



RF TEST REPORT

Report No.: SET2015-11849

Product Name: Wireless AC1200 Dual Band USB 3.0 Adapter

FCC ID: 2AD37JUE304

Model No. : JUE304

Applicant: KaiJet Technology International Limited

Address: 6F.,No113,Zhongcheng Rd.,Tucheng Dist.,New Taipei City
236,Taiwan(R.O.C.)

Dates of Testing: 07/26/2015 — 08/05/2015

Issued by: CCIC-SET

Lab Location: Electronic Testing Building, Shahe Road, Xili, Nanshan
District, Shenzhen, 518055, P. R. China

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Test Report

Product Name : Wireless AC1200 Dual Band USB 3.0 Adapter

Brand Name : N/A

Trade Name : J5 create

Applicant..... : KaiJet Technology International Limited

Applicant Address..... : 6F.,No113,Zhongcheng Rd.,Tucheng Dist.,New Taipei City
236,Taiwan(R.O.C.)

Manufacturer..... : SHENZHEN MTN ELECTRONICS CO.,LTD.


Manufacturer Address : No.5,9 South Futai Road,Pingxi Community ,Longgang
District, Shenzhen City, China

Test Standards..... : 47 CFR Part 15 Subpart E § 15.407
FCC KDB 789033 D02 General UNII Test Procedures
New Rules v01
ANSI C63.10:2009

Test Result : PASS

Tested by : 
2015.08.05

Lu Lei, Test Engineer

Reviewed by..... : 
2015.08.05

Zhu Qi, Senior EGINEER

Approved by : 
2015.08.05

Wu Li'an, Manager



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Change History		
Issue	Date	Reason for change
1.0	2015-08-05	First edition



1. General Information

1.1. EUT Description

EUT Type	Wireless AC1200 Dual Band USB 3.0 Adapter
Hardware Version	MT-WN838N-2.0
Software Version	N/A
EUT supports Radios application	WLAN2.4GHz 802.11b/g/n WLAN5.0GHz 802.11a/n/ac
Frequency Range	5150 ~ 5250MHz / 5725 ~ 5850MHz
Channel Number	5150 MHz ~ 5250MHz: 4 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 2 for 802.11n (HT40), 802.11ac (VHT40) 1 for 802.11ac (VHT80) 5725 MHz ~ 5850MHz: 5 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 2 for 802.11n (HT40), 802.11ac (VHT40) 1 for 802.11ac (VHT80)
Bit Rate of Transmitter	802.11a: up to 54Mbps 802.11n up to 300 Mbps 802.11ac: up to 866.7Mbps
Modulation Type	BPSK / QPSK / 16QAM / 64QAM for OFDM 256QAM for OFDM in 11ac mode only
Antenna Type	PCB Antenna
Antenna Gain	Antenna(A):1.5dBi ; Antenna(B):1.5dBi
Product Type	Refer to note
Output Power (Max.)	802.11a: 18.12dBm 802.11n(HT20): 20.64dBm 802.11n(HT40): 20.25dBm 802.11ac(VHT20): 19.48dBm 802.11ac(VHT40): 19.66dBm 802.11ac(VHT80): 20.12dBm

Note: The EUT incorporates a MIMO function.

Modulation Mode	TX / RX Function
802.11a	1TX / 1RX(SISO)
802.11n (HT20)	1TX / 1RX or 2TX / 2RX(MIMO)
802.11n (HT40)	1TX / 1RX or 2TX / 2RX(MIMO)
802.11ac (VHT20)	1TX / 1RX or 2TX / 2RX(MIMO)
802.11ac (VHT40)	1TX / 1RX or 2TX / 2RX(MIMO)
802.11ac (VHT80)	1TX / 1RX or 2TX / 2RX(MIMO)



Operated band in 5150 MHz ~ 5250MHz

4 channels are provided for 802.11a, 802.11n-HT20, and 802.11ac-VHT20

Channel	Frequency	Channel	Frequency
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz

2 channels are provided for 802.11n-HT40 and 802.11ac-VHT40

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

1 channel are provided for 802.11ac-VHT80

Channel	Frequency	Channel	Frequency
42	5210 MHz	/	/

Operated band in 5725 MHz ~ 5850MHz

5 channels are provided for 802.11a, 802.11n-HT20 and 802.11ac-VHT20

Channel	Frequency	Channel	Frequency
149	5745 MHz	161	5805 MHz
153	5765 MHz	165	5825 MHz
157	5785 MHz	/	/

2 channels are provided for 802.11n-HT40 and 802.11ac-VHT40

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

1 channel are provided for 802.11ac-VHT80

Channel	Frequency	Channel	Frequency
155	5775 MHz	/	/



1.2. Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 15 Subpart E for the EUT FCC Certification:

No.	Identity	Document Title
1	47 CFR Part 15 Subpart E § 15.407	Radio Frequency Devices
2	ANSI C63.10 2009	American National Standard for Testing Unlicensed Wireless Devices

Test detailed items/section required by FCC rules and results are as below:

No.	FCC Rule	Description	Result
1	15.203	Antenna Requirement	PASS
2	15.407(a)	Peak Output Power	PASS
3	15.407(a) 15.407(e)	Emission Bandwidth	PASS
4	15.407(a)	Power spectral density (PSD)	PASS
5	15.207	AC Power Line Conducted Emission	PASS
6	15.209 15.407(b)	Radiated Band Edges and Spurious Emission	PASS

The tests of Conducted Emission and Radiated Emission were performed according to the method of measurements prescribed in ANSI C63.10 2009.

These RF tests were performed according to the method of measurements prescribed in KDB789033 D02 General UNII Test Procedures New Rules v01.



1.3. Test environment and mode

Operating Environment	
Temperature	24°C
Humidity	57 % RH
Atmospheric Pressure	1010 mbar
Test mode:	
Continuously transmitting mode	Keeps the EUT in 100% duty cycle transmitting with modulation in SISO and MIMO mode, duty cycle factor is not required.

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

For Frequency band 5150 ~ 5250 MHz			
Mode	Modulation scheme / bandwidth		
	5180 MHz	5220 MHz	5240 MHz
802.11a	6 Mbps	6 Mbps	6 Mbps
802.11n/ac – HT20	MCS 0	MCS 0	MCS 0
Frequency	5190 MHz		5230 MHz
802.11n/ac – HT40	MCS 0		MCS 0
Frequency	5210 MHz		
802.11ac – VHT80	MCS 0		

For Frequency band 5725 ~ 5850 MHz			
Mode	Modulation scheme / bandwidth		
	5745 MHz	5785 MHz	5825 MHz
802.11a	6 Mbps	6 Mbps	6 Mbps
802.11n/ac – HT20	MCS 0	MCS 0	MCS 0
Frequency	5755 MHz		5795 MHz
802.11n/ac – HT40	MCS 0		MCS 0
Frequency	5775 MHz		
802.11ac – VHT80	MCS 0		



1.4. Table for Supporting Units

No.	Equipment	Brand Name	Model Name	Manufacturer	Serial No.	Note
1	Notebook	DELL	PP11L	DELL	H5914A03	FCC DOC

1.5. Laboratory Facilities

CNAS-Lab Code: L1659

CCIC Southern Electronic Product Testing (Shenzhen) Co., Ltd. CCIC is a third party testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L1659. A 12.8*6.8*6.4 (m) fully anechoic chamber was used for the radiated spurious emissions test.

FCC-Registration No.: 406086

CCIC Southern Electronic Product Testing (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files. Registration 406086, valid time is until October 28, 2017.

IC-Registration No.: 11185A-1

CCIC Southern Electronic Product Testing (Shenzhen) Co., Ltd. EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 11185A-1 on July. 15, 2013, valid time is until July. 15, 2016.



2. 47 CFR Part 15C Requirements

2.1. Antenna requirement

2.1.1. Applicable Standard

According to FCC 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. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

And according to FCC 47 CFR Section 15.247(c), 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.

2.1.2. Antenna Information

Antenna Category: internal antenna

An internal antenna was soldered to the antenna port of EUT via an adaptor cable, can't be removed.

Antenna General Information:

Antenna	EUT	Ant. Type	Gain(dBi)	A+B Gain(dBi)
A	Wireless AC1200 Dual Band USB 3.0 Adapter	PCB	1.5	4.51
B	Wireless AC1200 Dual Band USB 3.0 Adapter	PCB	1.5	

2.1.3. Result: comply

The EUT has a permanently and irreplaceable attached antenna. Please refer to the EUT internal photos.

2.2. Peak Output Power

2.2.1. Limit of Peak Output Power

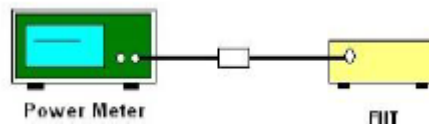
Band	EUT Category	Limit
U-NII-1	<input type="checkbox"/> Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p \leq 125mW(21dBm) at any elevation angle above 30 degrees as measured from the horizon)
	<input type="checkbox"/> Fixed point-to-point Access device	1 Watt (30 dBm)
	<input type="checkbox"/> Indoor Access Point	1 Watt (30 dBm)
	<input checked="" type="checkbox"/> Mobile and portable client device	250mW (24 dBm)
U-NII-2A	<input type="checkbox"/>	250mW (24 dBm) or 11dBm+10logB*
U-NII-2C	<input type="checkbox"/>	250mW (24 dBm) or 11dBm+10logB*
U-NII-3	<input checked="" type="checkbox"/>	1 Watt (30 dBm)

B* is the 26 dB emission bandwidth in megahertz.

2.2.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

2.2.3. Test Setup



2.2.4. Test Procedures

1. The testing follows the Measurement Procedure of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.
2. The RF output of EUT was connected to the power meter by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. Measure the conducted output power and record the results in the test report.

2.2.5. Test Result

Test results of band U-NII-1 (5150 ~ 5250 MHz)

802.11a mode						
Test Frequency (MHz)	Conducted Output Power (dBm)		Limit (dBm)	Result		
	Antenna A	Antenna B				
5180	17.27	17.45	24	PASS		
5220	17.43	17.51	24	PASS		
5240	17.50	17.55	24	PASS		
802.11n-HT20 mode						
Test Frequency (MHz)	Conducted Output Power (dBm)			Limit (dBm)	Result	
	Antenna A	Antenna B	Total			
5180	16.92	17.05	20.00	24	PASS	
5220	16.78	16.91	19.87	24	PASS	
5240	16.52	16.79	19.67	24	PASS	
802.11n-HT40 mode						
Test Frequency (MHz)	Conducted Output Power (dBm)			Limit (dBm)	Result	
	Antenna A	Antenna B	Total			
5190	16.73	16.85	19.80	24	PASS	
5230	16.76	16.79	19.79	24	PASS	
802.11ac-VHT20 mode						
Test Frequency (MHz)	Conducted Output Power (dBm)			Limit (dBm)	Result	
	Antenna A	Antenna B	Total			
5180	16.41	16.53	19.48	24	PASS	
5220	16.23	16.39	19.32	24	PASS	
5240	16.33	16.42	19.39	24	PASS	
802.11ac-VHT40 mode						
Test Frequency (MHz)	Conducted Output Power (dBm)			Limit (dBm)	Result	
	Antenna A	Antenna B	Total			
5190	16.52	16.67	19.60	24	PASS	
5230	16.61	16.72	19.66	24	PASS	
802.11ac-VHT80 mode						
Test Frequency (MHz)	Conducted Output Power (dBm)			Limit (dBm)	Result	
	Antenna A	Antenna B	Total			
5210	16.95	17.02	19.98	24	PASS	

Test results of band U-NII-3 (5725 ~ 5850 MHz)

802.11a mode						
Test Frequency (MHz)	Conducted Output Power (dBm)		Limit (dBm)	Result		
	Antenna A	Antenna B				
5745	18.05	18.12	30	PASS		
5785	17.94	18.03	30	PASS		
5825	17.97	17.89	30	PASS		
802.11n-HT20 mode						
Test Frequency (MHz)	Conducted Output Power (dBm)			Limit (dBm)	Result	
	Antenna A	Antenna B	Total			
5745	17.78	17.48	20.64	30	PASS	
5785	17.53	17.19	20.37	30	PASS	
5825	17.49	17.27	20.39	30	PASS	
802.11n-HT40 mode						
Test Frequency (MHz)	Conducted Output Power (dBm)			Limit (dBm)	Result	
	Antenna A	Antenna B	Total			
5755	17.12	17.08	20.11	30	PASS	
5795	17.35	17.13	20.25	30	PASS	
802.11ac-VHT20 mode						
Test Frequency (MHz)	Conducted Output Power (dBm)			Limit (dBm)	Result	
	Antenna A	Antenna B	Total			
5745	16.52	16.27	19.40	30	PASS	
5785	16.29	16.13	19.22	30	PASS	
5825	16.41	16.25	19.34	30	PASS	
802.11ac-VHT40 mode						
Test Frequency (MHz)	Conducted Output Power (dBm)			Limit (dBm)	Result	
	Antenna A	Antenna B	Total			
5755	16.43	16.08	19.27	30	PASS	
5795	16.37	16.17	19.28	30	PASS	
802.11ac-VHT80 mode						
Test Frequency (MHz)	Conducted Output Power (dBm)			Limit (dBm)	Result	
	Antenna A	Antenna B	Total			
5775	17.09	17.13	20.12	30	PASS	

Note: All data rates are testing, but the worse case data rate was record in the report.

2.3. Emission Bandwidth

2.3.1. Limit of Bandwidth

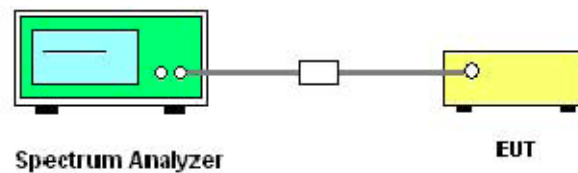
There is no limit bandwidth for band U-NII-1, U-NII-2-A and U-NII-2-C.

The minimum of 6dB bandwidth measurement is 0.5 MHz for U-NII-3.

2.3.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

2.3.3. Test Setup



2.3.4. Test Procedures

1. The testing follows the Measurement Procedure of FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. Set to the maximum power setting and enable the EUT transmit continuously.
4. For 26dB bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) = approximately 1%EBW, VBW > RBW, Detector = Peak, Trace mode = max hold
Span > 26 dB bandwidth and Sweep time = auto
5. Mark the peak frequency and -26dB (upper and lower) frequency.
6. For 6 Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) = 100kHz
VBW = 300 kHz, Detector = Peak, Trace mode = max hold
7. Mark the peak frequency and -6dB (upper and lower) frequency.
8. Measure and record the worst results in the test report.

2.3.5. Test Results Bandwidth

Test results of band U-NII-1 (5150 ~ 5250 MHz)

802.11a mode		
Test Frequency (MHz)	26dB Bandwidth (MHz)	
	Antenna A	Antenna B
5180	22.56	23.04
5220	21.96	23.22
5240	22.14	23.04
802.11n-HT20 mode		
Test Frequency (MHz)	26dB Bandwidth (MHz)	
	Antenna A	Antenna B
5180	22.50	23.40
5220	22.50	23.64
5240	22.44	23.58
802.11n-HT40 mode		
Test Frequency (MHz)	26dB Bandwidth (MHz)	
	Antenna A	Antenna B
5190	43.32	44.16
5230	43.80	43.32
802.11ac-VHT20 mode		
Test Frequency (MHz)	26dB Bandwidth (MHz)	
	Antenna A	Antenna B
5180	22.02	23.40
5220	21.90	22.98
5240	21.90	23.16
802.11ac-VHT40 mode		
Test Frequency (MHz)	26dB Bandwidth (MHz)	
	Antenna A	Antenna B
5190	43.16	43.22
5230	43.32	43.20
802.11ac-VHT80 mode		
Test Frequency (MHz)	26dB Bandwidth (MHz)	
	Antenna A	Antenna B
5210	84.48	84.72



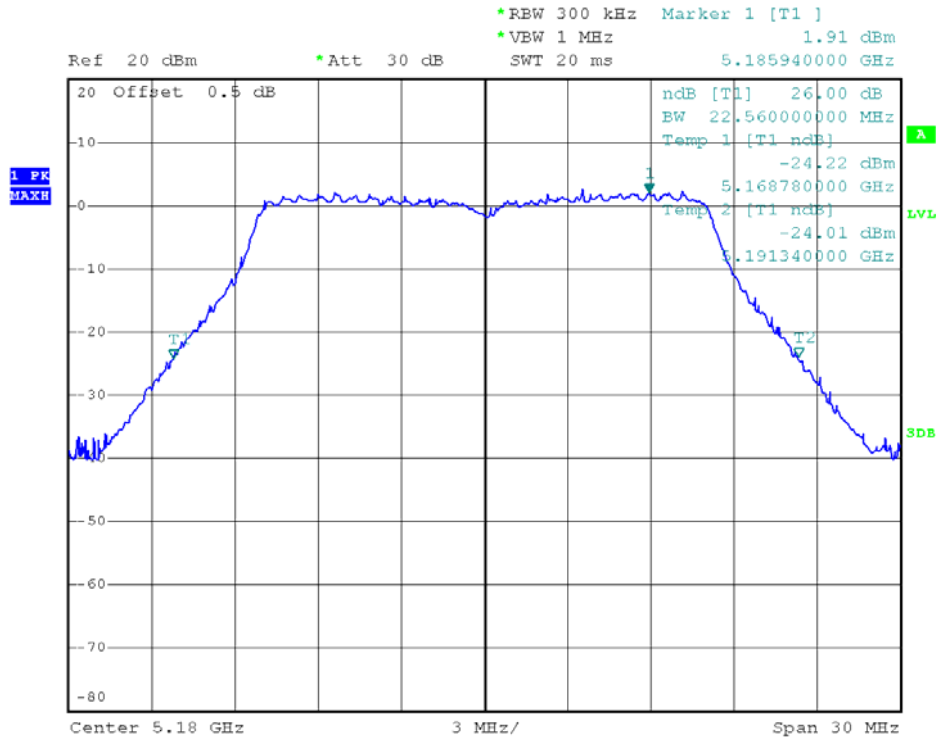
Test results of band U-NII-3 (5725 ~ 5850 MHz)

802.11a mode		
Test Frequency (MHz)	6dB Bandwidth (MHz)	
	Antenna A	Antenna B
5745	16.44	16.44
5785	16.44	16.38
5825	16.38	16.44
802.11n-HT20 mode		
Test Frequency (MHz)	6dB Bandwidth (MHz)	
	Antenna A	Antenna B
5745	17.64	17.64
5785	17.58	17.64
5825	17.58	17.64
802.11n-HT40 mode		
Test Frequency (MHz)	6dB Bandwidth (MHz)	
	Antenna A	Antenna B
5755	36.12	36.36
5795	36.08	36.32
802.11ac-VHT20 mode		
Test Frequency (MHz)	6dB Bandwidth (MHz)	
	Antenna A	Antenna B
5745	16.44	16.44
5785	16.44	16.44
5825	16.38	16.44
802.11ac-VHT40 mode		
Test Frequency (MHz)	6dB Bandwidth (MHz)	
	Antenna A	Antenna B
5755	36.20	36.20
5795	36.24	36.36
802.11ac-VHT80 mode		
Test Frequency (MHz)	6dB Bandwidth (MHz)	
	Antenna A	Antenna B
5775	76.36	75.96

