

TEST REPORT

Applicant Name : Shenzhen VanTop Technology & Innovation Co., Ltd.
Address : 506, BLDG 4, MinQi Technology Park, No. 65 Lishan Road,
Pingshan Community, Taoyuan Street, Nanshan District,
Shenzhen, China

Report Number : RA230110-01783E-RF-00B
FCC ID: 2AQ3A-SG500CT0522

Test Standard (s)

FCC PART 15.407

Sample Description

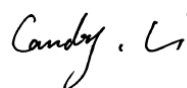
Product Type: R/C QUADCOPTER
Model No.: DR-SG500C
Multiple Model(s) No.: DR-SG500E, DR-SG500F
Trade Mark: N/A
Date Received: 2023/01/10
Report Date: 2023/04/12

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards above.

Prepared and Checked By:

Nick Fang
EMC Engineer

Approved By:

Candy Li
EMC Engineer

Note: This report may contain data that are not covered by the A2LA accreditation and are marked with an asterisk "★".

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Shenzhen Accurate Technology Co., Ltd.

1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China
Tel: +86 755-26503290 Fax: +86 755-26503396 Web: www.atc-lab.com

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DOCUMENT REVISION HISTORY

Revision Number	Report Number	Description of Revision	Date of Revision
0	RA230110-01783E-RF-00B	Original Report	2023/04/12

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	R/C QUADCOPTER
Tested Model	DR-SG500C
Multiple Models	DR-SG500E, DR-SG500F (model difference see product declaration letter of similarity)
Frequency Range	5G Wi-Fi: 5150-5250MHz; 5725-5850MHz
Mode	802.11a/n20/n40/ac20
Maximum Conducted Average Output Power	5150-5250 MHz: 8.73dBm 5725-5850 MHz: 10.36dBm
Modulation Technique	OFDM
Antenna Specification*	2.0dBi (It is provided by the applicant)
Voltage Range	DC 7.4 V from battery.
Sample serial number	1YF8-2 for RF Conducted Test 1YF9-3 for Radiated Emissions (Assigned by ATC)
Sample/EUT Status	Good condition

Objective

This test report is in accordance with Part 2-Subpart J, Part 15-Subparts A and E of the Federal Communication Commissions rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart E, section 15.203, 15.205, 15.209 and 15.407 rules.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices. And KDB789033 D02 General U-NII Test Procedures New Rules v02r01.

All emissions measurement was performed at Shenzhen Accurate Technology Co., Ltd. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Each test item follows test standards and with no deviation.

Measurement Uncertainty

Parameter		Uncertainty
Occupied Channel Bandwidth		5%
RF Frequency		0.082×10^{-7}
RF output power, conducted		0.73dB
Unwanted Emission, conducted		1.6dB
AC Power Lines Conducted Emissions		2.72dB
Emissions, Radiated	9kHz - 30MHz	2.66dB
	30MHz - 1GHz	4.28dB
	1GHz - 18GHz	4.98dB
	18GHz - 26.5GHz	5.06dB
	26.5GHz - 40GHz	4.72dB
Temperature		1°C
Humidity		6%
Supply voltages		0.4%

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

Test Facility

The test site used by Shenzhen Accurate Technology Co., Ltd. to collect test data is located on the 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No.: 708358, the FCC Designation No.: CN1189. Accredited by American Association for Laboratory Accreditation (A2LA) The Certificate Number is 429 7.01.

Listed by Innovation, Science and Economic Development Canada (ISED), the Registration Number is 5077A.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

The system was configured for testing in an engineering mode, which was provided by manufacturer.

The device support 5G Wi-Fi 802.11a/n20/n40/ac20 modes. Only supports SISO condition.

For 5150-5250MHz Band, 6 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
38	5190	46	5230
40	5200	48	5240

For 802.11a/n20/ac20 mode: channel 36, 40, 48 were tested;

For 802.11n40 mode: channel 38, 46 were tested;

For 5725-5850MHz Band, 7 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	157	5785
151	5755	159	5795
153	5765	161	5805
/	/	165	5825

For 802.11a/n20/ac20 mode: channel 149, 157, 165 were tested;

For 802.11n40 mode: channel 151, 159 were tested;

EUT Exercise Software

‘SecureCRT’* exercise software was used, Power level is Default. The software and power level was provided by the applicant.

The worse-case data rates are determined to be as follows for each mode based upon investigations by measuring the output power and PSD across all data rated bandwidths, and modulations.

The software and power level was provided by the applicant.

Equipment Modifications

No modification was made to the EUT tested.

Duty cycle

Ant A:

Mode	T _{on} (ms)	T _{on+off} (ms)	Duty Cycle (%)	1/T (kHz)	VBW setting (kHz)
802.11a	2.07	2.27	91.19	0.48	1
802.11n20	1.92	2.03	94.58	0.52	1
802.11n40	0.64	0.69	92.75	1.56	3
802.11ac20	1.93	2.05	94.15	0.52	1

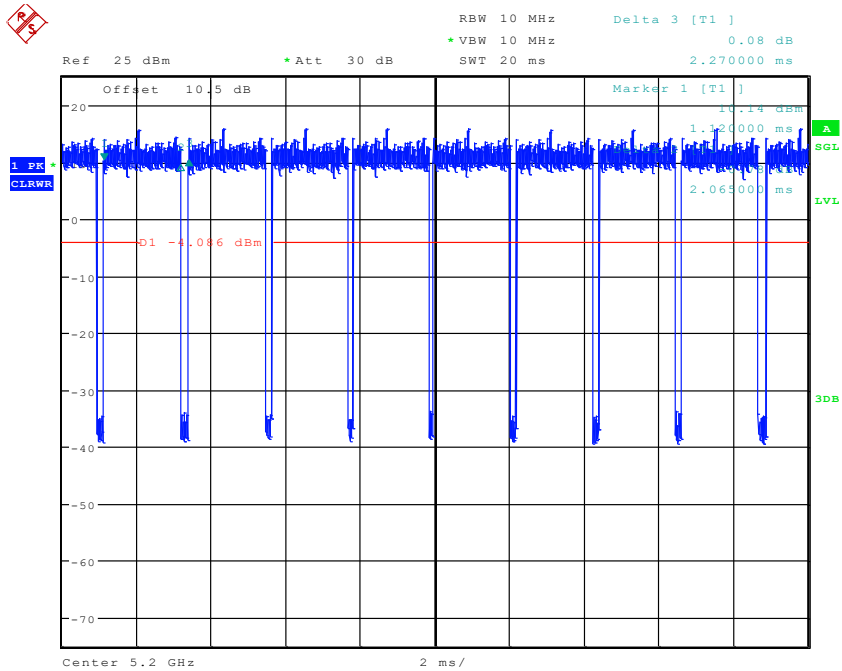
Ant B:

Mode	T _{on} (ms)	T _{on+off} (ms)	Duty Cycle (%)	1/T (kHz)	VBW setting (kHz)
802.11a	2.06	2.24	91.96	0.49	1
802.11n20	1.92	2.04	94.12	0.52	1
802.11n40	0.65	0.70	92.86	1.54	3
802.11ac20	1.93	2.16	89.35	0.52	1

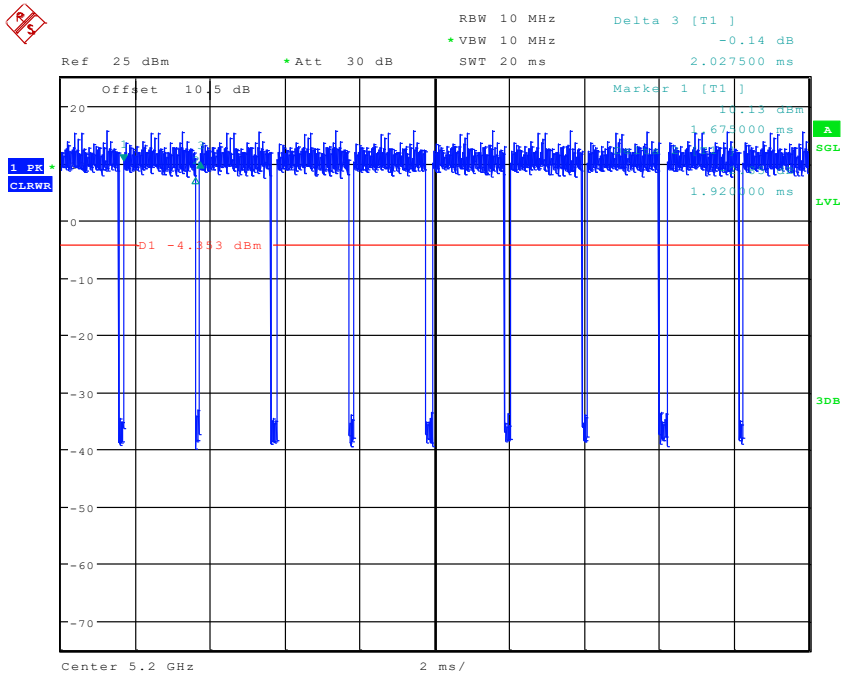
Note: Duty cycle < 98%, duty cycle variations exceed $\pm 2\%$

Ant A:
5150-5250 MHz:

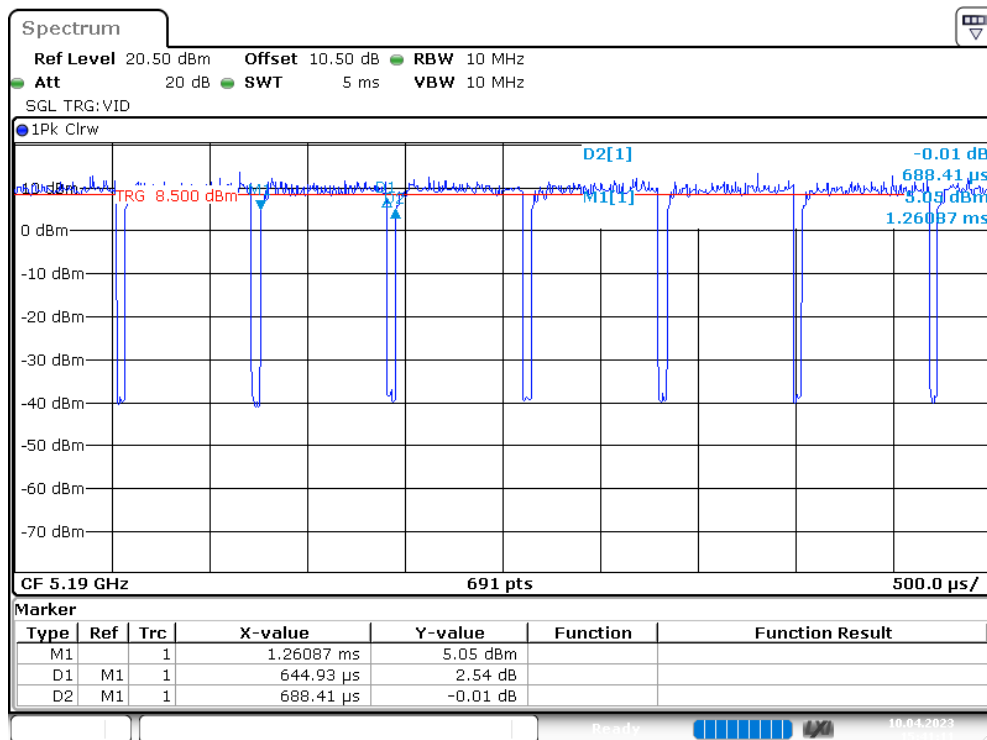
802.11a mode



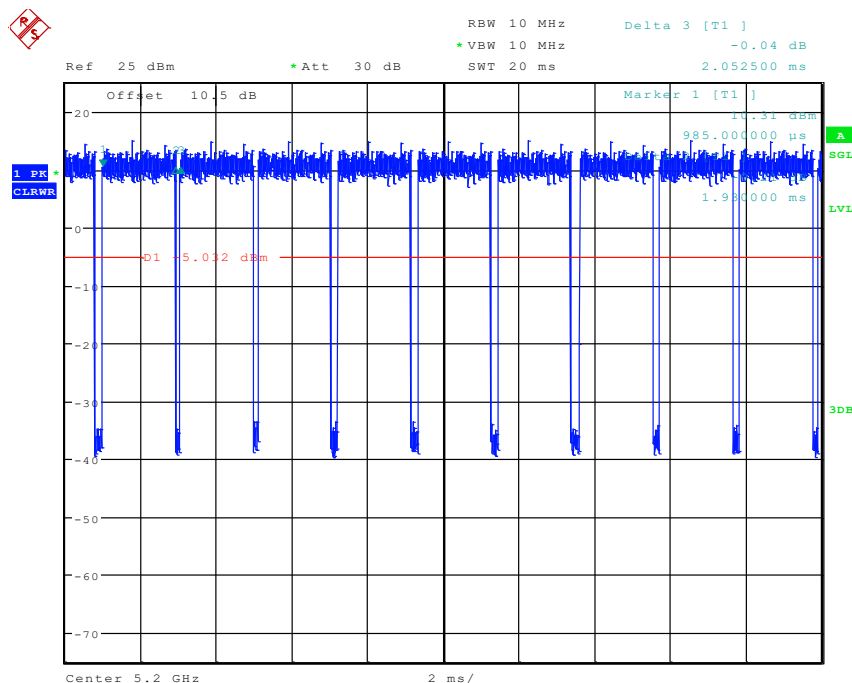
802.11n20 mode



802.11n40 mode

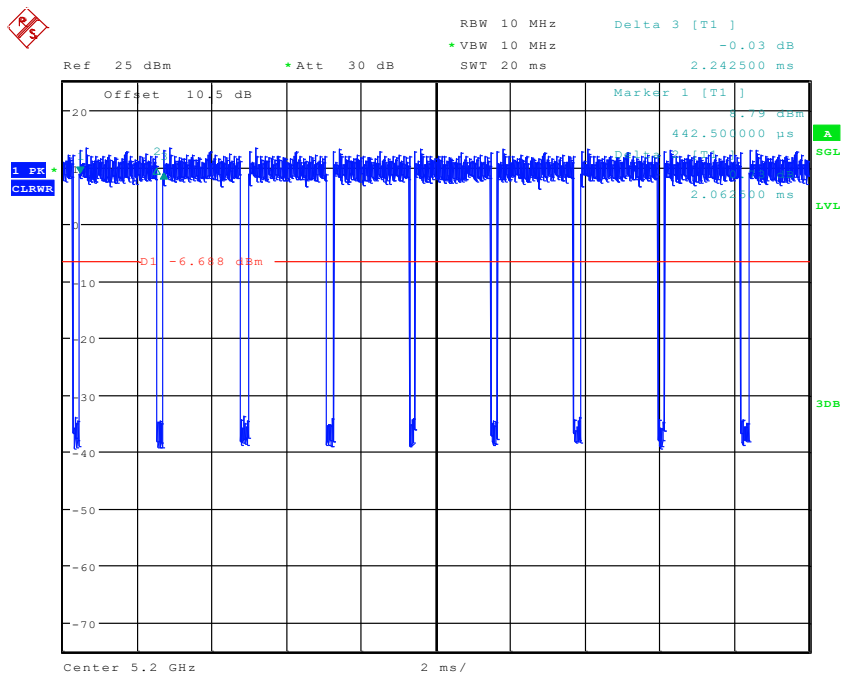


802.11ac20 mode

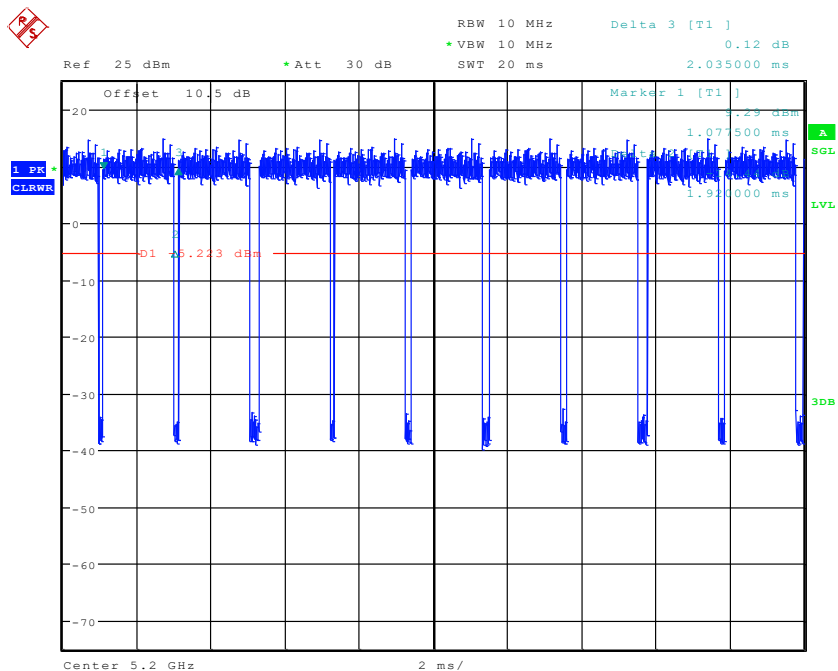


Ant B:
5150-5250 MHz:

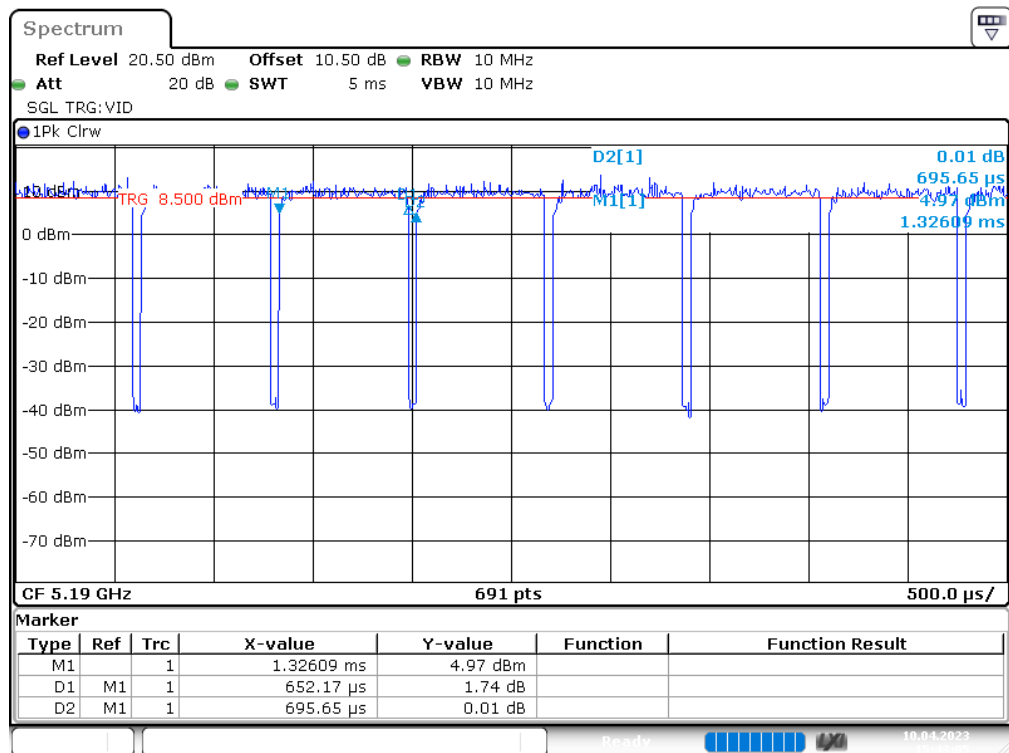
802.11a mode



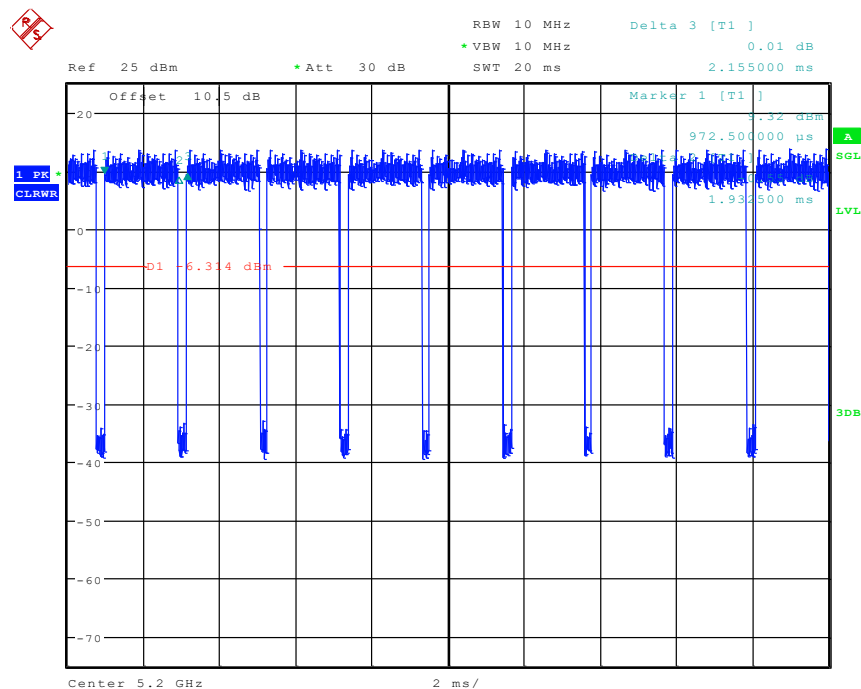
802.11n20 mode



802.11n40 mode



802.11ac20 mode



Support Equipment List and Details

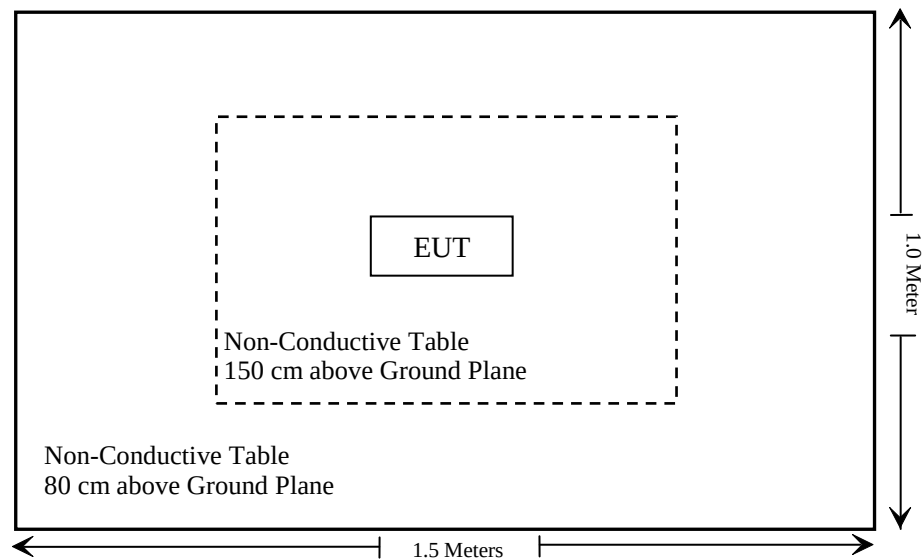
Manufacturer	Description	Model	Serial Number
/	/	/	/

External I/O Cable

Cable Description	Length (m)	From/Port	To
/	/	/	/

Block Diagram of Test Setup

For Radiated emission:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.407 (f), §1.1310 & §2.1091	MPE-Based Exemption	Compliant
§15.203	Antenna Requirement	Compliant
§15.407(b)(9)& §15.207(a)	Conducted Emissions	Not Applicable**
§15.205& §15.209 & §15.407(b)	Undesirable Emission& Restricted Bands	Compliant
§15.407(a) (e)	26 dB Emission Bandwidth & 6dB Bandwidth	Compliant
§15.407(a)	Conducted Transmitter Output Power	Compliant
§15.407 (a)	Power Spectral Density	Compliant
§15.407 (h)	Transmit Power Control (TPC)	Not Applicable
§15.407 (h)	Dynamic Frequency Selection (DFS)	Not Applicable*

Not Applicable: the EUT has no TPC function which was declared by the applicant.

Not Applicable*: the EUT not operating within frequency range of 5250-5350MHz&5470-5725MHz.

Not Applicable**: The RF function cannot use when in charging.

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Radiated Emissions Test					
Rohde& Schwarz	Test Receiver	ESR	102725	2022/11/25	2023/11/24
Rohde&Schwarz	Spectrum Analyzer	FSV40	101949	2022/11/25	2023/11/24
SONOMA INSTRUMENT	Amplifier	310 N	186131	2022/11/08	2023/11/07
A.H. Systems, inc.	Preamplifier	PAM-0118P	135	2022/11/08	2023/11/07
Schwarzbeck	Bilog Antenna	VULB9163	9163-323	2021/07/06	2024/07/05
Schwarzbeck	Horn Antenna	BBHA9120D	9120D-1067	2022/11/30	2025/11/29
Schwarzbeck	HORN ANTENNA	BBHA9170	9170-359	2022/12/26	2025/12/25
Radiated Emission Test Software: e3 19821b (V9)					
Unknown	RF Coaxial Cable	No.10	N050	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.11	N1000	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.12	N040	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.13	N300	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.14	N800	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.15	N600	2022/11/25	2023/11/24
Unknown	RF Coaxial Cable	No.16	N650	2022/11/25	2023/11/24
RF Conducted Test					
Rohde & Schwarz	Spectrum Analyzer	FSV-40	101948	2022/11/25	2023/11/24
SPECTRUM ANALYZER	Rohde & Schwarz	FSU26	200982	2022/07/04	2023/07/03
Agilent	Power Sensor	U2021XA	MY5425003	2023/02/25	2024/02/24
WEINSCHTEL	10dB Attenuator	5324	AU 3842	2022/11/25	2023/11/24

*** Statement of Traceability:** Shenzhen Accurate Technology Co., Ltd. attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

FCC §15.407(f)& §1.1310 & §2.1091 –MPE-Based Exemption

Applicable Standard

According to subpart 15.407 and subpart 2.1091 systems operating under the provisions of this section shall be operated in a manner that ensures the public is not exposed to RF energy level in excess of the communication guidelines.

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Averaging Time (Minutes)
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500	/	/	f/1500	30
1500-100,000	/	/	1.0	30

f = frequency in MHz

* = Plane-wave equivalent power density

Result

$$S = \frac{PG}{4\pi R^2}$$

S = power density (in appropriate units, e.g. mW/cm²)

P = power input to the antenna (in appropriate units, e.g., mW).

G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain.

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

Test result

Mode	Frequency (MHz)	Antenna Gain		Tune up conducted power		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
		(dBi)	(numeric)	(dBm)	(mW)			
FHSS	2405-2478	0.85	1.22	8.0	6.31	20	0.002	1
Wi-Fi	5150-5250	2.0	1.58	9.5	8.91	20	0.003	1
	5725-5850	2.0	1.58	11.5	14.13	20	0.004	1

Note 1: The tune-up power and antenna gain was declared by the applicant.

Note 2: The FHSS can transmit at same time with 5GHz Wi-Fi.

Simultaneous transmitting consideration:

The ratio= 0.002+0.004=0.006<1.0, so simultaneous exposure is compliant.

To maintain compliance with the FCC's RF exposure guidelines, place the equipment at least 20cm from nearby persons.

Result: Compliant.

FCC §15.203 – ANTENNA REQUIREMENT

Applicable Standard

According to § 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. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the user of a standard antenna jack or electrical connector is prohibited. The structure and application of the EUT were analyzed to determine compliance with section §15.203 of the rules. §15.203 state that the subject device must meet the following criteria:

- a. Antenna must be permanently attached to the unit.
- b. Antenna must use a unique type of connector to attach to the EUT.

Unit must be professionally installed, and installer shall be responsible for verifying that the correct antenna is employed with the unit.

And according to FCC 47 CFR section 15.407 (a), if the transmitting antennas of directional gain greater than 6dBi are used, the transmit power and power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Antenna Connector Construction

The EUT has two internal antennas arrangements for 5G Wi-Fi which were permanently attached. Please refer to the EUT photos.

Antenna Gain	Impedance	Frequency Range
2.0	50Ω	5150-5850MHz

Result: Compliant.

§15.205 & §15.209 & §15.407(B)– UNDESIRABLE EMISSION

Applicable Standard

FCC §15.407 (b); §15.209; §15.205;

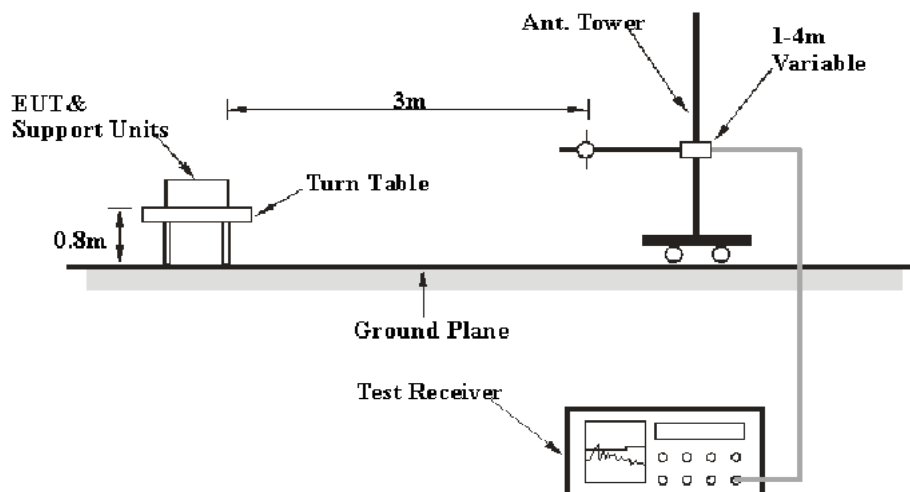
(b) Undesirable emission limits. Except as shown in paragraph (b)(7) of this section, the maximum emissions outside of the frequency bands of operation shall be attenuated in accordance with the following limits:

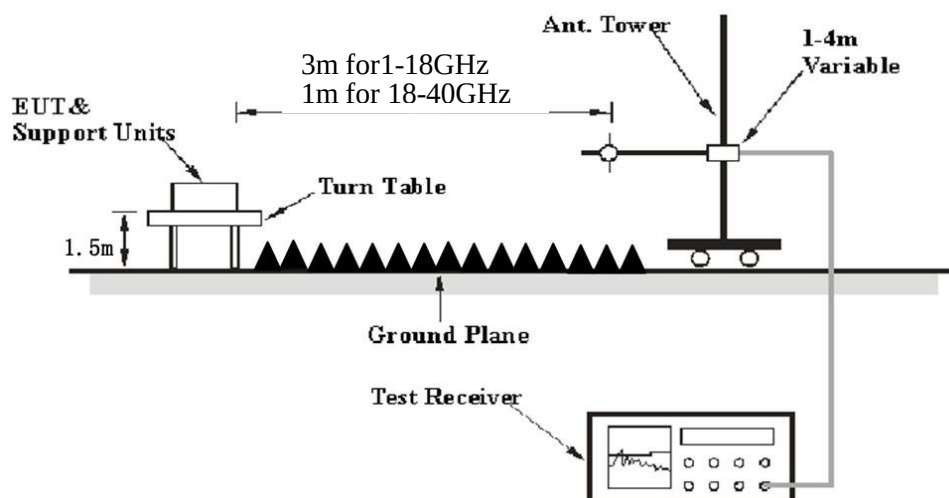
- (1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (2) For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (3) For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.
- (4) For transmitters operating in the 5.725-5.85 GHz band:
 - (i) All emissions shall be limited to a level of -27 dBm/MHz at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Unwanted emissions below 1 GHz must comply with the general field strength limits set forth in §15.209.

EUT Setup

Below 1 GHz:



Above 1 GHz:

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC 15.209 and FCC 15.407 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 40 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30 MHz – 1000 MHz	100 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	PK
	1MHz	10 Hz ^{Note 1}	/	Average
	1MHz	> 1/T ^{Note 2}	/	Average

Note 1: when duty cycle is no less than 98%

Note 2: when duty cycle is less than 98%

Test Procedure**Radiated Spurious Emission**

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all the installation combinations.

Data was recorded in Quasi-peak detection mode for frequency range of 30 MHz-1GHz, peak and Average detection modes for frequencies above 1GHz.

According to ANSI C63.10-2013,9.4: For field strength measurements made at other than the distance at which the applicable limit is specified, extrapolate the measured field strength to the field strength at the distance specified by the limit using an inverse distance correction factor (20 dB/decade of distance). In some cases, a different distance correction factor may be required;

$$E_{\text{SpecLimit}} = E_{\text{Meas}} + 20 \log \left(\frac{d_{\text{Meas}}}{d_{\text{SpecLimit}}} \right)$$

where

$E_{\text{SpecLimit}}$ is the field strength of the emission at the distance specified by the limit, in dB μ V/m
 E_{Meas} is the field strength of the emission at the measurement distance, in dB μ V/m
 d_{Meas} is the measurement distance, in m
 $d_{\text{SpecLimit}}$ is the distance specified by the limit, in m

So the extrapolation factor of 1m is $20 \cdot \log(1/3) = -9.5$ dB

Factor & Margin Calculation

The Factor is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain. The basic equation is as follows:

Factor = Antenna Factor + Cable Loss - Amplifier Gain

The “**Over Limit/Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, an Over Limit/margin of -7dB means the emission is 7dB below the limit. The equation for calculation is as follows:

Over Limit/Margin = Level / Corrected Amplitude – Limit
 Level / Corrected Amplitude = Read Level + Factor

Test Data

Environmental Conditions

Temperature:	24.8~26℃
Relative Humidity:	52~57 %
ATM Pressure:	101.0 kPa

The testing was performed by Jimi Zheng on 2023-02-03 for below 1GHz, And on 2023-02-21 for above 1GHz.

