

FCC REPORT

Applicant: Beat A/S

Address of Applicant: Klingseyvej 15B, 2720 Vanløse, Denmark

Manufacturer/Factory: MELE TECHNOLOGIES(SHENZHEN) CO.,LTD

Address of Manufacturer/Factory: 1F, Bldg#2, 28 Cuijing Road, Pingshan District, Shenzhen, PR China.

Equipment Under Test (EUT)

Product Name: Mini PC

Model No.: MIB 12

FCC ID: 2AFGT-MIB12

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

Date of sample receipt: August 31, 2018

Date of Test: September 01-10, 2018

Date of report issue: September 11, 2018

Test Result : PASS *

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

Authorized Signature:



Robinson Lo

Laboratory Manager

This results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

2 Version

Version No.	Date	Description
00	September 11, 2018	Original

Prepared By:

Bill. Yuan

Date:

September 11, 2018

Project Engineer

Check By:

Andy. Wu

Date:

September 11, 2018

Reviewer

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4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	PASS
AC Power Line Conducted Emission	15.207	PASS
Peak Transmit Power	15.407(a)(1)	PASS
Power Spectral Density	15.407(a)(1)	PASS
Undesirable Emission	15.407(b)(6), 15.205/15.209	PASS
Radiated Emission	15.205/15.209	PASS
Band Edge	15.407(b)(1)	PASS
Frequency Stability	15.407(g)	PASS

Remark:

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

4.1 Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	9kHz ~ 30MHz	$\pm 4.34\text{dB}$	(1)
Radiated Emission	30MHz ~ 1000MHz	$\pm 4.24\text{dB}$	(1)
Radiated Emission	1GHz ~ 40GHz	$\pm 4.68\text{dB}$	(1)
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	$\pm 3.45\text{dB}$	(1)

Note (1): The measurement uncertainty is for coverage factor of $k=2$ and a level of confidence of 95%.

Remark: Test according to ANSI C63.10:2013 and ANSI C63.4:2014

5 General Information

5.1 General Description of EUT

Product Name:	Mini PC
Model No.:	MIB 12
Serial No.:	0000001
Hardware Version:	PCG35-GML1-272-V1.10
Software Version:	V4.0.0
Test sample(s) ID:	GTS201808000235-1
Sample(s) Status:	Engineer sample
Operation Frequency:	802.11a/802.11n(HT20)/802.11ac(HT20): 5180MHz ~ 5240MHz; 802.11n(HT40)/ 802.11ac(HT40): 5190MHz ~ 5230MHz 802.11ac(HT80): 5210MHz
Channel numbers:	802.11a/802.11n(HT20)/802.11ac(HT20): 4; 802.11n(HT40)/ 802.11ac(HT40): 2 802.11ac(HT80): 1
Channel separation:	802.11a/802.11n(HT20)/802.11ac(HT20): 20MHz; 802.11n(HT40)/ 802.11ac(HT40): 40MHz 802.11ac(HT80): 80MHz
Modulation technology:	OFDM
Antenna Type:	Integral Antenna
Antenna gain:	Main Antenna: 2.00dBi (Max.), for TX/RX (Bluetooth and WLAN) Aux Antenna: 2.00dBi(Max.), for TX/RX (WLAN) Two antennas cannot synchronous transmission.
Power supply:	SWITCHING ADAPTER MODEL:ADS-25D-12 12024E INPUT: AC 100-240V, 50/60Hz, Max 0.7A OUTPUT: DC 12V, 2.0A

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
36	5180MHz	40	5200MHz	44	5220MHz	48	5240MHz
38	5190MHz	42	5210MHz	46	5230MHz		

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:

Test channel	Frequency (MHz)		
	802.11 a/n/ac(HT20)	802.11 n/ac(HT40)	802.11ac(HT80)
Lowest channel	5180MHz	5190MHz	
Middle channel	5200MHz		5210MHz
Highest channel	5240MHz	5230MHz	

5.2 Test mode

Transmitting mode	Keep the EUT in transmitting with modulation. EUT was test with 99% duty cycle at its maximum power control level.
<i>Remark: During the test, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.</i>	

5.3 Test Facility

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

- **FCC —Registration No.: 381383**

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 381383, January 08, 2018.

- **Industry Canada (IC) —Registration No.: 9079A-2**

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. Has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A-2, August 15, 2016.

5.4 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: No. 301-309, 3/F., Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, sBaoan District, Shenzhen, Guangdong, China 518102

Tel: 0755-27798480

Fax: 0755-27798960

5.5 Description of Support Units

None.

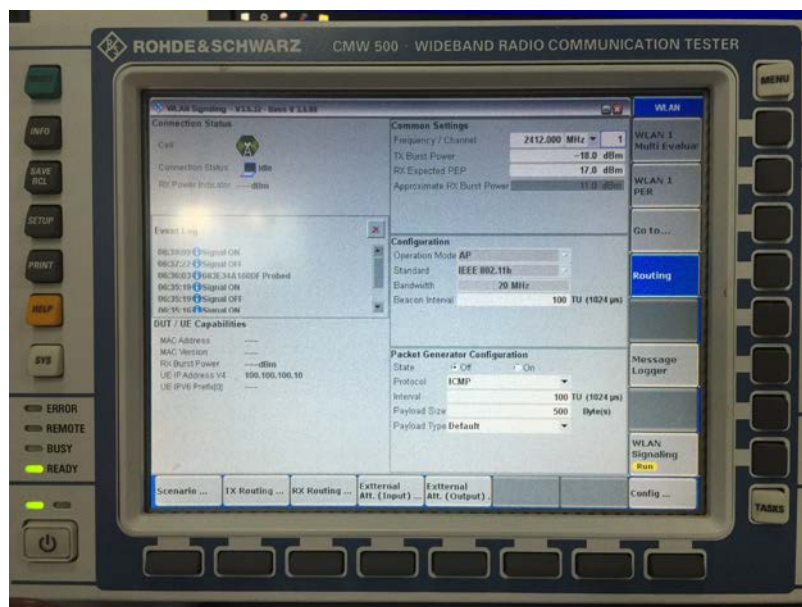
5.6 Deviation from Standards

None.

5.7 Additional Instructions

EUT Fixed Frequency Settings:

Power level setup			
Support Units	Description	Manufacturer	Model
	Wideband Radio Communication Tester	Rohde & Schwarz	CMW 500
Mode	Channel	Frequency (MHz)	Level Set
OFDM	CH36	5180	TX level : default
	CH38	5190	
	CH40	5200	
	CH42	5210	
	CH44	5220	
	CH46	5230	
	CH48	5240	



6 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 Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	July. 03 2015	July. 02 2020
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	June. 27 2018	June. 26 2019
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	June. 27 2018	June. 26 2019
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	June. 27 2018	June. 26 2019
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	June. 27 2018	June. 26 2019
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Coaxial Cable	GTS	N/A	GTS213	June. 27 2018	June. 26 2019
9	Coaxial Cable	GTS	N/A	GTS211	June. 27 2018	June. 26 2019
10	Coaxial cable	GTS	N/A	GTS210	June. 27 2018	June. 26 2019
11	Coaxial Cable	GTS	N/A	GTS212	June. 27 2018	June. 26 2019
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	June. 27 2018	June. 26 2019
13	Amplifier(2GHz-20GHz)	HP	84722A	GTS206	June. 27 2018	June. 26 2019
14	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June. 27 2018	June. 26 2019
15	Band filter	Amindeon	82346	GTS219	June. 27 2018	June. 26 2019
16	Power Meter	Anritsu	ML2495A	GTS540	June. 27 2018	June. 26 2019
17	Power Sensor	Anritsu	MA2411B	GTS541	June. 27 2018	June. 26 2019
18	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	June. 27 2018	June. 26 2019
19	Splitter	Agilent	11636B	GTS237	June. 27 2018	June. 26 2019
20	Loop Antenna	ZHINAN	ZN30900A	GTS534	June. 27 2018	June. 26 2019


Conducted Emission						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	May.16 2014	May.15 2019
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 27 2018	June. 26 2019
3	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	June. 27 2018	June. 26 2019
4	Artificial Mains Network	SCHWARZBECK MESS	NSLK8127	GTS226	June. 27 2018	June. 26 2019
5	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	Thermo meter	KTJ	TA328	GTS233	June. 27 2018	June. 26 2019
8	Absorbing clamp	Elektronik-Feinmechanik	MDS21	GTS229	June. 27 2018	June. 26 2019

RF Conducted:						
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	MXA Signal Analyzer	Agilent	N9020A	GTS566	June. 27 2018	June. 26 2019
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 27 2018	June. 26 2019
3	Spectrum Analyzer	Agilent	E4440A	GTS533	June. 27 2018	June. 26 2019
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	June. 27 2018	June. 26 2019
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	June. 27 2018	June. 26 2019
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	June. 27 2018	June. 26 2019
7	RF Switch Box	Shongyi	RFSW3003328	GTS571	June. 27 2018	June. 26 2019
8	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 27 2018	June. 26 2019
9	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	June. 27 2018	June. 26 2019

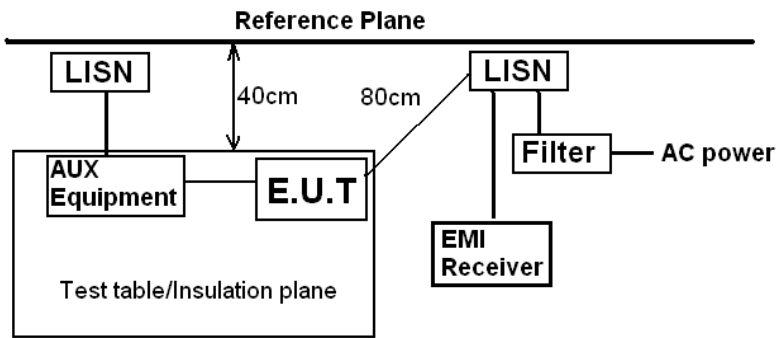
General used equipment:						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Humidity/ Temperature Indicator	KTJ	TA328	GTS243	June. 27 2018	June. 26 2019
2	Barometer	ChangChun	DYM3	GTS255	June. 27 2018	June. 26 2019

7 Test results and Measurement Data

7.1 Antenna requirement:

Standard requirement:	FCC Part15 C Section 15.203
<p>15.203 requirement:</p> <p><i>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.</i></p>	
E.U.T Antenna:	
<p><i>The Main and Aux antenna is integral antenna, the best case gain of the antenna is 2.00dBi.</i></p> <p><i>Two antennas cannot synchronous transmission.</i></p>	
	

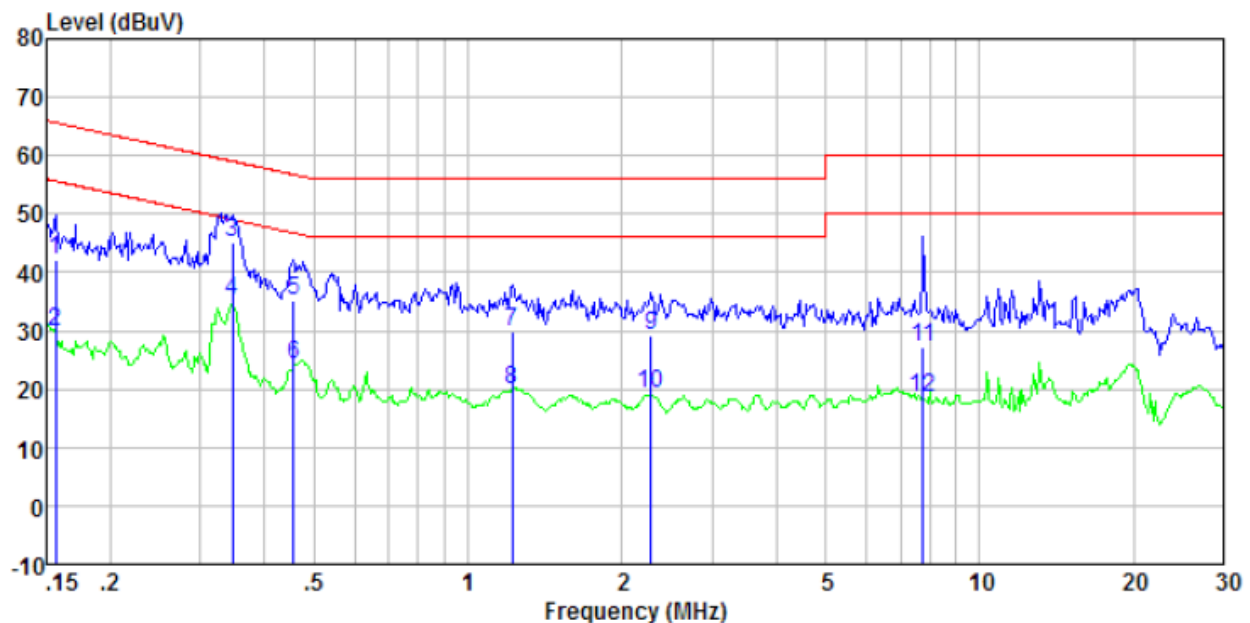
7.2 Conducted Emissions

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	Average
	0.15-0.5	66 to 56*	56 to 46*
	0.5-5	56	46
	5-30	60	50
* Decreases with the logarithm of the frequency.			
Test procedure	<p>The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). The provide a 50ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs). 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.</p>		
Test setup:	 <p><i>Remark</i> E.U.T: Equipment Under Test LISN: Line Impedance Stabilization Network Test table height=0.8m</p>		
Test Instruments:	Refer to section 5.10 for details		
Test mode:	Refer to section 5.2 for details		
Test voltage:	AC 120V, 60Hz		
Test results:	Pass		

Remark: Both high and low voltages have been tested to show only the worst low voltage test data.

Measurement data:

Mode:	Transmitting mode	Test by:	Bill
Temp./Hum.(%RH):	26°C/56%RH	Probe:	Line

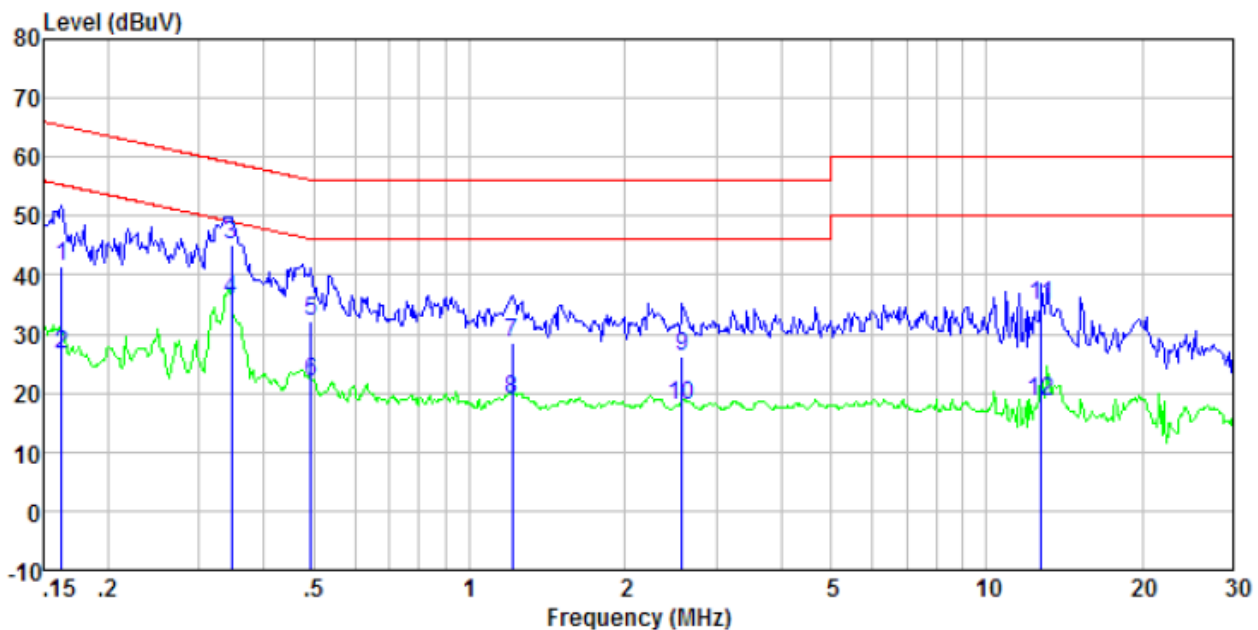


Freq MHz	Reading level dBuV	LISN/ISN factor dB/m	Cable loss dB	Level dBuV	Limit level dBuV	Over limit dB	Remark
0.16	41.57	0.40	0.08	42.05	65.65	-23.60	QP
0.16	29.35	0.40	0.08	29.83	55.65	-25.82	Average
0.35	44.75	0.38	0.10	45.23	59.05	-13.82	QP
0.35	34.85	0.38	0.10	35.33	49.05	-13.72	Average
0.46	34.57	0.33	0.11	35.01	56.76	-21.75	QP
0.46	23.75	0.33	0.11	24.19	46.76	-22.57	Average
1.22	29.58	0.20	0.16	29.94	56.00	-26.06	QP
1.22	19.53	0.20	0.16	19.89	46.00	-26.11	Average
2.28	28.68	0.20	0.18	29.06	56.00	-26.94	QP
2.28	19.01	0.20	0.18	19.39	46.00	-26.61	Average
7.77	26.78	0.20	0.19	27.17	60.00	-32.83	QP
7.77	18.28	0.20	0.19	18.67	50.00	-31.33	Average

Mode: Transmitting mode

Test by: Bill

Temp./Hum.(%H): 26°C/56%RH

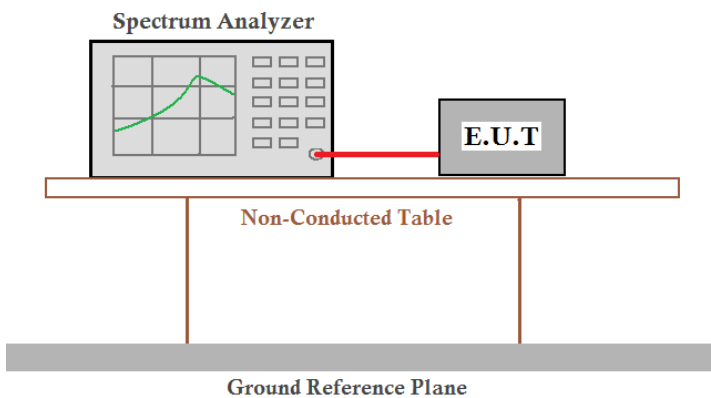
Probe: Neutral


Freq MHz	Reading level dBuV	LISN/ISN factor dB/m	Cable loss dB	Level dBuV	Limit level dBuV	Over limit dB	Remark
0.16	41.03	0.40	0.08	41.51	65.34	-23.83	QP
0.16	25.89	0.40	0.08	26.37	55.34	-28.97	Average
0.35	44.55	0.38	0.10	45.03	59.05	-14.02	QP
0.35	35.42	0.38	0.10	35.90	49.05	-13.15	Average
0.49	31.74	0.32	0.11	32.17	56.10	-23.93	QP
0.49	21.36	0.32	0.11	21.79	46.10	-24.31	Average
1.21	28.15	0.20	0.16	28.51	56.00	-27.49	QP
1.21	18.62	0.20	0.16	18.98	46.00	-27.02	Average
2.58	25.77	0.20	0.18	26.15	56.00	-29.85	QP
2.58	17.50	0.20	0.18	17.88	46.00	-28.12	Average
12.78	34.37	0.20	0.21	34.78	60.00	-25.22	QP
12.78	18.22	0.20	0.21	18.63	50.00	-31.37	Average