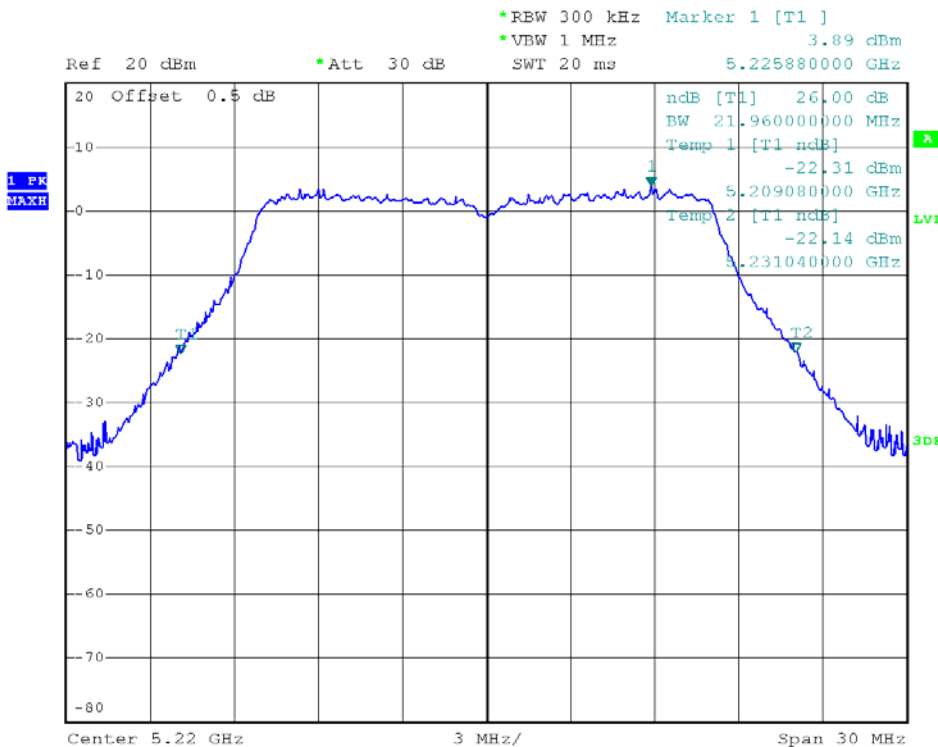


2.3.6. Test Results (plots) of Bandwidth

Antenna A - 802.11a – 5180MHz

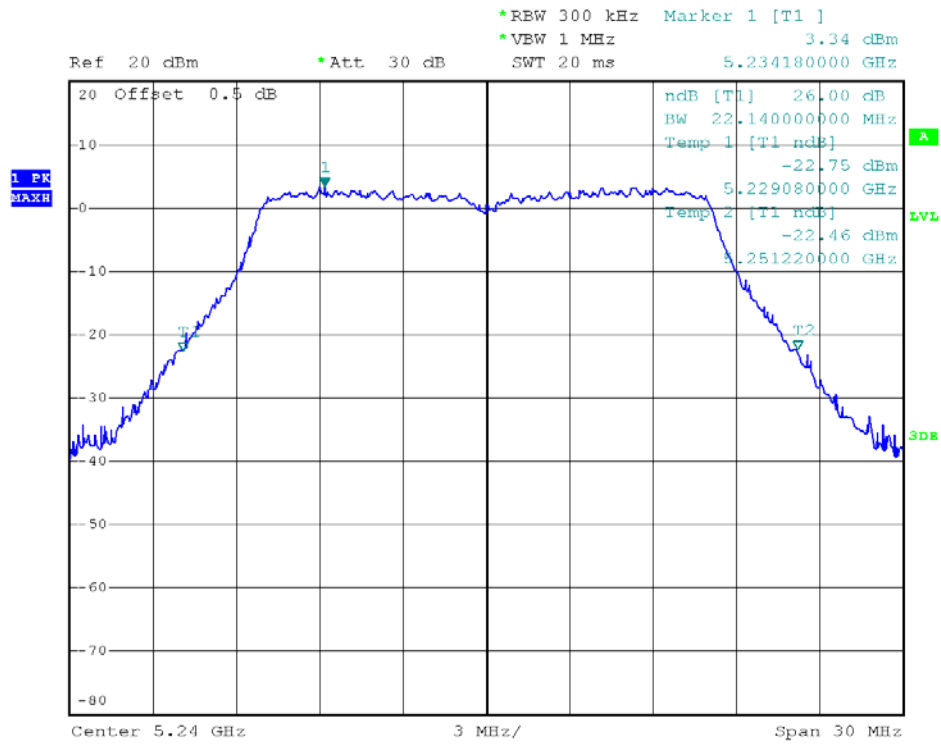


Antenna A - 802.11a – 5220MHz

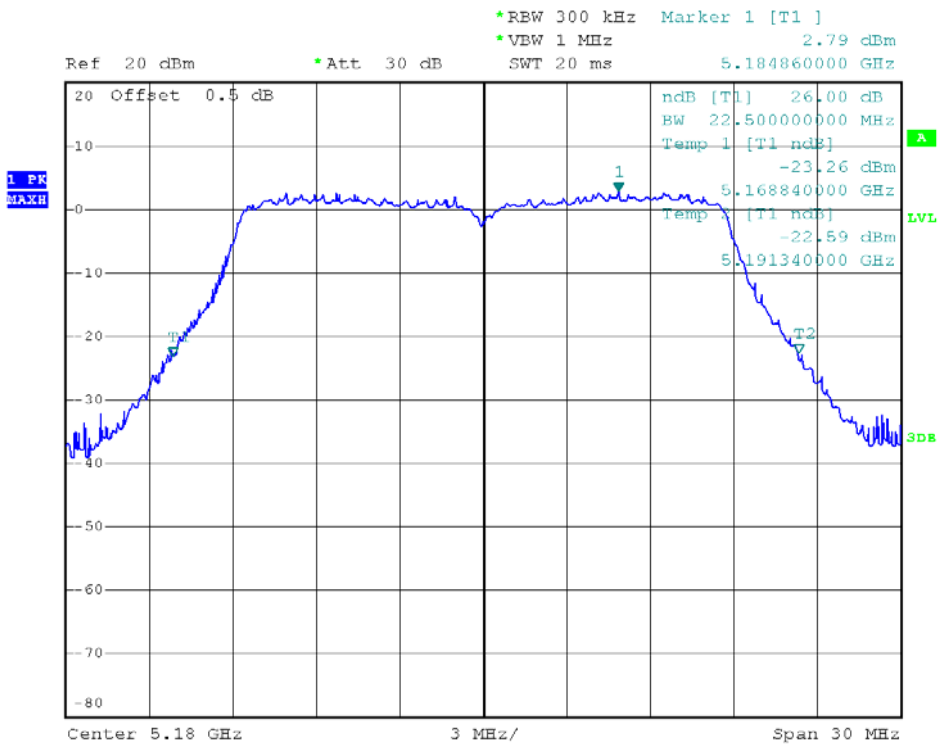




Antenna A - 802.11a – 5240MHz

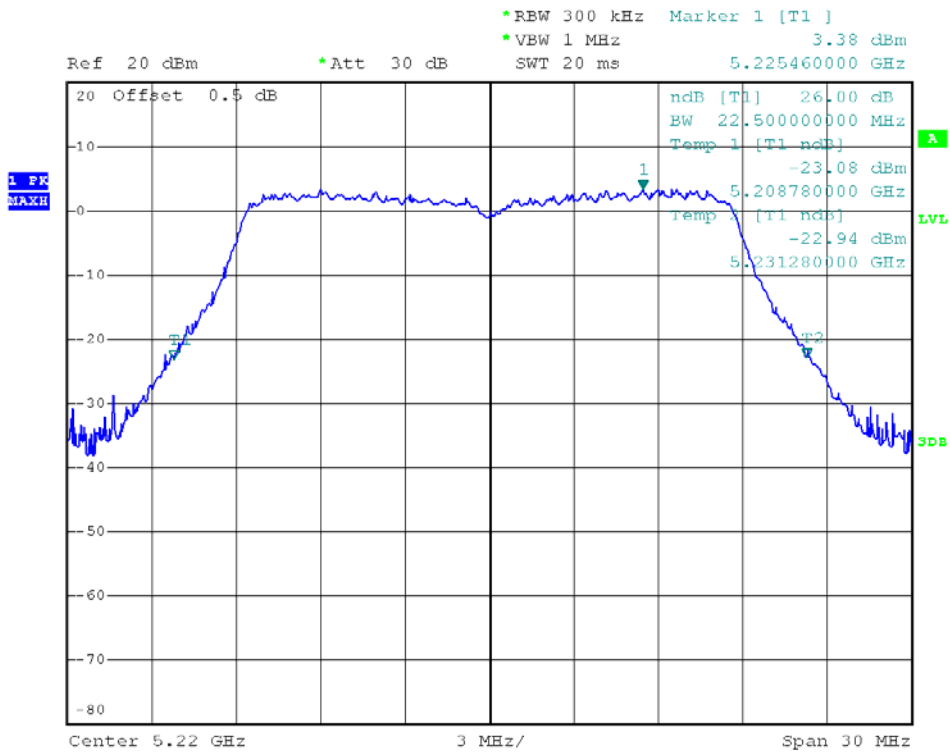


Antenna A - 802.11n-HT20 – 5180MHz

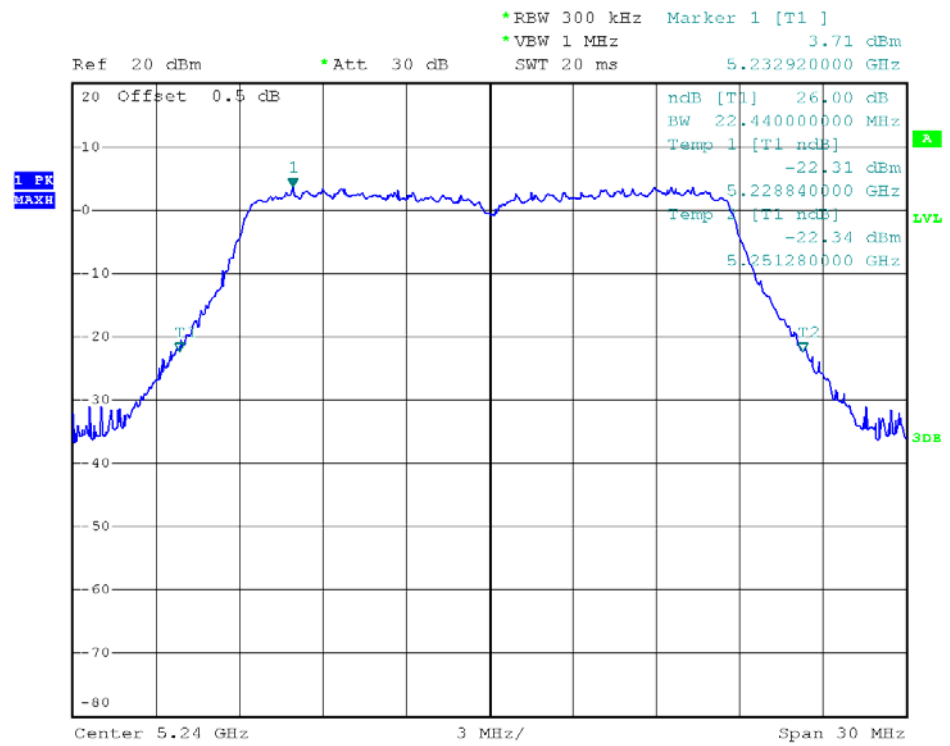




Antenna A - 802.11n-HT20 – 5220MHz

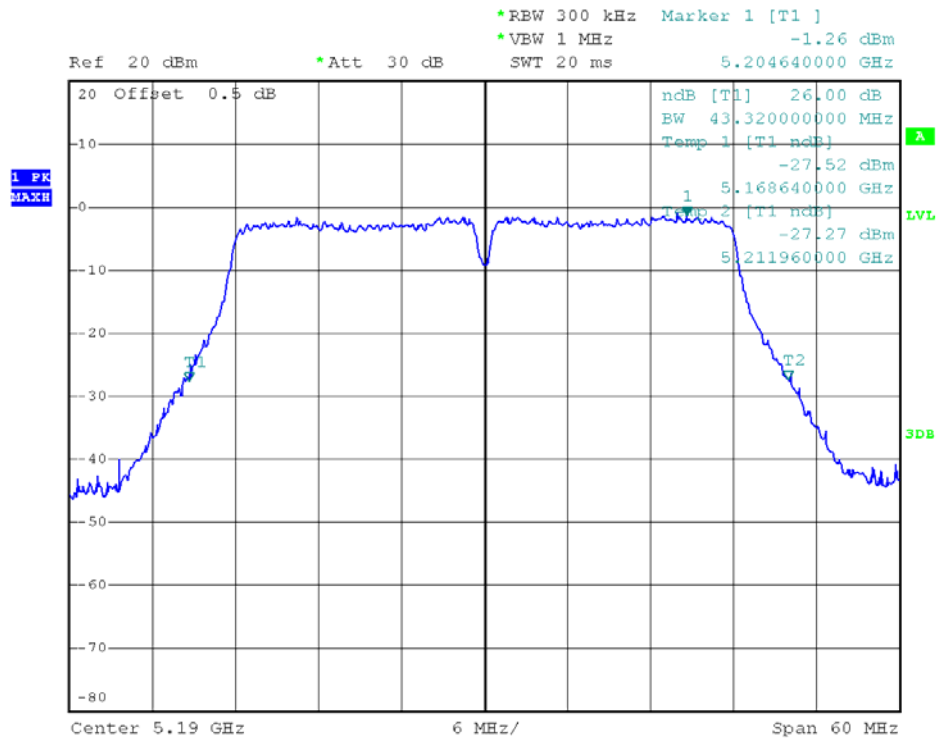


Antenna A - 802.11n-HT20 – 5240MHz

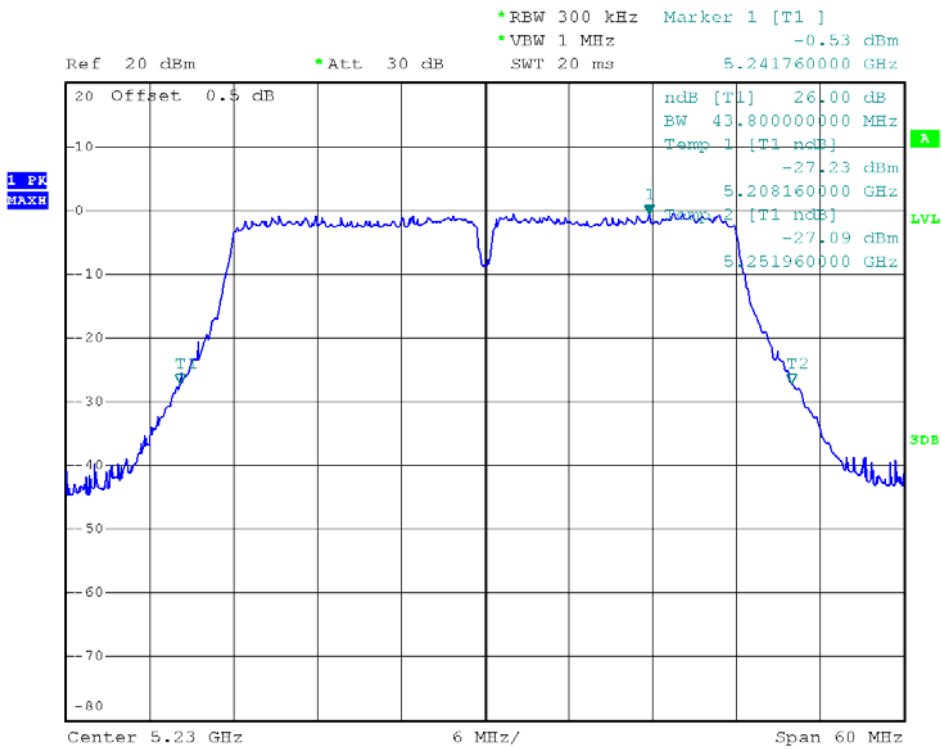




Antenna A - 802.11n-HT40 – 5190MHz

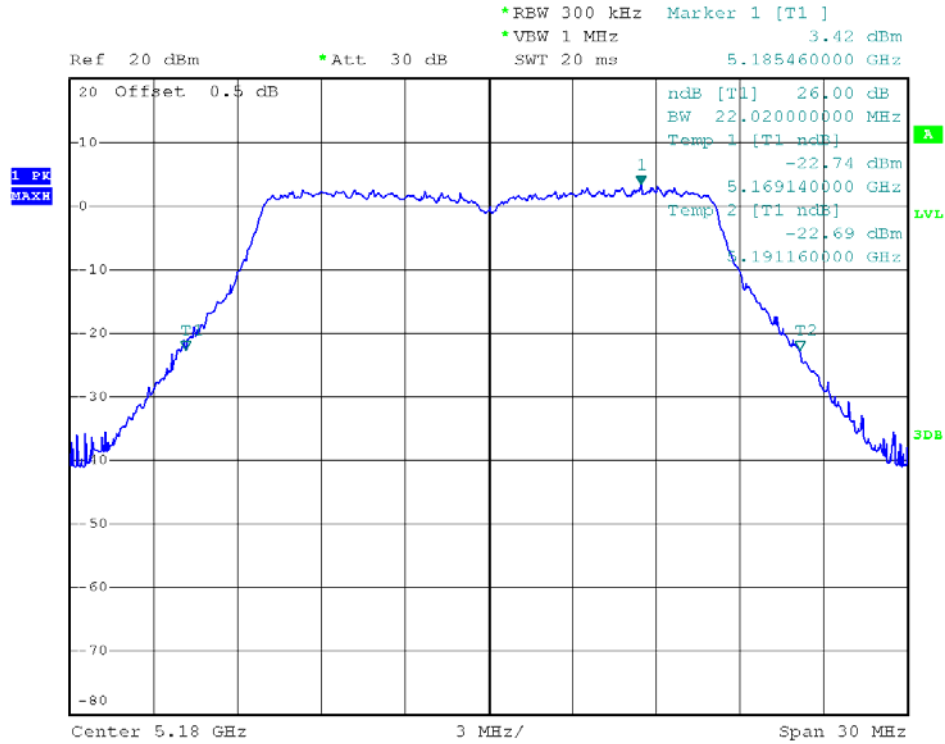


Antenna A - 802.11n-HT40 – 5230MHz

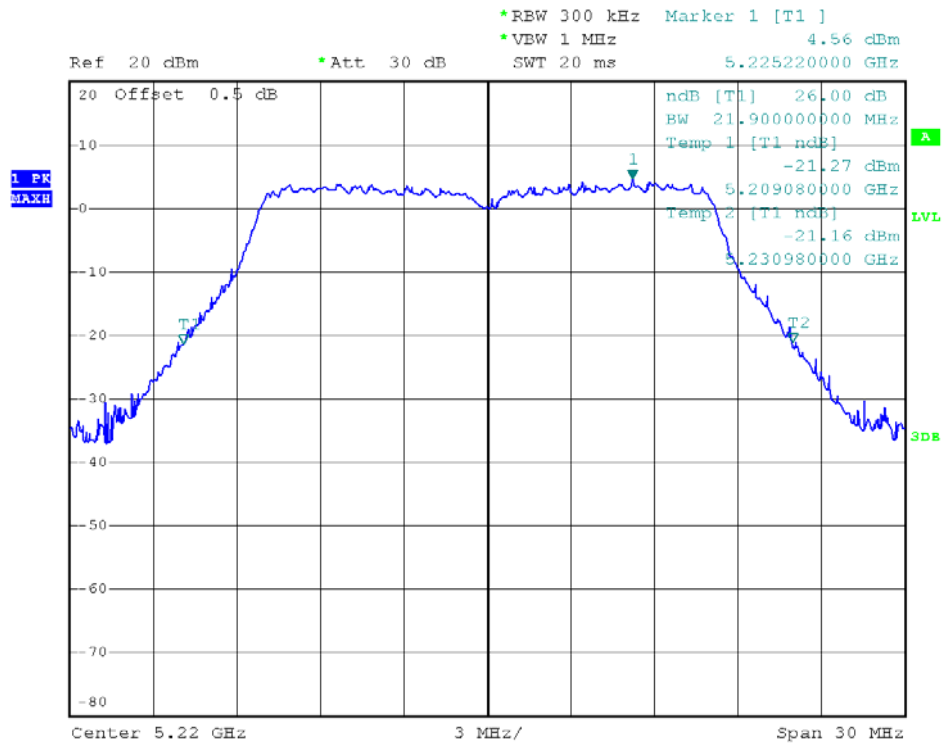




Antenna A - 802.11ac-VHT20 – 5180MHz

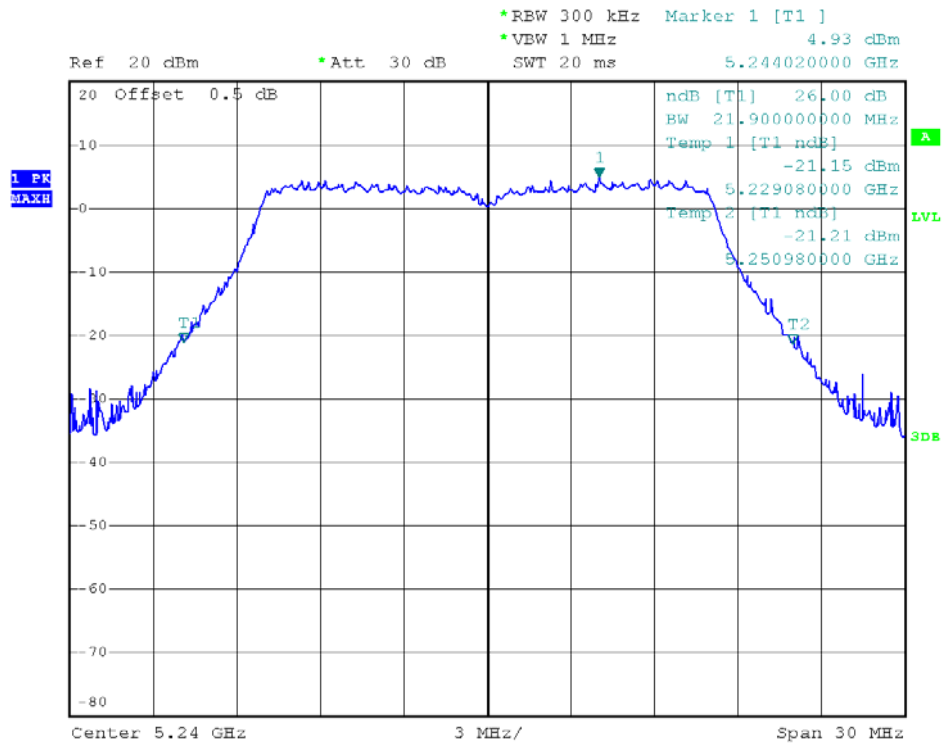


Antenna A - 802.11ac-VHT20 – 5220MHz

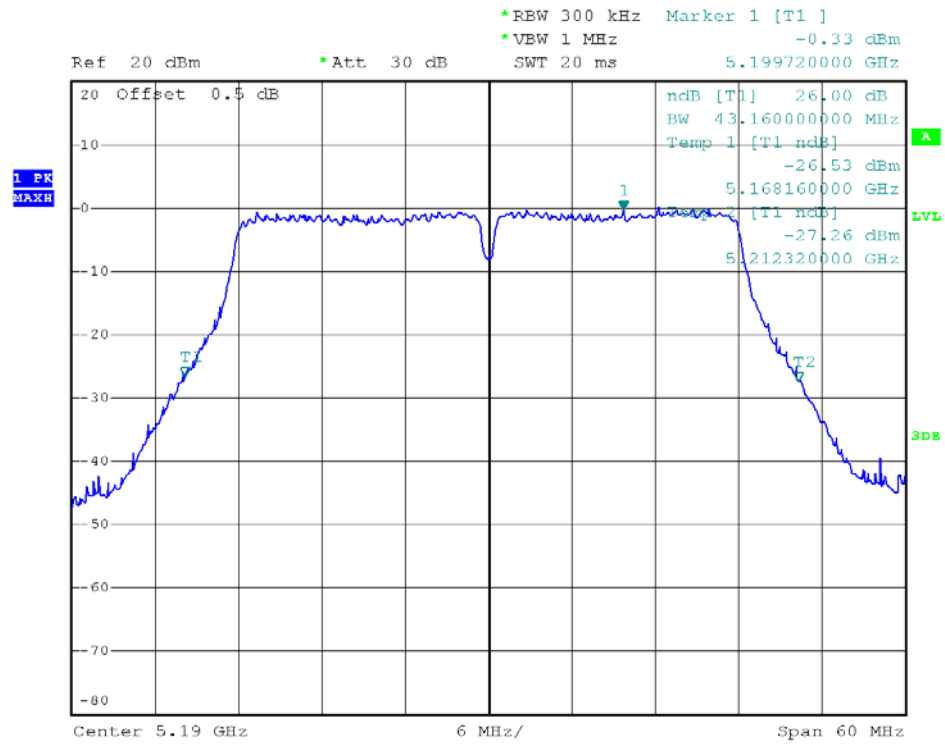




Antenna A - 802.11ac-VHT20 – 5240MHz

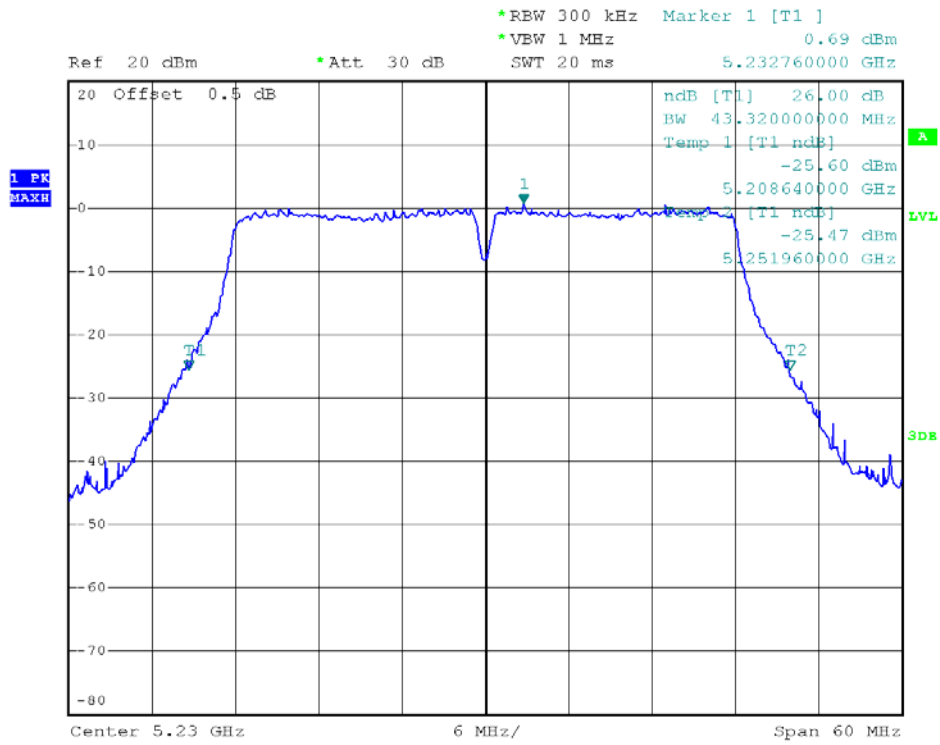


Antenna A - 802.11ac-VHT40 – 5190MHz

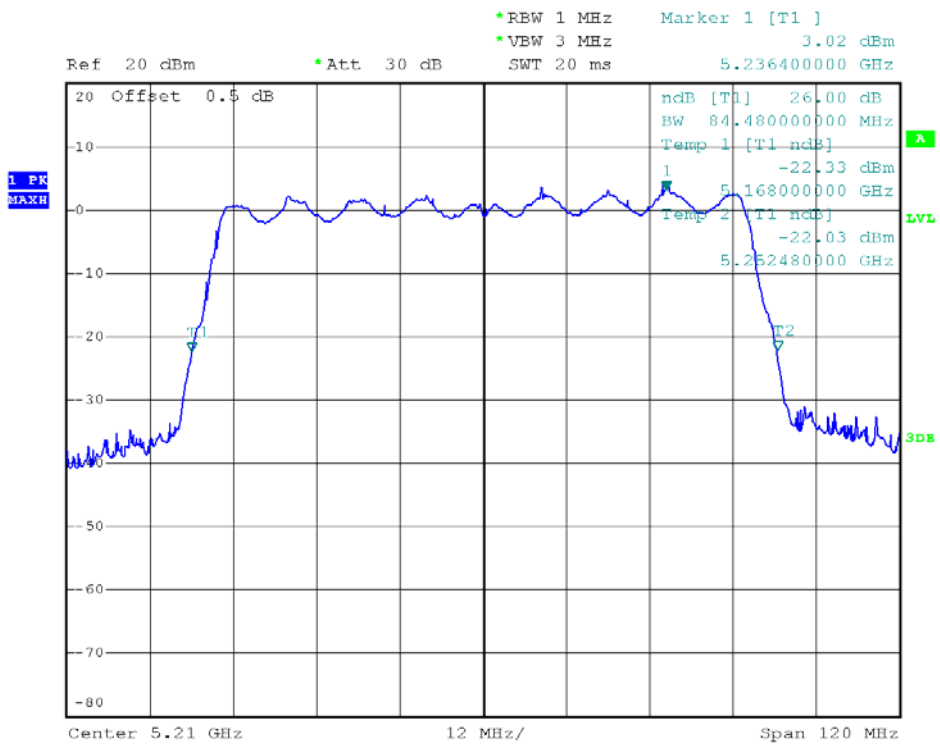




Antenna A - 802.11ac-VHT40 – 5230MHz

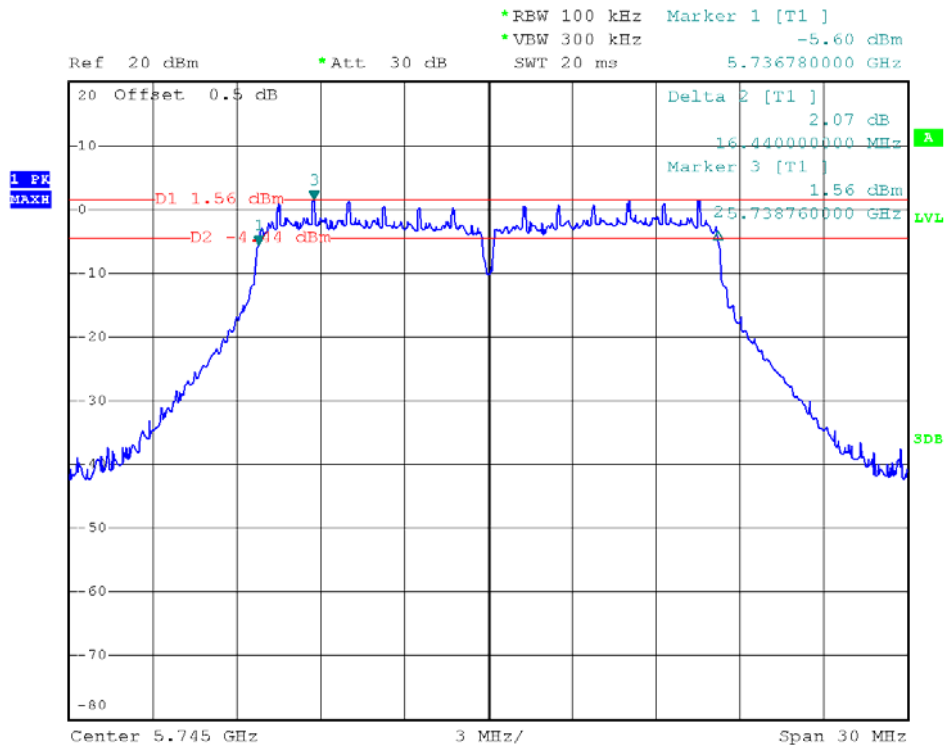


Antenna A - 802.11ac-VHT80 – 5210MHz

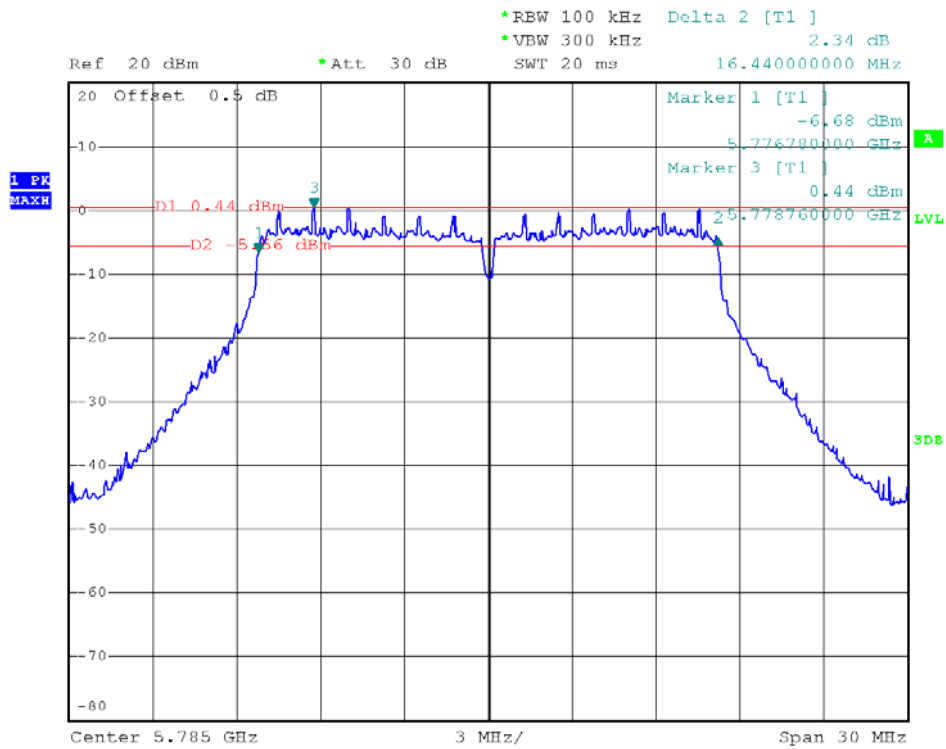




Antenna A - 802.11a – 5745MHz

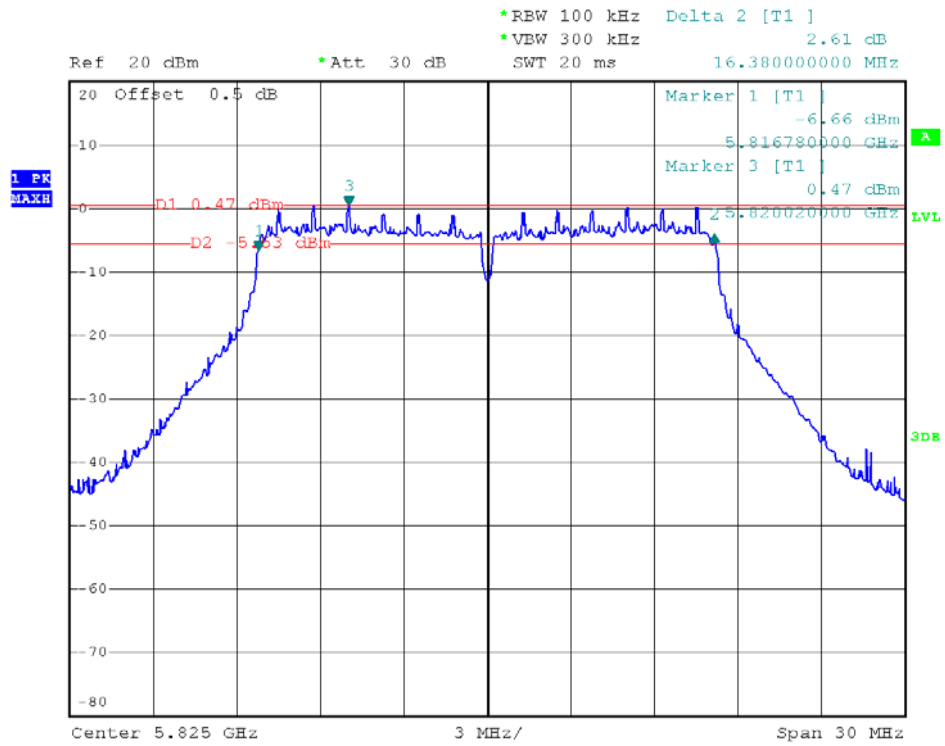


Antenna A - 802.11a – 5785MHz

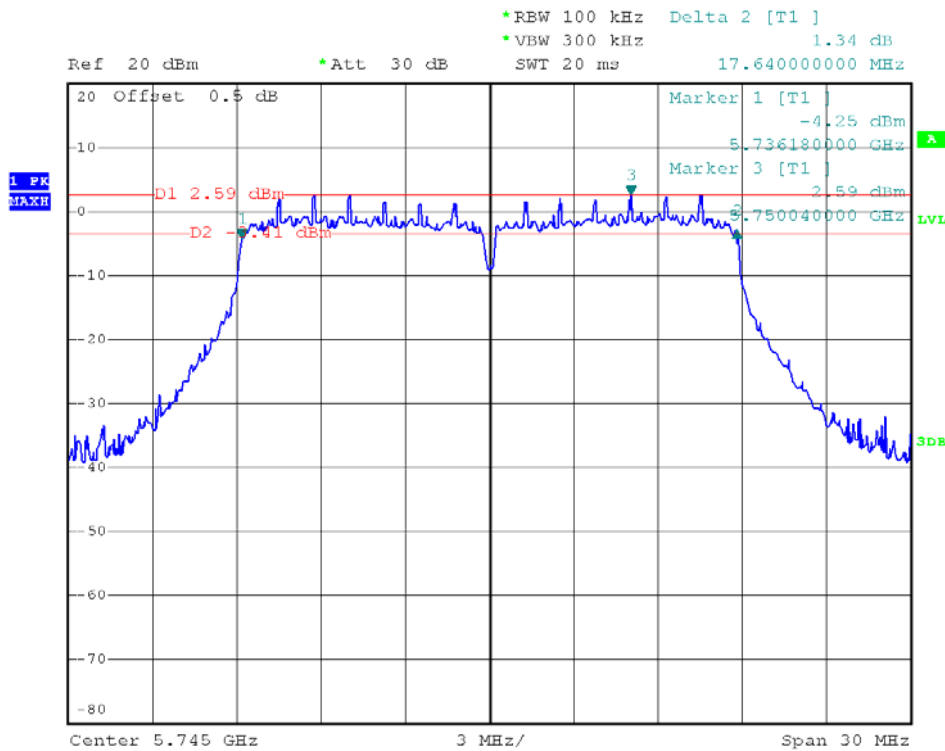




Antenna A - 802.11a – 5825MHz

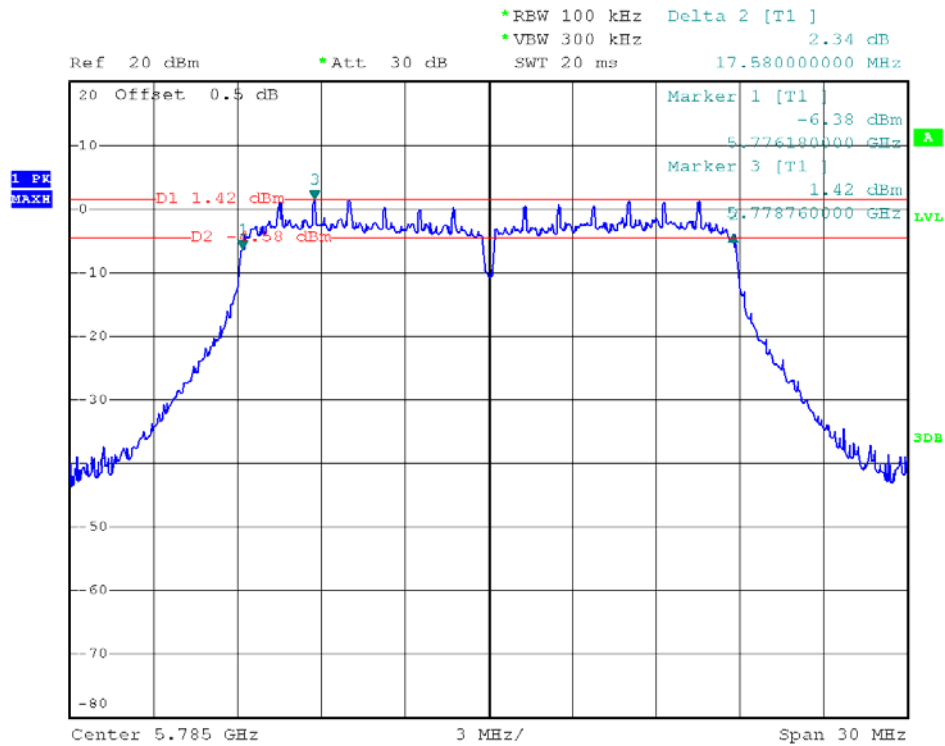


Antenna A - 802.11n-HT20 – 5745MHz

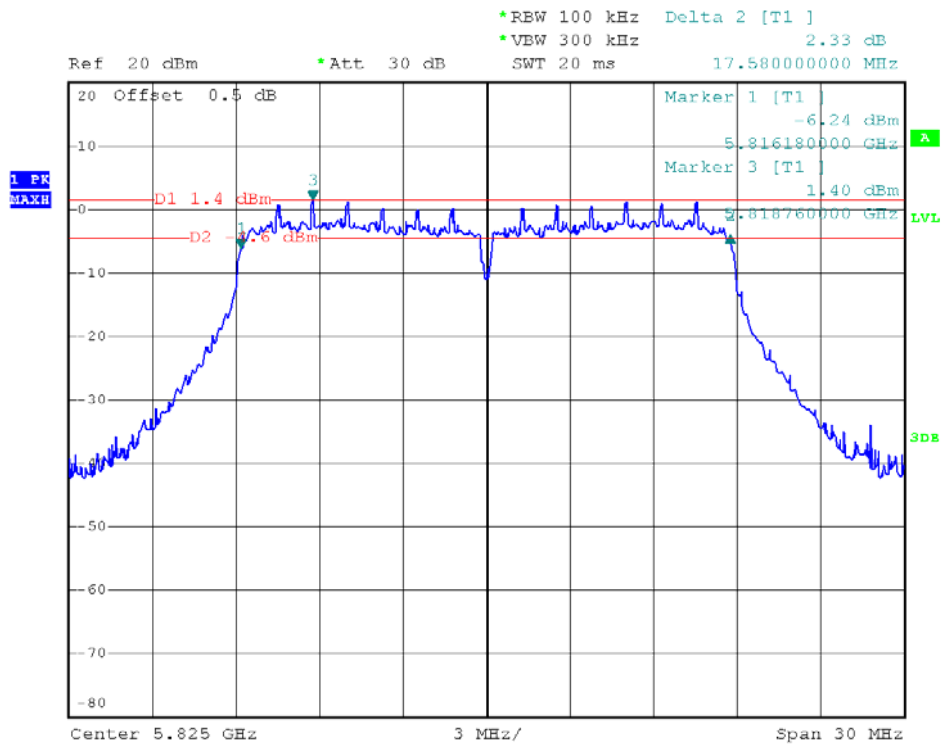




Antenna A - 802.11n-HT20 – 5785MHz

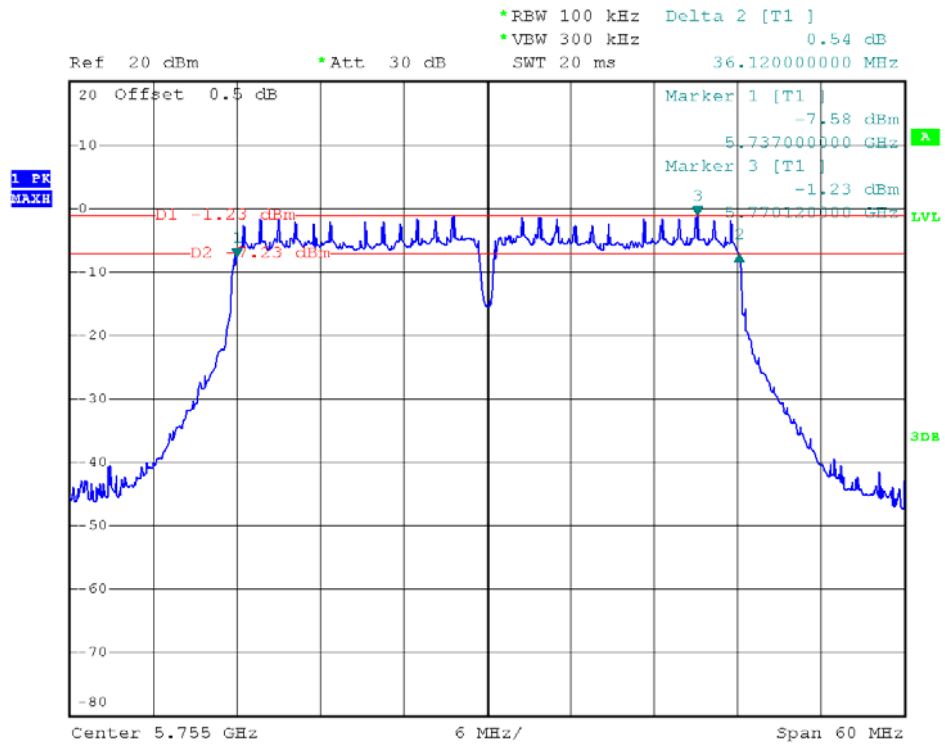


Antenna A - 802.11n-HT20 – 5825MHz

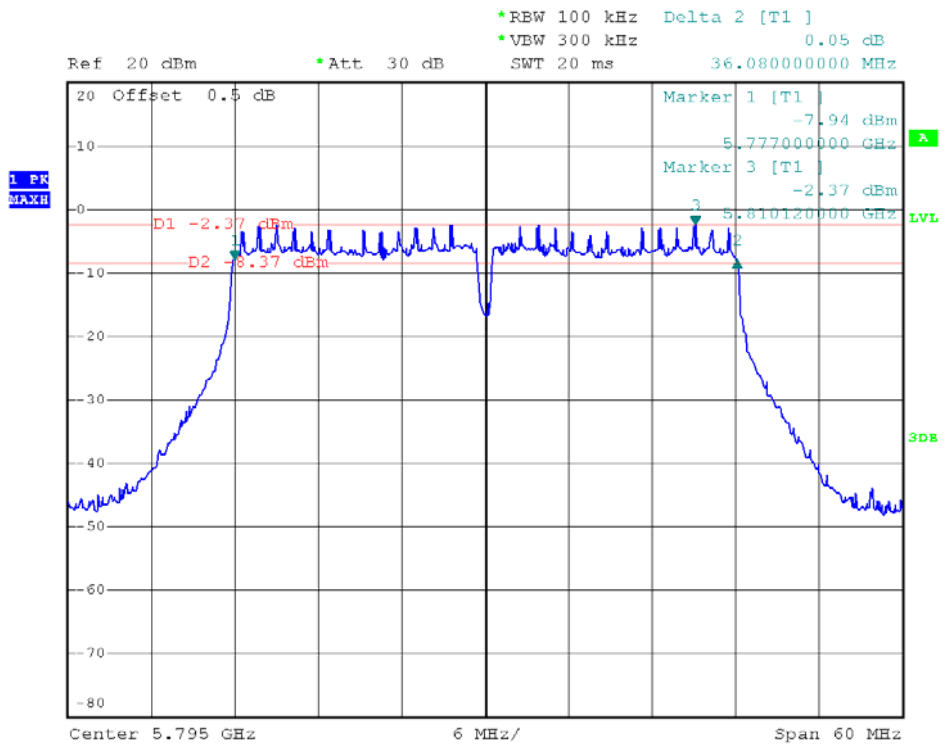




Antenna A - 802.11n-HT40 – 5755MHz

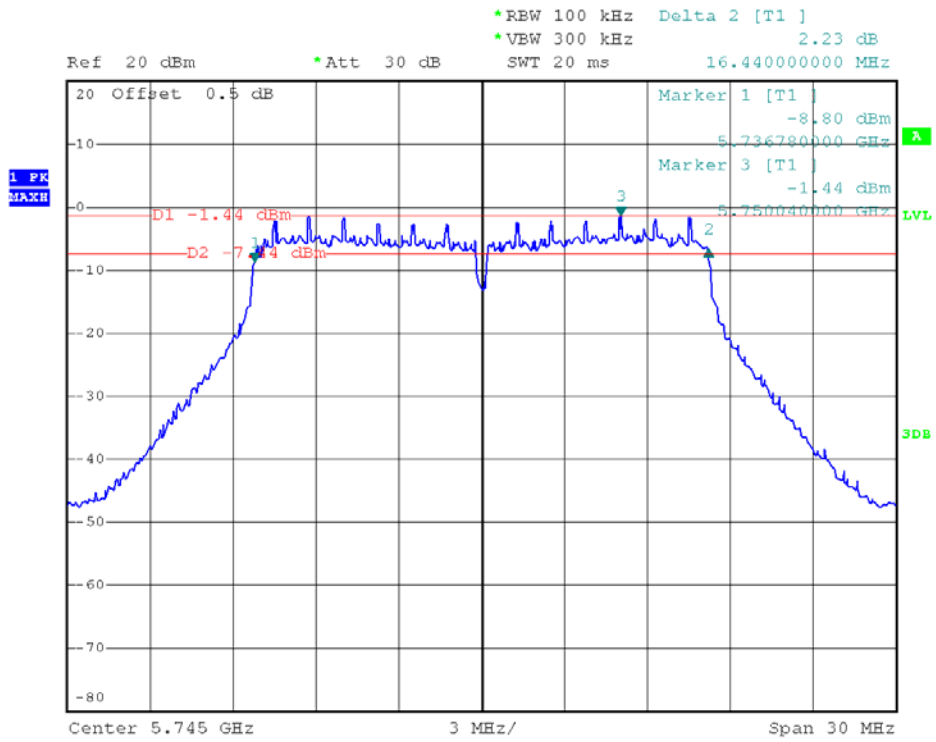


Antenna A - 802.11n-HT40 – 5795MHz

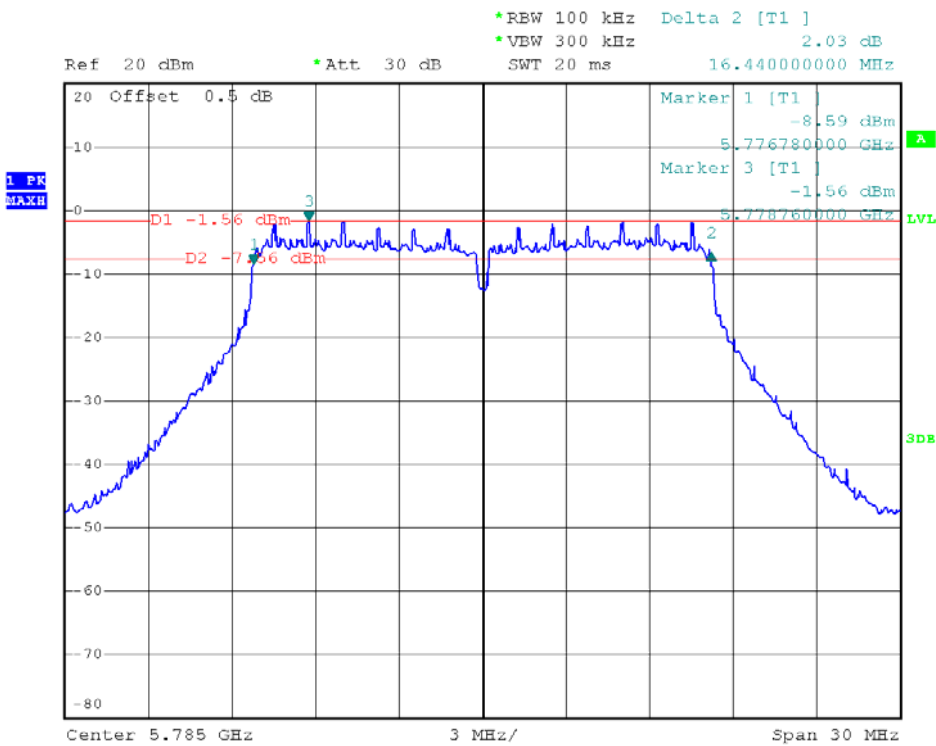




Antenna A - 802.11ac-VHT20 – 5745MHz

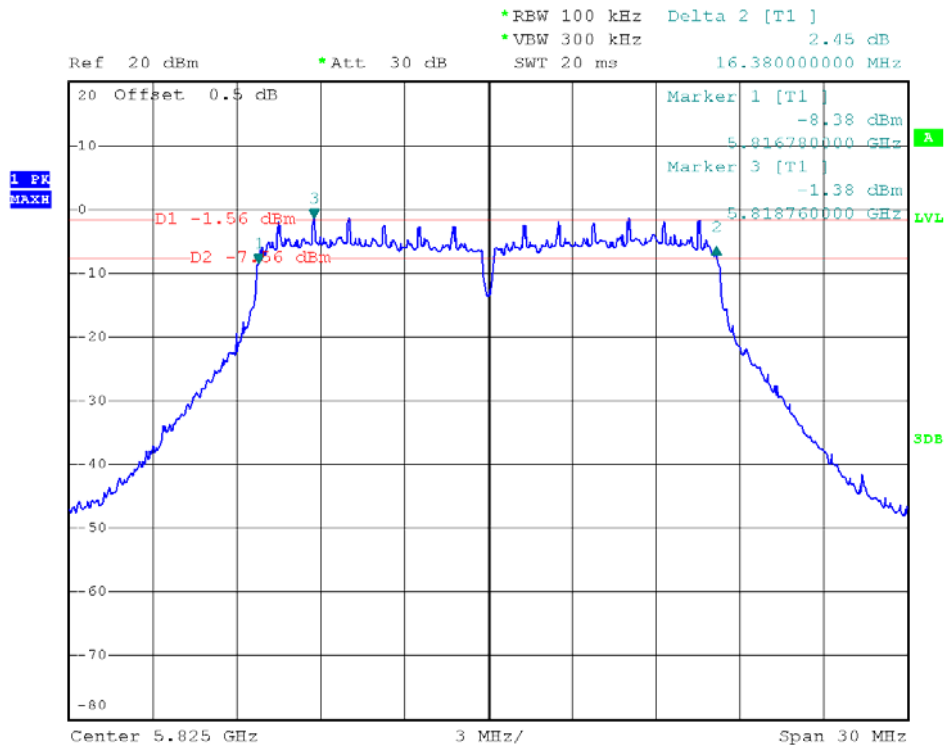


Antenna A - 802.11ac-VHT20 – 5785MHz

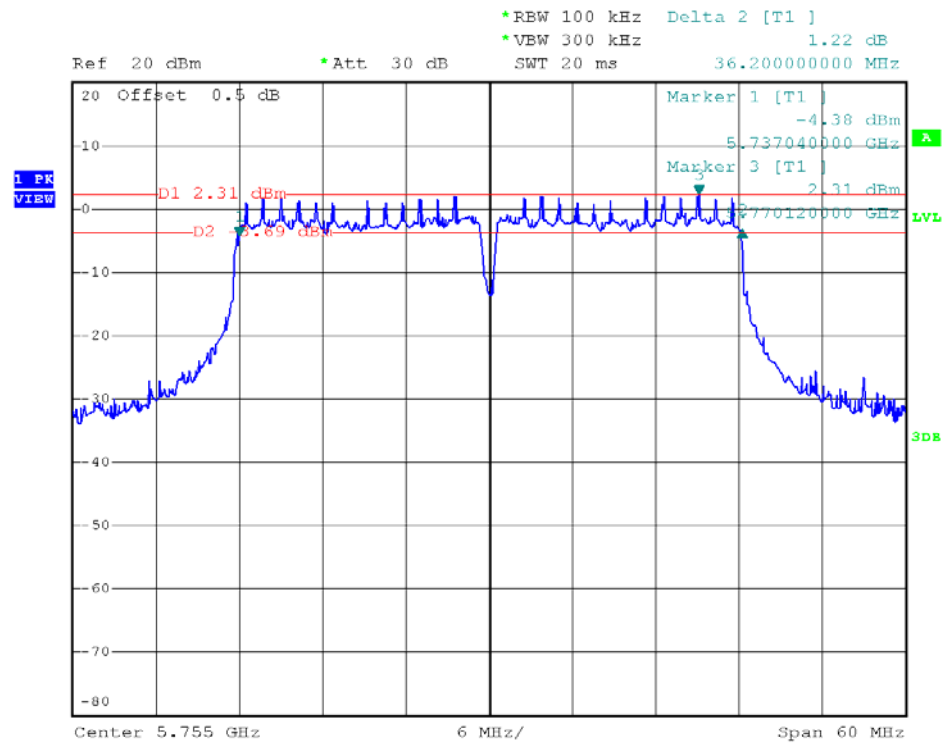




Antenna A - 802.11ac-VHT20 – 5825MHz

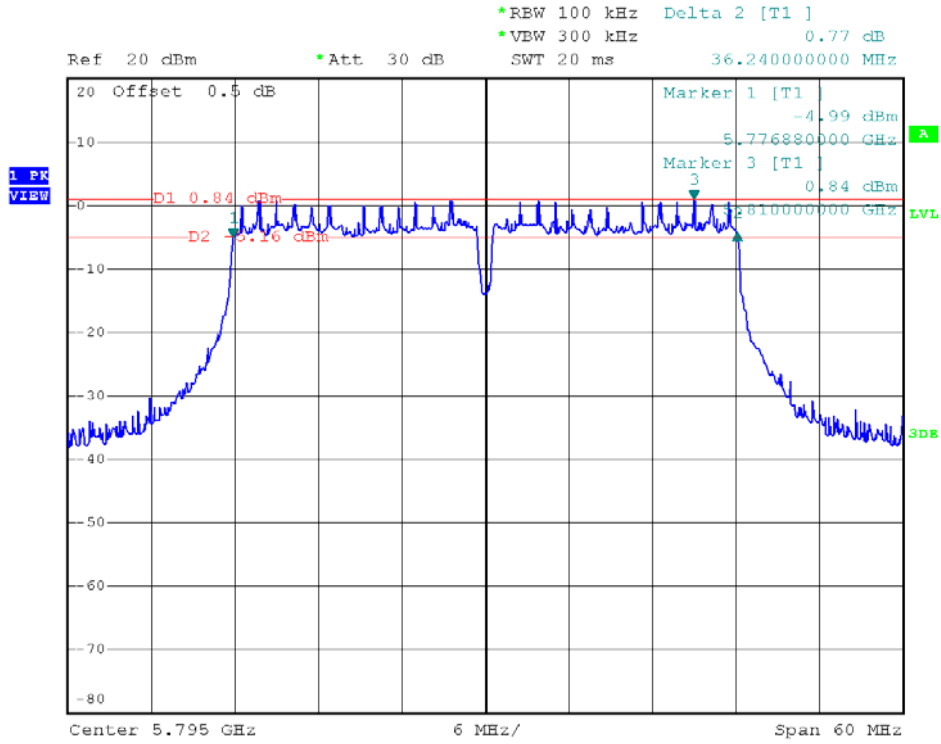


Antenna A - 802.11ac-VHT40 – 5755MHz

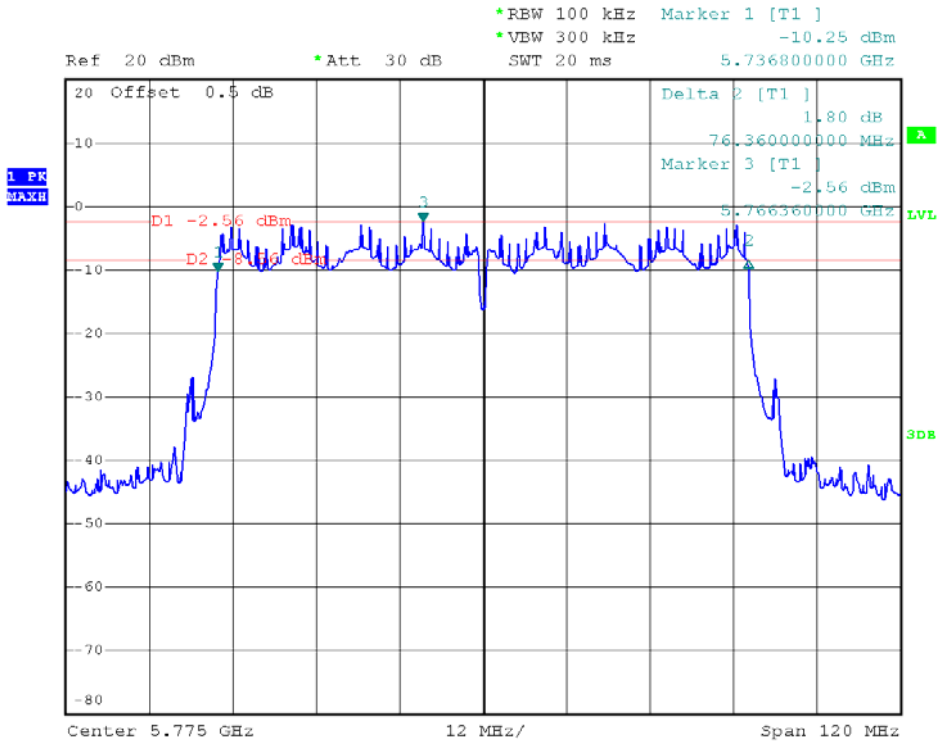




Antenna A - 802.11ac-VHT40 – 5795MHz

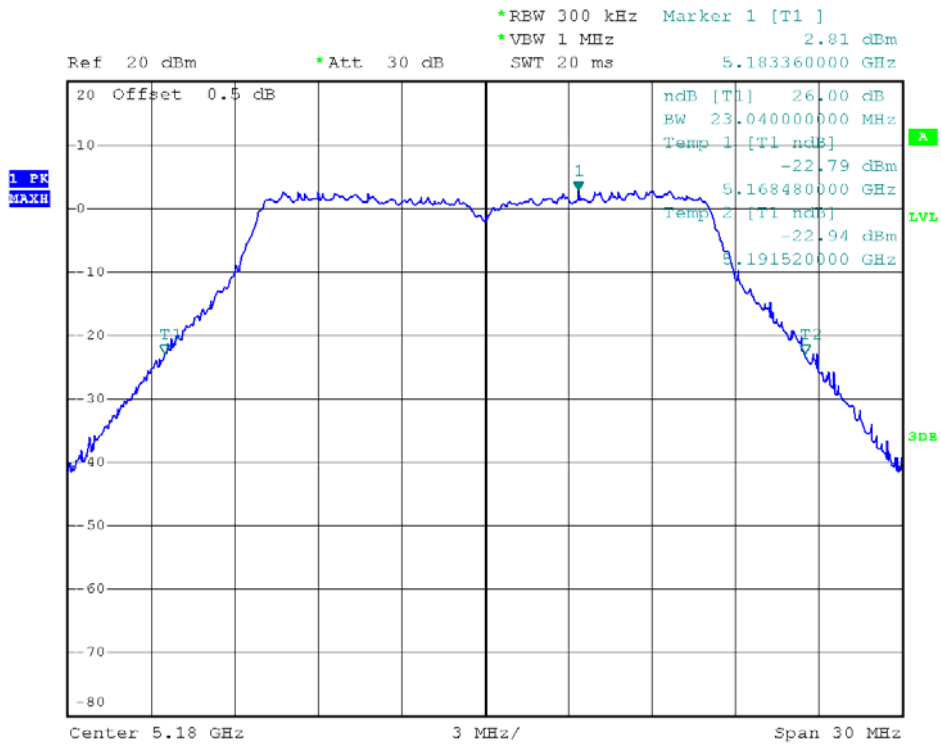


Antenna A - 802.11ac-VHT80 – 5775MHz

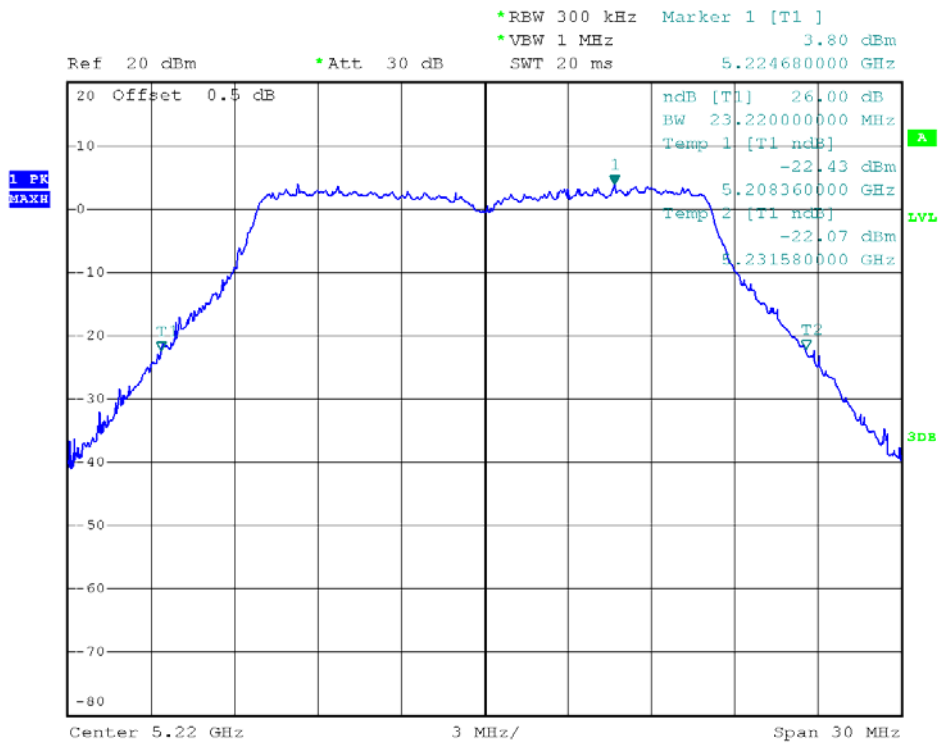




Antenna B - 802.11a – 5180MHz

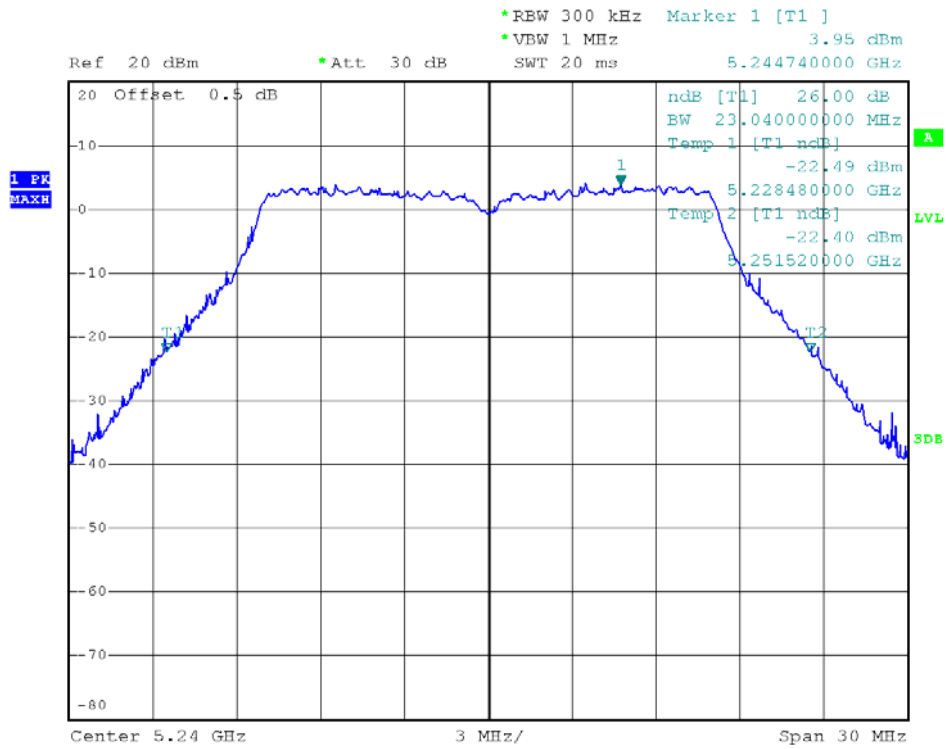


Antenna B - 802.11a – 5220MHz

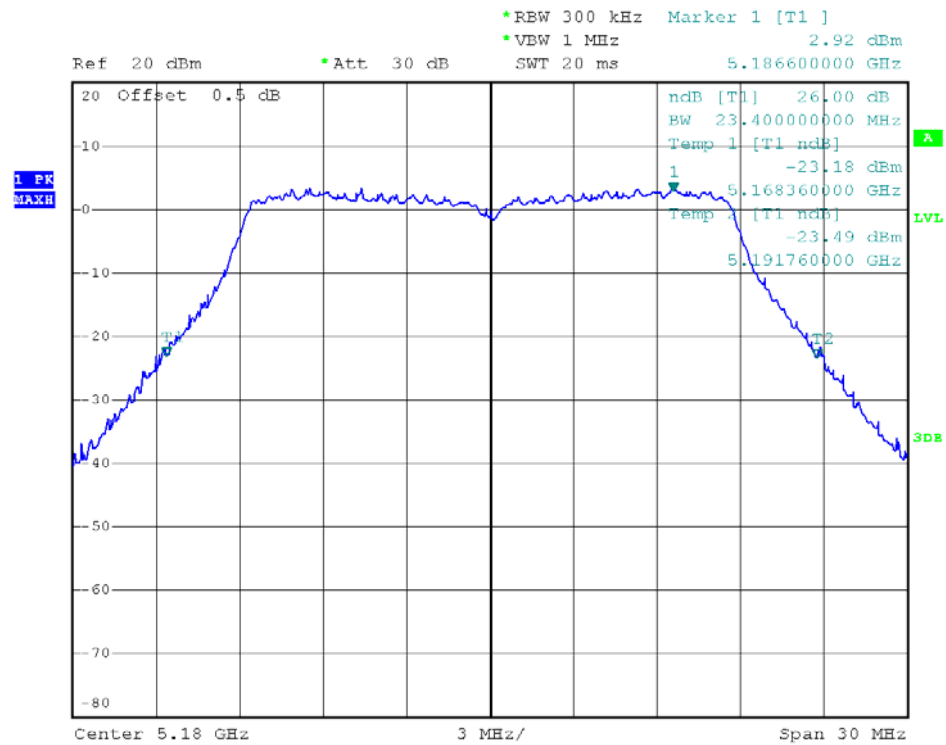




Antenna B - 802.11a – 5240MHz

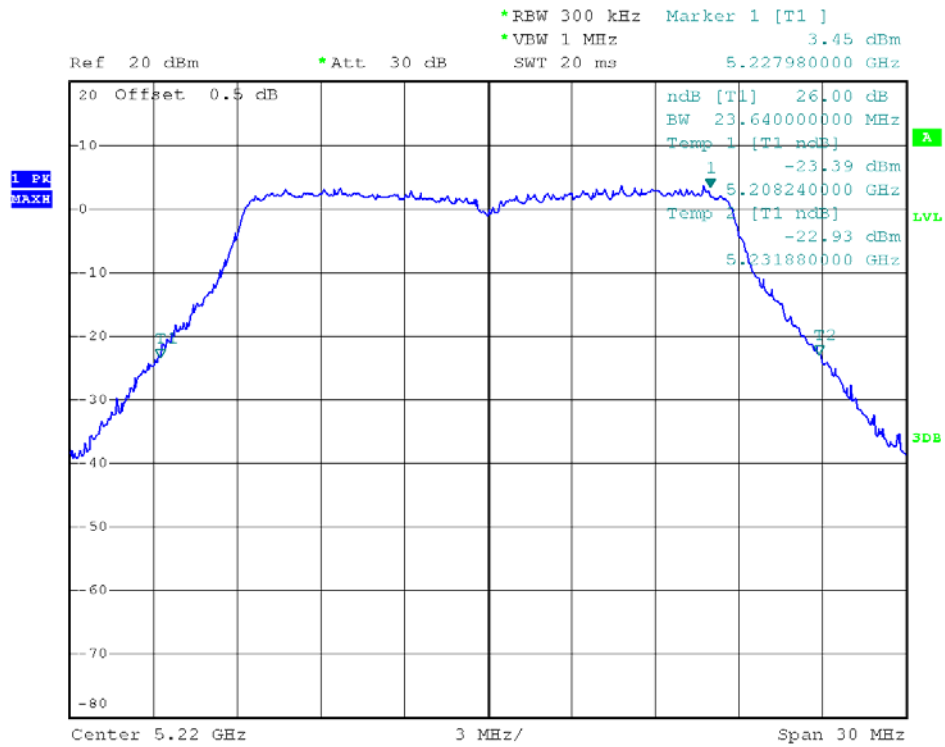


Antenna B - 802.11n-HT20 – 5180MHz

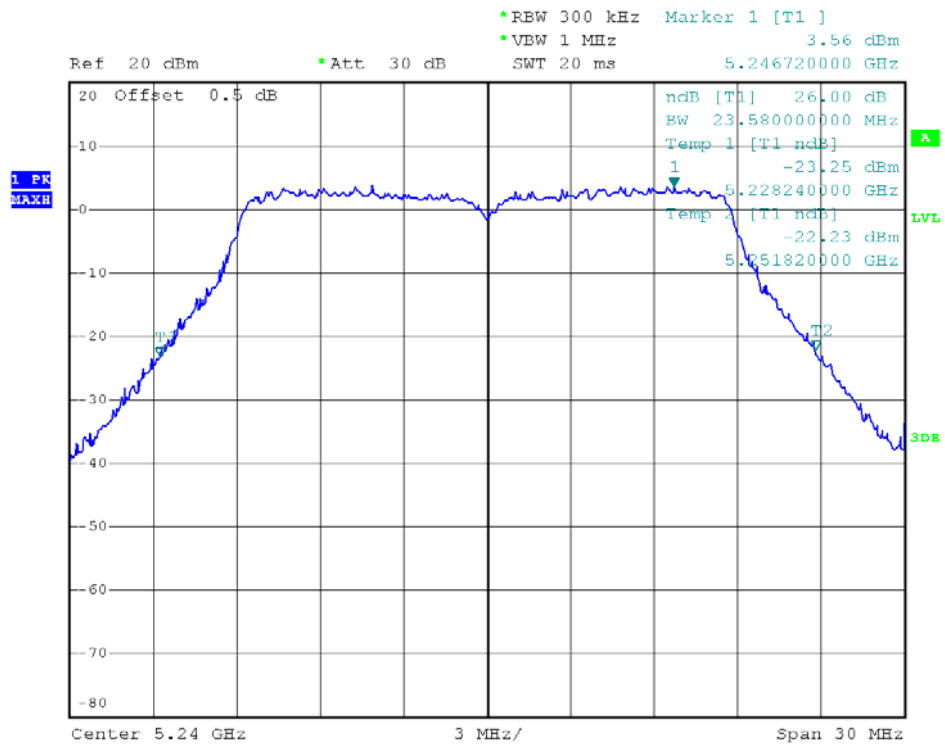




Antenna B - 802.11n-HT20 – 5220MHz

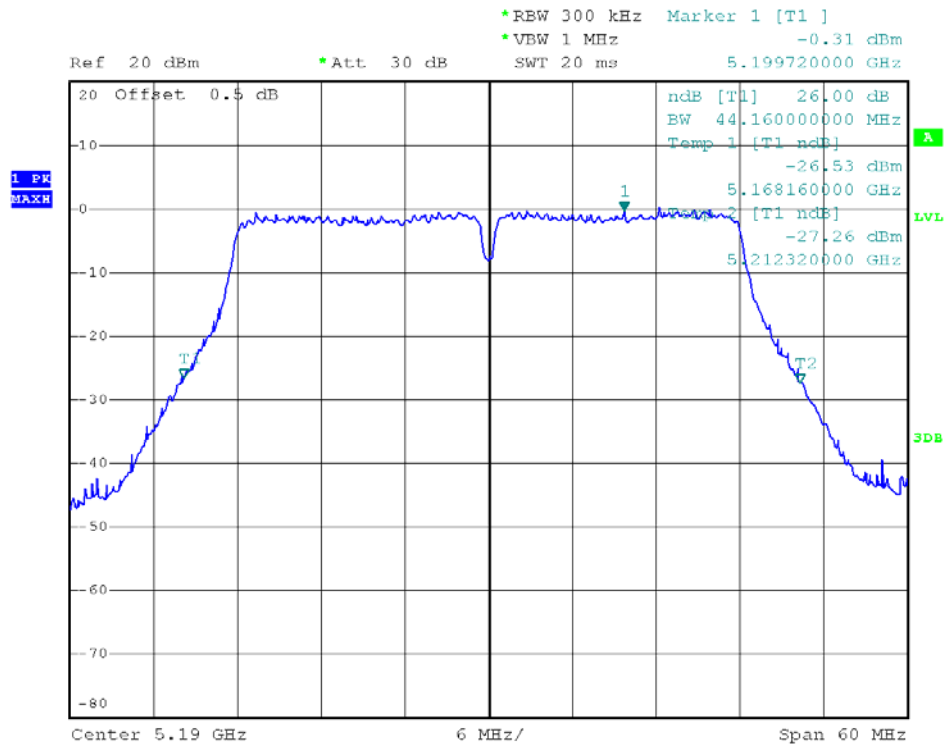


Antenna B - 802.11n-HT20 – 5240MHz

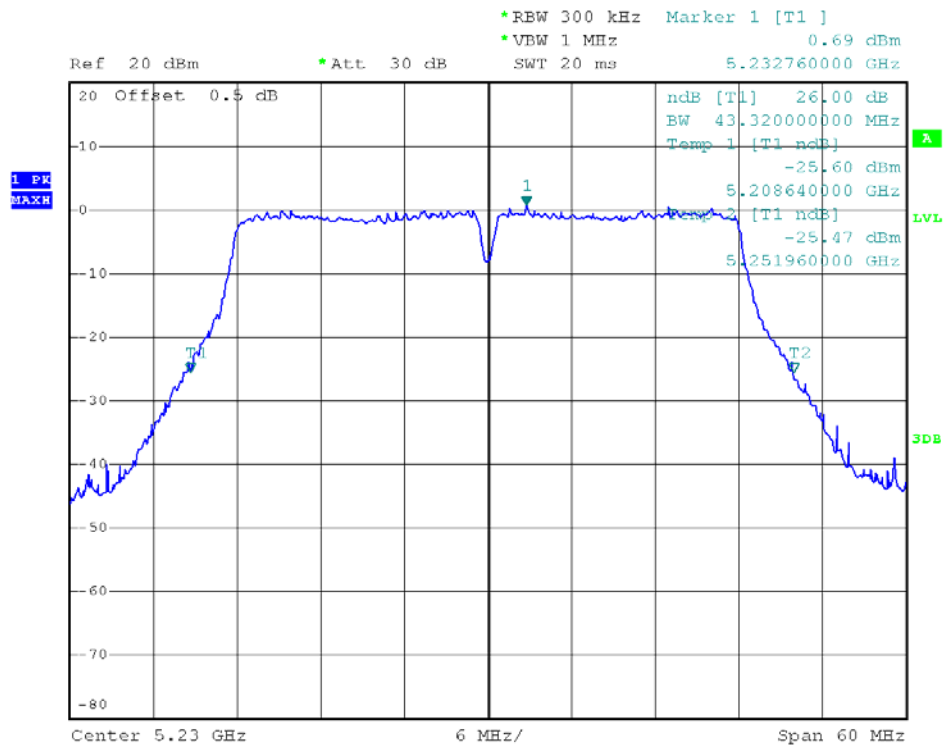




Antenna B - 802.11n-HT40 – 5190MHz

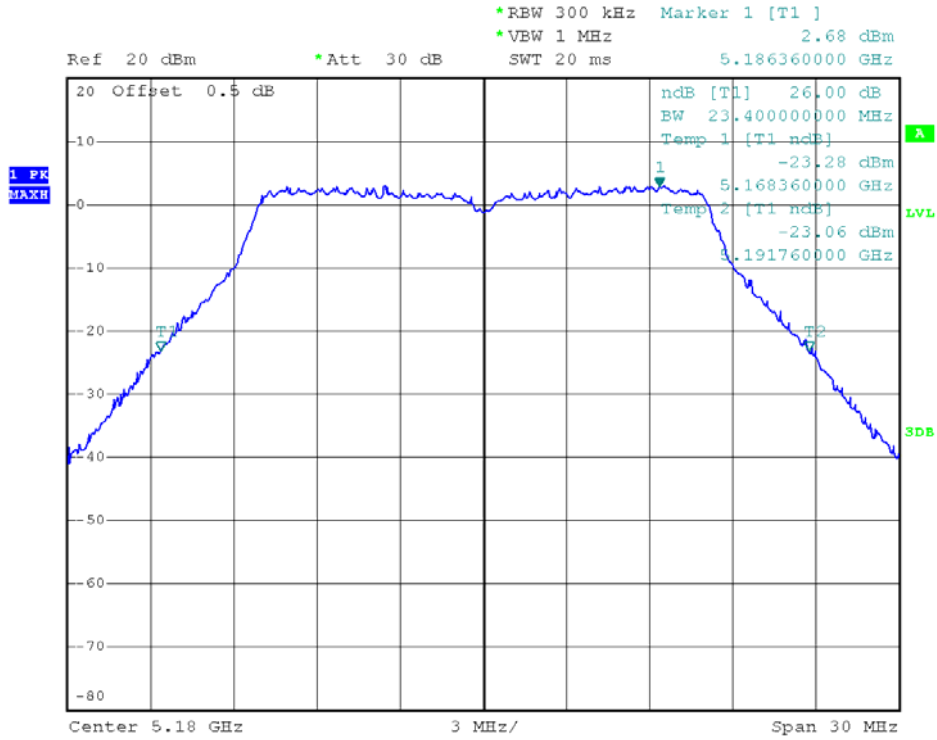


Antenna B - 802.11n-HT40 – 5230MHz

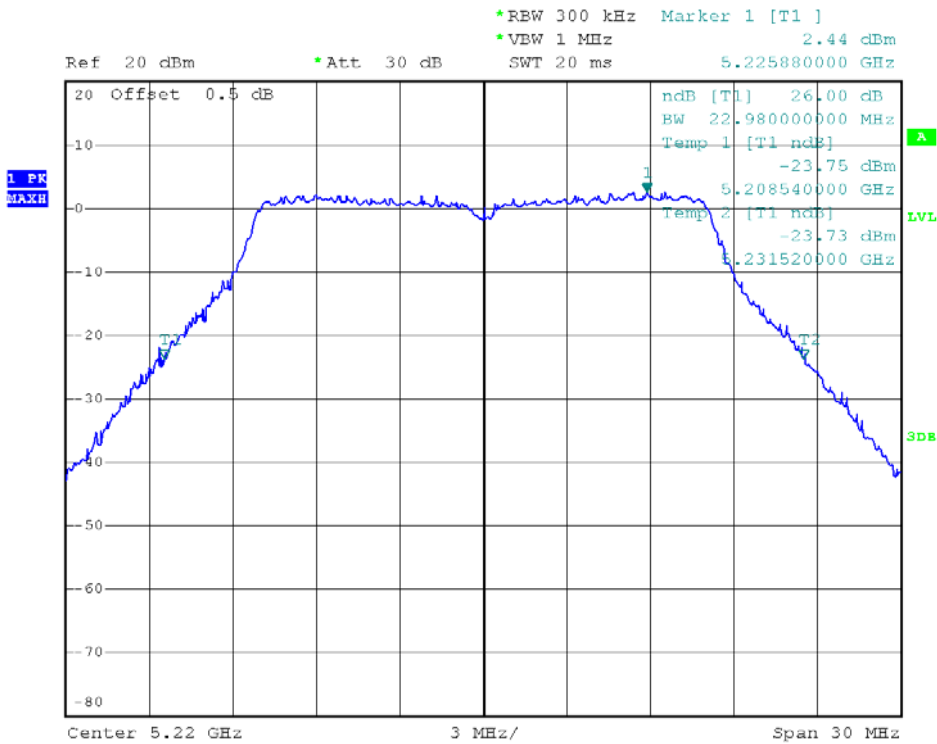




Antenna B - 802.11ac-VHT20 – 5180MHz

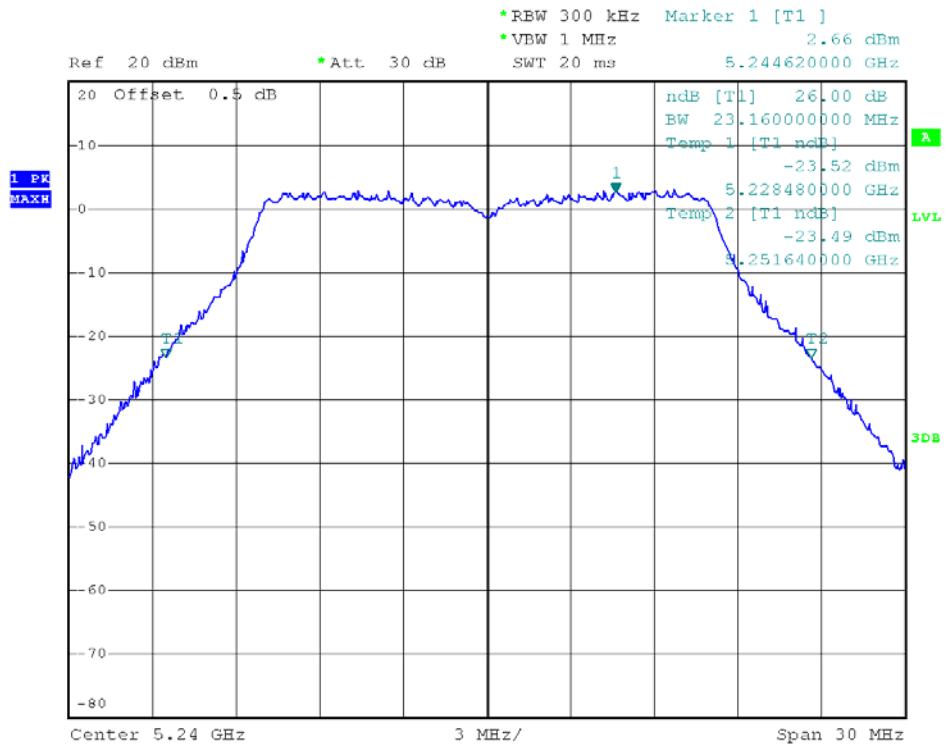


Antenna B - 802.11ac-VHT20 – 5220MHz

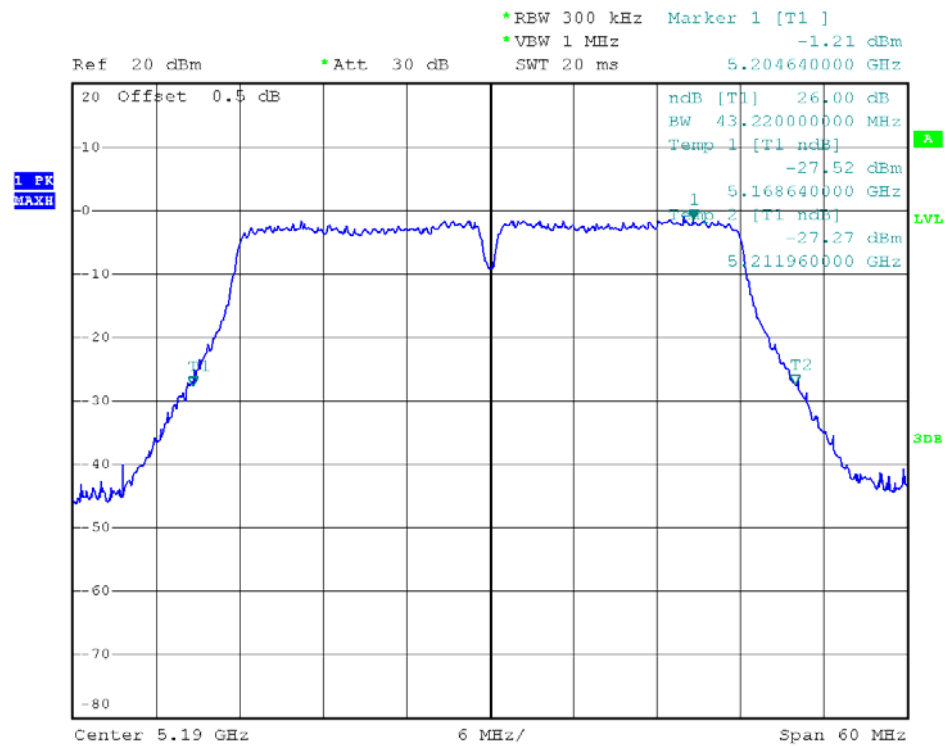




Antenna B - 802.11ac-VHT20 – 5240MHz

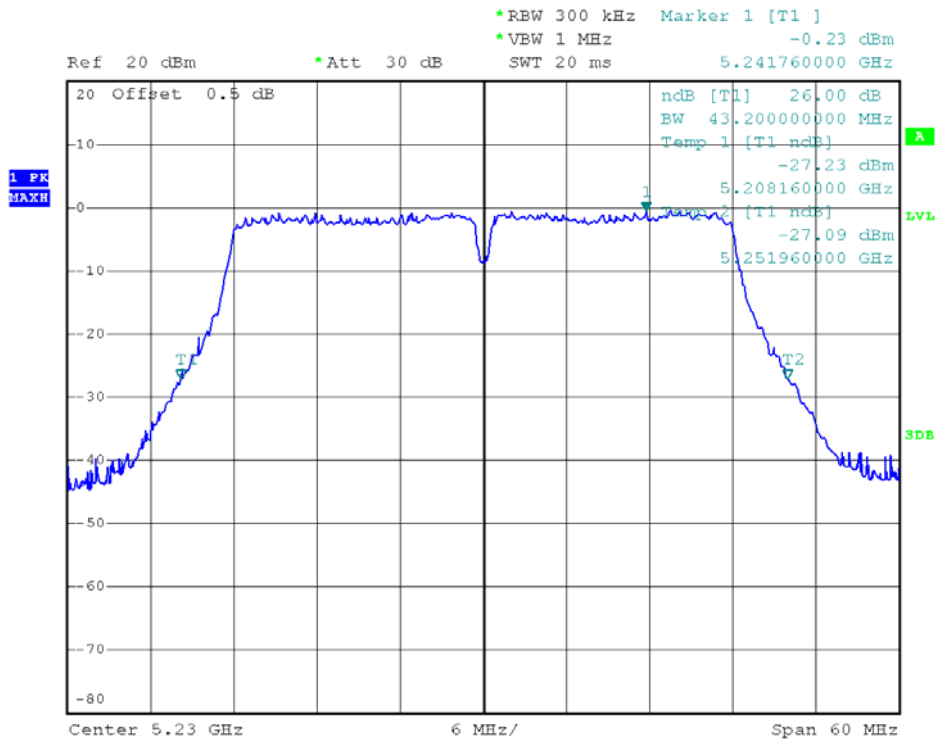