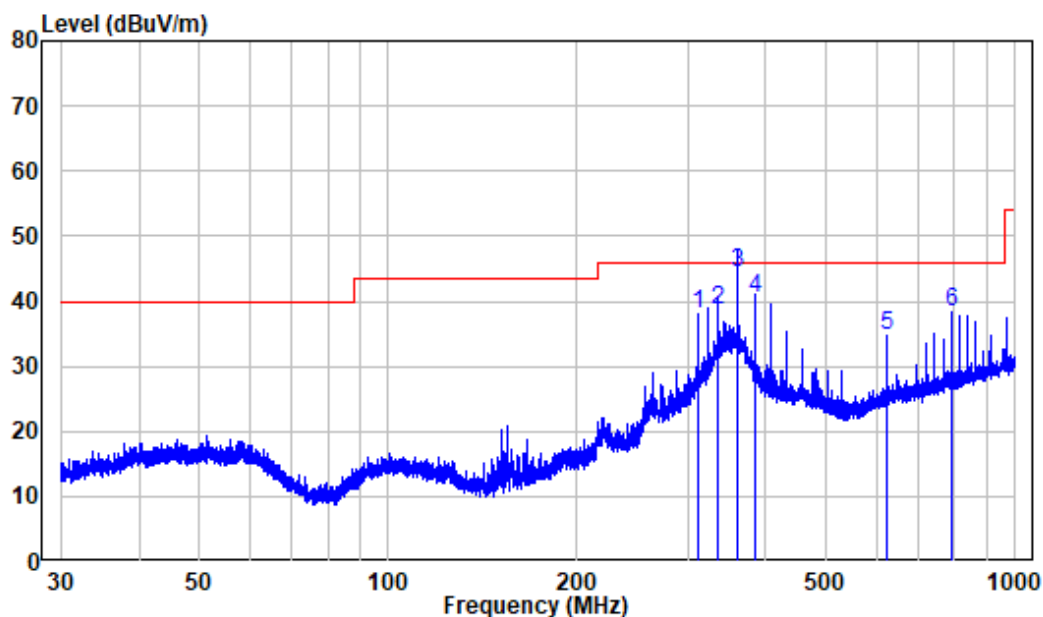
EUT operation mode: Transmitting

EUT operation mode: Transmitting (Pre-scan in the X,Y and Z axes of orientation, the worst case X-axis of orientation was recorded)

30 MHz – 1 GHz: (worst case is 802.11n20, 5745MHz at Ant A)

Note: When the test result of Peak was more than 6dB below the limit of QP, just the Peak value was recorded.

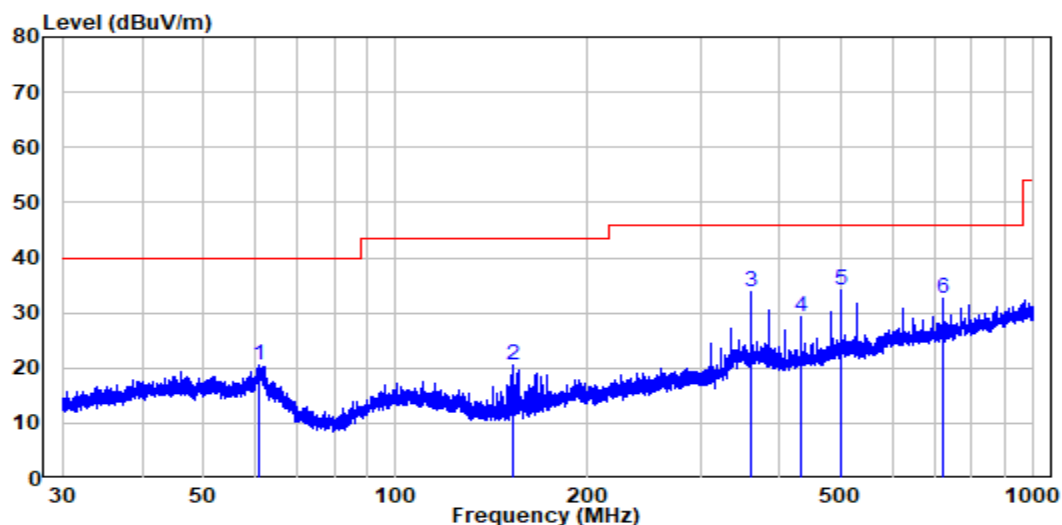
Horizontal



Site : chamber
Condition: 3m HORIZONTAL
Job No. : RA230110-01783E-RF
Test Mode: 5G WIFI Transmitting

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	312.043	-8.82	46.72	37.90	46.00	-8.10	Peak
2	336.035	-7.58	46.11	38.53	46.00	-7.47	QP
3	360.132	-7.68	52.10	44.42	46.00	-1.58	QP
4	384.100	-7.08	47.60	40.52	46.00	-5.48	QP
5	624.257	-2.38	37.10	34.72	46.00	-11.28	Peak
6	792.353	-0.19	38.67	38.48	46.00	-7.52	Peak

Vertical



Site : chamber
Condition: 3m VERTICAL
Job No. : RA230110-01783E-RF
Test Mode: 5G WIFI Transmitting

	Freq	Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB/m	dBuV	dBuV/m	dBuV/m	dB	
1	61.024	-11.04	31.53	20.49	40.00	-19.51	Peak
2	152.932	-15.09	35.49	20.40	43.50	-23.10	Peak
3	359.974	-7.68	41.34	33.66	46.00	-12.34	Peak
4	432.167	-5.75	35.06	29.31	46.00	-16.69	Peak
5	500.082	-4.25	38.22	33.97	46.00	-12.03	Peak
6	720.146	-1.35	34.03	32.68	46.00	-13.32	Peak

Above 1GHz:

Ant A:

5150-5250 MHz:

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11a									
5180 MHz									
4500	65.36	PK	239	1.6	H	-4.72	60.64	74	-13.36
4500	51.81	AV	239	1.6	H	-4.72	47.09	54	-6.91
4500	65.91	PK	86	1.3	V	-4.72	61.19	74	-12.81
4500	51.82	AV	86	1.3	V	-4.72	47.10	54	-6.90
5150	64.75	PK	253	2.3	H	-2.73	62.02	74	-11.98
5150	52.56	AV	253	2.3	H	-2.73	49.83	54	-4.17
5150	64.06	PK	1	1.9	V	-2.73	61.33	74	-12.67
5150	52.68	AV	1	1.9	V	-2.73	49.95	54	-4.05
10360	57.33	PK	279	2.1	H	8.12	65.45	68.2	-2.75
10360	53.79	PK	38	2.1	V	8.12	61.91	68.2	-6.29
5200 MHz									
10400	56.43	PK	121	1	H	8.24	64.67	68.2	-3.53
10400	52.76	PK	197	1	V	8.24	61	68.2	-7.20
5240 MHz									
5350	62.37	PK	316	2.3	H	-2.33	60.04	74	-13.96
5350	48.88	AV	316	2.3	H	-2.33	46.55	54	-7.45
5350	62.20	PK	261	1.3	V	-2.33	59.87	74	-14.13
5350	48.80	AV	261	1.3	V	-2.33	46.47	54	-7.53
5460	61.58	PK	111	1.4	H	-2.26	59.32	74	-14.68
5460	47.70	AV	111	1.4	H	-2.26	45.44	54	-8.56
5460	61.08	PK	316	2.4	V	-2.26	58.82	74	-15.18
5460	47.77	AV	316	2.4	V	-2.26	45.51	54	-8.49
10480	53.30	PK	41	2.3	H	8.56	61.86	68.2	-6.34
10480	51.32	PK	58	2.3	V	8.56	59.88	68.2	-8.32

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11n20									
5180 MHz									
4500	65.03	PK	80	1.4	H	-4.72	60.31	74	-13.69
4500	52.06	AV	80	1.4	H	-4.72	47.34	54	-6.66
4500	65.94	PK	29	1.4	V	-4.72	61.22	74	-12.78
4500	51.74	AV	29	1.4	V	-4.72	47.02	54	-6.98
5150	64.91	PK	180	1.4	H	-2.73	62.18	74	-11.82
5150	52.75	AV	180	1.4	H	-2.73	50.02	54	-3.98
5150	64.80	PK	316	2.2	V	-2.73	62.07	74	-11.93
5150	51.55	AV	316	2.2	V	-2.73	48.82	54	-5.18
10360	56.62	PK	73	1.1	H	8.12	64.74	68.2	-3.46
10360	51.51	PK	322	1.1	V	8.12	59.63	68.2	-8.57
5200 MHz									
10400	55.23	PK	100	1.8	H	8.24	63.47	68.2	-4.73
10400	51.79	PK	294	1.8	V	8.24	60.03	68.2	-8.17
5240 MHz									
5350	62.71	PK	259	2.1	H	-2.33	60.38	74	-13.62
5350	49.27	AV	259	2.1	H	-2.33	46.94	54	-7.06
5350	62.61	PK	51	1.2	V	-2.33	60.28	74	-13.72
5350	48.91	AV	51	1.2	V	-2.33	46.58	54	-7.42
5460	61.31	PK	32	2.4	H	-2.26	59.05	74	-14.95
5460	47.53	AV	32	2.4	H	-2.26	45.27	54	-8.73
5460	61.37	PK	151	2.4	V	-2.26	59.11	74	-14.89
5460	47.85	AV	151	2.4	V	-2.26	45.59	54	-8.41
10480	52.51	PK	323	1.5	H	8.56	61.07	68.2	-7.13
10480	50.73	PK	67	1.5	V	8.56	59.29	68.2	-8.91

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11N40									
5190 MHz									
4500	65.97	PK	41	1.1	H	-4.72	61.25	74	-12.75
4500	52.61	AV	41	1.1	H	-4.72	47.89	54	-6.11
4500	65.65	PK	303	1.3	V	-4.72	60.93	74	-13.07
4500	52.51	AV	303	1.3	V	-4.72	47.79	54	-6.21
5150	65.07	PK	205	1	H	-2.73	62.34	74	-11.66
5150	53.26	AV	205	1	H	-2.73	50.53	54	-3.47
5150	64.51	PK	39	1.4	V	-2.73	61.78	74	-12.22
5150	53.28	AV	39	1.4	V	-2.73	50.55	54	-3.45
10380	55.68	PK	344	1.9	H	8.18	63.86	68.2	-4.34
10380	52.11	PK	302	1.9	V	8.18	60.29	68.2	-7.91
5230 MHz									
5350	62.31	PK	321	1.4	H	-2.33	59.98	74	-14.02
5350	49.66	AV	321	1.4	H	-2.33	47.33	54	-6.67
5350	62.46	PK	147	2	V	-2.33	60.13	74	-13.87
5350	49.44	AV	147	2	V	-2.33	47.11	54	-6.89
5460	61.03	PK	186	2	H	-2.26	58.77	74	-15.23
5460	48.57	AV	186	2	H	-2.26	46.31	54	-7.69
5460	61.61	PK	119	2.5	V	-2.26	59.35	74	-14.65
5460	48.56	AV	119	2.5	V	-2.26	46.30	54	-7.70
10460	53.54	PK	212	2.1	H	8.47	62.01	68.2	-6.19
10460	51.67	PK	65	2.1	V	8.47	60.14	68.2	-8.06

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11AC20									
5180 MHz									
4500	65.80	PK	253	1.8	H	-4.72	61.08	74	-12.92
4500	52.19	AV	253	1.8	H	-4.72	47.47	54	-6.53
4500	65.38	PK	140	1.6	V	-4.72	60.66	74	-13.34
4500	52.20	AV	140	1.6	V	-4.72	47.48	54	-6.52
5150	65.31	PK	349	1.7	H	-2.73	62.58	74	-11.42
5150	53.03	AV	349	1.7	H	-2.73	50.30	54	-3.70
5150	65.07	PK	173	2.5	V	-2.73	62.34	74	-11.66
5150	52.87	AV	173	2.5	V	-2.73	50.14	54	-3.86
10360	55.82	PK	73	1.7	H	8.12	63.94	68.2	-4.26
10360	53.38	PK	227	1.7	V	8.12	61.50	68.2	-6.70
5200 MHz									
10400	54.14	PK	320	2.2	H	8.24	62.38	68.2	-5.82
10400	52.78	PK	95	2.2	V	8.24	61.02	68.2	-7.18
5240 MHz									
5350	62.32	PK	113	2.4	H	-2.33	59.99	74	-14.01
5350	49.23	AV	113	2.4	H	-2.33	46.90	54	-7.10
5350	62.38	PK	85	2.4	V	-2.33	60.05	74	-13.95
5350	49.04	AV	85	2.4	V	-2.33	46.71	54	-7.29
5460	61.80	PK	333	2.3	H	-2.26	59.54	74	-14.46
5460	48.15	AV	333	2.3	H	-2.26	45.89	54	-8.11
5460	61.58	PK	324	1.8	V	-2.26	59.32	74	-14.68
5460	48.30	AV	324	1.8	V	-2.26	46.04	54	-7.96
10480	53.20	PK	216	2.2	H	8.56	61.76	68.2	-6.44
10480	51.95	PK	344	2.2	V	8.56	60.51	68.2	-7.69

5725-5850 MHz:

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11a									
5745 MHz									
5650	61.35	PK	136	1.4	H	-1.95	59.40	68.2	-8.80
5700	61.55	PK	94	2	H	-2.02	59.53	105.2	-45.67
5720	61.77	PK	170	1.7	H	-1.97	59.80	110.8	-51.00
5725	62.63	PK	238	1.5	H	-1.96	60.67	122.2	-61.53
5650	61.59	PK	113	1.5	V	-1.95	59.64	68.2	-8.56
5700	61.72	PK	145	1.6	V	-2.02	59.70	105.2	-45.50
5720	62.03	PK	291	1.8	V	-1.97	60.06	110.8	-50.74
5725	62.25	PK	335	1.6	V	-1.96	60.29	122.2	-61.91
11490	52.26	PK	314	1.8	H	6.63	58.89	74	-15.11
11490	38.76	AV	151	1.8	H	6.63	45.39	54	-8.61
11490	53.04	PK	242	2.3	V	6.63	59.67	74	-14.33
11490	38.97	AV	209	2.3	V	6.63	45.60	54	-8.40
5785 MHz									
11570	53.42	PK	12	1.2	H	6.59	60.01	74	-13.99
11570	39.45	AV	261	1.2	H	6.59	46.04	54	-7.96
11570	53.57	PK	180	1.4	V	6.59	60.16	74	-13.84
11570	39.58	AV	297	1.4	V	6.59	46.17	54	-7.83
5825 MHz									
5850	64.18	PK	183	1.6	H	-1.81	62.37	122.2	-59.83
5855	62.65	PK	186	2.3	H	-1.82	60.83	110.8	-49.97
5875	62.66	PK	331	2	H	-1.84	60.82	105.2	-44.38
5925	61.16	PK	134	1.3	H	-1.82	59.34	68.2	-8.86
5850	62.83	PK	111	2.1	V	-1.81	61.02	122.2	-61.18
5855	62.46	PK	85	2.1	V	-1.82	60.64	110.8	-50.16
5875	61.59	PK	21	1.9	V	-1.84	59.75	105.2	-45.45
5925	60.87	PK	339	2.1	V	-1.82	59.05	68.2	-9.15
11650	53.29	PK	167	1.5	H	6.77	60.06	74	-13.94
11650	39.04	AV	309	1.5	H	6.77	45.81	54	-8.19
11650	53.48	PK	140	1.7	V	6.77	60.25	74	-13.75
11650	39.52	AV	97	1.7	V	6.77	46.29	54	-7.71

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11n20									
5745 MHz									
5650	61.28	PK	76	2.4	H	-1.95	59.33	68.2	-8.87
5700	63.03	PK	85	1.9	H	-2.02	61.01	105.2	-44.19
5720	63.76	PK	139	1.2	H	-1.97	61.79	110.8	-49.01
5725	64.10	PK	166	2.2	H	-1.96	62.14	122.2	-60.06
5650	60.68	PK	231	2.5	V	-1.95	58.73	68.2	-9.47
5700	61.83	PK	58	2.1	V	-2.02	59.81	105.2	-45.39
5720	62.50	PK	314	2	V	-1.97	60.53	110.8	-50.27
5725	62.53	PK	344	2.5	V	-1.96	60.57	122.2	-61.63
11490	52.78	PK	252	1.9	H	6.63	59.41	74	-14.59
11490	39.27	AV	299	1.9	H	6.63	45.90	54	-8.10
11490	52.41	PK	272	1.3	V	6.63	59.04	74	-14.96
11490	39.10	AV	35	1.3	V	6.63	45.73	54	-8.27
5785 MHz									
11570	53.87	PK	110	1.2	H	6.59	60.46	74	-13.54
11570	40.02	AV	23	1.2	H	6.59	46.61	54	-7.39
11570	53.59	PK	45	2.1	V	6.59	60.18	74	-13.82
11570	39.75	AV	101	2.1	V	6.59	46.34	54	-7.66
5825 MHz									
5850	64.23	PK	136	1.3	H	-1.81	62.42	122.2	-59.78
5855	63.07	PK	75	2.4	H	-1.82	61.25	110.8	-49.55
5875	62.37	PK	296	1	H	-1.84	60.53	105.2	-44.67
5925	61.76	PK	224	1.9	H	-1.82	59.94	68.2	-8.26
5850	63.01	PK	258	1.5	V	-1.81	61.20	122.2	-61.00
5855	61.67	PK	210	1	V	-1.82	59.85	110.8	-50.95
5875	61.33	PK	345	1.3	V	-1.84	59.49	105.2	-45.71
5925	60.64	PK	20	2.2	V	-1.82	58.82	68.2	-9.38
11650	54.20	PK	247	1.8	H	6.77	60.97	74	-13.03
11650	39.90	AV	75	1.8	H	6.77	46.67	54	-7.33
11650	53.57	PK	305	2	V	6.77	60.34	74	-13.66
11650	39.78	AV	37	2	V	6.77	46.55	54	-7.45

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11N40									
5755 MHz									
5650	61.55	PK	138	1.4	H	-1.95	59.60	68.2	-8.60
5700	62.29	PK	84	2	H	-2.02	60.27	105.2	-44.93
5720	63.49	PK	339	1.2	H	-1.97	61.52	110.8	-49.28
5725	63.99	PK	331	1.8	H	-1.96	62.03	122.2	-60.17
5650	61.21	PK	98	2.4	V	-1.95	59.26	68.2	-8.94
5700	62.04	PK	182	1.5	V	-2.02	60.02	105.2	-45.18
5720	62.24	PK	113	2.4	V	-1.97	60.27	110.8	-50.53
5725	63.05	PK	185	2.3	V	-1.96	61.09	122.2	-61.11
11510	53.92	PK	303	1.2	H	6.59	60.51	74	-13.49
11510	40.55	AV	33	1.2	H	6.59	47.14	54	-6.86
11510	53.44	PK	344	1.4	V	6.59	60.03	74	-13.97
11510	40.11	AV	282	1.4	V	6.59	46.70	54	-7.30
5795 MHz									
5850	63.86	PK	299	1.1	H	-1.81	62.05	122.2	-60.15
5855	63.14	PK	325	2	H	-1.82	61.32	110.8	-49.48
5875	62.93	PK	53	2.3	H	-1.84	61.09	105.2	-44.11
5925	62.70	PK	191	1.4	H	-1.82	60.88	68.2	-7.32
5850	63.51	PK	346	1	V	-1.81	61.70	122.2	-60.50
5855	62.90	PK	197	1.1	V	-1.82	61.08	110.8	-49.72
5875	62.53	PK	198	2.4	V	-1.84	60.69	105.2	-44.51
5925	62.11	PK	160	2.3	V	-1.82	60.29	68.2	-7.91
11590	53.14	PK	309	1.3	H	6.57	59.71	74	-14.29
11590	40.63	AV	240	1.3	H	6.57	47.20	54	-6.80
11590	52.88	PK	297	1.5	V	6.57	59.45	74	-14.55
11590	40.31	AV	320	1.5	V	6.57	46.88	54	-7.12

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Corrected Amplitude (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11AC20									
5745 MHz									
5650	61.01	PK	341	1.5	H	-1.95	59.06	68.2	-9.14
5700	61.67	PK	191	1.4	H	-2.02	59.65	105.2	-45.55
5720	62.29	PK	314	1.4	H	-1.97	60.32	110.8	-50.48
5725	62.99	PK	12	1.7	H	-1.96	61.03	122.2	-61.17
5650	59.80	PK	175	2.2	V	-1.95	57.85	68.2	-10.35
5700	60.41	PK	136	1.3	V	-2.02	58.39	105.2	-46.81
5720	61.50	PK	334	1.2	V	-1.97	59.53	110.8	-51.27
5725	62.39	PK	15	1.7	V	-1.96	60.43	122.2	-61.77
11490	53.27	PK	51	1.4	H	6.63	59.90	74	-14.10
11490	39.18	AV	341	1.4	H	6.63	45.81	54	-8.19
11490	53.17	PK	356	1.4	V	6.63	59.80	74	-14.20
11490	38.99	AV	142	1.4	V	6.63	45.62	54	-8.38
5785 MHz									
11570	53.43	PK	315	2.1	H	6.59	60.02	74	-13.98
11570	40.25	AV	126	2.1	H	6.59	46.84	54	-7.16
11570	53.29	PK	194	1.3	V	6.59	59.88	74	-14.12
11570	39.87	AV	48	1.3	V	6.59	46.46	54	-7.54
5825 MHz									
5850	63.24	PK	22	2.2	H	-1.81	61.43	122.2	-60.77
5855	62.55	PK	210	1.1	H	-1.82	60.73	110.8	-50.07
5875	61.84	PK	140	1.8	H	-1.84	60.00	105.2	-45.20
5925	61.40	PK	94	1.6	H	-1.82	59.58	68.2	-8.62
5850	62.02	PK	42	2.5	V	-1.81	60.21	122.2	-61.99
5855	61.60	PK	134	1.3	V	-1.82	59.78	110.8	-51.02
5875	61.50	PK	50	2.5	V	-1.84	59.66	105.2	-45.54
5925	60.10	PK	192	2.3	V	-1.82	58.28	68.2	-9.92
11650	52.72	PK	298	1.1	H	6.77	59.49	74	-14.51
11650	39.99	AV	254	1.1	H	6.77	46.76	54	-7.24
11650	52.25	PK	101	1.1	V	6.77	59.02	74	-14.98
11650	39.56	AV	320	1.1	V	6.77	46.33	54	-7.67

Note:

Corrected Factor = Antenna factor (RX) + Cable Loss – Amplifier Factor

Corrected Amplitude = Corrected Factor + Reading

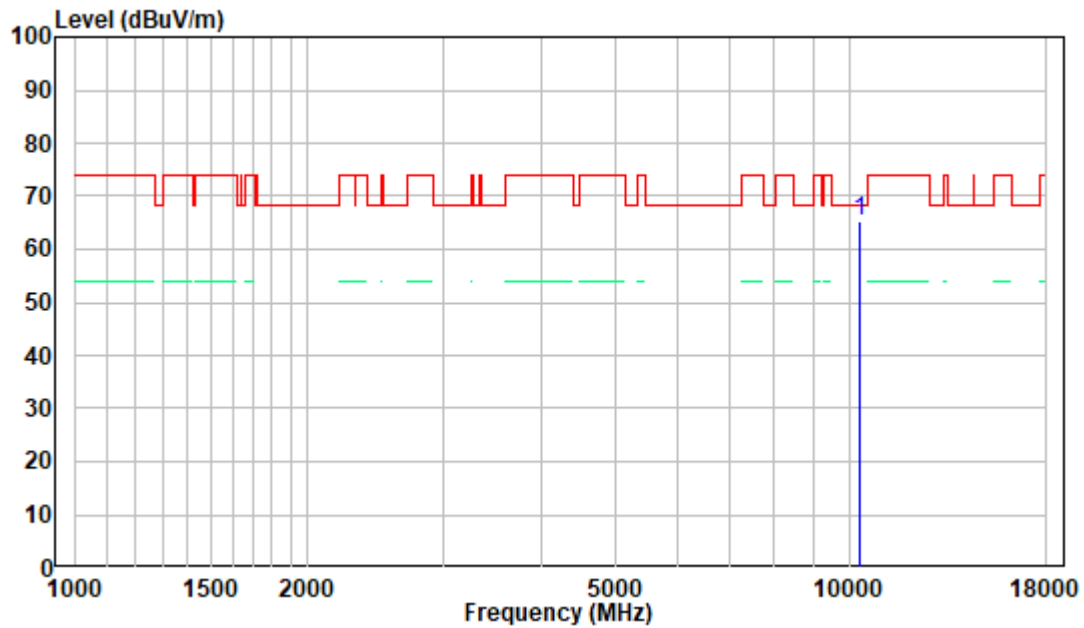
Margin = Corrected. Amplitude - Limit

The other spurious emission which is in the noise floor level was not recorded.

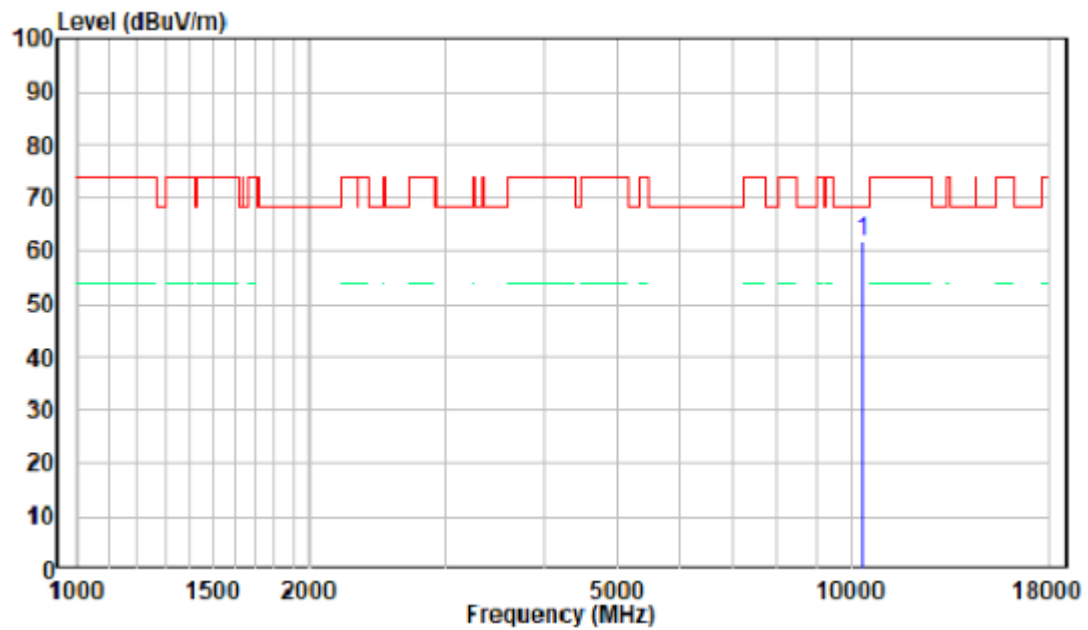
1 GHz - 18 GHz: (Pre-Scan plots)

802.11 a, 5745MHz

Horizontal



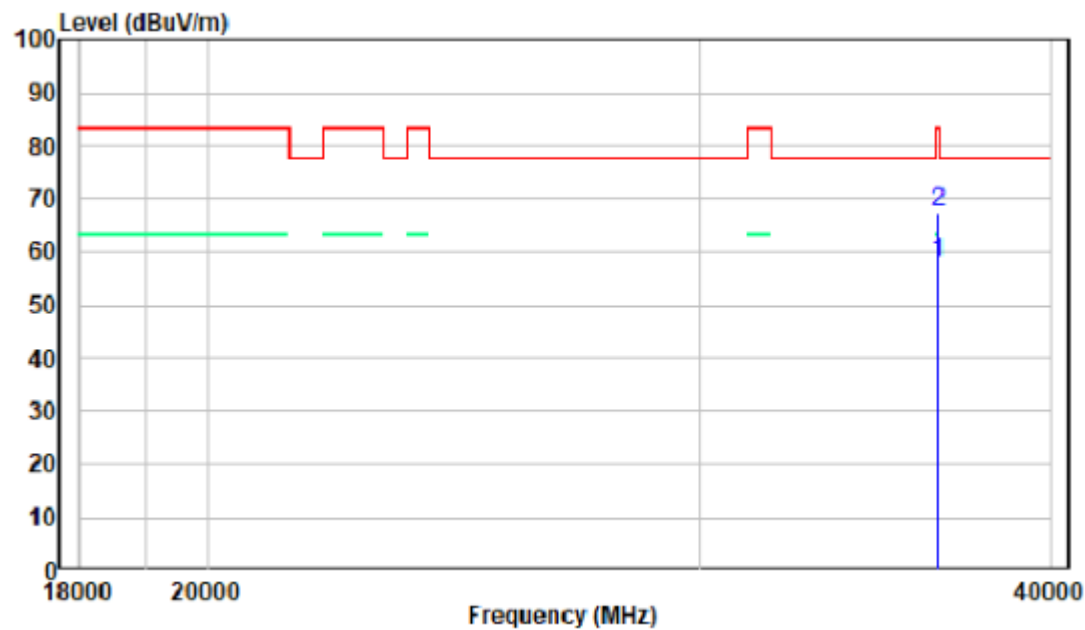
Vertical



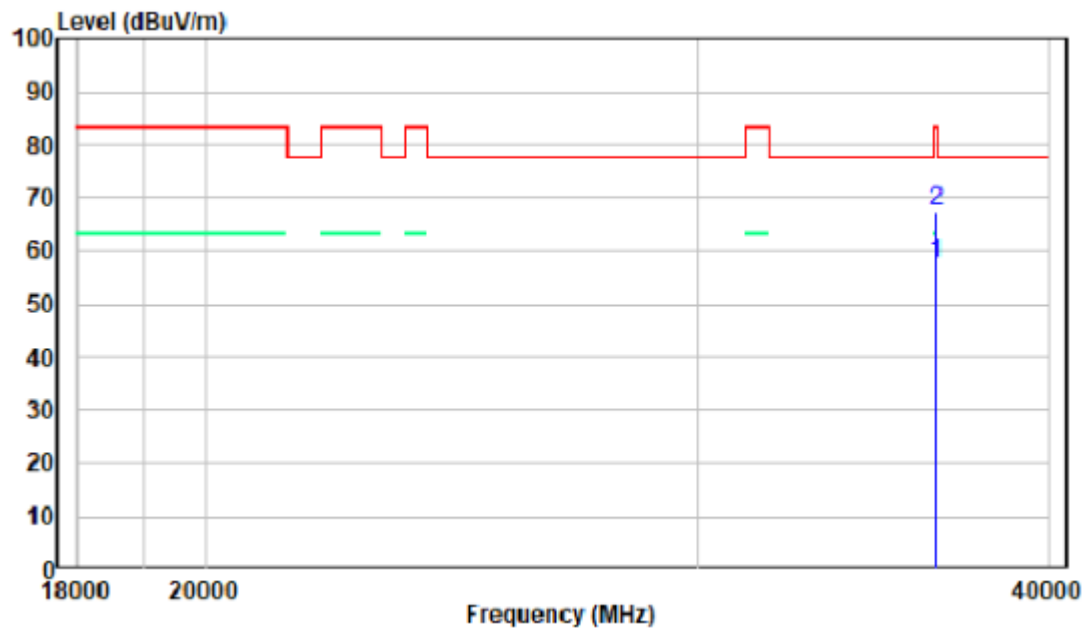
18-40GHz: (Pre-Scan plots)

802.11 a, 5745MHz

Horizontal



Vertical



Above 1GHz:

Ant B:

5150-5250 MHz:

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11a									
5180 MHz									
4500	63.50	PK	319	2.3	H	-4.72	58.78	74	-15.22
4500	51.29	AV	319	2.3	H	-4.72	46.57	54	-7.43
4500	63.26	PK	313	1.3	V	-4.72	58.54	74	-15.46
4500	51.05	AV	313	1.3	V	-4.72	46.33	54	-7.67
5150	65.27	PK	188	2.1	H	-2.73	62.54	74	-11.46
5150	52.63	AV	188	2.1	H	-2.73	49.90	54	-4.10
5150	64.70	PK	117	1.3	V	-2.73	61.97	74	-12.03
5150	52.48	AV	117	1.3	V	-2.73	49.75	54	-4.25
10360	55.07	PK	281	2.4	H	8.12	63.19	68.2	-5.01
10360	53.42	PK	246	2.4	V	8.12	61.54	68.2	-6.66
5200 MHz									
10400	54.18	PK	76	2	H	8.24	62.42	68.2	-5.78
10400	53.43	PK	278	2	V	8.24	61.67	68.2	-6.53
5240 MHz									
5350	62.31	PK	347	1.7	H	-2.33	59.98	74	-14.02
5350	48.73	AV	347	1.7	H	-2.33	46.40	54	-7.60
5350	61.91	PK	147	2.4	V	-2.33	59.58	74	-14.42
5350	48.54	AV	147	2.4	V	-2.33	46.21	54	-7.79
5460	61.08	PK	154	1.7	H	-2.26	58.82	74	-15.18
5460	47.55	AV	154	1.7	H	-2.26	45.29	54	-8.71
5460	60.85	PK	141	1.4	V	-2.26	58.59	74	-15.41
5460	47.93	AV	141	1.4	V	-2.26	45.67	54	-8.33
10480	52.91	PK	263	1.4	H	8.56	61.47	68.2	-6.73
10480	51.92	PK	109	1.4	V	8.56	60.48	68.2	-7.72

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11n20									
5180 MHz									
4500	64.10	PK	297	2.3	H	-4.72	59.38	74	-14.62
4500	52.03	AV	297	2.3	H	-4.72	47.31	54	-6.69
4500	63.54	PK	164	2.1	V	-4.72	58.82	74	-15.18
4500	51.94	AV	164	2.1	V	-4.72	47.22	54	-6.78
5150	64.84	PK	249	1.5	H	-2.73	62.11	74	-11.89
5150	52.62	AV	249	1.5	H	-2.73	49.89	54	-4.11
5150	64.54	PK	345	1.7	V	-2.73	61.81	74	-12.19
5150	52.59	AV	345	1.7	V	-2.73	49.86	54	-4.14
10360	55.67	PK	156	2	H	8.12	63.79	68.2	-4.41
10360	52.40	PK	118	2	V	8.12	60.52	68.2	-7.68
5200 MHz									
10400	54.45	PK	185	2.3	H	8.24	62.69	68.2	-5.51
10400	52.15	PK	115	2.3	V	8.24	60.39	68.2	-7.81
5240 MHz									
5350	62.28	PK	50	2.1	H	-2.33	59.95	74	-14.05
5350	49.11	AV	50	2.1	H	-2.33	46.78	54	-7.22
5350	62.04	PK	184	1.7	V	-2.33	59.71	74	-14.29
5350	48.93	AV	184	1.7	V	-2.33	46.60	54	-7.40
5460	61.13	PK	249	2.1	H	-2.26	58.87	74	-15.13
5460	47.97	AV	249	2.1	H	-2.26	45.71	54	-8.29
5460	59.89	PK	319	1.5	V	-2.26	57.63	74	-16.37
5460	47.21	AV	319	1.5	V	-2.26	44.95	54	-9.05
10480	52.86	PK	114	1.7	H	8.56	61.42	68.2	-6.78
10480	51.62	PK	265	1.7	V	8.56	60.18	68.2	-8.02

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11N40									
5190 MHz									
4500	64.42	PK	219	2.3	H	-4.72	59.70	74	-14.30
4500	51.88	AV	219	2.3	H	-4.72	47.16	54	-6.84
4500	63.62	PK	274	1.9	V	-4.72	58.90	74	-15.10
4500	51.41	AV	274	1.9	V	-4.72	46.69	54	-7.31
5150	65.43	PK	235	1.6	H	-2.73	62.70	74	-11.30
5150	53.14	AV	235	1.6	H	-2.73	50.41	54	-3.59
5150	64.82	PK	353	1.4	V	-2.73	62.09	74	-11.91
5150	53.04	AV	353	1.4	V	-2.73	50.31	54	-3.69
10380	53.61	PK	24	2.1	H	8.18	61.79	68.2	-6.41
10380	51.43	PK	138	2.1	V	8.18	59.61	68.2	-8.59
5230 MHz									
5350	62.49	PK	87	2.1	H	-2.33	60.16	74	-13.84
5350	49.65	AV	87	2.1	H	-2.33	47.32	54	-6.68
5350	61.78	PK	213	2	V	-2.33	59.45	74	-14.55
5350	49.53	AV	213	2	V	-2.33	47.20	54	-6.80
5460	61.26	PK	136	1.8	H	-2.26	59.00	74	-15.00
5460	48.59	AV	136	1.8	H	-2.26	46.33	54	-7.67
5460	60.31	PK	30	1	V	-2.26	58.05	74	-15.95
5460	47.99	AV	30	1	V	-2.26	45.73	54	-8.27
10460	52.98	PK	179	2	H	8.47	61.45	68.2	-6.75
10460	51.66	PK	338	2	V	8.47	60.13	68.2	-8.07

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11AC20									
5180 MHz									
4500	64.23	PK	32	1.9	H	-4.72	59.51	74	-14.49
4500	51.62	AV	32	1.9	H	-4.72	46.90	54	-7.10
4500	63.56	PK	222	2.4	V	-4.72	58.84	74	-15.16
4500	51.29	AV	222	2.4	V	-4.72	46.57	54	-7.43
5150	65.38	PK	33	2.5	H	-2.73	62.65	74	-11.35
5150	52.84	AV	33	2.5	H	-2.73	50.11	54	-3.89
5150	64.72	PK	4	1.3	V	-2.73	61.99	74	-12.01
5150	52.82	AV	4	1.3	V	-2.73	50.09	54	-3.91
10360	54.65	PK	66	1.8	H	8.12	62.77	68.2	-5.43
10360	51.86	PK	241	1.8	V	8.12	59.98	68.2	-8.22
5200 MHz									
10400	53.49	PK	311	1.4	H	8.24	61.73	68.2	-6.47
10400	51.31	PK	84	1.4	V	8.24	59.55	68.2	-8.65
5240 MHz									
5350	62.01	PK	360	1.3	H	-2.33	59.68	74	-14.32
5350	49.16	AV	360	1.3	H	-2.33	46.83	54	-7.17
5350	61.85	PK	57	1.8	V	-2.33	59.52	74	-14.48
5350	48.90	AV	57	1.8	V	-2.33	46.57	54	-7.43
5460	60.37	PK	113	2.2	H	-2.26	58.11	74	-15.89
5460	47.11	AV	113	2.2	H	-2.26	44.85	54	-9.15
5460	60.07	PK	221	2.1	V	-2.26	57.81	74	-16.19
5460	47.30	AV	221	2.1	V	-2.26	45.04	54	-8.96
10480	52.65	PK	187	1.5	H	8.56	61.21	68.2	-6.99
10480	50.78	PK	149	1.5	V	8.56	59.34	68.2	-8.86

5725-5850 MHz:

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11a									
5745 MHz									
5650	59.71	PK	151	1.8	H	-1.95	57.76	68.2	-10.44
5700	60.72	PK	188	2.4	H	-2.02	58.70	105.2	-46.50
5720	61.28	PK	119	2.1	H	-1.97	59.31	110.8	-51.49
5725	62.04	PK	278	1.3	H	-1.96	60.08	122.2	-62.12
5650	58.48	PK	141	2.3	V	-1.95	56.53	68.2	-11.67
5700	59.64	PK	237	2.4	V	-2.02	57.62	105.2	-47.58
5720	59.83	PK	45	1.1	V	-1.97	57.86	110.8	-52.94
5725	60.40	PK	69	2.1	V	-1.96	58.44	122.2	-63.76
11490	52.98	PK	167	1.5	H	6.63	59.61	74	-14.39
11490	39.28	AV	53	1.5	H	6.63	45.91	54	-8.09
11490	52.74	PK	171	1.5	V	6.63	59.37	74	-14.63
11490	39.16	AV	134	1.5	V	6.63	45.79	54	-8.21
5785 MHz									
11570	53.92	PK	65	2.3	H	6.59	60.51	74	-13.49
11570	39.69	AV	336	2.3	H	6.59	46.28	54	-7.72
11570	53.76	PK	337	2.3	V	6.59	60.35	74	-13.65
11570	39.58	AV	256	2.3	V	6.59	46.17	54	-7.83
5825 MHz									
5850	62.95	PK	270	2	H	-1.81	61.14	122.2	-61.06
5855	61.94	PK	65	1.1	H	-1.82	60.12	110.8	-50.68
5875	61.71	PK	241	1.1	H	-1.84	59.87	105.2	-45.33
5925	61.00	PK	213	1.7	H	-1.82	59.18	68.2	-9.02
5850	62.08	PK	146	1.4	V	-1.81	60.27	122.2	-61.93
5855	60.88	PK	113	1.2	V	-1.82	59.06	110.8	-51.74
5875	60.26	PK	220	1.3	V	-1.84	58.42	105.2	-46.78
5925	59.92	PK	168	1.2	V	-1.82	58.10	68.2	-10.10
11650	53.76	PK	110	1.3	H	6.77	60.53	74	-13.47
11650	39.37	AV	288	1.3	H	6.77	46.14	54	-7.86
11650	53.65	PK	186	1.3	V	6.77	60.42	74	-13.58
11650	38.88	AV	180	1.3	V	6.77	45.65	54	-8.35

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11n20									
5745 MHz									
5650	59.49	PK	230	2.4	H	-1.95	57.54	68.2	-10.66
5700	60.09	PK	244	2.1	H	-2.02	58.07	105.2	-47.13
5720	60.78	PK	357	1.5	H	-1.97	58.81	110.8	-51.99
5725	61.50	PK	12	2.3	H	-1.96	59.54	122.2	-62.66
5650	58.45	PK	49	1.2	V	-1.95	56.50	68.2	-11.70
5700	58.65	PK	341	1.5	V	-2.02	56.63	105.2	-48.57
5720	59.53	PK	312	2.3	V	-1.97	57.56	110.8	-53.24
5725	60.54	PK	262	2.1	V	-1.96	58.58	122.2	-63.62
11490	53.76	PK	49	1.6	H	6.63	60.39	74	-13.61
11490	39.54	AV	155	1.6	H	6.63	46.17	54	-7.83
11490	53.28	PK	53	1.4	V	6.63	59.91	74	-14.09
11490	39.22	AV	287	1.4	V	6.63	45.85	54	-8.15
5785 MHz									
11570	53.89	PK	9	1.5	H	6.59	60.48	74	-13.52
11570	40.15	AV	63	1.5	H	6.59	46.74	54	-7.26
11570	53.78	PK	115	2.4	V	6.59	60.37	74	-13.63
11570	39.56	AV	242	2.4	V	6.59	46.15	54	-7.85
5825 MHz									
5850	62.90	PK	315	1.5	H	-1.81	61.09	122.2	-61.11
5855	62.14	PK	24	2.5	H	-1.82	60.32	110.8	-50.48
5875	61.42	PK	306	1.3	H	-1.84	59.58	105.2	-45.62
5925	60.98	PK	296	2.1	H	-1.82	59.16	68.2	-9.04
5850	61.67	PK	217	1.9	V	-1.81	59.86	122.2	-62.34
5855	60.98	PK	11	1.3	V	-1.82	59.16	110.8	-51.64
5875	60.19	PK	246	1.4	V	-1.84	58.35	105.2	-46.85
5925	60.10	PK	242	1.2	V	-1.82	58.28	68.2	-9.92
11650	53.12	PK	264	1.3	H	6.77	59.89	74	-14.11
11650	40.04	AV	41	1.3	H	6.77	46.81	54	-7.19
11650	52.60	PK	239	1.5	V	6.77	59.37	74	-14.63
11650	39.77	AV	15	1.5	V	6.77	46.54	54	-7.46

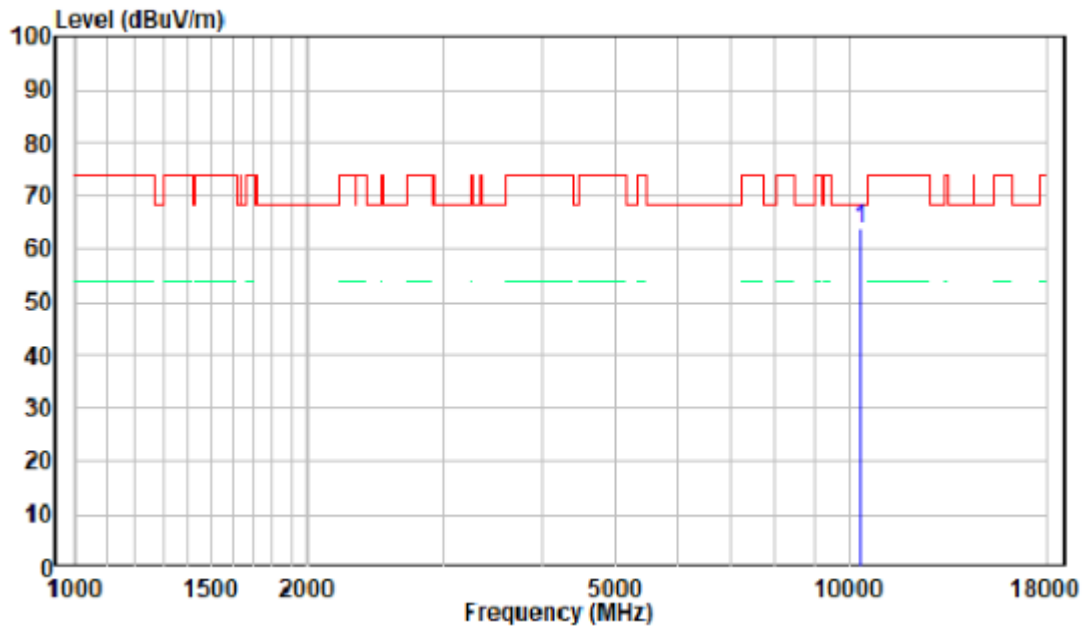
Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11N40									
5755 MHz									
5650	61.69	PK	178	2	H	-1.95	59.74	68.2	-8.46
5700	62.32	PK	90	1.3	H	-2.02	60.30	105.2	-44.90
5720	63.64	PK	339	1.5	H	-1.97	61.67	110.8	-49.13
5725	64.40	PK	206	2	H	-1.96	62.44	122.2	-59.76
5650	60.57	PK	21	1.5	V	-1.95	58.62	68.2	-9.58
5700	61.52	PK	349	2.2	V	-2.02	59.50	105.2	-45.70
5720	62.64	PK	215	1.4	V	-1.97	60.67	110.8	-50.13
5725	63.77	PK	9	2.3	V	-1.96	61.81	122.2	-60.39
11510	53.94	PK	348	2.2	H	6.59	60.53	74	-13.47
11510	40.63	AV	293	2.2	H	6.59	47.22	54	-6.78
11510	53.37	PK	238	1.2	V	6.59	59.96	74	-14.04
11510	40.36	AV	133	1.2	V	6.59	46.95	54	-7.05
5795 MHz									
5850	62.89	PK	316	1.2	H	-1.81	61.08	122.2	-61.12
5855	61.99	PK	69	1.2	H	-1.82	60.17	110.8	-50.63
5875	61.96	PK	148	1.3	H	-1.84	60.12	105.2	-45.08
5925	61.58	PK	11	1.8	H	-1.82	59.76	68.2	-8.44
5850	61.68	PK	196	2.1	V	-1.81	59.87	122.2	-62.33
5855	61.13	PK	162	2	V	-1.82	59.31	110.8	-51.49
5875	61.13	PK	133	1.8	V	-1.84	59.29	105.2	-45.91
5925	60.13	PK	252	1.1	V	-1.82	58.31	68.2	-9.89
11590	53.91	PK	138	2.1	H	6.57	60.48	74	-13.52
11590	40.70	AV	104	2.1	H	6.57	47.27	54	-6.73
11590	53.45	PK	341	1.6	V	6.57	60.02	74	-13.98
11590	40.39	AV	127	1.6	V	6.57	46.96	54	-7.04

Frequency (MHz)	Receiver		Turntable Angle Degree	Rx Antenna		Factor (dB/m)	Absolute Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)
	Reading (dBμV)	PK/Ave		Height (m)	Polar (H/V)				
802.11AC20									
5745 MHz									
5650	61.17	PK	2	1.2	H	-1.95	59.22	68.2	-8.98
5700	61.49	PK	31	1.2	H	-2.02	59.47	105.2	-45.73
5720	62.00	PK	168	1.4	H	-1.97	60.03	110.8	-50.77
5725	62.88	PK	193	2.5	H	-1.96	60.92	122.2	-61.28
5650	59.45	PK	269	1.2	V	-1.95	57.50	68.2	-10.70
5700	60.49	PK	0	1.6	V	-2.02	58.47	105.2	-46.73
5720	60.69	PK	277	1.8	V	-1.97	58.72	110.8	-52.08
5725	61.34	PK	269	2	V	-1.96	59.38	122.2	-62.82
11490	52.97	PK	192	1.5	H	6.63	59.60	74	-14.40
11490	39.59	AV	253	1.5	H	6.63	46.22	54	-7.78
11490	52.54	PK	95	1.1	V	6.63	59.17	74	-14.83
11490	39.18	AV	81	1.1	V	6.63	45.81	54	-8.19
5785 MHz									
11570	53.77	PK	3	1.4	H	6.59	60.36	74	-13.64
11570	39.69	AV	266	1.4	H	6.59	46.28	54	-7.72
11570	53.52	PK	161	1.6	V	6.59	60.11	74	-13.89
11570	39.43	AV	35	1.6	V	6.59	46.02	54	-7.98
5825 MHz									
5850	62.93	PK	292	1.4	H	-1.81	61.12	122.2	-61.08
5855	61.97	PK	272	1.1	H	-1.82	60.15	110.8	-50.65
5875	61.81	PK	68	2.3	H	-1.84	59.97	105.2	-45.23
5925	61.66	PK	144	2.2	H	-1.82	59.84	68.2	-8.36
5850	61.76	PK	272	1	V	-1.81	59.95	122.2	-62.25
5855	61.07	PK	195	2.2	V	-1.82	59.25	110.8	-51.55
5875	61.03	PK	102	2	V	-1.84	59.19	105.2	-46.01
5925	60.11	PK	79	1.8	V	-1.82	58.29	68.2	-9.91
11650	53.99	PK	150	1.7	H	6.77	60.76	74	-13.24
11650	39.98	AV	304	1.7	H	6.77	46.75	54	-7.25
11650	53.65	PK	171	1.2	V	6.77	60.42	74	-13.58
11650	39.60	AV	249	1.2	V	6.77	46.37	54	-7.63

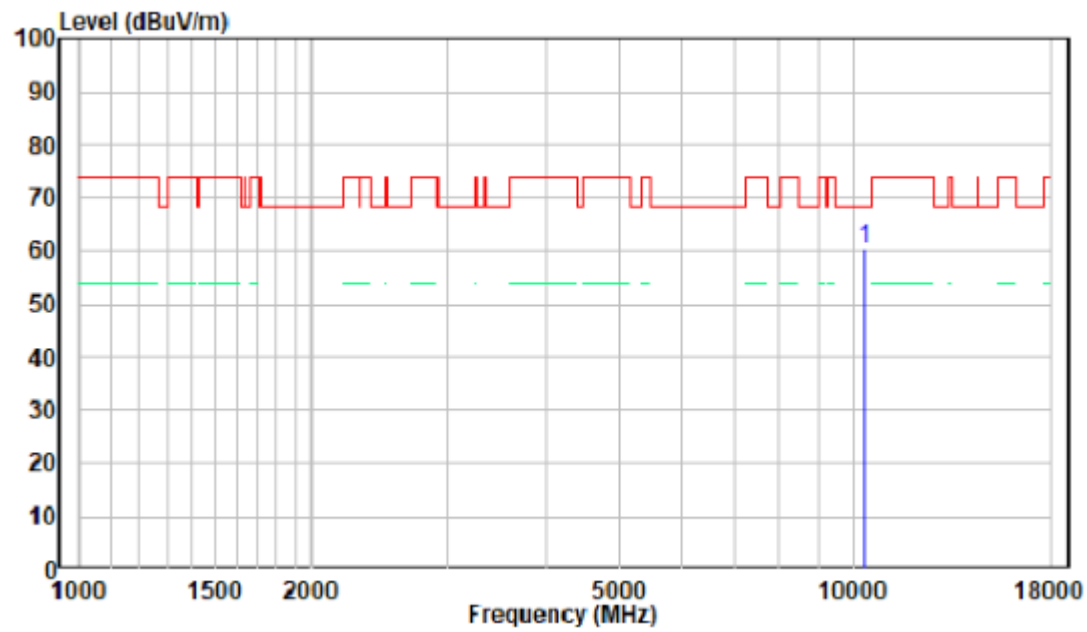
1 GHz - 18 GHz: (Pre-Scan plots)

802.11 a, 5745MHz

Horizontal



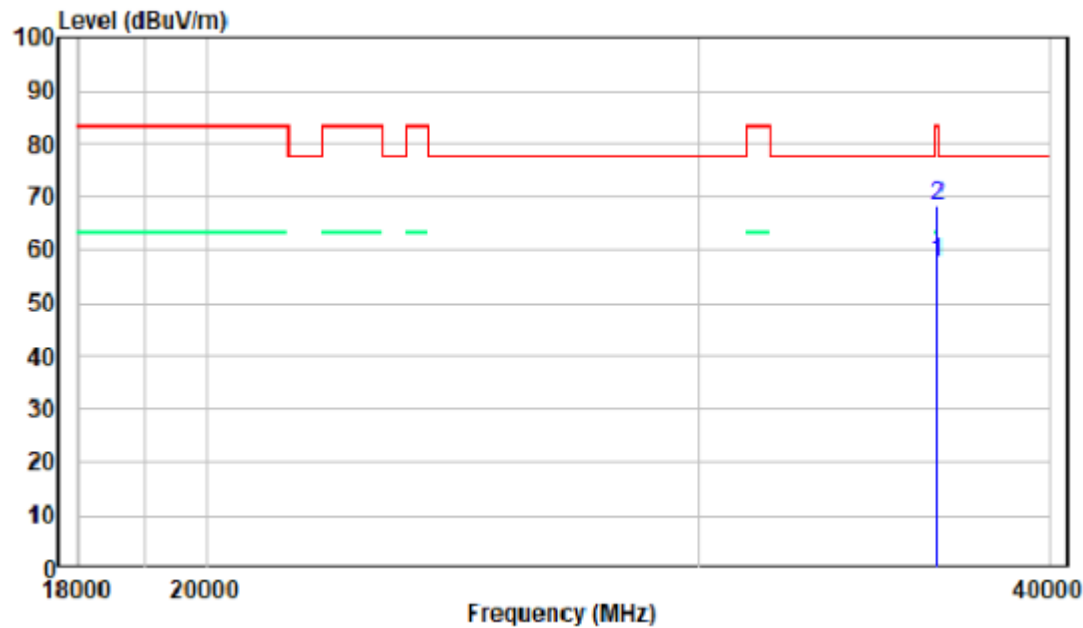
Vertical



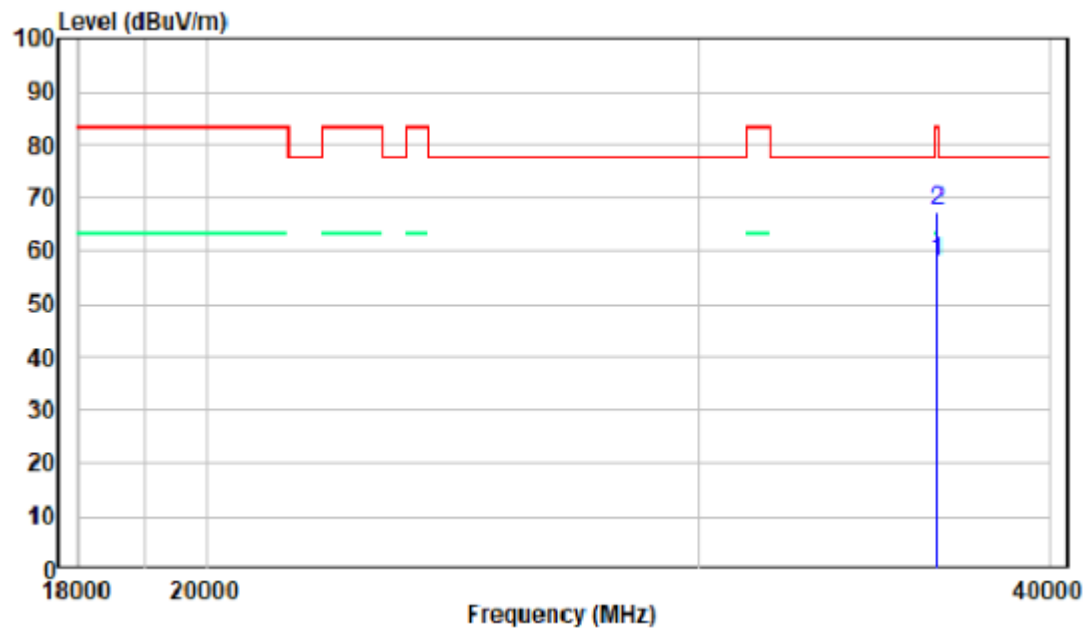
18-40GHz: (Pre-Scan plots)

802.11 a, 5745MHz

Horizontal



Vertical



FCC §15.407(a),(e) – 26 dB & 6dB EMISSION BANDWIDTH

Applicable Standard

The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth.

Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Test Procedure

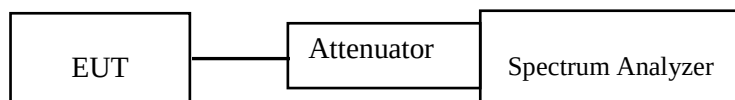
1. Emission Bandwidth (EBW)

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

2. Minimum Emission Bandwidth for the band 5.725-5.85 GHz

Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.725-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

- Set RBW = 100 kHz.
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
- Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Allow the trace to stabilize.
- Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.



Test Data**Environmental Conditions**

Temperature:	25 °C
Relative Humidity:	52%
ATM Pressure:	101.0 kPa

The testing was performed by Gala Liu on 2023-02-22 and 2023-02-23.

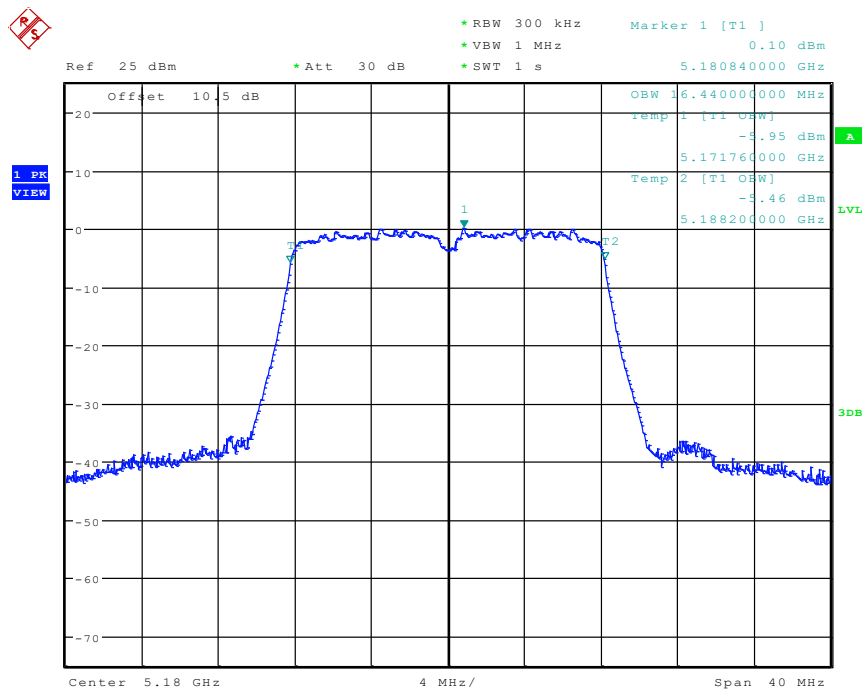
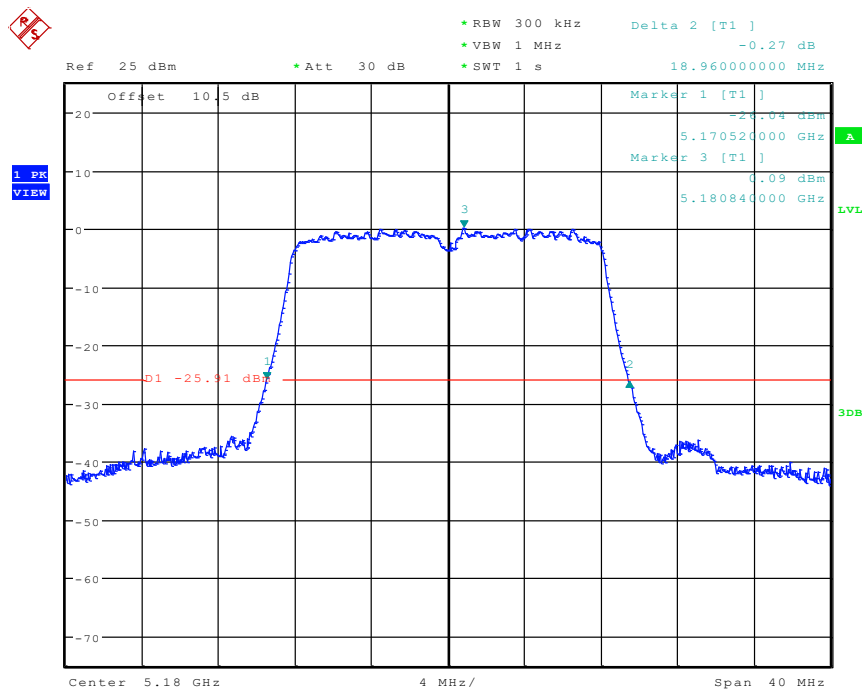
EUT operation mode: Transmitting

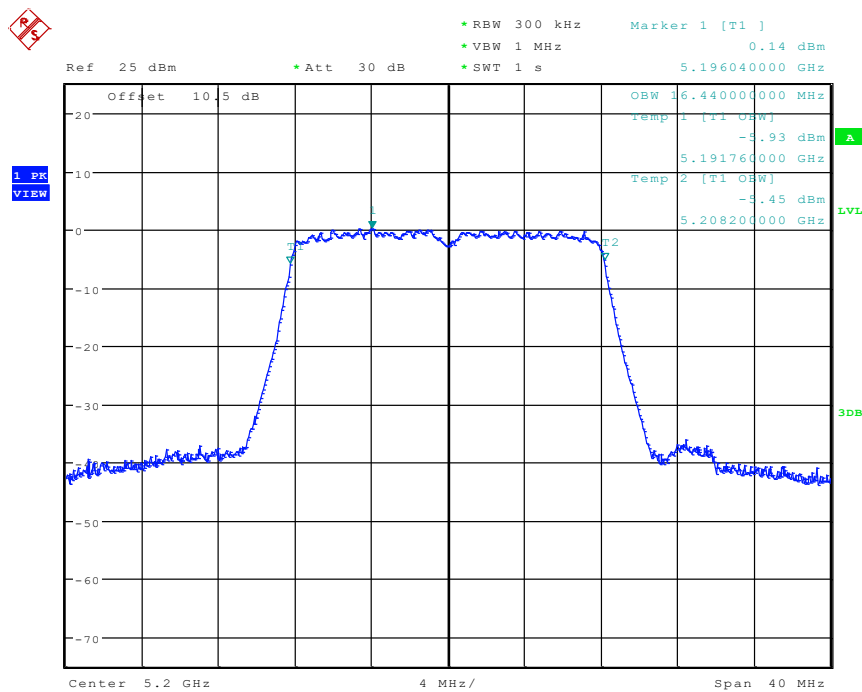
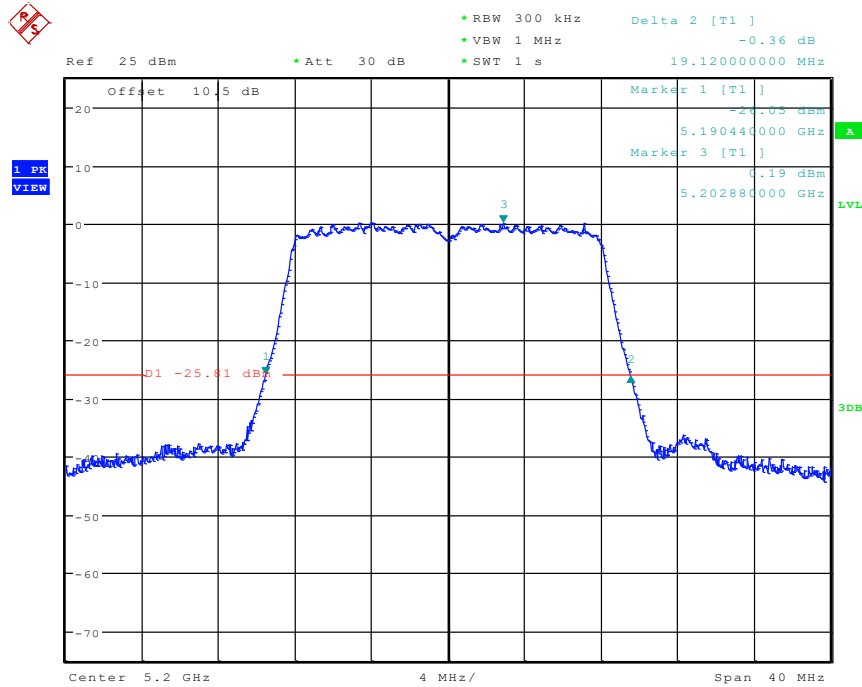
Test Result: Pass; please refer to the following tables and plots.

