



TESTING LABORATORY
CERTIFICATE # 4821.01



FCC PART 15.407

TEST REPORT

For

Chuango Security Technology Corporation

6-17, Overseas Students Pioneer Park, No. 108, Jia, Economic & Technological Development
Zone, Fuzhou, China

FCC ID: RJY-DBL

Report Type: Original Report	Product Type: Smart Video Doorbell
Report Number: RSZ180301002-00B	
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Chuango Security Technology Corporation's* product, model number: Platinum DB-20 (FCC ID: RJY-DBL) or the "EUT" in this report was a *Smart Video Doorbell*, which was measured approximately: 131.7 mm (L) × 62.2 mm (W) × 36.2 mm (H), rated with input voltage: DC 3.7 V battery and AC 24V by AC power.

Notes: This series products model: DB-20 and WDB-70 are electrically identical, the differences between them are the model number and stripe shape outside the speaker. Model DB-20 was selected for fully testing, the detailed information can be referred to the declaration which was stated and guaranteed by the applicant.

**All measurement and test data in this report was gathered from production sample serial number: 1800242. (Assigned by BACL, Shenzhen). The EUT supplied by the applicant was received on 2018-03-01.*

Objective

This type approval report is prepared on behalf of *Chuango Security Technology Corporation* 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, 15.207, 15.209 and 15.407 rules.

Related Submittal(s)/Grant(s)

FCC Part 15.247 DTS submissions with FCC ID: RJY-DBL.

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

All emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Measurement Uncertainty

Parameter		uncertainty
Occupied Channel Bandwidth		±5%
RF Output Power with Power meter		±0.5dB
RF conducted test with spectrum		±1.5dB
AC Power Lines Conducted Emissions		±1.95dB
Emissions, Radiated	Below 1GHz	±4.75dB
	Above 1GHz	±4.88dB
Temperature		-30~60 °C
Humidity		±6%
Supply voltages		±0.4%

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 6/F., West Wing, Third Phase of Wanli Industrial Building, Shihua Road, Futian Free Trade Zone, Shenzhen, Guangdong, 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. : 382179, the FCC Designation No. : CN1221.

The test site has been registered with ISED Canada under ISED Canada Registration Number 3062B.

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 802.11a/n20/n40/ac20/ac40/ac80 modes.

For 5150-5250MHz Band, 7 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
38	5190	46	5230
40	5200	48	5240
42	5210	/	/

For 5250-5350MHz Band, 7 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
52	5260	60	5300
54	5270	62	5310
56	5280	64	5320
58	5290	/	/

For 5470-5725MHz Band, 18 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
100	5500	124	5620
102	5510	126	5630
104	5520	128	5640
106	5530	132	5660
108	5540	134	5670
110	5550	136	5680
112	5560	140	5700
116	5580	/	/
118	5590	/	/
120	5600	/	/
122	5610	/	/

For 5725-5850MHz Band, 8 channels are provided to testing:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
149	5745	157	5785
151	5755	159	5795
153	5765	161	5805
155	5775	165	5825

EUT Exercise Software

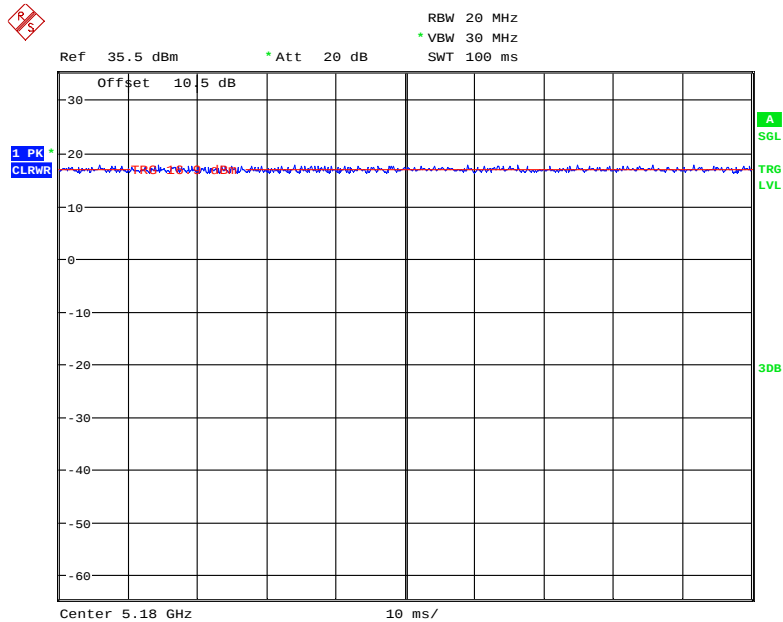
“RFtest tool” software was used. Test frequencies and power level were configured as below:

U-NII	Mode	Channel Number	Frequency (MHz)	Rate (Mbps)	Power Level
5150 – 5250MHz	802.11 a	CH36	5180	54	36
		CH40	5200	54	36
		CH48	5240	54	36
	802.11 n20	CH36	5180	MCS0	36
		CH40	5200	MCS0	36
		CH48	5240	MCS0	36
	802.11 n40	CH38	5190	MCS0	39
		CH46	5230	MCS0	39
	802.11 ac20	CH36	5180	MCS7	36
		CH40	5200	MCS7	36
		CH48	5240	MCS7	36
	802.11 ac40	CH38	5190	MCS9	39
		CH46	5230	MCS9	39
5250 – 5350MHz	802.11 a	CH42	5210	MCS9	39
		CH52	5260	54	36
		CH56	5280	54	36
	802.11 n20	CH64	5320	54	36
		CH52	5260	MCS0	36
		CH56	5280	MCS0	36
	802.11 n40	CH64	5320	MCS0	36
		CH54	5270	MCS0	39
		CH62	5310	MCS0	39
	802.11 ac20	CH52	5260	MCS7	36
		CH56	5280	MCS7	36
		CH64	5320	MCS7	36
	802.11 ac40	CH54	5270	MCS9	39
		CH62	5310	MCS9	39
	802.11 ac80	CH58	5290	MCS9	30

U-NII	Mode	Channel Number	Frequency (MHz)	Rate (Mbps)	Power Level
5470 – 5725MHz	802.11 a	CH100	5500	54	27
		CH120	5600	54	27
		CH140	5700	54	27
	802.11 n20	CH100	5500	MCS7	27
		CH120	5600	MCS7	27
		CH140	5700	MCS7	27
	802.11 n40	CH102	5510	MCS7	24
		CH118	5590	MCS7	24
	802.11 ac20	CH100	5500	MCS7	27
		CH120	5600	MCS7	27
		CH140	5700	MCS7	27
	802.11 ac40	CH102	5510	MCS7	24
		CH118	5590	MCS7	24
		CH134	5670	MCS7	24
	802.11 ac80	CH106	5530	MCS7	27
		CH122	5610	MCS7	27
5725 – 5850MHz	802.11 a	CH149	5745	54	27
		CH157	5785	54	27
		CH165	5825	54	27
	802.11 n20	CH149	5745	MCS7	27
		CH157	5785	MCS7	27
		CH165	5825	MCS7	27
	802.11 n40	CH151	5755	MCS7	30
		CH159	5795	MCS7	30
	802.11 ac20	CH149	5745	MCS7	27
		CH157	5785	MCS7	27
		CH165	5825	MCS7	27
	802.11 ac40	CH151	5755	MCS7	30
		CH159	5795	MCS7	30
	802.11 ac80	CH155	5775	MCS7	31

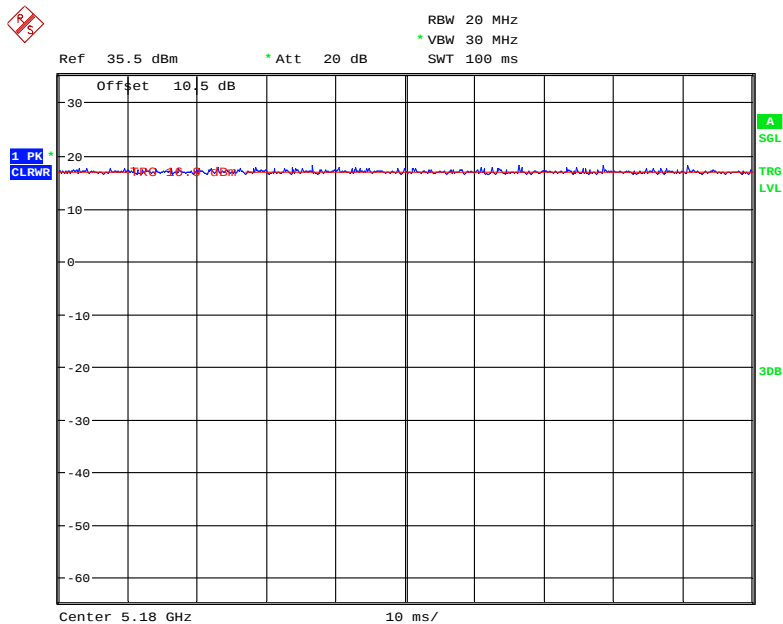
Duty cycle
5150-5250 MHz

802.11a mode



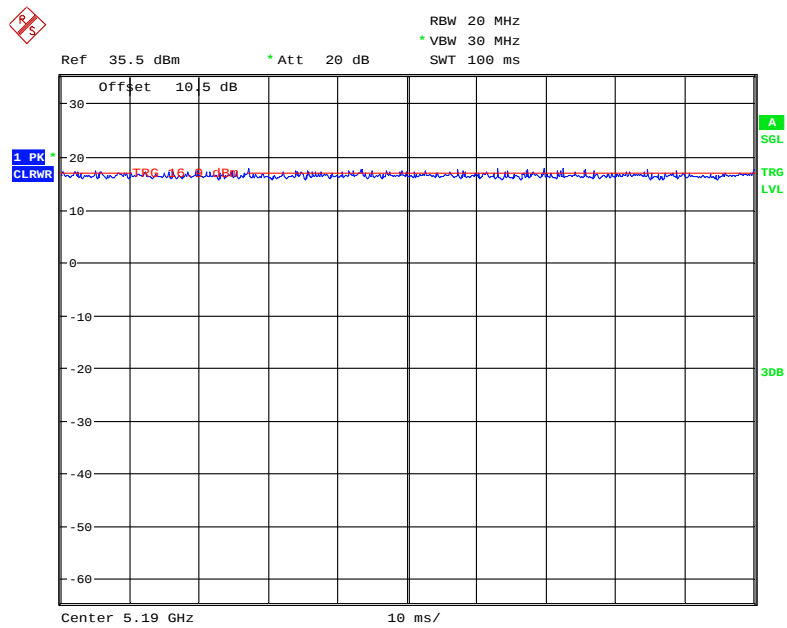
Date: 11.APR.2018 18:48:55

802.11n20 mode



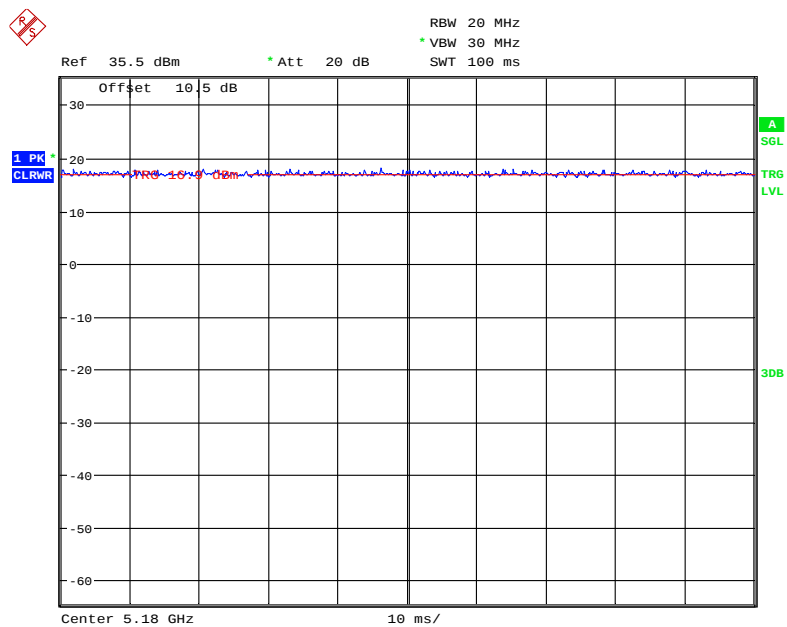
Date: 11.APR.2018 18:49:21

802.11n40 Mode



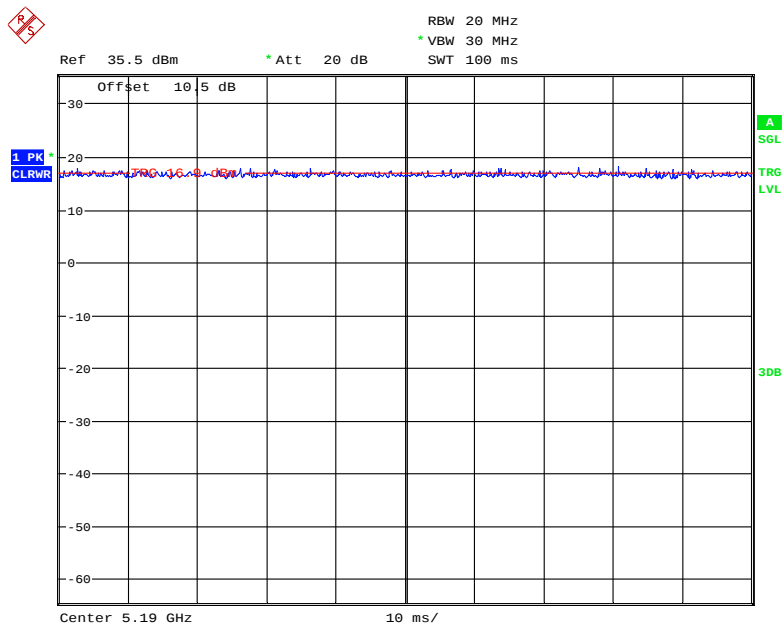
Date: 11.APR.2018 18:49:58

802.11ac20 Mode



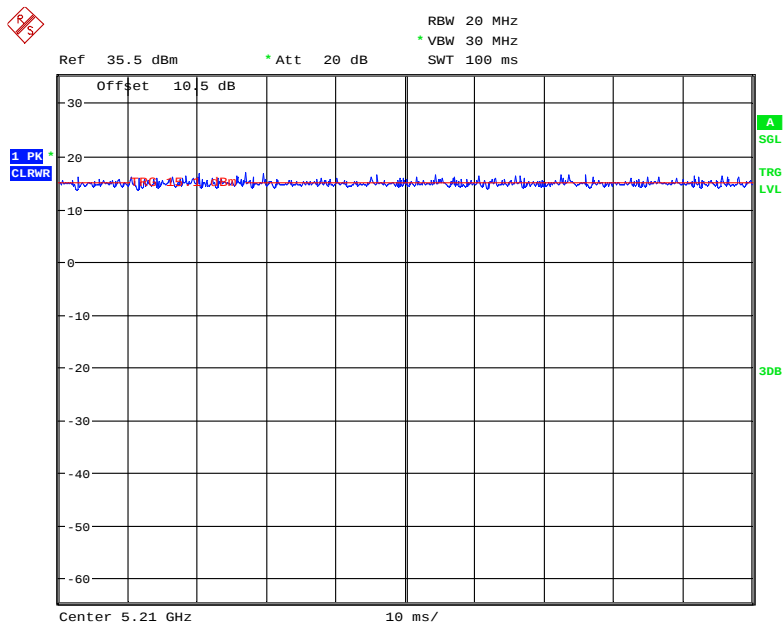
Date: 11.APR.2018 18:49:39

802.11ac40 Mode



Date: 11.APR.2018 18:50:16

802.11ac80 Mode



Date: 11.APR.2018 18:50:40

Band	Duty Cycle (%)	T(ms)	1/T(kHz)	VBW Setting	10log(1/x)
802.11a	100	-	-	10Hz	-
802.11n20	100	-	-	10Hz	-
802.11n40	100	-	-	10Hz	-
802.11ac20	100	-	-	10Hz	-
802.11ac40	100	-	-	10Hz	-
802.11ac80	100	-	-	10Hz	-

Note: 5250-5350MHz band, 5470-5725MHz band and 5725-5850MHz band was used the same duty cycle to test for each mode.

Equipment Modifications

No modification was made to the EUT tested.

Support Equipment List and Details

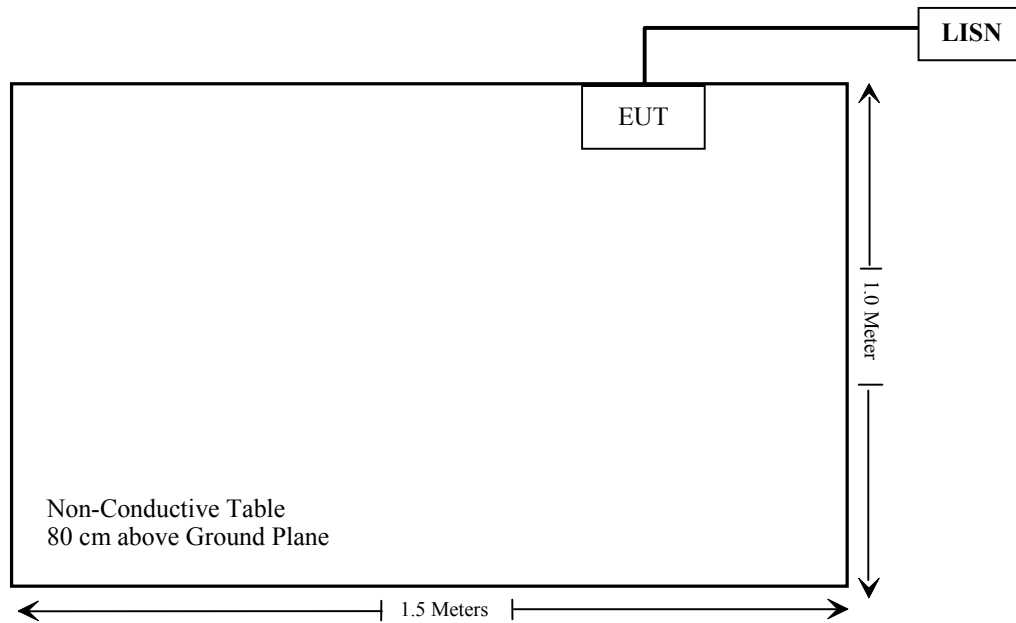
Manufacturer	Description	Model	Serial Number
Piaobian	voltage regulator	TDGC2-3	N/A

External I/O Cable

Cable Description	Length (m)	From Port	To
Un-shielding Detachable power Cable	1.0	EUT	LISN

Block Diagram of Test Setup

For conducted emission:



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§1.1307 (b) (1) & §2.1091	Maximum Permissible exposure (MPE)	Compliance
§15.203	Antenna Requirement	Compliance
§15.407(b)(6)& §15.207(a)	Conducted Emissions	Compliance
§15.205& §15.209 &§15.407(b) (1), (2), (3), (4),(7)	Undesirable Emission& Restricted Bands	Compliance
§15.407(b) (1), (2), (3), (4)	Out Of Band Emission	Compliance
§15.407(a) (1), (5),(e)	26 dB Emission Bandwidth & 6dB Bandwidth	Compliance
§15.407(a)(1),(2), (3)	Conducted Transmitter Output Power	Compliance
§15.407 (a)(1), (2), (3)	Power Spectral Density	Compliance

DFS report please refer to RSZ180302001-00 issued by Bay Area Compliance Laboratories Corp. (Dongguan).

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
AC Line Conducted test					
Rohde & Schwarz	EMI Test Receiver	ESCS30	100176	2017-08-04	2018-08-04
Rohde & Schwarz	LISN	ENV216	3560.6650.12-101613-Yb	2017-12-21	2018-12-21
Rohde & Schwarz	Transient Limiter	ESH3Z2	DE25985	2017-11-19	2018-05-21
Rohde & Schwarz	CE Test software	EMC 32	V8.53.0	NCR	NCR
N/A	Conducted Emission Cable	N/A	UF A210B-1-0720-504504	2017-11-12	2018-05-12
Radiated Emission Test					
A.H.System	Horn Antenna	SAS-200/571	135	2015-08-18	2018-08-17
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2017-04-24	2018-04-24
Agilent	Spectrum Analyzer	8564E	3943A01781	2018-01-04	2019-01-04
Sunol Sciences	Bi-log Antenna	JB1	A040904-2	2017-12-17	2020-12-16
Mini	Pre-amplifier	ZVA-183-S+	5969001149	2017-05-21	2018-05-21
HP	Amplifier	HP8447E	1937A01046	2017-11-19	2018-05-17
Rohde & Schwarz	EMI Test Receiver	ESCI	101120	2018-01-11	2019-01-11
Ducommun technologies	RF Cable	UFA210A-1-4724-30050U	MFR64369 223410-001	2017-11-19	2018-05-21
Ducommun technologies	RF Cable	104PEA	218124002	2017-11-19	2018-05-21
Ducommun technologies	RF Cable	RG-214	1	2017-11-19	2018-05-21
Ducommun technologies	RF Cable	RG-214	2	2017-11-19	2018-05-21
Ducommun Technologies	Horn Antenna	ARH-4223-02	1007726-04	2017-12-29	2020-12-28
Ducommun Technologies	Horn Antenna	ARH-4823-02	1007726-04	2017-12-29	2020-12-28
Ducommun Technologies	Pre-amplifier	ALN-22093530-01	991373-01	2017-08-03	2018-08-03

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
RF Conducted Test					
Rohde & Schwarz	SPECTRUM ANALYZER	FSU26	200120	2017-12-05	2018-12-05
Agilent	Power Meter	N1912A	MY5000492	2017-11-18	2018-11-17
Agilent	Power Sensor	N1921A	MY54210024	2017-11-18	2018-11-17
Ducommun technologies	RF Cable	RG-214	3	2017-11-22	2018-05-22
WEINSCHTEL	10dB Attenuator	5324	AU 3842	2017-11-22	2018-05-23

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

§1.1307 (b) (1) & §2.1091- MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to subpart 1.1307 (b)(1), 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

Calculated Formulary:

Predication of MPE limit at a given distance

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

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)

Frequency (MHz)	Antenna Gain		Conducted Power		Evaluation Distance (cm)	Power Density (mW/cm ²)	MPE Limit (mW/cm ²)
	(dBi)	(numeric)	(dBm)	(mW)			
5150-5250	2.4	1.74	13.5	22.39	20	0.008	1.0
5250-5350	2.4	1.74	13.5	22.39	20	0.008	1.0
5470-5725	2.4	1.74	14.0	25.12	20	0.009	1.0
5725-5850	2.4	1.74	13.5	22.39	20	0.008	1.0

Note:

1) The conducted power is the tune-up power of the Max Conducted Output Power.

2) 2.4GHz or 5GHz Wi-Fi can't transmit simultaneously for this device.

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

Result: Compliance

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 one internal antenna arrangement, which was permanently attached and the antenna gain is 2.4 dBi, fulfill the requirement of this section. Please refer to the EUT photos.

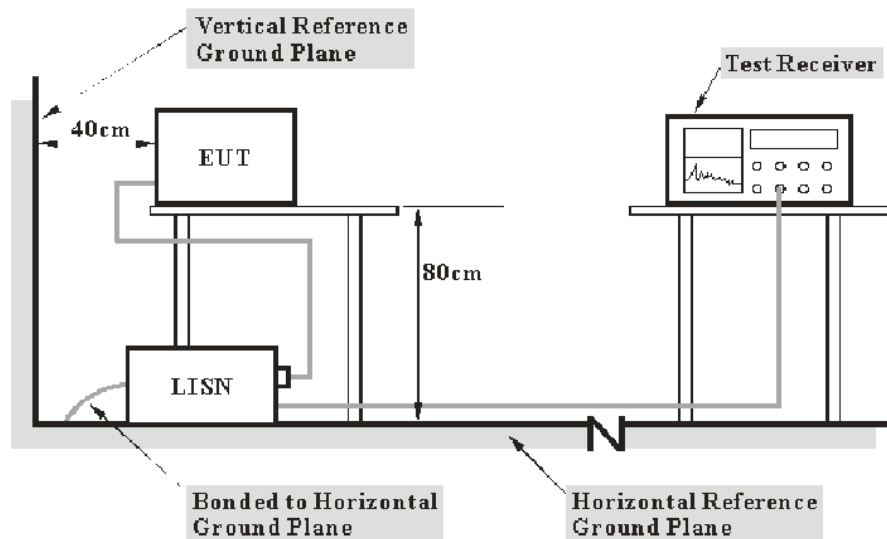
Result: Compliance.

FCC §15.407 (b) (6) §15.207 (a) – CONDUCTED EMISSIONS

Applicable Standard

FCC §15.207, §15.407(b) (6)

EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.10-2013 measurement procedure. The specification used was with the FCC Part 15.207 limits.

The spacing between the peripherals was 10 cm.

The adapter was connected to a 24VAC/60 Hz power source.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

Test Procedure

During the conducted emission test, the adapter was connected to the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15.207.

Refer to CISPR16-4-2:2011 and CISPR 16-4-1:2009, the measured level complies with the limit if

$$L_m + U_{(L_m)} \leq L_{\text{lim}} + U_{\text{cispr}}$$

In BACL, $U_{(L_m)}$ is less than U_{cispr} , if L_m is less than L_{lim} , it implies that the EUT complies with the limit.

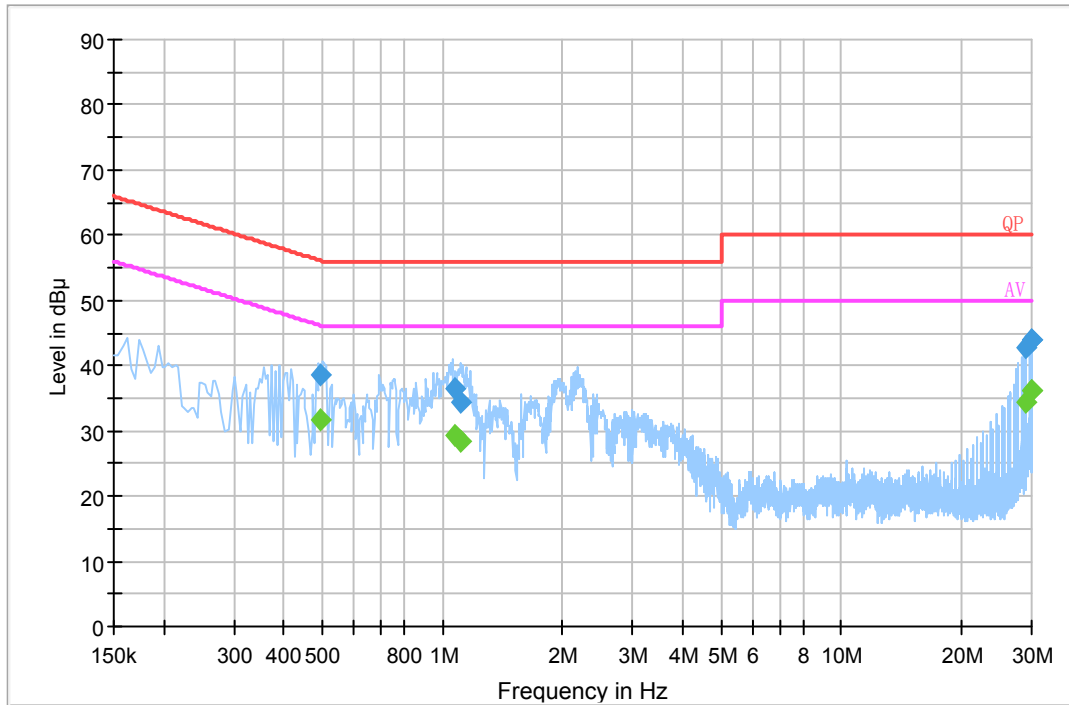
Test Data

Environmental Conditions

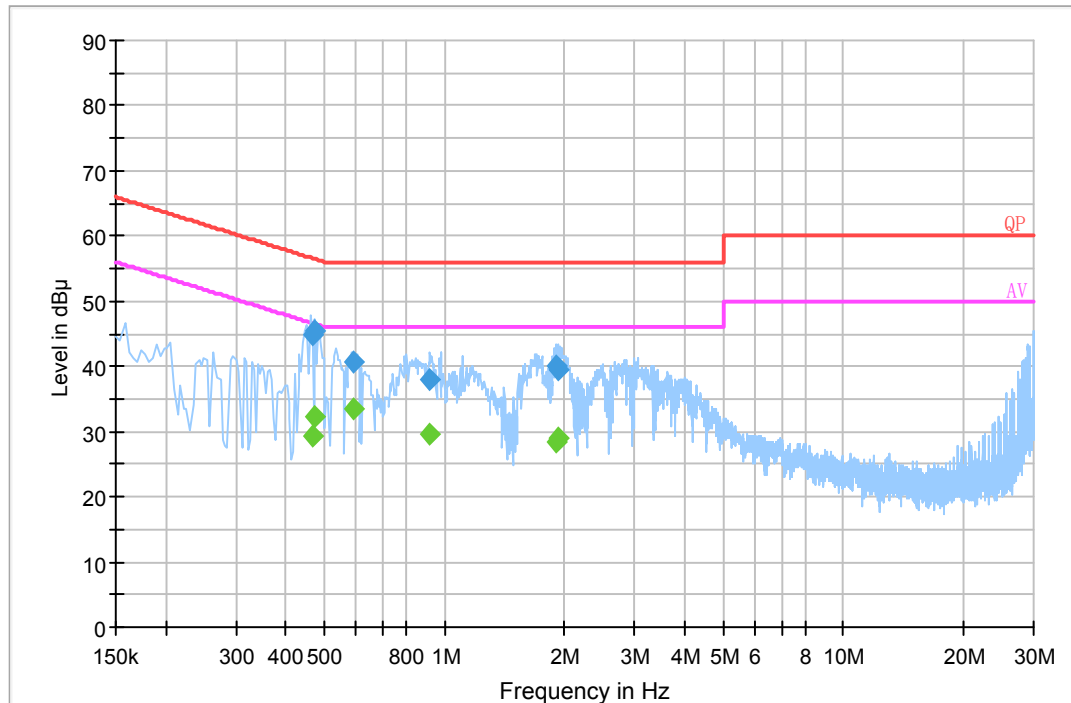
Temperature:	25 °C
Relative Humidity:	56 %
ATM Pressure:	101.0 kPa

The testing was performed by Dylan Li on 2018-04-02.

EUT operation mode: Transmitting (worst case)

AC 24V/60 Hz, Line:

Frequency (MHz)	Corrected Amplitude (dBμV)	Correction Factor (dB)	Limit (dBμV)	Margin (dB)	Detector (PK/Ave./QP)
0.494470	38.5	20.2	56.1	17.6	QP
1.074070	36.6	20.1	56.0	19.4	QP
1.113110	34.5	20.1	56.0	21.5	QP
29.105590	42.7	20.0	60.0	17.3	QP
29.944990	44.0	20.0	60.0	16	QP
29.947350	44.0	20.0	60.0	16	QP
0.494470	31.8	20.2	46.1	14.3	Ave.
1.074070	29.4	20.1	46.0	16.6	Ave.
1.113110	28.5	20.1	46.0	17.5	Ave.
29.105590	34.5	20.0	50.0	15.5	Ave.
29.944990	36.3	20.0	50.0	13.7	Ave.
29.947350	36.3	20.0	50.0	13.7	Ave.

AC24V, 60 Hz, Neutral:

Frequency (MHz)	Corrected Amplitude (dBμV)	Correction Factor (dB)	Limit (dBμV)	Margin (dB)	Detector (PK/Ave./QP)
0.467070	44.9	20.2	56.6	11.7	QP
0.474770	45.4	20.2	56.4	11	QP
0.589090	40.6	20.1	56.0	15.4	QP
0.920170	38.1	20.1	56.0	17.9	QP
1.912990	39.9	20.1	56.0	16.1	QP
1.926470	39.6	20.1	56.0	16.4	QP
0.467070	29.2	20.2	46.6	17.4	Ave.
0.474770	32.3	20.2	46.4	14.1	Ave.
0.589090	33.5	20.1	46.0	12.5	Ave.
0.920170	29.6	20.1	46.0	16.4	Ave.
1.912990	28.4	20.1	46.0	17.6	Ave.
1.926470	29.0	20.1	46.0	17	Ave.

Note:

- 1) Correction Factor = LISN VDF (Voltage Division Factor) + Cable Loss + Transient Limiter Attenuation
- 2) Corrected Amplitude = Reading + Correction Factor
- 3) Margin = Limit – Corrected Amplitude

§15.205 & §15.209 & §15.407(B) (1), (2), (3), (4),(6),(7) – UNDESIRABLE EMISSION

Applicable Standard

FCC §15.407 (b) (1), (2), (3), (4), (6), (7); §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.

KDB 789033 D02 General UNII Test Procedures New Rules v02r01, clause G),
 $E [dB\mu V/m] = EIRP [dBm] + 95.2$, for $d = 3$ meters.

The general limit of -27 dBm EIRP (= 68.2 dB μ V/m) is applied for unwanted emission of U-NII devices. However, compliance with unwanted emissions in restricted bands may need to be considered, *e.g.*, some harmonics may land in the restricted bands below 5.15 GHz and above 5.35 GHz (refer

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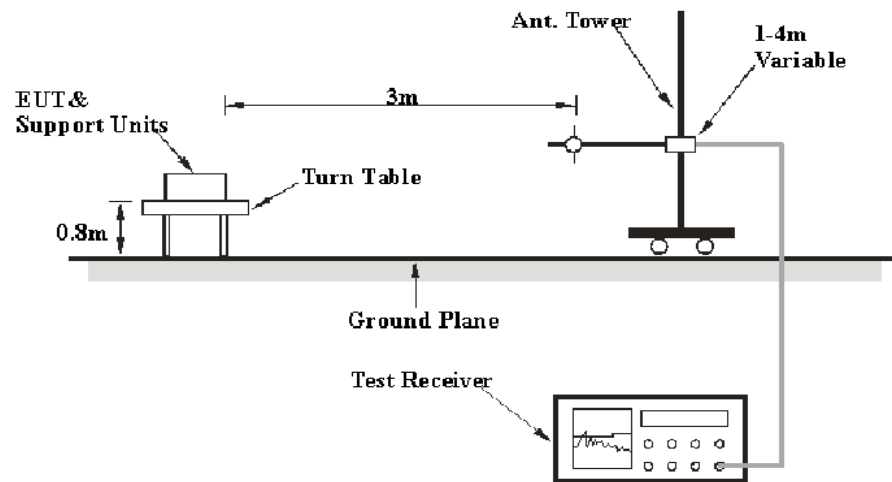
Although the peak limit of 74 dB μ V/m (20 dB above 54 dB μ V/m) in the restricted band appears to be higher than 68.2 dB μ V/m, the lower average limit of 54 dB μ V/m in the restricted bands needs to be complied to

As to transmitters operating in the 5.725-5.85 GHz band, the strictest limit was applied for undesirable emissions, performed as below:

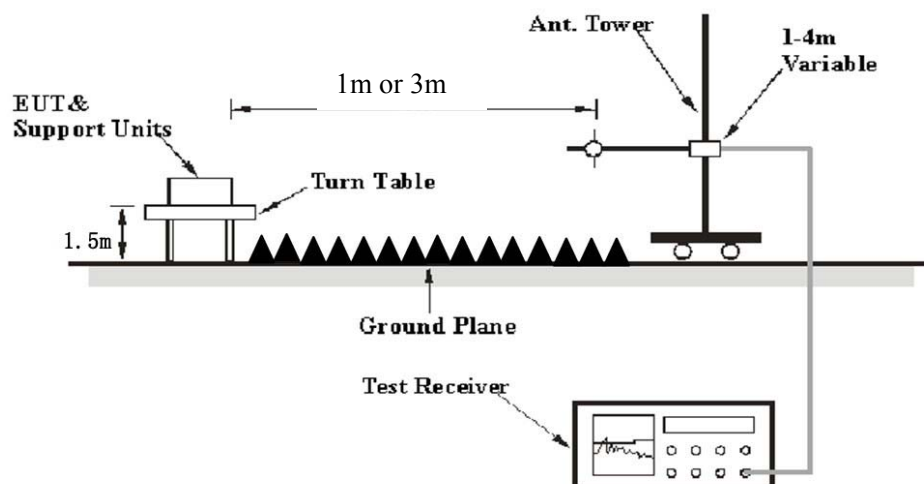
- 1) For 25MHz-75 MHz above or below the band edge, a level of -27 dBm/MHz (68.2dB μ V/m) was applied.
- 2) For 5MHz-25 MHz above or below the band edge, a level of 10 dBm/MHz (105.2dB μ V/m) was applied.
- 2) For 0MHz-5 MHz above or below the band edge, a level of 15.6 dBm/MHz (110.8dB μ V/m) was applied.

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.

The adapter was connected to a 24VAC/60 Hz power source,

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	Measurements
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

During the radiated emission test, the adapter was connected to the AC floor outlet.

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

Corrected Amplitude & Margin Calculation

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

$$\text{Corrected Amplitude} = \text{Meter Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

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

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

Test Results Summary

Refer to CISPR16-4-2:2011 and CISPR 16-4-1:2009, the measured level is in compliance with the limit if

$$L_m + U_{(L_m)} \leq L_{\text{lim}} + U_{\text{cispr}}$$

In BACL, $U_{(L_m)}$ is less than U_{cispr} , if L_m is less than L_{lim} , it implies that the EUT complies with the limit.

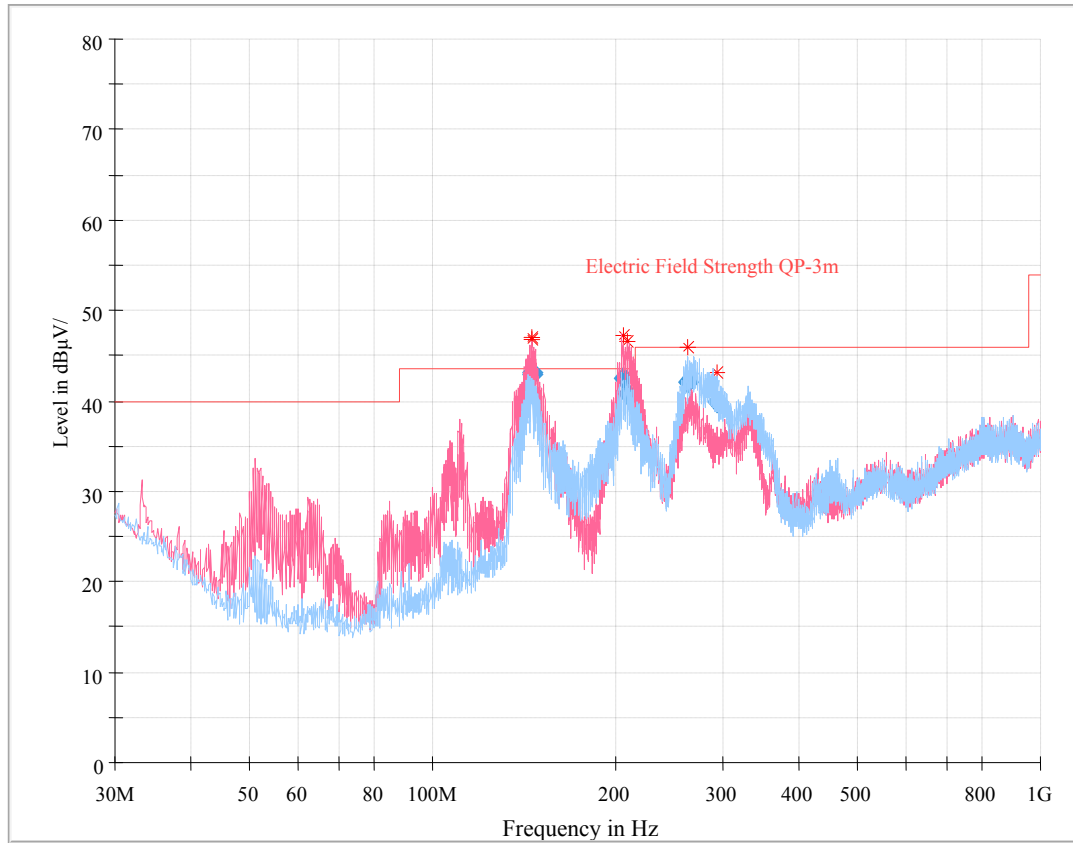
Test Data

Environmental Conditions

Temperature:	24~25 °C
Relative Humidity:	50~56 %
ATM Pressure:	100.9~101.0 kPa

The testing was performed by Dylan Li from 2018-04-16 to 2018-04-18.

EUT operation mode: Transmitting

30 MHz – 1 GHz: (worst case)

Frequency (MHz)	Corrected Amplitude (dBμV/m)	Antenna height (cm)	Antenna Polarity	Turntable position (degree)	Correction Factor (dB/m)	Limit (dBμV/m)	Margin (dB)
145.223500	43.21	126.0	V	114.0	-4.6	43.50	0.29
146.048250	43.14	107.0	V	113.0	-4.6	43.50	0.36
205.281625	42.39	101.0	V	232.0	-5.5	43.50	1.11
209.520375	40.83	102.0	V	313.0	-5.9	43.50	2.67
263.697750	41.98	125.0	H	269.0	-4.3	46.00	4.02
293.784250	39.96	102.0	H	290.0	-3.0	46.00	6.04

30 MHz ~ 40 GHz:**5150-5250 MHz:**

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBµV/m) @1m	Corrected Amplitude (dBµV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBµV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBµV/m)	Margin (dB)
802.11a										
5180MHz										
5180.00	60.66	PK	321	1.6	H	41.80	102.46	92.96	/	/
5180.00	45.78	Ave.	321	1.6	H	41.80	87.58	78.08	/	/
5180.00	63.33	PK	37	2.1	V	41.80	105.13	95.63	/	/
5180.00	49.89	Ave.	37	2.1	V	41.80	91.69	82.19	/	/
5122.23	27.26	PK	28	2.1	V	41.80	69.06	59.56	74	14.44
5122.23	13.42	Ave.	28	2.1	V	41.80	55.22	45.72	54	8.28
5373.94	28.29	PK	100	1.2	V	41.83	70.12	60.62	74	13.38
5373.94	14.24	Ave.	100	1.2	V	41.83	56.07	46.57	54	7.43
10360.00	41.01	PK	54	2.1	V	15.66	56.67	47.17	74	26.83
10360.00	27.52	Ave.	54	2.1	V	15.66	43.18	33.68	54	20.32
5200MHz										
5200.00	60.28	PK	120	1.1	H	41.80	102.08	92.58	/	/
5200.00	46.23	Ave.	120	1.1	H	41.80	88.03	78.53	/	/
5200.00	65.04	PK	322	1.8	V	41.80	106.84	97.34	/	/
5200.00	51.22	Ave.	322	1.8	V	41.80	93.02	83.52	/	/
10400.00	41.93	PK	332	2.1	V	15.66	57.59	48.09	74	25.91
10400.00	27.01	Ave.	332	2.1	V	15.66	42.67	33.17	54	20.83
5240MHz										
5240.00	61.98	PK	228	1.7	H	41.80	103.78	94.28	/	/
5240.00	47.57	Ave.	228	1.7	H	41.80	89.37	79.87	/	/
5240.00	65.38	PK	70	1.5	V	41.80	107.18	97.68	/	/
5240.00	50.97	Ave.	70	1.5	V	41.80	92.77	83.27	/	/
5116.03	27.37	PK	89	1.3	V	41.80	69.17	59.67	74	14.33
5116.03	13.50	Ave.	89	1.3	V	41.80	55.30	45.8	54	8.2
5385.43	27.72	PK	86	1.1	V	41.83	69.55	60.05	74	13.95
5385.43	14.18	Ave.	86	1.1	V	41.83	56.01	46.51	54	7.49
10480.00	42.03	PK	132	2.0	V	16.56	58.59	49.09	74	24.91
10480.00	27.34	Ave.	132	2.0	V	16.56	43.90	34.4	54	19.6

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m) @1m	Corrected Amplitude (dBμV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBμV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBμV/m)	Margin (dB)
802.11n20										
5180MHz										
5180.00	60.27	PK	114	2.1	H	41.80	102.07	92.57	/	/
5180.00	49.89	Ave.	114	2.1	H	41.80	91.69	82.19	/	/
5180.00	62.52	PK	41	1.2	V	41.80	104.32	94.82	/	/
5180.00	51.91	Ave.	41	1.2	V	41.80	93.71	84.21	/	/
5112.72	26.70	PK	233	2.3	V	41.80	68.50	59	74	15
5112.72	13.48	Ave.	233	2.3	V	41.80	55.28	45.78	54	8.22
5387.11	27.53	PK	198	1.1	V	41.83	69.36	59.86	74	14.14
5387.11	14.06	Ave.	198	1.1	V	41.83	55.89	46.39	54	7.61
10360.00	41.84	PK	62	2.4	V	15.66	57.50	48	74	26
10360.00	27.24	Ave.	62	2.4	V	15.66	42.90	33.4	54	20.6
5200MHz										
5200.00	59.69	PK	244	1.4	H	41.80	101.49	91.99	/	/
5200.00	48.64	Ave.	244	1.4	H	41.80	90.44	80.94	/	/
5200.00	62.11	PK	64	2.4	V	41.80	103.91	94.41	/	/
5200.00	50.87	Ave.	64	2.4	V	41.80	92.67	83.17	/	/
10400.00	41.67	PK	258	1.7	V	15.66	57.33	47.83	74	26.17
10400.00	27.21	Ave.	258	1.7	V	15.66	42.87	33.37	54	20.63
5240 MHz										
5240.00	61.63	PK	183	1.6	H	41.80	103.43	93.93	/	/
5240.00	50.43	Ave.	183	1.6	H	41.80	92.23	82.73	/	/
5240.00	64.27	PK	198	1.1	V	41.80	106.07	96.57	/	/
5240.00	53.67	Ave.	198	1.1	V	41.80	95.47	85.97	/	/
5134.69	27.13	PK	360	1.2	V	41.80	68.93	59.43	74	14.57
5134.69	13.57	Ave.	360	1.2	V	41.80	55.37	45.87	54	8.13
5364.10	27.68	PK	242	1.1	V	41.83	69.51	60.01	74	13.99
5364.10	14.63	Ave.	242	1.1	V	41.83	56.46	46.96	54	7.04
10480.00	41.20	PK	14	1.7	V	16.56	57.76	48.26	74	25.74
10480.00	26.94	Ave.	14	1.7	V	16.56	43.50	34	54	20

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBµV/m) @1m	Corrected Amplitude (dBµV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBµV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBµV/m)	Margin (dB)
802.11n40										
5190MHz										
5190.00	60.73	PK	194	2.1	H	41.80	101.53	92.03	/	/
5190.00	49.16	Ave.	194	2.1	H	41.80	90.96	81.46	/	/
5190.00	63.44	PK	340	1.7	V	41.80	105.24	95.74	/	/
5190.00	52.09	Ave.	340	1.7	V	41.80	93.89	84.39	/	/
5140.98	27.86	PK	202	1.6	V	41.80	69.66	60.16	74	13.84
5140.98	13.52	Ave.	202	1.6	V	41.80	55.32	45.82	54	8.18
5363.78	28.28	PK	229	2.5	V	41.83	70.11	60.61	74	13.39
5363.78	14.17	Ave.	229	2.5	V	41.83	56.00	46.5	54	7.5
10380.00	41.00	PK	35	2.1	V	15.66	56.66	47.16	74	26.84
10380.00	26.86	Ave.	35	2.1	V	15.66	42.52	33.02	54	20.98
5230MHz										
5230.00	60.72	PK	255	2.1	H	41.80	102.52	93.02	/	/
5230.00	49.18	Ave.	255	2.1	H	41.80	90.98	81.48	/	/
5230.00	64.57	PK	128	1.1	V	41.80	106.37	96.87	/	/
5230.00	52.84	Ave.	128	1.1	V	41.80	94.64	85.14	/	/
5120.44	26.69	PK	101	1.3	V	41.80	68.49	58.99	74	15.01
5120.44	13.52	Ave.	101	1.3	V	41.80	55.32	45.82	54	8.18
5384.62	27.93	PK	202	1.6	V	41.83	69.76	60.26	74	13.74
5384.62	14.18	Ave.	202	1.6	V	41.83	56.01	46.51	54	7.49
10460.00	41.61	PK	250	2.5	V	16.56	58.17	48.67	74	25.33
10460.00	26.48	Ave.	250	2.5	V	16.56	43.04	33.54	54	20.46

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m) @1m	Corrected Amplitude (dBμV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBμV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBμV/m)	Margin (dB)
802.11ac20										
5180MHz										
5180.00	60.34	PK	153	2.1	H	41.80	102.14	92.64	/	/
5180.00	46.6	Ave.	153	2.1	H	41.80	88.4	78.9	/	/
5180.00	63.86	PK	69	1.9	V	41.80	105.66	96.16	/	/
5180.00	49.27	Ave.	69	1.9	V	41.80	91.07	81.57	/	/
5107.62	27.34	PK	130	2.0	V	41.80	69.14	59.64	74	14.36
5107.62	13.56	Ave.	130	2.0	V	41.80	55.36	45.86	54	8.14
5361.04	27.60	PK	286	1.9	V	41.83	69.43	59.93	74	14.07
5361.04	14.10	Ave.	286	1.9	V	41.83	55.93	46.43	54	7.57
10360.00	40.65	PK	53	1.3	V	15.66	56.31	46.81	74	27.19
10360.00	26.71	Ave.	53	1.3	V	15.66	42.37	32.87	54	21.13
5200MHz										
5200.00	59.48	PK	293	2.4	H	41.80	101.28	91.78	/	/
5200.00	45.39	Ave.	293	2.4	H	41.80	87.19	77.69	/	/
5200.00	63.05	PK	243	1.1	V	41.80	104.85	95.35	/	/
5200.00	48.84	Ave.	243	1.1	V	41.80	90.64	81.14	/	/
10400.00	40.68	PK	39	2.2	V	15.66	56.34	46.84	74	27.16
10400.00	26.45	Ave.	39	2.2	V	15.66	42.11	32.61	54	21.39
5240MHz										
5240.00	61.14	PK	247	1.5	H	41.80	102.94	93.44	/	/
5240.00	46.72	Ave.	247	1.5	H	41.80	88.52	79.02	/	/
5240.00	65.07	PK	28	1.6	V	41.80	106.87	97.37	/	/
5240.00	50.52	Ave.	28	1.6	V	41.80	92.32	82.82	/	/
5124.74	27.53	PK	57	2.0	V	41.80	69.33	59.83	74	14.17
5124.74	13.53	Ave.	57	2.0	V	41.80	55.33	45.83	54	8.17
5373.88	28.01	PK	248	1.7	V	41.83	69.84	60.34	74	13.66
5373.88	14.19	Ave.	248	1.7	V	41.83	56.02	46.52	54	7.48
10480.00	40.88	PK	289	1.3	V	16.56	57.44	47.94	74	26.06
10480.00	26.63	Ave.	289	1.3	V	16.56	43.19	33.69	54	20.31

