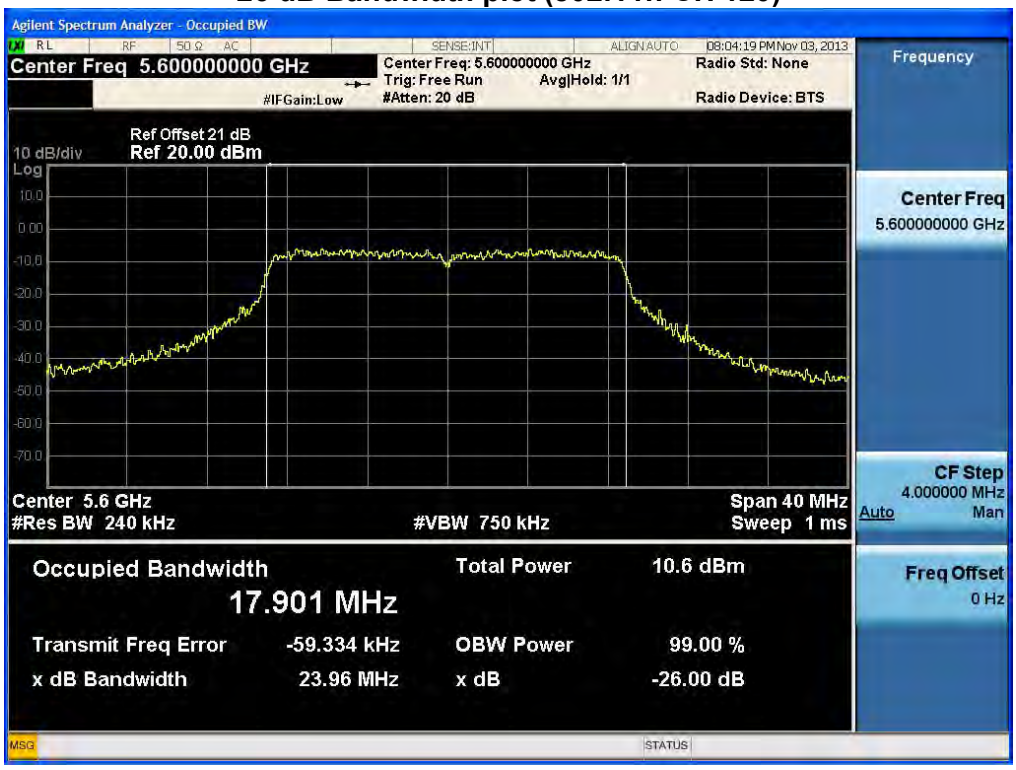
26 dB Bandwidth plot (802.11a-CH 60)

26 dB Bandwidth plot (802.11a-CH 100)



26 dB Bandwidth plot (802.11n-CH 60)

26 dB Bandwidth plot (802.11n-CH 120)



40 MHz BW

26 dB Bandwidth plot (802.11n-CH 54)

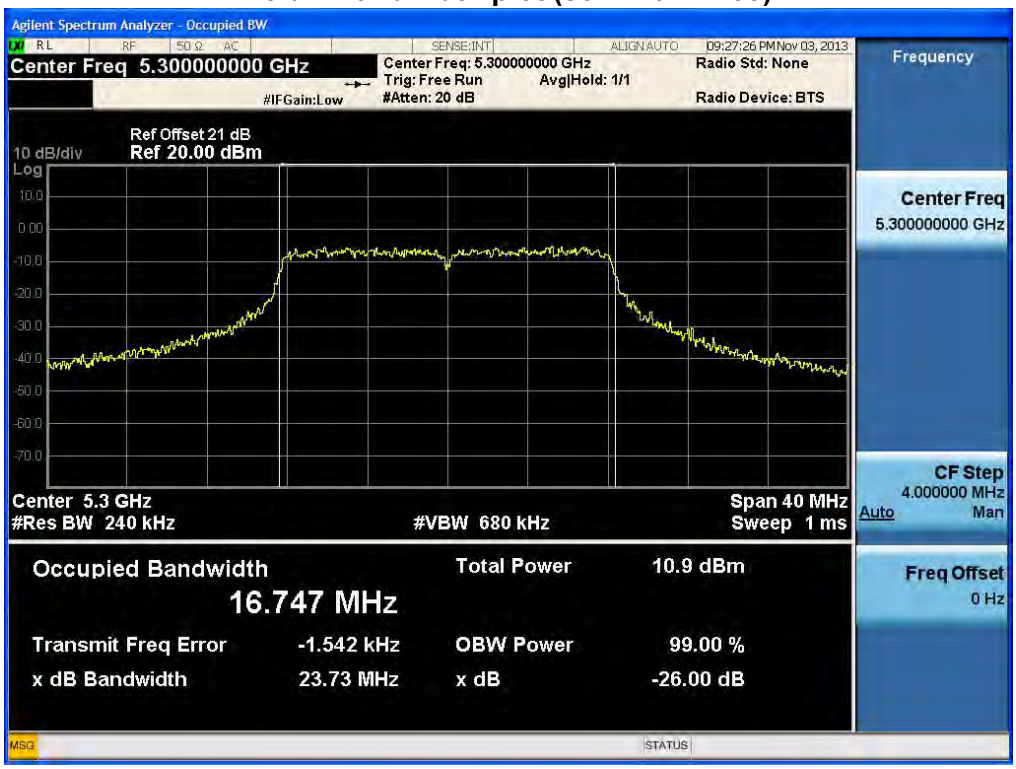
26 dB Bandwidth plot (802.11n-CH 134)

Monitoring Port Ant.2

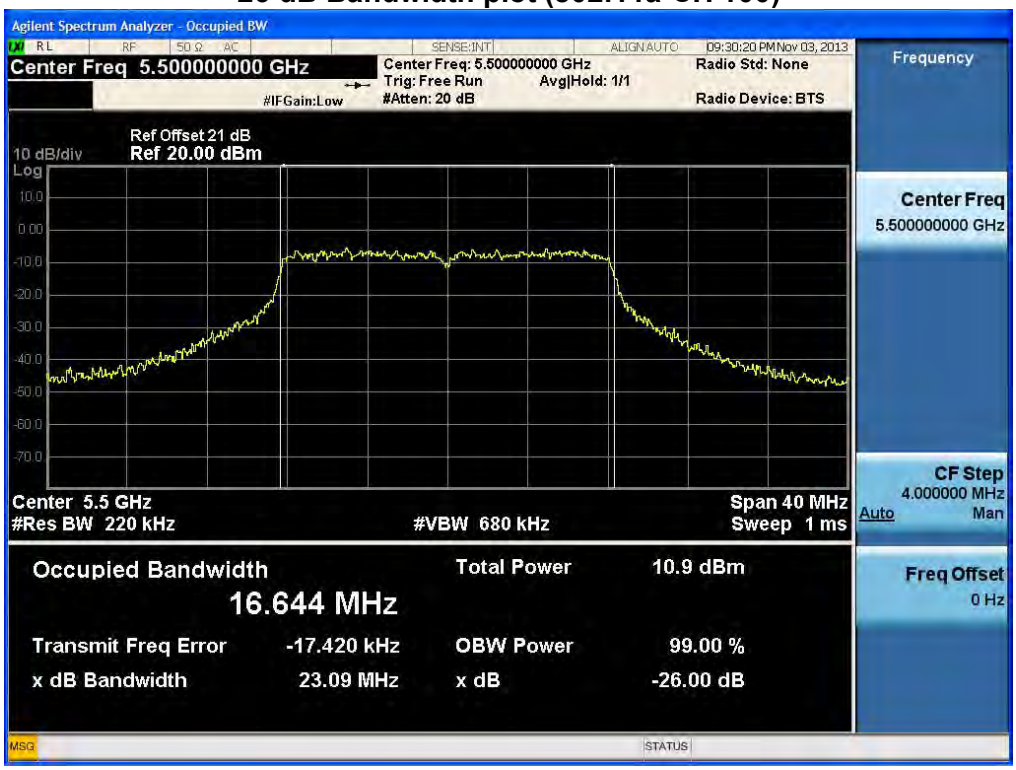
▣ RESULT PLOTS

20 MHz BW

26 dB Bandwidth plot (802.11a-CH 60)



26 dB Bandwidth plot (802.11a-CH 100)



26 dB Bandwidth plot (802.11n-CH 60)

26 dB Bandwidth plot (802.11n-CH 120)

40 MHz BW

26 dB Bandwidth plot (802.11n-CH 54)