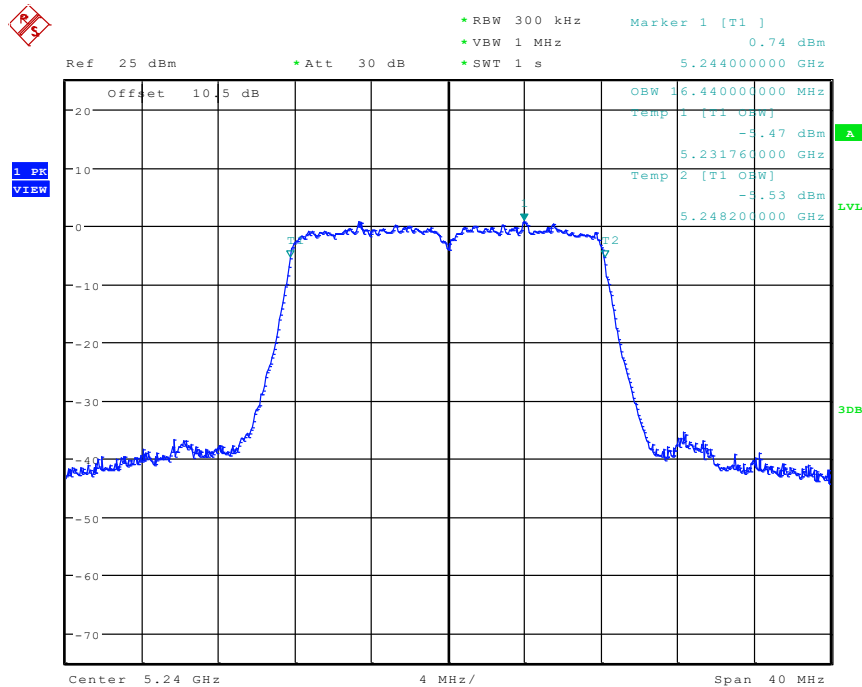
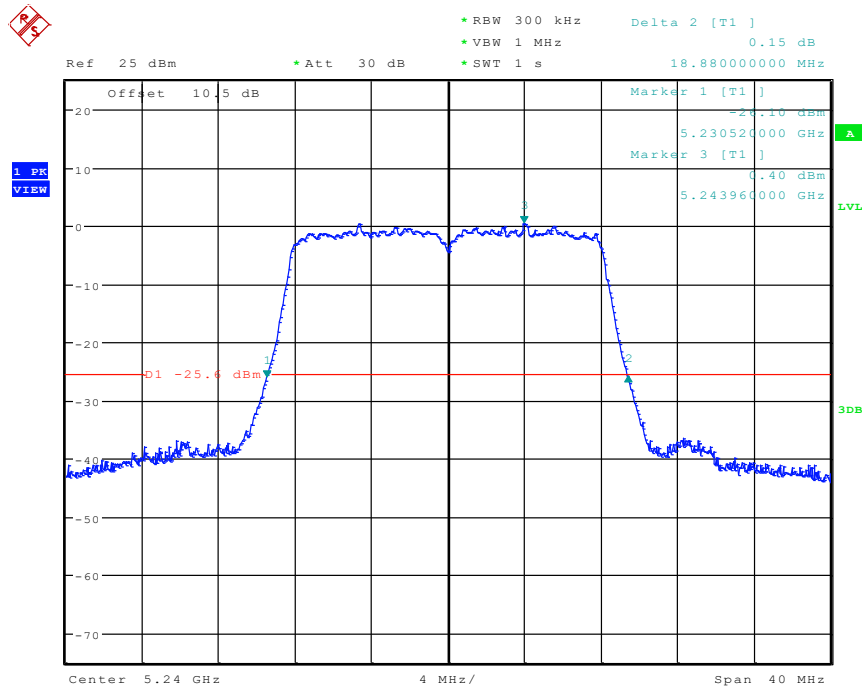
Only tested with Antenna A port

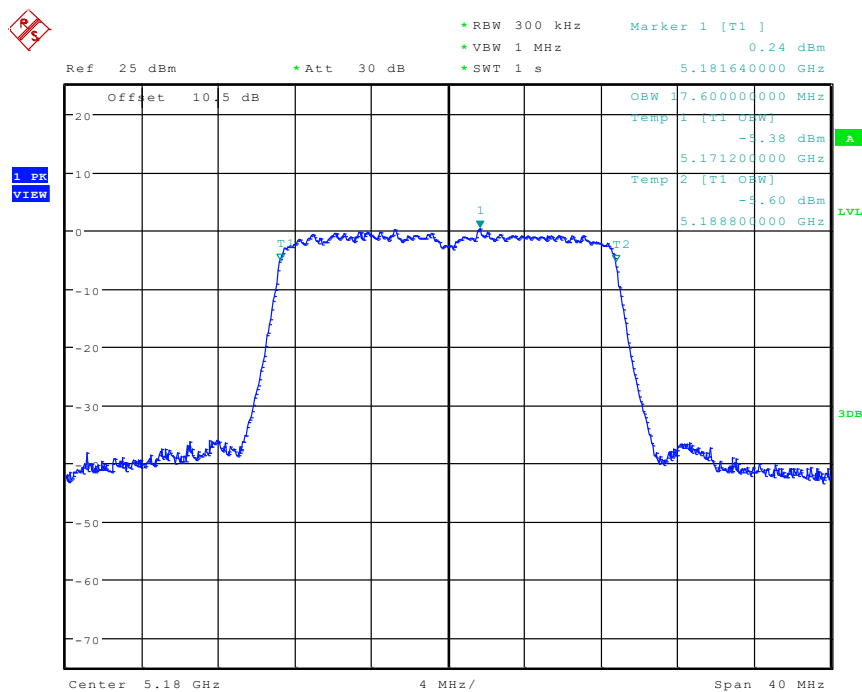
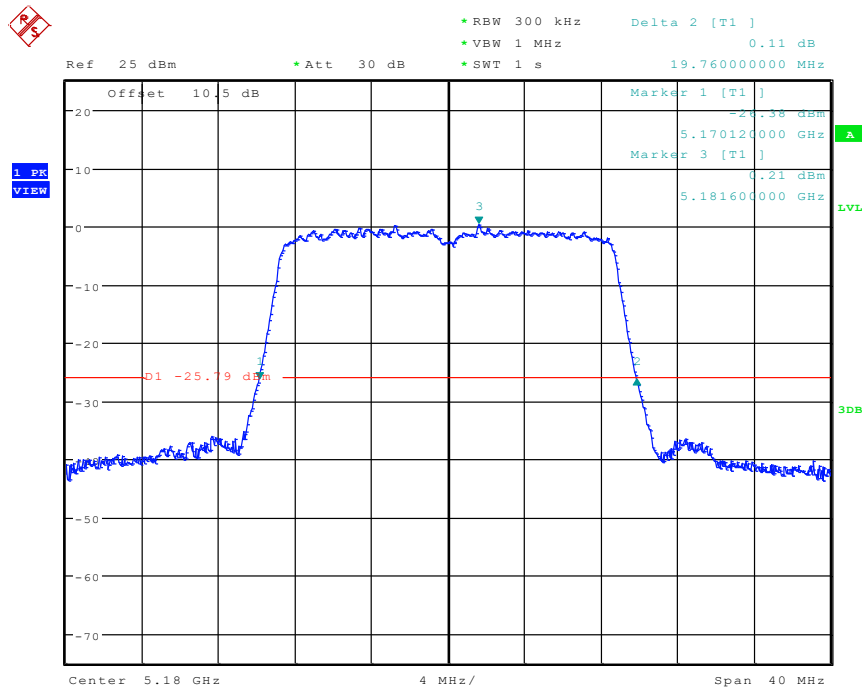
5150 MHz - 5250 MHz:

Frequency (MHz)	Antenna Port	26 dB Bandwidth (MHz)	99% Bandwidth (MHz)	Remark
802.11a				No transmitted signal in the 99% bandwidth extends into the U-NII-2A band
5180	Ant A	18.96	16.44	
5200	Ant A	19.12	16.44	
5240	Ant A	18.88	16.44	
802.11n20				
5180	Ant A	19.76	17.60	
5200	Ant A	19.80	17.60	
5240	Ant A	19.84	17.60	
802.11n40				
5190	Ant A	42.08	36.32	
5230	Ant A	42.00	36.24	
802.11ac20				
5180	Ant A	19.76	17.60	
5200	Ant A	19.84	17.60	
5240	Ant A	19.80	17.60	

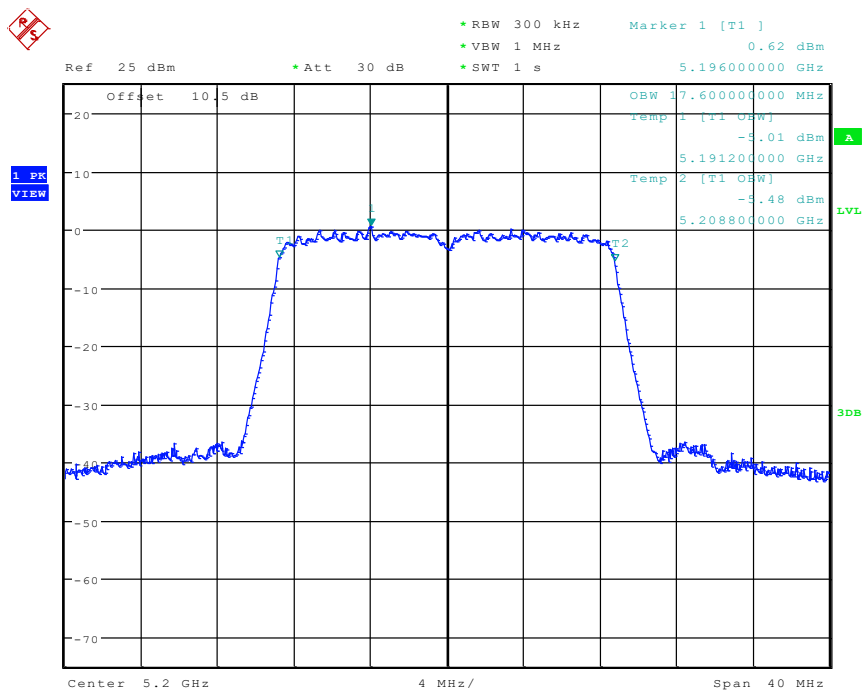
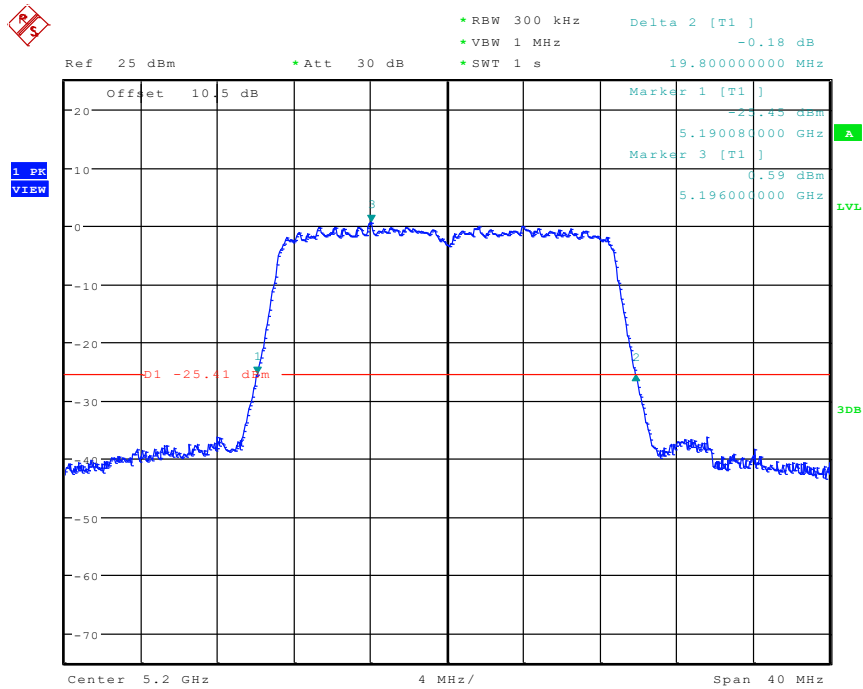
802.11a mode, 26 dB Emissions & 99% Occupied Bandwidth, 5180 MHz

802.11a mode, 26 dB Emissions & 99% Occupied Bandwidth, 5200 MHz

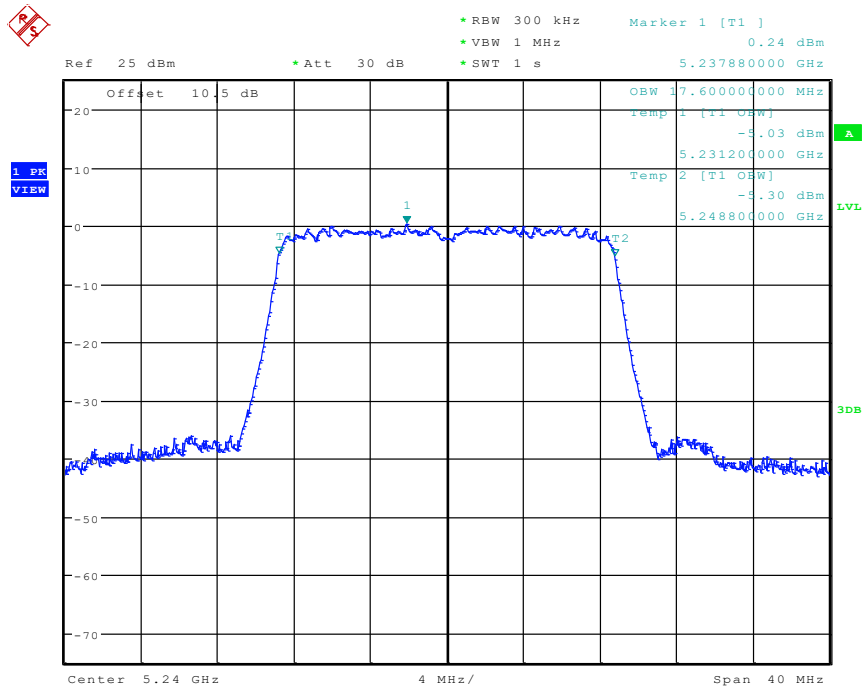
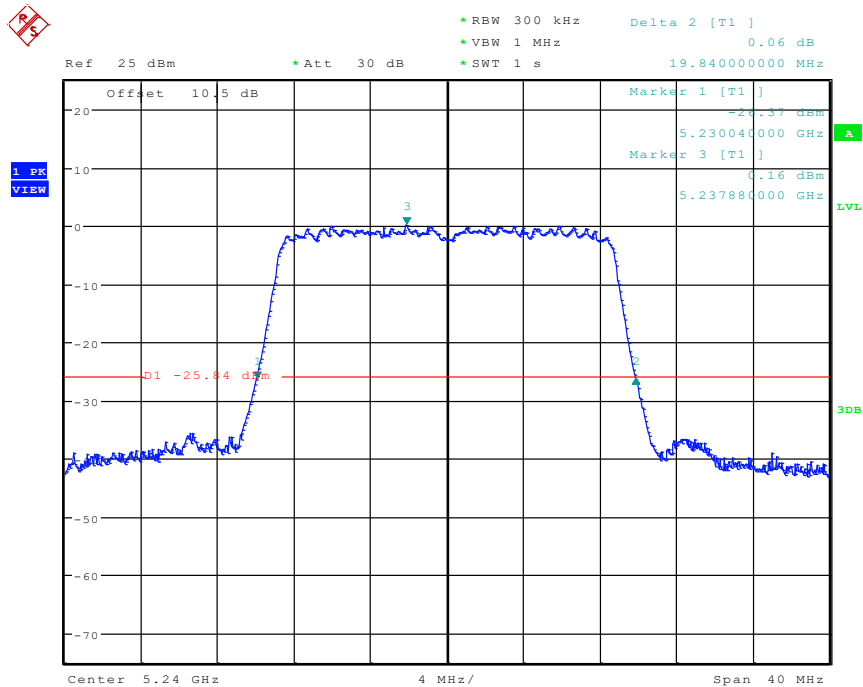
802.11a mode, 26 dB Emissions & 99% Occupied Bandwidth, 5240 MHz

802.11 n20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5180 MHz

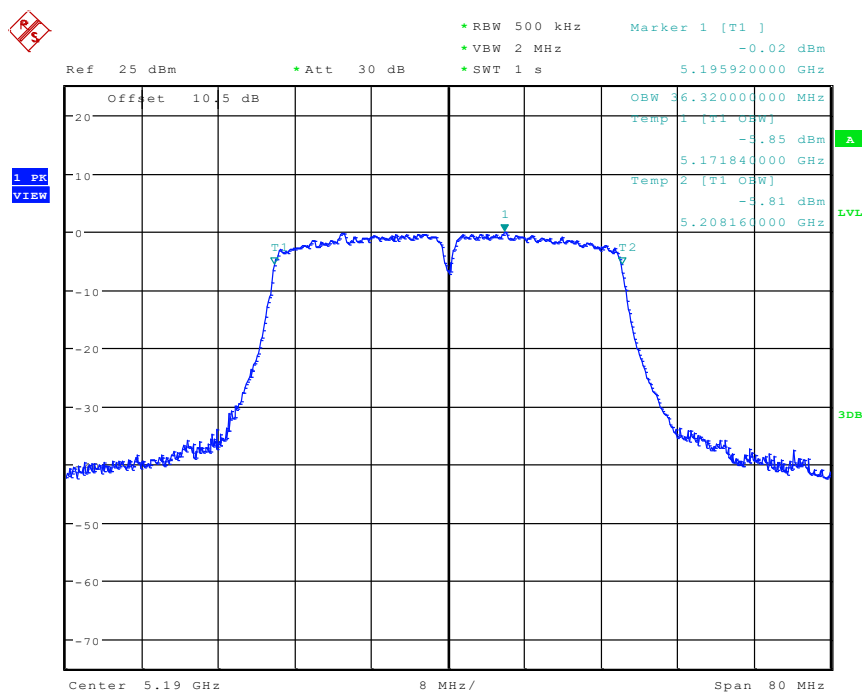
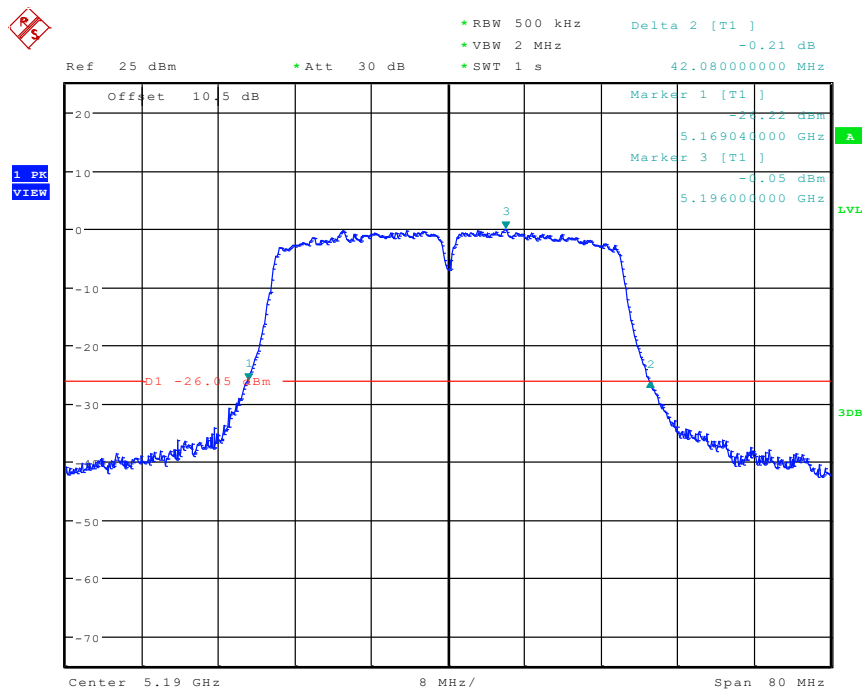
802.11 n20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5200 MHz

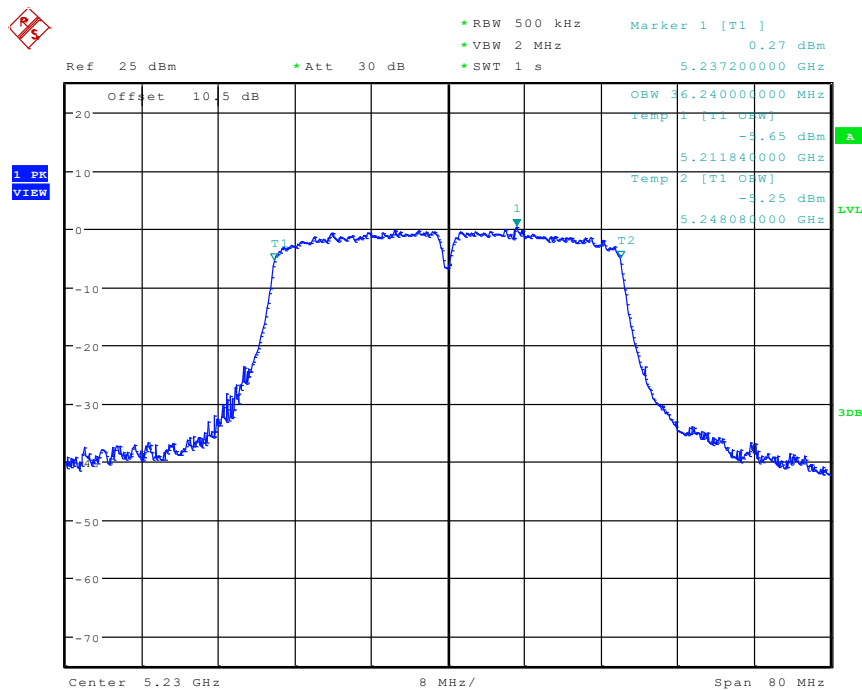
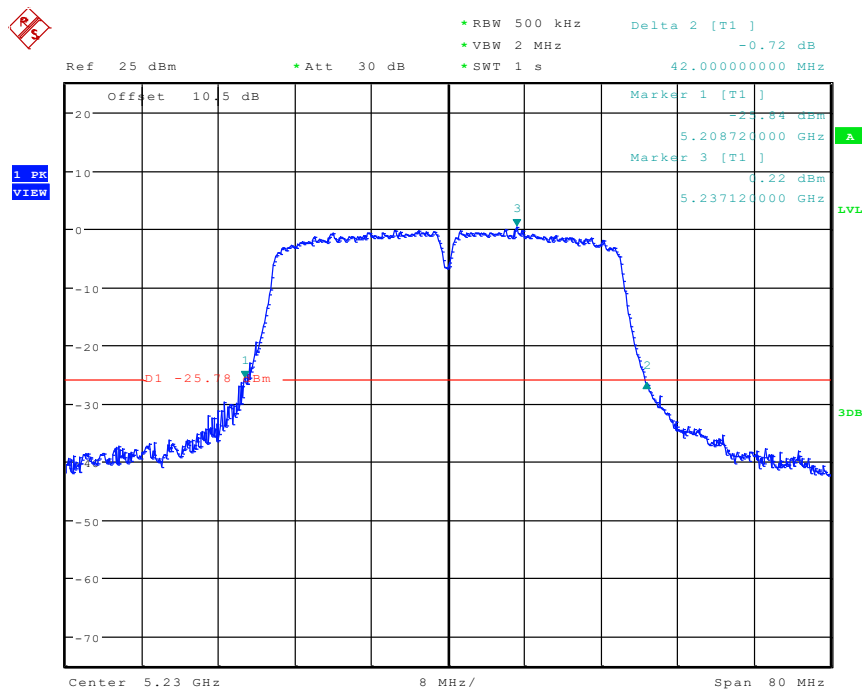


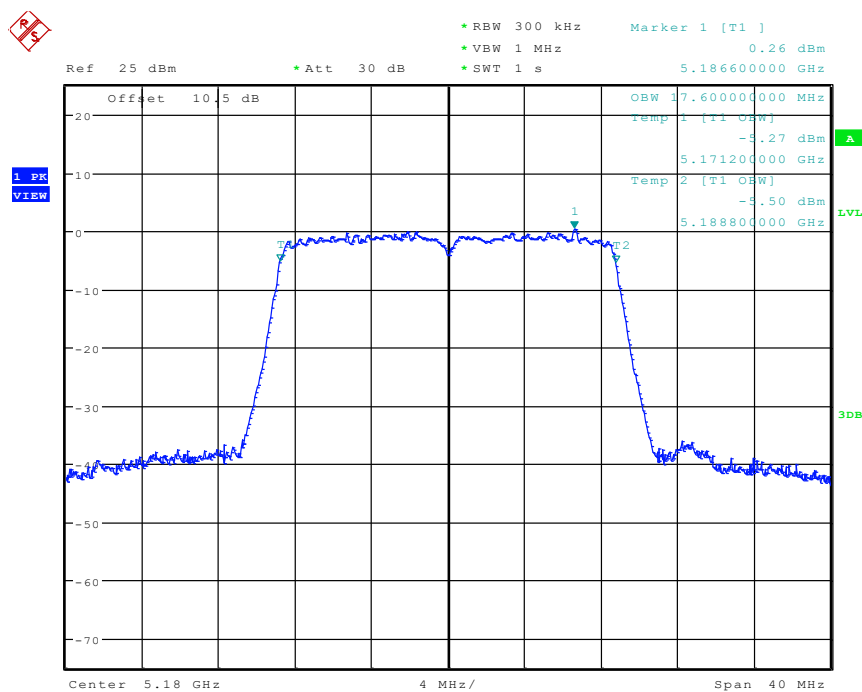
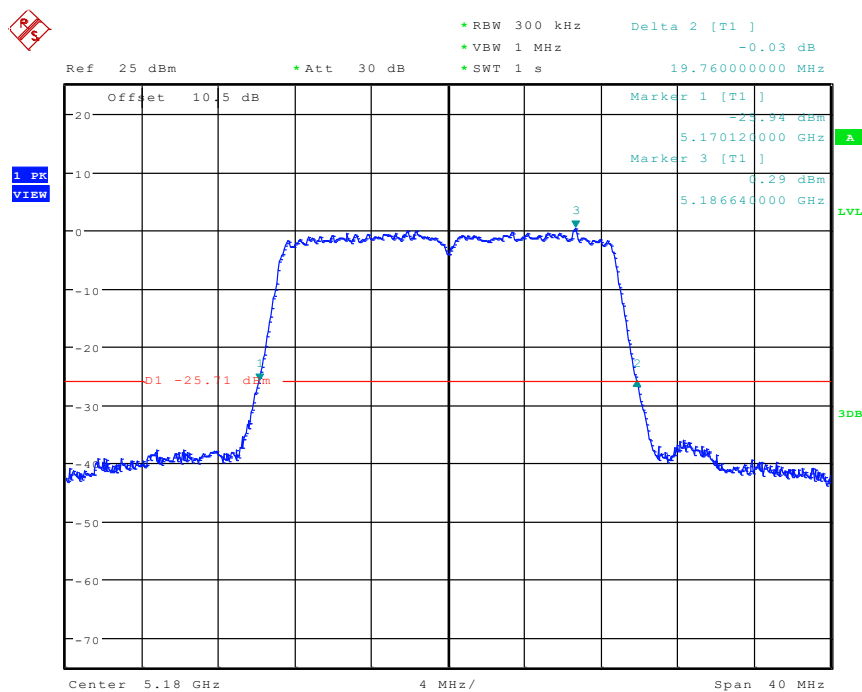
802.11n20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5240 MHz

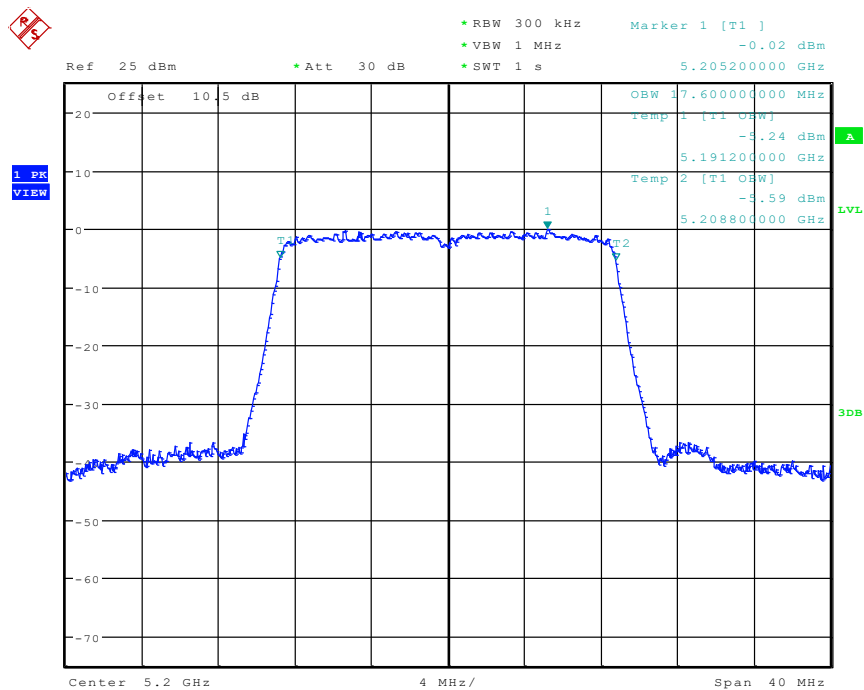
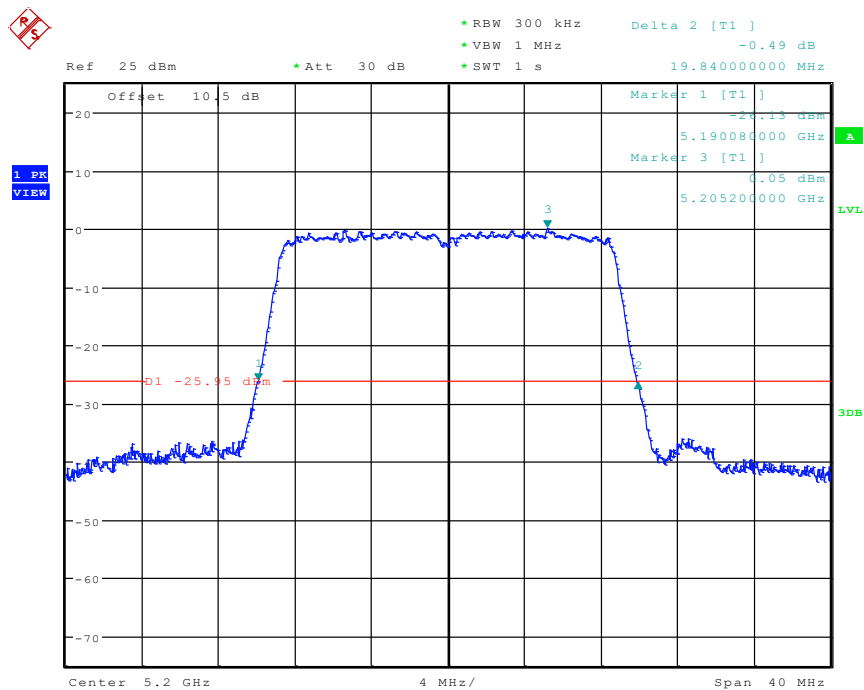