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBµV/m) @1m	Corrected Amplitude (dBµV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBµV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBµV/m)	Margin (dB)
802.11ac40										
5190MHz										
5190.00	60.11	PK	68	2.0	H	41.80	101.91	92.41	/	/
5190.00	45.87	Ave.	68	2.0	H	41.80	87.67	78.17	/	/
5190.00	64.33	PK	325	1.1	V	41.80	106.13	96.63	/	/
5190.00	50.12	Ave.	325	1.1	V	41.80	91.92	82.42	/	/
5092.11	27.05	PK	87	1.1	V	41.80	68.85	59.35	74	14.65
5092.11	13.48	Ave.	87	1.1	V	41.80	55.28	45.78	54	8.22
5362.12	27.64	PK	20	2.4	V	41.83	69.47	59.97	74	14.03
5362.12	14.13	Ave.	20	2.4	V	41.83	55.96	46.46	54	7.54
10380.00	40.36	PK	13	2.5	V	15.66	56.02	46.52	74	27.48
10380.00	26.74	Ave.	13	2.5	V	15.66	42.40	32.9	54	21.1
5230MHz										
5230.00	60.23	PK	33	2.2	H	41.80	102.03	92.53	/	/
5230.00	45.57	Ave.	33	2.2	H	41.80	87.37	77.87	/	/
5230.00	63.32	PK	122	2.3	V	41.80	105.12	95.62	/	/
5230.00	49.54	Ave.	122	2.3	V	41.80	91.34	81.84	/	/
5102.11	27.36	PK	296	2.2	V	41.80	69.16	59.66	74	14.34
5102.11	13.58	Ave.	296	2.2	V	41.80	55.38	45.88	54	8.12
5368.99	28.36	PK	197	1.7	V	41.83	70.19	60.69	74	13.31
5368.99	14.15	Ave.	197	1.7	V	41.83	55.98	46.48	54	7.52
10460.00	40.75	PK	91	1.9	V	16.56	57.31	47.81	74	26.19
10460.00	27.01	Ave.	91	1.9	V	16.56	43.57	34.07	54	19.93
802.11ac80										
5210 MHz										
5210.00	57.35	PK	310	1.6	H	41.80	99.15	89.65	/	/
5210.00	44.1	Ave.	310	1.6	H	41.80	85.9	76.4	/	/
5210.00	60.62	PK	300	1.5	V	41.80	102.42	92.92	/	/
5210.00	46.58	Ave.	300	1.5	V	41.80	88.38	78.88	/	/
5112.93	27.03	PK	88	1.4	V	41.80	68.83	59.33	74	14.67
5112.93	13.42	Ave.	88	1.4	V	41.80	55.22	45.72	54	8.28
5359.21	28.32	PK	149	1.1	V	41.83	70.15	60.65	74	13.35
5359.21	14.13	Ave.	149	1.1	V	41.83	55.96	46.46	54	7.54
10420.00	41.26	PK	282	2.0	V	15.66	56.92	47.42	74	26.58
10420.00	26.89	Ave.	282	2.0	V	15.66	42.55	33.05	54	20.95

5250-5350 MHz & 5470-5725 MHz:

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBµV/m) @1m	Corrected Amplitude (dBµV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBµV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBµV/m)	Margin (dB)
802.11a										
5250 MHz ~ 5350 MHz										
5260 MHz										
5260.00	63.32	PK	250	2.0	H	42.00	105.32	95.82	/	/
5260.00	49.62	Ave.	250	2.0	H	42.00	91.62	82.12	/	/
5260.00	65.12	PK	138	2.3	V	42.00	107.12	97.62	/	/
5260.00	51.32	Ave.	138	2.3	V	42.00	93.32	83.82	/	/
5103.21	27.03	PK	64	1.5	V	41.80	68.83	59.33	74	14.67
5103.21	13.51	Ave.	64	1.5	V	41.80	55.31	45.81	54	8.19
5361.32	28.01	PK	324	1.6	V	41.83	69.84	60.34	74	13.66
5361.32	14.04	Ave.	324	1.6	V	41.83	55.87	46.37	54	7.63
10520.00	41.21	PK	287	1.5	V	16.56	57.77	48.27	74	25.73
10520.00	27.15	Ave.	287	1.5	V	16.56	43.71	34.21	54	19.79
5280 MHz										
5280.00	63.38	PK	98	1.7	H	42.00	105.38	97.82	/	/
5280.00	59.32	Ave.	98	1.7	H	42.00	101.32	84.12	/	/
5280.00	65.38	PK	283	1.2	V	42.00	107.38	99.62	/	/
5280.00	51.27	Ave.	283	1.2	V	42.00	93.27	85.82	/	/
10560.00	41.05	PK	290	2.2	V	17.97	59.02	49.52	74	24.48
10560.00	27.14	Ave.	290	2.2	V	17.97	45.11	35.61	54	18.39
5320MHz										
5320.00	63.84	PK	264	2.5	H	42.00	105.84	96.34	/	/
5320.00	49.35	Ave.	264	2.5	H	42.00	91.35	81.85	/	/
5320.00	65.74	PK	28	2.3	V	42.00	107.74	98.24	/	/
5320.00	51.82	Ave.	28	2.3	V	42.00	93.82	84.32	/	/
5132.02	27.42	PK	207	1.4	V	41.80	69.22	59.72	74	14.28
5132.02	13.52	Ave.	207	1.4	V	41.80	55.32	45.82	54	8.18
5384.21	28.06	PK	190	1.9	V	41.83	69.89	60.39	74	13.61
5384.21	14.15	Ave.	190	1.9	V	41.83	55.98	46.48	54	7.52
10640.00	40.89	PK	246	2.5	V	17.97	58.86	49.36	74	24.64
10640.00	27.23	Ave.	246	2.5	V	17.97	45.20	35.7	54	18.3

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBµV/m) @1m	Corrected Amplitude (dBµV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBµV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBµV/m)	Margin (dB)
5470 MHz ~ 5725 MHz										
5500 MHz										
5500.00	57.32	PK	231	2.0	H	42.01	99.33	89.83	/	/
5500.00	44.02	Ave.	231	2.0	H	42.01	86.03	76.53	/	/
5500.00	63.17	PK	261	2.2	V	42.01	105.18	95.68	/	/
5500.00	48.62	Ave.	261	2.2	V	42.01	90.63	81.13	/	/
5435.52	28.12	PK	83	2.1	V	41.83	69.95	60.45	74	13.55
5435.52	14.23	Ave.	83	2.1	V	41.83	56.06	46.56	54	7.44
5735.42	28.36	PK	156	1.6	V	42.15	70.51	61.01	74	12.99
5735.42	14.32	Ave.	156	1.6	V	42.15	56.47	46.97	54	7.03
11000.00	40.13	PK	209	1.6	V	19.07	59.20	49.7	74	24.3
11000.00	27.14	Ave.	209	1.6	V	19.07	46.21	36.71	54	17.29
5600MHz										
5600.00	58.08	PK	306	2.0	H	42.07	100.15	90.65	/	/
5600.00	44.56	Ave.	306	2.0	H	42.07	86.63	77.13	/	/
5600.00	64.11	PK	338	2.3	V	42.07	106.18	96.68	/	/
5600.00	49.62	Ave.	338	2.3	V	42.07	91.69	82.19	/	/
11200.00	41.02	PK	225	1.3	V	20.10	61.12	51.62	74	22.38
11200.00	26.94	Ave.	225	1.3	V	20.10	47.04	37.54	54	16.46
5700MHz										
5700	58.09	PK	304	1.2	H	42.15	100.24	90.74	/	/
5700	44.6	Ave.	304	1.2	H	42.15	86.75	77.25	/	/
5700	63.41	PK	88	1.3	V	42.15	105.56	96.06	/	/
5700	49.56	Ave.	88	1.3	V	42.15	91.71	82.21	/	/
5421.34	27.91	PK	197	1.7	V	41.83	69.74	60.24	74	13.76
5421.34	14.32	Ave.	197	1.7	V	41.83	56.15	46.65	54	7.35
5736.12	28.31	PK	142	1.8	V	42.15	70.46	60.96	74	13.04
5736.12	14.3	Ave.	142	1.8	V	42.15	56.45	46.95	54	7.05
11400.00	41.26	PK	118	1.2	V	19.02	60.28	50.78	74	23.22
11400.00	27.03	Ave.	118	1.2	V	19.02	46.05	36.55	54	17.45

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m) @1m	Corrected Amplitude (dBμV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBμV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBμV/m)	Margin (dB)
802.11n20										
5250 MHz ~ 5350 MHz										
5260MHz										
5260.00	63.23	PK	269	2.4	H	42.00	105.23	95.73	/	/
5260.00	52.1	Ave.	269	2.4	H	42.00	94.1	84.6	/	/
5260.00	65.74	PK	324	2.2	V	42.00	107.74	98.24	/	/
5260.00	53.89	Ave.	324	2.2	V	42.00	95.89	86.39	/	/
5125.36	27.05	PK	308	1.2	V	41.80	68.85	59.35	74	14.65
5125.36	13.60	Ave.	308	1.2	V	41.80	55.40	45.9	54	8.1
5361.05	28.11	PK	274	2.5	V	41.83	69.94	60.44	74	13.56
5361.05	14.06	Ave.	274	2.5	V	41.83	55.89	46.39	54	7.61
10520.00	41.12	PK	359	1.3	V	16.56	57.68	48.18	74	25.82
10520.00	27.35	Ave.	359	1.3	V	16.56	43.91	34.41	54	19.59
5280MHz										
5280.00	64.23	PK	320	2.2	H	42.00	106.23	96.73	/	/
5280.00	53.02	Ave.	320	2.2	H	42.00	95.02	85.52	/	/
5280.00	66.42	PK	355	2.0	V	42.00	108.42	98.92	/	/
5280.00	55.25	Ave.	355	2.0	V	42.00	97.25	87.75	/	/
10560.00	40.98	PK	1	2.0	V	17.97	58.95	49.45	74	24.55
10560.00	27.03	Ave.	1	2.0	V	17.97	45.00	35.5	54	18.5
5320MHz										
5320.00	64.35	PK	335	1.2	H	42.00	106.35	96.85	/	/
5320.00	53.02	Ave.	335	1.2	H	42.00	95.02	85.52	/	/
5320.00	66.38	PK	29	2.5	V	42.00	108.38	98.88	/	/
5320.00	55.12	Ave.	29	2.5	V	42.00	97.12	87.62	/	/
5136.12	27.21	PK	97	2.3	V	41.80	69.01	59.51	74	14.49
5136.12	13.47	Ave.	97	2.3	V	41.80	55.27	45.77	54	8.23
5374.23	27.79	PK	153	1.6	V	41.83	69.62	60.12	74	13.88
5374.23	14.32	Ave.	153	1.6	V	41.83	56.15	46.65	54	7.35
10640.00	41.23	PK	302	1.4	V	17.97	59.20	49.7	74	24.3
10640.00	27.21	Ave.	302	1.4	V	17.97	45.18	35.68	54	18.32

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m) @1m	Corrected Amplitude (dBμV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBμV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBμV/m)	Margin (dB)
5470 MHz ~ 5725MHz										
5500 MHz										
5500.00	58.13	PK	237	1.8	H	42.01	100.14	90.64	/	/
5500.00	46.06	Ave.	237	1.8	H	42.01	88.07	78.57	/	/
5500.00	63.75	PK	209	2.4	V	42.01	105.76	96.26	/	/
5500.00	51.33	Ave.	209	2.4	V	42.01	93.34	83.84	/	/
5421.32	27.94	PK	320	1.6	V	41.83	69.77	60.27	74	13.73
5421.32	14.27	Ave.	320	1.6	V	41.83	56.10	46.6	54	7.4
5729.84	28.17	PK	315	2.4	V	42.15	70.32	60.82	74	13.18
5729.84	14.31	Ave.	315	2.4	V	42.15	56.46	46.96	54	7.04
11000.00	41.26	PK	5	2.3	V	19.07	60.33	50.83	74	23.17
11000.00	27.11	Ave.	5	2.3	V	19.07	46.18	36.68	54	17.32
5600MHz										
5600.00	58.74	PK	127	1.4	H	42.07	100.81	91.31	/	/
5600.00	46.69	Ave.	127	1.4	H	42.07	88.76	79.26	/	/
5600.00	64.10	PK	295	1.7	V	42.07	106.17	96.67	/	/
5600.00	51.75	Ave.	295	1.7	V	42.07	93.82	84.32	/	/
11200.00	41.84	PK	304	1.2	V	20.10	61.94	52.44	74	21.56
11200.00	27.43	Ave.	304	1.2	V	20.10	47.53	38.03	54	15.97
5700MHz										
5700	58.92	PK	107	1.0	H	42.15	101.07	91.57	/	/
5700	45.63	Ave.	107	1.0	H	42.15	87.78	78.28	/	/
5700	64.68	PK	302	1.3	V	42.15	106.83	97.33	/	/
5700	52.56	Ave.	302	1.3	V	42.15	94.71	85.21	/	/
5443.86	27.54	PK	289	1.5	V	41.83	69.37	59.87	74	14.13
5443.86	14.32	Ave.	289	1.5	V	41.83	56.15	46.65	54	7.35
5742.48	27.99	PK	145	1.0	V	42.15	70.14	60.64	74	13.36
5742.48	14.34	Ave.	145	1.0	V	42.15	56.49	46.99	54	7.01
11400.00	40.76	PK	291	1.0	V	19.02	59.78	50.28	74	23.72
11400.00	26.55	Ave.	291	1.0	V	19.02	45.57	36.07	54	17.93

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m) @1m	Corrected Amplitude (dBμV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBμV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBμV/m)	Margin (dB)
802.11ac20										
5250 MHz ~ 5350 MHz										
5260MHz										
5260.00	63.38	PK	25	2.1	H	42.00	105.38	95.88	/	/
5260.00	50.1	Ave.	25	2.1	H	42.00	92.1	82.6	/	/
5260.00	65.74	PK	244	2.2	V	42.00	107.74	98.24	/	/
5260.00	52.21	Ave.	244	2.2	V	42.00	94.21	84.71	/	/
5120.47	27.10	PK	271	1.4	V	41.80	68.90	59.4	74	14.6
5120.47	13.43	Ave.	271	1.4	V	41.80	55.23	45.73	54	8.27
5362.53	27.30	PK	60	2.2	V	41.83	69.13	59.63	74	14.37
5362.53	14.03	Ave.	60	2.2	V	41.83	55.86	46.36	54	7.64
10520.00	41.21	PK	170	1.0	V	16.56	57.77	48.27	74	25.73
10520.00	27.06	Ave.	170	1.0	V	16.56	43.62	34.12	54	19.88
5280MHz										
5280.00	63.33	PK	161	1.7	H	42.00	105.33	95.83	/	/
5280.00	50.03	Ave.	161	1.7	H	42.00	92.03	82.53	/	/
5280.00	65.72	PK	235	2.2	V	42.00	107.72	98.22	/	/
5280.00	52.34	Ave.	235	2.2	V	42.00	94.34	84.84	/	/
10560.00	41.20	PK	207	1.3	V	17.97	59.17	49.67	74	24.33
10560.00	27.04	Ave.	207	1.3	V	17.97	45.01	35.51	54	18.49
5320MHz										
5320.00	64.12	PK	88	2.1	H	42.00	106.12	96.62	/	/
5320.00	50.45	Ave.	88	2.1	H	42.00	92.45	82.95	/	/
5320.00	66.13	PK	198	2.2	V	42.00	108.13	98.63	/	/
5320.00	52.61	Ave.	198	2.2	V	42.00	94.61	85.11	/	/
5120.47	27.10	PK	260	2.3	V	41.80	68.90	59.4	74	14.6
5120.47	13.43	Ave.	260	2.3	V	41.80	55.23	45.73	54	8.27
5362.53	27.30	PK	40	2.0	V	41.83	69.13	59.63	74	14.37
5362.53	14.03	Ave.	40	2.0	V	41.83	55.86	46.36	54	7.64
10640.00	41.62	PK	136	2.1	V	17.97	59.59	50.09	74	23.91
10640.00	27.11	Ave.	136	2.1	V	17.97	45.08	35.58	54	18.42

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m) @1m	Corrected Amplitude (dBμV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBμV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBμV/m)	Margin (dB)
5470 MHz ~5725 MHz										
5500 MHz										
5500.00	57.69	PK	185	2.4	H	42.01	99.70	90.2	/	/
5500.00	44.10	Ave.	185	2.4	H	42.01	86.11	76.61	/	/
5500.00	63.51	PK	92	1.6	V	42.01	105.52	96.02	/	/
5500.00	49.62	Ave.	92	1.6	V	42.01	91.63	82.13	/	/
5410.62	27.48	PK	349	1.5	V	41.83	69.31	59.81	74	14.19
5410.62	14.23	Ave.	349	1.5	V	41.83	56.06	46.56	54	7.44
5731.28	28.23	PK	31	1.1	V	42.15	70.38	60.88	74	13.12
5731.28	14.35	Ave.	31	1.1	V	42.15	56.50	47	54	7
11000.00	41.25	PK	239	1.5	V	19.07	60.32	50.82	74	23.18
11000.00	27.12	Ave.	239	1.5	V	19.07	46.19	36.69	54	17.31
5600MHz										
5600.00	57.13	PK	314	1.5	H	42.07	99.20	89.7	/	/
5600.00	44.02	Ave.	314	1.5	H	42.07	86.09	76.59	/	/
5600.00	63.75	PK	327	1.0	V	42.07	105.82	96.32	/	/
5600.00	49.62	Ave.	327	1.0	V	42.07	91.69	82.19	/	/
11200.00	41.08	PK	17	2.4	V	20.10	61.18	51.68	74	22.32
11200.00	26.98	Ave.	17	2.4	V	20.10	47.08	37.58	54	16.42
5700 MHz										
5700.00	57.12	PK	295	2.2	H	42.15	99.27	89.77	/	/
5700.00	43.69	Ave.	295	2.2	H	42.15	85.84	76.34	/	/
5700.00	64.52	PK	75	2.0	V	42.15	106.67	97.17	/	/
5700.00	50.12	Ave.	75	2.0	V	42.15	92.27	82.77	/	/
5408.41	29.58	PK	134	1.1	V	41.83	71.41	61.91	74	12.09
5408.41	14.32	Ave.	134	1.1	V	41.83	56.15	46.65	54	7.35
5728.62	27.41	PK	242	1.5	V	42.15	69.56	60.06	74	13.94
5728.62	14.30	Ave.	242	1.5	V	42.15	56.45	46.95	54	7.05
11400.00	41.08	PK	102	1.6	V	19.02	60.10	50.6	74	23.4
11400.00	26.51	Ave.	102	1.6	V	19.02	45.53	36.03	54	17.97

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m) @1m	Corrected Amplitude (dBμV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBμV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBμV/m)	Margin (dB)
802.11n40										
5250 MHz ~ 5350 MHz										
5270MHz										
5270.00	62.79	PK	189	1.8	H	42.00	104.79	95.29	/	/
5270.00	51.12	Ave.	189	1.8	H	42.00	93.12	83.62	/	/
5270.00	65.32	PK	136	1.4	V	42.00	107.32	97.82	/	/
5270.00	53.18	Ave.	136	1.4	V	42.00	95.18	85.68	/	/
5114.63	27.23	PK	129	2.1	V	41.80	69.03	59.53	74	14.47
5114.63	13.51	Ave.	129	2.1	V	41.80	55.31	45.81	54	8.19
5358.32	27.15	PK	308	1.2	V	41.83	68.98	59.48	74	14.52
5358.32	14.23	Ave.	308	1.2	V	41.83	56.06	46.56	54	7.44
10540.00	41.32	PK	299	1.2	V	16.56	57.88	48.38	74	25.62
10540.00	26.98	Ave.	299	1.2	V	16.56	43.54	34.04	54	19.96
5310MHz										
5310.00	63.64	PK	297	2.0	H	42.00	105.64	96.14	/	/
5310.00	52.35	Ave.	297	2.0	H	42.00	94.35	84.85	/	/
5310.00	66.76	PK	128	2.4	V	42.00	108.76	99.26	/	/
5310.00	55.45	Ave.	128	2.4	V	42.00	97.45	87.95	/	/
5116.35	27.25	PK	132	1.7	V	41.80	69.05	59.55	74	14.45
5116.35	13.56	Ave.	132	1.7	V	41.80	55.36	45.86	54	8.14
5361.23	28.10	PK	79	1.7	V	41.83	69.93	60.43	74	13.57
5361.23	14.26	Ave.	79	1.7	V	41.83	56.09	46.59	54	7.41
10620.00	41.35	PK	285	2.1	V	17.97	59.32	49.82	74	24.18
10620.00	27.12	Ave.	285	2.1	V	17.97	45.09	35.59	54	18.41
5470 MHz ~ 5725 MHz										
5510MHz										
5510.00	47.69	PK	80	1.2	H	42.01	89.70	80.2	/	/
5510.00	36.21	Ave.	80	1.2	H	42.01	78.22	68.72	/	/
5510.00	56.20	PK	102	2.3	V	42.01	98.21	88.71	/	/
5510.00	45.02	Ave.	102	2.3	V	42.01	87.03	77.53	/	/
5418.32	28.12	PK	300	1.6	V	41.83	69.95	60.45	74	13.55
5418.32	14.21	Ave.	300	1.6	V	41.83	56.04	46.54	54	7.46
5736.19	28.16	PK	79	2.2	V	42.15	70.31	60.81	74	13.19
5736.19	14.26	Ave.	79	2.2	V	42.15	56.41	46.91	54	7.09
11020.00	41.32	PK	171	1.8	V	19.07	60.39	50.89	74	23.11
11020.00	27.26	Ave.	171	1.8	V	19.07	46.33	36.83	54	17.17
5590MHz										
5590.00	48.03	PK	156	2.0	H	42.07	90.10	80.6	/	/
5590.00	36.42	Ave.	156	2.0	H	42.07	78.49	68.99	/	/
5590.00	58.12	PK	189	1.1	V	42.07	100.19	90.69	/	/
5590.00	46.21	Ave.	189	1.1	V	42.07	88.28	78.78	/	/
11180.00	41.06	PK	300	2.4	V	20.10	61.16	51.66	74	22.34
11180.00	27.08	Ave.	300	2.4	V	20.10	47.18	37.68	54	16.32

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m) @1m	Corrected Amplitude (dBμV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBμV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBμV/m)	Margin (dB)
5670MHz										
5670.00	48.83	PK	150	1.1	H	42.15	90.98	81.48	/	/
5670.00	36.41	Ave.	150	1.1	H	42.15	78.56	69.06	/	/
5670.00	59.30	PK	267	2.4	V	42.15	101.45	91.95	/	/
5670.00	47.11	Ave.	267	2.4	V	42.15	89.26	79.76	/	/
5435.25	27.62	PK	0	1.5	V	41.83	69.45	59.95	74	14.05
5435.25	14.32	Ave.	0	1.5	V	41.83	56.15	46.65	54	7.35
5736.23	27.42	PK	91	2.0	V	42.15	69.57	60.07	74	13.93
5736.23	14.31	Ave.	91	2.0	V	42.15	56.46	46.96	54	7.04
11340.00	40.21	PK	197	2.4	V	20.10	60.31	50.81	74	23.19
11340.00	26.74	Ave.	197	2.4	V	20.10	46.84	37.34	54	16.66
802.11ac40										
5250 MHz ~ 5350 MHz										
5270MHz										
5270.00	62.2	PK	147	1.6	H	42.00	104.2	94.7	/	/
5270.00	49.12	Ave.	147	1.6	H	42.00	91.12	81.62	/	/
5270.00	64.31	PK	260	1.1	V	42.00	106.31	96.81	/	/
5270.00	51.67	Ave.	260	1.1	V	42.00	93.67	84.17	/	/
5063.64	27.15	PK	85	2.3	V	41.80	68.95	59.45	74	14.55
5063.64	13.48	Ave.	85	2.3	V	41.80	55.28	45.78	54	8.22
5369.33	27.96	PK	87	1.2	V	41.83	69.79	60.29	74	13.71
5369.33	14.13	Ave.	87	1.2	V	41.83	55.96	46.46	54	7.54
10540.00	40.84	PK	37	1.7	V	16.56	57.40	47.9	74	26.1
10540.00	27.03	Ave.	37	1.7	V	16.56	43.59	34.09	54	19.91
5310MHz										
5310.00	64.38	PK	192	1.7	H	42.00	106.38	96.88	/	/
5310.00	51.16	Ave.	192	1.7	H	42.00	93.16	83.66	/	/
5310.00	65.74	PK	4	2.1	V	42.00	107.74	98.24	/	/
5310.00	52.62	Ave.	4	2.1	V	42.00	94.62	85.12	/	/
5120.35	27.63	PK	173	1.9	V	41.80	69.43	59.93	74	8.19
5120.35	13.51	Ave.	173	1.9	V	41.80	55.31	45.81	54	14.35
5361.12	27.32	PK	87	1.7	V	41.83	69.15	59.65	74	7.47
5361.12	14.20	Ave.	87	1.7	V	41.83	56.03	46.53	54	24.33
10620.00	41.20	PK	120	2.3	V	17.97	59.17	49.67	74	18.21
10620.00	27.32	Ave.	120	2.3	V	17.97	45.29	35.79	54	8.19

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m) @1m	Corrected Amplitude (dBμV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBμV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBμV/m)	Margin (dB)
5470 MHz ~ 5725 MHz										
5510MHz										
5510.00	47.10	PK	359	1.9	H	42.01	89.11	79.61	/	/
5510.00	33.65	Ave.	359	1.9	H	42.01	75.66	66.16	/	/
5510.00	56.24	PK	298	1.7	V	42.01	98.25	88.75	/	/
5510.00	43.09	Ave.	298	1.7	V	42.01	85.10	75.6	/	/
5409.11	27.63	PK	55	2.3	V	41.83	69.46	59.96	74	14.04
5409.11	14.18	Ave.	55	2.3	V	41.83	56.01	46.51	54	7.49
5729.31	28.27	PK	73	1.6	V	42.15	70.42	60.92	74	13.08
5729.31	14.24	Ave.	73	1.6	V	42.15	56.39	46.89	54	7.11
11020.00	40.96	PK	169	2.2	V	19.07	60.03	50.53	74	23.47
11020.00	26.97	Ave.	169	2.2	V	19.07	46.04	36.54	54	17.46
5590MHz										
5590.00	48.62	PK	117	2.4	H	42.07	90.69	81.19	/	/
5590.00	34.08	Ave.	117	2.4	H	42.07	76.15	66.65	/	/
5590.00	57.48	PK	228	1.6	V	42.07	99.55	90.05	/	/
5590.00	44.10	Ave.	228	1.6	V	42.07	86.17	76.67	/	/
11180.00	41.04	PK	339	2.4	V	20.10	61.14	51.64	74	22.36
11180.00	27.10	Ave.	339	2.4	V	20.10	47.20	37.7	54	16.3
5670MHz										
5670.00	49.11	PK	48	2.0	H	42.15	91.26	81.76	/	/
5670.00	36.50	Ave.	48	2.0	H	42.15	78.65	69.15	/	/
5670.00	59.30	PK	135	2.1	V	42.15	101.45	91.95	/	/
5670.00	45.68	Ave.	135	2.1	V	42.15	87.83	78.33	/	/
5445.87	27.78	PK	274	1.7	V	41.83	69.61	60.11	74	13.89
5445.87	14.29	Ave.	274	1.7	V	41.83	56.12	46.62	54	7.38
5748.06	28.09	PK	68	1.2	V	42.15	70.24	60.74	74	13.26
5748.06	14.28	Ave.	68	1.2	V	42.15	56.43	46.93	54	7.07
11340.00	40.51	PK	282	1.3	V	20.10	60.61	51.11	74	22.89
11340.00	26.85	Ave.	282	1.3	V	20.10	46.95	37.45	54	16.55

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m) @1m	Corrected Amplitude (dBμV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBμV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBμV/m)	Margin (dB)
802.11ac80										
5250 MHz ~ 5350 MHz										
5290MHz										
5290.00	56.32	PK	81	2.1	H	42.00	98.32	88.82	/	/
5290.00	43.12	Ave.	81	2.1	H	42.00	85.12	75.62	/	/
5290.00	58.32	PK	253	2.2	V	42.00	100.32	90.82	/	/
5290.00	45.05	Ave.	253	2.2	V	42.00	87.05	77.55	/	/
5115.36	27.62	PK	175	2.4	V	41.80	69.42	59.92	74	14.08
5115.36	13.51	Ave.	175	2.4	V	41.80	55.31	45.81	54	8.19
5379.36	28.62	PK	212	2.4	V	41.83	70.45	60.95	74	13.05
5379.36	14.31	Ave.	212	2.4	V	41.83	56.14	46.64	54	7.36
10580.00	41.12	PK	237	2.2	V	17.97	59.09	49.59	74	24.41
10580.00	27.36	Ave.	237	2.2	V	17.97	45.33	35.83	54	18.17
5470 MHz ~ 5725 MHz										
5530MHz										
5530.00	46.80	PK	197	1.8	H	42.01	88.81	79.31	/	/
5530.00	33.50	Ave.	197	1.8	H	42.01	75.51	66.01	/	/
5530.00	56.15	PK	299	1.8	V	42.01	98.16	88.66	/	/
5530.00	42.71	Ave.	299	1.8	V	42.01	84.72	75.22	/	/
5445.37	27.90	PK	192	1.6	V	41.83	69.73	60.23	74	13.77
5445.37	14.28	Ave.	192	1.6	V	41.83	56.11	46.61	54	7.39
5730.62	27.46	PK	102	2.0	V	42.15	69.61	60.11	74	13.89
5730.62	14.32	Ave.	102	2.0	V	42.15	56.47	46.97	54	7.03
11060.00	40.25	PK	360	1.7	V	19.07	59.32	49.82	74	24.18
11060.00	26.94	Ave.	360	1.7	V	19.07	46.01	36.51	54	17.49
5610MHz										
5610.00	47.56	PK	172	1.8	H	42.07	89.63	80.13	/	/
5610.00	34.20	Ave.	172	1.8	H	42.07	76.27	66.77	/	/
5610.00	57.89	PK	154	2.0	V	42.07	99.96	90.46	/	/
5610.00	44.25	Ave.	154	2.0	V	42.07	86.32	76.82	/	/
5410.26	27.26	PK	252	1.4	V	41.83	69.09	59.59	74	14.41
5410.26	14.20	Ave.	252	1.4	V	41.83	56.03	46.53	54	7.47
5735.27	28.01	PK	12	1.2	V	42.15	70.16	60.66	74	13.34
5735.27	14.32	Ave.	12	1.2	V	42.15	56.47	46.97	54	7.03
11220.00	40.12	PK	306	1.1	V	20.10	60.22	50.72	74	23.28
11220.00	26.94	Ave.	306	1.1	V	20.10	47.04	37.54	54	16.46

5725-5850 MHz:

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBµV/m) @1m	Corrected Amplitude (dBµV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBµV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBµV/m)	Margin (dB)
802.11a										
5745MHz										
5745.00	55.18	PK	243	2.0	H	42.15	97.33	87.83	/	/
5745.00	42.50	Ave.	243	2.0	H	42.15	84.65	75.15	/	/
5745.00	60.86	PK	28	1.3	V	42.15	103.01	93.51	/	/
5745.00	48.37	Ave.	28	1.3	V	42.15	90.52	81.02	/	/
5724.36	27.26	PK	325	1.7	V	42.15	69.41	59.91	120.74	60.83
5710.26	27.05	PK	325	1.7	V	42.15	69.20	59.7	108.07	48.37
5695.63	26.94	PK	15	2.5	V	42.15	69.09	59.59	101.97	42.38
5854.02	27.12	PK	15	2.5	V	42.55	69.67	60.17	113.03	52.86
11490.00	41.20	PK	307	1.7	V	18.92	60.12	50.62	74	23.38
11490.00	27.15	Ave.	307	1.7	V	18.92	46.07	36.57	54	17.43
5785MHz										
5785.00	55.62	PK	271	2.4	H	42.08	97.70	88.2	/	/
5785.00	42.67	Ave.	271	2.4	H	42.08	84.75	75.25	/	/
5785.00	61.54	PK	310	1.9	V	42.08	103.62	94.12	/	/
5785.00	48.12	Ave.	310	1.9	V	42.08	90.20	80.7	/	/
11570.00	41.23	PK	131	1.5	V	19.17	60.40	50.9	74	23.1
11570.00	27.25	Ave.	131	1.5	V	19.17	46.42	36.92	54	17.08
5825MHz										
5825.00	56.50	PK	222	2.1	H	42.08	98.58	89.08	/	/
5825.00	42.70	Ave.	222	2.1	H	42.08	84.78	75.28	/	/
5825.00	60.93	PK	244	1.5	V	42.08	103.01	93.51	/	/
5825.00	47.16	Ave.	244	1.5	V	42.08	89.24	79.74	/	/
5851.20	26.92	PK	184	2.3	V	42.55	69.47	59.97	119.46	59.49
5867.26	27.05	PK	42	2.3	V	42.55	69.60	60.1	107.37	47.27
5886.11	27.21	PK	70	1.2	V	42.55	69.76	60.26	96.98	36.72
5721.30	28.26	PK	70	1.2	V	42.15	70.41	60.91	113.76	52.85
11650.00	41.68	PK	149	2.3	V	19.17	60.85	51.35	74	22.65
11650.00	27.06	Ave.	149	2.3	V	19.17	46.23	36.73	54	17.27

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m) @1m	Corrected Amplitude (dBμV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBμV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBμV/m)	Margin (dB)
802.11n20										
5745MHz										
5745.00	54.12	PK	122	1.7	H	42.15	96.27	86.77	/	/
5745.00	43.02	Ave.	122	1.7	H	42.15	85.17	75.67	/	/
5745.00	60.34	PK	131	1.3	V	42.15	102.49	92.99	/	/
5745.00	49.32	Ave.	131	1.3	V	42.15	91.47	81.97	/	/
5722.36	28.93	PK	45	2.0	V	42.15	71.08	61.58	116.18	54.6
5712.23	27.51	PK	45	2.0	V	42.15	69.66	60.16	108.62	48.46
5686.23	27.02	PK	85	1.6	V	42.15	69.17	59.67	95.01	35.34
5856.12	27.35	PK	85	1.6	V	42.55	69.90	60.4	110.49	50.09
11490.00	41.23	PK	159	1.7	V	18.92	60.15	50.65	74	23.35
11490.00	27.18	Ave.	159	1.7	V	18.92	46.10	36.6	54	17.4
5785MHz										
5785.00	55.03	PK	45	1.4	H	42.08	97.11	87.61	/	/
5785.00	43.76	Ave.	45	1.4	H	42.08	85.84	76.34	/	/
5785.00	61.02	PK	19	1.1	V	42.08	103.10	93.6	/	/
5785.00	49.53	Ave.	19	1.1	V	42.08	91.61	82.11	/	/
11570.00	41.68	PK	340	1.9	V	19.17	60.85	51.35	74	22.65
11570.00	27.31	Ave.	340	1.9	V	19.17	46.48	36.98	54	17.02
5825 MHz										
5825.00	51.99	PK	147	2.2	H	42.08	94.07	84.57	/	/
5825.00	40.51	Ave.	147	2.2	H	42.08	82.59	73.09	/	/
5825.00	59.24	PK	242	2.2	V	42.08	101.32	91.82	/	/
5825.00	47.25	Ave.	242	2.2	V	42.08	89.33	79.83	/	/
5852.23	28.62	PK	246	2.1	V	42.55	71.17	61.67	117.12	55.45
5861.25	28.07	PK	246	2.1	V	42.55	70.62	61.12	109.05	47.93
5889.61	27.62	PK	300	1.6	V	42.55	70.17	60.67	94.39	33.72
5724.12	28.12	PK	300	1.6	V	42.15	70.27	60.77	120.19	59.42
11650.00	41.58	PK	220	1.8	V	19.17	60.75	51.25	74	22.75
11650.00	27.10	Ave.	220	1.8	V	19.17	46.27	36.77	54	17.23

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m) @1m	Corrected Amplitude (dBμV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBμV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBμV/m)	Margin (dB)
802.11n40										
5755MHz										
5755.00	50.96	PK	24	2.1	H	42.08	93.04	83.54	/	/
5755.00	39.29	Ave.	24	2.1	H	42.08	81.37	71.87	/	/
5755.00	56.75	PK	247	1.2	V	42.08	98.83	89.33	/	/
5755.00	45.28	Ave.	247	1.2	V	42.08	87.36	77.86	/	/
5723.69	28.62	PK	83	2.2	V	42.15	70.77	61.27	119.21	57.94
5714.12	27.38	PK	83	2.2	V	42.15	69.53	60.03	109.15	49.12
5698.14	27.51	PK	138	2.3	V	42.15	69.66	60.16	103.82	43.66
5857.13	27.4	PK	138	2.3	V	42.55	69.95	60.45	110.2	49.75
11510.00	41.25	PK	242	1.4	V	18.92	60.17	50.67	74	23.33
11510.00	27.11	Ave.	242	1.4	V	18.92	46.03	36.53	54	17.47
5795MHz										
5795.00	51.84	PK	237	1.6	H	42.08	93.92	84.42	/	/
5795.00	40.18	Ave.	237	1.6	H	42.08	82.26	72.76	/	/
5795.00	57.25	PK	104	2.3	V	42.08	99.33	89.83	/	/
5795.00	46.1	Ave.	104	2.3	V	42.08	88.18	78.68	/	/
5854.19	28.17	PK	21	1.3	V	42.55	70.72	61.22	112.65	51.43
5858.63	27.52	PK	21	1.3	V	42.55	70.07	60.57	109.78	49.21
5892.12	27.11	PK	345	1.4	V	42.55	69.66	60.16	92.53	32.37
5720.35	28.4	PK	345	1.4	V	42.15	70.55	61.05	111.6	50.55
11590.00	41.84	PK	219	1.4	V	19.17	61.01	51.51	74	22.49
11590.00	27.24	Ave.	219	1.4	V	19.17	46.41	36.91	54	17.09

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBμV/m) @1m	Corrected Amplitude (dBμV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBμV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBμV/m)	Margin (dB)
802.11ac20										
5745MHz										
5745.00	52.06	PK	233	1.7	H	42.15	94.21	84.71	/	/
5745.00	39.12	Ave.	233	1.7	H	42.15	81.27	71.77	/	/
5745.00	60.38	PK	29	1.2	V	42.15	102.53	93.03	/	/
5745.00	46.59	Ave.	29	1.2	V	42.15	88.74	79.24	/	/
5724.31	28.42	PK	63	1.8	V	42.15	70.57	61.07	120.63	59.56
5719.27	27.4	PK	63	1.8	V	42.15	69.55	60.05	110.6	50.55
5692.17	27.13	PK	123	1.8	V	42.15	69.28	59.78	99.41	39.63
5854.32	27.67	PK	123	1.8	V	42.55	70.22	60.72	112.35	51.63
11490.00	41.25	PK	79	1.1	V	18.92	60.17	50.67	74	23.33
11490.00	27.26	Ave.	79	1.1	V	18.92	46.18	36.68	54	17.32
5785MHz										
5785.00	53.12	PK	249	1.6	H	42.08	95.20	85.7	/	/
5785.00	40.69	Ave.	249	1.6	H	42.08	82.77	73.27	/	/
5785.00	61.46	PK	166	1.5	V	42.08	103.54	94.04	/	/
5785.00	47.84	Ave.	166	1.5	V	42.08	89.92	80.42	/	/
11570.00	41.52	PK	239	1.1	V	19.17	60.69	51.19	74	22.81
11570.00	27.09	Ave.	239	1.1	V	19.17	46.26	36.76	54	17.24
5825MHz										
5825.00	53.71	PK	114	2.4	H	42.08	95.79	86.29	/	/
5825.00	40.38	Ave.	114	2.4	H	42.08	82.46	72.96	/	/
5825.00	60.71	PK	359	2.3	V	42.08	102.79	93.29	/	/
5825.00	47.30	Ave.	359	2.3	V	42.08	89.38	79.88	/	/
5854.32	28.62	PK	326	1.4	V	42.55	71.17	61.67	112.35	50.68
5867.53	27.38	PK	326	1.4	V	42.55	69.93	60.43	107.29	46.86
5889.11	27.51	PK	267	1.2	V	42.55	70.06	60.56	94.76	34.2
5721.08	27.4	PK	267	1.2	V	42.15	69.55	60.05	113.26	53.21
11650.00	41.35	PK	67	1.1	V	19.17	60.52	51.02	74	22.98
11650.00	27.06	Ave.	67	1.1	V	19.17	46.23	36.73	54	17.27

Frequency (MHz)	Receiver		Turntable	Rx Antenna		Corrected Factor (dB/m)	Corrected Amplitude (dBµV/m) @1m	Corrected Amplitude (dBµV/m) @3m	FCC Part 15.407/205/209	
	Reading (dBµV) @1m	PK/QP/Ave.	Degree	Height (m)	Polar (H / V)				Limit (dBµV/m)	Margin (dB)
802.11ac40										
5755MHz										
5755.00	53.53	PK	75	1.0	H	42.08	95.61	86.11	/	/
5755.00	40.31	Ave.	75	1.0	H	42.08	82.39	72.89	/	/
5755.00	58.25	PK	342	1.8	V	42.08	100.33	90.83	/	/
5755.00	45.02	Ave.	342	1.8	V	42.08	87.10	77.6	/	/
5721.45	27.69	PK	288	1.5	V	42.15	69.84	60.34	114.11	53.77
5714.2	27.84	PK	288	1.5	V	42.15	69.99	60.49	109.18	48.69
5689.18	27.2	PK	90	2.3	V	42.15	69.35	59.85	97.19	37.34
5856.54	27.61	PK	90	2.3	V	42.55	70.16	60.66	110.37	49.71
11530.00	41.02	PK	350	1.5	V	18.92	59.94	50.44	74	23.56
11530.00	27.24	Ave.	350	1.5	V	18.92	46.16	36.66	54	17.34
5795MHz										
5795.00	53.93	PK	151	1.7	H	42.08	96.01	86.51	/	/
5795.00	40.31	Ave.	151	1.7	H	42.08	82.39	72.89	/	/
5795.00	58.75	PK	313	2.3	V	42.08	100.83	91.33	/	/
5795.00	45.28	Ave.	313	2.3	V	42.08	87.36	77.86	/	/
5852.17	27.86	PK	0	2.0	V	42.55	70.41	60.91	117.25	56.34
5861.57	27.46	PK	0	2.0	V	42.55	70.01	60.51	108.96	48.45
5886.12	28.12	PK	344	1.1	V	42.55	70.67	61.17	96.97	35.8
5723.38	27.08	PK	344	1.1	V	42.15	69.23	59.73	118.51	58.78
11590.00	41.28	PK	52	1.4	V	19.17	60.45	50.95	74	23.05
11590.00	27.13	Ave.	52	1.4	V	19.17	46.30	36.8	54	17.2
802.11ac80										
5775 MHz										
5775.00	50.25	PK	257	1.1	H	42.08	92.33	82.83	/	/
5775.00	37.27	Ave.	257	1.1	H	42.08	79.35	69.85	/	/
5775.00	57.84	PK	179	2.1	V	42.08	99.92	90.42	/	/
5775.00	44.36	Ave.	179	2.1	V	42.08	86.44	76.94	/	/
5723.98	28.35	PK	233	1.1	V	42.15	70.50	61	119.87	58.87
5718.39	28.1	PK	233	1.1	V	42.15	70.25	60.75	110.35	49.6
5696.38	27.63	PK	212	1.1	V	42.15	69.78	60.28	102.52	42.24
5853.19	27.98	PK	212	1.1	V	42.55	70.53	61.03	114.93	53.9
11550.00	41.03	PK	347	1.4	V	19.17	60.20	50.7	74	23.3
11550.00	27.12	Ave.	347	1.4	V	19.17	46.29	36.79	54	17.21

Note:

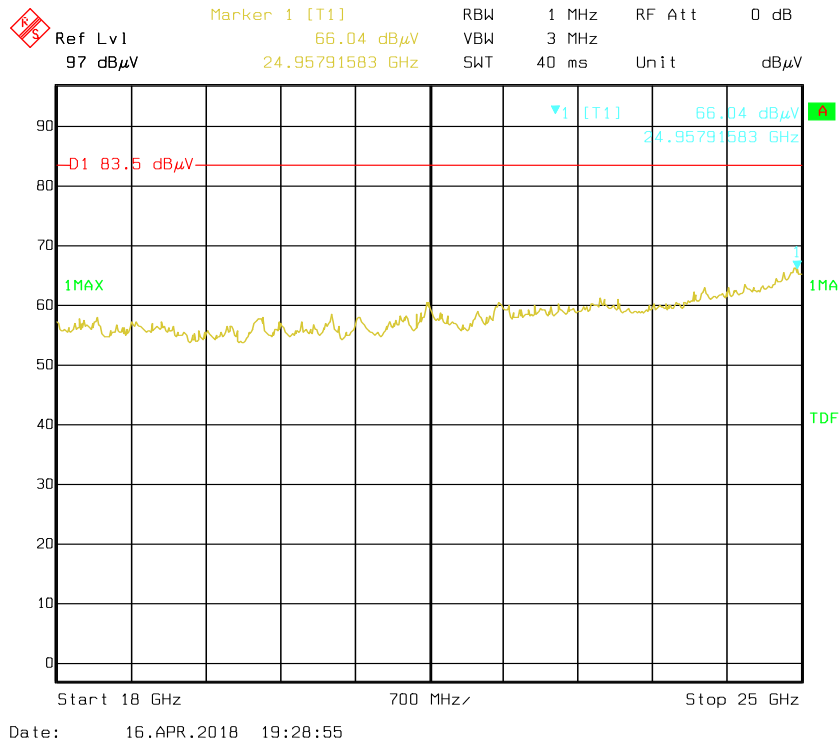
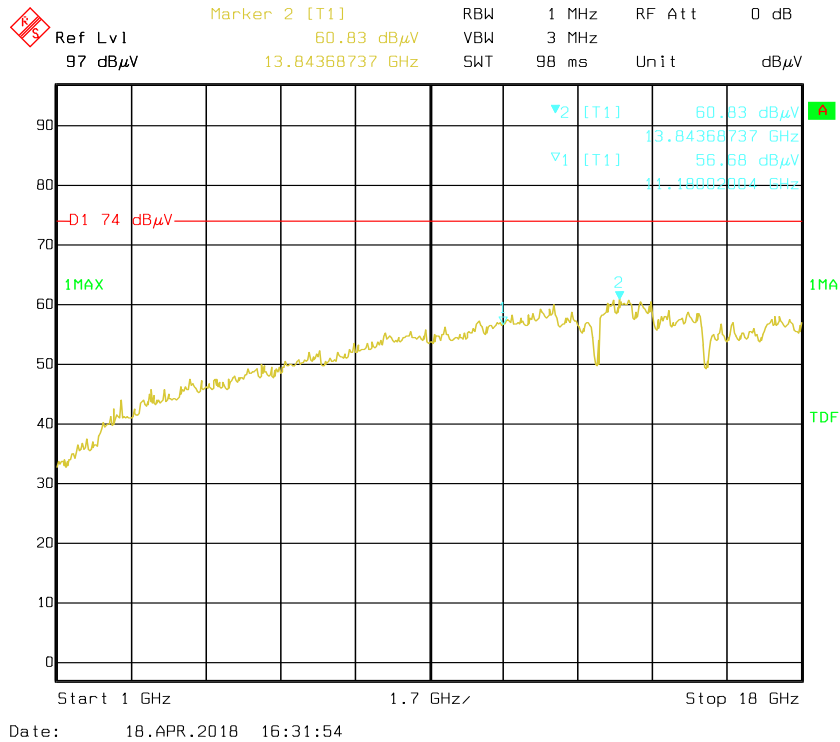
Corrected Amplitude = Corrected Factor + Reading

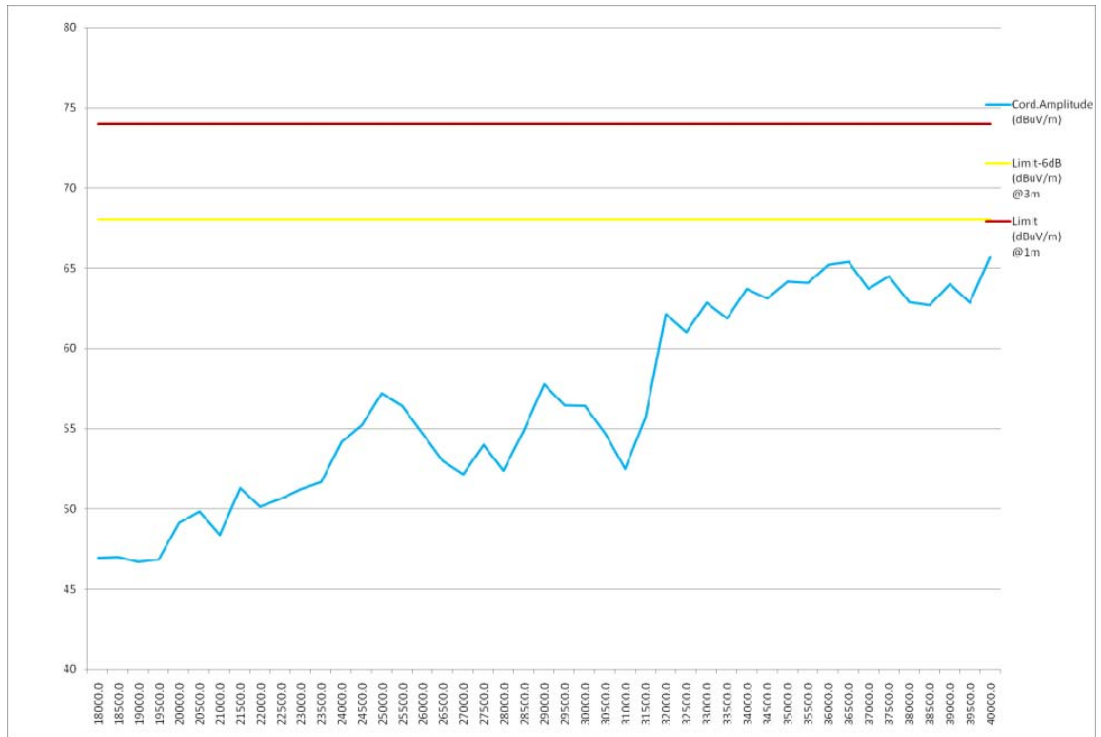
Corrected Factor=Antenna factor (RX) + Cable Loss – Amplifier Factor

Margin = Limit- Corr. Amplitude

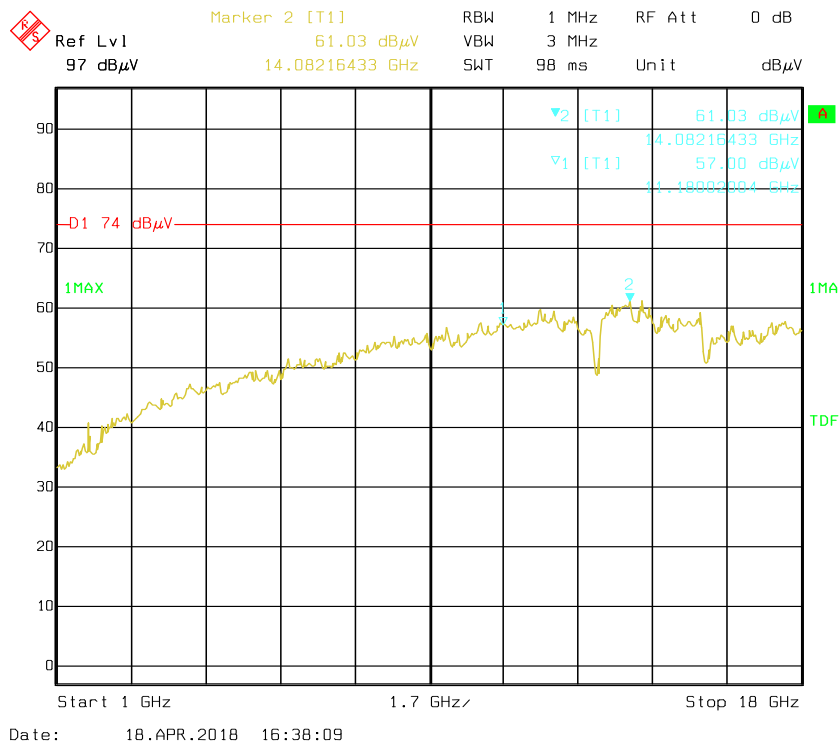
All other spurious emissions are 20 dB below the limit or are on the system noise floor level.