Antenna B - 802.11ac-VHT40 – 5190MHz

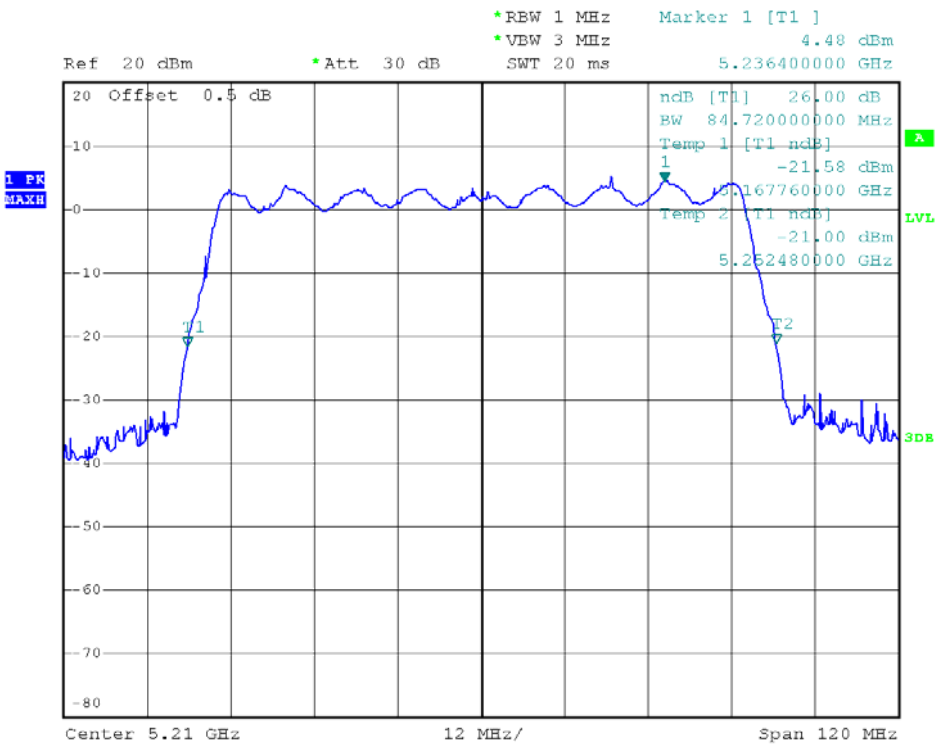




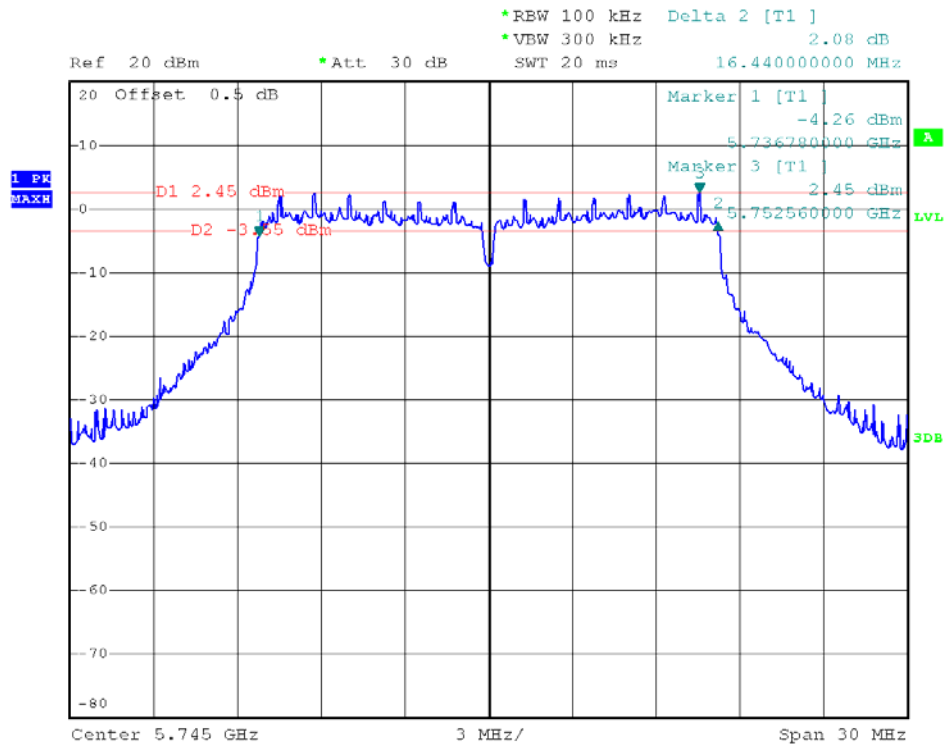
Antenna B - 802.11ac-VHT40 – 5230MHz



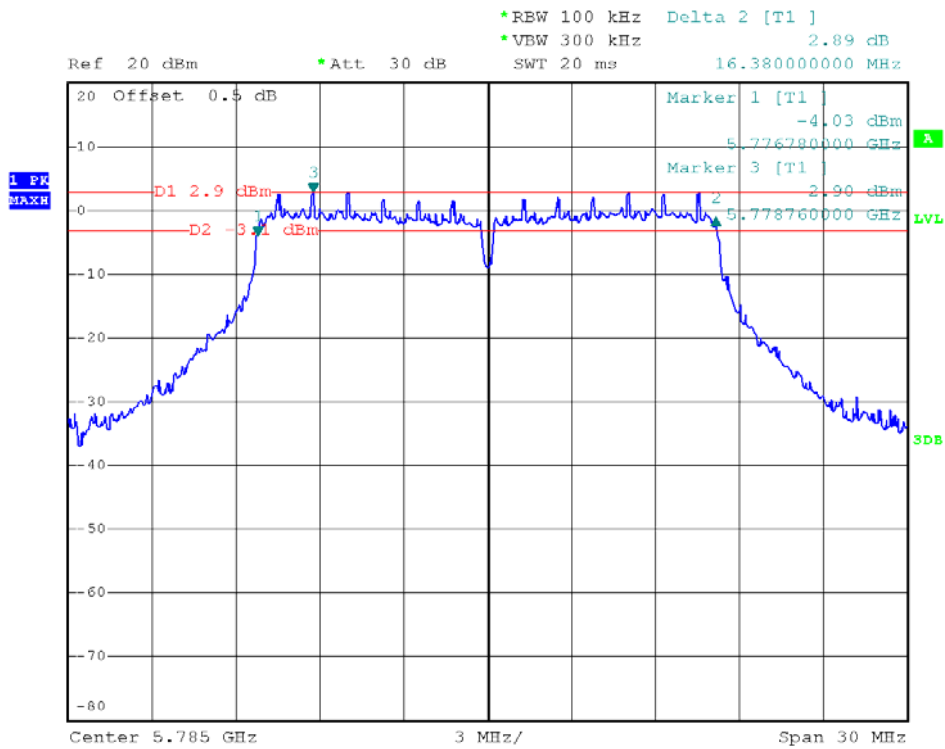
Antenna B - 802.11ac-VHT80 – 5210MHz



Antenna B - 802.11a – 5745MHz

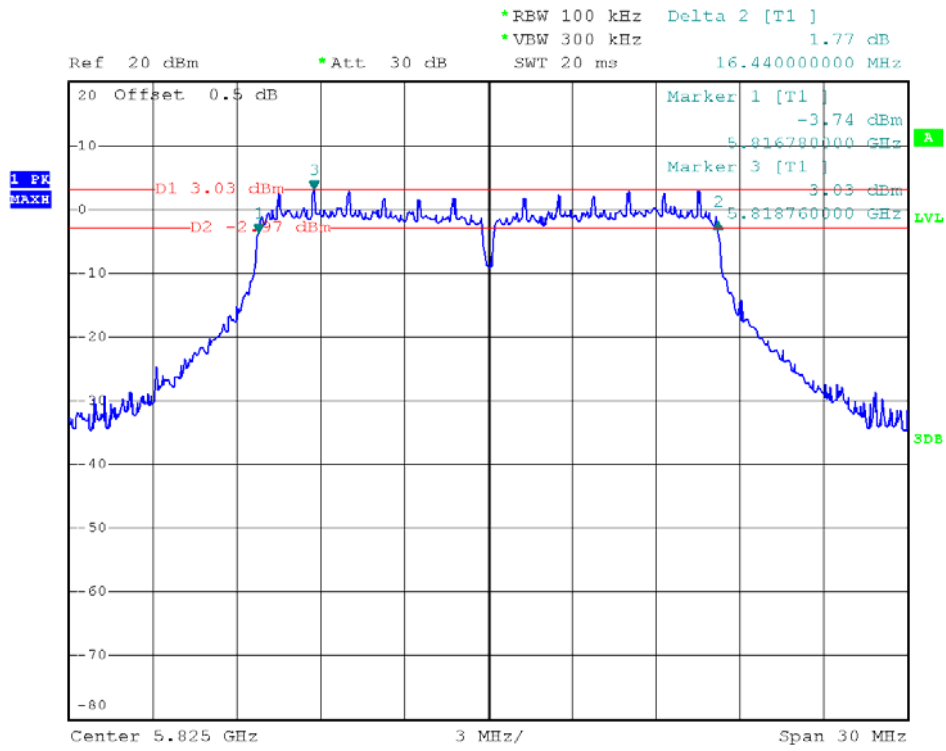


Antenna B - 802.11a – 5785MHz

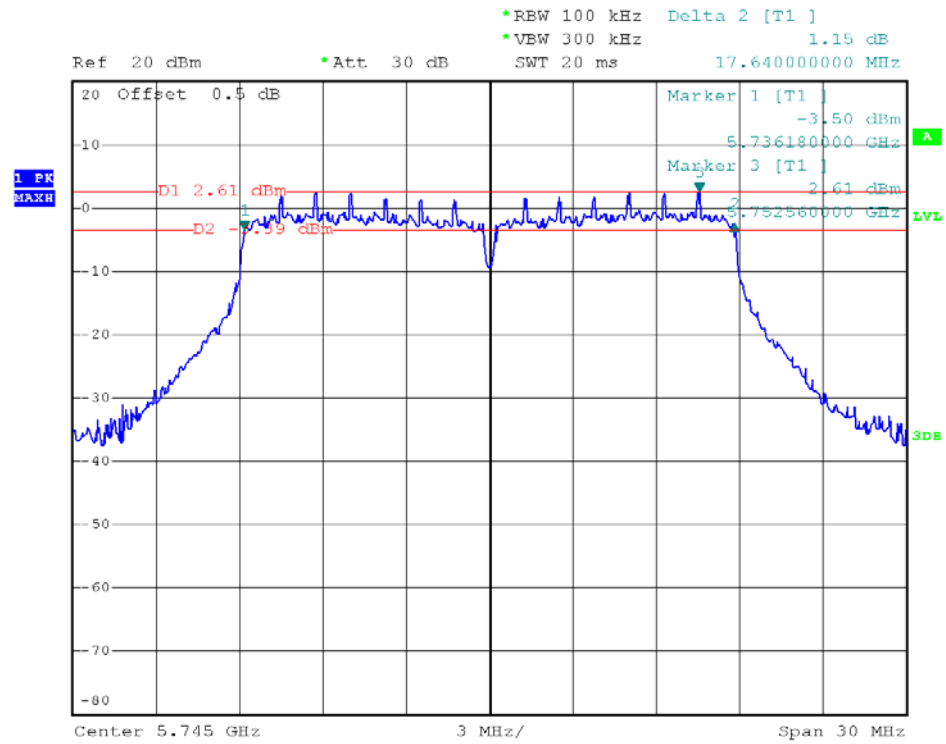




Antenna B - 802.11a – 5825MHz

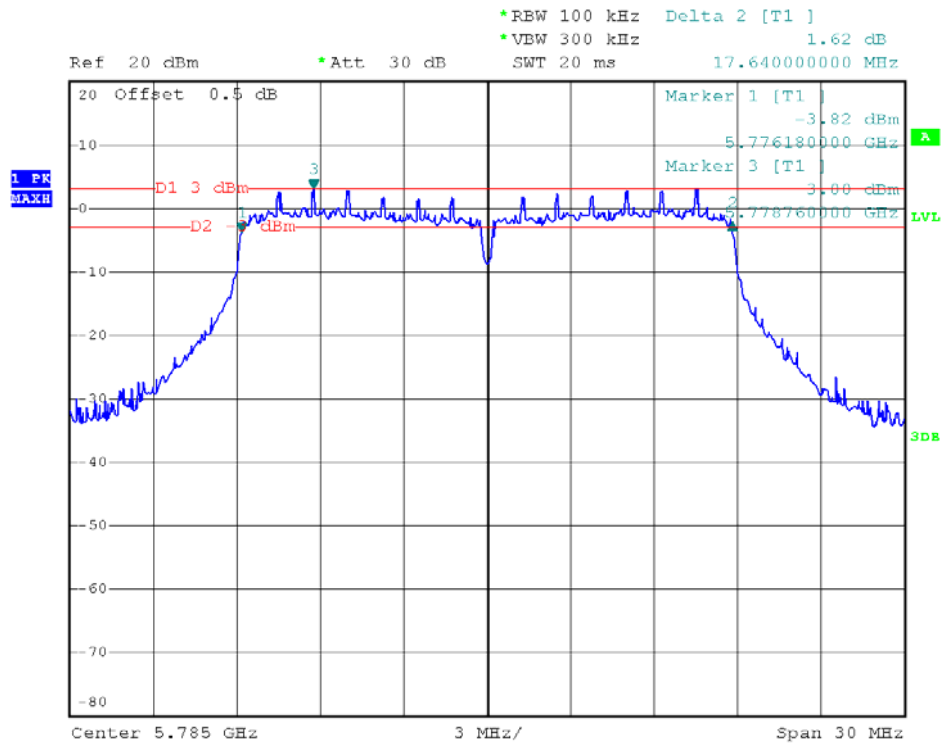


Antenna B - 802.11n-HT20 – 5745MHz

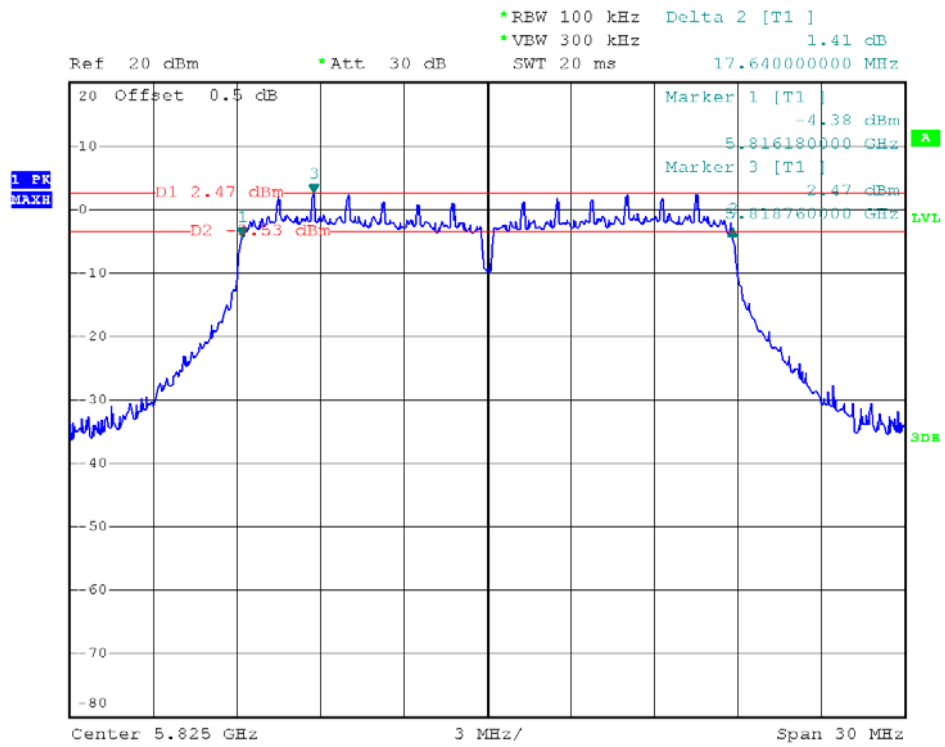




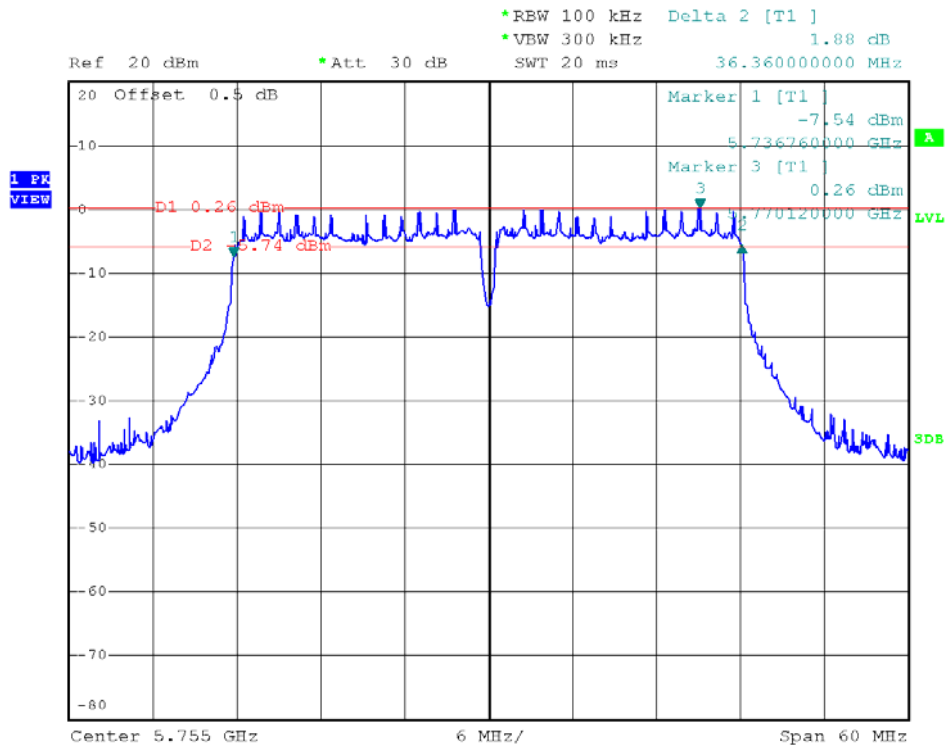
Antenna B - 802.11n-HT20 – 5785MHz



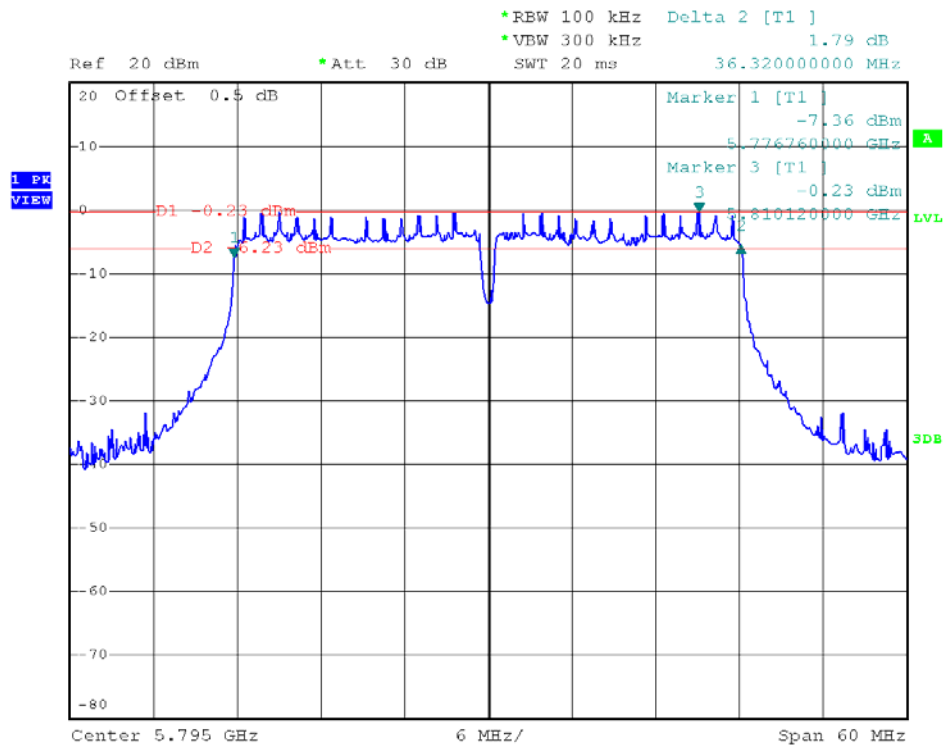
Antenna B - 802.11n-HT20 – 5825MHz



Antenna B - 802.11n-HT40 – 5755MHz

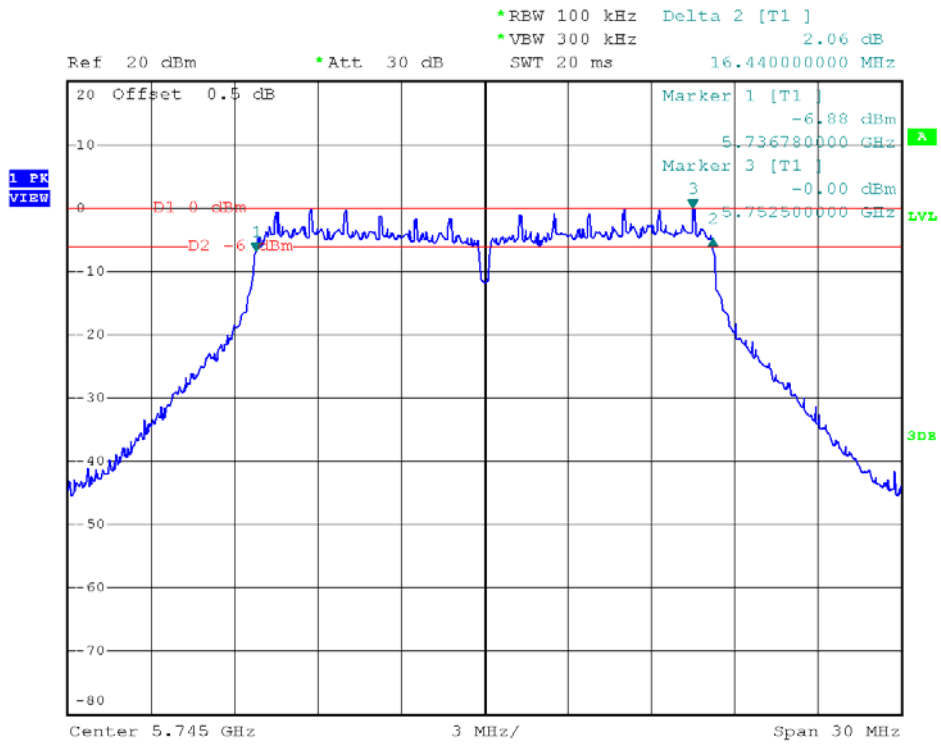


Antenna B - 802.11n-HT40 – 5795MHz

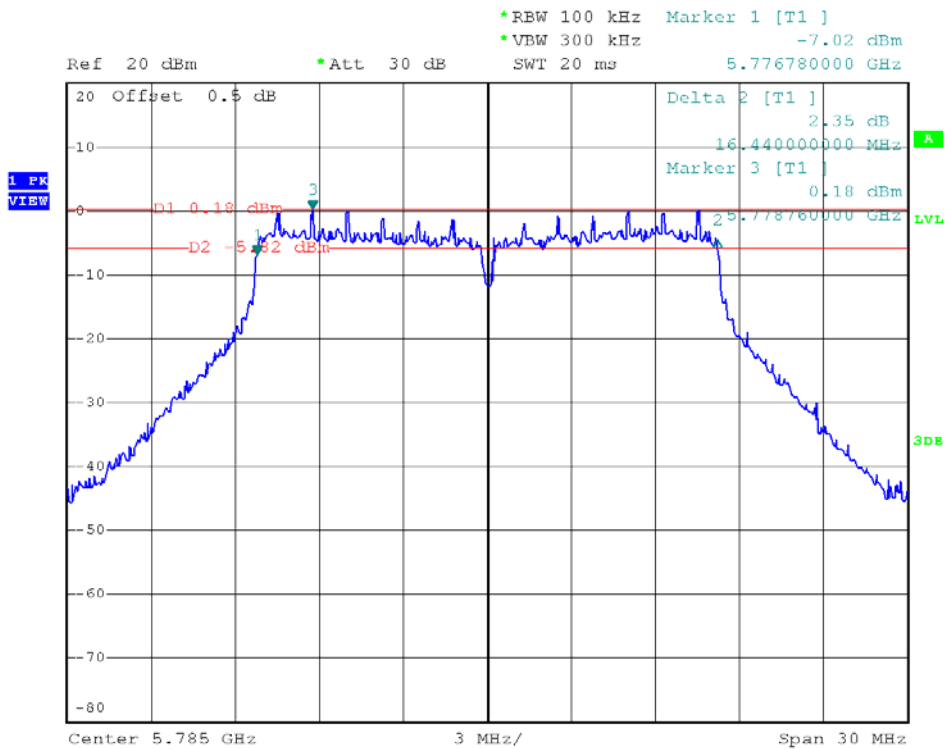




Antenna B - 802.11ac-VHT20 – 5745MHz

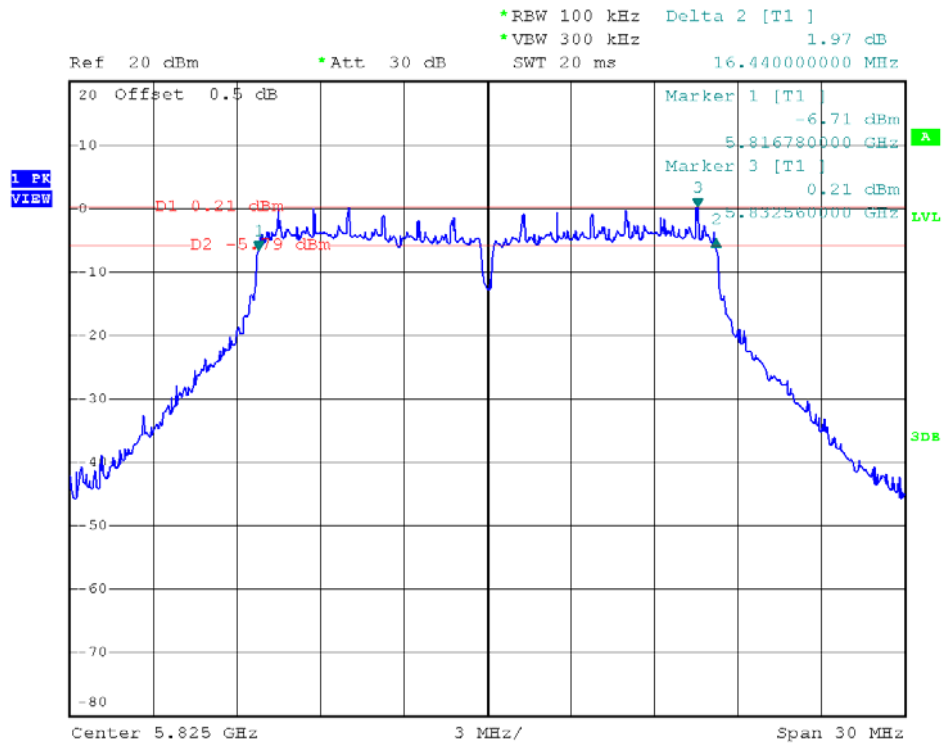


Antenna B - 802.11ac-VHT20 – 5785MHz

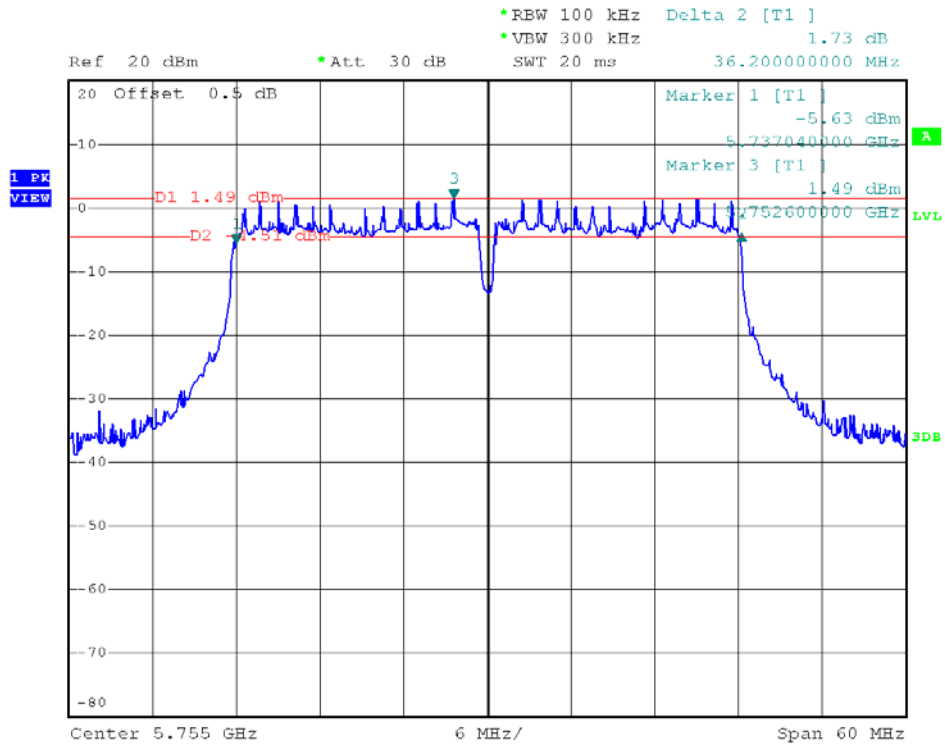




Antenna B - 802.11ac-VHT20 – 5825MHz

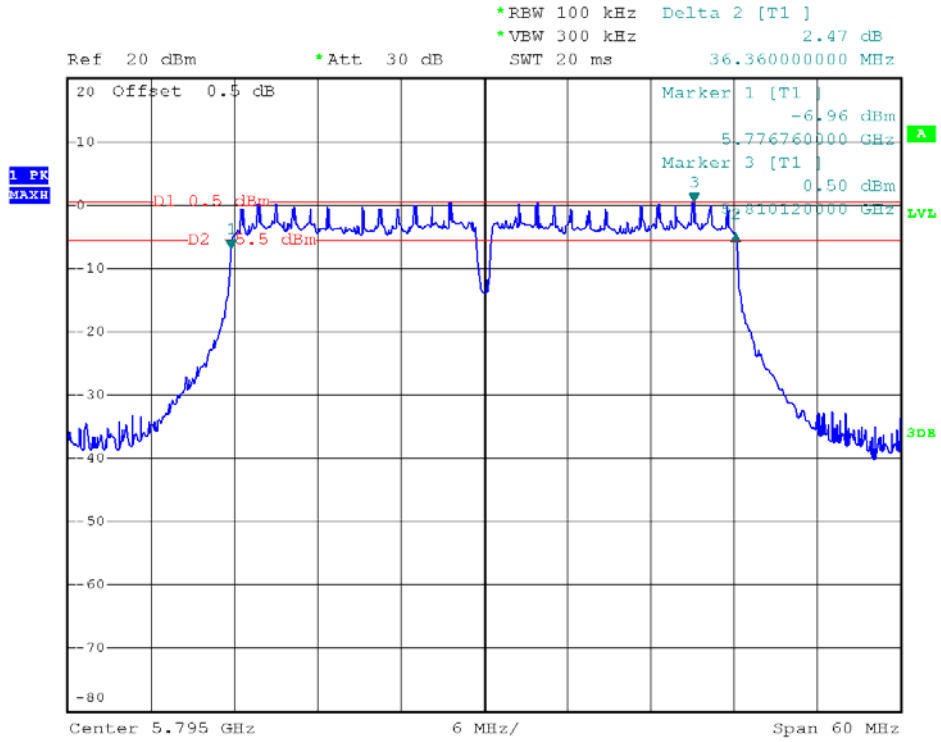


Antenna B - 802.11ac-VHT40 – 5755MHz

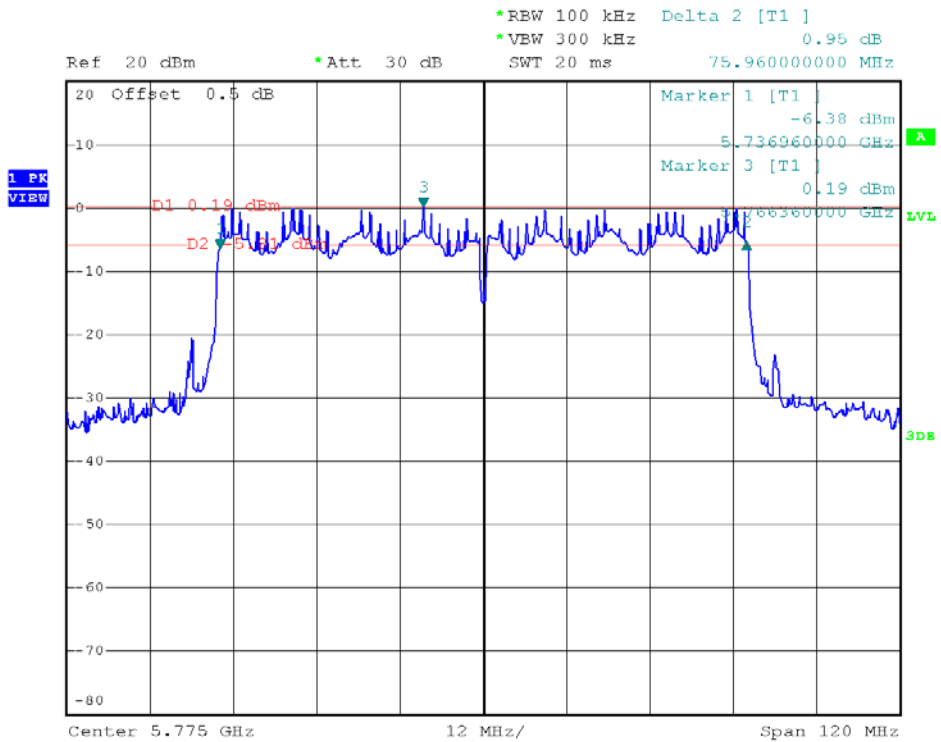




Antenna B - 802.11ac-VHT40 – 5795MHz



Antenna B - 802.11ac-VHT80 – 5775MHz



2.4. Power spectral density (PSD)

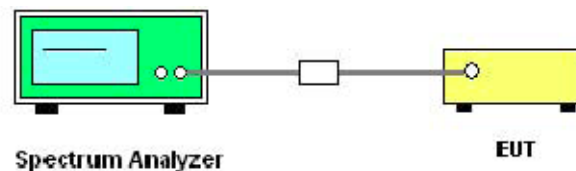
2.4.1. Limit of Power Spectral Density

Band	EUT Category	Limit
U-NII-1	<input type="checkbox"/> Access Point (Master device)	17 dBm/MHz
	<input type="checkbox"/> Fixed point-to-point Access device	
	<input checked="" type="checkbox"/> Mobile and portable client device	11 dBm/MHz
U-NII-2A	<input type="checkbox"/>	11 dBm/MHz
U-NII-2C	<input type="checkbox"/>	11 dBm/MHz
U-NII-3	<input checked="" type="checkbox"/>	30dBm/500kHz

2.4.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

2.4.3. Test Setup



2.4.4. Test Procedures

1. Place the EUT on the table and set it in transmitting mode.
2. The testing follows FCC KDB 789033 D02 General UNII Test Procedures New Rules v01.
3. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to Spectrum.

4. For U-NII-1, U-NII-2A, U-NII-2C Band:

Using method SA-2

Set RBW=1MHz, VBW=3MHz, where span is enough to capture the entire bandwidth, Sweep time = Auto (601 pts), detector = sample, traces 100 sweeps of video averaging. (SA-2 with the omission of procedure x, the integration with 26dB EBW bandwidth)

For U-NII-3 Band:

Set RBW=500 kHz, $VBW \geq 3RBW$, where span is enough to capture the entire bandwidth, Sweep time = Auto, detector = sample, traces 100 sweeps of video averaging. (SA-2 with the omission of procedure x, the integration with 26dB EBW bandwidth)

5. Use the cursor on spectrum to peak search the highest level of trace
6. Record the max. Reading and add $10 \log (1/\text{duty cycle})$.



7. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where

$$\text{BWCF} = 10\log (500 \text{ kHz} / 300 \text{ kHz}) = 2.22$$

8. Repeat above procedures until all default test channel (low, middle, and high) was complete.

2.4.5. Test Results of Power spectral density

Measurement Data of Band U-NII-1 (5150~5250MHz)

802.11a mode						
Test Frequency (MHz)	Power Spectral Density (dBm)		Limit (dBm/MHz)	Result		