Notes:

1. An initial pre-scan was performed on the line 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

7.3 Emission Bandwidth and 99% Occupied Bandwidth

Test Requirement:	FCC Part15 E Section 15.407
Test Method:	KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Limit:	N/A
Test setup:	 <p>The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T. are placed on a Non-Conducted Table. The table is supported by two vertical legs. Below the table is a Ground Reference Plane.</p>
Test procedure:	According to KDB 789033 D02 General U-NII Test Procedures New Rules v02r01.
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data:
Aux Antenna:

CH. No.	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26dB Occupied Bandwidth (MHz)		
		802.11a	802.11n(HT 20)	802.11ac(H T20)	802.11a	802.11n(HT 20)	802.11ac(H T20)
36	5180.00	16.3780	16.3586	16.3975	19.574	19.485	19.260
40	5200.00	16.3285	16.3644	16.3533	19.180	19.650	19.301
48	5240.00	16.3664	16.3586	16.3268	19.711	19.686	19.659

CH. No.	Frequency (MHz)	99% Occupied Bandwidth (MHz)		26dB Occupied Bandwidth (MHz)	
		802.11n(HT40)	802.11ac(HT40)	802.11n(HT40)	802.11ac(HT40)
38	5190.00	36.0430	35.9966	41.880	42.364
46	5230.00	35.9820	35.9875	39.831	39.439

CH. No.	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Occupied Bandwidth (MHz)
		802.11ac(HT80)	802.11ac(HT80)
42	5210.00	75.1799	80.176

Main Antenna:

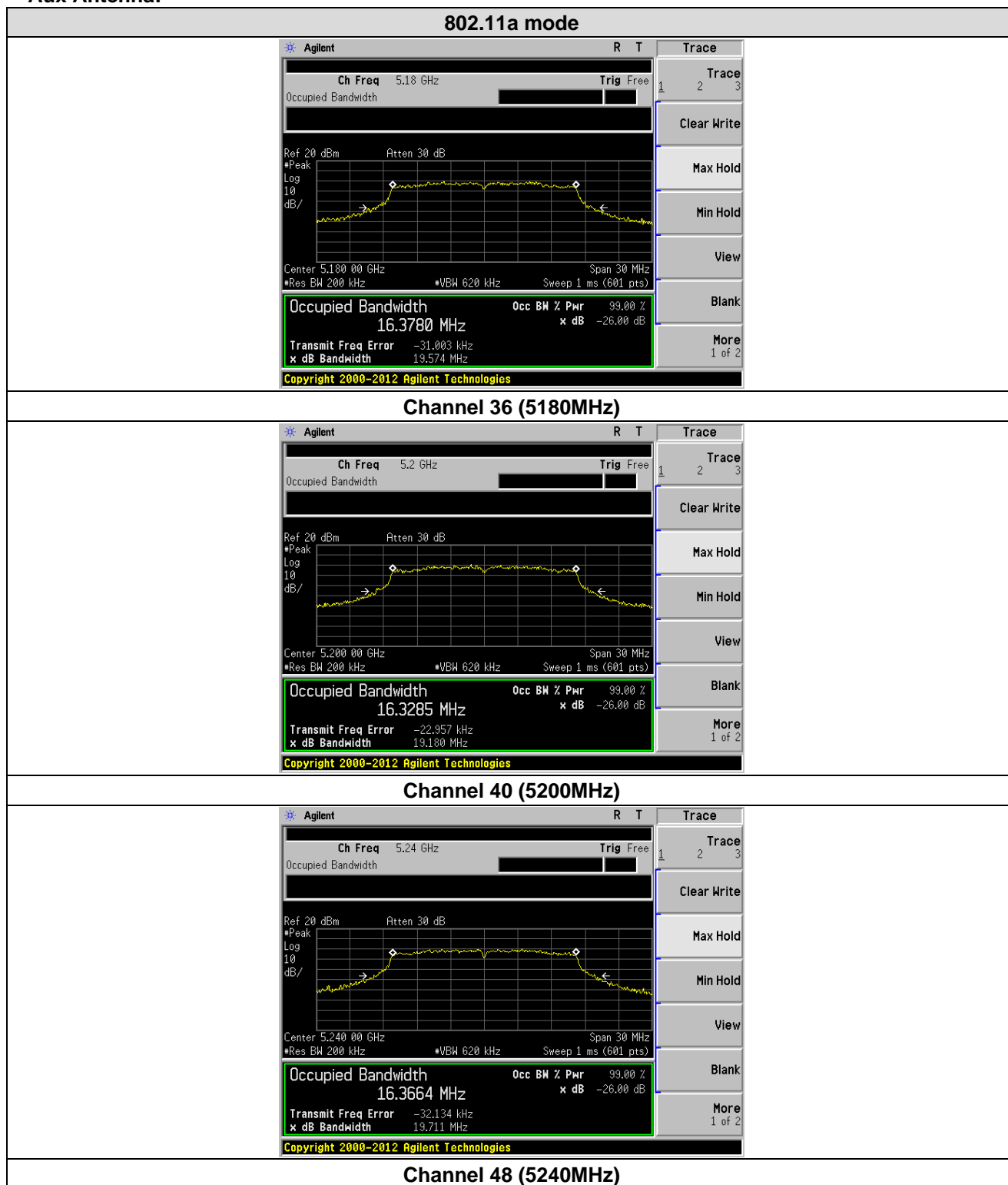
CH. No.	Frequency (MHz)	99% Occupied Bandwidth (MHz)			26dB Occupied Bandwidth (MHz)		
		802.11a	802.11n(HT 20)	802.11ac(H T20)	802.11a	802.11n(HT 20)	802.11ac(H T20)
36	5180.00	16.3723	16.3769	16.3822	19.876	19.534	19.976
40	5200.00	16.3630	16.3476	16.3501	19.959	19.512	20.171
48	5240.00	16.3329	16.3812	16.4210	19.475	19.845	19.581

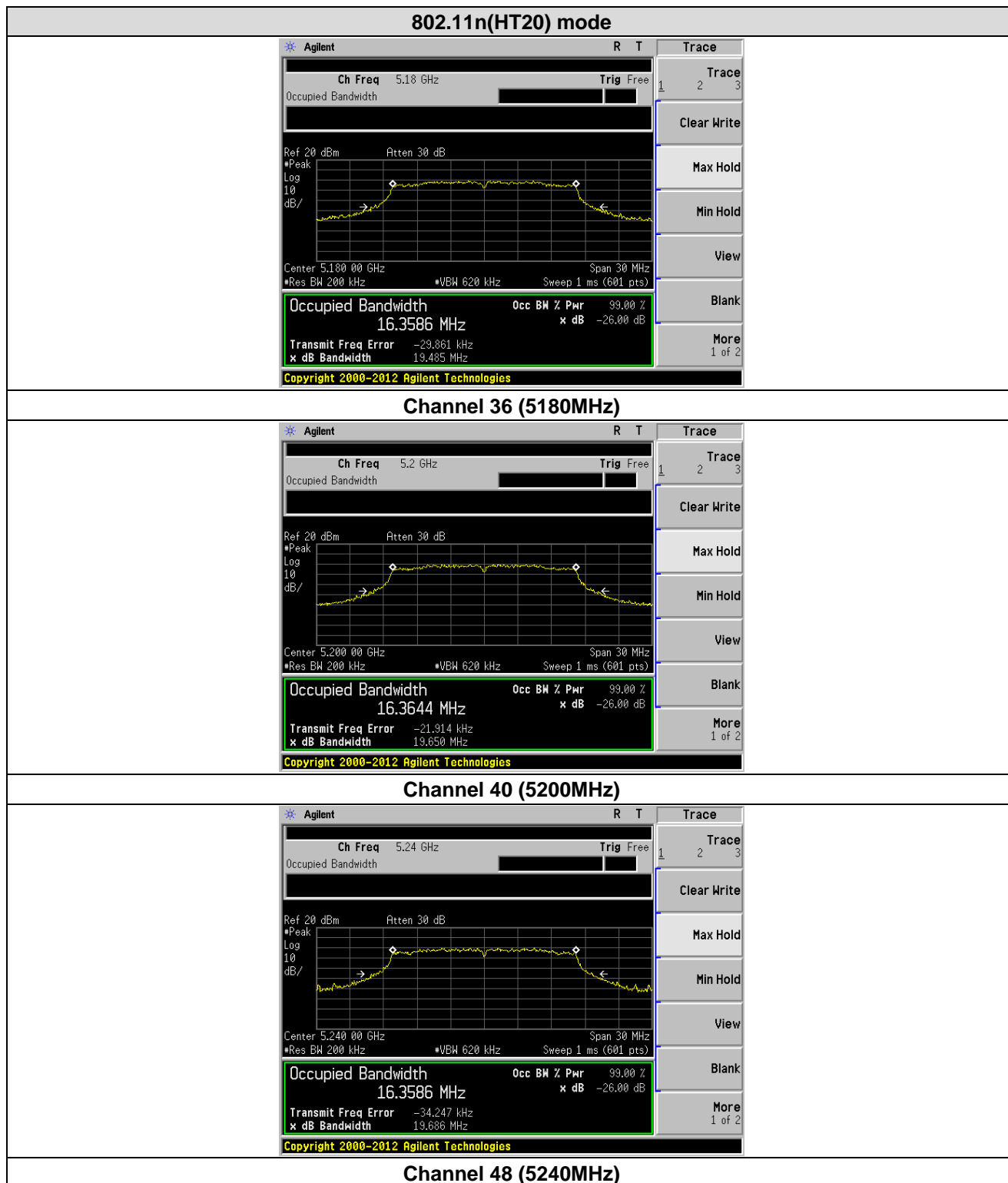
CH. No.	Frequency (MHz)	99% Occupied Bandwidth (MHz)		26dB Occupied Bandwidth (MHz)	
		802.11n(HT40)	802.11ac(HT40)	802.11n(HT40)	802.11ac(HT40)
38	5190.00	36.0178	36.0131	42.072	42.229
46	5230.00	35.9733	35.9639	40.057	40.053

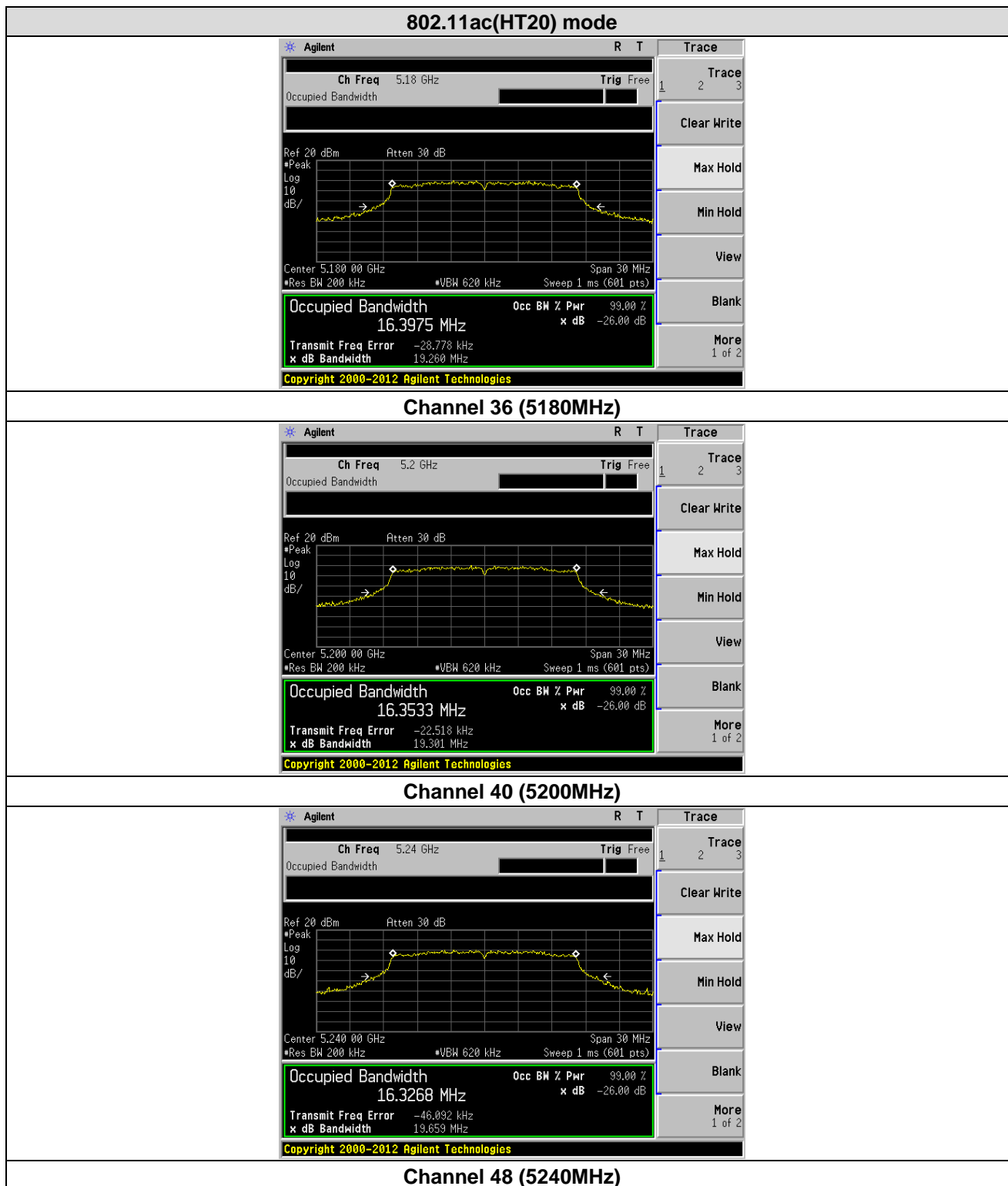
CH. No.	Frequency (MHz)	99% Occupied Bandwidth (MHz)	26dB Occupied Bandwidth (MHz)
		802.11ac(HT80)	802.11ac(HT80)
42	5210.00	75.1634	80.209

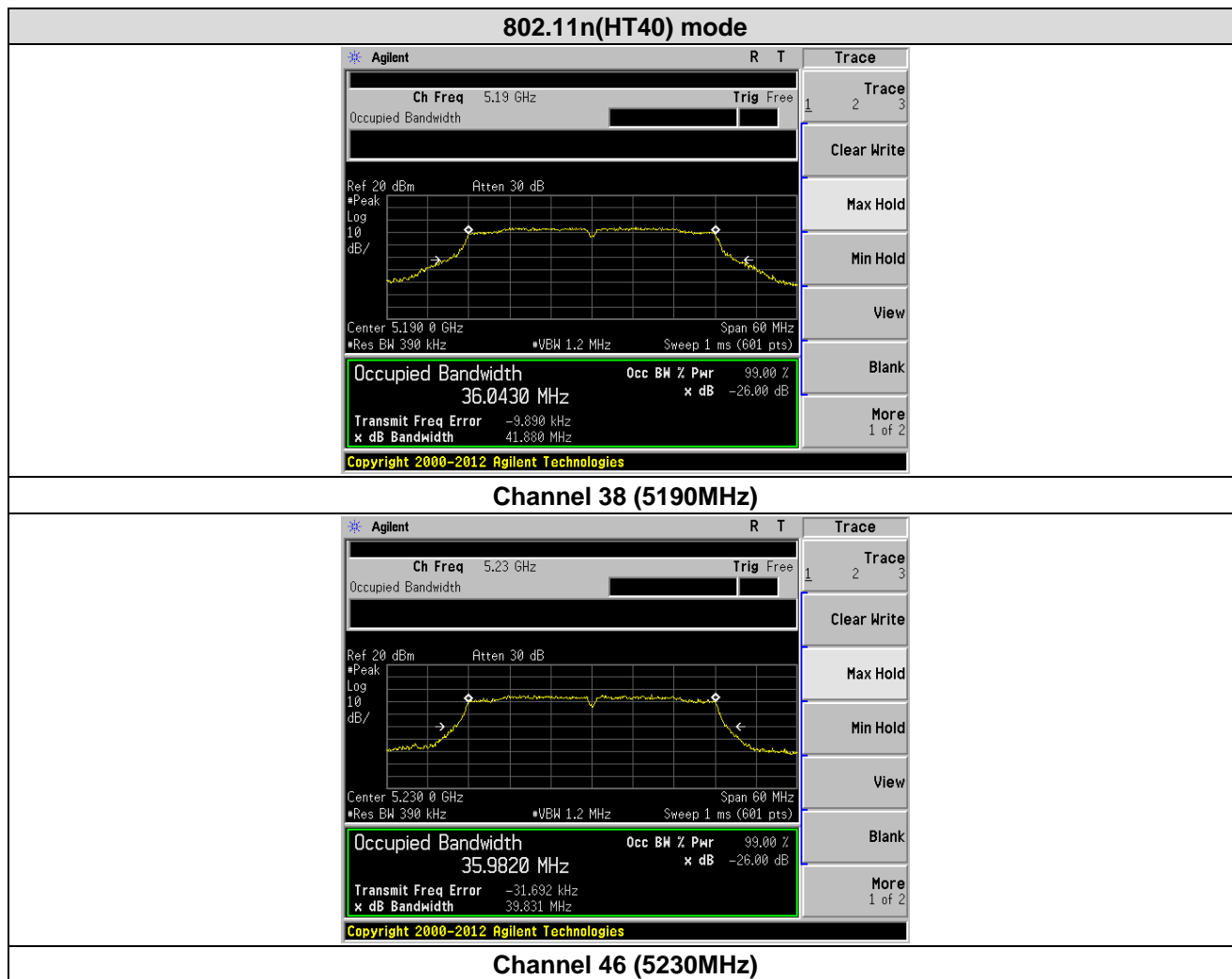
Test plots as followed:

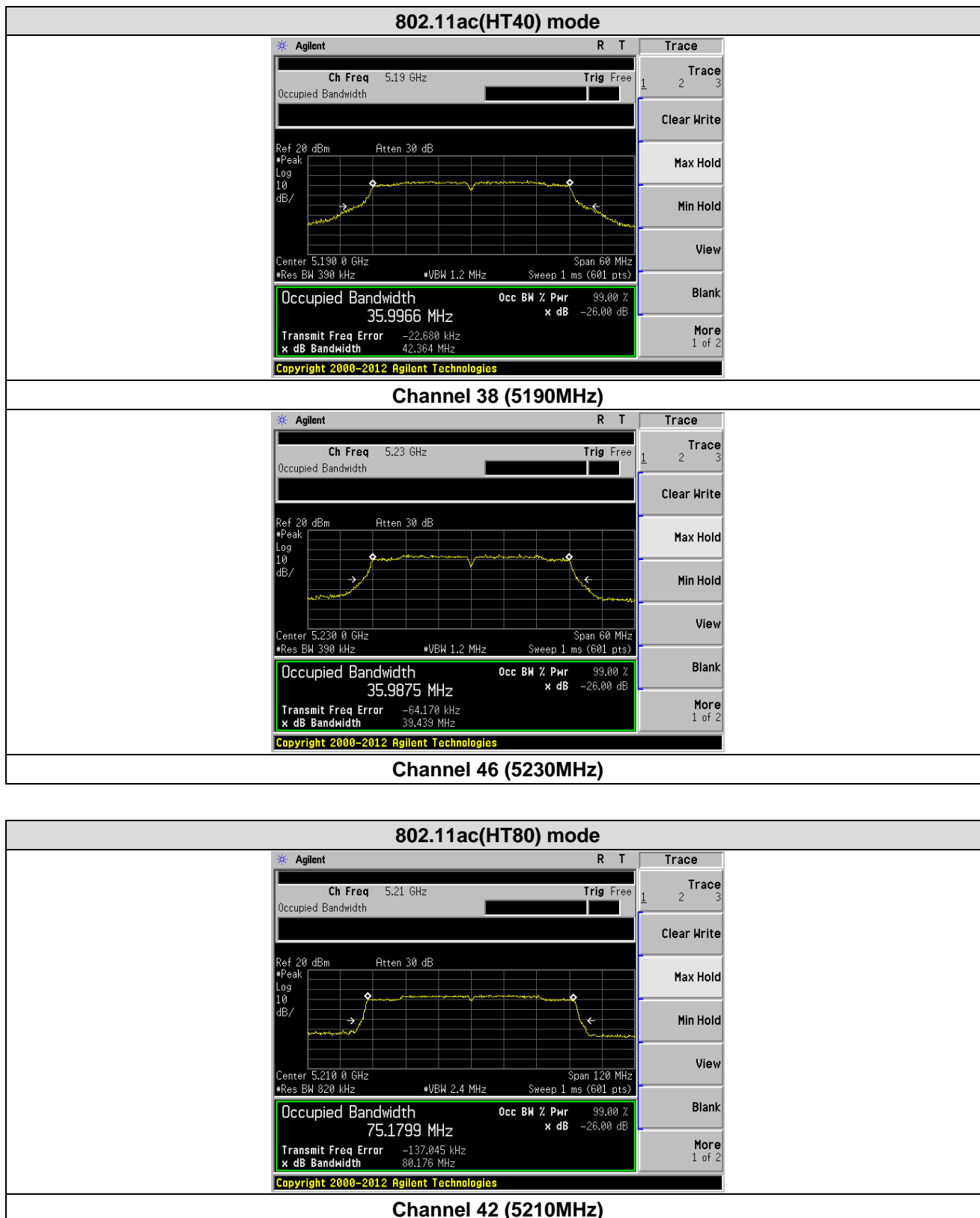
Aux Antenna:



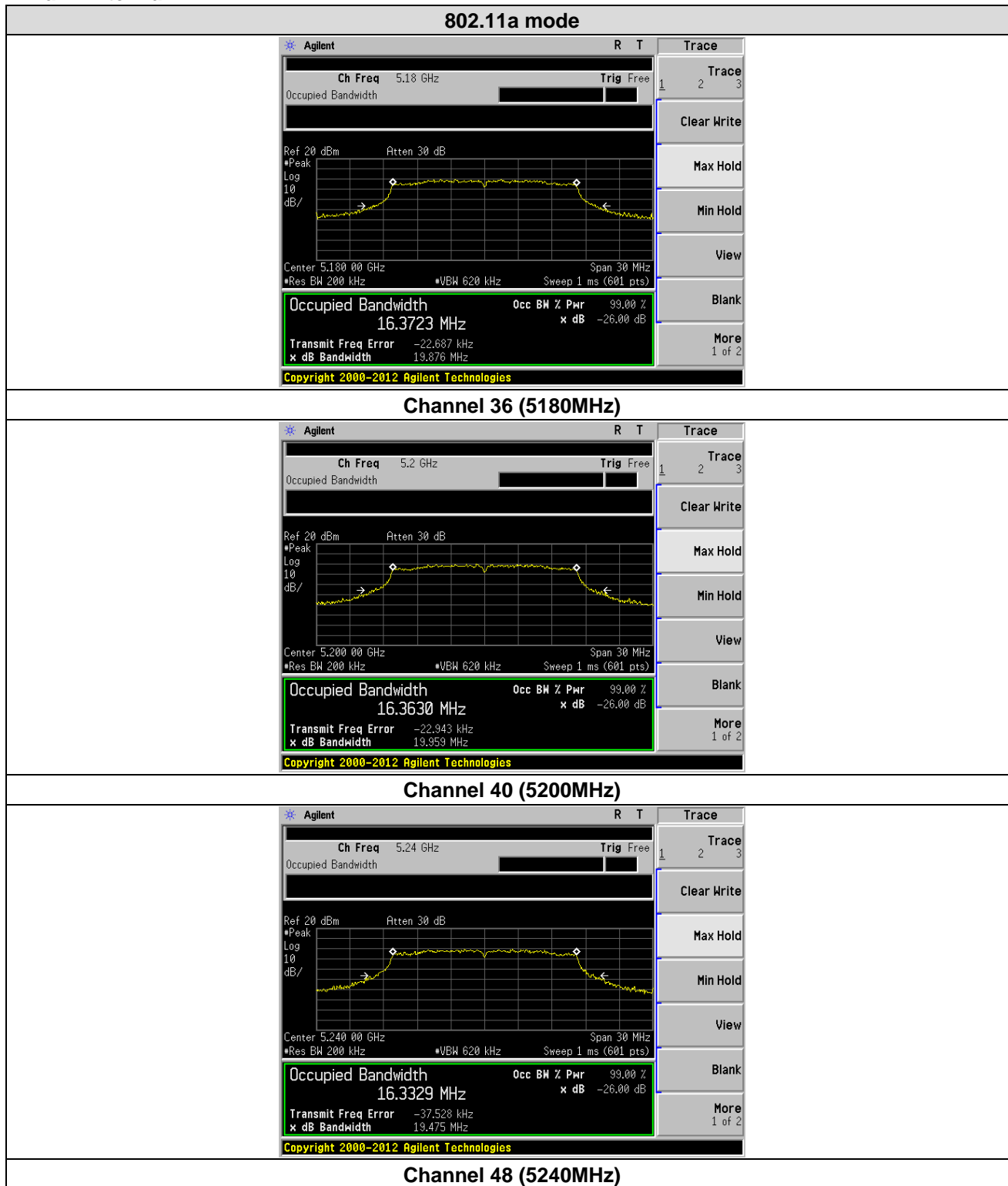


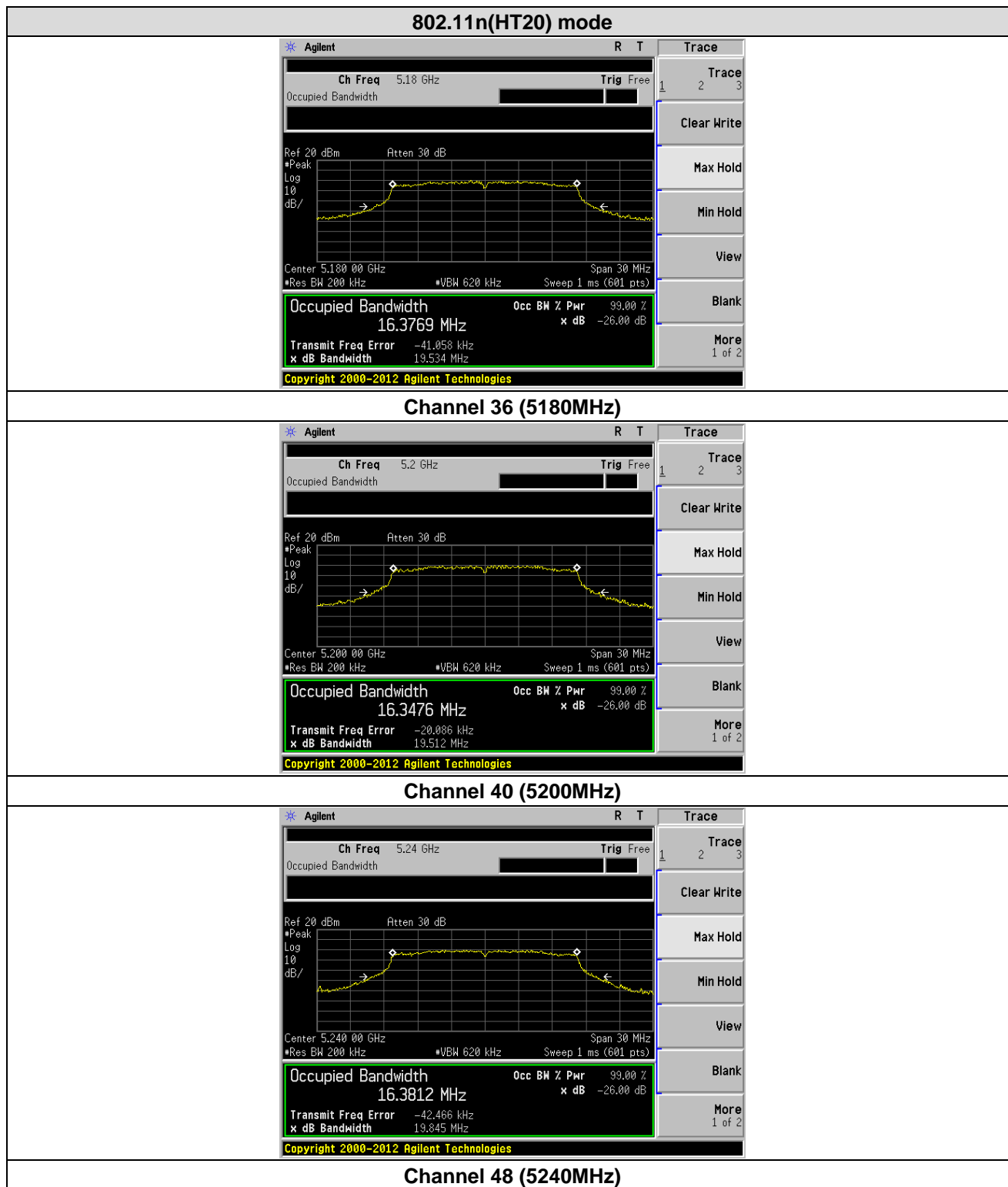


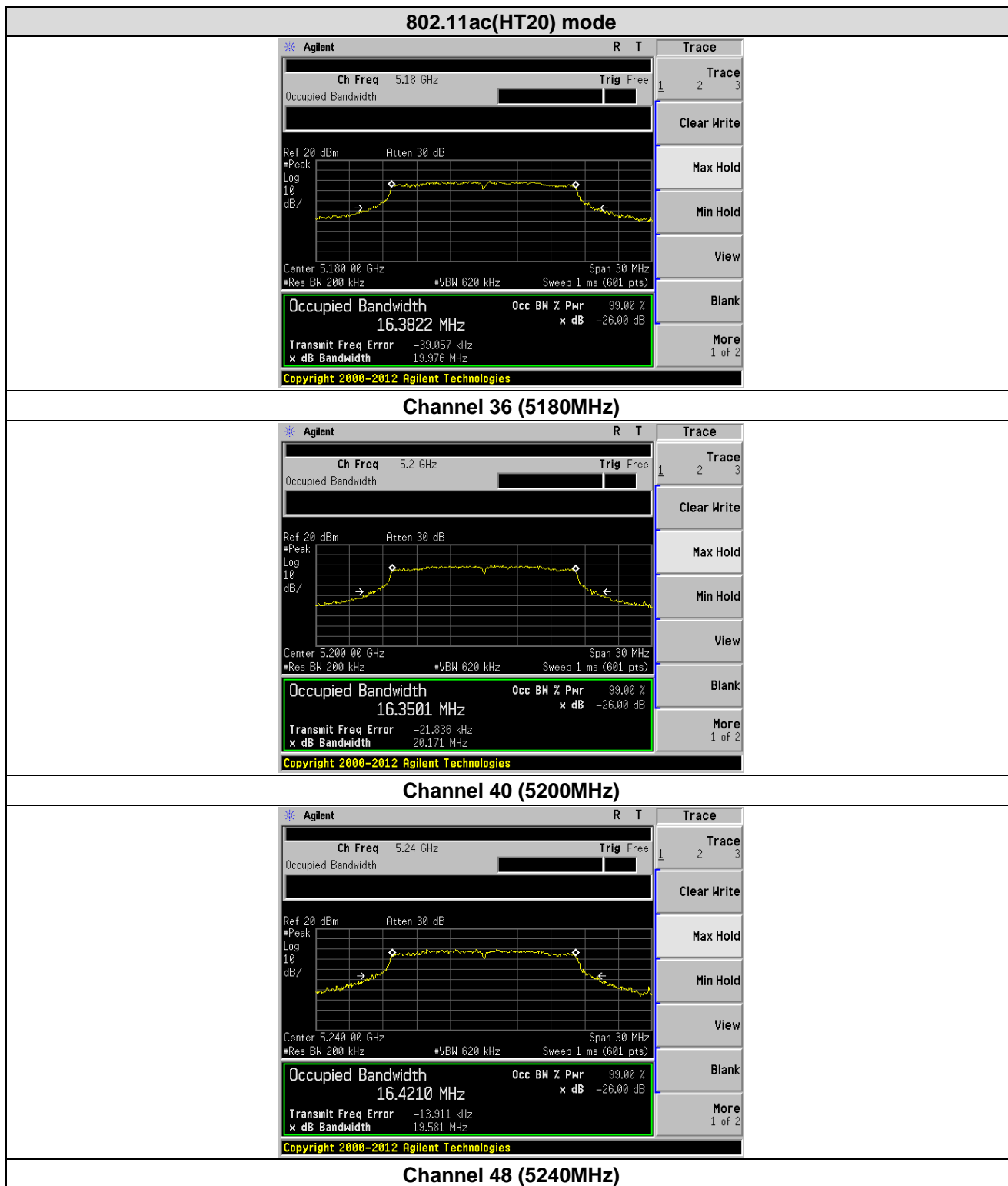




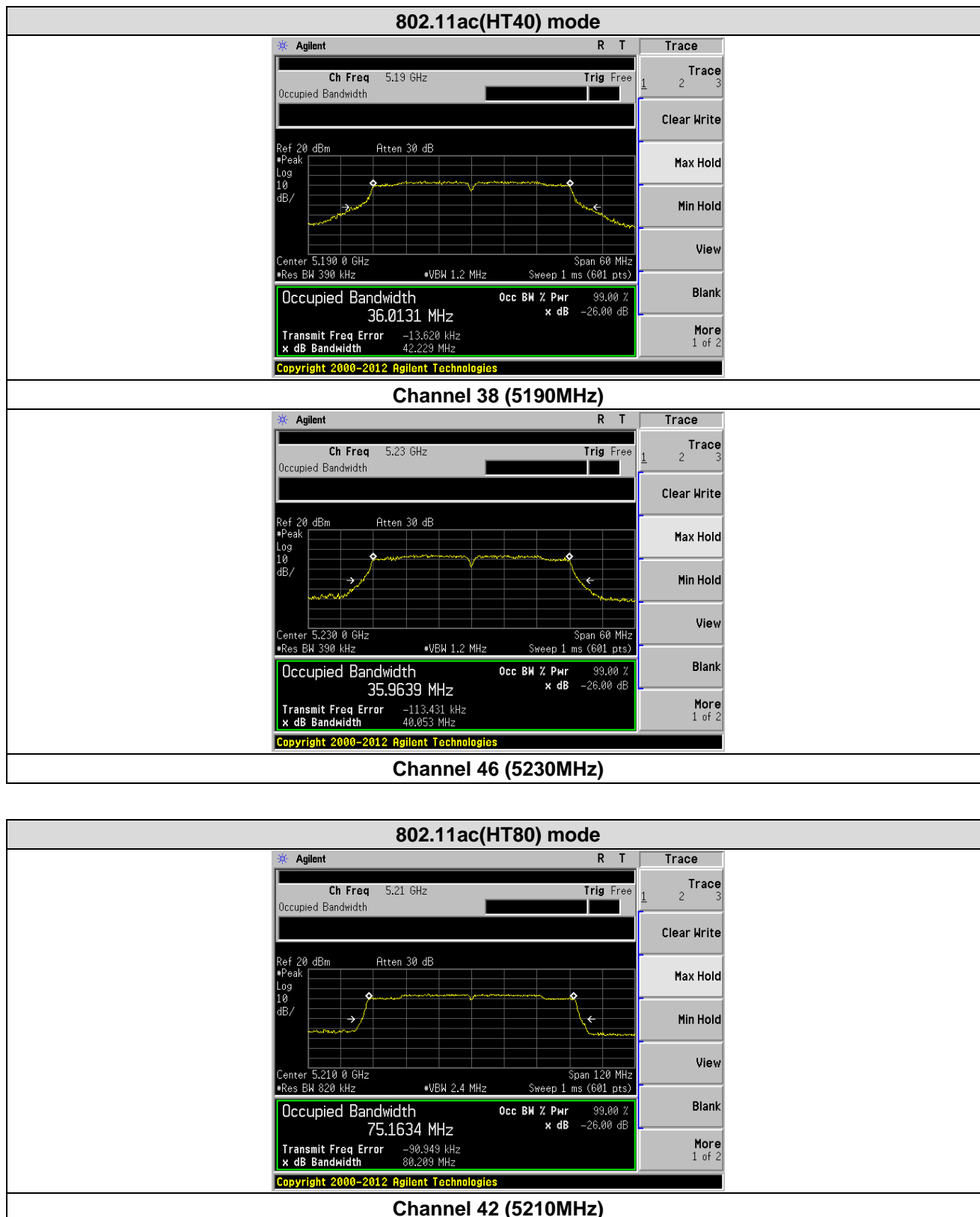
Main Antenna:



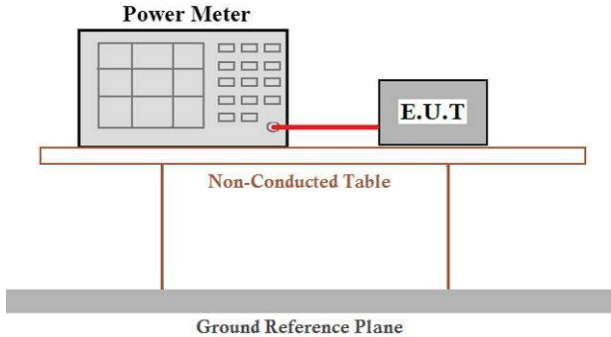








7.4 Peak Transmit Power

Test Requirement:	FCC Part15 E Section 15.407
Test Method:	KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Limit:	For the band 5.15-5.25 GHz, the maximum conducted output power over the frequency bands of operation shall not exceed 250mW.
Test setup:	 <p>The diagram illustrates the test setup. A Power Meter is connected to an E.U.T. (Equipment Under Test) via a red cable. Both are placed on a Non-Conducted Table, which is supported by two vertical legs. Below the table is a Ground Reference Plane.</p>
Test procedure:	<p>Measurement using an RF average power meter</p> <ul style="list-style-type: none"> (i) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied <ul style="list-style-type: none"> a) The EUT is configured to transmit continuously or to transmit with a constant duty cycle. b) At all times when the EUT is transmitting, it must be transmitting at its maximum power control level. c) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five. (ii) If the transmitter does not transmit continuously, measure the duty cycle, x, of the transmitter output signal as described in section B). (iii) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter. (iv) Adjust the measurement in dBm by adding $10 \log(1/x)$ where x is the duty cycle (e.g., $10 \log(1/0.25)$ if the duty cycle is 25 percent).
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

Main Antenna:

802.11a mode						
CH No.	Frequency (MHz)	Measured Power (dBm)	Duty Factor	Output Power (dBm)	Limit (dBm)	Result
36	5180.00	12.57	0.04	12.61	23.98	Pass
40	5200.00	12.65	0.04	12.69	23.98	Pass
48	5240.00	12.71	0.04	12.75	23.98	Pass

802.11n(HT20) mode						
CH No.	Frequency (MHz)	Measured Power (dBm)	Duty Factor	Output Power (dBm)	Limit (dBm)	Result
36	5180.00	12.43	0.04	12.47	23.98	Pass
40	5200.00	12.52	0.04	12.56	23.98	Pass
48	5240.00	12.59	0.04	12.63	23.98	Pass

802.11ac(HT20) mode						
CH No.	Frequency (MHz)	Measured Power (dBm)	Duty Factor	Output Power (dBm)	Limit (dBm)	Result
36	5180.00	12.41	0.04	12.45	23.98	Pass
40	5200.00	12.35	0.04	12.39	23.98	Pass
48	5240.00	12.57	0.04	12.61	23.98	Pass

802.11n(HT40) mode						
CH No.	Frequency (MHz)	Measured Power (dBm)	Duty Factor	Output Power (dBm)	Limit (dBm)	Result
38	5190.00	9.61	0.04	9.65	23.98	Pass
46	5230.00	9.67	0.04	9.71	23.98	Pass

802.11 ac(HT40) mode						
CH No.	Frequency (MHz)	Measured Power (dBm)	Duty Factor	Output Power (dBm)	Limit (dBm)	Result
38	5190.00	9.41	0.04	9.45	23.98	Pass
46	5230.00	9.35	0.04	9.39	23.98	Pass

802.11 ac(HT80)						
CH No.	Frequency (MHz)	Measured Power (dBm)	Duty Factor	Output Power (dBm)	Limit (dBm)	Result
42	5210.00	7.37	0.04	7.41	23.98	Pass

Note: Output Power = Measured Power + Duty Factor

Duty Factor = 10 log (1/Duty Cycle)

Aux Antenna:

802.11a mode						
CH No.	Frequency (MHz)	Measured Power (dBm)	Duty Factor	Output Power (dBm)	Limit (dBm)	Result
36	5180.00	12.41	0.04	12.45	23.98	Pass
40	5200.00	12.48	0.04	12.52	23.98	Pass
48	5240.00	12.52	0.04	12.56	23.98	Pass

802.11n(HT20) mode						
CH No.	Frequency (MHz)	Measured Power (dBm)	Duty Factor	Output Power (dBm)	Limit (dBm)	Result
36	5180.00	12.44	0.04	12.48	23.98	Pass
40	5200.00	12.49	0.04	12.53	23.98	Pass
48	5240.00	12.51	0.04	12.55	23.98	Pass

802.11ac(HT20) mode						
CH No.	Frequency (MHz)	Measured Power (dBm)	Duty Factor	Output Power (dBm)	Limit (dBm)	Result
36	5180.00	12.37	0.04	12.41	23.98	Pass
40	5200.00	12.33	0.04	12.37	23.98	Pass
48	5240.00	12.39	0.04	12.43	23.98	Pass

802.11n(HT40) mode						
CH No.	Frequency (MHz)	Measured Power (dBm)	Duty Factor	Output Power (dBm)	Limit (dBm)	Result
38	5190.00	9.42	0.04	9.46	23.98	Pass
46	5230.00	9.51	0.04	9.55	23.98	Pass

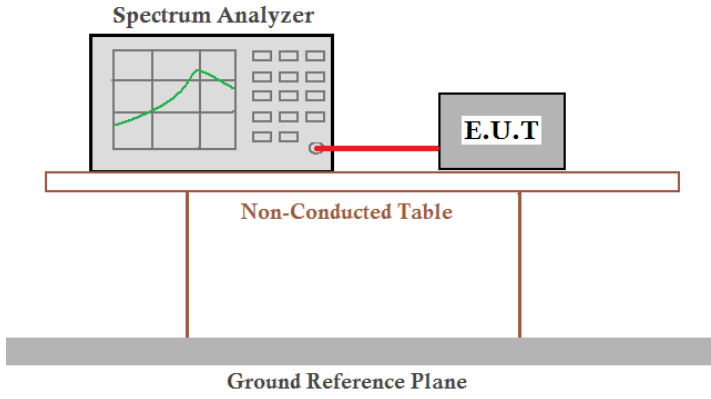
802.11 ac(HT40) mode						
CH No.	Frequency (MHz)	Measured Power (dBm)	Duty Factor	Output Power (dBm)	Limit (dBm)	Result
38	5190.00	9.31	0.04	9.35	23.98	Pass
46	5230.00	9.28	0.04	9.32	23.98	Pass

802.11 ac(HT80)						
CH No.	Frequency (MHz)	Measured Power (dBm)	Duty Factor	Output Power (dBm)	Limit (dBm)	Result
42	5210.00	7.25	0.04	7.29	23.98	Pass

Note: Output Power = Measured Power + Duty Factor

Duty Factor = $10 \log (1/\text{Duty Cycle})$

7.5 Power Spectral Density

Test Requirement:	FCC Part15 E Section 15.407
Test Method:	KDB 789033 D02 General U-NII Test Procedures New Rules v02r01
Limit:	11dBm/MHz
Test setup:	 <p>The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T. are placed on a Non-Conducted Table. The table is supported by a Ground Reference Plane.</p>
Test procedure:	<ol style="list-style-type: none"> 1) Create an average power spectrum for the EUT operating mode being tested by following the instructions in section E)2) for measuring maximum conducted output power using a spectrum analyzer or EMI receiver: select the appropriate test method (SA-1, SA-2, SA-3, or alternatives to each) and apply it up to, but not including, the step labeled, "Compute power...". 2) Use the peak search function on the instrument to find the peak of the spectrum. 3) Make the following adjustments to the peak value of the spectrum, if applicable: <ol style="list-style-type: none"> a) If Method SA-2 or SA-2 Alternative was used, add $10 \log(1/x)$, where x is the duty cycle, to the peak of the spectrum. b) If Method SA-3 Alternative was used and the linear mode was used in step E)2)g)(viii), add 1 dB to the final result to compensate for the difference between linear averaging and power averaging. 4) The result is the PSD.
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Measurement Data

Aux Antenna:

802.11a mode						
Channel No.	Frequency (MHz)	Measured PSD (dBm/MHz)	Duty Factor	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
36	5180.00	3.77	0.04	3.81	11	Pass
40	5200.00	2.97	0.04	3.01	11	Pass
48	5240.00	3.02	0.04	3.06	11	Pass

802.11n(HT20) mode						
Channel No.	Frequency (MHz)	Measured PSD (dBm/MHz)	Duty Factor	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
36	5180.00	4.56	0.04	4.60	11	Pass
40	5200.00	3.36	0.04	3.40	11	Pass
48	5240.00	3.74	0.04	3.78	11	Pass

802.11ac(HT20) mode						
Channel No.	Frequency (MHz)	Measured PSD (dBm/MHz)	Duty Factor	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
36	5180.00	3.37	0.04	3.41	11	Pass
40	5200.00	4.57	0.04	4.61	11	Pass
48	5240.00	4.40	0.04	4.44	11	Pass

802.11n(HT40) mode						
Channel No.	Frequency (MHz)	Measured PSD (dBm/MHz)	Duty Factor	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
38	5190.00	-3.36	0.04	-3.32	11	Pass
46	5230.00	-2.71	0.04	-2.67	11	Pass

802.11ac(HT40) mode						
Channel No.	Frequency (MHz)	Measured PSD (dBm/MHz)	Duty Factor	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
38	5190.00	-1.84	0.04	-1.80	11	Pass
46	5230.00	-3.01	0.04	-2.97	11	Pass

802.11ac(HT80) mode						
Channel No.	Frequency (MHz)	Measured PSD (dBm/MHz)	Duty Factor	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
42	5210.00	-7.22	0.04	-7.18	11	Pass

Note: Total PSD = Measured PSD + Duty Factor

Duty Factor = $10 \log (1/\text{Duty Cycle})$

Main Antenna:

802.11a mode						
Channel No.	Frequency (MHz)	Measured PSD (dBm/MHz)	Duty Factor	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
36	5180.00	3.97	0.04	4.01	11	Pass
40	5200.00	3.76	0.04	3.80	11	Pass
48	5240.00	3.55	0.04	3.59	11	Pass

802.11n(HT20) mode						
Channel No.	Frequency (MHz)	Measured PSD (dBm/MHz)	Duty Factor	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
36	5180.00	3.80	0.04	3.84	11	Pass
40	5200.00	4.06	0.04	4.10	11	Pass
48	5240.00	4.46	0.04	4.50	11	Pass

802.11ac(HT20) mode						
Channel No.	Frequency (MHz)	Measured PSD (dBm/MHz)	Duty Factor	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
36	5180.00	3.13	0.04	3.17	11	Pass
40	5200.00	3.82	0.04	3.86	11	Pass
48	5240.00	2.89	0.04	2.93	11	Pass

802.11n(HT40) mode						
Channel No.	Frequency (MHz)	Measured PSD (dBm/MHz)	Duty Factor	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
38	5190.00	-2.50	0.04	-2.46	11	Pass
46	5230.00	-2.89	0.04	-2.85	11	Pass

802.11ac(HT40) mode						
Channel No.	Frequency (MHz)	Measured PSD (dBm/MHz)	Duty Factor	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
38	5190.00	-2.88	0.04	-2.84	11	Pass
46	5230.00	-2.34	0.04	-2.30	11	Pass

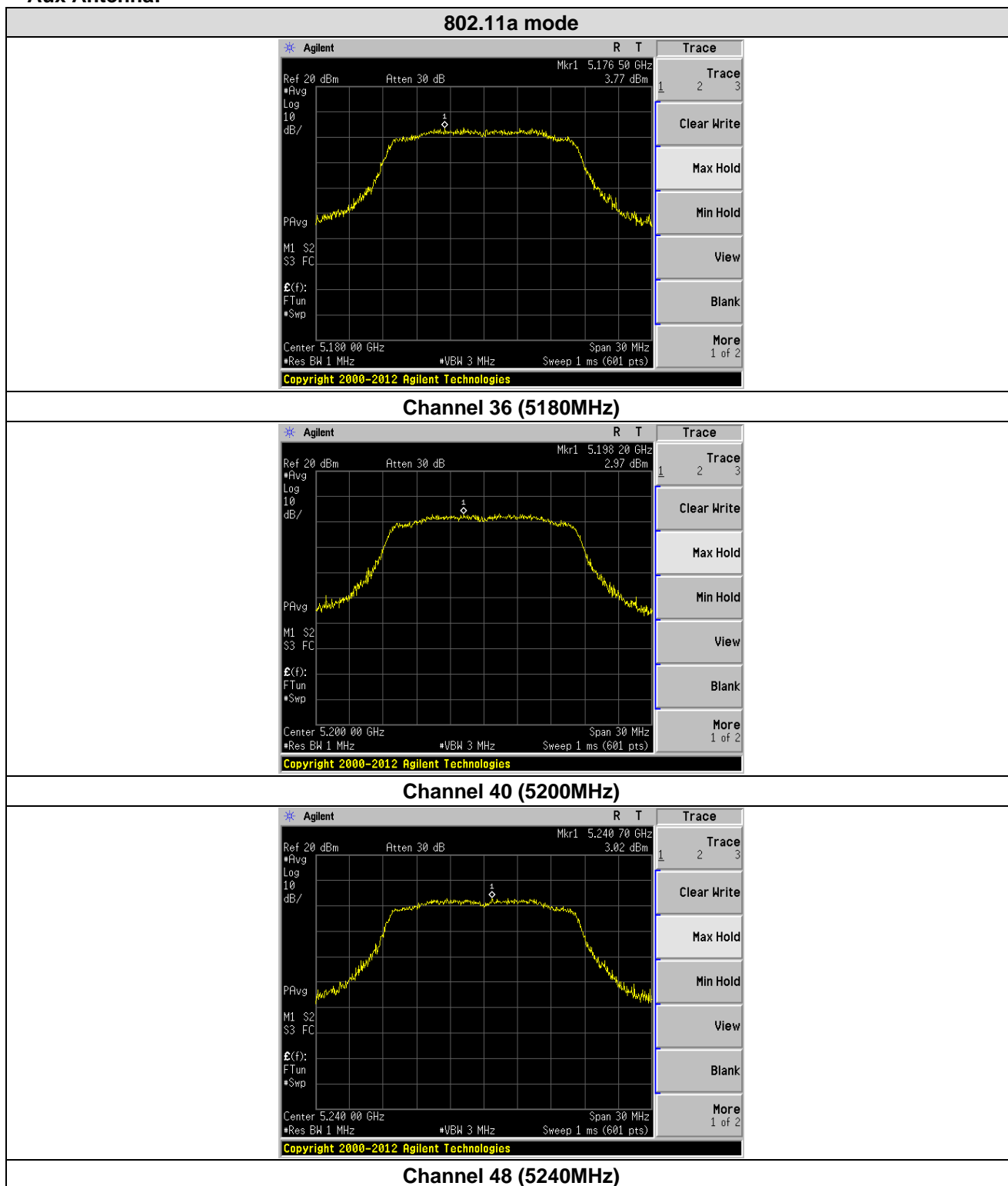
802.11ac(HT80) mode						
Channel No.	Frequency (MHz)	Measured PSD (dBm/MHz)	Duty Factor	Total PSD (dBm/MHz)	Limit (dBm/MHz)	Result
42	5210.00	-7.04	0.04	-7.00	11	Pass

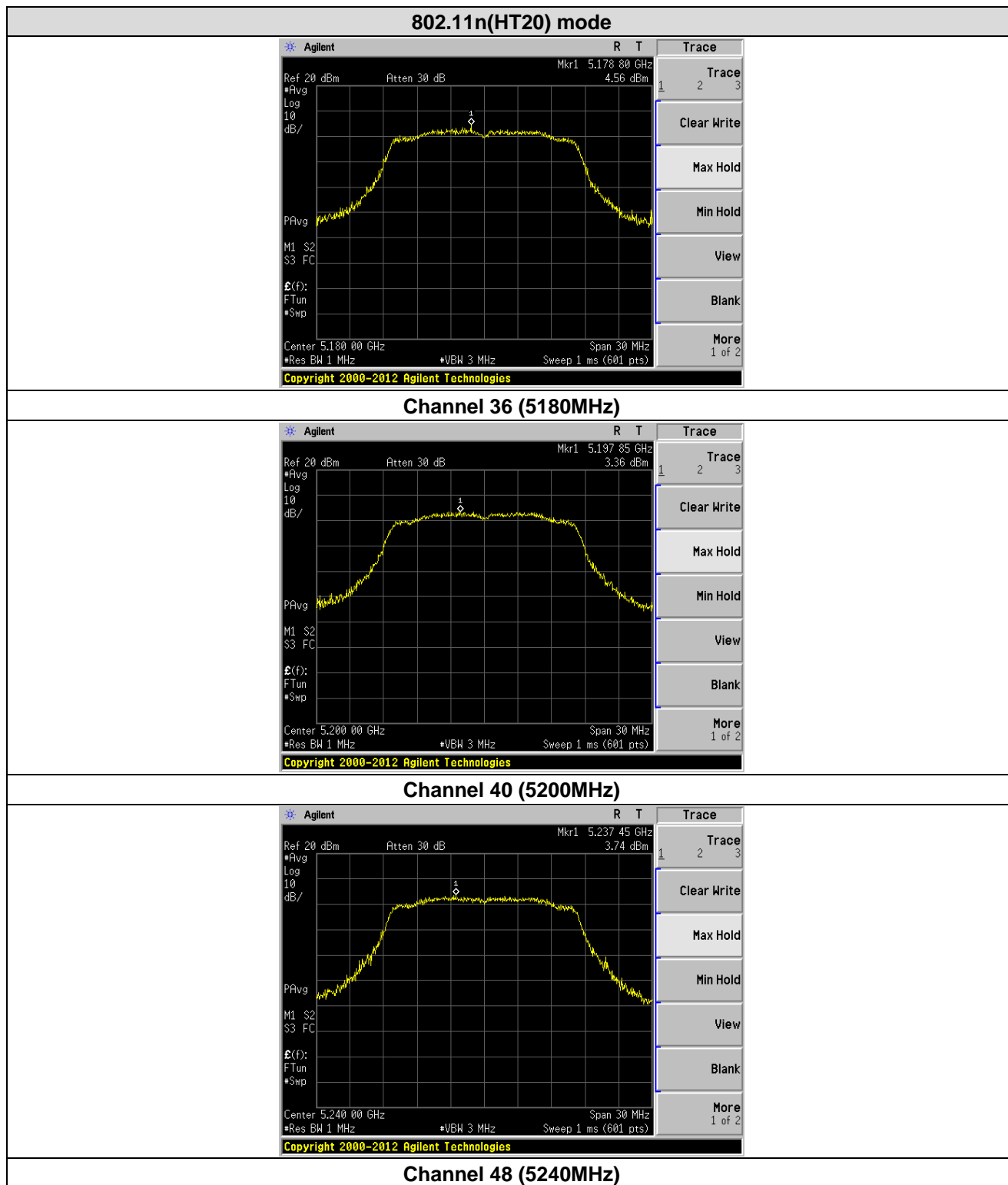
Note: Total PSD = Measured PSD + Duty Factor

