



# FCC RADIO TEST REPORT

Applicant : Ubiquiti Inc.  
Address : 685 Third Avenue, New York, New York 10017 USA  
Equipment : AMPLIFI ALIEN  
Model No. : AFi-ALN-P  
Trade Name : UBIQUITI  
FCC ID. : SWX-AFAP

**I HEREBY CERTIFY THAT :**

The sample was received on Oct. 14, 2019 and the testing was completed on Dec. 21, 2019 at CerpPASS Technology Corp. The test result refers exclusively to the test presented test model / sample. Without written approval of CerpPASS Technology Corp., the test report shall not be reproduced except in full.

Approved by:

Mark Liao / Supervisor

Laboratory Accreditation:

CerpPASS Technology Corporation Test Laboratory





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### History of this test report

Report No.	Issue Date	Description
TEF11910090	Dec. 24, 2019	Original (See Note 1 and Note 2)

Note 1:

This report is prepared for FCC Class II permissive change. its antenna are not any changed. The major change filed under this application is:

Change #1: 2.4G ac/ax function added.(firmware change only)

Change#2: 5G (Band 1 & band 4) Beamforming function added( firmware change only)

Note 2:

The sample provided has been confirmed to be identical to the TEF11910089 report sample.

The only difference are as listed below.

Report number	Model No.	difference
TEF11910089	AFi-ALN-R	Support BLE Function
TEF11910090	AFi-ALN-P	Not Support BLE Function

As it doesn't affect the test result, the below listed test categories referred to report number: TEF11910089.

Description of Test Item
Radiated Spurious Emission (Above 1Ghz)
Conducted Spurious Emission
6dB Bandwidth
Maximum Peak and Average Output Power
Power Spectral Density
Radio Frequency Exposure



# 1. Summary of Test Procedure and Test Results

## 1.1 Applicable Standards

**ANSI C63.10:2013**

**FCC Rules and Regulations Part 15 Subpart C §15.247**

FCC Rule	Description of Test	Result
15.203	. Antenna Requirement	PASS
15.207	. AC Power Line Conducted Emission	PASS
15.209 15.205	. Radiated Spurious Emission	PASS
15.247(d)	. Conducted Spurious Emission	PASS
15.247(a)(2)	. 6dB Bandwidth	PASS
15.247(b)	. Maximum Peak and Average Output Power	PASS
15.247(e)	. Power Spectral Density	PASS
2.1091	. Radio Frequency Exposure	PASS

\*The lab has lowered the uncertainty risk of test equipment, environment, and staff technicians according to ISO-IEC17025. Therefore we define test result as compliant when it complies with the standard without further evaluation of test result uncertainty.

\* This report is prepared for FCC Class II permissive change. its antenna are not any changed. The major change filed under this application is:

Change #1: 2.4G ac/ax function added.(firmware change only)

Change#2: 5G (Band 1 & band 4) Beamforming function added( firmware change only)



## 2. Test Configuration of Equipment under Test

### 2.1 Feature of Equipment under Test

Frequency Range	802.11b/g/n/ac/ax: 2400-2483.5MHz 802.11a/n/ac: 5150-5250MHz 802.11a/n/ac/ax: 5725-5850MHz
Modulation Type	802.11b: CCK, DQPSK, DBPSK 802.11g/n/a: BPSK, QPSK, 16QAM, 64QAM 802.11ac: BPSK, QPSK, 16QAM, 64QAM, 256QAM 802.11ax: BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM
Modulation Technology	DSSS, OFDM, OFDMA
Data Rate	WLAN: 2.4GHz: 802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS0 – MCS31, HT20/40 802.11ac: MCS0 – MCS9, VHT20/40 802.11ax: MCS0 – MCS11, HE20/40 5GHz: 802.11a: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: MCS0 – MCS31, HT20/40 802.11ac: MCS0 – MCS9, VHT20/40/80 802.11ax: MCS0 – MCS11, HE20/40/80
Antenna Type	Internal Antenna
Antenna Gain	For WLAN: 2400-2483.5MHz: ANT A / B / C / D: 4dBi 5150-5250MHz: ANT A / B / C / D: 3.5dBi 5725-5850MHz: ANT A / B / C / D / E / F / G / H: 3.5dBi
Network cable	Brand: Nienyi Model: 30AW*4P Length/Type: 1.5m / NS
Power Cord	Brand: ASAP Model: UL Power CORD(C7) 2.0m black HF Length/Type: 2.0m / NS

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
2. For 5GHz: 802.11ac VHT20, VHT40 and VHT80 support beamforming.
3. For 5GHz: 802.11ax HE20, HE40 and HE80 support beamforming.
4. EUT Firmware Number: v3.2.4 (11-Dec-19)



### 2.2 Carrier Frequency of Channels

802.11b, 802.11g, 802.11n HT20, 802.11ac VHT20, 802.11ax HE20 (2412MHz~2462MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
<b>*01</b>	<b>2412</b>	07	2442
02	2417	08	2447
03	2422	09	2452
04	2427	10	2457
05	2432	<b>*11</b>	<b>2462</b>
<b>*06</b>	<b>2437</b>	---	---

802.11n HT40, 802.11ac VHT40, 802.11ax HE40 (2422MHz~2452MHz)

Channel	Frequency(MHz)	Channel	Frequency(MHz)
---	---	07	2442
---	---	08	2447
<b>*03</b>	<b>2422</b>	<b>*09</b>	<b>2452</b>
04	2427	---	---
05	2432	---	---
<b>*06</b>	<b>2437</b>	---	---

Note: Channels remarked \* are selected to perform test.



### 2.3 Test Mode and Test Software

- a. During testing, the interface cables and equipment positions were varied according to ANSI C63.10.
- b. The complete test system included remote workstation and EUT for RF test. The remote workstation included Notebook.
- c. An executive program, " qcatestcmd" under Windows OS system was executed to transmit and receive data via WLAN.
- d. The following test modes were performed for the test:

Conducted Emissions from the AC mains power ports	
Test Mode	Operating Description
1	802.11ac VHT20 (6.5Mbps)
2	802.11ac VHT40 (13.5Mbps)
3	802.11ax HE20 (7.3Mbps)
4	802.11ax HE40 (14.6Mbps)
caused "Test Mode 1" generated the worst case, it was reported as the final data.	
Radiation Emissions (30MHz ~ 1GHz)	
Test Mode	Operating Description
1	802.11ac VHT20 (6.5Mbps)
2	802.11ac VHT40 (13.5Mbps)
3	802.11ax HE20 (7.3Mbps)
4	802.11ax HE40 (14.6Mbps)
caused "Test Mode 1" generated the worst case, it was reported as the final data.	
Radiation Emissions (1GHz ~ 25GHz)	
Test Mode	Operating Description
1	802.11ac VHT20 (6.5Mbps)
2	802.11ac VHT40 (13.5Mbps)
3	802.11ax HE20 (7.3Mbps)
4	802.11ax HE40 (14.6Mbps)
caused "Test Mode 1~4" generated the worst case, they were reported as the final data.	





### 2.4 Description of Test System

RF Conducted				
Equipment	Brand	Model	Length/Type	Power cord/Length/Type
Notebook	ASUS	P2430U	N/A	Adapter / 1.8m / NS
Radiated Emissions				
Equipment	Brand	Model	Length/Type	Power cord/Length/Type
Notebook	ASUS	P2430U	N/A	Adapter / 1.8m / NS
AC Power Line Conducted Emission				
Equipment	Brand	Model	Length/Type	Power cord/Length/Type
Notebook	ASUS	P2430U	N/A	Adapter / 1.8m / NS



## 2.5 General Information of Test

Test Site	<b>CerpPASS Technology Corporation Test Laboratory</b> Address: No.10, Ln. 2, Lianfu St., Luzhu Dist., Taoyuan City 33848, Taiwan (R.O.C.) Tel:+886-3-3226-888 Fax:+886-3-3226-881	
	FCC	TW1439, TW1079
	IC	4934E-1, 4934E-2
	VCCI	T-2205 for Telecommunication test C-4663 for Conducted emission test R-4218 for Radiated emission test G-10812, G-10813 for radiated disturbance above 1GHz
Frequency Range Investigated:	Conducted: from 150kHz to 30 MHz Radiation: from 30 MHz to 40,000MHz	
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.	

Test Item	Test Site	Finish Date	Environmental Conditions	Tested By
RF Conducted	RFCON01-NK	2019/11/09	20°C / 63%	Nick Guan
Radiated Emissions	3M02-NK	2019/12/21	24°C / 54%	Leon Huang
AC Power Line Conducted Emission	CON01-NK	2019/12/21	22°C / 46%	Leon Huang

## 2.6 Measurement Uncertainty

Measurement Item	Uncertainty
AC Power Line Conduction(150K~30MHz)	±1.60dB
Radiated Spurious Emission(9KHz~30MHz)	±3.405dB
Radiated Spurious Emission(30MHz~1GHz)	±5.326dB
Radiated Spurious Emission(1GHz~25GHz)	±5.918dB
Conducted Spurious Emission	±2.156dB
6dB Bandwidth	±4.401%
20dB Bandwidth	±4.40%
Occupied Bandwidth	±4.41%
Peak Output Power(Conducted Power Meter)	±1.31dB
Dwell Time	±0.11%
Power Spectral Density	±2.146dB
Duty Cycle	±0.17%



### 3. Test Equipment and Ancillaries Used for Tests

Test Item	Radiated Emissions				
Test Site	Semi Anechoic Room(3M02-NK)				
Instrument	Manufacturer	Model No	Serial No	Calibration Date	Valid Date
Bilog Antenna	Schwarzbeck	VULB9168	275	2019/09/24	2020/09/23
Bilog Antenna	Schwarzbeck	VULB9168	369	2019/03/29	2020/03/28
Active Loop Antenna	EMCO	6507	40855	2019/05/24	2020/05/23
Horn Antenna	EMCO	3115	31589	2019/04/01	2020/03/31
Horn Antenna	EMCO	3116	31974	2019/09/17	2020/09/16
EMI Receiver	ROHDE & SCHWARZ	ESCI	101423	2019/05/14	2020/05/13
Spectrum Analyzer	ROHDE & SCHWARZ	FSP 40	100047	2019/03/28	2020/03/27
Spectrum Analyzer	ROHDE & SCHWARZ	FSV 40-N	102151	2019/08/02	2020/08/01
Preamplifier	EM Electronics corp.	EM330	60660	2019/03/11	2020/03/10
Preamplifier	EMC INSTRUMENTS	EMC051845SE	980333	2019/09/20	2020/09/19
Preamplifier	Agilent	8449B	3008A01954	2019/03/11	2020/03/10
Preamplifier	EMC INSTRUMENTS	EMC184045	980065	2019/11/07	2020/11/06
Bluetooth Tester	ROHDE & SCHWARZ	CBT	101133	2019/04/07	2020/04/06
Cable-3in1(30M-1G)	HARBOUR INDUSTRIES	LL142	CCE1315	2019/04/09	2020/04/08
Cable-3in1(30M-1G)	HARBOUR INDUSTRIES	LL142	CCE1316	2019/09/20	2020/09/19
Cable-0.5m(1G-40G)	HUBER SUHNER	SUCOFLEX 100	805443/4	2019/05/20	2020/05/19
Cable-3m(1G-40G)	HUBER SUHNER	SUCOFLEX 100	805796/4	2019/05/20	2020/05/19
Cable-8m(1G-40G)	HUBER SUHNER	SUCOFLEX 100	805795/4	2019/05/20	2020/05/19
E3	AUDIX	v8.2014-8-6	RK-000529	NA	NA

Test Item	RF Conducted				
Test Site	RFCON01-NK				
Instrument	Manufacturer	Model No	Serial No	Calibration Date	Valid Date
Spectrum Analyzer	ROHDE & SCHWARZ	FSP 40	100047	2019/03/28	2020/03/27
Spectrum Analyzer	ROHDE & SCHWARZ	FSV 40-N	102151	2019/08/02	2020/08/01
Bluetooth Tester	ROHDE & SCHWARZ	CBT	101133	2019/04/07	2020/04/06
Attenuator	KEYSIGHT	8491B	MY39250703	2019/09/12	2020/09/11
TEMP & HUMIDITY CHAMBER	T-MACHINE	TMJ-9712	T-12-040111	2019/08/28	2020/08/27
Power Meter	Anritsu	ML2495A	1224005	2019/04/11	2020/04/10
Power Sensor	Anritsu	MA2411B	1207295	2019/04/09	2020/04/08



<b>Test Item</b>	AC Power Line Conducted Emission				
<b>Test Site</b>	CON01-NK				
<b>Instrument</b>	<b>Manufacturer</b>	<b>Model No</b>	<b>Serial No</b>	<b>Calibration Date</b>	<b>Valid Date</b>
EMI Receiver	ROHDE & SCHWARZ	ESCI	100443	2019/03/29	2020/03/28
Line Impedance Stabilization Network	Schwarzbeck	NSLK 8127	8127-568	2019/03/15	2020/03/14
Pulse Limiter	ROHDE & SCHWARZ	ESH3-Z2	101934	2019/03/12	2020/03/11
Cable-6m(9k~300M)	NA	EMC5D-BM-BM-6	130606	2019/03/14	2020/03/13
E3	AUDIX	v8.2014-8-6	RK-000531	NA	NA



### 4. Antenna Requirements

#### 4.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

#### 4.2 Antenna Construction and Directional Gain

Antenna Type	Internal Antenna
Antenna Gain	2.4GHz: ANT A / B / C / D: 4dBi 5150-5250MHz: ANT A / B / C / D: 3.5dBi 5725-5850MHz: ANT A / B / C / D / E / F / G / H: 3.5dBi

##### **(Non-Beamforming)**

2412-2462MHz
For Power directional gain= $G_{ant} = 4$ dBi For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 10.02$ (dBi)

##### **(Beamforming)**

5150MHz -5250MHz
For Power directional gain= $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 9.52$ (dBi) For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 9.52$ (dBi)
5725MHz -5850MHz
For Power directional gain= $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 12.53$ (dBi) For PSD directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}] = 12.53$ (dBi)



## 5. Test of AC Power Line Conducted Emission

### 5.1 Test Limit

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz, according to the methods defined in ANSI C63.4-2014. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

Frequency (MHz)	Quasi Peak (dB $\mu$ V)	Average (dB $\mu$ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50

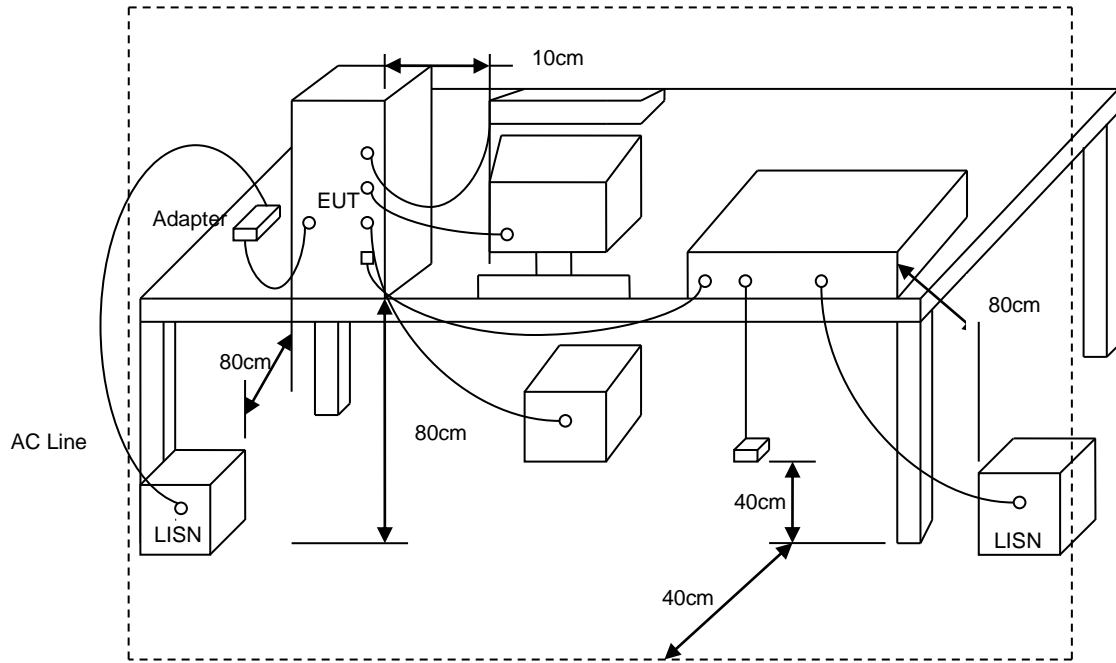
\*Decreases with the logarithm of the frequency.

### 5.2 Test Procedures

- a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
- b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
- c. All the support units are connecting to the other LISN.
- d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
- e. The FCC states that a 50 ohm, 50 micro-Henry LISN should be used.
- f. Both sides of AC line were checked for maximum conducted interference.
- g. The frequency range from 150 kHz to 30 MHz was searched.
- h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.



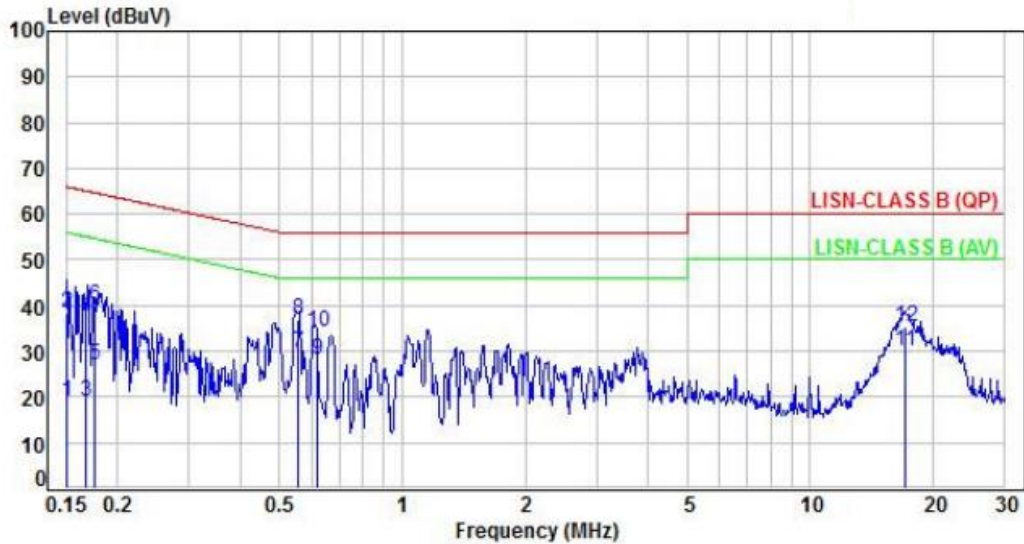
### 5.3 Typical Test Setup





5.4 Test Result and Data

Power	: AC 120V / 60Hz	Pol/Phase	: LINE
Test Mode	: Mode 1		:



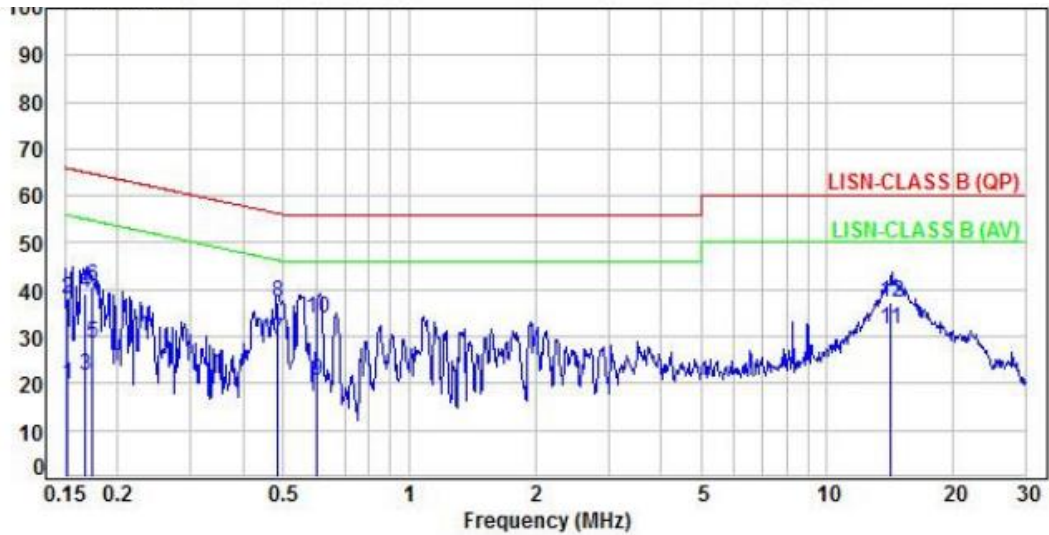
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.15	9.92	9.14	19.06	55.98	-36.92	Average	P
2	0.15	9.92	28.59	38.51	65.98	-27.47	QP	P
3	0.17	9.92	9.10	19.02	55.07	-36.05	Average	P
4	0.17	9.92	27.79	37.71	65.07	-27.36	QP	P
5	0.18	9.92	17.00	26.92	54.66	-27.74	Average	P
6	0.18	9.92	29.91	39.83	64.66	-24.83	QP	P
7	0.56	9.95	19.68	29.63	46.00	-16.37	Average	P
8	0.56	9.95	26.86	36.81	56.00	-19.19	QP	P
9	0.62	9.95	18.14	28.09	46.00	-17.91	Average	P
10	0.62	9.95	24.32	34.27	56.00	-21.73	QP	P
11	17.07	10.52	19.57	30.09	50.00	-19.91	Average	P
12	17.07	10.52	24.91	35.43	60.00	-24.57	QP	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=(LISN or ISN or Current Probe)Factor + Cable Loss





Power	: AC 120V / 60Hz	Pol/Phase	: NEUTRAL
Test Mode	: Mode 1		



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.15	9.95	9.88	19.83	55.86	-36.03	Average	P
2	0.15	9.95	28.25	38.20	65.86	-27.66	QP	P
3	0.17	9.95	11.79	21.74	55.06	-33.32	Average	P
4	0.17	9.95	29.11	39.06	65.06	-26.00	QP	P
5	0.17	9.95	18.42	28.37	54.78	-26.41	Average	P
6	0.17	9.95	30.92	40.87	64.78	-23.91	QP	P
7	0.48	9.96	19.30	29.26	46.27	-17.01	Average	P
8	0.48	9.96	27.32	37.28	56.27	-18.99	QP	P
9	0.60	9.96	10.41	20.37	46.00	-25.63	Average	P
10	0.60	9.96	23.91	33.87	56.00	-22.13	QP	P
11	14.20	10.47	21.25	31.72	50.00	-18.28	Average	P
12	14.20	10.47	26.77	37.24	60.00	-22.76	QP	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=(LISN or ISN or Current Probe)Factor + Cable Loss



## 6. Test of Radiated Spurious Emission

### 6.1 Test Limit

In any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. If the transmitter measurement is based on the maximum conducted output power, the attenuation required under this paragraph shall be 30dB instead of 20dB. In addition, radiated emissions which fall in section 15.205(a) the restricted bands must also comply with the radiated emission limit specified in section 15.209(a).

Frequency (MHz)	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(kHz)	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

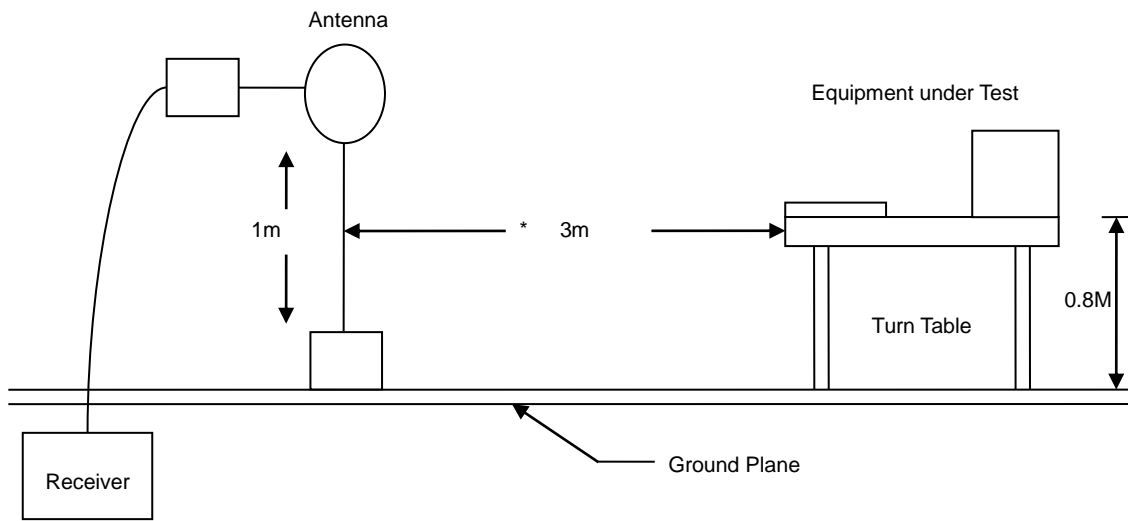
### 6.2 Test Procedures

- The EUT was placed on a rotatable table top 0.8 meter above ground.
- The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.
- The table was rotated 360 degrees to determine the position of the highest radiation.
- The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.
- For each suspected emission the EUT was arranged to its worst case and then tune the antenna tower (from 1 M to 4 M) and turn table (from 0 degree to 360 degrees) to find the maximum reading.
- Set the test-receiver system to Peak or CISPR quasi-peak Detect Function and specified bandwidth with Maximum Hold Mode.
- For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- "Cone of radiation" has been considered to be 3dB bandwidth of the measurement antenna.

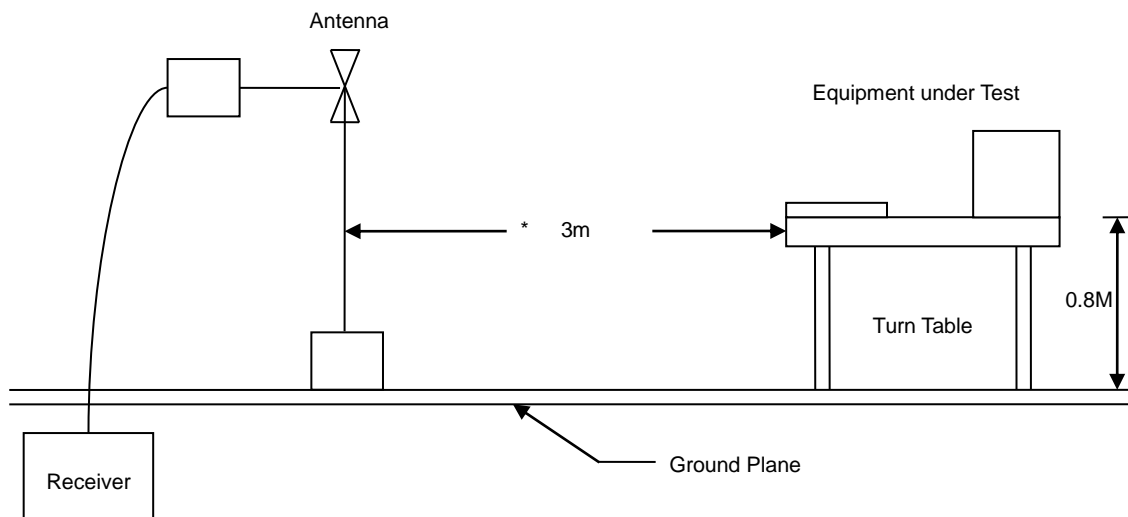


### 6.3 Typical Test Setup

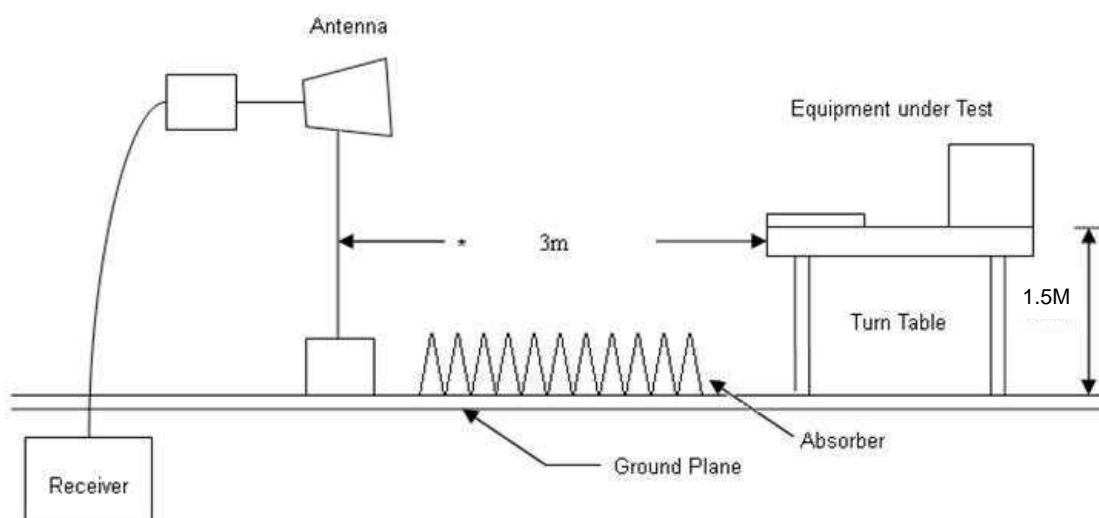
Below 30MHz test setup



30MHz- 1GHz Test Setup



Above 1GHz Test Setup



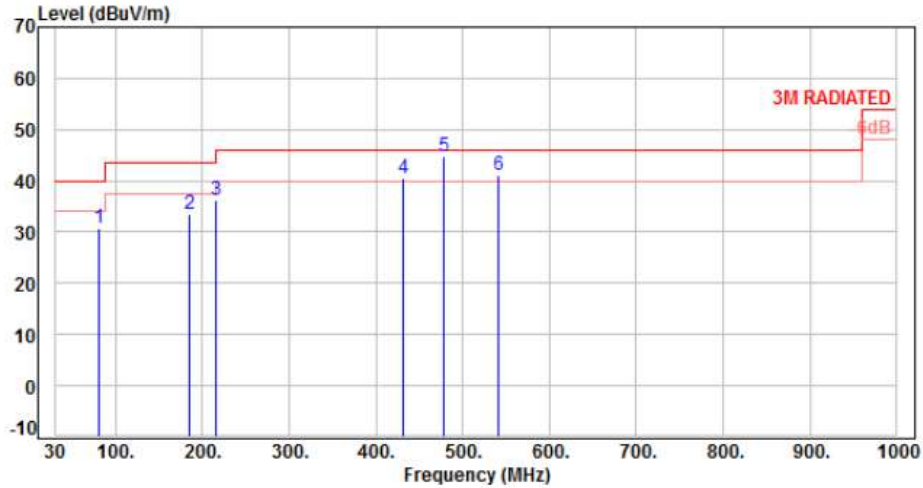


### 6.4 Test Result and Data (9KHz ~ 30MHz)

The 9kHz - 30MHz spurious emission is under limit 20dB more.

### 6.5 Test Result and Data (30MHz ~ 1GHz)

Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 1		:

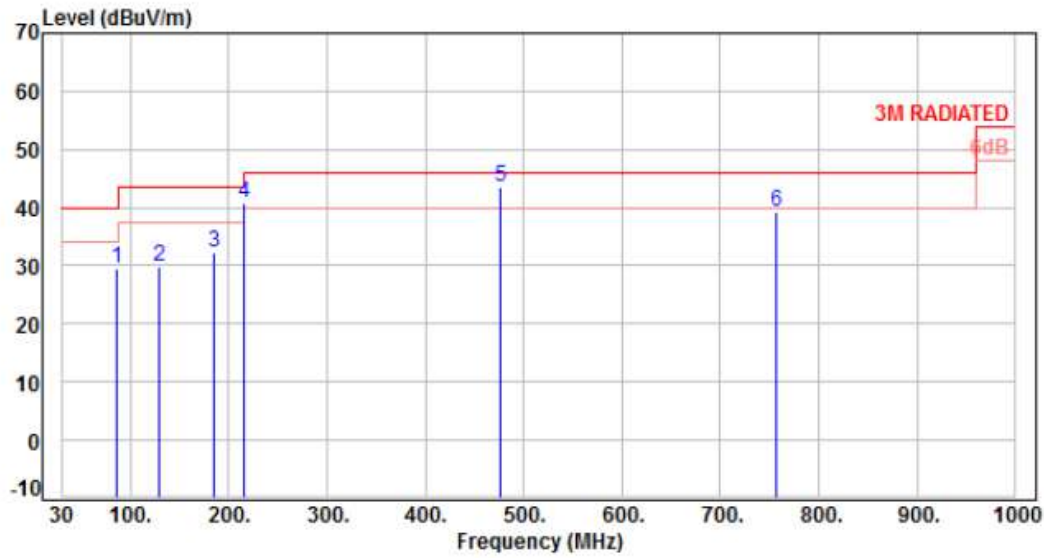


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	81.44	-14.53	45.38	30.85	40.00	-9.15	Peak	400	0	P
2	184.53	-11.21	44.62	33.41	43.50	-10.09	Peak	400	0	P
3	215.57	-11.98	48.34	36.36	43.50	-7.14	Peak	400	0	P
4	431.28	-4.85	45.45	40.60	46.00	-5.40	Peak	400	0	P
5	478.54	-3.98	48.62	44.64	46.00	-1.36	Peak	400	0	P
6	540.74	-2.70	43.79	41.09	46.00	-4.91	Peak	400	0	P

Note: Level=Reading+Factor  
Margin=Level-Limit  
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1		:



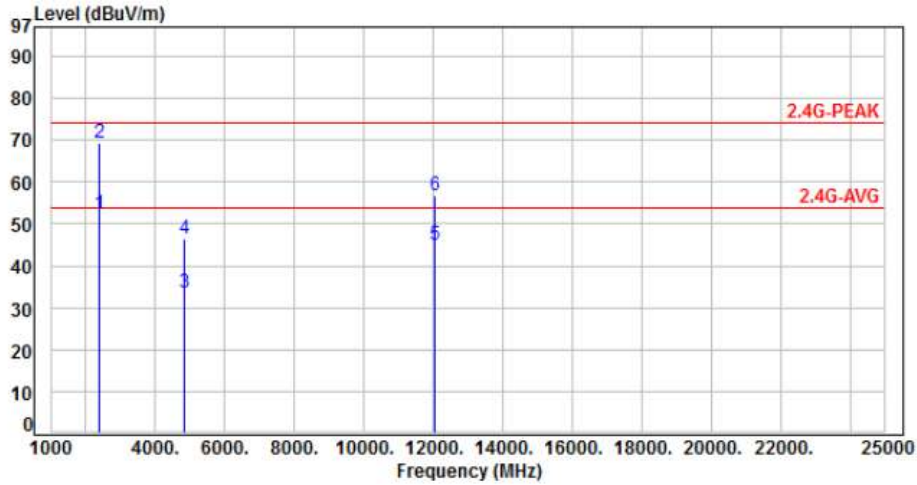
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	85.33	-15.10	44.60	29.50	40.00	-10.50	Peak	100	0	P
2	128.49	-11.07	40.81	29.74	43.50	-13.76	Peak	100	0	P
3	184.54	-11.21	43.45	32.24	43.50	-11.26	Peak	100	0	P
4	216.45	-11.97	52.67	40.70	46.00	-5.30	Peak	100	0	P
5	476.13	-3.99	47.55	43.56	46.00	-2.44	Peak	100	0	P
6	756.29	1.33	37.81	39.14	46.00	-6.86	Peak	100	0	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



### 6.6 Test Result and Data (1GHz ~ 25GHz)

Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH01		:

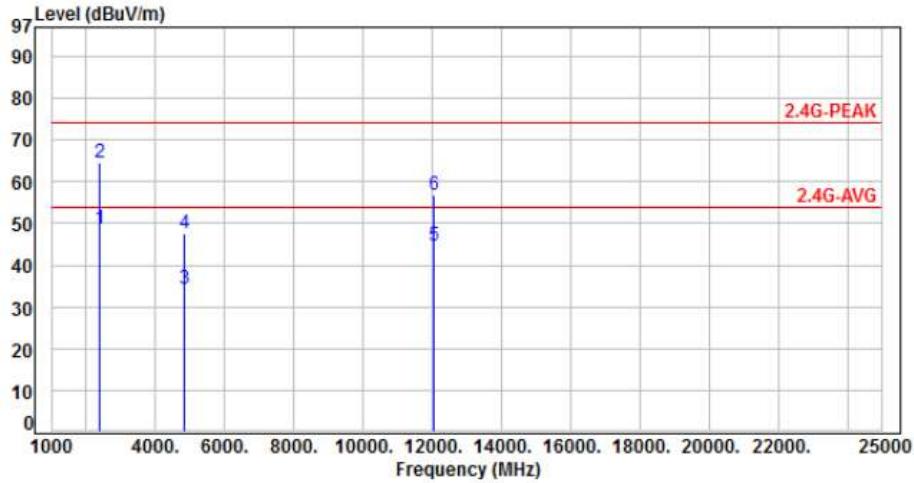


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-3.64	56.09	52.45	54.00	-1.55	Average	255	263	P
2	2390.00	-3.64	72.93	69.29	74.00	-4.71	Peak	255	263	P
3	4824.00	3.76	29.81	33.57	54.00	-20.43	Average	100	360	P
4	4824.00	3.76	42.60	46.36	74.00	-27.64	Peak	100	360	P
5	12060.00	13.45	31.53	44.98	54.00	-9.02	Average	100	120	P
6	12060.00	13.45	43.28	56.73	74.00	-17.27	Peak	100	120	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH01		:

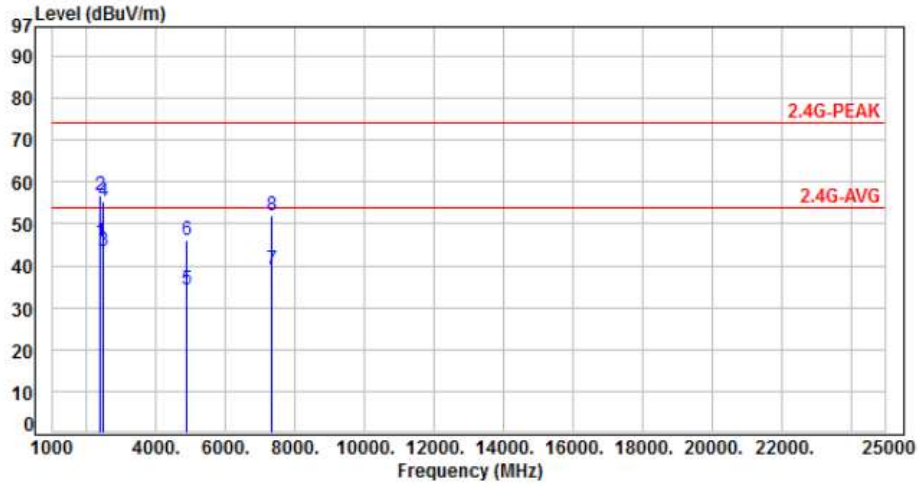


No.	Frequency (MHz)	Factor (dB)	Reading (dBUV)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-3.64	52.37	48.73	54.00	-5.27	Average	340	84	P
2	2390.00	-3.64	68.02	64.38	74.00	-9.62	Peak	340	84	P
3	4824.00	3.76	30.42	34.18	54.00	-19.82	Average	100	0	P
4	4824.00	3.76	43.92	47.68	74.00	-26.32	Peak	100	0	P
5	12060.00	13.45	31.11	44.56	54.00	-9.44	Average	100	280	P
6	12060.00	13.45	43.29	56.74	74.00	-17.26	Peak	100	280	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH06		:



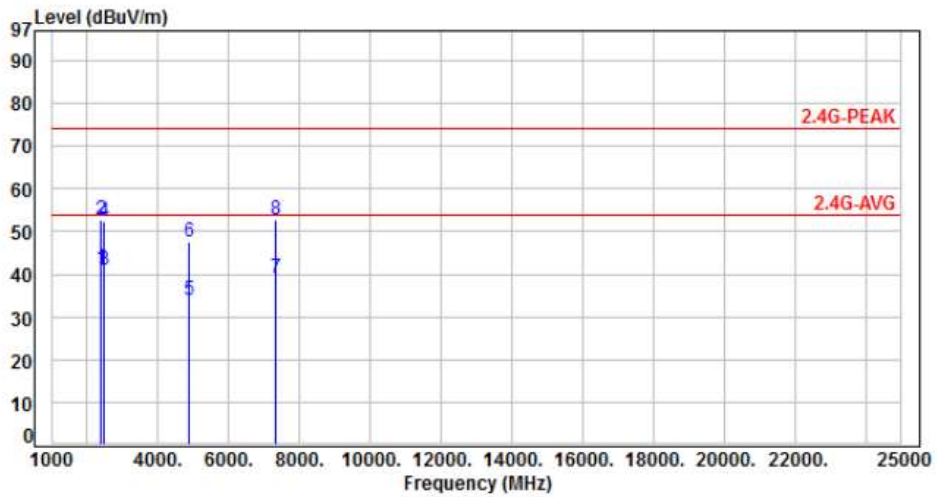
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2376.00	-3.62	49.48	45.86	54.00	-8.14	Average	178	300	P
2	2376.00	-3.62	60.49	56.87	74.00	-17.13	Peak	178	300	P
3	2496.00	-3.27	46.80	43.53	54.00	-10.47	Average	178	300	P
4	2496.00	-3.27	58.74	55.47	74.00	-18.53	Peak	178	300	P
5	4874.00	3.95	30.33	34.28	54.00	-19.72	Average	100	133	P
6	4874.00	3.95	42.06	46.01	74.00	-27.99	Peak	100	133	P
7	7311.00	8.84	30.26	39.10	54.00	-14.90	Average	100	350	P
8	7311.00	8.84	43.12	51.96	74.00	-22.04	Peak	100	350	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor





Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH06		:

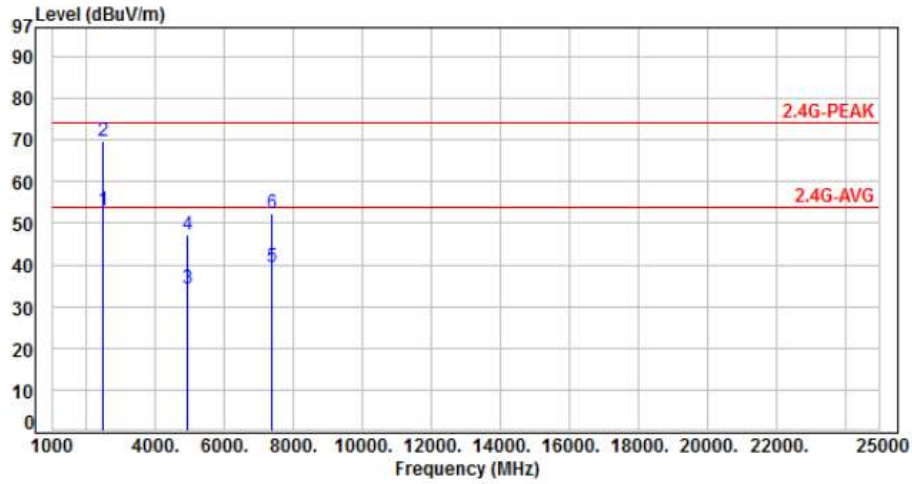


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2376.00	-3.62	45.04	41.42	54.00	-12.58	Average	100	318	P
2	2376.00	-3.62	56.25	52.63	74.00	-21.37	Peak	100	318	P
3	2483.50	-3.30	44.11	40.81	54.00	-13.19	Average	100	318	P
4	2483.50	-3.30	55.58	52.28	74.00	-21.72	Peak	100	318	P
5	4874.00	3.95	30.06	34.01	54.00	-19.99	Average	100	275	P
6	4874.00	3.95	43.48	47.43	74.00	-26.57	Peak	100	275	P
7	7311.00	8.84	30.32	39.16	54.00	-14.84	Average	100	333	P
8	7311.00	8.84	43.81	52.65	74.00	-21.35	Peak	100	333	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 1, CH11		:

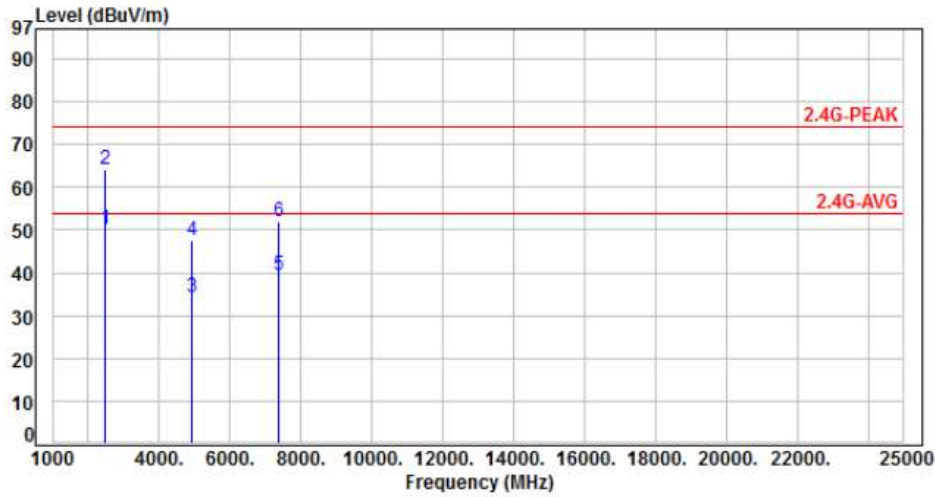


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-3.30	56.28	52.98	54.00	-1.02	Average	243	100	P
2	2483.50	-3.30	73.05	69.75	74.00	-4.25	Peak	243	100	P
3	4924.00	4.10	30.24	34.34	54.00	-19.66	Average	100	186	P
4	4924.00	4.10	43.29	47.39	74.00	-26.61	Peak	100	186	P
5	7386.00	8.94	30.40	39.34	54.00	-14.66	Average	100	149	P
6	7386.00	8.94	43.52	52.46	74.00	-21.54	Peak	100	149	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 1, CH11		:

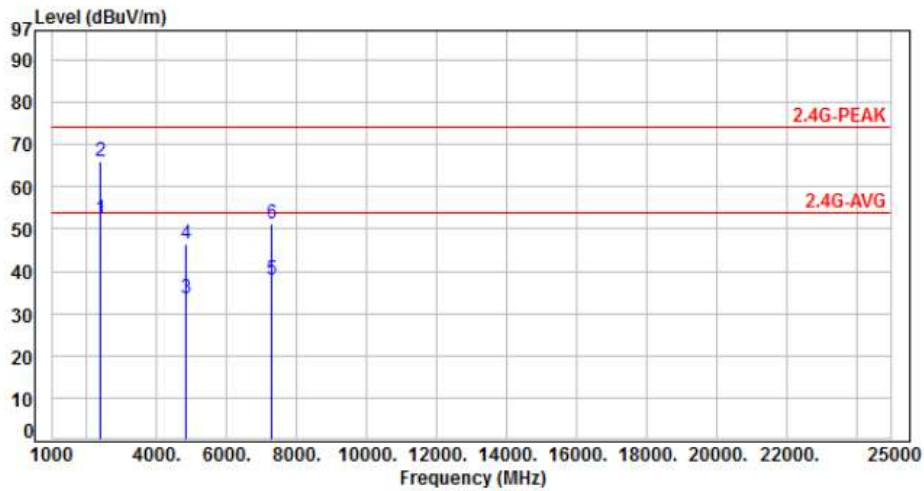


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-3.30	53.63	50.33	54.00	-3.67	Average	350	114	P
2	2483.50	-3.30	67.55	64.25	74.00	-9.75	Peak	350	114	P
3	4924.00	4.10	30.30	34.40	54.00	-19.60	Average	100	316	P
4	4924.00	4.10	43.51	47.61	74.00	-26.39	Peak	100	316	P
5	7386.00	8.94	30.55	39.49	54.00	-14.51	Average	100	295	P
6	7386.00	8.94	43.04	51.98	74.00	-22.02	Peak	100	295	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 2, CH03		:

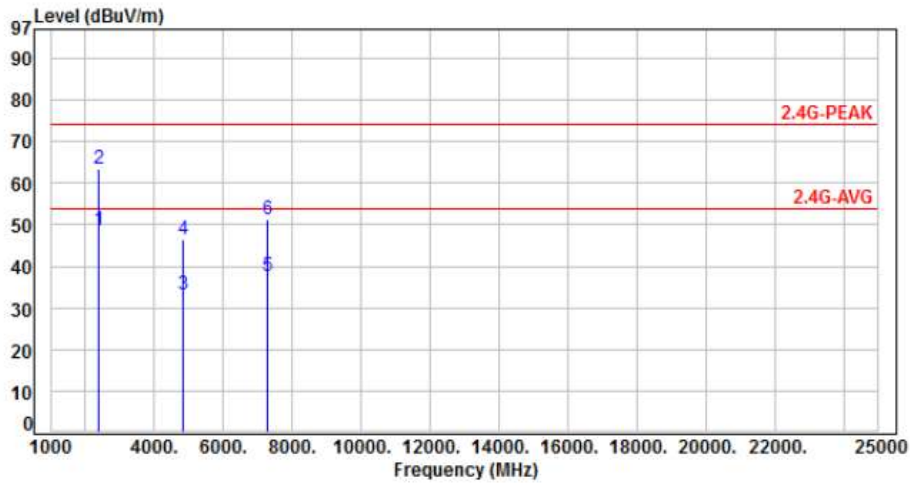


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-3.64	55.87	52.23	54.00	-1.77	Average	133	51	P
2	2390.00	-3.64	69.51	65.87	74.00	-8.13	Peak	133	51	P
3	4844.00	3.85	29.60	33.45	54.00	-20.55	Average	100	80	P
4	4844.00	3.85	42.71	46.56	74.00	-27.44	Peak	100	80	P
5	7266.00	8.62	29.41	38.03	54.00	-15.97	Average	100	136	P
6	7266.00	8.62	42.64	51.26	74.00	-22.74	Peak	100	136	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 2, CH03		:

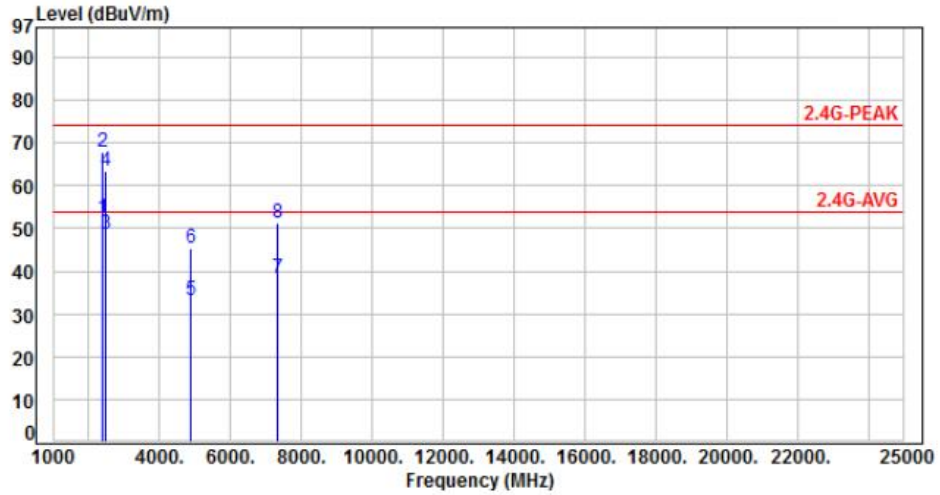


No.	Frequency (MHz)	Factor (dB)	Reading (dBUV)	Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-3.64	52.15	48.51	54.00	-5.49	Average	365	295	P
2	2390.00	-3.64	67.15	63.51	74.00	-10.49	Peak	365	295	P
3	4844.00	3.85	29.35	33.20	54.00	-20.80	Average	100	233	P
4	4844.00	3.85	42.58	46.43	74.00	-27.57	Peak	100	233	P
5	7266.00	8.62	29.08	37.70	54.00	-16.30	Average	100	310	P
6	7266.00	8.62	42.70	51.32	74.00	-22.68	Peak	100	310	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 2, CH06		:

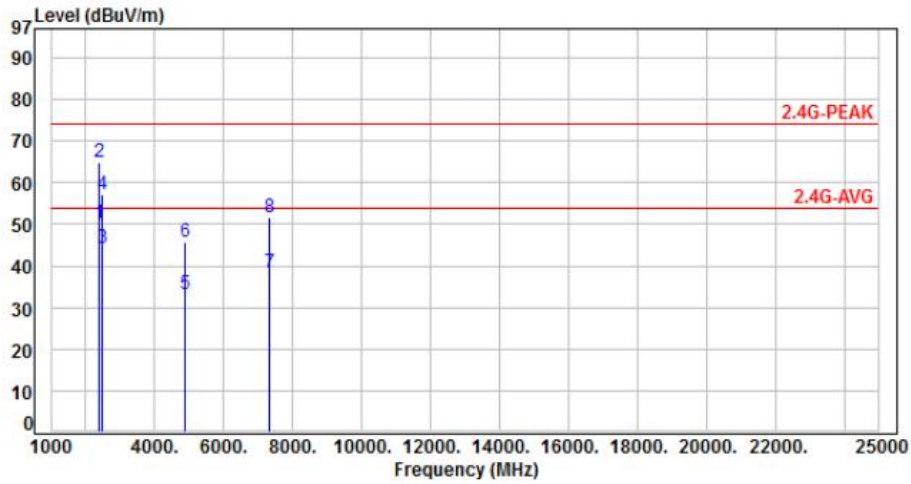


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-3.64	56.13	52.49	54.00	-1.51	Average	253	229	P
2	2390.00	-3.64	71.66	68.02	74.00	-5.98	Peak	253	229	P
3	2483.50	-3.30	52.02	48.72	54.00	-5.28	Average	100	85	P
4	2483.50	-3.30	66.57	63.27	74.00	-10.73	Peak	100	85	P
5	4874.00	3.95	29.16	33.11	54.00	-20.89	Average	100	285	P
6	4874.00	3.95	41.35	45.30	74.00	-28.70	Peak	100	285	P
7	7311.00	8.84	29.54	38.38	54.00	-15.62	Average	100	345	P
8	7311.00	8.84	42.45	51.29	74.00	-22.71	Peak	100	345	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 2, CH06		:

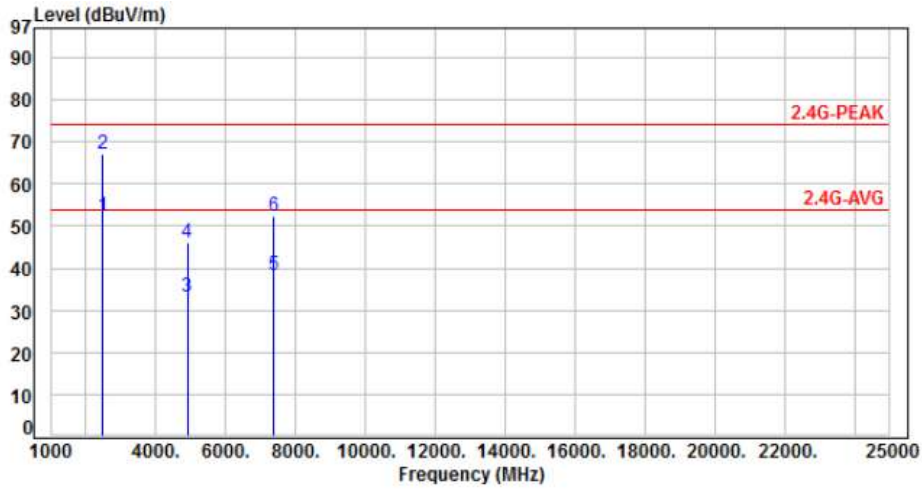


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-3.64	53.98	50.34	54.00	-3.66	Average	100	53	P
2	2390.00	-3.64	68.58	64.94	74.00	-9.06	Peak	100	53	P
3	2483.50	-3.30	47.39	44.09	54.00	-9.91	Average	100	53	P
4	2483.50	-3.30	60.34	57.04	74.00	-16.96	Peak	100	53	P
5	4874.00	3.95	29.26	33.21	54.00	-20.79	Average	100	119	P
6	4874.00	3.95	41.74	45.69	74.00	-28.31	Peak	100	119	P
7	7311.00	8.84	29.43	38.27	54.00	-15.73	Average	100	193	P
8	7311.00	8.84	42.88	51.72	74.00	-22.28	Peak	100	193	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 2, CH09		:



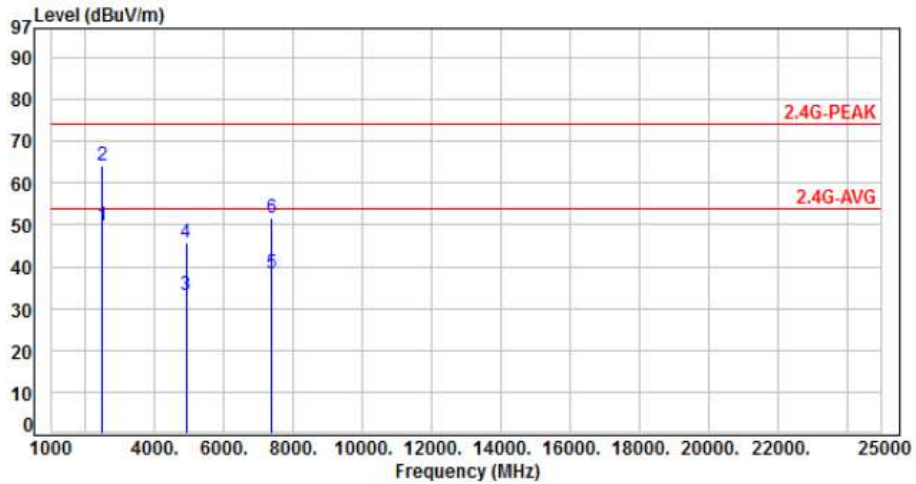
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-3.30	55.54	52.24	54.00	-1.76	Average	340	215	P
2	2483.50	-3.30	70.49	67.19	74.00	-6.81	Peak	340	215	P
3	4904.00	4.05	29.01	33.06	54.00	-20.94	Average	100	159	P
4	4904.00	4.05	41.99	46.04	74.00	-27.96	Peak	100	159	P
5	7356.00	8.86	29.45	38.31	54.00	-15.69	Average	100	177	P
6	7356.00	8.86	43.42	52.28	74.00	-21.72	Peak	100	177	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor





Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 2, CH09		:

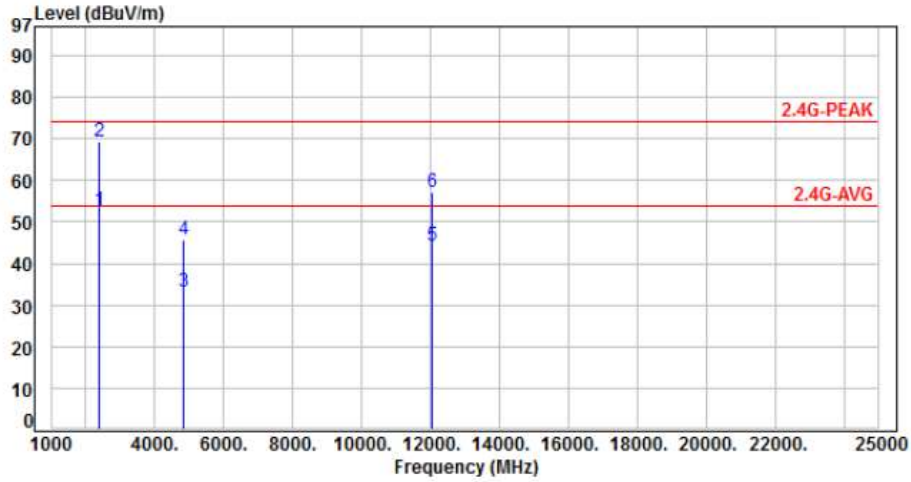


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-3.30	53.26	49.96	54.00	-4.04	Average	260	50	P
2	2483.50	-3.30	67.32	64.02	74.00	-9.98	Peak	260	50	P
3	4904.00	4.05	29.30	33.35	54.00	-20.65	Average	100	300	P
4	4904.00	4.05	41.56	45.61	74.00	-28.39	Peak	100	300	P
5	7356.00	8.86	29.44	38.30	54.00	-15.70	Average	100	261	P
6	7356.00	8.86	42.73	51.59	74.00	-22.41	Peak	100	261	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 3, CH01		:

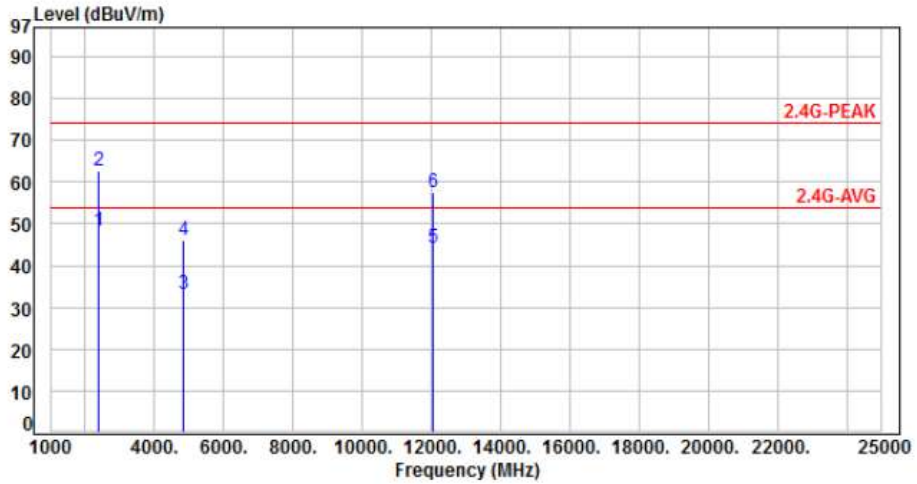


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-3.64	56.45	52.81	54.00	-1.19	Average	314	285	P
2	2390.00	-3.64	72.89	69.25	74.00	-4.75	Peak	314	285	P
3	4824.00	3.76	29.48	33.24	54.00	-20.76	Average	100	180	P
4	4824.00	3.76	42.08	45.84	74.00	-28.16	Peak	100	180	P
5	12060.00	13.45	30.76	44.21	54.00	-9.79	Average	100	155	P
6	12060.00	13.45	43.66	57.11	74.00	-16.89	Peak	100	155	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 3, CH01		:

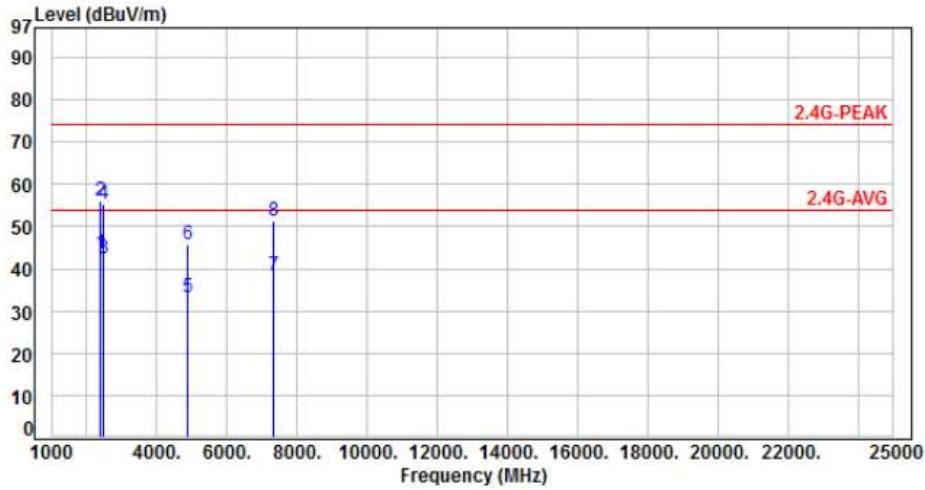


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-3.64	52.01	48.37	54.00	-5.63	Average	100	90	P
2	2390.00	-3.64	66.42	62.78	74.00	-11.22	Peak	100	90	P
3	4824.00	3.76	29.34	33.10	54.00	-20.90	Average	100	277	P
4	4824.00	3.76	42.16	45.92	74.00	-28.08	Peak	100	277	P
5	12060.00	13.45	30.73	44.18	54.00	-9.82	Average	100	299	P
6	12060.00	13.45	44.03	57.48	74.00	-16.52	Peak	100	299	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 3, CH06		:

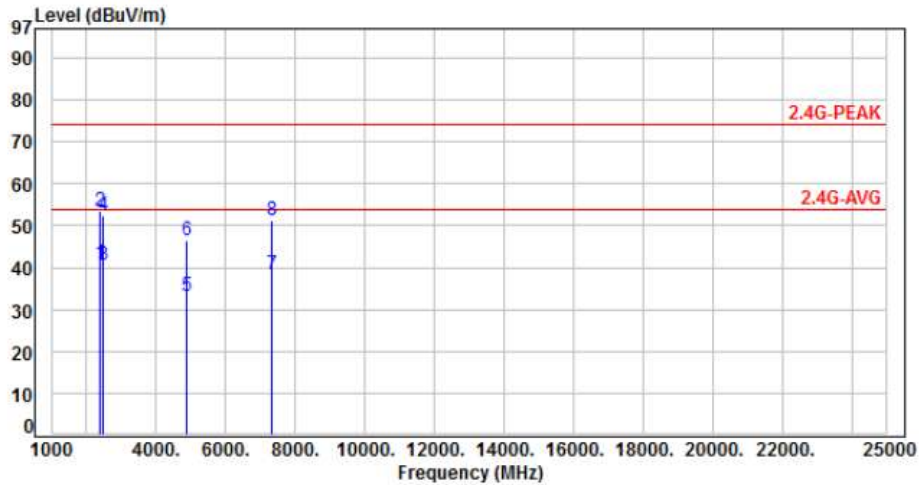


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2376.00	-3.62	47.31	43.69	54.00	-10.31	Average	100	275	P
2	2376.00	-3.62	59.58	55.96	74.00	-18.04	Peak	100	275	P
3	2496.00	-3.27	45.74	42.47	54.00	-11.53	Average	100	282	P
4	2496.00	-3.27	58.74	55.47	74.00	-18.53	Peak	100	282	P
5	4874.00	3.95	29.22	33.17	54.00	-20.83	Average	100	166	P
6	4874.00	3.95	41.63	45.58	74.00	-28.42	Peak	100	166	P
7	7311.00	8.84	29.39	38.23	54.00	-15.77	Average	100	172	P
8	7311.00	8.84	42.42	51.26	74.00	-22.74	Peak	100	172	P

Note: Level=Reading+Factor  
Margin=Level-Limit  
Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 3, CH06		:

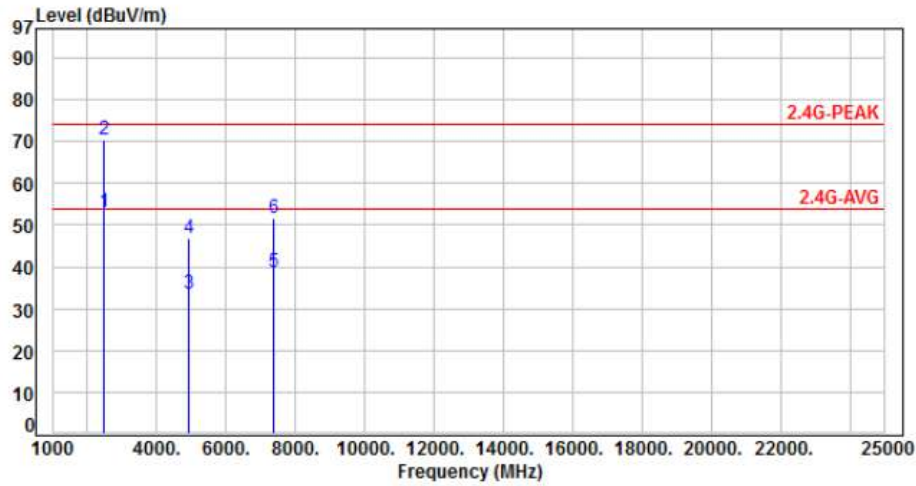


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2376.00	-3.62	44.71	41.09	54.00	-12.91	Average	100	85	P
2	2376.00	-3.62	57.25	53.63	74.00	-20.37	Peak	100	85	P
3	2483.50	-3.30	44.04	40.74	54.00	-13.26	Average	100	85	P
4	2483.50	-3.30	55.82	52.52	74.00	-21.48	Peak	100	85	P
5	4874.00	3.95	29.14	33.09	54.00	-20.91	Average	100	269	P
6	4874.00	3.95	42.47	46.42	74.00	-27.58	Peak	100	269	P
7	7311.00	8.84	29.47	38.31	54.00	-15.69	Average	100	318	P
8	7311.00	8.84	42.55	51.39	74.00	-22.61	Peak	100	318	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 3, CH11		:

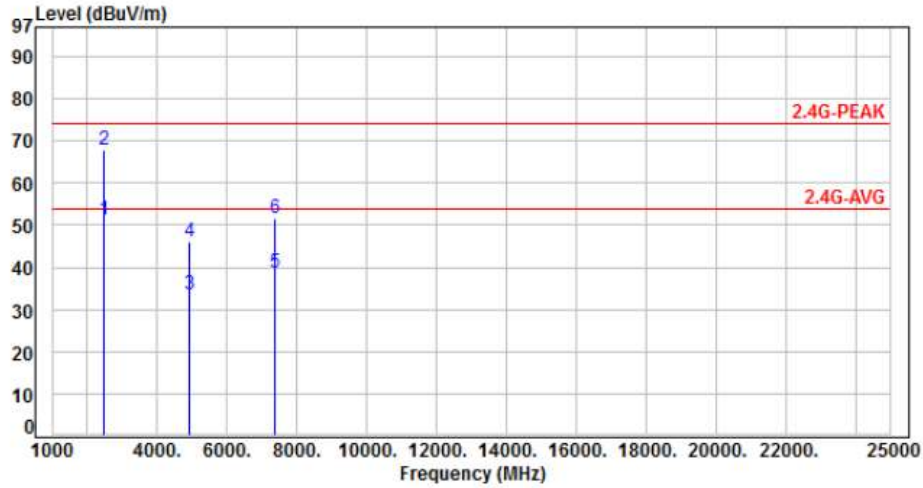


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-3.30	56.23	52.93	54.00	-1.07	Average	125	85	P
2	2483.50	-3.30	73.82	70.52	74.00	-3.48	Peak	125	85	P
3	4924.00	4.10	29.64	33.74	54.00	-20.26	Average	100	125	P
4	4924.00	4.10	42.57	46.67	74.00	-27.33	Peak	100	125	P
5	7386.00	8.94	29.75	38.69	54.00	-15.31	Average	100	188	P
6	7386.00	8.94	42.82	51.76	74.00	-22.24	Peak	100	188	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 3, CH11		:

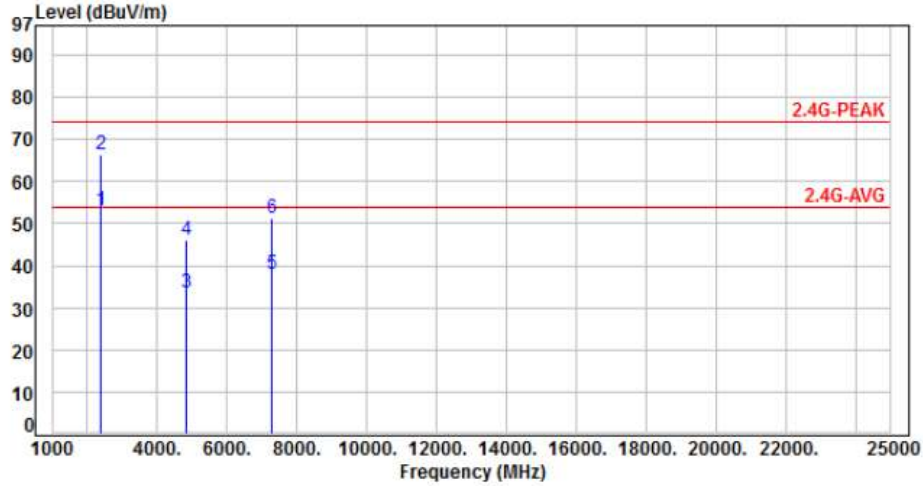


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-3.30	54.51	51.21	54.00	-2.79	Average	290	110	P
2	2483.50	-3.30	70.98	67.68	74.00	-6.32	Peak	290	110	P
3	4924.00	4.10	29.62	33.72	54.00	-20.28	Average	100	250	P
4	4924.00	4.10	42.13	46.23	74.00	-27.77	Peak	100	250	P
5	7386.00	8.94	29.80	38.74	54.00	-15.26	Average	100	244	P
6	7386.00	8.94	42.64	51.58	74.00	-22.42	Peak	100	244	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH03		:



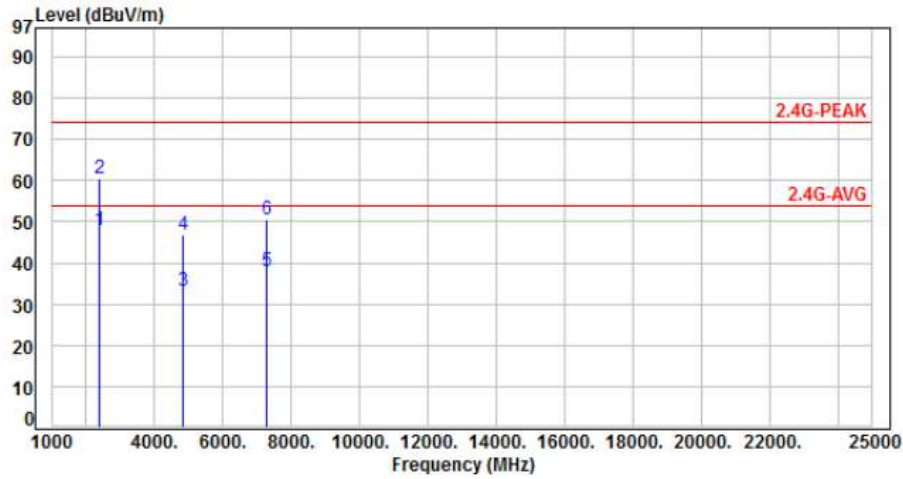
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-3.64	56.58	52.94	54.00	-1.06	Average	100	48	P
2	2390.00	-3.64	69.91	66.27	74.00	-7.73	Peak	100	48	P
3	4844.00	3.85	29.72	33.57	54.00	-20.43	Average	100	97	P
4	4844.00	3.85	42.36	46.21	74.00	-27.79	Peak	100	97	P
5	7266.00	8.62	29.29	37.91	54.00	-16.09	Average	100	139	P
6	7266.00	8.62	42.68	51.30	74.00	-22.70	Peak	100	139	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor





Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH03		:

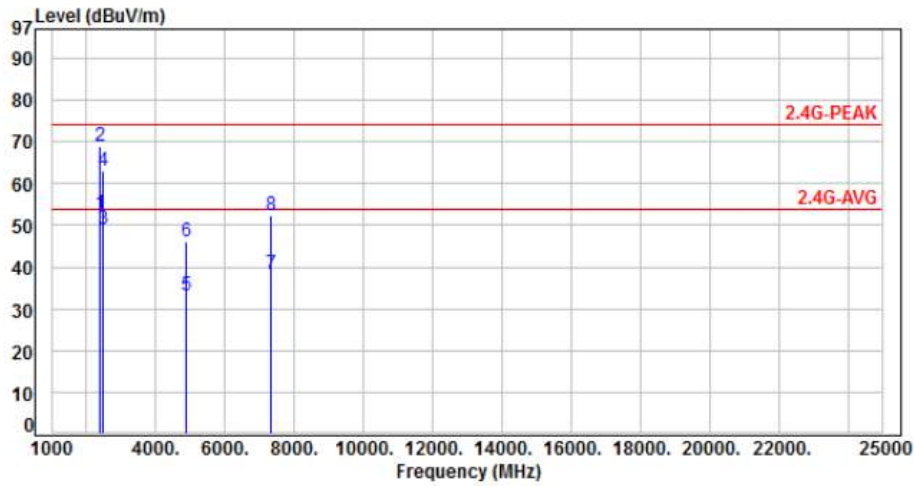


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-3.64	51.71	48.07	54.00	-5.93	Average	100	295	P
2	2390.00	-3.64	64.16	60.52	74.00	-13.48	Peak	100	295	P
3	4844.00	3.85	29.41	33.26	54.00	-20.74	Average	100	249	P
4	4844.00	3.85	42.98	46.83	74.00	-27.17	Peak	100	249	P
5	7266.00	8.62	29.54	38.16	54.00	-15.84	Average	100	256	P
6	7266.00	8.62	41.76	50.38	74.00	-23.62	Peak	100	256	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH06		:

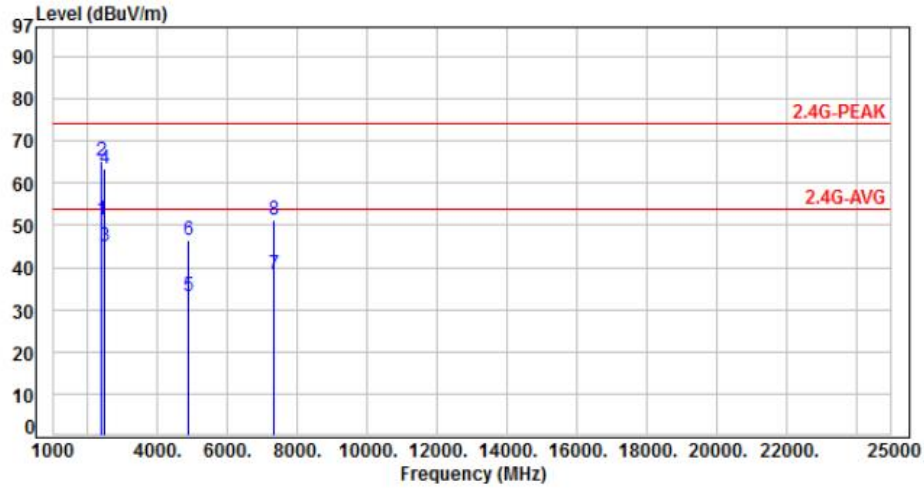


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-3.64	56.50	52.86	54.00	-1.14	Average	256	227	P
2	2390.00	-3.64	72.50	68.86	74.00	-5.14	Peak	256	227	P
3	2483.50	-3.30	52.45	49.15	54.00	-4.85	Average	295	314	P
4	2483.50	-3.30	66.41	63.11	74.00	-10.89	Peak	295	314	P
5	4874.00	3.95	29.22	33.17	54.00	-20.83	Average	100	153	P
6	4874.00	3.95	42.15	46.10	74.00	-27.90	Peak	100	153	P
7	7311.00	8.84	29.34	38.18	54.00	-15.82	Average	100	126	P
8	7311.00	8.84	43.59	52.43	74.00	-21.57	Peak	100	126	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH06		:

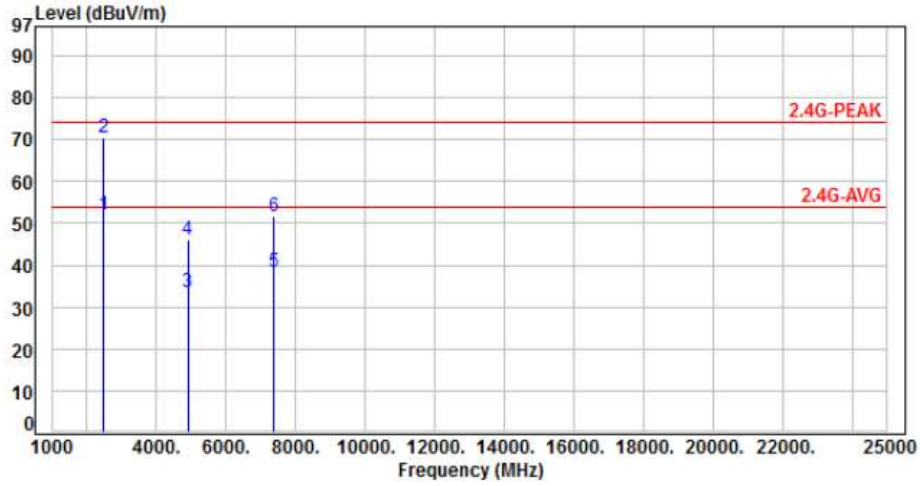


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2390.00	-3.64	54.80	51.16	54.00	-2.84	Average	313	53	P
2	2390.00	-3.64	69.10	65.46	74.00	-8.54	Peak	313	53	P
3	2483.50	-3.30	48.24	44.94	54.00	-9.06	Average	281	53	P
4	2483.50	-3.30	66.74	63.44	74.00	-10.56	Peak	281	53	P
5	4874.00	3.95	29.26	33.21	54.00	-20.79	Average	100	230	P
6	4874.00	3.95	42.35	46.30	74.00	-27.70	Peak	100	230	P
7	7311.00	8.84	29.42	38.26	54.00	-15.74	Average	100	248	P
8	7311.00	8.84	42.46	51.30	74.00	-22.70	Peak	100	248	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: VERTICAL
Test Mode	: Mode 4, CH09		:

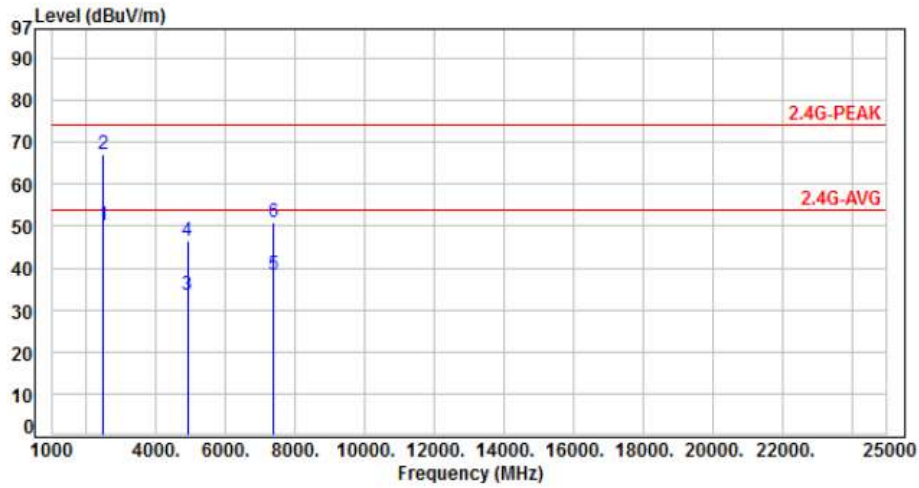


No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-3.30	55.43	52.13	54.00	-1.87	Average	135	290	P
2	2483.50	-3.30	73.88	70.58	74.00	-3.42	Peak	135	290	P
3	4904.00	4.05	29.38	33.43	54.00	-20.57	Average	100	167	P
4	4904.00	4.05	42.17	46.22	74.00	-27.78	Peak	100	167	P
5	7356.00	8.86	29.50	38.36	54.00	-15.64	Average	100	110	P
6	7356.00	8.86	42.80	51.66	74.00	-22.34	Peak	100	110	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



Power	: AC 120V / 60Hz	Pol/Phase	: HORIZONTAL
Test Mode	: Mode 4, CH09		:



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	2483.50	-3.30	53.39	50.09	54.00	-3.91	Average	265	50	P
2	2483.50	-3.30	70.40	67.10	74.00	-6.90	Peak	265	50	P
3	4904.00	4.05	29.58	33.63	54.00	-20.37	Average	100	229	P
4	4904.00	4.05	42.52	46.57	74.00	-27.43	Peak	100	229	P
5	7356.00	8.86	29.47	38.33	54.00	-15.67	Average	100	213	P
6	7356.00	8.86	42.08	50.94	74.00	-23.06	Peak	100	213	P

Note: Level=Reading+Factor  
 Margin=Level-Limit  
 Factor=Antenna Factor + cable loss - Amplifier Factor



### 6.7 Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.09000 – 0.11000	16.42000 – 16.42300	399.9 – 410.0	4.500 – 5.250
0.49500 – 0.505**	16.69475 – 16.69525	608.0 – 614.0	5.350 – 5.460
2.17350 – 2.19050	16.80425 – 16.80475	960.0 – 1240.0	7.250 – 7.750
4.12500 – 4.12800	25.50000 – 25.67000	1300.0 – 1427.0	8.025 – 8.500
4.17725 – 4.17775	37.50000 – 38.25000	1435.0 – 1626.5	9.000 – 9.200
4.20725 – 4.20775	73.00000 – 74.60000	1645.5 – 1646.5	9.300 – 9.500
6.21500 – 6.21800	74.80000 – 75.20000	1660.0 – 1710.0	10.600 – 12.700
6.26775 – 6.26825	108.00000 – 121.94000	1718.8 – 1722.2	13.250 – 13.400
6.31175 – 6.31225	123.00000 – 138.00000	2200.0 – 2300.0	14.470 – 14.500
8.29100 – 8.29400	149.90000 – 150.05000	2310.0 – 2390.0	15.350 – 16.200
8.36200 – 8.36600	156.52475 – 156.52525	2483.5 – 2500.0	17.700 – 21.400
8.37625 – 8.38675	156.70000 – 156.90000	2655.0 – 2900.0	22.010 – 23.120
8.41425 – 8.41475	162.01250 – 167.17000	3260.0 – 3267.0	23.600 – 24.000
12.29000 – 12.29300	167.72000 – 173.20000	3332.0 – 3339.0	31.200 – 31.800
12.51975 – 12.52025	240.00000 – 285.00000	3345.8 – 3358.0	36.430 – 36.500
12.57675 – 12.57725	322.00000 – 335.40000	3600.0 – 4400.0	Above 38.6
13.36000 – 13.41000			

\*\* : Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz



## 7. Test of Conducted Spurious Emission

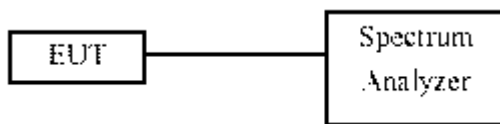
### 7.1 Test Limit

Below -30dB of the highest emission level of operating band (In 100 kHz Resolution Bandwidth)

### 7.2 Test Procedure

- a. The transmitter output was connected to the spectrum analyzer via a low loss cable.
- b. Set RBW of spectrum analyzer to 100 KHz and VBW of spectrum analyzer to 300 KHz with convenient frequency span including 100 KHz bandwidth from band edge.
- c. Peak conducted output power measured within any 100 kHz outside the authorized frequency band shall be attenuated by at least 30dB relative to the maximum measured in-band peak PSD level.
- d. The band edges was measured and recorded.

### 7.3 Test Setup Layout



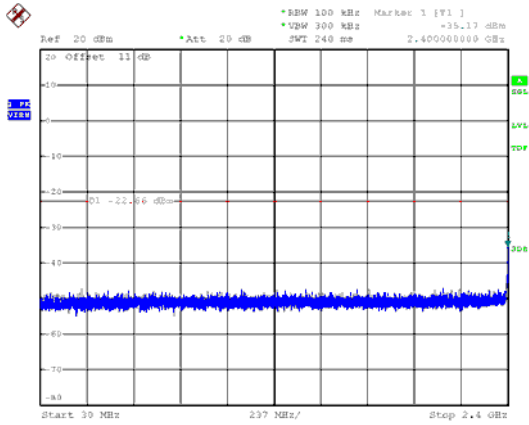
### 7.4 Test Result and Data

Note: Test plots refers to the following pages.

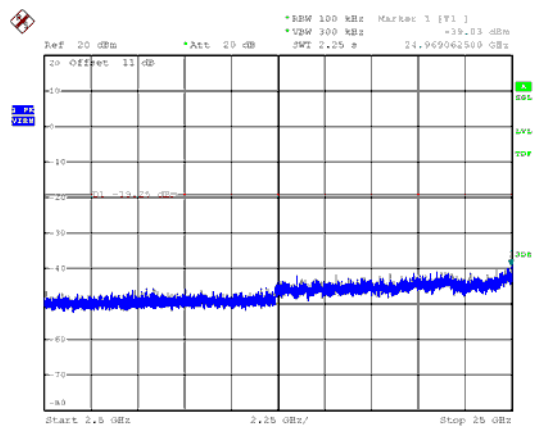
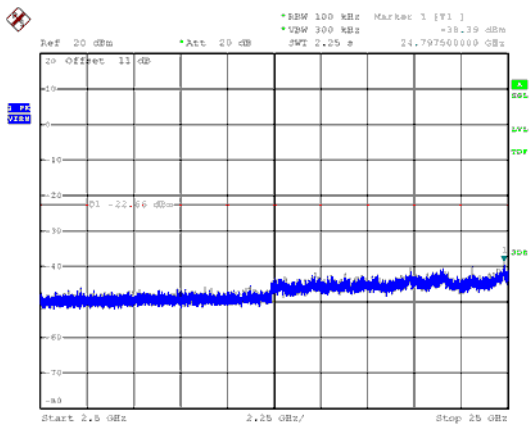
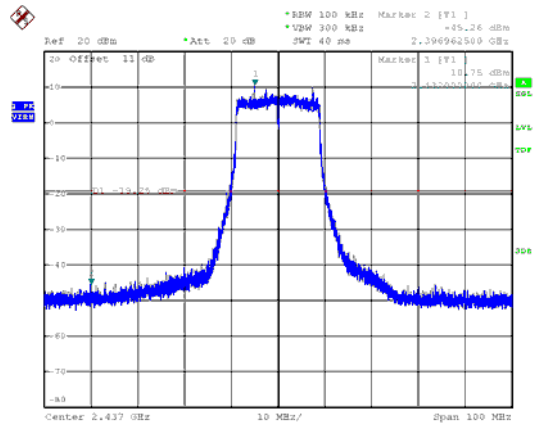
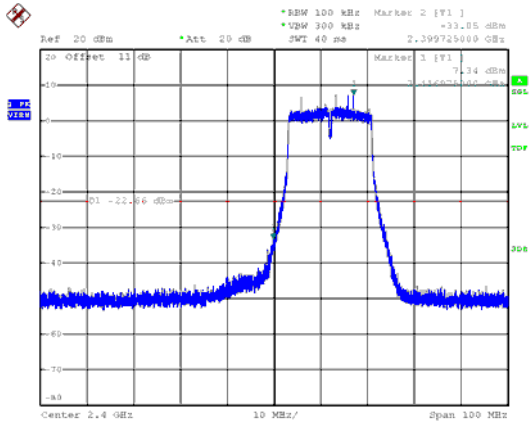
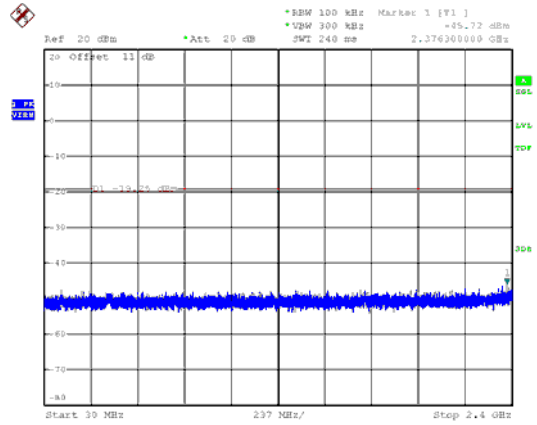


ANT A

Modulation Type: 802.11ac VHT20, CH01



Modulation Type: 802.11ac VHT20, CH06

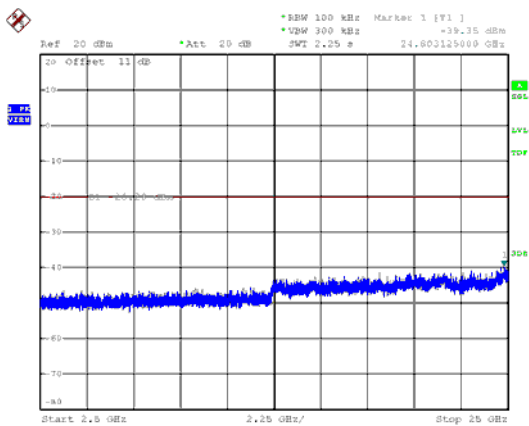
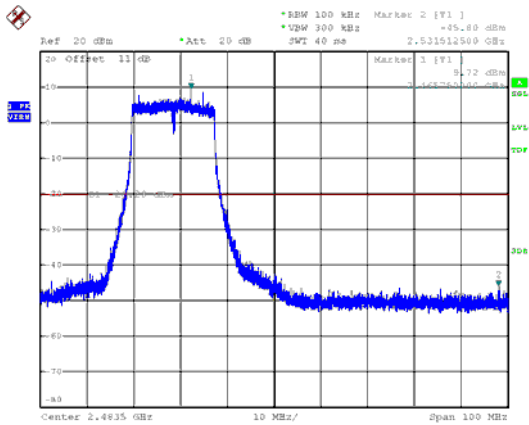
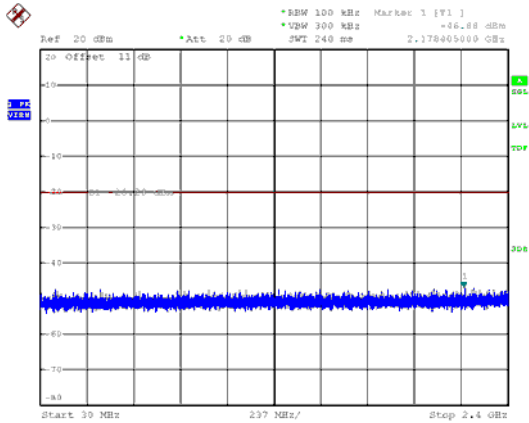






ANT A

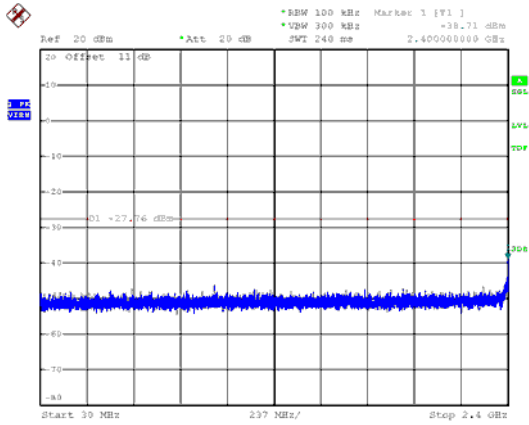
Modulation Type: 802.11ac VHT20, CH11



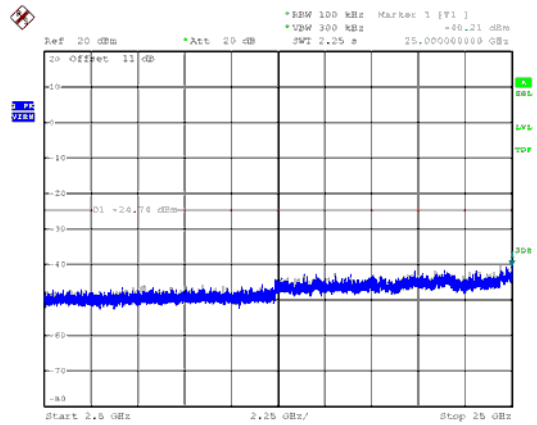
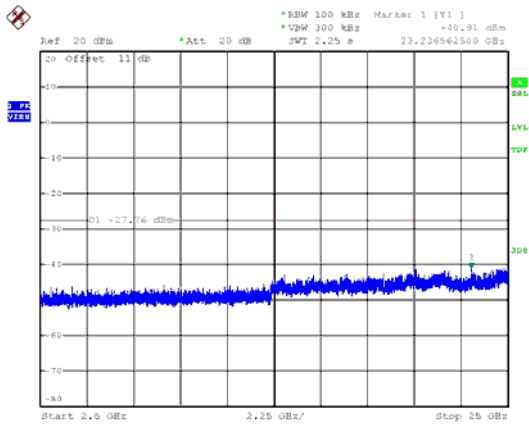
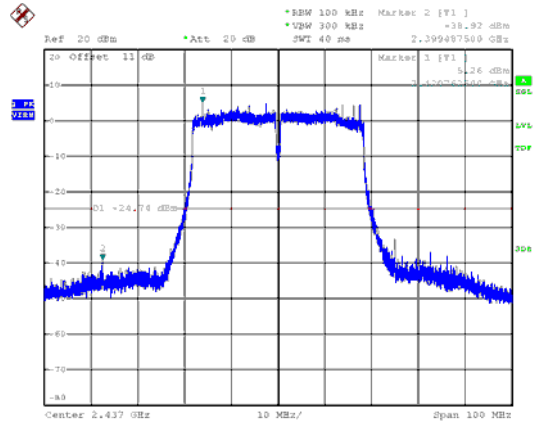
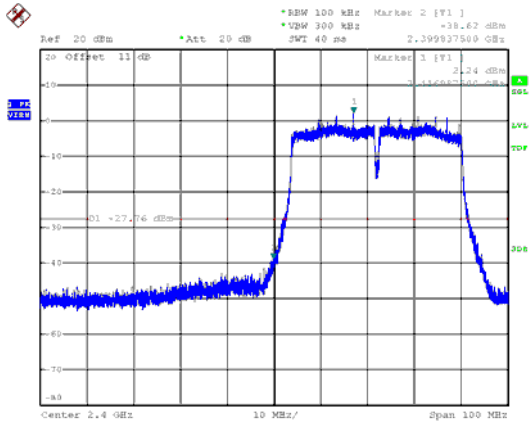
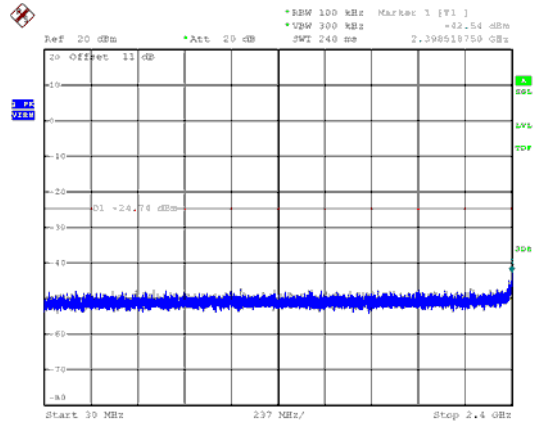


ANT A

Modulation Type: 802.11ac VHT40, CH03



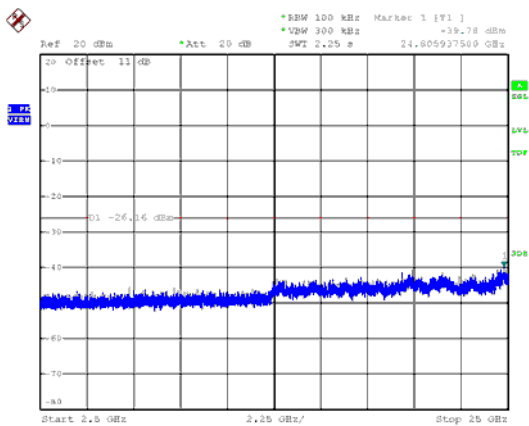
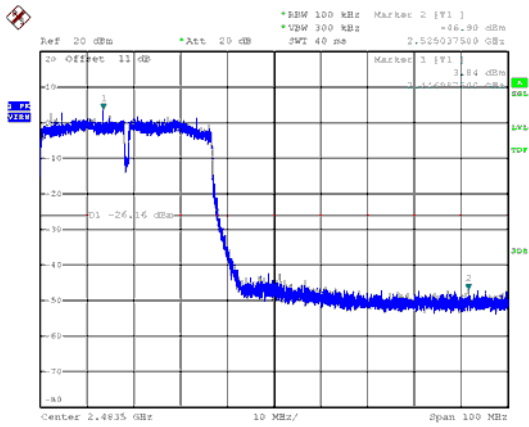
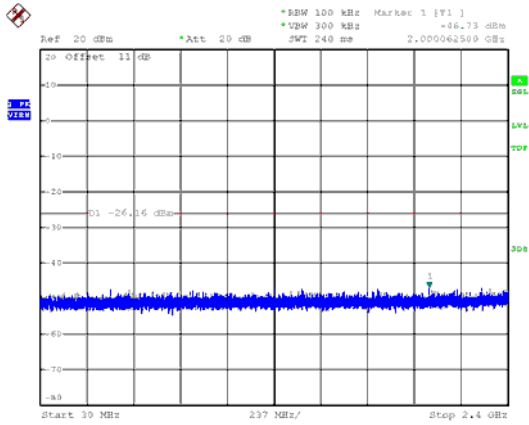
Modulation Type: 802.11ac VHT40, CH06





ANT A

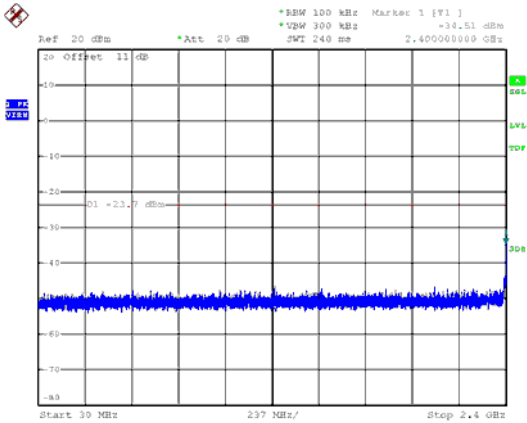
Modulation Type: 802.11ac VHT40, CH09



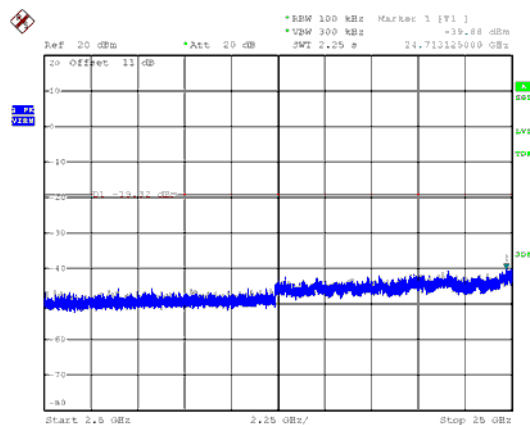
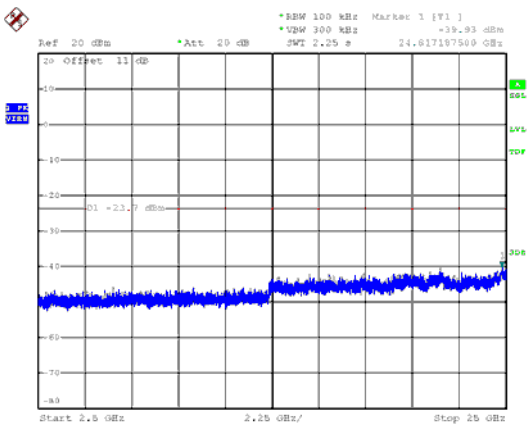
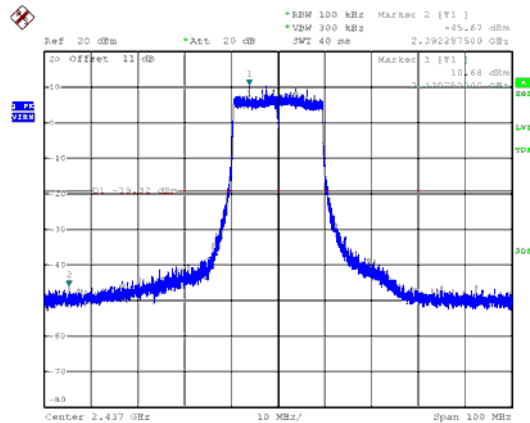
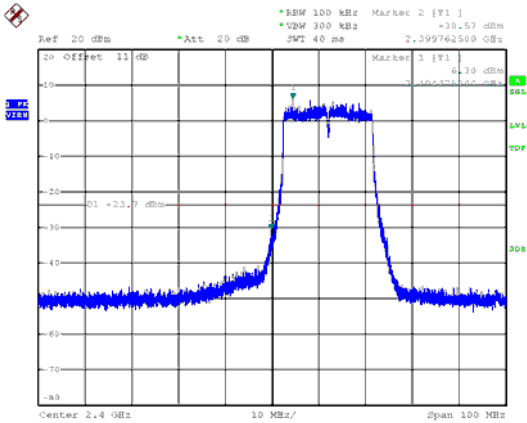
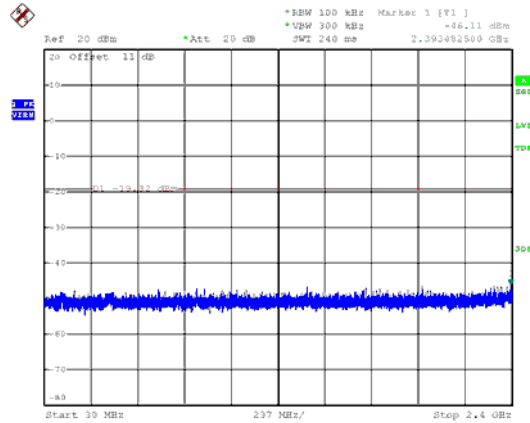


ANT A

Modulation Type: 802.11ax HE20, CH01



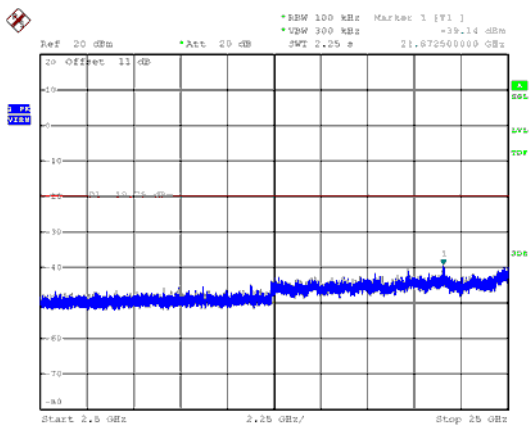
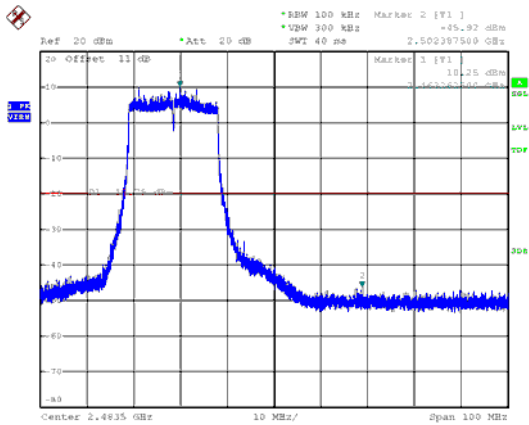
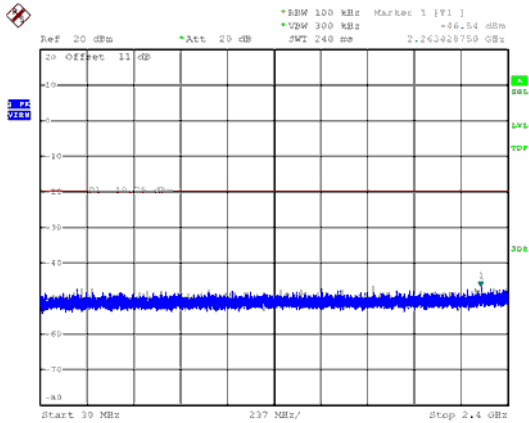
Modulation Type: 802.11ax HE20, CH06





ANT A

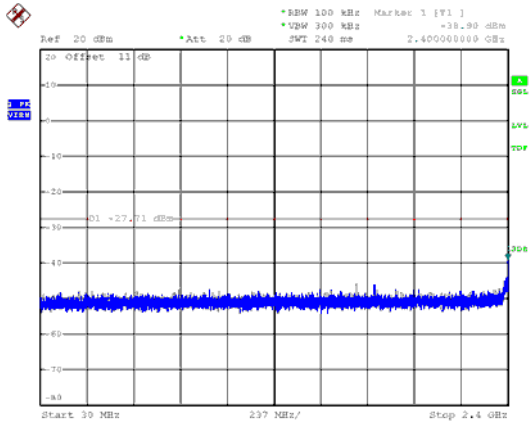
Modulation Type: 802.11ax HE20, CH11



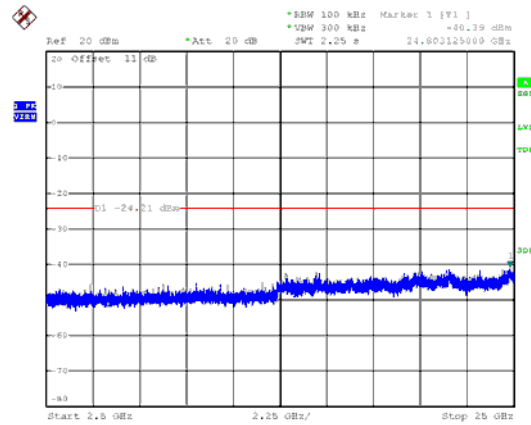
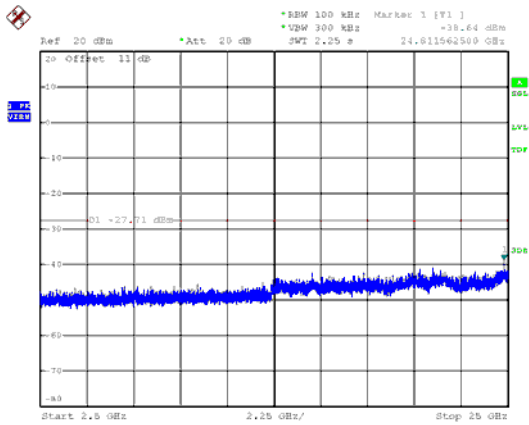
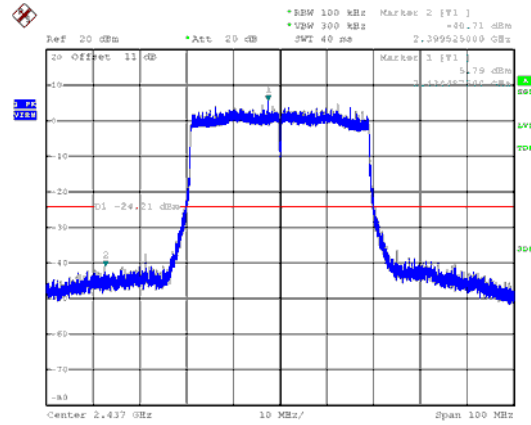
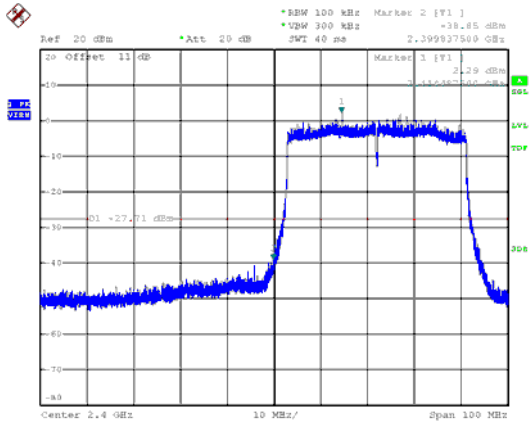
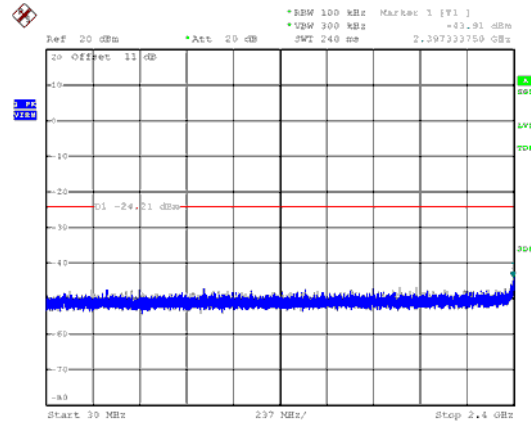


ANT A

Modulation Type: 802.11ax HE40, CH03



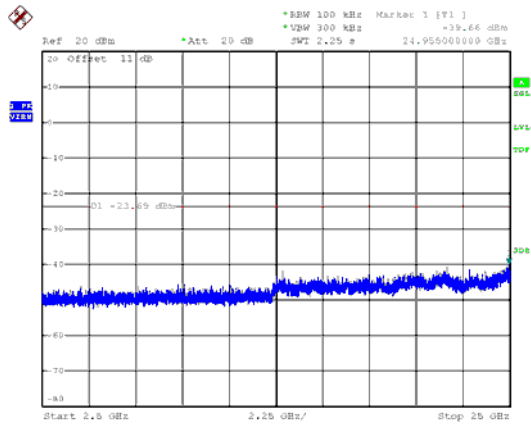
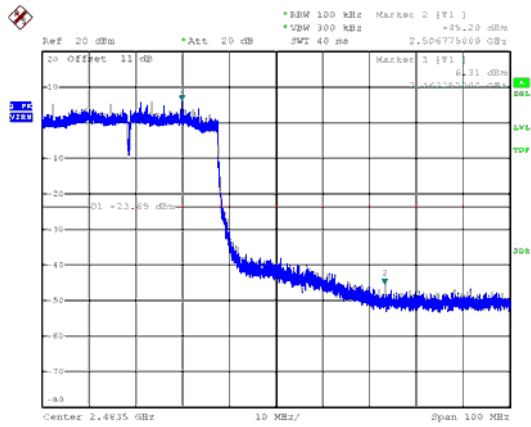
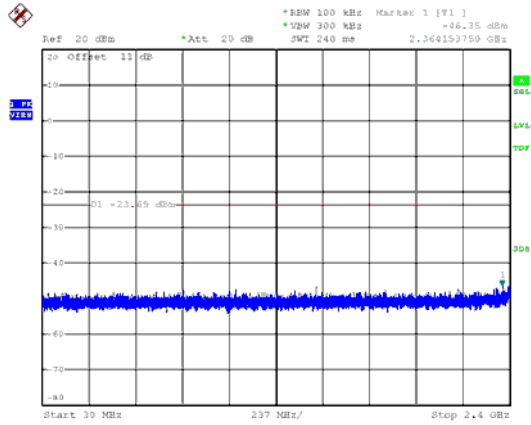
Modulation Type: 802.11ax HE40, CH06





ANT A

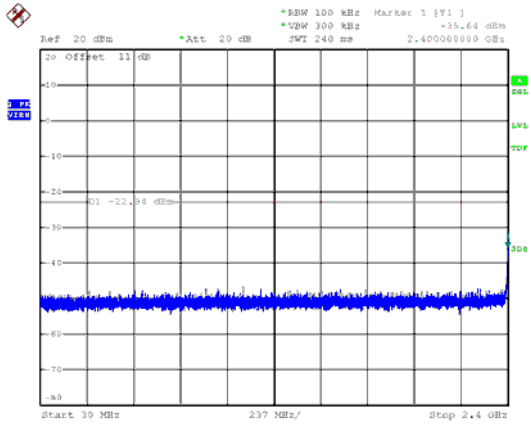
Modulation Type: 802.11ax HE40, CH09



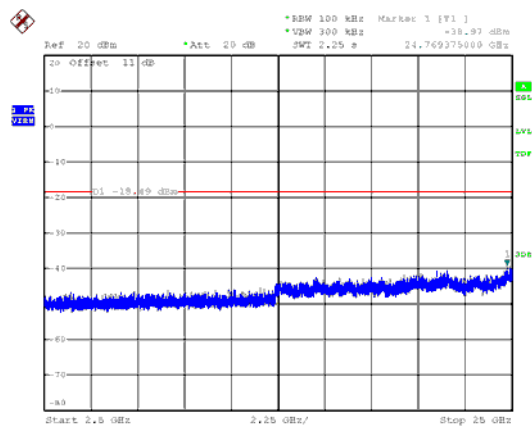
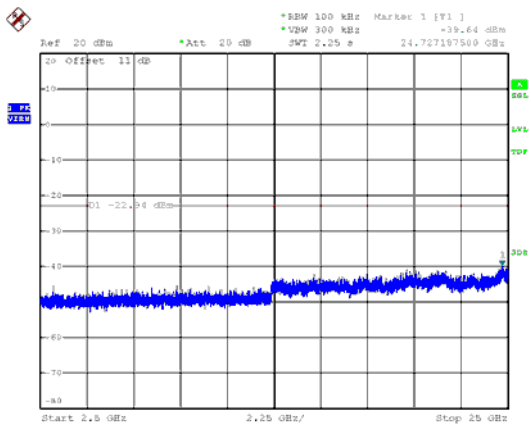
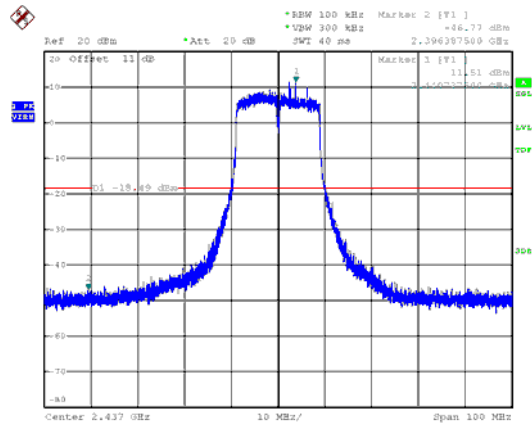
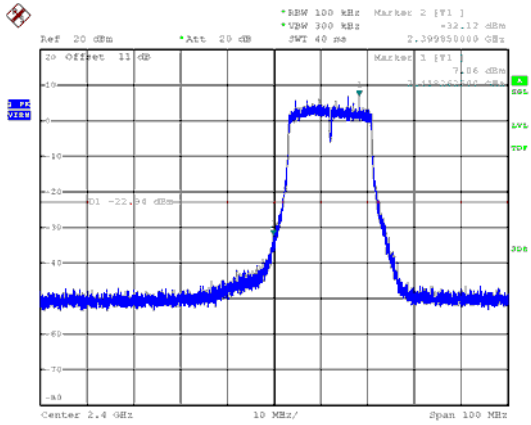
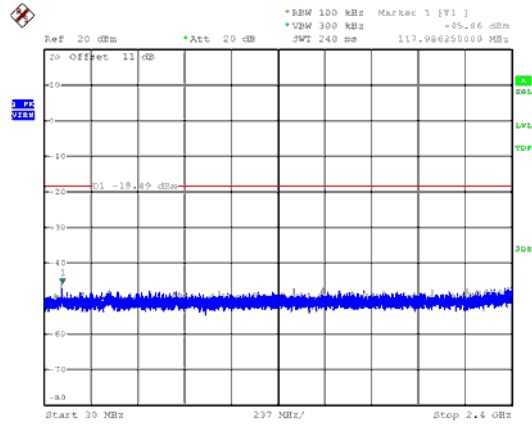