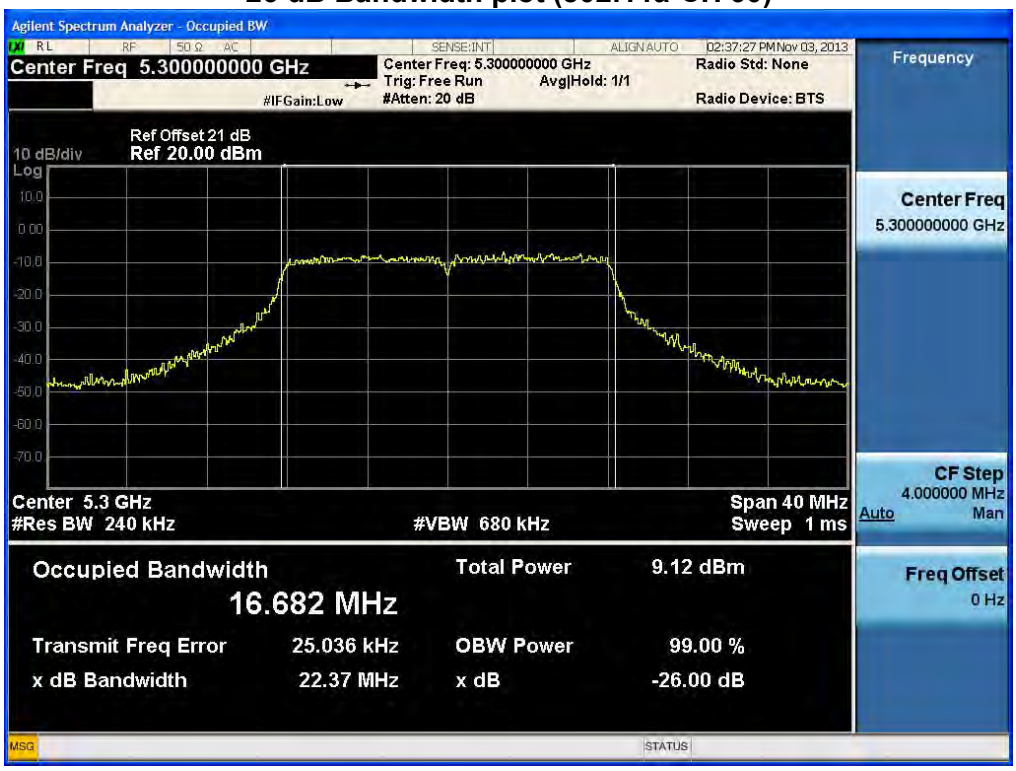
26 dB Bandwidth plot (802.11n-CH 134)

Service Port Ant.1

▣ RESULT PLOTS

20 MHz BW

26 dB Bandwidth plot (802.11a-CH 60)



26 dB Bandwidth plot (802.11a-CH 100)

26 dB Bandwidth plot (802.11n-CH 60)

26 dB Bandwidth plot (802.11n-CH 120)

40 MHz BW

26 dB Bandwidth plot (802.11n-CH 54)

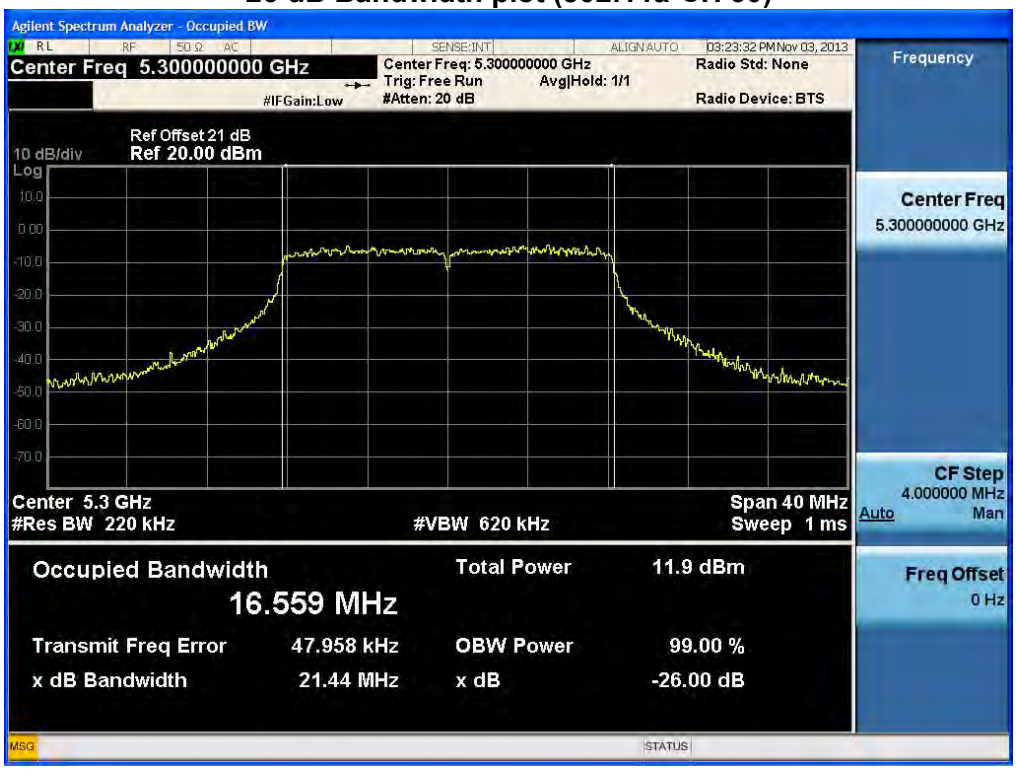
26 dB Bandwidth plot (802.11n-CH 134)

Service Port Ant.2

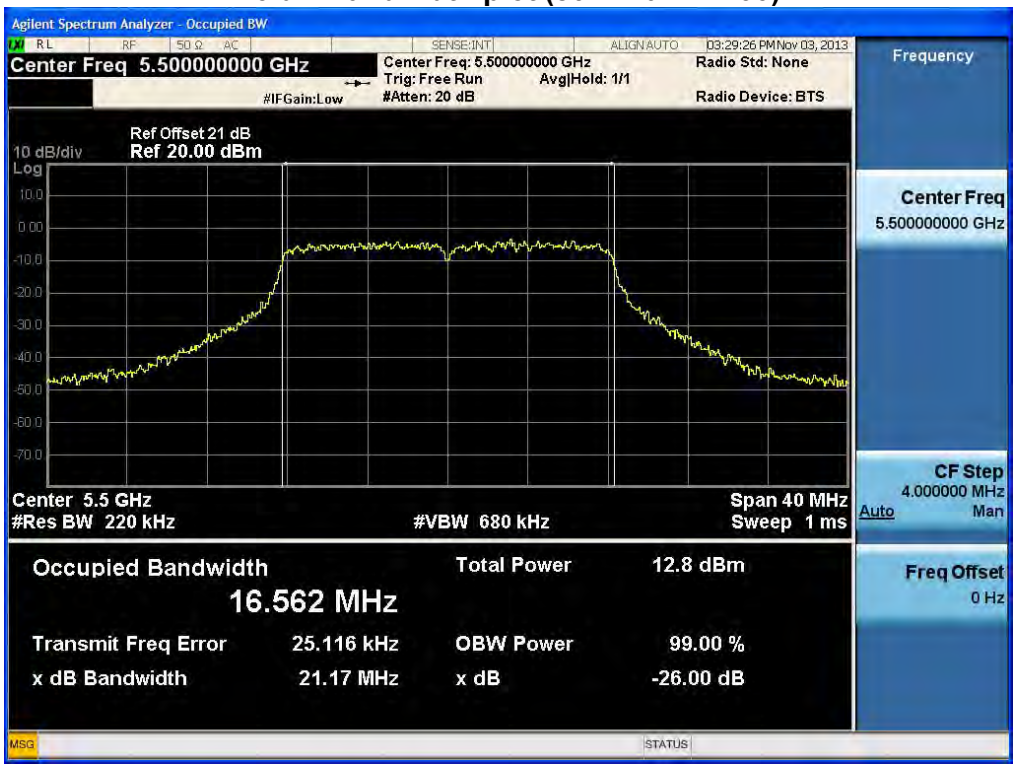
▣ RESULT PLOTS

20 MHz BW

26 dB Bandwidth plot (802.11a-CH 60)



26 dB Bandwidth plot (802.11a-CH 100)



26 dB Bandwidth plot (802.11n-CH 60)

26 dB Bandwidth plot (802.11n-CH 120)

40 MHz BW

26 dB Bandwidth plot (802.11n-CH 54)

26 dB Bandwidth plot (802.11n-CH 134)

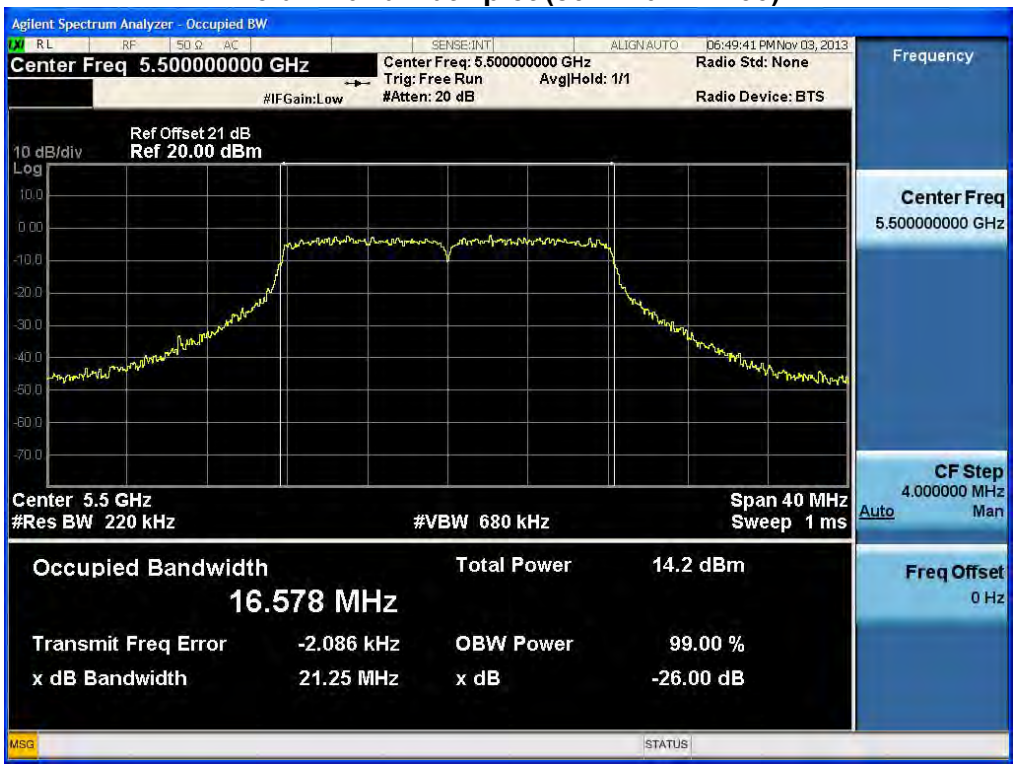
Service Port Ant.3

▣ RESULT PLOTS

20 MHz BW

26 dB Bandwidth plot (802.11a-CH 60)