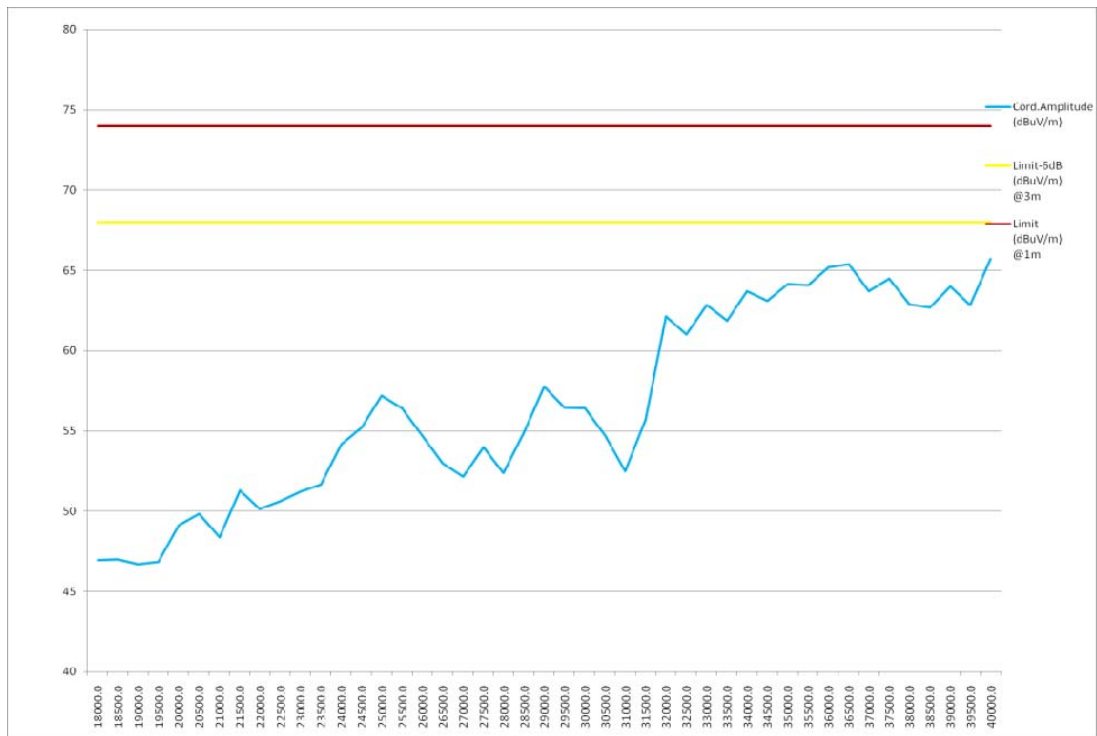
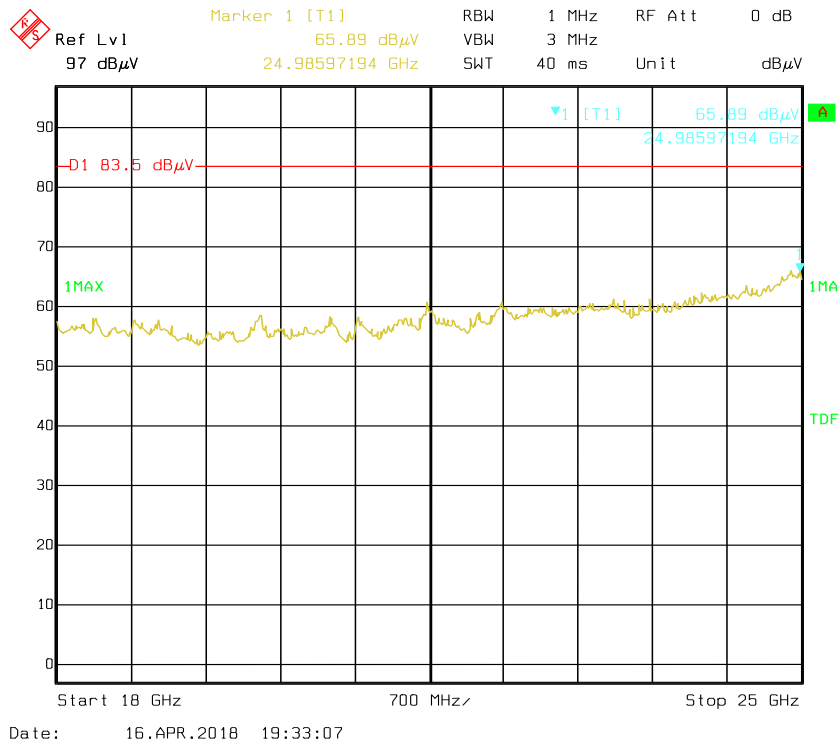
Pre-scan with 802.11a 5590MHz, for Peak
Horizontal



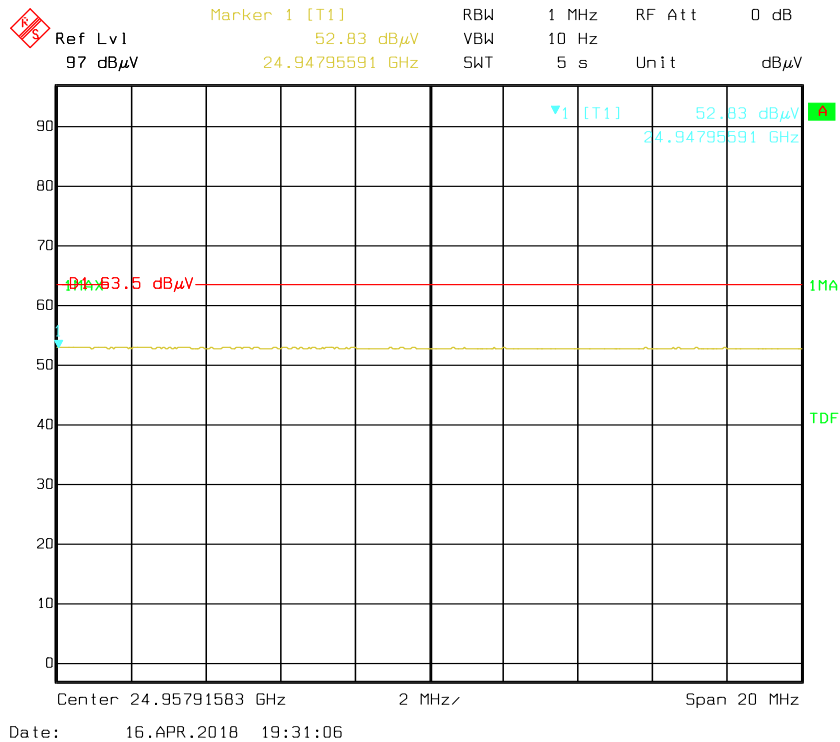
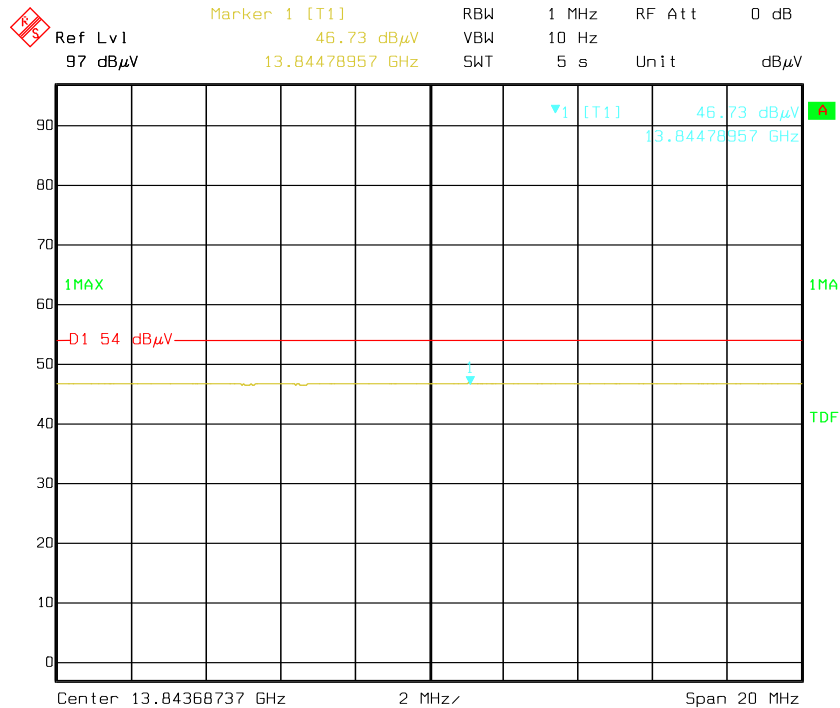


Vertical

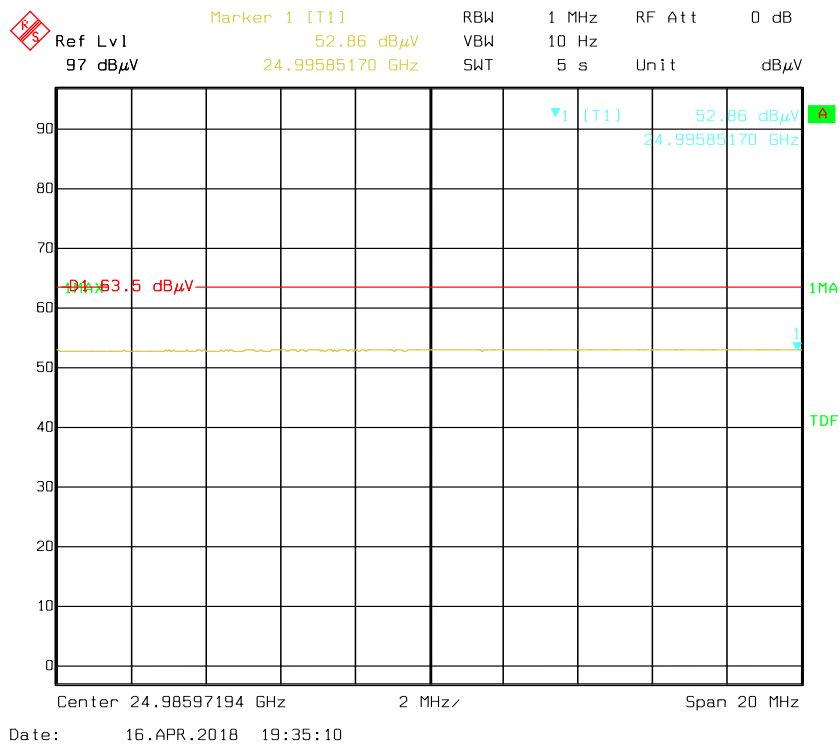
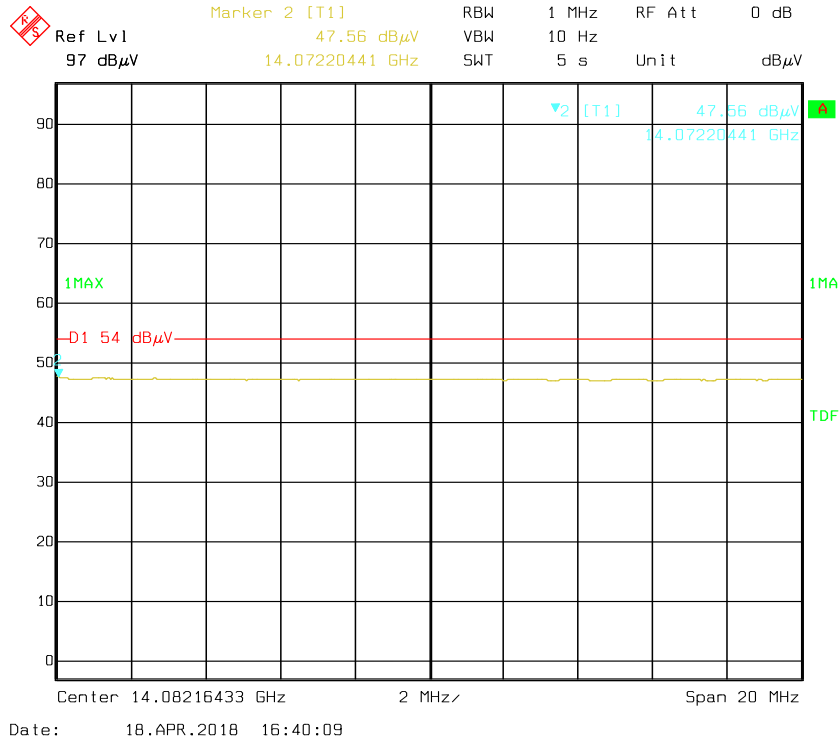




Pre-scan with 802.11a 5590MHz, for **Average**
Horizontal



Vertical



§15.407(B) (1), (2), (3), (4) –OUT OF BAND EMISSION

Applicable Standard

FCC §15.407 (b) (1), (2), (3), (4);

For transmitters operating in the 5.15–5.25 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of –27dBm/MHz.

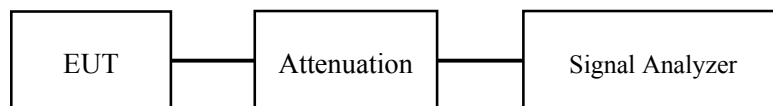
For transmitters operating in the 5.25-5.35 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of –27 dBm/MHz.

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.

For transmitters operating in the 5.725–5.825 GHz band: 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.

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. The Resolution bandwidth is set to 1MHz, The Video bandwidth is set to ≥ 1 MHz, report the peak value out of the operating band.
3. Repeat above procedures until all frequencies measured were complete.



Test Data

Environmental Conditions

Temperature:	23.5~25 °C
Relative Humidity:	49~56 %
ATM Pressure:	109.0~101.0 kPa

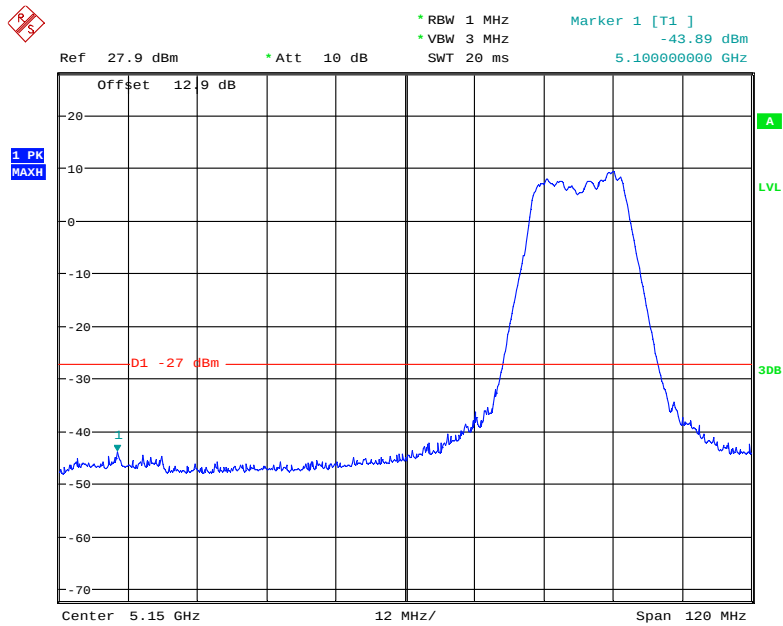
The testing was performed by Dylan Li from 2018-03-13 to 2018-04-26.

EUT operation mode: Transmitting

Note: Antenna gain was added into the test result.

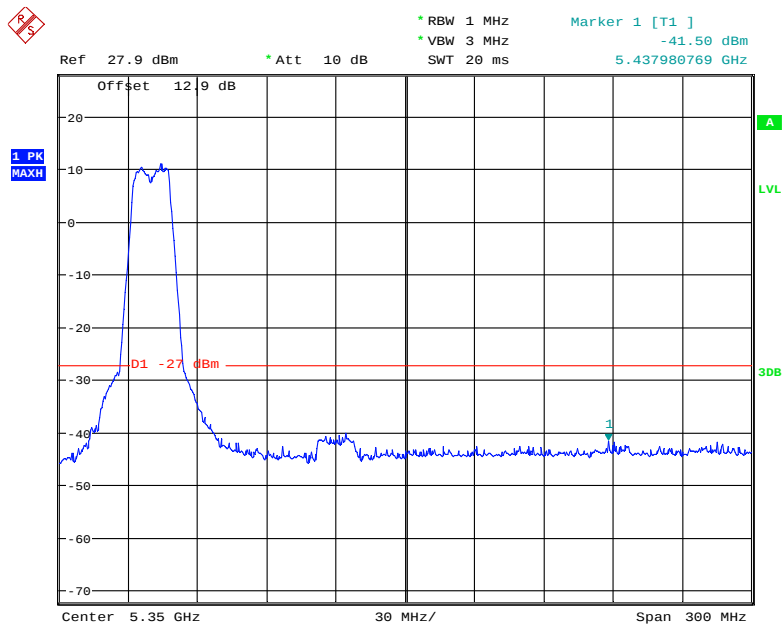
5150 – 5250 MHz:

802.11a mode, Band Edge, Left Side



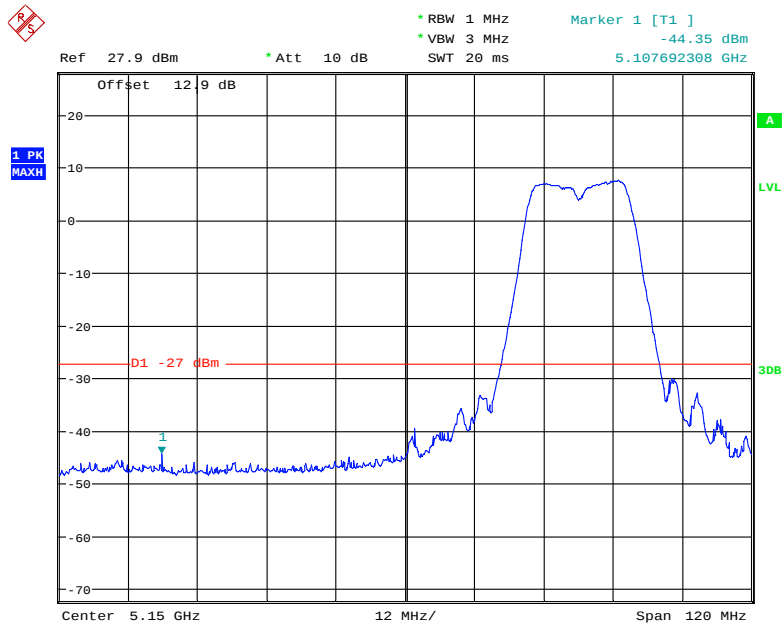
Date: 13.MAR.2018 00:01:40

802.11a mode, Band Edge, Right Side



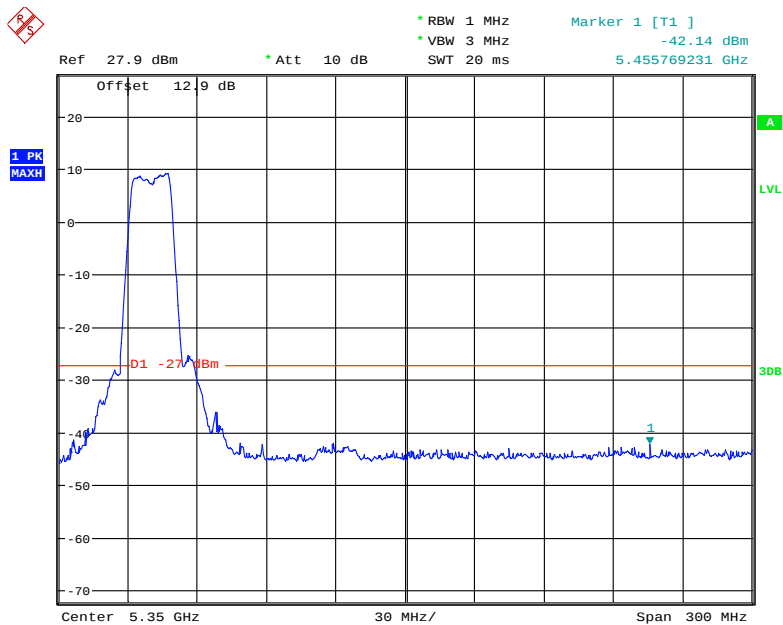
Date: 13.MAR.2018 00:06:49

802.11n20 mode, Band Edge, Left Side



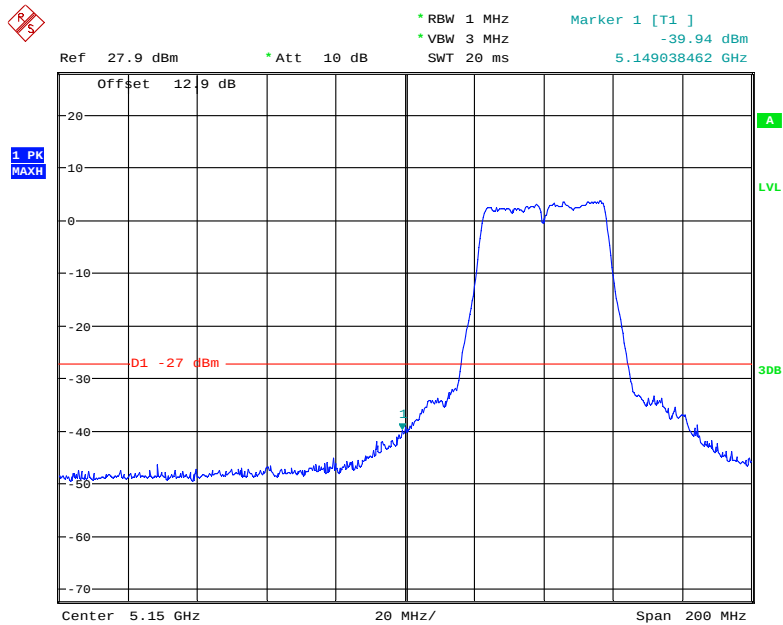
Date: 13.MAR.2018 00:46:08

802.11n20 mode, Band Edge, Right Side



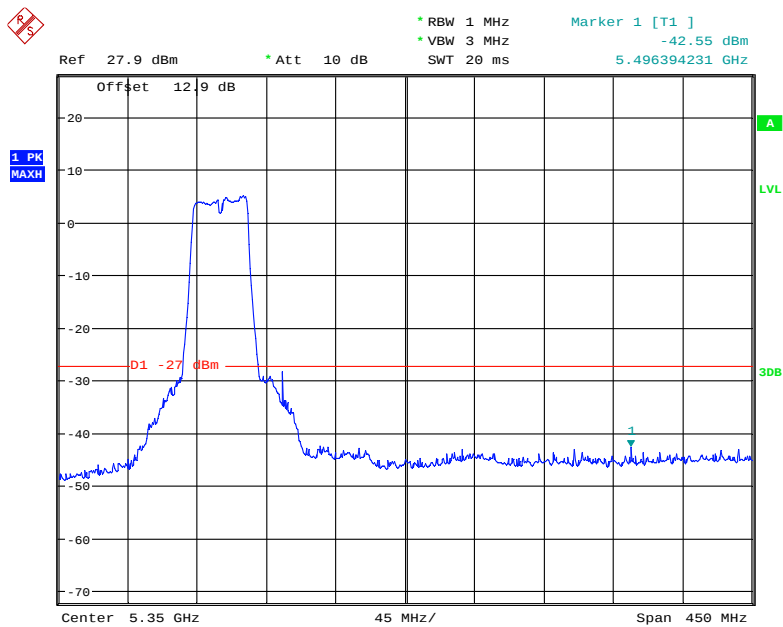
Date: 13.MAR.2018 00:43:39

802.11n40 mode, Band Edge, Left Side



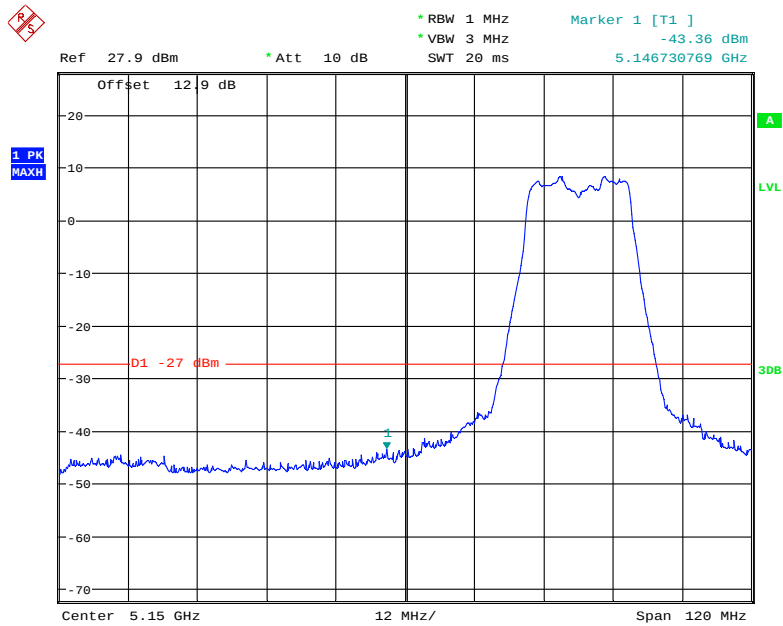
Date: 13.MAR.2018 23:49:05

802.11n40 mode, Band Edge, Right Side



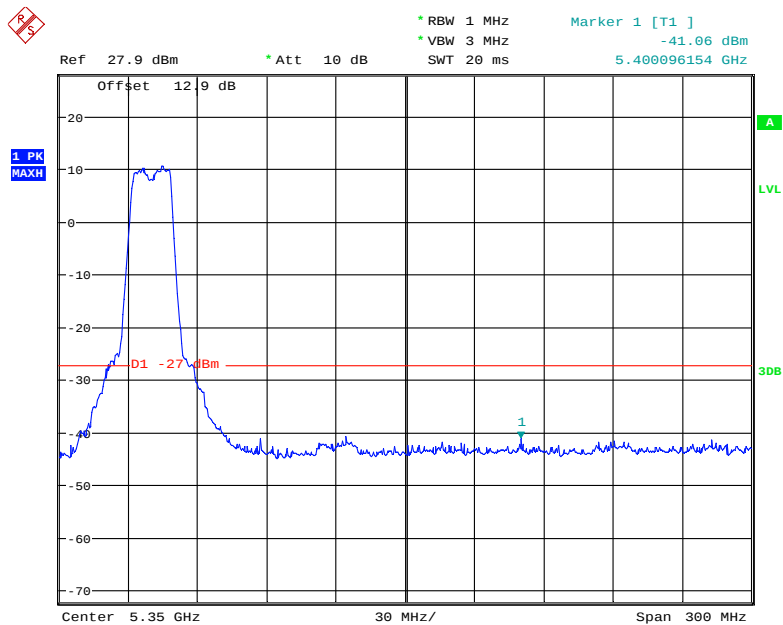
Date: 13.MAR.2018 23:52:38

802.11ac20 mode, Band Edge, Left Side



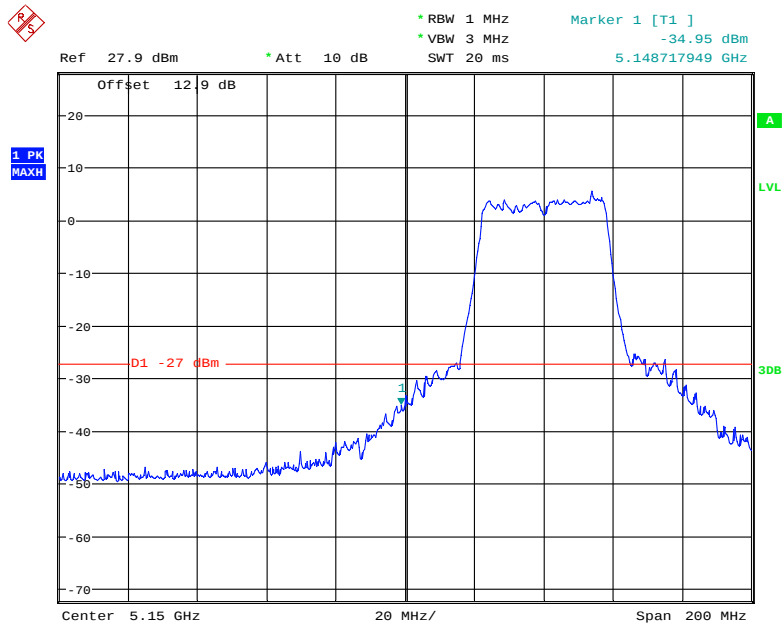
Date: 13.MAR.2018 00:30:24

802.11ac20 mode, Band Edge, Right Side



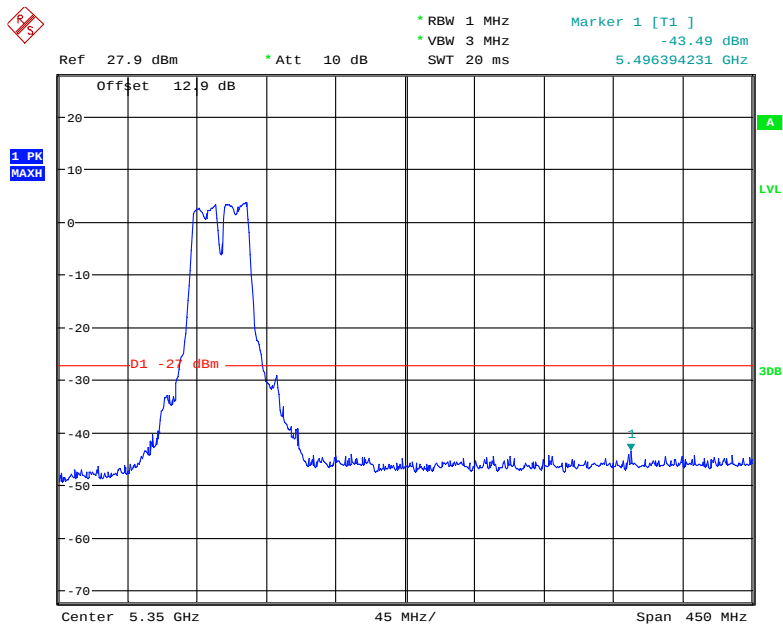
Date: 13.MAR.2018 00:33:04

802.11ac40 mode, Band Edge, Left Side



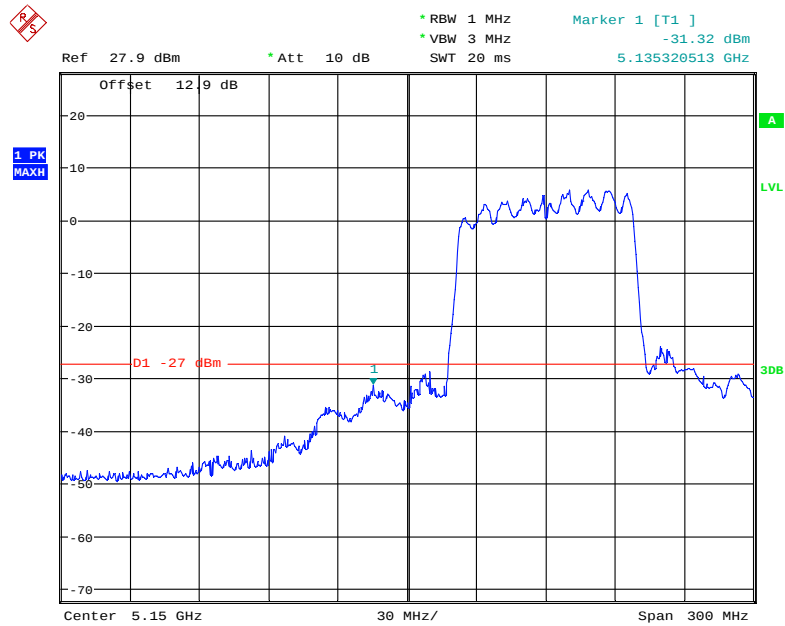
Date: 14.MAR.2018 00:11:33

802.11ac40 mode, Band Edge, Right Side



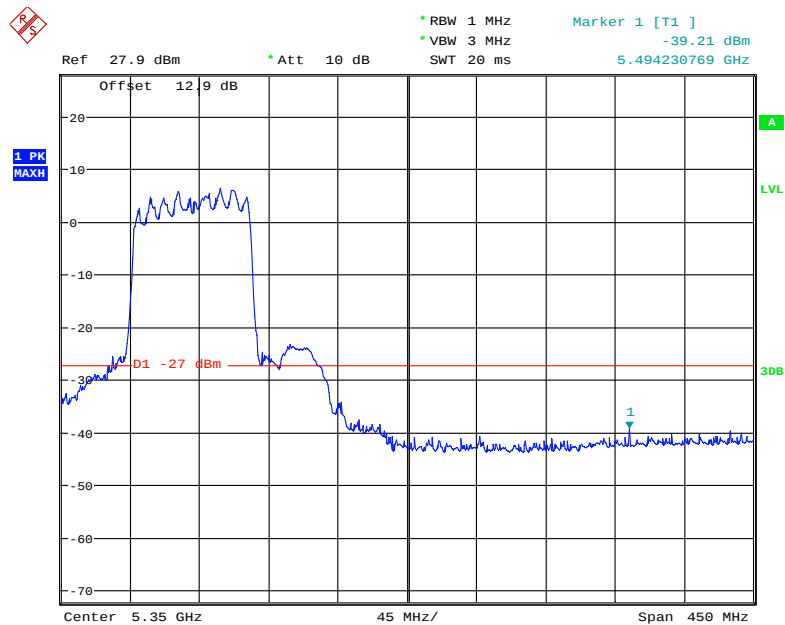
Date: 14.MAR.2018 00:09:31

802.11ac80 mode, Band Edge, Left Side



Date: 1.APR.2018 11:56:48

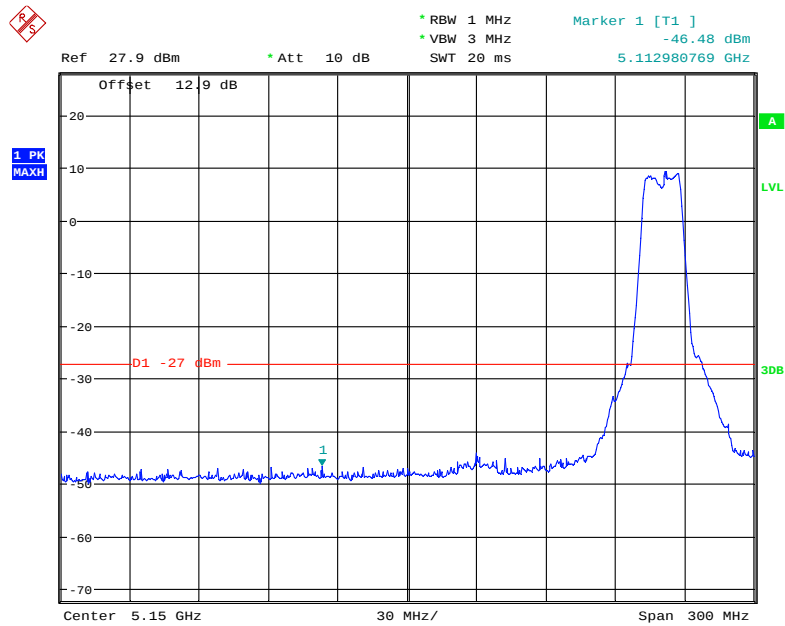
802.11ac80 mode, Band Edge, Right Side



Date: 1.APR.2018 16:35:58

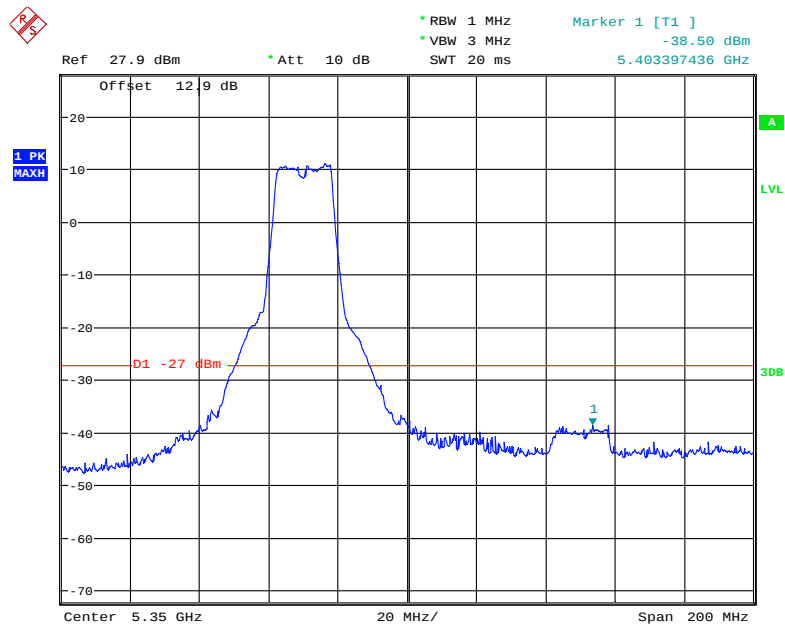
5250 – 5350 MHz:

802.11a mode, Band Edge, Left Side



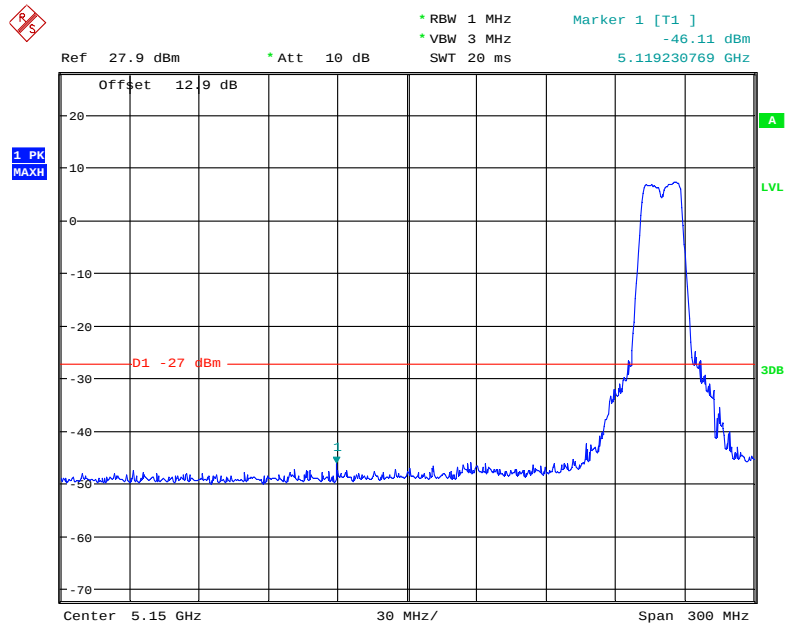
Date: 15.MAR.2018 00:07:08

802.11a mode, Band Edge, Right Side



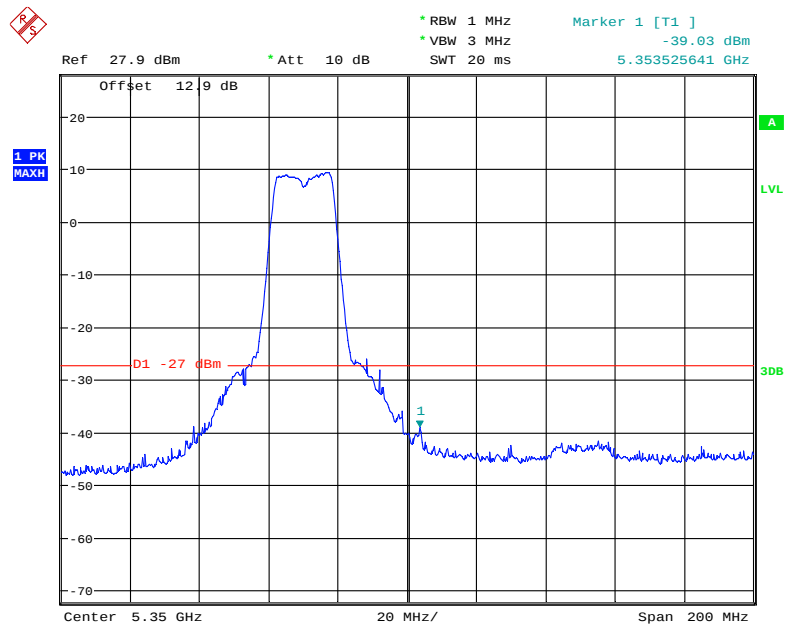
Date: 15.MAR.2018 00:04:43

802.11n20 mode, Band Edge, Left Side



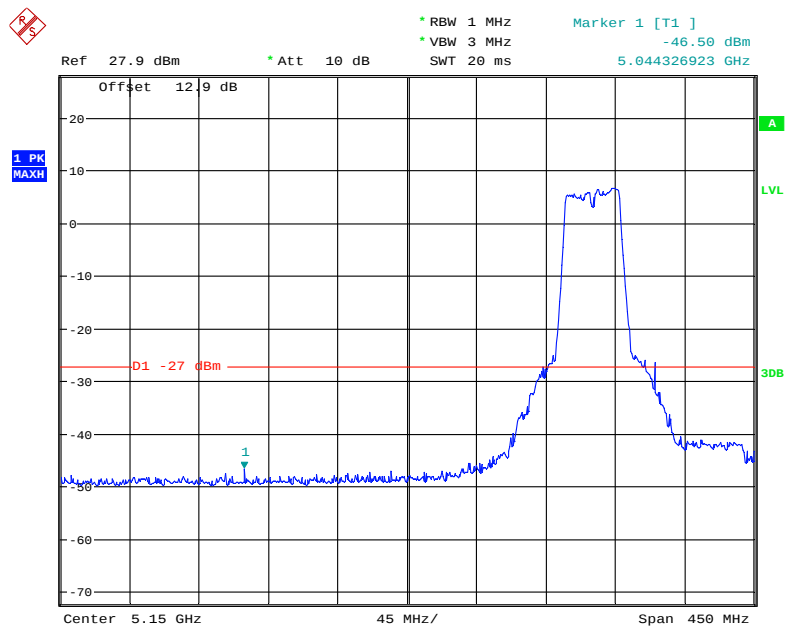
Date: 14.MAR.2018 23:01:32

802.11n20 mode, Band Edge, Right Side



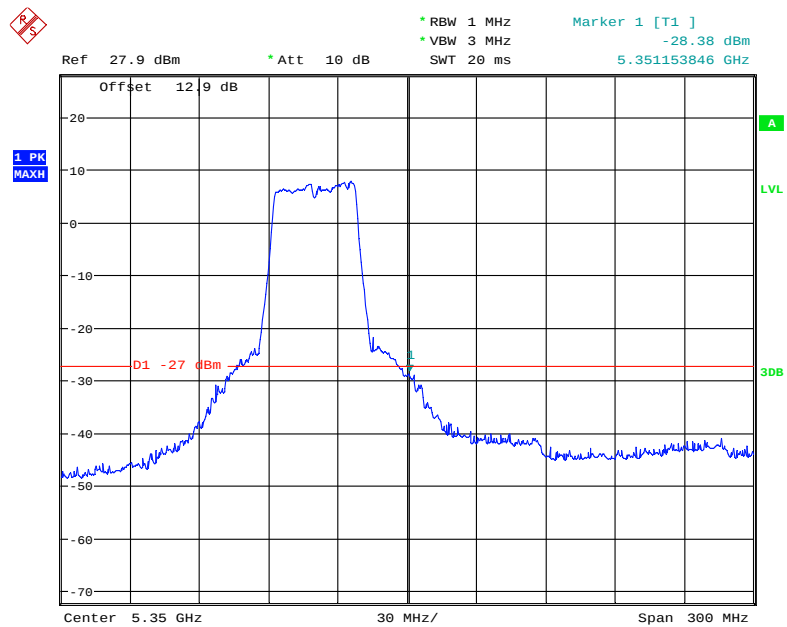
Date: 14.MAR.2018 22:53:15

802.11n40 mode, Band Edge, Left Side



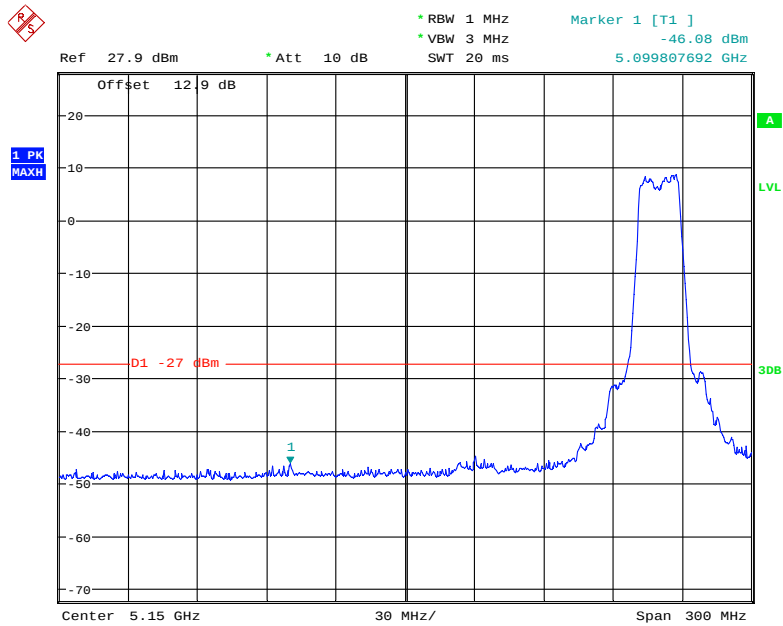
Date: 14.MAR.2018 22:27:35

802.11n40 mode, Band Edge, Right Side



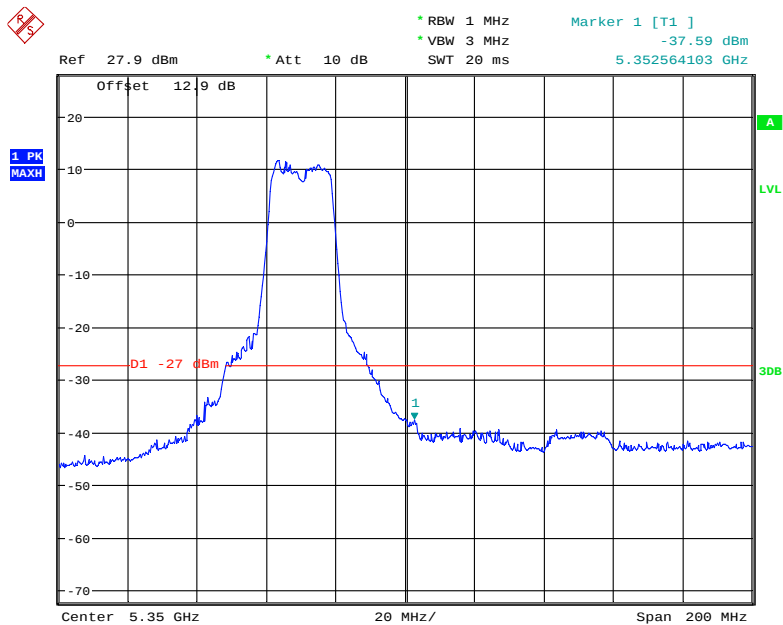
Date: 15.MAR.2018 00:28:26

802.11ac20 mode, Band Edge, Left Side



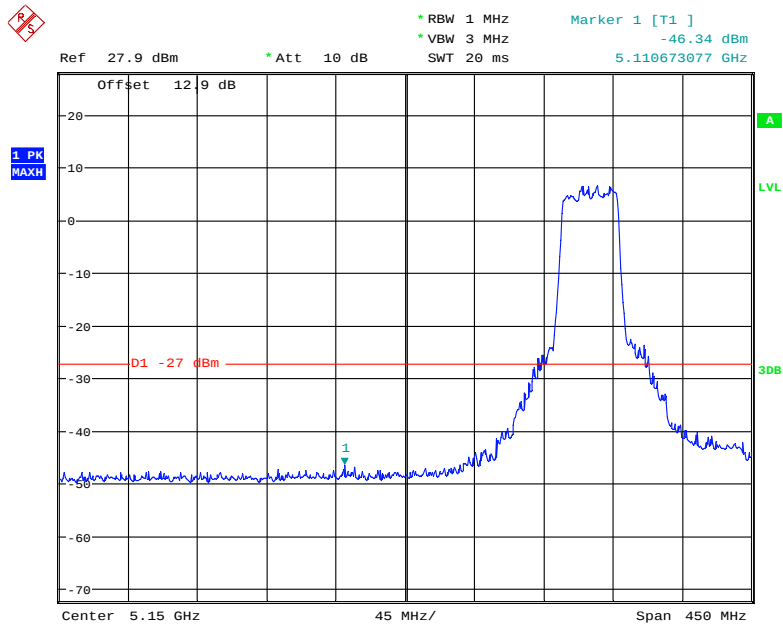
Date: 14.MAR.2018 23:23:35

802.11ac20 mode, Band Edge, Right Side



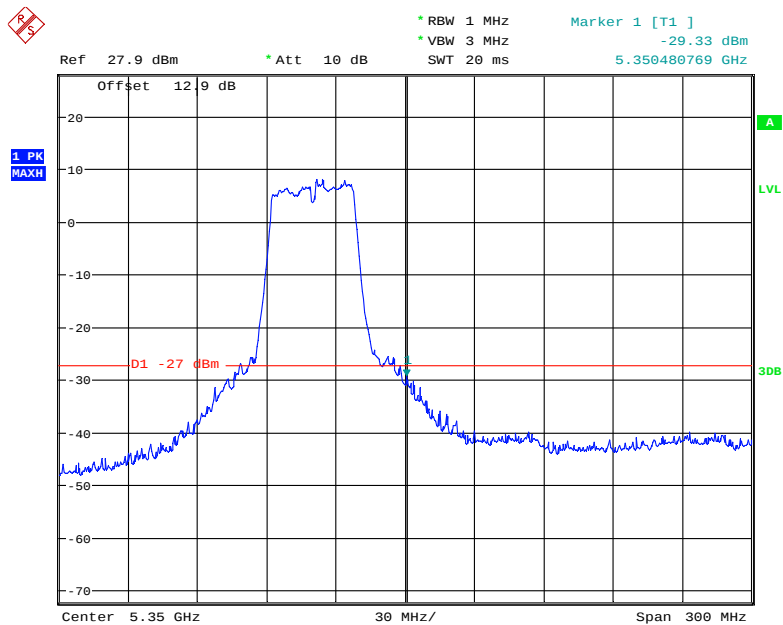
Date: 14.MAR.2018 23:30:46

802.11ac40 mode, Band Edge, Left Side



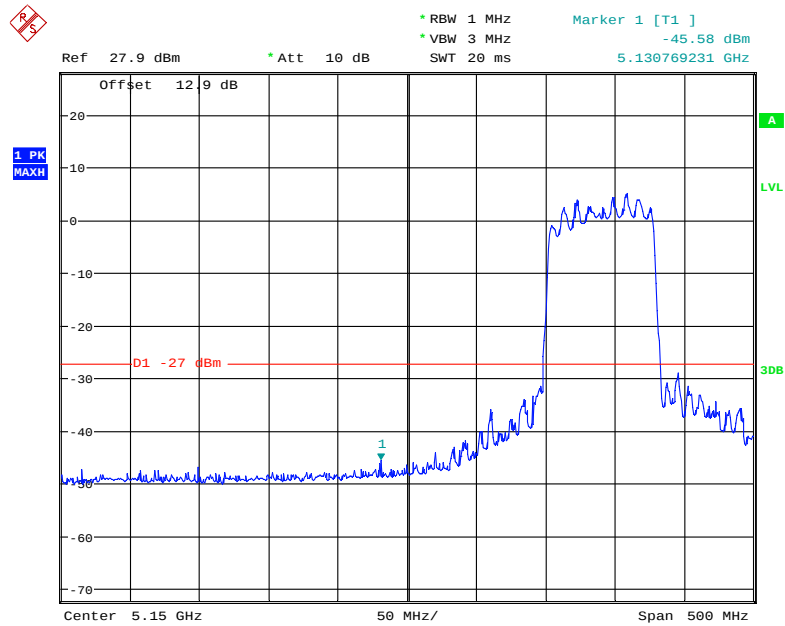
Date: 14.MAR.2018 22:25:42

802.11ac40 mode, Band Edge, Right Side



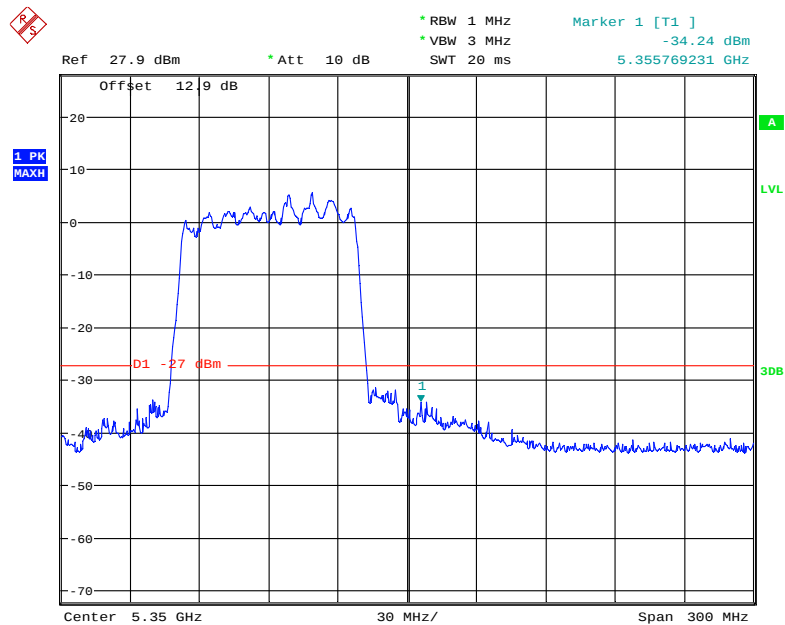
Date: 26.APR.2018 20:49:42

802.11ac80 mode, Band Edge, Left Side



Date: 1.APR.2018 16:51:04

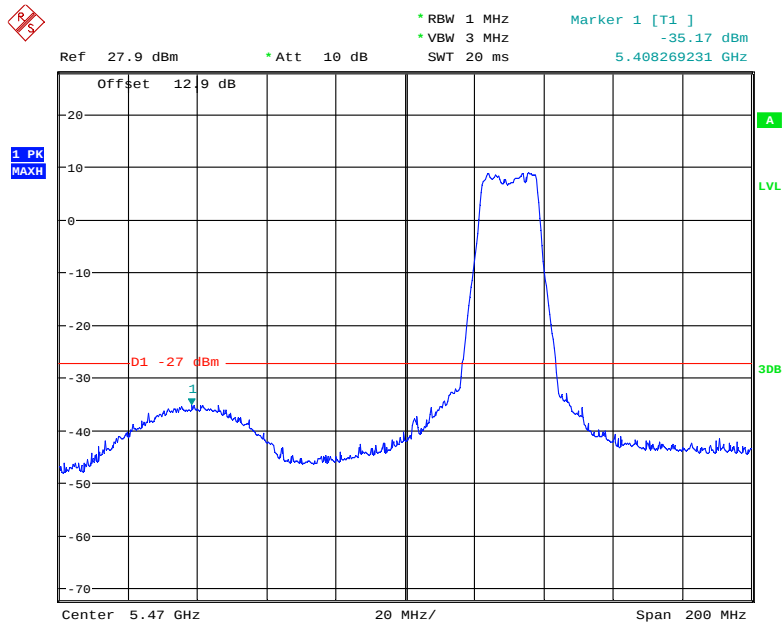
802.11ac80 mode, Band Edge, Right Side



Date: 1.APR.2018 13:09:52

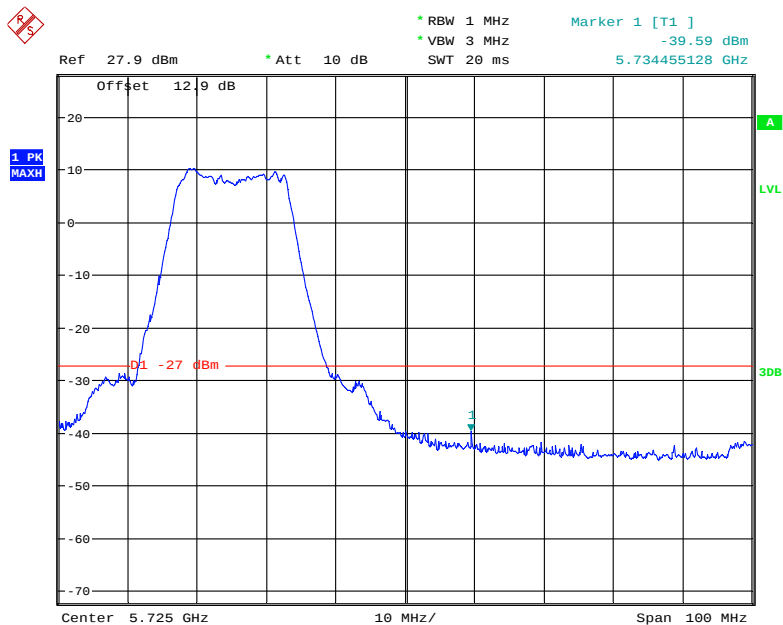
5470 – 5725 MHz:

802.11a mode, Band Edge, Left Side



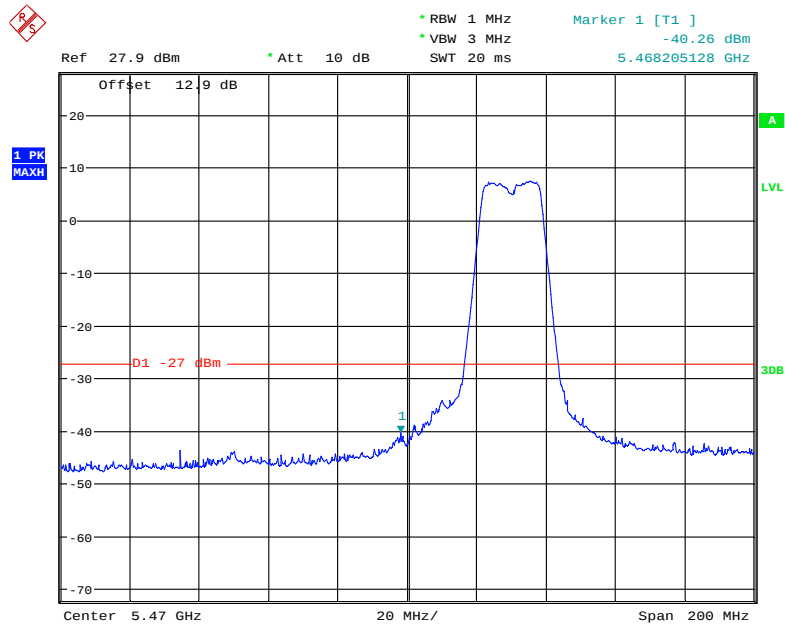
Date: 15.MAR.2018 21:53:35

802.11a mode, Band Edge, Right Side



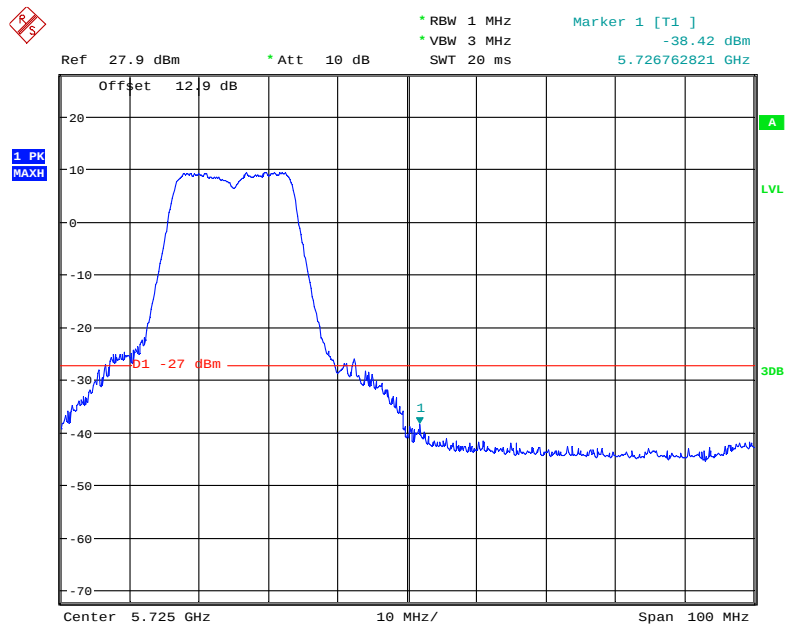
Date: 16.APR.2018 20:10:03

802.11n20 mode, Band Edge, Left Side



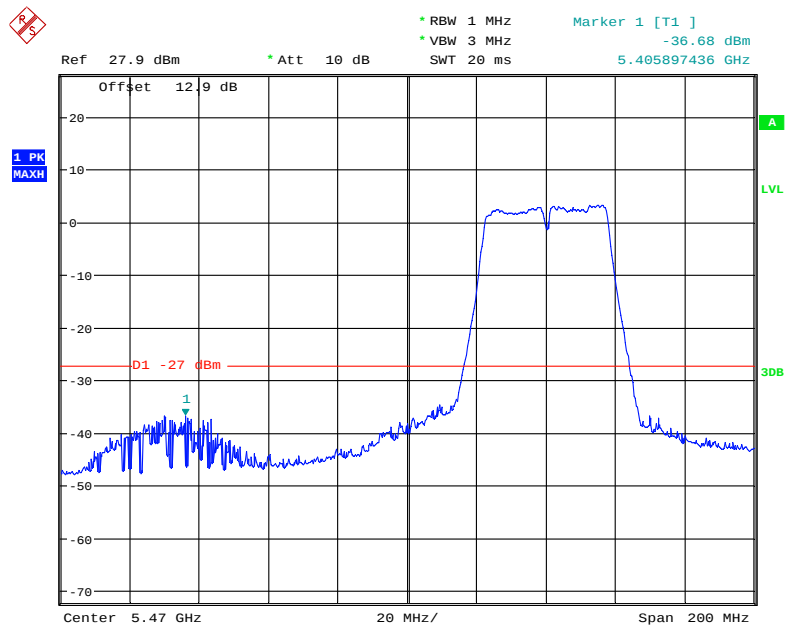
Date: 15.MAR.2018 21:05:05

802.11n20 mode, Band Edge, Right Side



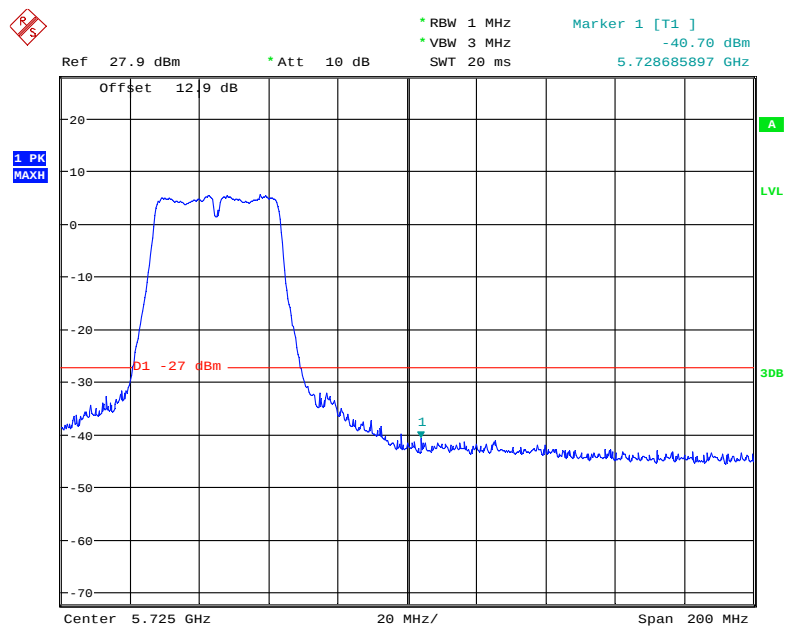
Date: 16.APR.2018 20:08:26

802.11n40 mode, Band Edge, Left Side



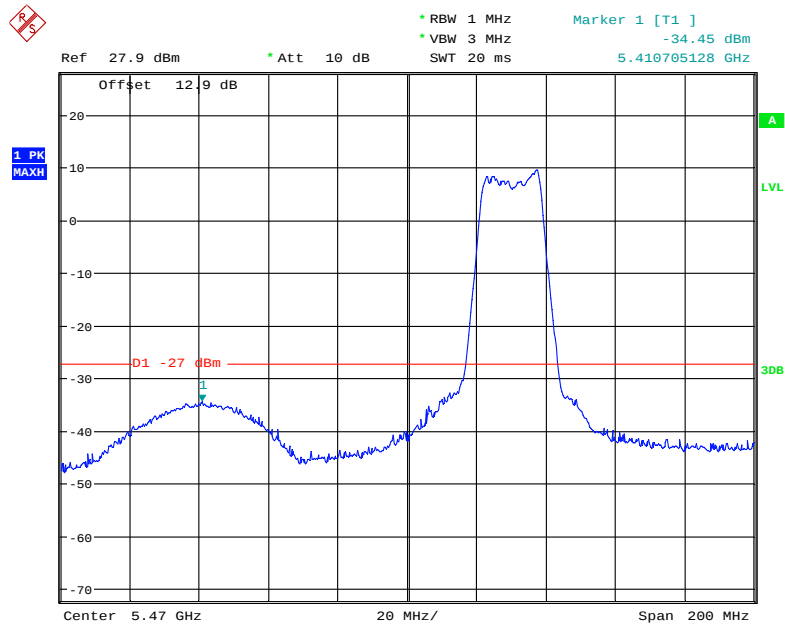
Date: 15.MAR.2018 20:43:01

802.11n40 mode, Band Edge, Right Side



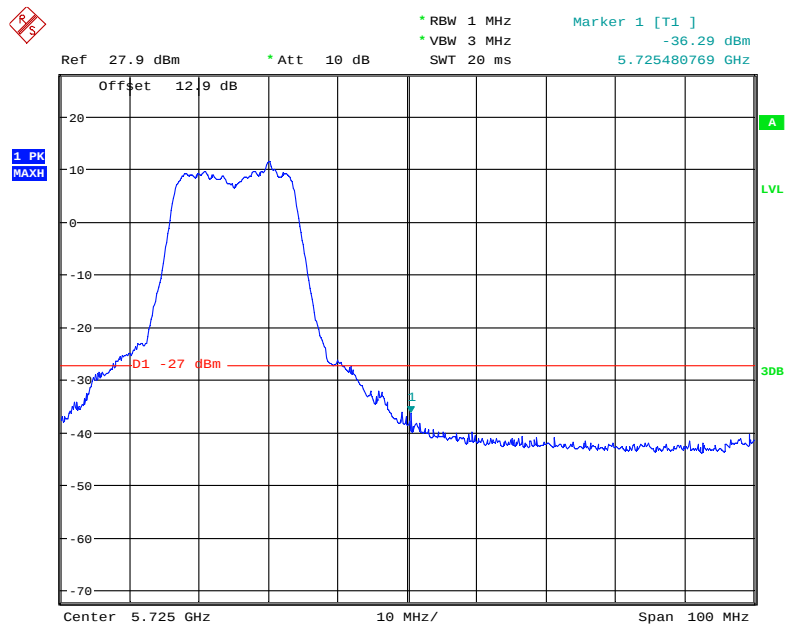
Date: 16.APR.2018 20:47:57

802.11ac20 mode, Band Edge, Left Side



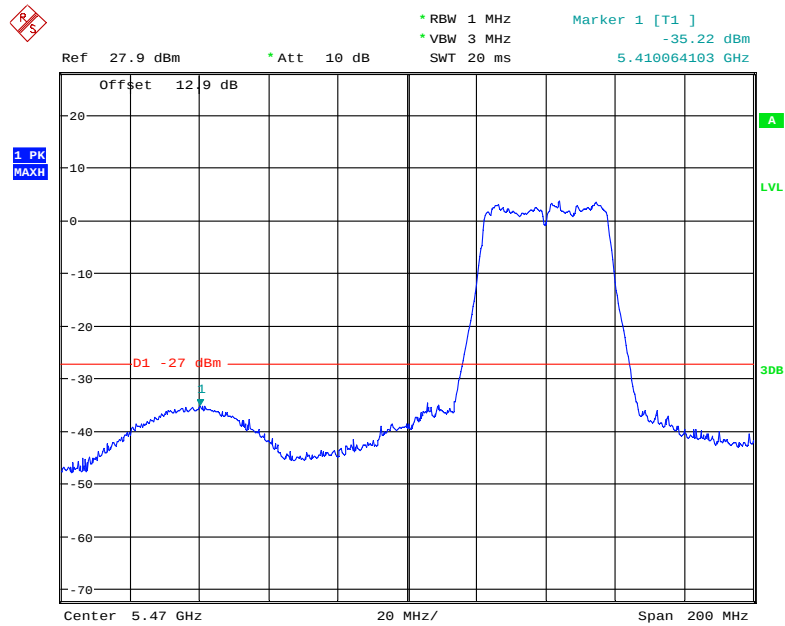
Date: 15.MAR.2018 21:26:55

802.11ac20 mode, Band Edge, Right Side



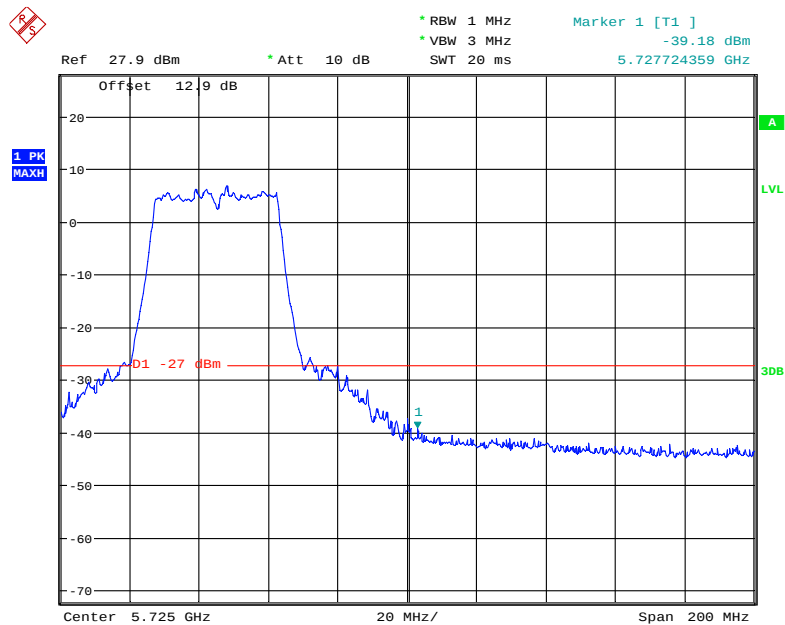
Date: 16.APR.2018 20:38:30

802.11ac40 mode, Band Edge, Left Side



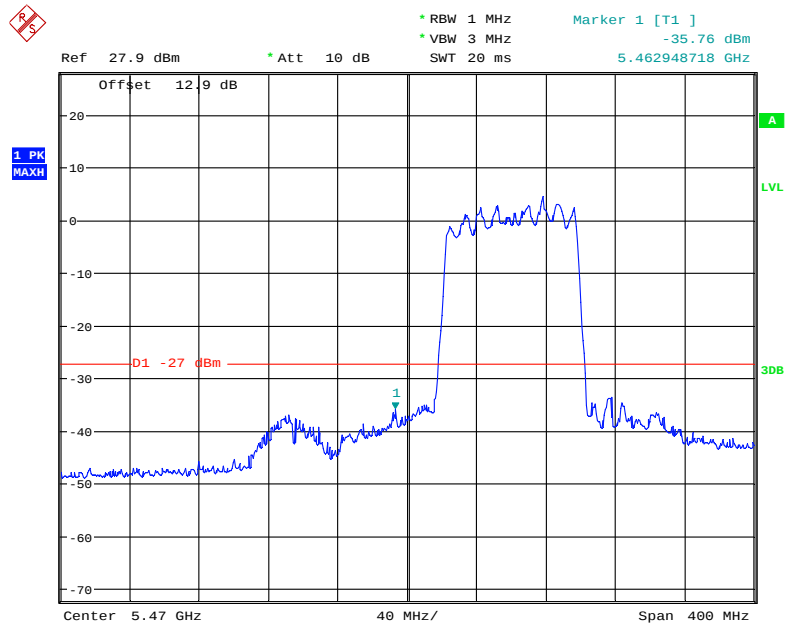
Date: 15.MAR.2018 20:26:14

802.11ac40 mode, Band Edge, Right Side



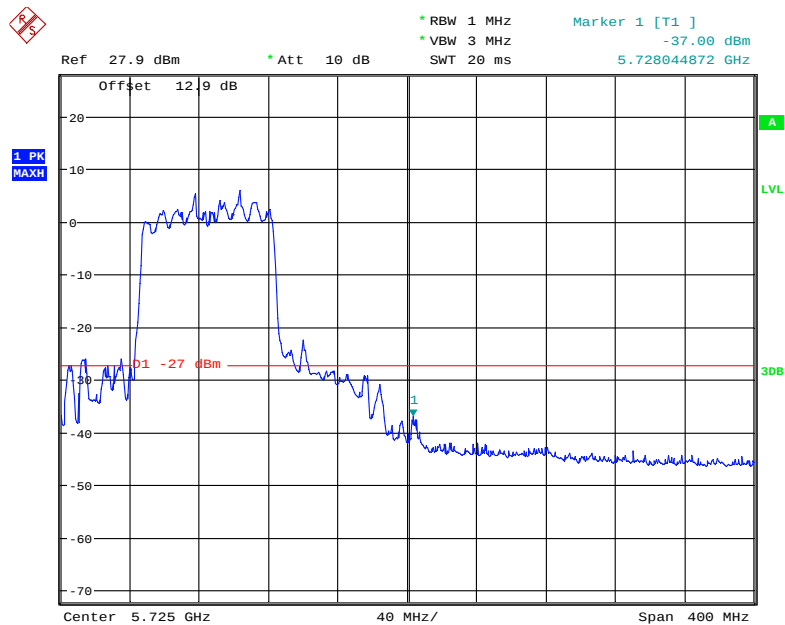
Date: 16.APR.2018 20:45:51

802.11ac80 mode, Band Edge, Left Side



Date: 15.MAR.2018 20:05:43

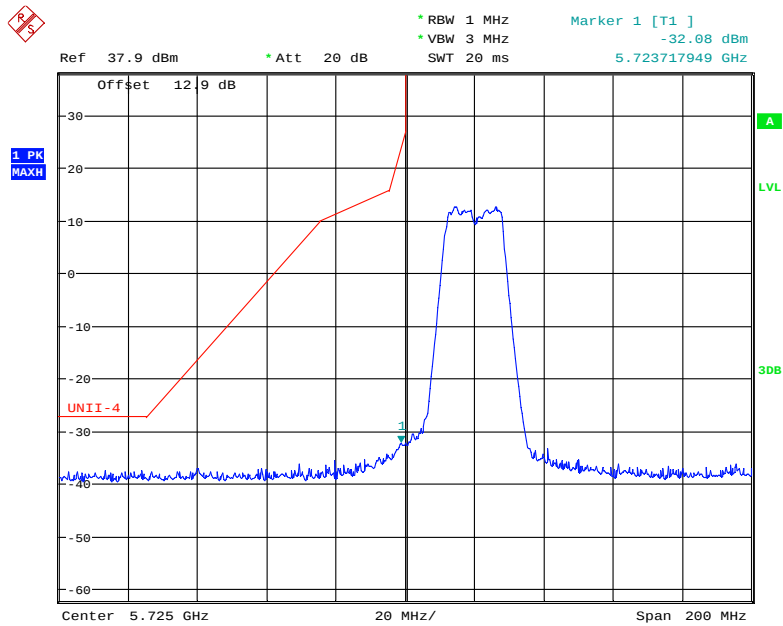
802.11ac80 mode, Band Edge, Right Side



Date: 16.APR.2018 20:52:07

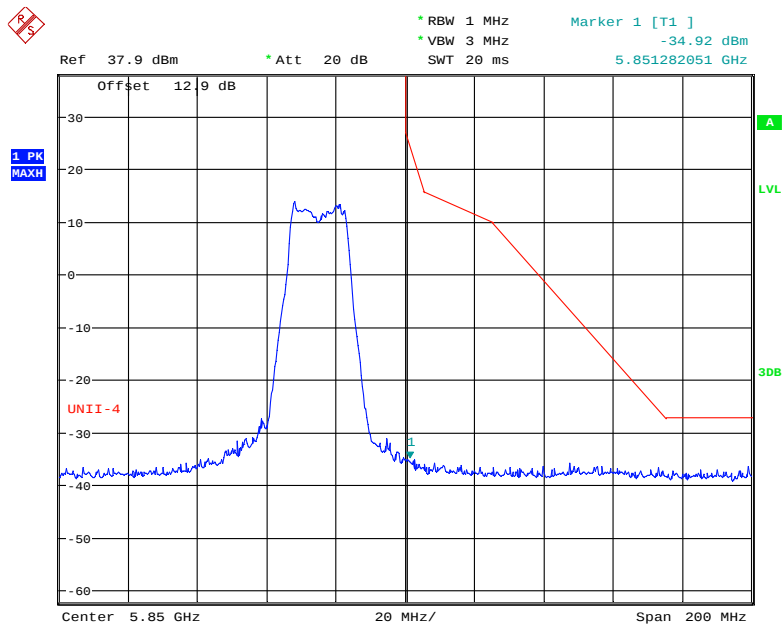
5725 – 5850 MHz:

802.11a mode, Band Edge, Left Side



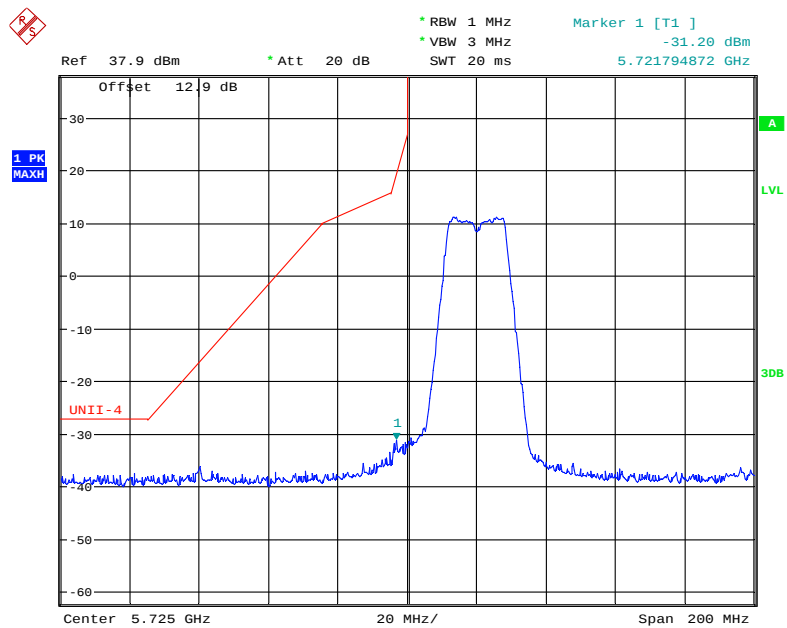
Date: 18.MAR.2018 12:04:00

802.11a mode, Band Edge, Right Side



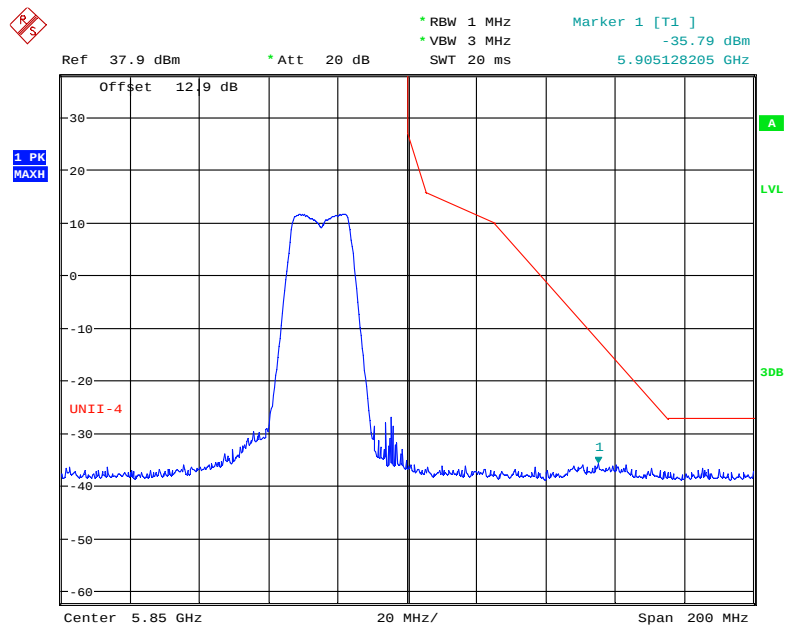
Date: 18.MAR.2018 11:58:16

802.11n20 mode, Band Edge, Left Side



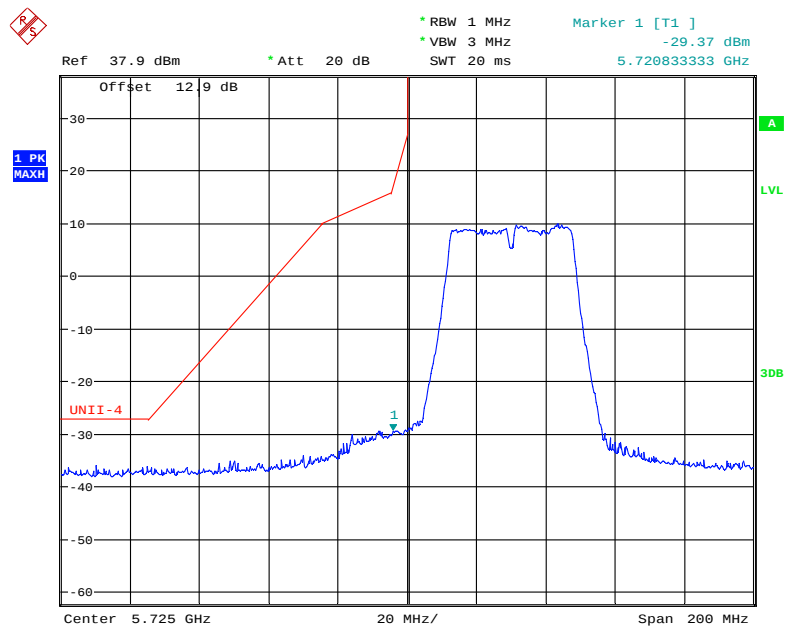
Date: 18.MAR.2018 12:01:44

802.11n20 mode, Band Edge, Right Side



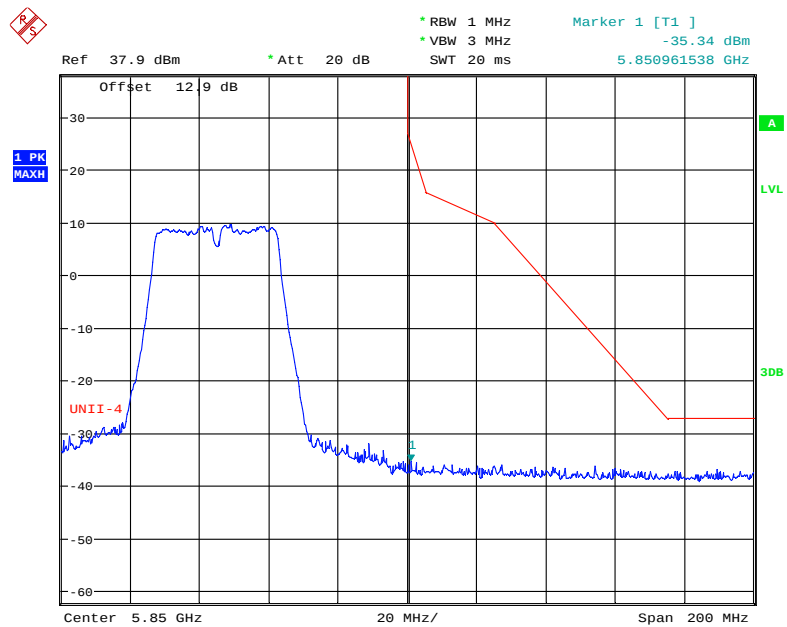
Date: 18.MAR.2018 12:00:09

802.11n40 mode, Band Edge, Left Side



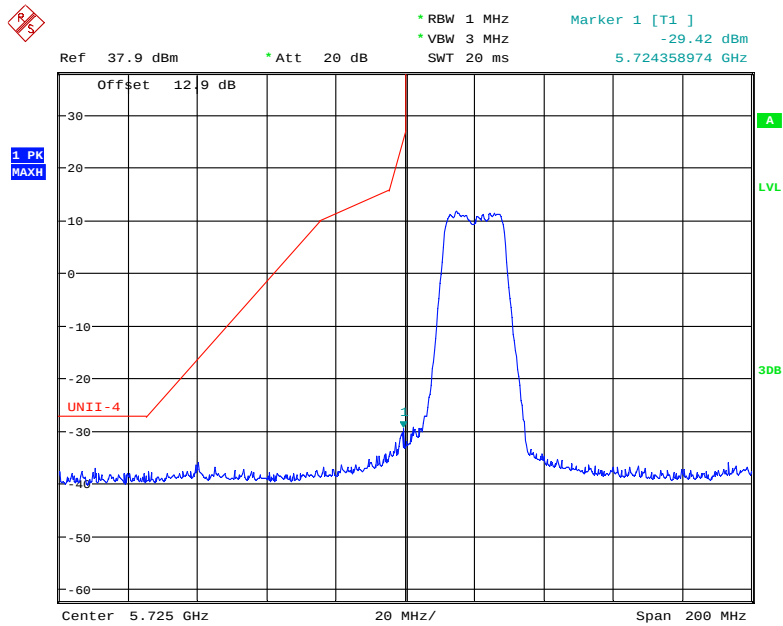
Date: 18.MAR.2018 11:50:37

802.11n40 mode, Band Edge, Right Side



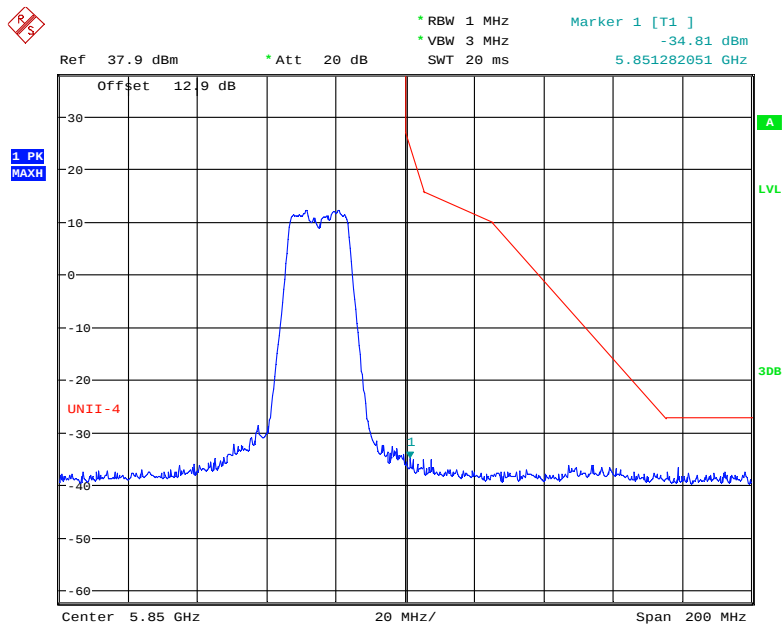
Date: 18.MAR.2018 11:53:05

802.11ac20 mode, Band Edge, Left Side



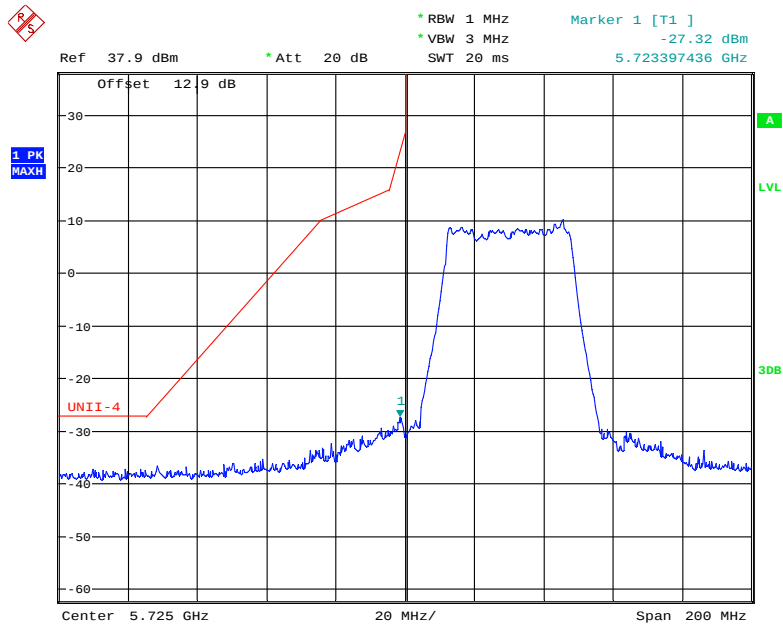
Date: 18.MAR.2018 12:02:52

802.11ac20 mode, Band Edge, Right Side



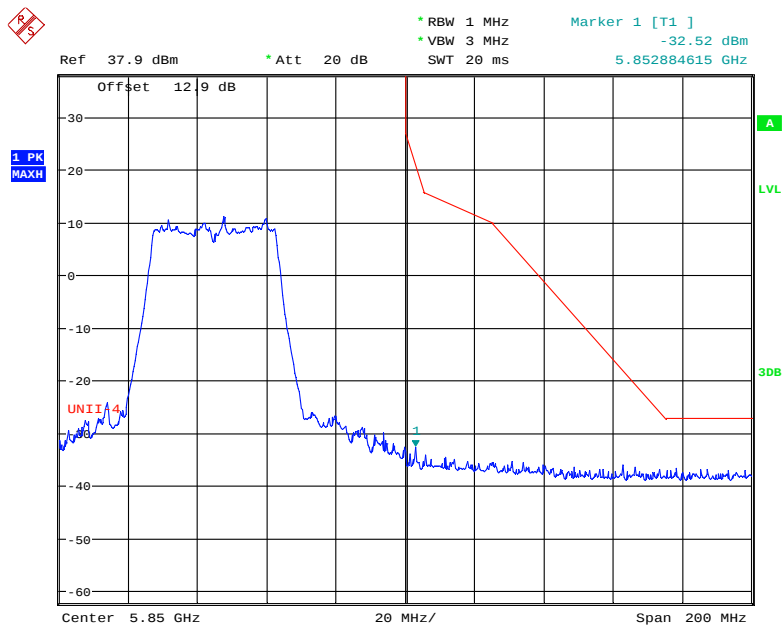
Date: 18.MAR.2018 11:56:34

802.11ac40 mode, Band Edge, Left Side



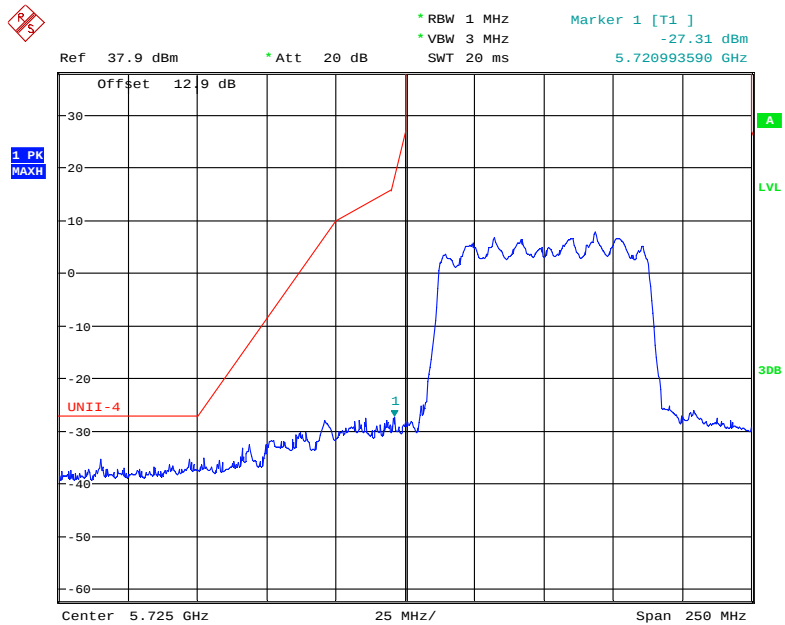
Date: 18.MAR.2018 11:43:48

802.11ac40 mode, Band Edge, Right Side



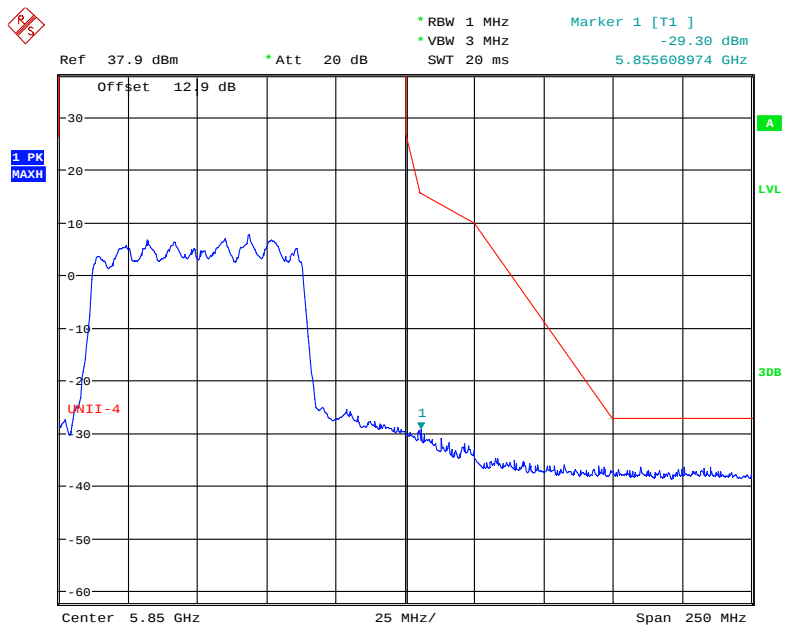
Date: 18.MAR.2018 11:54:43

802.11ac80 mode, Band Edge, Left Side



Date: 18.MAR.2018 11:38:45

802.11ac80 mode, Band Edge, Right Side



Date: 18.MAR.2018 11:40:57

FCC §15.407(a) (1) – 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

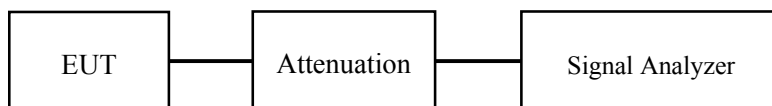
1. Emission Bandwidth (EBW)

- 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 5.715-5.85 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:	23.5~25 °C
Relative Humidity:	49~56 %
ATM Pressure:	109.0~101.0 kPa

The testing was performed by Dylan Li from 2018-03-12 to 2018-04-10.