	Antenna A	Antenna B				
5180	7.31	7.20	11	PASS		
5220	7.75	7.34	11	PASS		
5240	7.74	7.42	11	PASS		
802.11n-HT20 mode						
Test Frequency (MHz)	Power Spectral Density (dBm)			Limit (dBm/MHz)	Result	
	Antenna A	Antenna B	Total			
5180	6.44	6.51	9.48	11	PASS	
5220	6.65	6.74	9.70	11	PASS	
5240	6.78	6.81	9.80	11	PASS	
802.11n-HT40 mode						
Test Frequency (MHz)	Power Spectral Density (dBm)			Limit (dBm/MHz)	Result	
	Antenna A	Antenna B	Total			
5190	4.52	4.61	7.57	11	PASS	
5230	4.76	5.45	8.13	11	PASS	
802.11ac-VHT20 mode						
Test Frequency (MHz)	Power Spectral Density (dBm)			Limit (dBm/MHz)	Result	
	Antenna A	Antenna B	Total			
5180	6.40	6.21	9.31	11	PASS	
5220	6.83	6.10	9.49	11	PASS	
5240	6.67	6.19	9.44	11	PASS	
802.11ac-VHT40 mode						
Test Frequency (MHz)	Power Spectral Density (dBm)			Limit (dBm/MHz)	Result	
	Antenna A	Antenna B	Total			
5190	5.60	5.35	8.49	11	PASS	
5230	5.89	5.28	8.60	11	PASS	
802.11n-VHT80 mode						
Test Frequency (MHz)	Power Spectral Density (dBm)			Limit (dBm/MHz)	Result	
	Antenna A	Antenna B	Total			
5210	4.20	4.46	7.34	11	PASS	



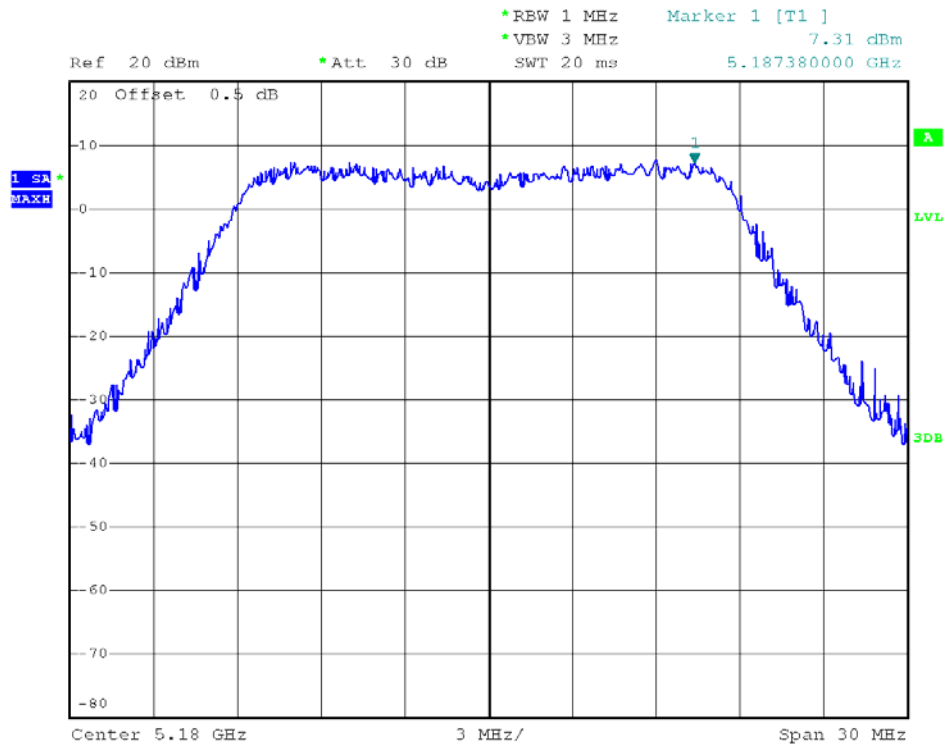
Test results of band U-NII-3 (5725 ~ 5850 MHz)							
802.11a mode							
Test Frequency (MHz)	Power Spectral Density (dBm)				Limit (dBm/500kHz)	Result	
	Antenna A		Antenna B				
	PSD (dBm/300kHz)	PSD (dBm/500kHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)			
5745	6.00	8.22	6.88	9.10	30	PASS	
5785	5.78	8.00	6.79	9.01	30	PASS	
5825	5.56	7.78	6.93	9.15	30	PASS	
802.11n-HT20 mode							
Test Frequency (MHz)	Power Spectral Density (dBm)					Limit (dBm/500kHz)	Result
	Antenna A		Antenna B		Total (dBm/500 kHz)		
	PSD (dBm/300 kHz)	PSD (dBm/500k Hz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)			
5745	5.21	7.43	6.27	8.49	11.00	30	PASS
5785	5.52	7.74	6.57	8.79	11.30	30	PASS
5825	5.39	7.61	6.46	8.68	11.19	30	PASS
802.11n-HT40 mode							
Test Frequency (MHz)	Power Spectral Density (dBm)					Limit (dBm/500kHz)	Result
	Antenna A		Antenna B		Total (dBm/500 kHz)		
	PSD (dBm/300 kHz)	PSD (dBm/500k Hz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)			
5755	2.48	4.70	3.27	5.49	8.12	30	PASS
5795	2.90	5.12	3.54	5.76	8.45	30	PASS
802.11ac-VHT20 mode							
Test Frequency (MHz)	Power Spectral Density (dBm)					Limit (dBm/500kHz)	Result
	Antenna A		Antenna B		Total (dBm/500 kHz)		
	PSD (dBm/300 kHz)	PSD (dBm/500k Hz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)			
5745	5.33	7.55	4.77	6.99	10.29	30	PASS
5785	5.50	7.72	4.79	7.01	10.37	30	PASS
5825	5.34	7.56	4.96	7.18	10.38	30	PASS



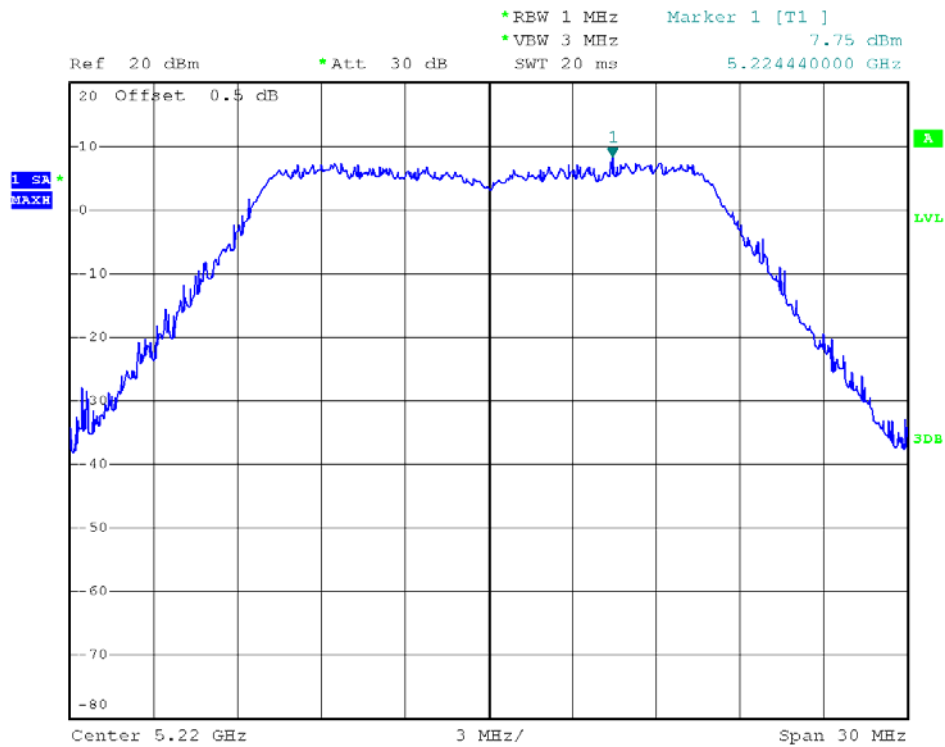
802.11ac-VHT40 mode							
Test Frequency (MHz)	Power Spectral Density (dBm)					Limit (dBm/500kHz)	Result
	Antenna A		Antenna B		Total (dBm/500 kHz)		
	PSD (dBm/300 kHz)	PSD (dBm/500k Hz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)			
5755	4.01	6.23	4.61	6.83	9.54	30	PASS
5795	3.61	5.83	4.48	6.70	9.37	30	PASS
802.11n-VHT80 mode							
Test Frequency (MHz)	Power Spectral Density (dBm)					Limit (dBm/500kHz)	Result
	Antenna A		Antenna B		Total (dBm/500 kHz)		
	PSD (dBm/300 kHz)	PSD (dBm/500k Hz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)			
5775	1.94	4.16	1.89	4.11	7.14	30	PASS