26 dB Bandwidth plot (802.11a-CH 100)



26 dB Bandwidth plot (802.11n-CH 60)

26 dB Bandwidth plot (802.11n-CH 120)

40 MHz BW

26 dB Bandwidth plot (802.11n-CH 54)

26 dB Bandwidth plot (802.11n-CH 134)

Monitoring Port Ant.1

▣ RESULT PLOTS(20 dB Bandwidth)

20 dB Bandwidth plot (802.11a-CH 52)

20 dB Bandwidth plot (802.11n-CH 52)

20 dB Bandwidth plot (802.11n_40 MHz BW-CH 54)

Monitoring Port Ant.2

▣ RESULT PLOTS(20 dB Bandwidth)

20 dB Bandwidth plot (802.11a-CH 52)

20 dB Bandwidth plot (802.11n-CH 52)

20 dB Bandwidth plot (802.11n_40 MHz BW-CH 54)

Service Port Ant.1

▣ RESULT PLOTS(20 dB Bandwidth)

20 dB Bandwidth plot (802.11a-CH 52)

20 dB Bandwidth plot (802.11n-CH 52)

20 dB Bandwidth plot (802.11n_40 MHz BW-CH 54)

Service Port Ant.2

▣ RESULT PLOTS(20 dB Bandwidth)

20 dB Bandwidth plot (802.11a-CH 52)

20 dB Bandwidth plot (802.11n-CH 52)

20 dB Bandwidth plot (802.11n_40 MHz BW-CH 54)

Service Port Ant.3

▣ RESULT PLOTS(20 dB Bandwidth)

20 dB Bandwidth plot (802.11a-CH 52)

20 dB Bandwidth plot (802.11n-CH 52)

20 dB Bandwidth plot (802.11n_40 MHz BW-CH 54)

8.3 OUTPUT POWER MEASUREMENT

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

The transmitter output is connected to the input of a 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.

In the 5.25 – 5.35 GHz band, the maximum permissible conducted output power is the lesser of 250 mW (23.98 dBm) and 11 dBm + 10 log $_{10}$ (26 dB BW).

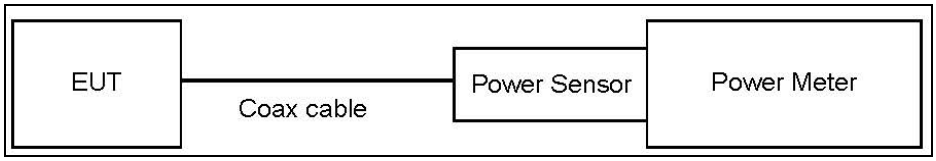
In the 5.47 – 5.725 GHz band, the maximum permissible conducted output power is the lesser of 250 mW (23.98 dBm) and 11 dBm + 10 log $_{10}$ (26 dB BW).

Limit :

Operating Mode	Band	Mode	Ant. Gain	Limt(dBm)
SISO : Service and Monitoring	UNII 2	802.11a	8 dBi	21.98
		802.11n_20 MHz BW		21.98
		802.11n_40 MHz BW		21.98
	UNII 2e	802.11a		21.98
		802.11n_20 MHz BW		21.98
		802.11n_40 MHz BW		21.98
MIMO(2 TX) : Service and Monitoring	UNII 2	802.11a	11.01 dBi	18.97
		802.11n_20 MHz BW	8 dBi	21.98
		802.11n_40 MHz BW	8 dBi	21.98
	UNII 2e	802.11a	11.01 dBi	18.97
		802.11n_20 MHz BW	8 dBi	21.98
		802.11n_40 MHz BW	8 dBi	21.98
MIMO(3 TX) : Service	UNII 2	802.11a	12.77 dBi	17.21
		802.11n_20 MHz BW	8 dBi	21.98
		802.11n_40 MHz BW	8 dBi	21.98
	UNII 2e	802.11a	12.77 dBi	17.21
		802.11n_20 MHz BW	8 dBi	21.98
		802.11n_40 MHz BW	8 dBi	21.98

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 Method E)3)a) in KDB 789033(issued 04/08/2013).

▪ Average Power

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 UNII 2/2e band 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)
UNII 2	21.0
UNII 2e	21.0

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

Monitoring Port

▣ **TEST RESULTS_Ant.1**

Conducted Output Power Measurements (802.11a Mode: 5260~5320)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5260	52	6	5.22	0.106	5.33	21.98
		9	5.19	0.151	5.34	21.98
		12	5.16	0.200	5.36	21.98
		18	5.10	0.282	5.39	21.98
		24	5.05	0.366	5.42	21.98
		36	4.04	0.531	4.57	21.98
		48	4.01	0.667	4.68	21.98
		54	3.02	0.738	3.76	21.98
5300	60	6	5.47	0.106	5.57	21.98
		9	5.45	0.151	5.60	21.98
		12	5.40	0.200	5.60	21.98
		18	5.24	0.282	5.52	21.98
		24	5.14	0.366	5.51	21.98
		36	3.96	0.531	4.49	21.98
		48	3.86	0.667	4.53	21.98
		54	2.90	0.738	3.64	21.98
5320	64	6	5.78	0.106	5.89	21.98
		9	5.72	0.151	5.88	21.98
		12	5.70	0.200	5.90	21.98
		18	5.65	0.282	5.93	21.98
		24	5.58	0.366	5.95	21.98
		36	4.63	0.531	5.16	21.98
		48	4.67	0.667	5.34	21.98
		54	3.55	0.738	4.29	21.98

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11a Mode: 5260~5320)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5260	52	6	5.18	0.106	5.29	21.98
		9	5.35	0.151	5.50	21.98
		12	5.37	0.200	5.57	21.98
		18	5.26	0.282	5.54	21.98
		24	5.13	0.366	5.50	21.98
		36	3.88	0.531	4.41	21.98
		48	3.71	0.667	4.38	21.98
		54	2.67	0.738	3.41	21.98
5300	60	6	4.89	0.106	4.99	21.98
		9	4.91	0.151	5.06	21.98
		12	5.03	0.200	5.23	21.98
		18	4.86	0.282	5.14	21.98
		24	4.78	0.366	5.14	21.98
		36	3.61	0.531	4.14	21.98
		48	3.46	0.667	4.13	21.98
		54	3.26	0.738	4.00	21.98
5320	64	6	5.16	0.106	5.26	21.98
		9	5.13	0.151	5.28	21.98
		12	5.17	0.200	5.37	21.98
		18	5.10	0.282	5.38	21.98
		24	5.02	0.366	5.39	21.98
		36	3.90	0.531	4.43	21.98
		48	3.58	0.667	4.24	21.98
		54	3.33	0.738	4.07	21.98

▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

Conducted Output Power Measurements (802.11a Mode: 5260~5320)

802.11a Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
5260	52	6	8.32	18.97
		9	8.43	18.97
		12	8.48	18.97
		18	8.47	18.97
		24	8.47	18.97
		36	7.50	18.97
		48	7.54	18.97
		54	6.60	18.97
5300	60	6	8.30	18.97
		9	8.35	18.97
		12	8.43	18.97
		18	8.34	18.97
		24	8.34	18.97
		36	7.33	18.97
		48	7.34	18.97
		54	6.83	18.97
5320	64	6	8.60	18.97
		9	8.60	18.97
		12	8.65	18.97
		18	8.67	18.97
		24	8.69	18.97
		36	7.82	18.97
		48	7.84	18.97
		54	7.19	18.97

▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11a Mode: 5500~5700)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5500	100	6	5.87	0.106	5.97	21.98
		9	5.78	0.151	5.93	21.98
		12	5.74	0.200	5.94	21.98
		18	5.74	0.282	6.02	21.98
		24	5.70	0.366	6.07	21.98
		36	4.71	0.531	5.24	21.98
		48	4.63	0.667	5.30	21.98
		54	3.73	0.738	4.47	21.98
5600	120	6	4.79	0.106	4.90	21.98
		9	4.70	0.151	4.85	21.98
		12	4.63	0.200	4.83	21.98
		18	4.58	0.282	4.86	21.98
		24	4.51	0.366	4.87	21.98
		36	3.42	0.531	3.95	21.98
		48	3.31	0.667	3.97	21.98
		54	2.35	0.738	3.09	21.98
5700	140	6	3.19	0.106	3.30	21.98
		9	3.14	0.151	3.29	21.98
		12	3.25	0.200	3.45	21.98
		18	2.96	0.282	3.24	21.98
		24	2.91	0.366	3.27	21.98
		36	1.72	0.531	2.25	21.98
		48	1.62	0.667	2.29	21.98
		54	0.66	0.738	1.40	21.98