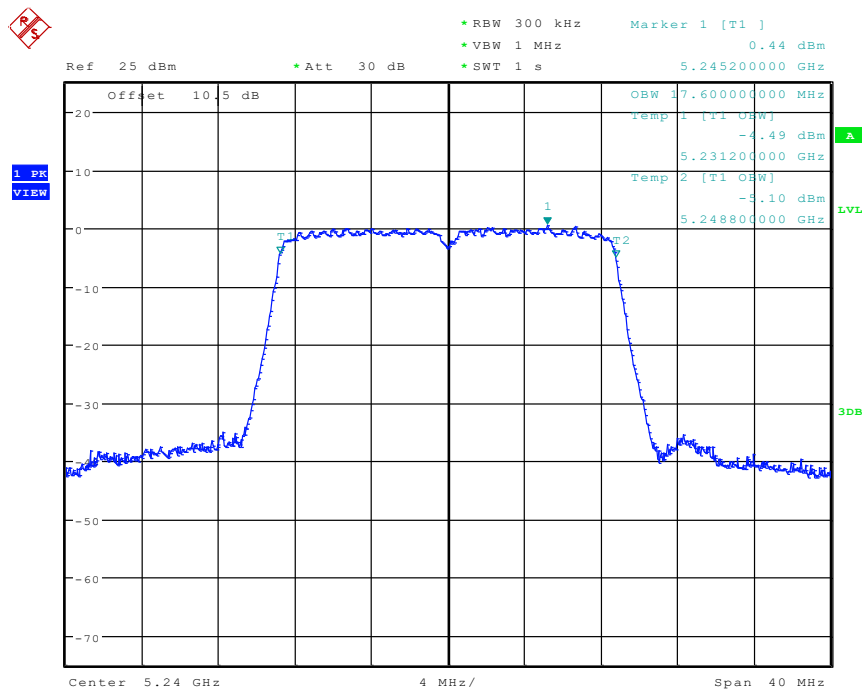
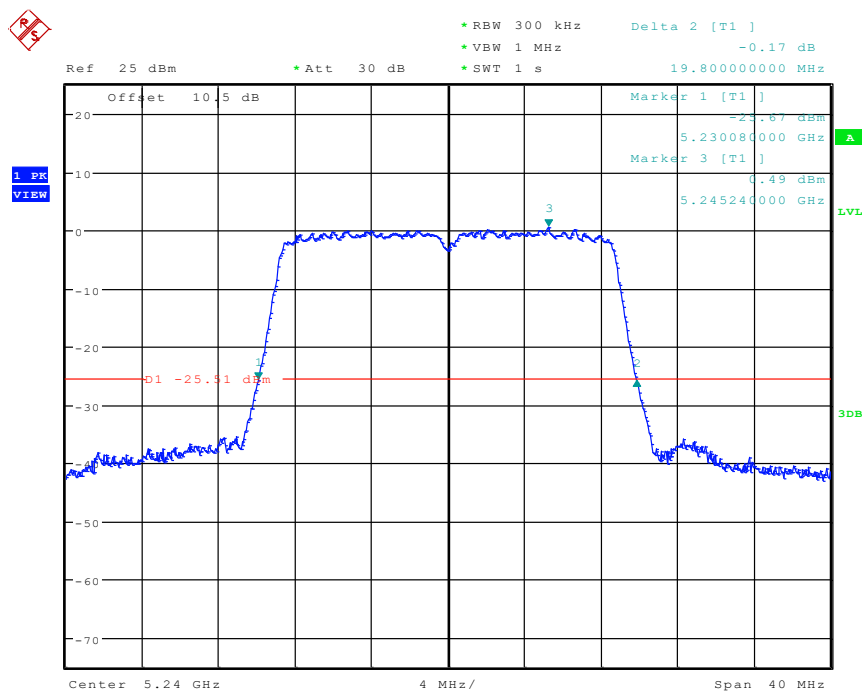
802.11n40 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5190 MHz



802.11n40 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5230 MHz

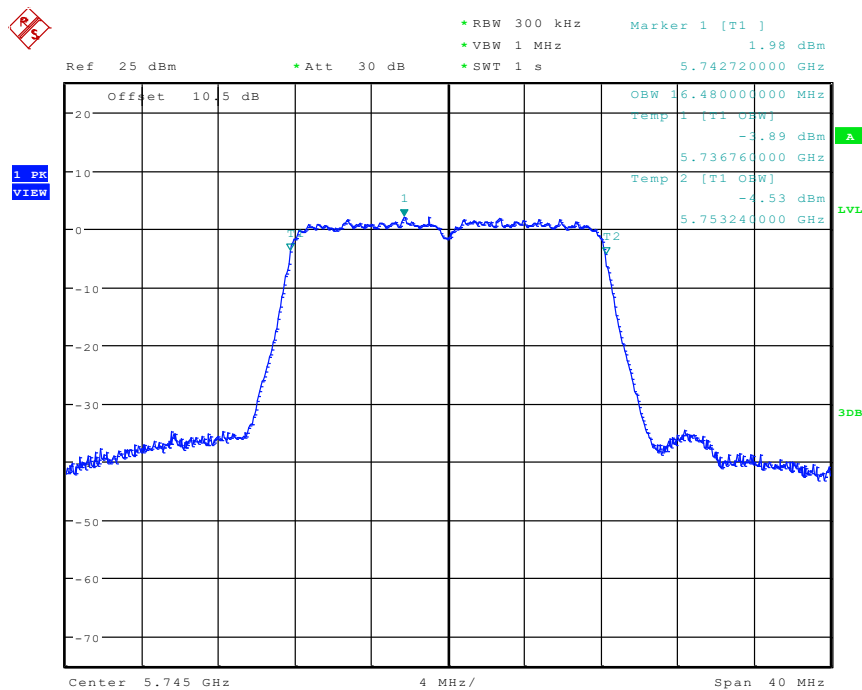
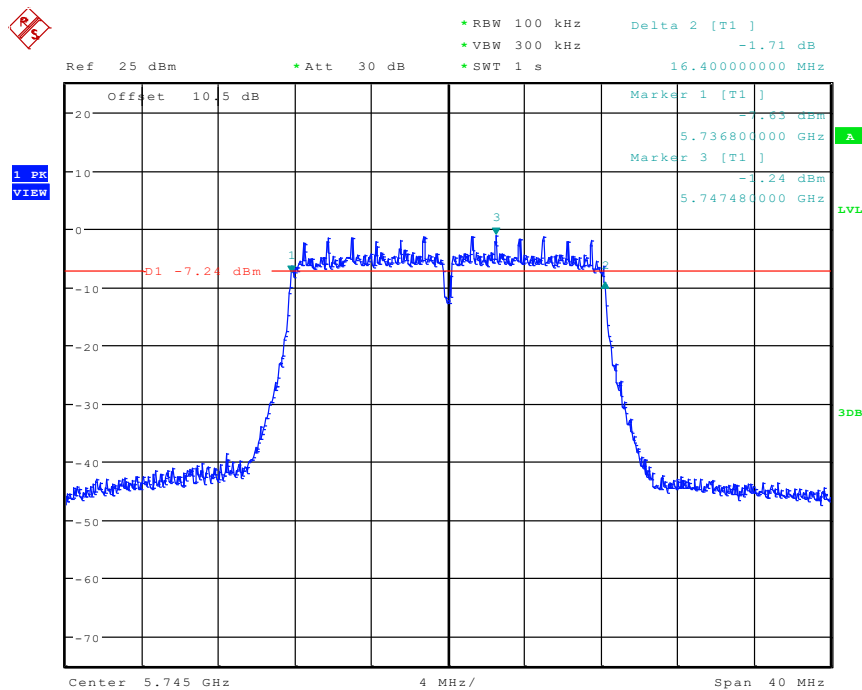
802.11ac20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5180 MHz

802.11ac20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5200 MHz

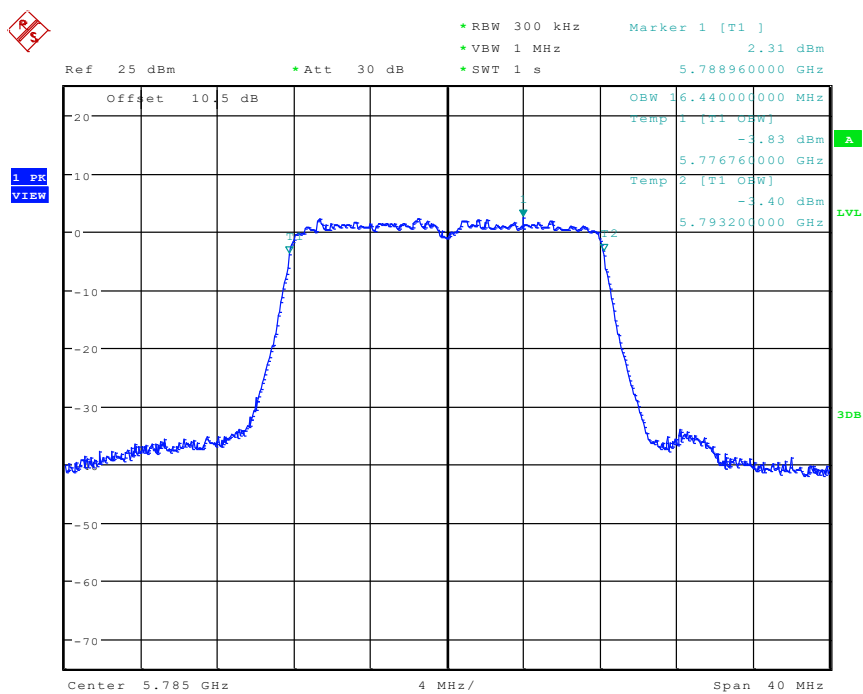
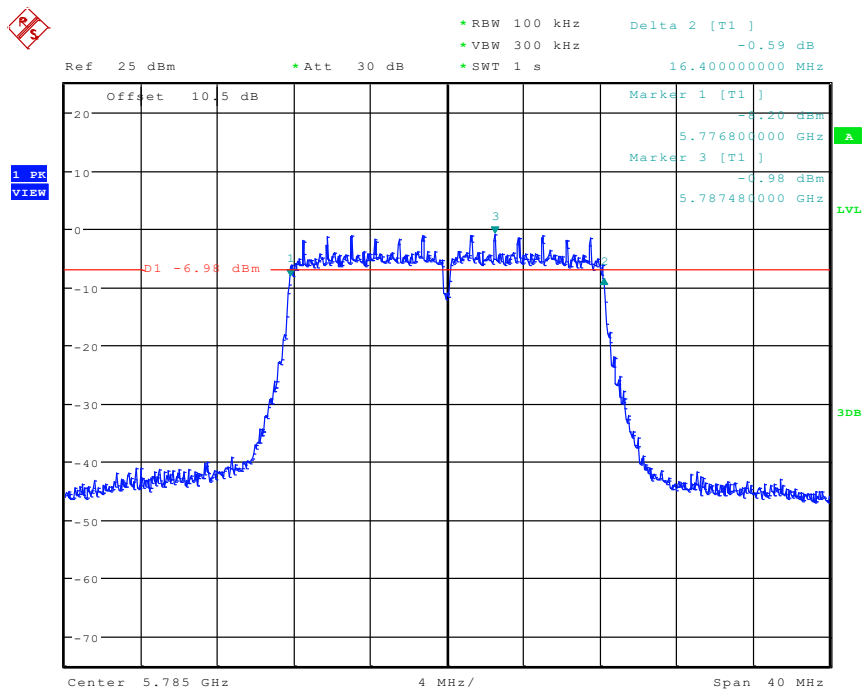
802.11ac20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5240MHz

5725 MHz – 5850 MHz:

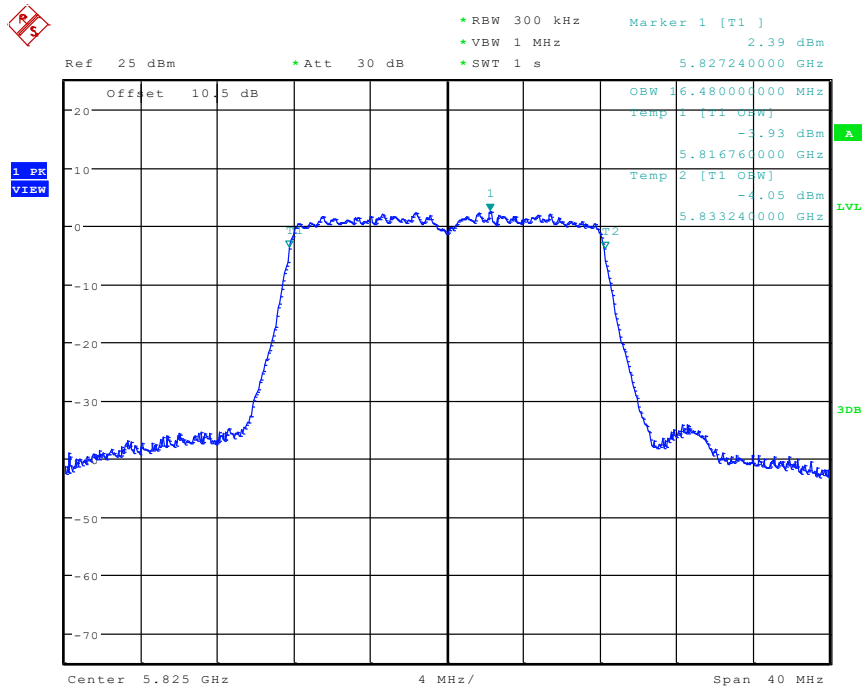
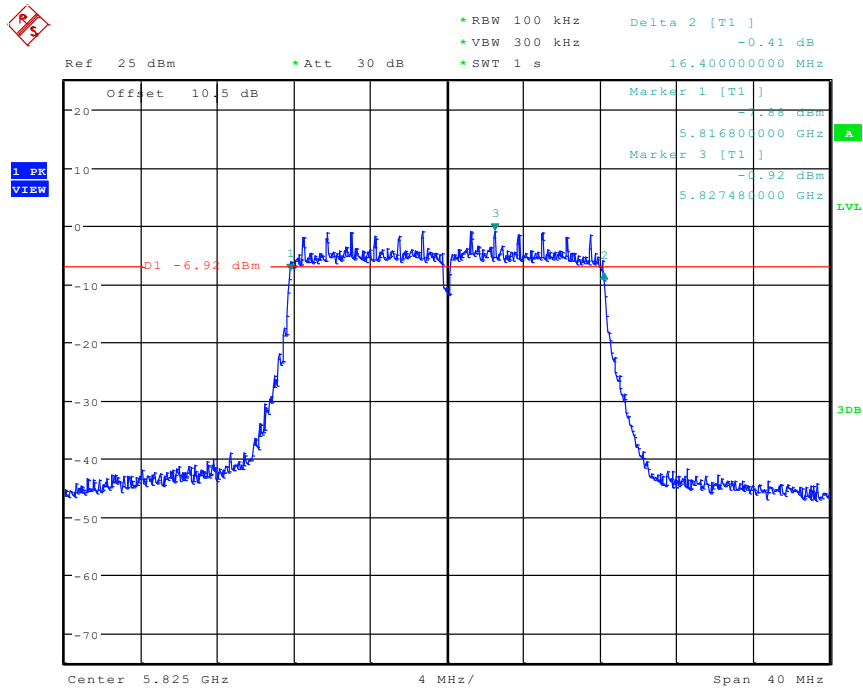
Frequency (MHz)	Antenna Port	6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Remark
802.11a					No transmitted signal in the 99% bandwidth extends into the U-NII-2C band
5745	Ant A	16.40	16.48	0.5	
5785	Ant A	16.40	16.44	0.5	
5825	Ant A	16.40	16.48	0.5	
802.11n20					
5745	Ant A	17.60	17.60	0.5	
5785	Ant A	17.60	17.60	0.5	
5825	Ant A	17.64	17.60	0.5	
802.11n40					
5755	Ant A	35.36	36.24	0.5	
5795	Ant A	35.36	36.32	0.5	
802.11ac20					
5745	Ant A	17.60	17.60	0.5	
5785	Ant A	17.60	17.60	0.5	
5825	Ant A	17.60	17.60	0.5	

802.11a mode, 6dB Bandwidth & 99% Occupied Bandwidth, 5475 MHz

802.11a mode, 6dB Bandwidth & 99% Occupied Bandwidth, 5785MHz



802.11a mode, 6dB Bandwidth & 99% Occupied Bandwidth, 5825MHz



Ref 25 dBm * Att 30 dB * RBW 100 kHz Delta 2 [T1] -0.39 dB
 * VBW 300 kHz * SWT 1 s 17.600000000 MHz

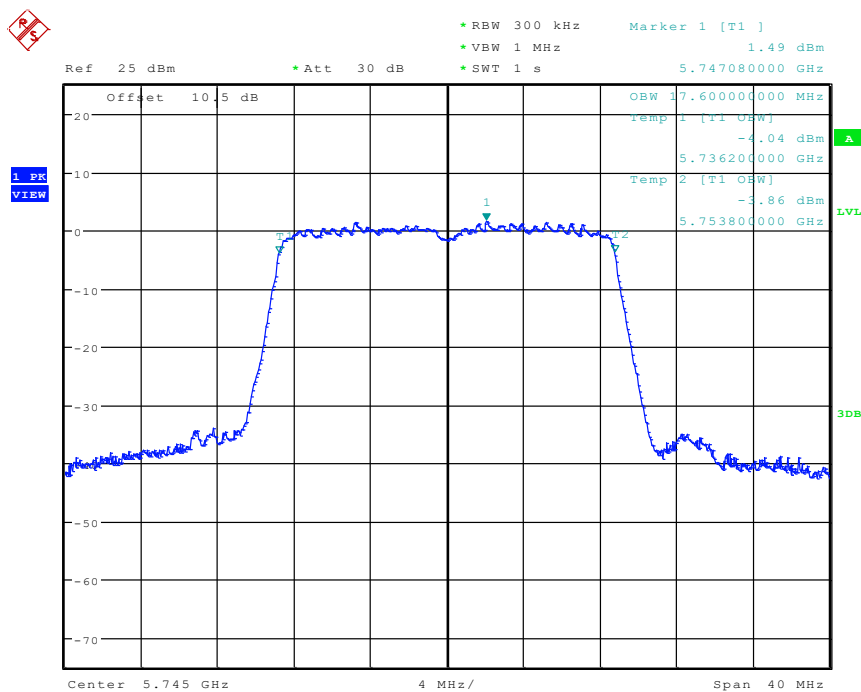
Offset 10.5 dB

Marker 1 [T1] -7.64 dBm
 5.736200000 GHz
 Marker 2 [T1] -7.44 dBm
 5.743760000 GHz

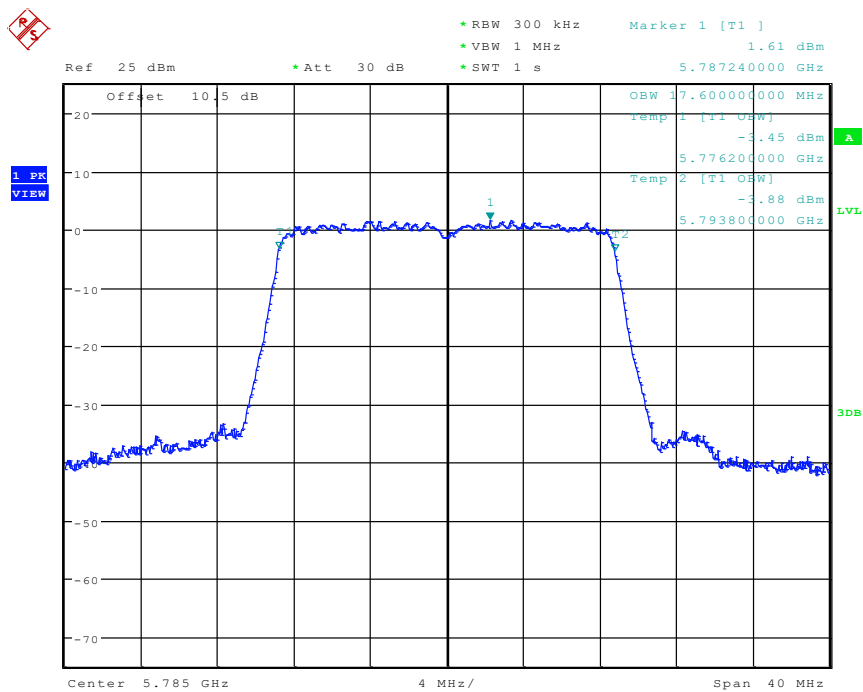
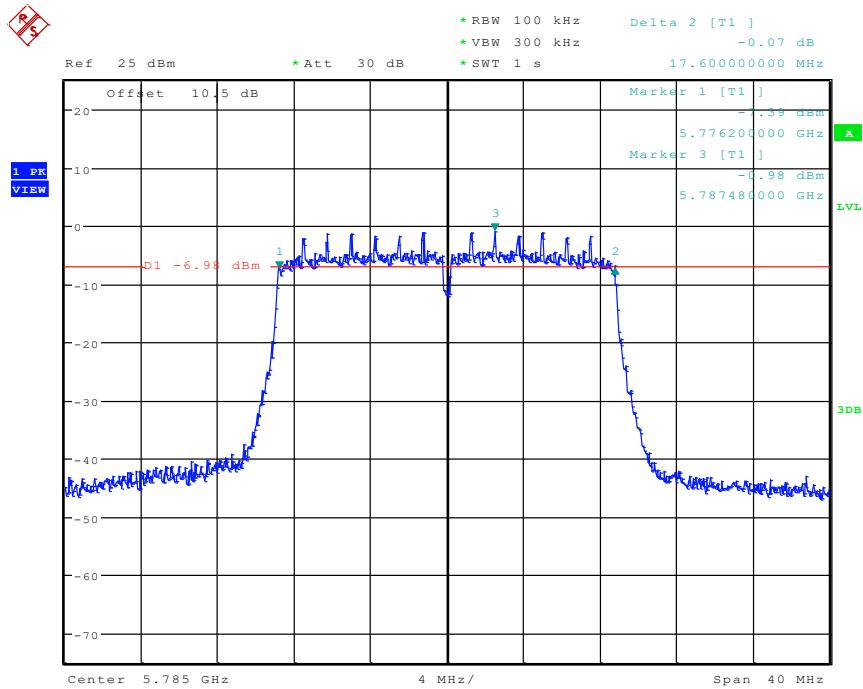
1 PK
VIEW

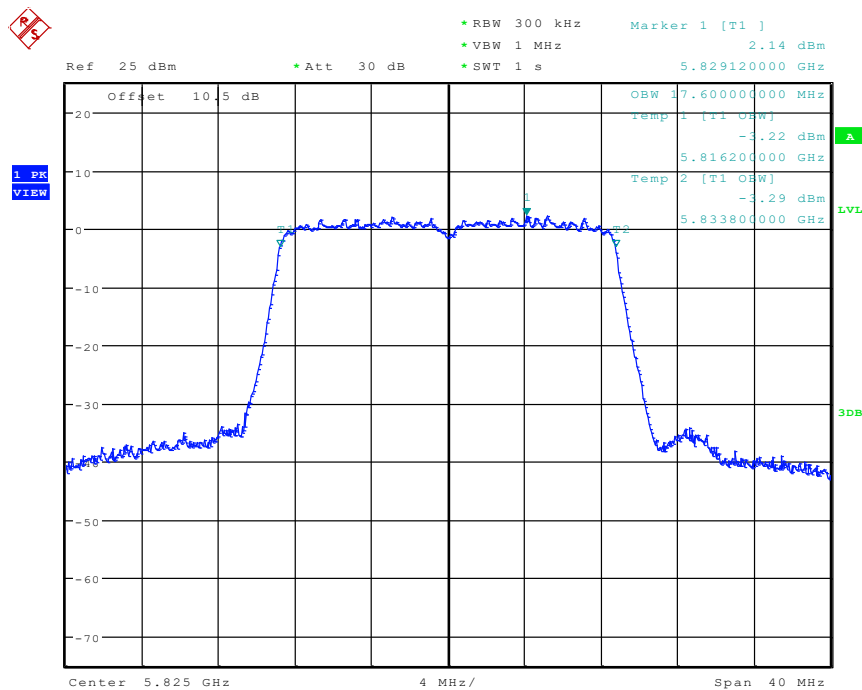
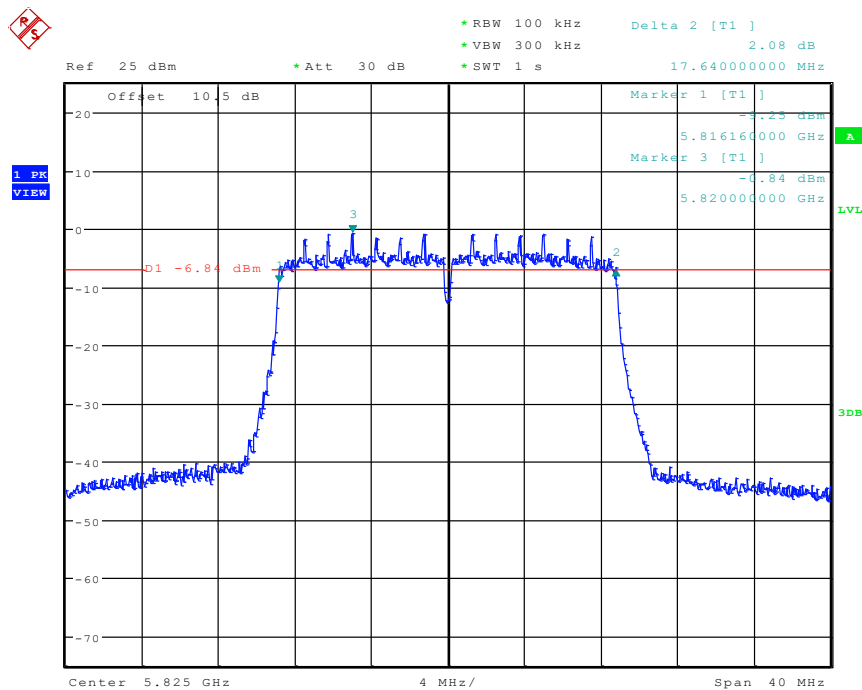
3 dB

Center 5.745 GHz 4 MHz/ Span 40 MHz

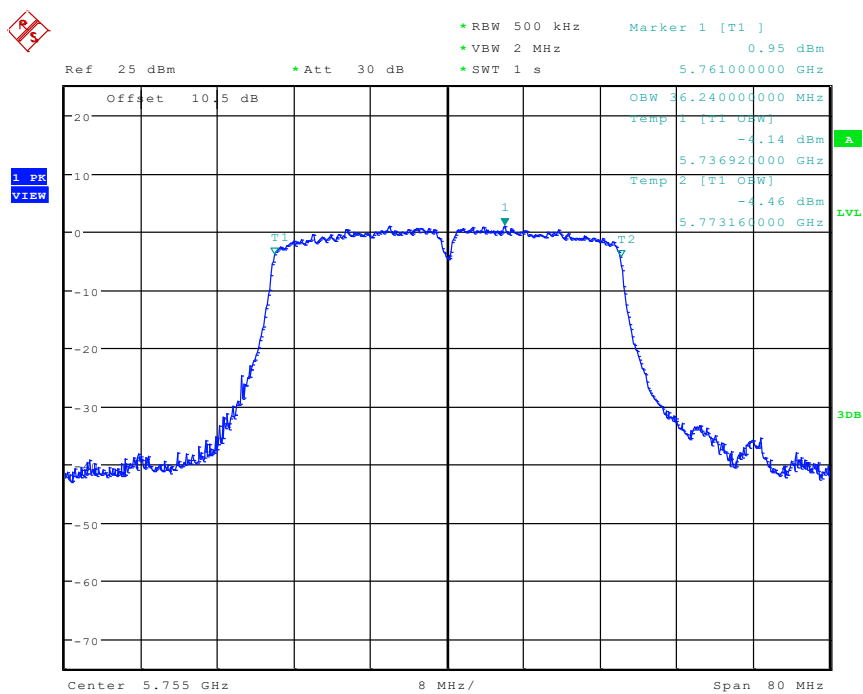
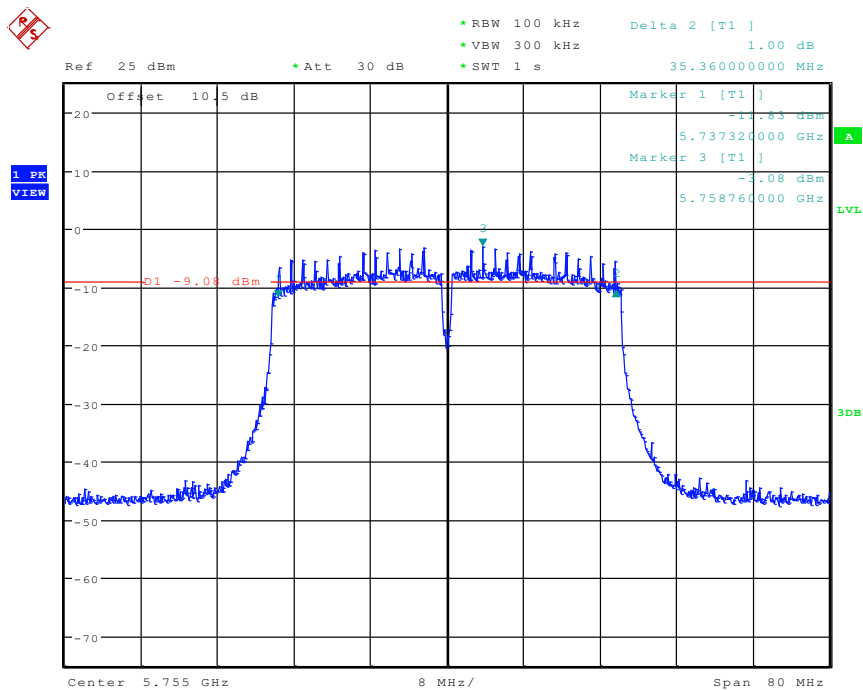


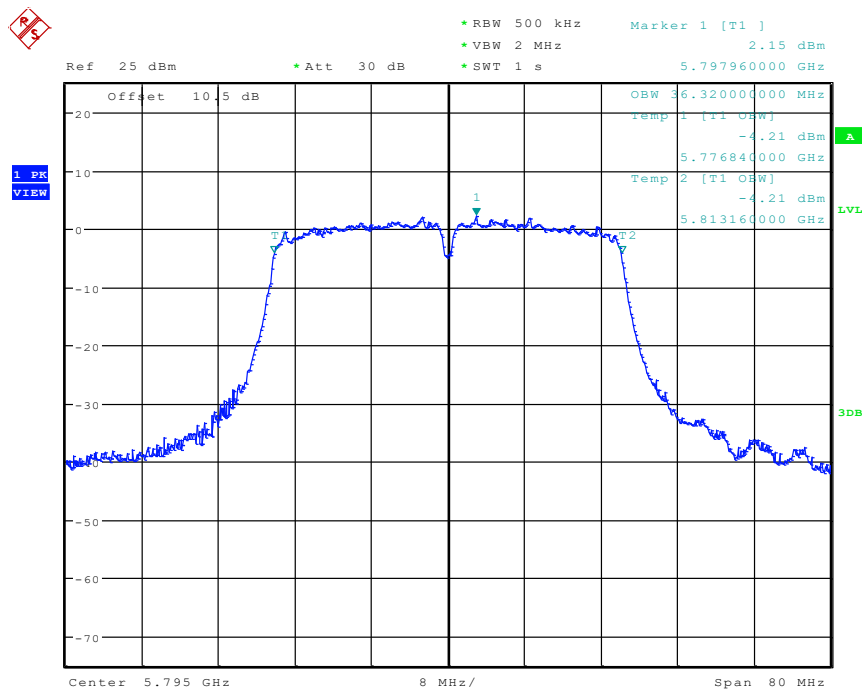
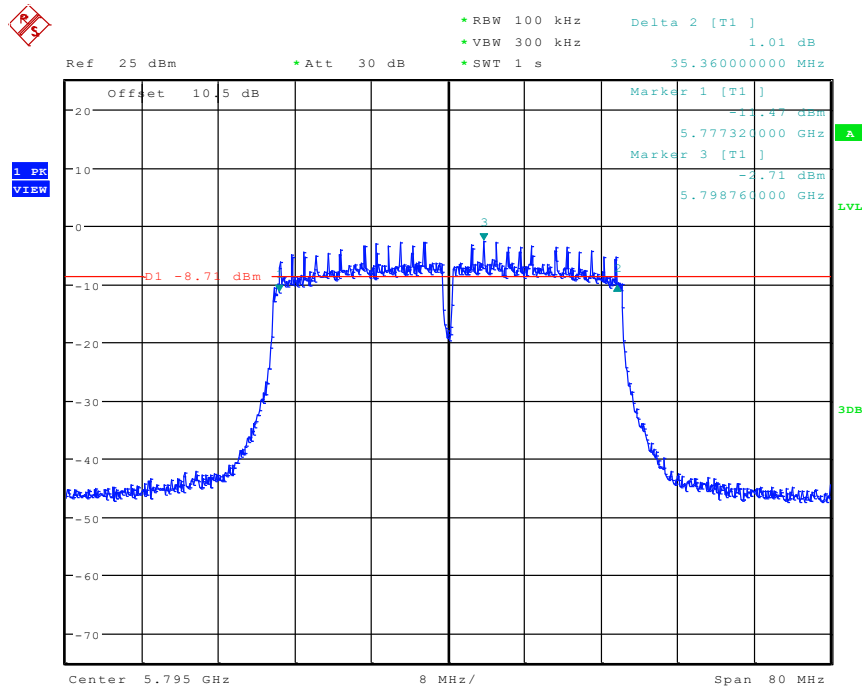
802.11 n20 mode, 6dB Bandwidth & 99% Occupied Bandwidth, 5785 MHz