2.4.6. Test Results (plots) of Power spectral density

Antenna A - 802.11a – 5180MHz

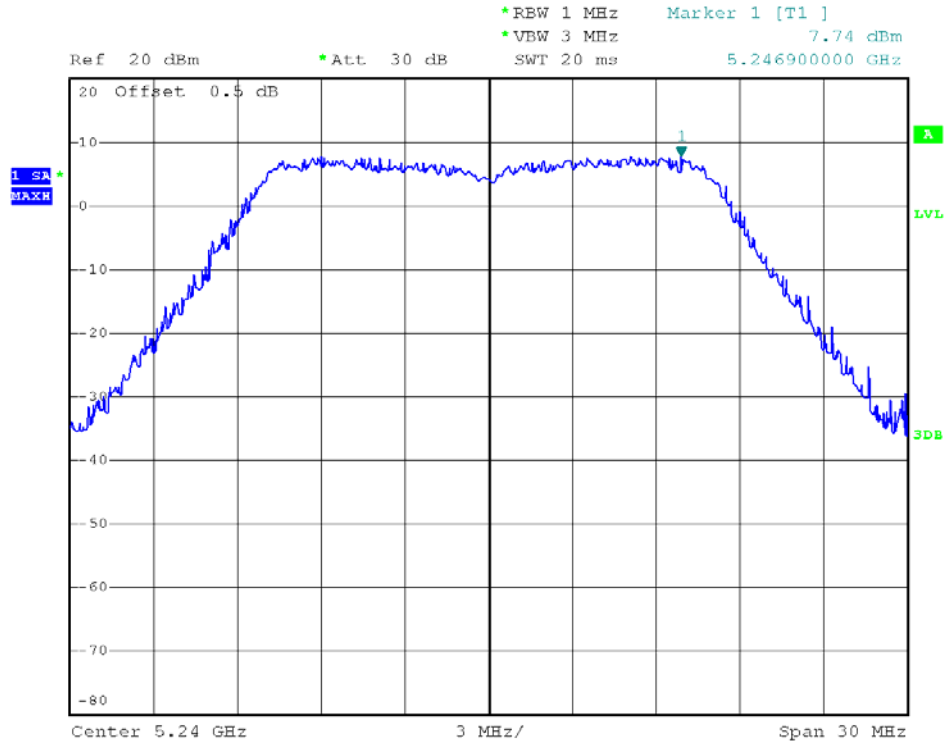


Antenna A - 802.11a – 5220MHz

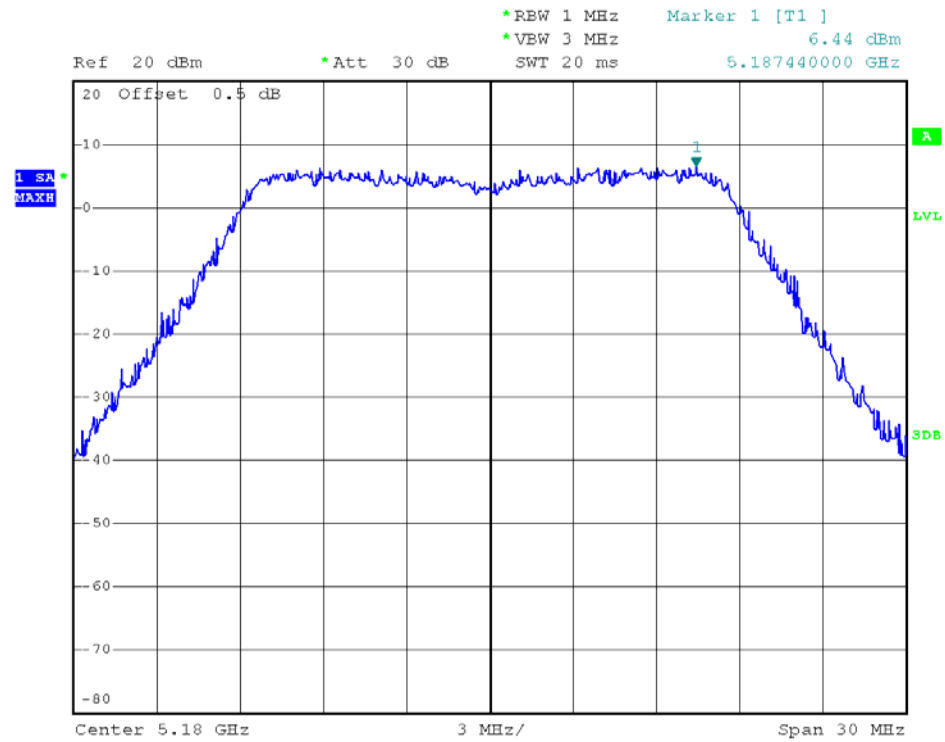




Antenna A - 802.11a – 5240MHz

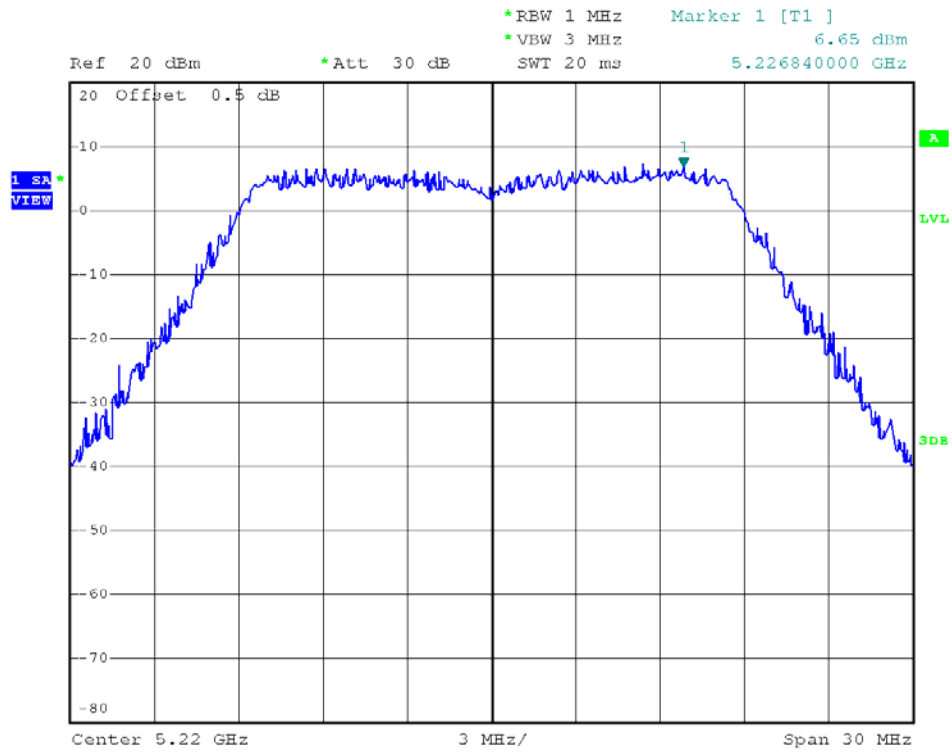


Antenna A - 802.11n-HT20 – 5180MHz

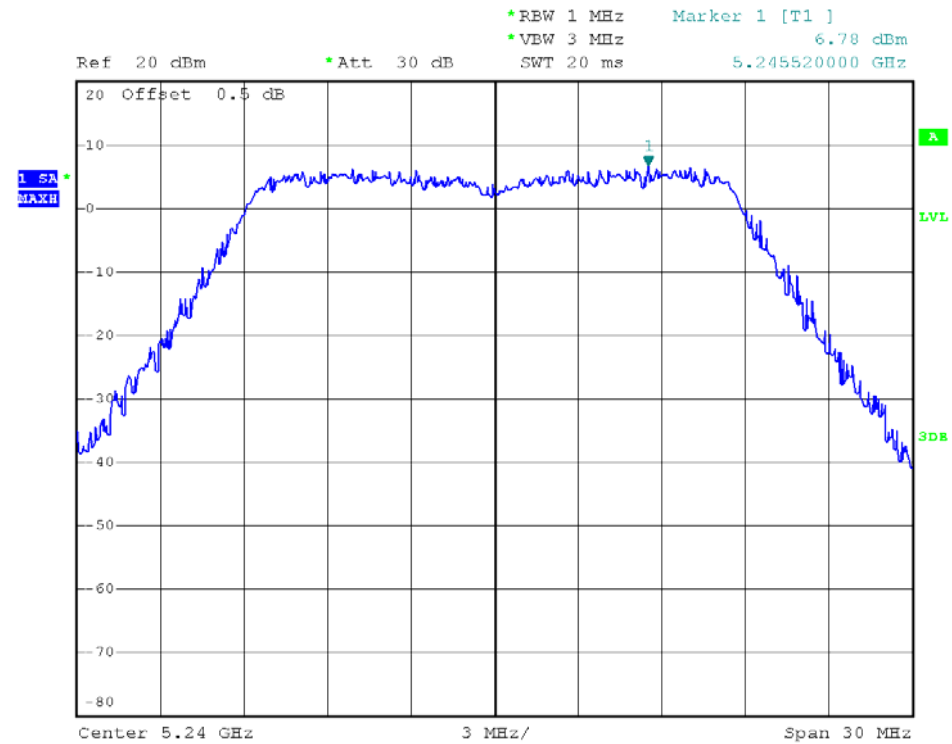




Antenna A - 802.11n-HT20 – 5220MHz

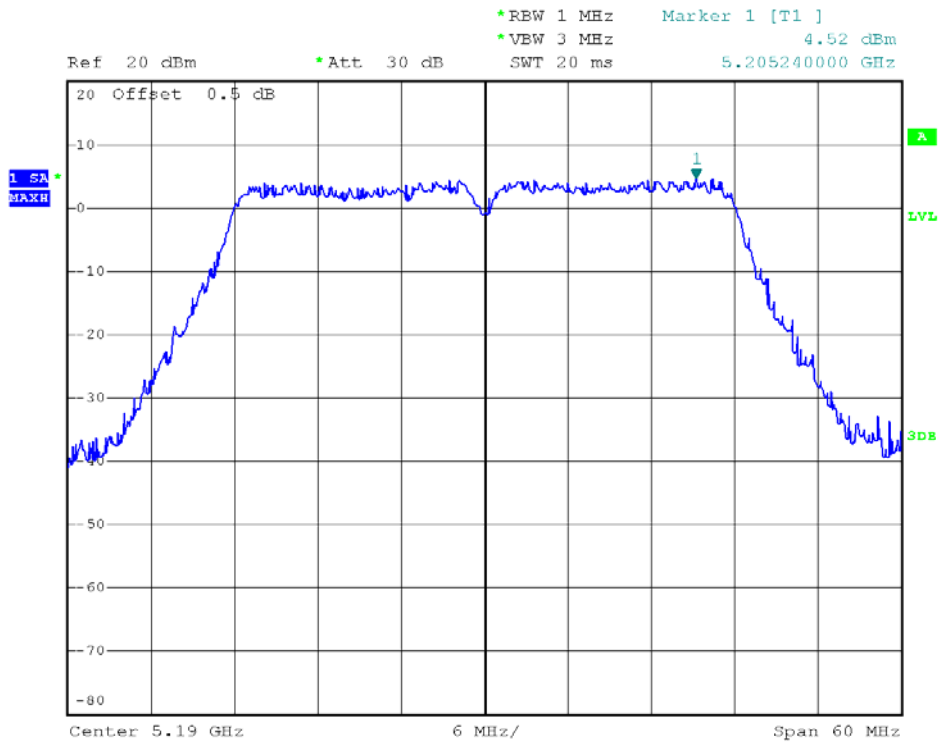


Antenna A - 802.11n-HT20 – 5240MHz

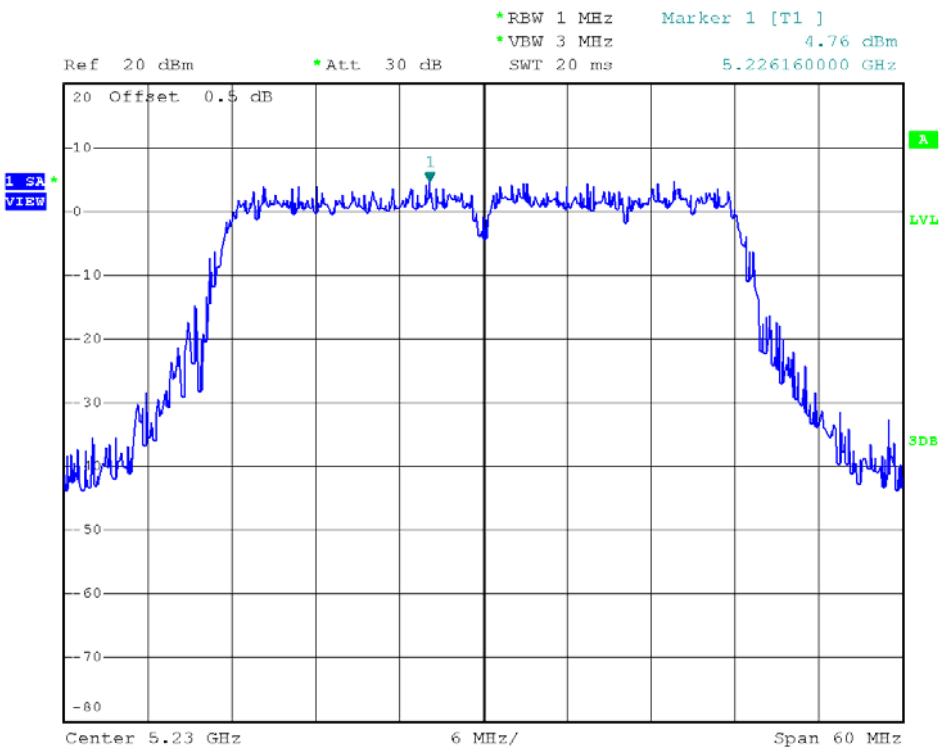




Antenna A - 802.11n-HT40 – 5190MHz

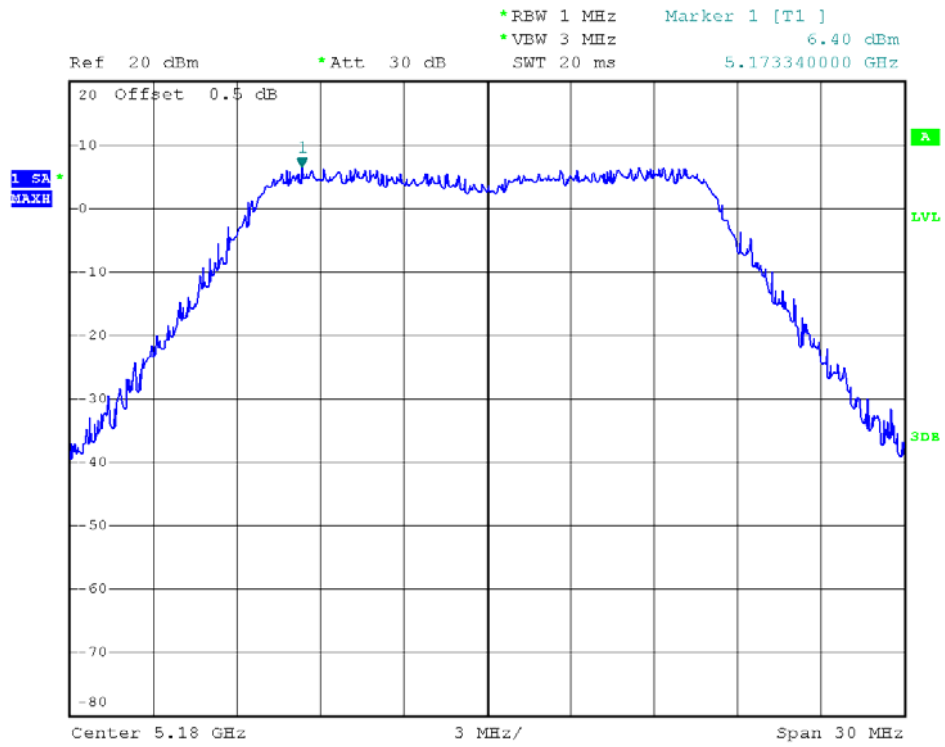


Antenna A - 802.11n-HT40 – 5230MHz

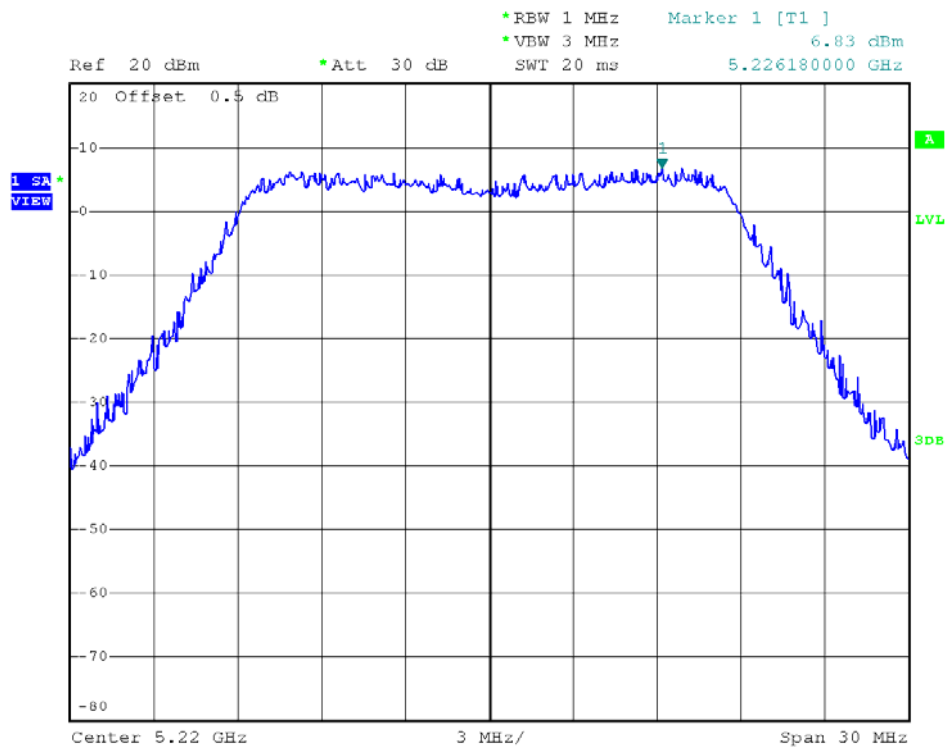




Antenna A - 802.11ac-VHT20 – 5180MHz

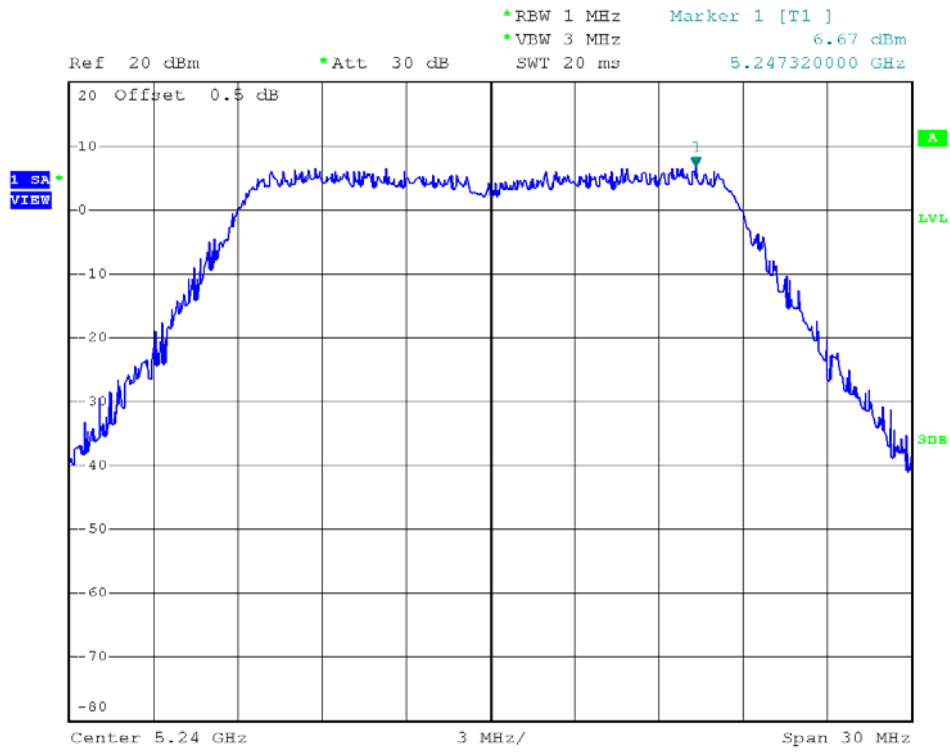


Antenna A - 802.11ac-VHT20 – 5220MHz

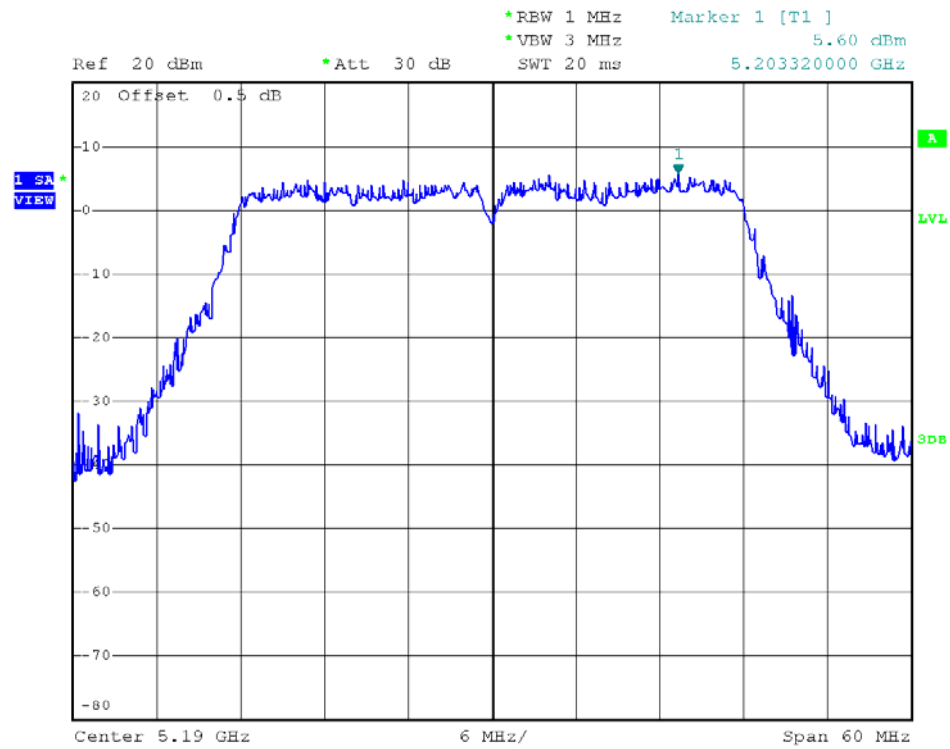




Antenna A - 802.11ac-VHT20 – 5240MHz

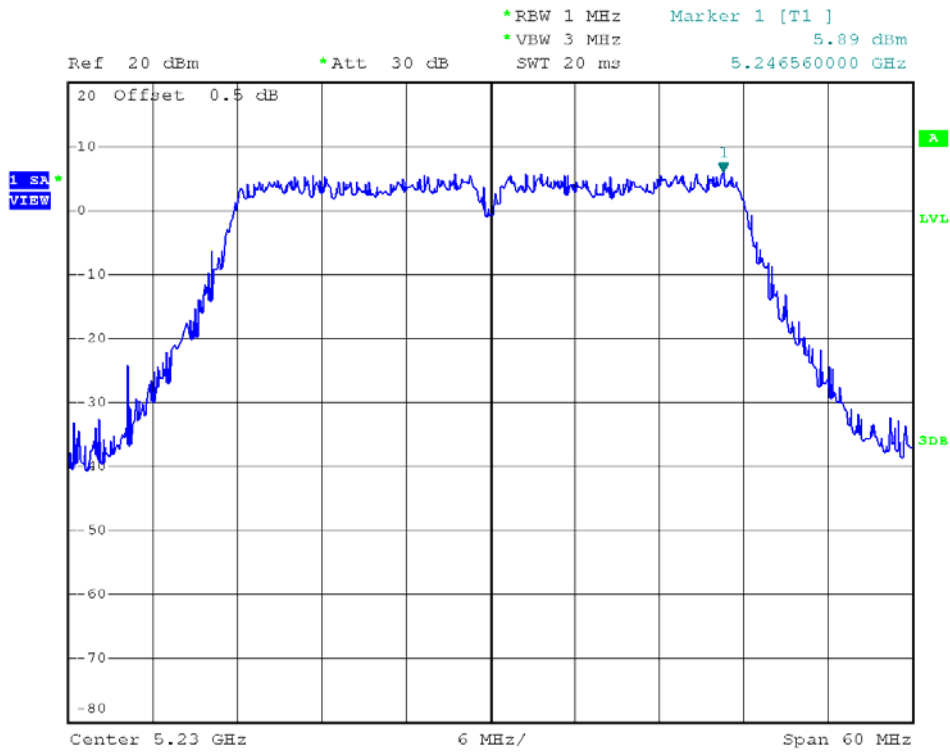


Antenna A - 802.11ac-VHT40 – 5190MHz

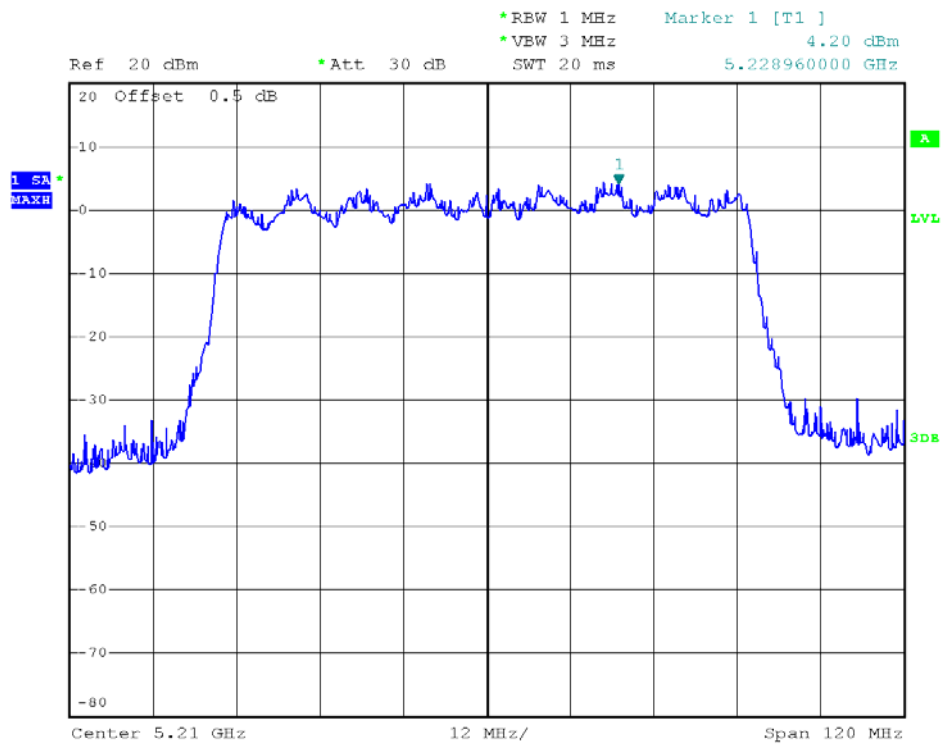




Antenna A - 802.11ac-VHT40 – 5230MHz

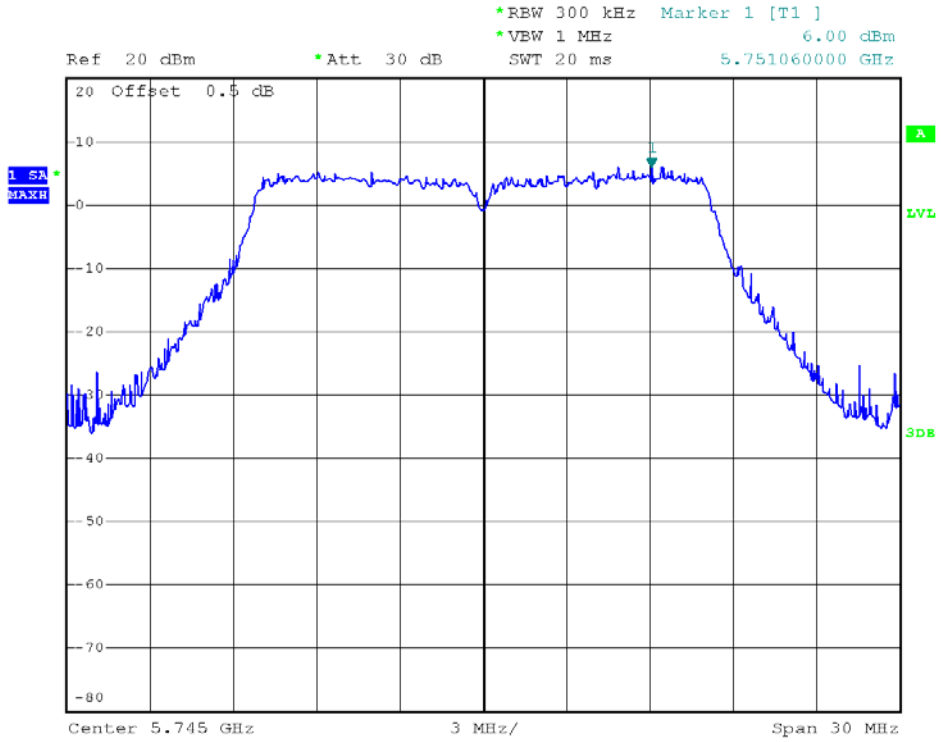


Antenna A - 802.11ac-VHT80 – 5210MHz

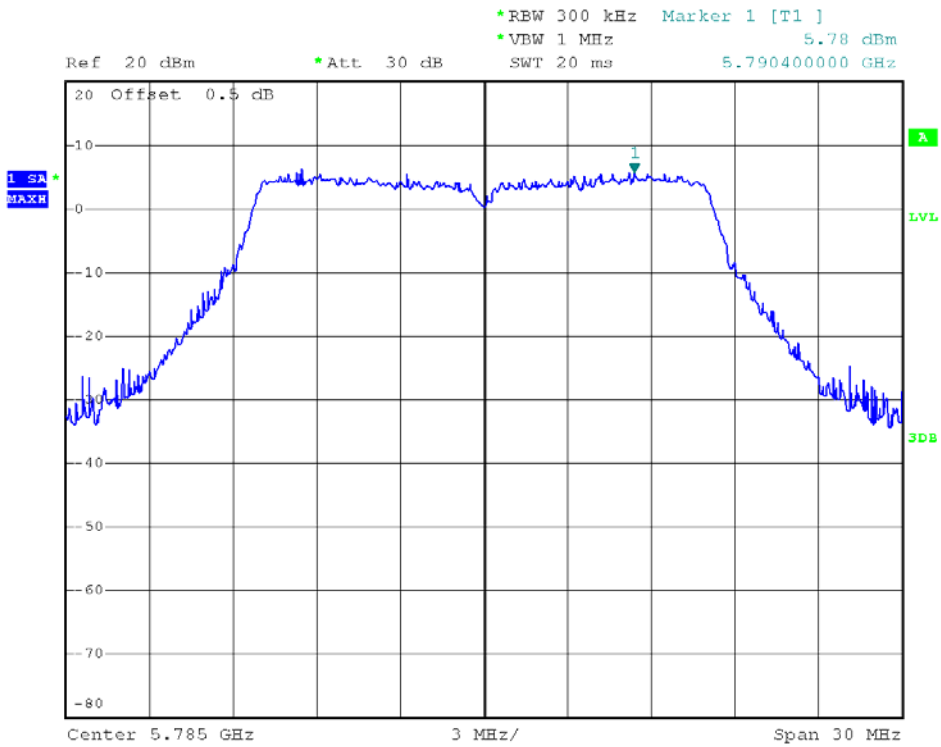




Antenna A - 802.11a – 5745MHz

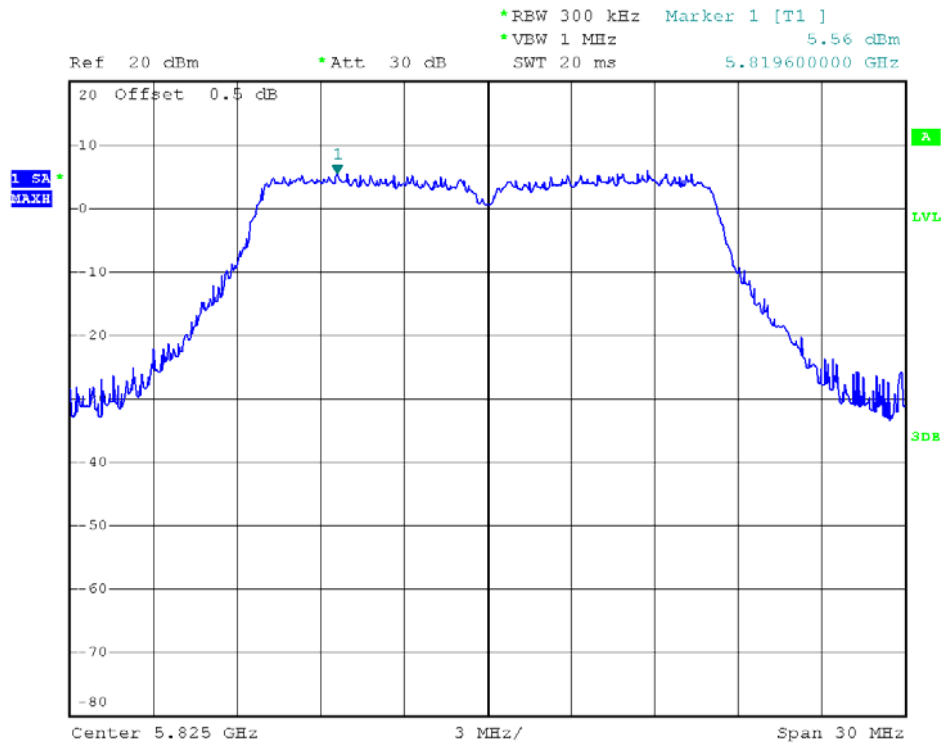


Antenna A - 802.11a – 5785MHz

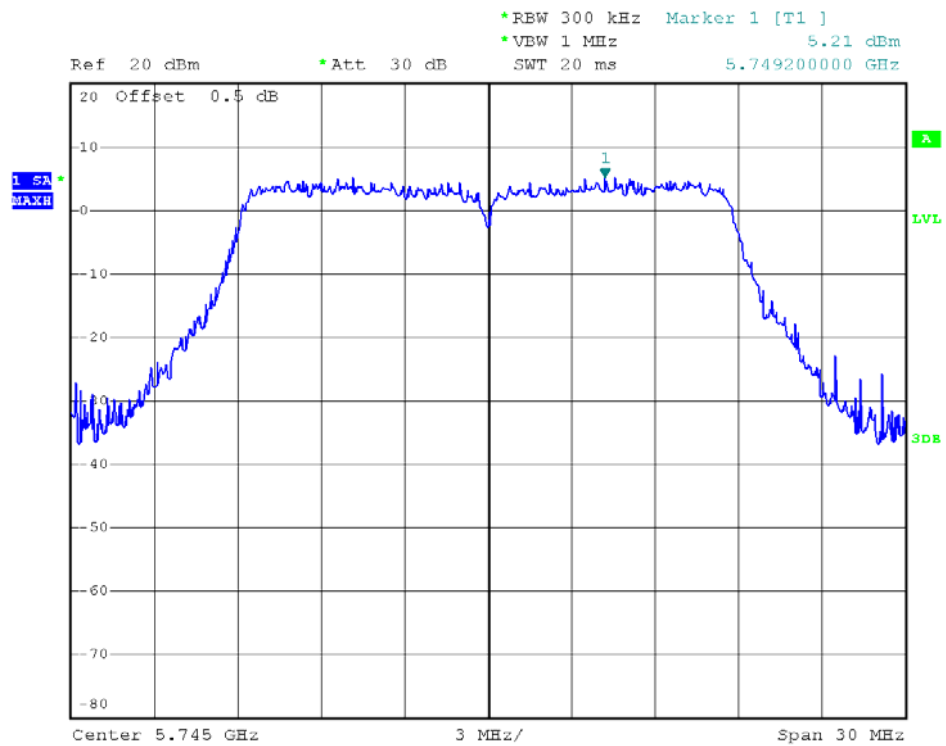




Antenna A - 802.11a – 5825MHz

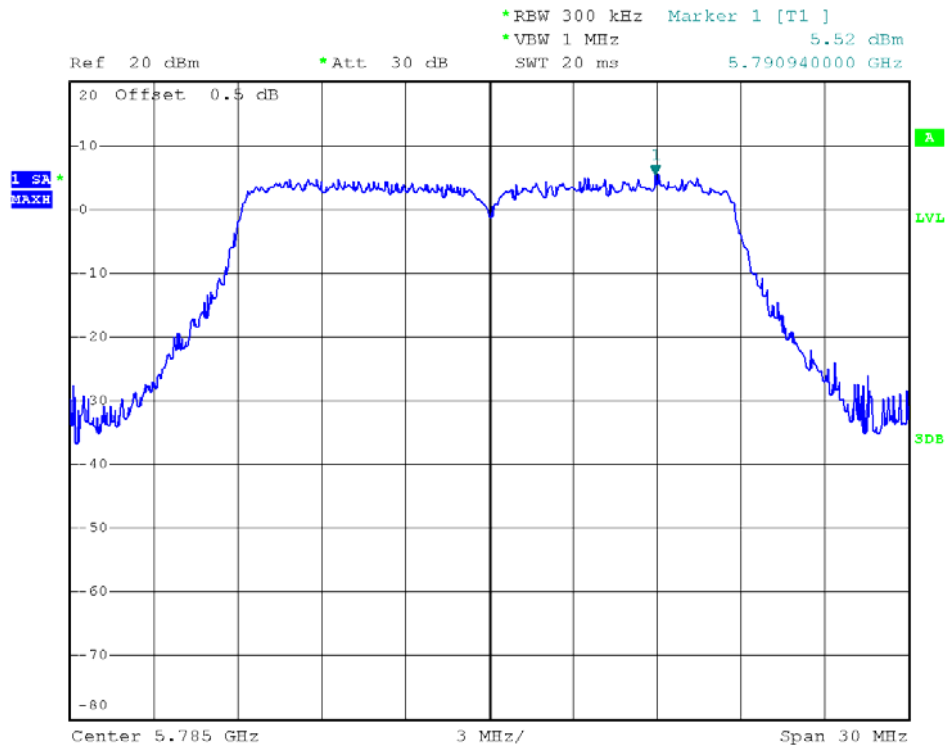


Antenna A - 802.11n-HT20 – 5745MHz

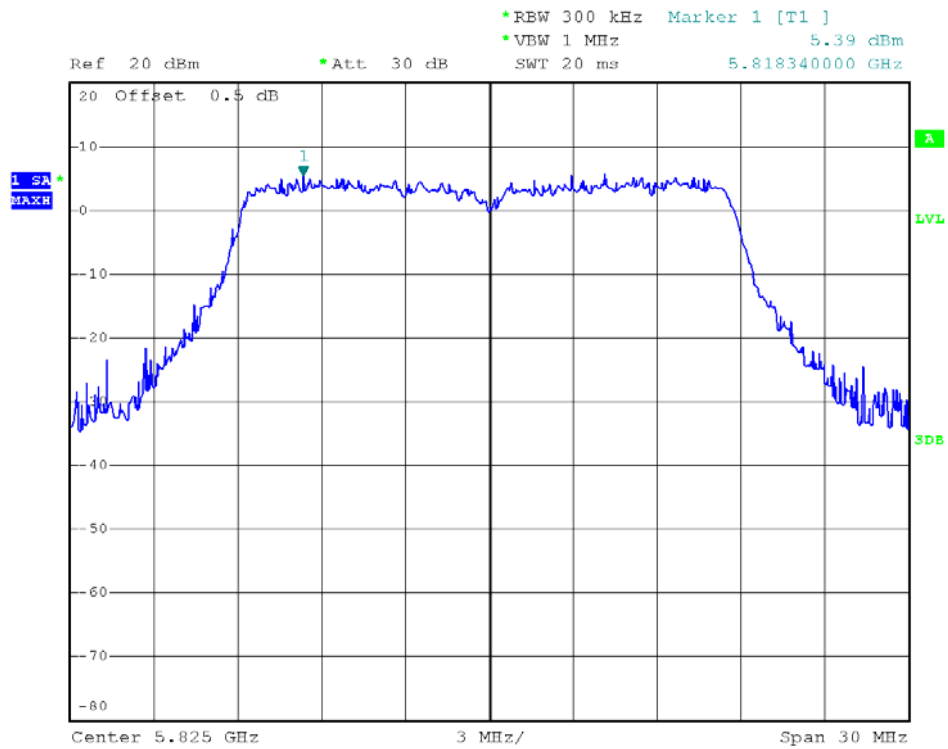




Antenna A - 802.11n-HT20 – 5785MHz

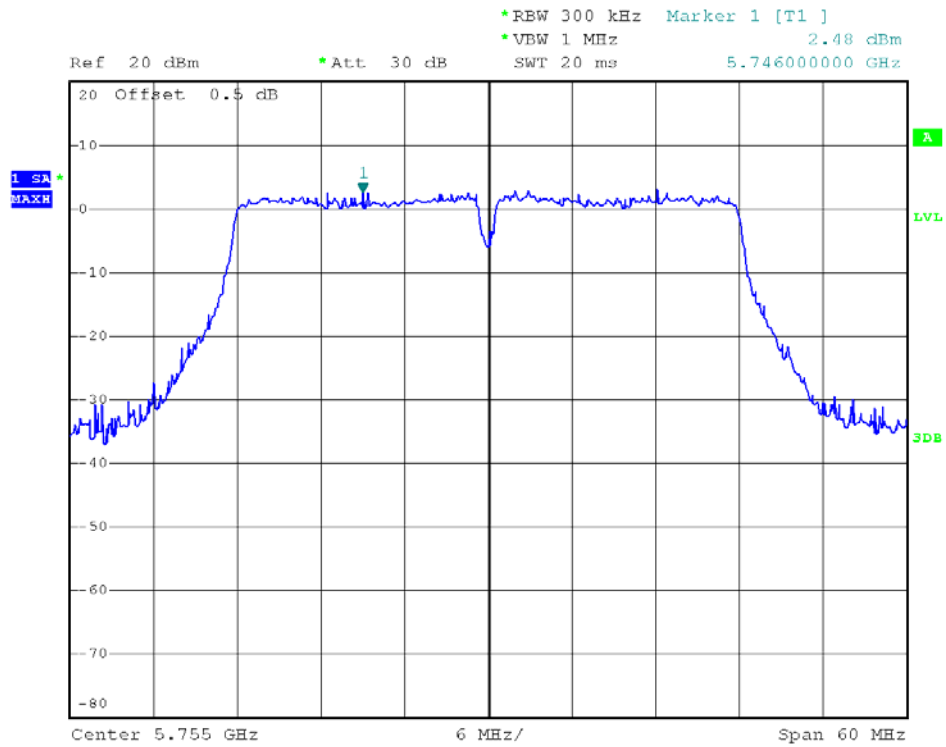


Antenna A - 802.11n-HT20 – 5825MHz

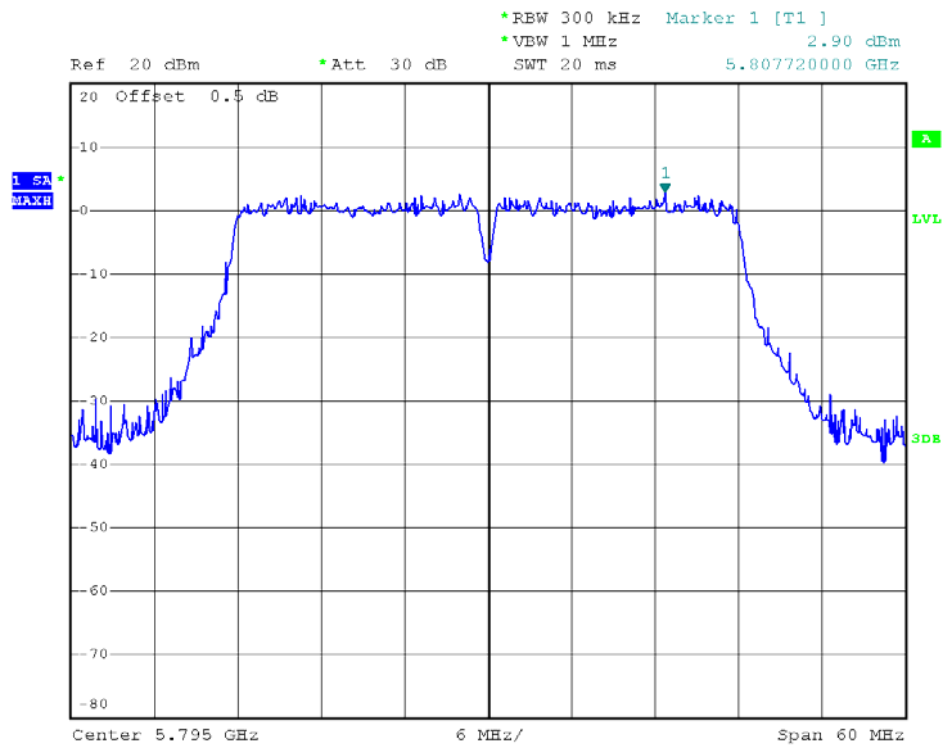




Antenna A - 802.11n-HT40 – 5755MHz

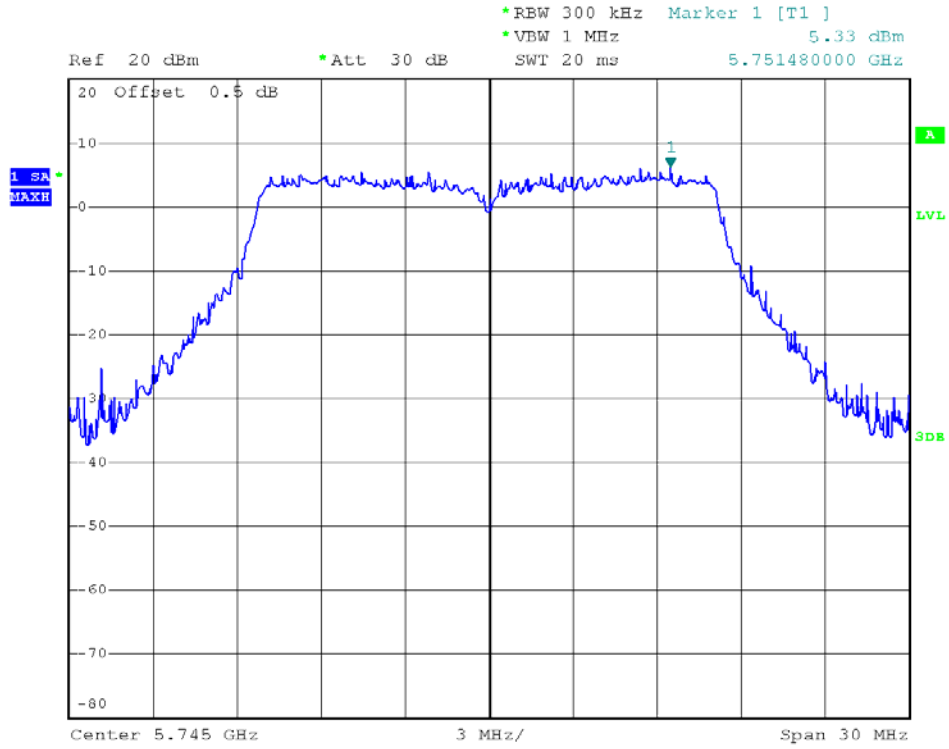


Antenna A - 802.11n-HT40 – 5795MHz

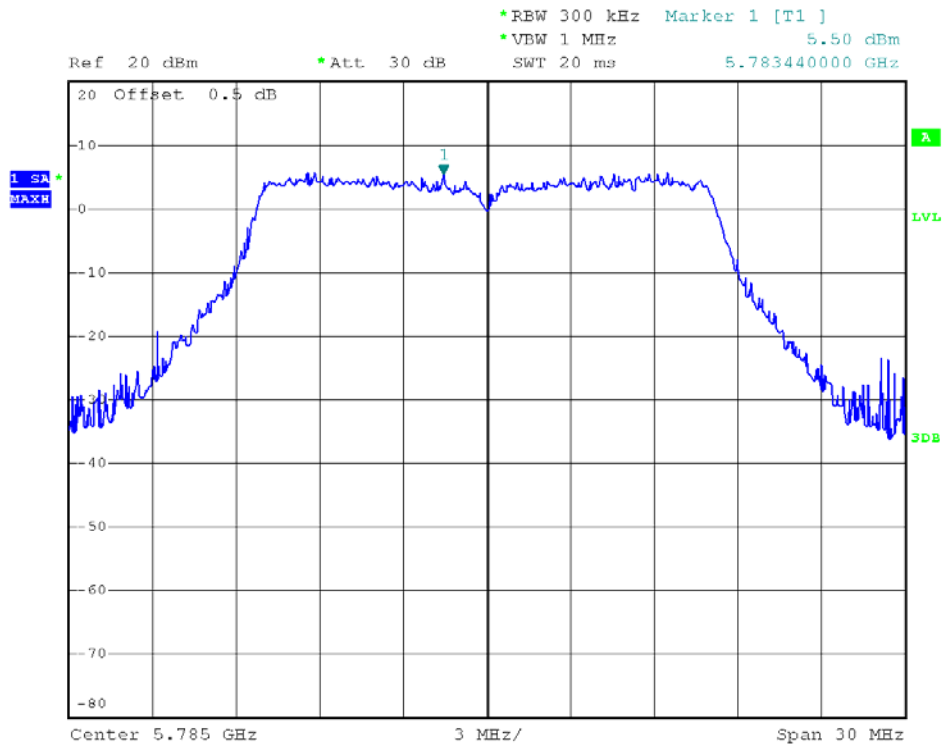




Antenna A - 802.11ac-VHT20 – 5745MHz

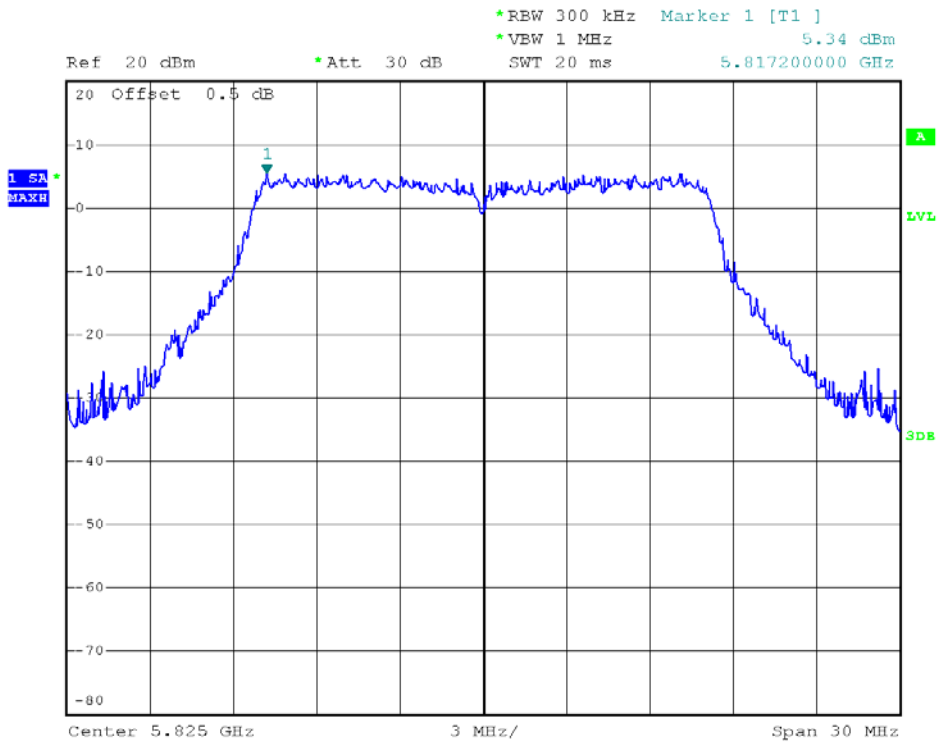


Antenna A - 802.11ac-VHT20 – 5785MHz

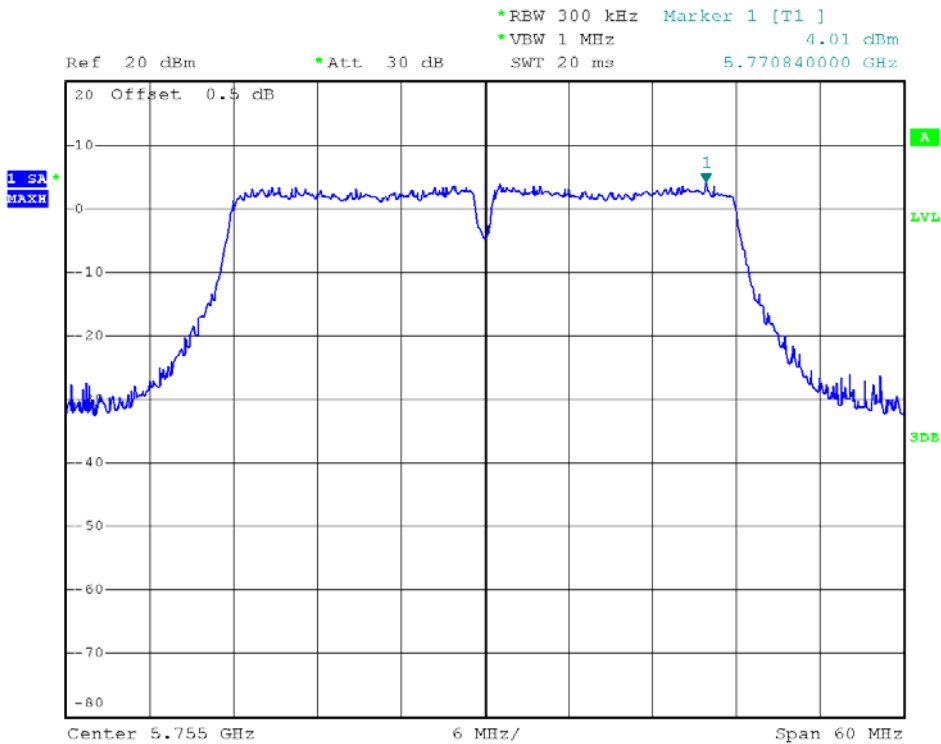




Antenna A - 802.11ac-VHT20 – 5825MHz

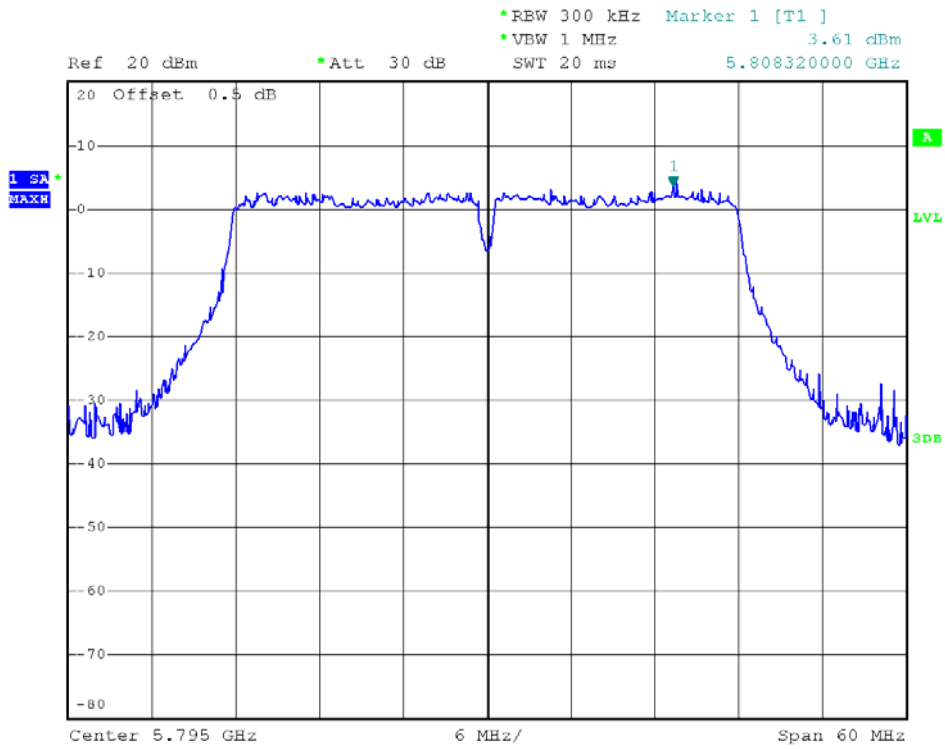


Antenna A - 802.11ac-VHT40 – 5755MHz

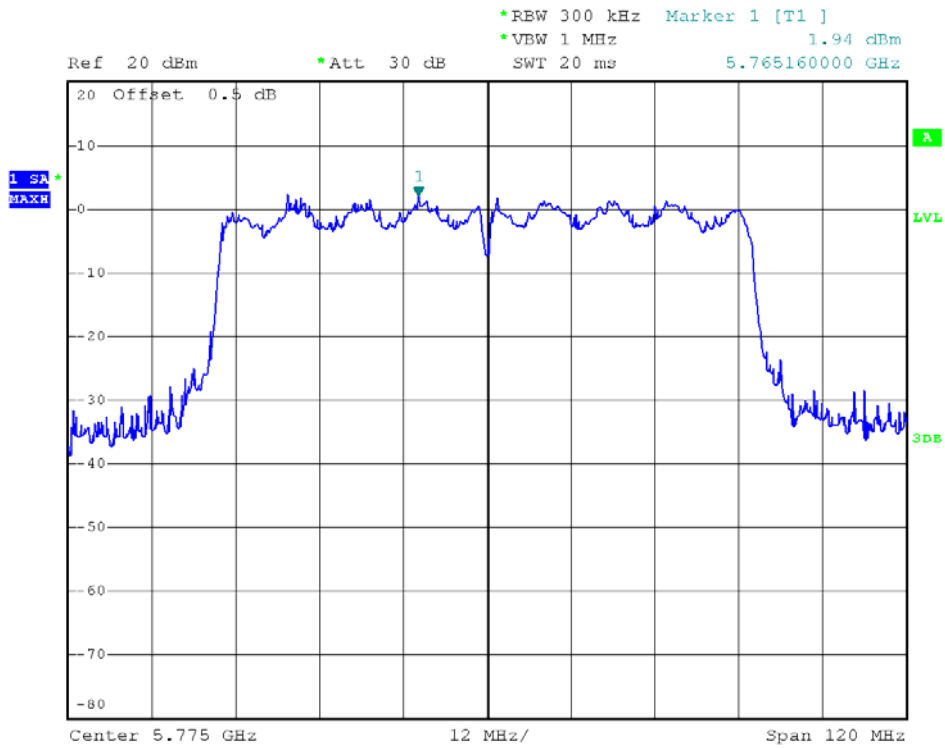




Antenna A - 802.11ac-VHT40 – 5795MHz

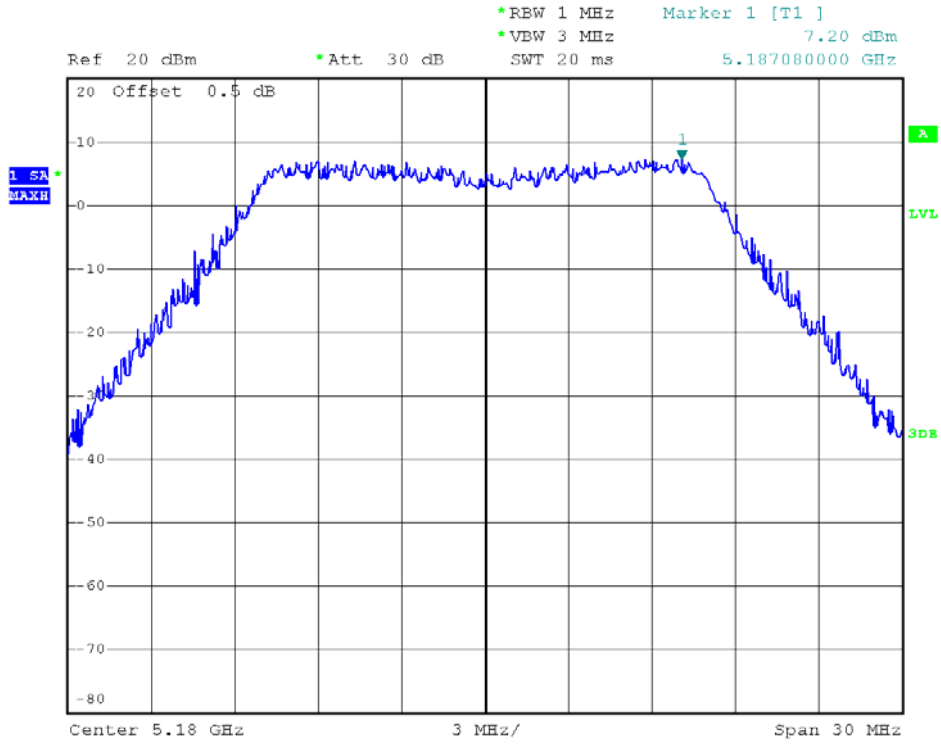


Antenna A - 802.11ac-VHT80 – 5775MHz

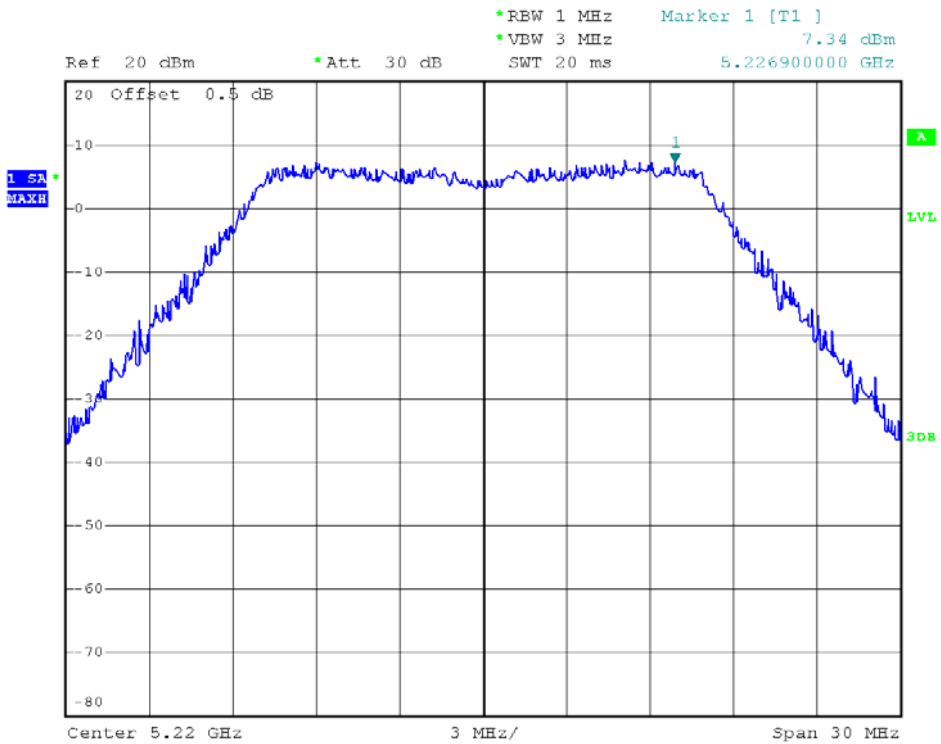




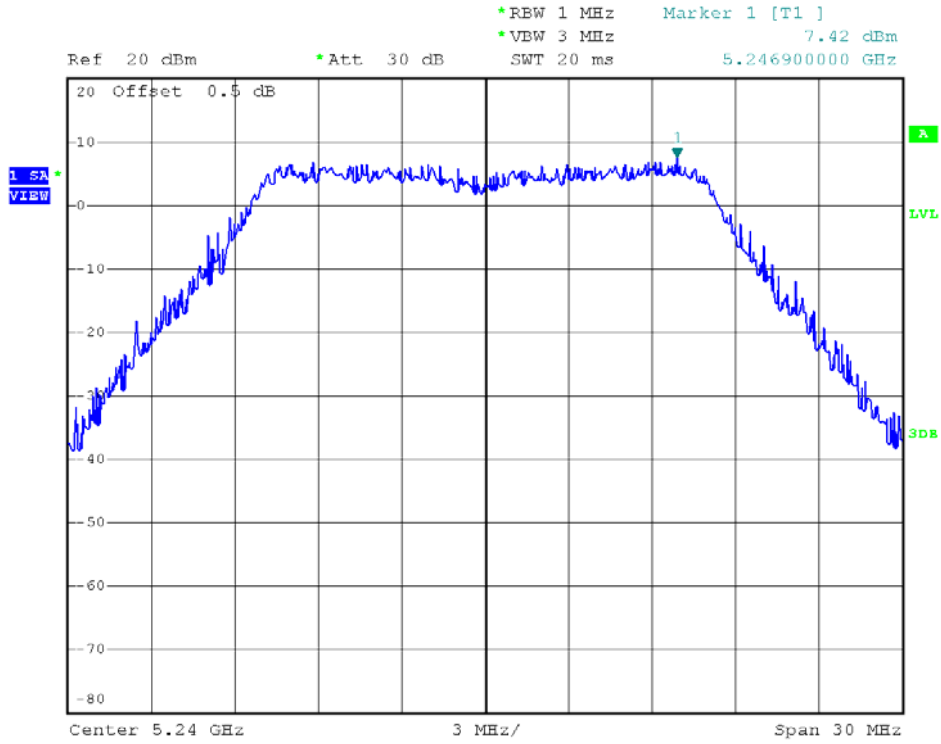
Antenna B - 802.11a – 5180MHz



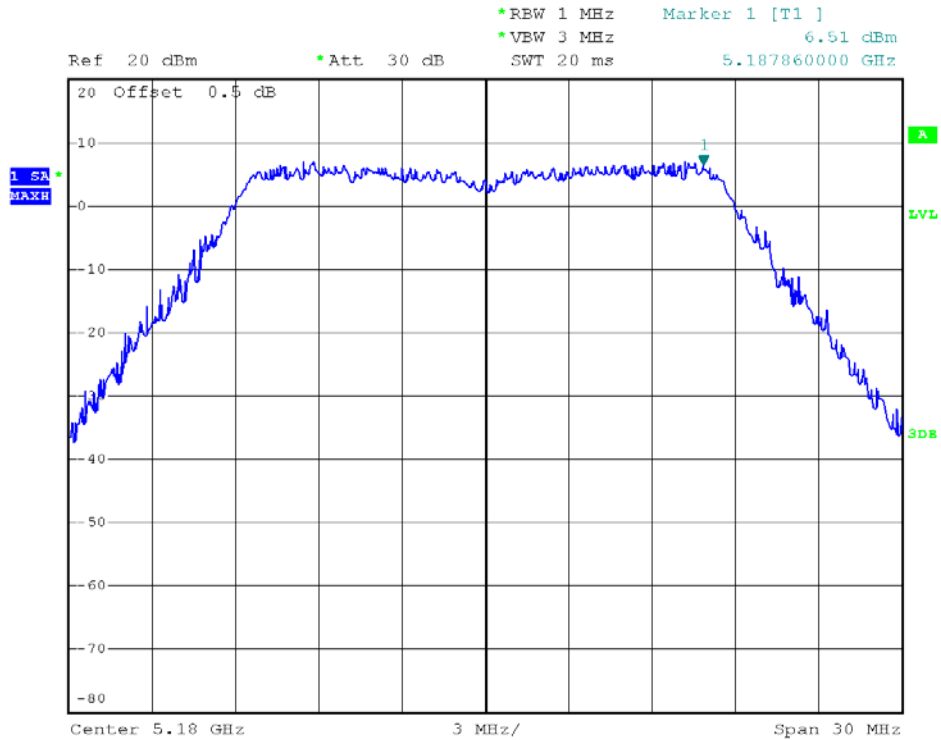
Antenna B - 802.11a – 5220MHz



Antenna B - 802.11a – 5240MHz

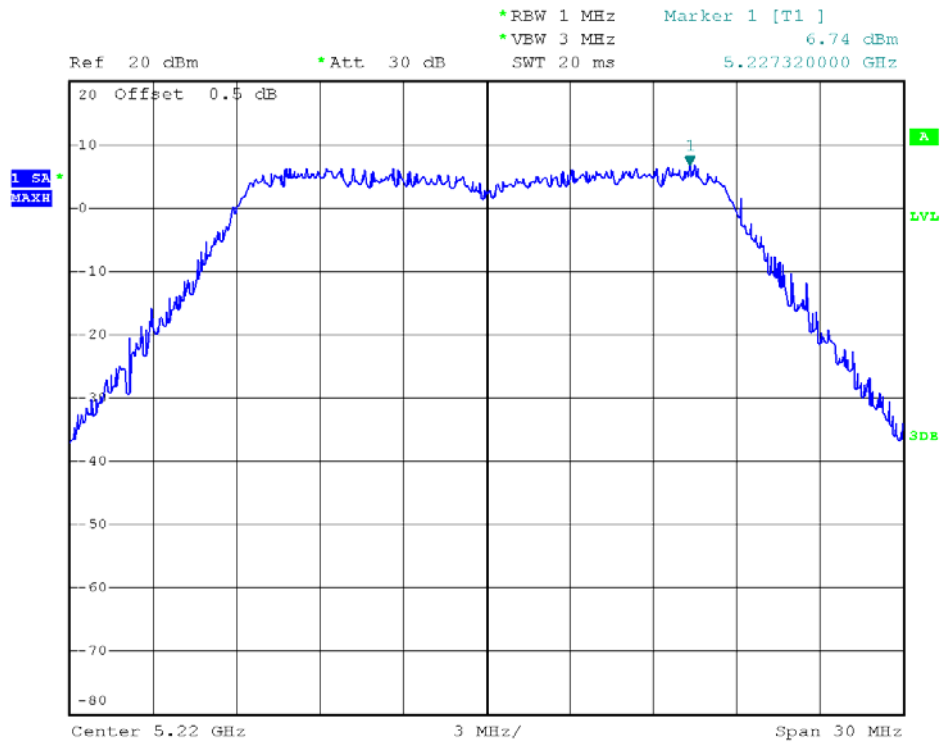


Antenna B - 802.11n-HT20 – 5180MHz

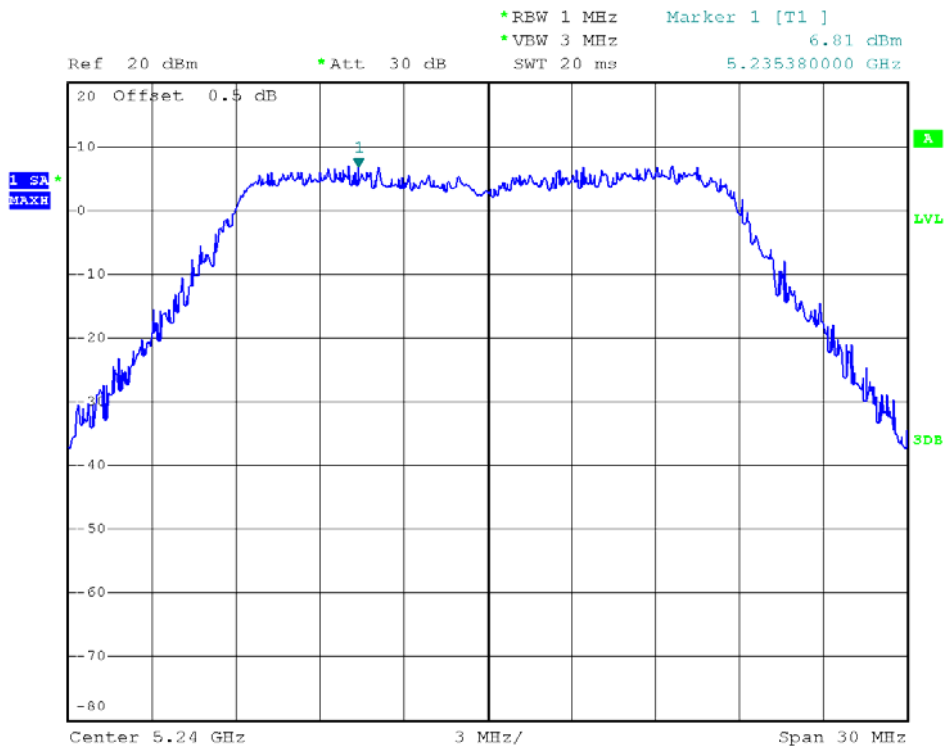




Antenna B - 802.11n-HT20 – 5220MHz

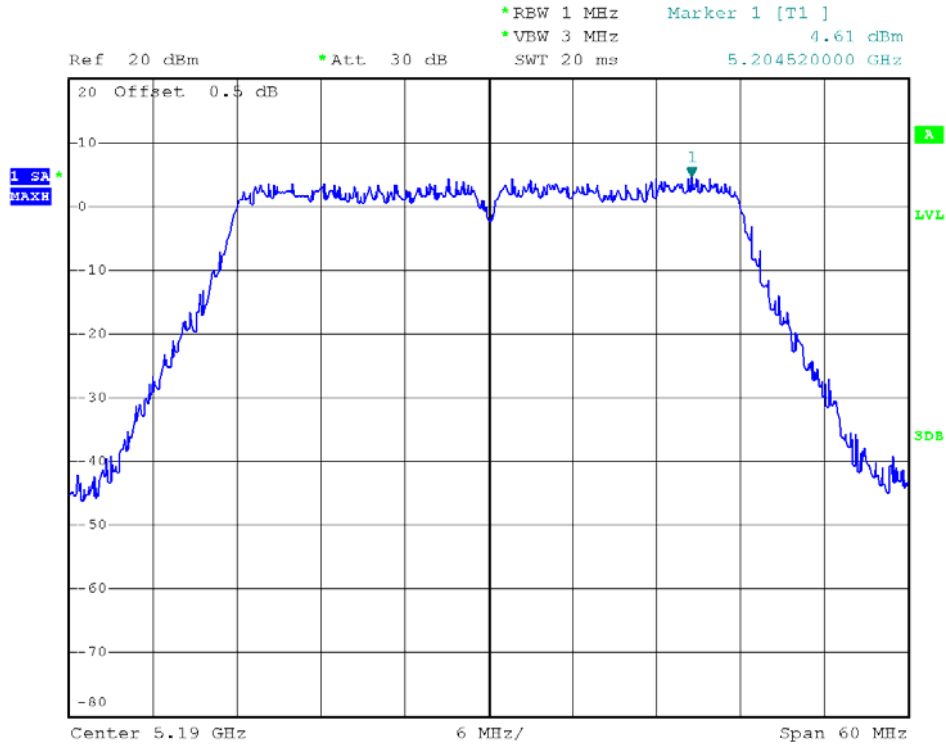


Antenna B - 802.11n-HT20 – 5240MHz

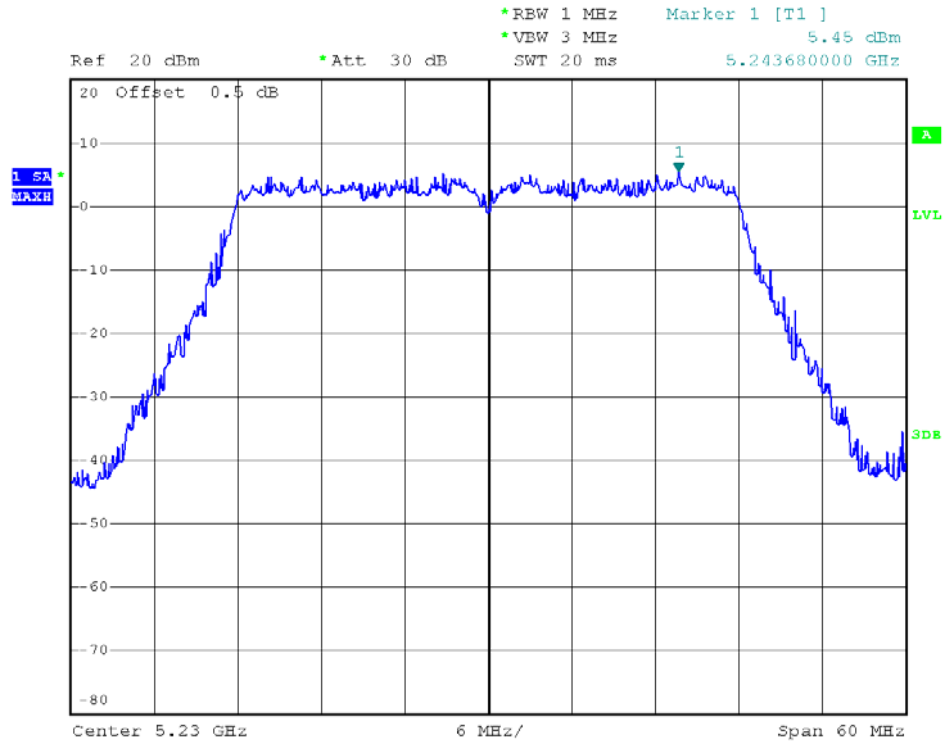




Antenna B - 802.11n-HT40 – 5190MHz

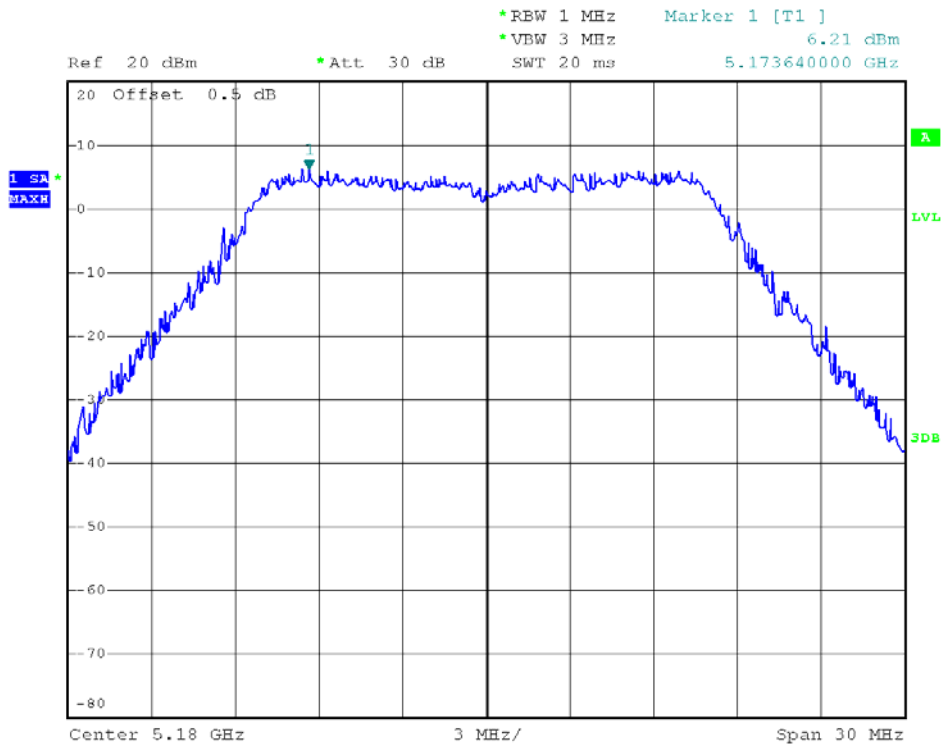


Antenna B - 802.11n-HT40 – 5230MHz

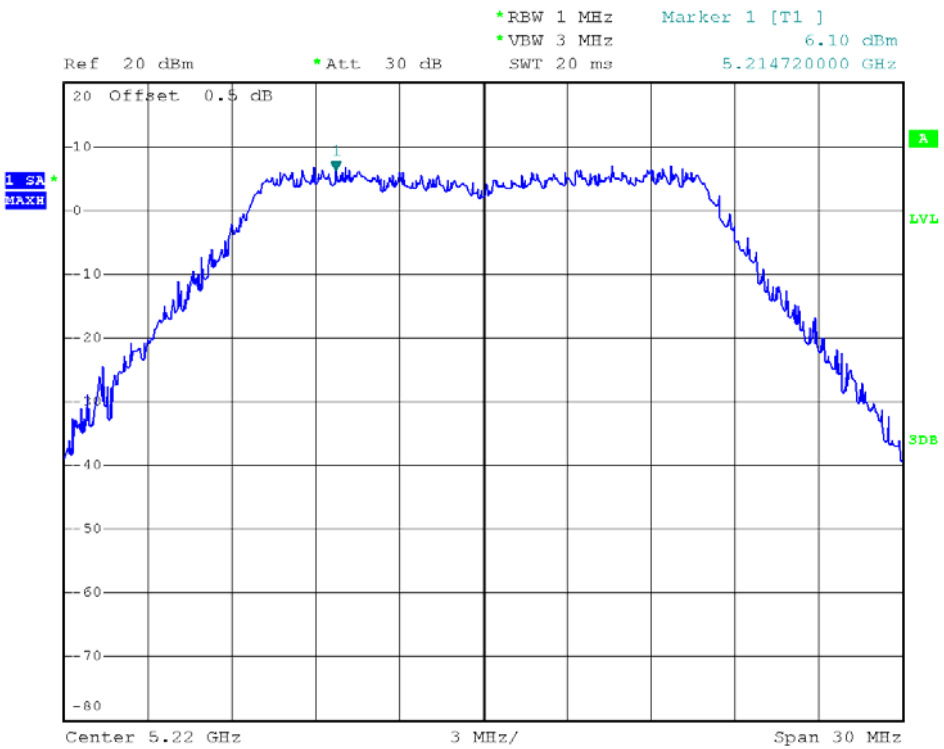




Antenna B - 802.11ac-VHT20 – 5180MHz

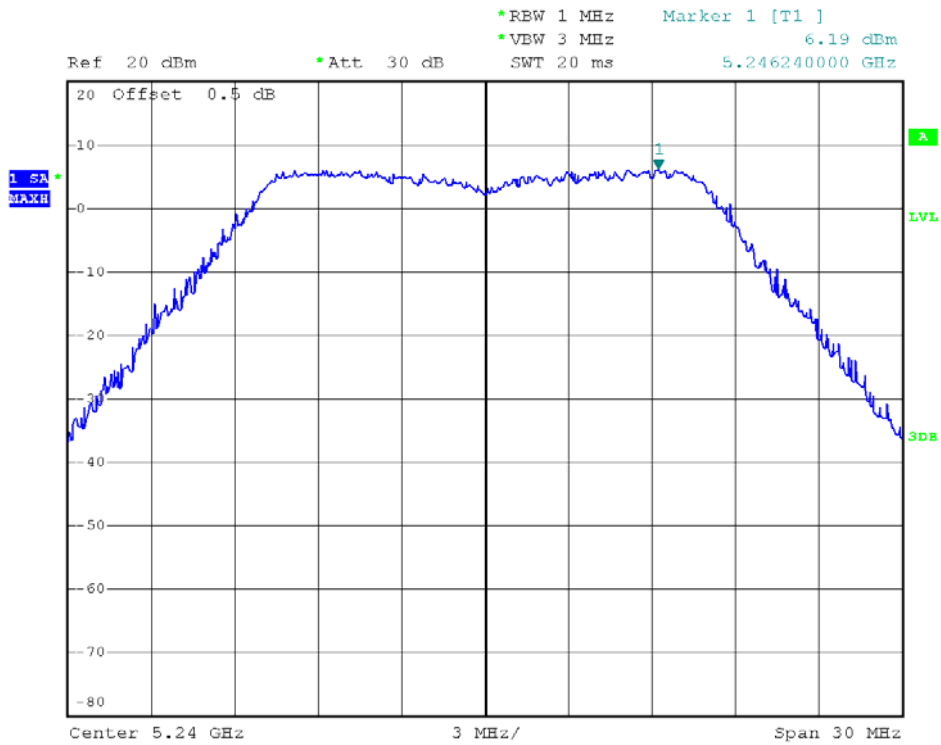


Antenna B - 802.11ac-VHT20 – 5220MHz

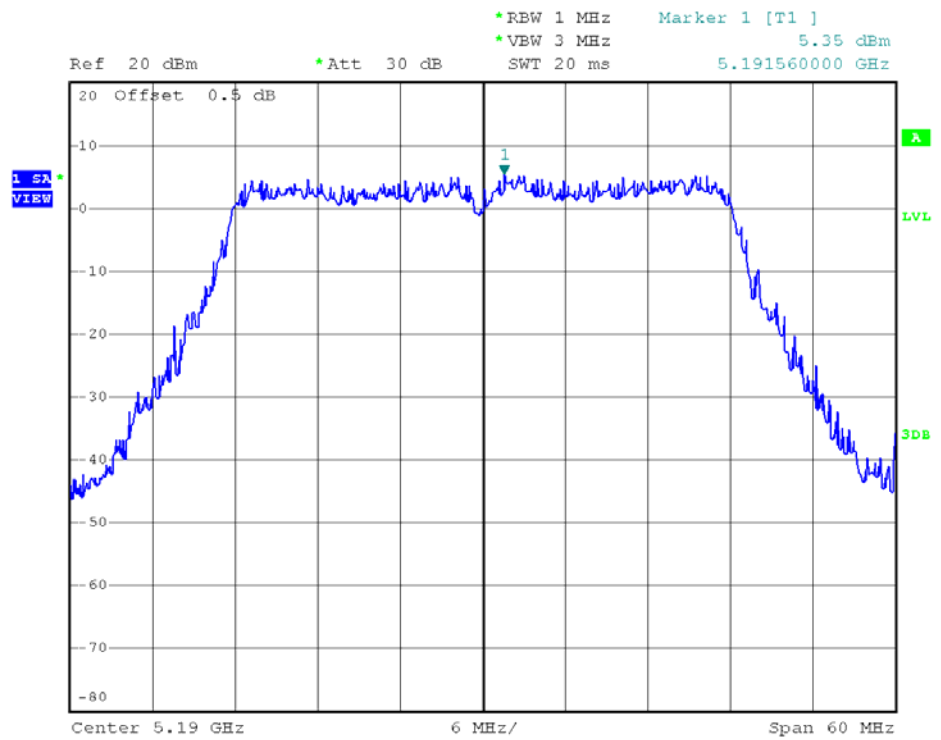




Antenna B - 802.11ac-VHT20 – 5240MHz