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11a Mode: 5500~5700)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5500	100	6	4.85	0.106	4.96	21.98
		9	4.77	0.151	4.92	21.98
		12	4.73	0.200	4.93	21.98
		18	4.69	0.282	4.97	21.98
		24	4.70	0.366	5.07	21.98
		36	3.71	0.531	4.24	21.98
		48	3.48	0.667	4.15	21.98
		54	1.65	0.738	2.39	21.98
5600	120	6	4.42	0.106	4.53	21.98
		9	4.54	0.151	4.69	21.98
		12	4.58	0.200	4.78	21.98
		18	4.50	0.282	4.78	21.98
		24	4.26	0.366	4.63	21.98
		36	3.56	0.531	4.09	21.98
		48	3.13	0.667	3.80	21.98
		54	2.09	0.738	2.83	21.98
5700	140	6	4.92	0.106	5.02	21.98
		9	4.88	0.151	5.03	21.98
		12	4.80	0.200	5.00	21.98
		18	4.83	0.282	5.12	21.98
		24	4.73	0.366	5.09	21.98
		36	3.49	0.531	4.02	21.98
		48	3.25	0.667	3.91	21.98
		54	2.39	0.738	3.13	21.98

▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

Conducted Output Power Measurements (802.11a Mode: 5500~5700)

802.11a Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
5500	100	6	8.50	18.97
		9	8.47	18.97
		12	8.48	18.97
		18	8.54	18.97
		24	8.61	18.97
		36	7.78	18.97
		48	7.77	18.97
		54	6.56	18.97
5600	120	6	7.73	18.97
		9	7.78	18.97
		12	7.81	18.97
		18	7.83	18.97
		24	7.76	18.97
		36	7.03	18.97
		48	6.90	18.97
		54	5.97	18.97
5700	140	6	7.26	18.97
		9	7.26	18.97
		12	7.31	18.97
		18	7.29	18.97
		24	7.29	18.97
		36	6.23	18.97
		48	6.19	18.97
		54	5.36	18.97

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▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5260~5320)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5260	52	6.5	5.23	0.102	5.33	21.98
		13	5.20	0.203	5.40	21.98
		19.5	4.92	0.295	5.22	21.98
		26	4.91	0.384	5.30	21.98
		39	4.87	0.530	5.40	21.98
		52	3.89	0.676	4.57	21.98
		58.5	2.88	0.753	3.63	21.98
		65	2.85	0.779	3.63	21.98
5300	60	6.5	5.11	0.102	5.21	21.98
		13	5.14	0.203	5.34	21.98
		19.5	5.10	0.295	5.39	21.98
		26	5.08	0.384	5.46	21.98
		39	5.11	0.530	5.64	21.98
		52	4.26	0.676	4.93	21.98
		58.5	3.01	0.753	3.76	21.98
		65	3.02	0.779	3.80	21.98
5320	64	6.5	5.88	0.102	5.98	21.98
		13	5.77	0.203	5.98	21.98
		19.5	5.68	0.295	5.98	21.98
		26	5.46	0.384	5.85	21.98
		39	5.32	0.530	5.85	21.98
		52	4.39	0.676	5.07	21.98
		58.5	3.45	0.753	4.21	21.98
		65	3.25	0.779	4.03	21.98

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5260~5320)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5260	52	6.5	5.32	0.102	5.43	21.98
		13	5.27	0.203	5.47	21.98
		19.5	5.19	0.295	5.48	21.98
		26	5.19	0.384	5.58	21.98
		39	5.04	0.530	5.57	21.98
		52	3.89	0.676	4.57	21.98
		58.5	2.63	0.753	3.38	21.98
		65	2.59	0.779	3.37	21.98
5300	60	6.5	5.04	0.102	5.14	21.98
		13	4.94	0.203	5.14	21.98
		19.5	4.77	0.295	5.07	21.98
		26	4.60	0.384	4.98	21.98
		39	4.49	0.530	5.02	21.98
		52	3.52	0.676	4.19	21.98
		58.5	2.57	0.753	3.33	21.98
		65	2.54	0.779	3.32	21.98
5320	64	6.5	4.98	0.102	5.08	21.98
		13	4.97	0.203	5.17	21.98
		19.5	4.89	0.295	5.18	21.98
		26	4.95	0.384	5.34	21.98
		39	4.77	0.530	5.30	21.98
		52	3.88	0.676	4.56	21.98
		58.5	3.47	0.753	4.23	21.98
		65	4.34	0.779	5.12	21.98

▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

Conducted Output Power Measurements (802.11n _20 MHz BW Mode: 5260~5320)

802.11n Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
5260	52	6.5	8.39	21.98
		13	8.45	21.98
		19.5	8.36	21.98
		26	8.45	21.98
		39	8.50	21.98
		52	7.58	21.98
		58.5	6.52	21.98
		65	6.51	21.98
5300	60	6.5	8.19	21.98
		13	8.25	21.98
		19.5	8.24	21.98
		26	8.24	21.98
		39	8.35	21.98
		52	7.59	21.98
		58.5	6.56	21.98
		65	6.58	21.98
5320	64	6.5	8.56	21.98
		13	8.60	21.98
		19.5	8.61	21.98
		26	8.61	21.98
		39	8.59	21.98
		52	7.83	21.98
		58.5	7.23	21.98
		65	7.62	21.98

▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5500~5700)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5500	100	6.5	5.94	0.102	6.04	21.98
		13	5.89	0.203	6.09	21.98
		19.5	5.87	0.295	6.17	21.98
		26	5.74	0.384	6.13	21.98
		39	5.69	0.530	6.22	21.98
		52	4.54	0.676	5.21	21.98
		58.5	3.36	0.753	4.11	21.98
		65	3.22	0.779	4.00	21.98
5600	120	6.5	4.61	0.102	4.72	21.98
		13	4.53	0.203	4.73	21.98
		19.5	4.51	0.295	4.80	21.98
		26	4.39	0.384	4.78	21.98
		39	4.00	0.530	4.53	21.98
		52	2.82	0.676	3.49	21.98
		58.5	1.85	0.753	2.60	21.98
		65	1.83	0.779	2.61	21.98
5700	140	6.5	2.78	0.102	2.88	21.98
		13	2.73	0.203	2.93	21.98
		19.5	2.68	0.295	2.98	21.98
		26	2.65	0.384	3.03	21.98
		39	2.57	0.530	3.10	21.98
		52	1.50	0.676	2.18	21.98
		58.5	0.17	0.753	0.93	21.98
		65	0.07	0.779	0.85	21.98

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5500~5700)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5500	100	6.5	4.54	0.102	4.64	21.98
		13	4.54	0.203	4.74	21.98
		19.5	4.55	0.295	4.85	21.98
		26	4.46	0.384	4.84	21.98
		39	4.41	0.530	4.94	21.98
		52	3.43	0.676	4.11	21.98
		58.5	2.49	0.753	3.24	21.98
		65	1.96	0.779	2.74	21.98
5600	120	6.5	4.57	0.102	4.67	21.98
		13	4.62	0.203	4.82	21.98
		19.5	4.54	0.295	4.84	21.98
		26	4.49	0.384	4.88	21.98
		39	4.18	0.530	4.70	21.98
		52	3.23	0.676	3.91	21.98
		58.5	2.09	0.753	2.84	21.98
		65	1.87	0.779	2.65	21.98
5700	140	6.5	4.82	0.102	4.93	21.98
		13	4.72	0.203	4.93	21.98
		19.5	4.78	0.295	5.08	21.98
		26	4.63	0.384	5.02	21.98
		39	4.55	0.530	5.08	21.98
		52	3.24	0.676	3.91	21.98
		58.5	2.38	0.753	3.13	21.98
		65	1.88	0.779	2.66	21.98

▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

Conducted Output Power Measurements (802.11n _20 MHz BW Mode: 5500~5700)

802.11n Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
5500	100	6.5	8.41	21.98
		13	8.48	21.98
		19.5	8.57	21.98
		26	8.54	21.98
		39	8.64	21.98
		52	7.71	21.98
		58.5	6.71	21.98
		65	6.43	21.98
5600	120	6.5	7.71	21.98
		13	7.79	21.98
		19.5	7.83	21.98
		26	7.84	21.98
		39	7.63	21.98
		52	6.72	21.98
		58.5	5.73	21.98
		65	5.64	21.98
5700	140	6.5	7.04	21.98
		13	7.05	21.98
		19.5	7.17	21.98
		26	7.15	21.98
		39	7.21	21.98
		52	6.14	21.98
		58.5	5.18	21.98
		65	4.86	21.98

▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5270~5310)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5270	54	13.5	3.21	0.157	3.37	21.98
		27	3.09	0.296	3.39	21.98
		40.5	3.02	0.408	3.43	21.98
		54	3.01	0.504	3.52	21.98
		81	2.92	0.706	3.62	21.98
		108	2.81	0.880	3.69	21.98
		121.5	1.65	0.918	2.57	21.98
		135	0.37	0.969	1.34	21.98
5310	62	13.5	3.32	0.157	3.48	21.98
		27	3.30	0.296	3.60	21.98
		40.5	3.12	0.408	3.53	21.98
		54	2.83	0.504	3.34	21.98
		81	2.80	0.706	3.50	21.98
		108	2.65	0.880	3.53	21.98
		121.5	1.54	0.918	2.46	21.98
		135	0.58	0.969	1.55	21.98