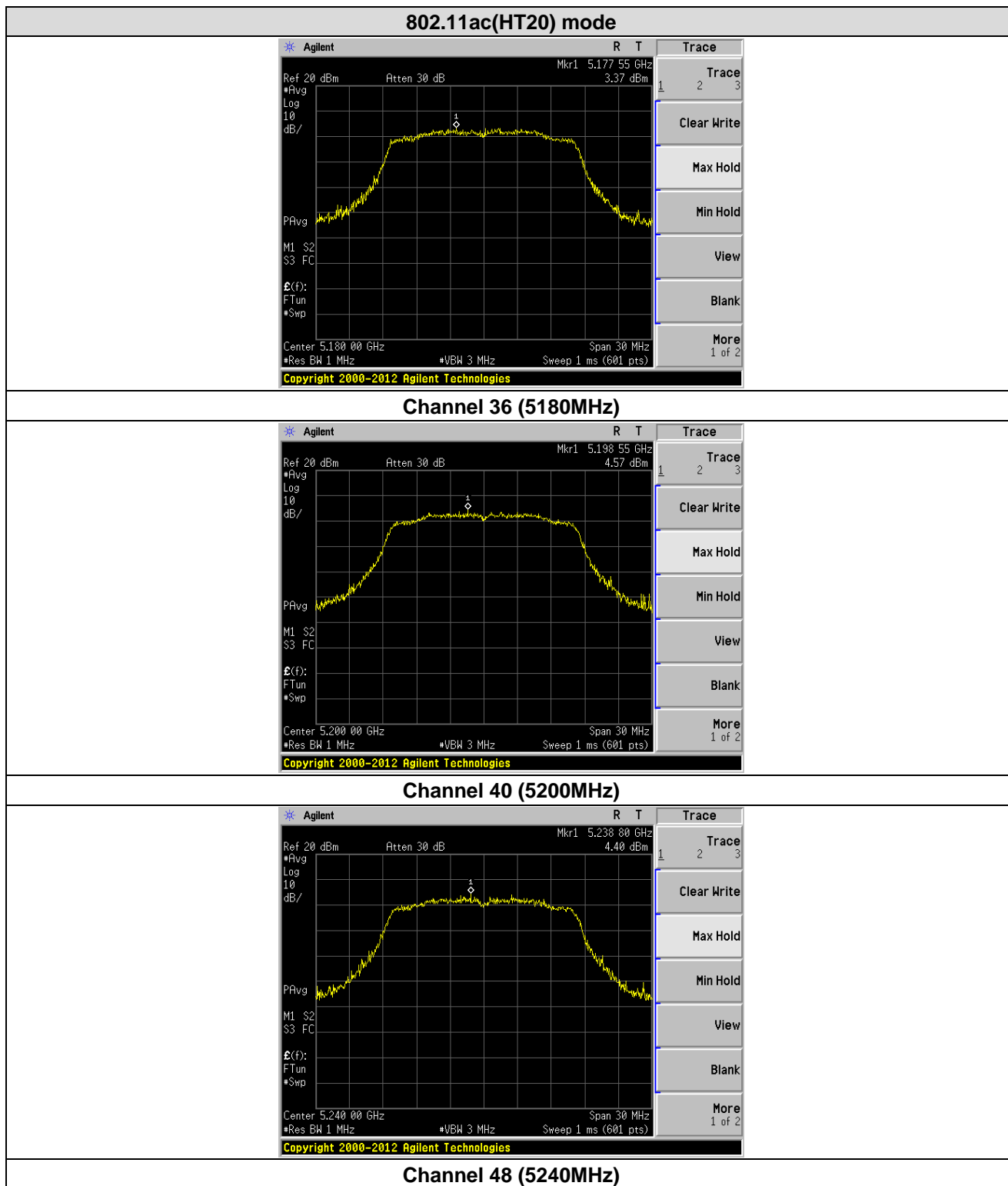
Duty Factor = 10 log (1/Duty Cycle)

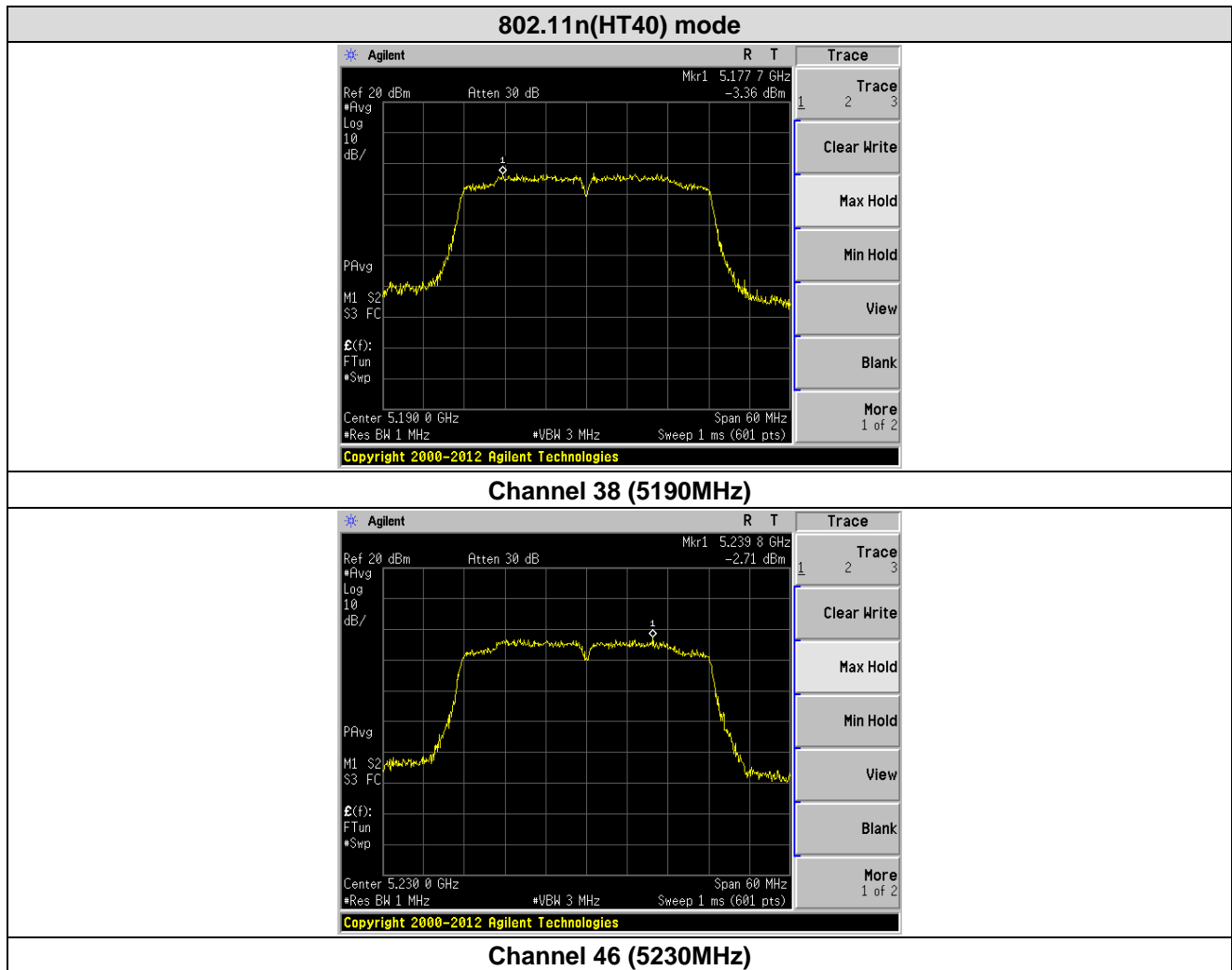
Test plots as followed:

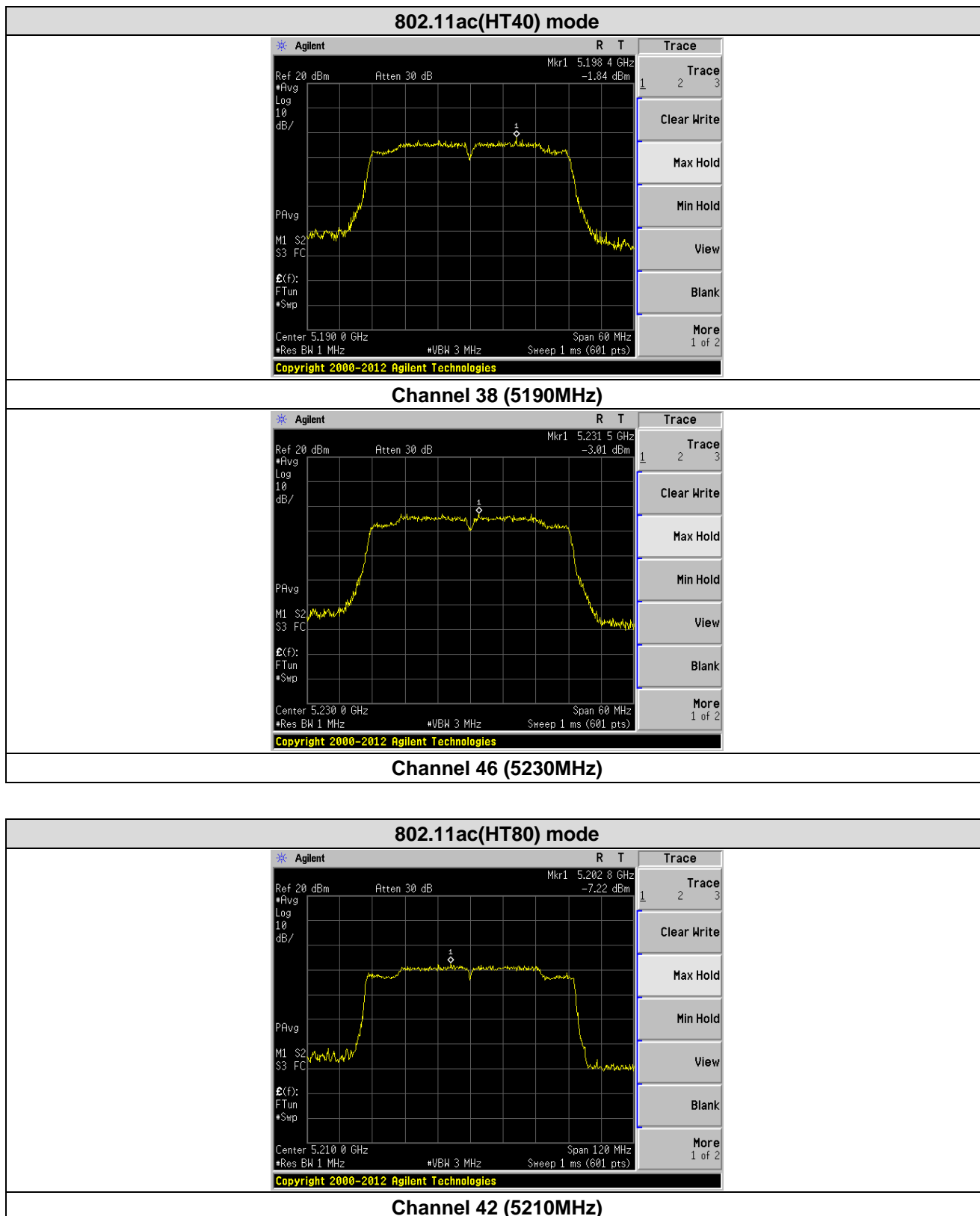
Aux Antenna:



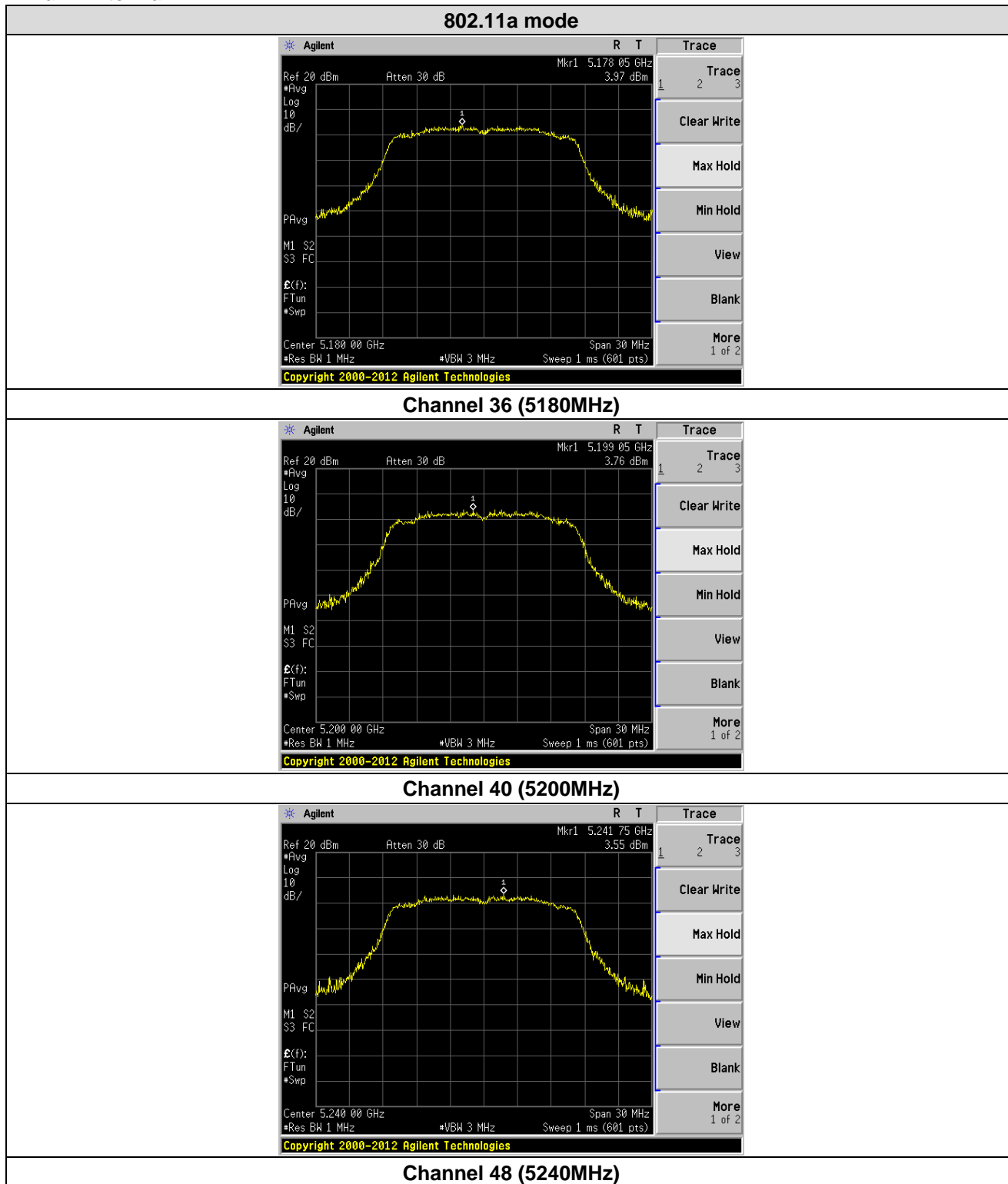


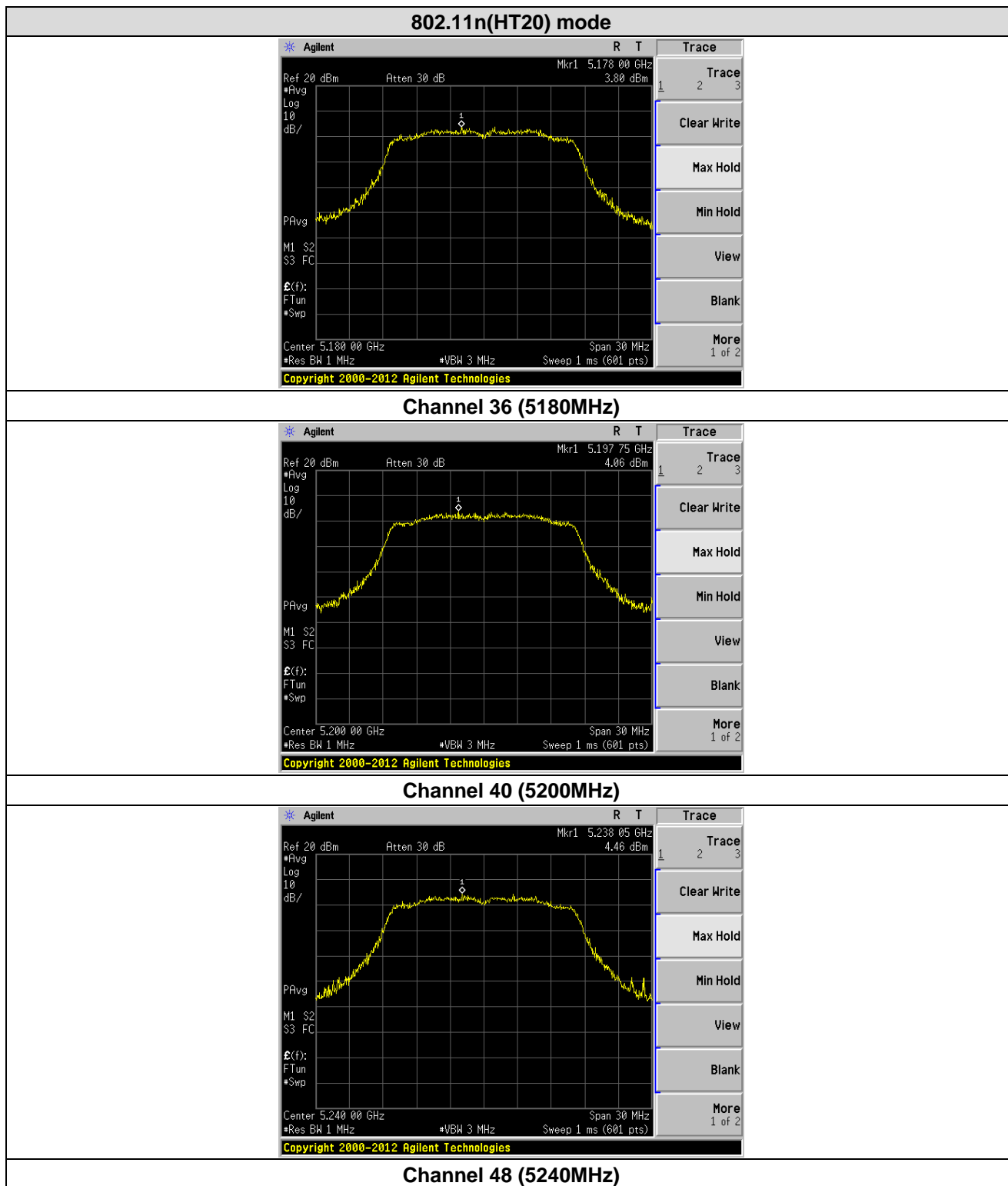


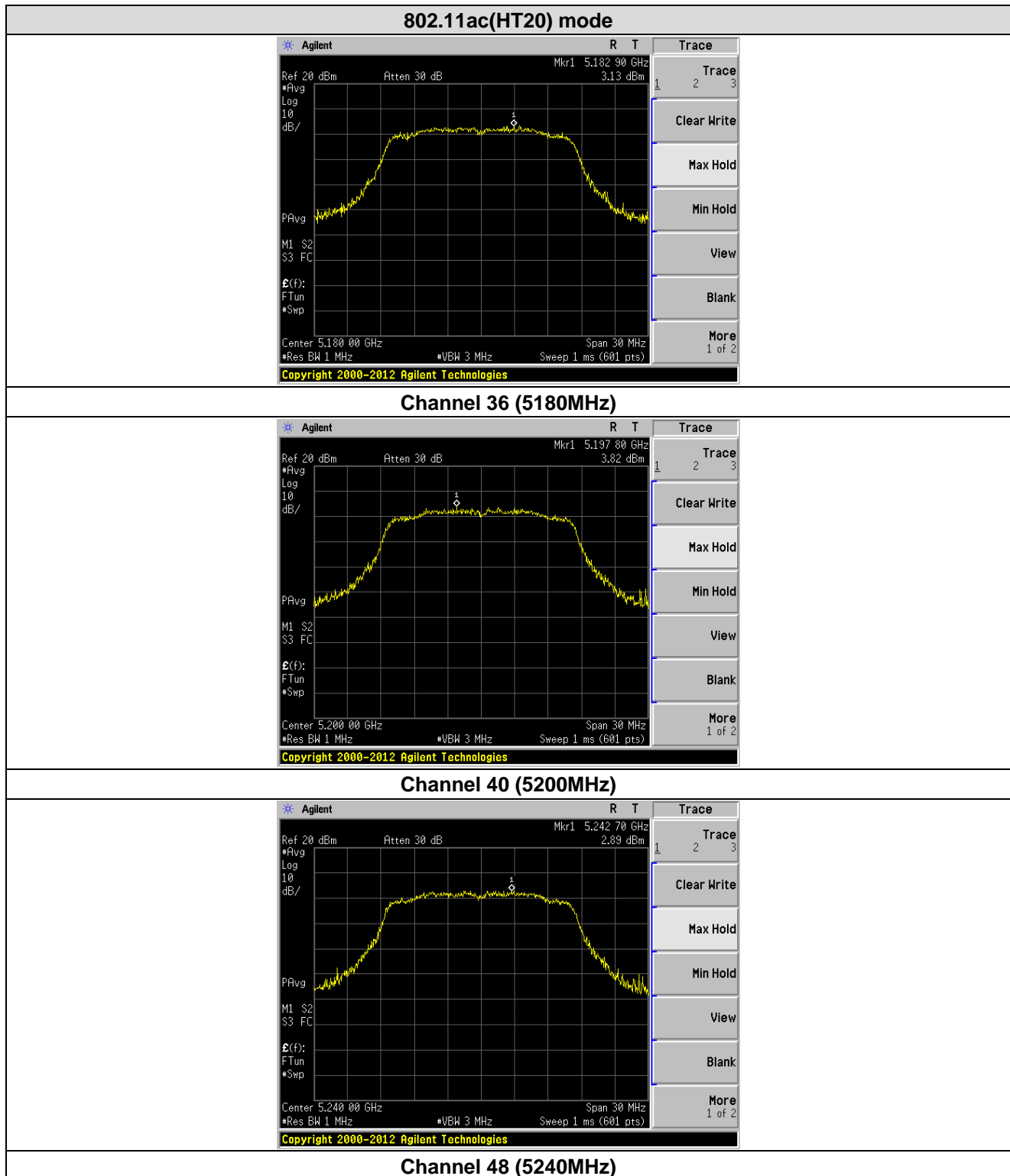


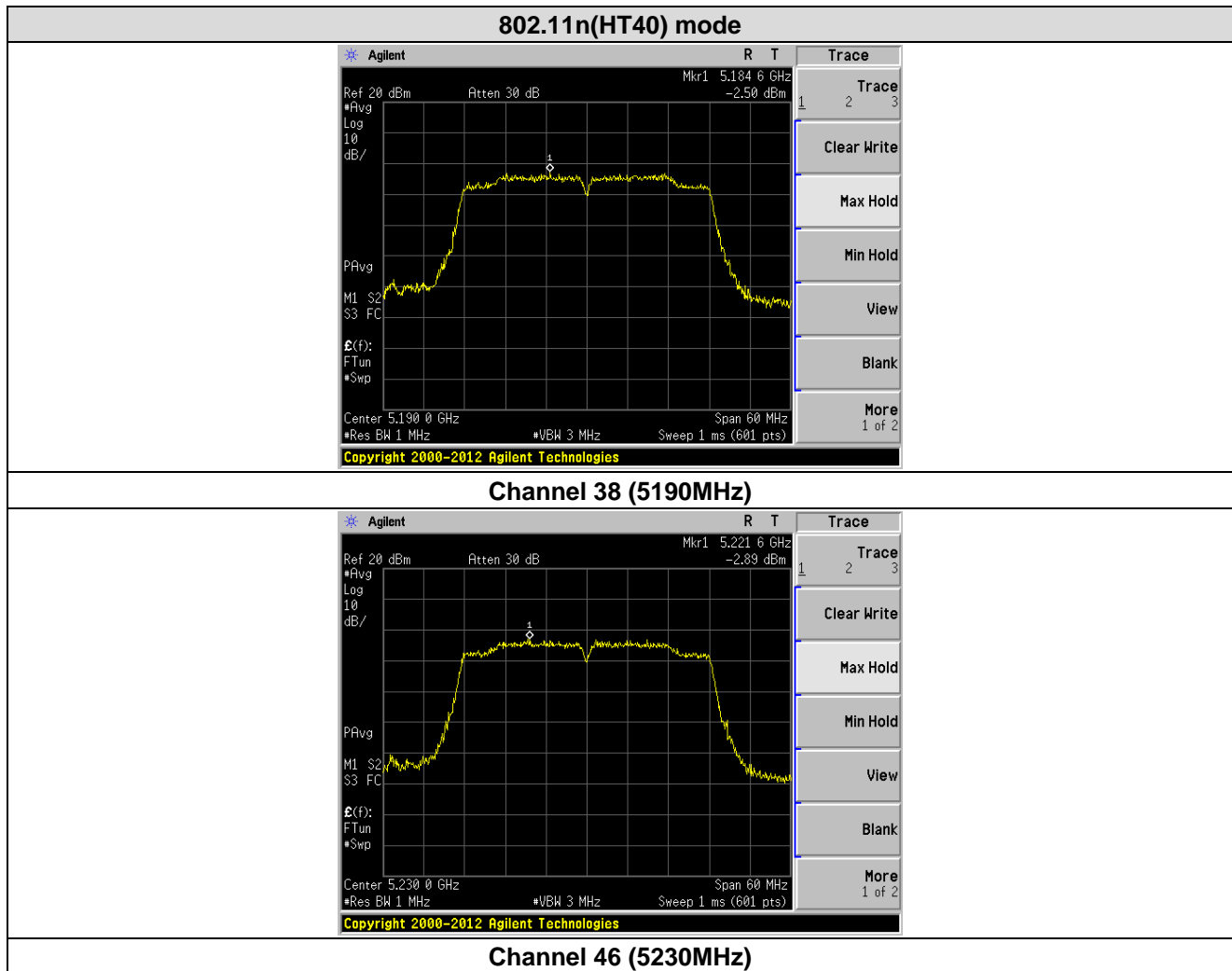


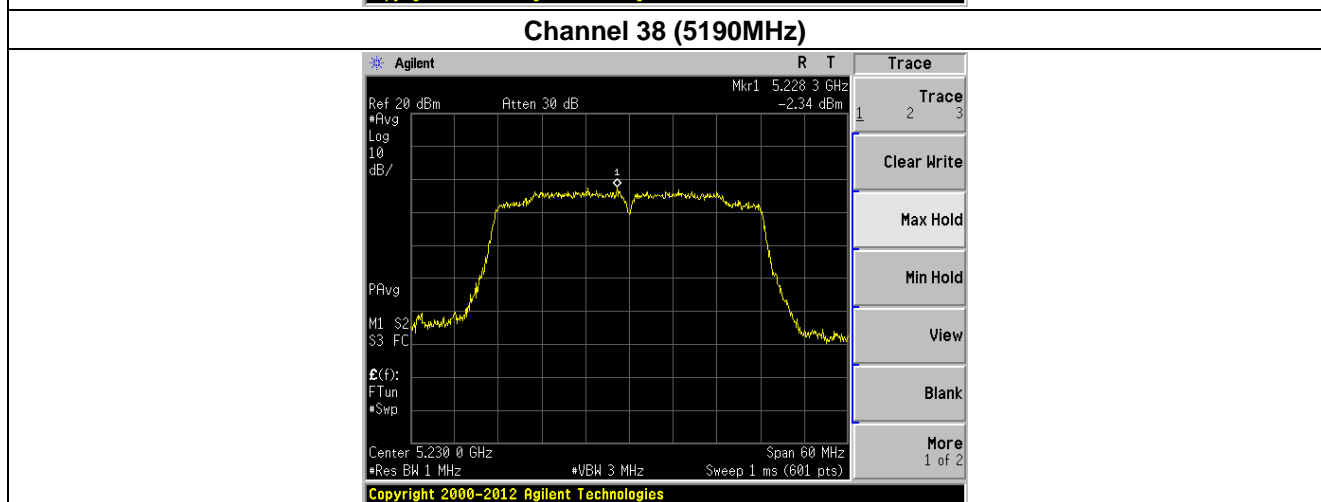
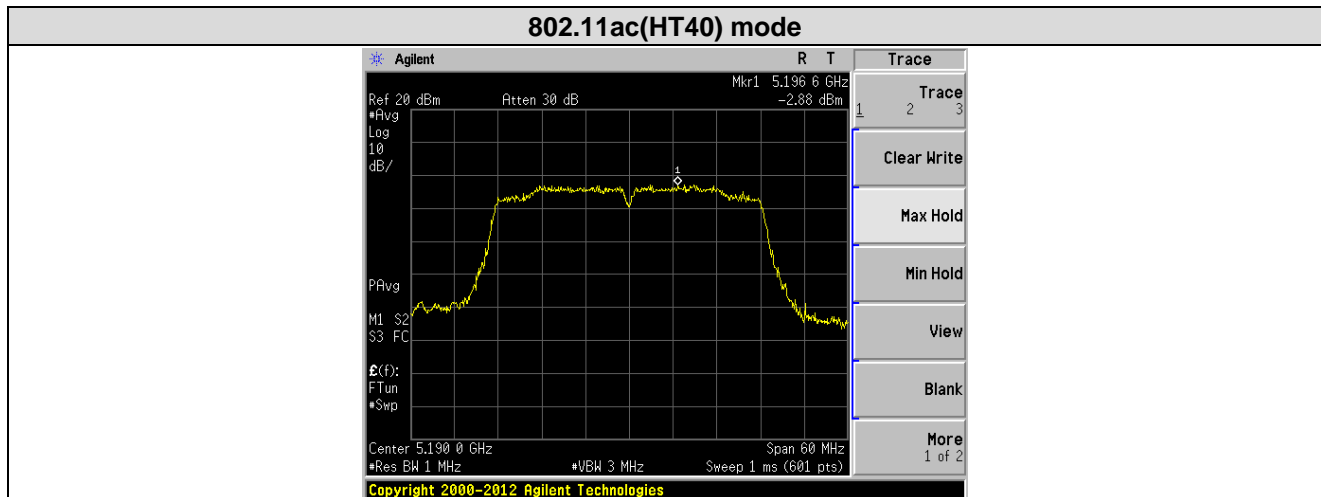
Main Antenna:



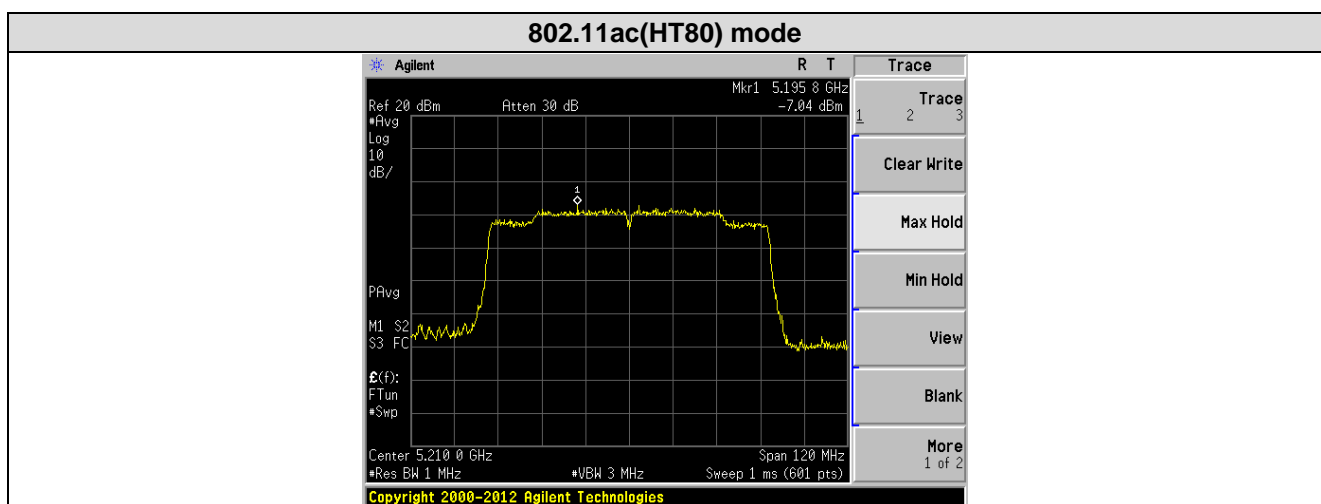








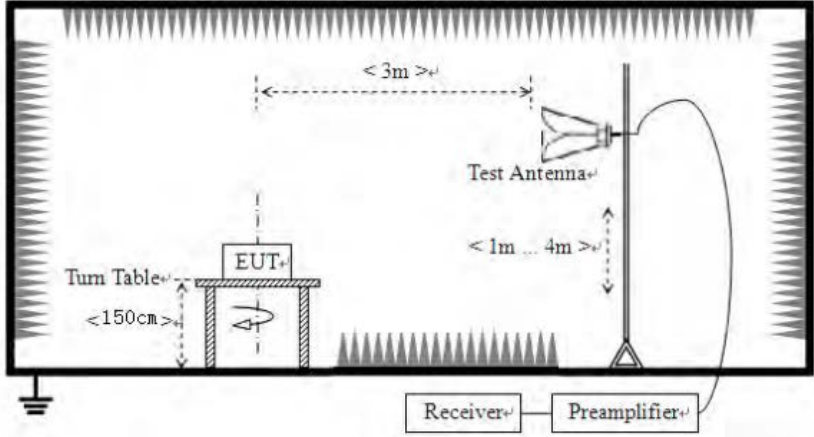
Channel 46 (5230MHz)



Channel 42 (5210MHz)

7.6 Band Edge

Test Requirement:	FCC Part15 E Section 15.407 and 5.205																								
Test Method:	ANSI C63.10:2013																								
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)																								
Receiver setup:	<table><tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr><tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>100KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr><tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr><tr><td>AV</td><td>1MHz</td><td>3MHz</td><td>Average Value</td></tr></table>					Frequency	Detector	RBW	VBW	Remark	30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak Value	Above 1GHz	Peak	1MHz	3MHz	Peak Value	AV	1MHz	3MHz	Average Value	
Frequency	Detector	RBW	VBW	Remark																					
30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak Value																					
Above 1GHz	Peak	1MHz	3MHz	Peak Value																					
	AV	1MHz	3MHz	Average Value																					
Limit:	<table><tr><td>Frequency</td><td>Limit (dBuV/m @3m)</td><td>Remark</td></tr><tr><td>30MHz-88MHz</td><td>40.0</td><td>Quasi-peak Value</td></tr><tr><td>88MHz-216MHz</td><td>43.5</td><td>Quasi-peak Value</td></tr><tr><td>216MHz-960MHz</td><td>46.0</td><td>Quasi-peak Value</td></tr><tr><td>960MHz-1GHz</td><td>54.0</td><td>Quasi-peak Value</td></tr><tr><td rowspan="2">Above 1GHz</td><td>54.0</td><td>Average Value</td></tr><tr><td>68.2</td><td>Peak Value</td></tr></table> <p>Undesirable emission limits:</p> <p>(1) For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.</p> <p>(2) For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.</p> <p>(3) For transmitters operating in the 5.47-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.</p>					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	54.0	Average Value	68.2	Peak Value
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	54.0	Average Value																							
	68.2	Peak Value																							
Test Procedure:	<p>a. The EUT was placed on the top of a rotating table 1.5 m above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation.</p> <p>b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</p> <p>c. 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.</p> <p>d. 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 table was turned from 0 degrees to 360 degrees to find the maximum reading.</p> <p>e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</p> <p>f. 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</p>																								

	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:	<p>For radiated emissions above 1GHz</p> 
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Remarks:

1. Only the worst case Main Antenna test data.
2. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor
3. The emission levels of other frequencies are very lower than the limit and not show in test report.
4. The pre-test were performed on lowest, middle and highest frequencies, only the worst case's (lowest and highest frequencies) data was showed.
5. According to KDB 789033 D02 v02r01 section G) 1) (d), for For measurements above 1000 MHz @ 3m distance, the limit of field strength is computed as follows:
 $E[dBuV/m] = EIRP[dBm] + 95.2;$
For example, if $EIRP = -27dBm$
 $E[dBuV/m] = -27 + 95.2 = 68.2dBuV/m.$

Measurement Data:

802.11a(HT20)					Lowest			
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
5150.00	47.25	32.07	8.99	37.49	50.82	68.20	-17.38	Vertical
5150.00	38.48	32.07	8.99	37.49	42.05	54.00	-11.95	Vertical
5150.00	45.86	32.07	8.99	37.49	49.43	68.20	-18.77	Horizontal
5150.00	37.45	32.07	8.99	37.49	41.02	54.00	-12.98	Horizontal

802.11a(HT20)					Highest			
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
5350.00	46.33	31.75	9.29	37.20	50.17	68.20	-18.03	Vertical
5350.00	42.37	31.75	9.29	37.20	46.21	54.00	-7.79	Vertical
5350.00	45.03	31.75	9.29	37.20	48.87	68.20	-19.33	Horizontal
5350.00	42.33	31.75	9.29	37.20	46.17	54.00	-7.83	Horizontal

802.11n(HT20)					Lowest			
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
5150.00	45.33	32.07	8.99	37.49	48.90	68.20	-19.30	Vertical
5150.00	38.52	32.07	8.99	37.49	42.09	54.00	-11.91	Vertical
5150.00	45.16	32.07	8.99	37.49	48.73	68.20	-19.47	Horizontal
5150.00	37.55	32.07	8.99	37.49	41.12	54.00	-12.88	Horizontal

802.11n(HT20)					Highest			
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
5350.00	47.32	31.75	9.29	37.20	51.16	68.20	-17.04	Vertical
5350.00	40.70	31.75	9.29	37.20	44.54	54.00	-9.46	Vertical
5350.00	44.79	31.75	9.29	37.20	48.63	68.20	-19.57	Horizontal
5350.00	39.71	31.75	9.29	37.20	43.55	54.00	-10.45	Horizontal