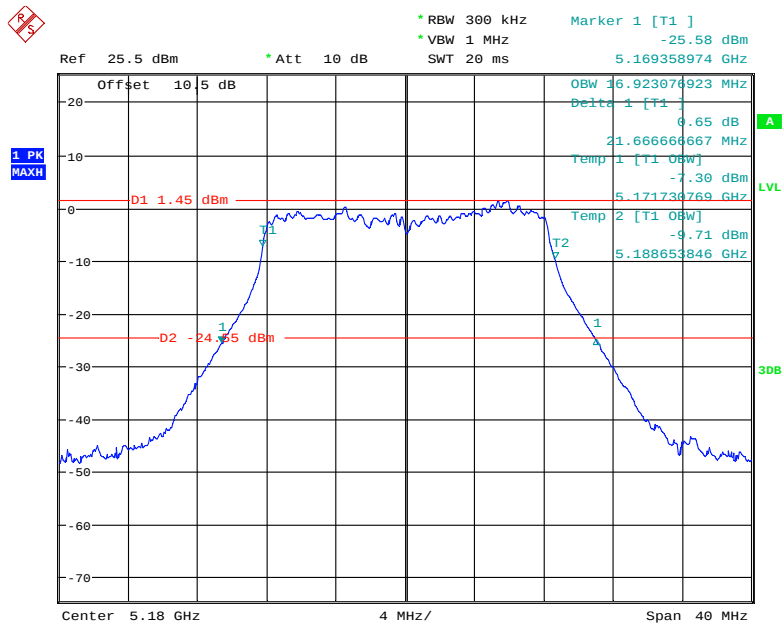
EUT operation mode: Transmitting

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

5120 MHz - 5250 MHz:

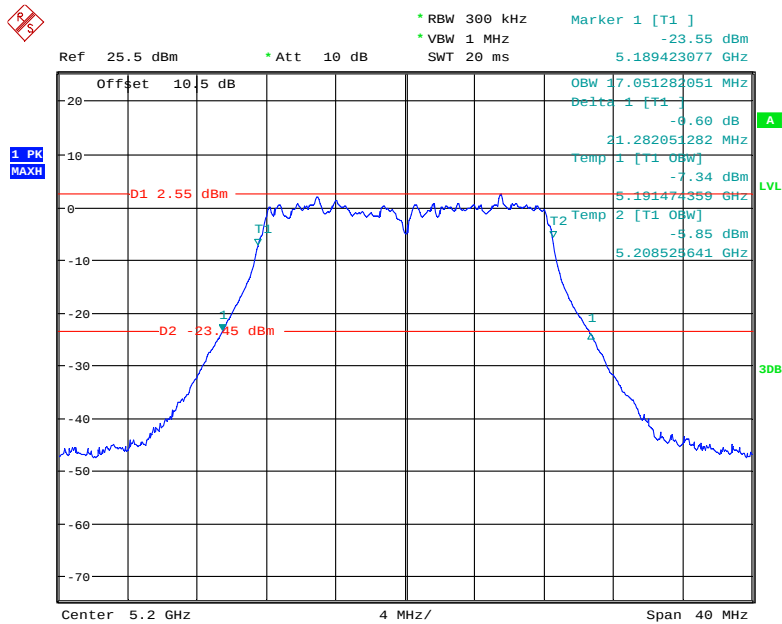
Frequency (MHz)	26dB bandwidth (MHz)	99% Bandwidth (MHz)	Remark
802.11a			No transmitted signal in the 99% bandwidth extends into the U-NII-2A band
5180	21.67	16.92	
5200	21.28	17.05	
5240	21.41	17.05	
802.11n20			
5180	22.88	18.21	
5200	22.50	18.08	
5240	22.31	18.08	
802.11n40			
5190	44.23	36.92	
5230	44.23	36.79	
802.11ac20			
5180	21.54	17.76	
5200	21.67	17.95	
5240	21.86	17.95	
802.11ac40			
5190	43.97	36.92	
5230	45.26	37.44	
802.11ac80			
5210	82.82	75.64	

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

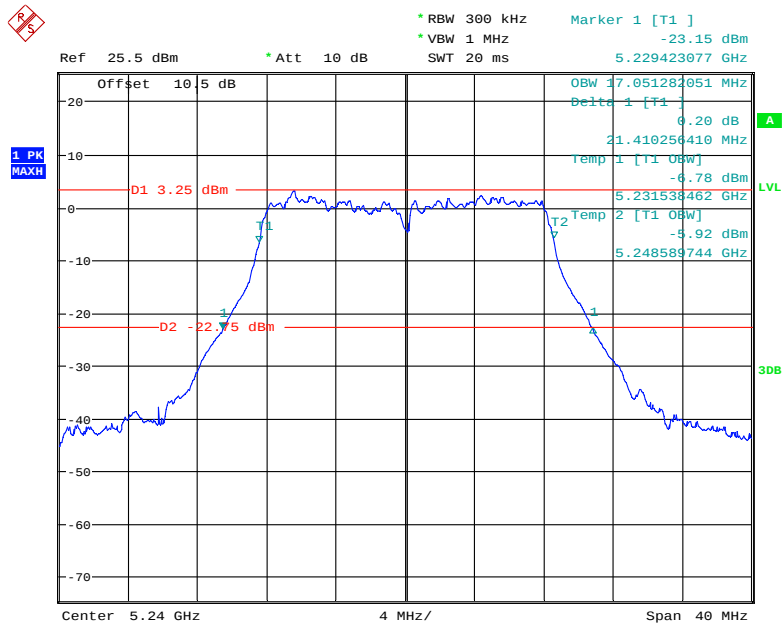


Date: 12.MAR.2018 23:59:39

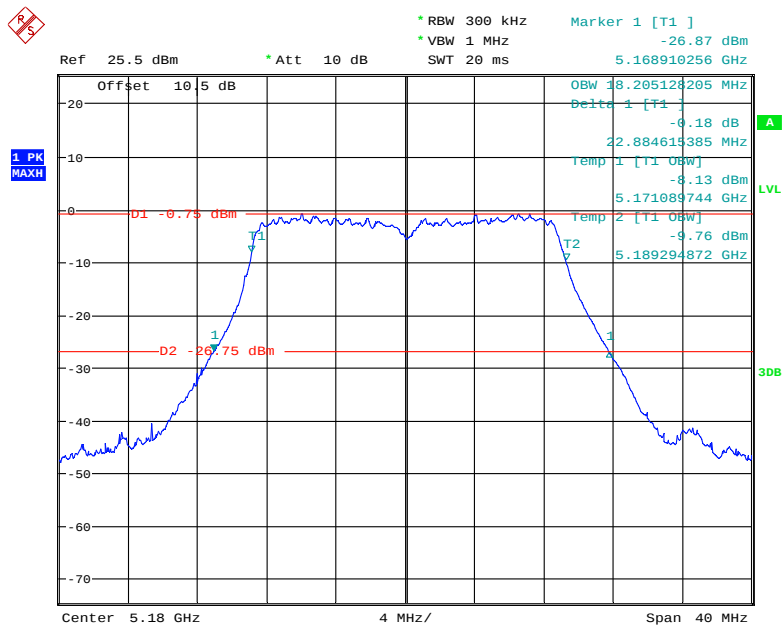
802.11a mode, 26 dB Emissions & 99% Occupied Bandwidth, 5200 MHz



Date: 13.MAR.2018 00:17:18

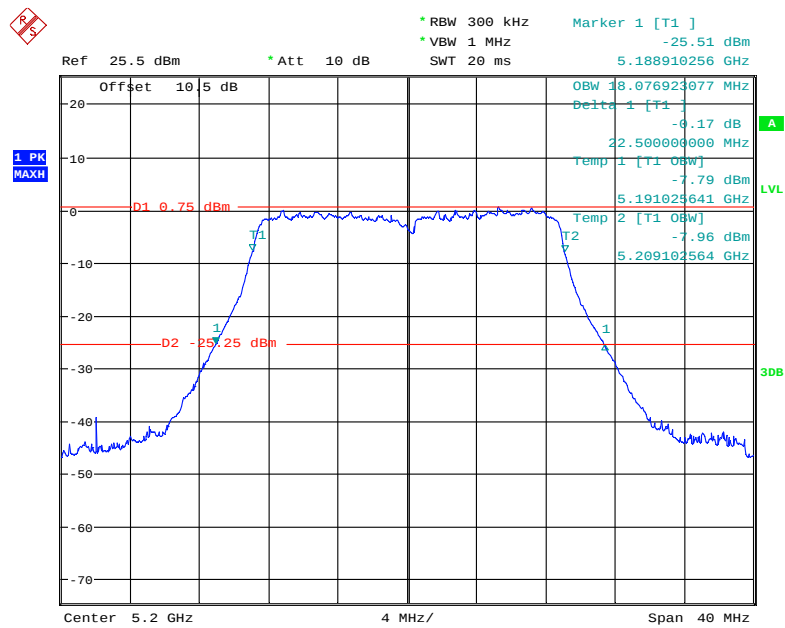
802.11a mode, 26 dB Emissions & 99% Occupied Bandwidth, 5240 MHz

Date: 13.MAR.2018 00:14:40

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

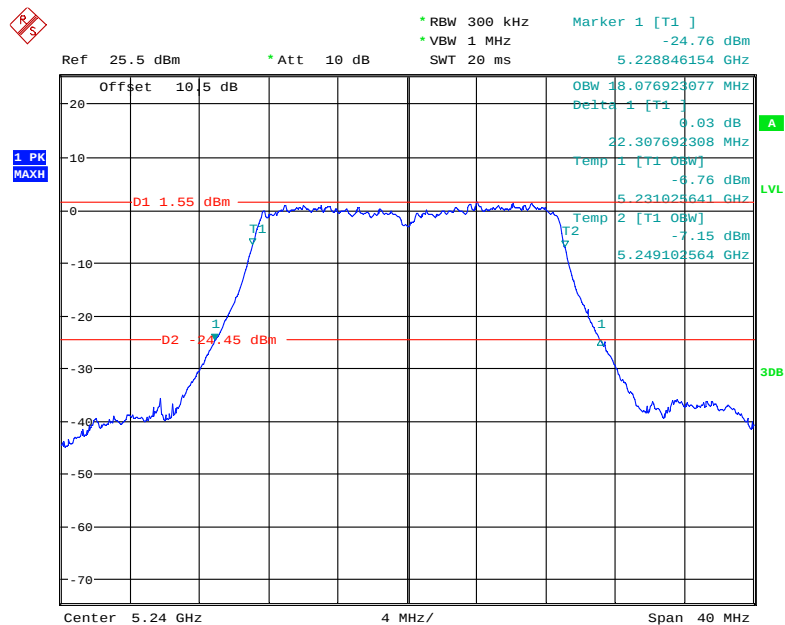
Date: 13.MAR.2018 00:54:44

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

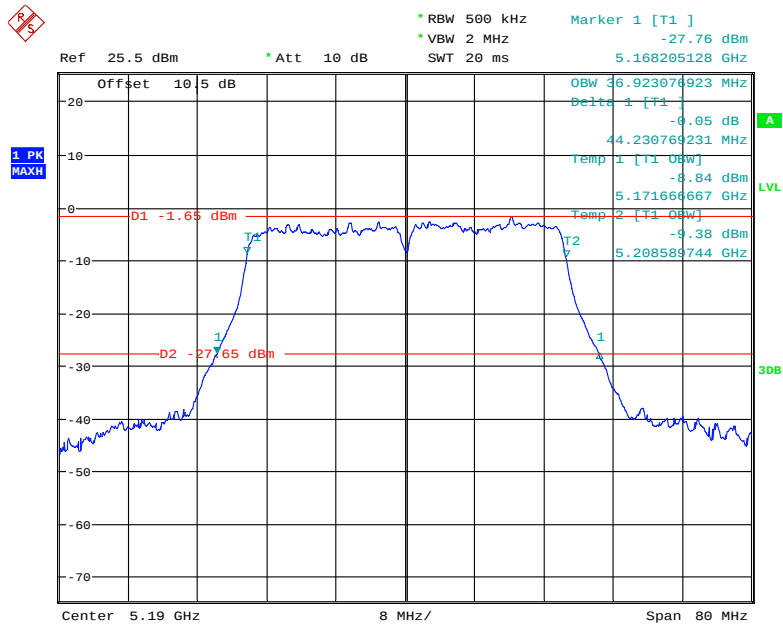


Date: 13.MAR.2018 00:57:00

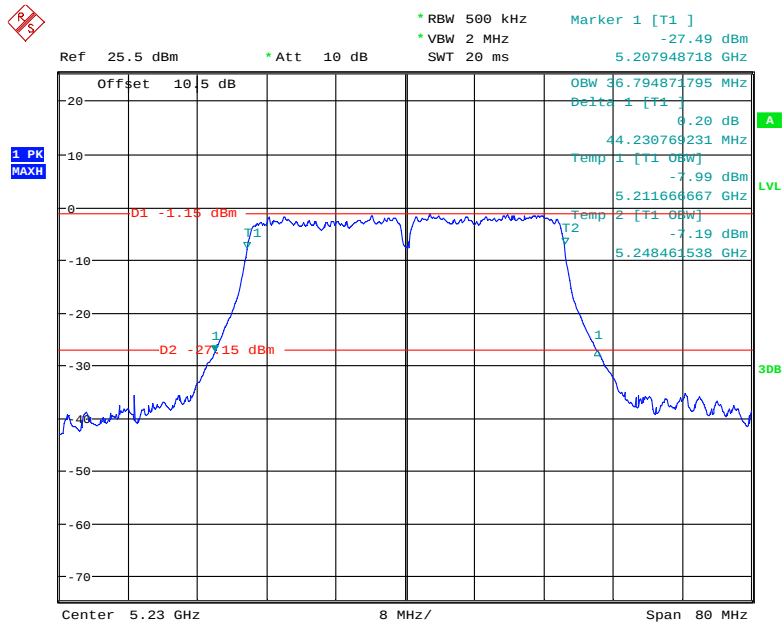
802.11n20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5240 MHz



Date: 13.MAR.2018 00:41:23

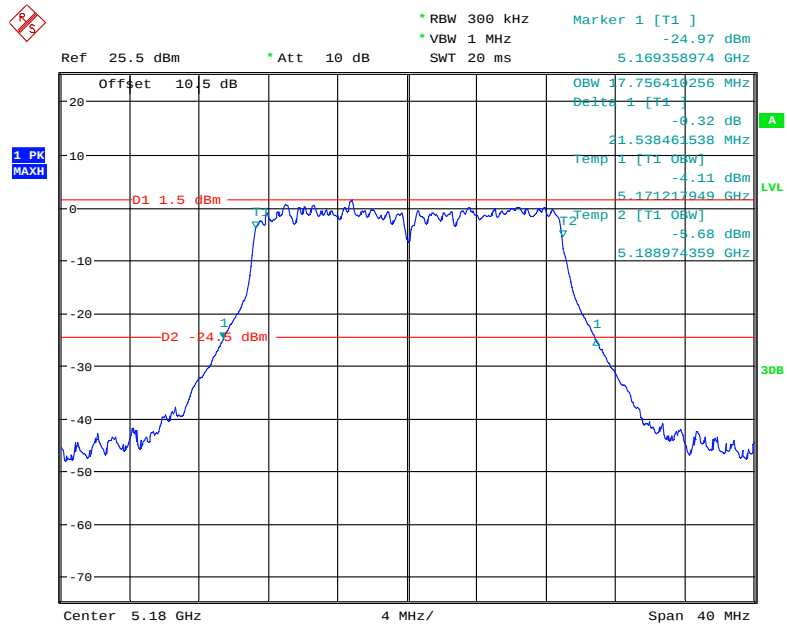
802.11n40 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5190 MHz

Date: 13.MAR.2018 23:47:27

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

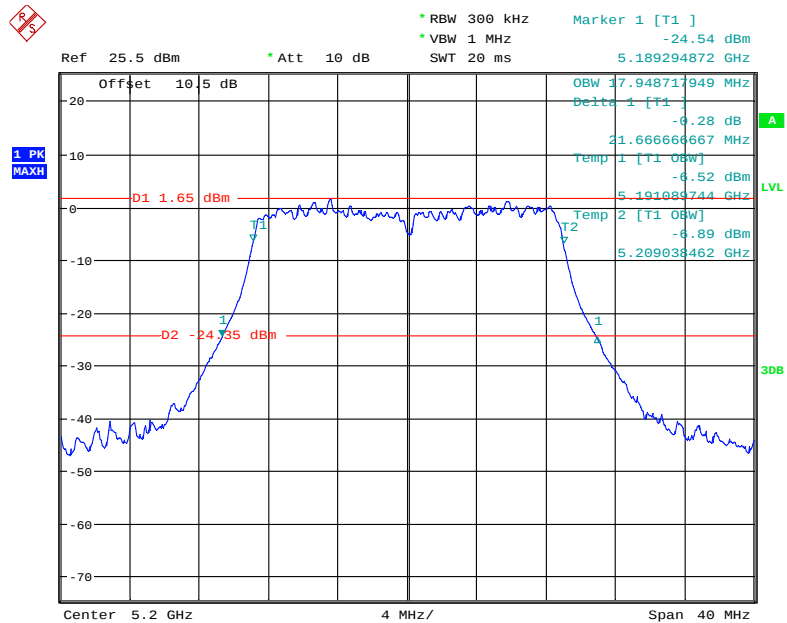
Date: 13.MAR.2018 23:56:03

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



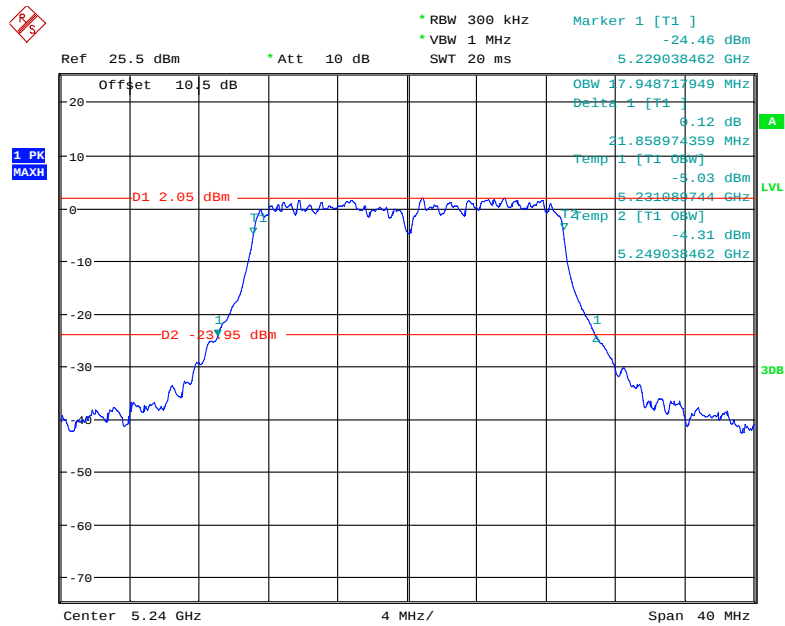
Date: 13.MAR.2018 00:26:04

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



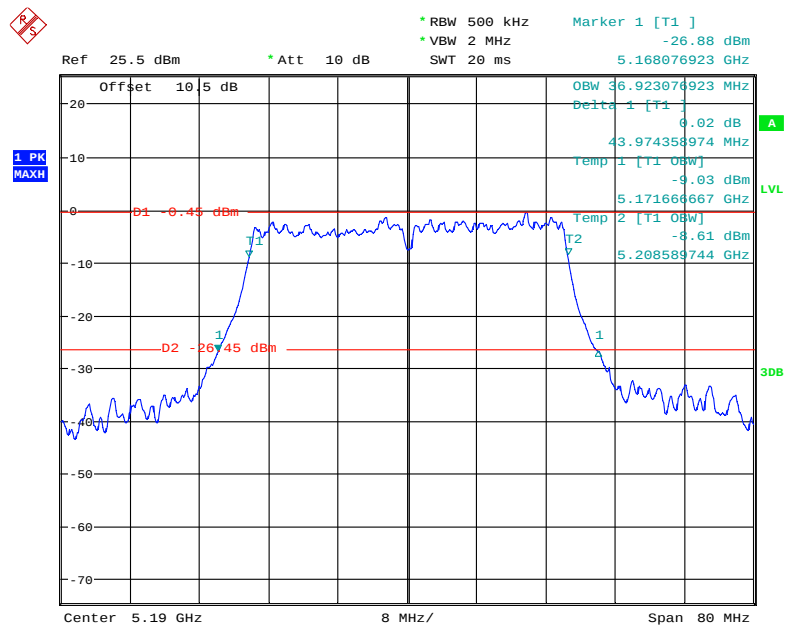
Date: 13.MAR.2018 00:22:46

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



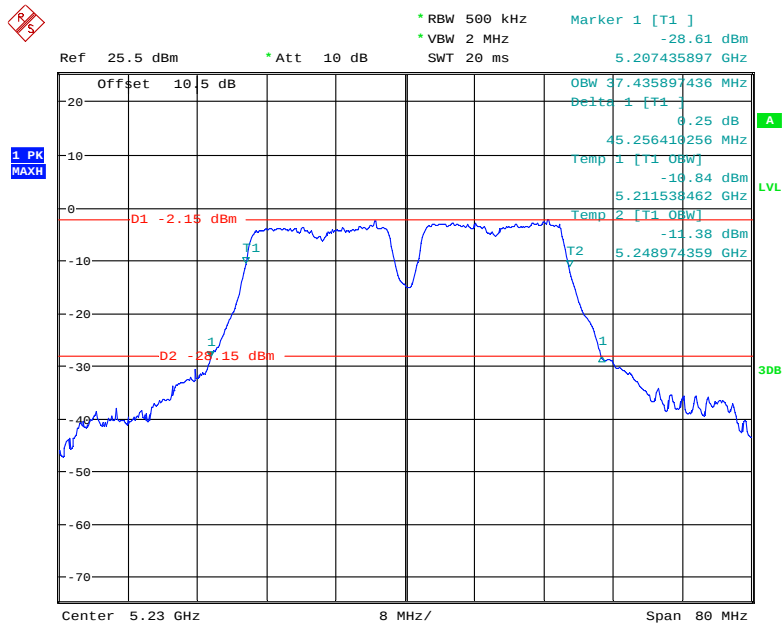
Date: 13.MAR.2018 00:36:31

802.11ac40 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5190 MHz



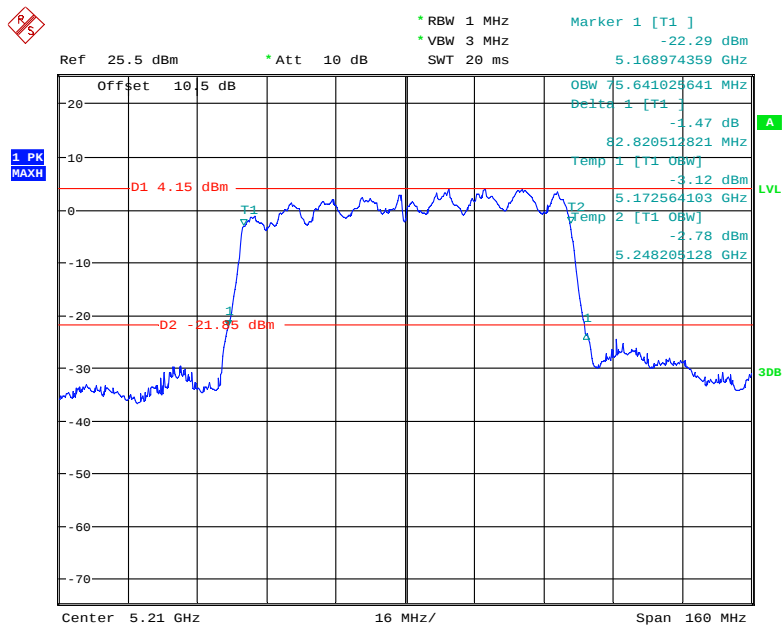
Date: 14.MAR.2018 00:14:34

802.11ac40 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5230 MHz



Date: 14.MAR.2018 00:02:12

802.11ac80 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5210 MHz

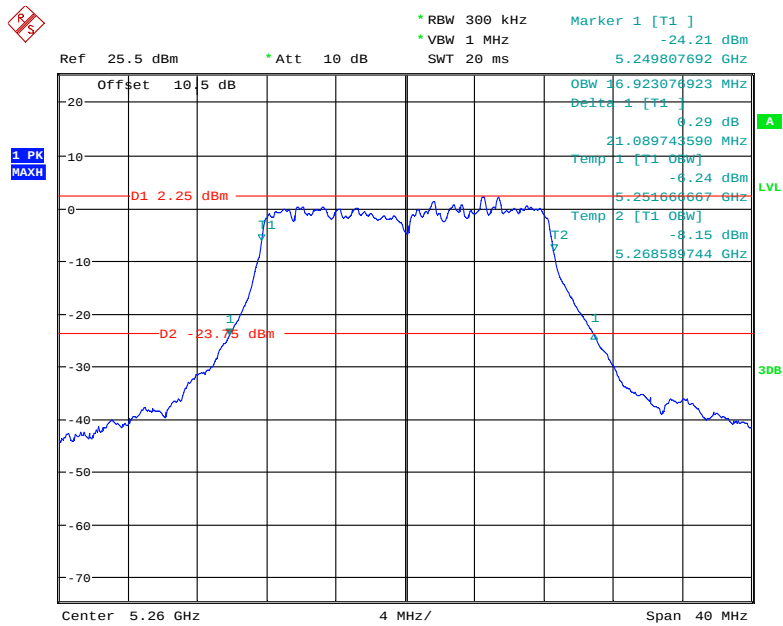


Date: 1.APR.2018 11:55:29

5250 MHz - 5350 MHz:

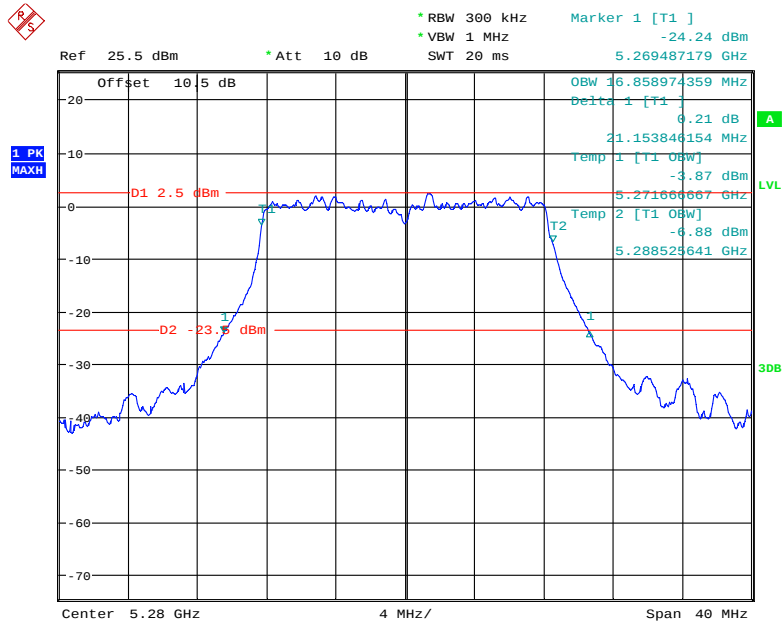
Frequency (MHz)	26dB bandwidth (MHz)	99% Bandwidth (MHz)
802.11a		
5260	21.09	16.92
5280	21.15	16.86
5320	20.83	16.79
802.11n20		
5260	22.63	18.01
5280	21.92	17.95
5320	21.99	17.95
802.11n40		
5270	44.62	37.05
5310	44.62	36.92
802.11ac20		
5260	21.60	17.95
5280	21.22	17.88
5320	21.54	17.88
802.11ac40		
5270	43.33	36.92
5310	44.10	36.92
802.11ac80		
5290	82.31	75.38

802.11a mode, 26 dB Emissions & 99% Occupied Bandwidth, 5260 MHz

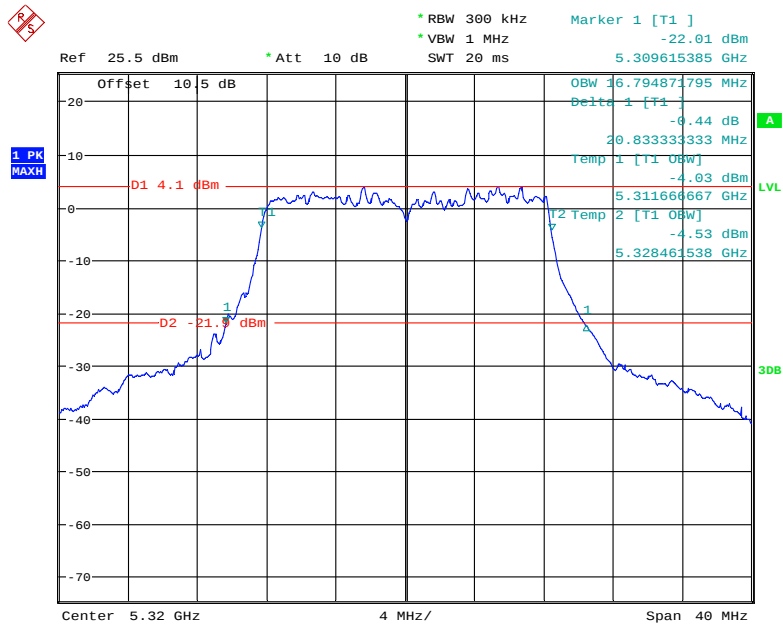


Date: 15.MAR.2018 00:22:56

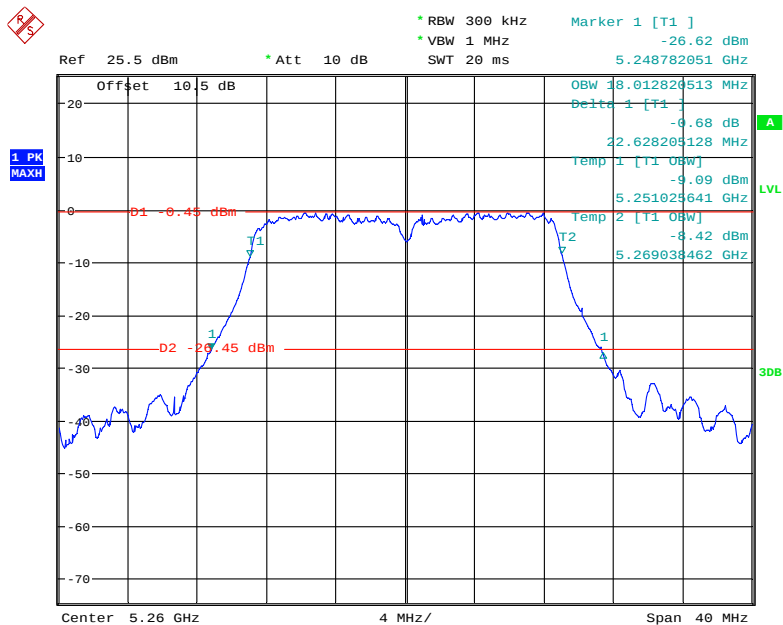
802.11a mode, 26 dB Emissions & 99% Occupied Bandwidth, 5280 MHz



Date: 15.MAR.2018 00:25:10

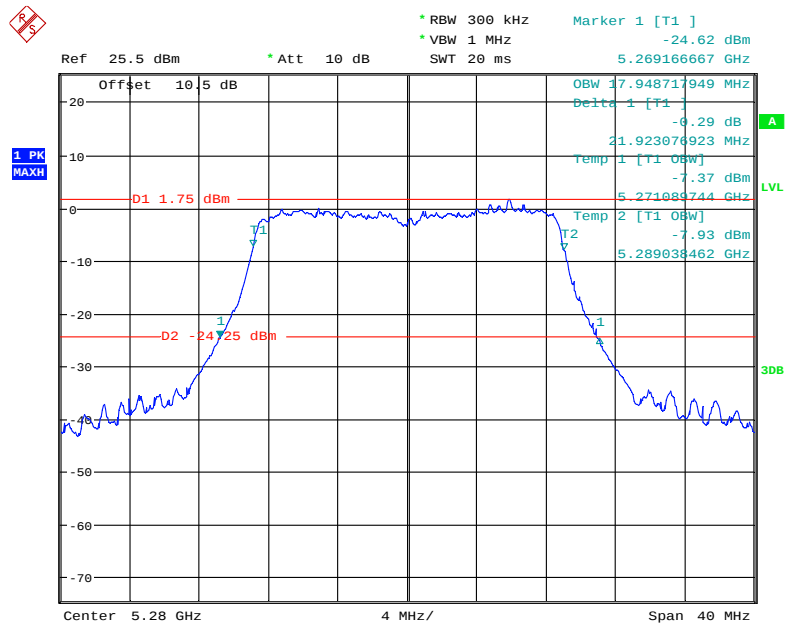
802.11a mode, 26 dB Emissions & 99% Occupied Bandwidth, 5320 MHz

Date: 15.MAR.2018 00:01:57

802.11n20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5260 MHz

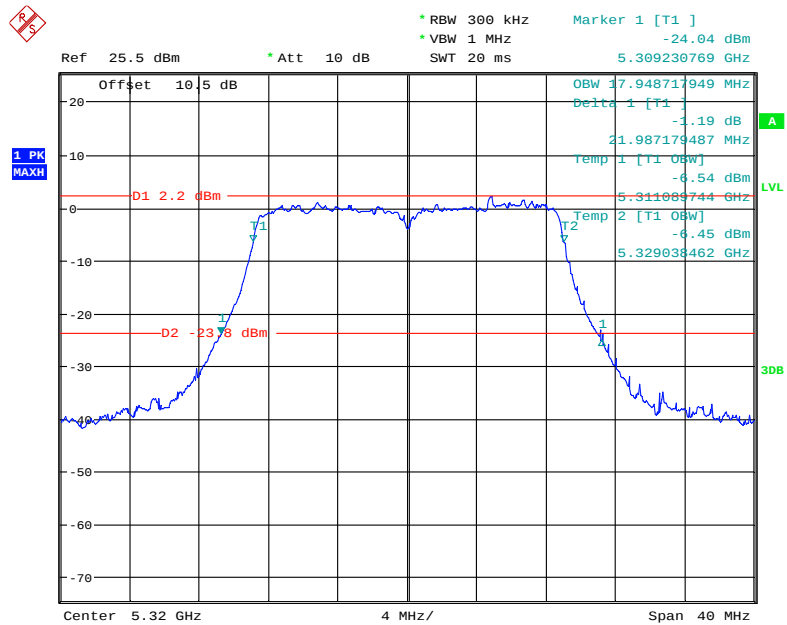
Date: 14.MAR.2018 22:59:39

802.11n20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5280 MHz



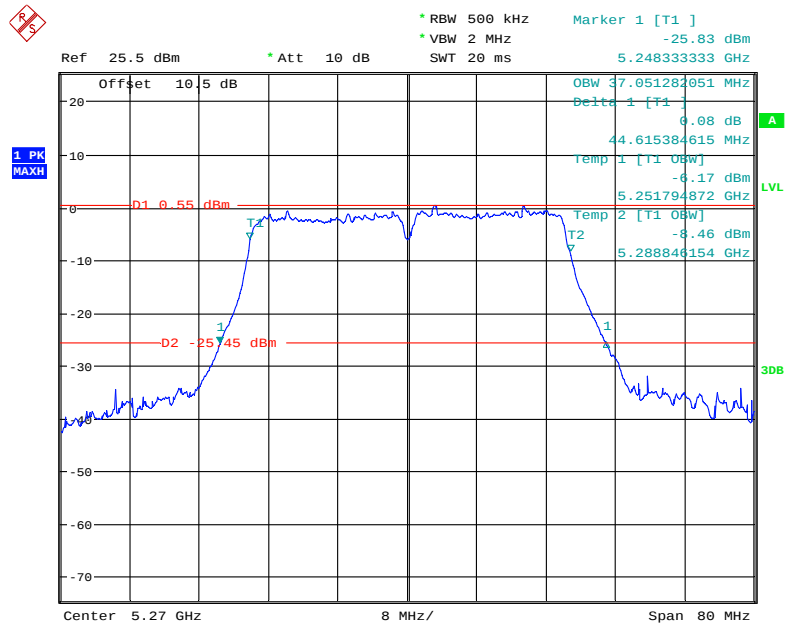
Date: 14.MAR.2018 23:09:34

802.11n20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5320 MHz



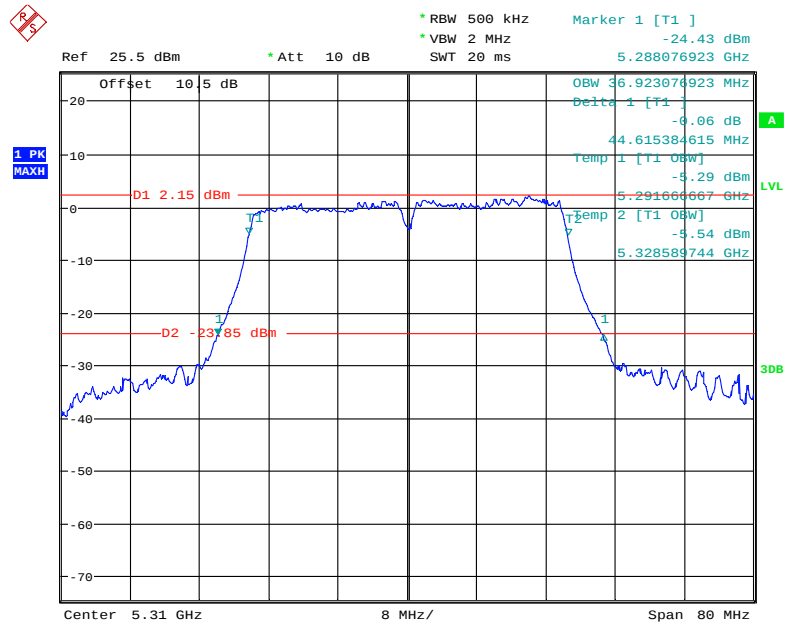
Date: 14.MAR.2018 22:56:08

802.11n40 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5270 MHz

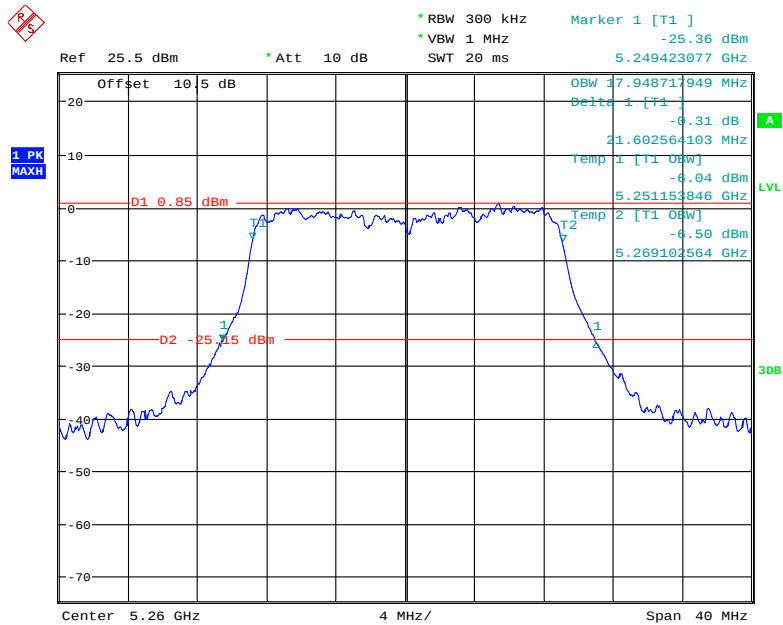


Date: 14.MAR.2018 22:30:46

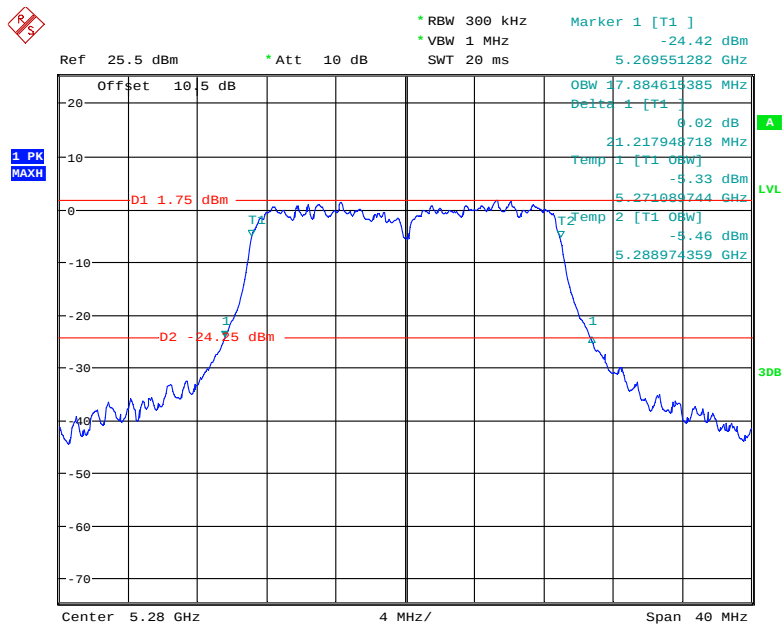
802.11n40 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5310 MHz



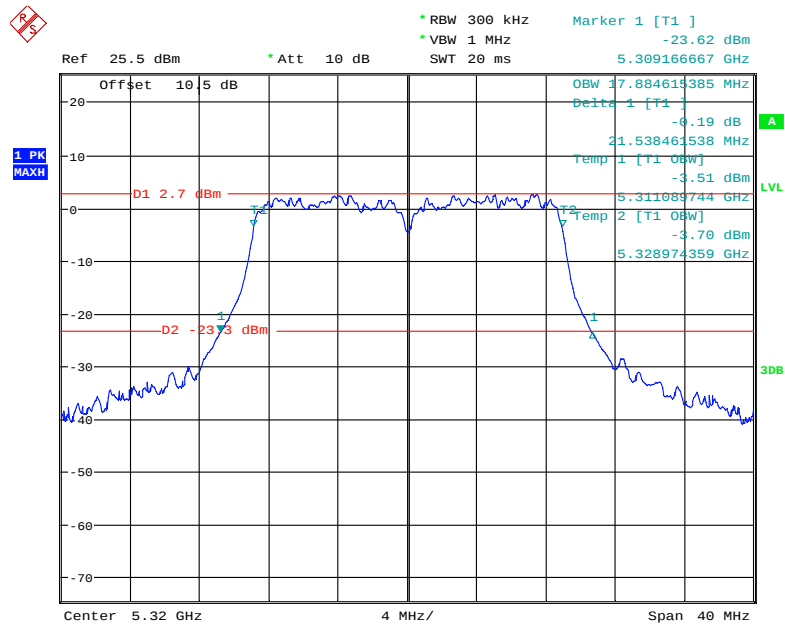
Date: 14.MAR.2018 22:33:17

802.11ac20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5260 MHz

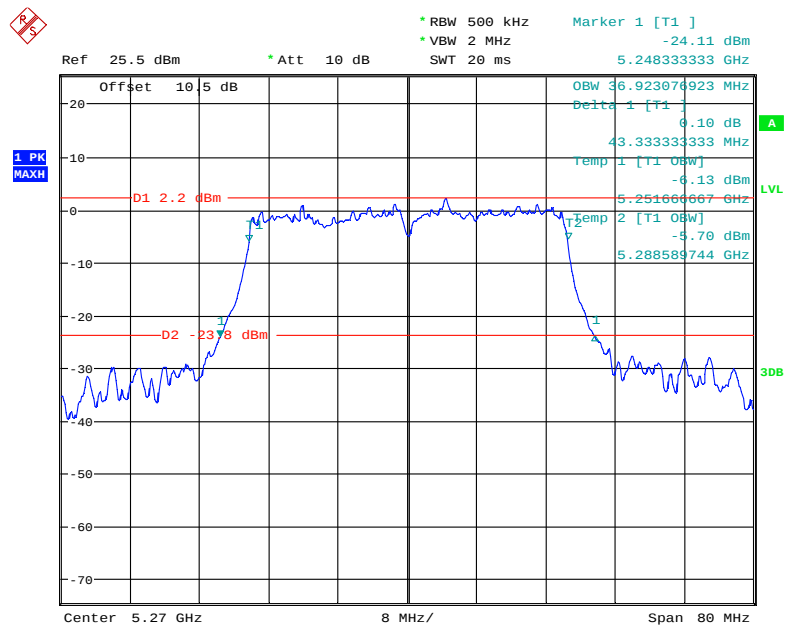
Date: 14.MAR.2018 23:20:32

802.11ac20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5280 MHz

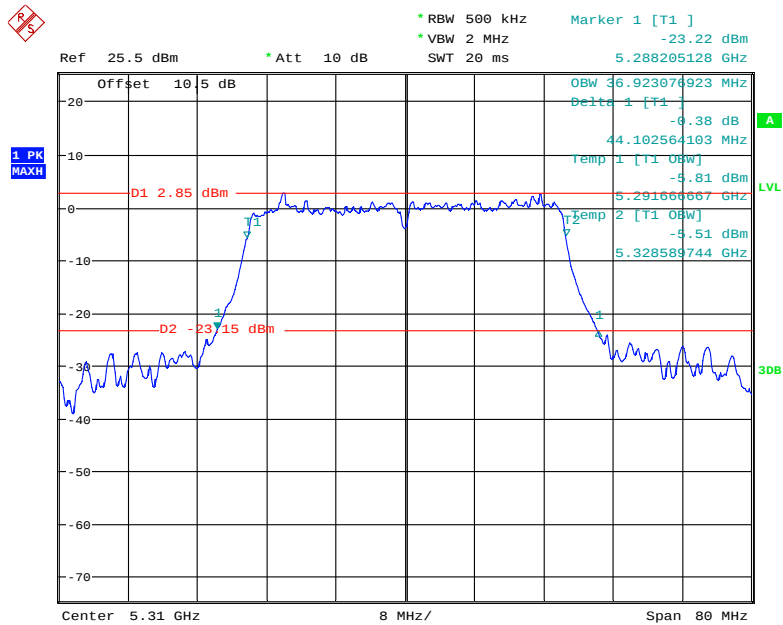
Date: 14.MAR.2018 23:14:01

802.11ac20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5320 MHz

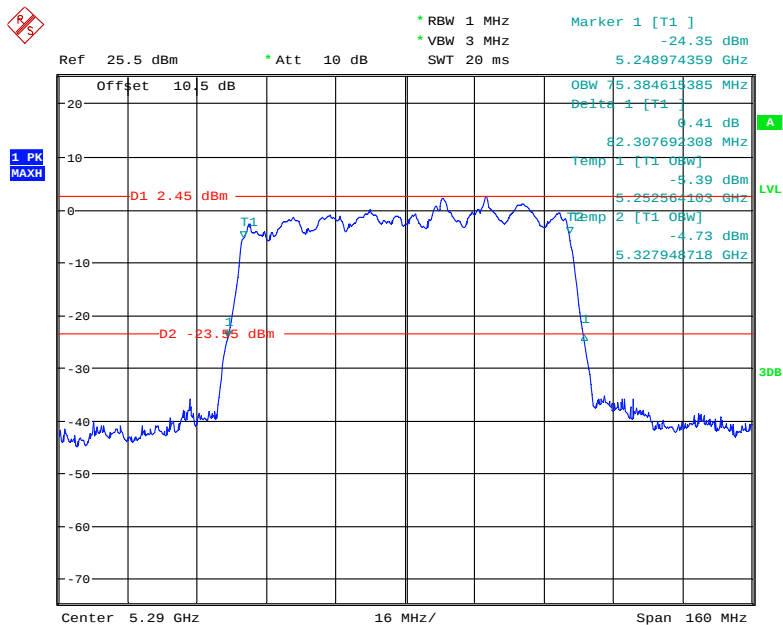
Date: 14.MAR.2018 23:33:37

802.11ac40 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5270 MHz

Date: 14.MAR.2018 22:22:50

802.11ac40 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5310 MHz

Date: 14.MAR.2018 22:19:30

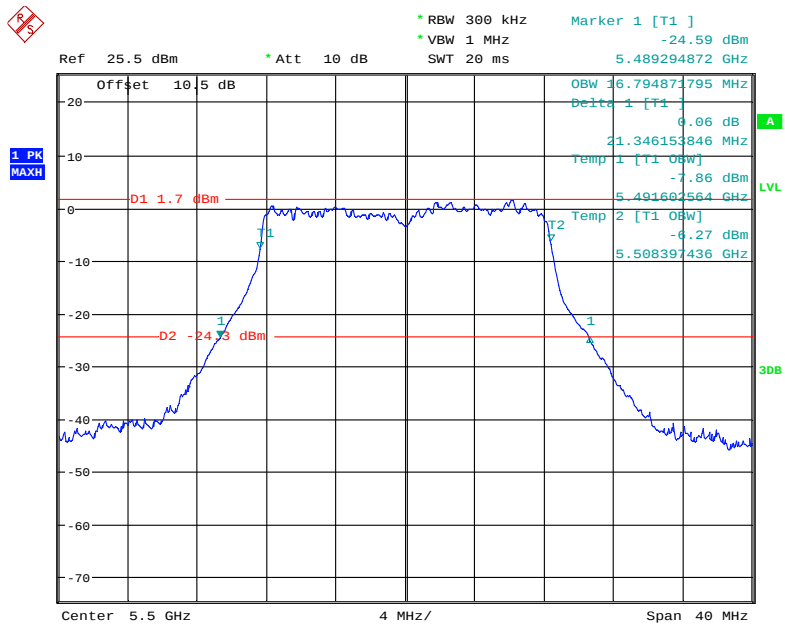
802.11ac80 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5290 MHz

Date: 1.APR.2018 13:12:11

5470 MHz – 5725 MHz:

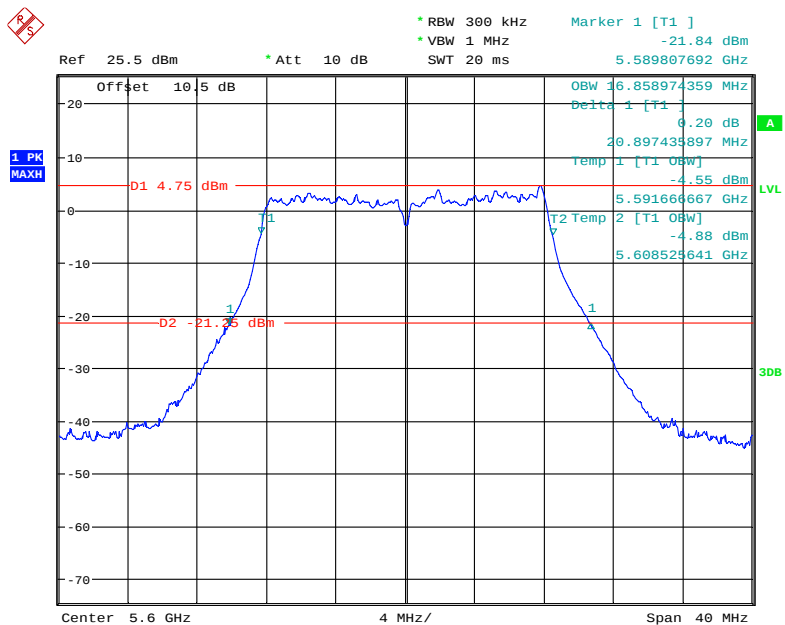
Frequency (MHz)	26dB bandwidth (MHz)	99% Bandwidth (MHz)
802.11a		
5500	21.35	16.79
5600	21.90	16.86
5700	21.47	17.05
802.11n20		
5500	22.37	18.01
5600	22.69	18.01
5700	22.82	18.14
802.11n40		
5510	44.49	36.79
5590	44.36	36.79
5670	44.49	36.79
802.11ac20		
5500	21.54	17.88
5600	22.12	18.21
5700	21.28	17.88
802.11ac40		
5510	43.72	36.79
5590	43.97	36.79
5670	43.85	36.79
802.11ac80		
5530	82.31	75.64
5610	83.33	75.64