ANT B

Modulation Type: 802.11ac VHT20, CH01



Modulation Type: 802.11ac VHT20, CH06

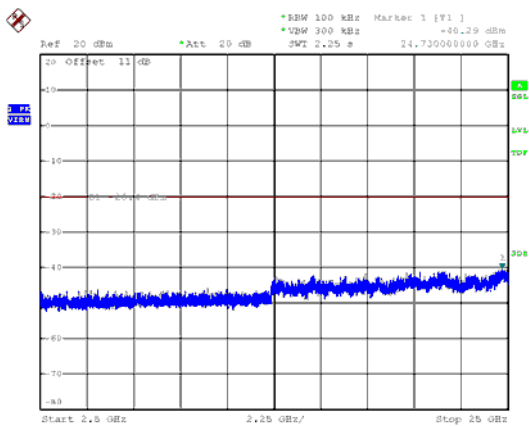
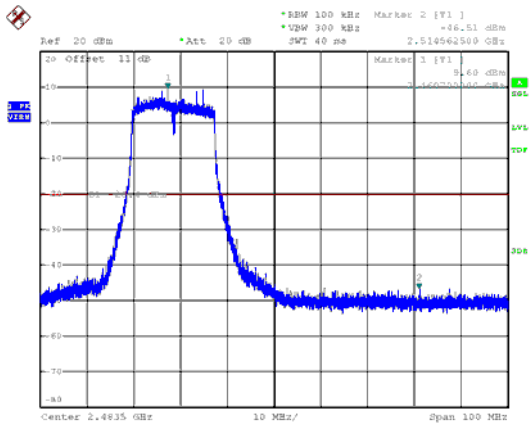
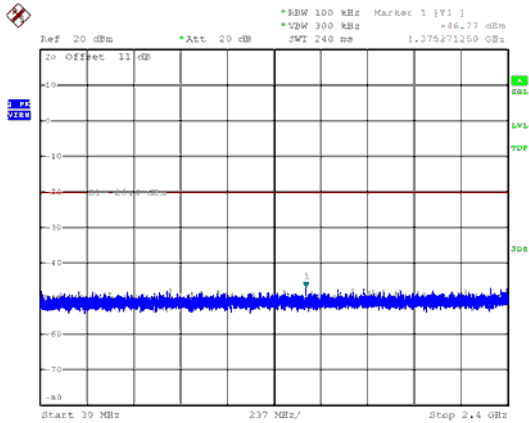






ANT B

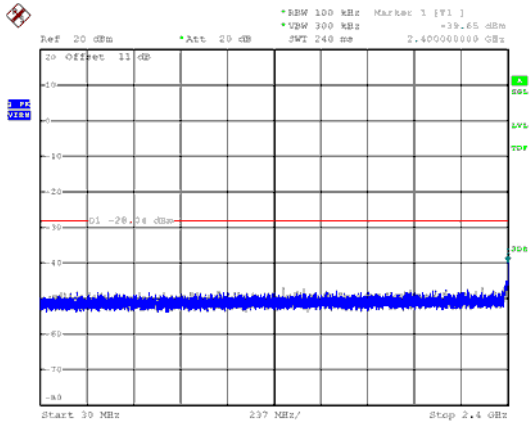
Modulation Type: 802.11ac VHT20, CH11



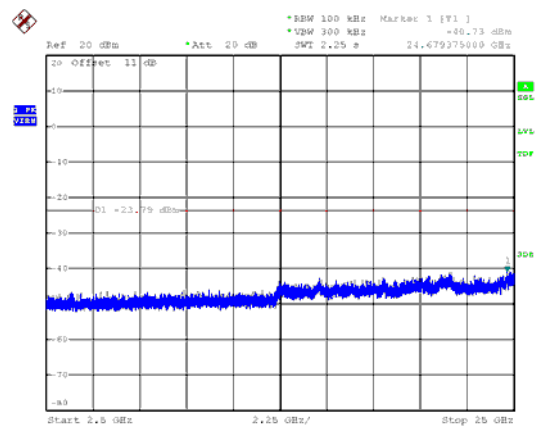
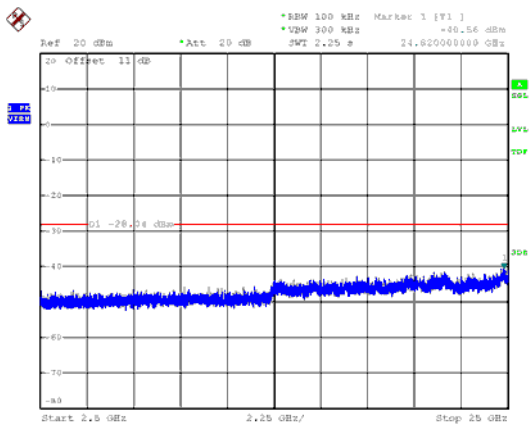
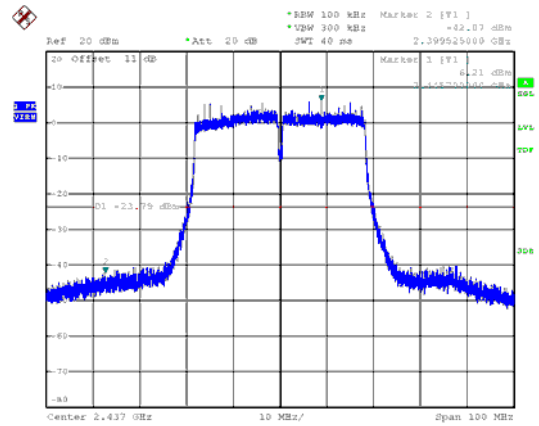
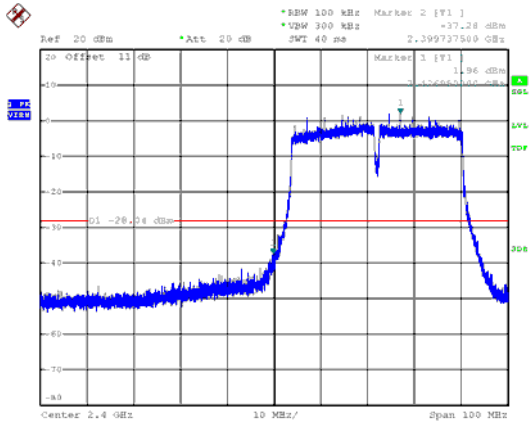
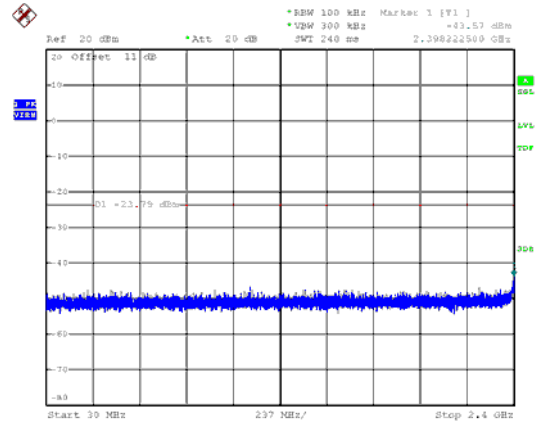


ANT B

Modulation Type: 802.11ac VHT40, CH03



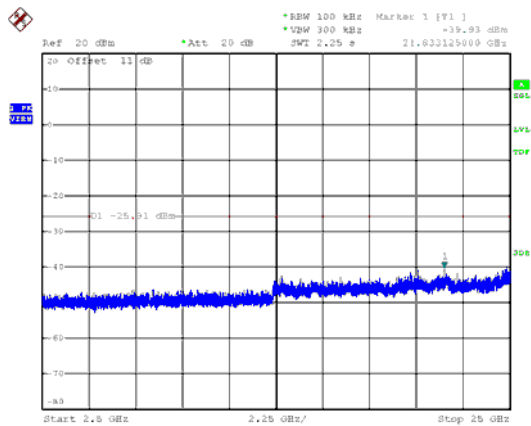
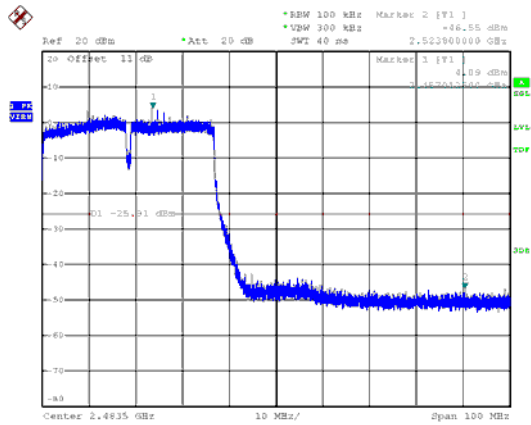
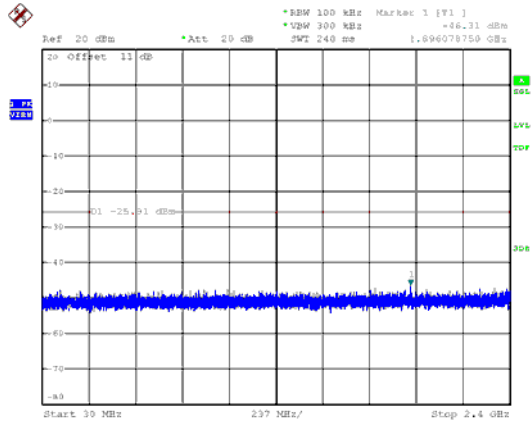
Modulation Type: 802.11ac VHT40, CH06





ANT B

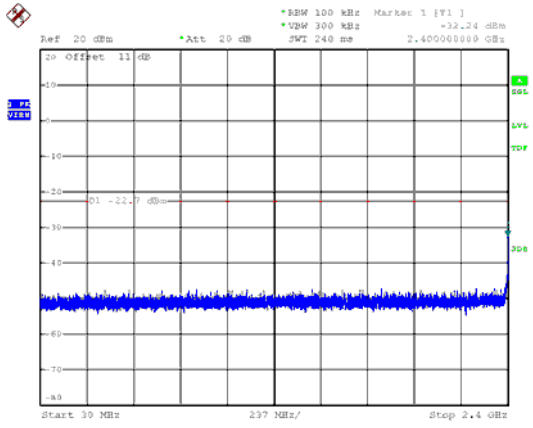
Modulation Type: 802.11ac VHT40, CH09



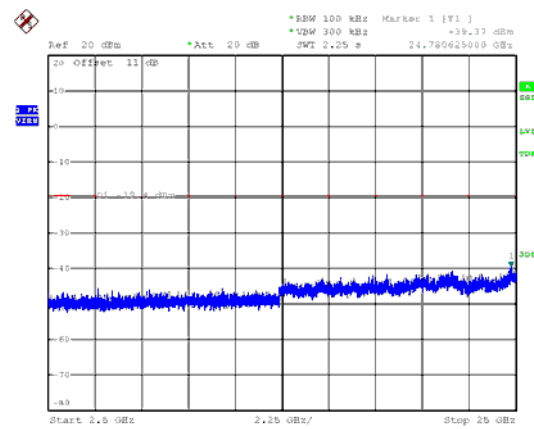
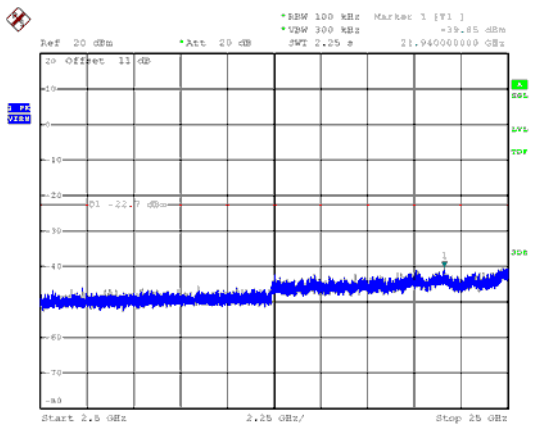
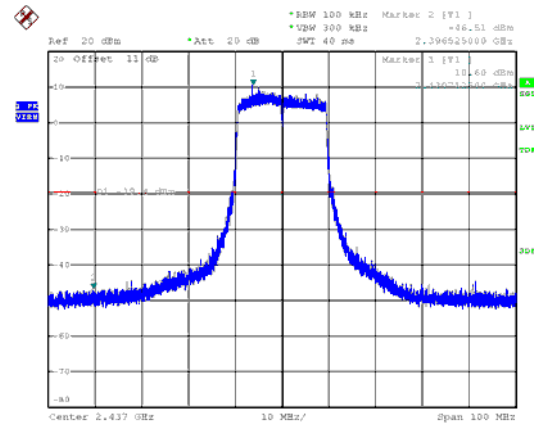
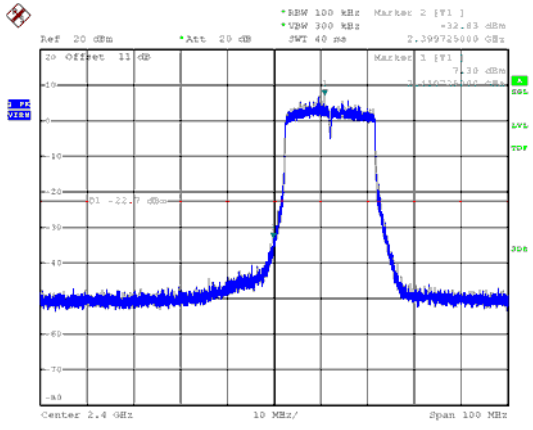
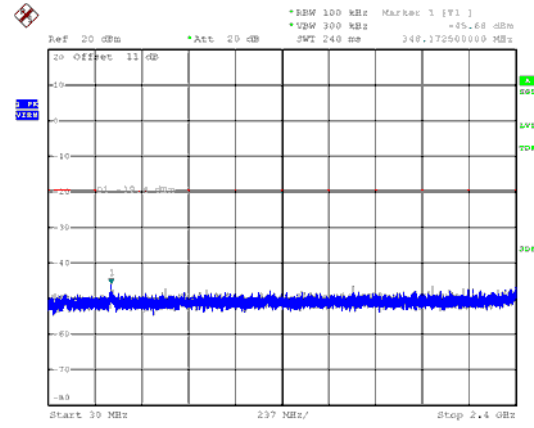


ANT B

Modulation Type: 802.11ax HE20, CH01



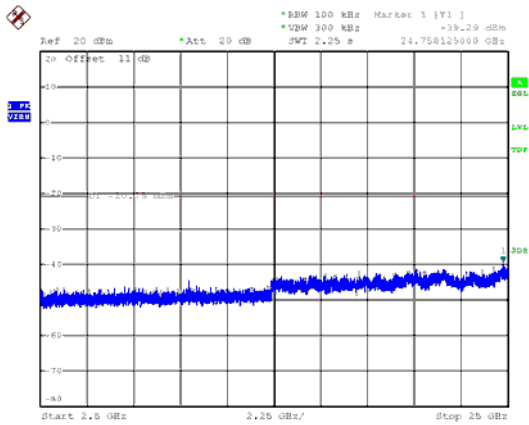
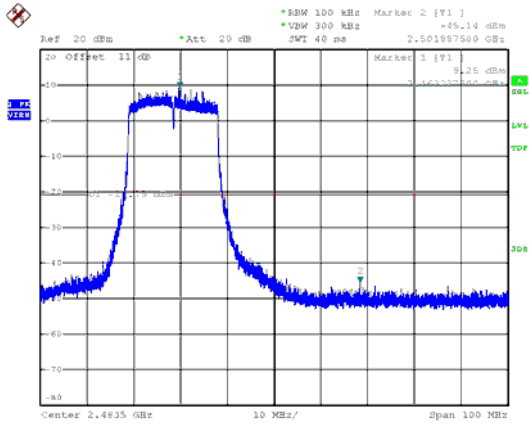
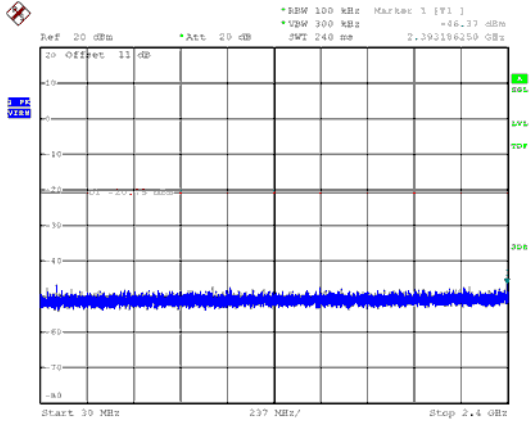
Modulation Type: 802.11ax HE20, CH06





ANT B

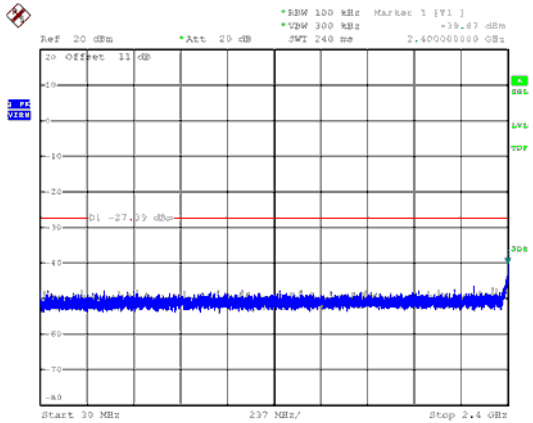
Modulation Type: 802.11ax HE20, CH11



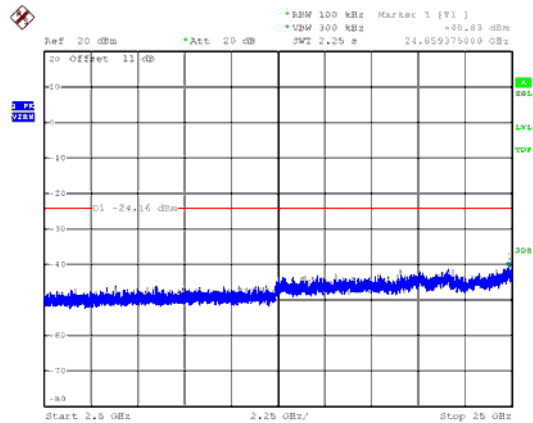
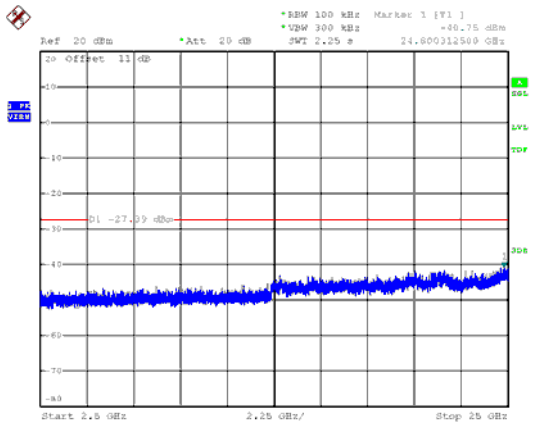
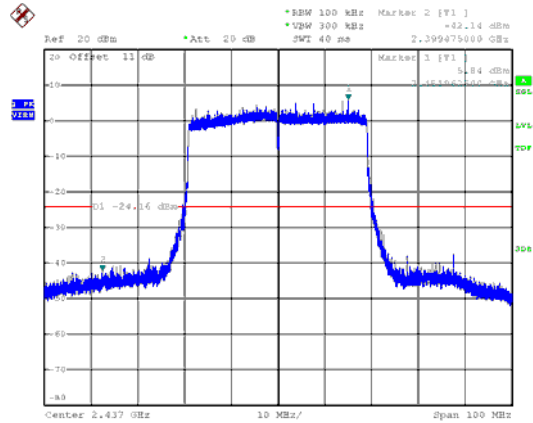
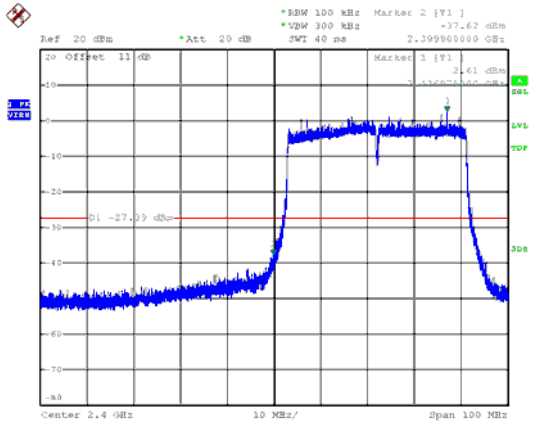
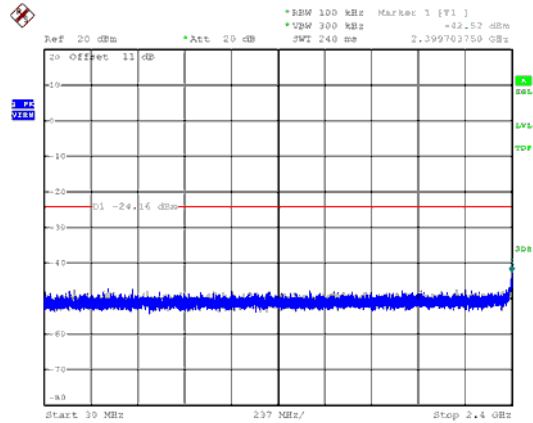


ANT B

Modulation Type: 802.11ax HE40, CH03



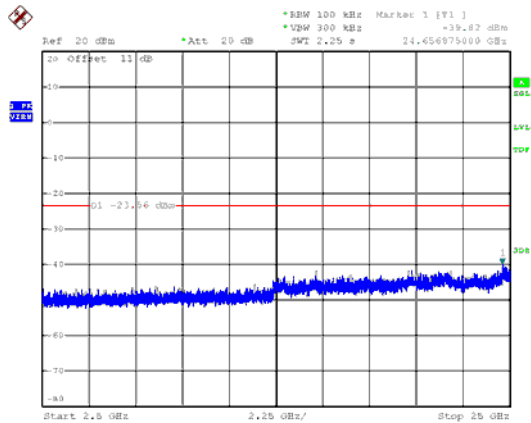
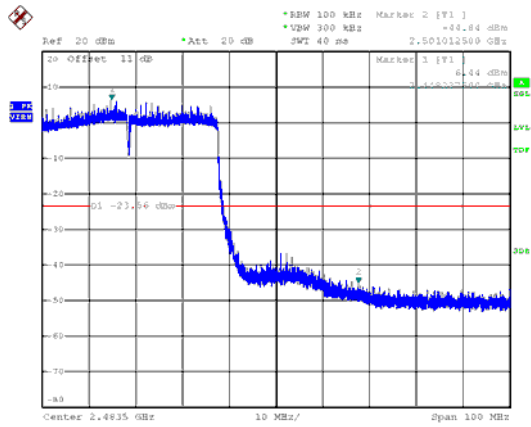
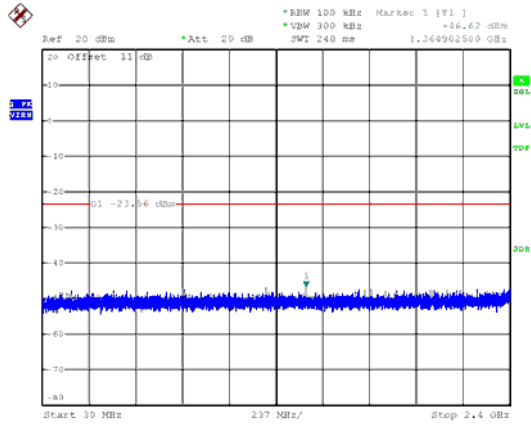
Modulation Type: 802.11ax HE40, CH06





ANT B

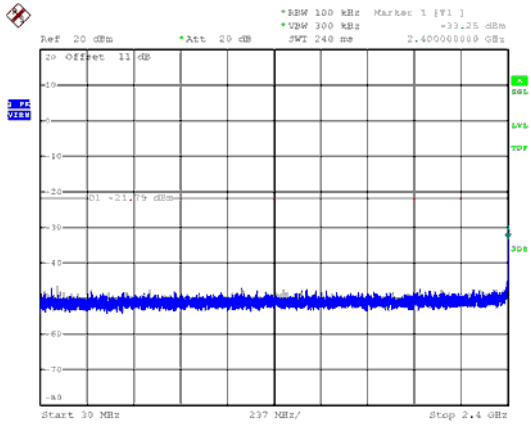
Modulation Type: 802.11ax HE40, CH09



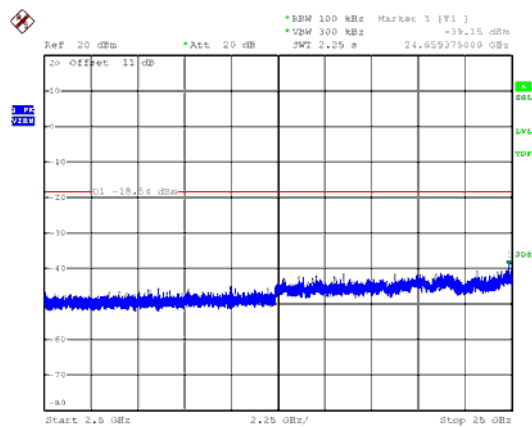
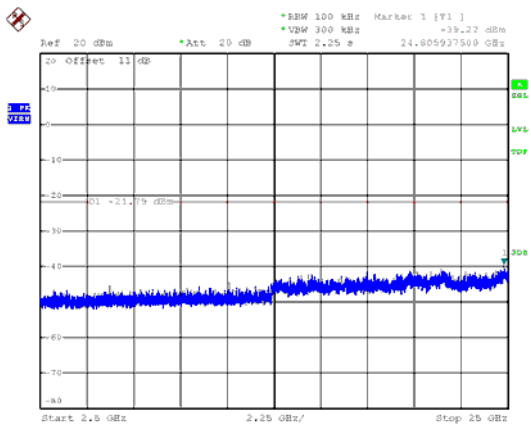
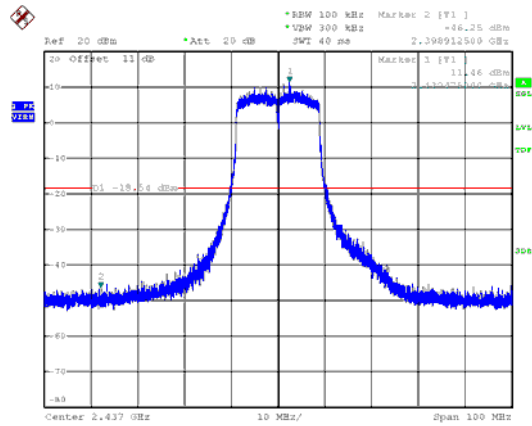
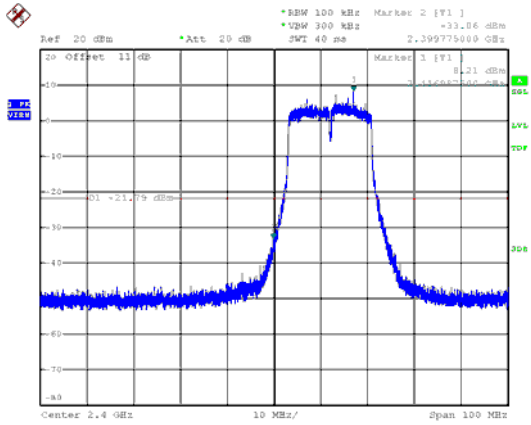
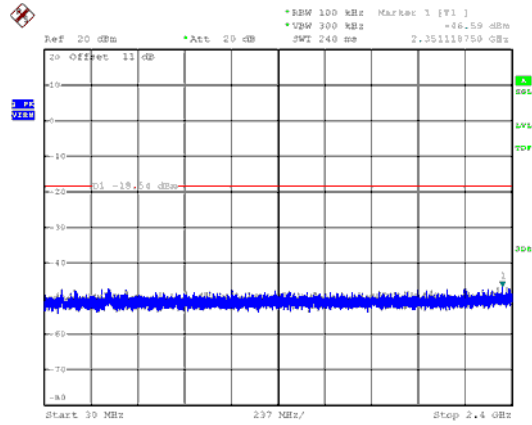


ANT C

Modulation Type: 802.11ac VHT20, CH01



Modulation Type: 802.11ac VHT20, CH06

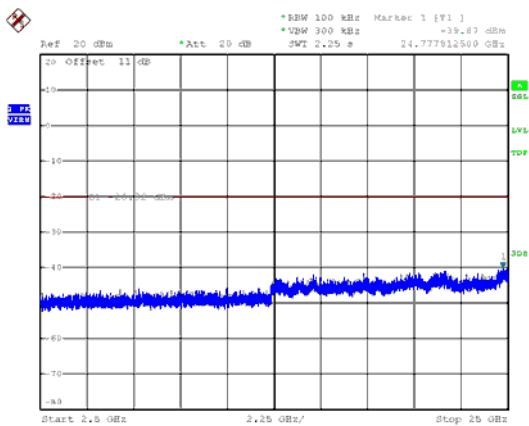
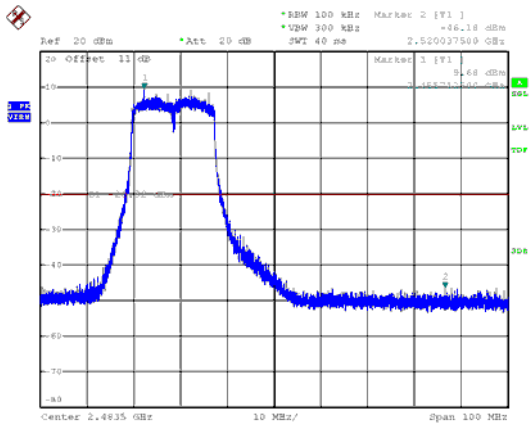
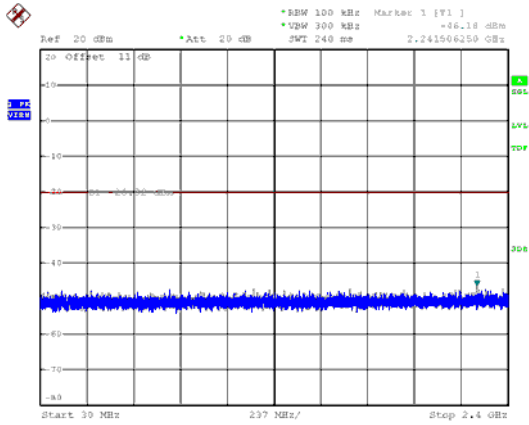






ANT C

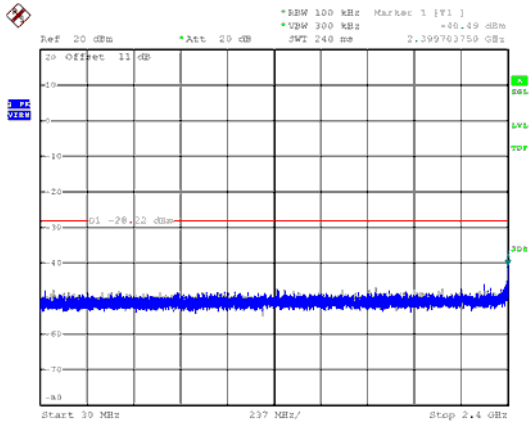
Modulation Type: 802.11ac VHT20, CH11



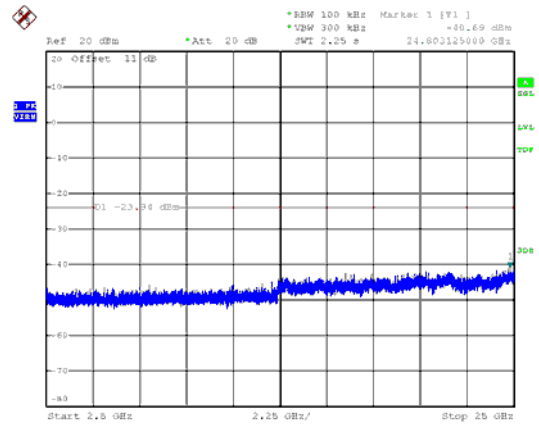
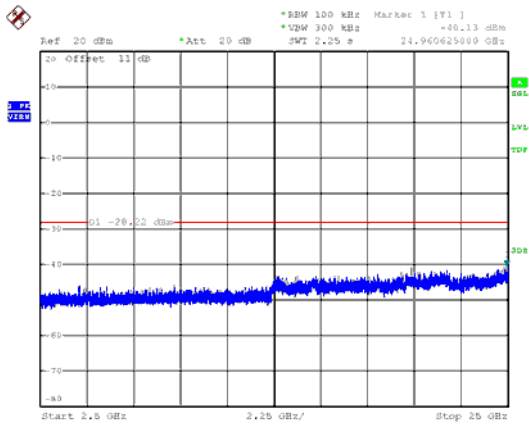
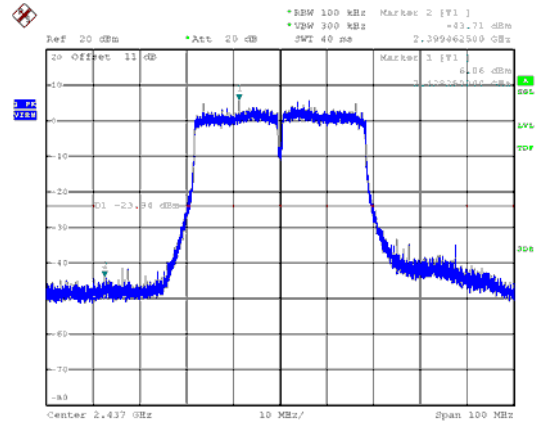
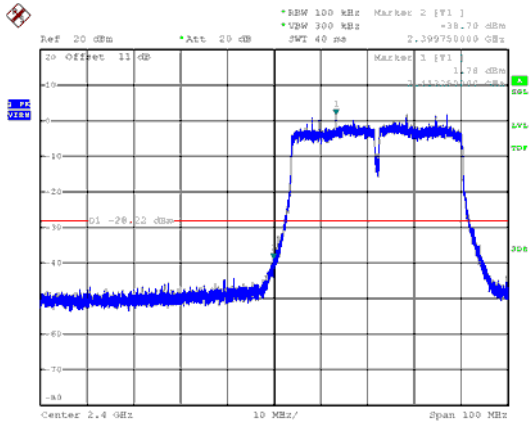
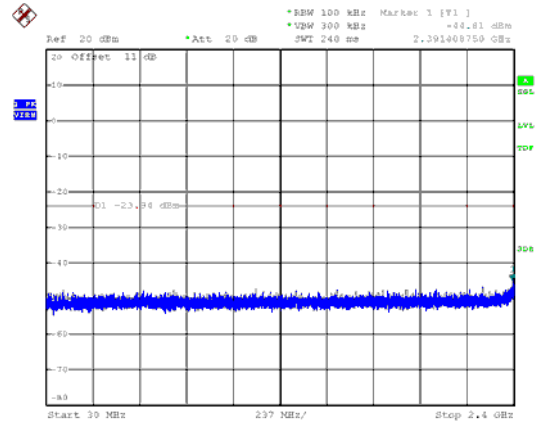


ANT C

Modulation Type: 802.11ac VHT40, CH03



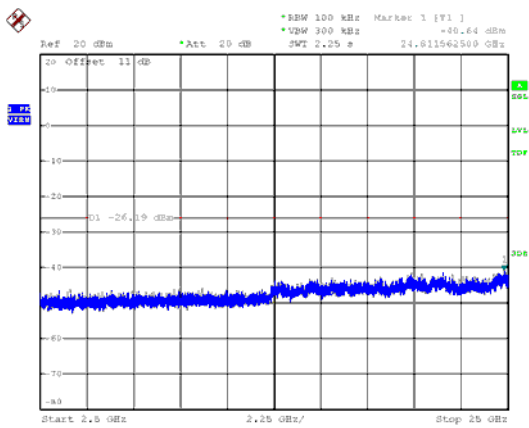
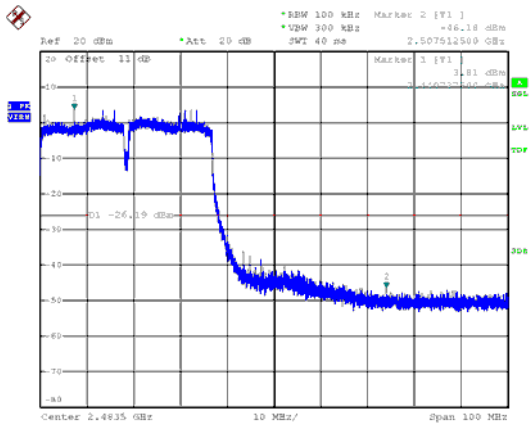
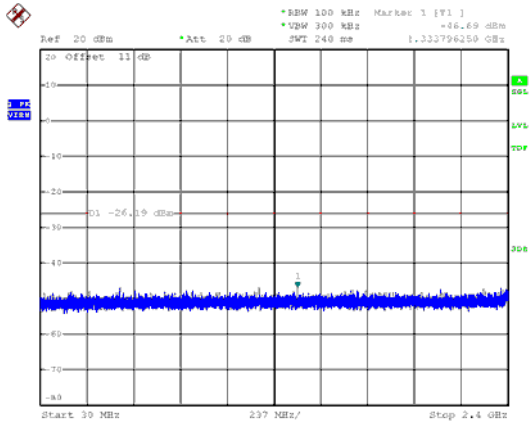
Modulation Type: 802.11ac VHT40, CH06





ANT C

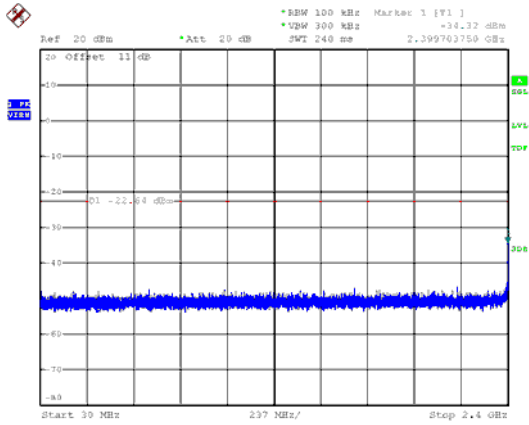
Modulation Type: 802.11ac VHT40, CH09



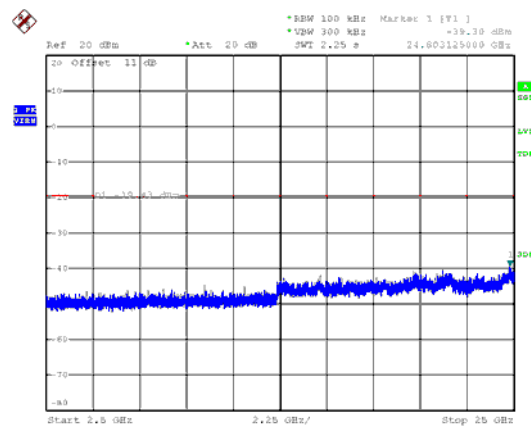
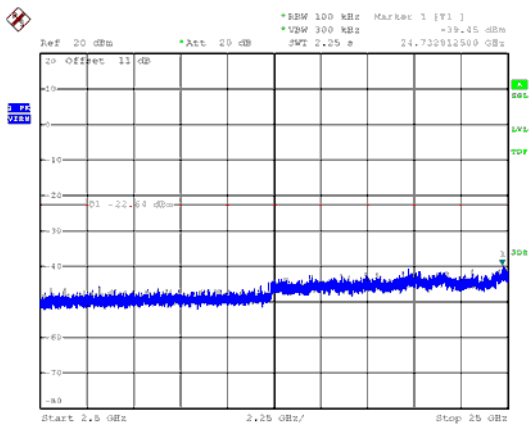
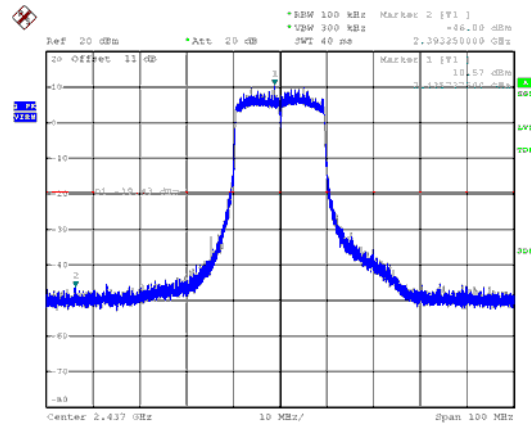
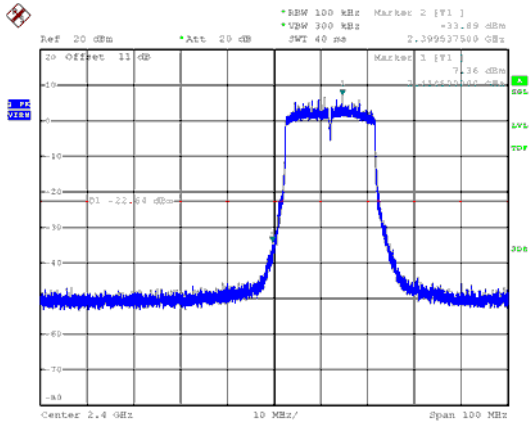
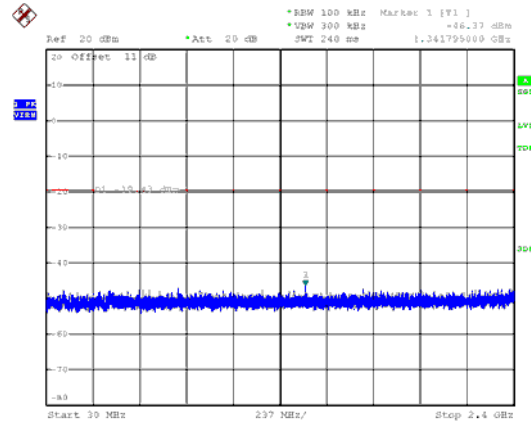