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5270~5310)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5270	54	13.5	3.70	0.157	3.85	21.98
		27	3.64	0.296	3.94	21.98
		40.5	3.52	0.408	3.93	21.98
		54	3.46	0.504	3.97	21.98
		81	3.22	0.706	3.92	21.98
		108	2.95	0.880	3.83	21.98
		121.5	1.91	0.918	2.83	21.98
		135	1.05	0.969	2.02	21.98
5310	62	13.5	3.21	0.157	3.37	21.98
		27	3.15	0.296	3.45	21.98
		40.5	2.94	0.408	3.35	21.98
		54	2.80	0.504	3.30	21.98
		81	2.70	0.706	3.40	21.98
		108	2.64	0.880	3.52	21.98
		121.5	1.73	0.918	2.64	21.98
		135	0.69	0.969	1.66	21.98

▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5270~5310)

802.11n Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
5270	54	13.5	6.63	21.98
		27	6.68	21.98
		40.5	6.70	21.98
		54	6.76	21.98
		81	6.78	21.98
		108	6.77	21.98
		121.5	5.71	21.98
		135	4.70	21.98
5310	62	13.5	6.44	21.98
		27	6.54	21.98
		40.5	6.45	21.98
		54	6.33	21.98
		81	6.46	21.98
		108	6.54	21.98
		121.5	5.56	21.98
		135	4.62	21.98

▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5510~5670)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5510	102	13.5	3.84	0.157	4.00	21.98
		27	3.59	0.296	3.88	21.98
		40.5	3.29	0.408	3.70	21.98
		54	3.20	0.504	3.70	21.98
		81	3.05	0.706	3.75	21.98
		108	3.06	0.880	3.94	21.98
		121.5	2.01	0.918	2.93	21.98
		135	0.96	0.969	1.93	21.98
5590	118	13.5	2.42	0.157	2.57	21.98
		27	2.34	0.296	2.63	21.98
		40.5	2.26	0.408	2.67	21.98
		54	2.16	0.504	2.67	21.98
		81	1.79	0.706	2.49	21.98
		108	1.55	0.880	2.43	21.98
		121.5	0.74	0.918	1.66	21.98
		135	-0.26	0.969	0.71	21.98
5670	134	13.5	1.32	0.157	1.47	21.98
		27	1.24	0.296	1.53	21.98
		40.5	1.06	0.408	1.47	21.98
		54	0.82	0.504	1.32	21.98
		81	0.72	0.706	1.42	21.98
		108	0.60	0.880	1.48	21.98
		121.5	-0.39	0.918	0.52	21.98
		135	-1.31	0.969	-0.34	21.98

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5510~5670)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5510	102	13.5	2.40	0.157	2.55	21.98
		27	2.40	0.296	2.69	21.98
		40.5	2.30	0.408	2.71	21.98
		54	2.21	0.504	2.71	21.98
		81	2.25	0.706	2.95	21.98
		108	2.17	0.880	3.05	21.98
		121.5	0.87	0.918	1.79	21.98
		135	-0.80	0.969	0.17	21.98
5590	118	13.5	2.52	0.157	2.67	21.98
		27	2.47	0.296	2.76	21.98
		40.5	2.41	0.408	2.82	21.98
		54	2.28	0.504	2.79	21.98
		81	1.84	0.706	2.55	21.98
		108	1.71	0.880	2.59	21.98
		121.5	1.02	0.918	1.94	21.98
		135	-0.12	0.969	0.85	21.98
5670	134	13.5	2.61	0.157	2.77	21.98
		27	2.55	0.296	2.85	21.98
		40.5	2.34	0.408	2.75	21.98
		54	2.17	0.504	2.67	21.98
		81	2.09	0.706	2.80	21.98
		108	1.92	0.880	2.80	21.98
		121.5	1.24	0.918	2.16	21.98
		135	0.10	0.969	1.07	21.98

▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5510~5670)

802.11n Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
5510	102	13.5	6.35	21.98
		27	6.34	21.98
		40.5	6.24	21.98
		54	6.24	21.98
		81	6.38	21.98
		108	6.53	21.98
		121.5	5.41	21.98
		135	4.15	21.98
5590	118	13.5	5.63	21.98
		27	5.71	21.98
		40.5	5.76	21.98
		54	5.74	21.98
		81	5.53	21.98
		108	5.52	21.98
		121.5	4.81	21.98
		135	3.79	21.98
5670	134	13.5	5.18	21.98
		27	5.25	21.98
		40.5	5.17	21.98
		54	5.06	21.98
		81	5.17	21.98
		108	5.20	21.98
		121.5	4.43	21.98
		135	3.43	21.98

Service Port

▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11a Mode: 5260~5320)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5260	52	6	2.97	0.222	3.19	21.98
		9	2.65	0.223	2.87	21.98
		12	2.93	0.274	3.21	21.98
		18	2.80	0.409	3.21	21.98
		24	2.38	0.531	2.92	21.98
		36	2.31	0.738	3.05	21.98
		48	1.93	0.936	2.87	21.98
		54	1.96	1.015	2.97	21.98
5300	60	6	3.11	0.222	3.34	21.98
		9	3.05	0.223	3.27	21.98
		12	2.94	0.274	3.21	21.98
		18	2.92	0.409	3.33	21.98
		24	2.70	0.531	3.23	21.98
		36	2.59	0.738	3.33	21.98
		48	2.41	0.936	3.34	21.98
		54	2.39	1.015	3.41	21.98
5320	64	6	3.54	0.222	3.76	21.98
		9	3.43	0.223	3.65	21.98
		12	3.45	0.274	3.72	21.98
		18	3.35	0.409	3.76	21.98
		24	3.08	0.531	3.62	21.98
		36	2.99	0.738	3.73	21.98
		48	2.86	0.936	3.79	21.98
		54	2.81	1.015	3.82	21.98

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11a Mode: 5260~5320)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5260	52	6	5.02	0.222	5.24	21.98
		9	4.81	0.223	5.03	21.98
		12	4.67	0.274	4.95	21.98
		18	4.60	0.409	5.01	21.98
		24	4.46	0.531	4.99	21.98
		36	4.30	0.738	5.03	21.98
		48	4.10	0.936	5.03	21.98
		54	3.99	1.015	5.00	21.98
5300	60	6	5.86	0.222	6.08	21.98
		9	5.75	0.223	5.98	21.98
		12	5.61	0.274	5.88	21.98
		18	5.59	0.409	5.99	21.98
		24	5.40	0.531	5.93	21.98
		36	5.30	0.738	6.04	21.98
		48	5.06	0.936	5.99	21.98
		54	5.11	1.015	6.12	21.98
5320	64	6	6.14	0.222	6.36	21.98
		9	5.99	0.223	6.22	21.98
		12	6.04	0.274	6.31	21.98
		18	5.90	0.409	6.31	21.98
		24	5.81	0.531	6.34	21.98
		36	5.64	0.738	6.37	21.98
		48	5.58	0.936	6.51	21.98
		54	5.34	1.015	6.35	21.98

▣ TEST RESULTS_Ant.3

Conducted Output Power Measurements (802.11a Mode: 5260~5320)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5260	52	6	4.94	0.222	5.16	21.98
		9	4.91	0.223	5.13	21.98
		12	4.84	0.274	5.12	21.98
		18	4.76	0.409	5.17	21.98
		24	4.65	0.531	5.18	21.98
		36	4.41	0.738	5.15	21.98
		48	4.30	0.936	5.24	21.98
		54	4.17	1.015	5.19	21.98
5300	60	6	5.70	0.222	5.92	21.98
		9	5.73	0.223	5.96	21.98
		12	5.60	0.274	5.88	21.98
		18	5.43	0.409	5.84	21.98
		24	5.25	0.531	5.78	21.98
		36	5.18	0.738	5.92	21.98
		48	4.73	0.936	5.66	21.98
		54	4.67	1.015	5.69	21.98
5320	64	6	6.69	0.222	6.92	21.98
		9	6.66	0.223	6.88	21.98
		12	6.64	0.274	6.92	21.98
		18	6.50	0.409	6.91	21.98
		24	6.30	0.531	6.83	21.98
		36	6.03	0.738	6.77	21.98
		48	5.96	0.936	6.89	21.98
		54	5.93	1.015	6.94	21.98

▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

Conducted Output Power Measurements (802.11a Mode: 5260~5320)

802.11a Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
5260	52	6	10.81	18.97
		9	10.63	18.97
		12	10.64	18.97
		18	10.69	18.97
		24	10.63	18.97
		36	10.67	18.97
		48	10.66	18.97
		54	10.65	18.97
5300	60	6	11.51	18.97
		9	11.46	18.97
		12	11.37	18.97
		18	11.44	18.97
		24	11.38	18.97
		36	11.49	18.97
		48	11.40	18.97
		54	11.49	18.97
5320	64	6	12.03	18.97
		9	11.92	18.97
		12	11.99	18.97
		18	11.99	18.97
		24	11.97	18.97
		36	11.98	18.97
		48	12.11	18.97
		54	12.04	18.97