802.11a mode, 26 dB Emissions & 99% Occupied Bandwidth, 5500 MHz



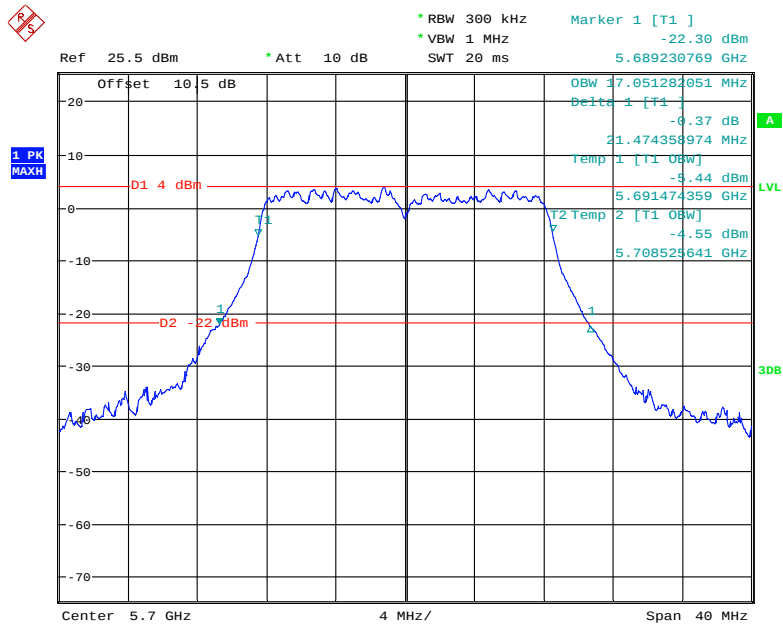
Date: 15.MAR.2018 21:51:12

802.11a mode, 26 dB Emissions & 99% Occupied Bandwidth, 5600 MHz



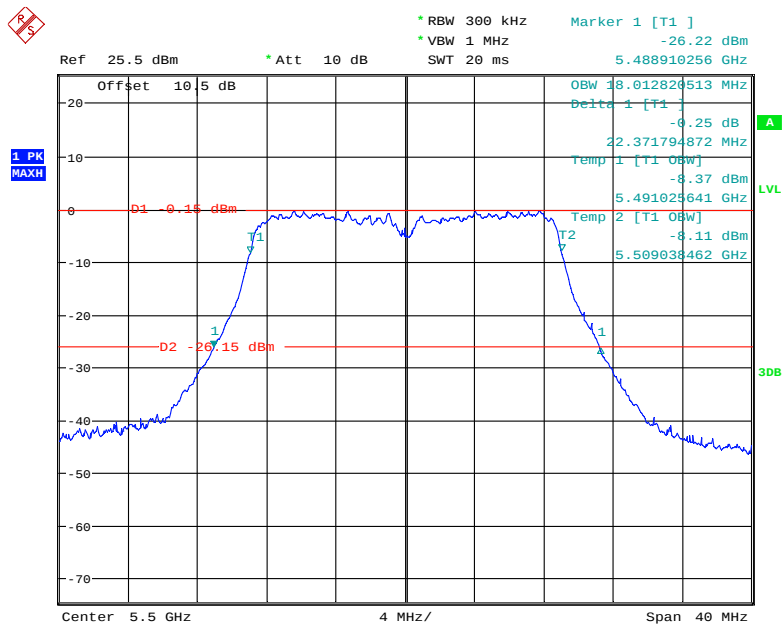
Date: 15.MAR.2018 21:44:49

802.11a mode, 26 dB Emissions & 99% Occupied Bandwidth, 5700 MHz



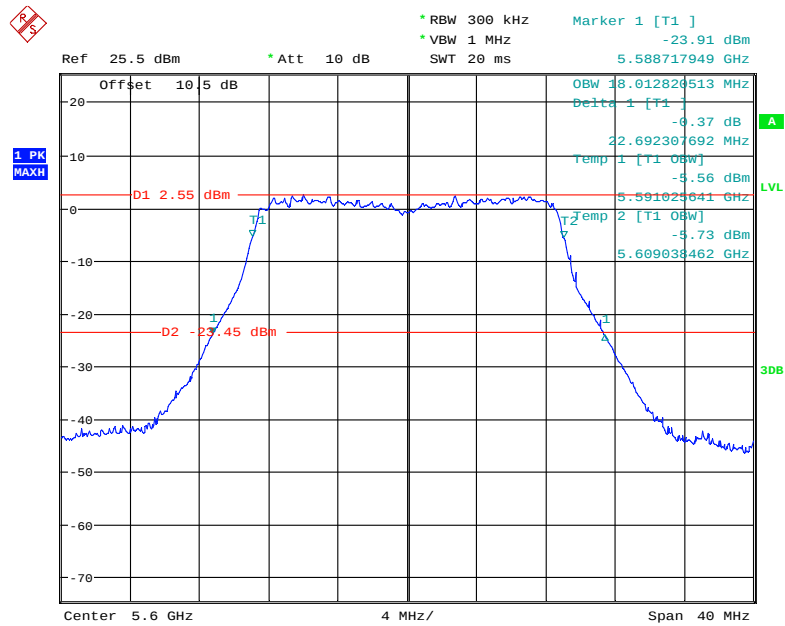
Date: 10.APR.2018 22:37:32

802.11n20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5500 MHz



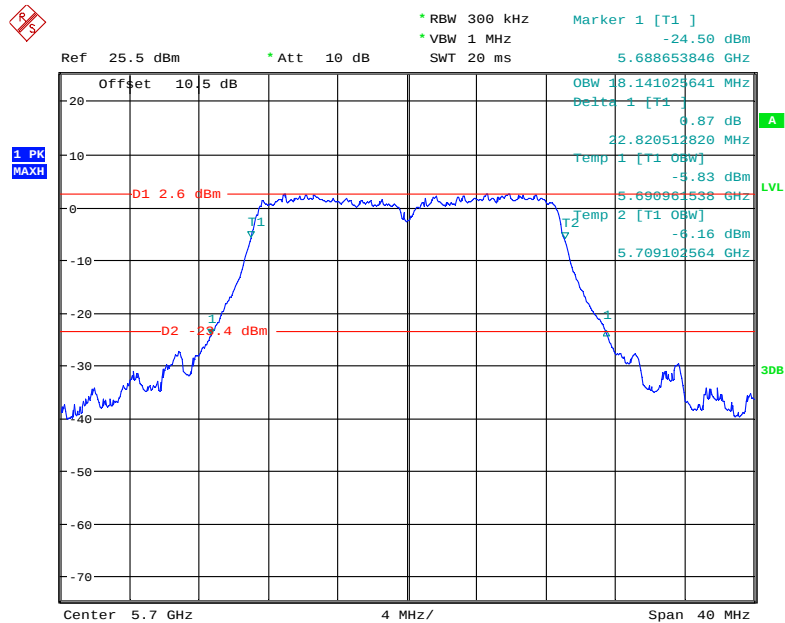
Date: 15.MAR.2018 21:00:26

802.11n20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5600 MHz



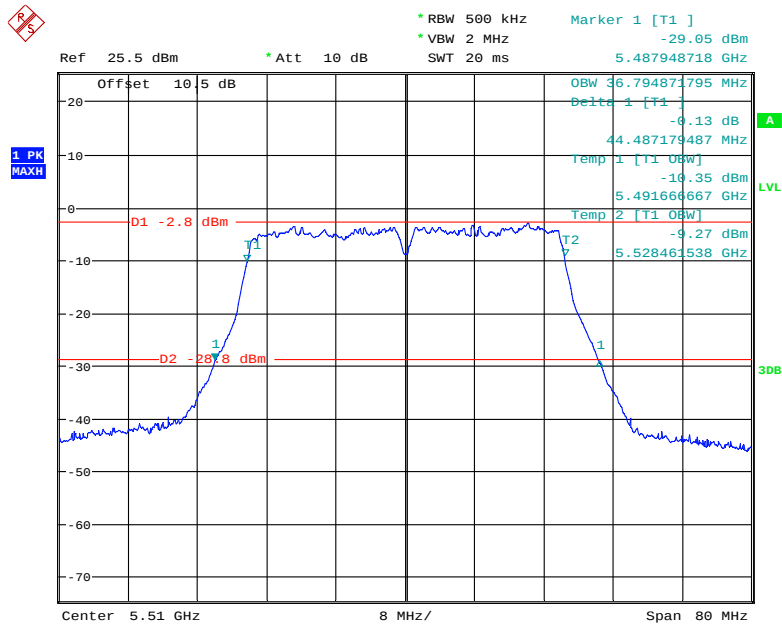
Date: 15.MAR.2018 20:54:54

802.11n20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5700 MHz



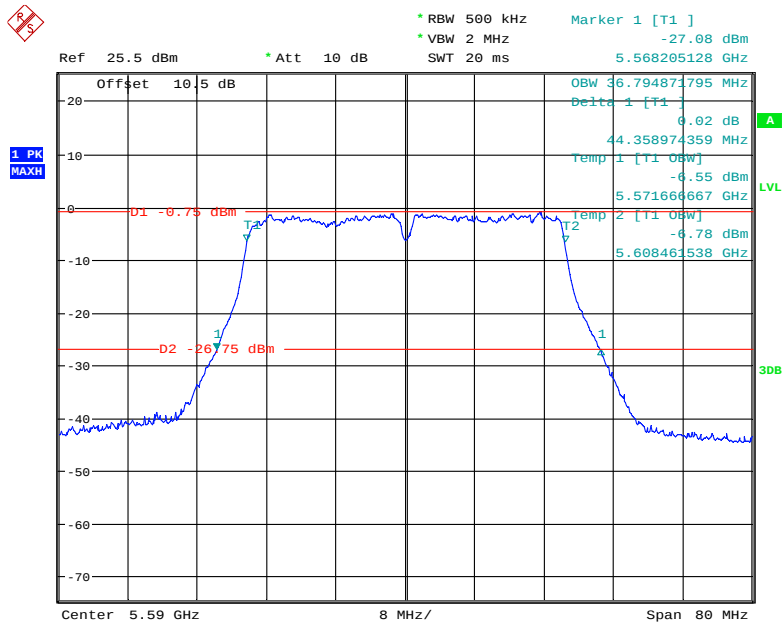
Date: 10.APR.2018 22:34:07

802.11n40 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5510 MHz



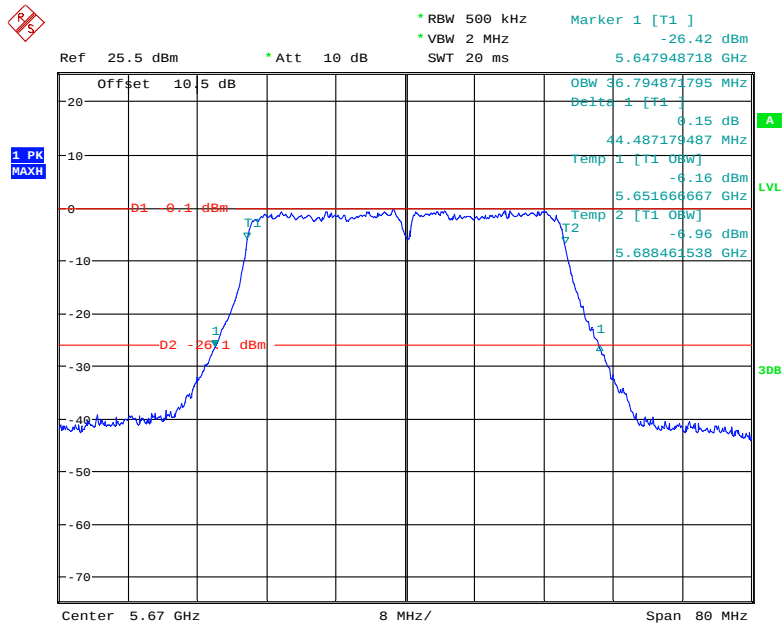
Date: 15.MAR.2018 20:45:08

802.11n40 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5590 MHz



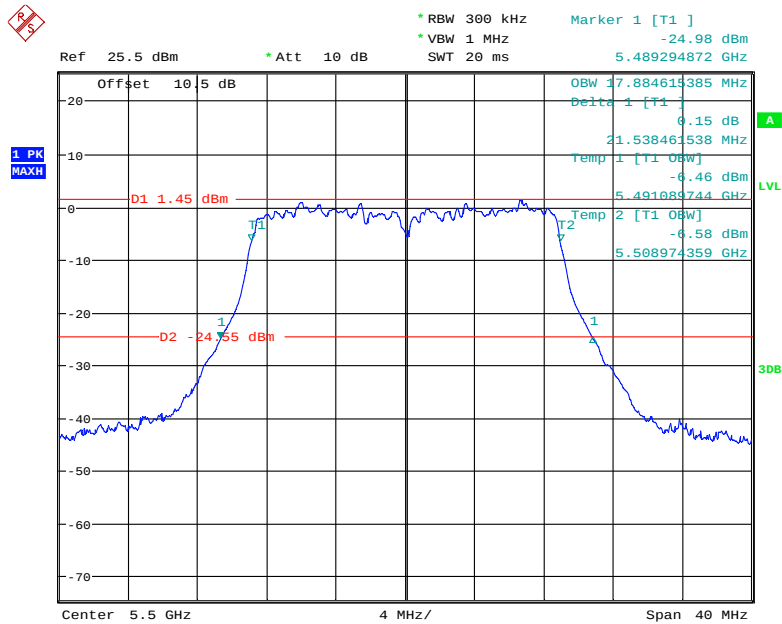
Date: 15.MAR.2018 20:48:03

802.11 n40 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5670 MHz

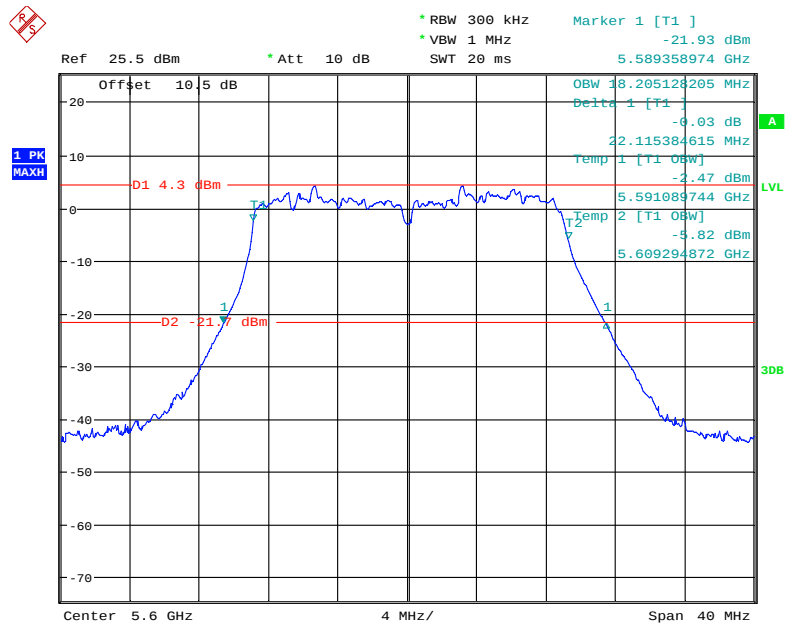


Date: 10.APR.2018 22:30:54

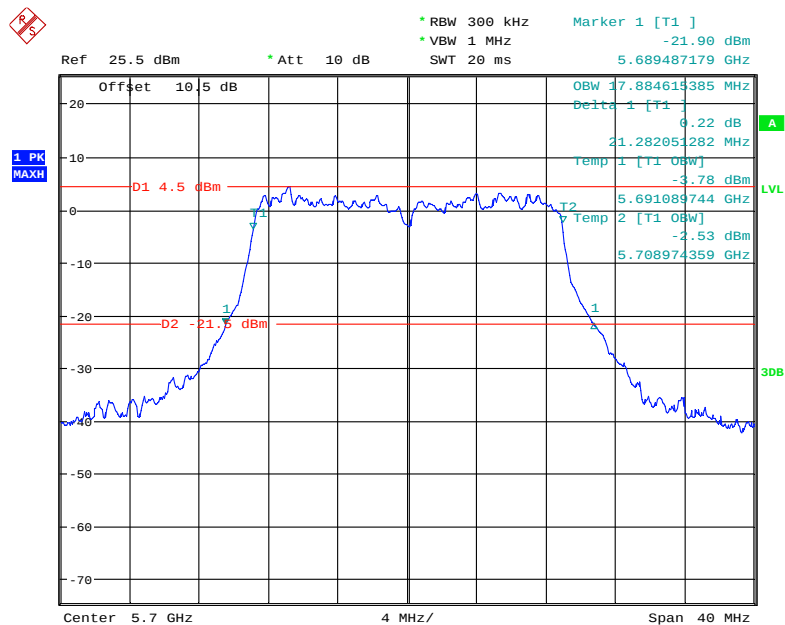
802.11ac20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5500 MHz



Date: 15.MAR.2018 21:31:10

802.11ac20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5600 MHz

Date: 15.MAR.2018 21:40:07

802.11ac20 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5700 MHz

Date: 10.APR.2018 22:35:57

Ref 25.5 dBm * Att 10 dB RBW 500 kHz VBW 2 MHz SWT 20 ms Marker 1 [T1] -27.35 dBm 5.488333333 GHz

Offset 10.5 dB

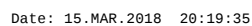
1 PK MAXH

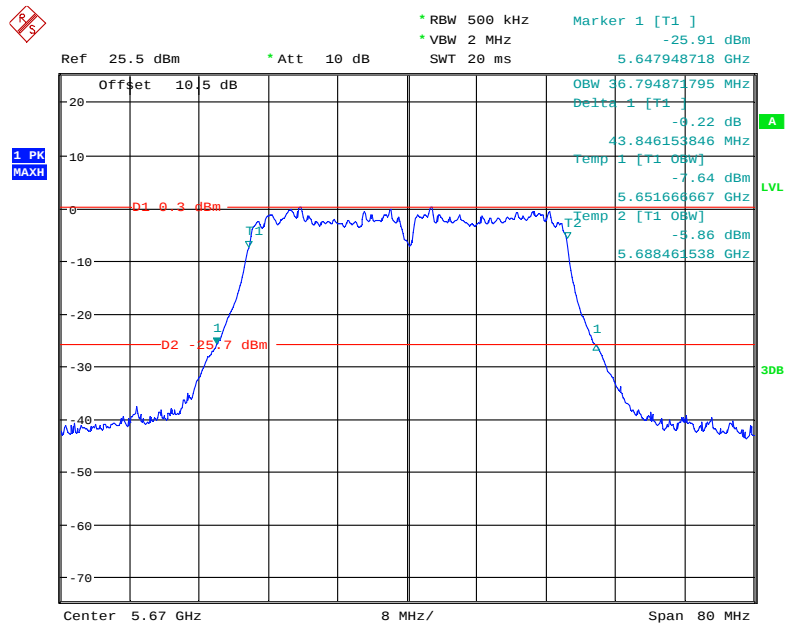
OBW 36.794871795 MHz Delta 1 [T1] -0.06 dB 43.717948718 MHz Temp 1 [T1] OBW -9.64 dB 5.491666667 GHz Temp 2 [T1] OBW -8.34 dB 5.528466538 GHz

D1 -1 dBm D2 -27 dBm

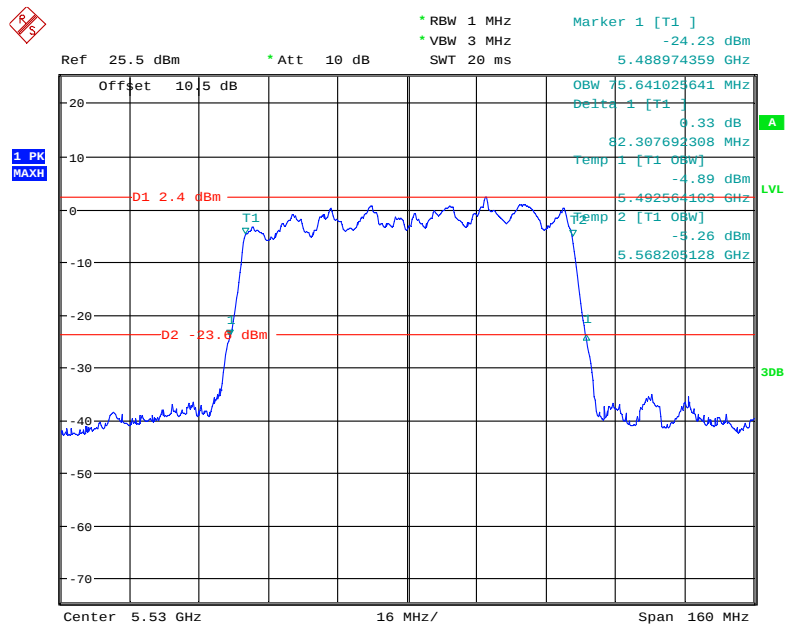
Center 5.51 GHz 8 MHz/ Span 80 MHz

802.11ac40 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5590 MHz



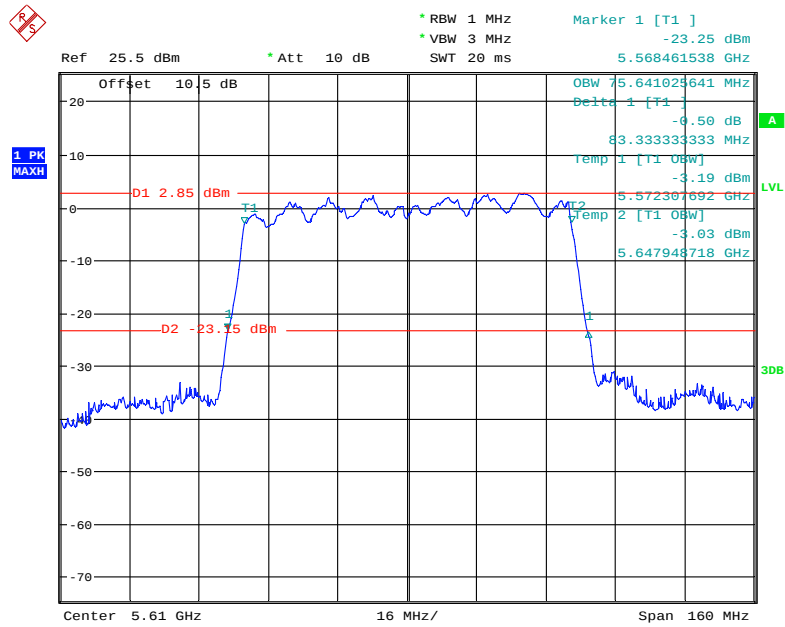
802.11ac40 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5670 MHz

Date: 10.APR.2018 22:28:34

802.11ac80 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5530 MHz

Date: 15.MAR.2018 20:03:28

802.11ac80 mode, 26 dB Emissions & 99% Occupied Bandwidth, 5610 MHz

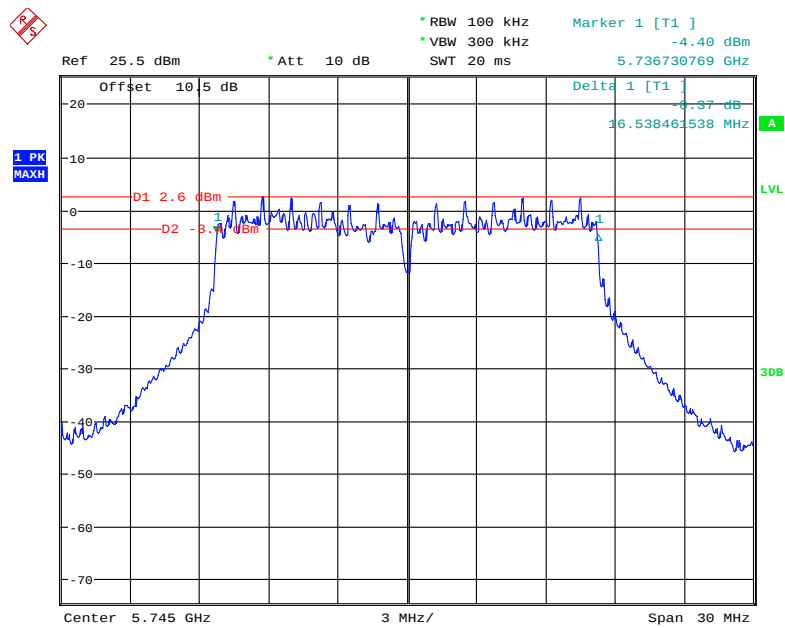


Date: 15.MAR.2018 20:14:44

5725 MHz – 5850 MHz:

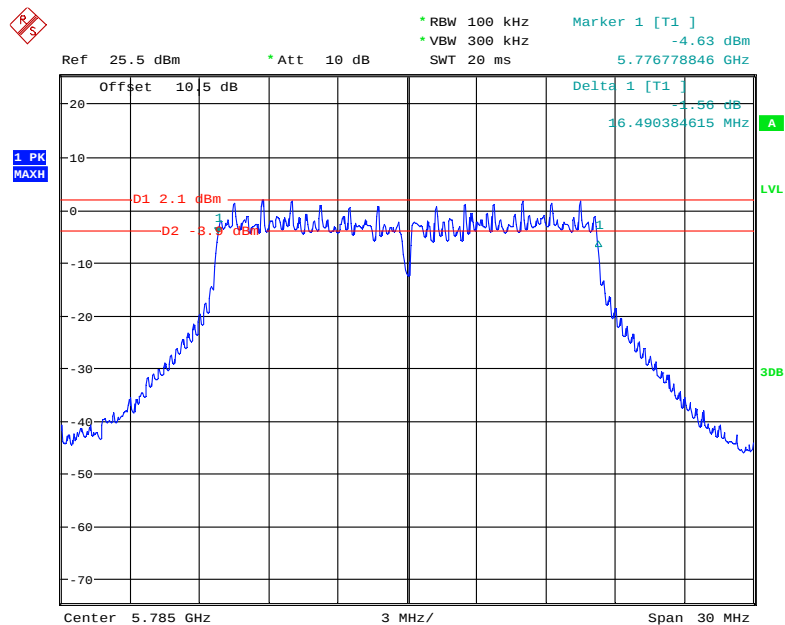
Frequency (MHz)	6dB bandwidth (MHz)	99% Bandwidth (MHz)	Limit (MHz)	Remark
802.11a				No transmitted signal in the 99% bandwidth extends into the U-NII-2C band
5745	16.54	16.86	0.5	
5785	16.49	16.92	0.5	
5825	16.49	16.92	0.5	
802.11n20				
5745	17.40	18.08	0.5	
5785	17.16	18.01	0.5	
5825	17.60	18.14	0.5	
802.11n40				
5755	36.25	37.05	0.5	
5795	36.25	36.92	0.5	
802.11ac20				
5745	17.74	17.95	0.5	
5785	17.74	17.95	0.5	
5825	17.60	17.88	0.5	
802.11ac40				
5755	36.64	36.92	0.5	
5795	36.35	36.92	0.5	
802.11ac80				
5775	75.58	75.90	0.5	