802.11ac(HT20)					Lowest			
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
5150.00	44.21	32.07	8.99	37.49	47.78	68.20	-20.42	Vertical
5150.00	38.48	32.07	8.99	37.49	42.05	54.00	-11.95	Vertical
5150.00	45.70	32.07	8.99	37.49	49.27	68.20	-18.93	Horizontal
5150.00	42.30	32.07	8.99	37.49	45.87	54.00	-8.13	Horizontal

802.11ac(HT20)					Highest			
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
5350.00	46.06	31.75	9.29	37.20	49.90	68.20	-18.30	Vertical
5350.00	38.17	31.75	9.29	37.20	42.01	54.00	-11.99	Vertical
5350.00	44.49	31.75	9.29	37.20	48.33	68.20	-19.87	Horizontal
5350.00	37.88	31.75	9.29	37.20	41.72	54.00	-12.28	Horizontal

802.11n(HT40)					Lowest			
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
5150.00	47.22	32.07	8.99	37.49	50.79	68.20	-17.41	Vertical
5150.00	41.52	32.07	8.99	37.49	45.09	54.00	-8.91	Vertical
5150.00	44.75	32.07	8.99	37.49	48.32	68.20	-19.88	Horizontal
5150.00	39.00	32.07	8.99	37.49	42.57	54.00	-11.43	Horizontal

802.11n(HT40)					Highest			
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
5350.00	44.77	31.75	9.29	37.20	48.61	68.20	-19.59	Vertical
5350.00	41.49	31.75	9.29	37.20	45.33	54.00	-8.67	Vertical
5350.00	44.16	31.75	9.29	37.20	48.00	68.20	-20.20	Horizontal
5350.00	38.67	31.75	9.29	37.20	42.51	54.00	-11.49	Horizontal

802.11ac(HT40)					Lowest			
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
5150.00	46.85	32.07	8.99	37.49	50.42	68.20	-17.78	Vertical
5150.00	39.58	32.07	8.99	37.49	43.15	54.00	-10.85	Vertical
5150.00	44.79	32.07	8.99	37.49	48.36	68.20	-19.84	Horizontal
5150.00	42.28	32.07	8.99	37.49	45.85	54.00	-8.15	Horizontal

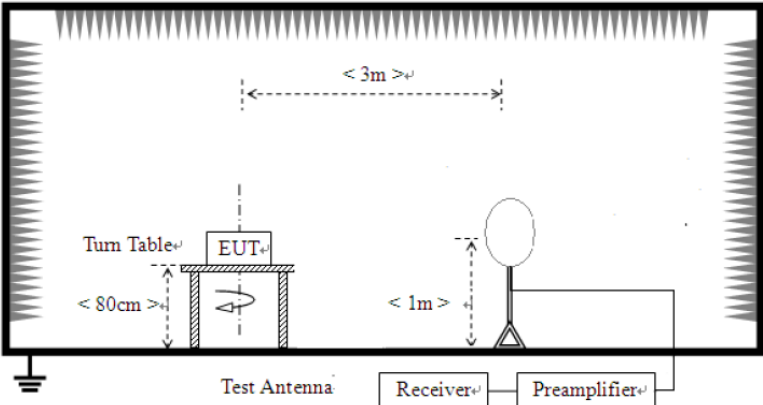
802.11ac(HT40)					Highest			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
5350.00	47.61	31.75	9.29	37.20	51.45	68.20	-16.75	Vertical
5350.00	37.07	31.75	9.29	37.20	40.91	54.00	-13.09	Vertical
5350.00	45.50	31.75	9.29	37.20	49.34	68.20	-18.86	Horizontal
5350.00	38.18	31.75	9.29	37.20	42.02	54.00	-11.98	Horizontal

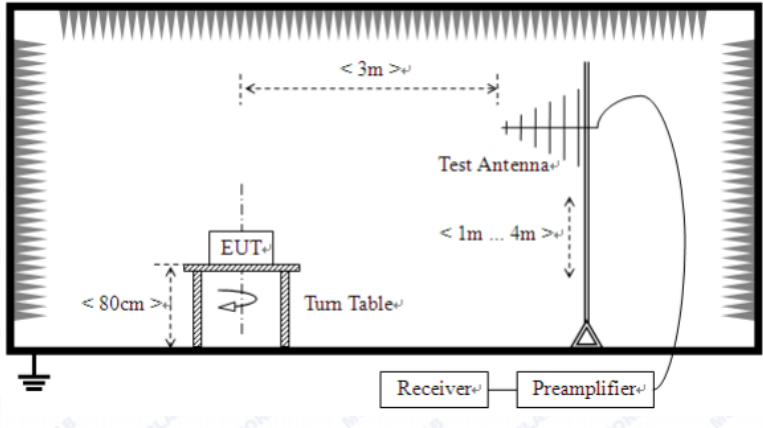
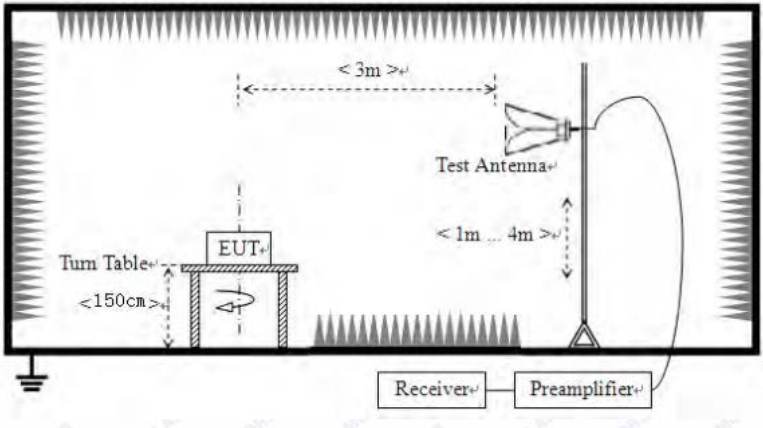
802.11ac(HT80)					Lowest			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
5150.00	47.91	32.07	8.99	37.49	51.48	68.20	-16.72	Vertical
5150.00	42.14	32.07	8.99	37.49	45.71	54.00	-8.29	Vertical
5150.00	45.61	32.07	8.99	37.49	49.18	68.20	-19.02	Horizontal
5150.00	42.53	32.07	8.99	37.49	46.10	54.00	-7.90	Horizontal

802.11ac(HT80)					Highest			
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
5350.00	47.04	31.75	9.29	37.20	50.88	68.20	-17.32	Vertical
5350.00	40.50	31.75	9.29	37.20	44.34	54.00	-9.66	Vertical
5350.00	44.59	31.75	9.29	37.20	48.43	68.20	-19.77	Horizontal
5350.00	40.43	31.75	9.29	37.20	44.27	54.00	-9.73	Horizontal

7.7 Radiated Emission

Test Requirement:	FCC Part15 C Section 15.209 and 15.205				
Test Method:	ANSI C63.10:2013				
Test Frequency Range:	9kHz to 40GHz				
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)				
Receiver setup:	Frequency	Detector	RBW	VBW	Value
	9kHz-150KHz	Quasi-peak	200Hz	1kHz	Quasi-peak Value
	150kHz-30MHz	Quasi-peak	9kHz	30kHz	Quasi-peak Value
	30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		AV	1MHz	3MHz	Average Value
Limit:					
	Frequency	Limit (uV/m)		Value	Measurement Distance
	0.009MHz-0.490MHz	2400/F(KHz)		QP	300m
	0.490MHz-1.705MHz	24000/F(KHz)		QP	300m
	1.705MHz-30MHz	30		QP	30m
	30MHz-88MHz	100		QP	3m
	88MHz-216MHz	150		QP	
	216MHz-960MHz	200		QP	
	960MHz-1GHz	500		QP	
	Above 1GHz	500		Average	
		5000		Peak	
Test Procedure:	Substitution method was performed to determine the actual ERP emission levels of the EUT. The following test procedure as below: 1>.Below 1GHz test procedure: 1. The EUT was placed on the top of a rotating table (0.8m for below 1GHz and 1.5 meters for 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 rotatable 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. 2>.Above 1GHz test procedure:				

	<ol style="list-style-type: none"> 1. On the test site as test setup graph above, the EUT shall be placed at the 0.8m support on the turntable and in the position closest to normal use as declared by the provider. 2. The test antenna shall be oriented initially for vertical polarization and shall be chosen to correspond to the frequency of the transmitter. The output of the test antenna shall be connected to the measuring receiver. 3. The transmitter shall be switched on, if possible, without modulation and the measuring receiver shall be tuned to the frequency of the transmitter under test. 4. The test antenna shall be raised and lowered from 1m to 4m until a maximum signal level is detected by the measuring receiver. Then the turntable should be rotated through 360° in the horizontal plane, until the maximum signal level is detected by the measuring receiver. 5. Repeat step 4 for test frequency with the test antenna polarized horizontally. 6. Remove the transmitter and replace it with a substitution antenna 7. Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a nonradiating cable. With the antennas at both ends vertically polarized, and with the signal generator tuned to a particular test frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained. This should be done carefully repeating the adjustment of the test antenna and generator output. 8. Repeat step 7 with both antennas horizontally polarized for each test frequency. 9. Calculate power in dBm into a reference ideal half-wave dipole antenna by reducing the readings obtained in steps 7 and 8 by the power loss in the cable between the generator and the antenna, and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna by the following formula: $\text{EIRP(dBm)} = \text{Pg(dBm)} - \text{cable loss (dB)} + \text{antenna gain (dBi)}$ where: Pg is the generator output power into the substitution antenna.
<p>Test setup:</p>	<p>For radiated emissions from 9kHz to 30MHz</p>  <p>For radiated emissions from 30MHz to 1GHz</p>

	 <p>For radiated emissions above 1GHz</p> 
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.2 for details
Test voltage:	AC120V 60Hz
Test results:	Pass

Remarks:

1. Only the worst case Main Antenna test data.
2. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis which it is worse case.

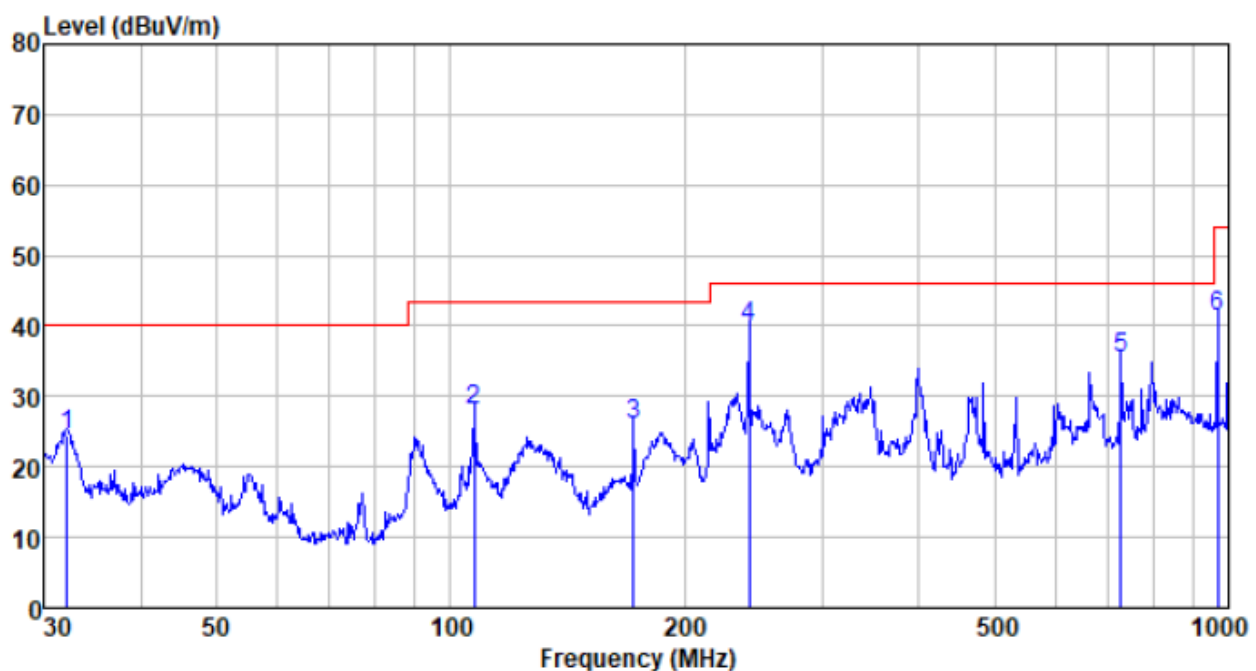
Measurement Data:

9 kHz ~ 30 MHz

The low frequency, which started from 9 kHz to 30 MHz, was pre-scanned and the result which was 20 dB lower than the limit line per 15.31(o) was not reported.

30MHz~ 1GHz

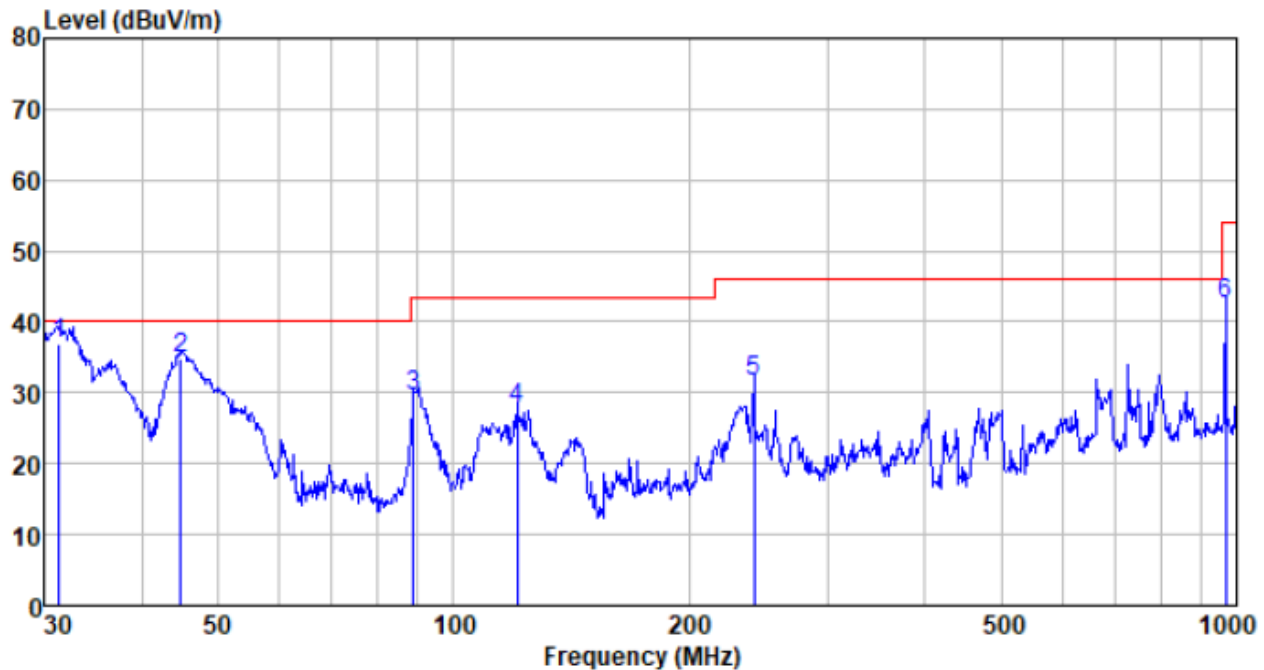
Mode:	Transmitting mode	Test by:	Bill
Temp./Hum.(%H):	26°C/56%RH	Polarization:	Horizontal



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV	Limit level dBuV/m	Over limit dB	Remark
32.179	47.82	11.25	0.58	35.16	24.49	40.00	-15.51	QP
107.134	52.05	11.41	1.25	36.78	27.93	43.50	-15.57	QP
171.995	52.90	8.57	1.70	37.20	25.97	43.50	-17.53	QP
241.676	63.18	11.89	2.08	37.37	39.78	46.00	-6.22	QP
726.805	48.75	20.10	4.19	37.63	35.41	46.00	-10.59	QP
968.934	51.25	22.59	5.11	37.54	41.41	54.00	-12.59	QP

Mode: Transmitting mode
Temp./Hum.(%H): 26°C/56%RH

Test by: Bill
Polarization: Vertical



Freq MHz	Reading level dBuV	Antenna factor dB/m	Cable loss dB	Preamp factor dB	level dBuV	Limit level dBuV/m	Over limit dB	Remark
31.399	60.20	11.23	0.57	35.11	36.89	40.00	-3.11	QP
44.901	57.89	12.25	0.72	35.93	34.93	40.00	-5.07	QP
88.964	54.85	10.32	1.10	36.63	29.64	43.50	-13.86	QP
120.699	53.71	9.42	1.37	36.89	27.61	43.50	-15.89	QP
241.676	54.89	11.89	2.08	37.37	31.49	46.00	-14.51	QP
968.934	52.27	22.59	5.11	37.54	42.43	54.00	-11.57	QP

Above 1GHz:

802.11a(HT20) 5180MHz

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	29.98	39.67	14.62	32.65	51.62	74.00	-22.38	Vertical
15540.00	30.92	38.60	17.66	34.46	52.72	74.00	-21.28	Vertical
10360.00	29.98	39.67	14.62	32.65	51.62	74.00	-22.38	Horizontal
15540.00	29.11	38.60	17.66	34.46	50.91	74.00	-23.09	Horizontal

802.11a(HT20) 5200MHz

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	30.64	39.75	14.63	32.71	52.31	74.00	-21.69	Vertical
15600.00	28.39	38.33	17.67	34.17	50.22	74.00	-23.78	Vertical
10400.00	31.51	39.75	14.63	32.71	53.18	74.00	-20.82	Horizontal
15600.00	32.02	38.33	17.67	34.17	53.85	74.00	-20.15	Horizontal

802.11a(HT20) 5240MHz

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	30.13	39.82	14.68	32.86	51.77	74.00	-22.23	Vertical
15720.00	29.97	38.09	17.73	33.66	52.13	74.00	-21.87	Vertical
10480.00	31.39	39.82	14.68	32.86	53.03	74.00	-20.97	Horizontal
15720.00	28.16	38.09	17.73	33.66	50.32	74.00	-23.68	Horizontal

802.11n(HT20) 5180MHz

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	28.58	39.67	14.62	32.65	50.22	74.00	-23.78	Vertical
15540.00	31.47	38.60	17.66	34.46	53.27	74.00	-20.73	Vertical
10360.00	32.23	39.67	14.62	32.65	53.87	74.00	-20.13	Horizontal
15540.00	31.08	38.60	17.66	34.46	52.88	74.00	-21.12	Horizontal