ANT C

Modulation Type: 802.11ax HE20, CH01



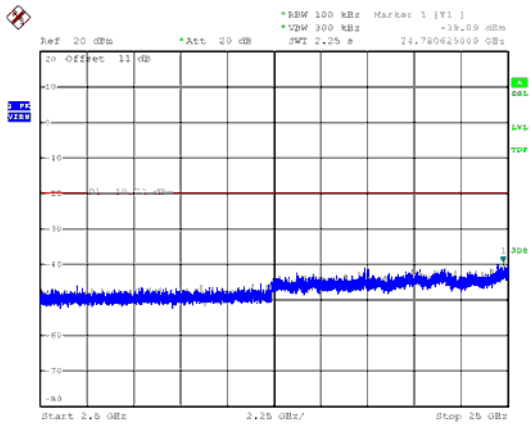
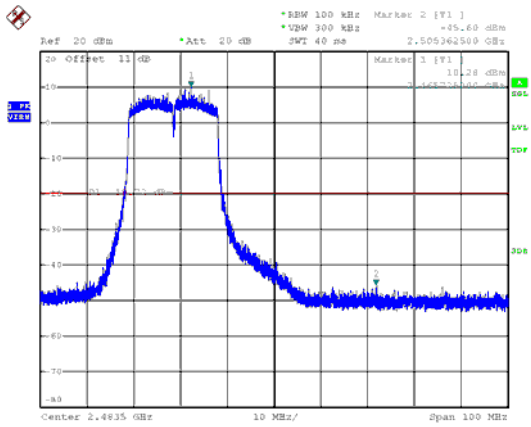
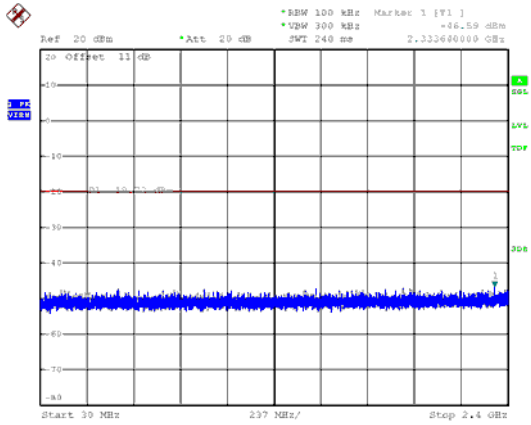
Modulation Type: 802.11ax HE20, CH06





ANT C

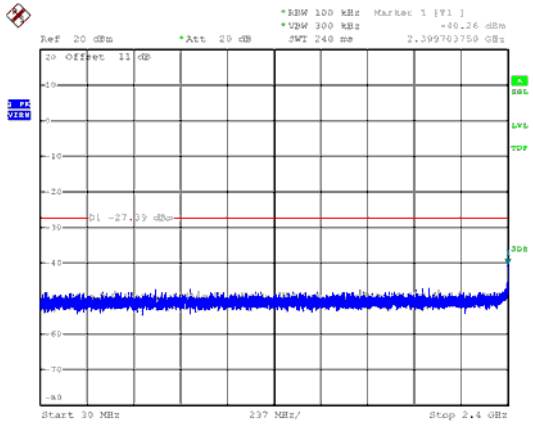
Modulation Type: 802.11ax HE20, CH11



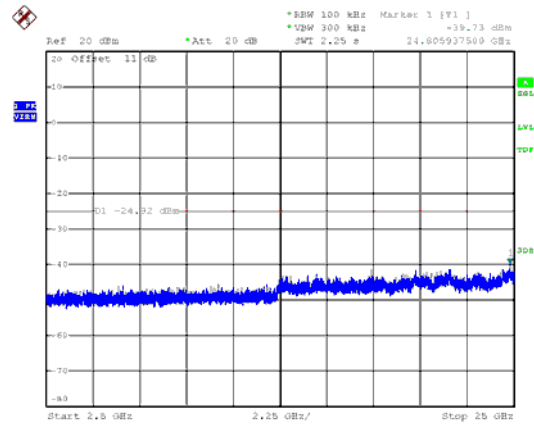
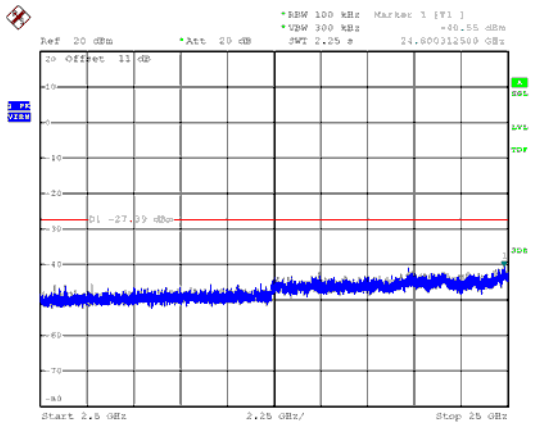
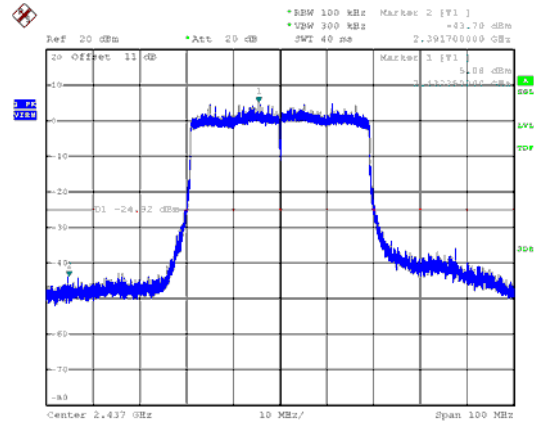
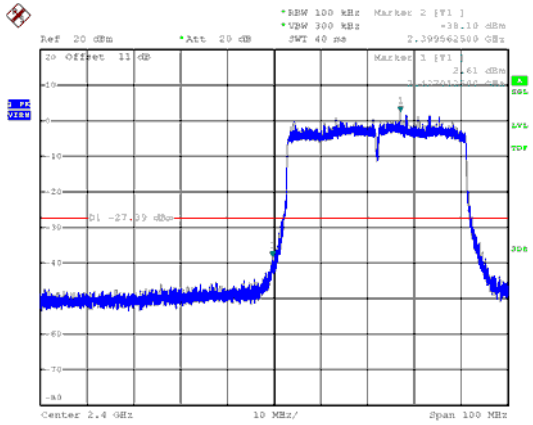
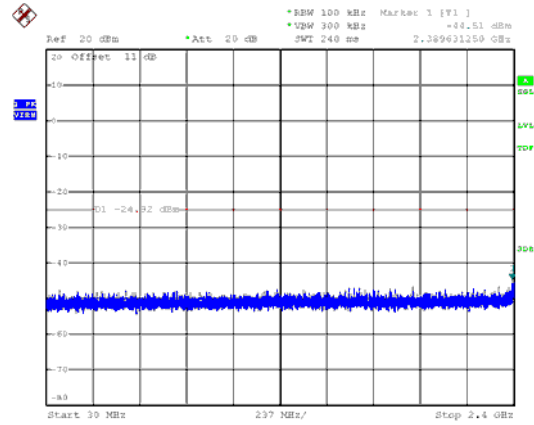


ANT C

Modulation Type: 802.11ax HE40, CH03



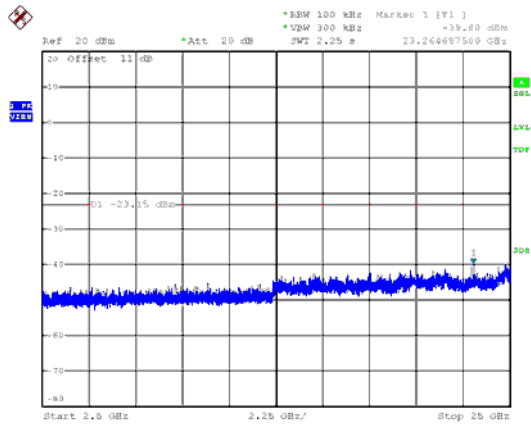
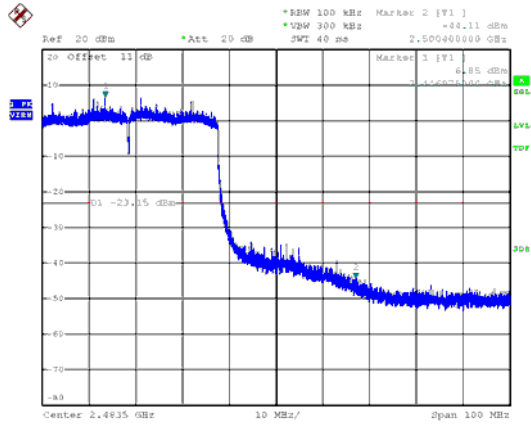
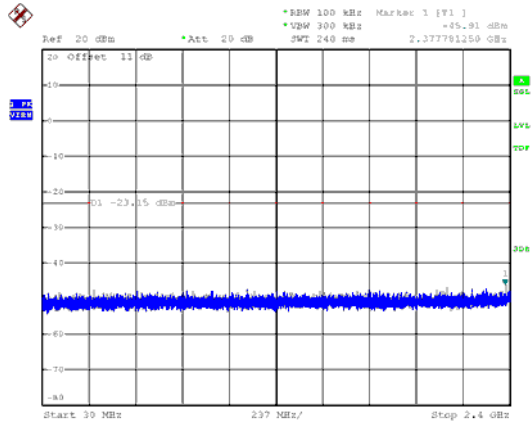
Modulation Type: 802.11ax HE40, CH06





ANT C

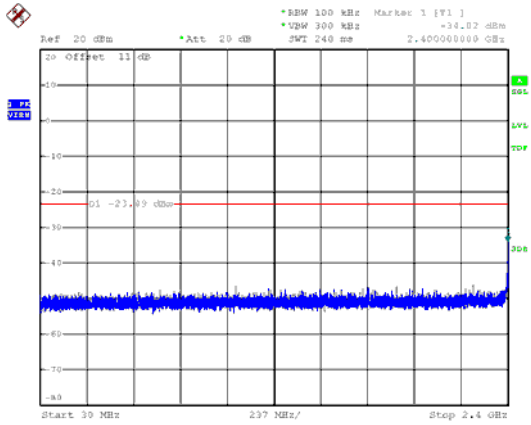
Modulation Type: 802.11ax HE40, CH09



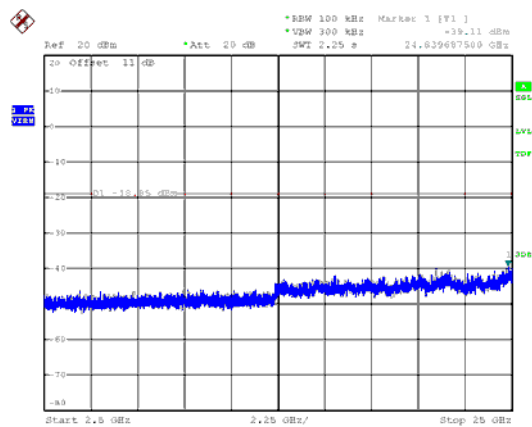
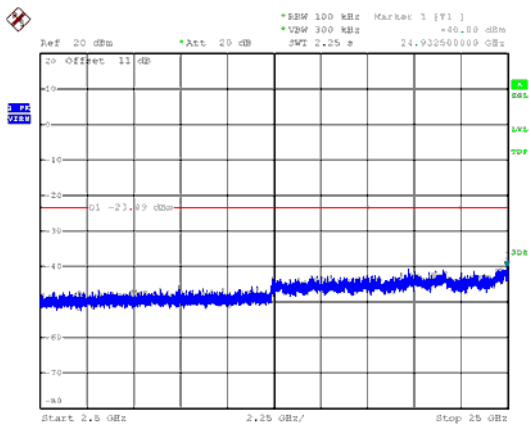
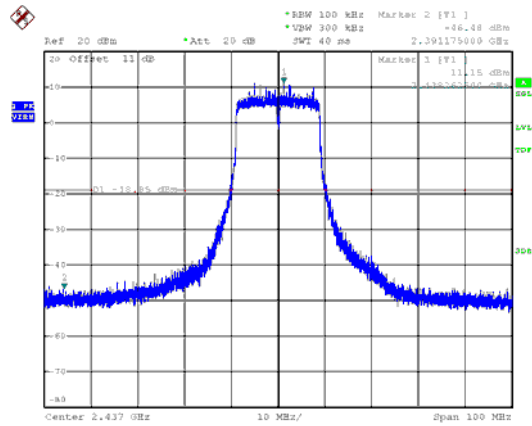
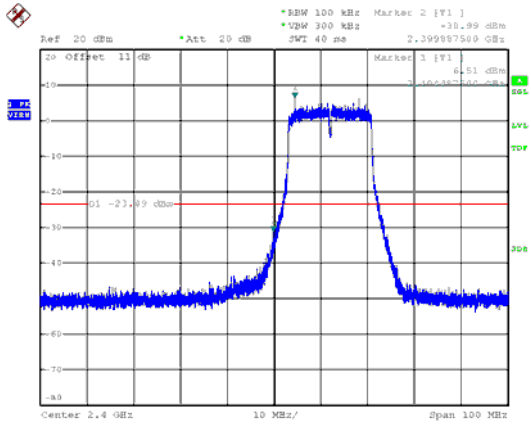
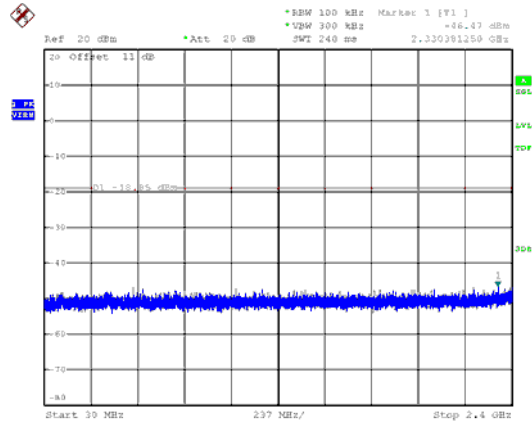


ANT D

Modulation Type: 802.11ac VHT20, CH01



Modulation Type: 802.11ac VHT20, CH06

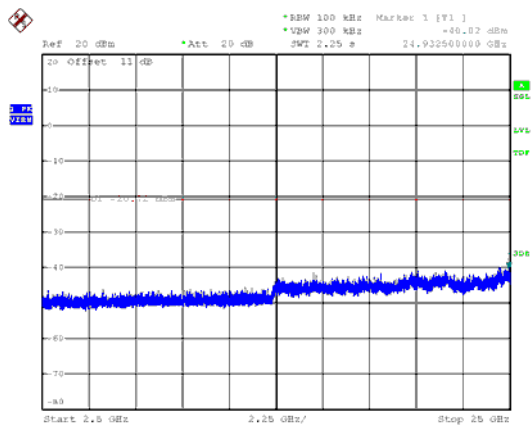
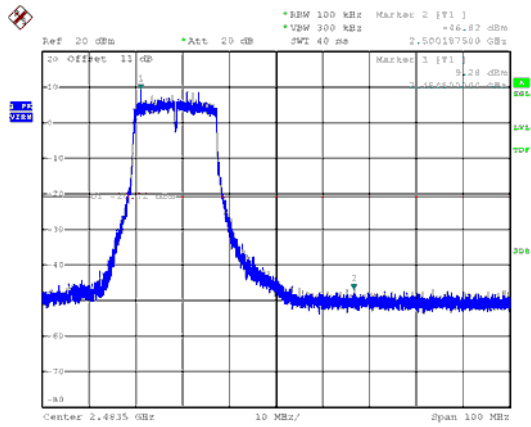
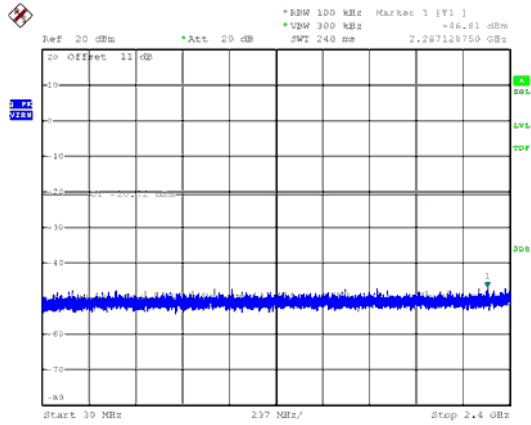






ANT D

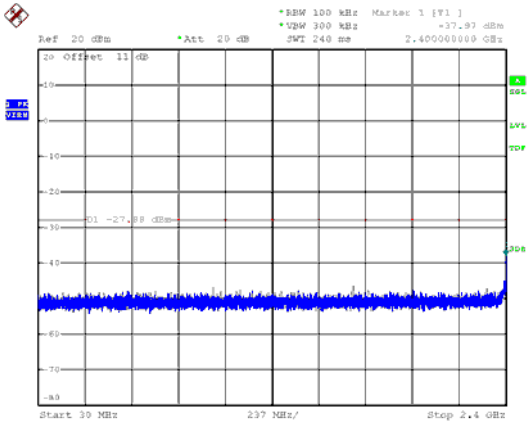
Modulation Type: 802.11ac VHT20, CH11



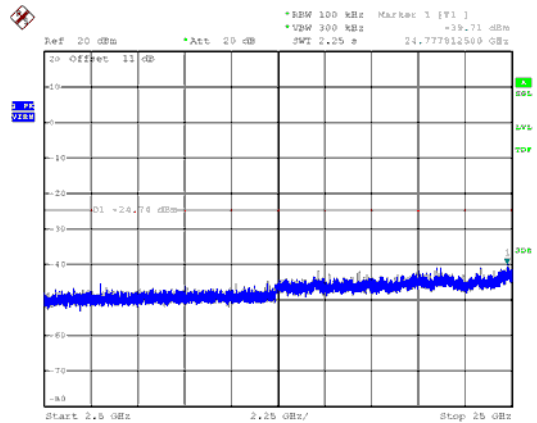
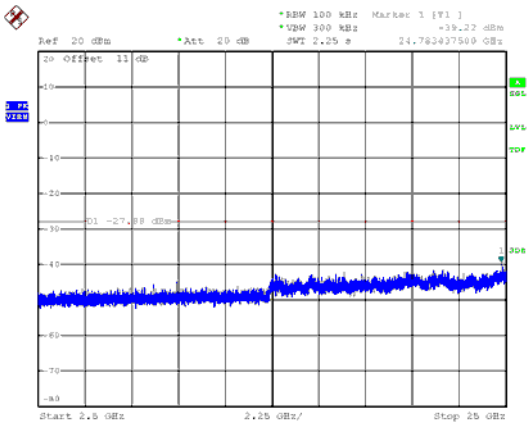
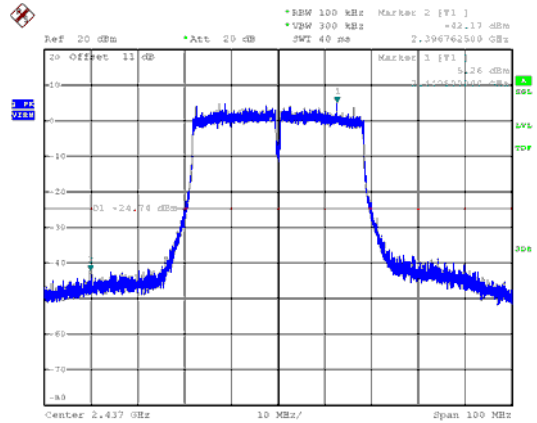
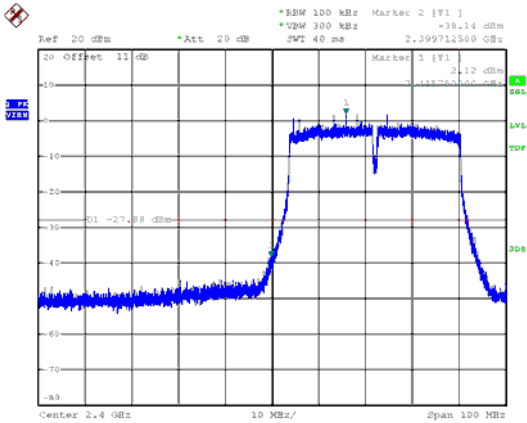
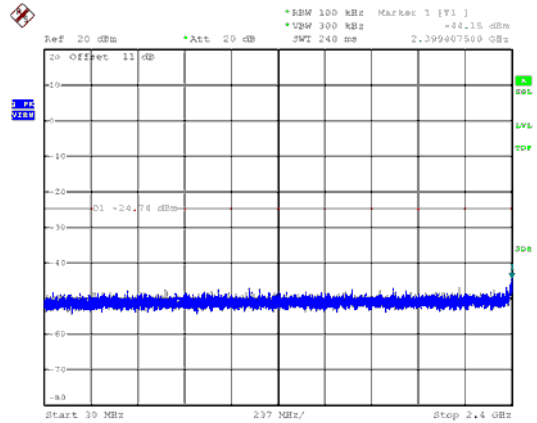


ANT D

Modulation Type: 802.11ac VHT40, CH03



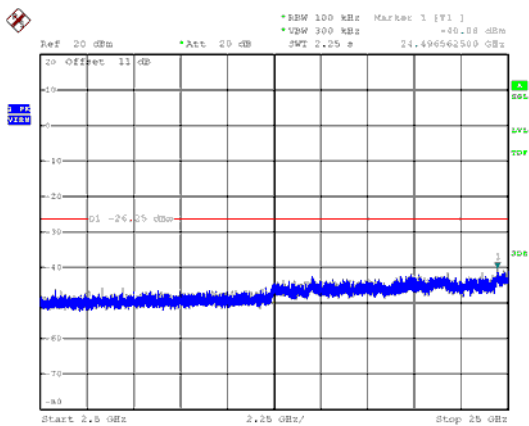
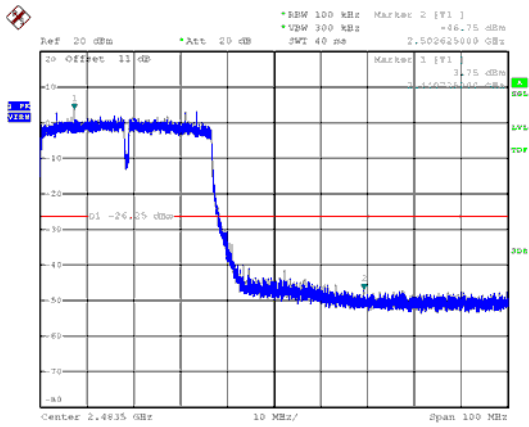
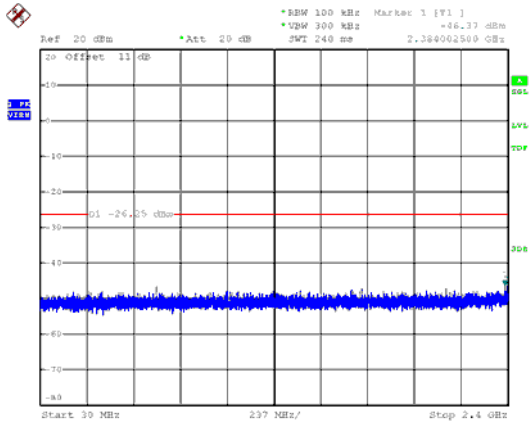
Modulation Type: 802.11ac VHT40, CH06





ANT D

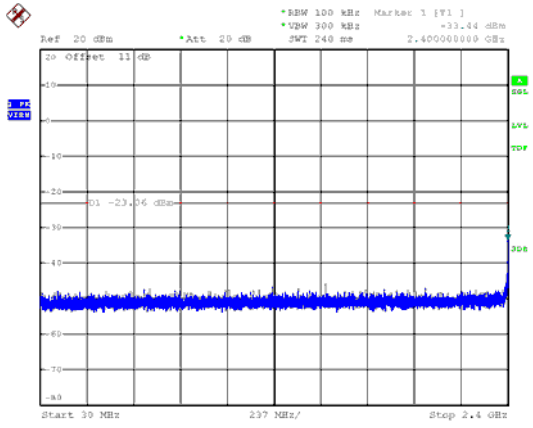
Modulation Type: 802.11ac VHT40, CH09



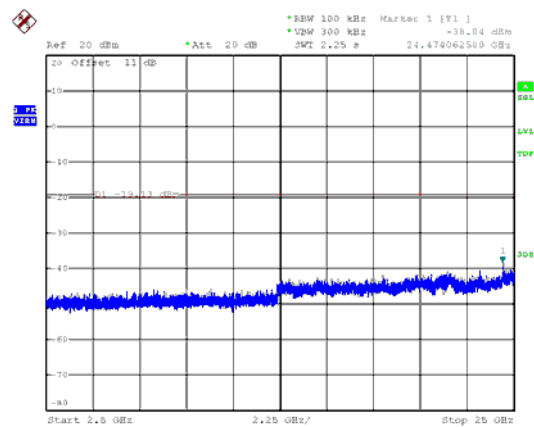
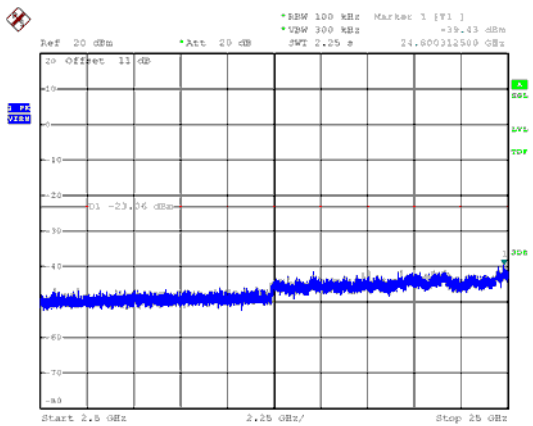
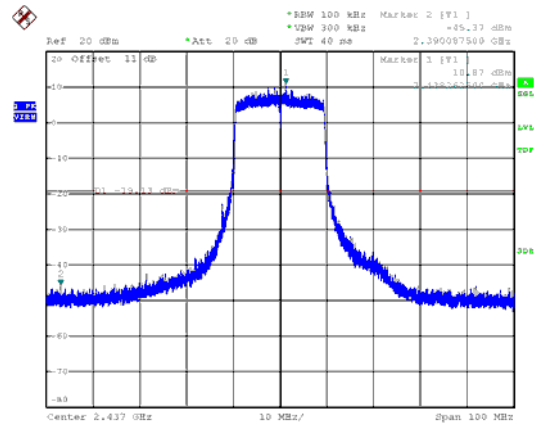
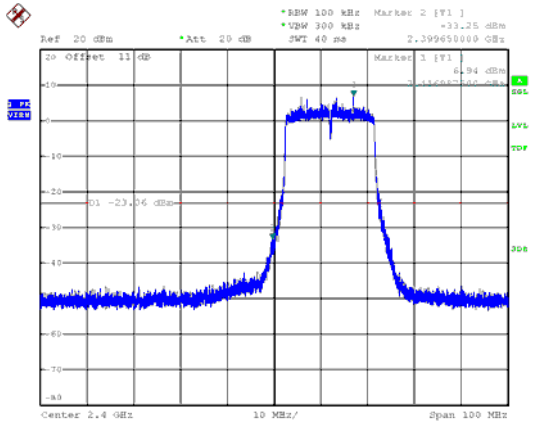
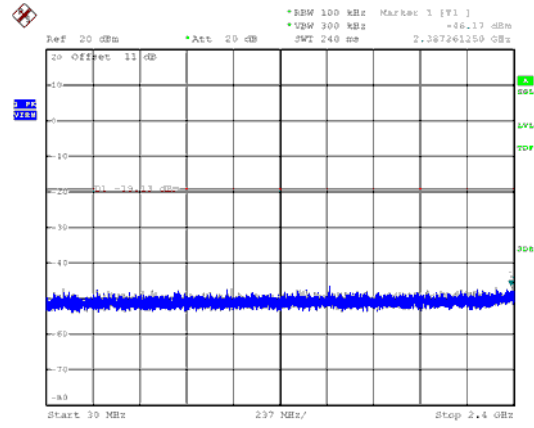


ANT D

Modulation Type: 802.11ax HE20, CH01



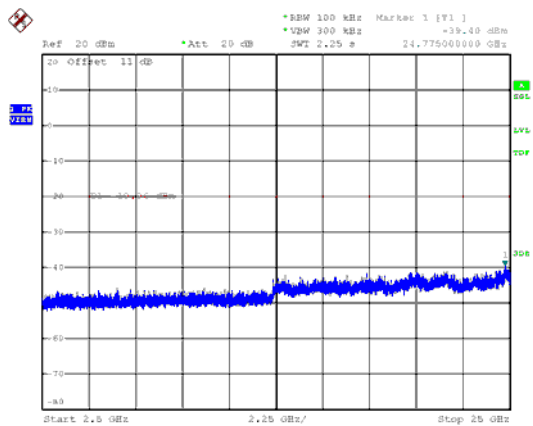
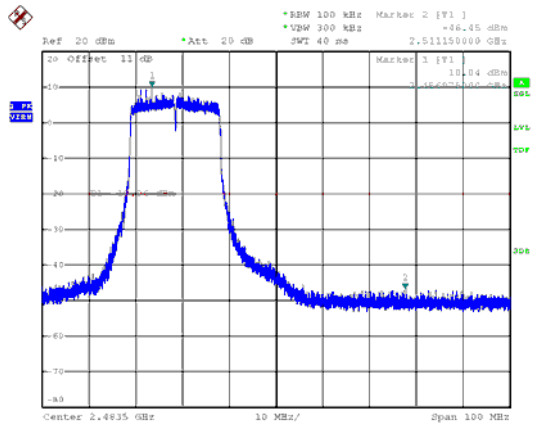
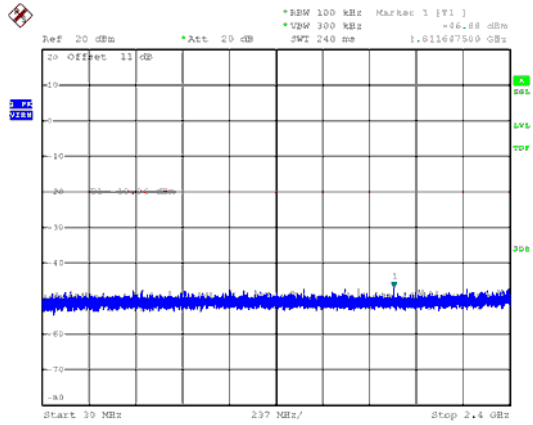
Modulation Type: 802.11ax HE20, CH06





ANT D

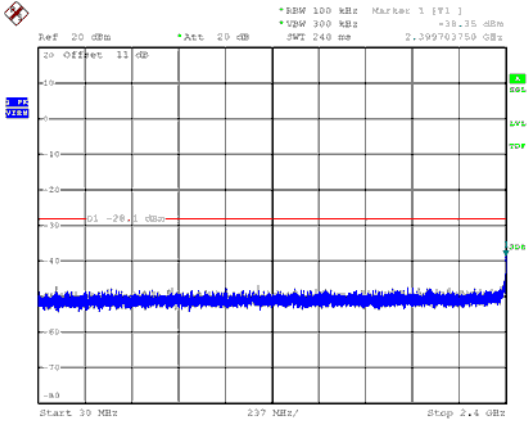
Modulation Type: 802.11ax HE20, CH11



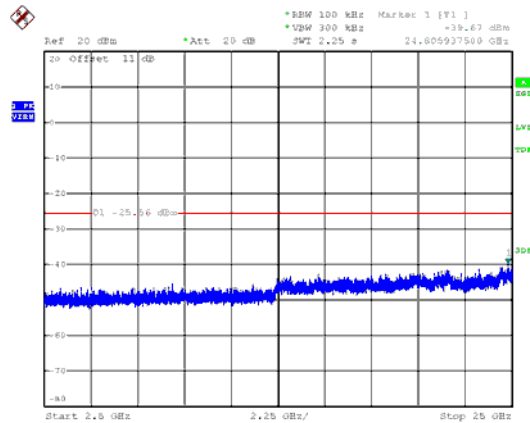
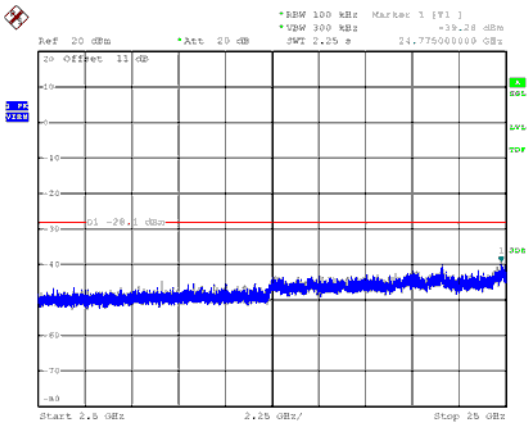
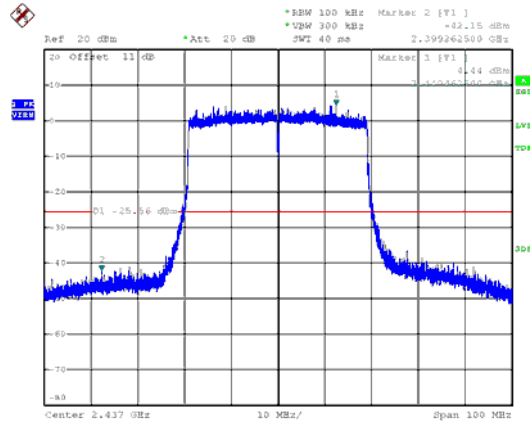
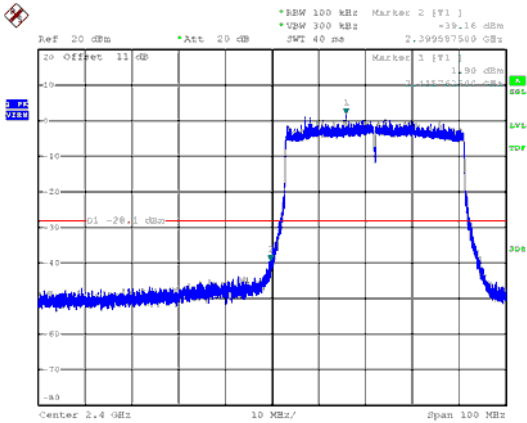
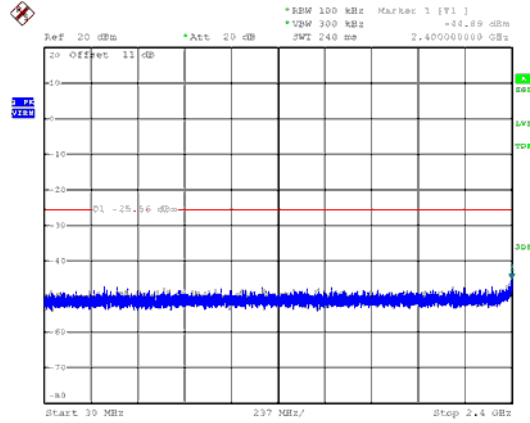


ANT D

Modulation Type: 802.11ax HE40, CH03



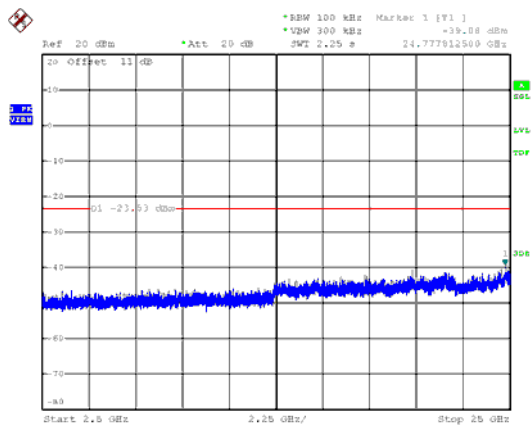
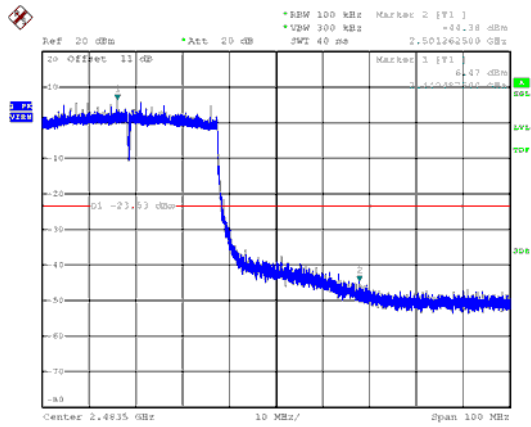
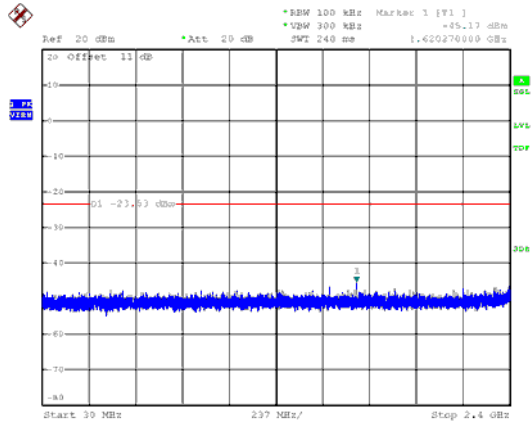
Modulation Type: 802.11ax HE40, CH06





ANT D

Modulation Type: 802.11ax HE40, CH09





## 8. On Time, Duty Cycle and Measurement methods

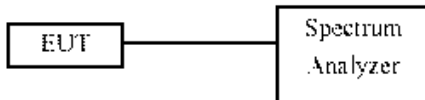
### 8.1 Test Limit

None; for reporting purposes only.

### 8.2 Test Procedure

Zero-Span Spectrum Analyzer Method.

