FCC REPORT

(UNII)

Applicant: Libre Wireless Technologies Inc.

Address of Applicant: 2100 Geng Road, Suite 210 Palo Alto, CA 94303, USA

Equipment Under Test (EUT)

Product Name: WiFi Media Streaming Module

Model No.: LS9AD-AC11DBT, LS9AD-AC11DBT-V, LS9AD-AC11DBT-GV

Trade mark: LIBRE

FCC ID: 2ADBM-LS9ADAC11DBT

Applicable standards: FCC CFR Title 47 Part 15 Subpart E Section 15.407

Date of sample receipt: 29 Jun., 2017

Date of Test: 29 Jun., to 07 Jul., 2017

Date of report issued: 07 Jul., 2017

Test Result: PASS*

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Bruce Zhang
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the CCIS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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2 Version

Version No.	Date	Description
00	*07 Jul., 2017*	*Original*

Tested by: YT Yang ***Date:*** *07 Jul., 2017*

Test Engineer

Reviewed by: RYan.Lee ***Date:*** *07 Jul., 2017*

Project Engineer

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4 Test Summary

Test Item	Section in CFR 47
Antenna requirement	15.203/15.407 (g)
AC Power Line Conducted Emission	15.207
Conducted Peak Output Power	15.407 (a) (1) (iv) & (a) (3)
26dB Occupied Bandwidth	15.407 (a) (5)
6dB Emission Bandwidth	15.407(e)
Power Spectral Density	15.407 (a) (1) (iv) &(a) (3)
Band Edge	15.407(b)
Spurious Emission	15.205/15.209
Frequency Stability	15.407(g)

Pass: The EUT complies with the essential requirements in the standard.

5 General Information

5.1 Client Information

Applicant:	Libre Wireless Technologies Inc.
Address of Applicant:	2100 Geng Road, Suite 210 Palo Alto, CA 94303, USA
Manufacturer:	Shenzhen Zowee Technology Co., Ltd.
Address of Manufacturer:	NO.5 Zowee technology building, Science & Technology industrial park of privately owned enterprises, Pingshan, Xili, Nanshan district, Shenzhen
Factory:	Shenzhen Zowee Technology Co., Ltd.
Address of Factory:	No 149, Tongfuyu Industrial Zone Songgang,Baoan District Shenzhen Guangdong 518105 China

5.2 General Description of E.U.T.

Product Name:	WiFi Media Streaming Module
Model No.:	LS9AD-AC11DBT, LS9AD-AC11DBT-V, LS9AD-AC11DBT-GV
Operation Frequency:	Band 1: 5150MHz-5250MHz Band 2: 5250MHz-5350MHz Band 3: 5470MHz-5725MHz
Channel numbers:	Band 1: 802.11a/802.11n20: 4,802.11n40: 2,802.11ac:1 Band 2: 802.11a/802.11n20: 4,802.11n40: 2,802.11ac:1 Band 3: 802.11a/802.11n20: 11,802.11n40: 5,802.11ac:2
Channel separation:	802.11a/802.11n20:20MHz, 802.11n40:40MHz, 802.11ac : 80MHz
Modulation technology: (IEEE 802.11a)	BPSK, QPSK, 16-QAM, 64-QAM
Modulation technology: (IEEE 802.11n)	BPSK, QPSK, 16-QAM, 64-QAM
Modulation technology: (IEEE 802.11ac)	BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM
Data speed(IEEE 802.11a)	6Mbps, 9Mbps,12Mbps,18Mbps,24Mbps,36Mbps,48Mbps,54Mbps
Data speed (IEEE 802.11n20):	MCS0: 6.5Mbps,MCS1:13Mbps,MCS2:19.5Mbps,MCS3:26Mbps, MCS4:39Mbps,MCS5:52Mbps,MCS6:58.5Mbps,MCS7:65Mbps
Data speed (IEEE 802.11n40):	MCS0:15Mbps,MCS1:30Mbps,MCS2:45Mbps,MCS3:60Mbps, MCS4:90Mbps,MCS5:120Mbps,MCS6:135Mbps,MCS7:150Mbps
Data speed (IEEE 802.11ac):	Up to 433.3Mbps
Antenna Type:	Internal Antenna
Antenna gain:	5.9 dBi
Power supply:	DC 3.3V
Remark:	The No.: LS9AD-AC11DBT, LS9AD-AC11DBT-V, LS9AD-AC11DBT-GV were identical inside, the electrical circuit design, layout, components used and internal wiring, with only difference being model name ,DDR3, Flash for different customer LS9AD-AC11DBT: this is the standard LS9AD, and this is the variant used for testing at the BTL laboratory. Memory Configuration - 256MB Flash/ 256MB DDR3.

	LS9AD-AC11DBT-V: this variant is the same as the standard except for the memory configuration. Memory Configuration - 256MB Flash / 512MB DDR3. LS9AD-AC11DBT-V with different shield design. LS9AD-AC11DBT-GV: this variant is the same as the standard except for the memory configuration. Memory Configuration - 512MB Flash / 512MB DDR3. Base on the differences description, We chose LS9AD-AC11DB model No. as the main test, Conducted Emission and Spurious Emission was re-tested for LS9AD-AC11DBT-V and LS9AD-AC11DBT-GV.

Operation Frequency each of channel

Band 1					
802.11a/802.11n20		802.11n40		802.11ac	
Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180MHz	38	5190MHz	42	5210MHz
40	5200MHz	46	5230MHz		
44	5220MHz				
48	5240MHz				
Band 2					
802.11a/802.11n20		802.11n40		802.11ac	
Channel	Frequency	Channel	Frequency	Channel	Frequency
52	5260MHz	54	5270MHz	58	5290MHz
56	5280MHz	62	5310MHz		
60	5300MHz				
64	5320MHz				
Band 3					
802.11a/802.11n20		802.11n40		802.11ac	
Channel	Frequency	Channel	Frequency	Channel	Frequency
100	5500MHz	102	5510MHz	114	5530MHz
104	5520MHz	110	5550MHz	114	5610MHz
108	5540MHz	118	5590MHz		
112	5560MHz	126	5630MHz		
116	5580MHz	134	5670MHz		
120	5600MHz				
124	5620MHz				
128	5640MHz				
132	5660MHz				
136	5680MHz				
140	5700MHz				

Note:
In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Band 1					
802.11a/802.11n20		802.11n40		802.11ac	
Channel	Frequency	Channel	Frequency	Channel	Frequency
Lowest channel	5180MHz	Lowest channel	5190MHz	Middle channel	5210MHz
Middle channel	5200MHz	Highest channel	5230MHz		
Highest channel	5240MHz				
Band 2					
802.11a/802.11n20		802.11n40		802.11ac	
Channel	Frequency	Channel	Frequency	Channel	Frequency
Lowest channel	5260MHz	Lowest channel	5270MHz	Middle channel	5290MHz
Middle channel	5280MHz	Highest channel	5310MHz		
Highest channel	5320MHz				
Band 3					
802.11a/802.11n20		802.11n40		802.11ac	
Channel	Frequency	Channel	Frequency	Channel	Frequency
Lowest channel	5500MHz	Lowest channel	5510MHz	Lowest channel	5530MHz
Middle channel	5600MHz	Middle channel	5590MHz	Highest channel	5610MHz
Highest channel	5700MHz	Highest channel	5670MHz		

5.3 Test environment and mode

Operating Environment:	
Temperature:	24.0 °C
Humidity:	54 % RH
Atmospheric Pressure:	1010 mbar
Test mode:	
Continuously transmitting mode	Keep the EUT in 100% duty cycle transmitting with modulation.
Remark:	The EUT have two chains, but cannot transmit Simultaneously, so all test items performed on each chain respectively.

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Per-scan all kind of data rate in lowest channel, and found the follow list which it was worst case.

Mode	Data rate
802.11a	6 Mbps
802.11n20	6.5 Mbps
802.11n40	13 Mbps
802.11ac	29.3 Mbps

Final Test Mode:

According to ANSI C63.4 standards, the test results are both the “worst case” and “worst setup” 6 Mbps for 802.11a, 6.5 Mbps for 802.11n20, 13 Mbps for 802.11n40 and 29.3Mbps for 802.11ac. All test items for 802.11a, 802.11ac and 802.11n were performed with duty cycle above 98%, meet the requirements of KDB789033.

5.4 Description of Support Units

Manufacturer	Description	Model	Serial Number	FCC ID/DoC
DELL	PC	OPTIPLEX745	N/A	DoC
DELL	MONITOR	E178FPC	N/A	DoC
DELL	KEYBOARD	SK-8115	N/A	DoC
DELL	MOUSE	MOC5UO	N/A	DoC
FLY POWER	Switching Adapter	PS24A120K2000UD	N/A	N/A

5.5 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

●FCC- Registration No.: 817957

Shenzhen Zhongjian Nanfang Testing Co., Ltd. EMC Laboratory has been registered andfully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in out files. Registration 817957, February 27, 2012.

●IC - Registration No.: 10106A-1

The 3m Semi-anechoic chamber of Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

●CNAS - Registration No.: CNAS L6048

Shenzhen Zhongjian Nanfang Testing Co., Ltd. is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L6048.

5.6 Laboratory Location

Shenzhen Zhongjian Nanfang Testing Co., Ltd.
Address: No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,
Bao'an District, Shenzhen, Guangdong, China
Tel: +86-755-23118282, Fax: +86-755-23116366
Email: info@ccis-cb.com, Website: http://www.ccis-cb.com

5.7 Measurement Uncertainty

Items	Expanded Uncertainty (Confidence of 95%)
Conducted Emission (9kHz ~ 30MHz)	2.14 dB (k=2)
Radiated Emission (9kHz ~ 30MHz)	4.24 dB (k=2)
Radiated Emission (30MHz ~ 1000MHz)	4.35 dB (k=2)
Radiated Emission (1GHz ~ 18GHz)	4.44 dB (k=2)
Radiated Emission (18GHz ~ 40GHz)	4.56 dB (k=2)

5.8 Test Instruments list

Radiated Emission:

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
1	3m SAC	SAEMC	9(L)*6(W)* 6(H)	CCIS0001	08-23-2014	08-22-2017
2	BiConiLog Antenna	SCHWARZBECK	VULB9163	CCIS0005	02-25-2017	02-24-2018
3	Horn Antenna	SCHWARZBECK	BBHA9120D	CCIS0006	02-25-2017	02-24-2018
4	Pre-amplifier (10kHz-1.3GHz)	HP	8447D	CCIS0003	02-25-2017	02-24-2018
5	Pre-amplifier (1GHz-18GHz)	Compliance Direction Systems Inc.	PAP-1G18	CCIS0011	02-25-2017	02-24-2018
6	Pre-amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	02-25-2017	02-24-2018
7	Horn Antenna	ETS-LINDGREN	3160	GTS217	02-25-2017	02-24-2018
8	Spectrum analyzer 9k-30GHz	Rohde & Schwarz	FSP30	CCIS0023	02-25-2017	02-24-2018
9	EMI Test Receiver	Rohde & Schwarz	ESRP7	CCIS0167	02-25-2017	02-24-2018
10	Loop antenna	Laplace instrument	RF300	EMC0701	02-25-2017	02-24-2018
11	EMI Test Software	AUDIX	E3	N/A	N/A	N/A

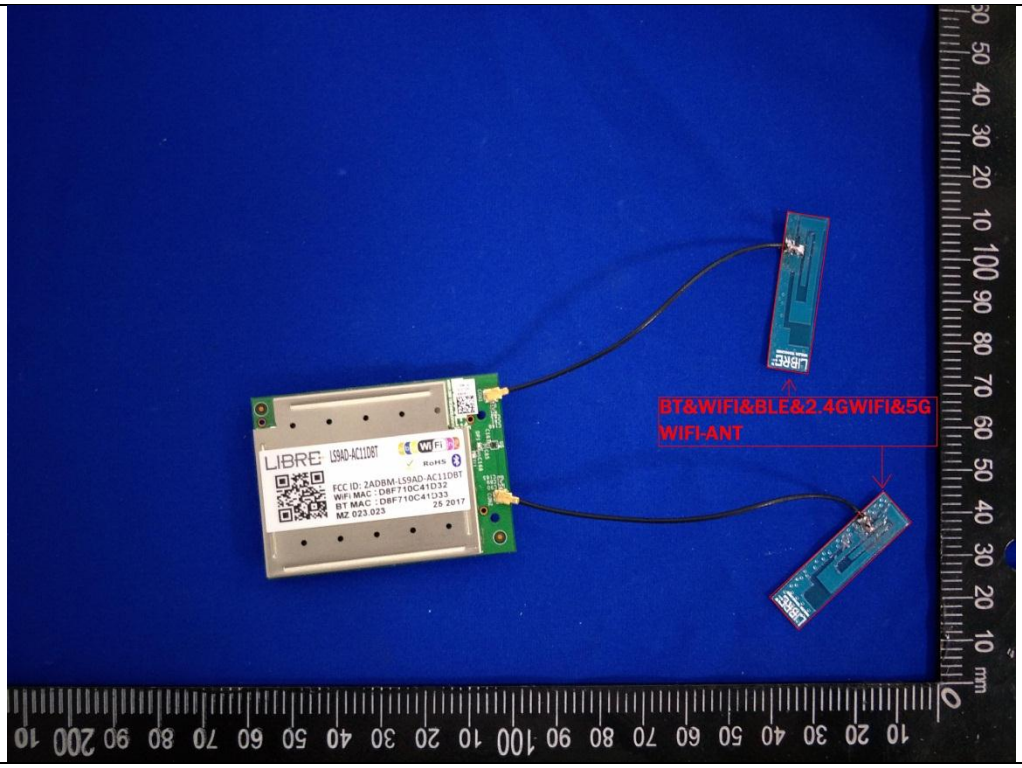
Conducted Emission:

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
1	Shielding Room	ZhongShuo Electron	11.0(L)x4.0(W)x3.0(H)	CCIS0061	08-23-2014	08-22-2017
2	EMI Test Receiver	Rohde & Schwarz	ESCI	CCIS0002	02-25-2017	02-24-2018
3	LISN	CHASE	MN2050D	CCIS0074	02-25-2017	02-24-2018
4	Coaxial Cable	CCIS	N/A	CCIS0086	02-25-2017	02-24-2018
5	EMI Test Software	AUDIX	E3	N/A	N/A	N/A

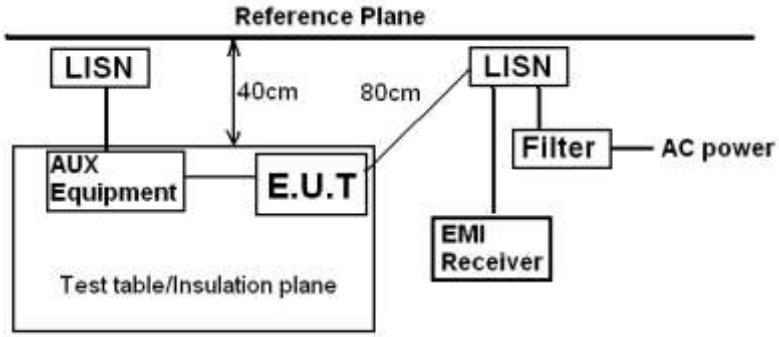
6 Test results and Measurement Data

6.1 Antenna requirement

Standard requirement:	FCC Part15 E Section 15.203 /407(a)
15.203 requirement: *An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.* *This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, § 15.213,§ 15.217, § 15.219, or § 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the in staller shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.*	
E.U.T Antenna:	
The WiFi antenna is an internal antenna which cannot replace by end-user, the best case gain of the antenna is 5.9 dBi.	

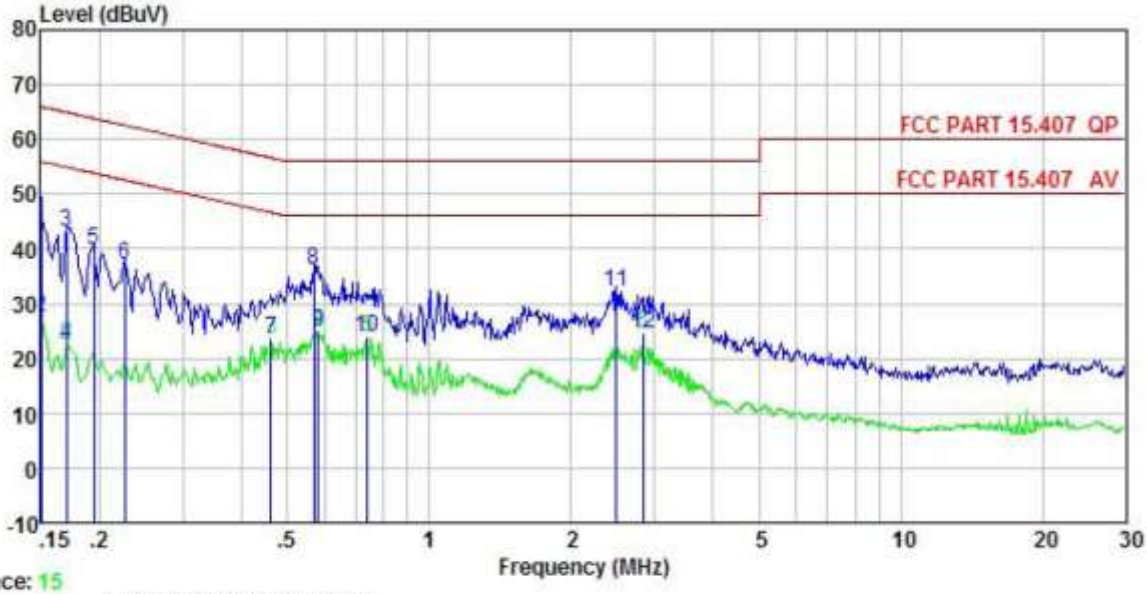


6.2 Conducted Emission

Test Requirement:	FCC Part15 C Section 15.207		
Test Method:	ANSI C63.10: 2013		
Test Frequency Range:	150kHz to 30MHz		
Class / Severity:	Class B		
Receiver setup:	RBW=9kHz, VBW=30kHz		
Limit:	Frequency range (MHz)	Limit (dBuV)	
		Quasi-peak	
	0.15-0.5	66 to 56*	0.15-0.5
	0.5-5	56	0.5-5
	5-30	60	5-30
	* Decreases with the logarithm of the frequency.		
Test procedure	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). It provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement.		
Test setup:	 Remark E.U.T: Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m		
Test Instruments:	Refer to section 5.8 for details		
Test mode:	Refer to section 5.3 for details.		
Test results:	Passed		

Measurement Data:

Line:

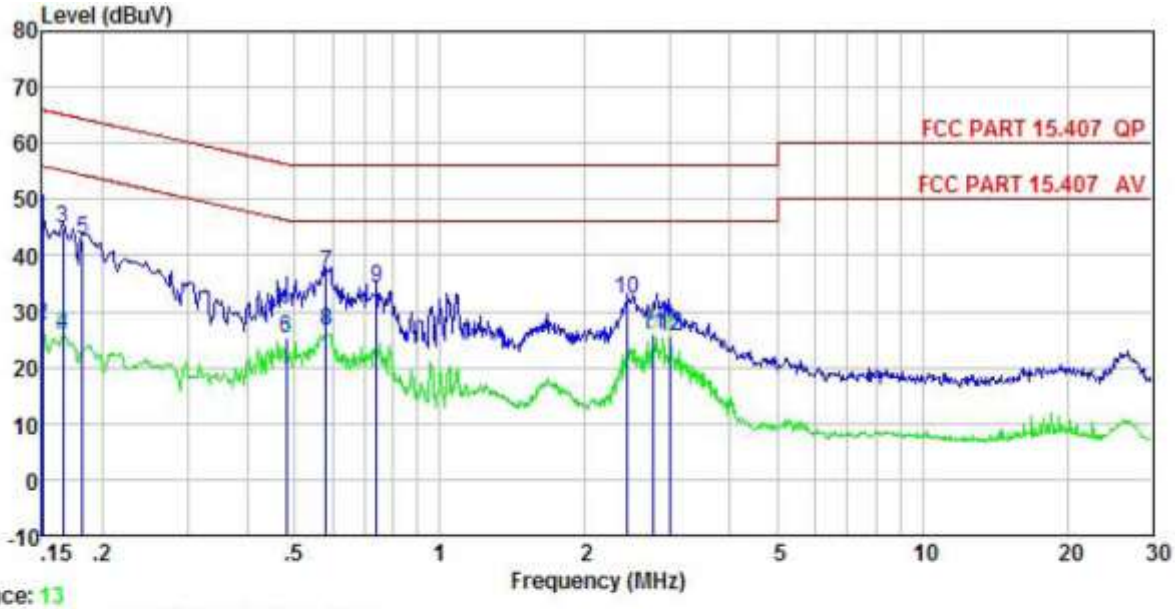


Trace: 15

Site : CCIS Shielding Room
Condition : FCC PART 15.407 QP LISN LINE
EUT : WiFi Media Streaming Module
Model : LS9AD-AC11DBT
Test Mode : 5GWIFI mode
Power Rating : AC 120V/60Hz
Environment : Temp: 23 ℃ Huni:56% Atmos:101KPa
Test Engineer: YT
Remark :

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.150	35.08	-0.56	10.78	45.30	66.00	-20.70	QP
2	0.150	17.38	-0.56	10.78	27.60	56.00	-28.40	Average
3	0.170	32.75	-0.54	10.77	42.98	64.94	-21.96	QP
4	0.170	12.27	-0.54	10.77	22.50	54.94	-32.44	Average
5	0.194	29.58	-0.52	10.76	39.82	63.84	-24.02	QP
6	0.226	26.76	-0.52	10.75	36.99	62.61	-25.62	QP
7	0.461	13.13	-0.49	10.74	23.38	46.67	-23.29	Average
8	0.570	25.82	-0.49	10.76	36.09	56.00	-19.91	QP
9	0.582	14.71	-0.49	10.76	24.98	46.00	-21.02	Average
10	0.739	13.56	-0.48	10.79	23.87	46.00	-22.13	Average
11	2.487	21.67	-0.44	10.94	32.17	56.00	-23.83	QP
12	2.839	14.04	-0.44	10.93	24.53	46.00	-21.47	Average

Neutral:



Trace: 13

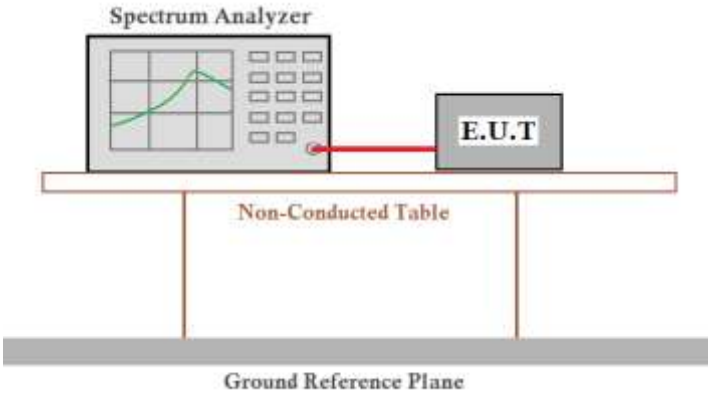
Site : CCIS Shielding Room
Condition : FCC PART 15.407 QP LISN NEUTRAL
EUT : WiFi Media Streaming Module
Model : LS9AD-AC11DBT
Test Mode : 5GWIFI mode
Power Rating : AC 120V/60Hz
Environment : Temp: 23 ℃ Huni:56% Atmos:101KPa
Test Engineer: YT
Remark :

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.150	36.51	-0.38	10.78	46.91	66.00	-19.09	QP
2	0.150	17.22	-0.38	10.78	27.62	56.00	-28.38	Average
3	0.166	34.43	-0.37	10.77	44.83	65.16	-20.33	QP
4	0.166	15.42	-0.37	10.77	25.82	55.16	-29.34	Average
5	0.182	32.32	-0.35	10.77	42.74	64.42	-21.68	QP
6	0.481	14.76	-0.30	10.75	25.21	46.32	-21.11	Average
7	0.582	26.49	-0.30	10.76	36.95	56.00	-19.05	QP
8	0.582	15.95	-0.30	10.76	26.41	46.00	-19.59	Average
9	0.739	23.53	-0.30	10.79	34.02	56.00	-21.98	QP
10	2.448	21.43	-0.23	10.94	32.14	56.00	-23.86	QP
11	2.765	15.08	-0.21	10.93	25.80	46.00	-20.20	Average
12	3.009	14.73	-0.20	10.92	25.45	46.00	-20.55	Average

Notes:

1. An initial pre-scan was performed on the live and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level =Receiver Read level + LISN Factor + Cable Loss

6.3 Conducted Output Power

Test Requirement:	FCC Part15 E Section 15.407 (a) (1) (ii) & (a) (3)
Test Method:	ANSI C63.10: 2013, KDB789033
Limit:	24dBm
Test setup:	
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data:

ANT0

Band 1				
Mode	Test CH	Conducted Output power (dBm)	Limit (dBm)	Result
802.11a	Lowest	12.30	24.00	Pass
	Middle	12.68	24.00	Pass
	Highest	12.75	24.00	Pass
802.11n20	Lowest	11.60	24.00	Pass
	Middle	11.62	24.00	Pass
	Highest	11.70	24.00	Pass
802.11n40	Lowest	11.60	24.00	Pass
	Highest	11.63	24.00	Pass
802.11ac20	Lowest	11.44	24.00	Pass
	Middle	11.58	24.00	Pass
	Highest	11.58	24.00	Pass
802.11ac40	Lowest	11.71	24.00	Pass
	Highest	11.49	24.00	Pass
802.11ac80	Middle	9.75	24.00	Pass

Band 2				
Mode	Test CH	Conducted Output power (dBm)	Limit (dBm)	Result
802.11a	Lowest	12.86	24.00	Pass
	Middle	12.99	24.00	Pass
	Highest	12.18	24.00	Pass
802.11n20	Lowest	12.01	24.00	Pass
	Middle	11.81	24.00	Pass
	Highest	12.29	24.00	Pass
802.11n40	Lowest	11.82	24.00	Pass
	Highest	12.28	24.00	Pass
802.11ac20	Lowest	12.00	24.00	Pass
	Middle	12.21	24.00	Pass
	Highest	12.35	24.00	Pass
802.11ac40	Lowest	11.86	24.00	Pass
	Highest	12.16	24.00	Pass
802.11ac80	Middle	10.12	24.00	Pass

Band 3				
Mode	Test CH	Conducted Output power (dBm)	Limit (dBm)	Result
802.11a	Lowest	12.00	24.00	Pass
	Middle	11.62	24.00	Pass
	Highest	12.94	24.00	Pass
802.11n20	Lowest	10.74	24.00	Pass
	Middle	10.72	24.00	Pass
	Highest	11.76	24.00	Pass
802.11n40	Lowest	10.48	24.00	Pass
	Middle	10.53	24.00	Pass
	Highest	11.49	24.00	Pass
802.11ac20	Lowest	10.73	24.00	Pass
	Middle	10.81	24.00	Pass
	Highest	11.92	24.00	Pass
802.11ac40	Lowest	10.63	24.00	Pass
	Middle	10.69	24.00	Pass
	Highest	11.38	24.00	Pass
802.11ac80	Lowest	8.95	24.00	Pass
	Highest	9.07	24.00	Pass

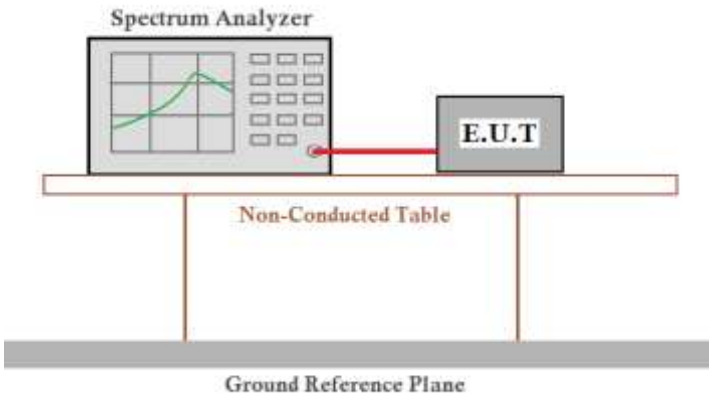
ANT1

Band 1				
Mode	Test CH	Conducted Output power (dBm)	Limit (dBm)	Result
802.11a	Lowest	13.06	24.00	Pass
	Middle	13.23	24.00	Pass
	Highest	12.87	24.00	Pass
802.11n20	Lowest	12.15	24.00	Pass
	Middle	12.24	24.00	Pass
	Highest	11.71	24.00	Pass
802.11n40	Lowest	12.23	24.00	Pass
	Highest	11.83	24.00	Pass
802.11ac20	Lowest	12.06	24.00	Pass
	Middle	12.21	24.00	Pass
	Highest	11.89	24.00	Pass
802.11ac40	Lowest	12.04	24.00	Pass
	Highest	11.56	24.00	Pass
802.11ac80	Middle	9.95	24.00	Pass

Band 2				
Mode	Test CH	Conducted Output power (dBm)	Limit (dBm)	Result
802.11a	Lowest	12.37	24.00	Pass
	Middle	12.39	24.00	Pass
	Highest	12.00	24.00	Pass
802.11n20	Lowest	11.78	24.00	Pass
	Middle	11.58	24.00	Pass
	Highest	10.85	24.00	Pass
802.11n40	Lowest	11.63	24.00	Pass
	Highest	10.95	24.00	Pass
802.11ac20	Lowest	11.69	24.00	Pass
	Middle	11.57	24.00	Pass
	Highest	10.84	24.00	Pass
802.11ac40	Lowest	11.40	24.00	Pass
	Highest	10.90	24.00	Pass
802.11ac80	Middle	9.40	24.00	Pass

Band 3				
Mode	Test CH	Conducted Output power (dBm)	Limit (dBm)	Result
802.11a	Lowest	12.32	24.00	Pass
	Middle	12.94	24.00	Pass
	Highest	12.69	24.00	Pass
802.11n20	Lowest	10.24	24.00	Pass
	Middle	11.23	24.00	Pass
	Highest	11.41	24.00	Pass
802.11n40	Lowest	10.09	24.00	Pass
	Middle	11.19	24.00	Pass
	Highest	11.46	24.00	Pass
802.11ac20	Lowest	10.41	24.00	Pass
	Middle	11.32	24.00	Pass
	Highest	11.50	24.00	Pass
802.11ac40	Lowest	10.49	24.00	Pass
	Middle	11.48	24.00	Pass
	Highest	11.48	24.00	Pass
802.11ac80	Lowest	8.90	24.00	Pass
	Highest	9.71	24.00	Pass

6.4 Occupy Bandwidth

Test Requirement:	FCC Part15 E Section 15.407 (a) (5) and Section 15.407 (e)
Test Method:	ANSI C63.10:2013 and KDB 789033
Limit:	N/A (26dB Emission Bandwidth and 99% Occupy Bandwidth)
Test setup:	
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data:

Band 1:

Test Channel	26dB Emission Bandwidth (MHz)						Limit	Result
	802.11a	802.11n20	802.11n40	802.11ac20	802.11ac40	802.11ac80		
Lowest	20.24	20.64	40.48	20.56	40.48	---	N/A	Pass
Middle	20.24	20.56	---	20.56	---	81.60		
Highest	20.16	20.48	40.64	20.56	40.48	---		
Test Channel	99% Occupy Bandwidth (MHz)						Limit	Result
	802.11a	802.11n20	802.11n40	802.11ac20	802.11ac40	802.11ac80		
Lowest	16.88	17.84	36.16	17.84	36.16	---	N/A	Pass
Middle	16.96	17.84	---	17.84	---	76.48		
Highest	17.04	17.76	36.16	17.84	36.16	---		