802.11n(HT20) 5200MHz

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	31.01	39.75	14.63	32.71	52.68	74.00	-21.32	Vertical
15600.00	28.71	38.33	17.67	34.17	50.54	74.00	-23.46	Vertical
10400.00	29.19	39.75	14.63	32.71	50.86	74.00	-23.14	Horizontal
15600.00	31.95	38.33	17.67	34.17	53.78	74.00	-20.22	Horizontal

802.11n(HT20) 5240MHz

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	30.04	39.82	14.68	32.86	51.68	74.00	-22.32	Vertical
15720.00	30.11	38.09	17.73	33.66	52.27	74.00	-21.73	Vertical
10480.00	30.94	39.82	14.68	32.86	52.58	74.00	-21.42	Horizontal
15720.00	31.62	38.09	17.73	33.66	53.78	74.00	-20.22	Horizontal

802.11ac(HT20) 5180MHz

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	30.02	39.71	14.63	32.68	51.68	74.00	-22.32	Vertical
15540.00	29.08	38.46	17.67	34.32	50.89	74.00	-23.11	Vertical
10360.00	30.81	39.71	14.63	32.68	52.47	74.00	-21.53	Horizontal
15540.00	29.51	38.46	17.67	34.32	51.32	74.00	-22.68	Horizontal

802.11ac(HT20) 5200MHz

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	32.12	39.75	14.63	32.71	53.79	74.00	-20.21	Vertical
15600.00	30.00	38.33	17.67	34.17	51.83	74.00	-22.17	Vertical
10400.00	28.21	39.75	14.63	32.71	49.88	74.00	-24.12	Horizontal
15600.00	31.45	38.33	17.67	34.17	53.28	74.00	-20.72	Horizontal

802.11ac(HT20) 5240MHz

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	39.82	14.68	32.86	52.61	74.00	-21.39	Vertical
15720.00	31.63	38.09	17.73	33.66	53.79	74.00	-20.21	Vertical
10480.00	30.32	39.82	14.68	32.86	51.96	74.00	-22.04	Horizontal
15720.00	31.16	38.09	17.73	33.66	53.32	74.00	-20.68	Horizontal

802.11n(HT40) 5190MHz

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	31.86	39.71	14.63	32.68	53.52	74.00	-20.48	Vertical
15570.00	28.98	38.46	17.67	34.32	50.79	74.00	-23.21	Vertical
10380.00	30.77	39.71	14.63	32.68	52.43	74.00	-21.57	Horizontal
15570.00	29.04	38.46	17.67	34.32	50.85	74.00	-23.15	Horizontal

802.11n(HT40) 5230MHz

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	30.37	39.82	14.66	32.80	52.05	74.00	-21.95	Vertical
15690.00	30.59	38.09	17.71	33.81	52.58	74.00	-21.42	Vertical
10460.00	30.76	39.82	14.66	32.80	52.44	74.00	-21.56	Horizontal
15690.00	28.85	38.09	17.71	33.81	50.84	74.00	-23.16	Horizontal

802.11ac(HT40) 5190MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10380.00	30.31	39.71	14.63	32.68	51.97	74.00	-22.03	Vertical
15570.00	31.77	38.46	17.67	34.32	53.58	74.00	-20.42	Vertical
10380.00	30.73	39.71	14.63	32.68	52.39	74.00	-21.61	Horizontal
15570.00	30.83	38.46	17.67	34.32	52.64	74.00	-21.36	Horizontal

802.11ac(HT40) 5230MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10460.00	31.96	39.75	14.65	32.74	53.62	74.00	-20.38	Vertical
15690.00	29.52	38.33	17.69	34.03	51.51	74.00	-22.49	Vertical
10460.00	30.32	39.75	14.65	32.74	51.98	74.00	-22.02	Horizontal
15690.00	31.44	38.33	17.69	34.03	53.43	74.00	-20.57	Horizontal

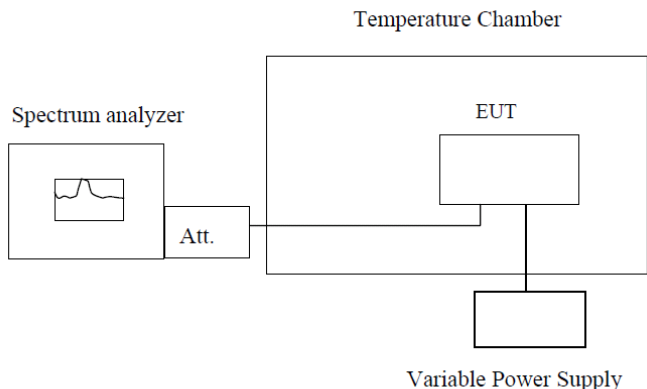
802.11ac(HT80) 5210MHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
10420.00	30.34	39.82	14.66	32.80	52.02	74.00	-21.98	Vertical
15630.00	30.43	38.09	17.71	33.81	52.42	74.00	-21.58	Vertical
10420.00	29.79	39.82	14.66	32.80	51.47	74.00	-22.53	Horizontal
15630.00	30.89	38.09	17.71	33.81	52.88	74.00	-21.12	Horizontal

Notes:

1. Level = Read Level + Antenna Factor+ Cable loss- Preamplifier Factor.
2. The test trace is same as the ambient noise (the test frequency range: 18GHz~40GHz), therefore no data appear in the report.
3. This limit applies for using average detector, if the test result on peak is lower than average limit, then average measurement needn't be performed.

7.8 Frequency stability

Test Requirement:	FCC Part15 C Section 15.407(g)
Test Method:	ANSI C63.10:2013, FCC Part 2.1055
Limit:	Manufactures 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
Test Procedure:	The EUT was setup to ANSI C63.4, 2003; tested to 2.1055 for compliance to FCC Part 15.407(g) requirements.
Test setup:	 <p>Note : Measurement setup for testing on Antenna connector</p>
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.2 for details
Test results:	Pass

Remark: Set the EUT transmits at un-modulation mode to test frequency stability.

Measurement data:

802.11a									
Frequency stability versus Temp.									
Worse Case Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (VAC)	0 minute		2 minute		5 minute		10 minute	
		Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail
-30	120	5179.7797	Pass	5180.0673	Pass	5180.2934	Pass	5179.9774	Pass
-20	120	5179.3441	Pass	5180.7984	Pass	5180.4911	Pass	5179.6756	Pass
-10	120	5179.3032	Pass	5180.4548	Pass	5180.0045	Pass	5179.0632	Pass
0	120	5179.0184	Pass	5180.0024	Pass	5180.4195	Pass	5179.3145	Pass
10	120	5179.0976	Pass	5180.7975	Pass	5180.7293	Pass	5179.9387	Pass
20	120	5179.8661	Pass	5180.4314	Pass	5180.3684	Pass	5179.6318	Pass
30	120	5179.2395	Pass	5180.2178	Pass	5180.4728	Pass	5179.4514	Pass
40	120	5179.5189	Pass	5180.5854	Pass	5180.8453	Pass	5179.5087	Pass
50	120	5179.4691	Pass	5180.5656	Pass	5180.1689	Pass	5179.3851	Pass
Frequency stability versus Temp.									
Worse Case Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (VAC)	0 minute		2 minute		5 minute		10 minute	
		Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail
25	108	5179.7276	Pass	5180.2079	Pass	5180.4941	Pass	5179.9746	Pass
25	120	5179.2358	Pass	5180.5321	Pass	5180.4631	Pass	5179.9616	Pass
25	132	5179.4914	Pass	5180.6996	Pass	5180.1919	Pass	5179.3046	Pass

802.11n(HT20)									
Frequency stability versus Temp.									
Worse Case Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (VAC)	0 minute		2 minute		5 minute		10 minute	
		Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail
-30	120	5179.4592	Pass	5180.7981	Pass	5180.4379	Pass	5179.4377	Pass
-20	120	5179.2600	Pass	5180.9621	Pass	5180.9434	Pass	5179.8217	Pass
-10	120	5179.7070	Pass	5180.9353	Pass	5180.0424	Pass	5179.5268	Pass
0	120	5179.8596	Pass	5180.5826	Pass	5180.0271	Pass	5179.8143	Pass
10	120	5179.5478	Pass	5180.1523	Pass	5180.7845	Pass	5179.0384	Pass
20	120	5179.1088	Pass	5180.4370	Pass	5180.3012	Pass	5179.6459	Pass
30	120	5179.2443	Pass	5180.4552	Pass	5180.4313	Pass	5179.7214	Pass
40	120	5179.6724	Pass	5180.7465	Pass	5180.3451	Pass	5179.2115	Pass
50	120	5179.5990	Pass	5180.6449	Pass	5180.5438	Pass	5179.9284	Pass
Frequency stability versus Temp.									
Worse Case Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (VAC)	0 minute		2 minute		5 minute		10 minute	
		Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail
25	108	5179.9834	Pass	5180.9362	Pass	5180.4365	Pass	5179.9752	Pass
25	120	5179.6475	Pass	5180.3210	Pass	5180.6373	Pass	5179.3473	Pass
25	132	5179.4529	Pass	5180.5474	Pass	5180.3746	Pass	5179.3386	Pass

802.11ac(HT20)									
Frequency stability versus Temp.									
Worse Case Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (VAC)	0 minute		2 minute		5 minute		10 minute	
		Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail
-30	120	5180.2463	Pass	5179.0040	Pass	5180.9330	Pass	5179.7984	Pass
-20	120	5180.4095	Pass	5179.1710	Pass	5180.5471	Pass	5179.5808	Pass
-10	120	5180.9470	Pass	5179.1361	Pass	5180.0218	Pass	5179.4444	Pass
0	120	5180.5084	Pass	5179.8646	Pass	5180.0326	Pass	5179.0186	Pass
10	120	5180.5225	Pass	5179.1999	Pass	5180.0695	Pass	5179.5731	Pass
20	120	5180.5747	Pass	5179.4228	Pass	5180.2612	Pass	5179.8480	Pass
30	120	5180.8334	Pass	5179.1196	Pass	5180.0307	Pass	5179.2727	Pass
40	120	5180.2562	Pass	5179.3386	Pass	5180.5823	Pass	5179.1187	Pass
50	120	5180.2871	Pass	5179.9051	Pass	5180.6210	Pass	5179.9962	Pass
Frequency stability versus Temp.									
Worse Case Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (VAC)	0 minute		2 minute		5 minute		10 minute	
		Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail
25	108	5179.9155	Pass	5180.4421	Pass	5180.6941	Pass	5179.5135	Pass
25	120	5179.6437	Pass	5180.3947	Pass	5180.3877	Pass	5179.9363	Pass
25	132	5179.5842	Pass	5180.0771	Pass	5180.3649	Pass	5179.8488	Pass

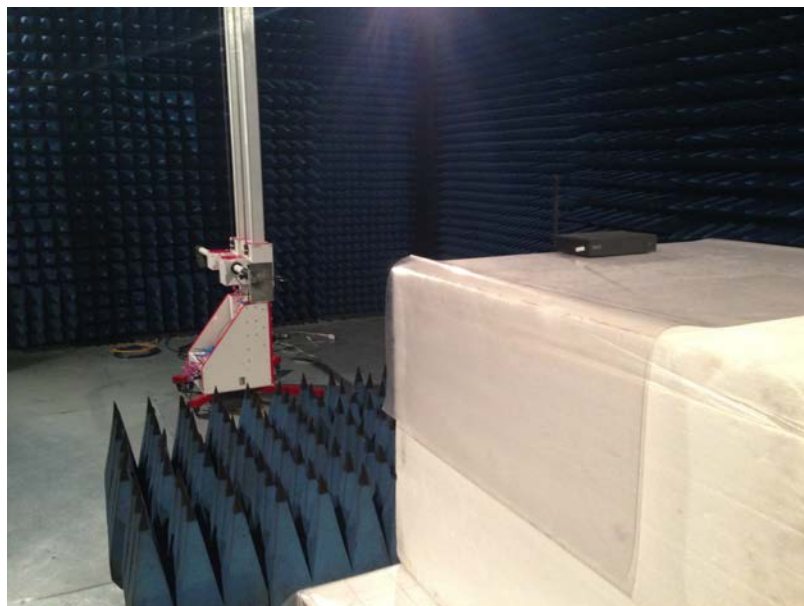
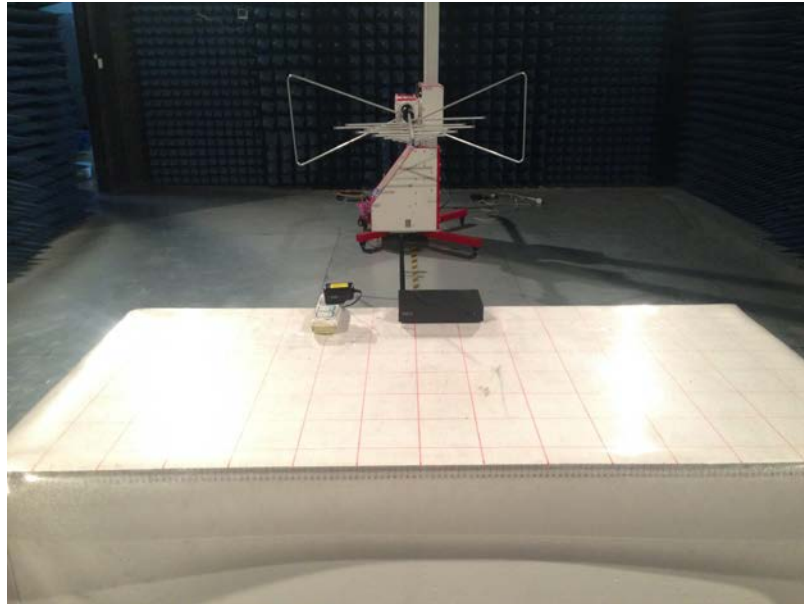
802.11n(HT40)									
Frequency stability versus Temp.									
Worse Case Operating Frequency: 5190MHz									
Temp. (°C)	Power Supply (VAC)	0 minute		2 minute		5 minute		10 minute	
		Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail
-30	120	5189.4977	Pass	5190.2609	Pass	5190.8635	Pass	5189.9214	Pass
-20	120	5189.5197	Pass	5190.1810	Pass	5190.0777	Pass	5189.9053	Pass
-10	120	5189.0592	Pass	5190.7286	Pass	5190.4380	Pass	5189.1032	Pass
0	120	5189.8882	Pass	5190.1469	Pass	5190.8754	Pass	5189.2494	Pass
10	120	5189.7527	Pass	5190.0988	Pass	5190.3096	Pass	5189.8695	Pass
20	120	5189.5507	Pass	5190.3997	Pass	5190.8544	Pass	5189.7288	Pass
30	120	5189.4867	Pass	5190.6365	Pass	5190.5159	Pass	5189.3846	Pass
40	120	5189.2947	Pass	5190.4751	Pass	5190.9359	Pass	5189.1411	Pass
50	120	5189.9849	Pass	5190.8767	Pass	5190.4110	Pass	5189.7780	Pass
Frequency stability versus Temp.									
Worse Case Operating Frequency: 5190MHz									
Temp. (°C)	Power Supply (VAC)	0 minute		2 minute		5 minute		10 minute	
		Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail
25	108	5189.9719	Pass	5190.4645	Pass	5190.6146	Pass	5189.2189	Pass
25	120	5189.8145	Pass	5190.1777	Pass	5190.6683	Pass	5189.0427	Pass
25	132	5189.1239	Pass	5190.9723	Pass	5190.6912	Pass	5189.7551	Pass

802.11ac(HT40)									
Frequency stability versus Temp.									
Worse Case Operating Frequency: 5190MHz									
Temp. (°C)	Power Supply (VAC)	0 minute		2 minute		5 minute		10 minute	
		Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail
-30	120	5189.8183	Pass	5190.8022	Pass	5189.4017	Pass	5190.2836	Pass
-20	120	5189.2099	Pass	5190.8978	Pass	5189.4932	Pass	5190.7828	Pass
-10	120	5189.0299	Pass	5190.1672	Pass	5189.4870	Pass	5190.4514	Pass
0	120	5189.5019	Pass	5190.6900	Pass	5189.7504	Pass	5190.2056	Pass
10	120	5189.5017	Pass	5190.8115	Pass	5189.3584	Pass	5190.3258	Pass
20	120	5189.7836	Pass	5190.7042	Pass	5189.7570	Pass	5190.8808	Pass
30	120	5189.7227	Pass	5190.6442	Pass	5189.6996	Pass	5190.2463	Pass
40	120	5189.7018	Pass	5190.6356	Pass	5189.6633	Pass	5190.5999	Pass
50	120	5189.4693	Pass	5190.3741	Pass	5189.4026	Pass	5190.7649	Pass
Frequency stability versus Temp.									
Worse Case Operating Frequency: 5190MHz									
Temp. (°C)	Power Supply (VAC)	0 minute		2 minute		5 minute		10 minute	
		Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail
25	108	5190.1678	Pass	5189.0163	Pass	5189.2971	Pass	5190.8283	Pass
25	120	5190.2739	Pass	5189.7812	Pass	5189.8509	Pass	5190.3941	Pass
25	132	5190.8635	Pass	5189.8841	Pass	5189.0722	Pass	5190.9047	Pass

802.11ac(HT80)									
Frequency stability versus Temp.									
Worse Case Operating Frequency: 5210MHz									
Temp. (°C)	Power Supply (VAC)	0 minute		2 minute		5 minute		10 minute	
		Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail
-30	120	5209.0452	Pass	5210.0183	Pass	5209.9245	Pass	5210.4632	Pass
-20	120	5209.2184	Pass	5210.1253	Pass	5209.1406	Pass	5210.0777	Pass
-10	120	5209.1546	Pass	5210.3142	Pass	5209.1024	Pass	5210.8647	Pass
0	120	5209.3385	Pass	5210.5436	Pass	5209.2115	Pass	5210.6110	Pass
10	120	5209.0569	Pass	5210.9138	Pass	5209.3415	Pass	5210.4088	Pass
20	120	5209.4075	Pass	5210.1343	Pass	5209.8780	Pass	5210.8181	Pass
30	120	5209.5881	Pass	5210.1163	Pass	5209.8282	Pass	5210.6165	Pass
40	120	5209.9908	Pass	5210.9878	Pass	5209.5771	Pass	5210.4201	Pass
50	120	5209.2274	Pass	5210.5683	Pass	5209.4775	Pass	5210.3214	Pass
Frequency stability versus Temp.									
Worse Case Operating Frequency: 5210MHz									
Temp. (°C)	Power Supply (VAC)	0 minute		2 minute		5 minute		10 minute	
		Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail	Measured Frequency (MHz)	Pass /Fail
25	108	5210.7919	Pass	5209.0948	Pass	5209.3987	Pass	5210.4984	Pass
25	120	5210.6885	Pass	5209.5414	Pass	5209.2554	Pass	5210.9346	Pass
25	132	5210.2857	Pass	5209.0289	Pass	5209.4905	Pass	5210.4345	Pass

8 Test Setup Photo

Radiated Emission



Conducted Emission



9 EUT Constructional Details

Reference to the test report No. GTS201808000235F01

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