### 8.3 Test Setup Layout



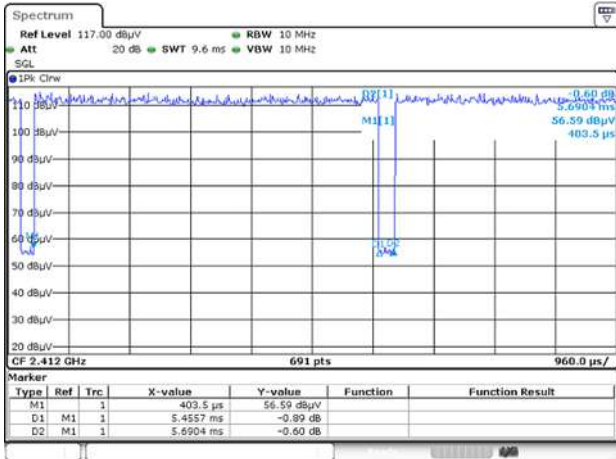
### 8.4 Test Result and Data

Modulation Type	On Time (ms)	Period Time (ms)	Duty Cycle (%)
11ac VHT20	5.46	5.69	95.88%
11ac VHT40	5.45	5.63	96.79%
11ax HE20	5.48	5.66	96.84%
11ax HE40	5.48	5.73	95.63%

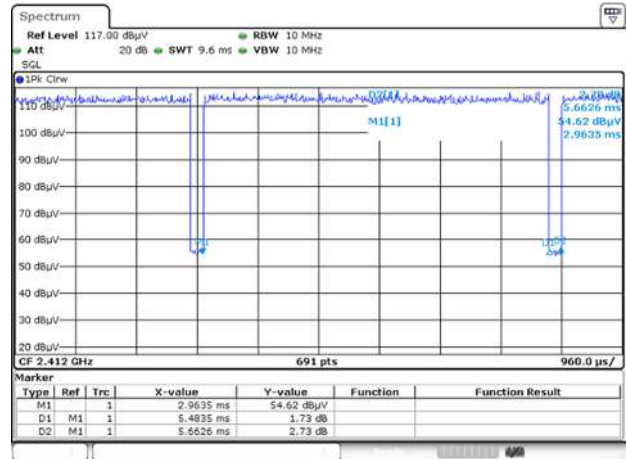




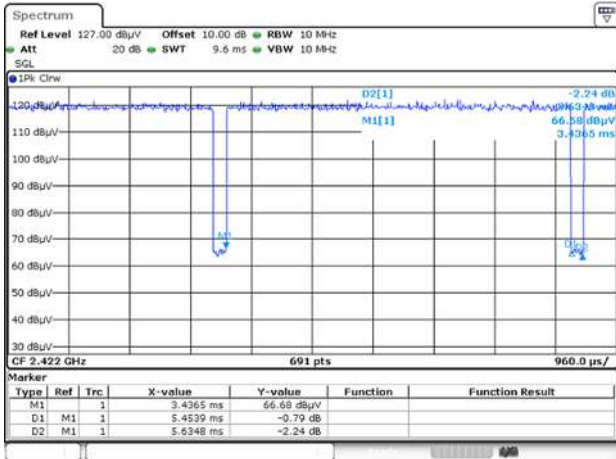
Modulation Type: 802.11ac VHT20 (6.5Mbps)



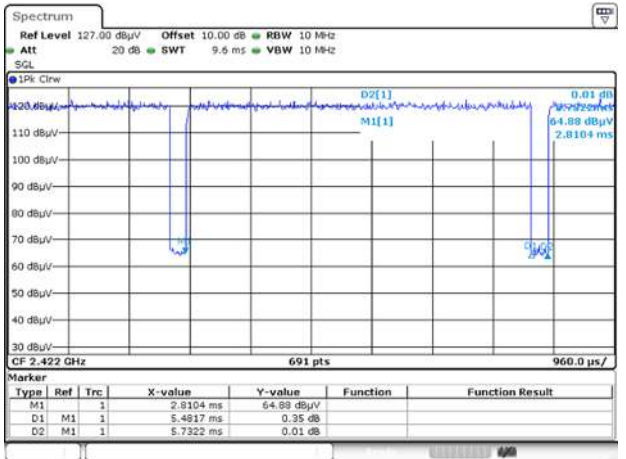
Modulation Type: 802.11ax HE20 (7.3Mbps)



Modulation Type: 802.11ac VHT40 (13.5Mbps)



Modulation Type: 802.11ax HE40 (14.6Mbps)





### 9. 6dB & 99% Bandwidth Measurement Data

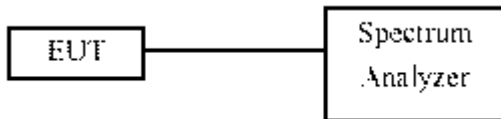
#### 9.1 Test Limit

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

#### 9.2 Test Procedures

- a. The transmitter output was connected to the spectrum analyzer.
- b. Set RBW of spectrum analyzer to 100 KHz and VBW to 300 KHz.
- c. The 6 dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6 dB.
- d. The 6dB Bandwidth was measured and recorded.

#### 9.3 Test Setup Layout



#### 9.4 Test Result and Data (6dB Bandwidth)

Modulation Type	Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Limit (MHz)
			ANT A	ANT B	ANT C	ANT D	
11ac VHT20	1	2412	17.60	17.55	<b>17.00</b>	17.55	0.5
	6	2437	17.60	17.60	17.35	17.60	0.5
	11	2462	17.15	17.10	17.50	17.55	0.5
11ac VHT40	3	2422	36.40	35.10	35.80	36.40	0.5
	6	2437	36.00	35.70	35.60	36.40	0.5
	9	2452	36.40	35.10	36.30	36.40	0.5
11ax HE20	1	2412	18.90	18.85	18.55	18.65	0.5
	6	2437	18.85	18.95	18.35	18.70	0.5
	11	2462	19.00	18.35	18.30	18.75	0.5
11ax HE40	3	2422	38.00	37.80	36.70	38.00	0.5
	6	2437	38.00	37.80	37.30	38.00	0.5
	9	2452	38.00	37.80	35.80	37.70	0.5



9.5 Test Result and Data (99% Bandwidth)

Modulation Type	Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)			
			ANT A	ANT B	ANT C	ANT D
11ac VHT20	1	2412	17.70	17.65	17.60	17.65
	6	2437	17.70	17.65	17.65	17.65
	11	2462	17.70	17.65	17.65	17.65
11ac VHT40	3	2422	36.30	36.40	36.40	36.40
	6	2437	36.30	36.40	36.40	36.30
	9	2452	36.30	36.30	36.40	36.30
11ax HE20	1	2412	19.05	19.00	18.95	18.95
	6	2437	19.05	18.95	18.95	18.95
	11	2462	19.00	19.00	18.90	18.95
11ax HE40	3	2422	38.00	38.00	38.00	38.10
	6	2437	38.00	38.00	38.00	38.10
	9	2452	38.00	37.90	37.90	38.10