802.11a mode, 6dB Emission Bandwidth, 5745 MHz



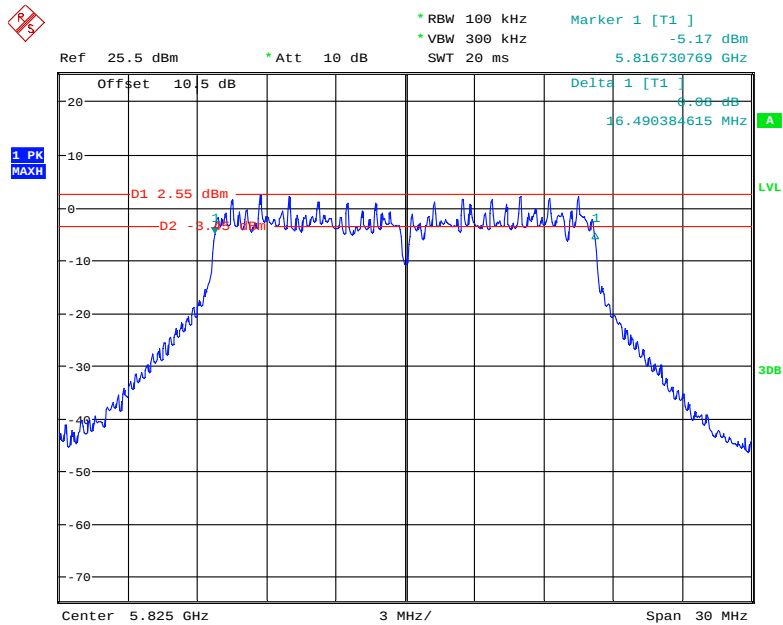
Date: 18.MAR.2018 13:14:42

802.11a mode, 6dB Emission Bandwidth, 5785 MHz



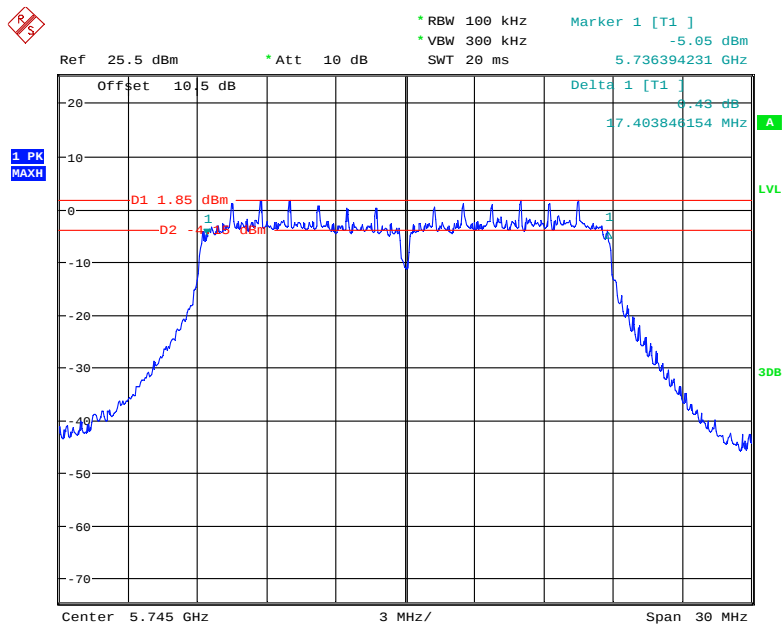
Date: 18.MAR.2018 13:57:37

802.11a mode, 6dB Emission Bandwidth, 5825 MHz



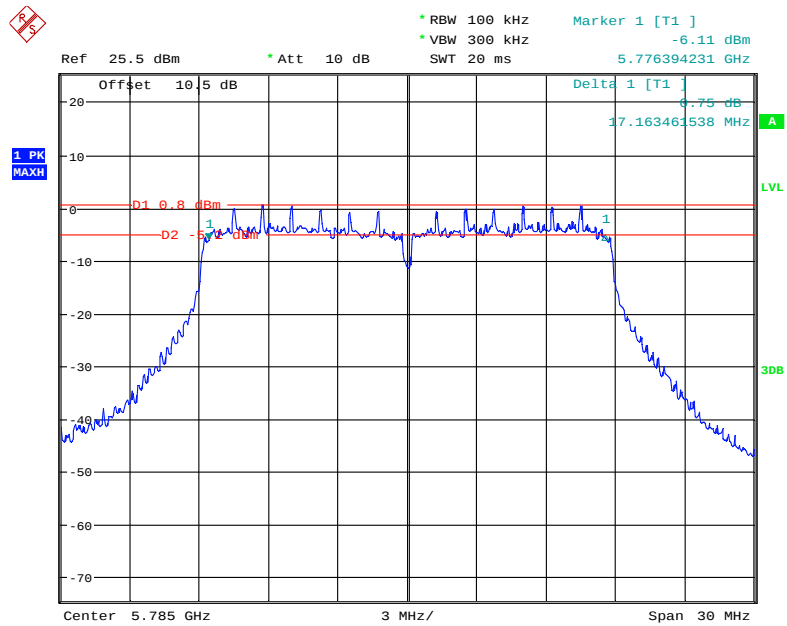
Date: 18.MAR.2018 14:02:10

802.11n20 mode, 6dB Emission Bandwidth, 5745 MHz



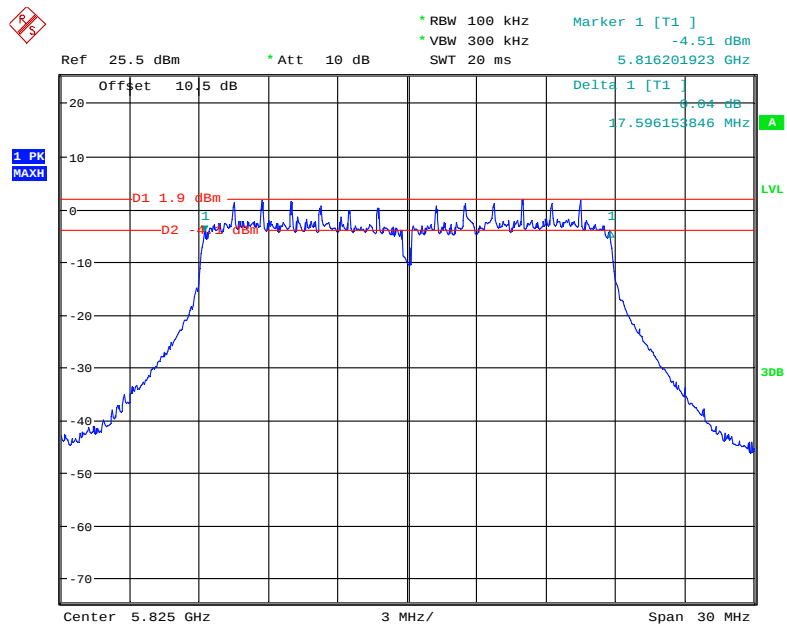
Date: 18.MAR.2018 13:28:13

802.11n20 mode, 6dB Emission Bandwidth, 5785 MHz



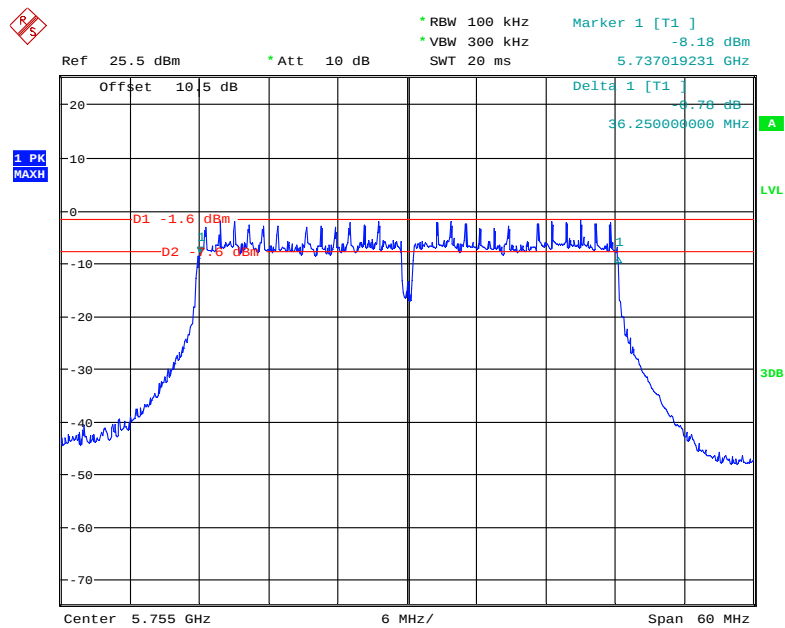
Date: 18.MAR.2018 13:36:56

802.11n20 mode, 6dB Emission Bandwidth, 5825 MHz



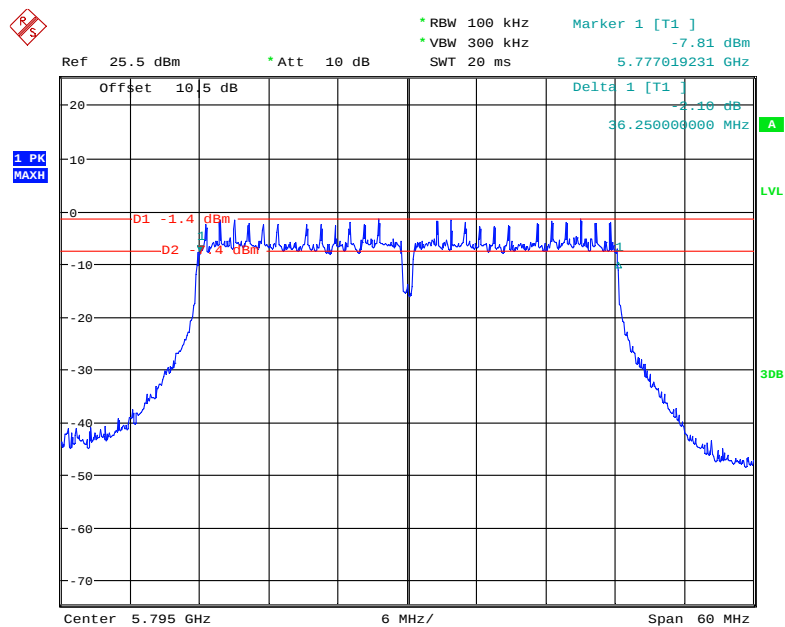
Date: 18.MAR.2018 14:08:17

802.11n40 mode, 6dB Emission Bandwidth, 5755 MHz



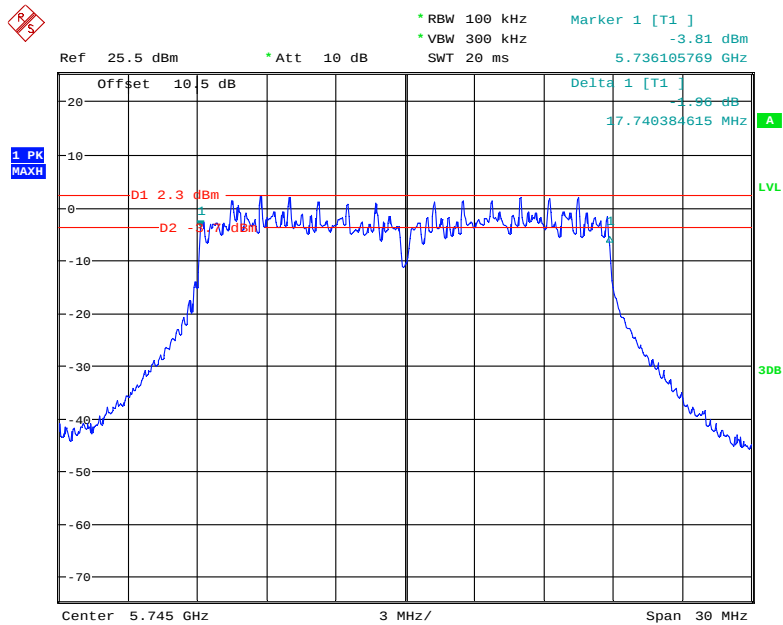
Date: 18.MAR.2018 14:43:20

802.11n40 mode, 6dB Emission Bandwidth, 5795 MHz



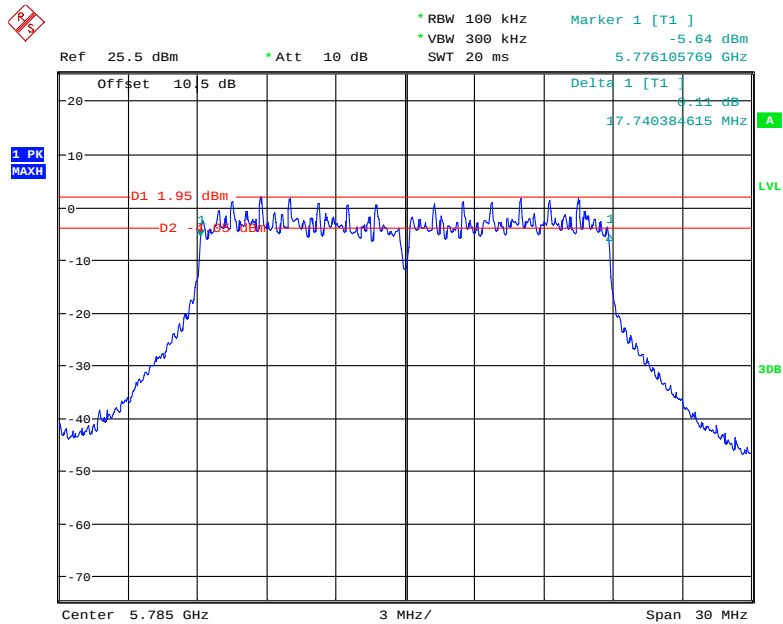
Date: 18.MAR.2018 14:35:22

802.11ac20 mode, 6dB Emission Bandwidth, 5745 MHz



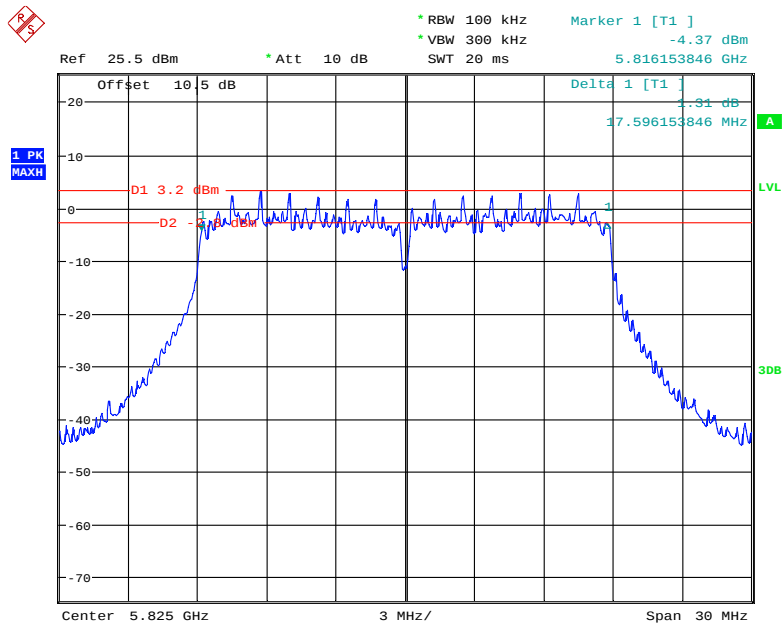
Date: 18.MAR.2018 13:21:47

802.11ac20 mode, 6dB Emission Bandwidth, 5785 MHz



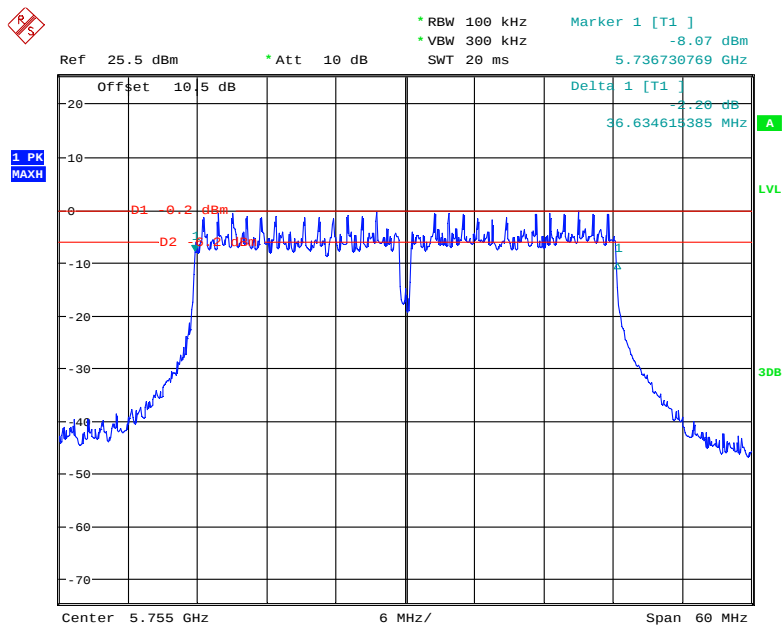
Date: 18.MAR.2018 13:41:58

802.11ac20 mode, 6dB Emission Bandwidth, 5825 MHz



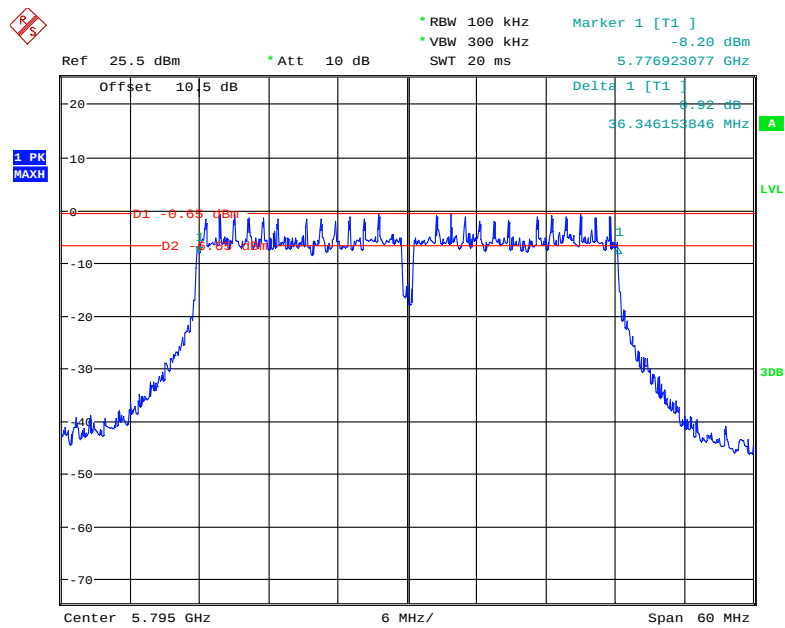
Date: 18.MAR.2018 14:05:44

802.11ac40 mode, 6dB Emission Bandwidth, 5755 MHz



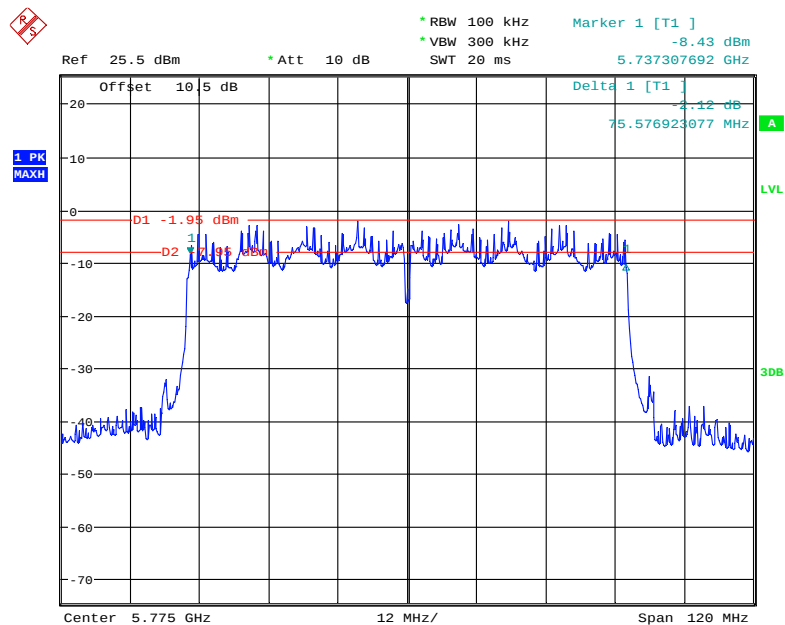
Date: 18.MAR.2018 14:45:40

802.11ac40 mode, 6dB Emission Bandwidth, 5795 MHz



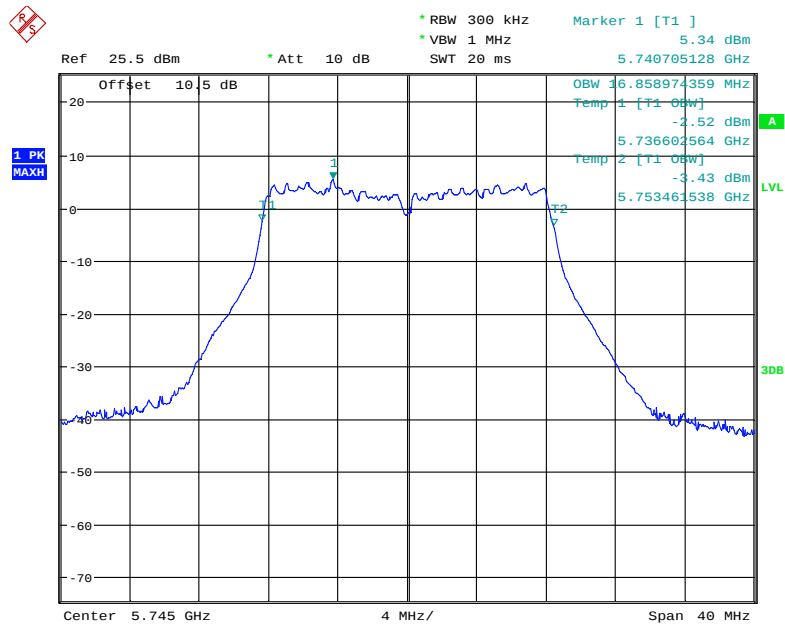
Date: 18.MAR.2018 14:32:19

802.11ac80 mode, 6dB Emission Bandwidth, 5775 MHz



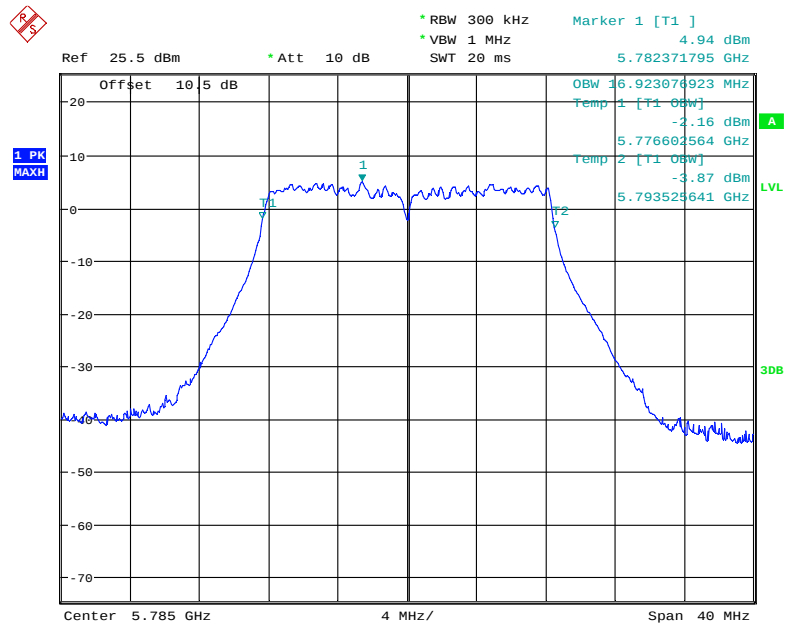
Date: 18.MAR.2018 14:48:59

802.11a mode, 99% Occupied Bandwidth, 5745 MHz



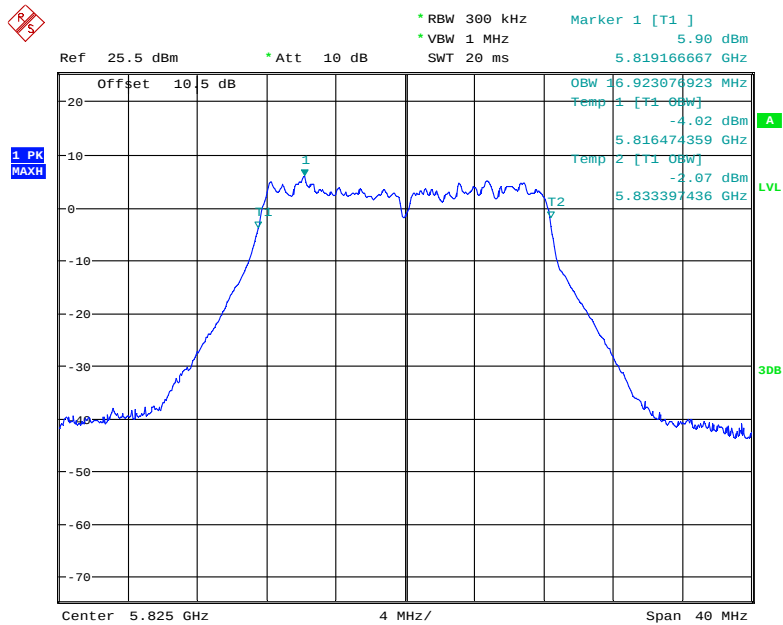
Date: 18.MAR.2018 13:16:59

802.11a mode, 99% Occupied Bandwidth, 5785 MHz



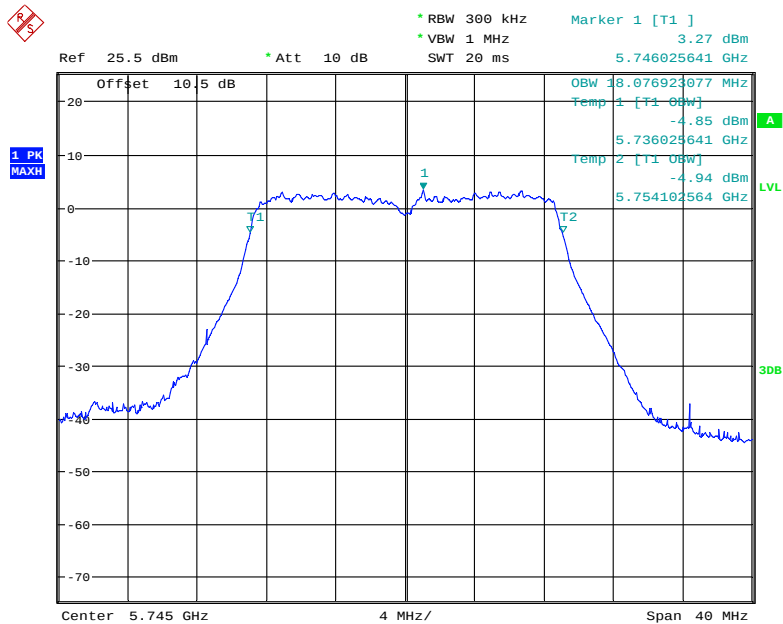
Date: 18.MAR.2018 13:54:44

802.11a mode, 99% Occupied Bandwidth, 5825 MHz



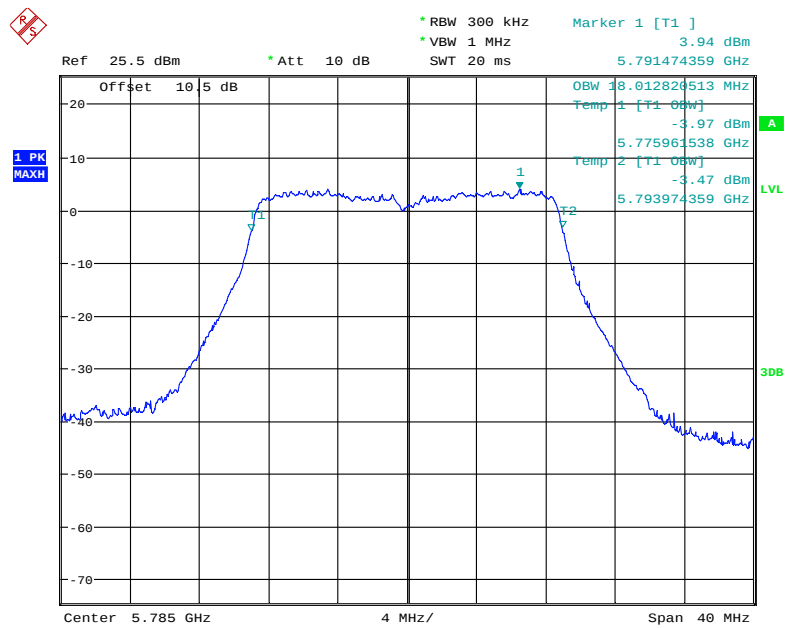
Date: 18.MAR.2018 14:12:25

802.11n20 mode, 99% Occupied Bandwidth, 5745 MHz



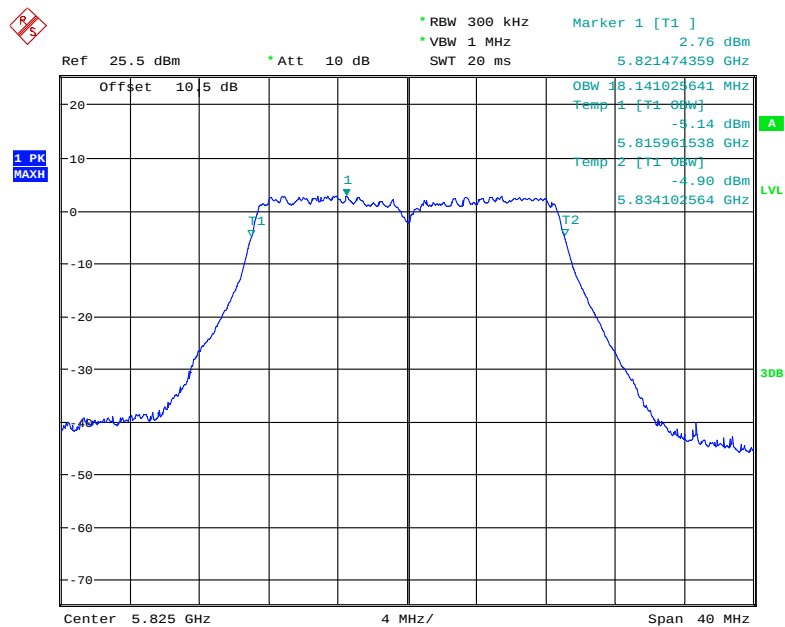
Date: 18.MAR.2018 13:29:50

802.11n20 mode, 99% Occupied Bandwidth, 5785 MHz



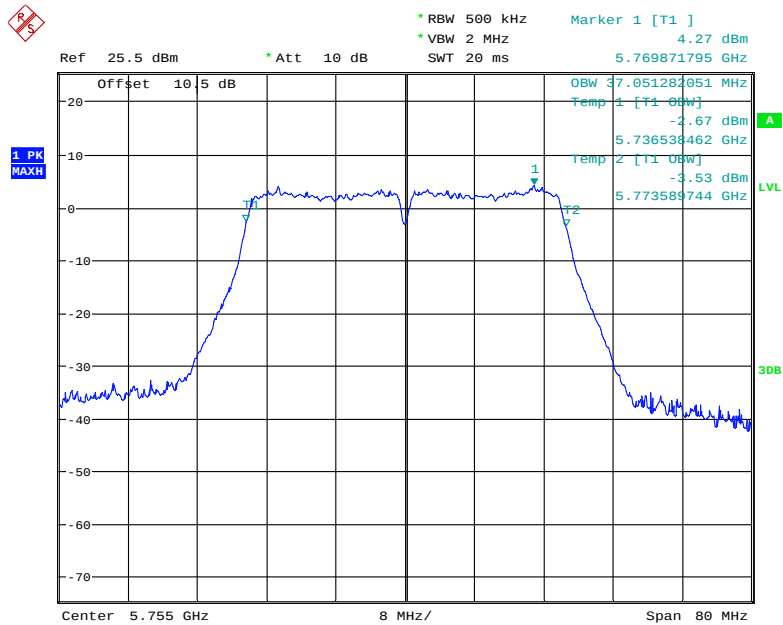
Date: 18.MAR.2018 13:33:21

802.11n20 mode, 99% Occupied Bandwidth, 5825 MHz



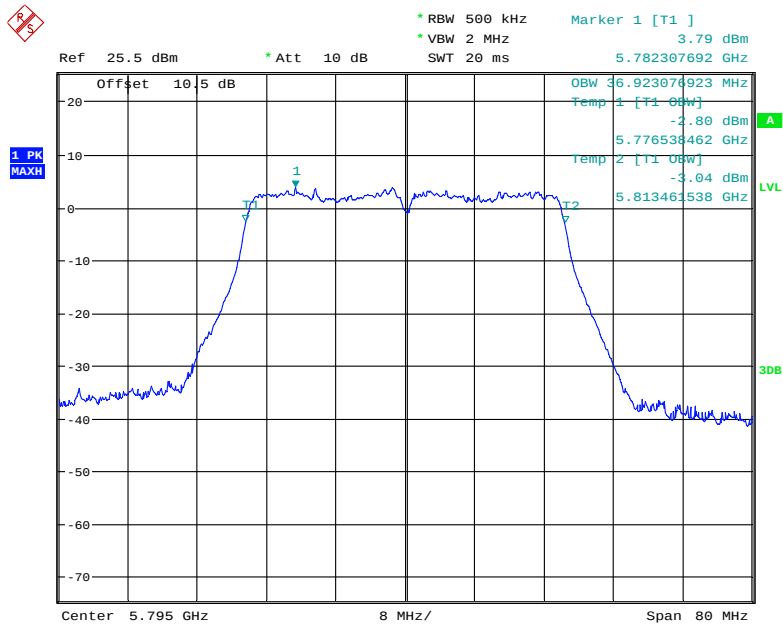
Date: 18.MAR.2018 14:09:28

802.11n40 mode, 99% Occupied Bandwidth, 5755 MHz



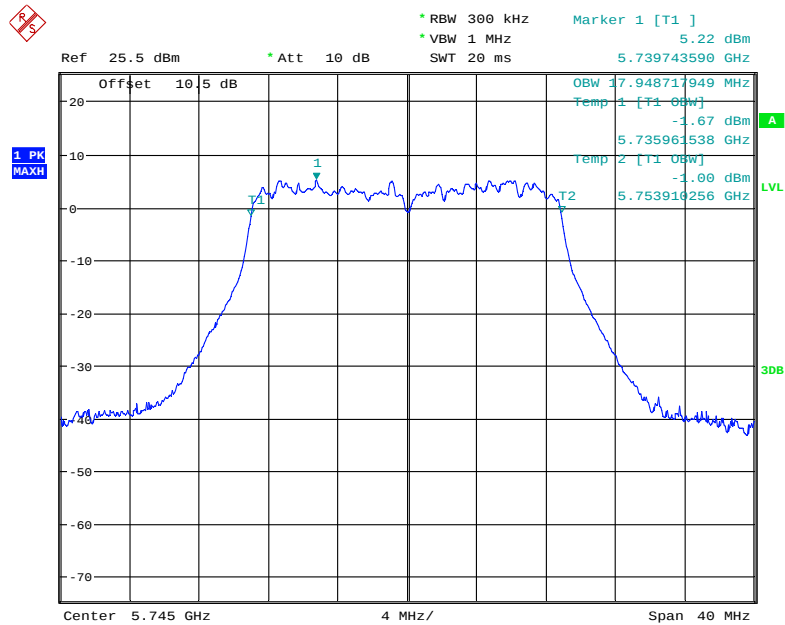
Date: 18.MAR.2018 14:24:25

802.11n40 mode, 99% Occupied Bandwidth, 5795 MHz



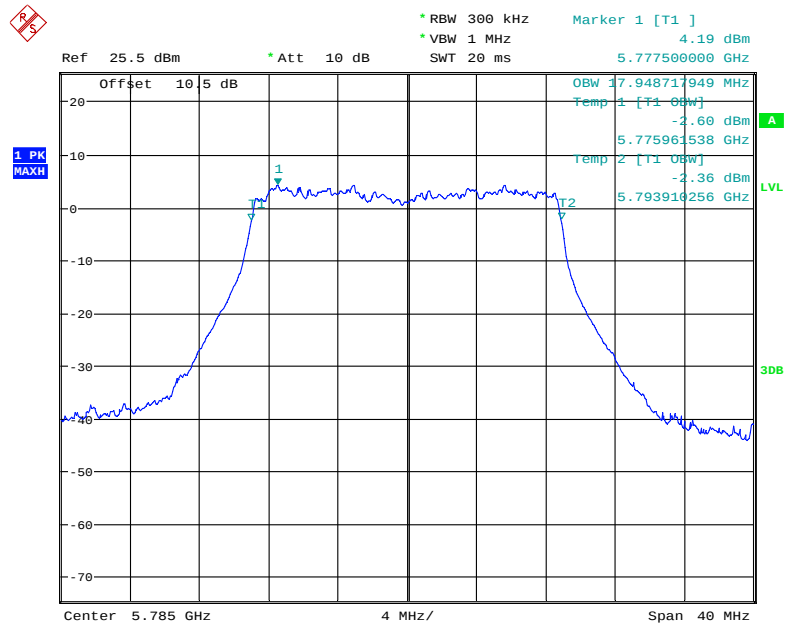
Date: 18.MAR.2018 14:26:13

802.11ac20 mode, 99% Occupied Bandwidth, 5745 MHz



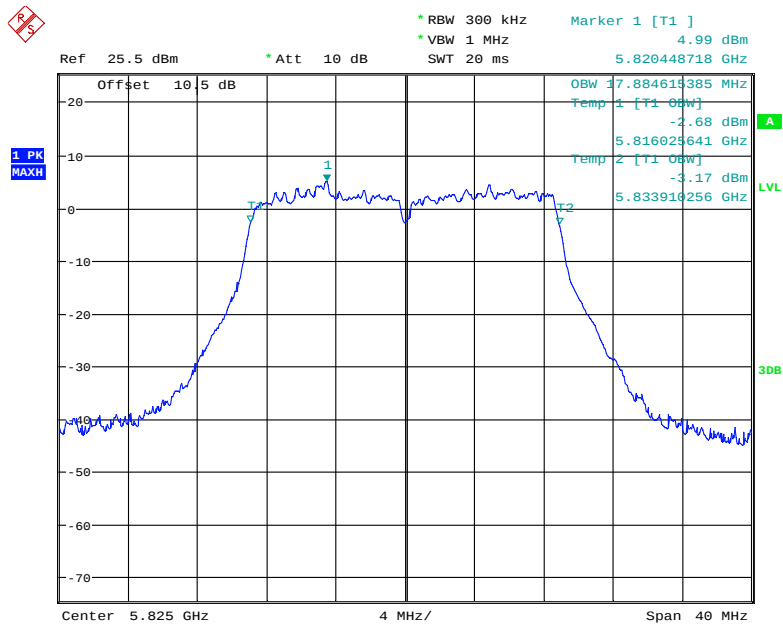
Date: 18.MAR.2018 13:18:48

802.11ac20 mode, 99% Occupied Bandwidth, 5785 MHz



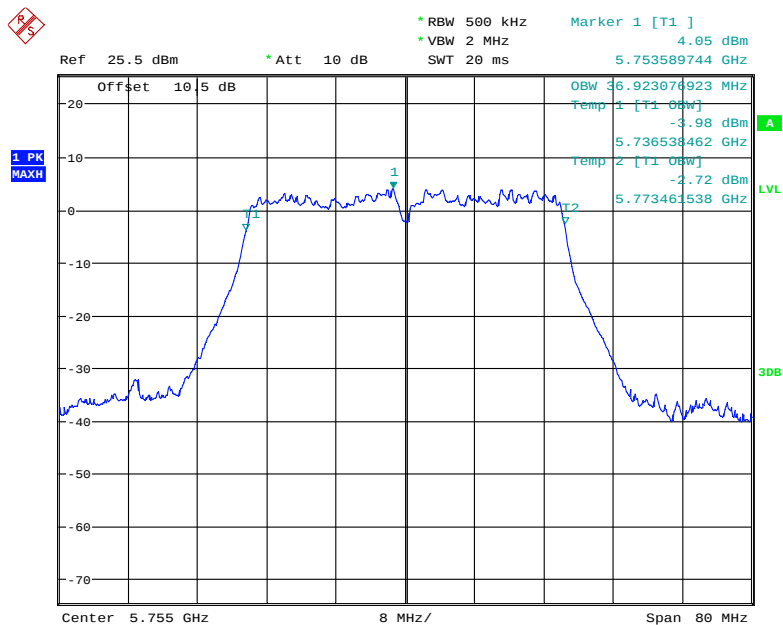
Date: 18.MAR.2018 13:44:46

802.11ac20 mode, 99% Occupied Bandwidth, 5825 MHz



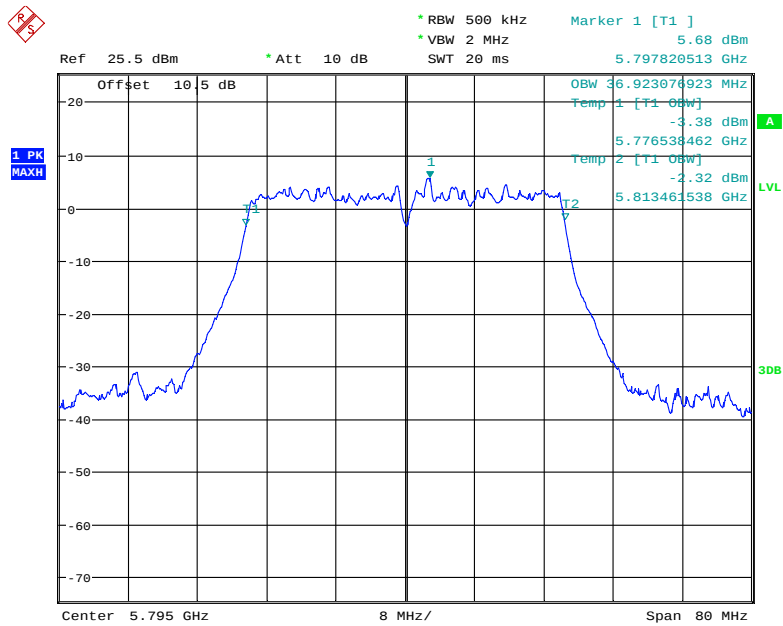
Date: 18.MAR.2018 14:10:35

802.11ac40 mode, 99% Occupied Bandwidth, 5755 MHz



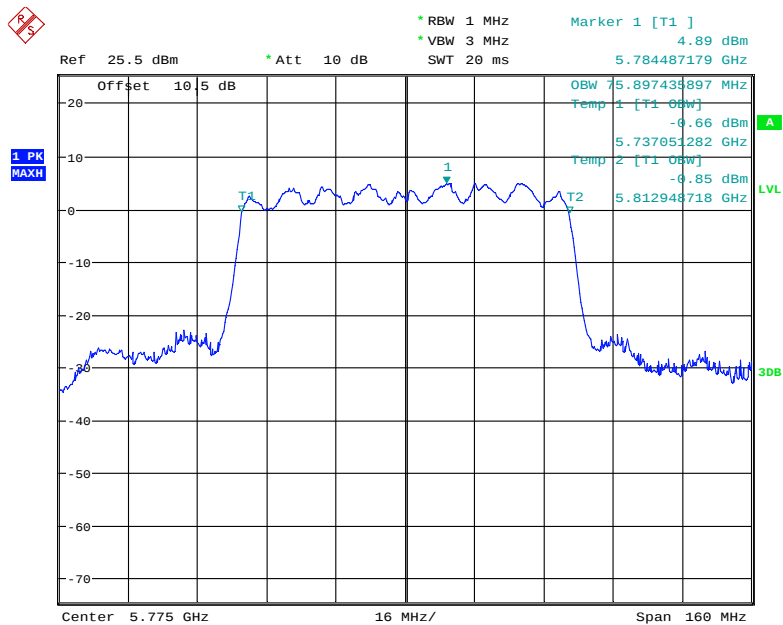
Date: 18.MAR.2018 14:22:55

802.11ac40 mode, 99% Occupied Bandwidth, 5795 MHz



Date: 18.MAR.2018 14:28:10

802.11ac80 mode, 99% Occupied Bandwidth, 5775 MHz



Date: 18.MAR.2018 14:50:29

FCC §15.407(a) (1) (2)(3) – CONDUCTED TRANSMITTER OUTPUT POWER

Applicable Standard

For an indoor 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.

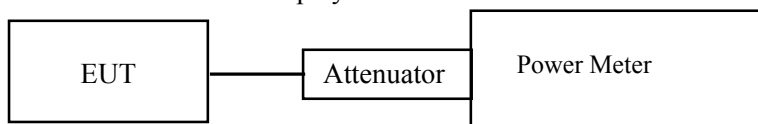
For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting 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 collocated 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

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to one test equipment.
3. Add a correction factor to the display.



Test Data**Environmental Conditions**

Temperature:	23 °C
Relative Humidity:	54 %
ATM Pressure:	101.0 kPa

The testing was performed by Dylan Li on 2018-04-10.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the following tables.

5150 MHz – 5250 MHz(this is a client device)

Frequency (MHz)	Average Output Power (dBm)	Limit (dBm)
802.11a		
5180	10.00	24
5200	11.05	
5240	12.75	
802.11n20		
5180	10.17	24
5200	11.40	
5240	12.73	
802.11n40		
5190	10.46	24
5230	13.02	
802.11ac20		
5180	10.43	24
5200	10.95	
5240	12.36	
802.11ac40		
5190	10.86	24
5230	12.38	
802.11ac80		
5210	11.77	24

5250 MHz – 5350 MHz:

Frequency (MHz)	Average Output Power (dBm)	Limit (dBm)
802.11a		
5260	10.66	24
5280	11.12	
5320	13.17	
802.11n20		
5260	9.62	24
5280	10.86	
5320	12.23	
802.11n40		
5270	11.01	24
5310	12.35	
802.11ac20		
5260	10.56	24
5280	11.37	
5320	12.84	
802.11ac40		
5270	11.17	24
5310	12.88	
802.11ac80		
5290	9.17	24

5470 MHz – 5725 MHz:

Frequency (MHz)	Average Output Power (dBm)	Limit (dBm)
802.11a		
5500	11.05	24
5600	13.43	
5700	13.77	
802.11n20		
5500	9.53	24
5600	12.01	
5700	12.72	
802.11n40		
5510	7.71	24
5590	10.19	
5670	9.99	
802.11ac20		
5500	10.43	24
5600	13.34	
5700	13.72	
802.11ac40		
5510	7.78	24
5590	10.12	
5670	10.20	
802.11ac80		
5530	9.63	24
5610	11.56	

5725 MHz – 5850 MHz:

Frequency (MHz)	Average Output Power (dBm)	Limit (dBm)
802.11a		
5745	12.74	30
5785	13.08	
5825	12.97	
802.11n20		
5745	11.56	30
5785	12.23	
5825	11.89	
802.11n40		
5755	12.56	30
5795	12.80	
802.11ac20		
5745	12.48	30
5785	13.11	
5825	12.71	
802.11ac40		
5755	12.57	30
5795	12.42	
802.11ac80		
5775	12.75	30

FCC §15.407(a) (1) (2) (3) - POWER SPECTRAL DENSITY

Applicable Standard

(ii) For an indoor 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.

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 collocated 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

For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, “provided that the measured power is integrated over the full reference bandwidth” to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth ($< 1 \text{ MHz}$, or $< 500 \text{ kHz}$) and integrated over 1 MHz, or 500 kHz bandwidth, the following adjustments to the procedures apply:

- a) Set $\text{RBW} \geq 1/T$, where T is defined in section II.B.1.a).
- b) Set $\text{VBW} \geq 3 \text{ RBW}$.
- c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10 \log (500 \text{ kHz}/\text{RBW})$ to the measured result, whereas $\text{RBW} (< 500 \text{ kHz})$ is the reduced resolution bandwidth of the spectrum analyzer set during measurement.
- d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add $10 \log (1\text{MHz}/\text{RBW})$ to the measured result, whereas $\text{RBW} (< 1 \text{ MHz})$ is the reduced resolution bandwidth of spectrum analyzer set during measurement.
- e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Test Data**Environmental Conditions**

Temperature:	23.5~25 °C
Relative Humidity:	49~56 %
ATM Pressure:	109.0~101.0 kPa

The testing was performed by Dylan Li from 2018-03-12 to 2018-04-10.

EUT operation mode: Transmitting

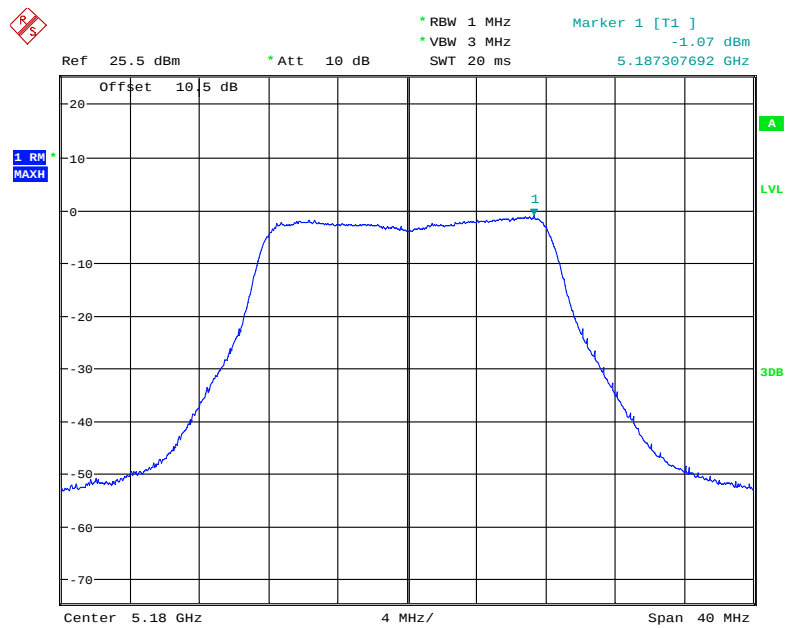
Test Result: Pass

Please refer to the following tables and plots.

5150 MHz – 5250 MHz(this is a client device):

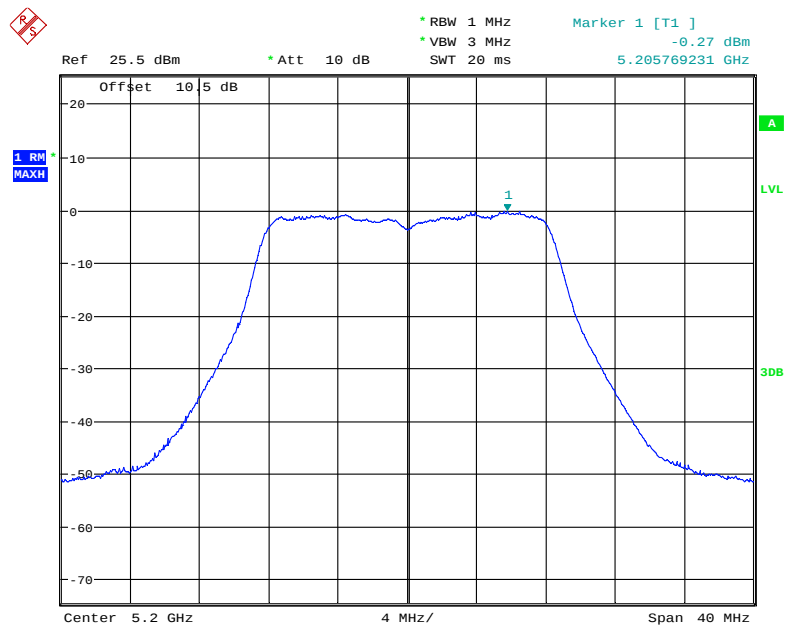
Frequency (MHz)	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)
802.11a		
5180	-1.07	11
5200	-0.27	
5240	0.53	
802.11n20		
5180	-2.61	11
5200	-2.15	
5240	0.26	
802.11n40		
5190	-6.42	11
5230	-5.04	
802. 11ac20		
5180	0.53	11
5200	-0.13	
5240	0.45	
802. 11ac40		
5190	-5.09	11
5230	-6.61	
802. 11ac80		
5210	-4.96	11

802.11a mode, Power Spectral Density, 5180 MHz

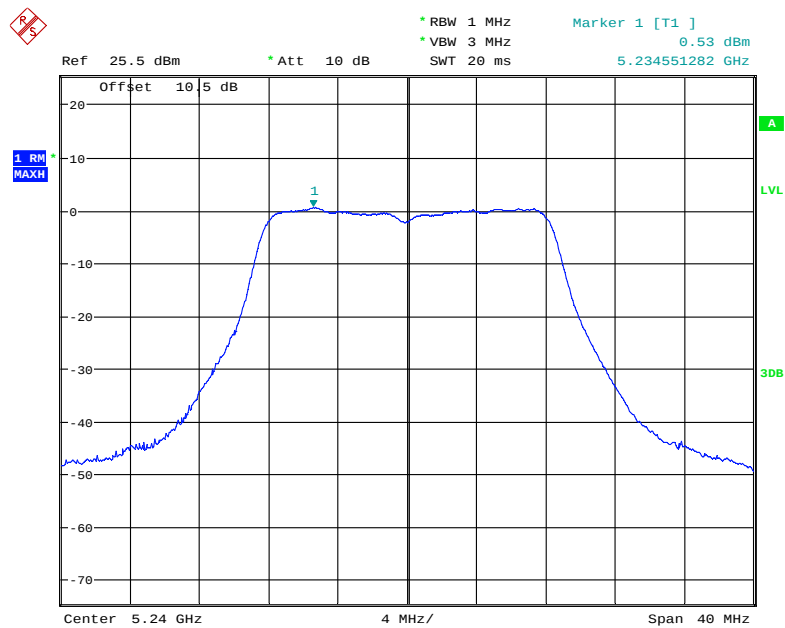


Date: 12.MAR.2018 23:56:52

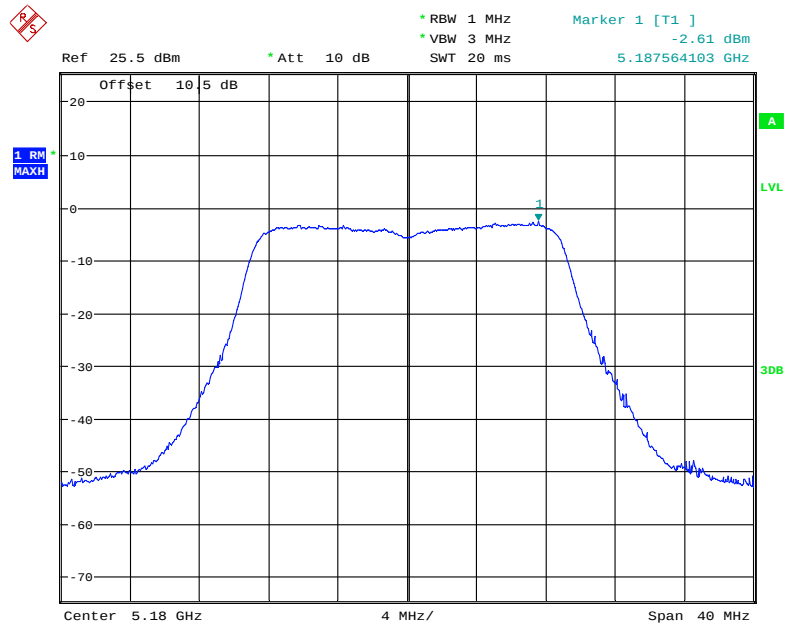
802.11a mode, Power Spectral Density, 5200 MHz



Date: 13.MAR.2018 00:18:13

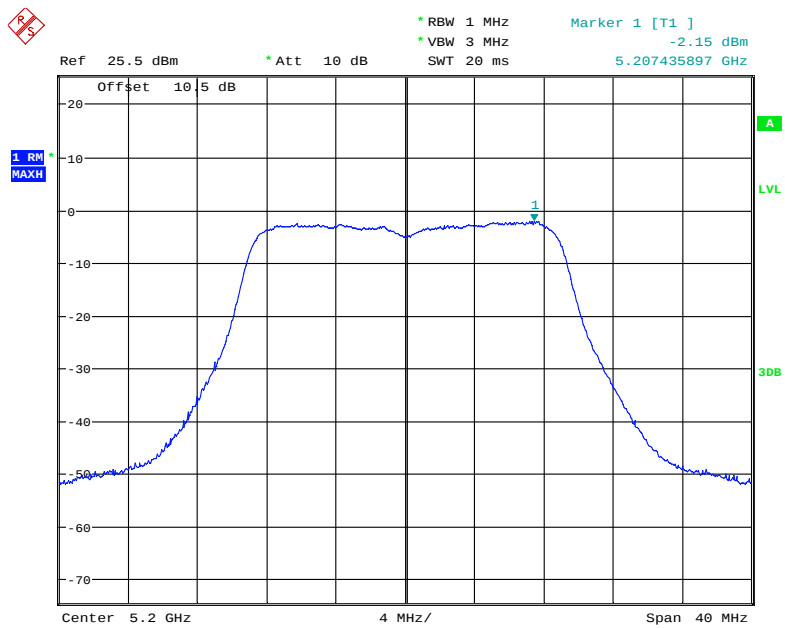
802.11a mode, Power Spectral Density, 5240 MHz

Date: 13.MAR.2018 00:08:37

802.11n20 mode, Power Spectral Density, 5180 MHz

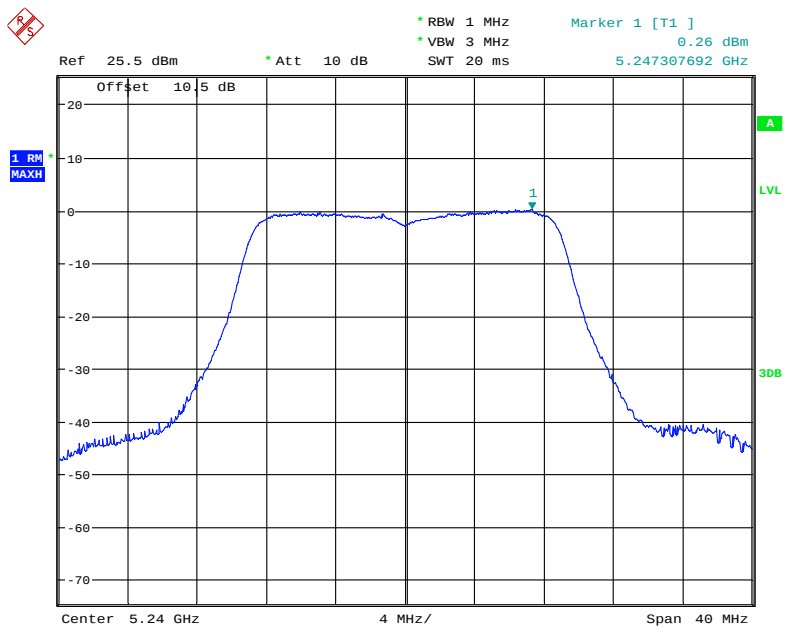
Date: 13.MAR.2018 00:47:46

802.11n20 mode, Power Spectral Density, 5200 MHz



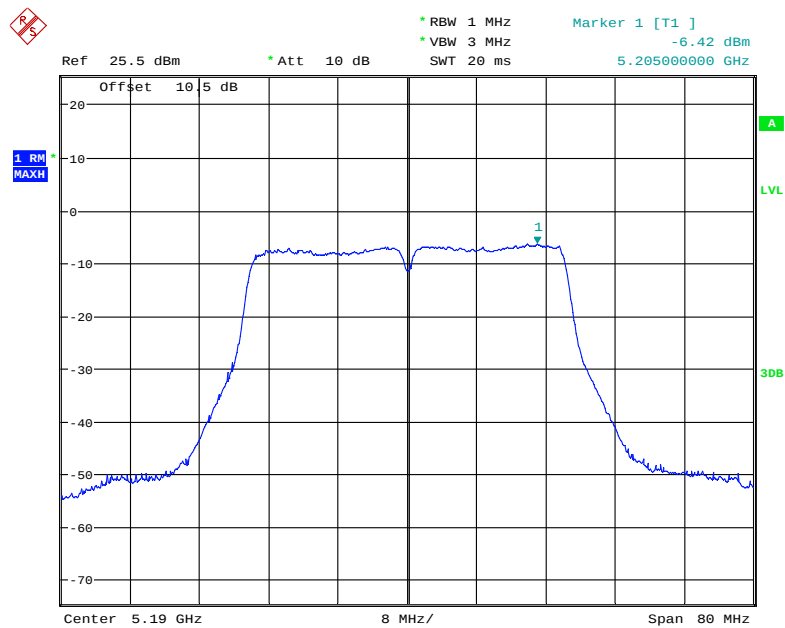
Date: 13.MAR.2018 00:57:47

802.11n20 mode, Power Spectral Density, 5240 MHz



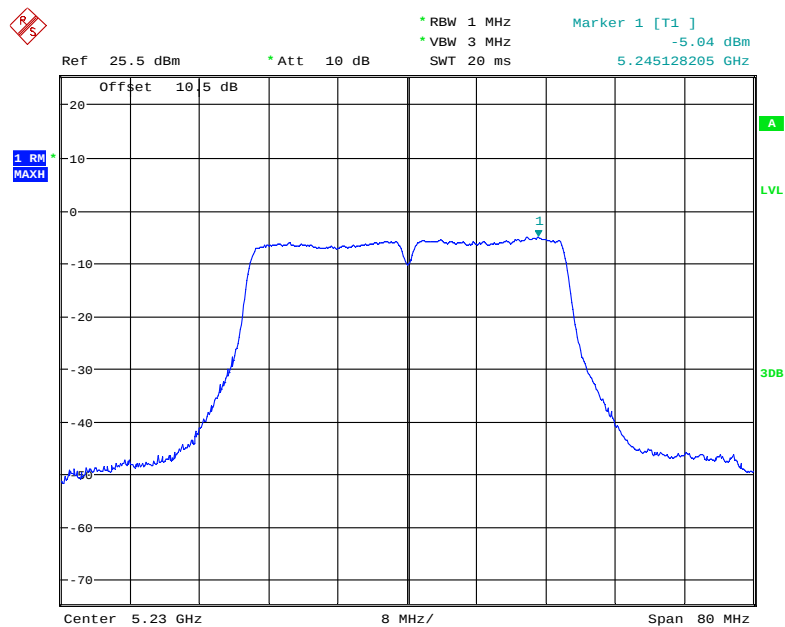
Date: 13.MAR.2018 00:39:14

802.11n40 mode, Power Spectral Density, 5190 MHz



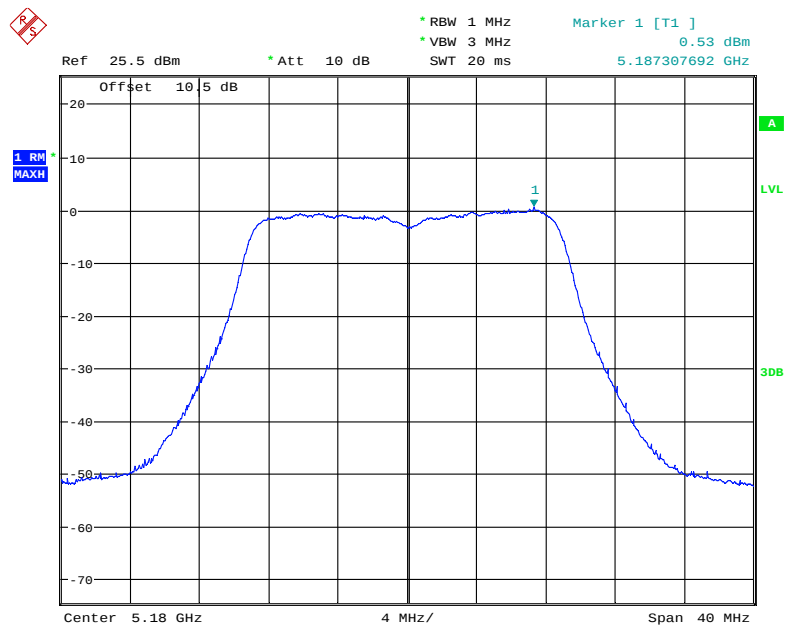
Date: 13.MAR.2018 23:45:26

802.11n40 mode, Power Spectral Density, 5230 MHz



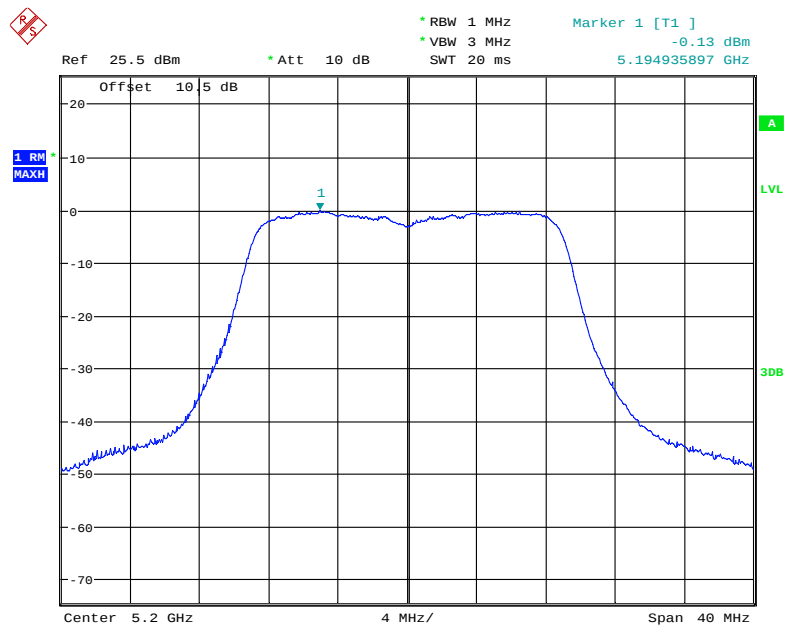
Date: 13.MAR.2018 23:57:33

802.11ac20 mode, Power Spectral Density, 5180 MHz



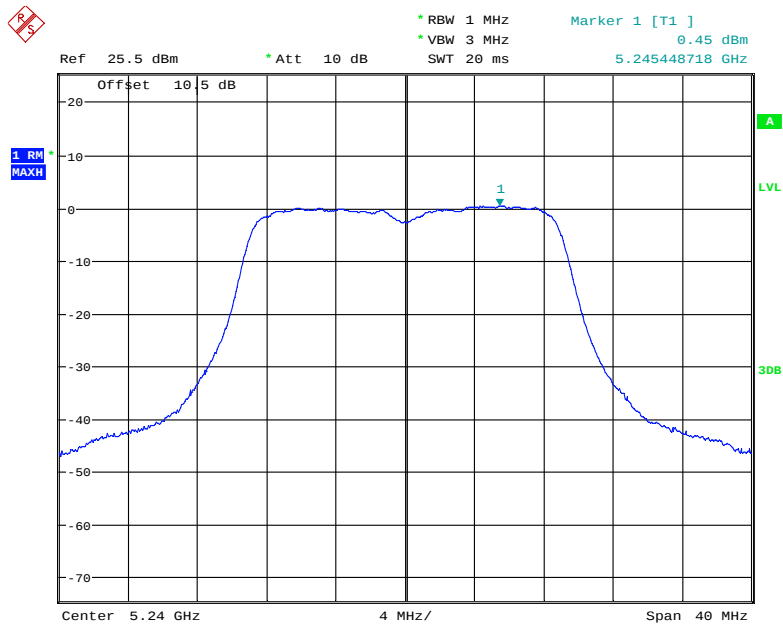
Date: 1.APR.2018 16:42:06

802.11ac20 mode, Power Spectral Density, 5200 MHz



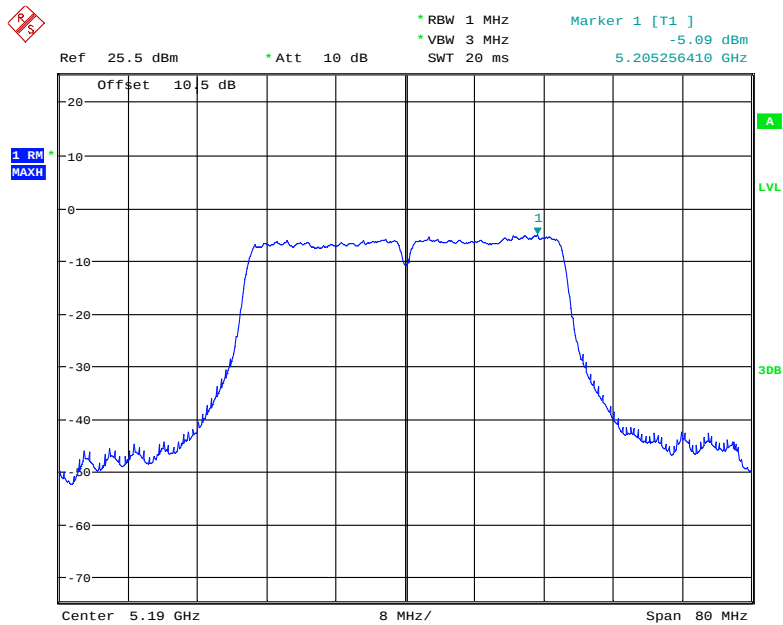
Date: 13.MAR.2018 00:21:15

802.11ac20 mode, Power Spectral Density, 5240 MHz

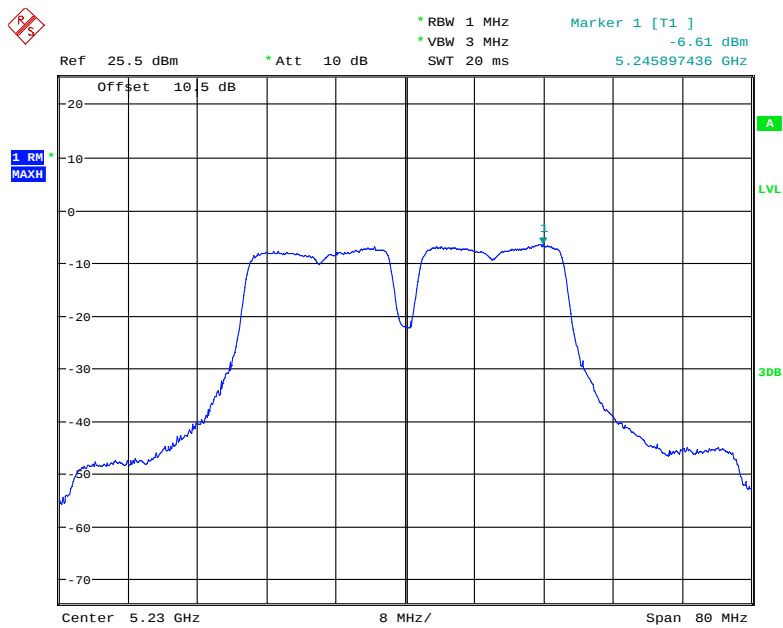


Date: 13.MAR.2018 00:37:38

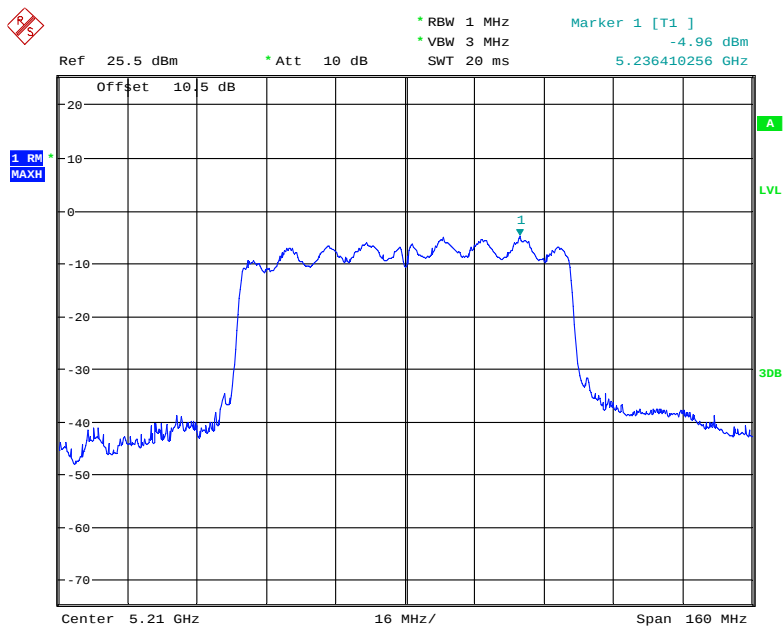
802.11ac40 mode, Power Spectral Density, 5190 MHz



Date: 14.MAR.2018 00:12:34

802.11ac40 mode, Power Spectral Density, 5230 MHz

Date: 13.MAR.2018 23:59:17

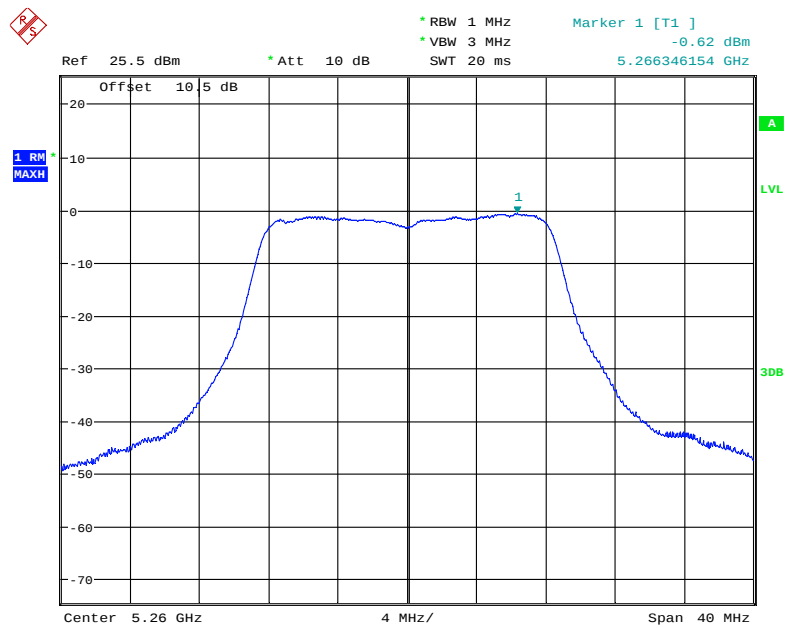
802.11ac80 mode, Power Spectral Density, 5210 MHz

Date: 14.MAR.2018 00:17:20

5250 MHz – 5350 MHz:

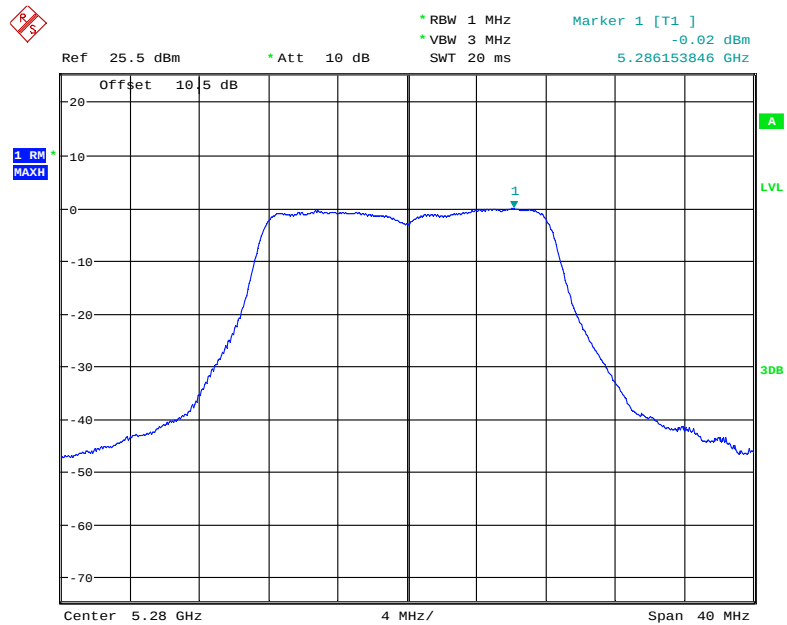
Frequency (MHz)	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)
802.11a		
5260	-0.62	11
5280	-0.02	
5320	1.52	
802.11n20		
5260	-1.84	11
5280	-1.50	
5320	-0.57	
802.11n40		
5270	-4.03	11
5310	-2.71	
802. 11ac20		
5260	-0.99	11
5280	-0.75	
5320	1.10	
802. 11ac40		
5270	-3.20	11
5310	-1.49	
802. 11ac80		
5290	-6.08	11