Band 2:

Test Channel	26dB Emission Bandwidth (MHz)						Limit	Result
	802.11a	802.11n20	802.11n40	802.11ac20	802.11ac40	802.11ac80		
Lowest	20.32	20.56	40.48	20.56	40.32	---	N/A	Pass
Middle	20.16	20.56	---	20.48	---	81.92		
Highest	20.16	20.48	40.64	20.48	40.32	---		
Test Channel	99% Occupy Bandwidth (MHz)						Limit	Result
	802.11a	802.11n20	802.11n40	802.11ac20	802.11ac40	802.11ac80		
Lowest	16.96	17.84	36.16	17.84	36.16	---	N/A	Pass
Middle	16.96	17.84	---	17.84	---	76.16		
Highest	17.84	17.84	36.16	17.84	36.16	---		

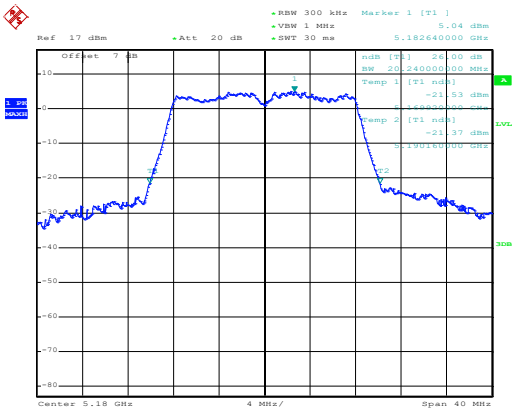
Band 3:

Test Channel	26dB Emission Bandwidth (MHz)						Limit	Result
	802.11a	802.11n20	802.11n40	802.11ac20	802.11ac40	802.11ac80		
Lowest	20.32	20.56	40.64	20.56	40.48	82.08	N/A	Pass
Middle	20.40	20.72	40.80	20.48	40.48	---		
Highest	20.40	20.56	40.96	20.56	40.64	81.72		
Test Channel	99% Occupy Bandwidth (MHz)						Limit	Result
	802.11a	802.11n20	802.11n40	802.11ac20	802.11ac40	802.11ac80		
Lowest	17.04	17.84	36.32	17.84	36.16	76.16	N/A	Pass
Middle	17.04	17.84	36.16	17.84	36.16	---		
Highest	17.04	17.84	36.16	17.84	36.32	76.32		

Test plot as follows:
Band 1:

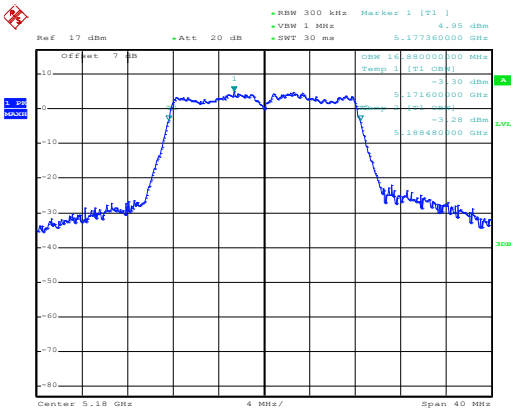
802.11a

26 dB EBW



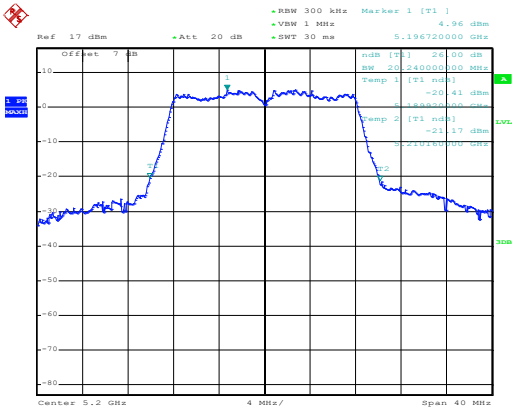
Date: 8.JUL.2017 09:20:03

99% OBW



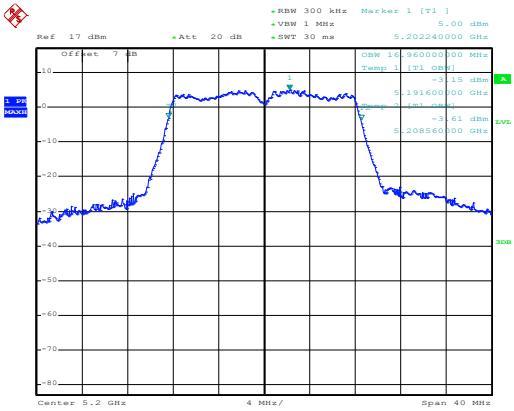
Date: 8.JUL.2017 09:20:59

Lowest channel



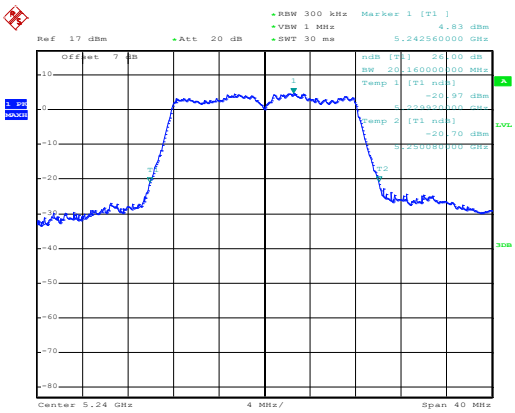
Date: 8.JUL.2017 09:21:51

Lowest channel



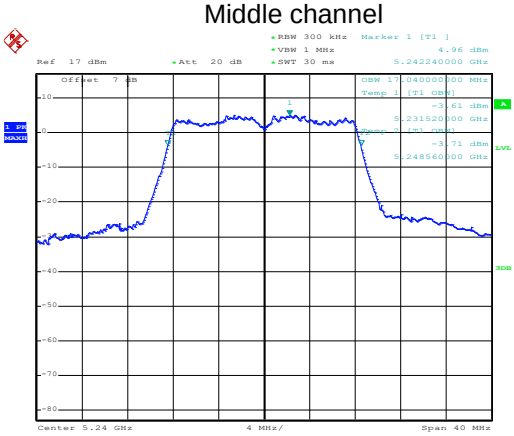
Date: 8.JUL.2017 09:21:33

Middle channel



Date: 8.JUL.2017 09:22:25

Middle channel



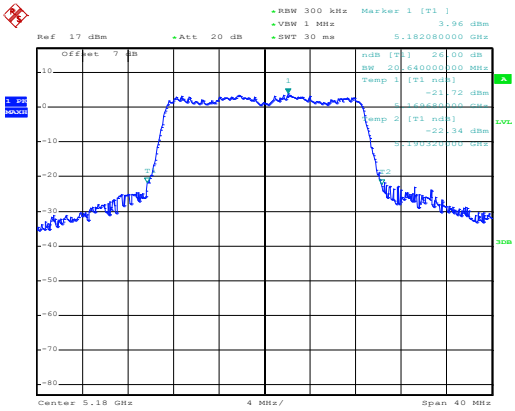
Date: 8.JUL.2017 09:23:14

Highest channel

Highest channel

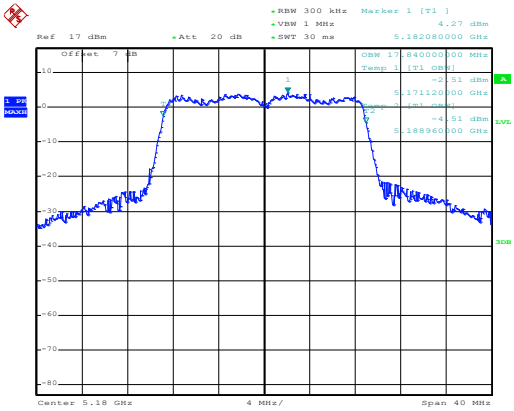
802.11n20

26 dB EBW



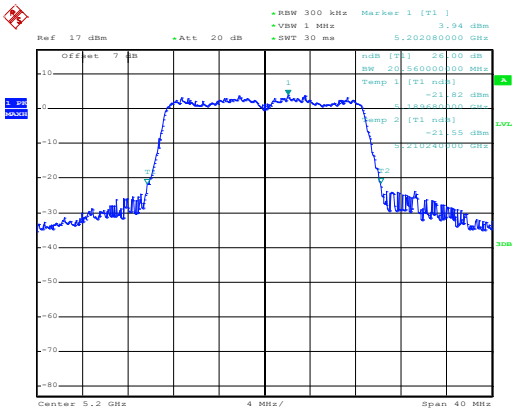
Date: 8.JUL.2017 09:24:23

99% OBW



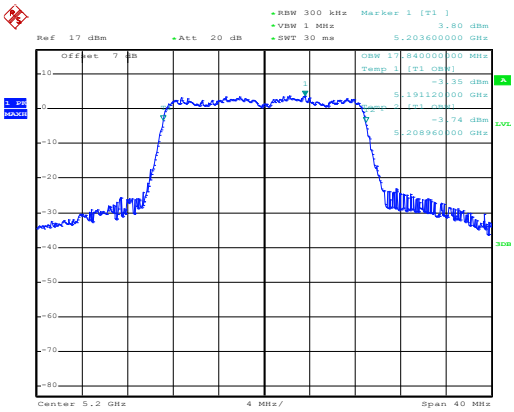
Date: 8.JUL.2017 09:24:35

Lowest channel



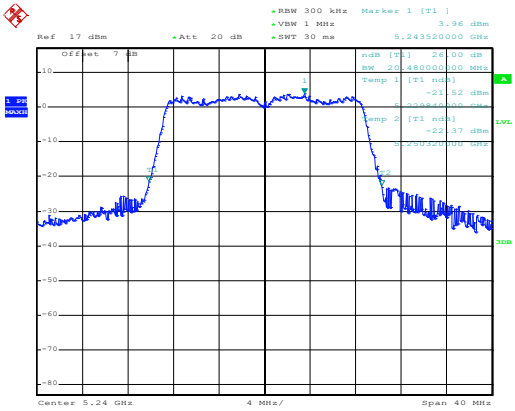
Date: 8.JUL.2017 09:25:16

Lowest channel



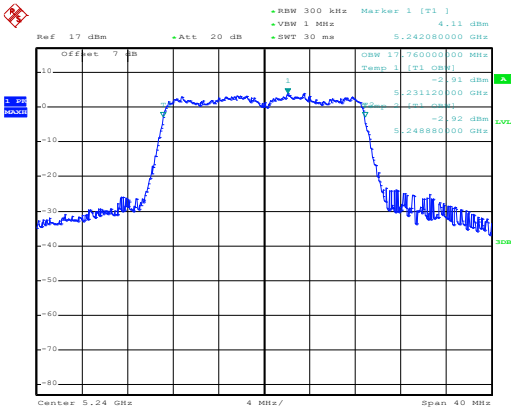
Date: 8.JUL.2017 09:25:06

Middle channel



Date: 8.JUL.2017 09:25:43

Middle channel



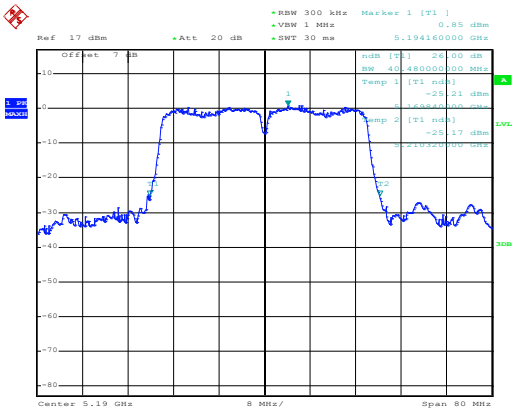
Date: 8.JUL.2017 09:25:53

Highest channel

Highest channel

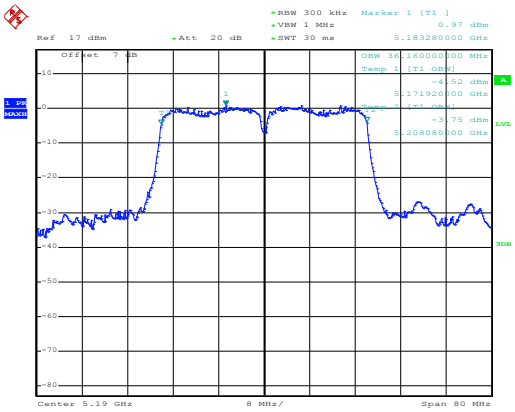
802.11n40

26 dB EBW



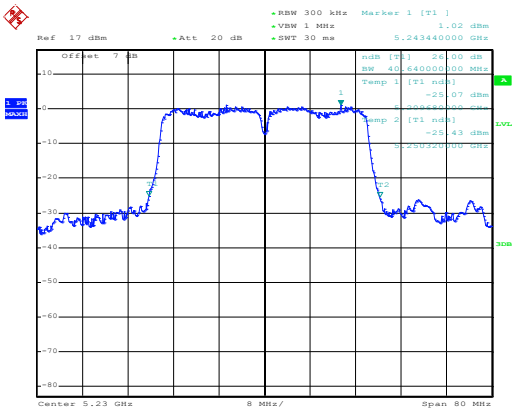
Date: 8.JUL.2017 09:26:56

99% OBW



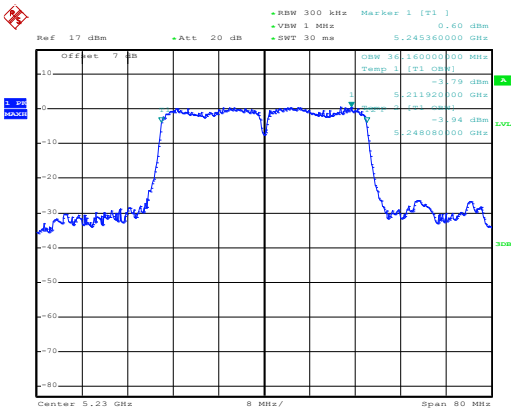
Date: 8.JUL.2017 09:26:44

Lowest channel



Date: 8.JUL.2017 09:27:25

Lowest channel



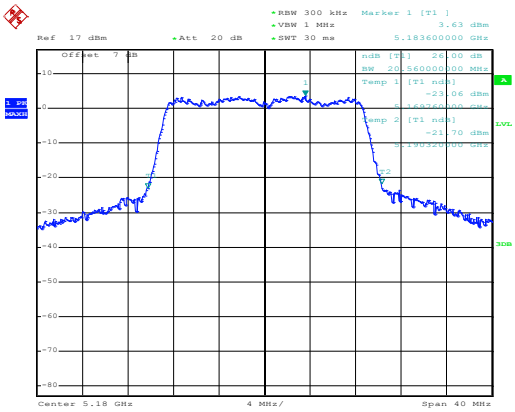
Date: 8.JUL.2017 09:27:38

Highest channel

Highest channel

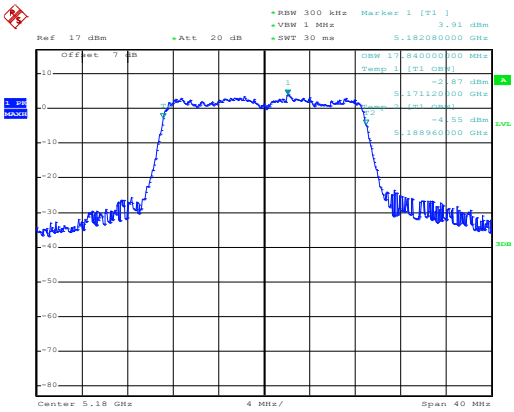
802.11ac20

26 dB EBW



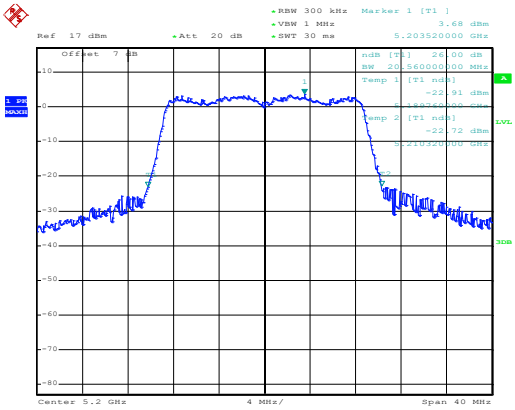
Date: 8.JUL.2017 09:31:58

99% OBW



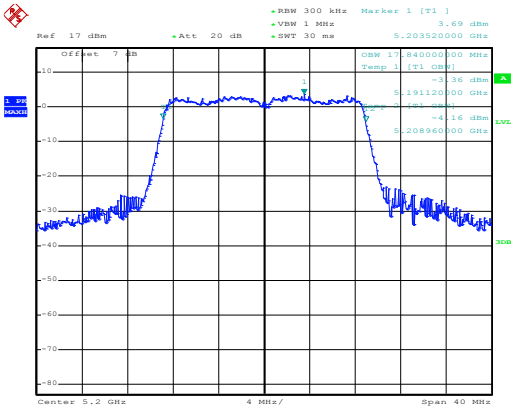
Date: 8.JUL.2017 09:32:12

Lowest channel



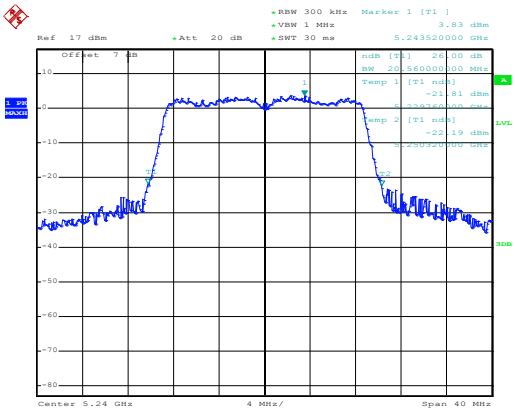
Date: 8.JUL.2017 09:32:37

Lowest channel



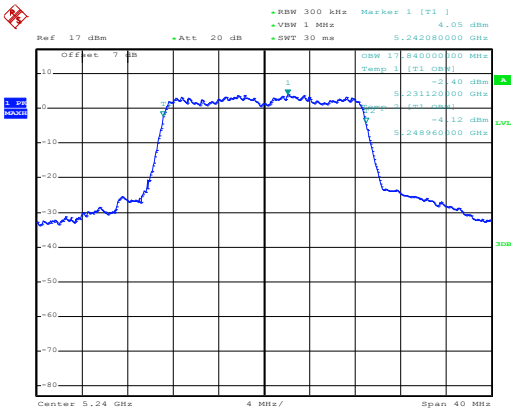
Date: 8.JUL.2017 09:32:28

Middle channel



Date: 8.JUL.2017 09:33:12

Middle channel



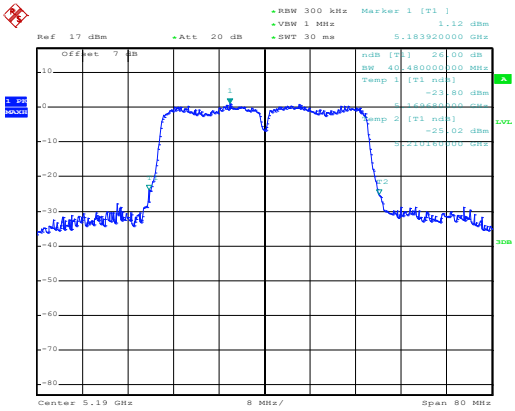
Date: 8.JUL.2017 09:35:05

Highest channel

Highest channel

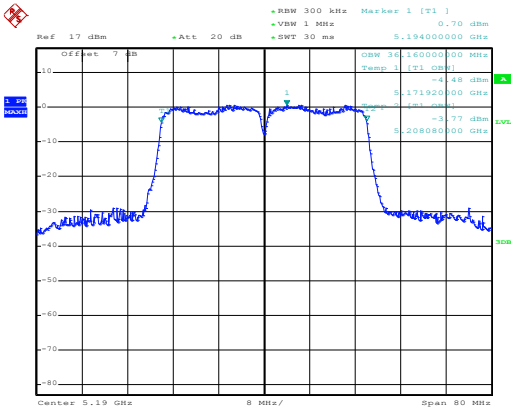
802.11ac40

26 dB EBW



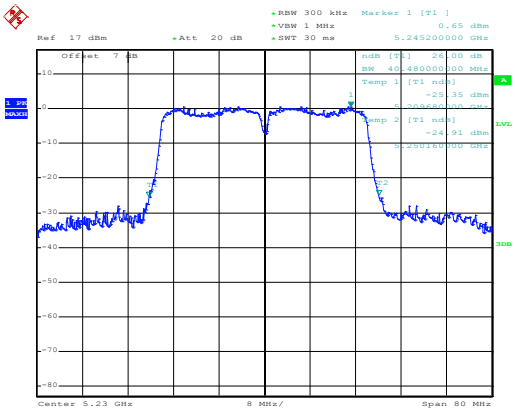
Date: 8.JUL.2017 09:36:12

99% OBW



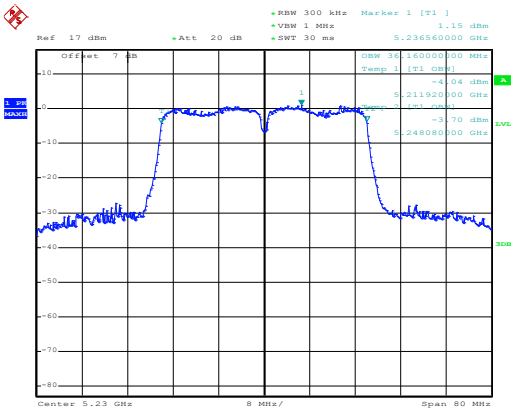
Date: 8.JUL.2017 09:36:01

Lowest channel



Date: 8.JUL.2017 09:36:44

Lowest channel



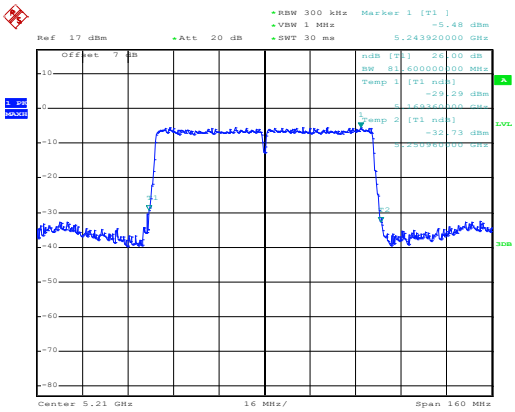
Date: 8.JUL.2017 09:37:03

Highest channel

Highest channel

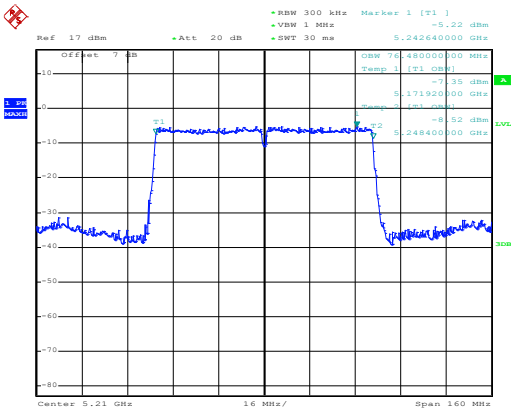
802.11ac80

26 dB EBW



Date: 8.JUL.2017 09:28:37

99% OBW



Date: 8.JUL.2017 09:28:25

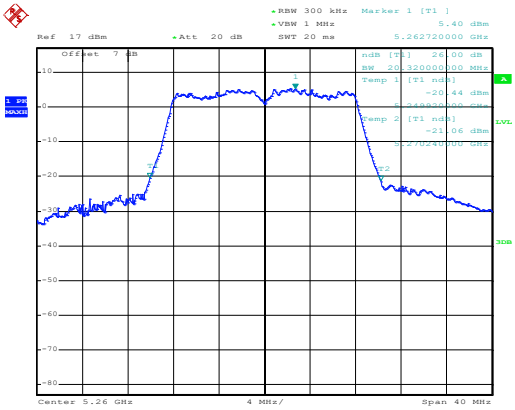
Middle channel

Middle channel

Band 2:

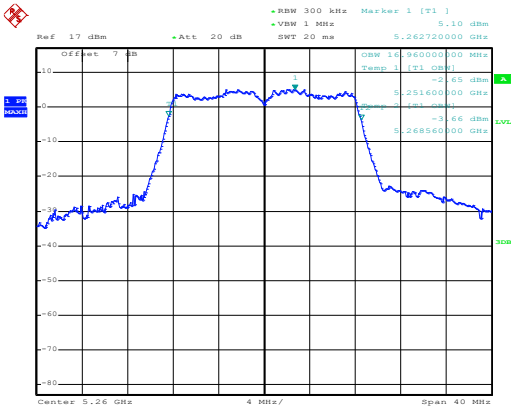
802.11a

26dB EBW



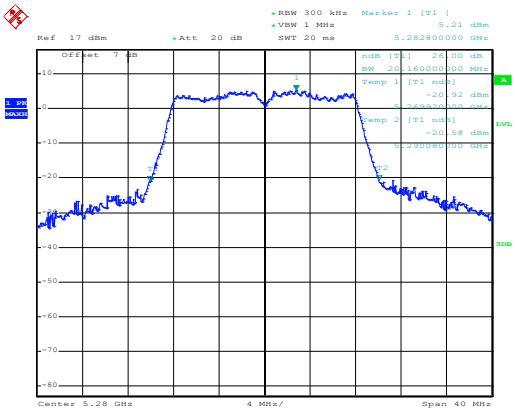
Date: 8.JUL.2017 10:07:39

99% OBW



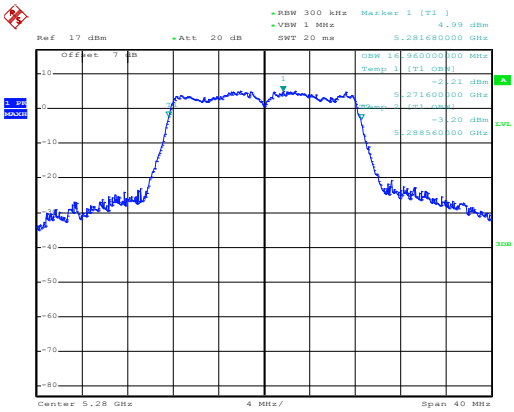
Date: 8.JUL.2017 10:08:04

Lowest channel



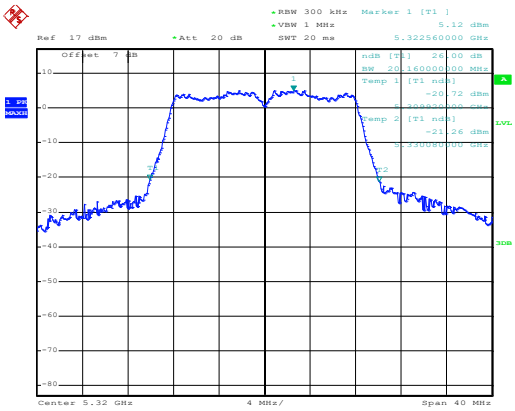
Date: 8.JUL.2017 10:08:45

Lowest channel



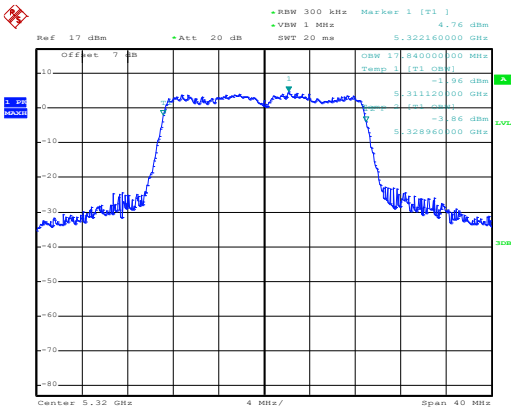
Date: 8.JUL.2017 10:08:35

Middle channel



Date: 8.JUL.2017 10:09:16

Middle channel



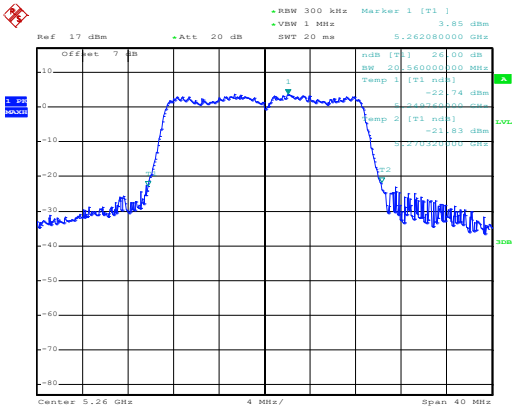
Date: 8.JUL.2017 10:09:44

Highest channel

Highest channel

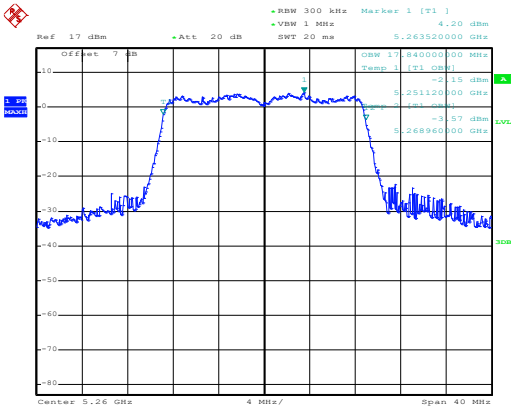
802.11n20

26dB EBW



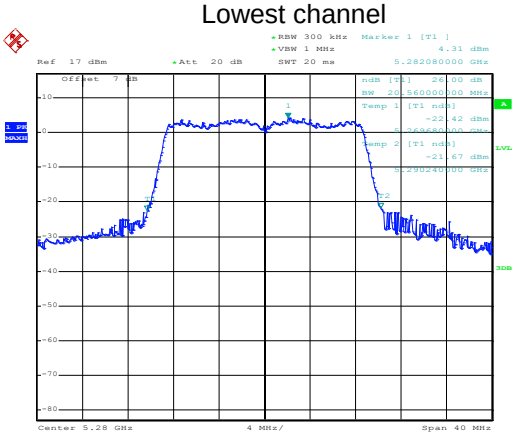
Date: 8.JUL.2017 10:21:44

99% OBW



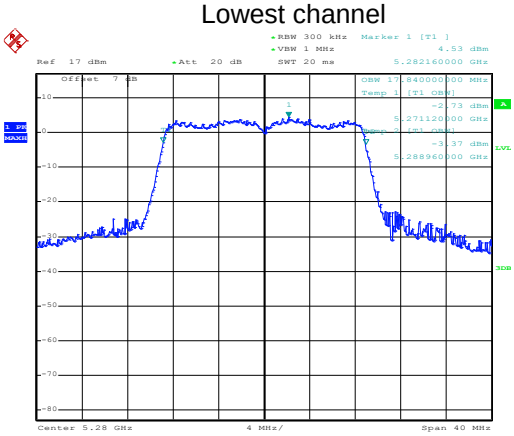
Date: 8.JUL.2017 10:21:54

Lowest channel



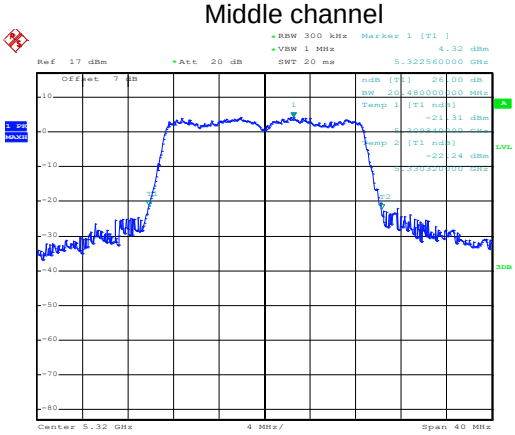
Date: 8.JUL.2017 10:22:23

Lowest channel



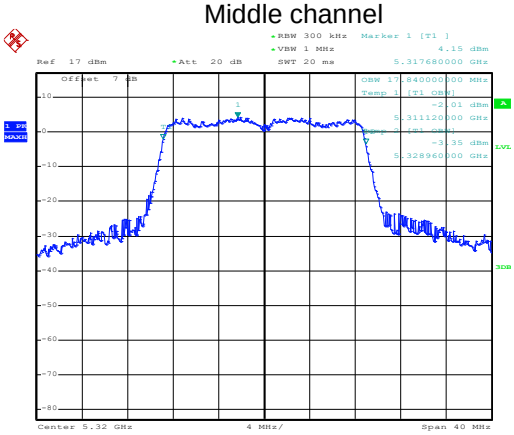
Date: 8.JUL.2017 10:22:13

Middle channel



Date: 8.JUL.2017 10:22:42

Middle channel



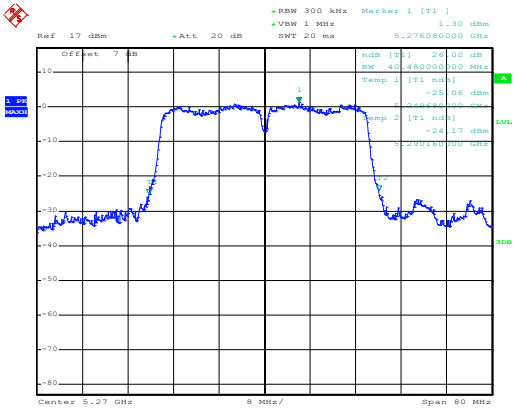
Date: 8.JUL.2017 10:22:51

Highest channel

Highest channel

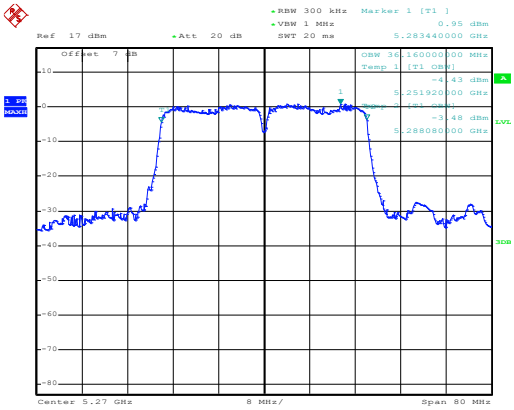
802.11n40

26dB EBW



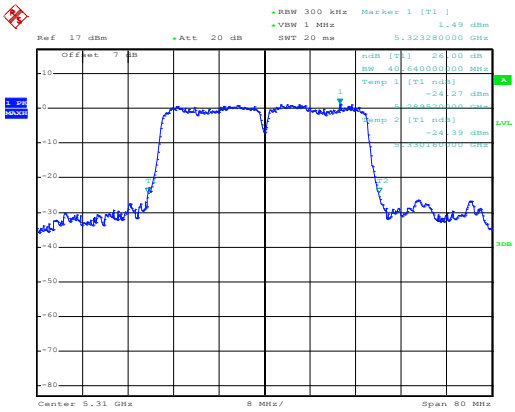
Date: 8.JUL.2017 10:24:04

99% OBW



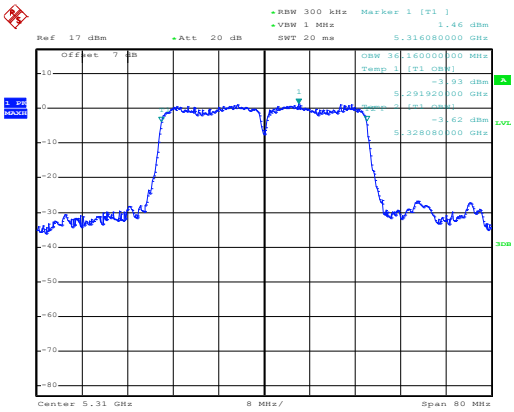
Date: 8.JUL.2017 10:23:51

Lowest channel



Date: 8.JUL.2017 10:24:39

Lowest channel



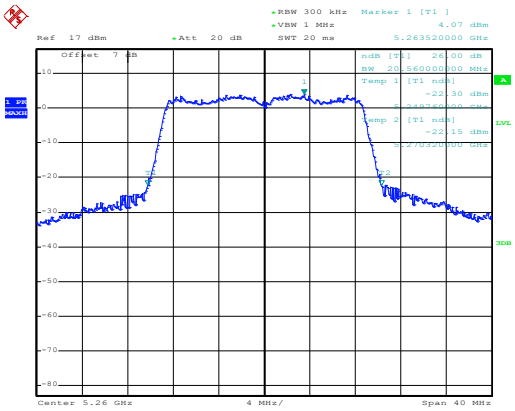
Date: 8.JUL.2017 10:24:52

Highest channel

Highest channel

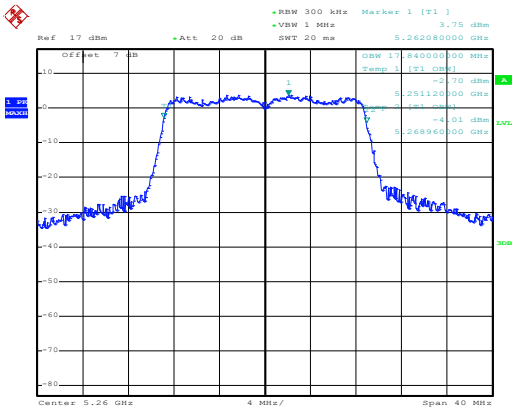
802.11ac20

26dB EBW



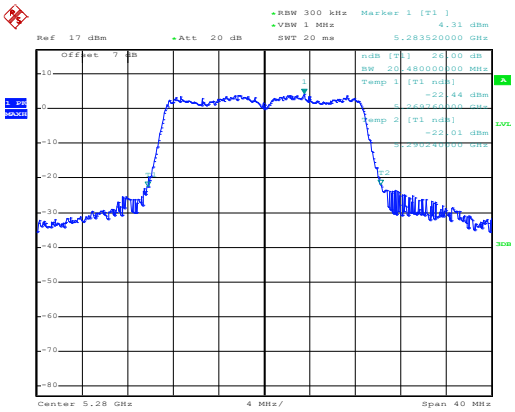
Date: 8.JUL.2017 10:26:31

99% OBW



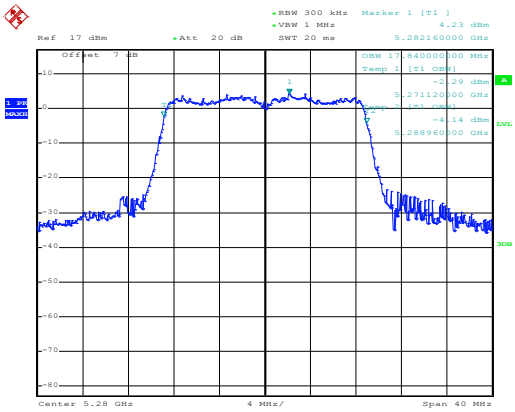
Date: 8.JUL.2017 10:26:43

Lowest channel



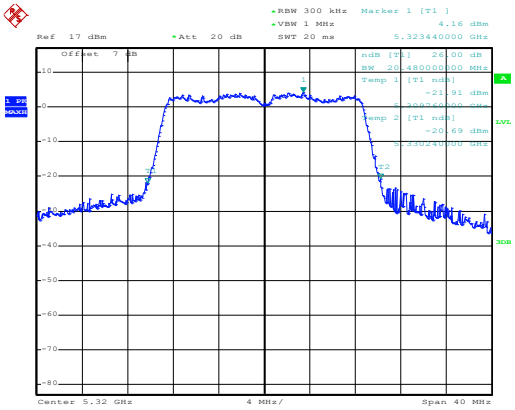
Date: 8.JUL.2017 10:27:08

Lowest channel



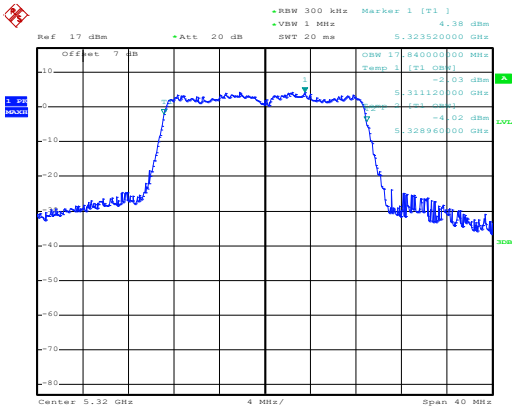
Date: 8.JUL.2017 10:26:58

Middle channel



Date: 8.JUL.2017 10:27:30

Middle channel



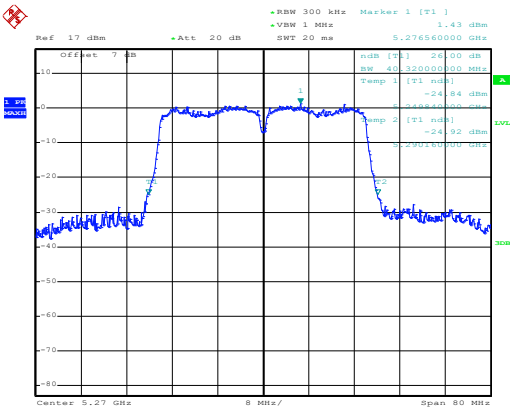
Date: 8.JUL.2017 10:27:39

Highest channel

Highest channel

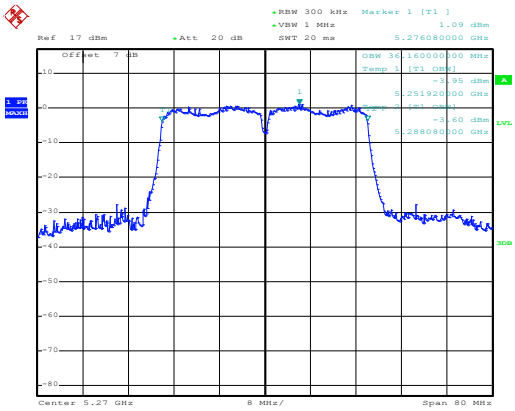
802.11ac40

26dB EBW



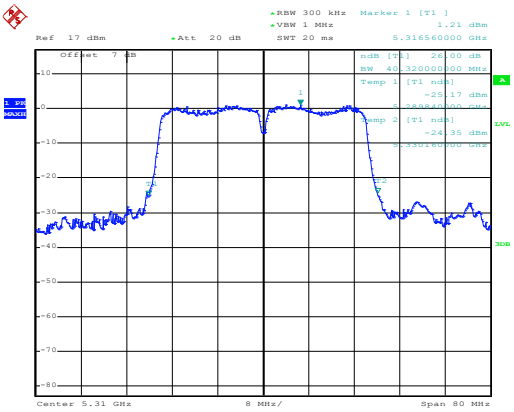
Date: 8.JUL.2017 10:28:22

99% OBW



Date: 8.JUL.2017 10:28:12

Lowest channel



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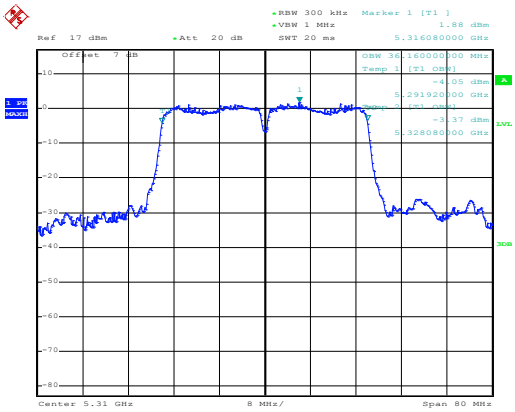
Lowest channel

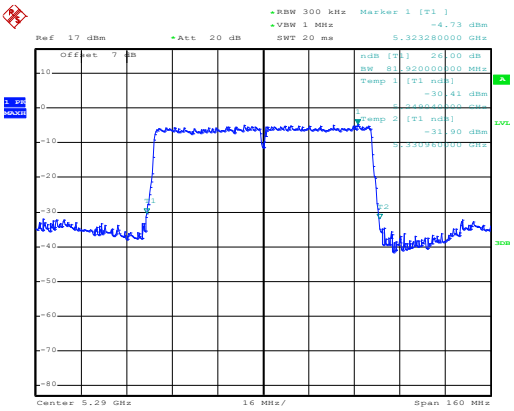


Date: 8.JUL.2017 10:28:56

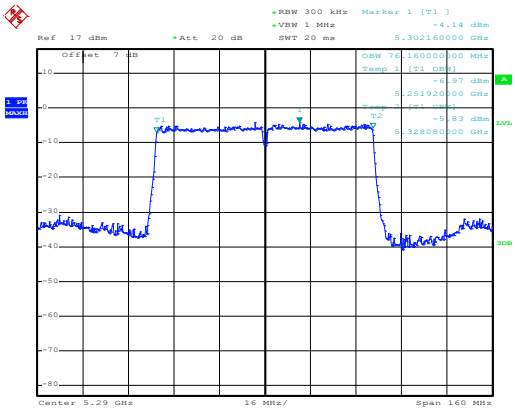
Highest channel

Highest channel

802.11ac80



Date: 8.JUL.2017 10:25:48



Date: 8.JUL.2017 10:25:38

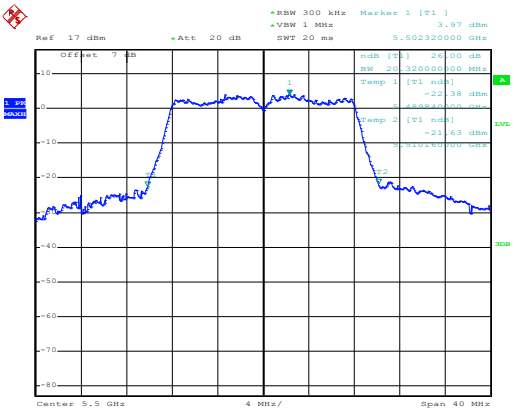
Middle channel

Middle channel

Band 3:

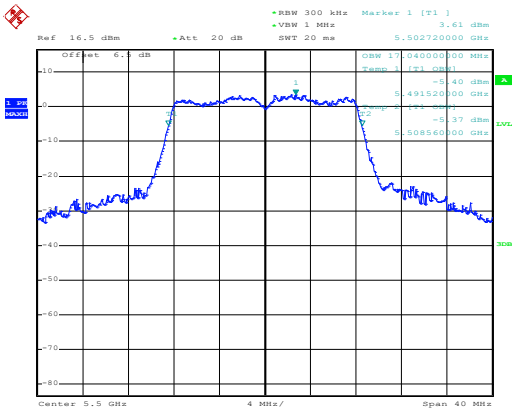
802.11a

26 dB EBW



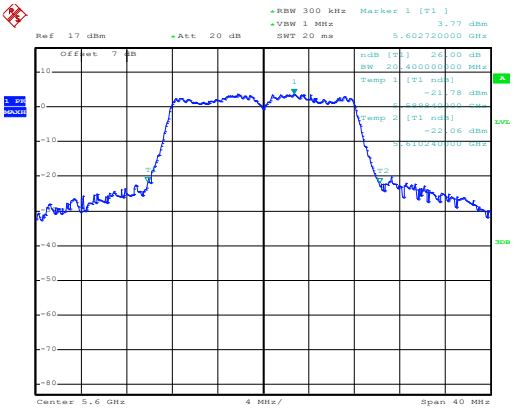
Date: 8.JUL.2017 11:21:04

99% OBW



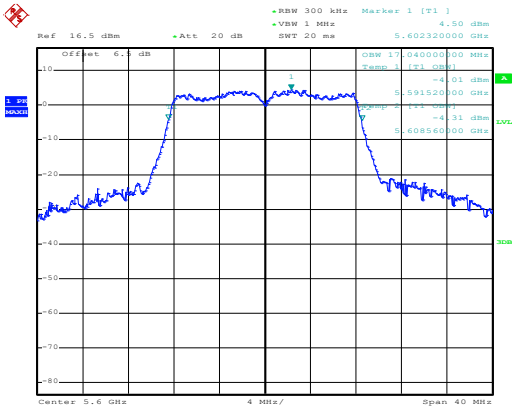
Date: 7.JUL.2017 15:40:38

Lowest channel



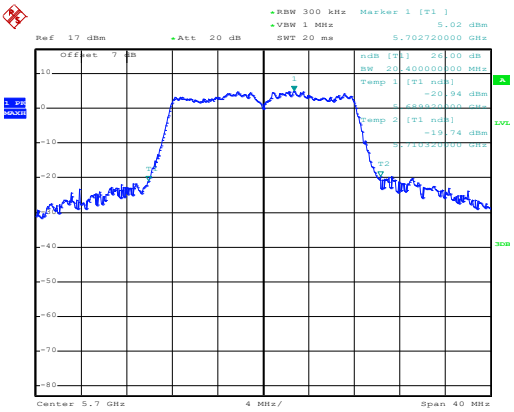
Date: 8.JUL.2017 11:21:58

Lowest channel



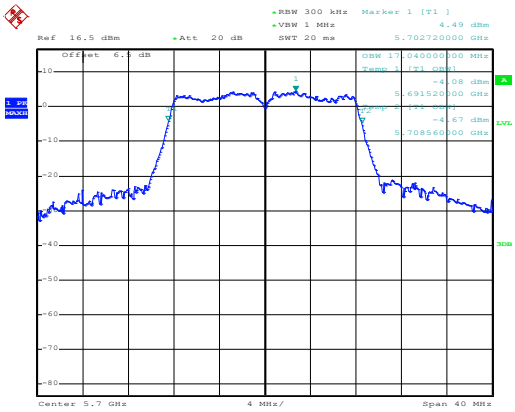
Date: 7.JUL.2017 15:41:03

Middle channel



Date: 8.JUL.2017 11:22:21

Middle channel



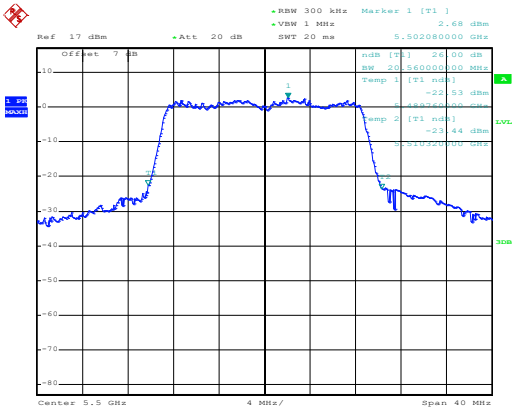
Date: 7.JUL.2017 15:43:00

Highest channel

Highest channel

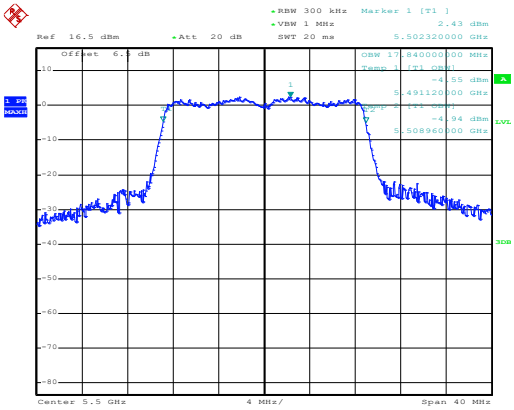
802.11n20

26dB EBW



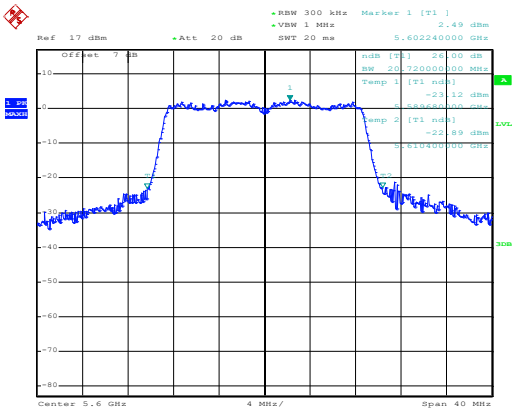
Date: 8.JUL.2017 08:52:17

99% OBW



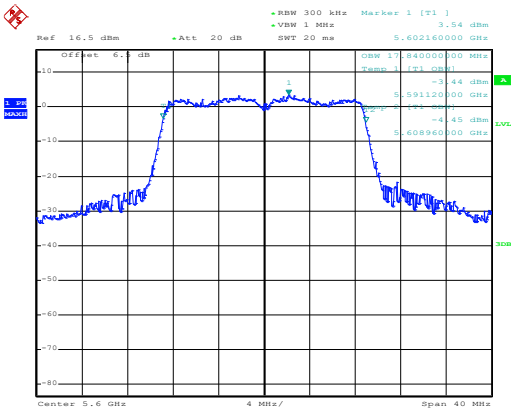
Date: 7.JUL.2017 15:43:56

Lowest channel



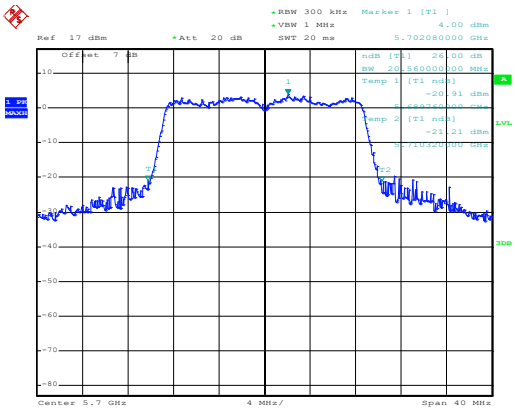
Date: 8.JUL.2017 11:23:37

Lowest channel



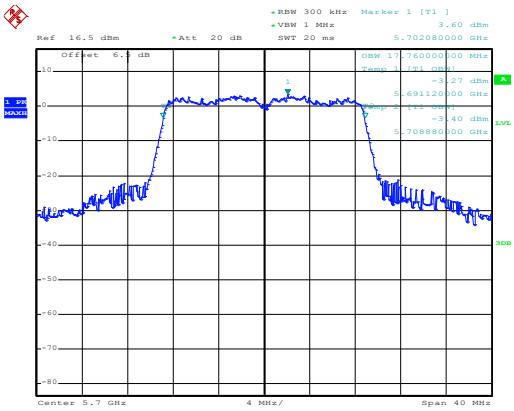
Date: 7.JUL.2017 15:44:45

Middle channel



Date: 8.JUL.2017 11:24:08

Middle channel



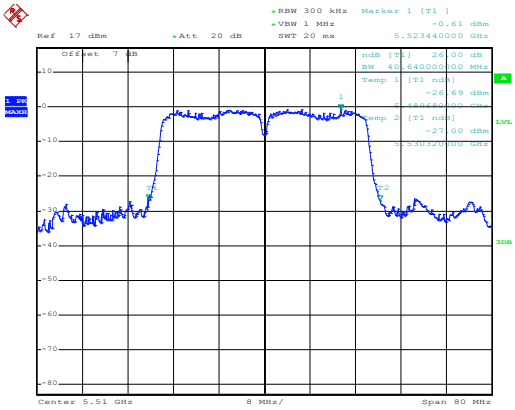
Date: 7.JUL.2017 15:45:10

Highest channel

Highest channel

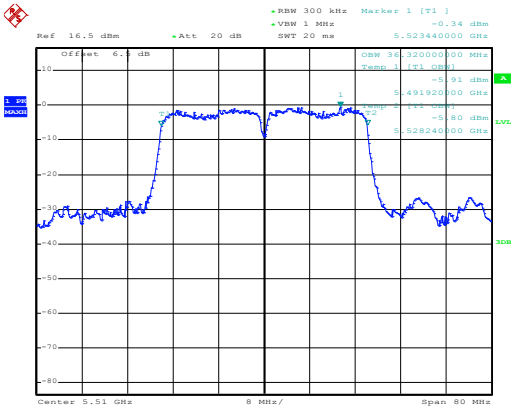
802.11n40

26dB EBW



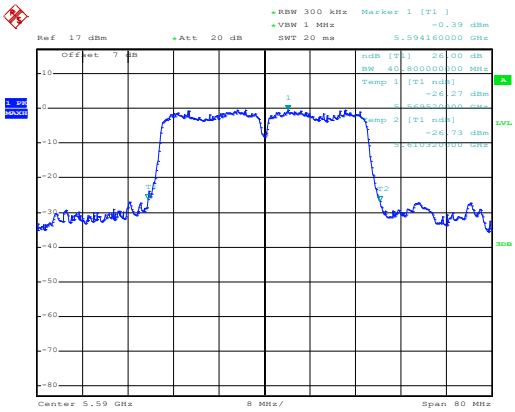
Date: 8.JUL.2017 11:25:06

99% OBW



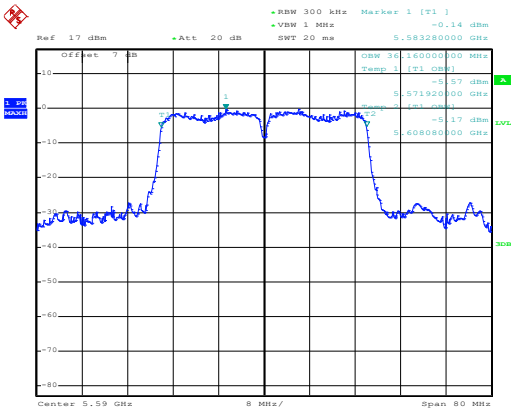
Date: 7.JUL.2017 15:46:13

Lowest channel



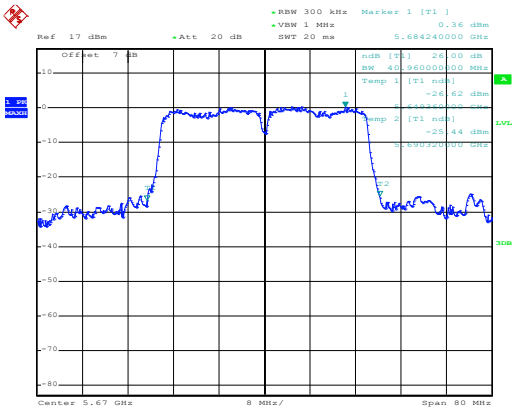
Date: 8.JUL.2017 11:27:23

Lowest channel



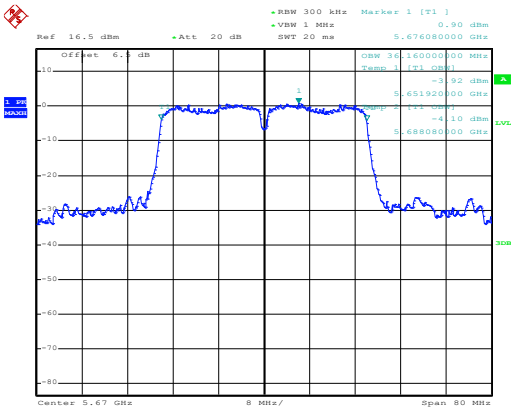
Date: 8.JUL.2017 11:27:35

Middle channel



Date: 8.JUL.2017 11:28:35

Middle channel



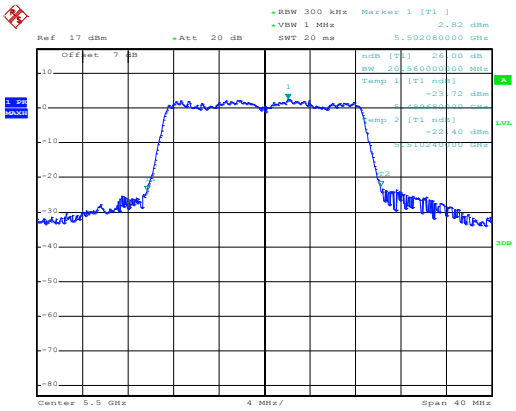
Date: 7.JUL.2017 15:52:15

Highest channel

Highest channel

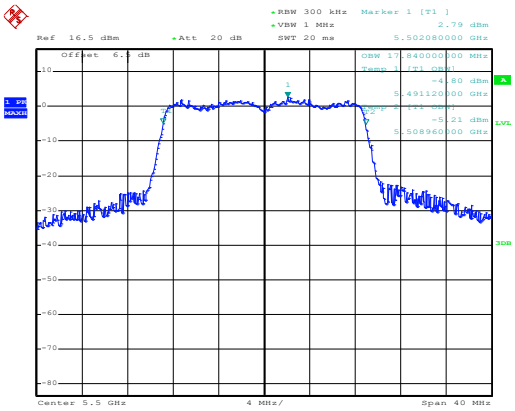
802.11ac20

26dB EBW



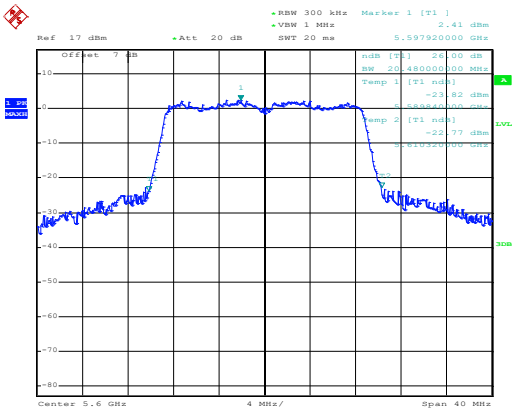
Date: 8.JUL.2017 08:52:53

99% OBW



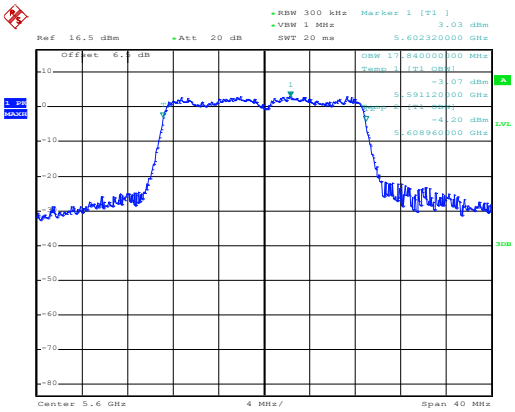
Date: 7.JUL.2017 15:56:16

Lowest channel



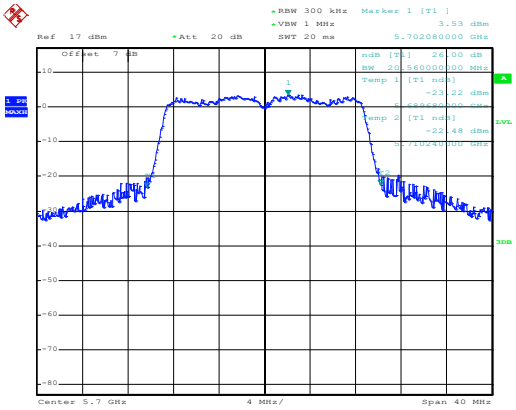
Date: 8.JUL.2017 11:31:34

Lowest channel



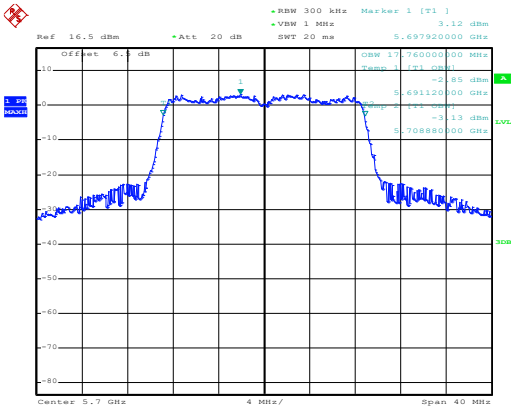
Date: 7.JUL.2017 15:56:41

Middle channel



Date: 8.JUL.2017 11:31:52

Middle channel



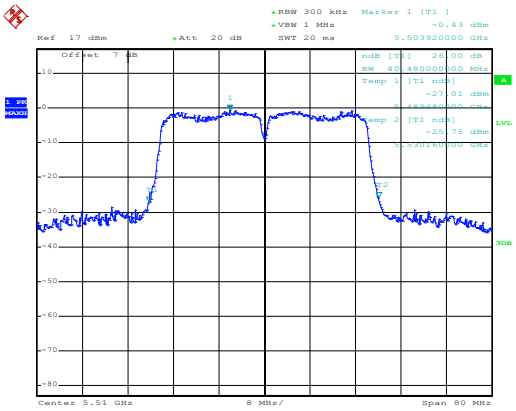
Date: 7.JUL.2017 15:57:36

Highest channel

Highest channel

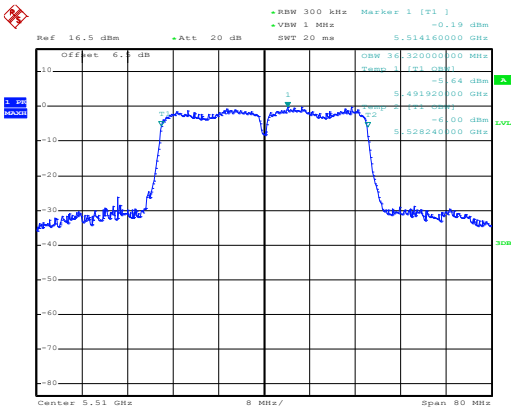
802.11ac40

26dB EBW



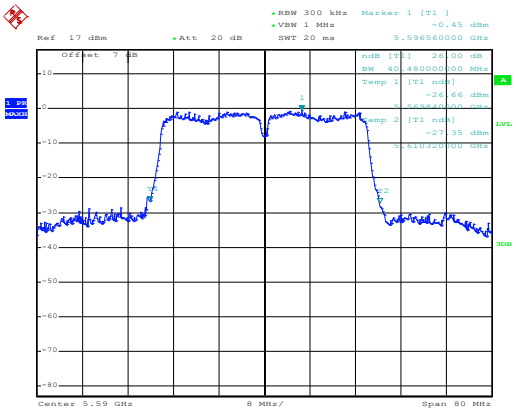
Date: 8.JUL.2017 11:32:47

99% OBW



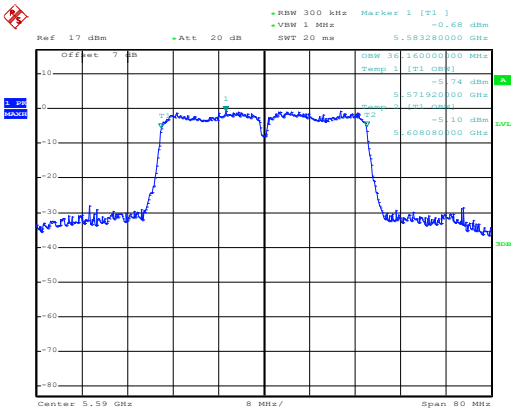
Date: 7.JUL.2017 15:58:12

Lowest channel



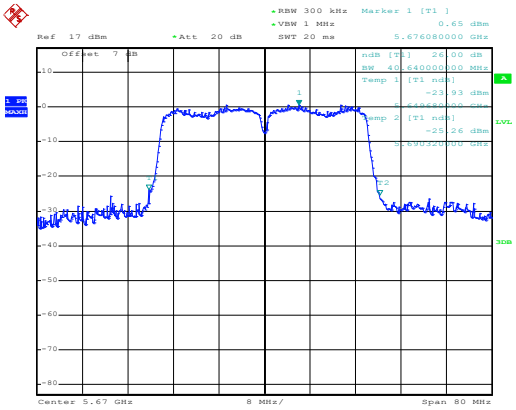
Date: 8.JUL.2017 11:33:03

Lowest channel



Date: 8.JUL.2017 11:33:11

Middle channel



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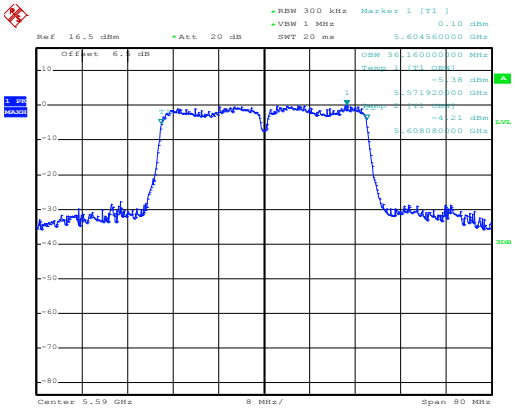
Middle channel