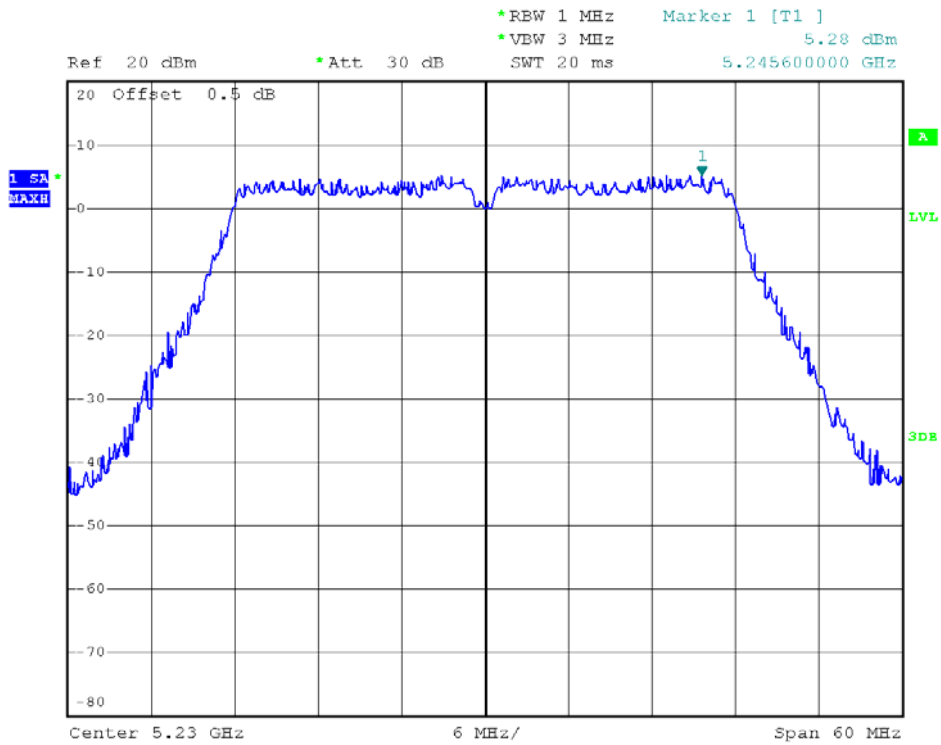


Antenna B - 802.11ac-VHT40 – 5190MHz

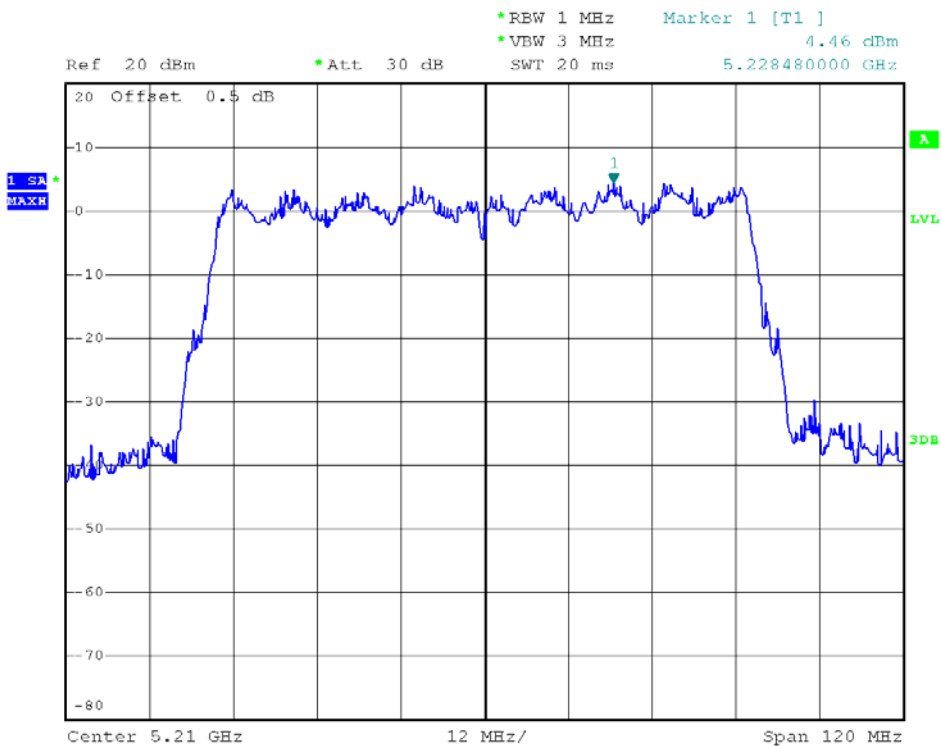




Antenna B - 802.11ac-VHT40 – 5230MHz

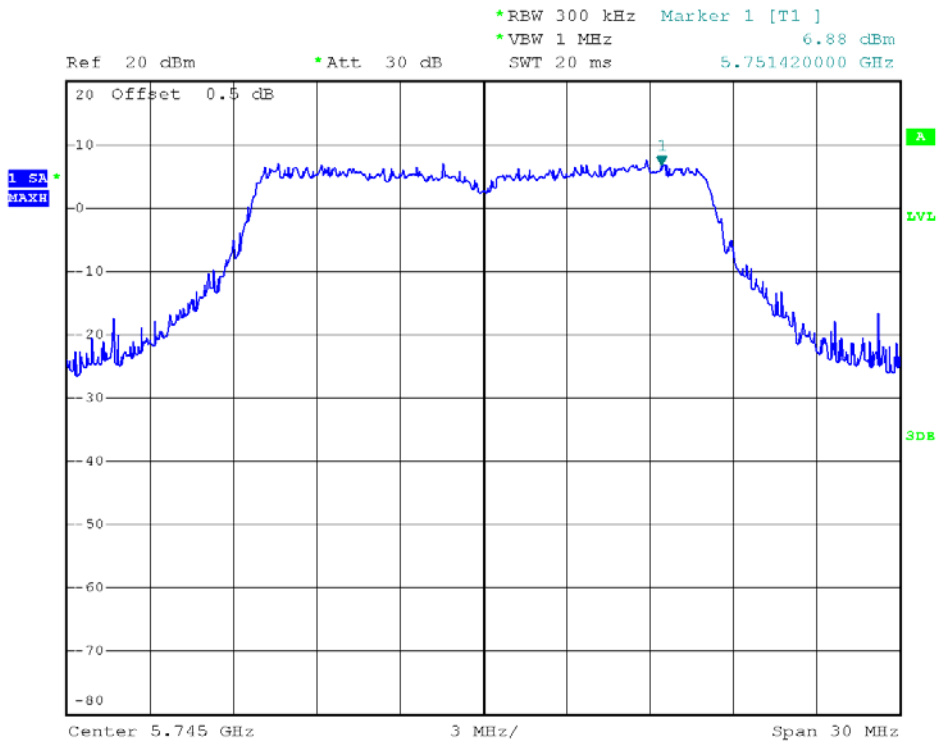


Antenna B - 802.11ac-VHT80 – 5210MHz

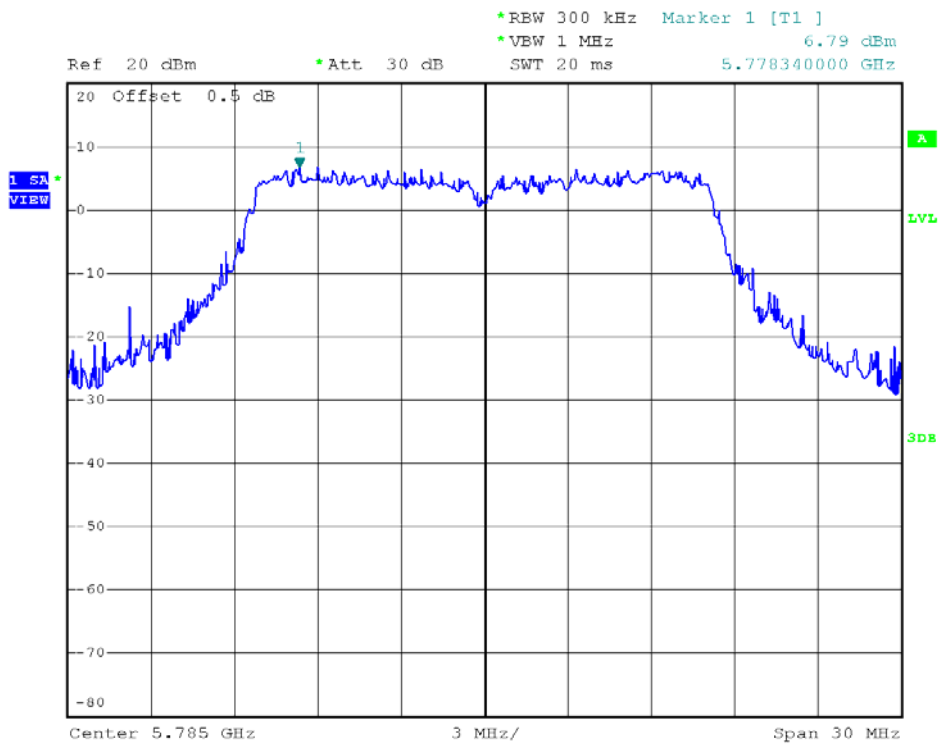




Antenna B - 802.11a – 5745MHz

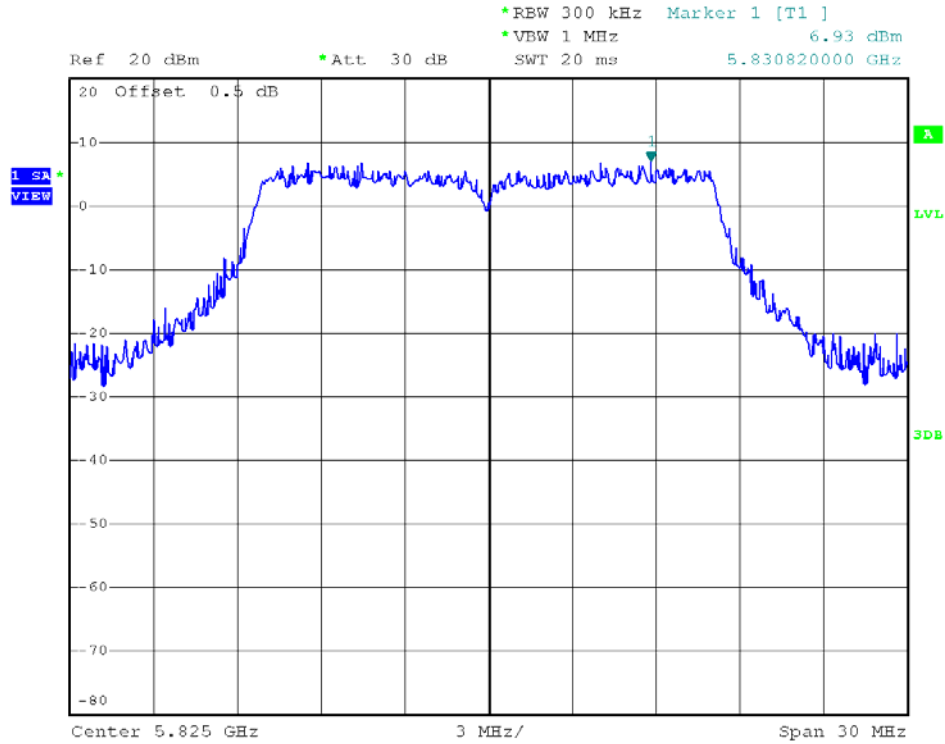


Antenna B - 802.11a – 5785MHz

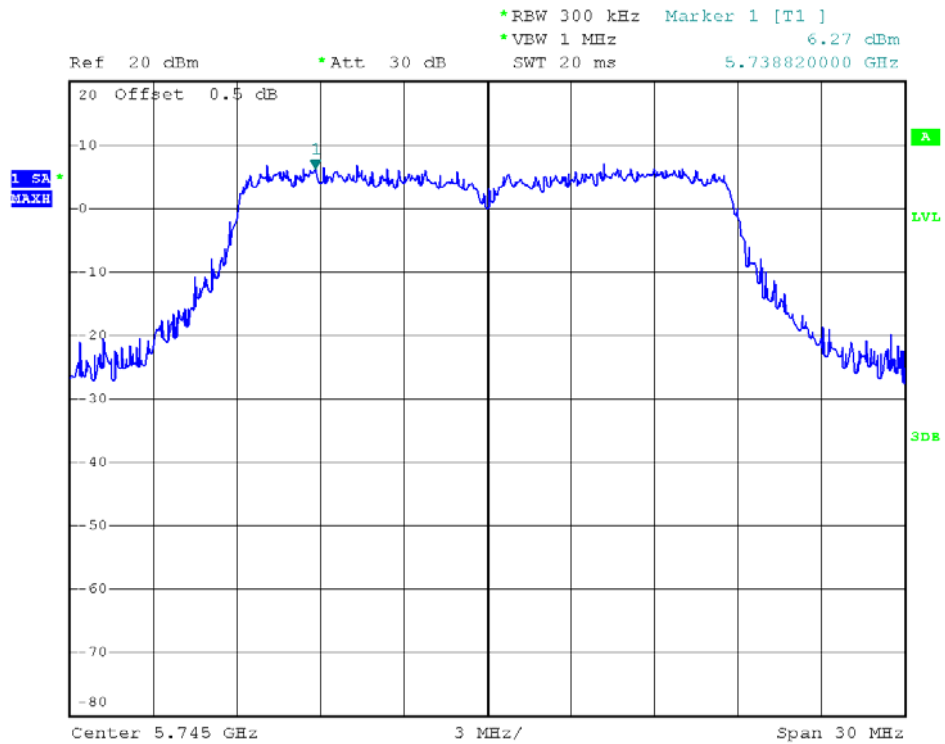




Antenna B - 802.11a – 5825MHz

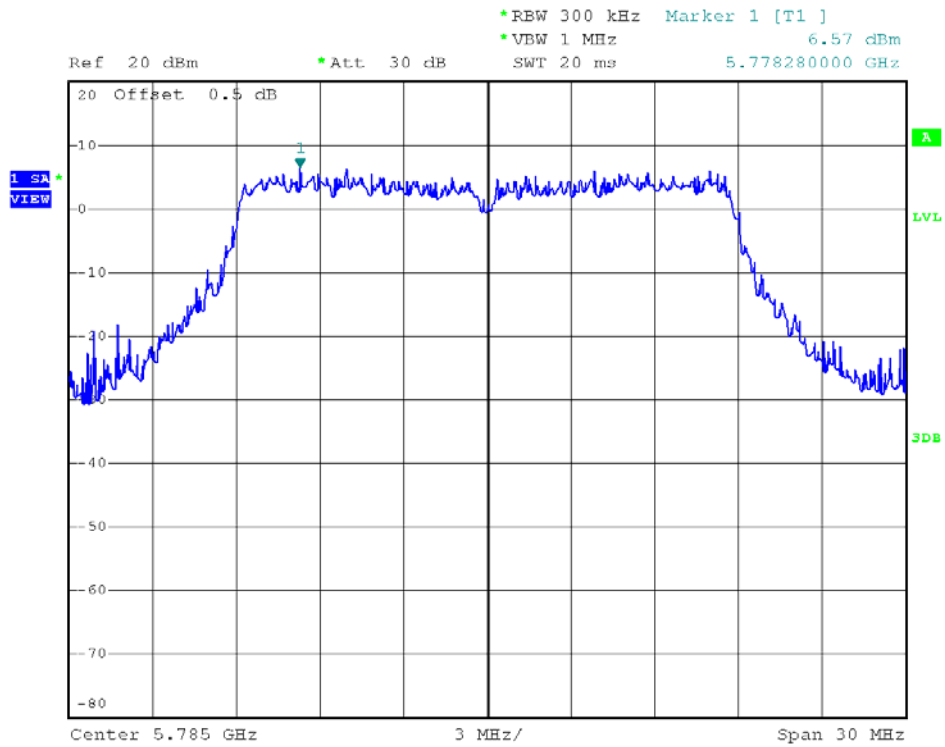


Antenna B - 802.11n-HT20 – 5745MHz

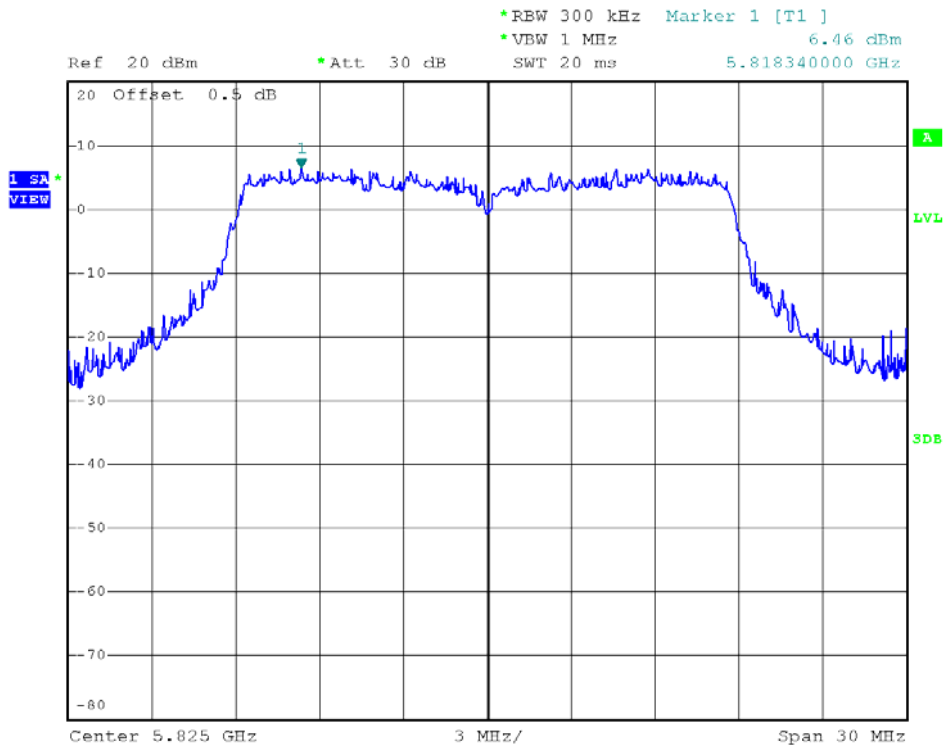




Antenna B - 802.11n-HT20 – 5785MHz

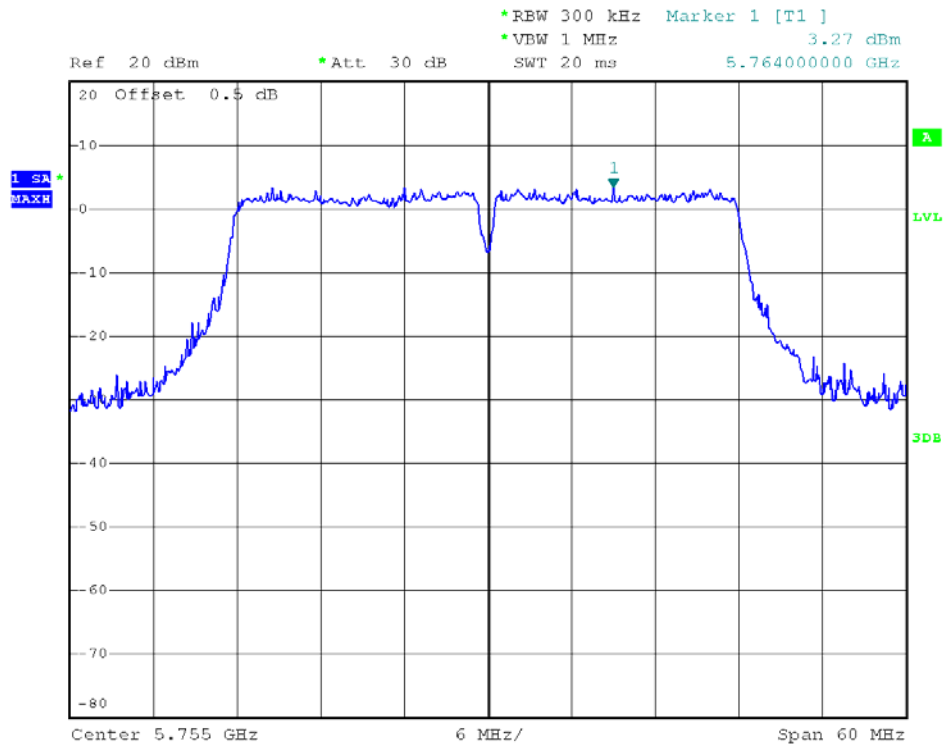


Antenna B - 802.11n-HT20 – 5825MHz

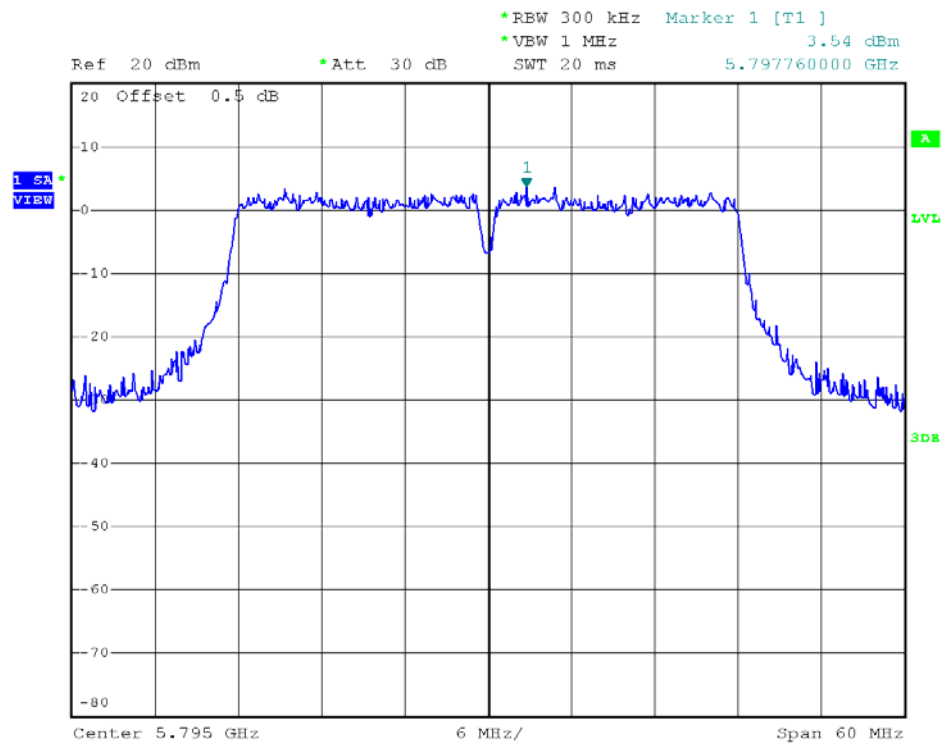




Antenna B - 802.11n-HT40 – 5755MHz

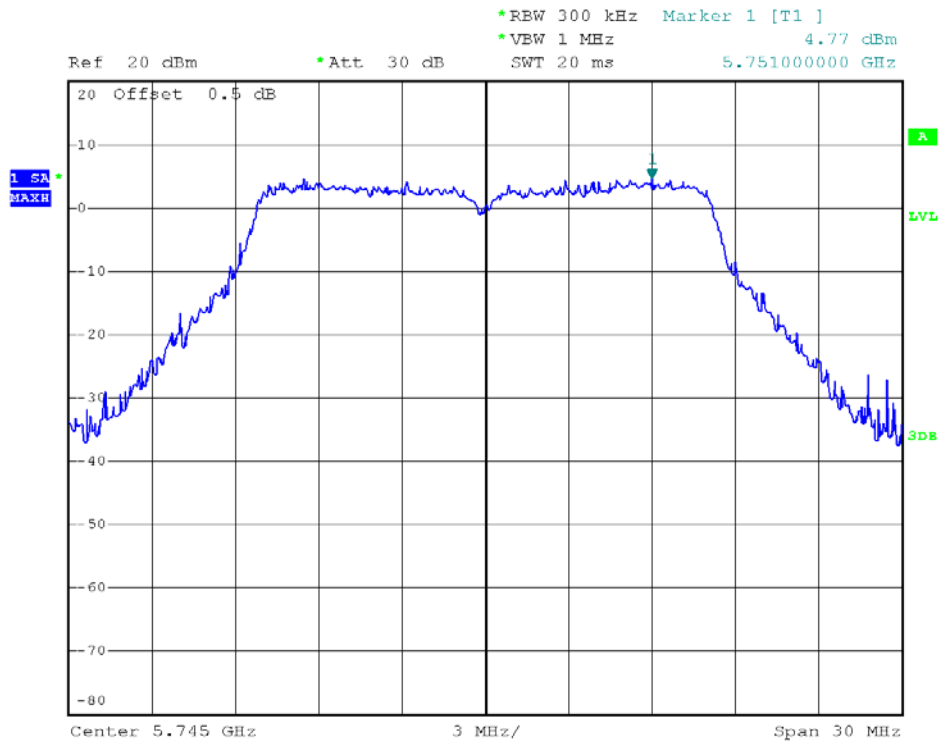


Antenna B - 802.11n-HT40 – 5795MHz

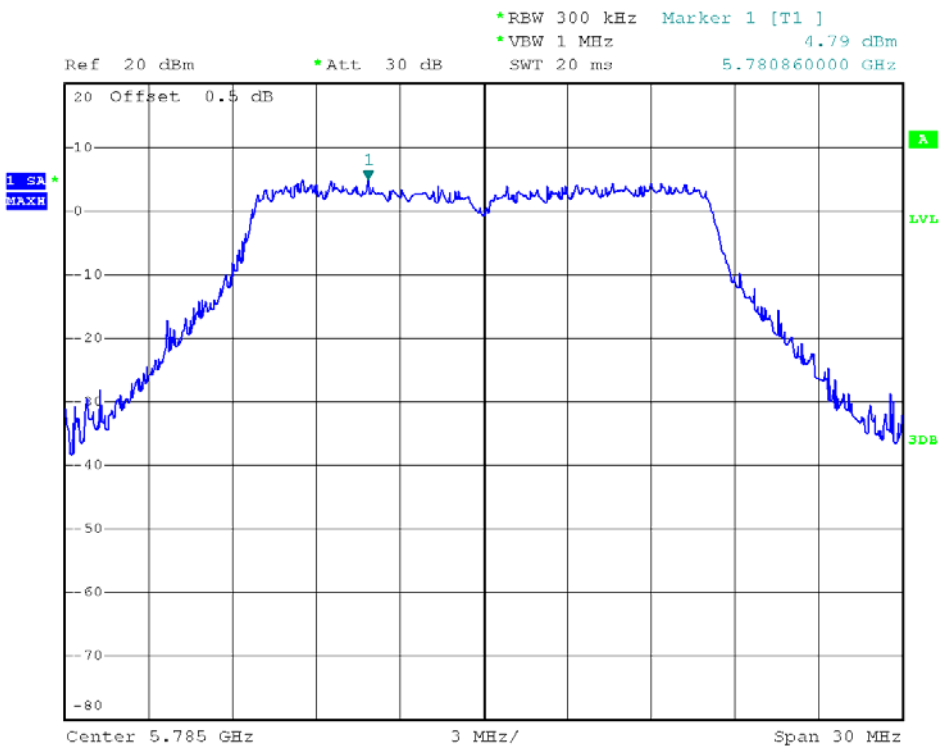




Antenna B - 802.11ac-VHT20 – 5745MHz

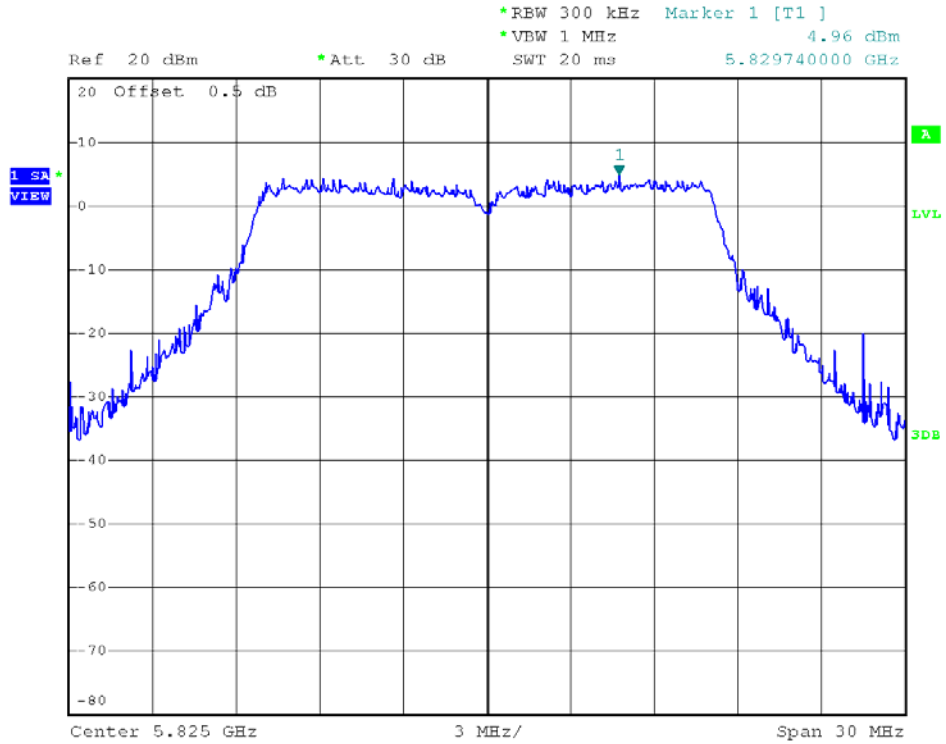


Antenna B - 802.11ac-VHT20 – 5785MHz

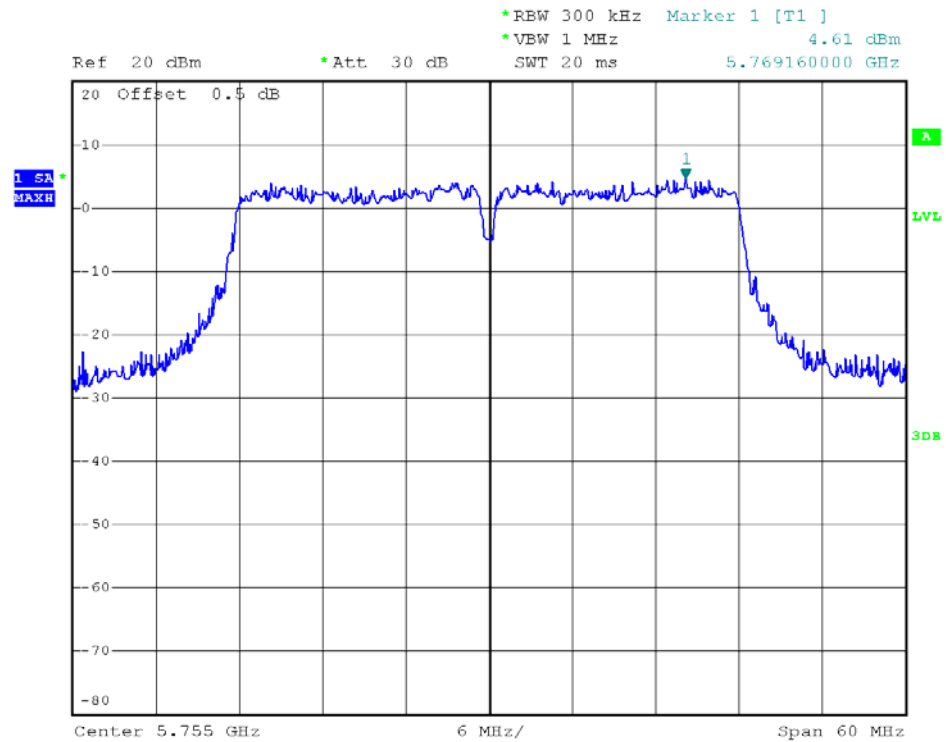




Antenna B - 802.11ac-VHT20 – 5825MHz

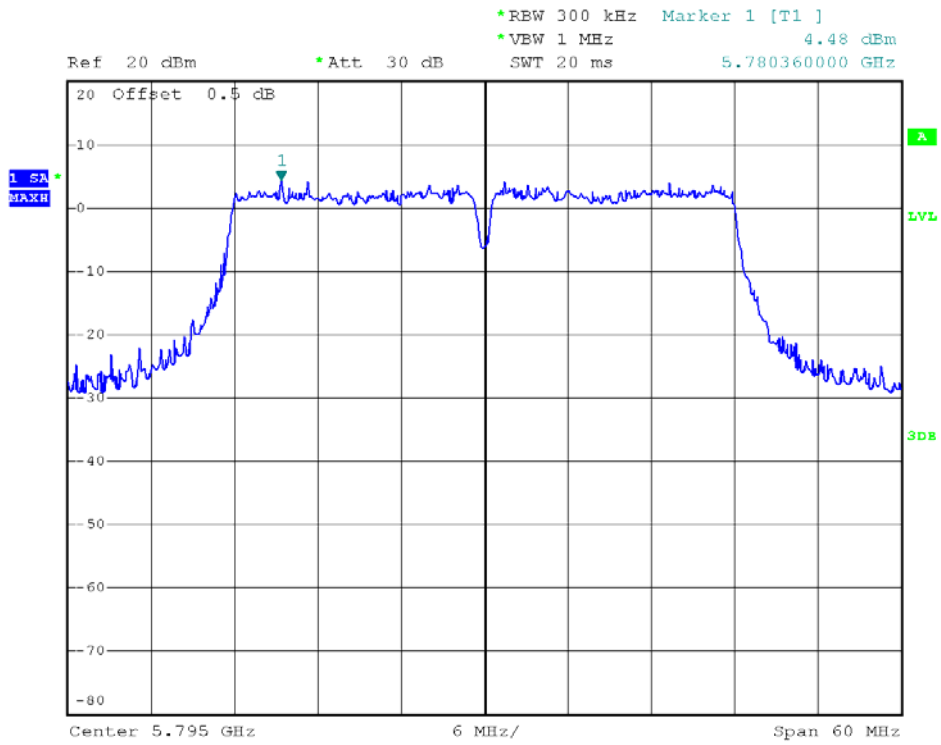


Antenna B - 802.11ac-VHT40 – 5755MHz

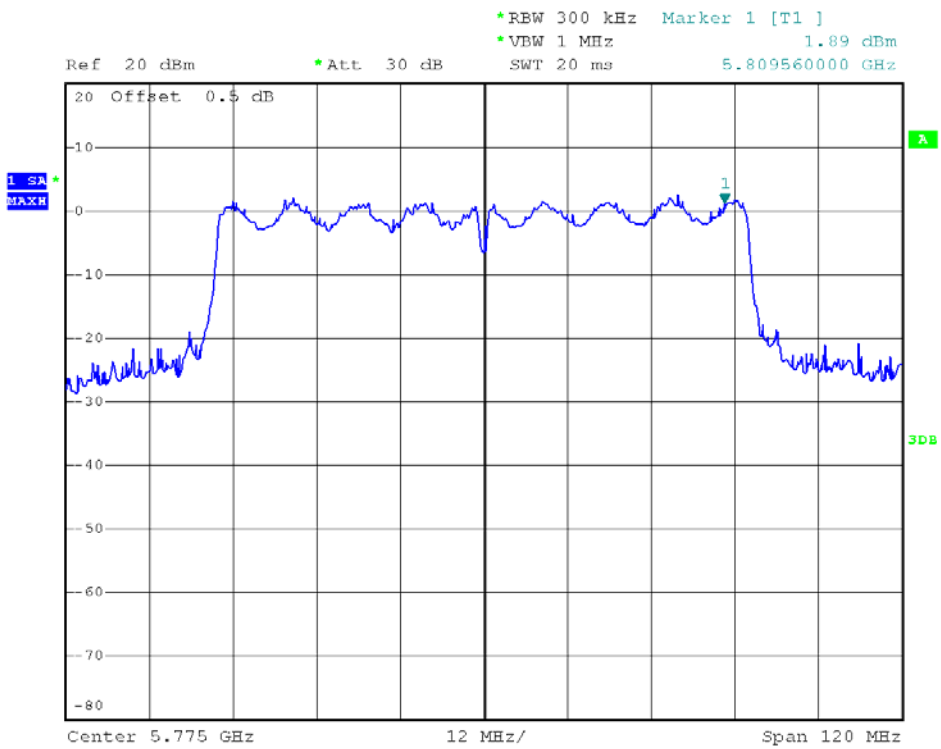




Antenna B - 802.11ac-VHT40 – 5795MHz



Antenna B - 802.11ac-VHT80 – 5775MHz





2.5. Radiated Band Edge and Spurious Emission

2.5.1. Limit of Radiated Band Edges and Spurious Emission

Radiated emission which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
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

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

Limits of unwanted emission out of the restricted bands

Applicable To	Limit	
789033 D02 General UNII Test Procedures New Rules v01	Field Strength at 3m	
	PK:74(dB $\mu\text{V/m}$)	AV:54 (dB $\mu\text{V/m}$)
Applicable To	EIRP Limit	EQUIVALENT FIELD STRENGTH AT 3m
15.407(b)-5150~5250MHz	PK: -27(dBm/MHz)	PK:68.2(dB $\mu\text{V/m}$)
15.407(b)-5250~5350MHz		
15.407(b)-5470~5725MHz		
15.407(b)-5725~5850MHz	PK:-27 (dBm/MHz) ^{note1} PK:-17 (dBm/MHz) ^{note2}	PK: 68.2(dB $\mu\text{V/m}$) ^{note1} PK: 78.2(dB $\mu\text{V/m}$) ^{note2}

Note:

1. Beyond 10MHz of the band edge
2. Within 10MHz of the band edge

The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

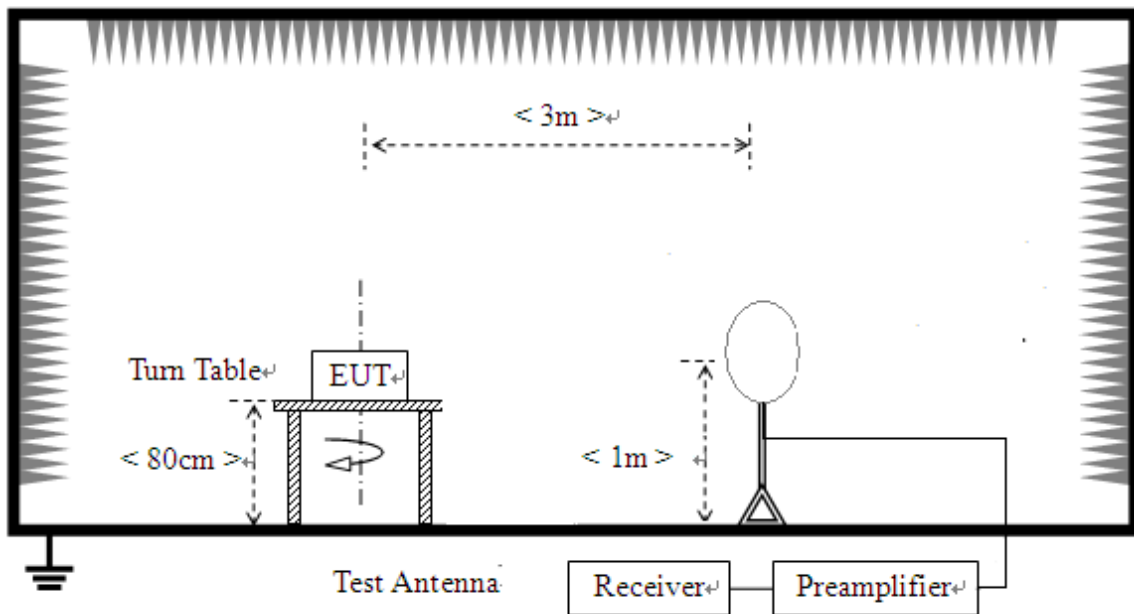
$$E = \frac{1000000 \sqrt{30P}}{3} \mu\text{V/m, where } P \text{ is the eirp (Watts).}$$

2.5.2. Measuring Instruments

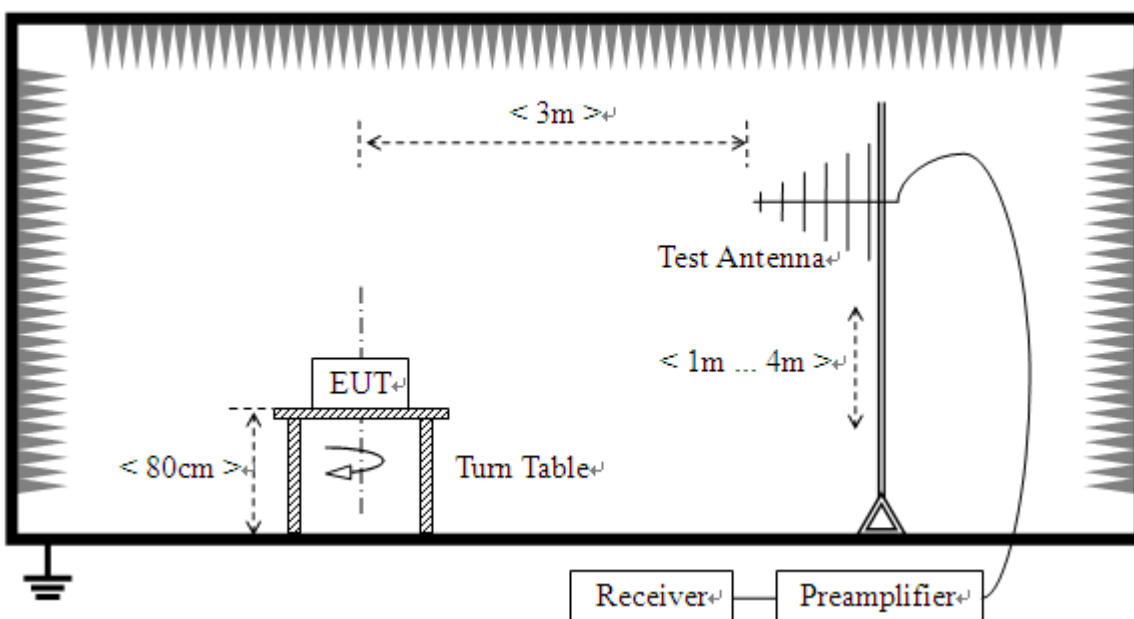
The measuring equipment is listed in the section 3 of this test report.

2.5.3. Test Setup

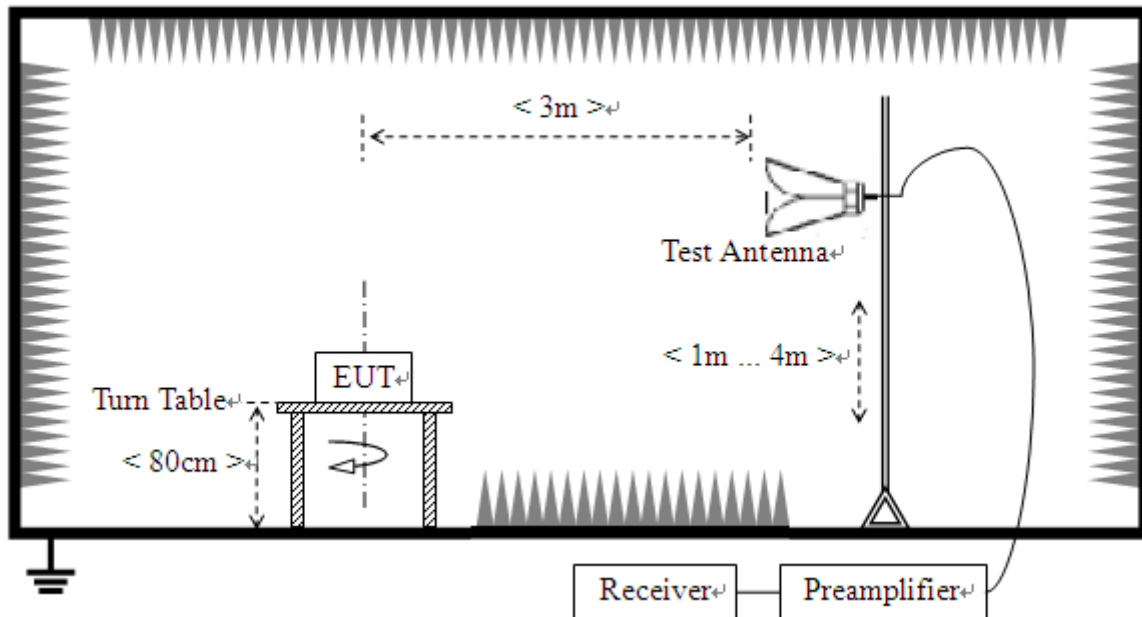
For radiated emissions from 9kHz to 30MHz



For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



2.5.4. Test Procedures

1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
6. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value

also meets average limit, measurement with the average detector is unnecessary.

Note:

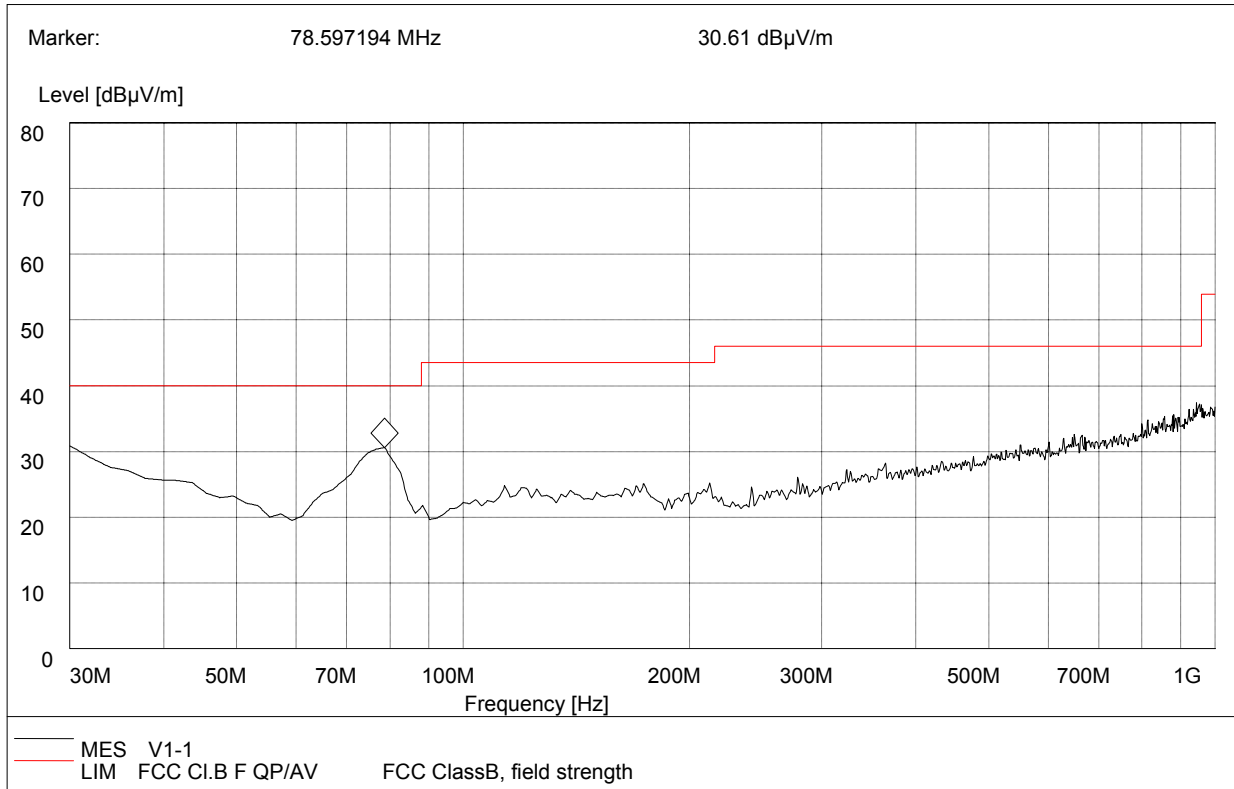
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average (Duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor ($10 \log(1/\text{duty cycle})$).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