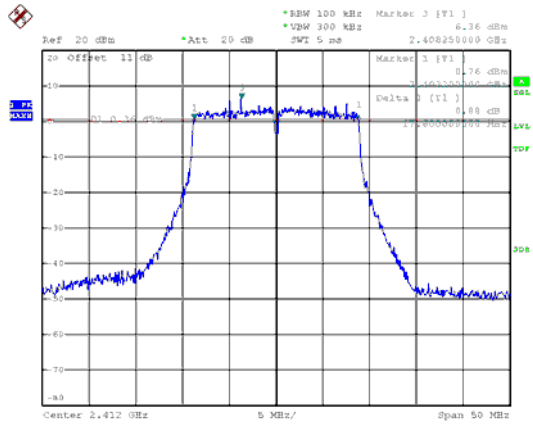


6dB Bandwidth

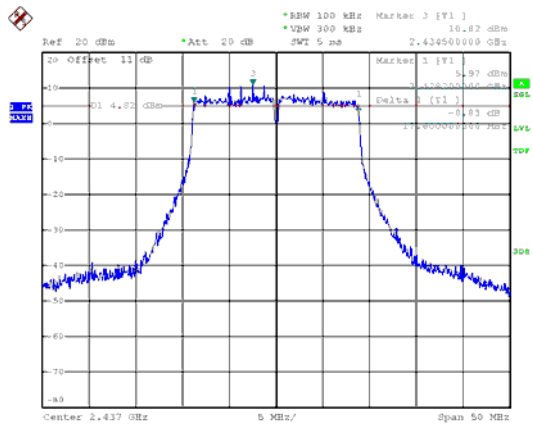
ANT A

Modulation Type: 802.11ac VHT20

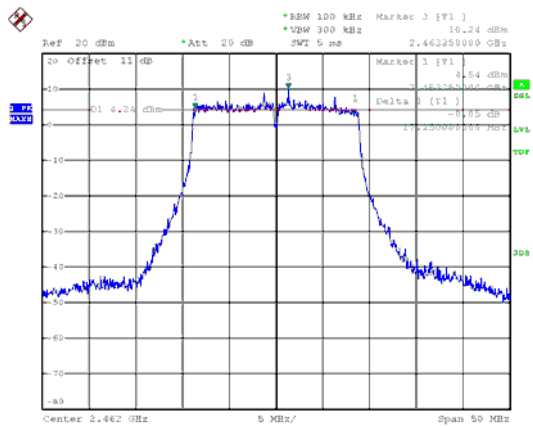
CH01



CH06



CH11

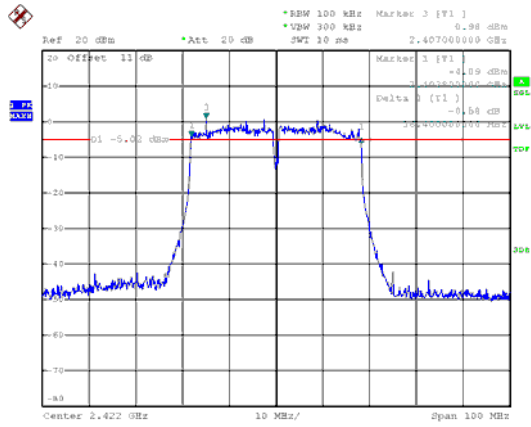




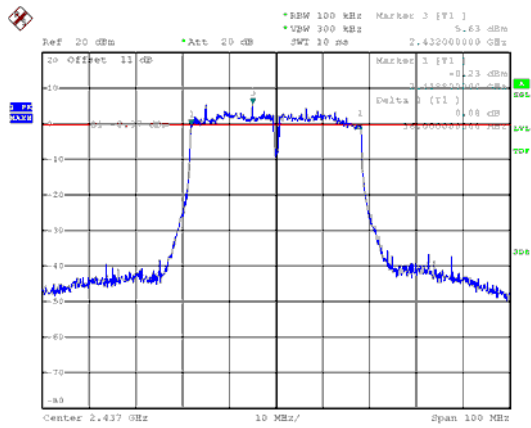
ANT A

Modulation Type: 802.11ac VHT40

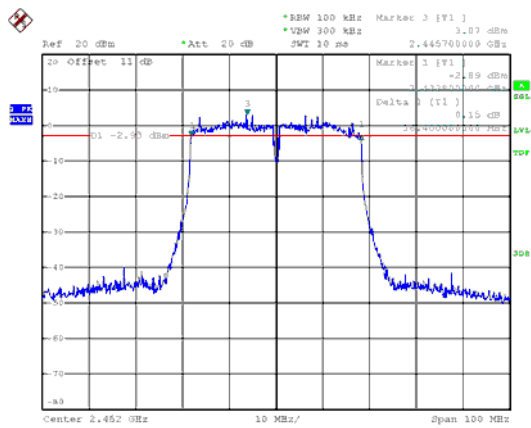
CH03



CH06



CH09

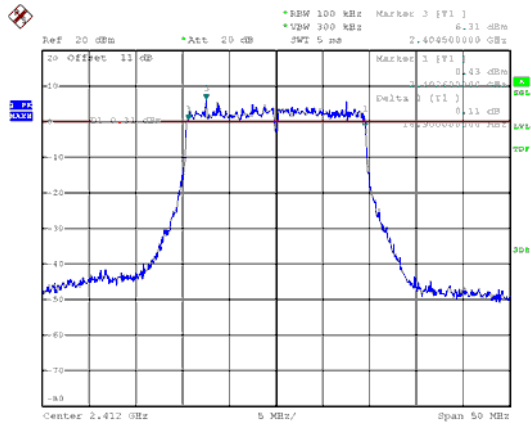




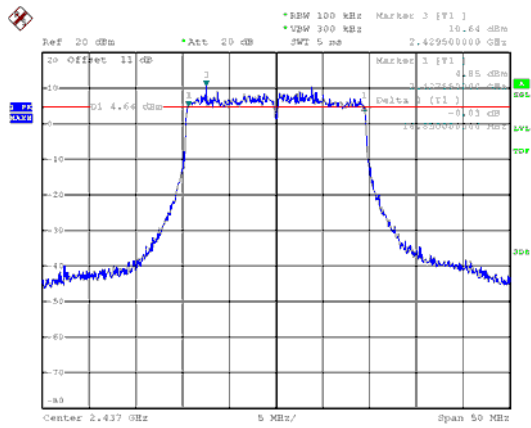
ANT A

Modulation Type: 802.11ax HE20

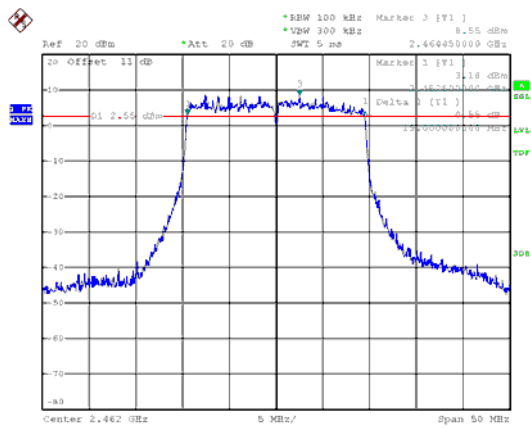
CH01



CH06



CH11

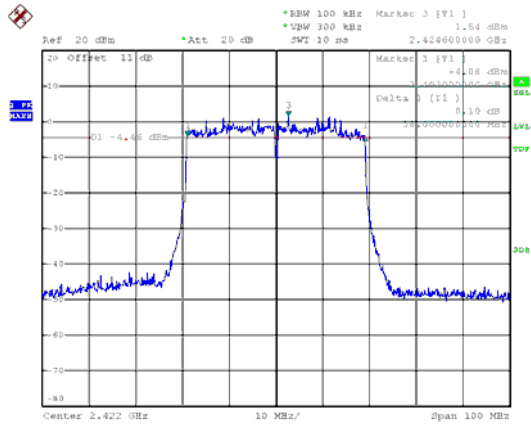




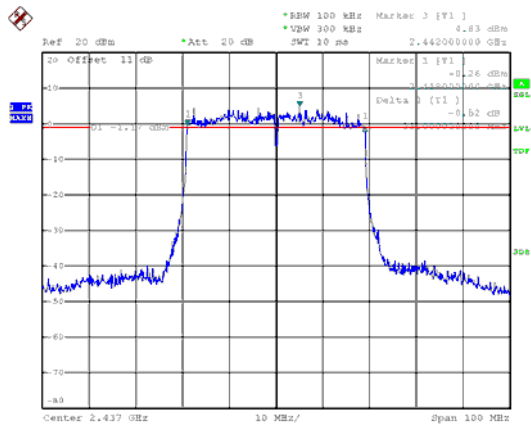
ANT A

Modulation Type: 802.11ax HE40

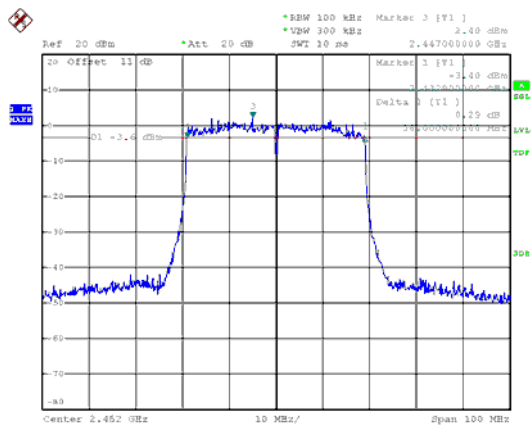
CH03



CH06



CH09

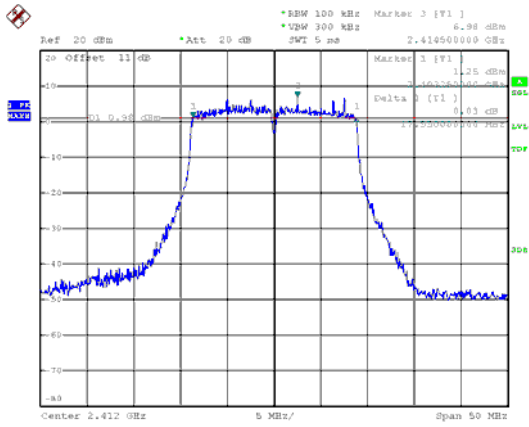




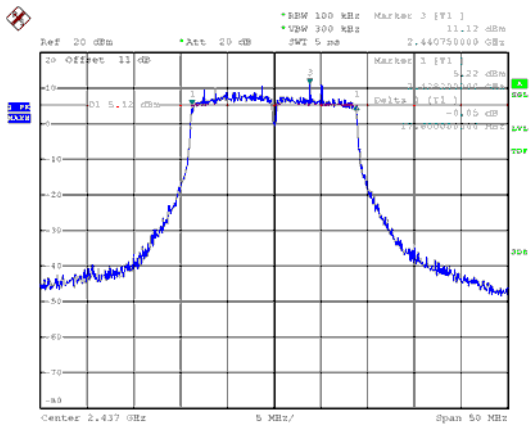
ANT B

Modulation Type: 802.11ac VHT20

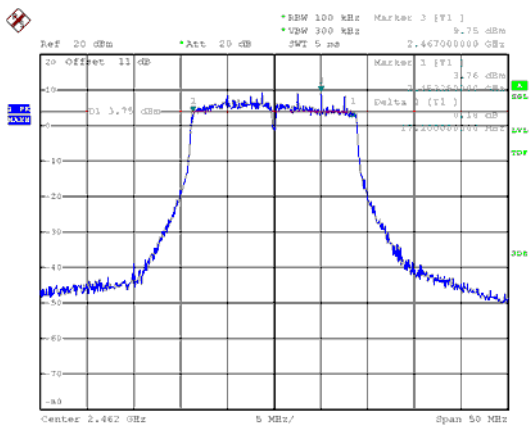
CH01



CH06



CH11



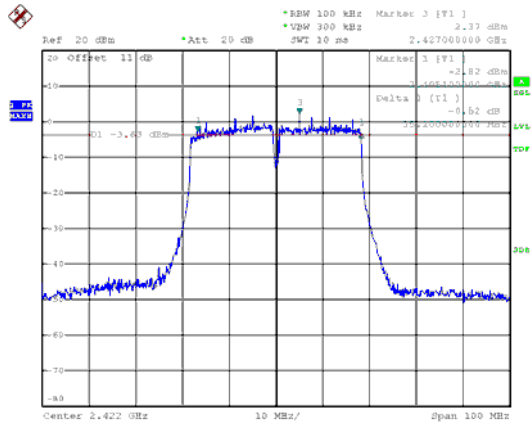




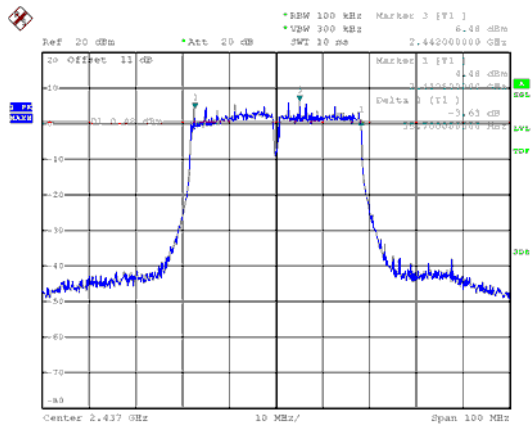
ANT B

Modulation Type: 802.11ac VHT40

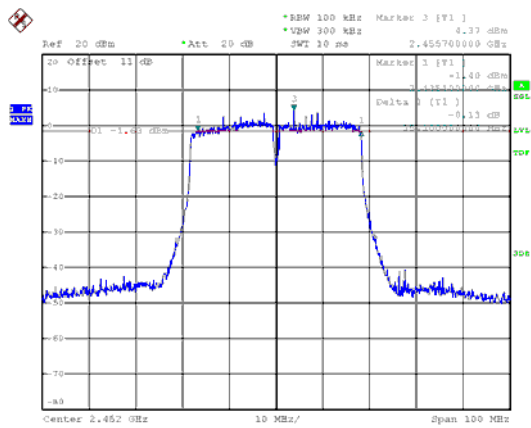
CH03



CH06



CH09

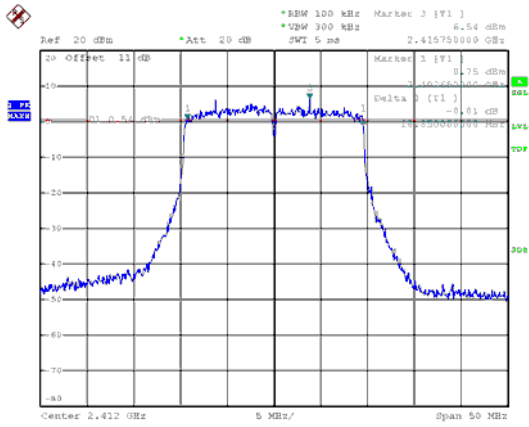




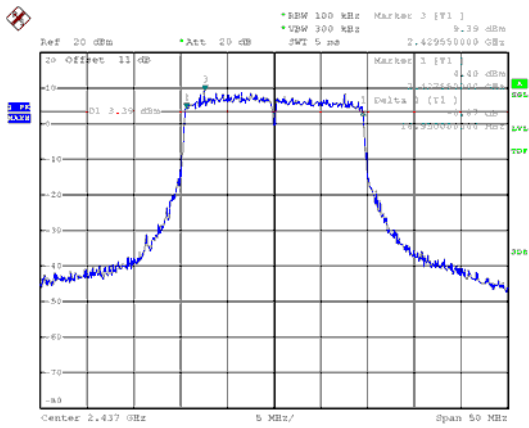
ANT B

Modulation Type: 802.11ax HE20

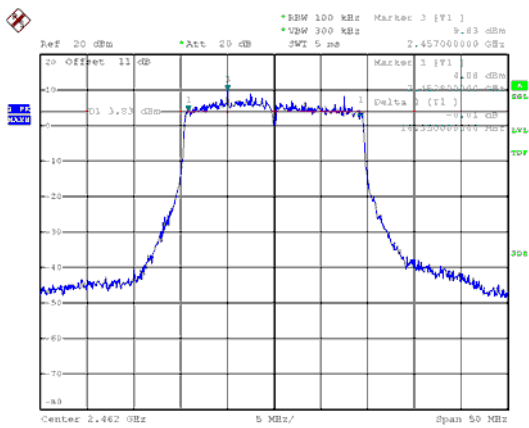
CH01



CH06



CH11

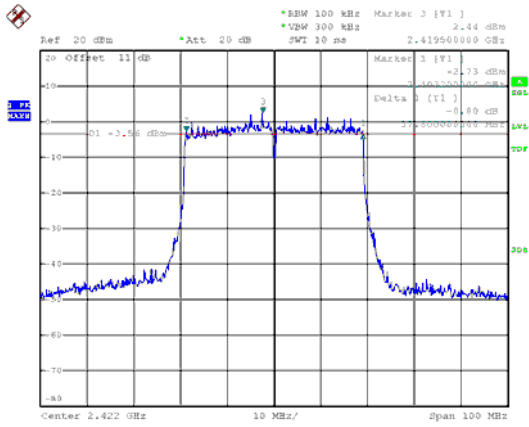




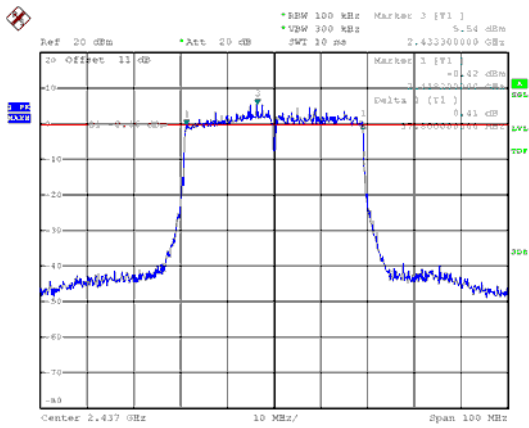
ANT B

Modulation Type: 802.11ax HE40

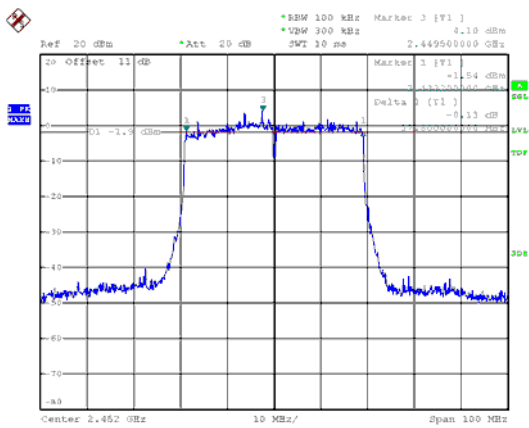
CH03



CH06



CH09

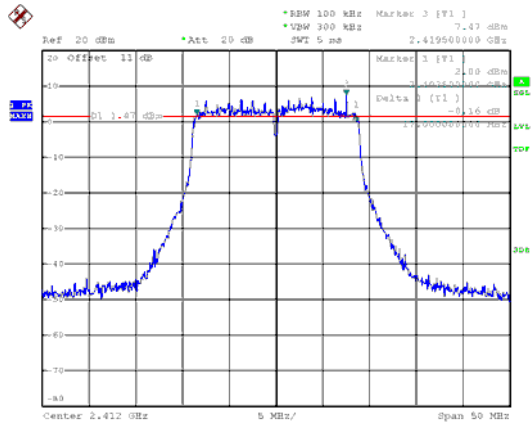




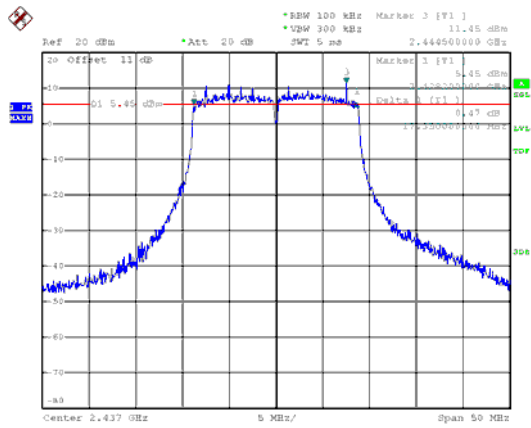
ANT C

Modulation Type: 802.11ac VHT20

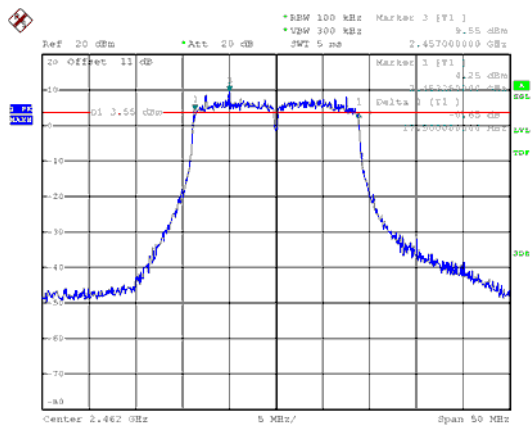
CH01



CH06



CH11

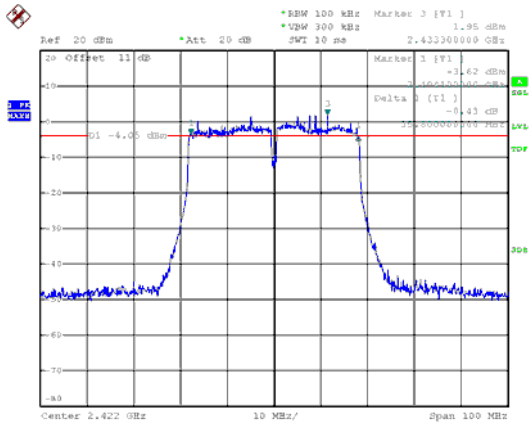




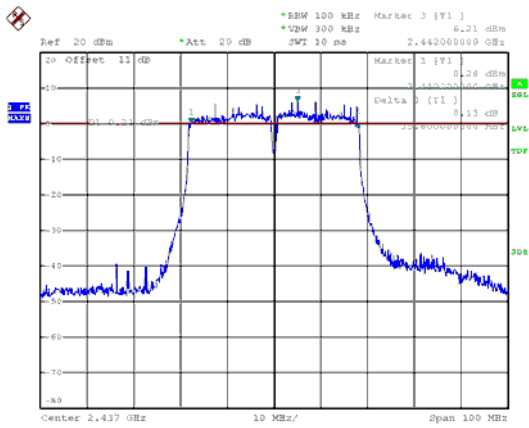
ANT C

Modulation Type: 802.11ac VHT40

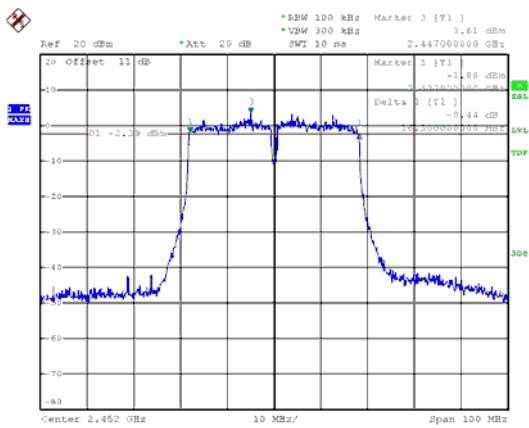
CH03



CH06



CH09

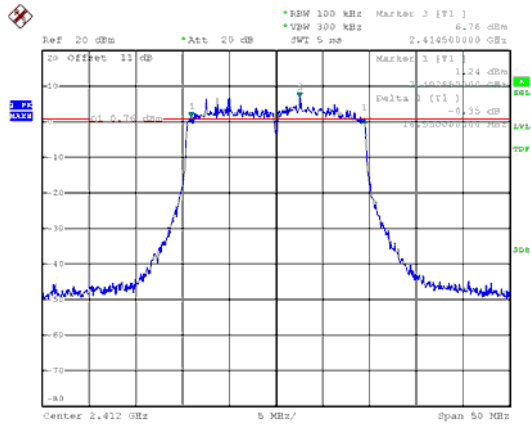




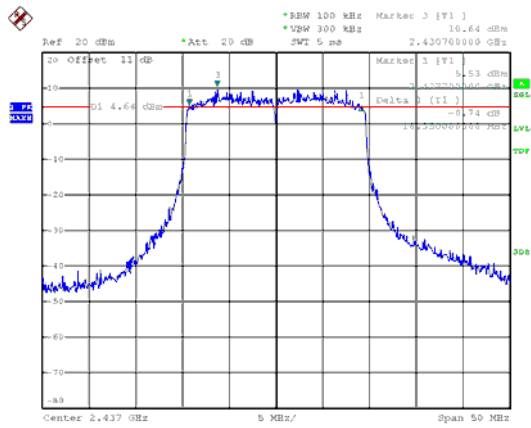
ANT C

Modulation Type: 802.11ax HE20

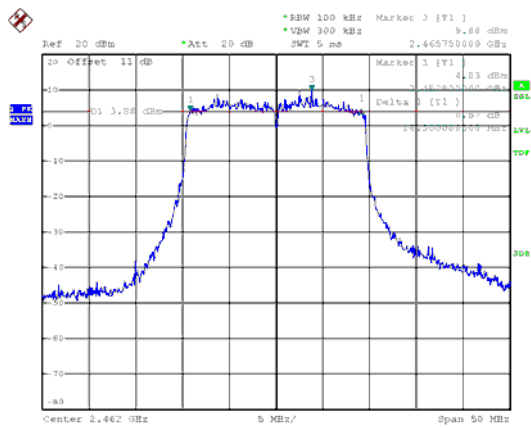
CH01



CH06



CH11

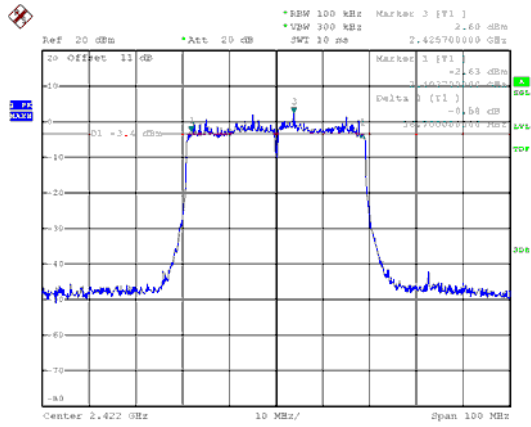




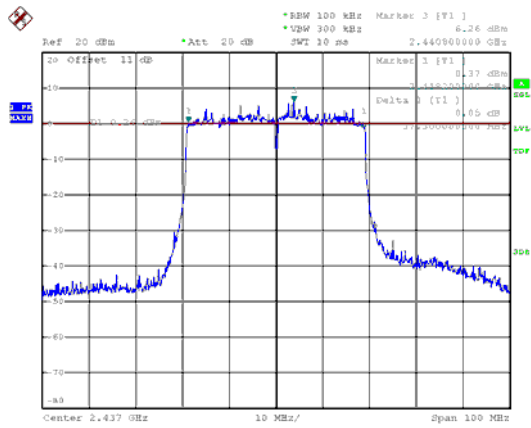
ANT C

Modulation Type: 802.11ax HE40

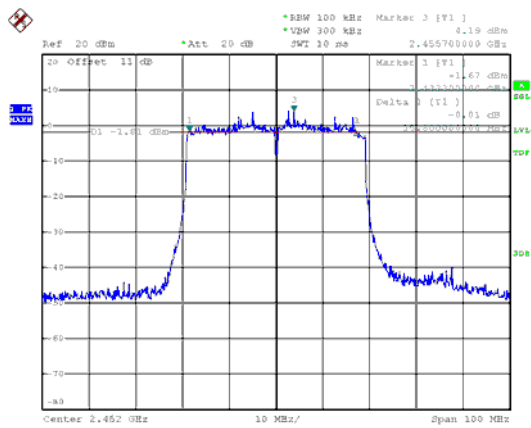
CH03



CH06



CH09

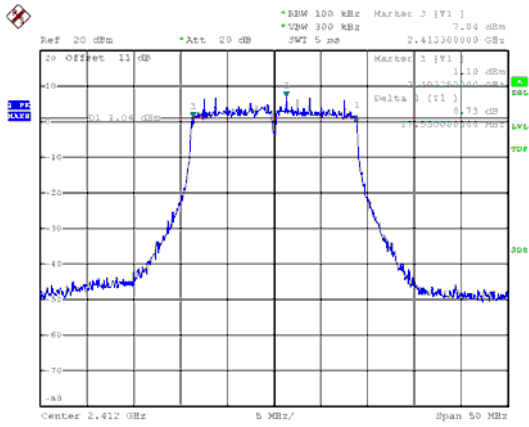




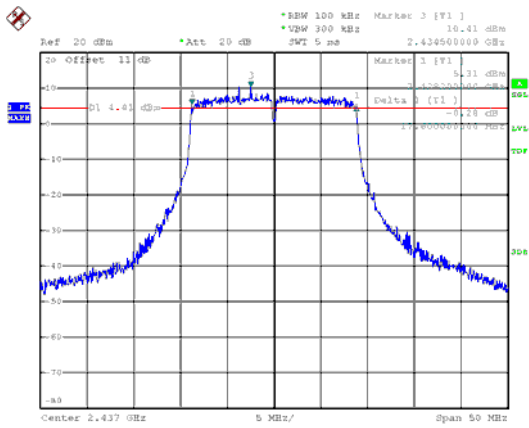
ANT D

Modulation Type: 802.11ac VHT20

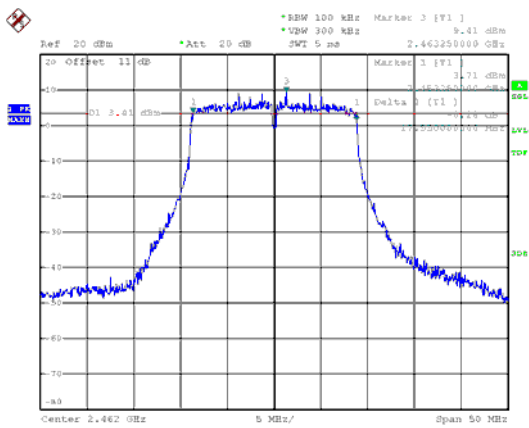
CH01



CH06



CH11



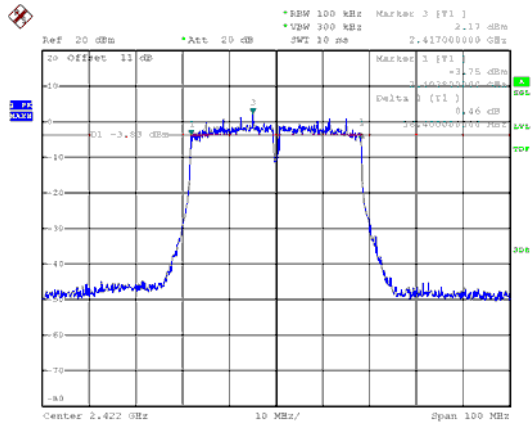




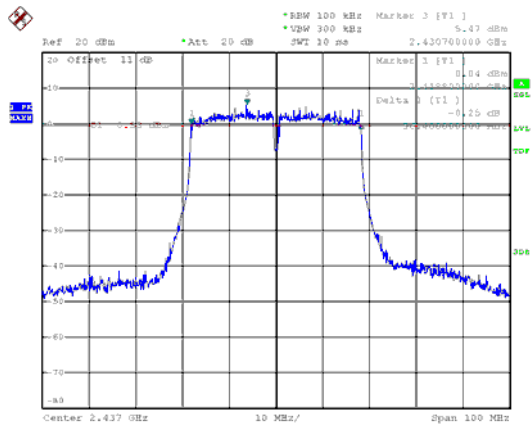
ANT D

Modulation Type: 802.11ac VHT40

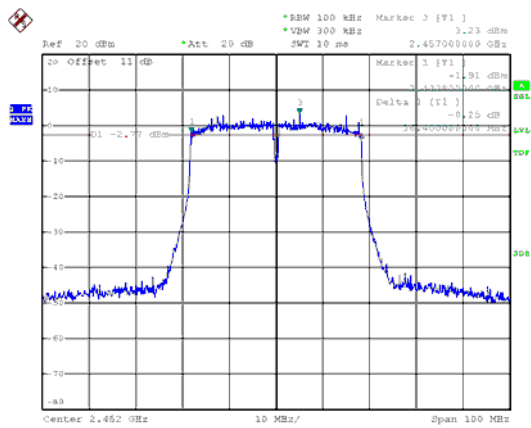
CH03



CH06



CH09

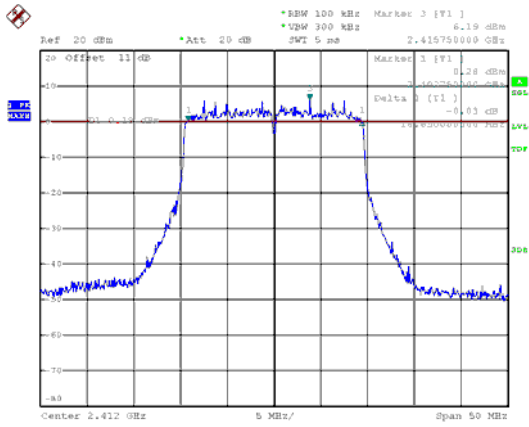




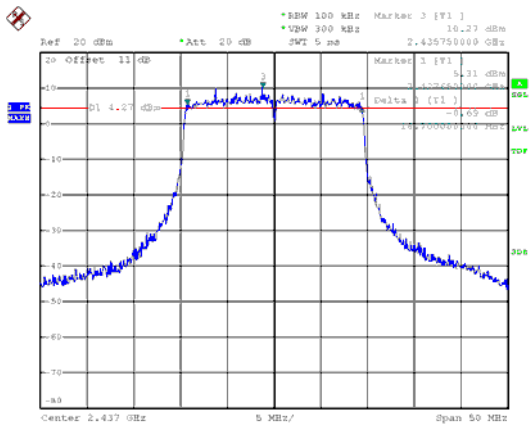
ANT D

Modulation Type: 802.11ax HE20

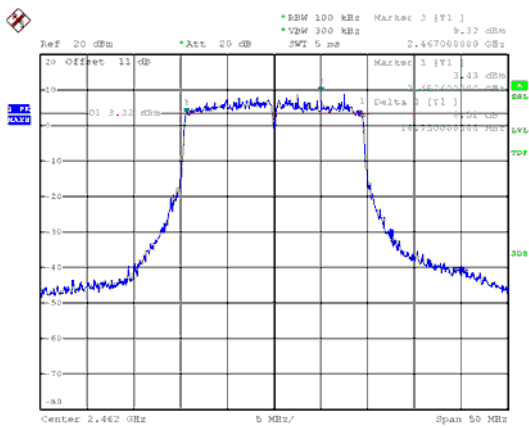
CH01



CH06



CH11

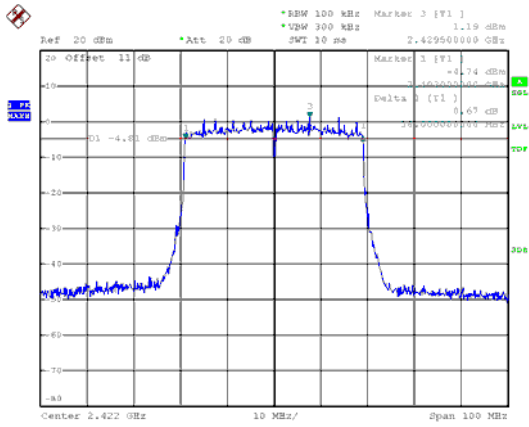




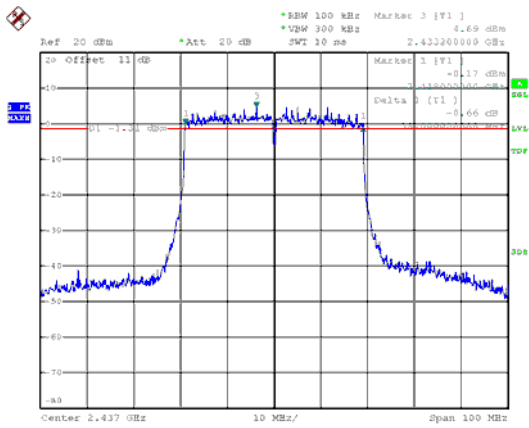
ANT D

Modulation Type: 802.11ax HE40

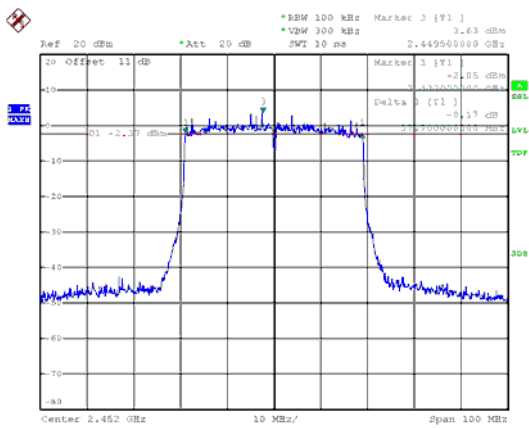
CH03



CH06



CH09



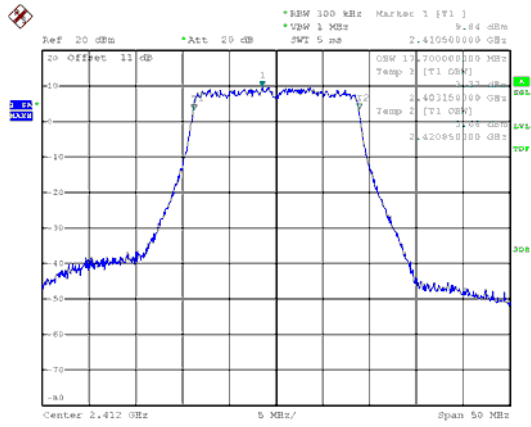


99% Bandwidth

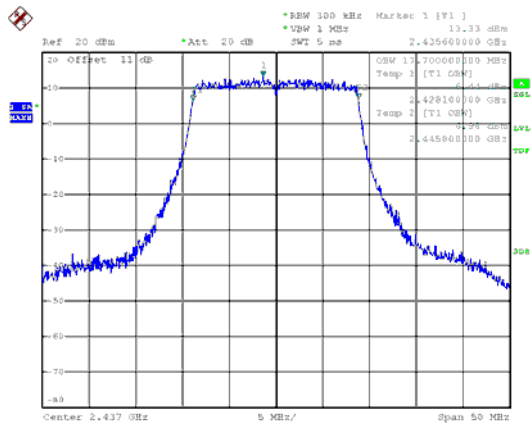
ANT A

Modulation Type: 802.11ac VHT20

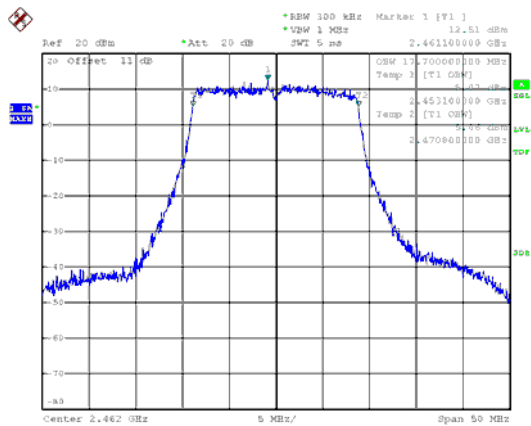
CH01



CH06



CH11

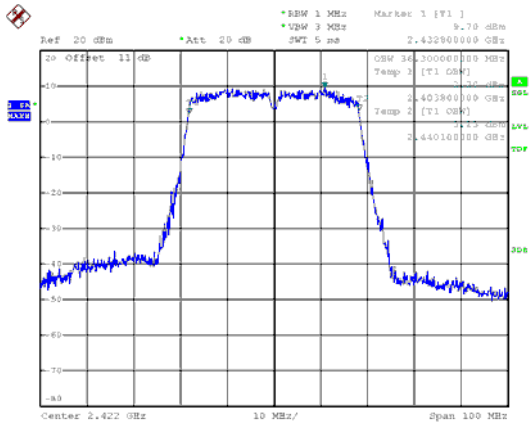




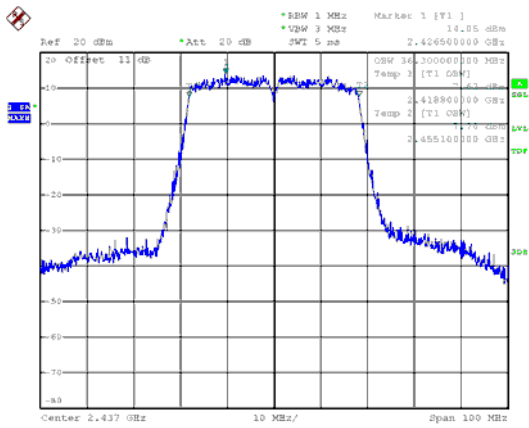
ANT A

Modulation Type: 802.11ac VHT40

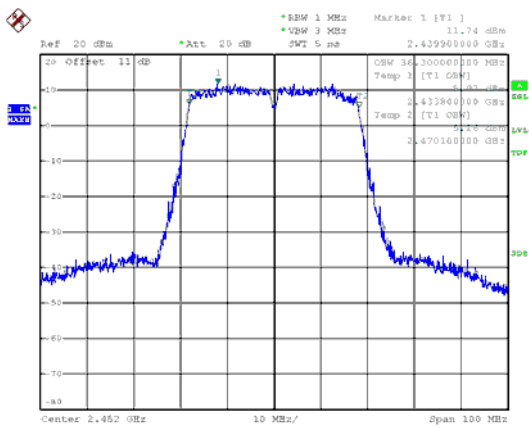
CH03



CH06



CH09

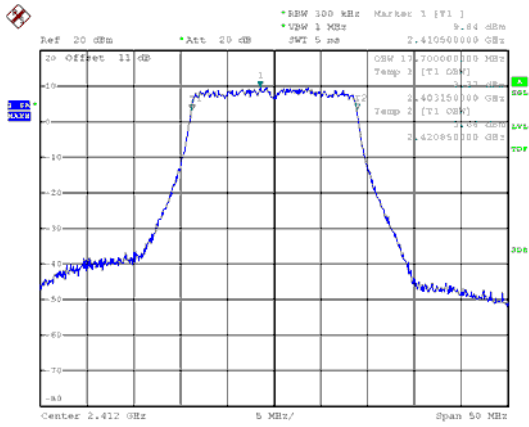




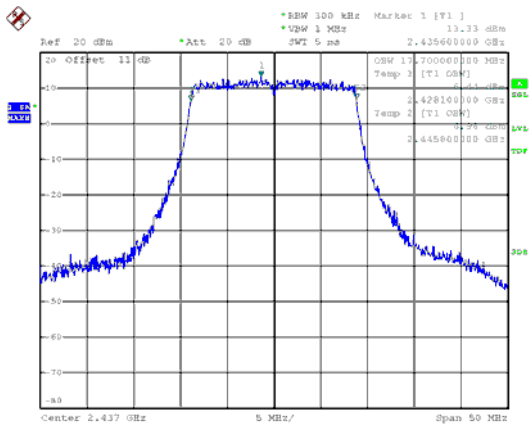
ANT A

Modulation Type: 802.11ax HE20

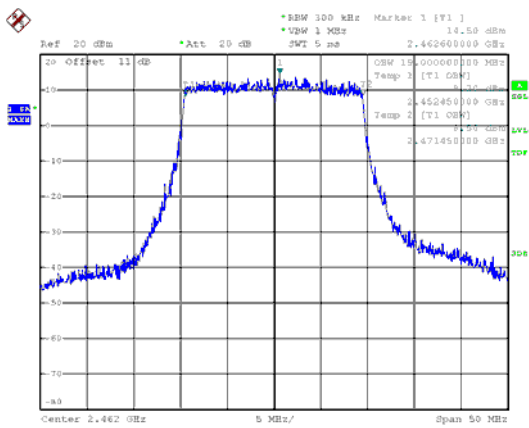
CH01



CH06



CH11

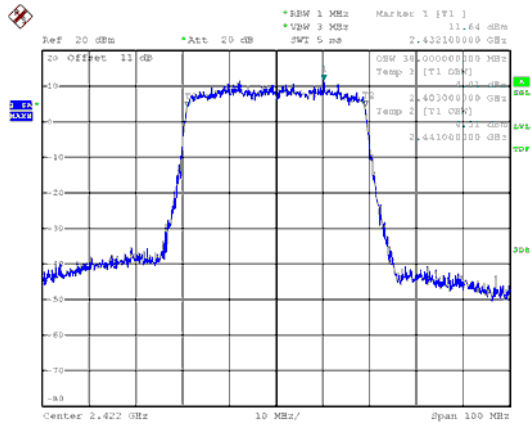




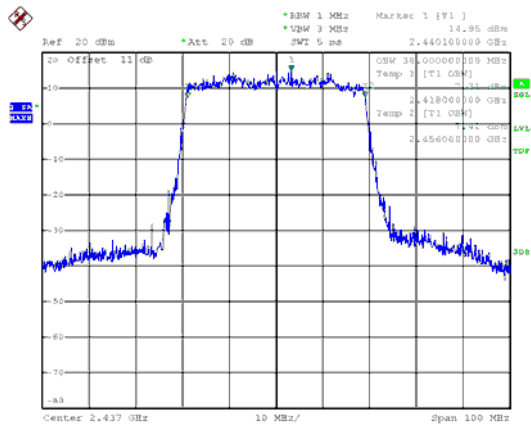
ANT A

Modulation Type: 802.11ax HE40

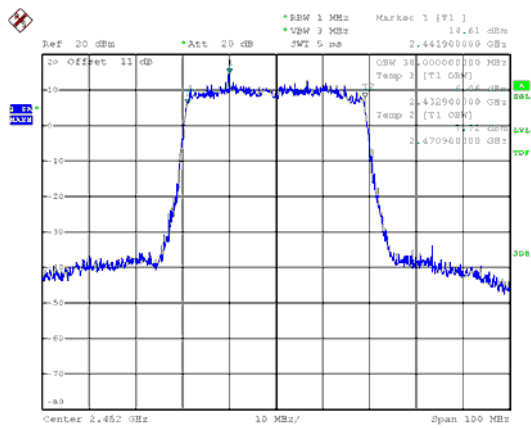
CH03



CH06



CH09

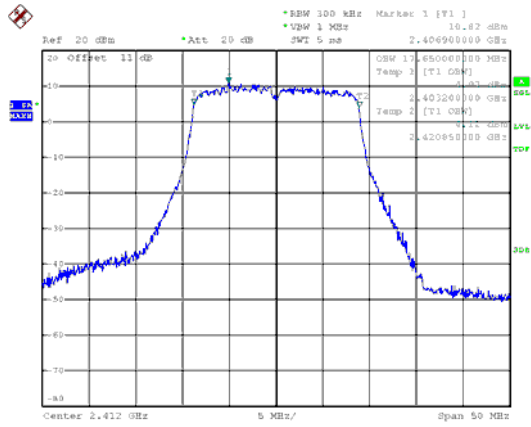




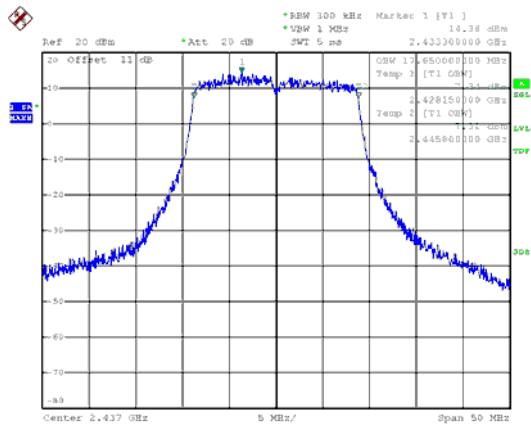
ANT B

Modulation Type: 802.11ac VHT20

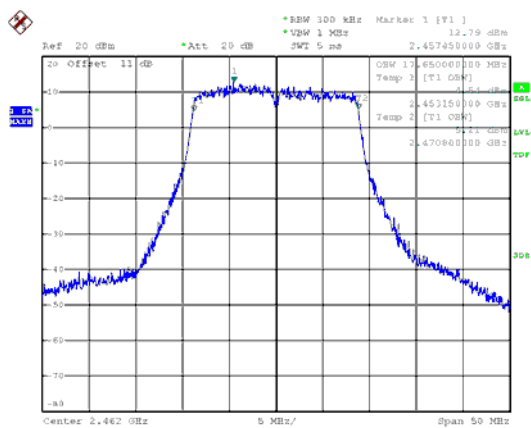
CH01



CH06



CH11



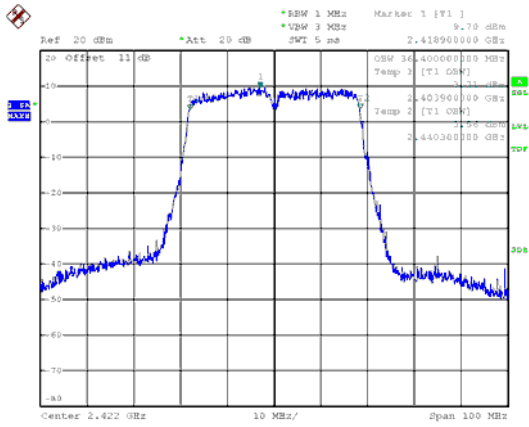




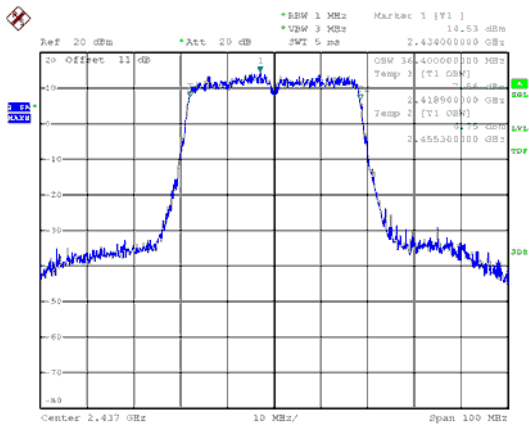
ANT B

Modulation Type: 802.11ac VHT40

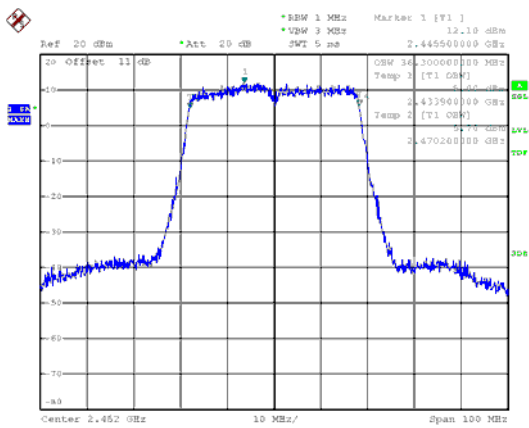
CH03



CH06



CH09

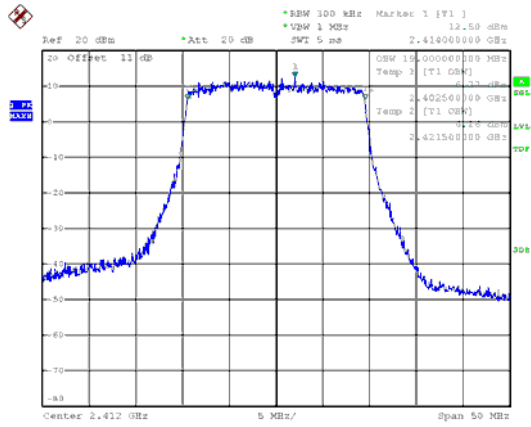




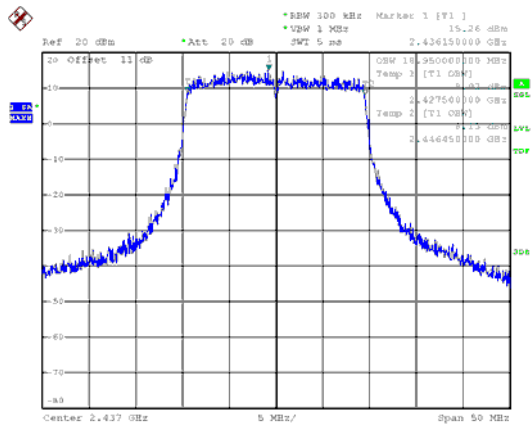
ANT B

Modulation Type: 802.11ax HE20

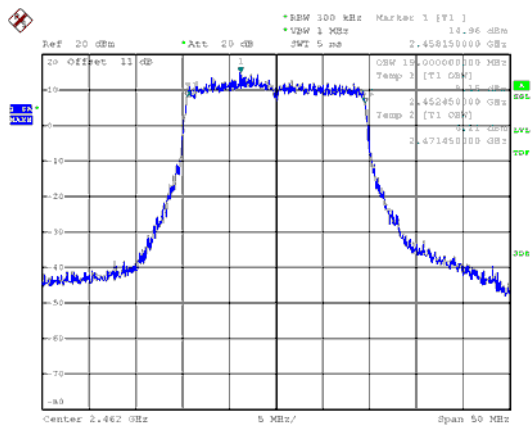
CH01



CH06



CH11

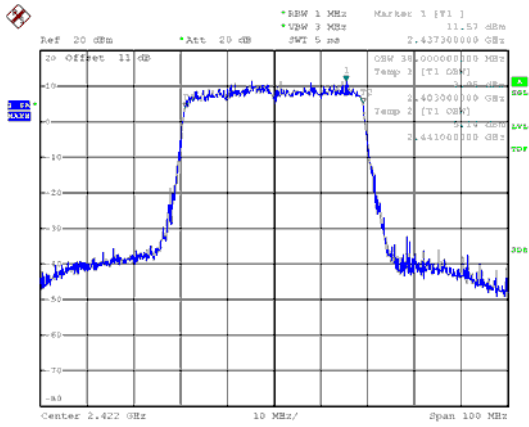




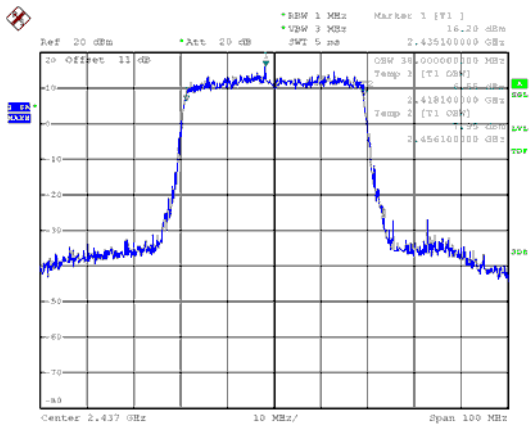
ANT B

Modulation Type: 802.11ax HE40

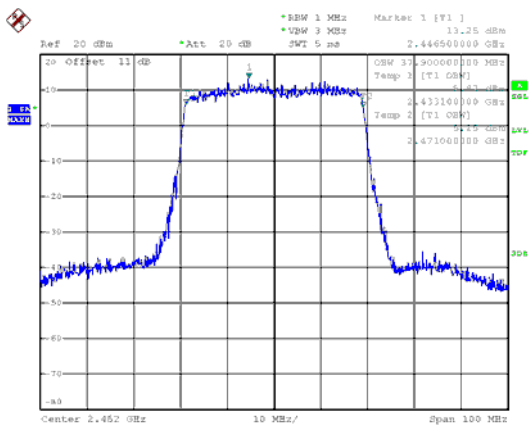
CH03



CH06



CH09

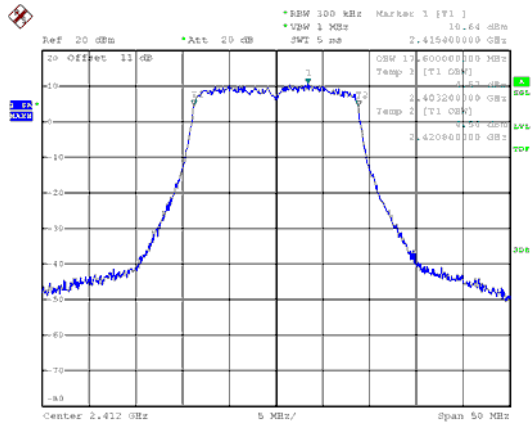




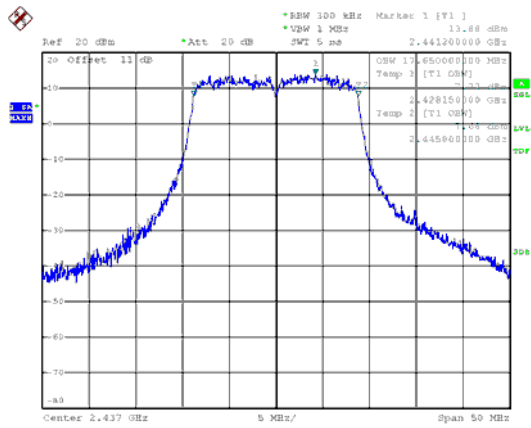
ANT C

Modulation Type: 802.11ac VHT20

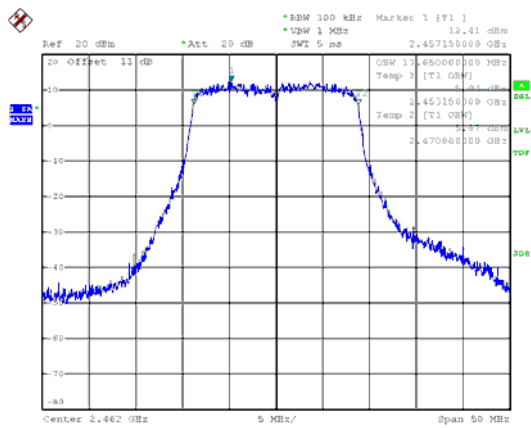
CH01



CH06

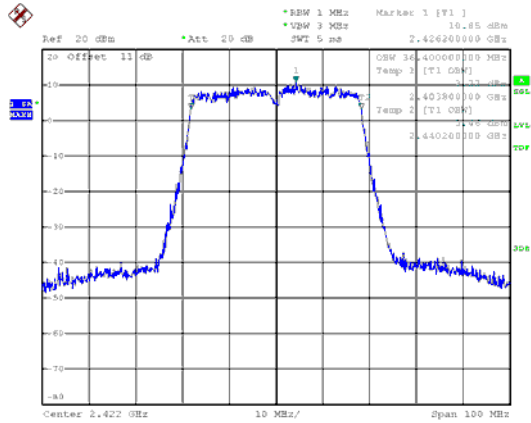


CH11

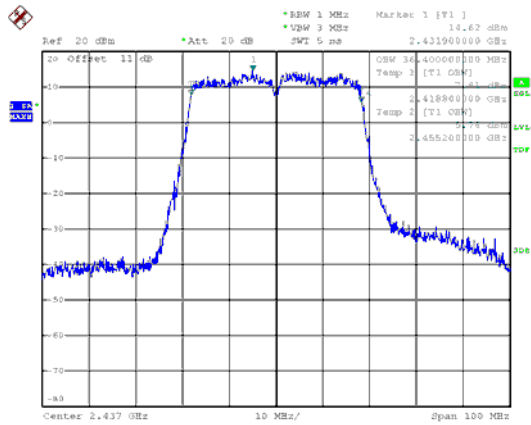




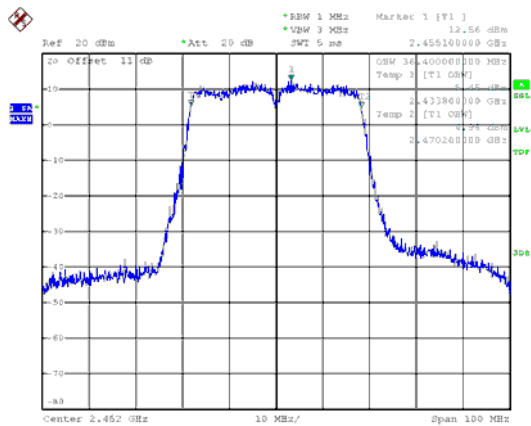
Modulation Type: 802.11ac VHT40  
CH03



CH06



CH09

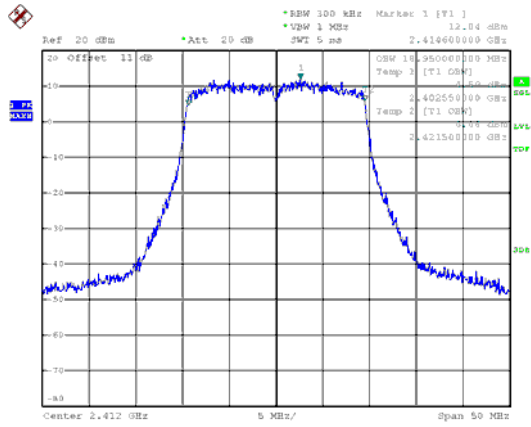




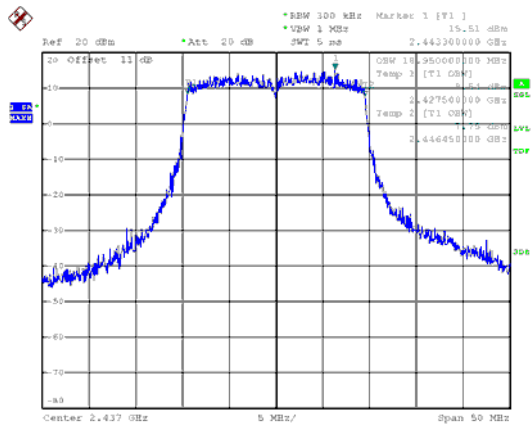
ANT C

Modulation Type: 802.11ax HE20

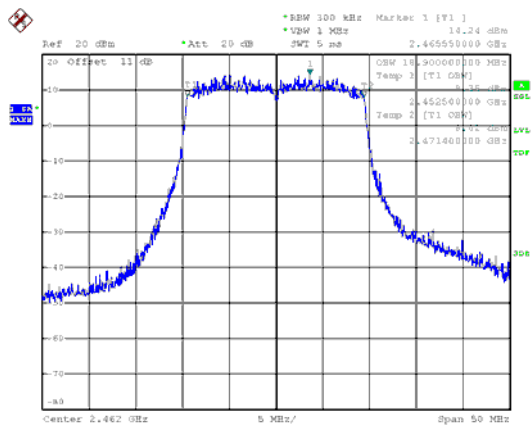
CH01



CH06



CH11

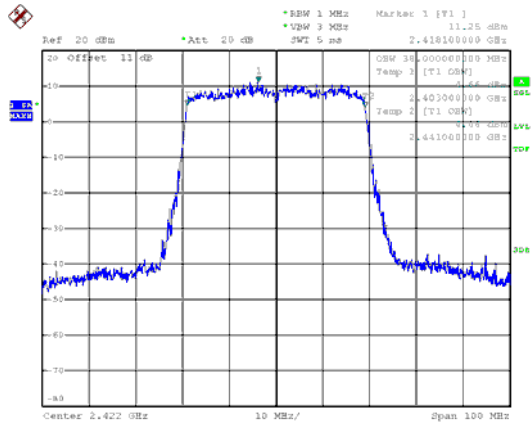




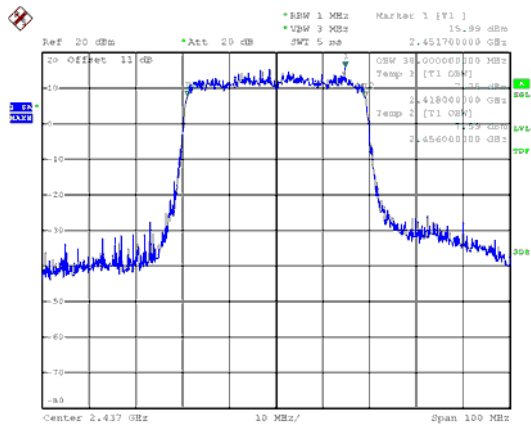
ANT C

Modulation Type: 802.11ax HE40

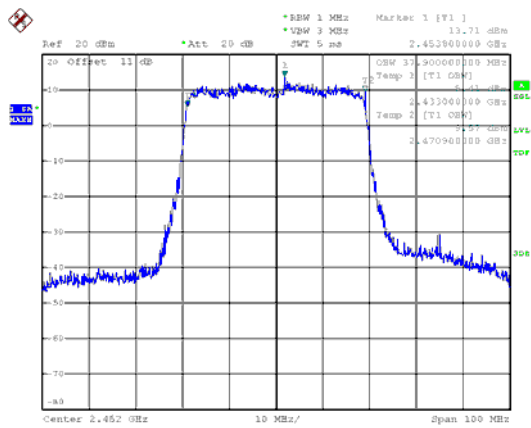
CH03



CH06



CH09

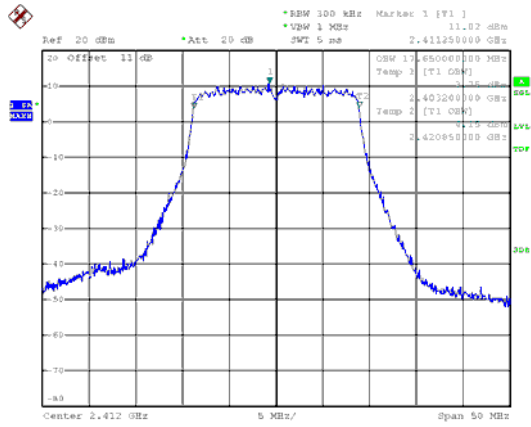




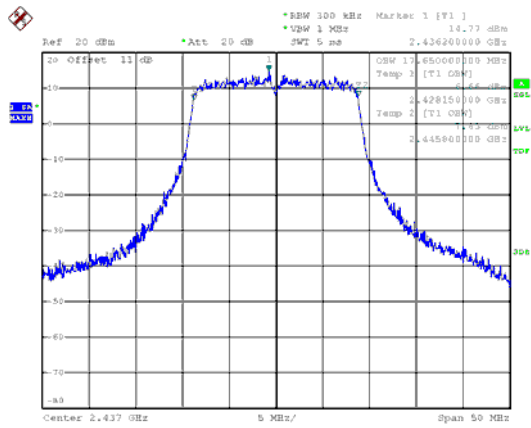
ANT D

Modulation Type: 802.11ac VHT20

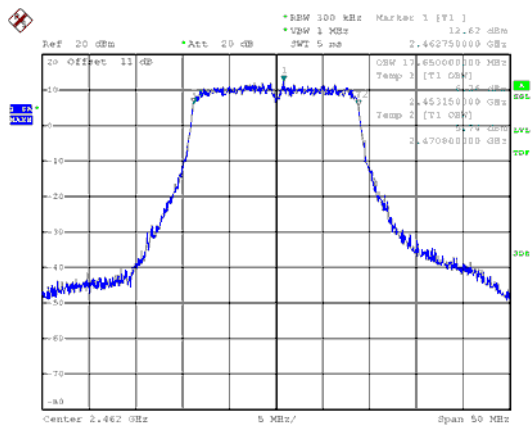
CH01



CH06



CH11



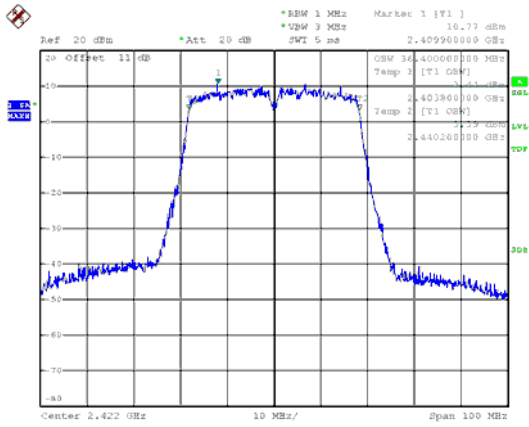




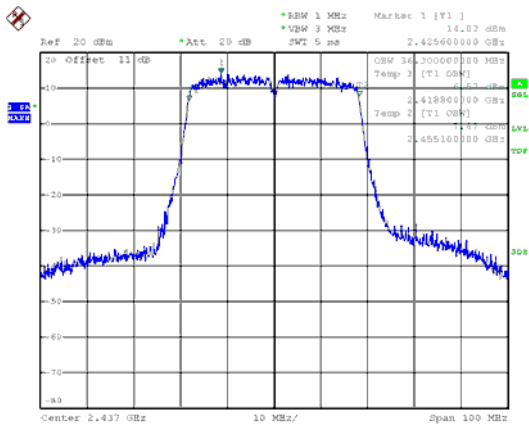
ANT D

Modulation Type: 802.11ac VHT40

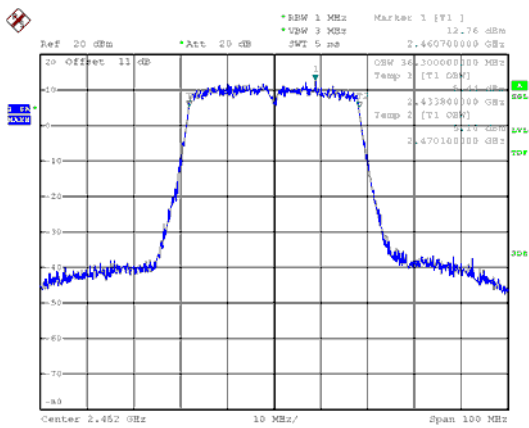
CH03



CH06



CH09

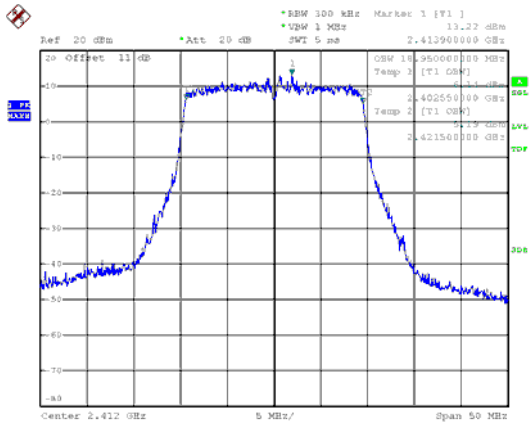




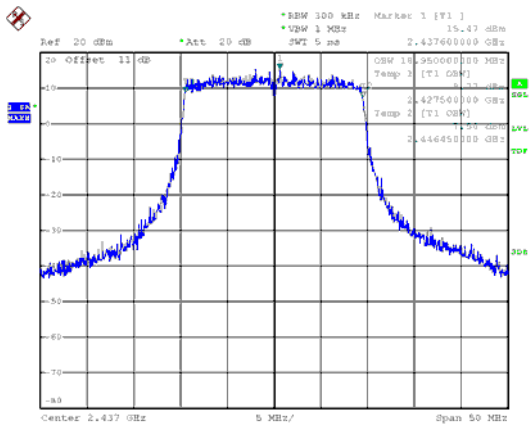
ANT D

Modulation Type: 802.11ax HE20

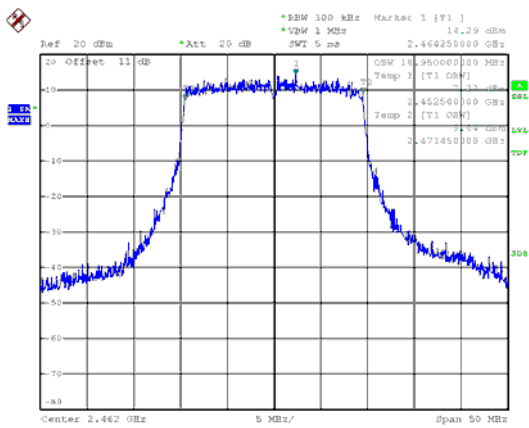
CH01



CH06



CH11

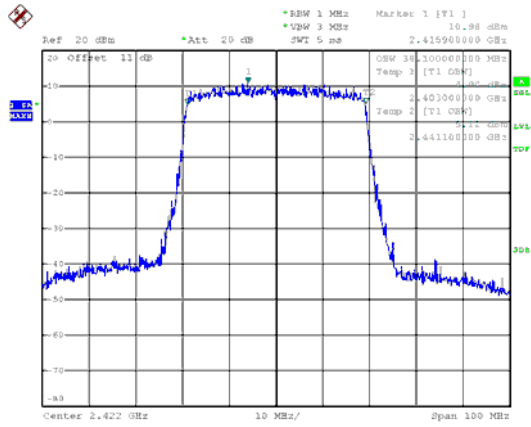




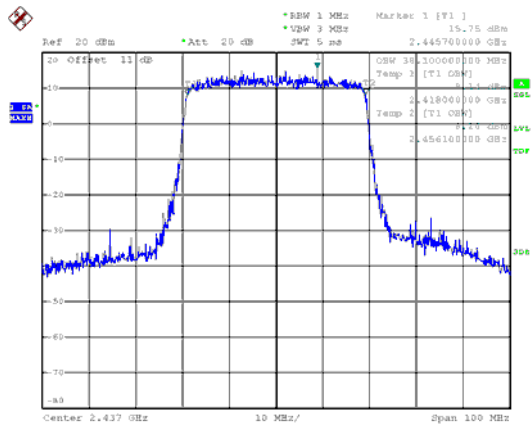
ANT D

Modulation Type: 802.11ax HE40

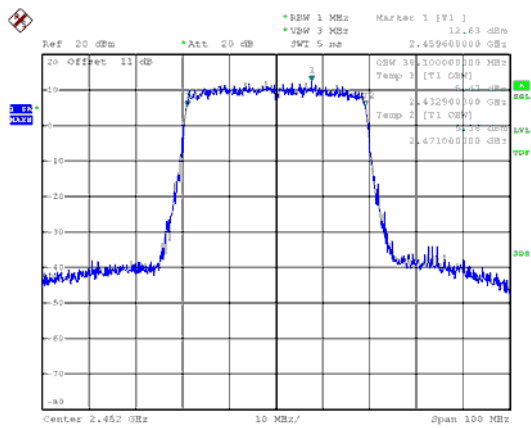
CH03



CH06



CH09





## 10. Maximum Average Output Power

### 10.1 Test Limit

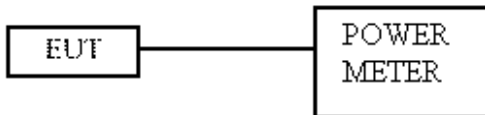
The Maximum Average Output Power Measurement is 30dBm.

If transmitting antennas of directional gain greater than 6 dBi are used, the average output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi

### 10.2 Test Procedures

The antenna port (RF output) of the EUT was connected to the input (RF input) of a power meter. Power was read directly from the meter and cable loss connection was added to the reading to obtain power at the EUT antenna terminal. The EUT Output Power was set to maximum to produce the worse case test result.