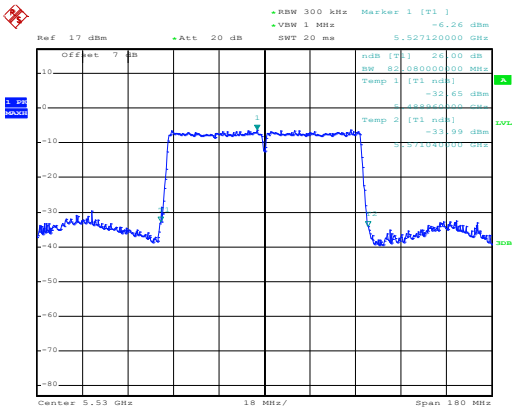
Date: 7.JUL.2017 15:58:40

Highest channel

Highest channel

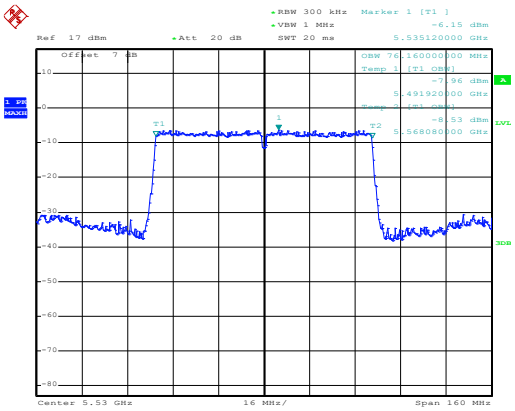
802.11ac80

26dB EBW



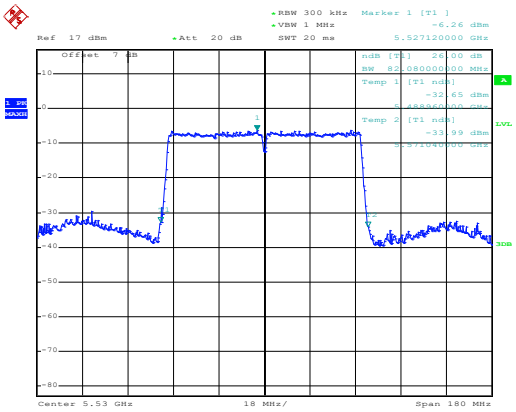
Date: 8.JUL.2017 11:29:17

99% OBW



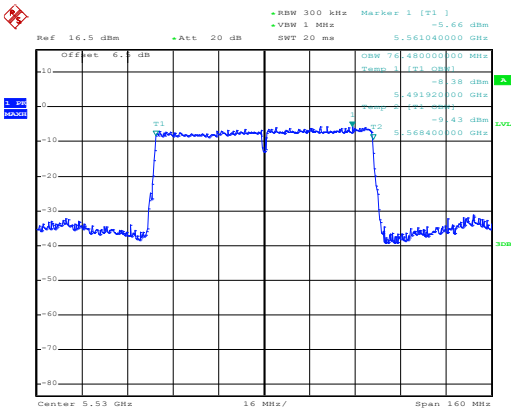
Date: 8.JUL.2017 08:54:41

Lowest channel



Date: 8.JUL.2017 11:29:17

Lowest channel

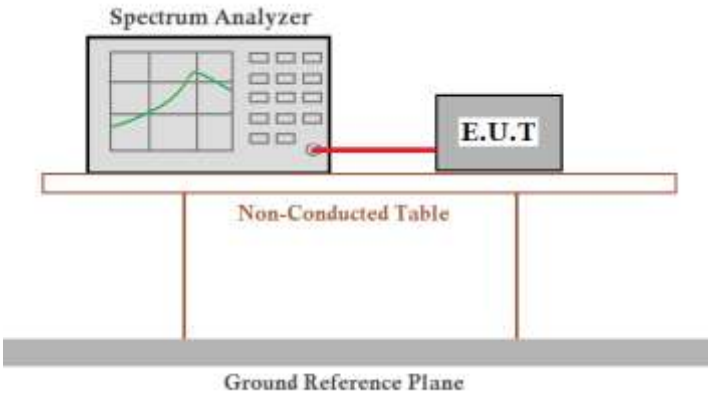


Date: 7.JUL.2017 15:53:42

Highest channel

Highest channel

6.5 Power Spectral Density

Test Requirement:	FCC Part15 E Section 15.407 (a) (1) (ii) &(a) (3)
Test Method:	ANSI C63.10:2013, KDB 789033
Limit:	11 dBm/MHz
Test setup:	
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Measurement Data:

ANT0

Band 1				
Mode	Test CH	PSD (dBm)	Limit (dBm)	Result
802.11a	Lowest	2.36	11.00	Pass
	Middle	2.25	11.00	Pass
	Highest	2.20	11.00	Pass
802.11n20	Lowest	0.80	11.00	Pass
	Middle	0.83	11.00	Pass
	Highest	0.90	11.00	Pass
802.11n40	Lowest	-2.00	11.00	Pass
	Highest	-2.26	11.00	Pass
802.11ac20	Lowest	1.22	11.00	Pass
	Middle	0.78	11.00	Pass
	Highest	0.99	11.00	Pass
802.11ac40	Lowest	-1.97	11.00	Pass
	Highest	-2.03	11.00	Pass
802.11ac80	Middle	-7.51	11.00	Pass

Band 2				
Mode	Test CH	PSD (dBm)	Limit (dBm)	Result
802.11a	Lowest	2.71	11.00	Pass
	Middle	2.71	11.00	Pass
	Highest	2.80	11.00	Pass
802.11n20	Lowest	1.47	11.00	Pass
	Middle	1.63	11.00	Pass
	Highest	1.74	11.00	Pass
802.11n40	Lowest	-1.40	11.00	Pass
	Highest	-1.43	11.00	Pass
802.11ac20	Lowest	1.37	11.00	Pass
	Middle	1.50	11.00	Pass
	Highest	1.69	11.00	Pass
802.11ac40	Lowest	-1.74	11.00	Pass
	Highest	-1.14	11.00	Pass
802.11ac80	Middle	-6.71	11.00	Pass

Band 3				
Mode	Test CH	PSD (dBm)	Limit (dBm)	Result
802.11a	Lowest	1.01	11.00	Pass
	Middle	0.94	11.00	Pass
	Highest	2.37	11.00	Pass
802.11n20	Lowest	-0.04	11.00	Pass
	Middle	-0.02	11.00	Pass
	Highest	0.99	11.00	Pass
802.11n40	Lowest	-3.08	11.00	Pass
	Middle	-3.16	11.00	Pass
	Highest	-2.06	11.00	Pass
802.11ac20	Lowest	0.05	11.00	Pass
	Middle	0.18	11.00	Pass
	Highest	0.95	11.00	Pass
802.11ac40	Lowest	-3.02	11.00	Pass
	Middle	-3.21	11.00	Pass
	Highest	-2.41	11.00	Pass
802.11ac80	Lowest	-8.57	11.00	Pass
	Highest	-6.18	11.00	Pass

ANT1

Band 1				
Mode	Test CH	PSD (dBm)	Limit (dBm)	Result
802.11a	Lowest	2.78	11.00	Pass
	Middle	2.37	11.00	Pass
	Highest	2.22	11.00	Pass
802.11n20	Lowest	1.78	11.00	Pass
	Middle	1.46	11.00	Pass
	Highest	1.10	11.00	Pass
802.11n40	Lowest	-1.31	11.00	Pass
	Highest	-1.70	11.00	Pass
802.11ac20	Lowest	1.63	11.00	Pass
	Middle	1.44	11.00	Pass
	Highest	1.05	11.00	Pass
802.11ac40	Lowest	-1.31	11.00	Pass
	Highest	-1.66	11.00	Pass
802.11ac80	Middle	-7.32	11.00	Pass

Band 2				
Mode	Test CH	PSD (dBm)	Limit (dBm)	Result
802.11a	Lowest	2.17	11.00	Pass
	Middle	1.87	11.00	Pass
	Highest	1.47	11.00	Pass
802.11n20	Lowest	0.95	11.00	Pass
	Middle	1.10	11.00	Pass
	Highest	0.35	11.00	Pass
802.11n40	Lowest	-2.27	11.00	Pass
	Highest	-2.38	11.00	Pass
802.11ac20	Lowest	0.92	11.00	Pass
	Middle	1.07	11.00	Pass
	Highest	0.10	11.00	Pass
802.11ac40	Lowest	-2.21	11.00	Pass
	Highest	-2.30	11.00	Pass
802.11ac80	Middle	-7.62	11.00	Pass

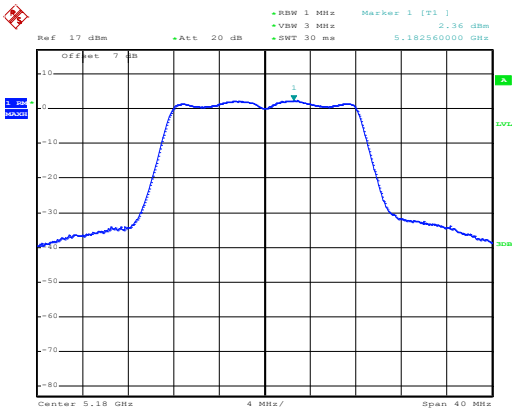
Band 3				
Mode	Test CH	PSD (dBm)	Limit (dBm)	Result
802.11a	Lowest	1.02	11.00	Pass
	Middle	2.08	11.00	Pass
	Highest	1.98	11.00	Pass
802.11n20	Lowest	-0.11	11.00	Pass
	Middle	0.47	11.00	Pass
	Highest	0.67	11.00	Pass
802.11n40	Lowest	-3.14	11.00	Pass
	Middle	-2.34	11.00	Pass
	Highest	-2.25	11.00	Pass
802.11ac20	Lowest	-0.14	11.00	Pass
	Middle	0.47	11.00	Pass
	Highest	0.65	11.00	Pass
802.11ac40	Lowest	-3.16	11.00	Pass
	Middle	-2.23	11.00	Pass
	Highest	-2.18	11.00	Pass
802.11ac80	Lowest	-7.68	11.00	Pass
	Highest	-7.34	11.00	Pass

Test plot as follows:

Band 1:

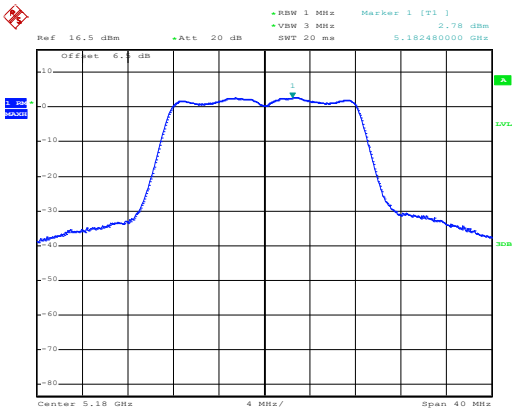
802.11a

TX0



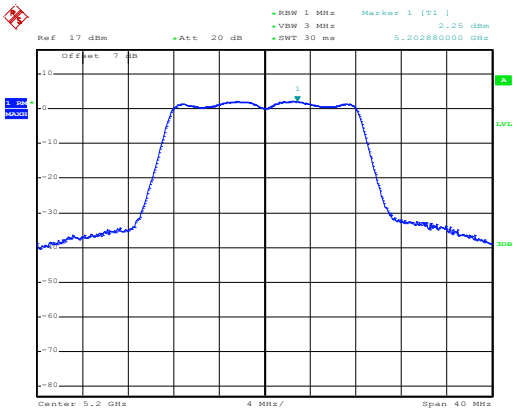
Date: 8.JUL.2017 09:38:34

TX1



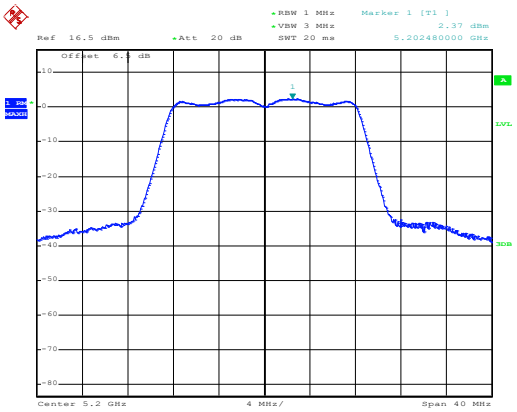
Date: 7.JUL.2017 14:02:21

Lowest channel



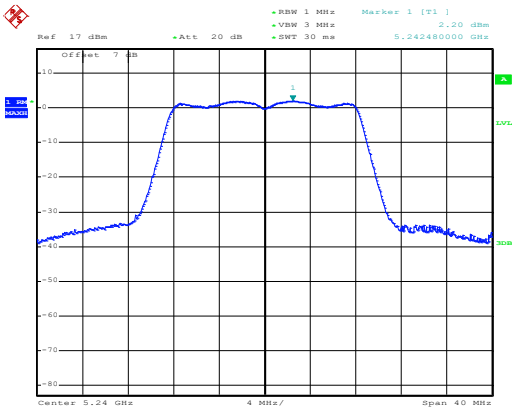
Date: 8.JUL.2017 09:38:55

Lowest channel



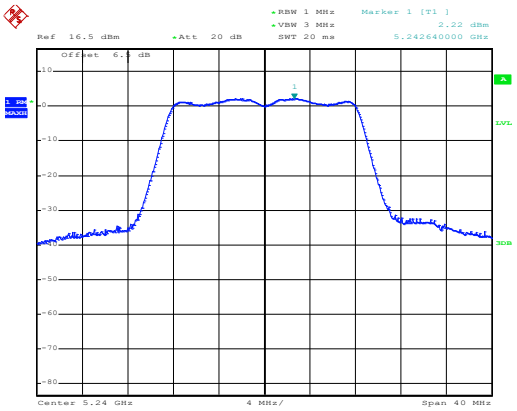
Date: 7.JUL.2017 14:02:48

Middle channel



Date: 8.JUL.2017 09:39:17

Middle channel



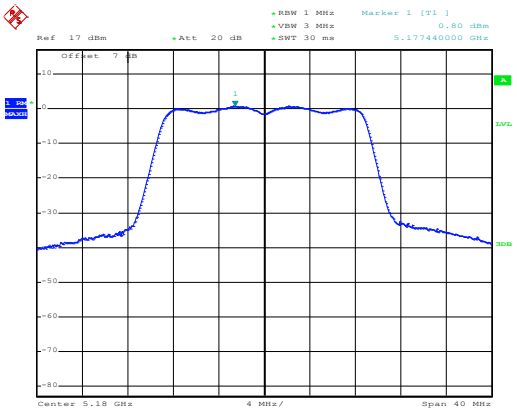
Date: 7.JUL.2017 14:03:24

Highest channel

Highest channel

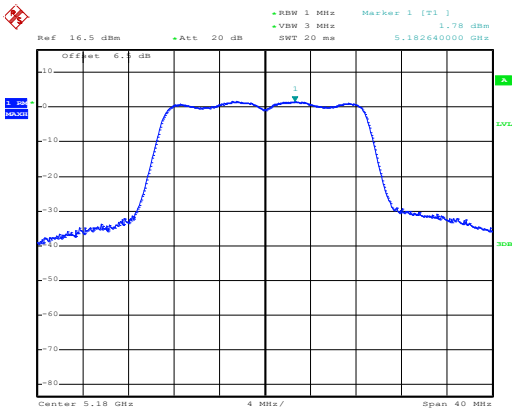
802.11n20

TX0



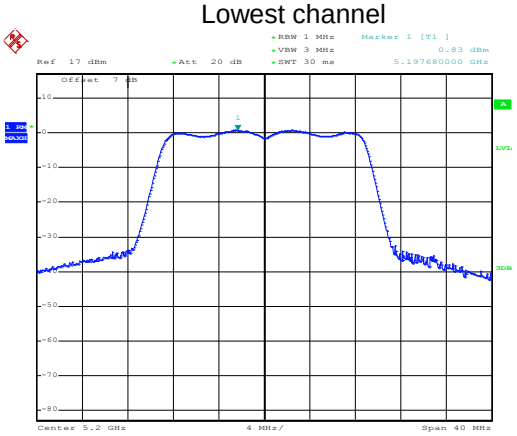
Date: 8.JUL.2017 09:40:11

TX1



Date: 7.JUL.2017 14:04:08

Lowest channel



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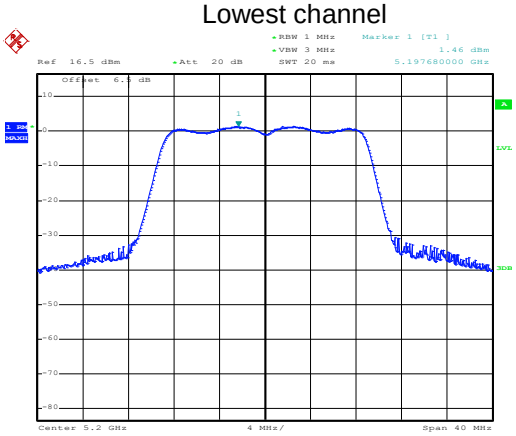
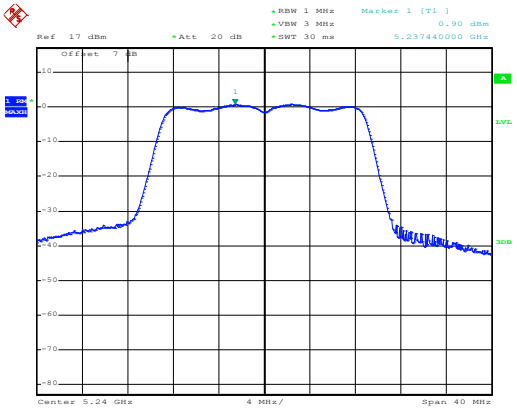


Date: 7.JUL.2017 14:04:49

Middle channel



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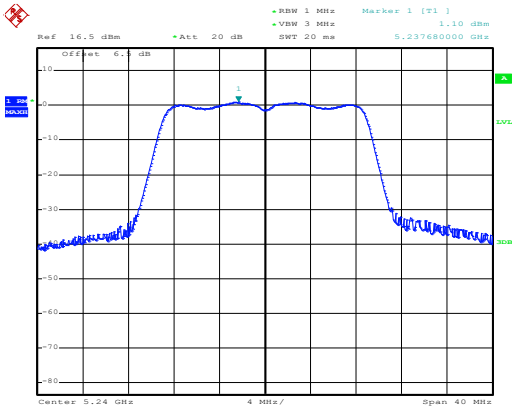
Middle channel



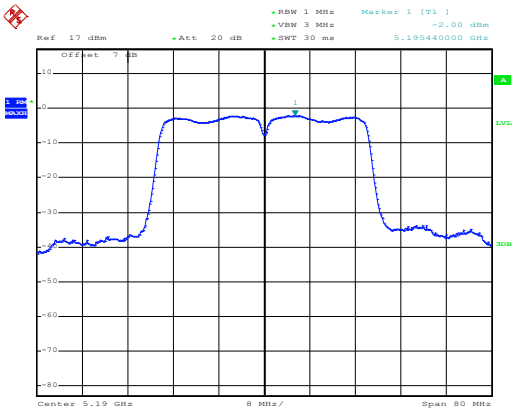
Date: 7.JUL.2017 14:05:14

Highest channel

Highest channel

802.11n40

TX0



Date: 8.JUL.2017 09:41:22

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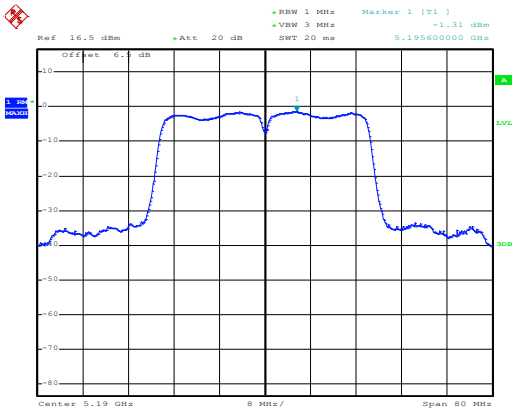
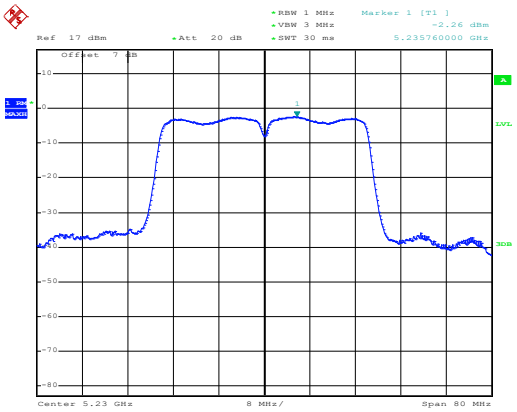


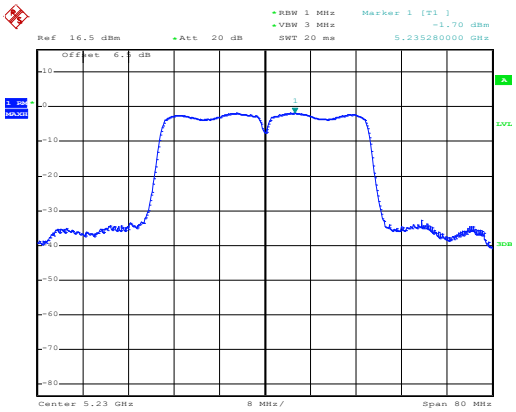
Date: 7.JUL.2017 14:06:14

Lowest channel



Date: 8.JUL.2017 09:41:44

Lowest channel



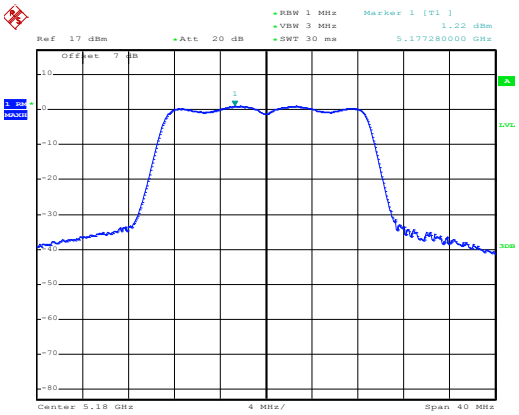
Date: 7.JUL.2017 14:06:43

Highest channel

Highest channel

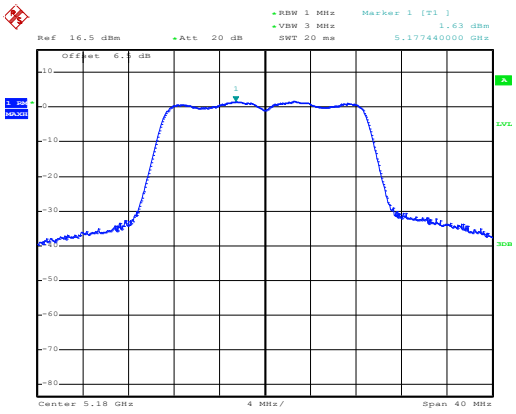
802.11ac20

TX0



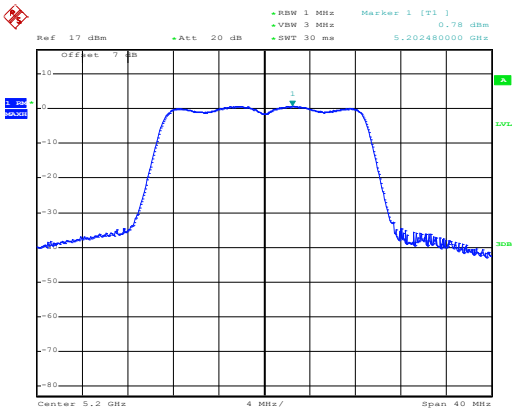
Date: 8.JUL.2017 09:43:00

TX1



Date: 7.JUL.2017 14:08:22

Lowest channel



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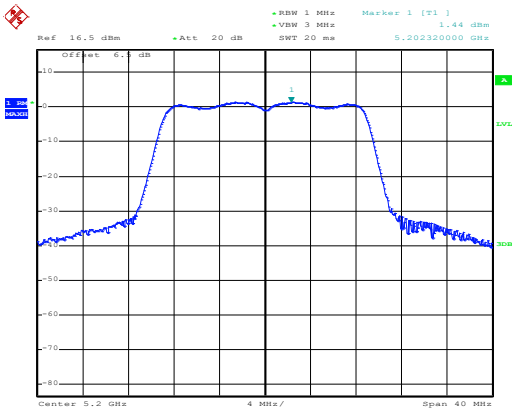
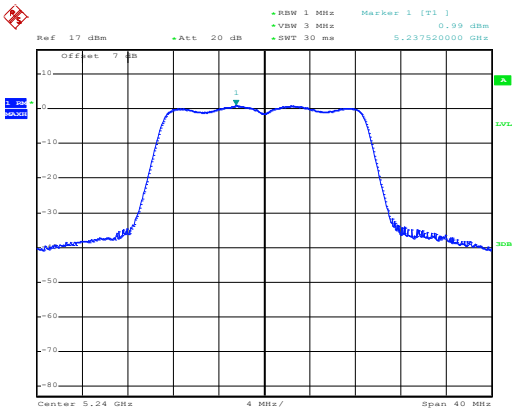
Lowest channel



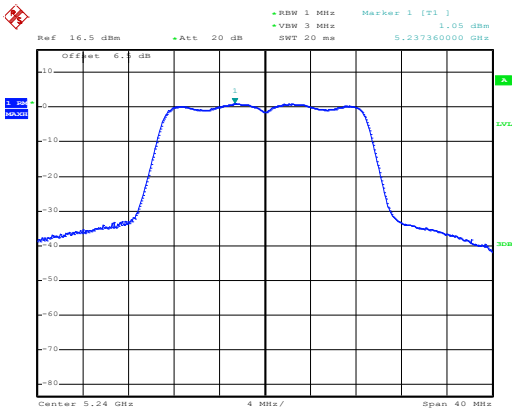
Date: 7.JUL.2017 14:09:07

Middle channel



Date: 8.JUL.2017 09:43:41

Middle channel



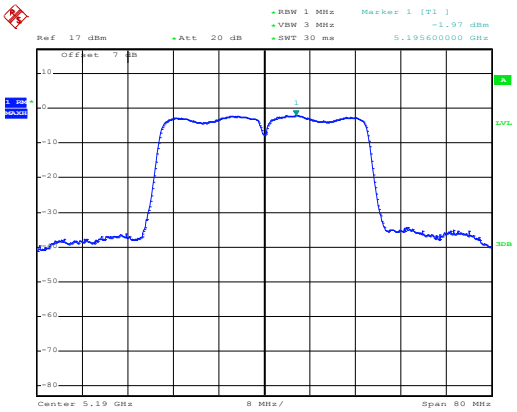
Date: 7.JUL.2017 14:10:26

Highest channel

Highest channel

802.11ac40

TX0



Date: 8.JUL.2017 09:44:40

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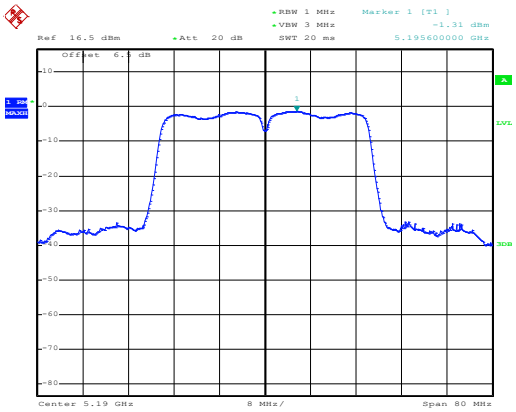
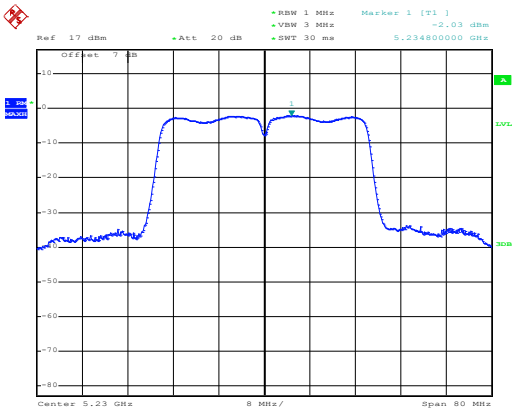