2.5.5. Test Results of Radiated Band Edge and Spurious Emission

For 9KHz to 30MHz

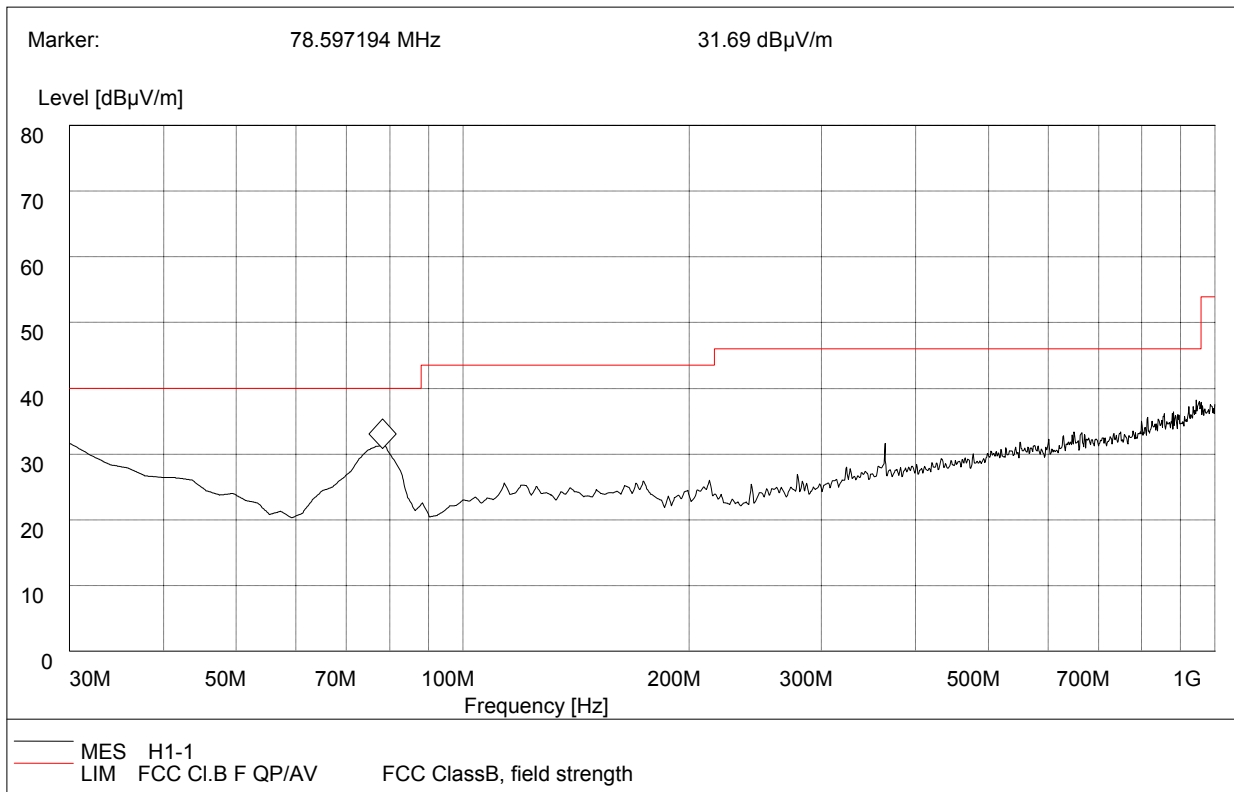
The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

For 30MHz to 1000 MHz



30MHz to 1GHz, Antenna Vertical

Frequency (MHz)	QuasiPeak (dB μ V/m)	Bandwidth (kHz)	Antenna height (cm)	Limit (dB μ V/m)	Antenna	Verdict
30.000	30.49	120.000	100.0	40.00	Vertical	Pass
78.597	30.61	120.000	100.0	40.00	Vertical	Pass



30MHz to 1GHz, Antenna Horizontal

Frequency (MHz)	QuasiPeak (dB μ V/m)	Bandwidth (kHz)	Antenna height (cm)	Limit (dB μ V/m)	Antenna	Verdict
30.000	31.22	120.000	100.0	40.00	Horizontal	Pass
78.597	31.69	120.000	100.0	40.00	Horizontal	Pass
364.150	31.46	120.000	100.0	46.00	Horizontal	Pass

**For 1GHz to 40 GHz****ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a_5180MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	61.40	PK	74.00	-12.60	1.08 H	290	59.40	2.00
2	5150.00	44.80	AV	54.00	-9.20	1.08 H	290	42.80	2.00
3	*5180.00	102.60	PK	/	/	1.08 H	290	62.60	40.00
4	*5180.00	91.80	AV	/	/	1.08 H	290	51.80	40.00
5	#10360.00	61.00	PK	74.00	-13.00	1.02 H	64	46.00	15.00
6	#10360.00	48.60	AV	54.00	-5.4	1.02 H	64	33.60	15.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a_5180MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	57.90	PK	74.00	-16.10	1.00 V	269	55.90	2.00
2	5150.00	44.80	AV	54.00	-9.20	1.00 V	269	42.80	2.00
3	*5180.00	96.70	PK	/	/	1.00 V	269	56.70	40.00
4	*5180.00	86.20	AV	/	/	1.00 V	269	46.20	40.00
5	#10360.00	60.20	PK	74.00	-13.80	1.08 V	94	45.20	15.00
6	#10360.00	47.20	AV	54.00	-6.80	1.08 V	94	32.20	15.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a_5220MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5220.00	101.80	PK	/	/	1.02 H	210	61.70	40.10
2	*5220.00	91.00	AV	/	/	1.02 H	210	50.90	40.10
3	#10440.00	62.00	PK	74.00	-12.00	1.02 H	69	47.00	15.00
4	#10440.00	48.60	AV	54.00	-5.40	1.02 H	69	33.60	15.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a_5220MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5220.00	99.60	PK	/	/	1.09 V	112	59.50	40.10
2	*5220.00	88.90	AV	/	/	1.09 V	112	48.80	40.10
3	#10440.00	61.50	PK	74.00	-12.50	1.21 V	254	46.50	15.00
4	#10440.00	48.00	AV	54.00	-6.00	1.21 V	254	33.00	15.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a_5240MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5240.00	101.60	PK	/	/	1.05 H	215	61.50	40.10
2	*5240.00	91.10	AV	/	/	1.05 H	215	51.00	40.10
3	5350.00	56.40	PK	74.00	-17.60	1.05 H	215	54.40	2.00
4	5350.00	43.90	AV	54.00	-10.10	1.05 H	215	41.90	2.00
5	#10480.00	61.10	PK	74.00	-12.90	1.45 H	64	46.00	15.10
6	#10480.00	47.60	AV	54.00	-6.40	1.45 H	64	32.50	15.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a_5240MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5240.00	96.70	PK	/	/	1.05 V	177	56.60	40.10
2	*5240.00	89.20	AV	/	/	1.05 V	177	49.10	40.10
3	5350.00	57.20	PK	74.00	-16.80	1.05 V	177	55.20	2.00
4	5350.00	43.80	AV	54.00	-10.20	1.05 V	177	41.80	2.00
5	#10480.00	60.60	PK	74.00	-13.40	1.45 V	58	45.50	15.10
6	#10480.00	47.60	AV	54.00	-6.40	1.45 V	58	32.60	15.10