▣ TEST RESULTS_Sum Data of Ant.1, Ant.2 and Ant.3

Conducted Output Power Measurements (802.11a Mode: 5260~5320)

802.11a Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
5260	52	6	9.40	17.21
		9	9.23	17.21
		12	9.28	17.21
		18	9.32	17.21
		24	9.25	17.21
		36	9.28	17.21
		48	9.28	17.21
		54	9.27	17.21
5300	60	6	10.05	17.21
		9	10.01	17.21
		12	9.93	17.21
		18	9.99	17.21
		24	9.92	17.21
		36	10.03	17.21
		48	9.92	17.21
		54	9.99	17.21
5320	64	6	10.65	17.21
		9	10.56	17.21
		12	10.62	17.21
		18	10.63	17.21
		24	10.58	17.21
		36	10.59	17.21
		48	10.71	17.21
		54	10.67	17.21

▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11a Mode: 5500~5700)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5500	100	6	5.84	0.222	6.06	21.98
		9	5.72	0.223	5.95	21.98
		12	5.81	0.274	6.09	21.98
		18	5.46	0.409	5.87	21.98
		24	5.35	0.531	5.88	21.98
		36	5.10	0.738	5.84	21.98
		48	4.94	0.936	5.88	21.98
		54	4.80	1.015	5.82	21.98
5600	120	6	3.89	0.222	4.12	21.98
		9	3.95	0.223	4.17	21.98
		12	3.74	0.274	4.01	21.98
		18	3.71	0.409	4.12	21.98
		24	3.51	0.531	4.04	21.98
		36	3.38	0.738	4.12	21.98
		48	3.25	0.936	4.18	21.98
		54	3.14	1.015	4.15	21.98
5700	140	6	3.01	0.222	3.23	21.98
		9	2.92	0.223	3.14	21.98
		12	2.84	0.274	3.11	21.98
		18	2.79	0.409	3.20	21.98
		24	2.65	0.531	3.18	21.98
		36	2.54	0.738	3.28	21.98
		48	2.40	0.936	3.34	21.98
		54	2.30	1.015	3.31	21.98

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11a Mode: 5500~5700)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5500	100	6	6.65	0.222	6.88	21.98
		9	6.67	0.223	6.89	21.98
		12	6.64	0.274	6.91	21.98
		18	6.46	0.409	6.87	21.98
		24	6.32	0.531	6.85	21.98
		36	6.10	0.738	6.84	21.98
		48	6.00	0.936	6.94	21.98
		54	5.98	1.015	6.99	21.98
5600	120	6	6.03	0.222	6.25	21.98
		9	5.98	0.223	6.20	21.98
		12	5.85	0.274	6.12	21.98
		18	5.76	0.409	6.17	21.98
		24	5.71	0.531	6.24	21.98
		36	5.50	0.738	6.24	21.98
		48	5.36	0.936	6.29	21.98
		54	5.30	1.015	6.31	21.98
5700	140	6	4.38	0.222	4.60	21.98
		9	4.37	0.223	4.60	21.98
		12	4.32	0.274	4.59	21.98
		18	4.24	0.409	4.64	21.98
		24	4.08	0.531	4.61	21.98
		36	3.93	0.738	4.67	21.98
		48	3.81	0.936	4.75	21.98
		54	3.62	1.015	4.64	21.98

▣ TEST RESULTS_Ant.3

Conducted Output Power Measurements (802.11a Mode: 5500~5700)

802.11a Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5500	100	6	8.10	0.222	8.33	21.98
		9	8.01	0.223	8.23	21.98
		12	8.01	0.274	8.28	21.98
		18	7.99	0.409	8.39	21.98
		24	7.75	0.531	8.28	21.98
		36	7.53	0.738	8.27	21.98
		48	7.30	0.936	8.23	21.98
		54	7.34	1.015	8.35	21.98
5600	120	6	6.39	0.222	6.61	21.98
		9	6.31	0.223	6.53	21.98
		12	6.21	0.274	6.48	21.98
		18	6.13	0.409	6.54	21.98
		24	6.08	0.531	6.61	21.98
		36	5.90	0.738	6.64	21.98
		48	5.73	0.936	6.67	21.98
		54	5.68	1.015	6.70	21.98
5700	140	6	7.59	0.222	7.81	21.98
		9	7.48	0.223	7.71	21.98
		12	7.39	0.274	7.66	21.98
		18	7.32	0.409	7.73	21.98
		24	7.21	0.531	7.74	21.98
		36	7.16	0.738	7.90	21.98
		48	6.94	0.936	7.87	21.98
		54	6.89	1.015	7.91	21.98

▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

Conducted Output Power Measurements (802.11a Mode: 5500~5700)

802.11a Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
5500	100	6	13.14	18.97
		9	13.09	18.97
		12	13.14	18.97
		18	13.12	18.97
		24	13.07	18.97
		36	13.06	18.97
		48	13.10	18.97
		54	13.15	18.97
5600	120	6	11.93	18.97
		9	11.89	18.97
		12	11.81	18.97
		18	11.86	18.97
		24	11.91	18.97
		36	11.93	18.97
		48	11.98	18.97
		54	11.99	18.97
5700	140	6	11.43	18.97
		9	11.38	18.97
		12	11.35	18.97
		18	11.41	18.97
		24	11.40	18.97
		36	11.51	18.97
		48	11.54	18.97
		54	11.50	18.97

▣ TEST RESULTS_Sum Data of Ant.1, Ant.2 and Ant.3

Conducted Output Power Measurements (802.11a Mode: 5500~5700)

802.11a Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
5500	100	6	11.96	17.21
		9	11.90	17.21
		12	11.96	17.21
		18	11.94	17.21
		24	11.89	17.21
		36	11.87	17.21
		48	11.90	17.21
		54	11.95	17.21
5600	120	6	10.56	17.21
		9	10.53	17.21
		12	10.44	17.21
		18	10.50	17.21
		24	10.54	17.21
		36	10.57	17.21
		48	10.62	17.21
		54	10.63	17.21
5700	140	6	10.42	17.21
		9	10.35	17.21
		12	10.32	17.21
		18	10.39	17.21
		24	10.38	17.21
		36	10.50	17.21
		48	10.52	17.21
		54	10.50	17.21

▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5260~5320)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5260	52	6.5	1.78	0.161	1.94	21.98
		13	1.73	0.295	2.03	21.98
		19.5	1.52	0.426	1.94	21.98
		26	1.48	0.528	2.01	21.98
		39	1.39	0.735	2.13	21.98
		52	1.22	0.896	2.12	21.98
		58.5	1.15	0.969	2.12	21.98
		65	1.20	1.082	2.28	21.98
5300	60	6.5	2.41	0.161	2.58	21.98
		13	2.29	0.295	2.58	21.98
		19.5	2.19	0.426	2.62	21.98
		26	2.07	0.528	2.59	21.98
		39	1.90	0.735	2.63	21.98
		52	1.77	0.896	2.67	21.98
		58.5	1.75	0.969	2.72	21.98
		65	1.63	1.082	2.71	21.98
5320	64	6.5	2.98	0.161	3.14	21.98
		13	2.85	0.295	3.14	21.98
		19.5	2.69	0.426	3.12	21.98
		26	2.55	0.528	3.07	21.98
		39	2.40	0.735	3.14	21.98
		52	2.18	0.896	3.08	21.98
		58.5	2.18	0.969	3.15	21.98
		65	2.07	1.082	3.15	21.98

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5260~5320)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5260	52	6.5	3.79	0.161	3.95	21.98
		13	3.60	0.295	3.90	21.98
		19.5	3.35	0.426	3.78	21.98
		26	3.36	0.528	3.88	21.98
		39	3.17	0.735	3.90	21.98
		52	3.02	0.896	3.91	21.98
		58.5	2.92	0.969	3.89	21.98
		65	2.93	1.082	4.02	21.98
5300	60	6.5	5.22	0.161	5.38	21.98
		13	5.06	0.295	5.36	21.98
		19.5	4.97	0.426	5.40	21.98
		26	4.93	0.528	5.46	21.98
		39	4.62	0.735	5.35	21.98
		52	4.38	0.896	5.27	21.98
		58.5	4.47	0.969	5.44	21.98
		65	4.31	1.082	5.40	21.98
5320	64	6.5	5.55	0.161	5.71	21.98
		13	5.40	0.295	5.70	21.98
		19.5	5.36	0.426	5.79	21.98
		26	5.30	0.528	5.83	21.98
		39	5.11	0.735	5.84	21.98
		52	4.96	0.896	5.86	21.98
		58.5	4.92	0.969	5.89	21.98
		65	4.82	1.082	5.90	21.98

▣ TEST RESULTS_Ant.3

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5260~5320)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5260	52	6.5	3.93	0.161	4.09	21.98
		13	3.78	0.295	4.07	21.98
		19.5	3.56	0.426	3.98	21.98
		26	3.45	0.528	3.98	21.98
		39	3.32	0.735	4.05	21.98
		52	3.09	0.896	3.99	21.98
		58.5	3.09	0.969	4.06	21.98
		65	2.93	1.082	4.01	21.98
5300	60	6.5	5.04	0.161	5.20	21.98
		13	4.90	0.295	5.19	21.98
		19.5	4.78	0.426	5.21	21.98
		26	4.72	0.528	5.25	21.98
		39	4.45	0.735	5.18	21.98
		52	4.34	0.896	5.24	21.98
		58.5	4.15	0.969	5.12	21.98
		65	4.12	1.082	5.20	21.98
5320	64	6.5	6.19	0.161	6.35	21.98
		13	5.95	0.295	6.25	21.98
		19.5	5.83	0.426	6.26	21.98
		26	5.70	0.528	6.23	21.98
		39	5.36	0.735	6.09	21.98
		52	5.30	0.896	6.20	21.98
		58.5	5.20	0.969	6.17	21.98
		65	5.04	1.082	6.12	21.98

▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

Conducted Output Power Measurements (802.11n _20 MHz BW Mode: 5260~5320)

802.11n Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
5260	52	6.5	6.07	21.98
		13	6.08	21.98
		19.5	5.97	21.98
		26	6.06	21.98
		39	6.11	21.98
		52	6.12	21.98
		58.5	6.10	21.98
		65	6.25	21.98
5300	60	6.5	7.21	21.98
		13	7.20	21.98
		19.5	7.24	21.98
		26	7.27	21.98
		39	7.21	21.98
		52	7.17	21.98
		58.5	7.30	21.98
		65	7.27	21.98
5320	64	6.5	7.62	21.98
		13	7.62	21.98
		19.5	7.67	21.98
		26	7.68	21.98
		39	7.71	21.98
		52	7.70	21.98
		58.5	7.74	21.98
		65	7.75	21.98

▣ TEST RESULTS_Sum Data of Ant.1, Ant.2 and Ant.3

Conducted Output Power Measurements (802.11n _20 MHz BW Mode: 5260~5320)

802.11n Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
5260	52	6.5	8.20	21.98
		13	8.20	21.98
		19.5	8.10	21.98
		26	8.15	21.98
		39	8.21	21.98
		52	8.19	21.98
		58.5	8.21	21.98
		65	8.28	21.98
5300	60	6.5	9.33	21.98
		13	9.32	21.98
		19.5	9.35	21.98
		26	9.39	21.98
		39	9.32	21.98
		52	9.32	21.98
		58.5	9.36	21.98
		65	9.37	21.98
5320	64	6.5	10.04	21.98
		13	10.00	21.98
		19.5	10.03	21.98
		26	10.02	21.98
		39	9.98	21.98
		52	10.02	21.98
		58.5	10.04	21.98
		65	10.02	21.98

▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5500~5700)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5500	100	6.5	5.73	0.161	5.89	21.98
		13	5.61	0.295	5.91	21.98
		19.5	5.52	0.426	5.94	21.98
		26	5.44	0.528	5.97	21.98
		39	5.22	0.735	5.96	21.98
		52	5.06	0.896	5.96	21.98
		58.5	4.95	0.969	5.92	21.98
		65	4.83	1.082	5.91	21.98
5600	120	6.5	3.38	0.161	3.54	21.98
		13	3.27	0.295	3.56	21.98
		19.5	3.07	0.426	3.49	21.98
		26	2.96	0.528	3.49	21.98
		39	2.73	0.735	3.46	21.98
		52	2.57	0.896	3.46	21.98
		58.5	2.48	0.969	3.45	21.98
		65	2.36	1.082	3.44	21.98
5700	140	6.5	2.96	0.161	3.12	21.98
		13	2.87	0.295	3.16	21.98
		19.5	2.83	0.426	3.25	21.98
		26	2.66	0.528	3.19	21.98
		39	2.49	0.735	3.23	21.98
		52	2.41	0.896	3.30	21.98
		58.5	2.27	0.969	3.24	21.98
		65	2.15	1.082	3.23	21.98

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5500~5700)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5500	100	6.5	6.64	0.161	6.80	21.98
		13	6.46	0.295	6.76	21.98
		19.5	6.31	0.426	6.74	21.98
		26	6.29	0.528	6.82	21.98
		39	6.09	0.735	6.83	21.98
		52	5.98	0.896	6.87	21.98
		58.5	5.84	0.969	6.81	21.98
		65	5.81	1.082	6.90	21.98
5600	120	6.5	5.43	0.161	5.59	21.98
		13	5.29	0.295	5.59	21.98
		19.5	5.21	0.426	5.64	21.98
		26	5.12	0.528	5.65	21.98
		39	4.97	0.735	5.70	21.98
		52	4.75	0.896	5.65	21.98
		58.5	4.63	0.969	5.60	21.98
		65	4.51	1.082	5.59	21.98
5700	140	6.5	4.32	0.161	4.49	21.98
		13	4.18	0.295	4.47	21.98
		19.5	4.09	0.426	4.52	21.98
		26	4.04	0.528	4.57	21.98
		39	3.83	0.735	4.57	21.98
		52	3.75	0.896	4.64	21.98
		58.5	3.65	0.969	4.62	21.98
		65	3.59	1.082	4.68	21.98

▣ TEST RESULTS_Ant.3

Conducted Output Power Measurements (802.11n_20 MHz BW Mode: 5500~5700)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5500	100	6.5	8.02	0.161	8.18	21.98
		13	7.98	0.295	8.28	21.98
		19.5	7.82	0.426	8.25	21.98
		26	7.74	0.528	8.27	21.98
		39	7.54	0.735	8.27	21.98
		52	7.41	0.896	8.30	21.98
		58.5	7.43	0.969	8.40	21.98
		65	7.33	1.082	8.41	21.98
5600	120	6.5	5.96	0.161	6.12	21.98
		13	5.84	0.295	6.14	21.98
		19.5	5.81	0.426	6.23	21.98
		26	5.67	0.528	6.19	21.98
		39	5.33	0.735	6.06	21.98
		52	5.03	0.896	5.93	21.98
		58.5	5.17	0.969	6.14	21.98
		65	4.91	1.082	5.99	21.98
5700	140	6.5	7.70	0.161	7.86	21.98
		13	7.51	0.295	7.81	21.98
		19.5	7.47	0.426	7.90	21.98
		26	7.38	0.528	7.91	21.98
		39	7.17	0.735	7.90	21.98
		52	7.07	0.896	7.96	21.98
		58.5	7.00	0.969	7.97	21.98
		65	6.95	1.082	8.03	21.98

▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

Conducted Output Power Measurements (802.11n _20 MHz BW Mode: 5500~5700)

802.11n Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
5500	100	6.5	9.38	21.98
		13	9.37	21.98
		19.5	9.37	21.98
		26	9.43	21.98
		39	9.43	21.98
		52	9.45	21.98
		58.5	9.40	21.98
		65	9.44	21.98
5600	120	6.5	7.70	21.98
		13	7.70	21.98
		19.5	7.71	21.98
		26	7.71	21.98
		39	7.73	21.98
		52	7.70	21.98
		58.5	7.67	21.98
		65	7.66	21.98
5700	140	6.5	6.87	21.98
		13	6.87	21.98
		19.5	6.94	21.98
		26	6.94	21.98
		39	6.96	21.98
		52	7.03	21.98
		58.5	6.99	21.98
		65	7.03	21.98

▣ TEST RESULTS_Sum Data of Ant.1, Ant.2 and Ant.3

Conducted Output Power Measurements (802.11n _20 MHz BW Mode: 5500~5700)

802.11n Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
5500	100	6.5	11.83	21.98
		13	11.87	21.98
		19.5	11.86	21.98
		26	11.90	21.98
		39	11.90	21.98
		52	11.92	21.98
		58.5	11.94	21.98
		65	11.97	21.98
5600	120	6.5	9.99	21.98
		13	10.00	21.98
		19.5	10.04	21.98
		26	10.03	21.98
		39	9.99	21.98
		52	9.92	21.98
		58.5	9.98	21.98
		65	9.91	21.98
5700	140	6.5	10.40	21.98
		13	10.38	21.98
		19.5	10.46	21.98
		26	10.46	21.98
		39	10.47	21.98
		52	10.53	21.98
		58.5	10.52	21.98
		65	10.57	21.98

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▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5270~5310)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5270	54	13.5	2.26	0.228	2.49	21.98
		27	2.19	0.421	2.61	21.98
		40.5	1.98	0.552	2.53	21.98
		54	1.95	0.683	2.63	21.98
		81	1.79	0.950	2.74	21.98
		108	1.61	1.091	2.70	21.98
		121.5	1.55	1.165	2.72	21.98
		135	1.43	1.249	2.68	21.98
5310	62	13.5	2.95	0.228	3.18	21.98
		27	2.80	0.421	3.23	21.98
		40.5	2.56	0.552	3.11	21.98
		54	2.57	0.683	3.26	21.98
		81	2.33	0.950	3.28	21.98
		108	2.06	1.091	3.16	21.98
		121.5	2.06	1.165	3.23	21.98
		135	1.89	1.249	3.14	21.98

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5270~5310)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5270	54	13.5	4.59	0.228	4.82	21.98
		27	4.35	0.421	4.77	21.98
		40.5	4.15	0.552	4.70	21.98
		54	4.05	0.683	4.74	21.98
		81	3.85	0.950	4.80	21.98
		108	3.74	1.091	4.83	21.98
		121.5	3.64	1.165	4.81	21.98
		135	3.53	1.249	4.78	21.98
5310	62	13.5	5.97	0.228	6.20	21.98
		27	5.77	0.421	6.19	21.98
		40.5	5.69	0.552	6.24	21.98
		54	5.61	0.683	6.29	21.98
		81	5.33	0.950	6.28	21.98
		108	5.15	1.091	6.24	21.98
		121.5	5.10	1.165	6.26	21.98
		135	4.88	1.249	6.13	21.98