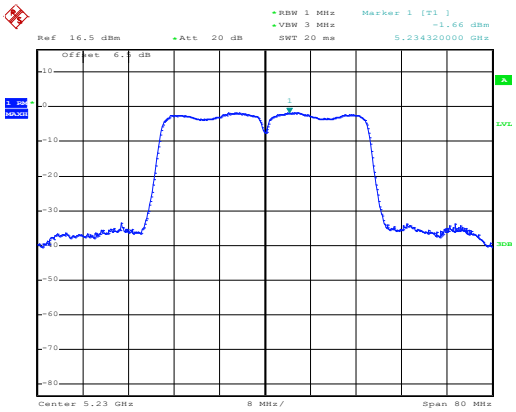
Date: 7.JUL.2017 14:11:38

Lowest channel



Date: 8.JUL.2017 09:45:10

Lowest channel



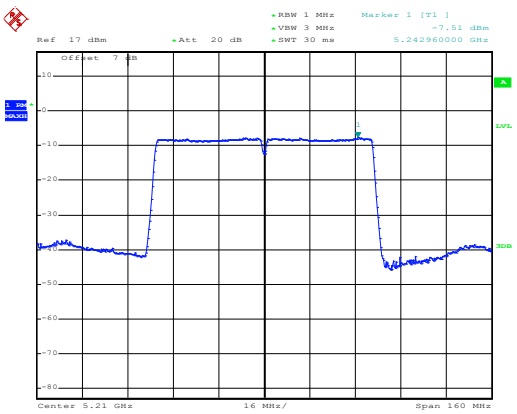
Date: 7.JUL.2017 14:12:11

Highest channel

Highest channel

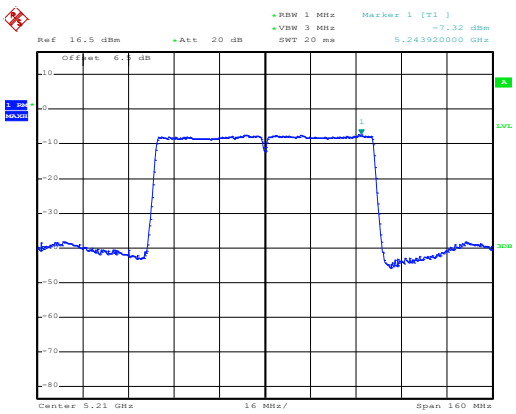
802.11ac80

TX0



Date: 8.JUL.2017 09:42:28

TX1



Date: 7.JUL.2017 14:07:44

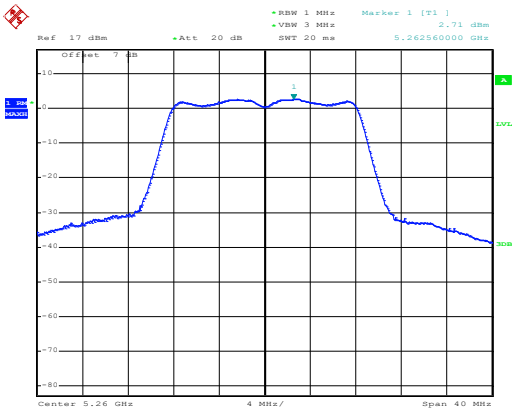
Middle channel

Middle channel

Band 2:

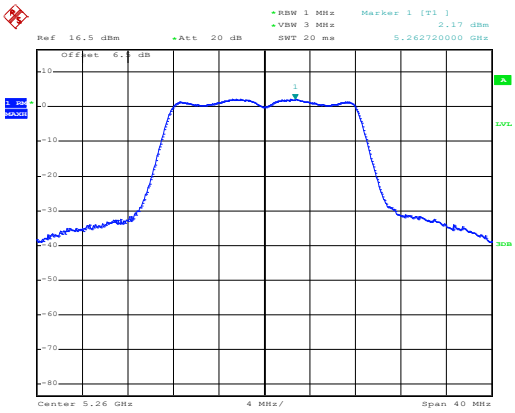
802.11a

TX0



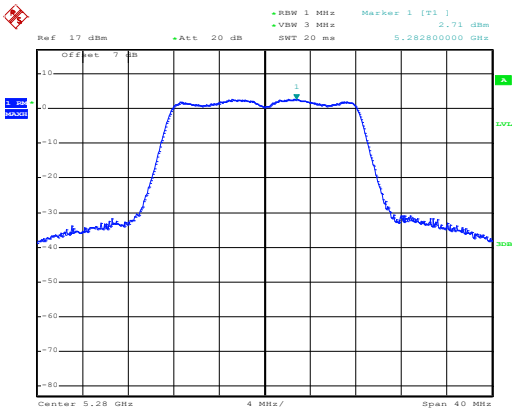
Date: 8.JUL.2017 10:31:07

TX1



Date: 7.JUL.2017 15:04:00

Lowest channel



Date: 8.JUL.2017 10:31:29

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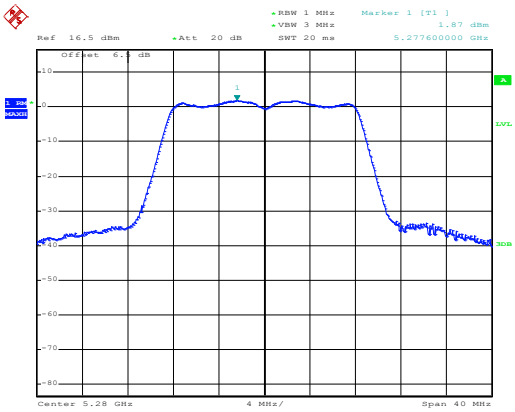

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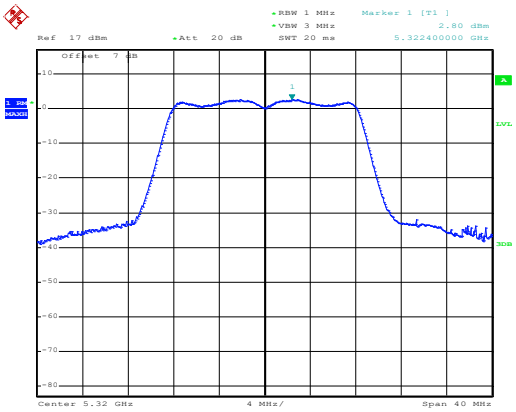
Middle channel



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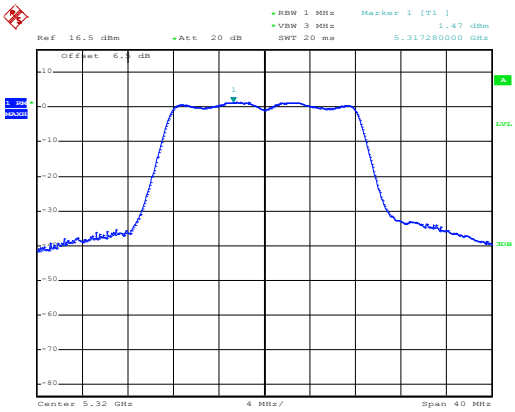
Middle channel



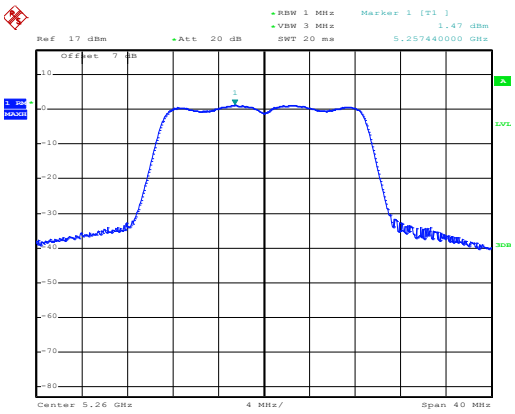
Date: 7.JUL.2017 15:05:13

Highest channel

Highest channel

802.11n20

TX0



Date: 8.JUL.2017 10:32:38

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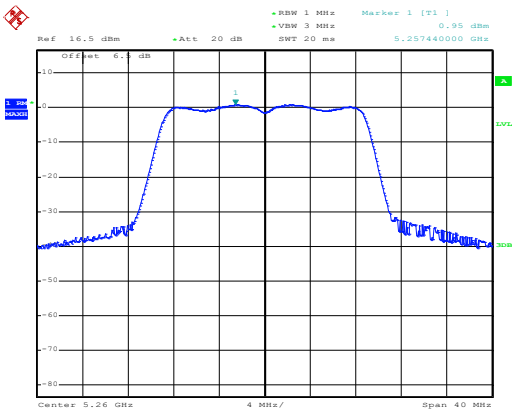

Date: 7.JUL.2017 15:05:52

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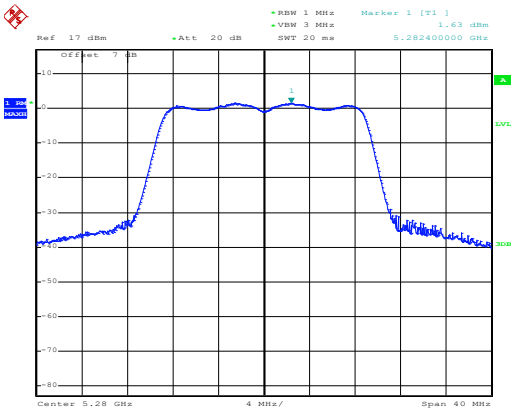

Date: 8.JUL.2017 10:33:02

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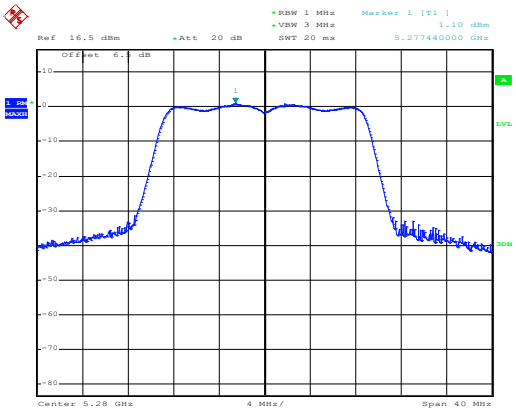
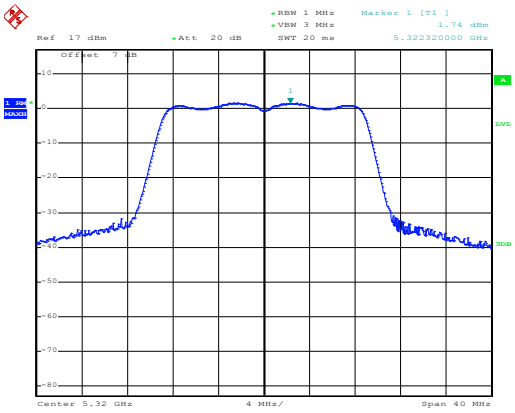


Date: 7.JUL.2017 15:06:17

Middle channel



Date: 8.JUL.2017 10:33:25

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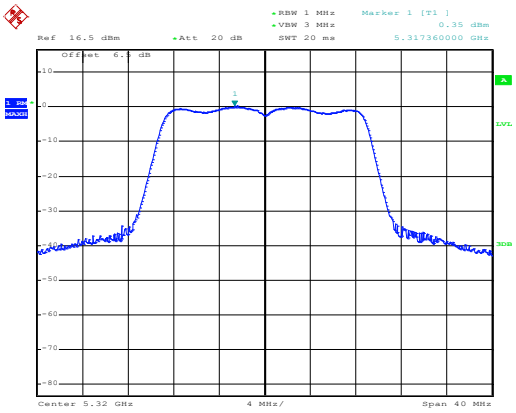


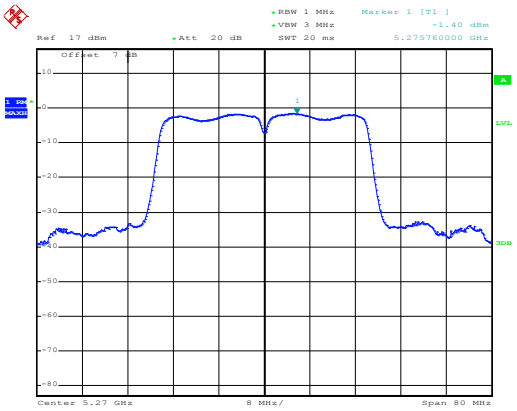
Date: 7.JUL.2017 15:06:46

Highest channel

Highest channel

802.11n40

TX0



Date: 8.JUL.2017 10:34:03

Lowest channel

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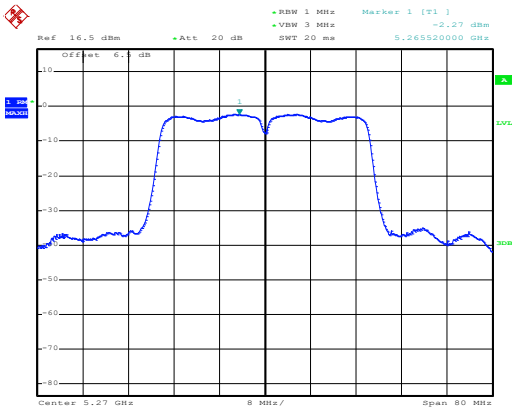
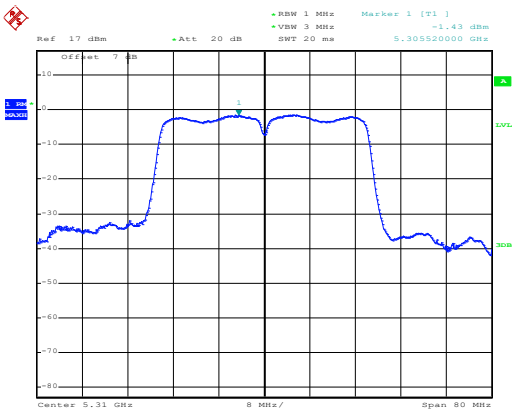


Date: 7.JUL.2017 15:08:15

Lowest channel



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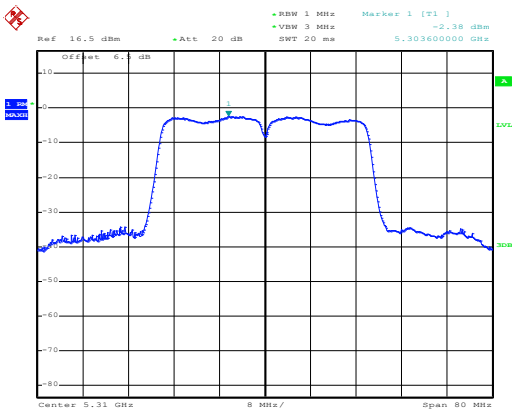
Highest channel

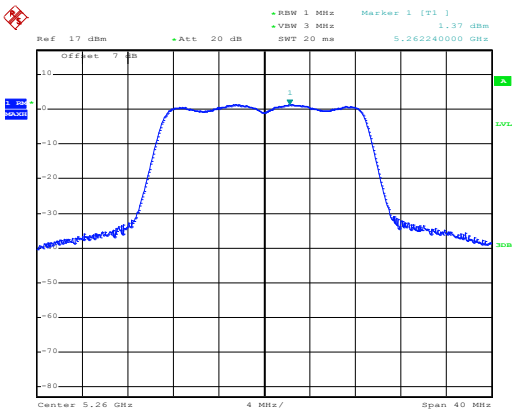


Date: 7.JUL.2017 15:09:14

Highest channel

802.11ac20

TX0



Date: 8.JUL.2017 10:37:17

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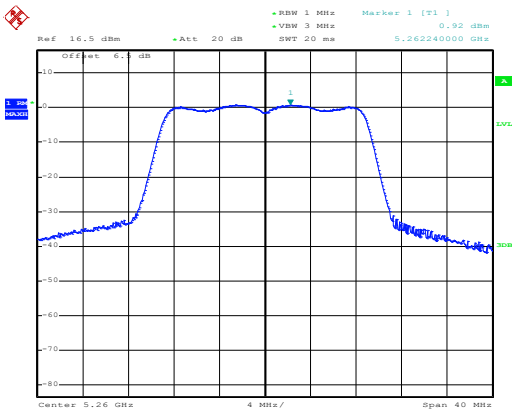

Date: 7.JUL.2017 15:11:23

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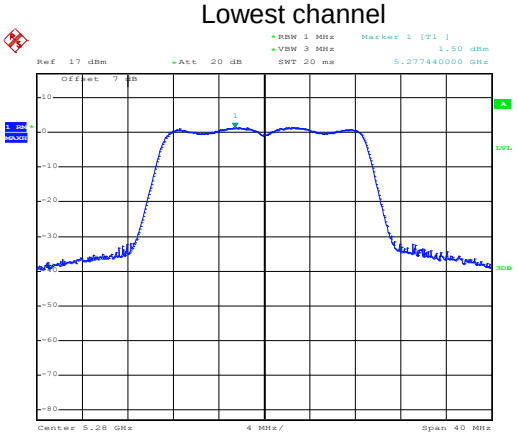

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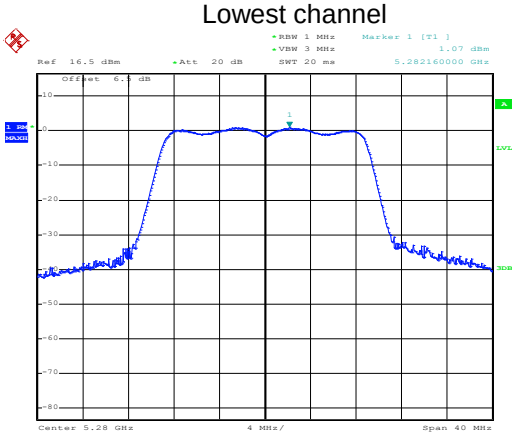

Date: 7.JUL.2017 15:11:50

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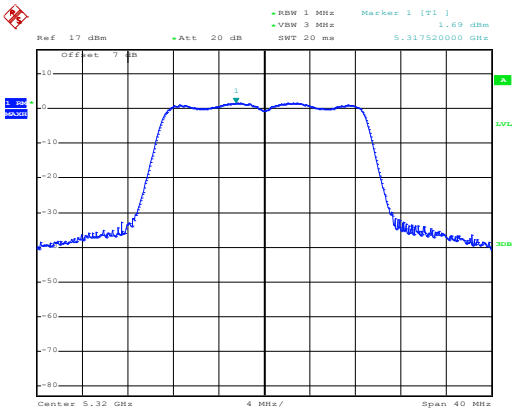

Date: 8.JUL.2017 10:37:58

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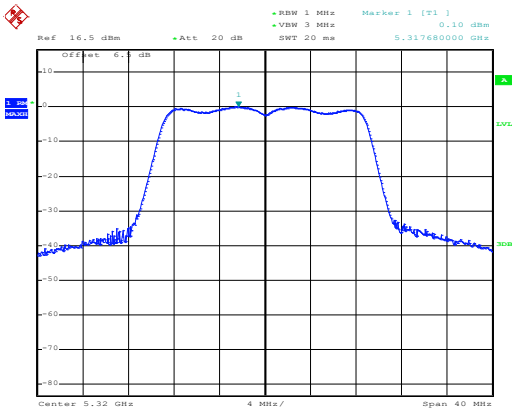


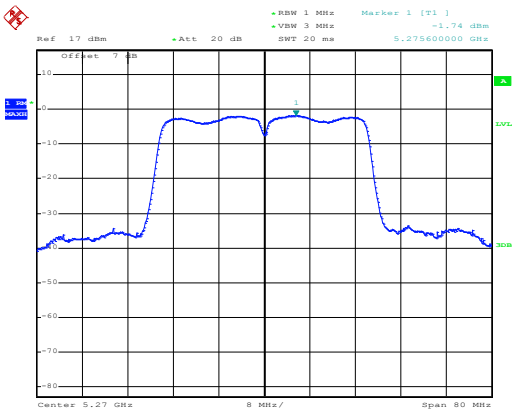
Date: 7.JUL.2017 15:12:15

Highest channel

Highest channel

802.11ac40

TX0



Date: 8.JUL.2017 10:38:36

Lowest channel

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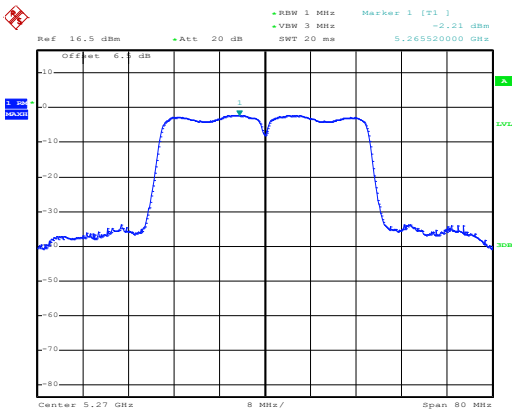

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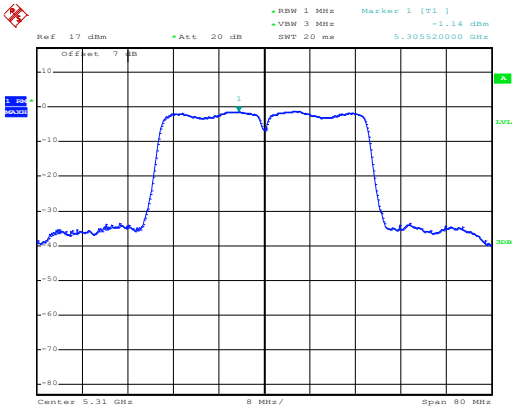
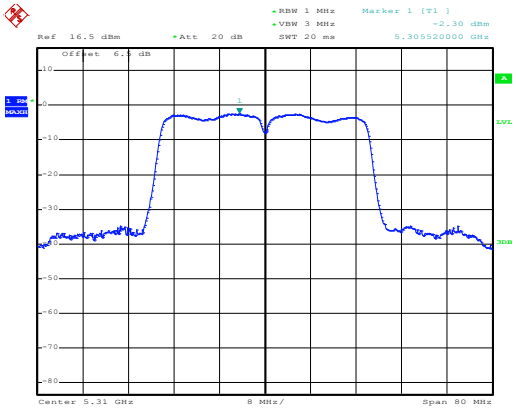


Date: 8.JUL.2017 10:39:04

Highest channel



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Highest channel

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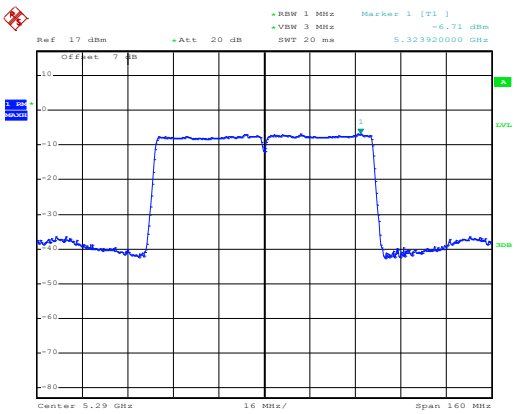

Date: 8.JUL.2017 10:36:43

Middle channel

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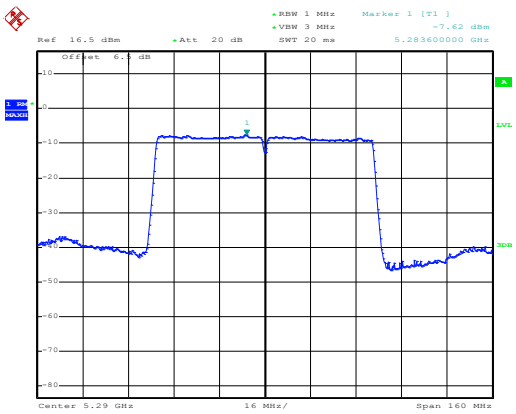


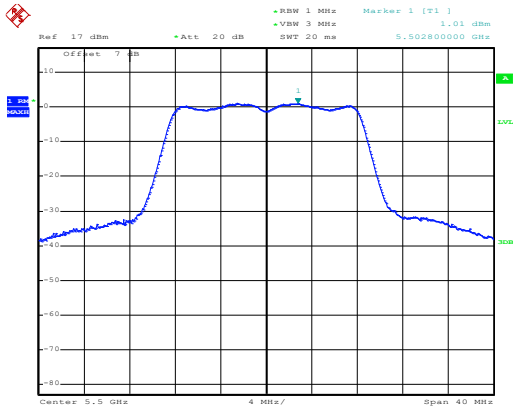
Date: 7.JUL.2017 15:10:35

Middle channel

Band 3:

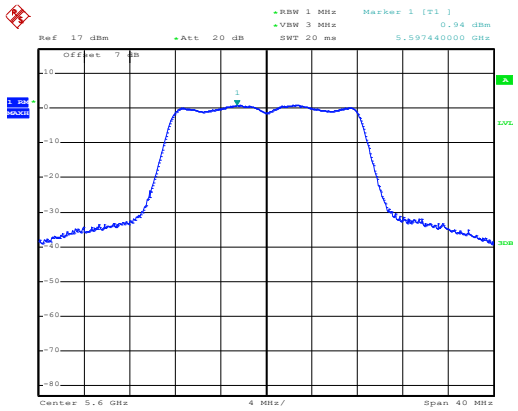
802.11a

TX0



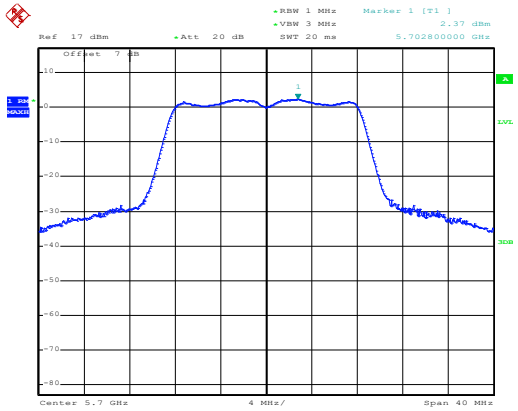
Date: 8.JUL.2017 11:34:55

Lowest channel



Date: 8.JUL.2017 11:35:11

Middle channel



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Highest channel

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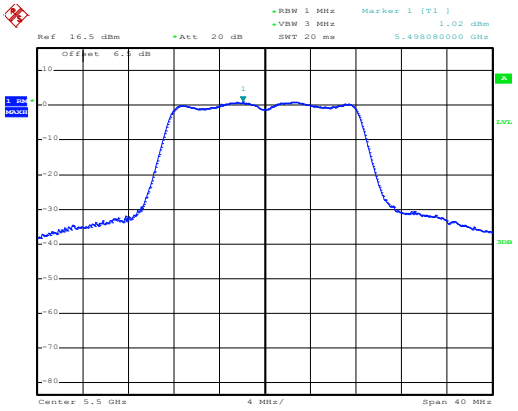
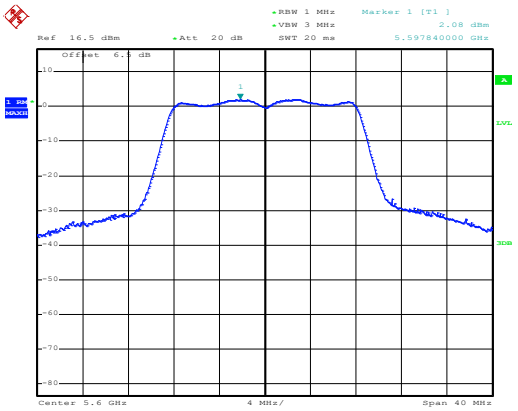


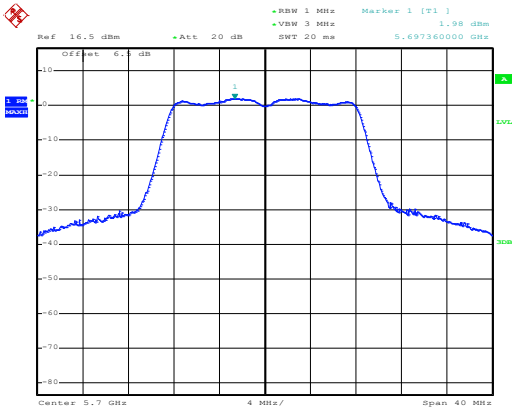
Date: 7.JUL.2017 16:01:23

Lowest channel



Date: 7.JUL.2017 16:01:44

Middle channel

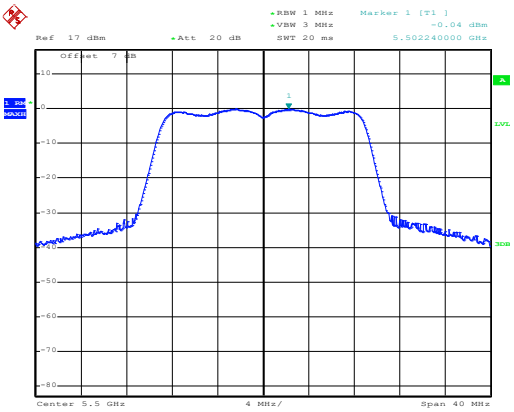


Date: 7.JUL.2017 16:02:05

Highest channel

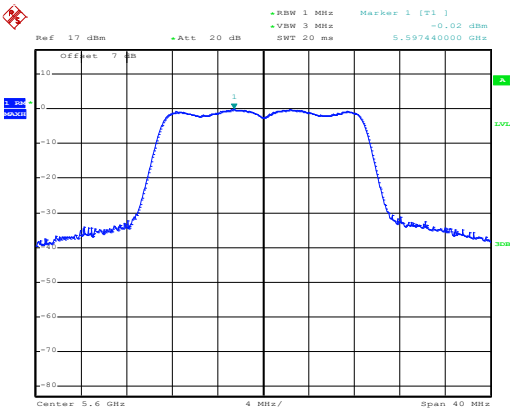
802.11n20

TX0



Date: 8.JUL.2017 11:36:25

Lowest channel



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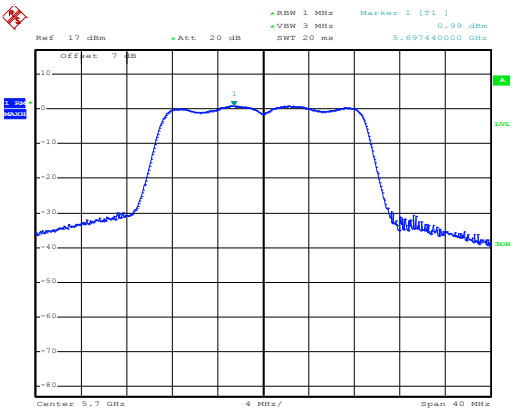