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a_5745MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	#5714.90	63.70	PK	74.00	-10.30	1.00 H	330	61.10	2.60
2	#5714.90	46.60	AV	54.00	-7.40	1.00 H	330	44.00	2.60
3	#5722.90	72.30	PK	78.20	-5.9	1.00 H	330	69.70	2.60
4	#5725.00	59.80	PK	78.20	-18.4	1.00 H	330	57.20	2.60
5	*5745.00	98.60	PK	/	/	1.00 H	330	57.60	41.00
6	*5745.00	88.20	AV	/	/	1.00 H	330	47.20	41.00
7	11490.00	61.90	PK	74.00	-12.1	1.02 H	64	46.00	15.90
8	11490.00	49.40	AV	54.00	-4.6	1.02 H	64	33.50	15.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a_5745MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	#5714.90	62.90	PK	74.00	-11.10	1.00 H	269	60.30	2.60
2	#5714.90	45.90	AV	54.00	-8.10	1.00 H	269	43.30	2.60
3	#5722.90	71.20	PK	78.20	-7.0	1.00 H	269	68.60	2.60
4	#5725.00	59.60	PK	78.20	-18.60	1.00 H	269	57.00	2.60
5	*5745.00	97.50	PK	/	/	1.00 H	269	56.50	41.00
6	*5745.00	87.30	AV	/	/	1.00 H	269	46.30	41.00
7	11490.00	61.40	PK	74.00	-12.60	1.02 H	64	45.50	15.90
8	11490.00	47.20	AV	54.00	-6.80	1.02 H	64	31.30	15.90

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a_5785MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5785.00	98.20	PK	/	/	1.02 H	329	57.10	41.10
2	*5785.00	87.40	AV	/	/	1.02 H	329	46.30	41.10
3	11570.00	62.10	PK	74.00	-11.90	1.02 H	94	46.50	15.60
4	11570.00	48.20	AV	54.00	-5.80	1.02 H	94	32.60	15.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a_5785MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5785.00	98.40	PK	/	/	1.02 V	280	57.30	41.10
2	*5785.00	88.00	AV	/	/	1.02 V	280	46.90	41.10
3	11570.00	61.20	PK	74.00	-12.80	1.02 V	34	45.60	15.60
4	11570.00	48.10	AV	54.00	-5.90	1.02 V	34	32.50	15.60

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11a_5825MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5825.00	98.60	PK	/	/	1.05 H	215	57.50	41.10
2	*5825.00	88.40	AV	/	/	1.05 H	215	47.30	41.10
3	#5850.00	53.70	PK	78.2	-24.50	1.05 H	215	50.70	3.00
4	#5852.10	68.10	PK	78.2	-10.10	1.05 H	215	65.10	3.00
5	#5860.10	63.90	PK	74.00	-10.10	1.05 H	215	60.90	3.00
6	#5860.10	46.20	AV	54.00	-7.80	1.05 H	215	43.20	3.00
7	11650.00	61.30	PK	74.00	-12.70	1.00 H	84	45.70	15.60
8	11650.00	48.80	AV	54.00	-5.2	1.00 H	84	33.20	15.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11a_5825MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5825.00	98.60	PK	/	/	1.20 V	280	57.50	41.10
2	*5825.00	88.00	AV	/	/	1.20 V	280	46.90	41.10
3	#5850.00	51.60	PK	78.20	-26.60	1.20 V	280	48.60	3.00
4	#5852.10	68.40	PK	78.20	-9.80	1.20 V	280	65.40	3.00
5	#5860.10	63.50	PK	74.00	-10.50	1.20 V	280	60.50	3.00
6	#5860.10	46.40	AV	54.00	-7.60	1.20 V	280	43.40	3.00
7	11650.00	61.50	PK	74.00	-12.50	1.02 V	64	45.90	15.60
8	11650.00	49.00	AV	54.00	-5.00	1.02 V	64	33.40	15.60

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_5180MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	57.60	PK	74.00	-16.40	1.08 H	212	55.60	2.00
2	5150.00	44.10	AV	54.00	-9.90	1.08 H	212	42.10	2.00
3	*5180.00	97.30	PK	/	/	1.08 H	212	57.30	40.00
4	*5180.00	87.40	AV	/	/	1.08 H	212	47.40	40.00
5	#10360.00	62.50	PK	74.00	-11.50	1.02 H	100	47.50	15.00
6	#10360.00	49.00	AV	54.00	-5.0	1.02 H	100	34.00	15.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_5180MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	57.90	PK	74.00	-16.10	1.00 V	269	56.00	2.00
2	5150.00	44.80	AV	54.00	-9.20	1.00 V	269	42.50	2.00
3	*5180.00	96.70	PK	/	/	1.00 V	269	54.60	40.00
4	*5180.00	86.20	AV	/	/	1.00 V	269	44.30	40.00
5	#10360.00	60.20	PK	74.00	-13.80	1.08 V	94	47.20	15.00
6	#10360.00	47.20	AV	54.00	-6.80	1.08 V	94	33.80	15.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_5220MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5220.00	95.90	PK	/	/	1.02 H	340	55.80	40.10
2	*5220.00	86.60	AV	/	/	1.02 H	340	46.50	40.10
3	#10440.00	59.70	PK	74.00	-14.30	1.02 H	62	44.70	15.00
4	#10440.00	46.40	AV	54.00	-7.60	1.02 H	62	31.40	15.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_5220MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*2437.00	93.80	PK	/	/	1.09 V	112	53.70	40.10
2	*2437.00	83.80	AV	/	/	1.09 V	112	43.70	40.10
3	#4874.00	60.00	PK	74.00	-14.00	1.21 V	254	45.00	15.00
4	#4874.00	46.40	AV	54.00	-7.60	1.21 V	254	31.40	15.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_5240MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5240.00	94.80	PK	/	/	1.05 H	244	54.70	40.10
2	*5240.00	84.90	AV	/	/	1.05 H	244	44.80	40.10
3	5350.00	58.40	PK	74.00	-15.60	1.05 H	244	56.40	2.00
4	5350.00	44.10	AV	54.00	-9.90	1.05 H	244	42.10	2.00
5	#10480.00	61.80	PK	74.00	-12.20	1.45 H	236	46.70	15.10
6	#10480.00	48.10	AV	54.00	-5.90	1.45 H	236	33.00	15.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_5240MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5240.00	93.10	PK	/	/	1.05 V	280	53.00	40.10
2	*5240.00	82.50	AV	/	/	1.05 V	280	42.40	40.10
3	5350.00	58.30	PK	74.00	-15.70	1.05 V	280	56.30	2.00
4	5350.00	44.20	AV	54.00	-9.80	1.05 V	280	42.20	2.00
5	#10480.00	62.00	PK	74.00	-12.00	1.00 V	120	46.90	15.10
6	#10480.00	48.00	AV	54.00	-6.00	1.00 V	120	32.90	15.10

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_5745MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	#5714.90	58.20	PK	74.00	-15.80	1.00 H	108	55.60	2.60
2	#5714.90	44.70	AV	54.00	-9.30	1.00 H	108	42.10	2.60
3	#5722.90	67.70	PK	78.20	-10.50	1.00 H	108	65.10	2.60
4	#5725.00	48.90	PK	78.20	-29.30	1.00 H	108	46.30	2.60
5	*5745.00	96.80	PK	/	/	1.00 H	108	55.80	41.00
6	*5745.00	85.30	AV	/	/	1.00 H	108	44.30	41.00
7	11490.00	61.90	PK	74.00	-12.10	1.02 H	48	46.00	15.90
8	11490.00	48.50	AV	54.00	-5.50	1.02 H	48	32.60	15.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_5745MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	#5714.90	59.30	PK	74.00	-14.70	1.00 H	278	56.70	2.60
2	#5714.90	44.70	AV	54.00	-9.30	1.00 H	278	42.10	2.60
3	#5722.90	60.60	PK	78.20	-17.60	1.00 H	278	58.00	2.60
4	#5725.00	45.90	PK	78.20	-32.30	1.00 H	278	43.30	2.60
5	*5745.00	94.00	PK	/	/	1.00 H	278	53.00	41.00
6	*5745.00	82.70	AV	/	/	1.00 H	278	41.70	41.00
7	11490.00	61.10	PK	74.00	-12.90	1.02 H	24	45.20	15.90
8	11490.00	48.10	AV	54.00	-5.90	1.02 H	24	32.20	15.90

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_5785MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5785.00	93.10	PK	/	/	1.02 H	70	52.00	41.10
2	*5785.00	82.80	AV	/	/	1.02 H	70	41.70	41.10
3	11570.00	60.90	PK	74.00	-13.10	1.02 H	94	45.30	15.60
4	11570.00	47.80	AV	54.00	-6.20	1.02 H	94	32.20	15.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_5785MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5785.00	93.60	PK	/	/	1.02 V	280	52.50	41.10
2	*5785.00	82.70	AV	/	/	1.02 V	280	41.60	41.10
3	11570.00	60.90	PK	74.00	-13.10	1.02 V	34	45.30	15.60
4	11570.00	47.80	AV	54.00	-6.20	1.02 V	34	32.20	15.60

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n20_5825MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5825.00	94.10	PK	/	/	1.05 H	72	53.00	41.10
2	*5825.00	83.70	AV	/	/	1.05 H	72	42.60	41.10
3	#5850.00	44.30	PK	78.2	-33.90	1.05 H	72	41.30	3.00
4	#5852.10	59.00	PK	78.2	-19.20	1.05 H	72	56.00	3.00
5	#5860.10	58.80	PK	74.00	-15.20	1.05 H	72	55.80	3.00
6	#5860.10	44.80	AV	54.00	-9.20	1.05 H	72	41.80	3.00
7	11650.00	62.80	PK	74.00	-11.20	1.00 H	65	47.20	15.60
8	11650.00	48.00	AV	54.00	-6.00	1.00 H	65	32.40	15.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n20_5825MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5825.00	93.80	PK	/	/	1.20 V	280	52.70	41.10
2	*5825.00	83.40	AV	/	/	1.20 V	280	42.30	41.10
3	#5850.00	44.20	PK	78.20	-34.00	1.20 V	280	41.20	3.00
4	#5852.10	58.70	PK	78.20	-19.50	1.20 V	280	55.70	3.00
5	#5860.10	58.50	PK	74.00	-15.50	1.20 V	280	55.50	3.00
6	#5860.10	45.10	AV	54.00	-8.90	1.20 V	280	42.10	3.00
7	11650.00	60.10	PK	74.00	-13.90	1.02 V	332	44.50	15.60
8	11650.00	46.90	AV	54.00	-7.10	1.02 V	332	31.30	15.60

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n40_5190MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	59.00	PK	74.00	-15.00	1.00 H	341	57.00	2.00
2	5150.00	44.60	AV	54.00	-9.40	1.00 H	341	42.60	2.00
3	*5190.00	93.60	PK	/	/	1.00 H	341	53.60	40.00
4	*5190.00	83.00	AV	/	/	1.00 H	341	43.00	40.00
5	#10380.00	61.60	PK	74.00	-12.40	1.02 H	66	46.60	15.00
6	#10380.00	47.60	AV	54.00	-6.40	1.02 H	66	32.60	15.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n40_5190MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	56.70	PK	74.00	-17.30	1.00 V	275	54.70	2.00
2	5150.00	43.20	AV	54.00	-10.80	1.00 V	275	41.20	2.00
3	*5190.00	90.70	PK	/	/	1.00 V	275	50.70	40.00
4	*5190.00	80.30	AV	/	/	1.00 V	275	40.30	40.00
5	#10380.00	60.20	PK	74.00	-13.80	1.08 V	35	45.20	15.00
6	#10380.00	46.30	AV	54.00	-7.70	1.08 V	35	31.30	15.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n40_5230MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5230.00	93.40	PK	/	/	1.00 H	337	53.30	40.10
2	*5230.00	82.60	AV	/	/	1.00 H	337	42.50	40.10
3	5350.00	57.60	PK	74.00	-16.40	1.00 H	337	55.60	2.00
4	5350.00	44.50	AV	54.00	-9.50	1.00 H	337	42.50	2.00
5	#10460.00	61.50	PK	74.00	-12.50	1.02 H	84	46.50	15.00
6	#10460.00	48.20	AV	54.00	-5.80	1.02 H	84	33.20	15.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n40_5230MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5230.00	100.00	PK	/	/	1.00 V	275	59.90	40.10
2	*5230.00	89.30	AV	/	/	1.00 V	275	49.20	40.10
3	5350.00	56.30	PK	74.00	-17.70	1.00 V	275	54.30	2.00
4	5350.00	43.30	AV	54.00	-10.70	1.00 V	275	41.30	2.00
5	#10460.00	60.20	PK	74.00	-13.80	1.08 V	35	45.20	15.00
6	#10460.00	46.20	AV	54.00	-7.80	1.08 V	35	31.20	15.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n40_5755MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	#5714.90	60.10	PK	74.00	-13.90	1.05 H	113	57.50	2.60
2	#5714.90	46.10	AV	54.00	-7.90	1.05 H	113	43.50	2.60
3	#5722.90	64.00	PK	78.2	-14.20	1.05 H	113	61.40	2.60
4	#5725.90	49.50	PK	78.2	-28.70	1.05 H	113	46.90	2.60
5	*5755.00	91.70	PK	/	/	1.05 H	113	50.70	41.00
6	*5755.00	81.40	AV	/	/	1.05 H	113	40.40	41.00
7	11510.00	61.70	PK	74.00	-12.30	1.00 H	66	46.00	15.70
8	11510.00	48.30	AV	54.00	-5.70	1.00 H	66	32.60	15.70

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n40_5755MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	#5714.90	59.70	PK	74.00	-14.30	1.20 V	280	57.10	2.60
2	#5714.90	46.00	AV	54.00	-8.00	1.20 V	280	43.40	2.60
3	#5722.90	62.50	PK	78.2	-15.70	1.20 V	280	59.90	2.60
4	#5725.90	45.30	PK	78.2	-32.90	1.20 V	280	42.70	2.60
5	*5755.00	92.20	PK	/	/	1.20 V	280	51.20	41.00
6	*5755.00	81.50	AV	/	/	1.20 V	280	40.50	41.00
7	11510.00	62.20	PK	74.00	-11.80	1.02 V	36	46.50	15.70
8	11510.00	48.30	AV	54.00	-5.70	1.02 V	36	32.60	15.70

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11n40_5795MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5795.00	92.10	PK	/	/	1.00 H	114	51.00	41.10
2	*5795.00	81.70	AV	/	/	1.00 H	114	40.60	41.10
3	#5850.00	47.60	PK	78.2	-30.60	1.00 H	114	44.60	3.00
4	#5852.10	59.00	PK	78.2	-19.20	1.00 H	114	56.00	3.00
5	#5860.10	59.10	PK	74.00	-14.90	1.00 H	114	56.10	3.00
6	#5860.10	45.30	AV	54.00	-8.70	1.00 H	114	42.30	3.00
7	11590.00	62.20	PK	74.00	-11.80	1.41 H	98	46.60	15.60
8	11590.00	48.10	AV	54.00	-5.90	1.41 H	98	32.50	15.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11n40_5795MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5795.00	91.80	PK	/	/	1.20 V	280	50.70	41.10
2	*5795.00	80.90	AV	/	/	1.20 V	280	39.80	41.10
3	#5850.00	45.00	PK	78.2	-33.20	1.20 V	280	42.00	3.00
4	#5852.10	59.10	PK	78.2	-19.10	1.20 V	280	56.10	3.00
5	#5860.10	58.90	PK	74.00	-15.10	1.20 V	280	55.90	3.00
6	#5860.10	45.50	AV	54.00	-8.50	1.20 V	280	42.50	3.00
7	11590.00	61.20	PK	74.00	-12.8	1.02 V	154	45.60	15.60
8	11590.00	46.90	AV	54.00	-7.10	1.02 V	154	31.30	15.60

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT20_5180MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	57.90	PK	74.00	-16.10	1.08 H	212	55.90	2.00
2	5150.00	44.30	AV	54.00	-9.70	1.08 H	212	42.30	2.00
3	*5180.00	98.50	PK	/	/	1.08 H	212	58.50	40.00
4	*5180.00	87.70	AV	/	/	1.08 H	212	47.70	40.00
5	#10360.00	62.10	PK	74.00	-11.90	1.02 H	100	47.10	15.00
6	#10360.00	48.20	AV	54.00	-5.80	1.02 H	100	33.20	15.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac-VHT20_5180MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	58.20	PK	74.00	-15.80	1.00 V	269	56.20	2.00
2	5150.00	44.70	AV	54.00	-9.30	1.00 V	269	42.70	2.00
3	*5180.00	97.70	PK	/	/	1.00 V	269	57.70	40.00
4	*5180.00	86.30	AV	/	/	1.00 V	269	46.30	40.00
5	#10360.00	60.20	PK	74.00	-13.80	1.08 V	94	47.20	15.00
6	#10360.00	47.50	AV	54.00	-6.50	1.08 V	94	33.50	15.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT20_5220MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5220.00	97.20	PK	/	/	1.02 H	340	57.10	40.10
2	*5220.00	86.70	AV	/	/	1.02 H	340	46.60	40.10
3	#10440.00	59.50	PK	74.00	-14.50	1.02 H	62	44.50	15.00
4	#10440.00	46.80	AV	54.00	-7.20	1.02 H	62	31.80	15.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac-VHT20_5220MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*2437.00	96.80	PK	/	/	1.09 V	112	56.70	40.10
2	*2437.00	85.80	AV	/	/	1.09 V	112	45.70	40.10
3	#4874.00	60.10	PK	74.00	-13.90	1.21 V	254	45.10	15.00
4	#4874.00	46.60	AV	54.00	-7.40	1.21 V	254	31.60	15.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT20_5240MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5240.00	99.80	PK	/	/	1.05 H	244	59.70	40.10
2	*5240.00	88.90	AV	/	/	1.05 H	244	48.80	40.10
3	5350.00	58.10	PK	74.00	-15.90	1.05 H	244	56.10	2.00
4	5350.00	46.30	AV	54.00	-7.70	1.05 H	244	44.30	2.00
5	#10480.00	61.80	PK	74.00	-12.20	1.45 H	236	46.70	15.10
6	#10480.00	48.00	AV	54.00	-6.00	1.45 H	236	32.90	15.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac-VHT20_5240MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5240.00	98.10	PK	/	/	1.05 V	280	58.00	40.10
2	*5240.00	87.50	AV	/	/	1.05 V	280	47.40	40.10
3	5350.00	58.30	PK	74.00	-15.70	1.05 V	280	56.30	2.00
4	5350.00	44.20	AV	54.00	-9.80	1.05 V	280	42.20	2.00
5	#10480.00	62.00	PK	74.00	-12.00	1.00 V	120	46.90	15.10
6	#10480.00	47.80	AV	54.00	-6.20	1.00 V	120	32.70	15.10

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT20_5745MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	#5714.90	59.20	PK	74.00	-14.80	1.00 H	108	56.60	2.60
2	#5714.90	46.70	AV	54.00	-7.30	1.00 H	108	44.10	2.60
3	#5722.90	67.70	PK	78.20	-10.50	1.00 H	108	65.10	2.60
4	#5725.00	52.90	PK	78.20	-25.30	1.00 H	108	50.30	2.60
5	*5745.00	99.80	PK	/	/	1.00 H	108	58.80	41.00
6	*5745.00	88.30	AV	/	/	1.00 H	108	47.30	41.00
7	11490.00	61.40	PK	74.00	-12.60	1.02 H	48	45.50	15.90
8	11490.00	48.20	AV	54.00	-5.80	1.02 H	48	32.30	15.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac-VHT20_5745MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	#5714.90	59.30	PK	74.00	-14.70	1.00 H	278	56.70	2.60
2	#5714.90	47.70	AV	54.00	-6.30	1.00 H	278	45.10	2.60
3	#5722.90	64.60	PK	78.20	-13.60	1.00 H	278	62.00	2.60
4	#5725.00	53.90	PK	78.20	-24.30	1.00 H	278	51.30	2.60
5	*5745.00	98.00	PK	/	/	1.00 H	278	57.00	41.00
6	*5745.00	87.70	AV	/	/	1.00 H	278	46.70	41.00
7	11490.00	61.10	PK	74.00	-12.90	1.02 H	24	45.20	15.90
8	11490.00	48.10	AV	54.00	-5.90	1.02 H	24	32.20	15.90

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT20_5785MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5785.00	99.10	PK	/	/	1.02 H	70	58.00	41.10
2	*5785.00	88.80	AV	/	/	1.02 H	70	47.70	41.10
3	11570.00	61.90	PK	74.00	-12.10	1.02 H	94	46.30	15.60
4	11570.00	47.60	AV	54.00	-6.40	1.02 H	94	32.00	15.60

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac-VHT20_5785MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5785.00	98.60	PK	/	/	1.02 V	280	57.50	41.10
2	*5785.00	87.70	AV	/	/	1.02 V	280	46.60	41.10
3	11570.00	60.90	PK	74.00	-13.10	1.02 V	34	45.30	15.60
4	11570.00	47.80	AV	54.00	-6.20	1.02 V	34	32.20	15.60

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT20_5825MHz)									
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5825.00	99.50	PK	/	/	1.05 H	72	58.40	41.10
2	*5825.00	87.60	AV	/	/	1.05 H	72	46.50	41.10
3	#5850.00	50.30	PK	78.2	-27.90	1.05 H	72	47.30	3.00
4	#5852.10	57.00	PK	78.2	-21.20	1.05 H	72	54.00	3.00
5	#5860.10	58.40	PK	74.00	-15.60	1.05 H	72	55.40	3.00
6	#5860.10	46.80	AV	54.00	-7.20	1.05 H	72	43.80	3.00
7	11650.00	63.10	PK	74.00	-10.90	1.00 H	65	47.50	15.60
8	11650.00	48.00	AV	54.00	-6.00	1.00 H	65	32.40	15.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac-VHT20_5825MHz)									
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5825.00	98.80	PK	/	/	1.20 V	280	57.70	41.10
2	*5825.00	88.40	AV	/	/	1.20 V	280	47.30	41.10
3	#5850.00	51.20	PK	78.20	-27.00	1.20 V	280	48.20	3.00
4	#5852.10	58.20	PK	78.20	-20.00	1.20 V	280	55.20	3.00
5	#5860.10	58.50	PK	74.00	-15.50	1.20 V	280	55.50	3.00
6	#5860.10	45.10	AV	54.00	-8.90	1.20 V	280	42.10	3.00
7	11650.00	60.10	PK	74.00	-13.90	1.02 V	332	44.50	15.60
8	11650.00	46.90	AV	54.00	-7.10	1.02 V	332	31.30	15.60

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT40_5190MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	59.50	PK	74.00	-14.50	1.00 H	341	57.50	2.00
2	5150.00	44.10	AV	54.00	-9.90	1.00 H	341	42.10	2.00
3	*5190.00	97.60	PK	/	/	1.00 H	341	57.60	40.00
4	*5190.00	88.00	AV	/	/	1.00 H	341	48.00	40.00
5	#10380.00	61.20	PK	74.00	-12.80	1.02 H	66	46.20	15.00
6	#10380.00	47.50	AV	54.00	-6.50	1.02 H	66	32.50	15.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac-VHT40_5190MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	58.70	PK	74.00	-15.30	1.00 V	275	56.70	2.00
2	5150.00	43.80	AV	54.00	-10.20	1.00 V	275	41.80	2.00
3	*5190.00	98.70	PK	/	/	1.00 V	275	58.70	40.00
4	*5190.00	87.30	AV	/	/	1.00 V	275	47.30	40.00
5	#10380.00	60.20	PK	74.00	-13.80	1.08 V	35	45.20	15.00
6	#10380.00	47.30	AV	54.00	-6.70	1.08 V	35	32.30	15.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT40_5230MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5230.00	97.40	PK	/	/	1.00 H	337	57.30	40.10
2	*5230.00	86.60	AV	/	/	1.00 H	337	46.50	40.10
3	5350.00	57.60	PK	74.00	-16.40	1.00 H	337	55.60	2.00
4	5350.00	45.50	AV	54.00	-8.50	1.00 H	337	43.50	2.00
5	#10460.00	61.50	PK	74.00	-12.50	1.02 H	84	46.50	15.00
6	#10460.00	48.20	AV	54.00	-5.80	1.02 H	84	33.20	15.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac-VHT40_5230MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5230.00	99.80	PK	/	/	1.00 V	275	59.70	40.10
2	*5230.00	87.30	AV	/	/	1.00 V	275	47.20	40.10
3	5350.00	56.30	PK	74.00	-17.70	1.00 V	275	54.30	2.00
4	5350.00	44.30	AV	54.00	-9.70	1.00 V	275	42.30	2.00
5	#10460.00	60.20	PK	74.00	-13.80	1.08 V	35	45.20	15.00
6	#10460.00	46.20	AV	54.00	-7.80	1.08 V	35	31.20	15.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT40_5755MHz)									
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	#5714.90	60.30	PK	74.00	-13.70	1.05 H	113	57.70	2.60
2	#5714.90	46.00	AV	54.00	-8.00	1.05 H	113	43.40	2.60
3	#5722.90	64.30	PK	78.2	-13.90	1.05 H	113	61.70	2.60
4	#5725.90	52.50	PK	78.2	-25.70	1.05 H	113	49.90	2.60
5	*5755.00	99.70	PK	/	/	1.05 H	113	58.70	41.00
6	*5755.00	88.40	AV	/	/	1.05 H	113	47.40	41.00
7	11510.00	61.90	PK	74.00	-12.10	1.00 H	66	46.20	15.70
8	11510.00	48.10	AV	54.00	-5.90	1.00 H	66	32.40	15.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac-VHT40_5755MHz)									
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	#5714.90	59.70	PK	74.00	-14.30	1.20 V	280	57.10	2.60
2	#5714.90	46.50	AV	54.00	-7.50	1.20 V	280	43.90	2.60
3	#5722.90	63.50	PK	78.2	-14.70	1.20 V	280	60.90	2.60
4	#5725.90	51.30	PK	78.2	-26.90	1.20 V	280	48.70	2.60
5	*5755.00	100.20	PK	/	/	1.20 V	280	59.20	41.00
6	*5755.00	89.50	AV	/	/	1.20 V	280	48.50	41.00
7	11510.00	62.20	PK	74.00	-11.80	1.02 V	36	46.50	15.70
8	11510.00	48.30	AV	54.00	-5.70	1.02 V	36	32.60	15.70

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.



ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT40_5795MHz)									
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5795.00	92.10	PK	/	/	1.00 H	114	51.00	41.10
2	*5795.00	81.70	AV	/	/	1.00 H	114	40.60	41.10
3	#5850.00	47.60	PK	78.2	-30.60	1.00 H	114	44.60	3.00
4	#5852.10	59.00	PK	78.2	-19.20	1.00 H	114	56.00	3.00
5	#5860.10	59.10	PK	74.00	-14.90	1.00 H	114	56.10	3.00
6	#5860.10	45.30	AV	54.00	-8.70	1.00 H	114	42.30	3.00
7	11590.00	62.20	PK	74.00	-11.80	1.41 H	98	46.60	15.60
8	11590.00	48.10	AV	54.00	-5.90	1.41 H	98	32.50	15.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac-VHT40_5795MHz)									
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5795.00	91.80	PK	/	/	1.20 V	280	50.70	41.10
2	*5795.00	80.90	AV	/	/	1.20 V	280	39.80	41.10
3	#5850.00	45.00	PK	78.2	-33.20	1.20 V	280	42.00	3.00
4	#5852.10	59.10	PK	78.2	-19.10	1.20 V	280	56.10	3.00
5	#5860.10	58.90	PK	74.00	-15.10	1.20 V	280	55.90	3.00
6	#5860.10	45.50	AV	54.00	-8.50	1.20 V	280	42.50	3.00
7	11590.00	61.20	PK	74.00	-12.8	1.02 V	154	45.60	15.60
8	11590.00	46.90	AV	54.00	-7.10	1.02 V	154	31.30	15.60

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT80_5210MHz)**

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	59.60	PK	74.00	-14.40	1.00 H	330	57.60	2.00
2	5150.00	44.80	AV	54.00	-9.20	1.00 H	330	42.80	2.00
3	*5210.00	96.80	PK	/	/	1.00 H	330	56.80	40.00
4	*5210.00	87.20	AV	/	/	1.00 H	330	47.20	40.00
5	#10420.00	61.10	PK	74.00	-12.90	1.02 H	80	46.10	15.00
6	#10420.00	47.10	AV	54.00	-6.90	1.02 H	80	32.10	15.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac-VHT80_5210MHz)

No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	5150.00	60.40	PK	74.00	-13.60	1.00 V	275	58.40	2.00
2	5150.00	45.20	AV	54.00	-8.80	1.00 V	275	43.20	2.00
3	*5210.00	96.70	PK	/	/	1.00 V	275	56.70	40.00
4	*5210.00	85.50	AV	/	/	1.00 V	275	45.50	40.00
5	#10420.00	61.60	PK	74.00	-13.40	1.08 V	35	45.60	15.00
6	#10420.00	48.80	AV	54.00	-7.20	1.08 V	35	31.80	15.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M (802.11ac-VHT80_5775MHz)									
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5775.00	92.50	PK	/	/	1.00 H	114	51.40	41.10
2	*5775.00	83.40	AV	/	/	1.00 H	114	42.30	41.10
3	#5850.00	50.50	PK	78.2	-26.70	1.00 H	114	47.50	3.00
4	#5852.10	61.70	PK	78.2	-16.50	1.00 H	114	58.70	3.00
5	#5860.10	59.50	PK	74.00	-14.50	1.00 H	114	56.50	3.00
6	#5860.10	45.80	AV	54.00	-8.20	1.00 H	114	42.80	3.00
7	11550.00	61.80	PK	74.00	-12.20	1.41 H	98	46.20	15.60
8	11550.00	46.80	AV	54.00	-7.20	1.41 H	98	31.20	15.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M (802.11ac-VHT80_5775MHz)									
No.	Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV/m)	Correction Factor (dB/m)
1	*5775.00	93.20	PK	/	/	1.00 H	114	52.10	41.10
2	*5775.00	84.20	AV	/	/	1.00 H	114	43.10	41.10
3	#5850.00	51.60	PK	78.2	-26.60	1.00 H	114	48.60	3.00
4	#5852.10	59.40	PK	78.2	-18.80	1.00 H	114	56.40	3.00
5	#5860.10	59.10	PK	74.00	-14.90	1.00 H	114	56.10	3.00
6	#5860.10	45.30	AV	54.00	-8.70	1.00 H	114	42.30	3.00
7	11550.00	62.20	PK	74.00	-11.80	1.41 H	98	46.60	15.60
8	11550.00	47.60	AV	54.00	-7.40	1.41 H	98	32.00	15.60

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

2.6. Conducted Emission

2.6.1. Limit of Conducted Emission

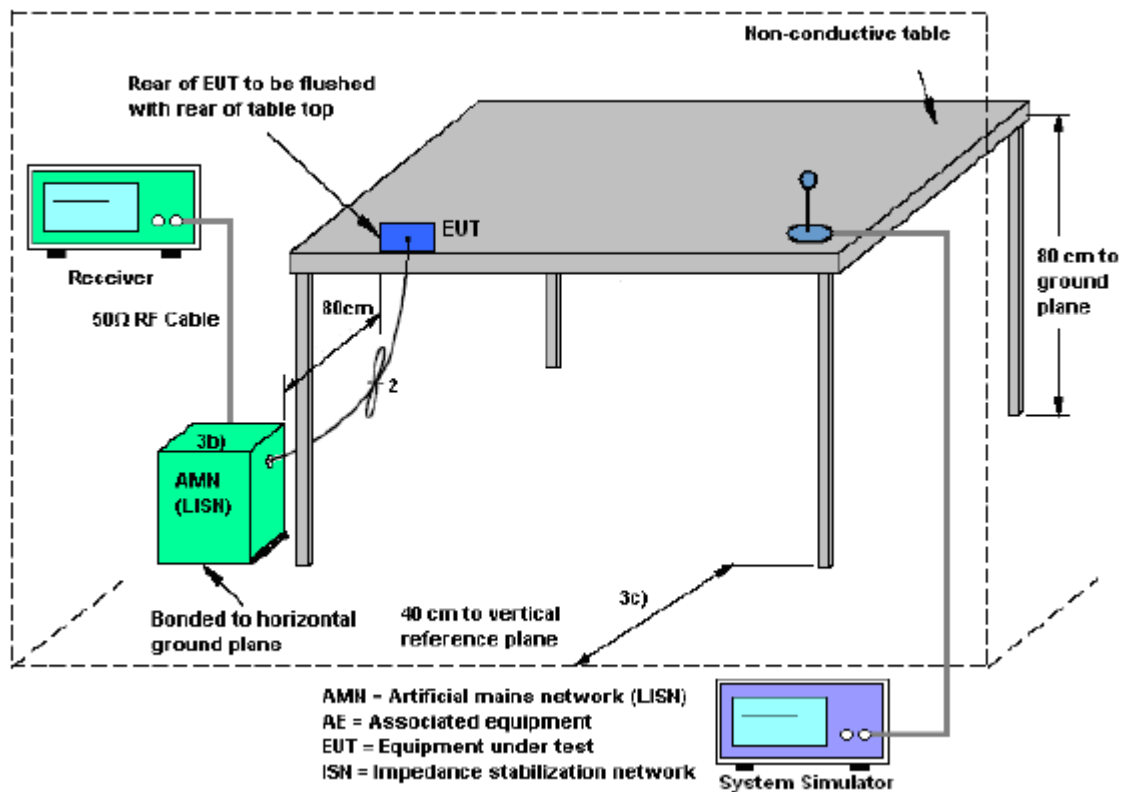
For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency range (MHz)	Conducted Limit (dB μ V)	
	Quai-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

2.6.2. Measuring Instruments

The measuring equipment is listed in the section 3 of this test report.

2.6.3. Test Setup



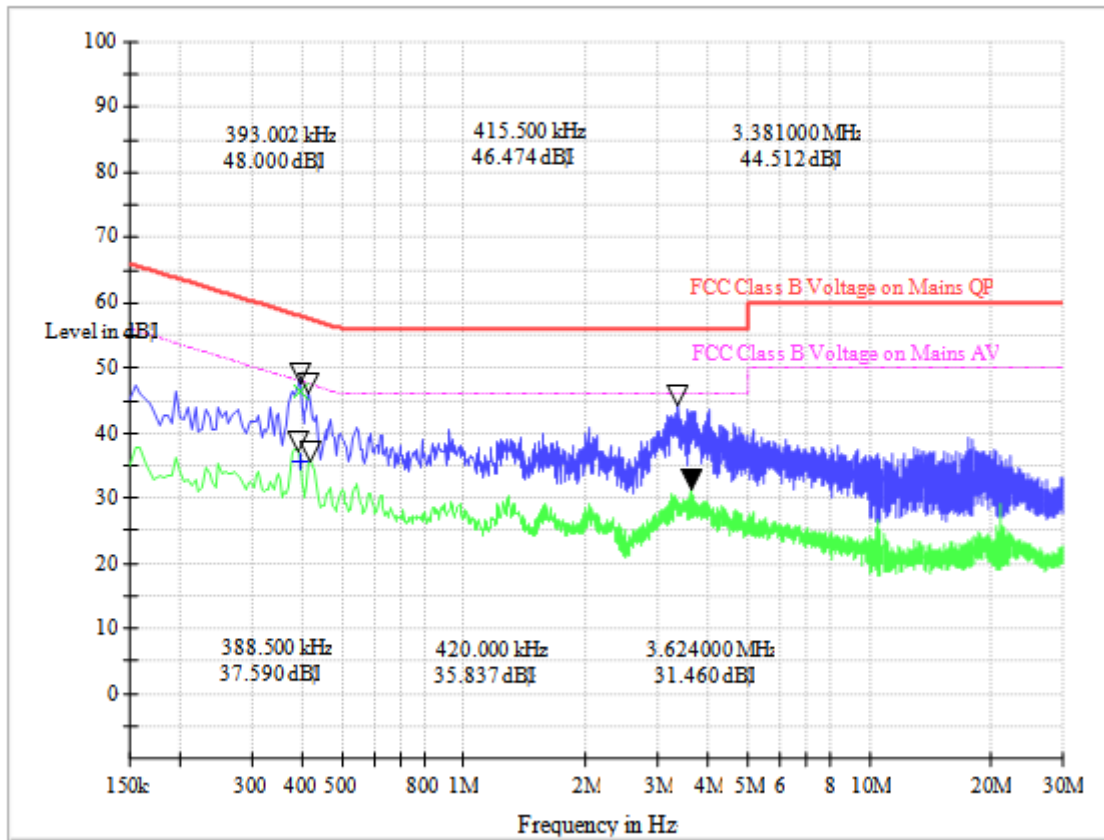
2.6.4. Test Procedures

1. 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.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

2.6.5. Test Results of Conducted Emission

The EUT configuration of the emission tests is WLAN Link + USB Cable (Charging from Adapter) + Earphone.

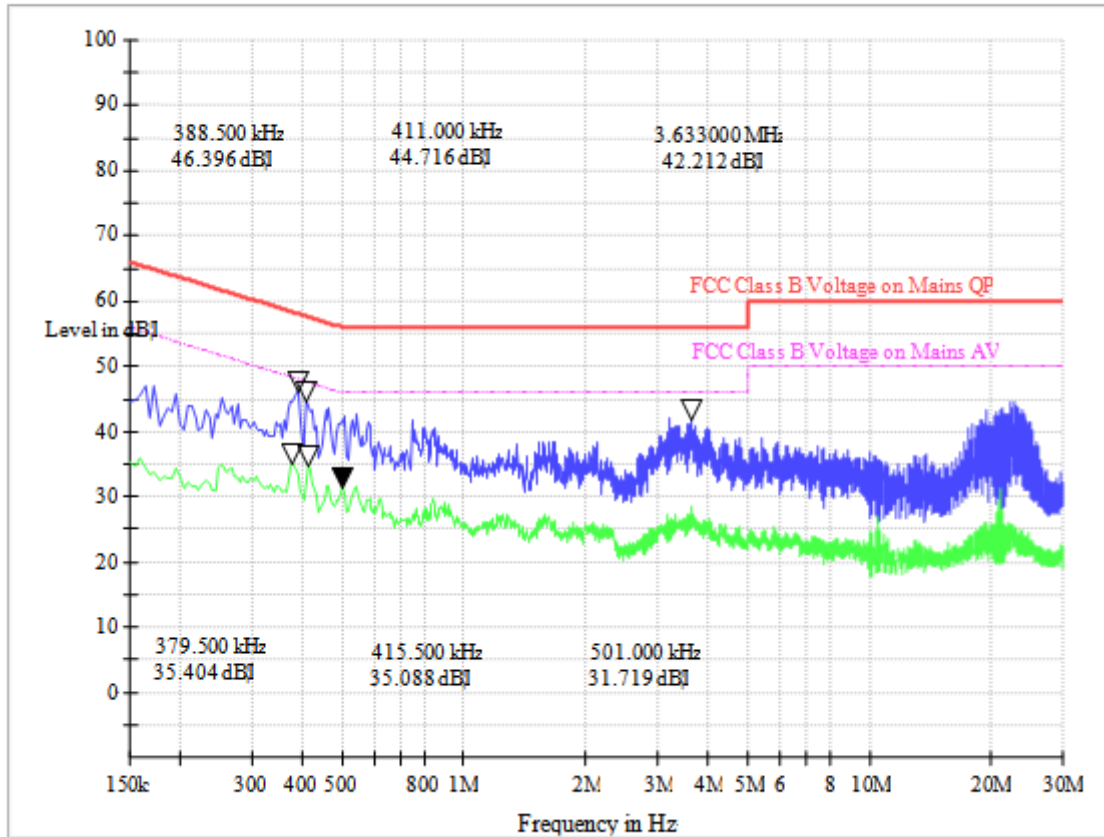
FCC Class B Voltage Test



(Plot A: L Phase)

Conducted Disturbance at Mains Terminals					
L Test Data					
QP			AV		
Frequency (MHz)	Limits (dBµV)	Measurement Value (dBµV)	Frequency (MHz)	Limits (dBµV)	Measurement Value (dBµV)
0.393	58.0	48.00	0.389	48.1	37.59
0.416	57.5	46.47	0.420	47.4	35.84
3.381	56.0	44.51	3.624	46.0	31.46

FCC Class B Voltage Test



(Plot B: N Phase)

Conducted Disturbance at Mains Terminals					
N Test Data					
QP			AV		
Frequency (MHz)	Limits (dBμV)	Measurement Value (dBμV)	Frequency (MHz)	Limits (dBμV)	Measurement Value (dBμV)
0.389	58.1	46.40	0.380	48.3	35.40
0.411	57.6	44.72	0.416	47.5	35.09
3.633	56.0	42.21	0.501	46.0	31.72

Test Result: PASS



3. List of measuring equipment

Description	Manufacturer	Model	Serial No.	Test Date	Due Date	Remark
EMI Test Receiver	R&S	ESIB26	A0304218	2015.06.02	2016.06.02	Radiation
Full-Anechoic Chamber	Albatross	12.8m*6.8m* 6.4m	A0412372	2015.01.05	2016.01.04	Radiation
Loop Antenna	Schwarz beck	HFH2-Z2	100047	2015.06.02	2016.06.02	Radiation
Bilog Antenna	Schwarzbeck	VULB 9163	9163-274	2015.06.02	2016.06.02	Radiation
Double ridge horn antenna	R&S	HF960	100150	2015.06.02	2016.06.02	Radiation
Ultra-wideband antenna	R&S	HL562	100089	2015.06.02	2016.06.02	Radiation
Test Antenna – Horn (18-25GHz)	ETS	UG-596A/U	A0902607	2015.06.02	2016.06.02	Radiation
Amplifier 20M~3GHz	R&S	PAP-0203H	22018	2015.06.02	2016.06.02	Radiation
Amplifier 1G~18GHz	R&S	MITEQ AFS42-00101 800	25-S-42	2015.06.02	2016.06.02	Radiation
Amplifier 18G~40GHz	R&S	JS42-180026 00-28-5A	12111.0980.00	2015.06.02	2016.06.02	Radiation
Spectrum Analyzer	R&S	FSP40	1164.4391.40	2015.07.07	2016.07.06	Conducted
Power Meter	R&S	NRVS	1020.1809.02	2015.06.02	2016.06.02	Conducted
Power Sensor	R&S	NRV-Z4	823.3618.03	2015.06.02	2016.06.02	Conducted
LISN	ROHDE&SC HWARZ	ESH2-Z5	A0304221	2015.06.02	2016.06.02	Conducted
Test Receiver	R&S	ESCS30	A0304260	2015.06.02	2016.06.02	Conducted
Cable	SUNHNER	SUCOFLEX 100	/	2015.06.02	2016.06.02	Radiation
Cable	SUNHNER	SUCOFLEX 104	/	2015.06.02	2016.06.02	Radiation

** END OF REPORT **