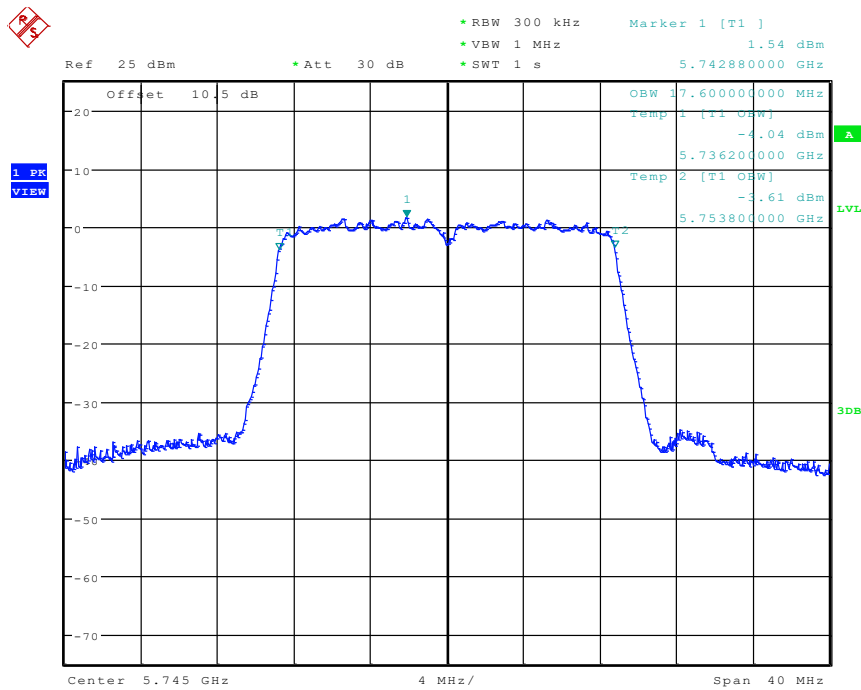
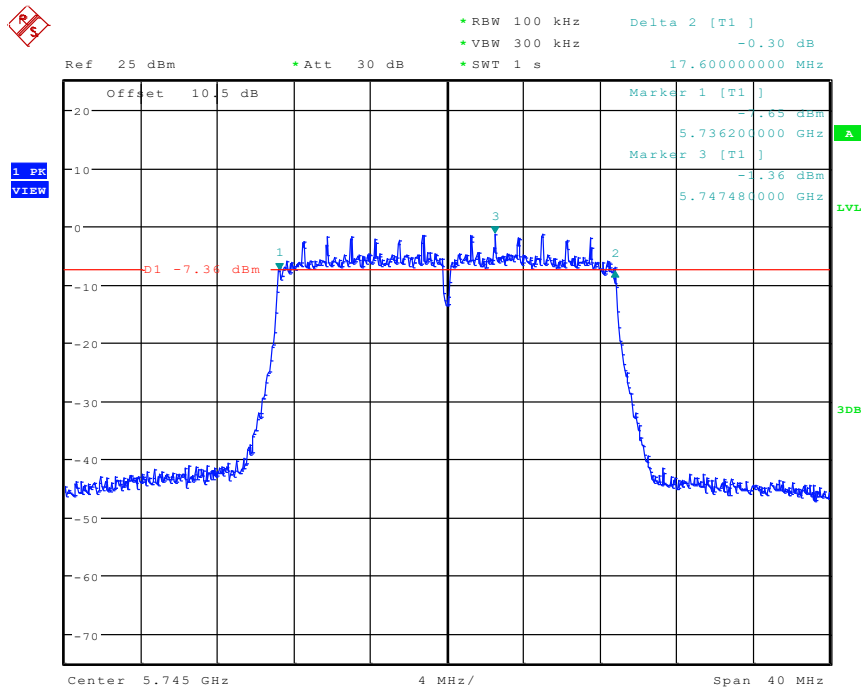
802.11n20 mode, 6dB Bandwidth & 99% Occupied Bandwidth, 5825 MHz

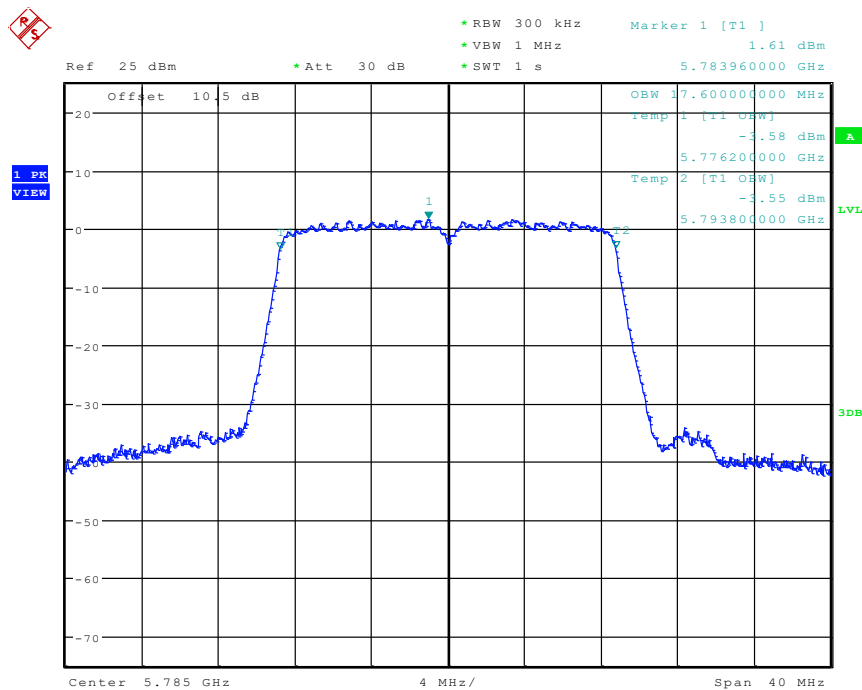
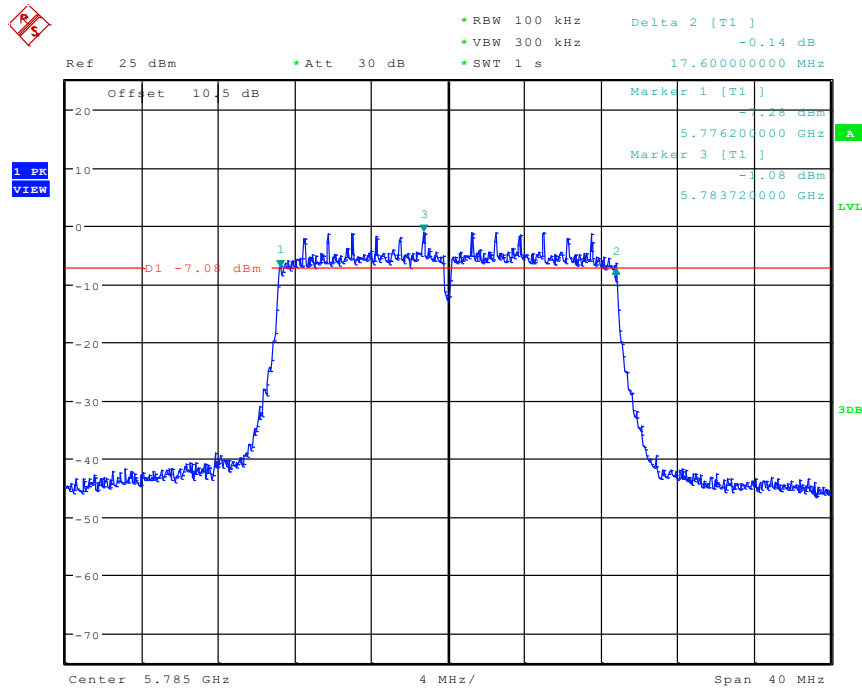
802.11n40 mode, 6dB Bandwidth & 99% Occupied Bandwidth, 5755 MHz

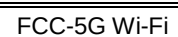


802.11n40 mode, 6dB Bandwidth & 99% Occupied Bandwidth, 5795 MHz

802.11ac20 mode, 6dB Bandwidth & 99% Occupied Bandwidth, 5745 MHz



802.11ac20 mode, 6dB Bandwidth & 99% Occupied Bandwidth, 5785 MHz



FCC §15.407(a) – CONDUCTED TRANSMITTER OUTPUT POWER

Applicable Standard

For an outdoor access point operating in the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm)

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

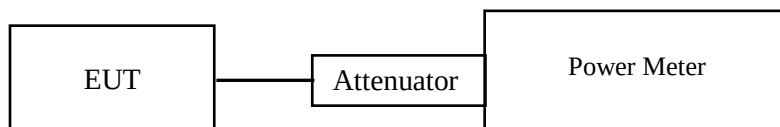
For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple colocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method PM-G should be applied

- a. Place the EUT on a bench and set it in transmitting mode.
- b. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.



Test Data**Environmental Conditions**

Temperature:	28.4 °C
Relative Humidity:	54 %
ATM Pressure:	101.0 kPa

The testing was performed by Gala Liu on 2023-02-22 and 2023-02-23.

EUT operation mode: Transmitting

Test Result: Pass

5150 MHz – 5250 MHz:

Frequency (MHz)	Antenna	Average Output Power (dBm)	Limit (dBm)
802.11a			
5180	Ant A	8.22	30
	Ant B	7.61	
5200	Ant A	8.42	
	Ant B	7.16	
5240	Ant A	8.47	
	Ant B	7.08	
802.11n20			
5180	Ant A	7.83	30
	Ant B	7.17	
5200	Ant A	7.88	
	Ant B	7.25	
5240	Ant A	8.03	
	Ant B	7.49	
802.11n40			
5190	Ant A	5.43	30
	Ant B	4.99	
5230	Ant A	5.40	
	Ant B	5.30	
802.11ac20			
5180	Ant A	8.16	30
	Ant B	7.04	
5200	Ant A	8.18	
	Ant B	7.43	
5240	Ant A	8.73	
	Ant B	7.36	

5725 MHz – 5825 MHz:

Frequency (MHz)	Antenna	Average Output Power (dBm)	Limit (dBm)
802.11a			
5745	Ant A	9.99	30
	Ant B	9.01	
5785	Ant A	10.25	
	Ant B	9.57	
5825	Ant A	10.32	
	Ant B	10.08	
802.11n20			
5745	Ant A	9.38	30
	Ant B	8.25	
5785	Ant A	10.14	
	Ant B	8.59	
5825	Ant A	10.36	
	Ant B	9.69	
802.11n40			
5755	Ant A	7.32	30
	Ant B	6.45	
5795	Ant A	7.93	
	Ant B	7.54	
802.11ac20			
5745	Ant A	9.60	30
	Ant B	8.54	
5785	Ant A	9.92	
	Ant B	9.18	
5825	Ant A	10.03	
	Ant B	9.26	

FCC §15.407(a) - POWER SPECTRAL DENSITY

For an outdoor access point operating in the band 5.15–5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm)

For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple colocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

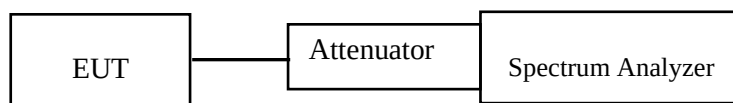
Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Method SA-3 should be applied

- a) Set span to encompass the entire EBW(or, alternatively, the entire 99% occupied Bandwidth) of the signal.
- b) Set sweep trigger to “free run.”.
- c) Set RBW=1MHz.(iv)Set VBW>3 MHz.
- d) Number of points in sweep>2 x span/RBW.(This ensures that bin-to-bin spacing is <RBW/2. so that narrowband signals are not lost between frequency bins.)
- e) Sweep time≤(number of points in sweep) xT, where T is defined in II.B.1.a).

Note: If this result in a sweep time less than the auto sweep time of the analyzer. Method SA-3 Alternative shall not be used.(The purpose of this step is to ensure that averaging time in each bin is less than or equal to the minimum time of a transmission.)

- f) Detector=power averaging(1ms)
- g) Trace mode = max hold.
- h) Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.
- i) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument’s band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges.If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.



Test Data**Environmental Conditions**

Temperature:	25 °C
Relative Humidity:	52%
ATM Pressure:	101.0 kPa

The testing was performed by Gala Liu on 2023-02-22 and 2023-02-23.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the following tables and plots.

Ant A:
5150 MHz – 5250 MHz:

Frequency (MHz)	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)
802.11a		
5180	-3.29	17
5200	-3.10	17
5240	-3.30	17
802.11n20		
5180	-3.61	17
5200	-3.54	17
5240	-3.49	17
802.11n40		
5190	-7.25	17
5230	-6.77	17
802.11ac20		
5180	-3.64	17
5200	-3.37	17
5240	-2.99	17

5725 MHz – 5825 MHz:

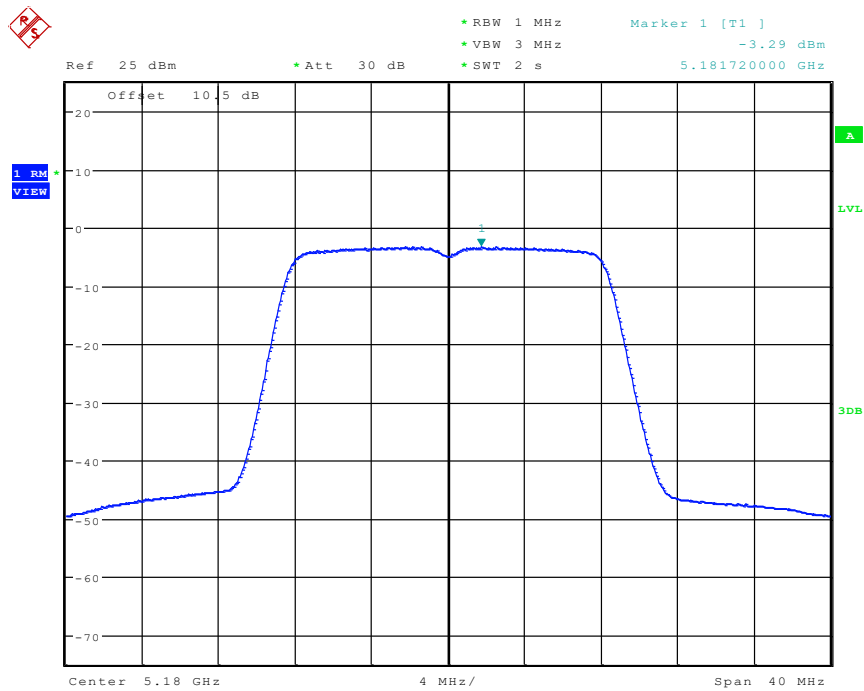
Frequency (MHz)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)
802.11a		
5745	-4.45	30
5785	-4.29	30
5825	-4.12	30
802.11n20		
5745	-5.13	30
5785	-4.92	30
5825	-4.60	30
802.11n40		
5755	-8.57	30
5795	-8.44	30
802.11ac20		
5745	-5.09	30
5785	-4.85	30
5825	-4.77	30

Note:

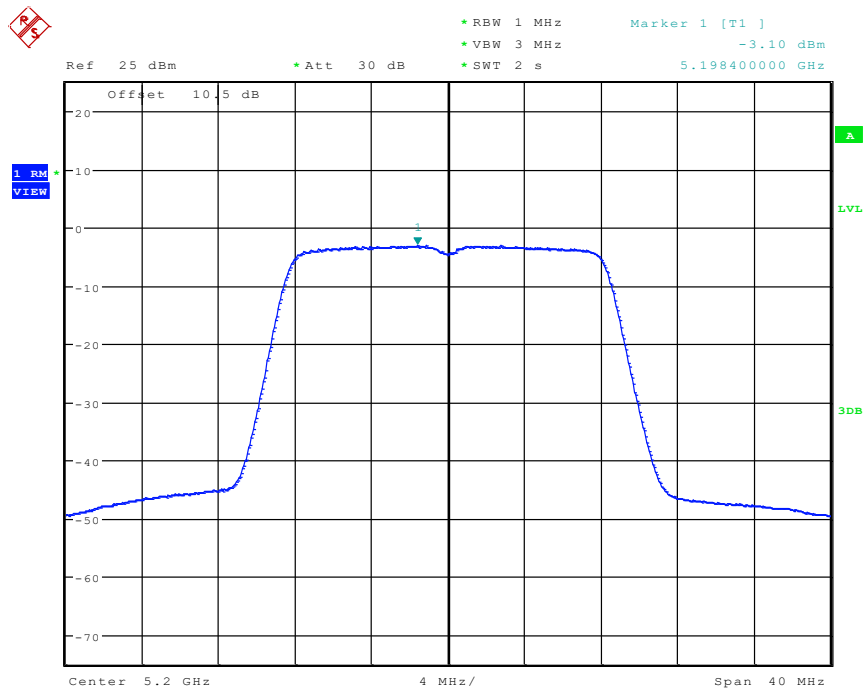
1) The EUT is a client device.

5150 MHz – 5250 MHz:

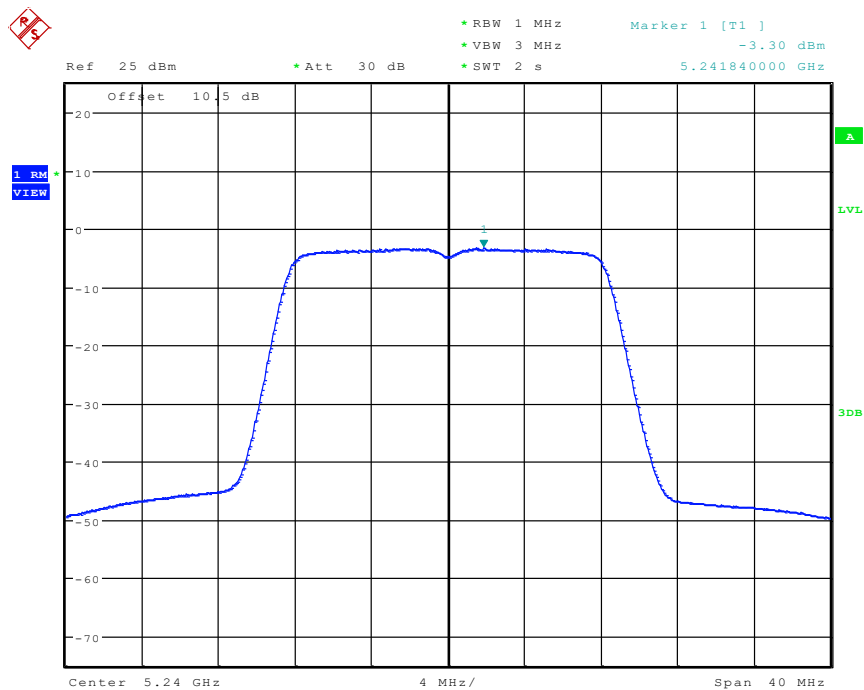
802.11a mode, Power Spectral Density, 5180 MHz



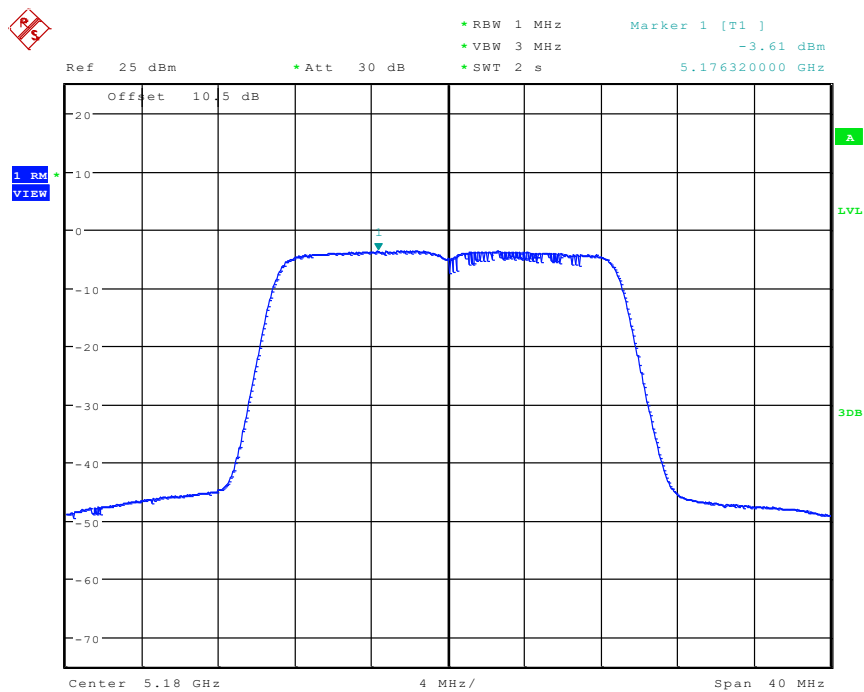
802.11a mode, Power Spectral Density, 5200 MHz



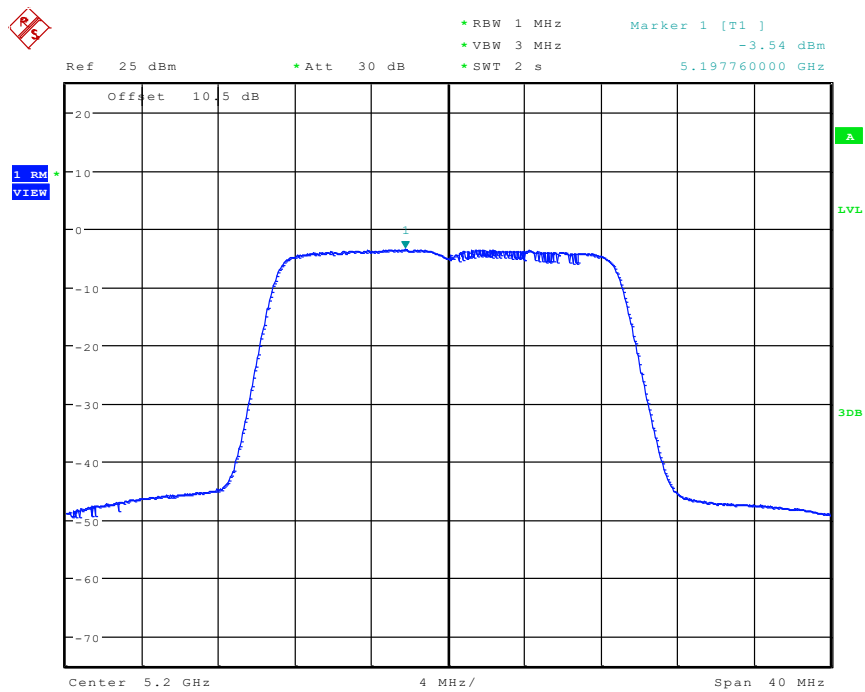
802.11a mode, Power Spectral Density, 5240 MHz



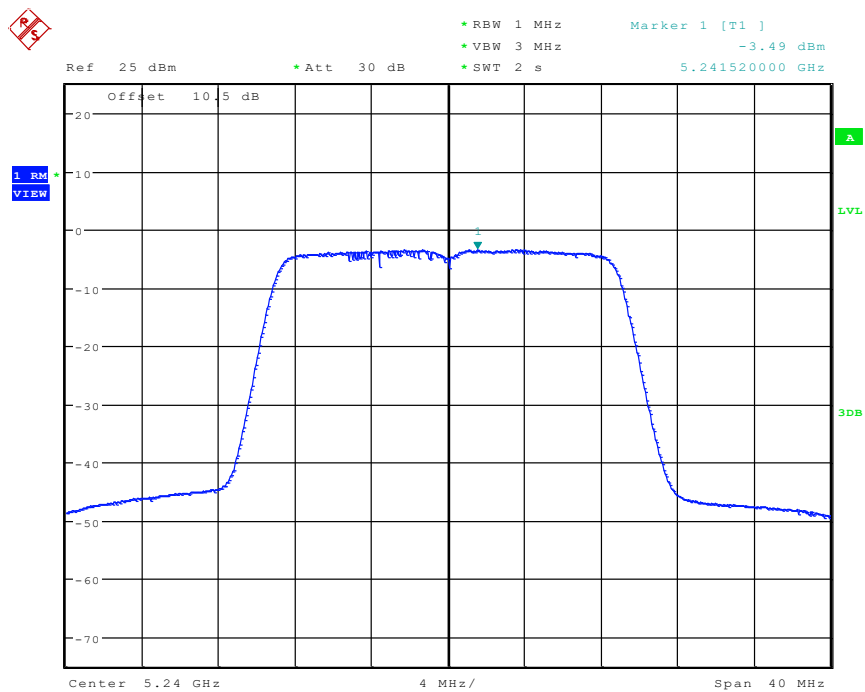
802.11n20 mode, Power Spectral Density, 5180 MHz



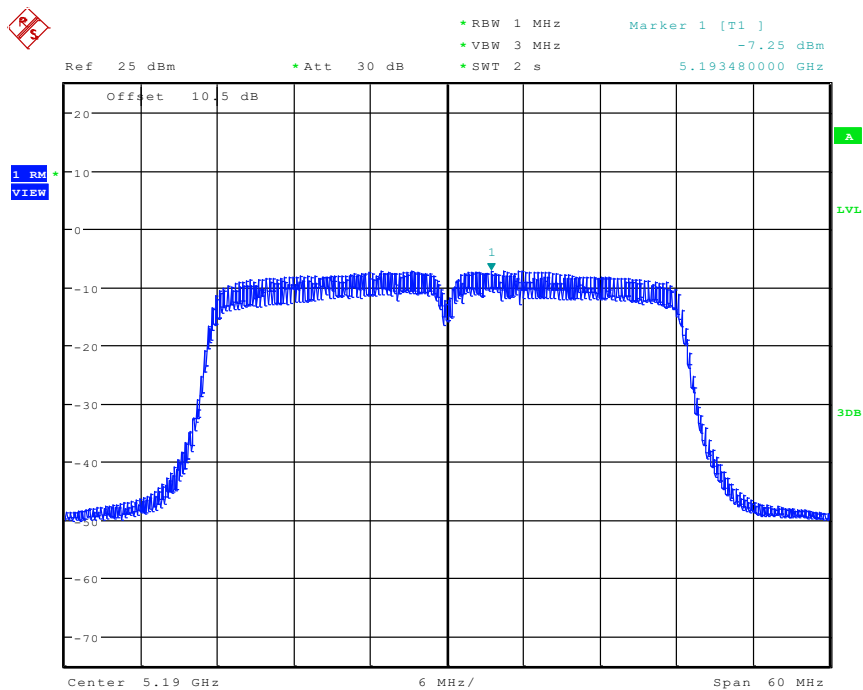
802.11n20 mode, Power Spectral Density, 5200 MHz



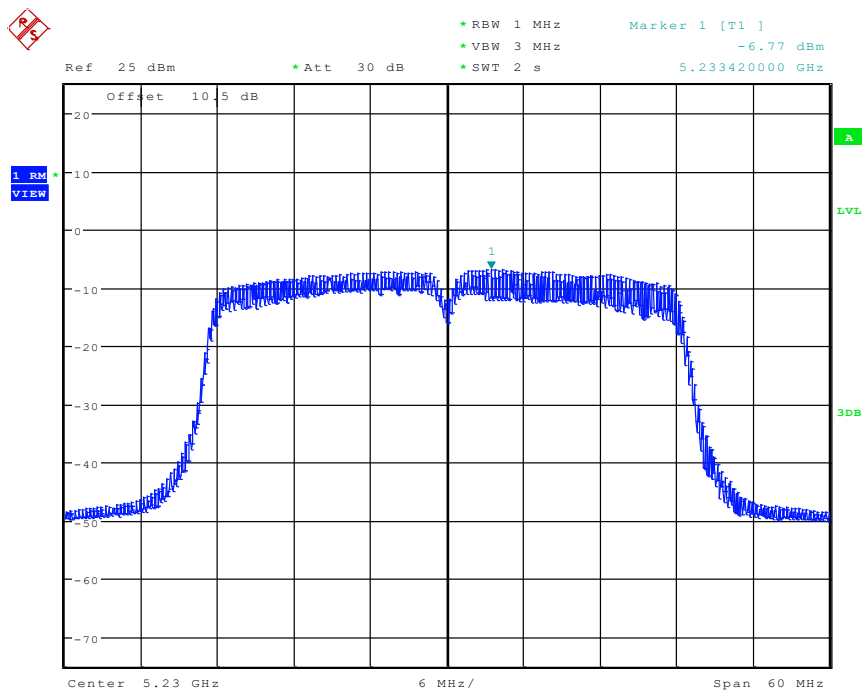
802.11n20 mode, Power Spectral Density, 5240 MHz



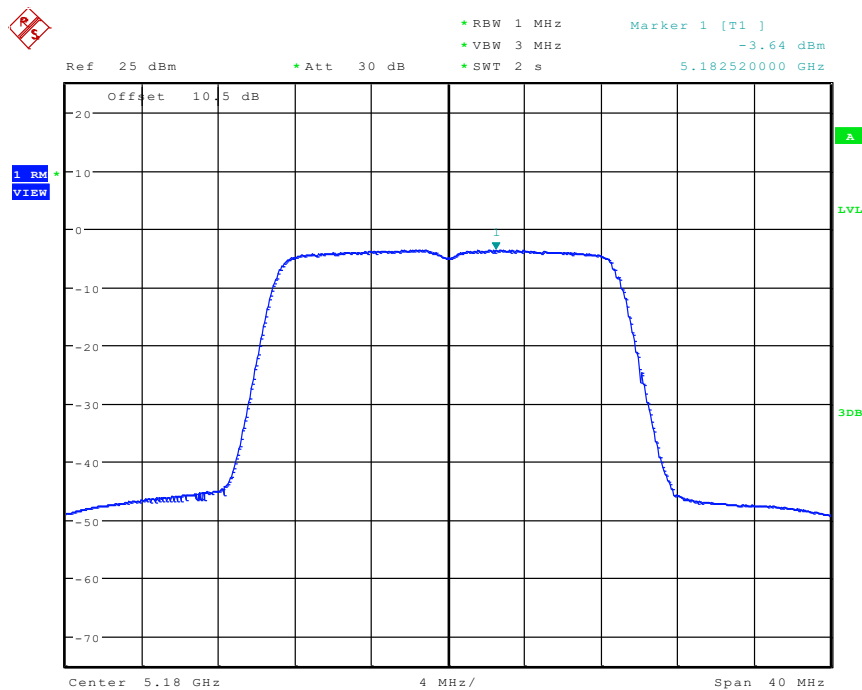
802.11n40 mode, Power Spectral Density, 5190 MHz



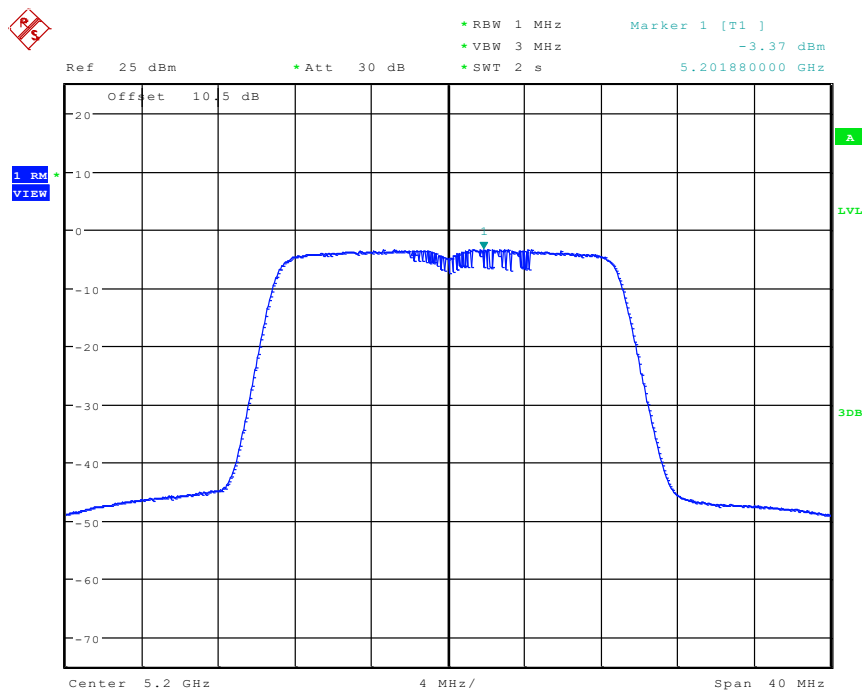
802.11n40 mode, Power Spectral Density, 5230 MHz



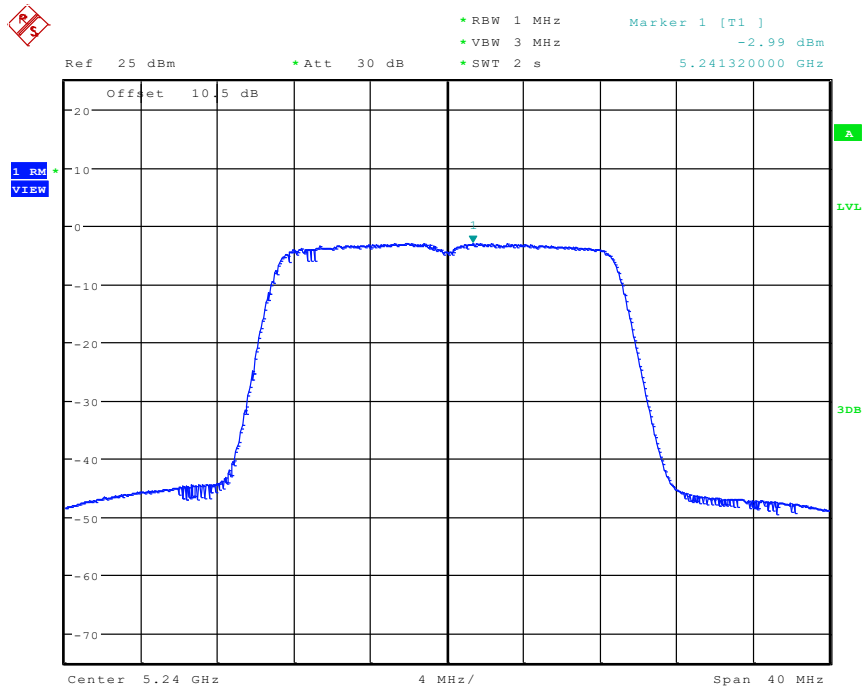
802.11ac20 mode, Power Spectral Density, 5180 MHz