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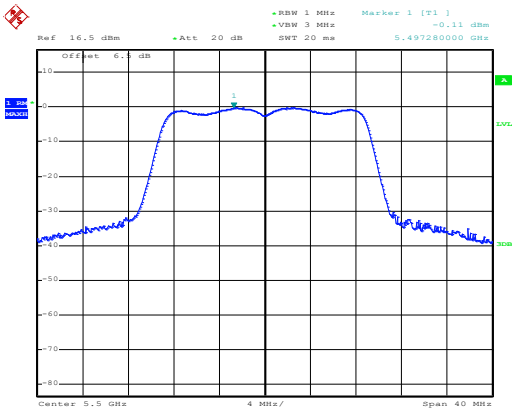
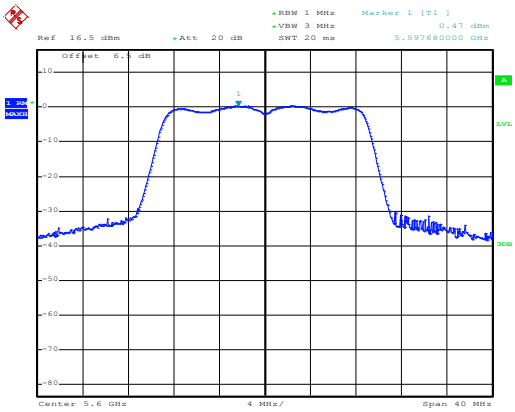
Highest channel

TX1



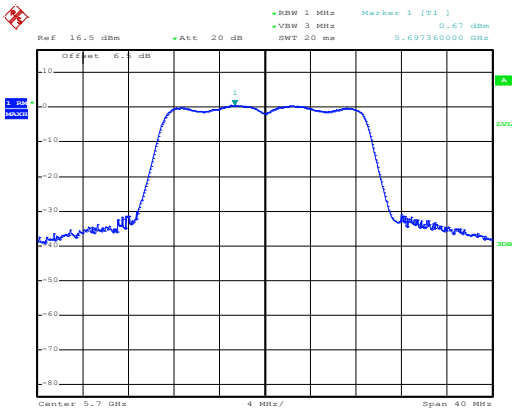
Date: 7.JUL.2017 16:02:41

Lowest channel



Date: 7.JUL.2017 16:03:01

Middle channel

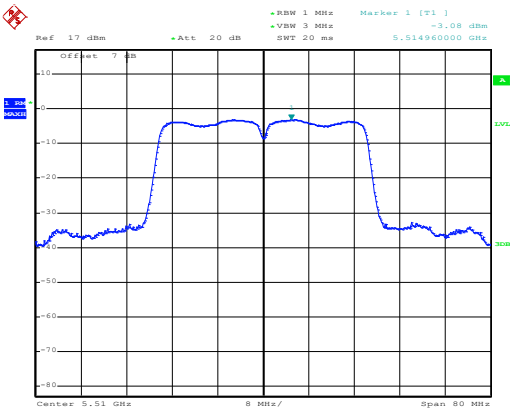


Date: 7.JUL.2017 16:03:22

Highest channel

802.11n40

TX0



Date: 8.JUL.2017 11:38:10

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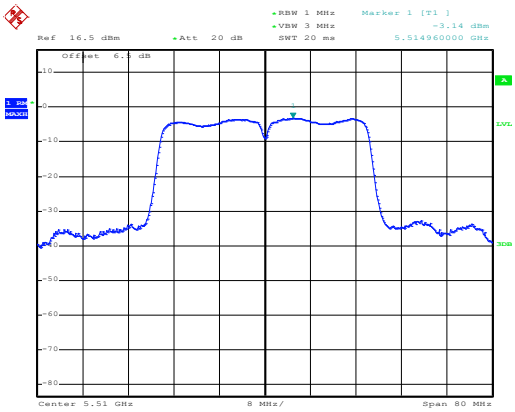
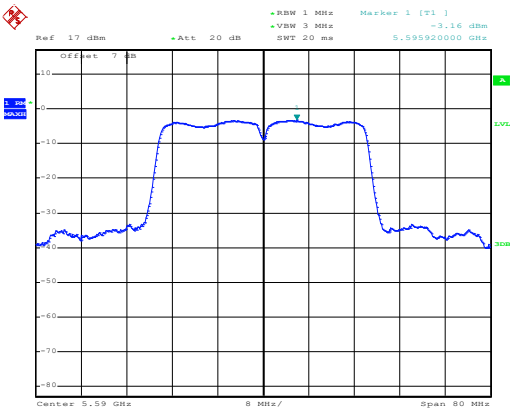


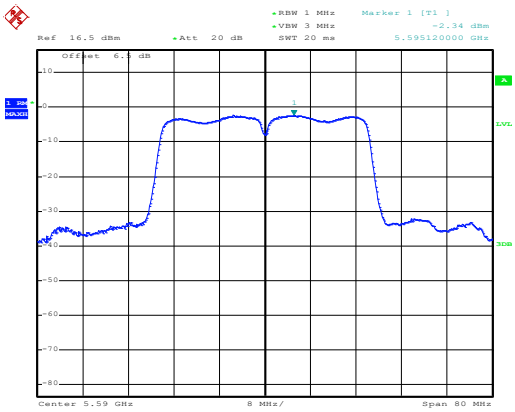
Date: 7.JUL.2017 16:04:01

Lowest channel



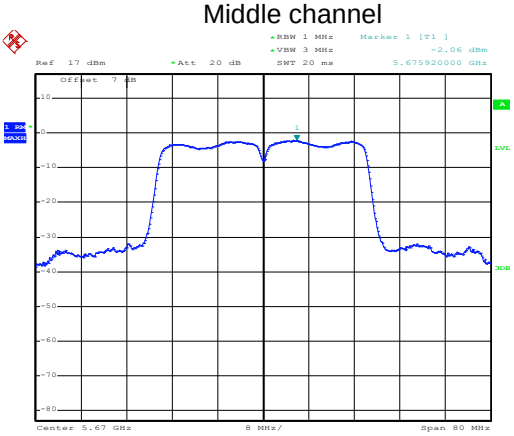
Date: 8.JUL.2017 11:38:45

Lowest channel



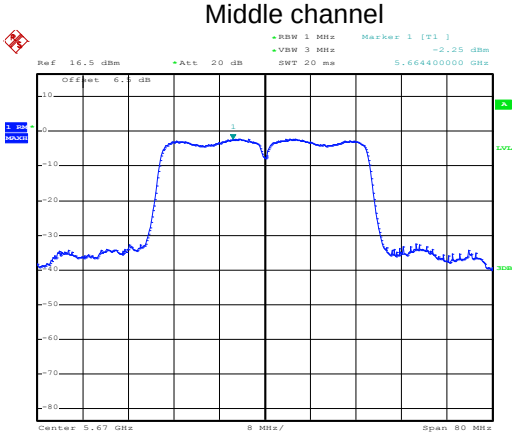
Date: 7.JUL.2017 16:04:22

Middle channel



Date: 8.JUL.2017 11:39:06

Middle channel



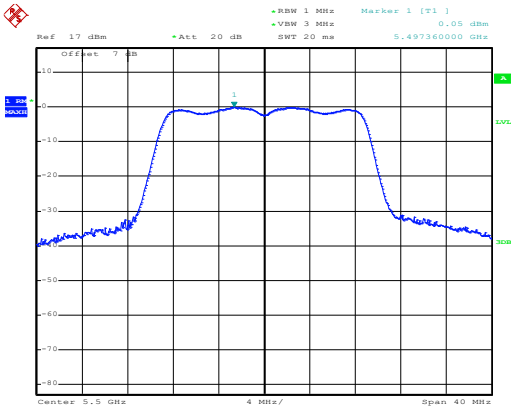
Date: 7.JUL.2017 16:04:49

Highest channel

Highest channel

802.11ac20

TX0



Date: 8.JUL.2017 11:41:01

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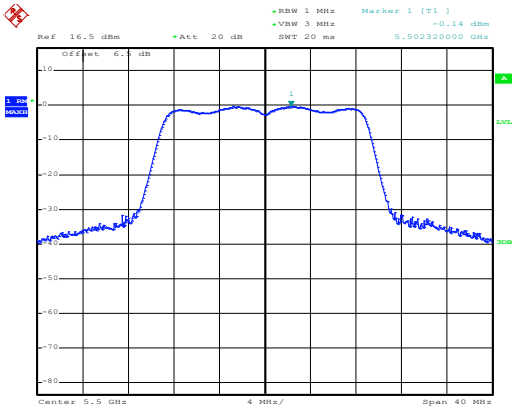
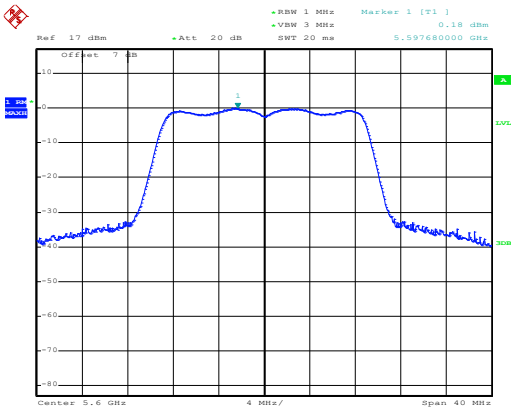


Date: 7.JUL.2017 16:06:57

Lowest channel



Date: 8.JUL.2017 11:41:21

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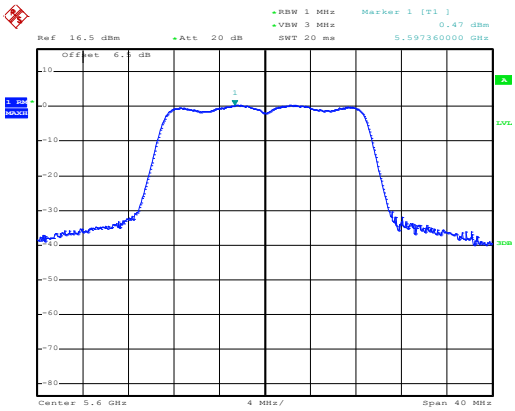
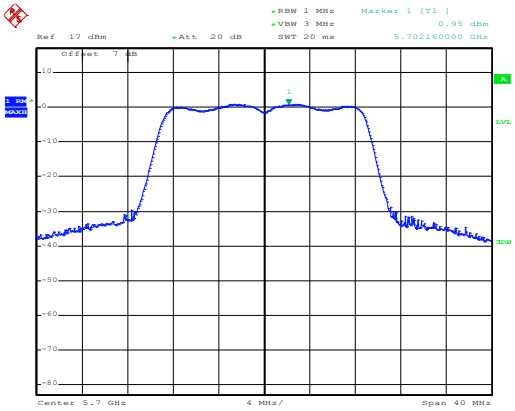


Date: 7.JUL.2017 16:07:28

Middle channel



Date: 8.JUL.2017 11:41:43

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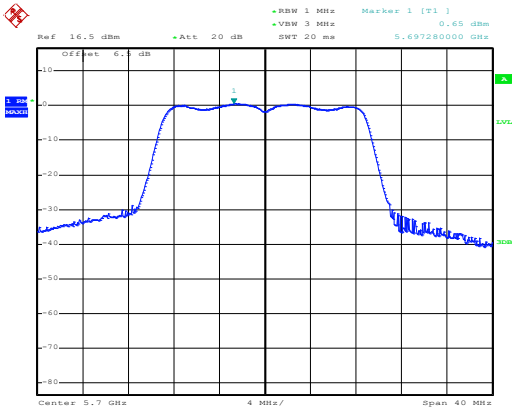


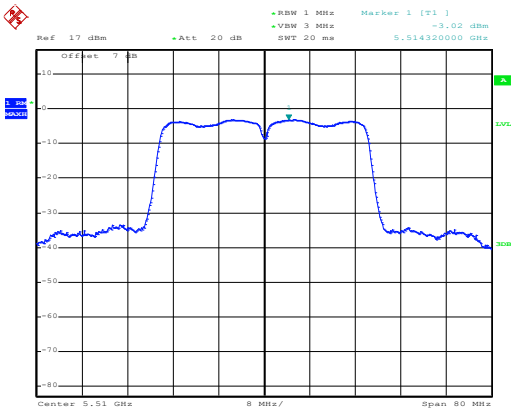
Date: 7.JUL.2017 16:07:57

Highest channel

Highest channel

802.11ac40

TX0



Date: 8.JUL.2017 11:42:21

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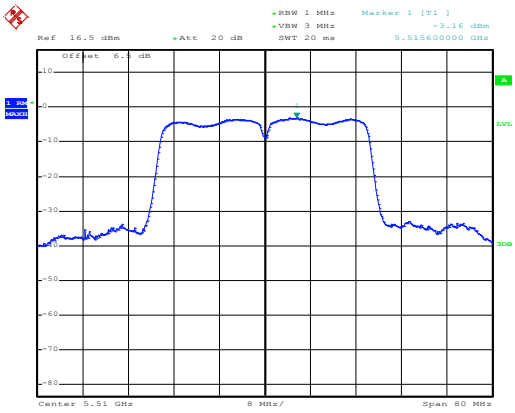
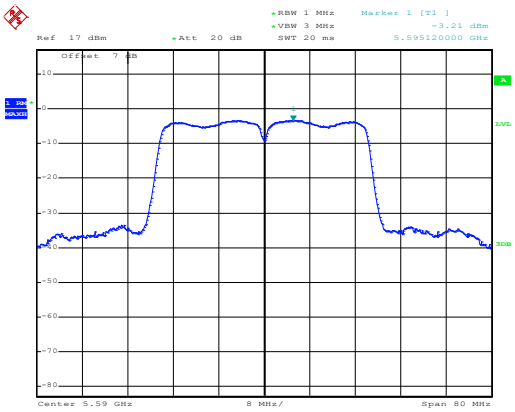


Date: 7.JUL.2017 16:08:32

Lowest channel



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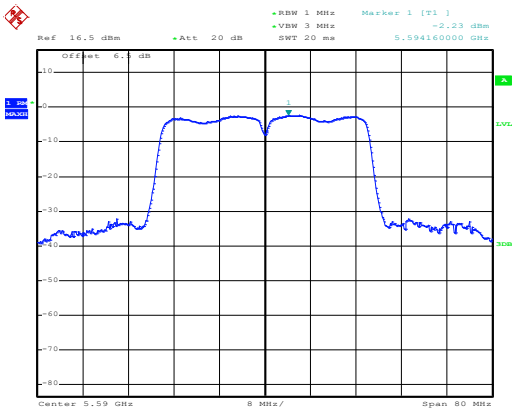
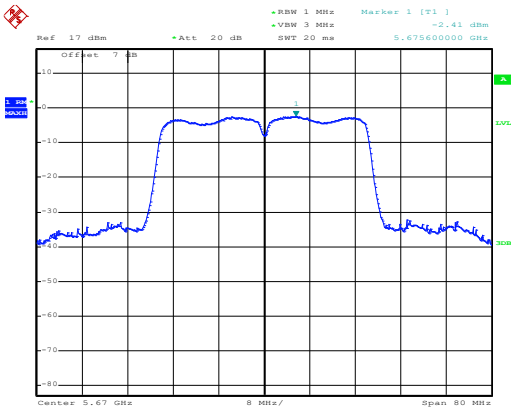


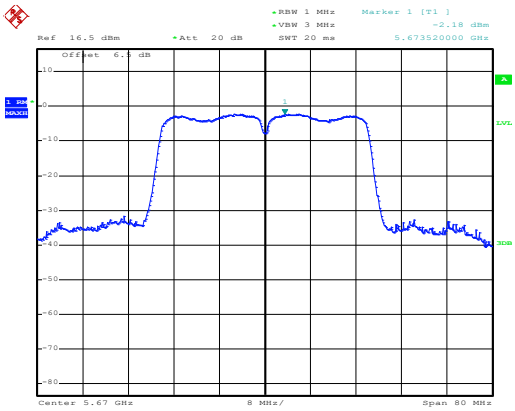
Date: 7.JUL.2017 16:08:53

Middle channel



Date: 8.JUL.2017 11:42:53

Middle channel



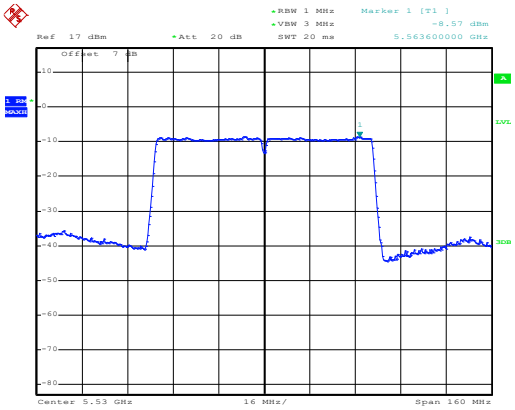
Date: 7.JUL.2017 16:09:15

Highest channel

Highest channel

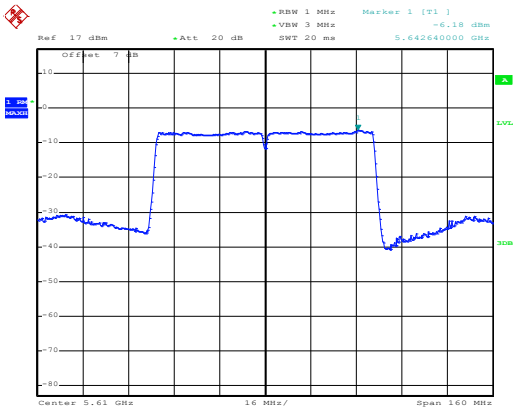
802.11ac80

TX0



Date: 8.JUL.2017 11:39:59

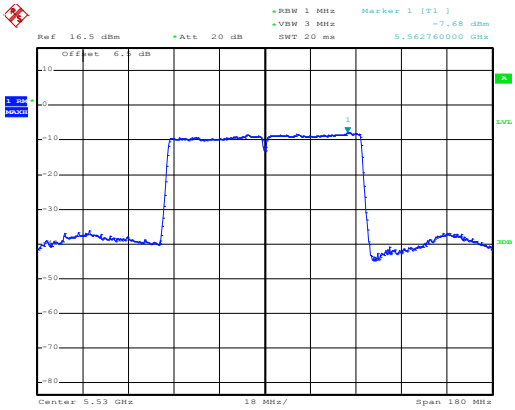
Lowest channel



Date: 8.JUL.2017 11:40:26

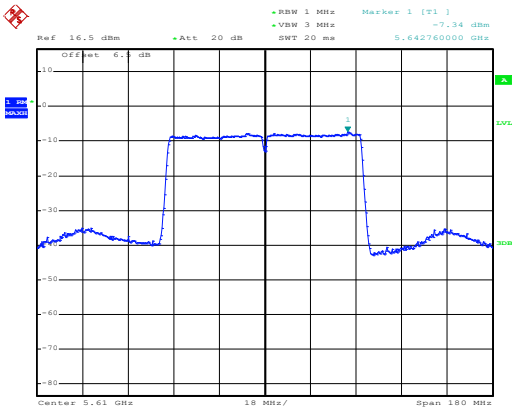
Highest channel

TX1



Date: 7.JUL.2017 16:05:49

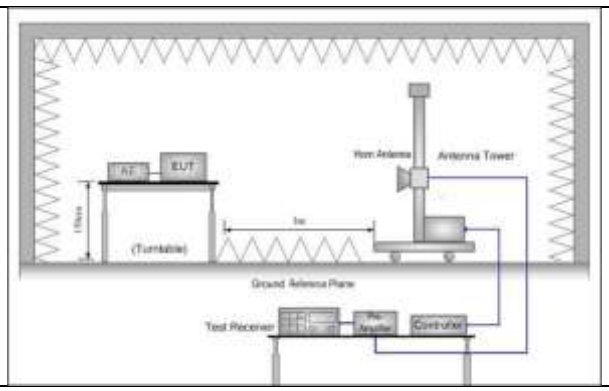
Lowest channel



Date: 7.JUL.2017 16:06:17

Highest channel

6.6 Band Edge

Test Requirement:	FCC Part15 E Section 15.407 (b)			
Test Method:	ANSI C63.10:2013, KDB 789033			
Receiver setup:	Detector	RBW	VBW	Remark
	Quasi-peak	120kHz	300kHz	Quasi-peak Value
	RMS	1MHz	3MHz	Average Value
Limit:	Band	Limit (dBuV/m @3m)		Remark
	Band 1/2/3	68.20		Peak Value
		54.00		Average Value
	Remark: E[dBμV/m] = EIRP[dBm] + 95.2=68.2 dBuV/m, for EIPR[dBm]=-27dBm.			
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.			
Test setup:				
Test Instruments:	Refer to section 5.8 for details			
Test mode:	Refer to section 5.3 for details			
Test results:	Passed			

TX0
Band 1:

802.11a								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	55.03	36.23	10.96	40.06	62.16	68.20	-6.04	Horizontal
5150.00	55.17	36.23	10.96	40.06	62.30	68.20	-5.90	Vertical
802.11a								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	32.06	36.23	10.96	40.06	39.19	54.00	-14.81	Horizontal
5150.00	31.47	36.23	10.96	40.06	38.60	54.00	-15.40	Vertical
802.11a								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	46.58	35.37	11.19	40.18	52.96	68.20	-15.24	Horizontal
5350.00	50.16	35.37	11.19	40.18	56.54	68.20	-11.66	Vertical
802.11a								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	37.15	35.37	11.19	40.18	43.53	54.00	-10.47	Horizontal
5350.00	38.38	35.37	11.19	40.18	44.76	54.00	-9.24	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT20								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	54.58	36.23	10.96	40.06	61.71	68.20	-6.49	Horizontal
5150.00	55.36	36.23	10.96	40.06	62.49	68.20	-5.71	Vertical
802.11n-HT20								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	32.71	36.23	10.96	40.06	39.84	54.00	-14.16	Horizontal
5150.00	31.54	36.23	10.96	40.06	38.67	54.00	-15.33	Vertical
802.11n-HT20								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	47.30	35.37	11.19	40.18	53.68	68.20	-14.52	Horizontal
5350.00	51.24	35.37	11.19	40.18	57.62	68.20	-10.58	Vertical
802.11n-HT20								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	36.69	35.37	11.19	40.18	43.07	54.00	-10.93	Horizontal
5350.00	37.77	35.37	11.19	40.18	44.15	54.00	-9.85	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT40								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	55.11	36.23	10.96	40.06	62.24	68.20	-5.96	Horizontal
5150.00	56.03	36.23	10.96	40.06	63.16	68.20	-5.04	Vertical
802.11n-HT40								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	32.14	36.23	10.96	40.06	39.27	54.00	-14.73	Horizontal
5150.00	32.82	36.23	10.96	40.06	39.95	54.00	-14.05	Vertical
802.11n-HT40								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	46.63	35.37	11.19	40.18	53.01	68.20	-15.19	Horizontal
5350.00	50.87	35.37	11.19	40.18	57.25	68.20	-10.95	Vertical
802.11n-HT40								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	35.58	35.37	11.19	40.18	41.96	54.00	-12.04	Horizontal
5350.00	36.42	35.37	11.19	40.18	42.80	54.00	-11.20	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11ac-HT80								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	55.46	36.23	10.96	40.06	62.59	68.20	-5.61	Horizontal
5150.00	55.82	36.23	10.96	40.06	62.95	68.20	-5.25	Vertical
802.11ac-HT80								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	31.36	36.23	10.96	40.06	38.49	54.00	-15.51	Horizontal
5150.00	32.42	36.23	10.96	40.06	39.55	54.00	-14.45	Vertical
802.11ac-HT80								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	46.36	35.37	11.19	40.18	52.74	68.20	-15.46	Horizontal
5350.00	50.89	35.37	11.19	40.18	57.27	68.20	-10.93	Vertical
802.11ac-HT80								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	34.58	35.37	11.19	40.18	40.96	54.00	-13.04	Horizontal
5350.00	35.76	35.37	11.19	40.18	42.14	54.00	-11.86	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Band 2:

802.11a								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5250.00	55.14	36.14	11.12	40.11	62.29	68.20	-5.91	Horizontal
5250.00	55.06	36.14	11.12	40.11	62.21	68.20	-5.99	Vertical
802.11a								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5250.00	32.17	36.14	11.12	40.11	39.32	54.00	-14.68	Horizontal
5250.00	31.54	36.14	11.12	40.11	38.69	54.00	-15.31	Vertical
802.11a								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	48.26	35.37	11.19	40.18	54.64	68.20	-13.56	Horizontal
5350.00	51.17	35.37	11.19	40.18	57.55	68.20	-10.65	Vertical
802.11a								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	37.26	35.37	11.19	40.18	43.64	54.00	-10.36	Horizontal
5350.00	38.69	35.37	11.19	40.18	45.07	54.00	-8.93	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT20								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5250.00	55.03	36.14	11.12	40.11	62.18	68.20	-6.02	Horizontal
5250.00	54.87	36.14	11.12	40.11	62.02	68.20	-6.18	Vertical
802.11n-HT20								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5250.00	33.03	36.14	11.12	40.11	40.18	54.00	-13.82	Horizontal
5250.00	31.28	36.14	11.12	40.11	38.43	54.00	-15.57	Vertical
802.11n-HT20								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	48.11	35.37	11.19	40.18	54.49	68.20	-13.71	Horizontal
5350.00	50.09	35.37	11.19	40.18	56.47	68.20	-11.73	Vertical
802.11n-HT20								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	36.76	35.37	11.19	40.18	43.14	54.00	-10.86	Horizontal
5350.00	37.64	35.37	11.19	40.18	44.02	54.00	-9.98	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT40								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5250.00	55.11	36.14	11.12	40.11	62.26	68.20	-5.94	Horizontal
5250.00	55.69	36.14	11.12	40.11	62.84	68.20	-5.36	Vertical
802.11n-HT40								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5250.00	33.14	36.14	11.12	40.11	40.29	54.00	-13.71	Horizontal
5250.00	32.69	36.14	11.12	40.11	39.84	54.00	-14.16	Vertical
802.11n-HT40								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	48.63	35.37	11.19	40.18	55.01	68.20	-13.19	Horizontal
5350.00	49.78	35.37	11.19	40.18	56.16	68.20	-12.04	Vertical
802.11n-HT40								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	36.36	35.37	11.19	40.18	42.74	54.00	-11.26	Horizontal
5350.00	37.14	35.37	11.19	40.18	43.52	54.00	-10.48	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11ac-HT80								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5250.00	55.03	36.14	11.12	40.11	62.18	68.20	-6.02	Horizontal
5250.00	55.42	36.14	11.12	40.11	62.57	68.20	-5.63	Vertical
802.11ac-HT80								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5250.00	31.39	36.14	11.12	40.11	38.54	54.00	-15.46	Horizontal
5250.00	32.71	36.14	11.12	40.11	39.86	54.00	-14.14	Vertical
802.11ac-HT80								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	48.51	35.37	11.19	40.18	54.89	68.20	-13.31	Horizontal
5350.00	49.23	35.37	11.19	40.18	55.61	68.20	-12.59	Vertical
802.11ac-HT80								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	37.13	35.37	11.19	40.18	43.51	54.00	-10.50	Horizontal
5350.00	36.64	35.37	11.19	40.18	43.02	54.00	-10.98	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Band 3:

802.11a								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5470.00	45.81	34.58	11.58	40.41	51.56	78.20	-26.64	Horizontal
5470.00	46.23	34.58	11.58	40.41	51.98	78.20	-26.22	Vertical
802.11a								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5470.00	34.17	34.58	11.58	40.41	39.92	54.00	-14.08	Horizontal
5470.00	37.05	34.58	11.58	40.41	42.80	54.00	-11.20	Vertical
802.11a								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	45.15	34.61	11.68	40.63	50.81	78.20	-27.39	Horizontal
5725.00	45.03	34.61	11.68	40.63	50.69	78.20	-27.51	Vertical
802.11a								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	34.17	34.61	11.68	40.63	39.83	54.00	-14.17	Horizontal
5725.00	33.06	34.61	11.68	40.63	38.72	54.00	-15.28	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT20								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5470.00	45.62	34.58	11.58	40.41	51.37	78.20	-26.83	Horizontal
5470.00	46.15	34.58	11.58	40.41	51.90	78.20	-26.30	Vertical
802.11n-HT20								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5470.00	34.69	34.58	11.58	40.41	40.44	54.00	-13.56	Horizontal
5470.00	36.22	34.58	11.58	40.41	41.97	54.00	-12.03	Vertical
802.11n-HT20								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	45.28	34.61	11.68	40.63	50.94	78.20	-27.26	Horizontal
5725.00	45.01	34.61	11.68	40.63	50.67	78.20	-27.53	Vertical
802.11n-HT20								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	34.18	34.61	11.68	40.63	39.84	54.00	-14.16	Horizontal
5725.00	33.02	34.61	11.68	40.63	38.68	54.00	-15.32	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT40								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5470.00	45.51	34.58	11.58	40.41	51.26	78.20	-26.94	Horizontal
5470.00	46.27	34.58	11.58	40.41	52.02	78.20	-26.18	Vertical
802.11n-HT40								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5470.00	36.01	34.58	11.58	40.41	41.76	54.00	-12.24	Horizontal
5470.00	35.12	34.58	11.58	40.41	40.87	54.00	-13.13	Vertical
802.11n-HT40								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	46.18	34.61	11.68	40.63	51.84	78.20	-26.36	Horizontal
5725.00	45.07	34.61	11.68	40.63	50.73	78.20	-27.47	Vertical
802.11n-HT40								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	36.68	34.61	11.68	40.63	42.34	54.00	-11.66	Horizontal
5725.00	36.11	34.61	11.68	40.63	41.77	54.00	-12.23	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11ac-HT80								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5470.00	45.27	34.58	11.58	40.41	51.02	78.20	-27.18	Horizontal
5470.00	44.16	34.58	11.58	40.41	49.91	78.20	-28.29	Vertical
802.11ac-HT80								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5470.00	34.25	34.58	11.58	40.41	40.00	54.00	-14.00	Horizontal
5470.00	33.81	34.58	11.58	40.41	39.56	54.00	-14.44	Vertical
802.11ac-HT80								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	45.71	34.61	11.68	40.63	51.37	78.20	-26.83	Horizontal
5725.00	46.02	34.61	11.68	40.63	51.68	78.20	-26.52	Vertical
802.11ac-HT80								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	32.12	34.61	11.68	40.63	37.78	54.00	-16.22	Horizontal
5725.00	33.09	34.61	11.68	40.63	38.75	54.00	-15.25	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

TX1
Band 1:

802.11a								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	54.26	36.23	10.96	40.06	61.39	68.20	-6.81	Horizontal
5150.00	55.75	36.23	10.96	40.06	62.88	68.20	-5.32	Vertical
802.11a								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	40.23	36.23	10.96	40.06	47.36	54.00	-6.64	Horizontal
5150.00	39.34	36.23	10.96	40.06	46.47	54.00	-7.53	Vertical
802.11a								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	45.26	35.37	11.19	40.18	51.64	68.20	-16.56	Horizontal
5350.00	50.23	35.37	11.19	40.18	56.61	68.20	-11.59	Vertical
802.11a								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	36.45	35.37	11.19	40.18	42.83	54.00	-11.17	Horizontal
5350.00	38.38	35.37	11.19	40.18	44.76	54.00	-9.24	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT20								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	53.26	36.23	10.96	40.06	60.39	68.20	-7.81	Horizontal
5150.00	55.47	36.23	10.96	40.06	62.60	68.20	-5.60	Vertical
802.11n-HT20								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	43.56	36.23	10.96	40.06	50.69	54.00	-3.31	Horizontal
5150.00	40.78	36.23	10.96	40.06	47.91	54.00	-6.09	Vertical
802.11n-HT20								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	46.25	35.37	11.19	40.18	52.63	68.20	-15.57	Horizontal
5350.00	52.49	35.37	11.19	40.18	58.87	68.20	-9.33	Vertical
802.11n-HT20								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	36.44	35.37	11.19	40.18	42.82	54.00	-11.18	Horizontal
5350.00	41.73	35.37	11.19	40.18	48.11	54.00	-5.89	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT40								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	55.49	36.23	10.96	40.06	62.62	68.20	-5.58	Horizontal
5150.00	54.76	36.23	10.96	40.06	61.89	68.20	-6.31	Vertical
802.11n-HT40								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	40.26	36.23	10.96	40.06	47.39	54.00	-6.61	Horizontal
5150.00	39.67	36.23	10.96	40.06	46.80	54.00	-7.20	Vertical
802.11n-HT40								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	55.26	35.37	11.19	40.18	61.64	68.20	-6.56	Horizontal
5350.00	50.13	35.37	11.19	40.18	56.51	68.20	-11.69	Vertical
802.11n-HT40								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	40.26	35.37	11.19	40.18	46.64	54.00	-7.36	Horizontal
5350.00	39.66	35.37	11.19	40.18	46.04	54.00	-7.96	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11ac-HT80								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	55.78	36.23	10.96	40.06	62.91	68.20	-5.29	Horizontal
5150.00	54.16	36.23	10.96	40.06	61.29	68.20	-6.91	Vertical
802.11ac-HT80								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5150.00	40.29	36.23	10.96	40.06	47.42	54.00	-6.58	Horizontal
5150.00	39.41	36.23	10.96	40.06	46.54	54.00	-7.46	Vertical
802.11ac-HT80								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	45.91	35.37	11.19	40.18	52.29	68.20	-15.91	Horizontal
5350.00	50.44	35.37	11.19	40.18	56.82	68.20	-11.38	Vertical
802.11ac-HT80								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	39.64	35.37	11.19	40.18	46.02	54.00	-7.98	Horizontal
5350.00	40.19	35.37	11.19	40.18	46.57	54.00	-7.43	Vertical

Remark:
1.Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.
2.The emission levels of other frequencies are very lower than the limit and not show in test report.