▣ TEST RESULTS_Ant.3

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5270~5310)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5270	54	13.5	4.60	0.228	4.82	21.98
		27	4.22	0.421	4.65	21.98
		40.5	4.03	0.552	4.59	21.98
		54	3.95	0.683	4.63	21.98
		81	3.85	0.950	4.80	21.98
		108	3.57	1.091	4.66	21.98
		121.5	3.55	1.165	4.71	21.98
		135	3.48	1.249	4.73	21.98
5310	62	13.5	5.91	0.228	6.14	21.98
		27	5.71	0.421	6.13	21.98
		40.5	5.51	0.552	6.06	21.98
		54	5.35	0.683	6.03	21.98
		81	5.18	0.950	6.13	21.98
		108	4.95	1.091	6.04	21.98
		121.5	4.92	1.165	6.09	21.98
		135	4.62	1.249	5.87	21.98

▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5270~5310)

802.11n Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
5270	54	13.5	6.82	21.98
		27	6.83	21.98
		40.5	6.76	21.98
		54	6.82	21.98
		81	6.90	21.98
		108	6.90	21.98
		121.5	6.90	21.98
		135	6.87	21.98
5310	62	13.5	7.96	21.98
		27	7.97	21.98
		40.5	7.96	21.98
		54	8.04	21.98
		81	8.04	21.98
		108	7.98	21.98
		121.5	8.01	21.98
		135	7.90	21.98

▣ TEST RESULTS_Sum Data of Ant.1, Ant.2 and Ant.3

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5270~5310)

802.11n Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
5270	54	13.5	8.94	21.98
		27	8.89	21.98
		40.5	8.82	21.98
		54	8.87	21.98
		81	8.99	21.98
		108	8.94	21.98
		121.5	8.95	21.98
		135	8.94	21.98
5310	62	13.5	10.15	21.98
		27	10.16	21.98
		40.5	10.12	21.98
		54	10.16	21.98
		81	10.20	21.98
		108	10.13	21.98
		121.5	10.17	21.98
		135	10.01	21.98

▣ TEST RESULTS_Ant.1

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5510~5670)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5510	102	13.5	5.46	0.228	5.69	21.98
		27	5.35	0.421	5.77	21.98
		40.5	5.20	0.552	5.75	21.98
		54	5.17	0.683	5.85	21.98
		81	4.95	0.950	5.90	21.98
		108	4.77	1.091	5.86	21.98
		121.5	4.66	1.165	5.82	21.98
		135	4.67	1.249	5.92	21.98
5590	118	13.5	4.44	0.228	4.67	21.98
		27	4.20	0.421	4.62	21.98
		40.5	4.21	0.552	4.76	21.98
		54	3.99	0.683	4.67	21.98
		81	3.77	0.950	4.72	21.98
		108	3.59	1.091	4.68	21.98
		121.5	3.53	1.165	4.69	21.98
		135	3.46	1.249	4.71	21.98
5670	134	13.5	3.07	0.228	3.29	21.98
		27	2.98	0.421	3.40	21.98
		40.5	2.77	0.552	3.32	21.98
		54	2.65	0.683	3.34	21.98
		81	2.45	0.950	3.40	21.98
		108	2.28	1.091	3.37	21.98
		121.5	2.27	1.165	3.44	21.98
		135	2.21	1.249	3.46	21.98

▣ TEST RESULTS_Ant.2

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5510~5670)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5510	102	13.5	6.59	0.228	6.82	21.98
		27	6.42	0.421	6.85	21.98
		40.5	6.30	0.552	6.85	21.98
		54	6.06	0.683	6.75	21.98
		81	5.97	0.950	6.92	21.98
		108	5.85	1.091	6.95	21.98
		121.5	5.85	1.165	7.02	21.98
		135	5.74	1.249	6.99	21.98
5590	118	13.5	6.49	0.228	6.72	21.98
		27	6.33	0.421	6.76	21.98
		40.5	6.22	0.552	6.77	21.98
		54	6.13	0.683	6.81	21.98
		81	5.86	0.950	6.81	21.98
		108	5.79	1.091	6.89	21.98
		121.5	5.73	1.165	6.90	21.98
		135	5.54	1.249	6.79	21.98
5670	134	13.5	4.53	0.228	4.76	21.98
		27	4.32	0.421	4.74	21.98
		40.5	4.23	0.552	4.78	21.98
		54	4.14	0.683	4.82	21.98
		81	3.86	0.950	4.81	21.98
		108	3.75	1.091	4.85	21.98
		121.5	3.76	1.165	4.92	21.98
		135	3.65	1.249	4.90	21.98

▣ TEST RESULTS_Ant.3

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5510~5670)

802.11n Mode		Rate (Mbps)	Measured Power(dBm)	Duty Cycle Factor	Measured Power(dBm) + Duty Cycle Factor	Limit (dBm)
Frequency [MHz]	Channel No.					
5510	102	13.5	8.00	0.228	8.23	21.98
		27	7.86	0.421	8.28	21.98
		40.5	7.71	0.552	8.26	21.98
		54	7.64	0.683	8.32	21.98
		81	7.49	0.950	8.44	21.98
		108	7.21	1.091	8.30	21.98
		121.5	7.25	1.165	8.42	21.98
		135	7.11	1.249	8.36	21.98
5590	118	13.5	6.65	0.228	6.88	21.98
		27	6.46	0.421	6.88	21.98
		40.5	6.24	0.552	6.79	21.98
		54	6.07	0.683	6.76	21.98
		81	5.91	0.950	6.86	21.98
		108	5.74	1.091	6.84	21.98
		121.5	5.69	1.165	6.85	21.98
		135	5.52	1.249	6.77	21.98
5670	134	13.5	6.14	0.228	6.37	21.98
		27	5.99	0.421	6.41	21.98
		40.5	5.93	0.552	6.48	21.98
		54	5.78	0.683	6.46	21.98
		81	5.59	0.950	6.54	21.98
		108	5.44	1.091	6.53	21.98
		121.5	5.44	1.165	6.60	21.98
		135	5.36	1.249	6.61	21.98

▣ TEST RESULTS_Sum Data of Ant.1 and Ant.2

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5510~5670)

802.11n Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
5510	102	13.5	9.30	21.98
		27	9.35	21.98
		40.5	9.35	21.98
		54	9.33	21.98
		81	9.45	21.98
		108	9.45	21.98
		121.5	9.47	21.98
		135	9.50	21.98
5590	118	13.5	8.83	21.98
		27	8.83	21.98
		40.5	8.89	21.98
		54	8.88	21.98
		81	8.90	21.98
		108	8.93	21.98
		121.5	8.94	21.98
		135	8.88	21.98
5670	134	13.5	7.10	21.98
		27	7.13	21.98
		40.5	7.12	21.98
		54	7.15	21.98
		81	7.17	21.98
		108	7.18	21.98
		121.5	7.25	21.98
		135	7.25	21.98

▣ TEST RESULTS_Sum Data of Ant.1, Ant.2 and Ant.3

Conducted Output Power Measurements (802.11n_40 MHz BW Mode:5510~5670)

802.11n Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
5510	102	13.5	11.81	21.98
		27	11.86	21.98
		40.5	11.85	21.98
		54	11.87	21.98
		81	11.98	21.98
		108	11.92	21.98
		121.5	11.99	21.98
		135	11.98	21.98
5590	118	13.5	10.97	21.98
		27	10.97	21.98
		40.5	10.98	21.98
		54	10.96	21.98
		81	11.01	21.98
		108	11.02	21.98
		121.5	11.03	21.98
		135	10.96	21.98
5670	134	13.5	9.76	21.98
		27	9.80	21.98
		40.5	9.82	21.98
		54	9.83	21.98
		81	9.88	21.98
		108	9.88	21.98
		121.5	9.95	21.98
		135	9.95	21.98

8.4 POWER SPECTRAL DENSITY

The peak power density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating in transmission mode at the appropriate frequencies. The maximum permissible peak power spectral density is 11 dBm/ MHz in the 5.25 GHz – 5.35 GHz and 5.47 GHz – 5.725 GHz bands

Limit :

Operating Mode	Band	Mode	Ant. Gain	Limt(dBm)
SISO : Service and Monitoring	UNII 2	802.11a	8 dBi	9
		802.11n_20 MHz BW		9
		802.11n_40 MHz BW		9
	UNII 2e	802.11a		9
		802.11n_20 MHz BW		9
		802.11n_40 MHz BW		9
MIMO(2 TX) : Service and Monitoring	UNII 2	802.11a	11.01 dBi	5.99
		802.11n_20 MHz BW	8 dBi	9
		802.11n_40 MHz BW	8 dBi	9
	UNII 2e	802.11a	11.01 dBi	5.99
		802.11n_20 MHz BW	8 dBi	9
		802.11n_40 MHz BW	8 dBi	9
MIMO(3 TX) : Service	UNII 2	802.11a	12.77 dBi	4.23
		802.11n_20 MHz BW	8 dBi	9
		802.11n_40 MHz BW	8 dBi	9
	UNII 2e	802.11a	12.77 dBi	4.23
		802.11n_20 MHz BW	8 dBi	9
		802.11n_40 MHz BW	8 dBi	9

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