802.11 ac20mode, Power Spectral Density, 5200 MHz

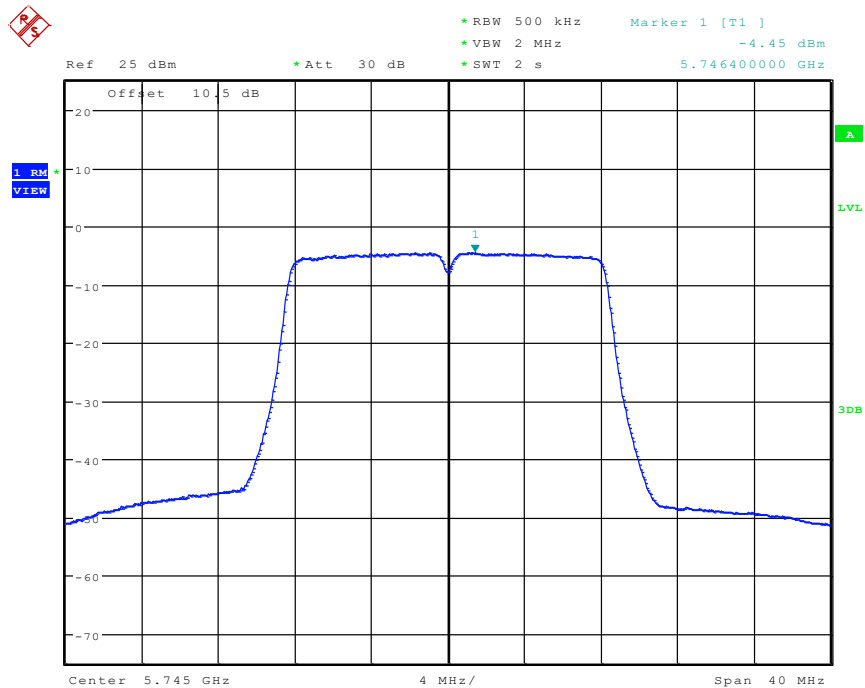


802.11 ac20mode, Power Spectral Density, 5240 MHz

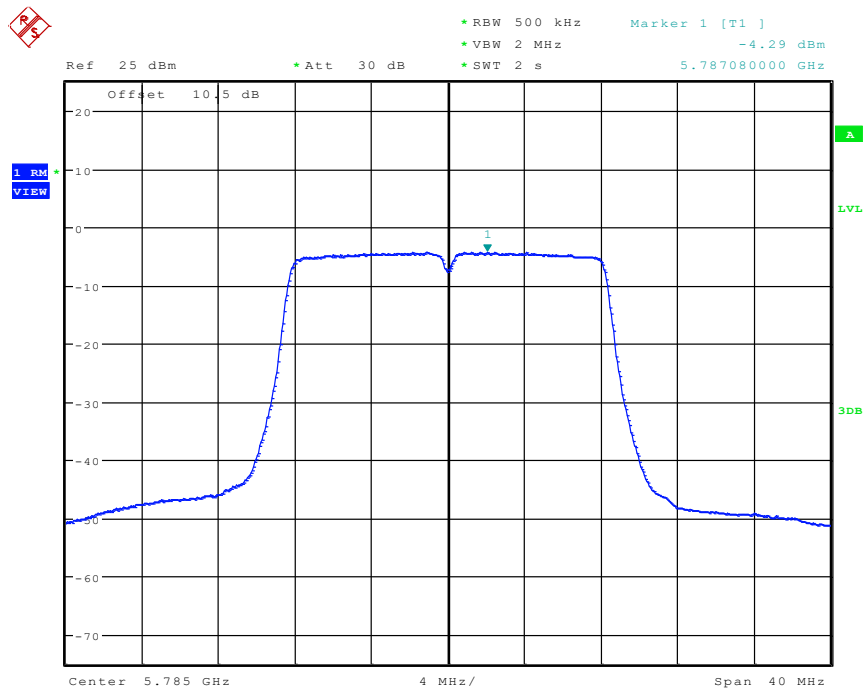


5725 MHz – 5825 MHz:

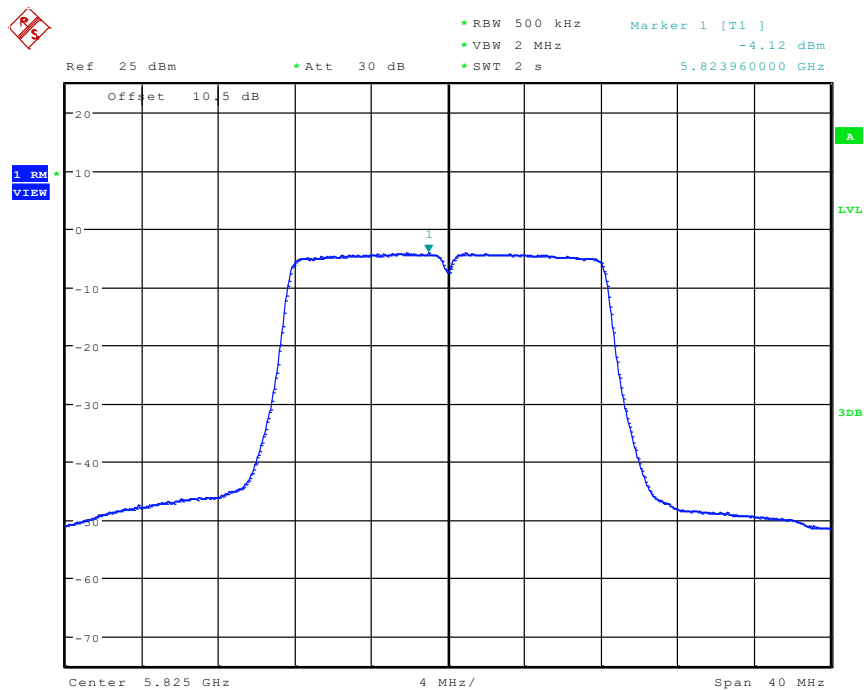
802.11a mode, Power Spectral Density, 5745 MHz



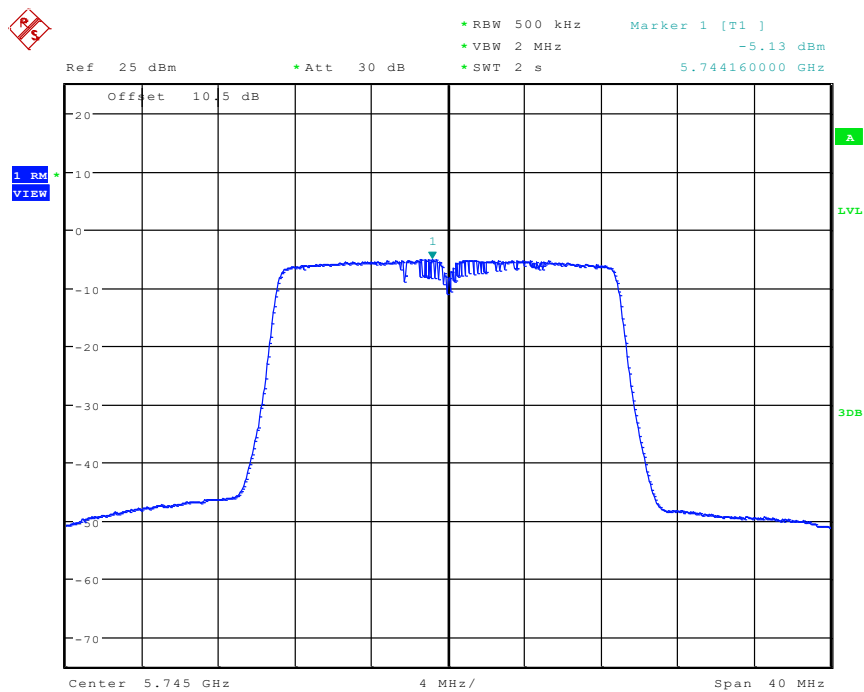
802.11a mode, Power Spectral Density, 5785 MHz



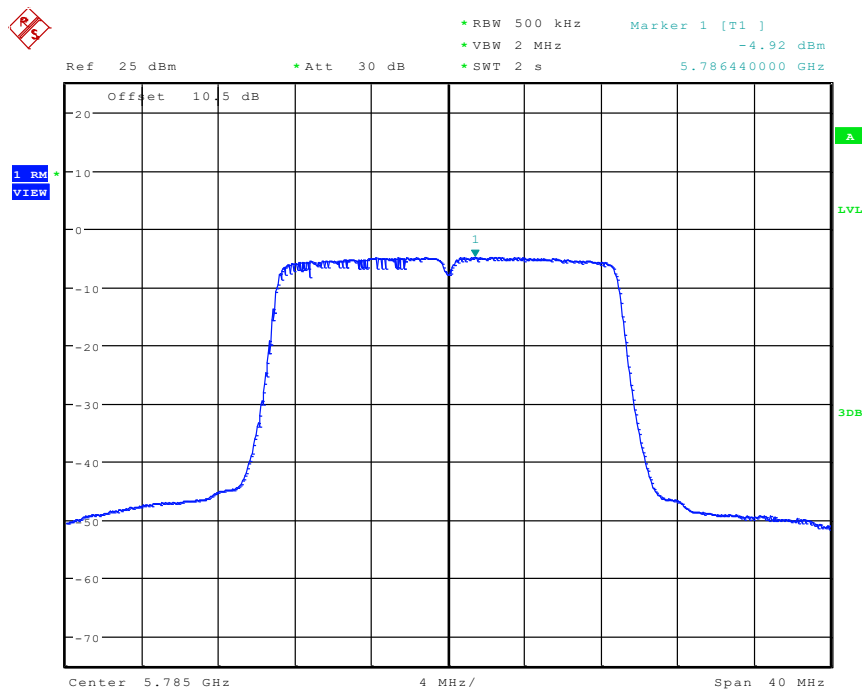
802.11a mode, Power Spectral Density, 5825 MHz



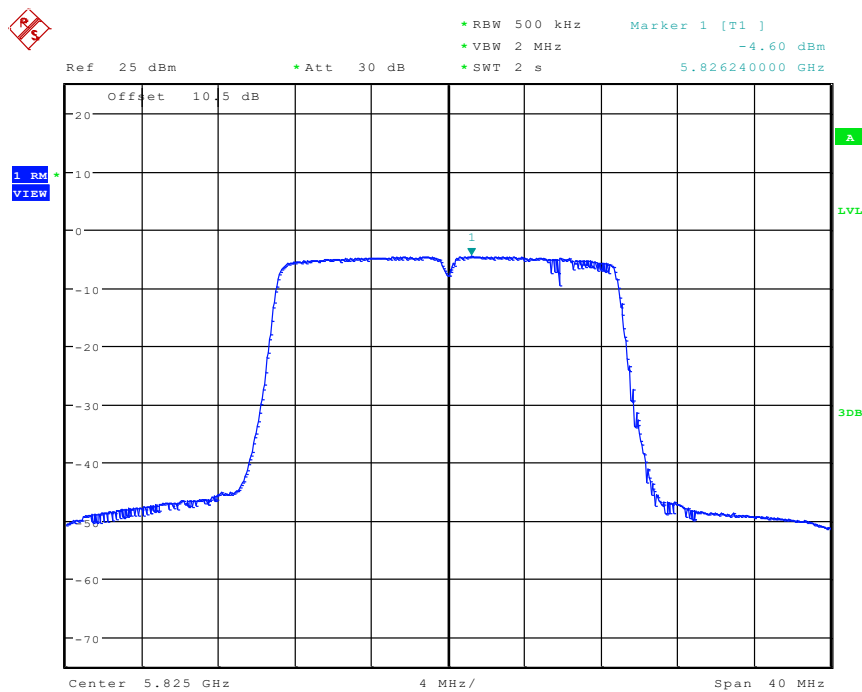
802.11n20 mode, Power Spectral Density, 5745 MHz



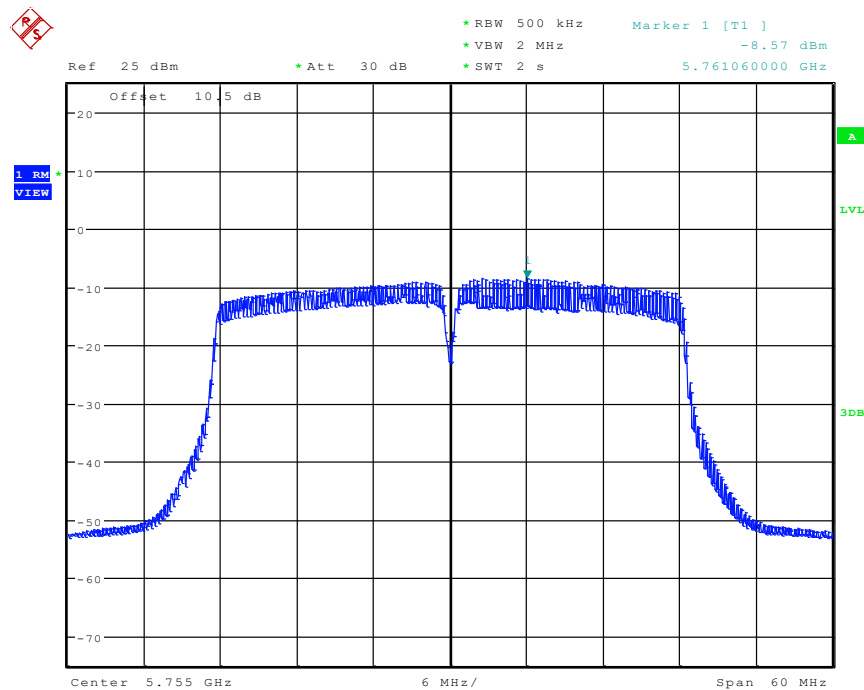
802.11n20 mode, Power Spectral Density, 5785 MHz



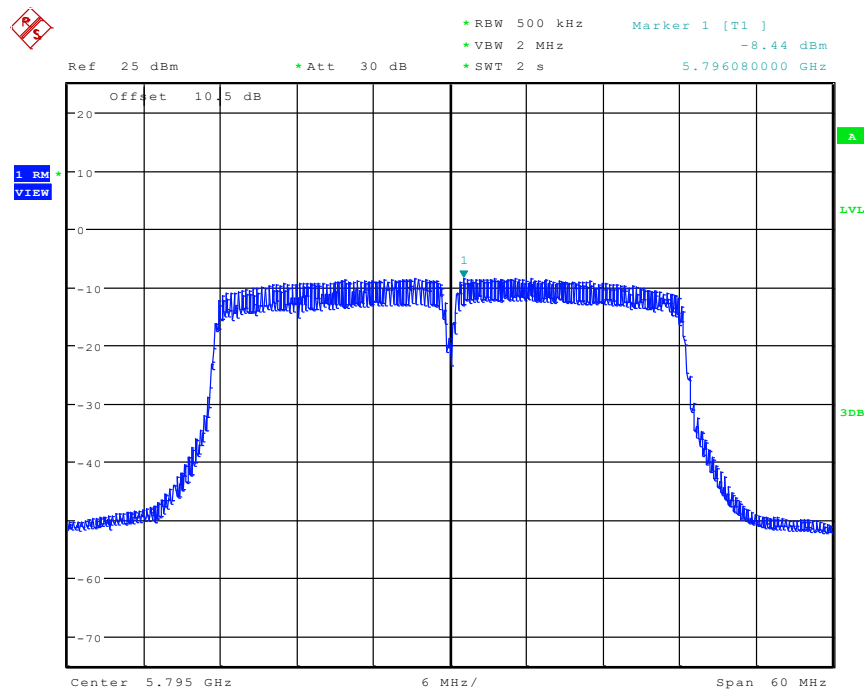
802.11n20 mode, Power Spectral Density, 5825 MHz



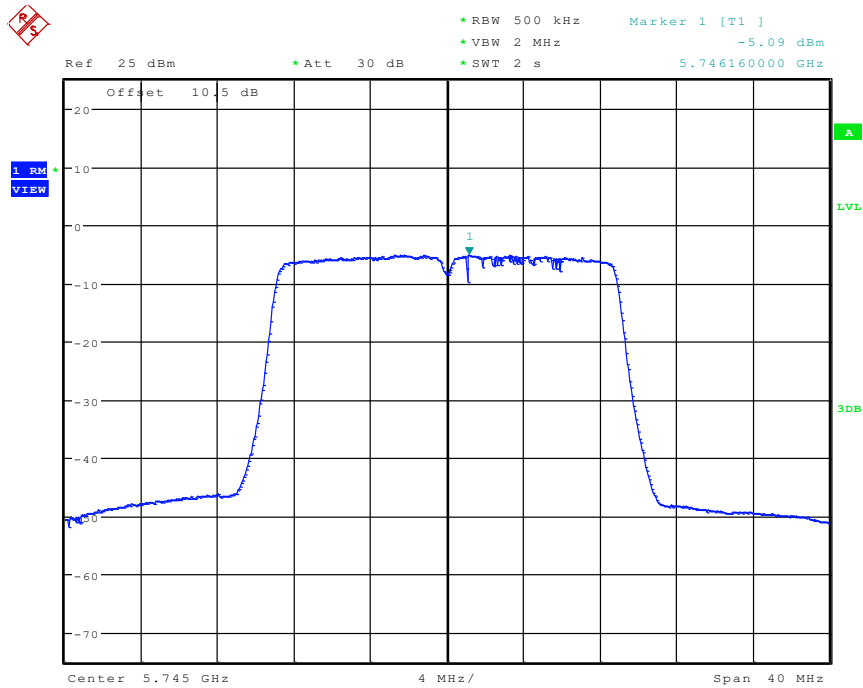
802.11n40 mode, Power Spectral Density, 5755 MHz



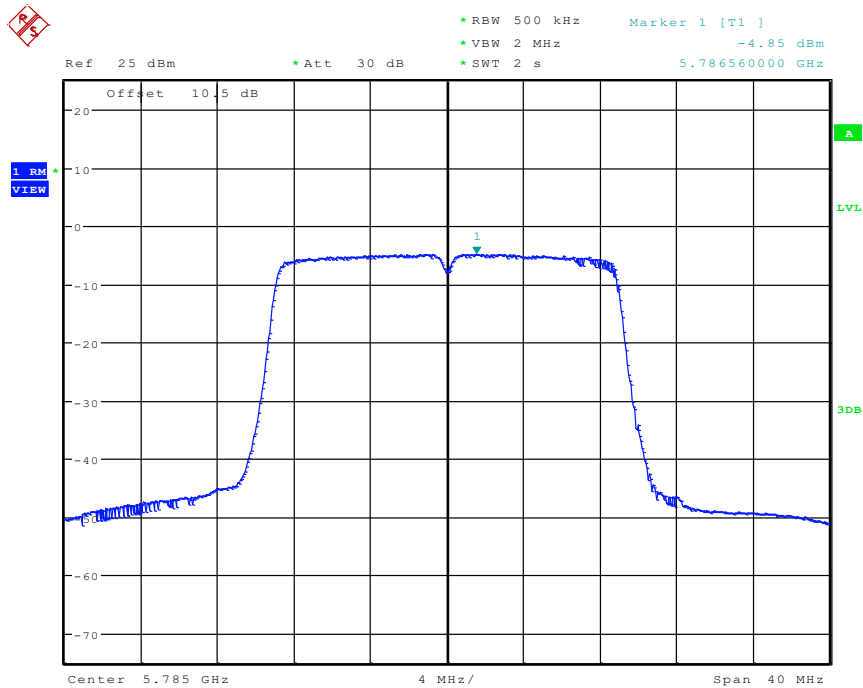
802.11n40 mode, Power Spectral Density, 5795 MHz



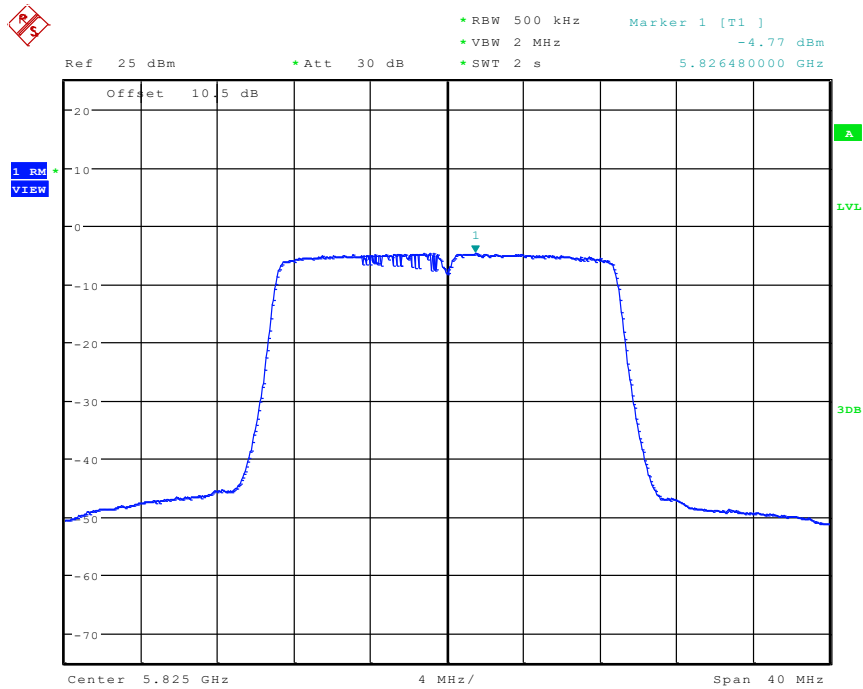
802.11ac20 mode, Power Spectral Density, 5745 MHz



802.11 ac20mode, Power Spectral Density, 5785 MHz



802.11 ac20 mode, Power Spectral Density, 5825 MHz



Ant B:
5150 MHz – 5250 MHz:

Frequency (MHz)	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)
802.11a		
5180	-4.10	11
5200	-4.35	11
5240	-4.30	11
802.11n20		
5180	-4.58	11
5200	-4.22	11
5240	-4.32	11
802.11n40		
5190	-8.04	11
5230	-8.04	11
802.11ac20		
5180	-4.65	11
5200	-4.39	11
5240	-4.51	11

5725 MHz – 5825 MHz:

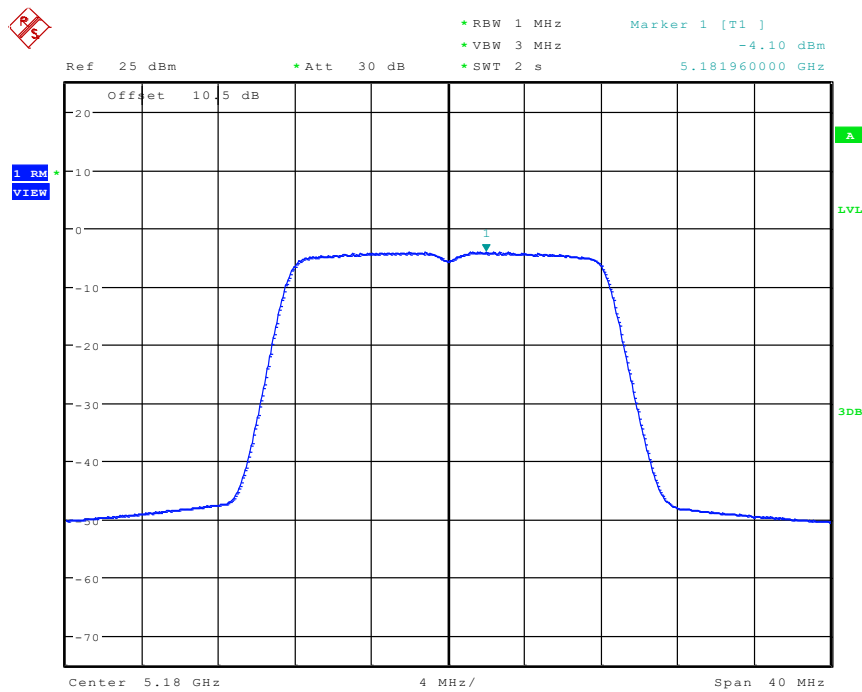
Frequency (MHz)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)
802.11a		
5745	-5.64	30
5785	-6.93	30
5825	-4.53	30
802.11n20		
5745	-6.15	30
5785	-5.39	30
5825	-4.96	30
802.11n40		
5755	-9.65	30
5795	-8.70	30
802.11ac20		
5745	-6.27	30
5785	-5.37	30
5825	-5.06	30

Note:

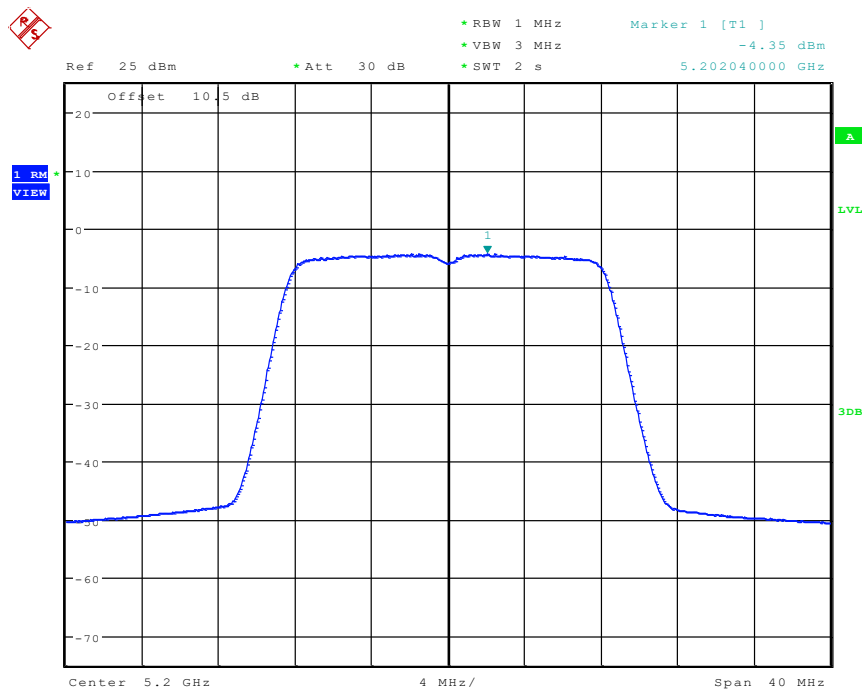
1) The EUT is a client device.

5150 MHz – 5250 MHz:

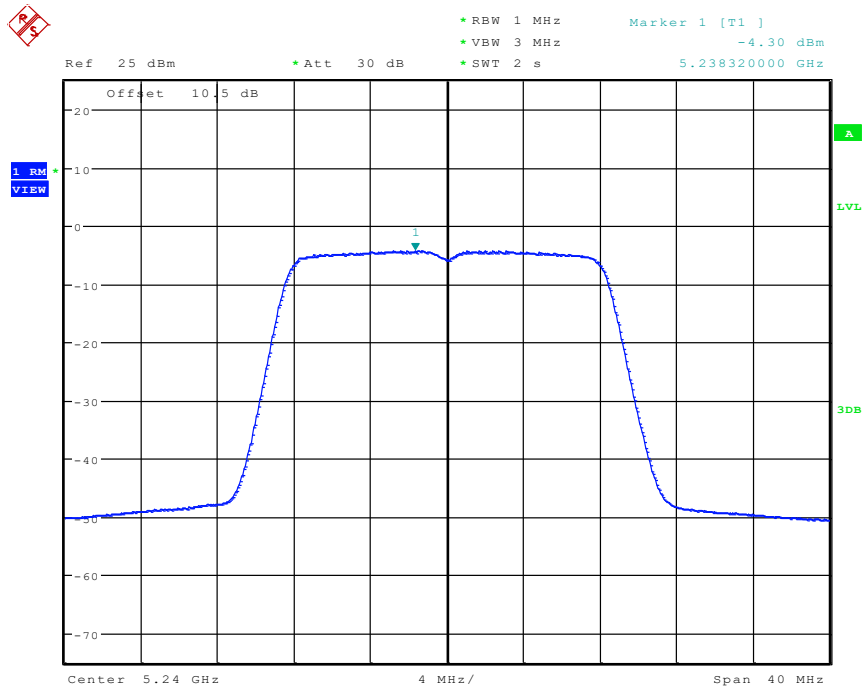
802.11a mode, Power Spectral Density, 5180 MHz



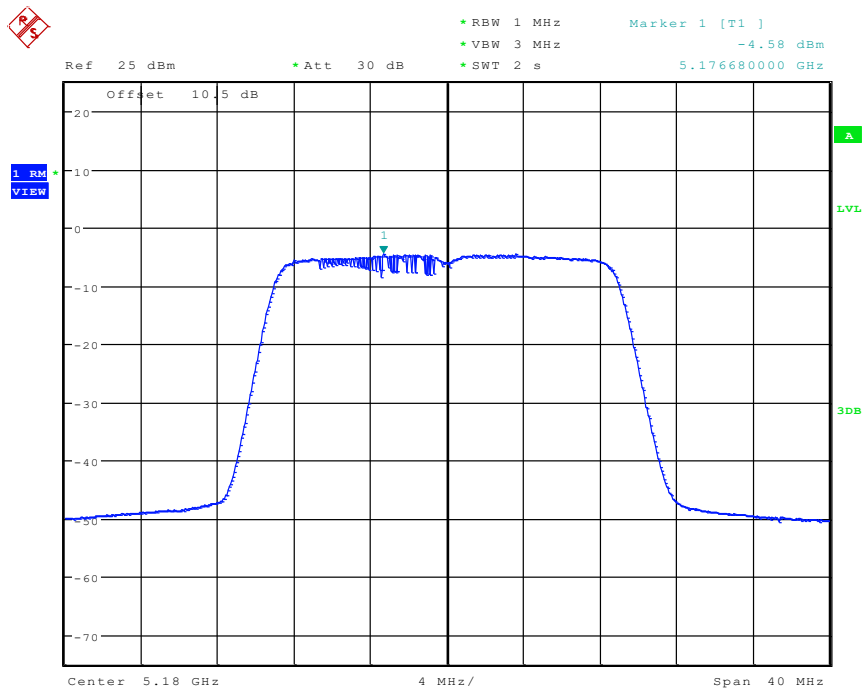
802.11a mode, Power Spectral Density, 5200 MHz



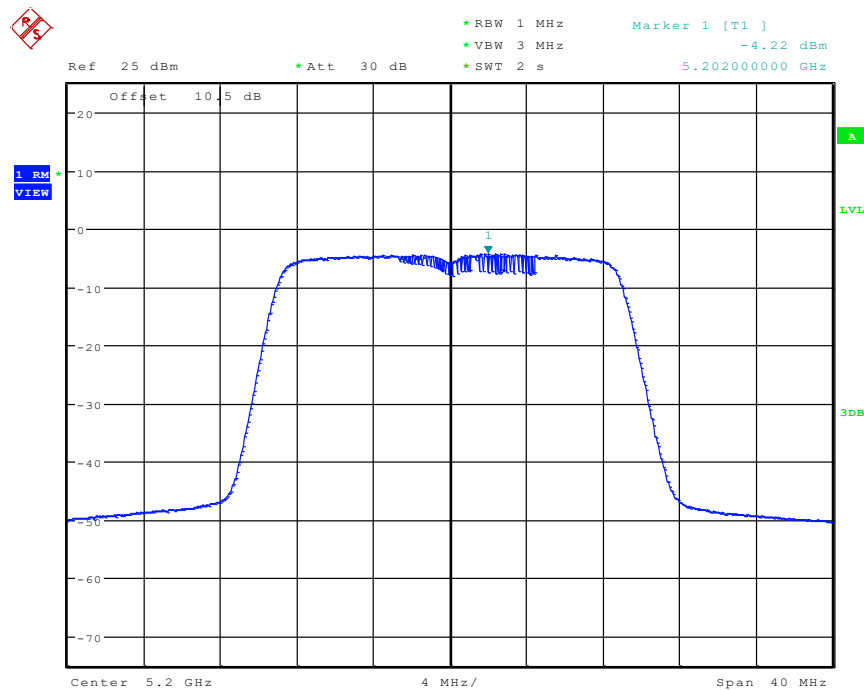
802.11a mode, Power Spectral Density, 5240 MHz