Band 2:

802.11a								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5250.00	53.62	36.14	11.12	40.11	60.77	68.20	-7.43	Horizontal
5250.00	54.19	36.14	11.12	40.11	61.34	68.20	-6.86	Vertical
802.11a								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5250.00	39.43	36.14	11.12	40.11	46.58	54.00	-7.42	Horizontal
5250.00	40.75	36.14	11.12	40.11	47.90	54.00	-6.10	Vertical
802.11a								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	50.16	35.37	11.19	40.18	56.54	68.20	-11.66	Horizontal
5350.00	52.79	35.37	11.19	40.18	59.17	68.20	-9.03	Vertical
802.11a								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	40.23	35.37	11.19	40.18	46.61	54.00	-7.39	Horizontal
5350.00	39.62	35.37	11.19	40.18	46.00	54.00	-8.00	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT20								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5250.00	53.26	36.14	11.12	40.11	60.41	68.20	-7.79	Horizontal
5250.00	52.76	36.14	11.12	40.11	59.91	68.20	-8.29	Vertical
802.11n-HT20								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5250.00	38.32	36.14	11.12	40.11	45.47	54.00	-8.53	Horizontal
5250.00	37.46	36.14	11.12	40.11	44.61	54.00	-9.39	Vertical
802.11n-HT20								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	49.85	35.37	11.19	40.18	56.23	68.20	-11.97	Horizontal
5350.00	49.11	35.37	11.19	40.18	55.49	68.20	-12.71	Vertical
802.11n-HT20								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	38.72	35.37	11.19	40.18	45.10	54.00	-8.90	Horizontal
5350.00	39.45	35.37	11.19	40.18	45.83	54.00	-8.17	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT40								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5250.00	54.25	36.14	11.12	40.11	61.40	68.20	-6.80	Horizontal
5250.00	53.76	36.14	11.12	40.11	60.91	68.20	-7.29	Vertical
802.11n-HT40								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5250.00	40.10	36.14	11.12	40.11	47.25	54.00	-6.75	Horizontal
5250.00	39.64	36.14	11.12	40.11	46.79	54.00	-7.21	Vertical
802.11n-HT40								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	49.26	35.37	11.19	40.18	55.64	68.20	-12.56	Horizontal
5350.00	48.72	35.37	11.19	40.18	55.10	68.20	-13.10	Vertical
802.11n-HT40								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	39.65	35.37	11.19	40.18	46.03	54.00	-7.97	Horizontal
5350.00	38.16	35.37	11.19	40.18	44.54	54.00	-9.46	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11ac-HT80								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5250.00	52.64	36.14	11.12	40.11	59.79	68.20	-8.41	Horizontal
5250.00	53.72	36.14	11.12	40.11	60.87	68.20	-7.33	Vertical
802.11ac-HT80								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5250.00	38.46	36.14	11.12	40.11	45.61	54.00	-8.39	Horizontal
5250.00	39.23	36.14	11.12	40.11	46.38	54.00	-7.62	Vertical
802.11ac-HT80								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	48.12	35.37	11.19	40.18	54.50	68.20	-13.70	Horizontal
5350.00	49.16	35.37	11.19	40.18	55.54	68.20	-12.66	Vertical
802.11ac-HT80								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	39.75	35.37	11.19	40.18	46.13	54.00	-7.87	Horizontal
5350.00	38.56	35.37	11.19	40.18	44.94	54.00	-9.06	Vertical

Remark:
1.Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.
2.The emission levels of other frequencies are very lower than the limit and not show in test report.

Band 3:

802.11a								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5470.00	45.26	34.58	11.58	40.41	51.01	78.20	-27.19	Horizontal
5470.00	46.32	34.58	11.58	40.41	52.07	78.20	-26.13	Vertical
802.11a								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5470.00	36.25	34.58	11.58	40.41	42.00	54.00	-12.00	Horizontal
5470.00	35.79	34.58	11.58	40.41	41.54	54.00	-12.46	Vertical
802.11a								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	45.25	34.61	11.68	40.63	50.91	78.20	-27.29	Horizontal
5725.00	46.70	34.61	11.68	40.63	52.36	78.20	-25.84	Vertical
802.11a								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	36.25	34.61	11.68	40.63	41.91	54.00	-12.09	Horizontal
5725.00	35.79	34.61	11.68	40.63	41.45	54.00	-12.55	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT20								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5470.00	46.58	34.58	11.58	40.41	52.33	78.20	-25.87	Horizontal
5470.00	48.72	34.58	11.58	40.41	54.47	78.20	-23.73	Vertical
802.11n-HT20								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5470.00	37.46	34.58	11.58	40.41	43.21	54.00	-10.79	Horizontal
5470.00	38.15	34.58	11.58	40.41	43.90	54.00	-10.10	Vertical
802.11n-HT20								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	46.25	34.61	11.68	40.63	51.91	78.20	-26.29	Horizontal
5725.00	48.76	34.61	11.68	40.63	54.42	78.20	-23.78	Vertical
802.11n-HT20								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	36.25	34.61	11.68	40.63	41.91	54.00	-12.09	Horizontal
5725.00	35.17	34.61	11.68	40.63	40.83	54.00	-13.17	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT40								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5470.00	46.26	34.58	11.58	40.41	52.01	78.20	-26.19	Horizontal
5470.00	45.78	34.58	11.58	40.41	51.53	78.20	-26.67	Vertical
802.11n-HT40								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5470.00	36.23	34.58	11.58	40.41	41.98	54.00	-12.02	Horizontal
5470.00	35.19	34.58	11.58	40.41	40.94	54.00	-13.06	Vertical
802.11n-HT40								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	45.90	34.61	11.68	40.63	51.56	78.20	-26.64	Horizontal
5725.00	46.29	34.61	11.68	40.63	51.95	78.20	-26.25	Vertical
802.11n-HT40								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	36.25	34.61	11.68	40.63	41.91	54.00	-12.09	Horizontal
5725.00	36.13	34.61	11.68	40.63	41.79	54.00	-12.21	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

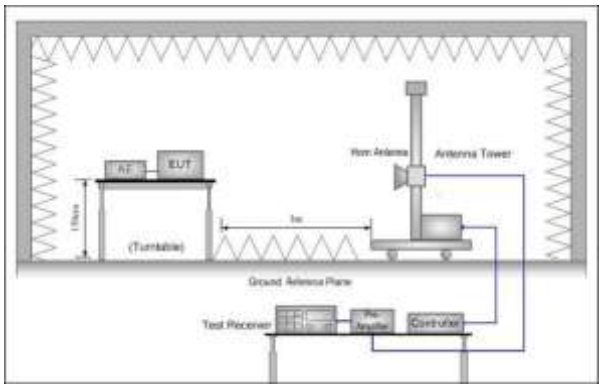
802.11ac-HT80								
Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5470.00	46.98	34.58	11.58	40.41	52.73	78.20	-25.47	Horizontal
5470.00	45.25	34.58	11.58	40.41	51.00	78.20	-27.20	Vertical
802.11ac-HT80								
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5470.00	35.76	34.58	11.58	40.41	41.51	54.00	-12.49	Horizontal
5470.00	36.26	34.58	11.58	40.41	42.01	54.00	-11.99	Vertical
802.11ac-HT80								
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	46.59	34.61	11.68	40.63	52.25	78.20	-25.95	Horizontal
5725.00	45.18	34.61	11.68	40.63	50.84	78.20	-27.36	Vertical
802.11ac-HT80								
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.00	36.25	34.61	11.68	40.63	41.91	54.00	-12.09	Horizontal
5725.00	35.76	34.61	11.68	40.63	41.42	54.00	-12.58	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

6.7 Spurious Emission

6.7.1 Restricted Band

Test Requirement:	FCC Part15 E Section 15.407(b)				
Test Method:	ANSI C63.10: 2013				
Test Frequency Range:	4.5 GHz to 5.15 GHz and 5.35GHz to 5.46GHz				
Test site:	Measurement Distance: 3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		RMS	1MHz	3MHz	Average Value
Limit:	Frequency	Limit (dBuV/m @3m)		Remark	
	Above 1GHz	74.00		Peak Value	
		54.00		Average Value	
Test Procedure:	1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.				
Test setup:					
Test Instruments:	Refer to section 5.8 for details				
Test mode:	Refer to section 5.3 for details				
Test results:	Passed				

TX0

Band 1:

802.11a

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	43.25	34.50	10.22	40.67	47.30	74.00	-26.70	Horizontal
4500.00	42.27	34.50	10.22	40.67	46.32	74.00	-27.68	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	32.69	34.50	10.22	40.67	36.74	54.00	-17.26	Horizontal
4500.00	32.01	34.50	10.22	40.67	36.06	54.00	-17.94	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.12	34.90	11.32	40.23	48.11	74.00	-25.89	Horizontal
5460.00	41.78	34.90	11.32	40.23	47.77	74.00	-26.23	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	32.23	34.90	11.32	40.23	38.22	54.00	-15.78	Horizontal
5460.00	32.51	34.90	11.32	40.23	38.50	54.00	-15.50	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT20

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	42.27	34.50	10.22	40.67	46.32	74.00	-27.68	Horizontal
4500.00	42.12	34.50	10.22	40.67	46.17	74.00	-27.83	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	31.03	34.50	10.22	40.67	35.08	54.00	-18.92	Horizontal
4500.00	32.59	34.50	10.22	40.67	36.64	54.00	-17.36	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	41.75	34.90	11.32	40.23	47.74	74.00	-26.26	Horizontal
5460.00	42.36	34.90	11.32	40.23	48.35	74.00	-25.65	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	32.23	34.90	11.32	40.23	38.22	54.00	-15.78	Horizontal
5460.00	32.58	34.90	11.32	40.23	38.57	54.00	-15.43	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT40

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	42.25	34.50	10.22	40.67	46.30	74.00	-27.70	Horizontal
4500.00	41.63	34.50	10.22	40.67	45.68	74.00	-28.32	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	32.62	34.50	10.22	40.67	36.67	54.00	-17.33	Horizontal
4500.00	31.54	34.50	10.22	40.67	35.59	54.00	-18.41	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	41.89	34.90	11.32	40.23	47.88	74.00	-26.12	Horizontal
5460.00	42.25	34.90	11.32	40.23	48.24	74.00	-25.76	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	31.25	34.90	11.32	40.23	37.24	54.00	-16.76	Horizontal
5460.00	32.86	34.90	11.32	40.23	38.85	54.00	-15.15	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11ac-HT80

Test channel		Middle			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	41.73	34.50	10.22	40.67	45.78	74.00	-28.22	Horizontal
4500.00	42.62	34.50	10.22	40.67	46.67	74.00	-27.33	Vertical
Test channel		Middle			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	32.02	34.50	10.22	40.67	36.07	54.00	-17.93	Horizontal
4500.00	32.45	34.50	10.22	40.67	36.50	54.00	-17.50	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Band 2:

802.11a

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	42.36	35.37	11.19	40.18	48.74	74.00	-25.26	Horizontal
5350.00	41.65	35.37	11.19	40.18	48.03	74.00	-25.97	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	32.09	35.37	11.19	40.18	38.47	54.00	-15.53	Horizontal
5350.00	31.98	35.37	11.19	40.18	38.36	54.00	-15.64	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.16	34.90	11.32	40.23	48.15	74.00	-25.85	Horizontal
5460.00	41.38	34.90	11.32	40.23	47.37	74.00	-26.63	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	33.29	34.90	11.32	40.23	39.28	54.00	-14.72	Horizontal
5460.00	32.04	34.90	11.32	40.23	38.03	54.00	-15.97	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT20

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	42.31	35.37	11.19	40.18	48.69	74.00	-25.31	Horizontal
5350.00	41.29	35.37	11.19	40.18	47.67	74.00	-26.33	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	32.64	35.37	11.19	40.18	39.02	54.00	-14.98	Horizontal
5350.00	31.26	35.37	11.19	40.18	37.64	54.00	-16.36	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.53	34.90	11.32	40.23	48.52	74.00	-25.48	Horizontal
5460.00	43.49	34.90	11.32	40.23	49.48	74.00	-24.52	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	32.54	34.90	11.32	40.23	38.53	54.00	-15.47	Horizontal
5460.00	32.63	34.90	11.32	40.23	38.62	54.00	-15.38	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT40

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	42.16	35.37	11.19	40.18	48.54	74.00	-25.46	Horizontal
5350.00	43.62	35.37	11.19	40.18	50.00	74.00	-24.00	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	32.58	35.37	11.19	40.18	38.96	54.00	-15.04	Horizontal
5350.00	33.24	35.37	11.19	40.18	39.62	54.00	-14.38	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.23	34.90	11.32	40.23	48.22	74.00	-25.78	Horizontal
5460.00	42.01	34.90	11.32	40.23	48.00	74.00	-26.00	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	32.53	34.90	11.32	40.23	38.52	54.00	-15.48	Horizontal
5460.00	31.68	34.90	11.32	40.23	37.67	54.00	-16.33	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor .*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11ac-HT80

Test channel		Middle			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	41.26	35.37	11.19	40.18	47.64	74.00	-26.36	Horizontal
5350.00	41.63	35.37	11.19	40.18	48.01	74.00	-25.99	Vertical
Test channel		Middle			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	31.84	35.37	11.19	40.18	38.22	54.00	-15.78	Horizontal
5350.00	31.23	35.37	11.19	40.18	37.61	54.00	-16.39	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Band 3:

802.11a

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	42.36	35.37	11.19	40.18	48.74	74.00	-25.26	Horizontal
5350.00	41.65	35.37	11.19	40.18	48.03	74.00	-25.97	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	32.09	35.37	11.19	40.18	38.47	54.00	-15.53	Horizontal
5350.00	31.98	35.37	11.19	40.18	38.36	54.00	-15.64	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.16	34.90	11.32	40.23	48.15	74.00	-25.85	Horizontal
5460.00	41.38	34.90	11.32	40.23	47.37	74.00	-26.63	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	33.29	34.90	11.32	40.23	39.28	54.00	-14.72	Horizontal
5460.00	32.04	34.90	11.32	40.23	38.03	54.00	-15.97	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT20

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	42.31	35.37	11.19	40.18	48.69	74.00	-25.31	Horizontal
5350.00	41.29	35.37	11.19	40.18	47.67	74.00	-26.33	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	32.64	35.37	11.19	40.18	39.02	54.00	-14.98	Horizontal
5350.00	31.26	35.37	11.19	40.18	37.64	54.00	-16.36	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.53	34.90	11.32	40.23	48.52	74.00	-25.48	Horizontal
5460.00	43.49	34.90	11.32	40.23	49.48	74.00	-24.52	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	32.54	34.90	11.32	40.23	38.53	54.00	-15.47	Horizontal
5460.00	32.63	34.90	11.32	40.23	38.62	54.00	-15.38	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT40

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	42.16	35.37	11.19	40.18	48.54	74.00	-25.46	Horizontal
5350.00	43.62	35.37	11.19	40.18	50.00	74.00	-24.00	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	32.58	35.37	11.19	40.18	38.96	54.00	-15.04	Horizontal
5350.00	33.24	35.37	11.19	40.18	39.62	54.00	-14.38	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.23	34.90	11.32	40.23	48.22	74.00	-25.78	Horizontal
5460.00	42.01	34.90	11.32	40.23	48.00	74.00	-26.00	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	32.53	34.90	11.32	40.23	38.52	54.00	-15.48	Horizontal
5460.00	31.68	34.90	11.32	40.23	37.67	54.00	-16.33	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor .*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11ac-HT80

Test channel		Middle			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	41.26	35.37	11.19	40.18	47.64	74.00	-26.36	Horizontal
5350.00	41.63	35.37	11.19	40.18	48.01	74.00	-25.99	Vertical
Test channel		Middle			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	31.84	35.37	11.19	40.18	38.22	54.00	-15.78	Horizontal
5350.00	31.23	35.37	11.19	40.18	37.61	54.00	-16.39	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

TX1

Band 1:

802.11a

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	42.26	34.50	10.22	40.67	46.31	74.00	-27.69	Horizontal
4500.00	41.37	34.50	10.22	40.67	45.42	74.00	-28.58	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	32.26	34.50	10.22	40.67	36.31	54.00	-17.69	Horizontal
4500.00	31.46	34.50	10.22	40.67	35.51	54.00	-18.49	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.16	34.90	11.32	40.23	48.15	74.00	-25.85	Horizontal
5460.00	41.78	34.90	11.32	40.23	47.77	74.00	-26.23	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	32.56	34.90	11.32	40.23	38.55	54.00	-15.45	Horizontal
5460.00	31.49	34.90	11.32	40.23	37.48	54.00	-16.52	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT20

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	41.56	34.50	10.22	40.67	45.61	74.00	-28.39	Horizontal
4500.00	42.93	34.50	10.22	40.67	46.98	74.00	-27.02	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	32.25	34.50	10.22	40.67	36.30	54.00	-17.70	Horizontal
4500.00	31.73	34.50	10.22	40.67	35.78	54.00	-18.22	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.52	34.90	11.32	40.23	48.51	74.00	-25.49	Horizontal
5460.00	41.76	34.90	11.32	40.23	47.75	74.00	-26.25	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	32.12	34.90	11.32	40.23	38.11	54.00	-15.89	Horizontal
5460.00	32.69	34.90	11.32	40.23	38.68	54.00	-15.32	Vertical

Remark:
1.Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.
2.The emission levels of other frequencies are very lower than the limit and not show in test report.

802.11n-HT40

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	42.57	34.50	10.22	40.67	46.62	74.00	-27.38	Horizontal
4500.00	42.23	34.50	10.22	40.67	46.28	74.00	-27.72	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	32.79	34.50	10.22	40.67	36.84	54.00	-17.16	Horizontal
4500.00	31.45	34.50	10.22	40.67	35.50	54.00	-18.50	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.15	34.90	11.32	40.23	48.14	74.00	-25.86	Horizontal
5460.00	42.79	34.90	11.32	40.23	48.78	74.00	-25.22	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	32.26	34.90	11.32	40.23	38.25	54.00	-15.75	Horizontal
5460.00	32.47	34.90	11.32	40.23	38.46	54.00	-15.54	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11ac-HT80

Test channel		Middle			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	42.52	34.50	10.22	40.67	46.57	74.00	-27.43	Horizontal
4500.00	41.76	34.50	10.22	40.67	45.81	74.00	-28.19	Vertical
Test channel		Middle			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4500.00	32.26	34.50	10.22	40.67	36.31	54.00	-17.69	Horizontal
4500.00	31.45	34.50	10.22	40.67	35.50	54.00	-18.50	Vertical
Test channel		Middle			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.78	34.90	11.32	40.23	48.77	74.00	-25.23	Horizontal
5460.00	41.76	34.90	11.32	40.23	47.75	74.00	-26.25	Vertical
Test channel		Middle			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	32.25	34.90	11.32	40.23	38.24	54.00	-15.76	Horizontal
5460.00	32.95	34.90	11.32	40.23	38.94	54.00	-15.06	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Band 2:

802.11a

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	42.36	35.37	11.19	40.18	48.74	74.00	-25.26	Horizontal
5350.00	41.65	35.37	11.19	40.18	48.03	74.00	-25.97	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	32.09	35.37	11.19	40.18	38.47	54.00	-15.53	Horizontal
5350.00	31.98	35.37	11.19	40.18	38.36	54.00	-15.64	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.16	34.90	11.32	40.23	48.15	74.00	-25.85	Horizontal
5460.00	41.38	34.90	11.32	40.23	47.37	74.00	-26.63	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	33.29	34.90	11.32	40.23	39.28	54.00	-14.72	Horizontal
5460.00	32.04	34.90	11.32	40.23	38.03	54.00	-15.97	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT20

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	42.31	35.37	11.19	40.18	48.69	74.00	-25.31	Horizontal
5350.00	41.29	35.37	11.19	40.18	47.67	74.00	-26.33	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	32.64	35.37	11.19	40.18	39.02	54.00	-14.98	Horizontal
5350.00	31.26	35.37	11.19	40.18	37.64	54.00	-16.36	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.53	34.90	11.32	40.23	48.52	74.00	-25.48	Horizontal
5460.00	43.49	34.90	11.32	40.23	49.48	74.00	-24.52	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	32.54	34.90	11.32	40.23	38.53	54.00	-15.47	Horizontal
5460.00	32.63	34.90	11.32	40.23	38.62	54.00	-15.38	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT40

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	42.16	35.37	11.19	40.18	48.54	74.00	-25.46	Horizontal
5350.00	43.62	35.37	11.19	40.18	50.00	74.00	-24.00	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	32.58	35.37	11.19	40.18	38.96	54.00	-15.04	Horizontal
5350.00	33.24	35.37	11.19	40.18	39.62	54.00	-14.38	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.23	34.90	11.32	40.23	48.22	74.00	-25.78	Horizontal
5460.00	42.01	34.90	11.32	40.23	48.00	74.00	-26.00	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	32.53	34.90	11.32	40.23	38.52	54.00	-15.48	Horizontal
5460.00	31.68	34.90	11.32	40.23	37.67	54.00	-16.33	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor .*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11ac-HT80

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	41.26	35.37	11.19	40.18	47.64	74.00	-26.36	Horizontal
5350.00	41.63	35.37	11.19	40.18	48.01	74.00	-25.99	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	31.84	35.37	11.19	40.18	38.22	54.00	-15.78	Horizontal
5350.00	31.23	35.37	11.19	40.18	37.61	54.00	-16.39	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	41.59	34.90	11.32	40.23	47.58	74.00	-26.42	Horizontal
5460.00	41.65	34.90	11.32	40.23	47.64	74.00	-26.36	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	31.02	34.90	11.32	40.23	37.01	54.00	-16.99	Horizontal
5460.00	31.82	34.90	11.32	40.23	37.81	54.00	-16.19	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Band 3:

802.11a

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	42.36	35.37	11.19	40.18	48.74	74.00	-25.26	Horizontal
5350.00	41.65	35.37	11.19	40.18	48.03	74.00	-25.97	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	32.09	35.37	11.19	40.18	38.47	54.00	-15.53	Horizontal
5350.00	31.98	35.37	11.19	40.18	38.36	54.00	-15.64	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.16	34.90	11.32	40.23	48.15	74.00	-25.85	Horizontal
5460.00	41.38	34.90	11.32	40.23	47.37	74.00	-26.63	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	33.29	34.90	11.32	40.23	39.28	54.00	-14.72	Horizontal
5460.00	32.04	34.90	11.32	40.23	38.03	54.00	-15.97	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT20

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	42.31	35.37	11.19	40.18	48.69	74.00	-25.31	Horizontal
5350.00	41.29	35.37	11.19	40.18	47.67	74.00	-26.33	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	32.64	35.37	11.19	40.18	39.02	54.00	-14.98	Horizontal
5350.00	31.26	35.37	11.19	40.18	37.64	54.00	-16.36	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.53	34.90	11.32	40.23	48.52	74.00	-25.48	Horizontal
5460.00	43.49	34.90	11.32	40.23	49.48	74.00	-24.52	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	32.54	34.90	11.32	40.23	38.53	54.00	-15.47	Horizontal
5460.00	32.63	34.90	11.32	40.23	38.62	54.00	-15.38	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n-HT40

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	42.16	35.37	11.19	40.18	48.54	74.00	-25.46	Horizontal
5350.00	43.62	35.37	11.19	40.18	50.00	74.00	-24.00	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	32.58	35.37	11.19	40.18	38.96	54.00	-15.04	Horizontal
5350.00	33.24	35.37	11.19	40.18	39.62	54.00	-14.38	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	42.23	34.90	11.32	40.23	48.22	74.00	-25.78	Horizontal
5460.00	42.01	34.90	11.32	40.23	48.00	74.00	-26.00	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	32.53	34.90	11.32	40.23	38.52	54.00	-15.48	Horizontal
5460.00	31.68	34.90	11.32	40.23	37.67	54.00	-16.33	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor .*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11ac-HT80

Test channel		Lowest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	41.26	35.37	11.19	40.18	47.64	74.00	-26.36	Horizontal
5350.00	41.63	35.37	11.19	40.18	48.01	74.00	-25.99	Vertical
Test channel		Lowest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5350.00	31.84	35.37	11.19	40.18	38.22	54.00	-15.78	Horizontal
5350.00	31.23	35.37	11.19	40.18	37.61	54.00	-16.39	Vertical
Test channel		Highest			Level		Peak	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	41.59	34.90	11.32	40.23	47.58	74.00	-26.42	Horizontal
5460.00	41.65	34.90	11.32	40.23	47.64	74.00	-26.36	Vertical
Test channel		Highest			Level		Average	
Frequency (MHz)	Read Level (dBuV/m)	Antenna Factor (dB)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5460.00	31.02	34.90	11.32	40.23	37.01	54.00	-16.99	Horizontal
5460.00	31.82	34.90	11.32	40.23	37.81	54.00	-16.19	Vertical

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

6.7.2 Unwanted Emissions out of the Restricted Bands

Test Requirement:	FCC Part15 C Section 15.209 and 15.205
Test Method:	ANSI C63.10:2013
Test Frequency Range:	30MHz to 40GHz
Test site:	Measurement Distance: 3m

Receiver setup:

Frequency	Detector	RBW	VBW	Remark
30MHz-1GHz	Quasi-peak	100kHz	300kHz	Quasi-peak Value
Above 1GHz	Peak	1MHz	3MHz	Peak Value
	RMS	1MHz	3MHz	Average Value

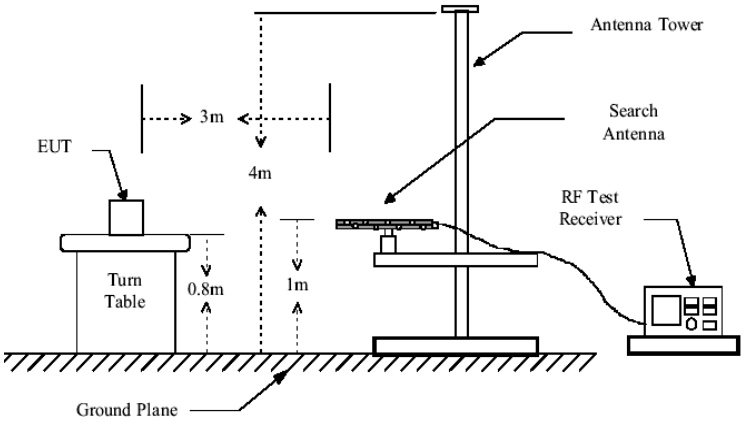
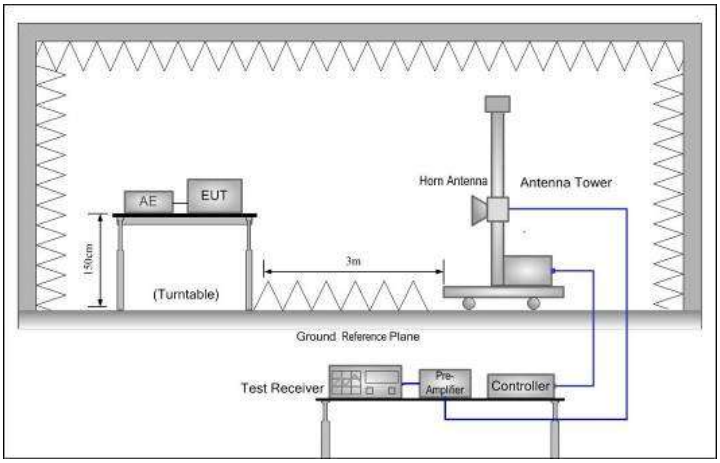
Limit:

Frequency	Limit (dBuV/m @3m)	Remark
30MHz-88MHz	40.0	Quasi-peak Value
88MHz-216MHz	43.5	Quasi-peak Value
216MHz-960MHz	46.0	Quasi-peak Value
960MHz-1GHz	54.0	Quasi-peak Value
Above 1GHz	68.20	Peak Value
	54.00	Average Value

Remark:
Above 1GHz limit:
E[dBμV/m] = EIRP[dBm] + 95.2=68.2 dBuV/m,for EIPR[dBm]=-27dBm.