### 10.3 Test Setup Layout





10.4 Test Result and Data

Power Set	Modulation Mode	Channel	Frequency (MHz)	Conducted(average) output power (dBm)				Total AV power (dBm)	Total AV power (mW)	Power Limit (dBm)	Antenna Gain (dBi)	AV EIRP (dBm)	AV EIRP Limit(dBm)
				ANT A	ANT B	ANT C	ANT D						
37	11ac VHT20	1	2412	18.67	18.96	18.67	18.64	24.76	299.060	30.00	4.00	28.76	36.00
46		6	2437	22.35	22.56	22.63	22.54	<b>28.54</b>	714.797	30.00	4.00	32.54	36.00
41		11	2462	20.81	20.94	21.19	21.09	27.03	504.720	30.00	4.00	31.03	36.00
34	11ac VHT40	3	2422	17.28	17.55	17.17	17.28	23.34	215.918	30.00	4.00	27.34	36.00
43		6	2437	21.31	21.52	21.18	21.32	<b>27.35</b>	543.852	30.00	4.00	31.35	36.00
38		9	2452	19.28	19.32	19.09	19.33	25.28	337.029	30.00	4.00	29.28	36.00
36	11ax HE20	1	2412	18.69	18.86	18.41	18.42	24.62	289.719	30.00	4.00	28.62	36.00
45		6	2437	22.44	22.48	22.17	22.32	<b>28.37</b>	687.823	30.00	4.00	32.37	36.00
41		11	2462	21.52	21.32	21.10	21.43	27.37	545.245	30.00	4.00	31.37	36.00
34	11ax HE40	3	2422	17.50	17.69	17.25	17.59	23.53	225.483	30.00	4.00	27.53	36.00
42		6	2437	21.13	21.18	20.79	21.05	<b>27.06</b>	508.238	30.00	4.00	31.06	36.00
37		9	2452	19.03	18.99	18.78	19.05	24.98	315.095	30.00	4.00	28.98	36.00



### 11. Power Spectral Density

#### 11.1 Test Limit

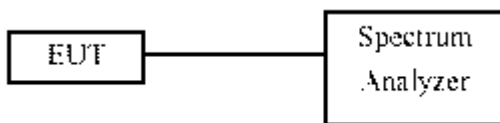
The Maximum of Power Spectral Density Measurement is 8dBm.

If transmitting antennas of directional gain greater than 6 dBi are used, the power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi

#### 11.2 Test Procedures

Reference to KDB558074 DTS Meas Guidance v04 D01

#### 11.3 Test Setup Layout



#### 11.4 Test Result and Data

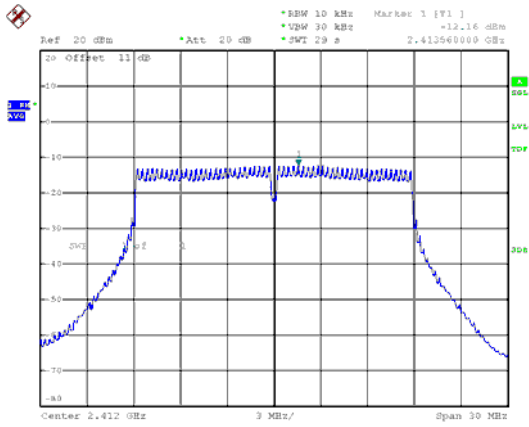
Modulation Type	Channel	Frequency (MHz)	Maximum Power Density of 10KHz Bandwidth(dBm)				Sum chain (dBm)	Duty Cycle CF(dB)	Total PSD (dBm)	Limit (dBm)
			ANT A	ANT B	ANT C	ANT D				
11ac VHT20	1	2412	-12.16	-11.73	-11.24	-12.01	-5.75	0.18	-5.57	3.98
	6	2437	-8.1	-7.59	-6.96	-7.68	-1.54	0.18	-1.36	3.98
	11	2462	-9.47	-8.99	-8.61	-9.19	-3.03	0.18	-2.85	3.98
11ac VHT40	3	2422	-17.35	-16.99	-16.87	-17.37	-11.12	0.14	-10.98	3.98
	6	2437	-13.12	-12.8	-12.72	-13.21	-6.94	0.14	-6.80	3.98
	9	2452	-15.16	-14.86	-14.88	-15.33	-9.03	0.14	-8.89	3.98
11ax HE20	1	2412	-13.27	-12.88	-13.1	-13.52	-7.17	0.14	-7.03	3.98
	6	2437	-9.27	-9.12	-9.26	-9.57	-3.28	0.14	-3.14	3.98
	11	2462	-10.29	-10	-10.25	-10.4	-4.21	0.14	-4.07	3.98
11ax HE40	3	2422	-18.24	-18.04	-17.8	-18.03	-12.00	0.19	-11.81	3.98
	6	2437	-14.61	-14.25	-14.29	-14.6	-8.41	0.19	-8.22	3.98
	9	2452	-16.48	-16.15	-16.33	-16.63	-10.37	0.19	-10.18	3.98



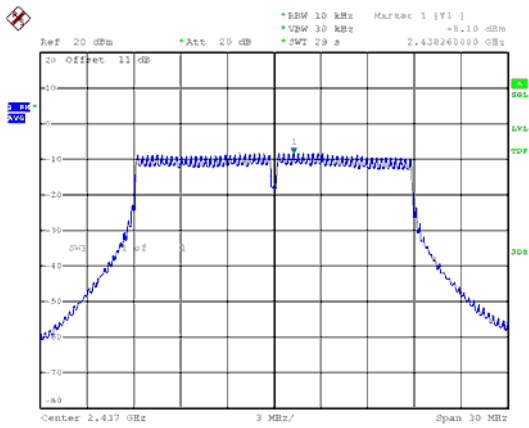
ANT A

Modulation Type: 802.11ac VHT20

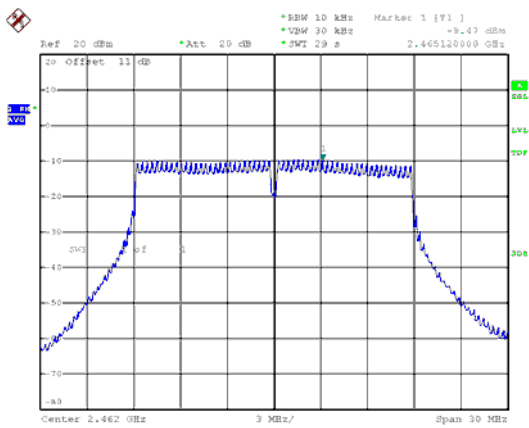
CH01



CH06



CH11

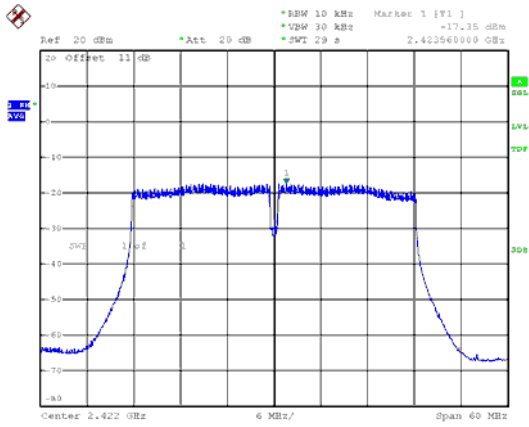




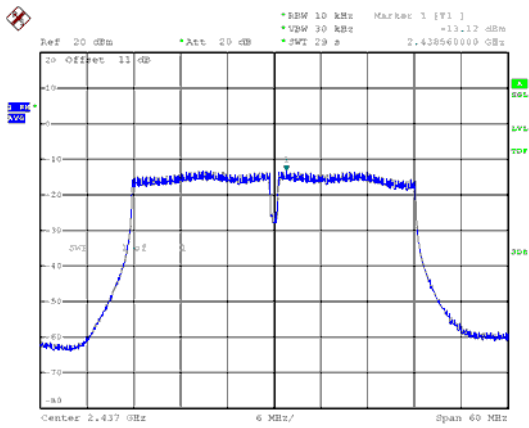
ANT A

Modulation Type: 802.11ac VHT40

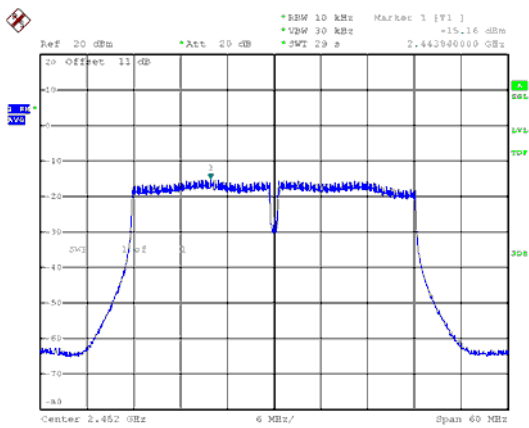
CH03



CH06



CH09



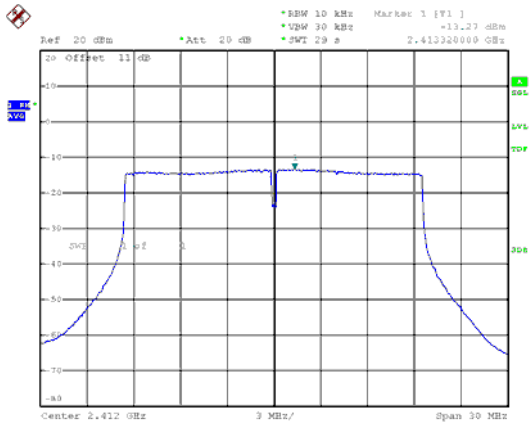




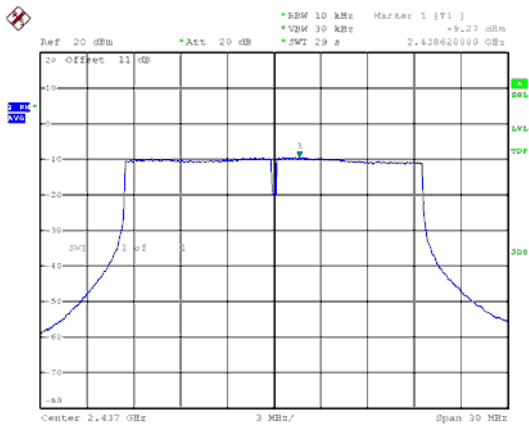
ANT A

Modulation Type: 802.11ax HE20

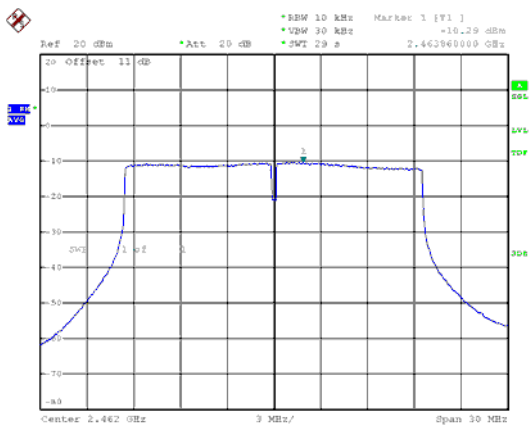
CH01



CH06



CH11

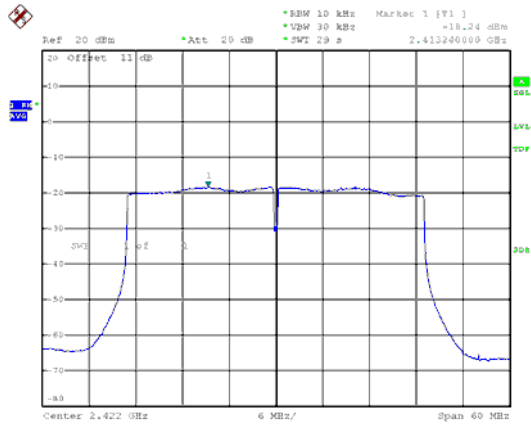




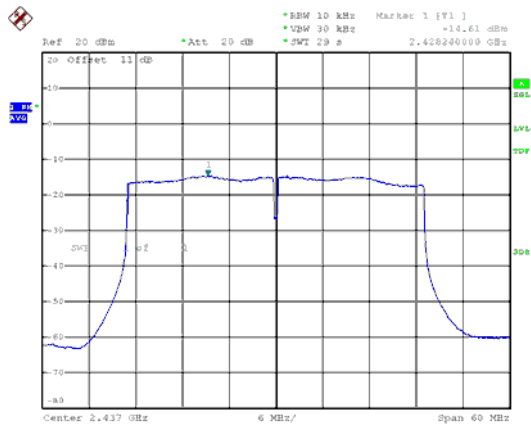
ANT A

Modulation Type: 802.11ax HE40

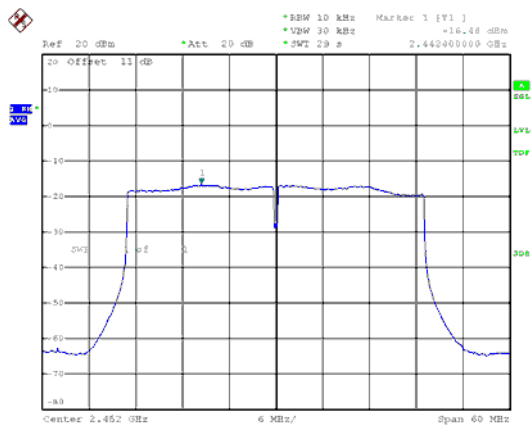
CH03



CH06



CH09

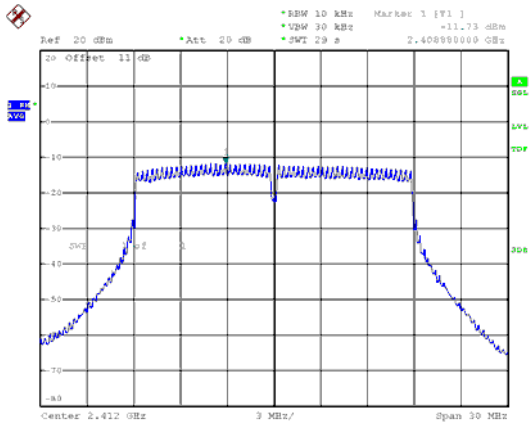




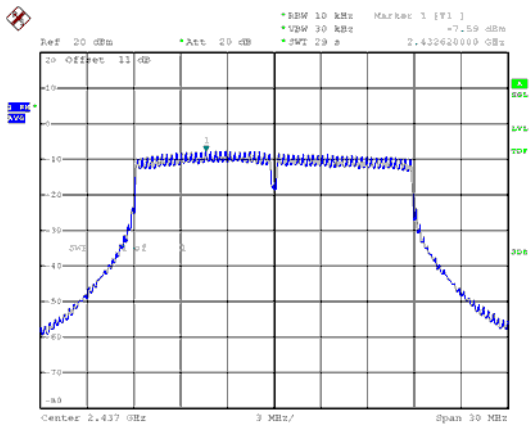
ANT B

Modulation Type: 802.11ac VHT20

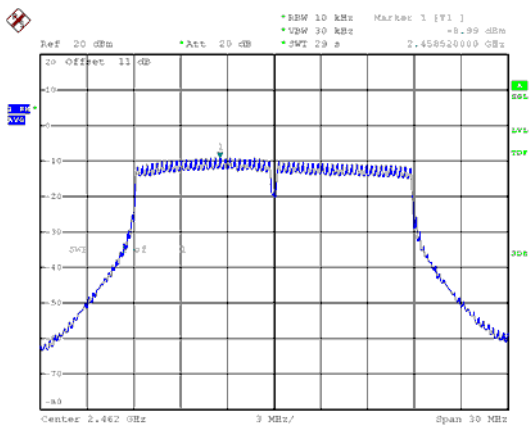
CH01



CH06



CH11

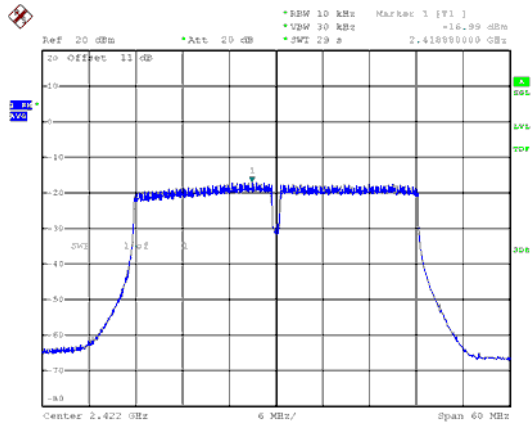




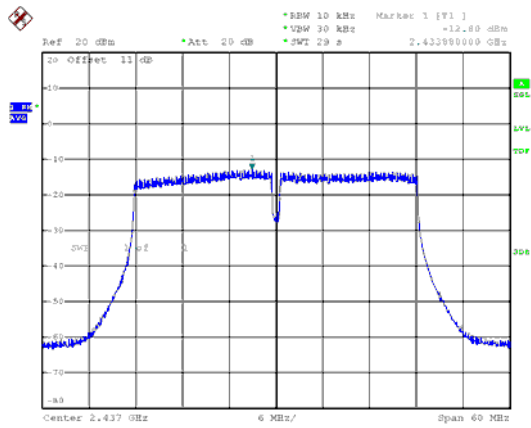
ANT B

Modulation Type: 802.11ac VHT40

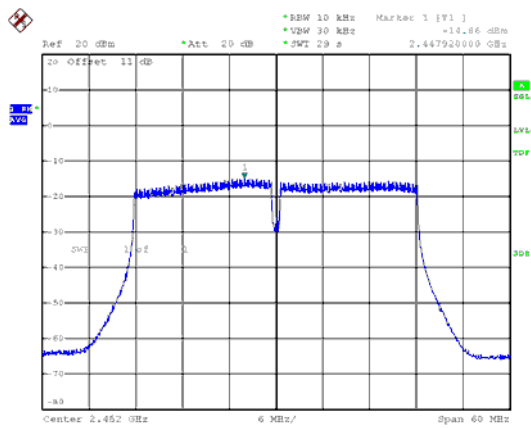
CH03



CH06



CH09

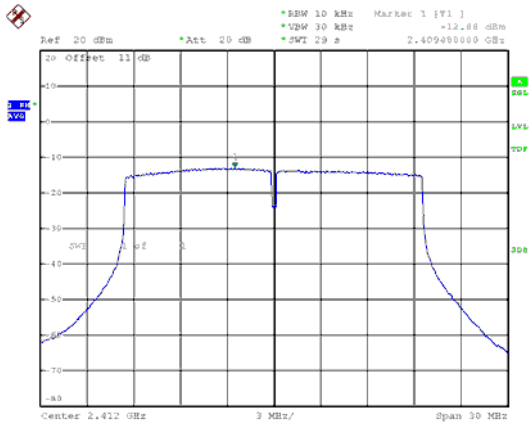




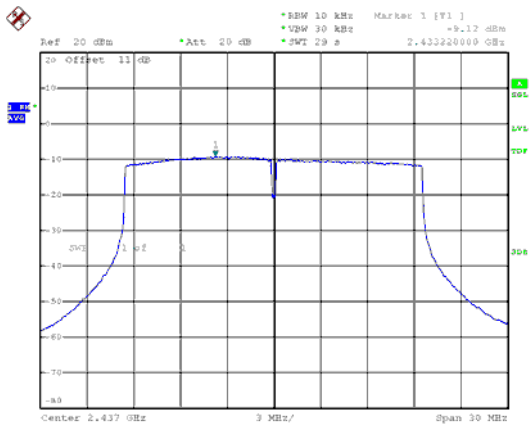
ANT B

Modulation Type: 802.11ax HE20

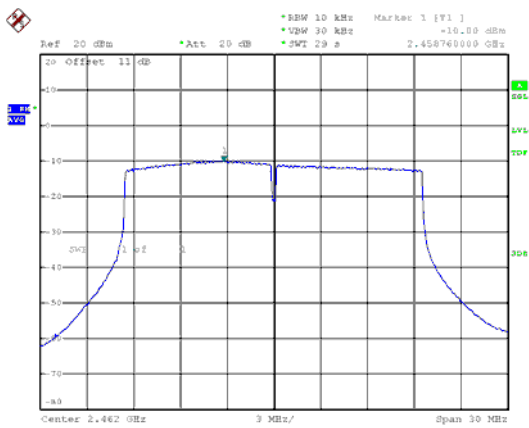
CH01



CH06



CH11

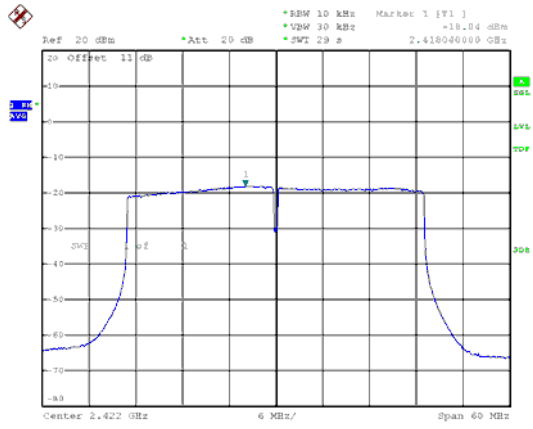




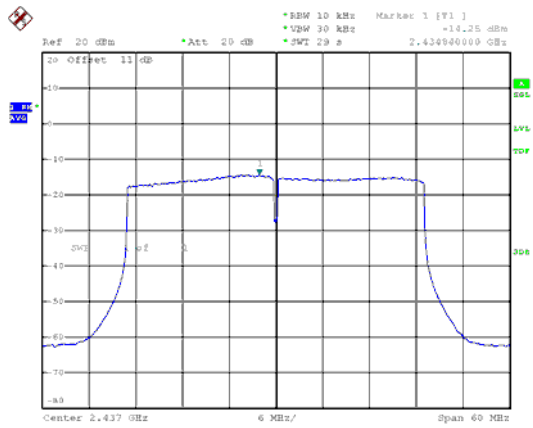
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Modulation Type: 802.11ax HE40

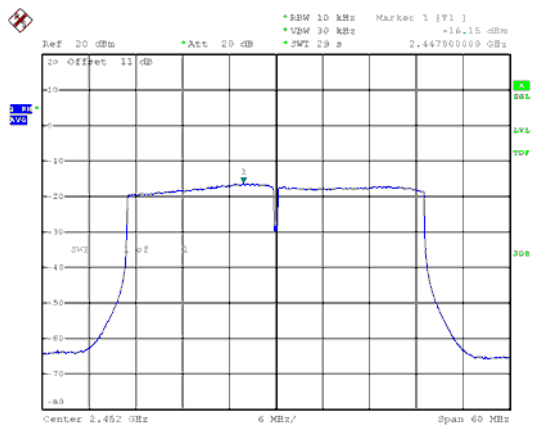
CH03



CH06



CH09

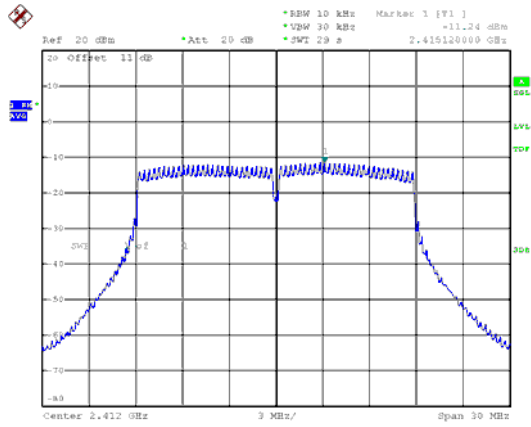




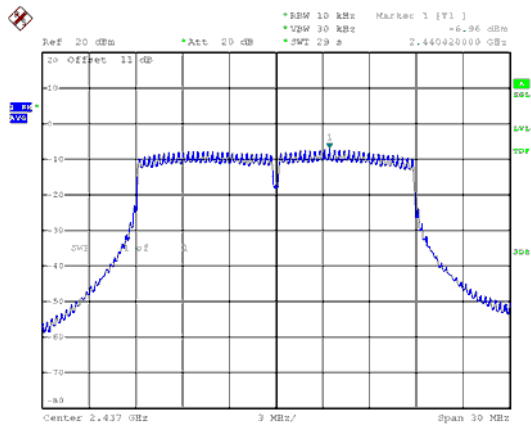
ANT C

Modulation Type: 802.11ac VHT20

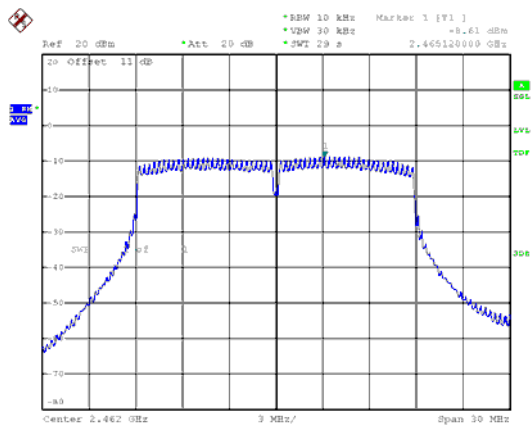
CH01



CH06



CH11

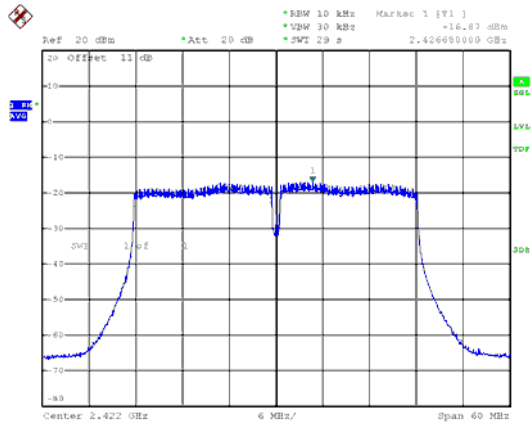




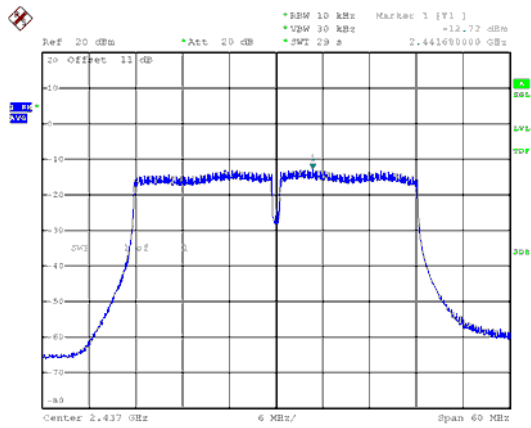
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Modulation Type: 802.11ac VHT40

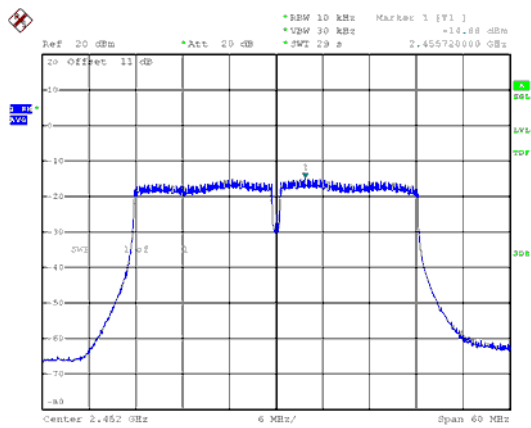
CH03



CH06



CH09



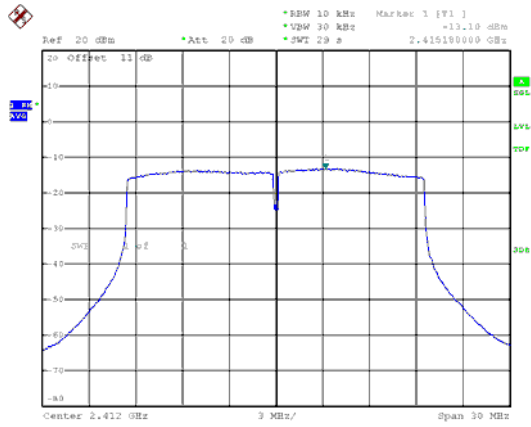




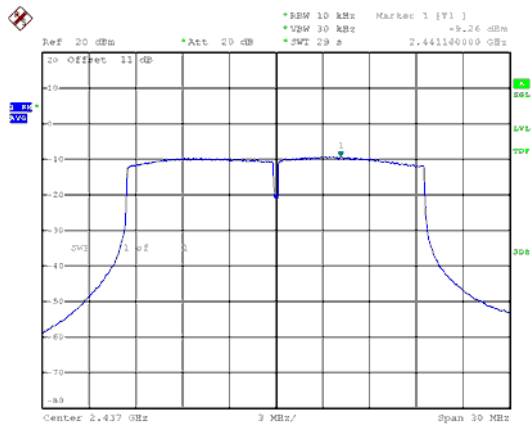
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Modulation Type: 802.11ax HE20

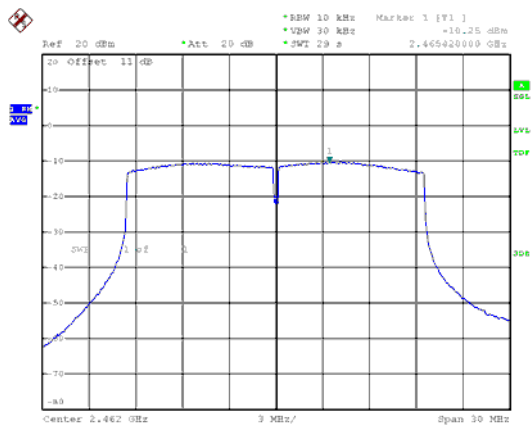
CH01



CH06



CH11

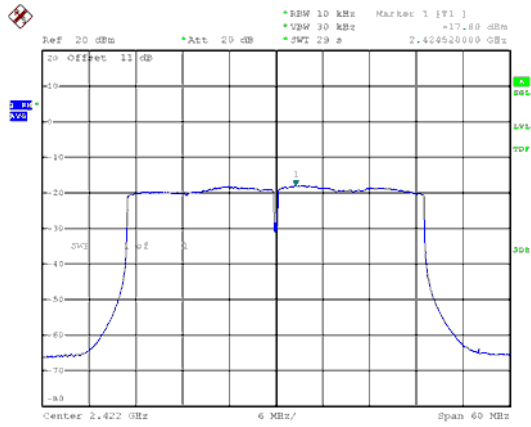




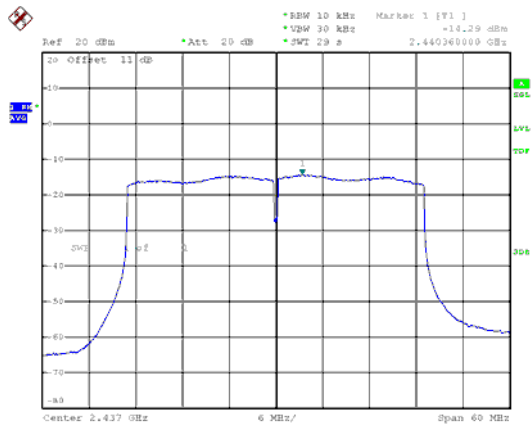
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Modulation Type: 802.11ax HE40

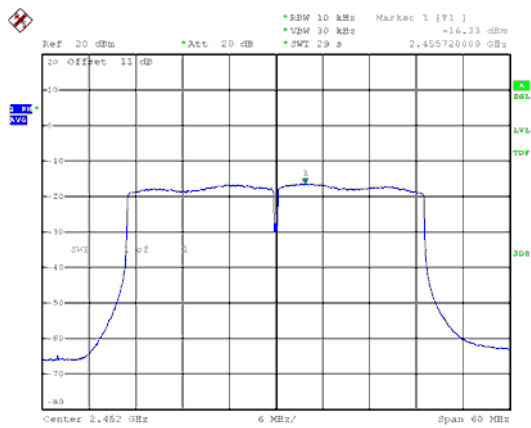
CH03



CH06



CH09

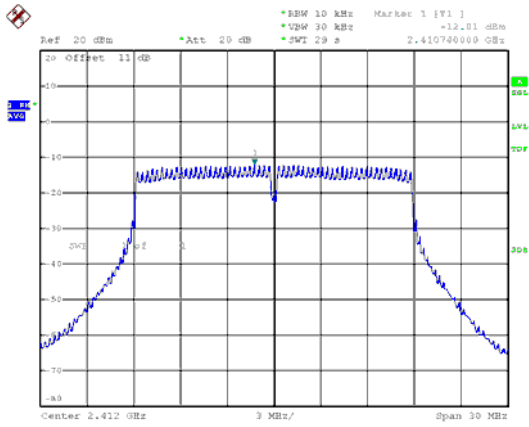




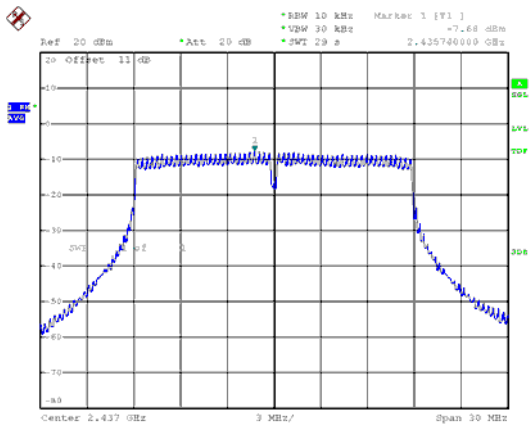
ANT D

Modulation Type: 802.11ac VHT20

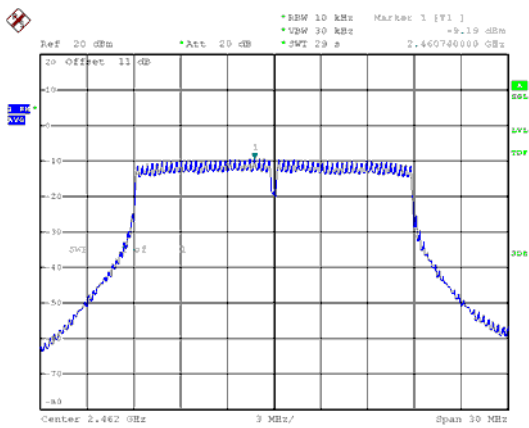
CH01



CH06



CH11

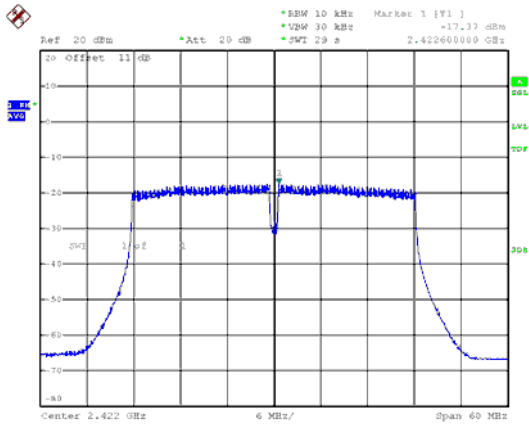




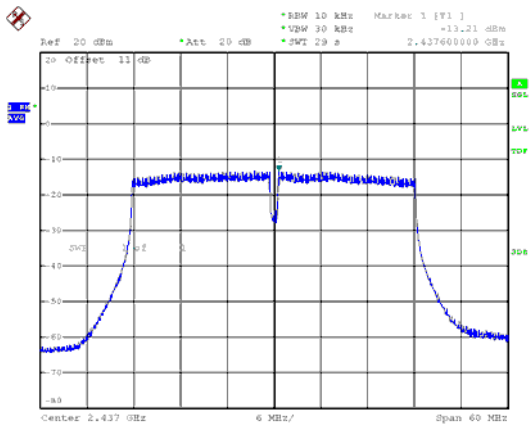
ANT D

Modulation Type: 802.11ac VHT40

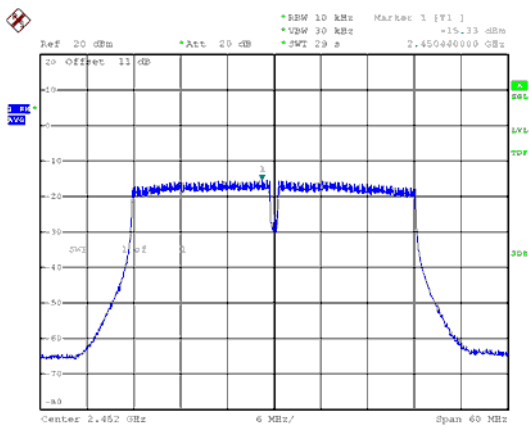
CH03



CH06



CH09

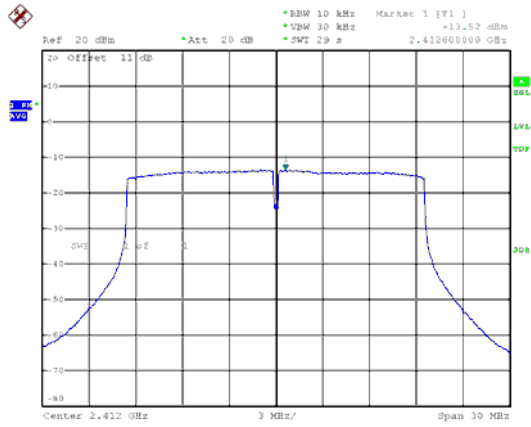




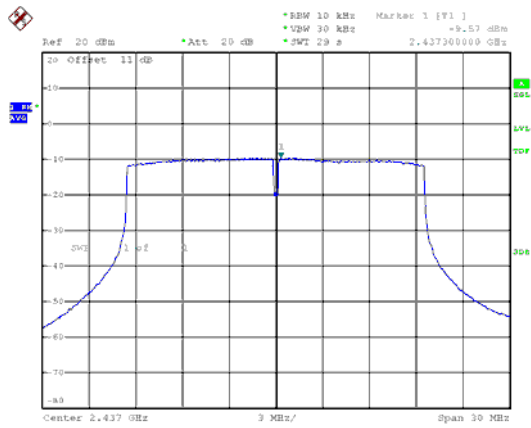
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Modulation Type: 802.11ax HE20

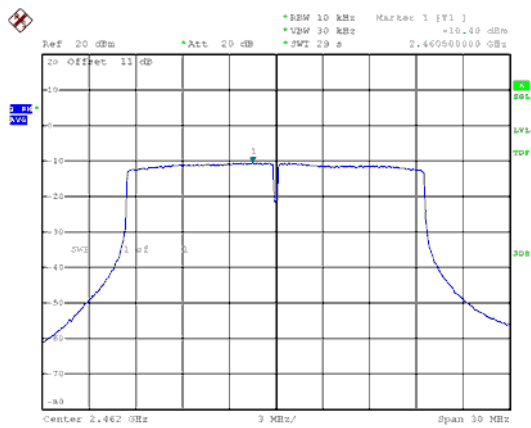
CH01



CH06



CH11

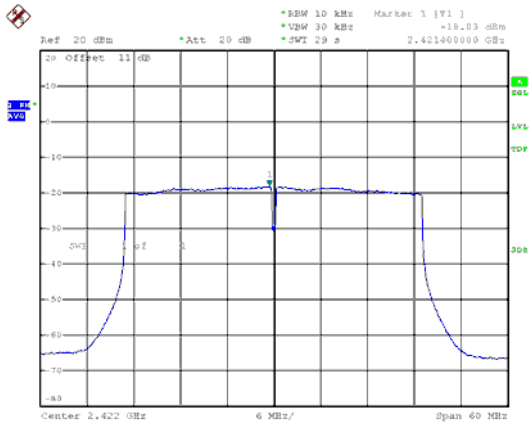




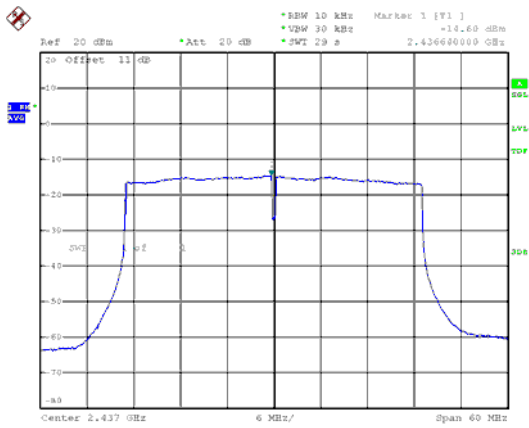
ANT D

Modulation Type: 802.11ax HE40

CH03



CH06



CH09