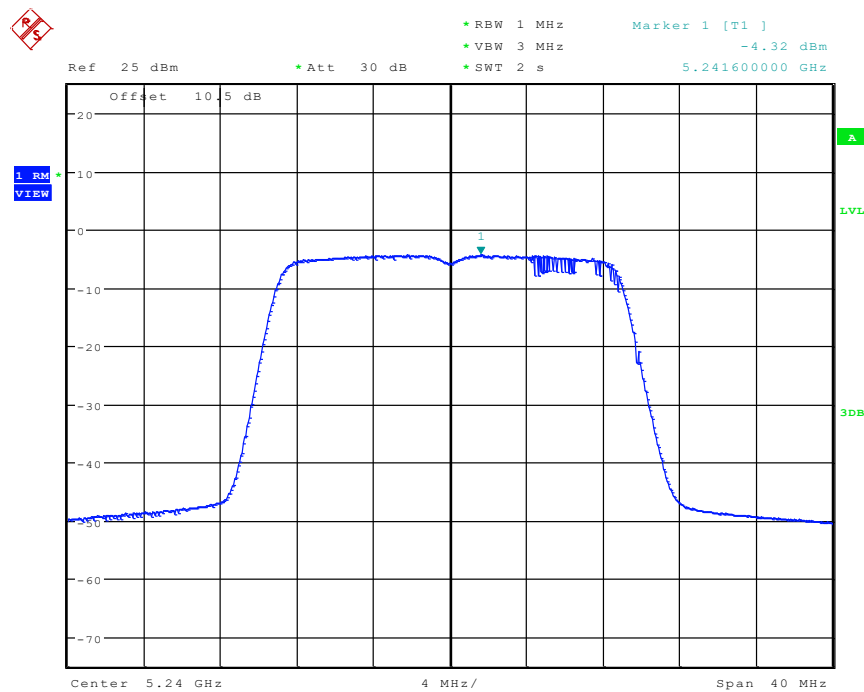
802.11n20 mode, Power Spectral Density, 5180 MHz



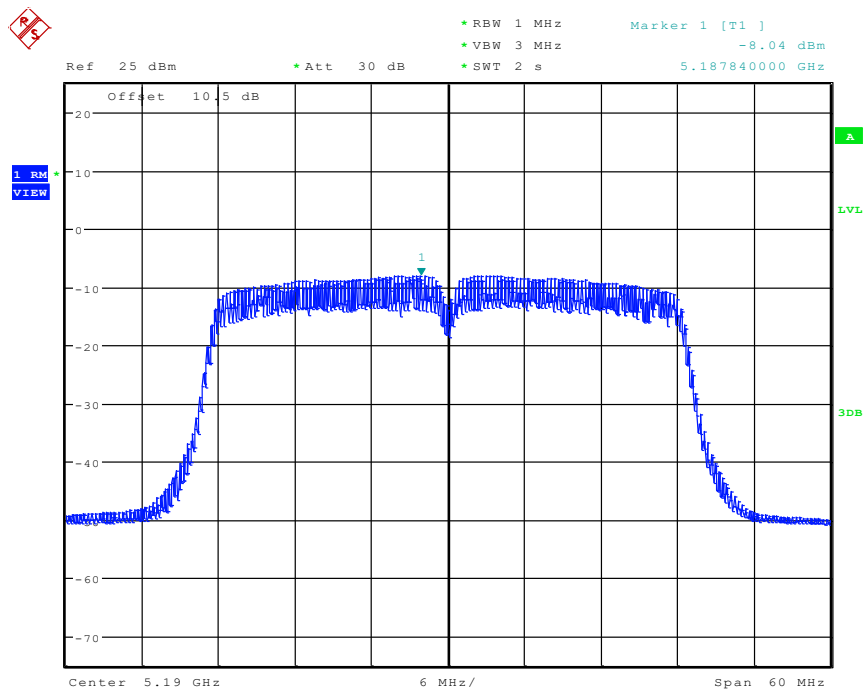
802.11n20 mode, Power Spectral Density, 5200 MHz



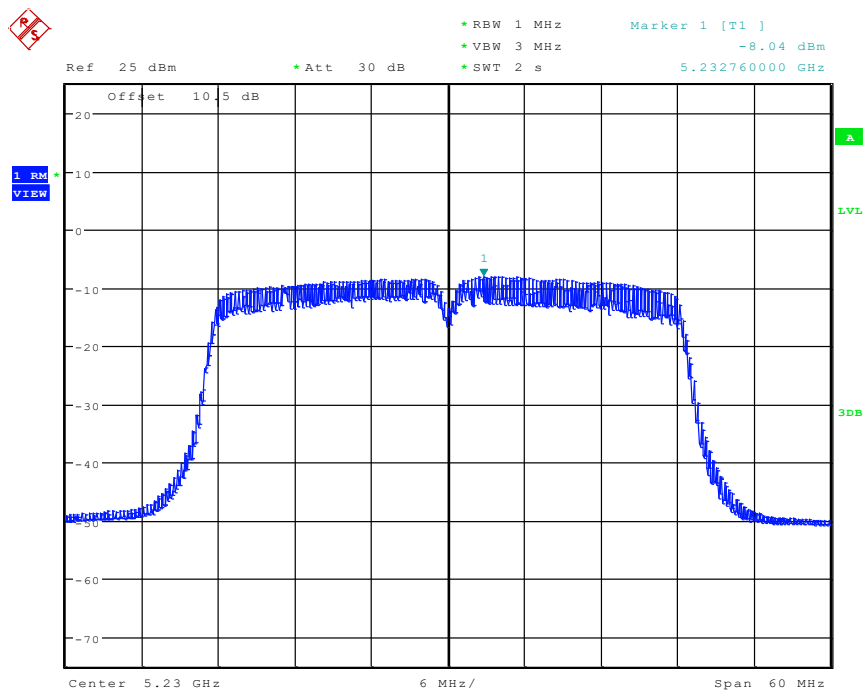
802.11n20 mode, Power Spectral Density, 5240 MHz



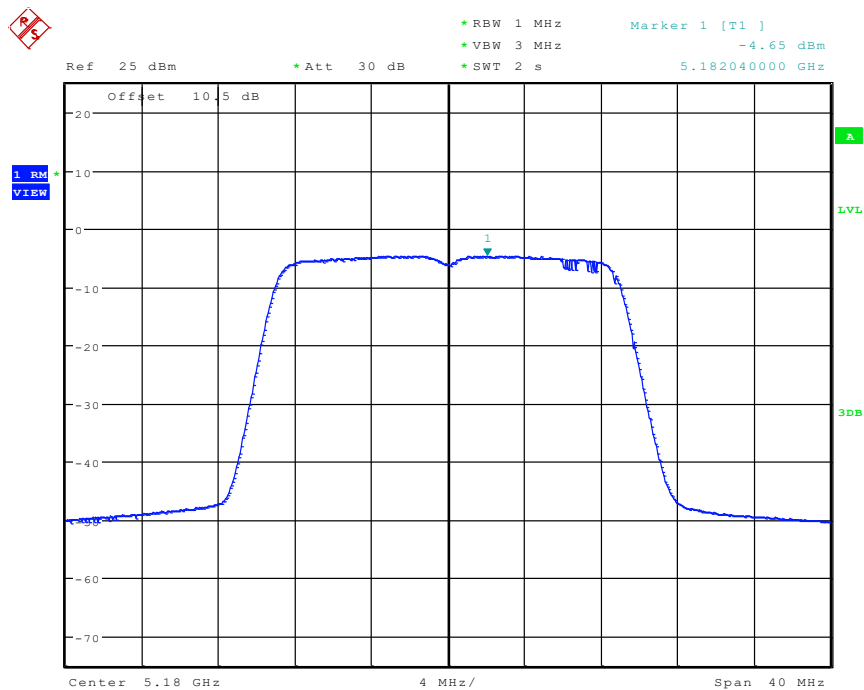
802.11n40 mode, Power Spectral Density, 5190 MHz



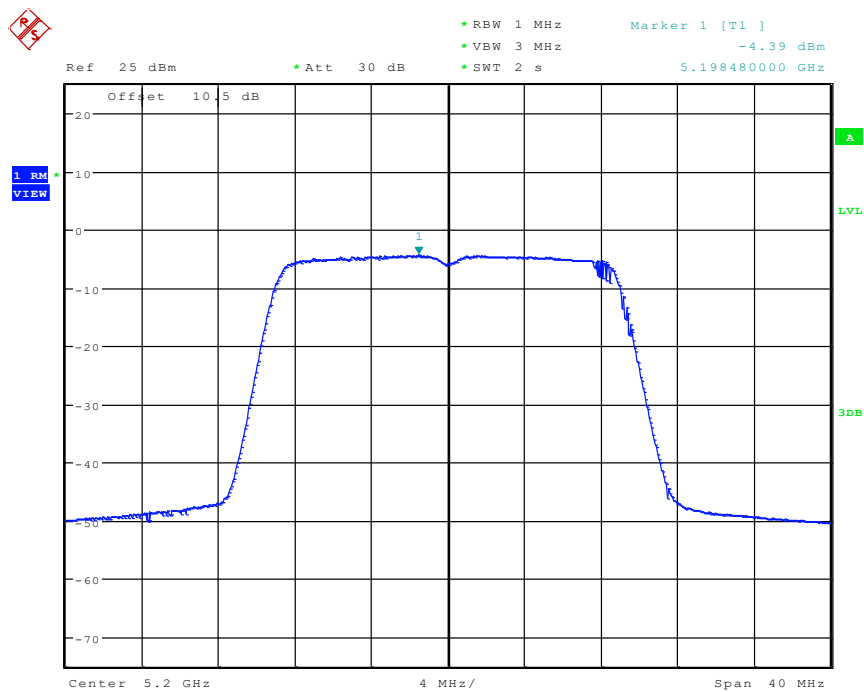
802.11n40 mode, Power Spectral Density, 5230 MHz



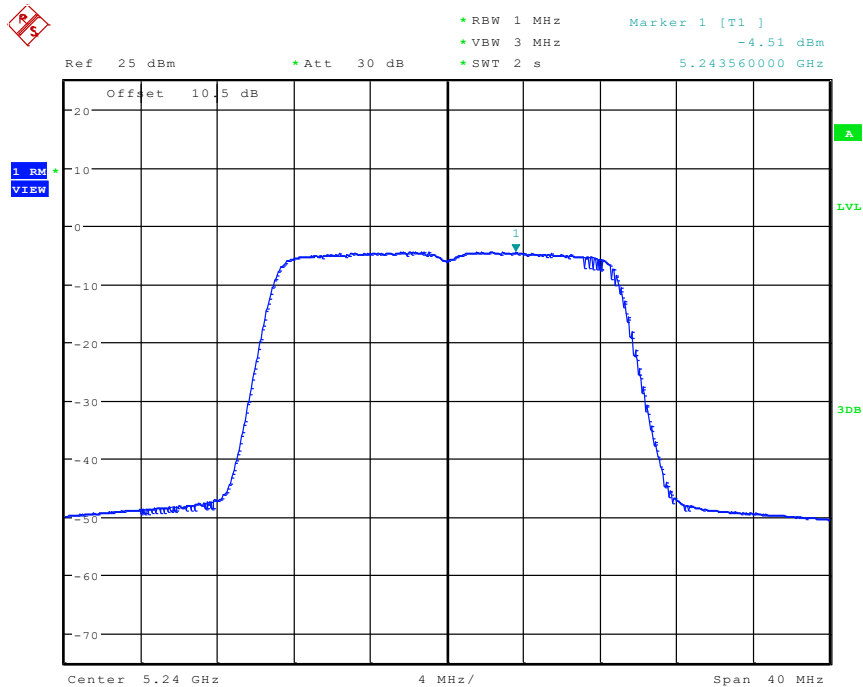
802.11ac20 mode, Power Spectral Density, 5180 MHz



802.11 ac20mode, Power Spectral Density, 5200 MHz

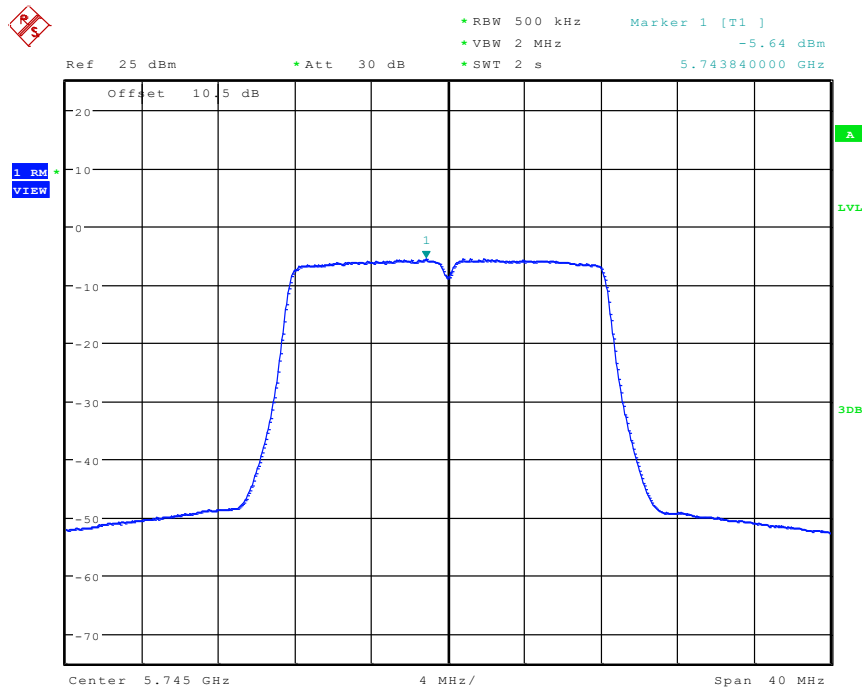


802.11 ac20mode, Power Spectral Density, 5240 MHz

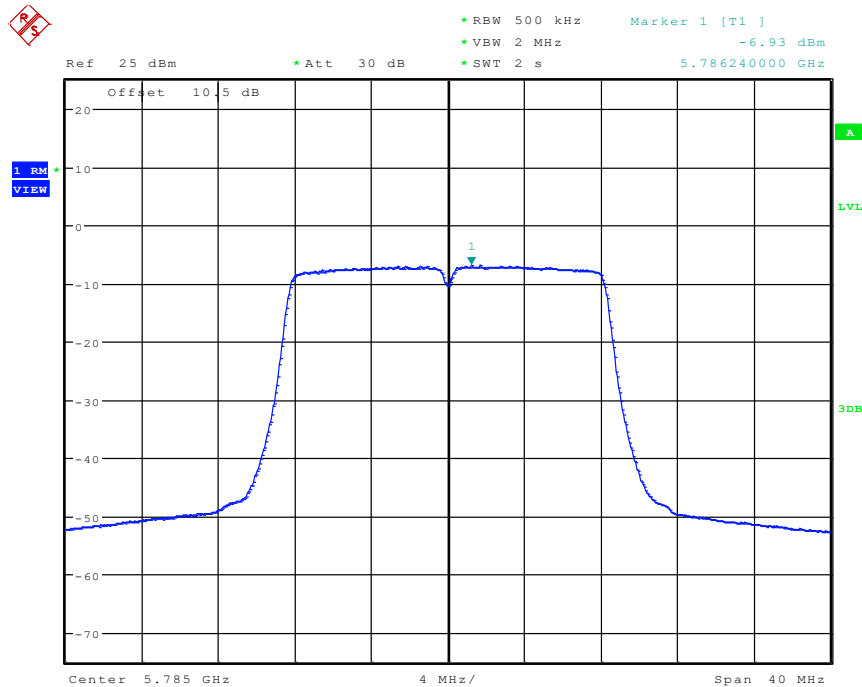


5725 MHz – 5825 MHz:

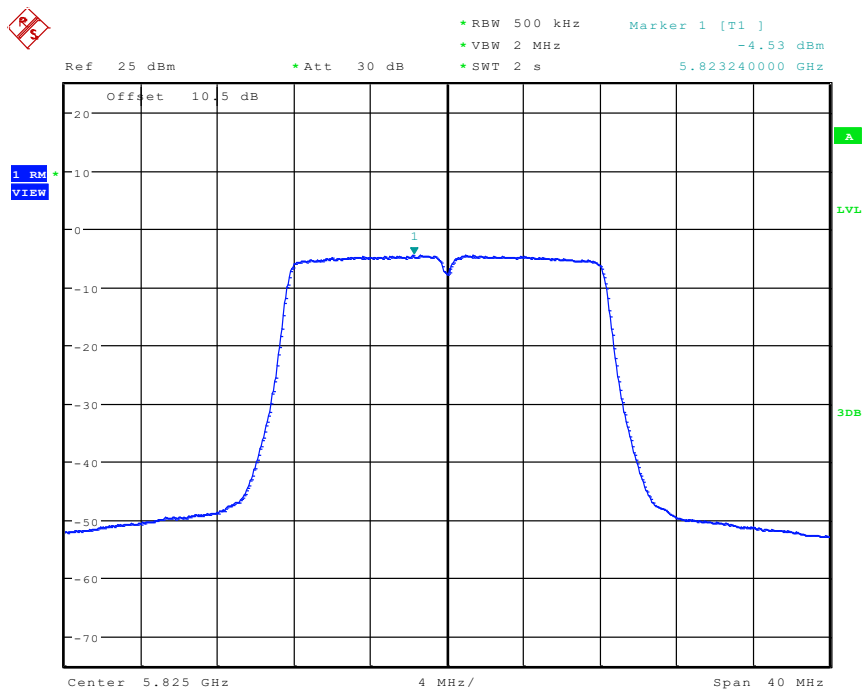
802.11a mode, Power Spectral Density, 5745 MHz



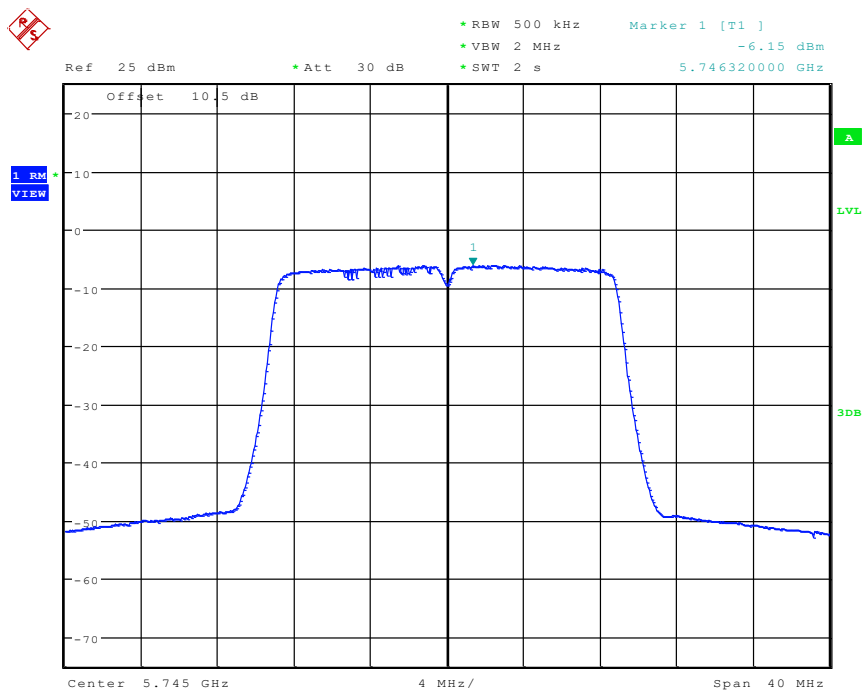
802.11a mode, Power Spectral Density, 5785 MHz



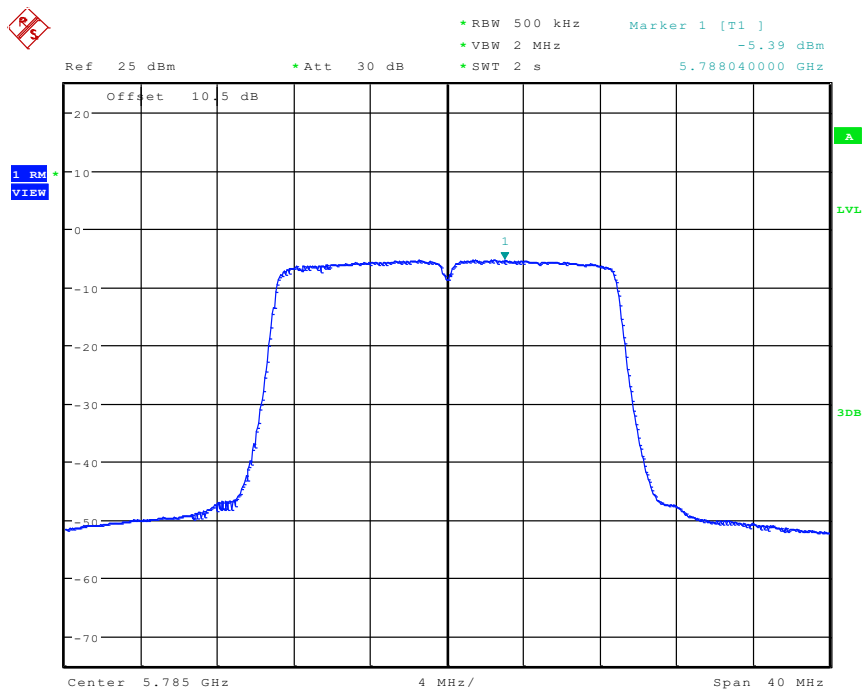
802.11a mode, Power Spectral Density, 5825 MHz



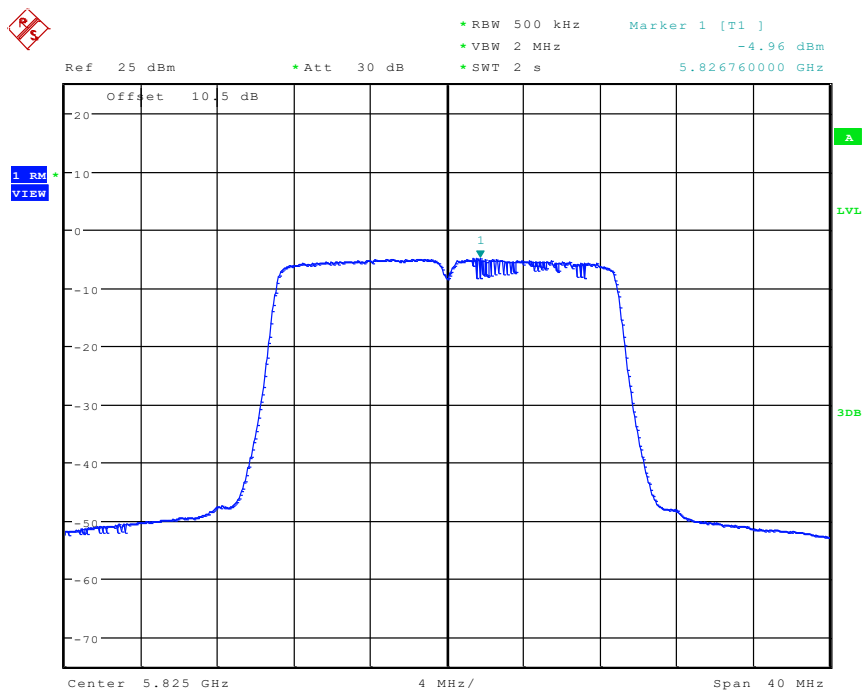
802.11n20 mode, Power Spectral Density, 5745 MHz



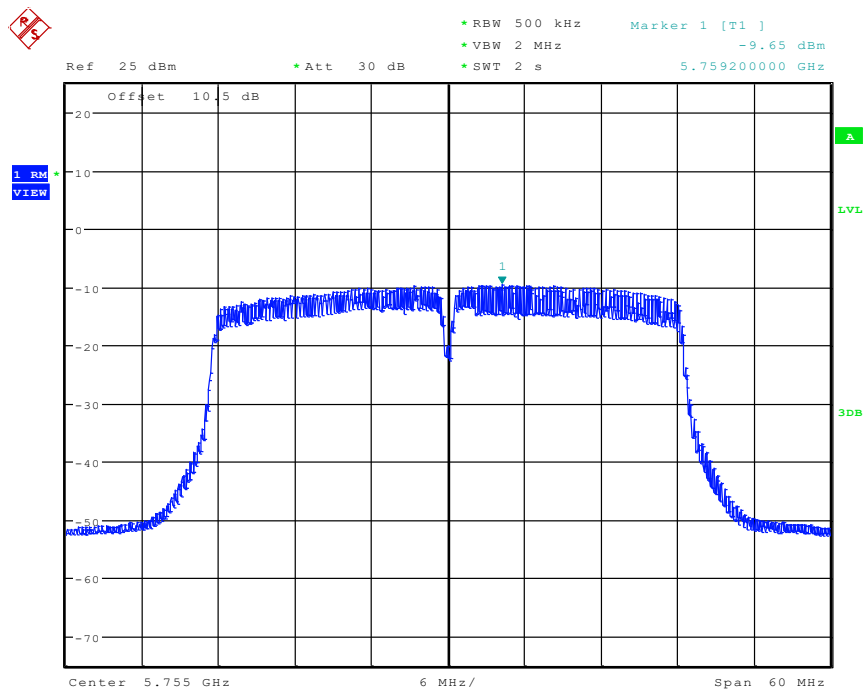
802.11n20 mode, Power Spectral Density, 5785 MHz



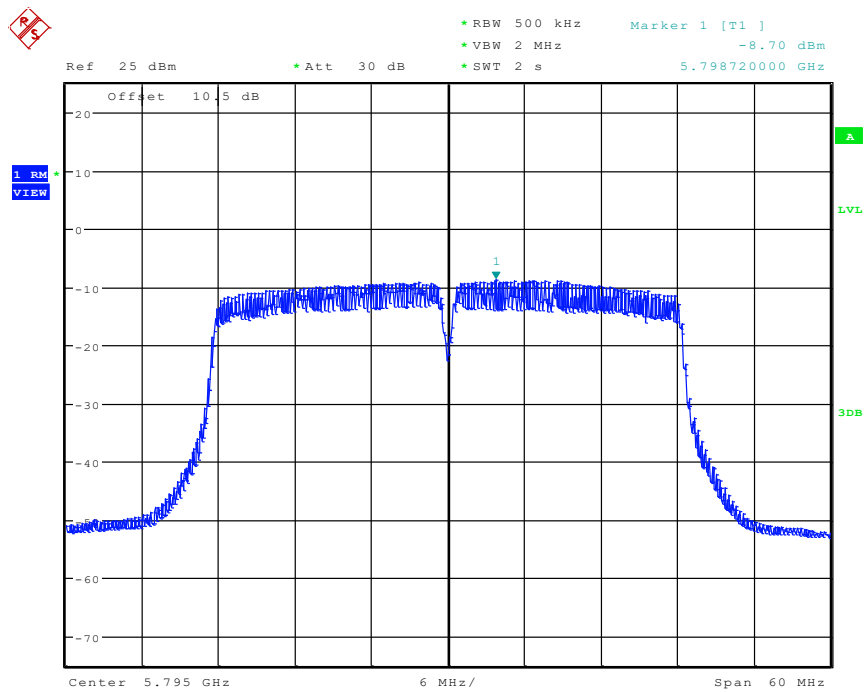
802.11n20 mode, Power Spectral Density, 5825 MHz

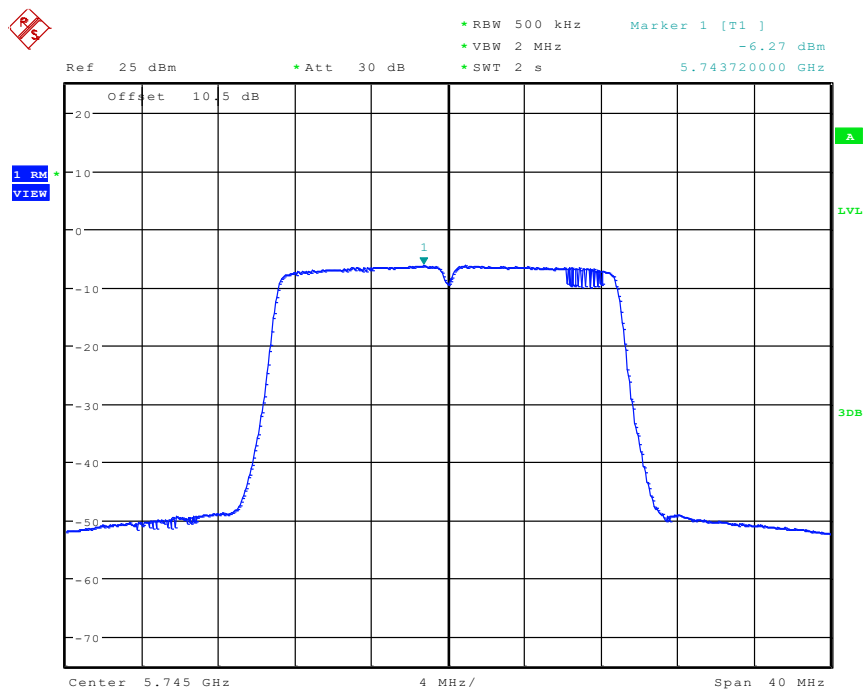
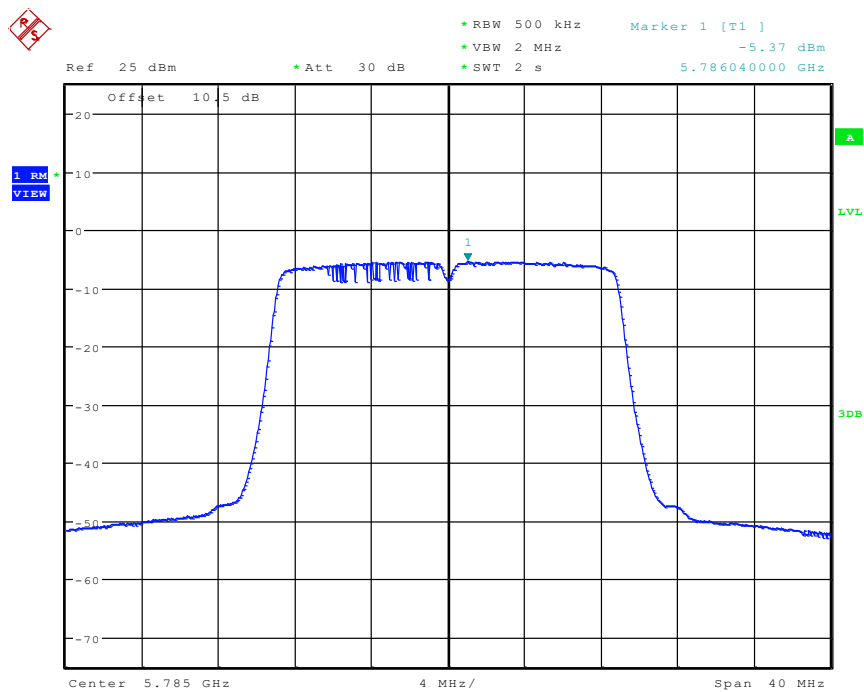


802.11n40 mode, Power Spectral Density, 5755 MHz

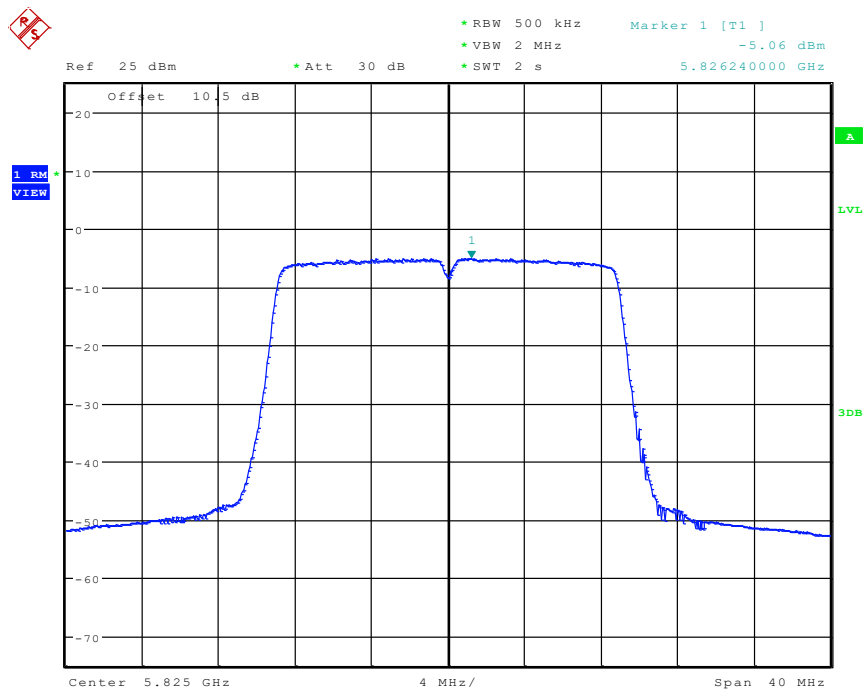


802.11n40 mode, Power Spectral Density, 5795 MHz



802.11ac20 mode, Power Spectral Density, 5745 MHz**802.11 ac20mode, Power Spectral Density, 5785 MHz**

802.11 ac20 mode, Power Spectral Density, 5825 MHz



***** END OF REPORT *****