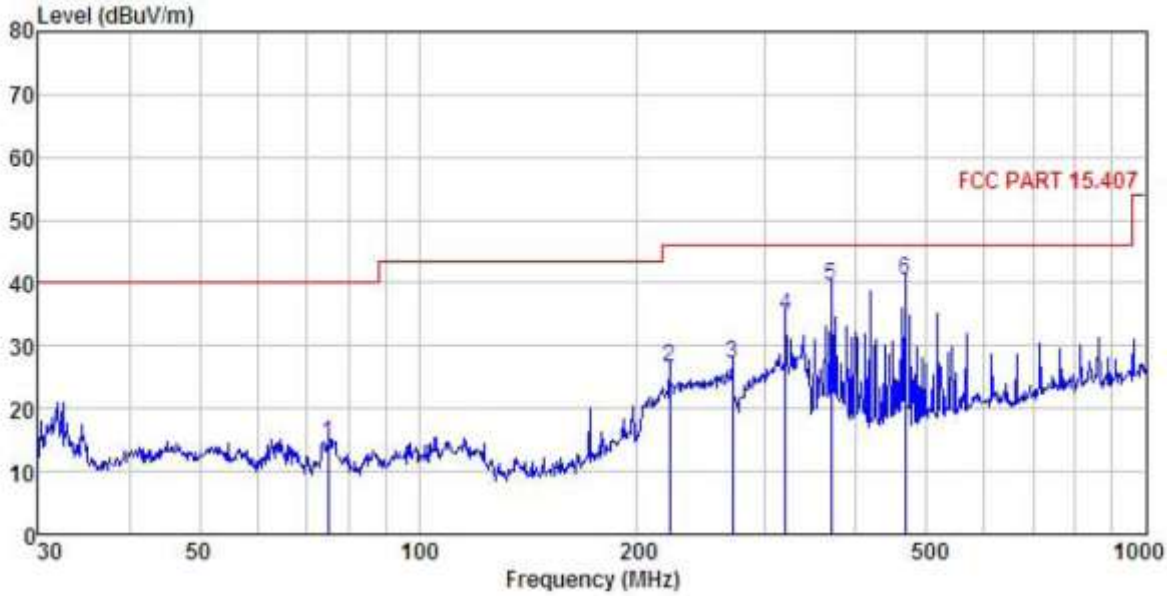
Test Procedure:

1. The EUT was placed on the top of a rotating table 0.8m(below 1GHz)/1.5m(above 1GHz) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Test setup:	Below 1GHz  Above 1GHz 
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed

Below 1GHz

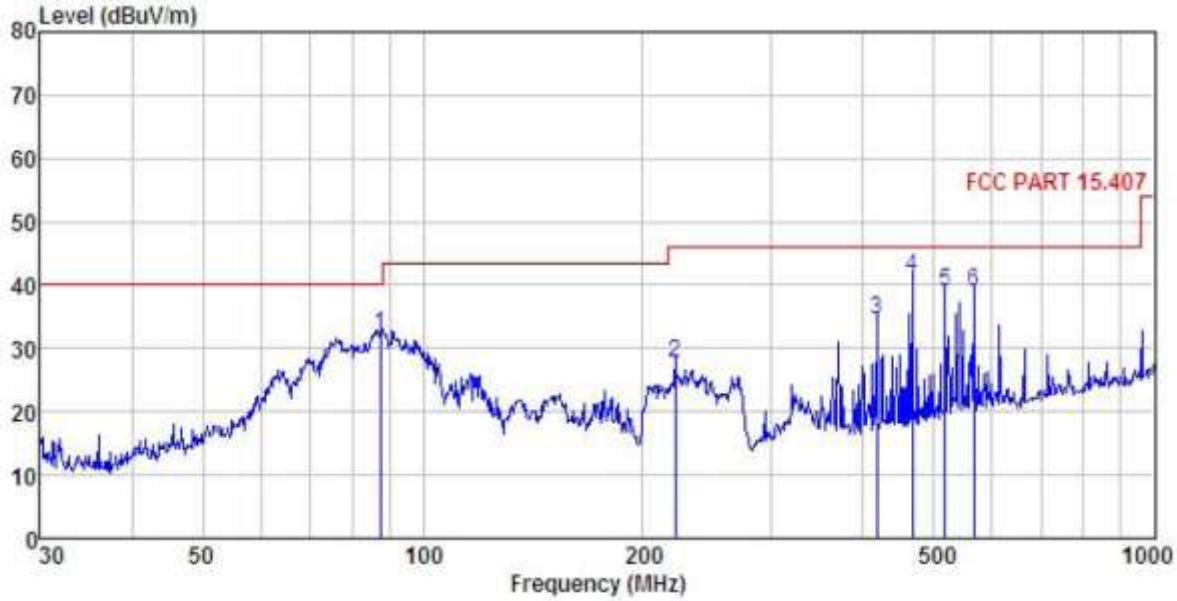
Horizontal:



Site : 3m chamber
Condition : FCC PART 15.407 3m VULB9163(30M2G) HORIZONTAL
EUT : WiFi Media Streaming Module
Model : LS9AD-AC11DBT
Test mode : 5GWIFI Mode
Power Rating : AC 120V/60Hz
Environment : Temp:25.5℃ Huni:55%
Test Engineer: YT
REMARK :

	Freq	ReadLevel	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	75.182	33.39	9.18	1.63	29.68	14.52	40.00	-25.48	QP
2	221.392	41.01	11.30	2.84	28.70	26.45	46.00	-19.55	QP
3	270.375	40.20	12.53	2.86	28.50	27.09	46.00	-18.91	QP
4	319.937	46.84	13.55	3.00	28.50	34.89	46.00	-11.11	QP
5	369.405	50.50	14.53	3.09	28.65	39.47	46.00	-6.53	QP
6	467.235	50.55	15.53	3.34	28.90	40.52	46.00	-5.48	QP

Vertical:



Site : 3m chamber
Condition : FCC PART 15.407 3m VULB9163(30M2G) VERTICAL
EUT : WiFi Media Streaming Module
Model : LS9AD-AC11DBT
Test mode : 5GWIFI Mode
Power Rating : AC 120V/60Hz
Environment : Temp:25.5℃ Huni:55%
Test Engineer: YT
REMARK :

	Freq	ReadAntenna Level	Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	87.418	49.62	10.18	1.96	29.58	32.18	40.00	-7.82	QP
2	221.392	42.30	11.30	2.84	28.70	27.74	46.00	-18.26	QP
3	417.641	44.92	15.35	3.12	28.81	34.58	46.00	-11.42	QP
4	467.235	51.23	15.53	3.34	28.90	41.20	46.00	-4.80	QP
5	517.248	47.41	16.70	3.71	29.00	38.82	46.00	-7.18	QP
6	566.622	46.44	17.65	3.91	29.05	38.95	46.00	-7.05	QP

Above 1GHz:

TX0

Band 1:

802.11a mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.00	41.63	40.10	15.37	41.34	55.76	68.20	-12.44	Vertical
10360.00	42.27	40.10	15.37	41.34	56.40	68.20	-11.80	Horizontal
802.11a mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.00	31.58	40.10	15.37	41.34	45.71	54.00	-8.29	Vertical
10360.00	32.15	40.10	15.37	41.34	46.28	54.00	-7.72	Horizontal

802.11a mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10400.00	41.23	40.00	15.42	41.27	55.38	68.20	-12.82	Vertical
10400.00	42.65	40.00	15.42	41.27	56.80	68.20	-11.40	Horizontal
802.11a mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10400.00	32.69	40.00	15.42	41.27	46.84	54.00	-7.16	Vertical
10400.00	32.45	40.00	15.42	41.27	46.60	54.00	-7.40	Horizontal

802.11a mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10480.00	41.23	39.70	15.55	41.10	55.38	68.20	-12.82	Vertical
10480.00	41.36	39.70	15.55	41.10	55.51	68.20	-12.69	Horizontal
802.11a mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10480.00	30.97	39.70	15.55	41.10	45.12	54.00	-8.88	Vertical
10480.00	30.59	39.70	15.55	41.10	44.74	54.00	-9.26	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n20 mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.00	41.23	40.10	15.37	41.34	55.36	68.20	-12.84	Vertical
10360.00	40.22	40.10	15.37	41.34	54.35	68.20	-13.85	Horizontal
802.11n20 mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.00	32.26	40.10	15.37	41.34	46.39	54.00	-7.61	Vertical
10360.00	31.36	40.10	15.37	41.34	45.49	54.00	-8.51	Horizontal

802.11n20 mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10400.00	42.56	40.00	15.42	41.27	56.71	68.20	-11.49	Vertical
10400.00	41.73	40.00	15.42	41.27	55.88	68.20	-12.32	Horizontal
802.11n20 mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10400.00	32.42	40.00	15.42	41.27	46.57	54.00	-7.43	Vertical
10400.00	30.11	40.00	15.42	41.27	44.26	54.00	-9.74	Horizontal

802.11n20 mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10480.00	42.23	39.70	15.55	41.10	56.38	68.20	-11.82	Vertical
10480.00	41.42	39.70	15.55	41.10	55.57	68.20	-12.63	Horizontal
802.11n20 mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10480.00	32.03	39.70	15.55	41.10	46.18	54.00	-7.82	Vertical
10480.00	31.56	39.70	15.55	41.10	45.71	54.00	-8.29	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n40 mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10380.00	41.23	40.00	15.42	41.31	55.34	68.20	-12.86	Vertical
10380.00	40.70	40.00	15.42	41.31	54.81	68.20	-13.39	Horizontal
802.11n40 mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10380.00	31.22	40.00	15.42	41.31	45.33	54.00	-8.67	Vertical
10380.00	30.23	40.00	15.42	41.31	44.34	54.00	-9.66	Horizontal

802.11n40 mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10460.00	40.26	39.80	15.51	41.17	54.40	68.20	-13.80	Vertical
10460.00	41.73	39.80	15.51	41.17	55.87	68.20	-12.33	Horizontal
802.11n40 mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10460.00	32.02	39.80	15.51	41.17	46.16	54.00	-7.84	Vertical
10460.00	31.26	39.80	15.51	41.17	45.40	54.00	-8.60	Horizontal

802.11ac-HT80MHz mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10420.00	42.22	39.90	15.46	41.24	56.34	68.20	-11.86	Vertical
10420.00	41.36	39.90	15.46	41.24	55.48	68.20	-12.72	Horizontal
802.11ac-HT80MHz mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10420.00	31.26	39.90	15.46	41.24	45.38	54.00	-8.62	Vertical
10420.00	30.26	39.90	15.46	41.24	44.38	54.00	-9.62	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Band 2:

802.11a mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10520.00	50.23	40.10	9.82	41.97	58.18	68.20	-10.02	Vertical
10520.00	49.62	40.10	9.82	41.97	57.57	68.20	-10.63	Horizontal
802.11a mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10520.00	42.21	40.10	9.82	41.97	50.16	54.00	-3.84	Vertical
10520.00	40.03	40.10	9.82	41.97	47.98	54.00	-6.02	Horizontal

802.11a mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10560.00	50.69	40.00	9.85	41.95	58.59	68.20	-9.61	Vertical
10560.00	51.34	40.00	9.85	41.95	59.24	68.20	-8.96	Horizontal
802.11a mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10560.00	42.21	40.00	9.85	41.95	50.11	54.00	-3.89	Vertical
10560.00	41.36	40.00	9.85	41.95	49.26	54.00	-4.74	Horizontal

802.11a mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10640.00	50.25	39.70	9.96	41.88	58.03	68.20	-10.17	Vertical
10640.00	50.14	39.70	9.96	41.88	57.92	68.20	-10.28	Horizontal
802.11a mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10640.00	41.03	39.70	9.96	41.88	48.81	54.00	-5.19	Vertical
10640.00	41.69	39.70	9.96	41.88	49.47	54.00	-4.53	Horizontal

Remark:
1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n20 mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10520.00	47.65	40.10	9.82	41.97	55.60	68.20	-12.60	Vertical
10520.00	48.26	40.10	9.82	41.97	56.21	68.20	-11.99	Horizontal
802.11n20 mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10520.00	38.52	40.10	9.82	41.97	46.47	54.00	-7.53	Vertical
10520.00	39.62	40.10	9.82	41.97	47.57	54.00	-6.43	Horizontal

802.11n20 mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10560.00	49.62	40.00	9.85	41.95	57.52	68.20	-10.68	Vertical
10560.00	48.21	40.00	9.85	41.95	56.11	68.20	-12.09	Horizontal
802.11n20 mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10560.00	40.23	40.00	9.85	41.95	48.13	54.00	-5.87	Vertical
10560.00	39.26	40.00	9.85	41.95	47.16	54.00	-6.84	Horizontal

802.11n20 mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10640.00	50.02	39.70	9.96	41.88	57.80	68.20	-10.40	Vertical
10640.00	49.89	39.70	9.96	41.88	57.67	68.20	-10.53	Horizontal
802.11n20 mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10640.00	40.06	39.70	9.96	41.88	47.84	54.00	-6.16	Vertical
10640.00	40.12	39.70	9.96	41.88	47.90	54.00	-6.10	Horizontal

Remark:
1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n40 mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10540.00	49.62	39.64	10.05	41.89	57.42	68.20	-10.78	Vertical
10540.00	47.81	39.64	10.05	41.89	55.61	68.20	-12.59	Horizontal
802.11n40 mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10540.00	40.23	39.64	10.05	41.89	48.03	54.00	-5.97	Vertical
10540.00	39.24	39.64	10.05	41.89	47.04	54.00	-6.96	Horizontal

802.11n40 mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10620.00	50.23	39.73	10.16	41.95	58.17	68.20	-10.03	Vertical
10620.00	49.15	39.73	10.16	41.95	57.09	68.20	-11.11	Horizontal
802.11n40 mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10620.00	40.70	39.73	10.16	41.95	48.64	54.00	-5.36	Vertical
10620.00	41.36	39.73	10.16	41.95	49.30	54.00	-4.70	Horizontal

802.11ac-HT80 mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10580.00	48.73	39.90	15.46	41.24	62.85	68.20	-5.35	Vertical
10580.00	48.16	39.90	15.46	41.24	62.28	68.20	-5.92	Horizontal
802.11ac-HT80 mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10580.00	35.27	39.90	15.46	41.24	49.39	54.00	-4.61	Vertical
10580.00	35.18	39.90	15.46	41.24	49.30	54.00	-4.70	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Band 3:

802.11a mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11000.00	43.26	40.10	15.37	41.34	57.39	68.20	-10.81	Vertical
11000.00	42.25	40.10	15.37	41.34	56.38	68.20	-11.82	Horizontal
802.11a mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11000.00	32.69	40.10	15.37	41.34	46.82	54.00	-7.18	Vertical
11000.00	32.13	40.10	15.37	41.34	46.26	54.00	-7.74	Horizontal

802.11a mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11200.00	42.25	40.00	15.42	41.27	56.40	68.20	-11.80	Vertical
11200.00	41.73	40.00	15.42	41.27	55.88	68.20	-12.32	Horizontal
802.11a mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11200.00	32.65	40.00	15.42	41.27	46.80	54.00	-7.20	Vertical
11200.00	31.22	40.00	15.42	41.27	45.37	54.00	-8.63	Horizontal

802.11a mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11400.00	41.70	39.70	15.55	41.10	55.85	68.20	-12.35	Vertical
11400.00	42.26	39.70	15.55	41.10	56.41	68.20	-11.79	Horizontal
802.11a mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11400.00	30.21	39.70	15.55	41.10	44.36	54.00	-9.64	Vertical
11400.00	31.46	39.70	15.55	41.10	45.61	54.00	-8.39	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n20 mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11000.00	42.25	40.10	15.37	41.34	56.38	68.20	-11.82	Vertical
11000.00	41.73	40.10	15.37	41.34	55.86	68.20	-12.34	Horizontal
802.11n20 mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11000.00	33.36	40.10	15.37	41.34	47.49	54.00	-6.51	Vertical
11000.00	32.21	40.10	15.37	41.34	46.34	54.00	-7.66	Horizontal

802.11n20 mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11200.00	42.55	40.00	15.42	41.27	56.70	68.20	-11.50	Vertical
11200.00	41.73	40.00	15.42	41.27	55.88	68.20	-12.32	Horizontal
802.11n20 mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11200.00	32.65	40.00	15.42	41.27	46.80	54.00	-7.20	Vertical
11200.00	30.21	40.00	15.42	41.27	44.36	54.00	-9.64	Horizontal

802.11n20 mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11400.00	42.16	39.70	15.55	41.10	56.31	68.20	-11.89	Vertical
11400.00	43.58	39.70	15.55	41.10	57.73	68.20	-10.47	Horizontal
802.11n20 mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11400.00	31.24	39.70	15.55	41.10	45.39	54.00	-8.61	Vertical
11400.00	32.31	39.70	15.55	41.10	46.46	54.00	-7.54	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n40 mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11020.00	45.26	40.00	15.42	41.31	59.37	68.20	-8.83	Vertical
11020.00	42.31	40.00	15.42	41.31	56.42	68.20	-11.78	Horizontal
802.11n40 mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11020.00	32.21	40.00	15.42	41.31	46.32	54.00	-7.68	Vertical
11020.00	31.43	40.00	15.42	41.31	45.54	54.00	-8.46	Horizontal

802.11n40 mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11340.00	42.26	39.80	15.51	41.17	56.40	68.20	-11.80	Vertical
11340.00	41.40	39.80	15.51	41.17	55.54	68.20	-12.66	Horizontal
802.11n40 mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11340.00	32.24	39.80	15.51	41.17	46.38	54.00	-7.62	Vertical
11340.00	33.16	39.80	15.51	41.17	47.30	54.00	-6.70	Horizontal

802.11ac-HT80 mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11060.00	42.26	39.90	15.46	41.24	56.38	68.20	-11.82	Vertical
11060.00	41.73	39.90	15.46	41.24	55.85	68.20	-12.35	Horizontal
802.11ac-HT80 mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11060.00	32.46	39.90	15.46	41.24	46.58	54.00	-7.42	Vertical
11060.00	31.43	39.90	15.46	41.24	45.55	54.00	-8.45	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

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Band 1:

802.11a mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.00	42.56	40.10	15.37	41.34	56.69	68.20	-11.51	Vertical
10360.00	41.79	40.10	15.37	41.34	55.92	68.20	-12.28	Horizontal
802.11a mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.00	32.26	40.10	15.37	41.34	46.39	54.00	-7.61	Vertical
10360.00	31.56	40.10	15.37	41.34	45.69	54.00	-8.31	Horizontal

802.11a mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10400.00	42.59	40.00	15.42	41.27	56.74	68.20	-11.46	Vertical
10400.00	41.75	40.00	15.42	41.27	55.90	68.20	-12.30	Horizontal
802.11a mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10400.00	31.26	40.00	15.42	41.27	45.41	54.00	-8.59	Vertical
10400.00	32.52	40.00	15.42	41.27	46.67	54.00	-7.33	Horizontal

802.11a mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10480.00	41.79	39.70	15.55	41.10	55.94	68.20	-12.26	Vertical
10480.00	40.26	39.70	15.55	41.10	54.41	68.20	-13.79	Horizontal
802.11a mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10480.00	31.26	39.70	15.55	41.10	45.41	54.00	-8.59	Vertical
10480.00	31.49	39.70	15.55	41.10	45.64	54.00	-8.36	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n20 mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.00	42.23	40.10	15.37	41.34	56.36	68.20	-11.84	Vertical
10360.00	41.76	40.10	15.37	41.34	55.89	68.20	-12.31	Horizontal
802.11n20 mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10360.00	32.15	40.10	15.37	41.34	46.28	54.00	-7.72	Vertical
10360.00	32.75	40.10	15.37	41.34	46.88	54.00	-7.12	Horizontal

802.11n20 mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10400.00	42.56	40.00	15.42	41.27	56.71	68.20	-11.49	Vertical
10400.00	41.77	40.00	15.42	41.27	55.92	68.20	-12.28	Horizontal
802.11n20 mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10400.00	32.25	40.00	15.42	41.27	46.40	54.00	-7.60	Vertical
10400.00	30.23	40.00	15.42	41.27	44.38	54.00	-9.62	Horizontal

802.11n20 mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10480.00	42.69	39.70	15.55	41.10	56.84	68.20	-11.36	Vertical
10480.00	41.73	39.70	15.55	41.10	55.88	68.20	-12.32	Horizontal
802.11n20 mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10480.00	32.24	39.70	15.55	41.10	46.39	54.00	-7.61	Vertical
10480.00	32.16	39.70	15.55	41.10	46.31	54.00	-7.69	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n40 mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10380.00	42.23	40.00	15.42	41.31	56.34	68.20	-11.86	Vertical
10380.00	41.73	40.00	15.42	41.31	55.84	68.20	-12.36	Horizontal
802.11n40 mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10380.00	31.52	40.00	15.42	41.31	45.63	54.00	-8.37	Vertical
10380.00	30.49	40.00	15.42	41.31	44.60	54.00	-9.40	Horizontal

802.11n40 mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10460.00	41.76	39.80	15.51	41.17	55.90	68.20	-12.30	Vertical
10460.00	42.25	39.80	15.51	41.17	56.39	68.20	-11.81	Horizontal
802.11n40 mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10460.00	32.19	39.80	15.51	41.17	46.33	54.00	-7.67	Vertical
10460.00	31.44	39.80	15.51	41.17	45.58	54.00	-8.42	Horizontal

802.11ac-HT80MHz mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10420.00	42.16	39.90	15.46	41.24	56.28	68.20	-11.92	Vertical
10420.00	42.77	39.90	15.46	41.24	56.89	68.20	-11.31	Horizontal
802.11ac-HT80MHz mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10420.00	32.23	39.90	15.46	41.24	46.35	54.00	-7.65	Vertical
10420.00	31.96	39.90	15.46	41.24	46.08	54.00	-7.92	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Band 2:

802.11a mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10520.00	50.23	40.10	9.82	41.97	58.18	68.20	-10.02	Vertical
10520.00	49.16	40.10	9.82	41.97	57.11	68.20	-11.09	Horizontal
802.11a mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10520.00	42.73	40.10	9.82	41.97	50.68	54.00	-3.32	Vertical
10520.00	41.44	40.10	9.82	41.97	49.39	54.00	-4.61	Horizontal

802.11a mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10560.00	50.23	40.00	9.85	41.95	58.13	68.20	-10.07	Vertical
10560.00	51.46	40.00	9.85	41.95	59.36	68.20	-8.84	Horizontal
802.11a mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10560.00	42.19	40.00	9.85	41.95	50.09	54.00	-3.91	Vertical
10560.00	41.32	40.00	9.85	41.95	49.22	54.00	-4.78	Horizontal

802.11a mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10640.00	51.32	39.70	9.96	41.88	59.10	68.20	-9.10	Vertical
10640.00	50.97	39.70	9.96	41.88	58.75	68.20	-9.45	Horizontal
802.11a mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10640.00	41.73	39.70	9.96	41.88	49.51	54.00	-4.49	Vertical
10640.00	40.19	39.70	9.96	41.88	47.97	54.00	-6.03	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n20 mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10520.00	48.62	40.10	9.82	41.97	56.57	68.20	-11.63	Vertical
10520.00	47.13	40.10	9.82	41.97	55.08	68.20	-13.12	Horizontal
802.11n20 mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10520.00	38.56	40.10	9.82	41.97	46.51	54.00	-7.49	Vertical
10520.00	39.61	40.10	9.82	41.97	47.56	54.00	-6.44	Horizontal

802.11n20 mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10560.00	50.23	40.00	9.85	41.95	58.13	68.20	-10.07	Vertical
10560.00	49.56	40.00	9.85	41.95	57.46	68.20	-10.74	Horizontal
802.11n20 mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10560.00	41.32	40.00	9.85	41.95	49.22	54.00	-4.78	Vertical
10560.00	41.75	40.00	9.85	41.95	49.65	54.00	-4.35	Horizontal

802.11n20 mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10640.00	51.27	39.70	9.96	41.88	59.05	68.20	-9.15	Vertical
10640.00	50.29	39.70	9.96	41.88	58.07	68.20	-10.13	Horizontal
802.11n20 mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10640.00	39.62	39.70	9.96	41.88	47.40	54.00	-6.60	Vertical
10640.00	39.47	39.70	9.96	41.88	47.25	54.00	-6.75	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n40 mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10540.00	49.56	39.64	10.05	41.89	57.36	68.20	-10.84	Vertical
10540.00	49.77	39.64	10.05	41.89	57.57	68.20	-10.63	Horizontal
802.11n40 mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10540.00	39.32	39.64	10.05	41.89	47.12	54.00	-6.88	Vertical
10540.00	38.26	39.64	10.05	41.89	46.06	54.00	-7.94	Horizontal

802.11n40 mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10620.00	49.52	39.73	10.16	41.95	57.46	68.20	-10.74	Vertical
10620.00	48.12	39.73	10.16	41.95	56.06	68.20	-12.14	Horizontal
802.11n40 mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10620.00	39.32	39.73	10.16	41.95	47.26	54.00	-6.74	Vertical
10620.00	38.44	39.73	10.16	41.95	46.38	54.00	-7.62	Horizontal

802.11ac-HT80 mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10580.00	48.73	39.90	15.46	41.24	62.85	68.20	-5.35	Vertical
10580.00	49.56	39.90	15.46	41.24	63.68	68.20	-4.52	Horizontal
802.11ac-HT80 mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10580.00	35.27	39.90	15.46	41.24	49.39	54.00	-4.61	Vertical
10580.00	34.16	39.90	15.46	41.24	48.28	54.00	-5.72	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

Band 3:

802.11a mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11000.00	41.56	40.10	15.37	41.34	55.69	68.20	-12.51	Vertical
11000.00	42.75	40.10	15.37	41.34	56.88	68.20	-11.32	Horizontal
802.11a mode Lowest channel (AverageValue)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11000.00	32.16	40.10	15.37	41.34	46.29	54.00	-7.71	Vertical
11000.00	32.45	40.10	15.37	41.34	46.58	54.00	-7.42	Horizontal

802.11a mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11200.00	41.23	40.00	15.42	41.27	55.38	68.20	-12.82	Vertical
11200.00	42.69	40.00	15.42	41.27	56.84	68.20	-11.36	Horizontal
802.11a mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11200.00	31.46	40.00	15.42	41.27	45.61	54.00	-8.39	Vertical
11200.00	31.44	40.00	15.42	41.27	45.59	54.00	-8.41	Horizontal

802.11a mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11400.00	41.25	39.70	15.55	41.10	55.40	68.20	-12.80	Vertical
11400.00	40.79	39.70	15.55	41.10	54.94	68.20	-13.26	Horizontal
802.11a mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11400.00	30.25	39.70	15.55	41.10	44.40	54.00	-9.60	Vertical
11400.00	32.46	39.70	15.55	41.10	46.61	54.00	-7.39	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n20 mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11000.00	42.26	40.10	15.37	41.34	56.39	68.20	-11.81	Vertical
11000.00	41.73	40.10	15.37	41.34	55.86	68.20	-12.34	Horizontal
802.11n20 mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11000.00	32.26	40.10	15.37	41.34	46.39	54.00	-7.61	Vertical
11000.00	31.47	40.10	15.37	41.34	45.60	54.00	-8.40	Horizontal

802.11n20 mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11200.00	42.25	40.00	15.42	41.27	56.40	68.20	-11.80	Vertical
11200.00	41.76	40.00	15.42	41.27	55.91	68.20	-12.29	Horizontal
802.11n20 mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11200.00	32.46	40.00	15.42	41.27	46.61	54.00	-7.39	Vertical
11200.00	30.26	40.00	15.42	41.27	44.41	54.00	-9.59	Horizontal

802.11n20 mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11400.00	41.45	39.70	15.55	41.10	55.60	68.20	-12.60	Vertical
11400.00	42.78	39.70	15.55	41.10	56.93	68.20	-11.27	Horizontal
802.11n20 mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11400.00	32.26	39.70	15.55	41.10	46.41	54.00	-7.59	Vertical
11400.00	31.46	39.70	15.55	41.10	45.61	54.00	-8.39	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

802.11n40 mode Lowest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11020.00	42.57	40.00	15.42	41.31	56.68	68.20	-11.52	Vertical
11020.00	41.46	40.00	15.42	41.31	55.57	68.20	-12.63	Horizontal
802.11n40 mode Lowest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11020.00	32.25	40.00	15.42	41.31	46.36	54.00	-7.64	Vertical
11020.00	31.62	40.00	15.42	41.31	45.73	54.00	-8.27	Horizontal

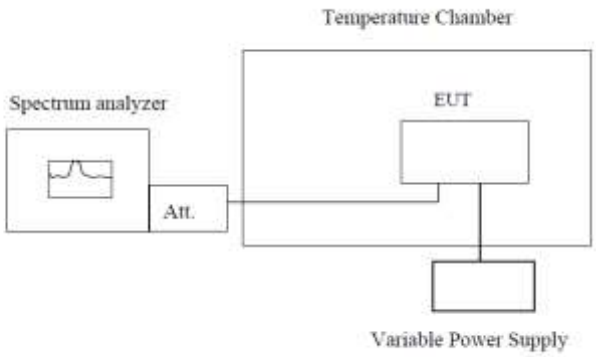
802.11n40 mode Highest channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11340.00	41.45	39.80	15.51	41.17	55.59	68.20	-12.61	Vertical
11340.00	42.76	39.80	15.51	41.17	56.90	68.20	-11.30	Horizontal
802.11n40 mode Highest channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11340.00	32.15	39.80	15.51	41.17	46.29	54.00	-7.71	Vertical
11340.00	32.69	39.80	15.51	41.17	46.83	54.00	-7.17	Horizontal

802.11ac-HT80 mode Middle channel (Peak Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11060.00	42.26	39.90	15.46	41.24	56.38	68.20	-11.82	Vertical
11060.00	41.73	39.90	15.46	41.24	55.85	68.20	-12.35	Horizontal
802.11ac-HT80 mode Middle channel (Average Value)								
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
11060.00	32.58	39.90	15.46	41.24	46.70	54.00	-7.30	Vertical
11060.00	31.04	39.90	15.46	41.24	45.16	54.00	-8.84	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

6.8 Frequency stability

Test Requirement:	FCC Part15 E Section 15.407 (g)
Limit:	Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.
Test setup:	 **Note :** Measurement setup for testing on Antenna connector
Test procedure:	1. The EUT is installed in an environment test chamber with external power source. 2. Set the chamber to operate at 50 centigrade and external power source to output at nominal voltage of EUT. 3. A sufficient stabilization period at each temperature is used prior to each frequency measurement. 4. When temperature is stabled, measure the frequency stability. 5. The test shall be performed under -30 to 50 centigrade and 85 to 115 percent of the nominal voltage. Change setting of chamber and external power source to complete all conditions.
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details, and all channels have been tested, only shows the worst channel data in this report.
Test results:	Passed

Measurement Data (the worst channel):

Band 1:

Voltage vs. Frequency Stability (Lowest channel=5180MHz)

Test conditions		Frequency(MHz)	Max. Deviation (ppm)
Temp(℃)	Voltage(ac)		
20	102V	5179.997563	0.47
	120V	5179.974629	4.90
	138V	5179.963574	7.03

Temperature vs. Frequency Stability (Lowest channel=5180MHz)

Test conditions		Frequency(MHz)	Max. Deviation (ppm)
Voltage(ac)	Temp(℃)		
120V	-20	5179.987211	2.47
	-10	5179.995260	0.92
	0	5179.968419	6.10
	10	5179.987469	2.42
	20	5179.996490	0.68
	30	5179.974526	4.92
	40	5179.963670	7.01
	50	5179.974889	4.85

Band 2:

Voltage vs. Frequency Stability (Lowest channel=5260MHz)

Test conditions		Frequency(MHz)	Max. Deviation (ppm)
Temp(℃)	Voltage(ac)		
20	102V	5259.968790	5.93
	120V	5259.996620	0.64
	138V	5259.993952	1.15

Temperature vs. Frequency Stability (Lowest channel=5260MHz)

Test conditions		Frequency(MHz)	Max. Deviation (ppm)
Voltage(ac)	Temp(℃)		
120V	-20	5259.996780	0.61
	-10	5259.984664	2.92
	0	5259.996592	0.65
	10	5259.981570	3.50
	20	5259.996632	0.64
	30	5259.969490	5.80
	40	5259.979778	3.84
	50	5259.956592	8.25

Band 3:

Voltage vs. Frequency Stability (Lowest channel=5500MHz)

Test conditions		Frequency(MHz)	Max. Deviation (ppm)
Temp(℃)	Voltage(ac)		
20	102V	5499.997780	0.40
	120V	5499.974634	4.61
	138V	5499.963880	6.57

Temperature vs. Frequency Stability (Lowest channel=5500MHz)

Test conditions		Frequency(MHz)	Max. Deviation (ppm)
Voltage(ac)	Temp(℃)		
120V	-20	5499.987159	2.33
	-10	5499.995740	0.77
	0	5499.968620	5.71
	10	5499.987463	2.28
	20	5499.996952	0.55
	30	5499.974874	4.57
	40	5499.963662	6.61
	50	5499.974705	4.60