802.11a mode, Power Spectral Density, 5260 MHz



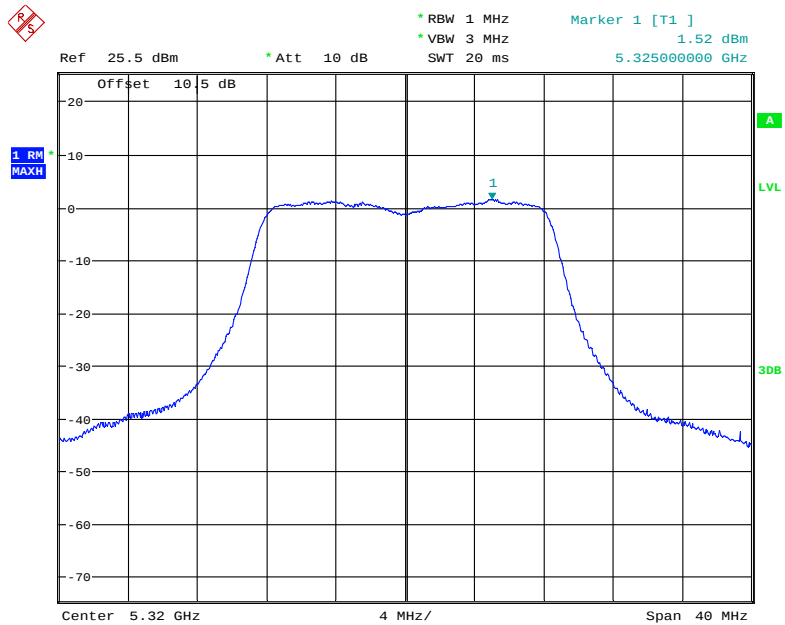
Date: 15.MAR.2018 00:08:26

802.11a mode, Power Spectral Density, 5280 MHz



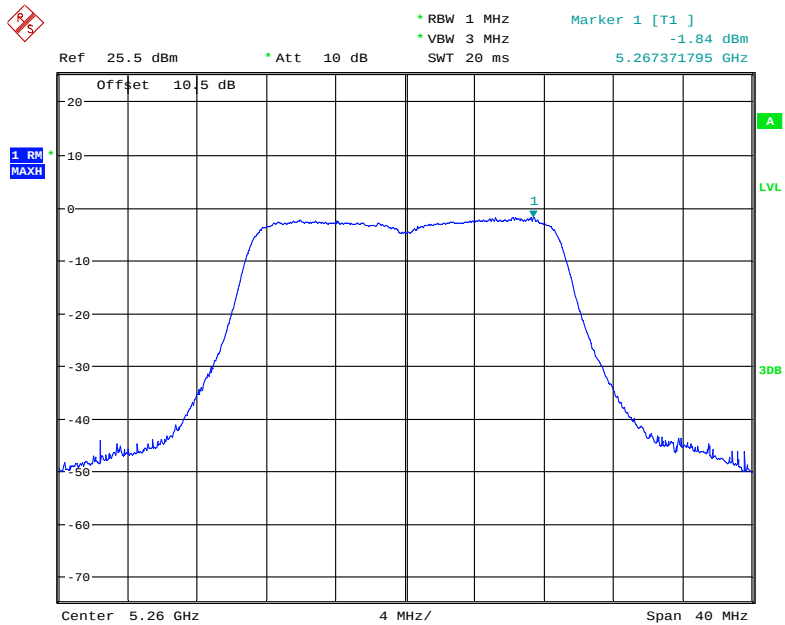
Date: 15.MAR.2018 00:25:55

802.11a mode, Power Spectral Density, 5320 MHz



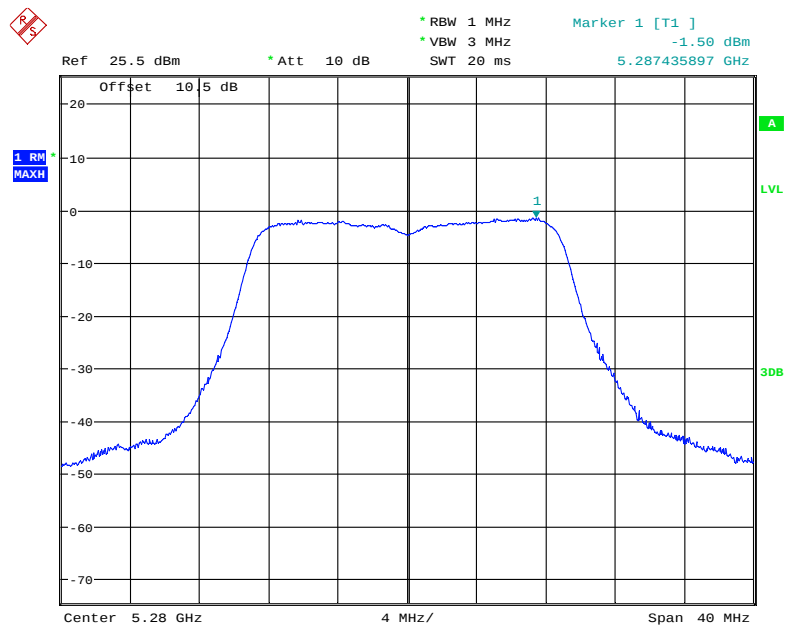
Date: 15.MAR.2018 00:03:39

802.11n20 mode, Power Spectral Density, 5260 MHz



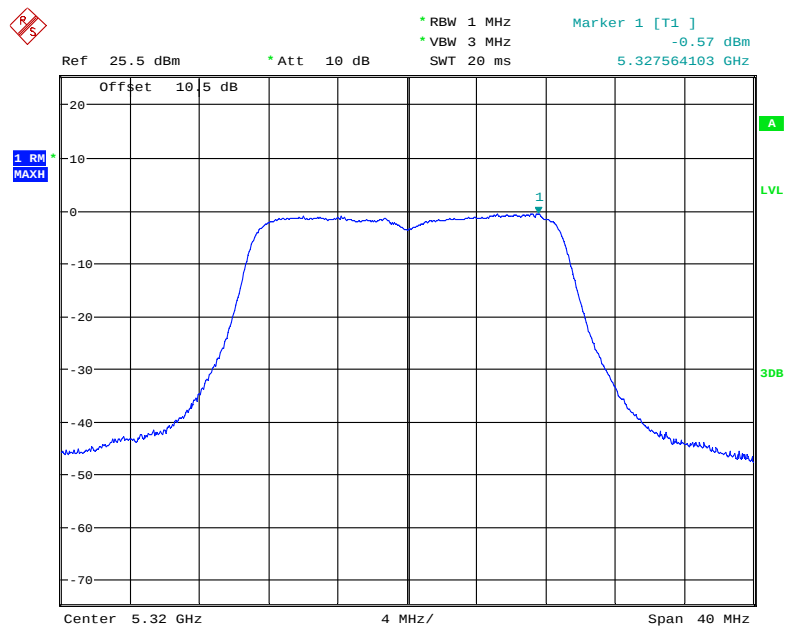
Date: 14.MAR.2018 23:06:09

802.11n20 mode, Power Spectral Density, 5280 MHz



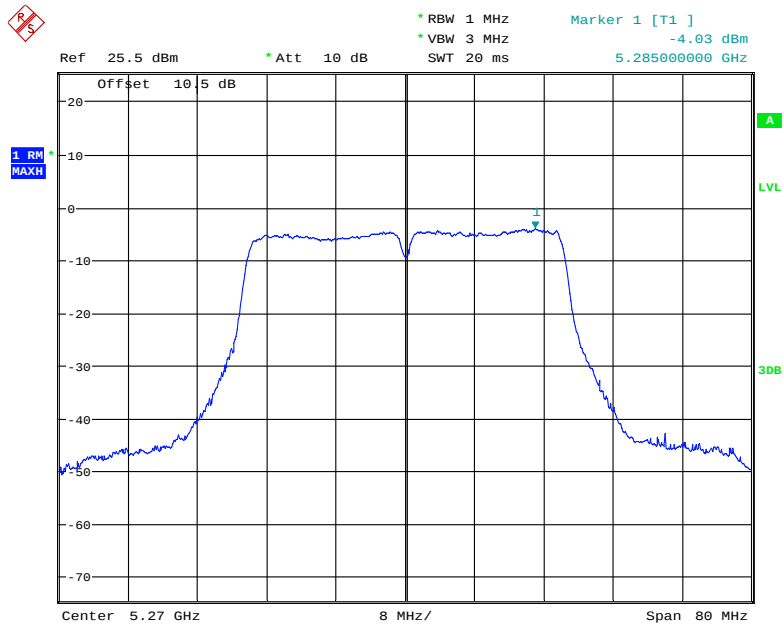
Date: 14.MAR.2018 23:05:08

802.11n20 mode, Power Spectral Density, 5320 MHz



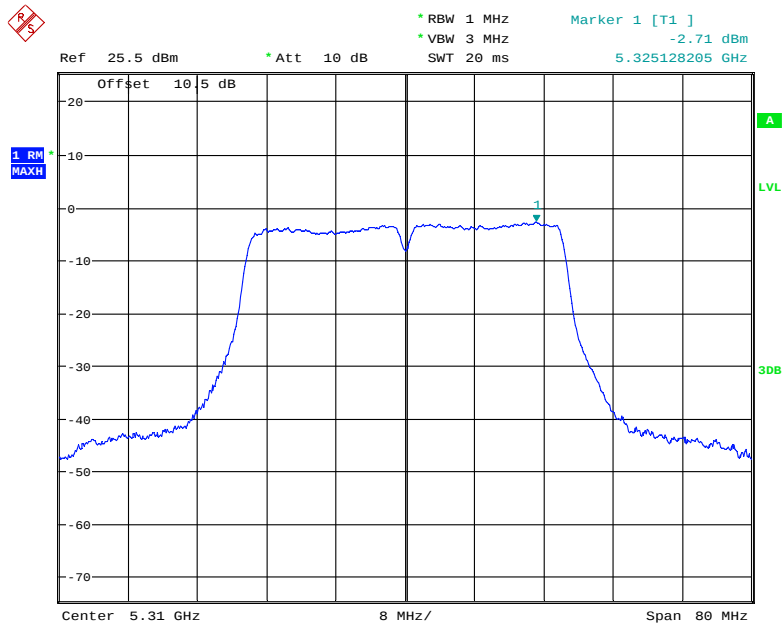
Date: 14.MAR.2018 22:54:10

802.11n40 mode, Power Spectral Density, 5270 MHz



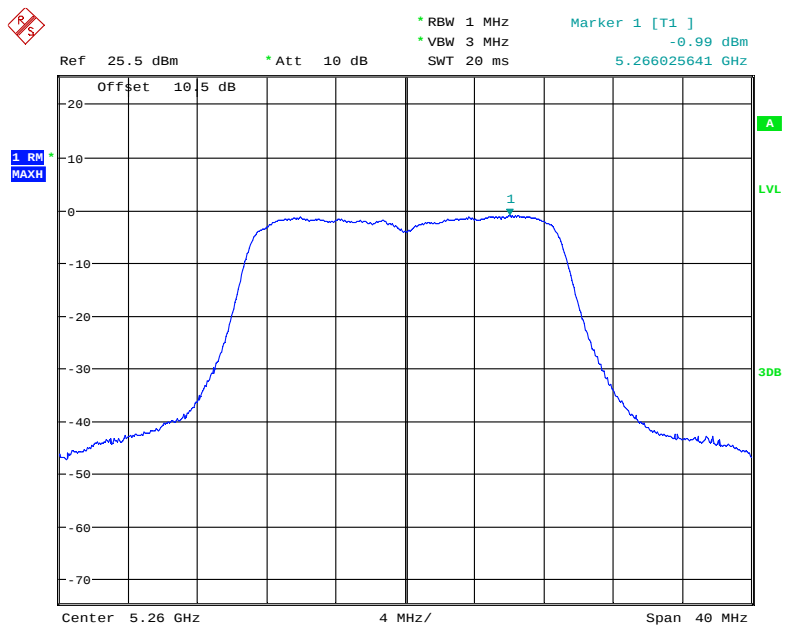
Date: 14.MAR.2018 22:28:44

802.11n40 mode, Power Spectral Density, 5310 MHz



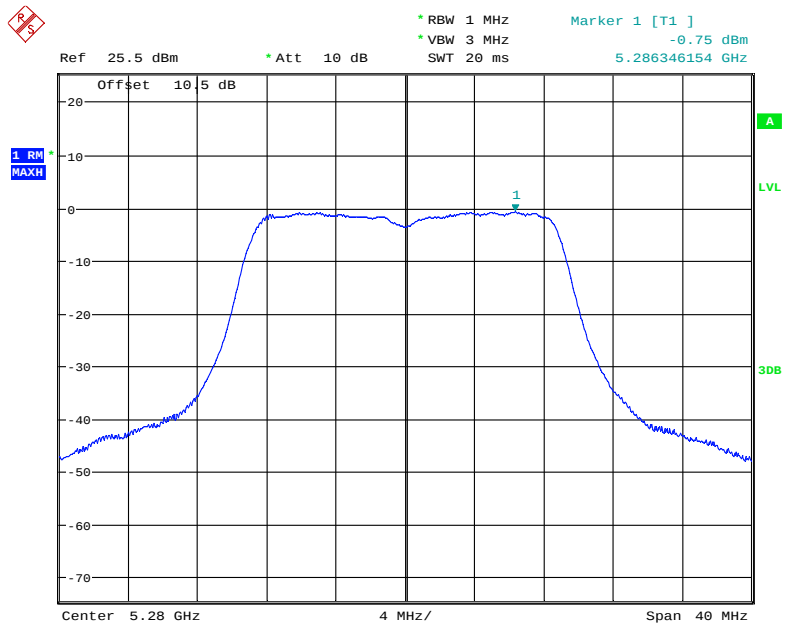
Date: 14.MAR.2018 22:34:41

802.11ac20 mode, Power Spectral Density, 5260 MHz



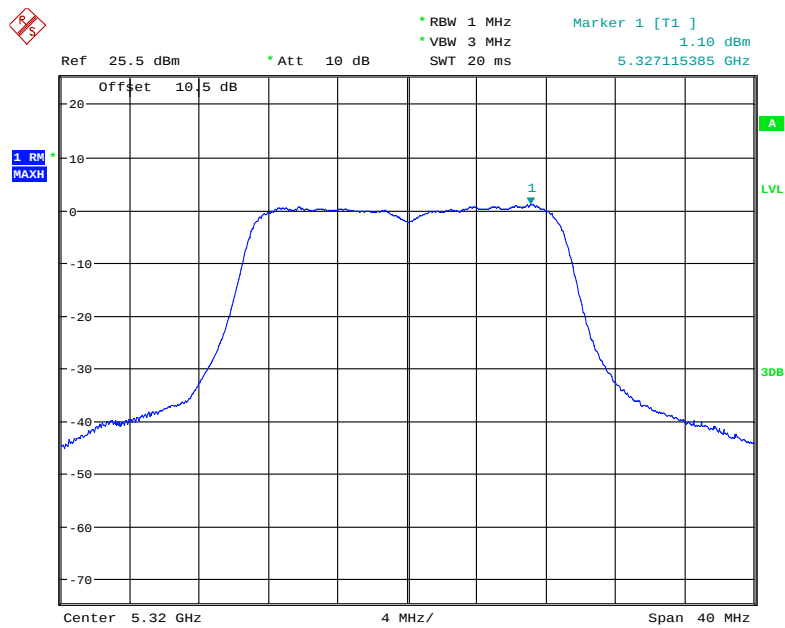
Date: 14.MAR.2018 23:16:18

802.11ac20 mode, Power Spectral Density, 5280 MHz



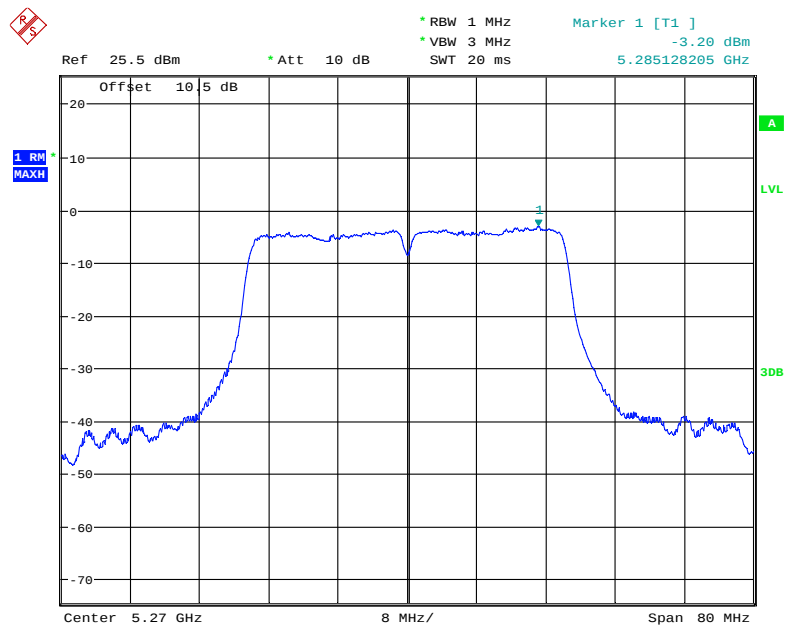
Date: 14.MAR.2018 23:15:08

802.11ac20 mode, Power Spectral Density, 5320 MHz



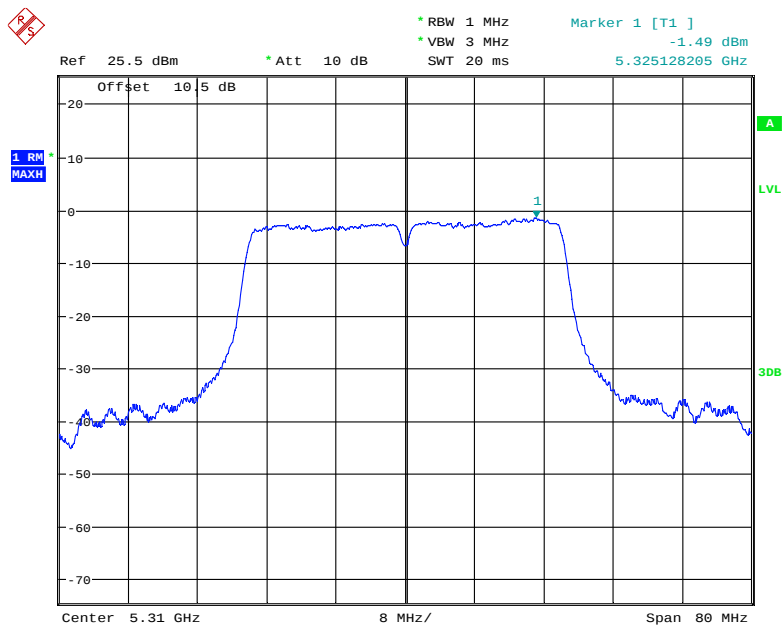
Date: 14.MAR.2018 23:31:42

802.11ac40 mode, Power Spectral Density, 5270 MHz



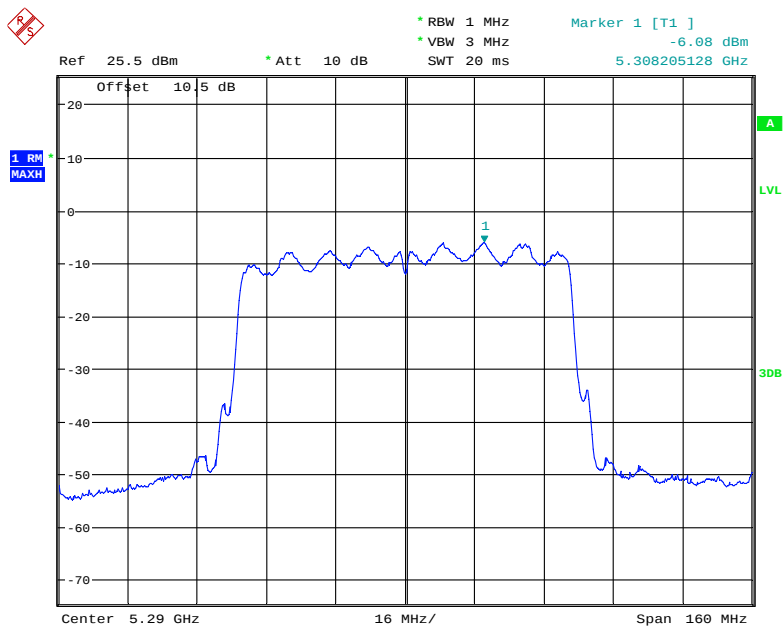
Date: 14.MAR.2018 22:24:00

802.11ac40 mode, Power Spectral Density, 5310 MHz



Date: 14.MAR.2018 22:17:08

802.11ac80 mode, Power Spectral Density, 5290 MHz

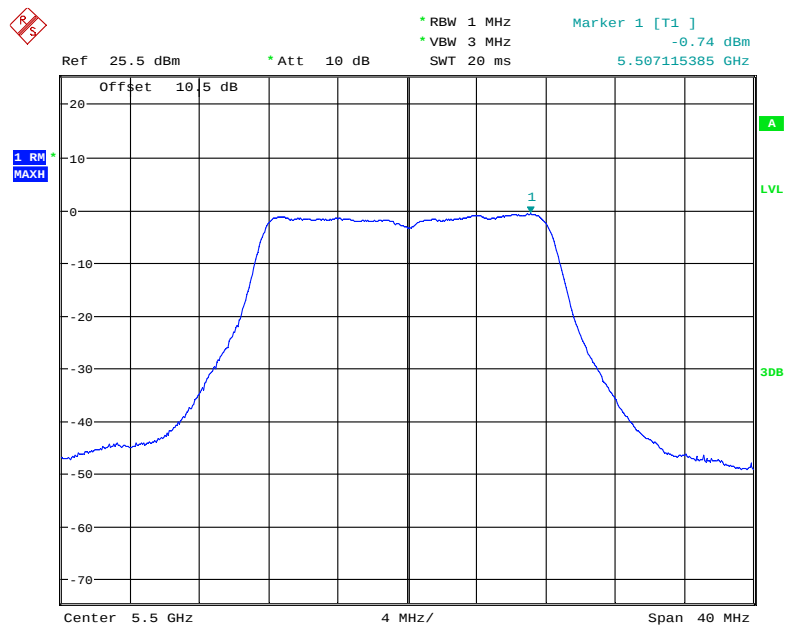


Date: 1.APR.2018 16:52:57

5470 MHz – 5725 MHz:

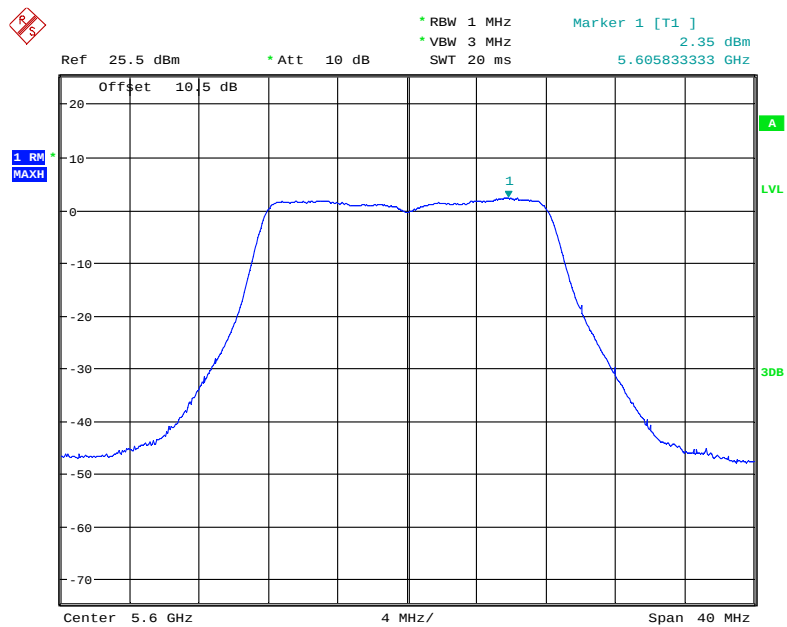
Frequency (MHz)	Power Spectral Density (dBm/MHz)	Limit (dBm/MHz)
802.11a		
5500	-0.74	11
5600	2.35	
5700	1.44	
802.11n20		
5500	-2.18	11
5600	0.92	
5700	0.89	
802.11n40		
5510	-7.19	11
5590	-5.22	
5670	-4.86	
802. 11ac20		
5500	-0.83	11
5600	1.57	
5700	1.93	
802. 11ac40		
5510	-5.71	11
5590	-4.27	
5670	-4.21	
802. 11ac80		
5530	-6.50	11
5610	-4.26	

802.11a mode, Power Spectral Density, 5500 MHz



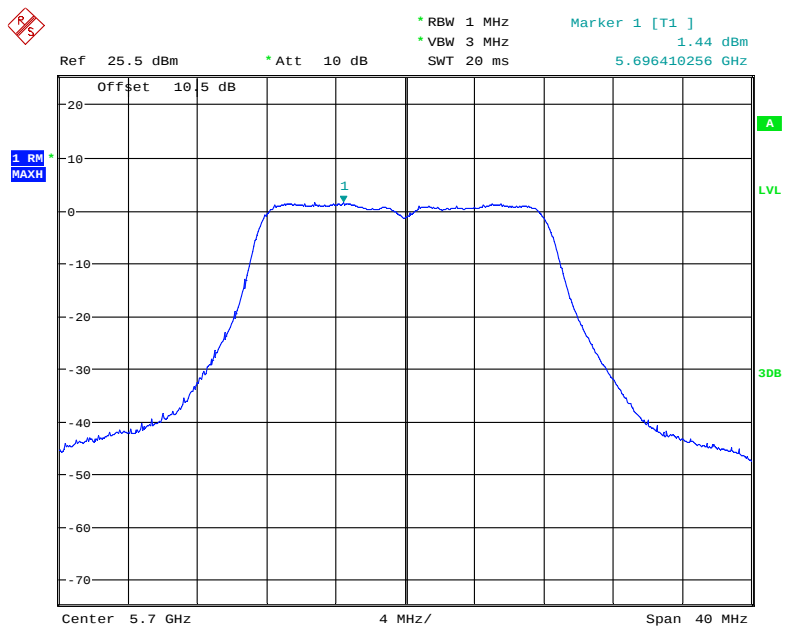
Date: 15.MAR.2018 21:52:12

802.11a mode, Power Spectral Density, 5600 MHz



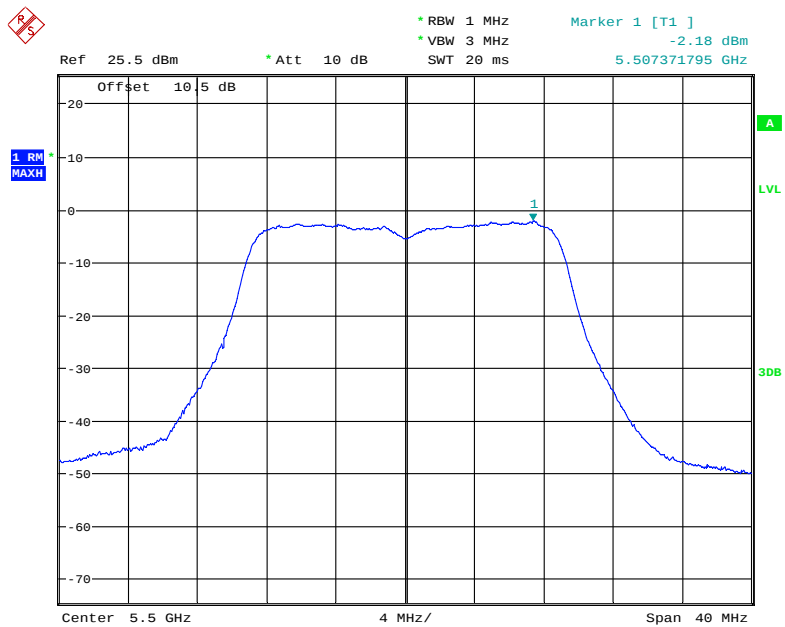
Date: 15.MAR.2018 21:42:48

802.11a mode, Power Spectral Density, 5700 MHz



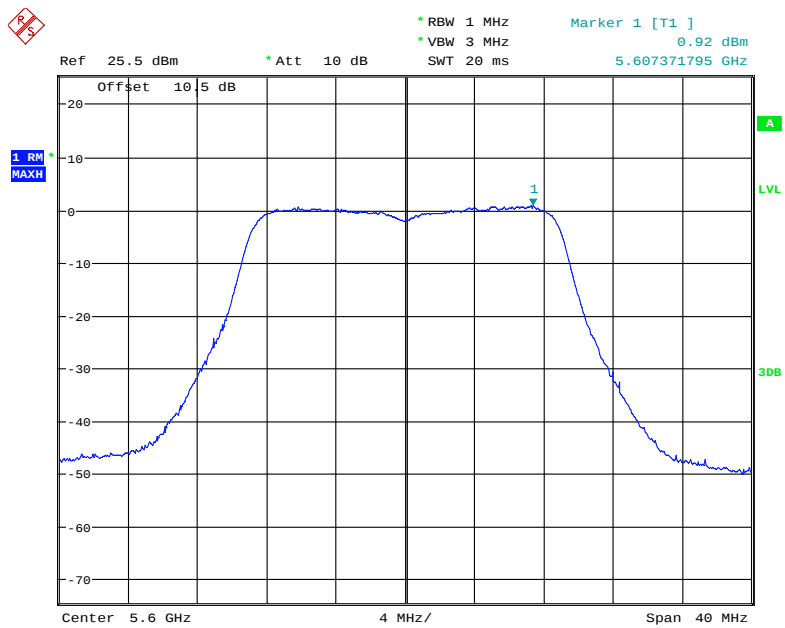
Date: 10.APR.2018 22:38:30

802.11n20 mode, Power Spectral Density, 5500 MHz



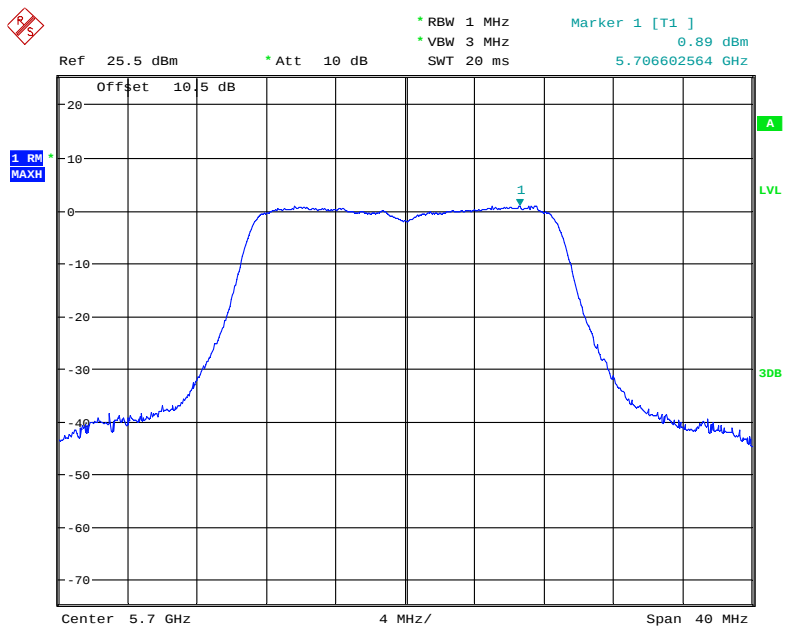
Date: 15.MAR.2018 21:01:54

802.11n20 mode, Power Spectral Density, 5600 MHz



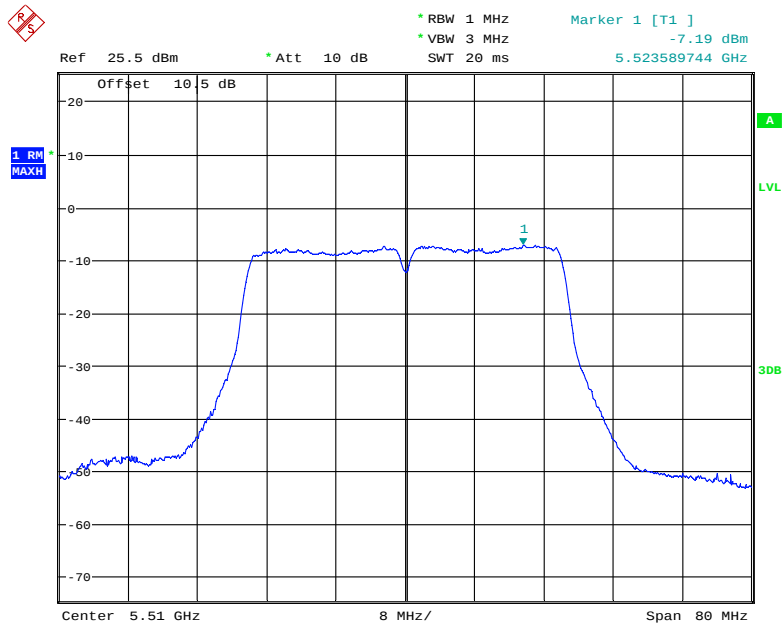
Date: 15.MAR.2018 20:53:05

802.11n20 mode, Power Spectral Density, 5700 MHz



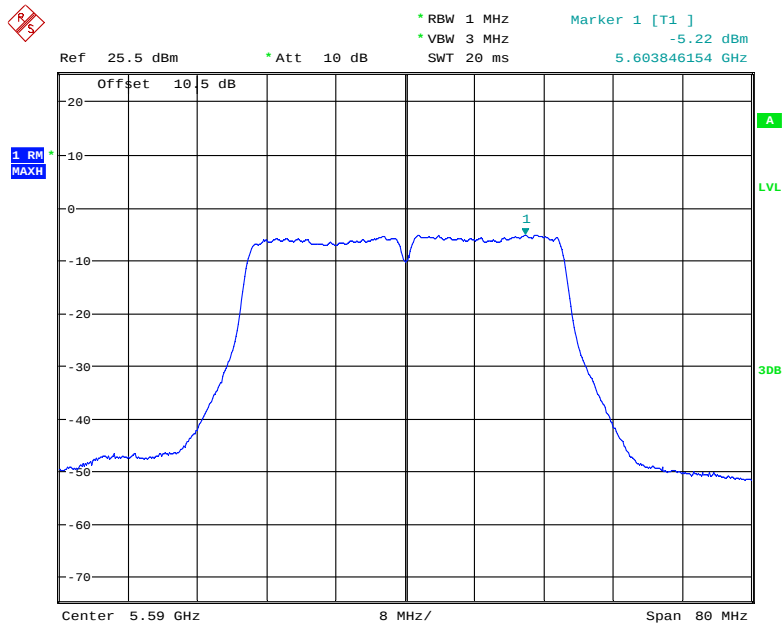
Date: 10.APR.2018 22:40:59

802.11n40 mode, Power Spectral Density, 5510 MHz



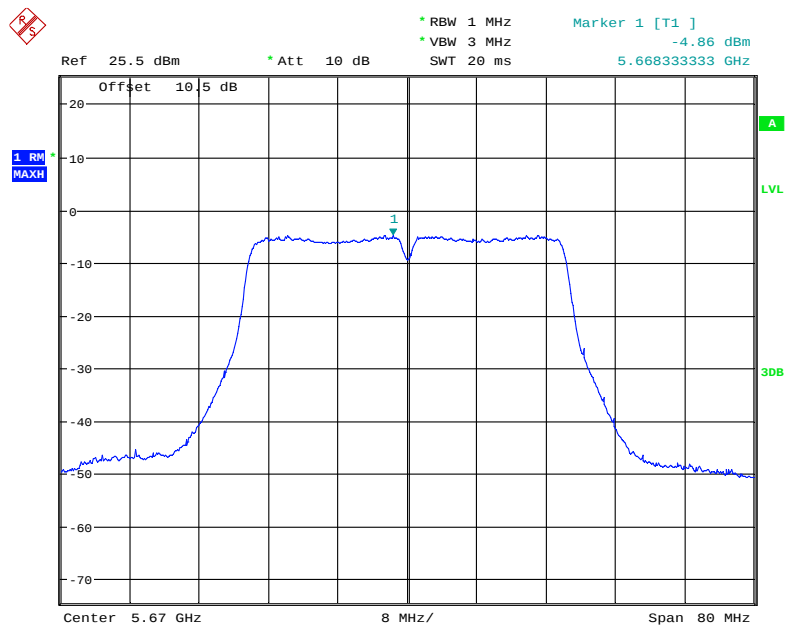
Date: 15.MAR.2018 20:43:49

802.11n40 mode, Power Spectral Density, 5590 MHz



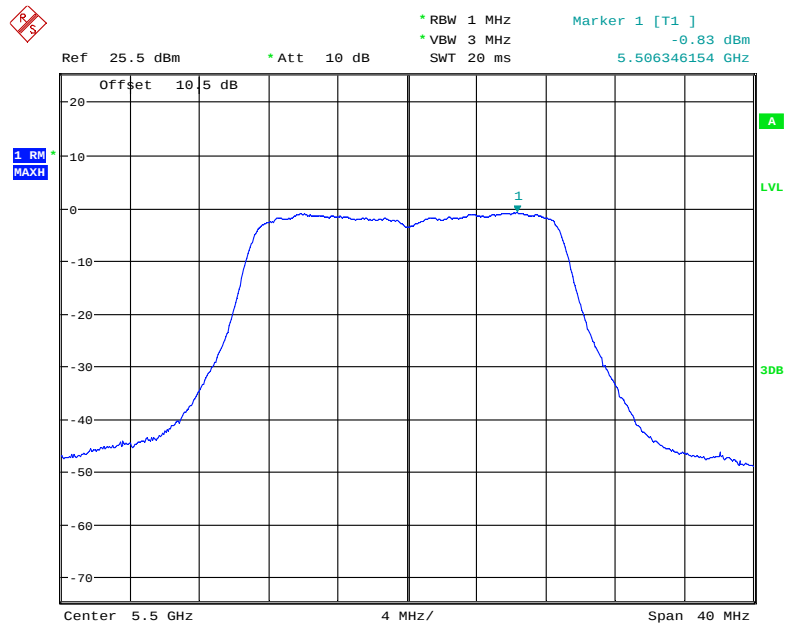
Date: 15.MAR.2018 20:49:40

802.11n40 mode, Power Spectral Density, 5670 MHz



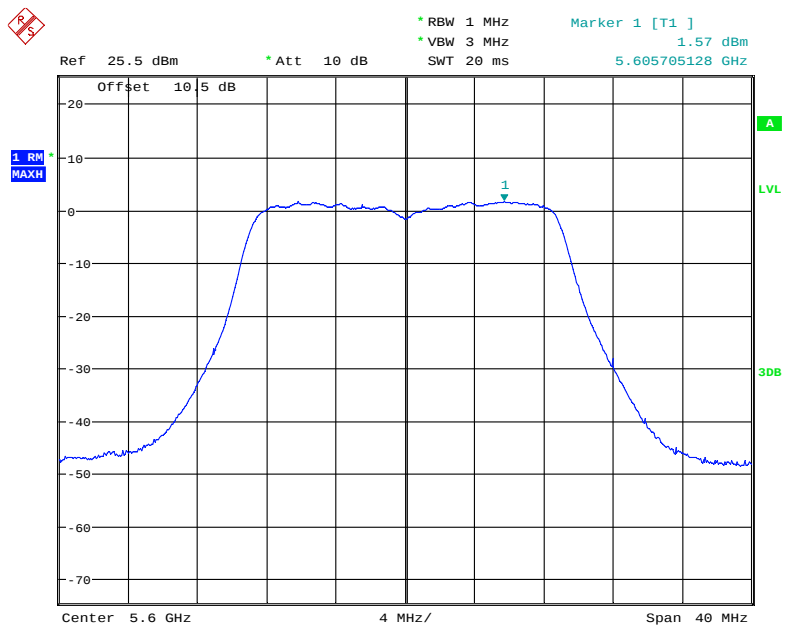
Date: 10.APR.2018 22:42:45

802.11ac20 mode, Power Spectral Density, 5500 MHz



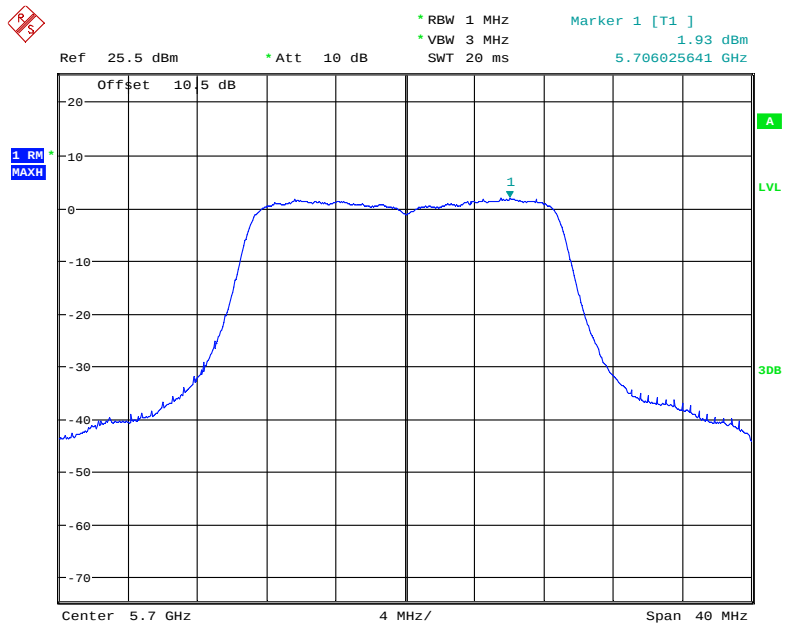
Date: 15.MAR.2018 21:29:11

802.11ac20 mode, Power Spectral Density, 5600 MHz

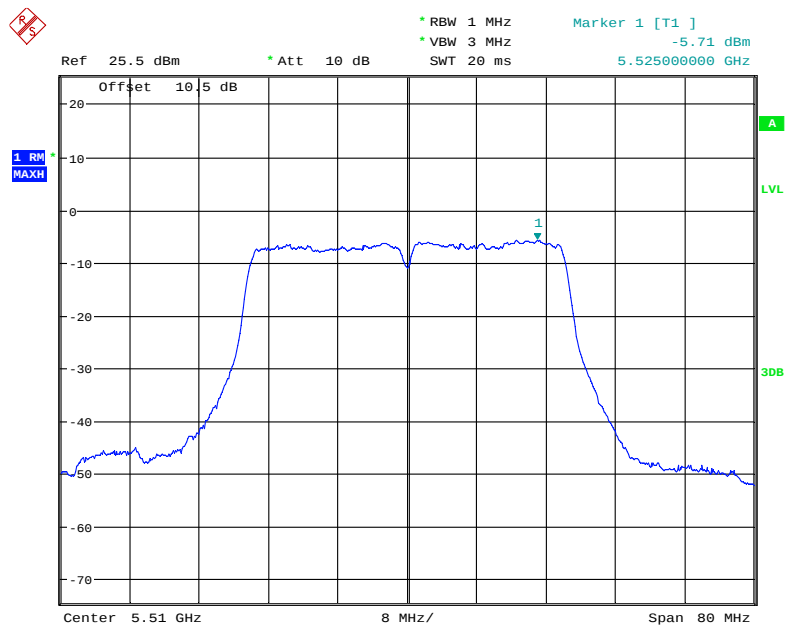


Date: 15.MAR.2018 21:41:12

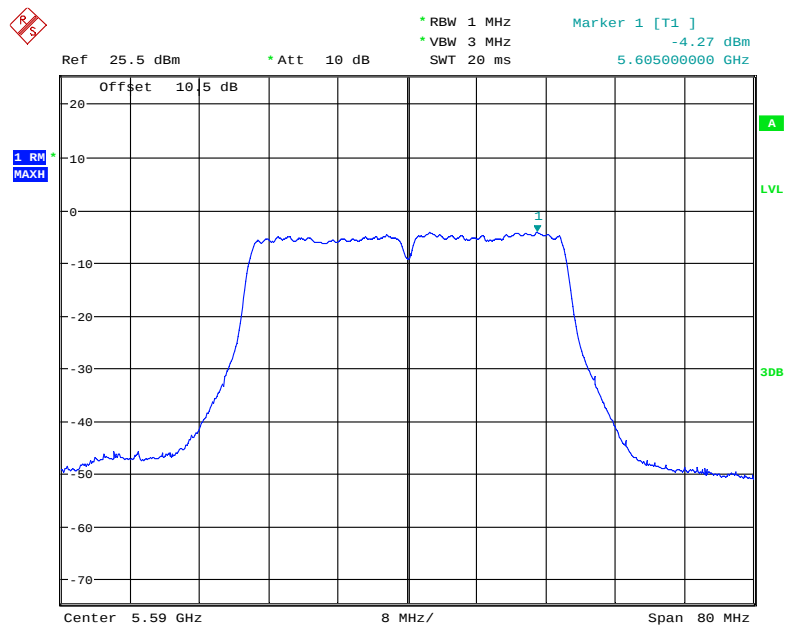
802.11ac20 mode, Power Spectral Density, 5700 MHz



Date: 10.APR.2018 22:39:41

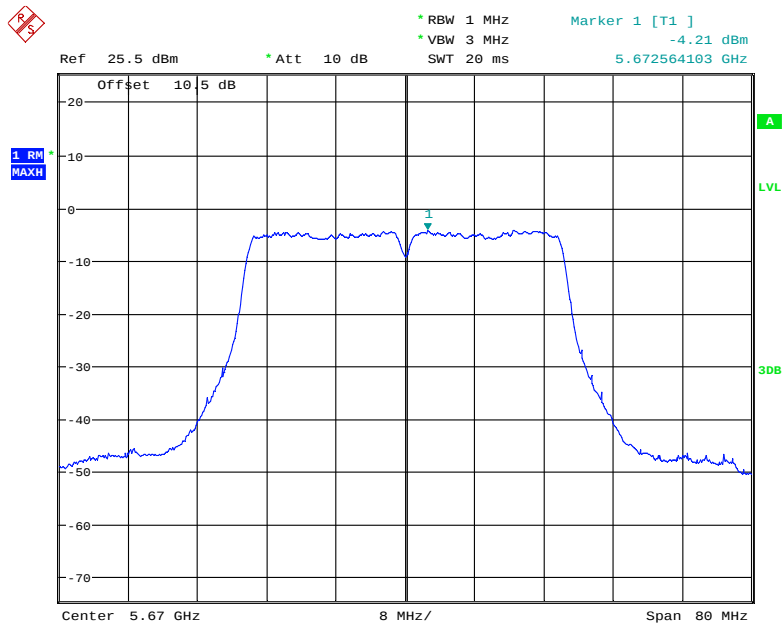
802.11ac40 mode, Power Spectral Density, 5510 MHz

Date: 15.MAR.2018 20:21:59

802.11ac40 mode, Power Spectral Density, 5590 MHz

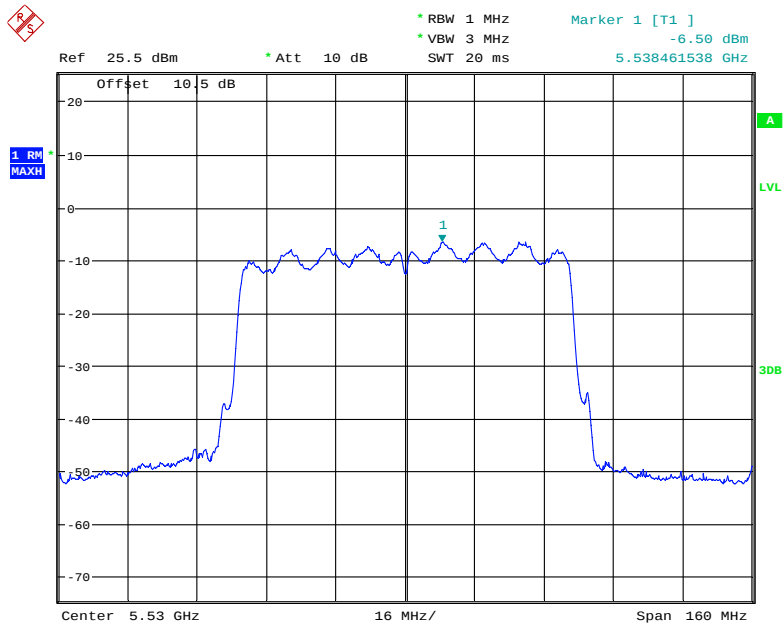
Date: 15.MAR.2018 20:20:33

802.11ac40 mode, Power Spectral Density, 5670 MHz



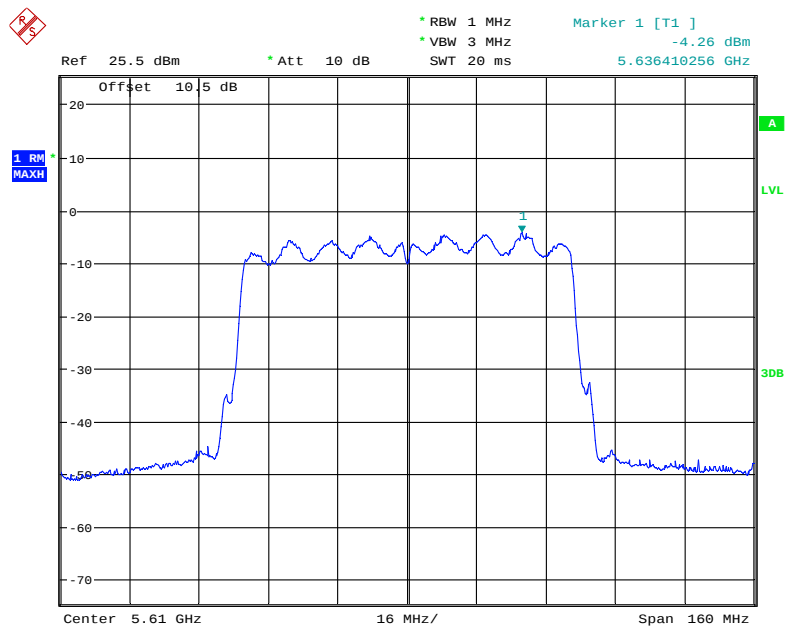
Date: 10.APR.2018 22:43:51

802.11ac80 mode, Power Spectral Density, 5530 MHz



Date: 15.MAR.2018 20:01:44

802.11ac80 mode, Power Spectral Density, 5610 MHz

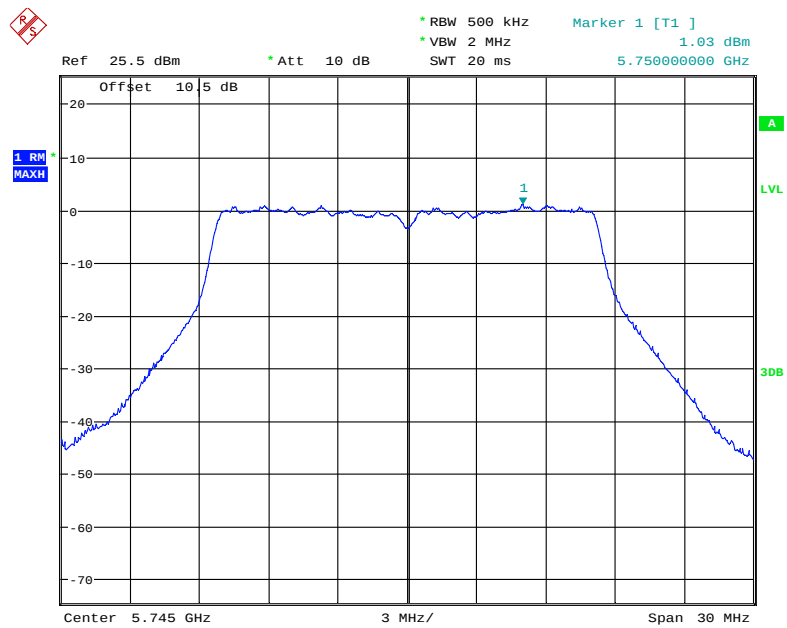


Date: 15.MAR.2018 20:13:00

5725 MHz – 5850 MHz:

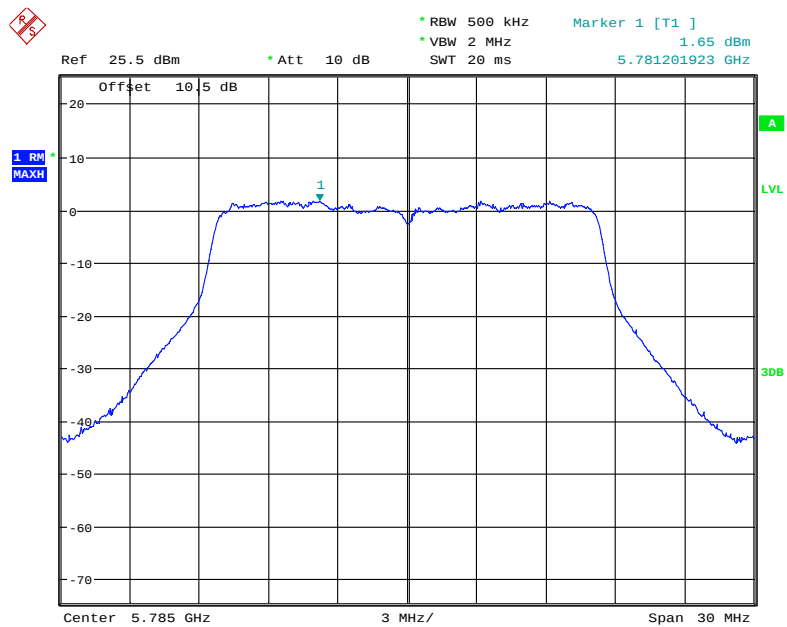
Frequency (MHz)	Power Spectral Density (dBm/500kHz)	Limit (dBm/500kHz)
802.11a		
5745	1.03	30
5785	1.65	
5825	0.96	
802.11n20		
5745	0.87	30
5785	0.73	
5825	-0.17	
802.11n40		
5755	-2.49	30
5795	-2.18	
802. 11ac20		
5745	1.09	30
5785	1.39	
5825	0.58	
802. 11ac40		
5755	-2.25	30
5795	-2.02	
802. 11ac80		
5775	-4.41	30

802.11a mode, Power Spectral Density, 5745 MHz



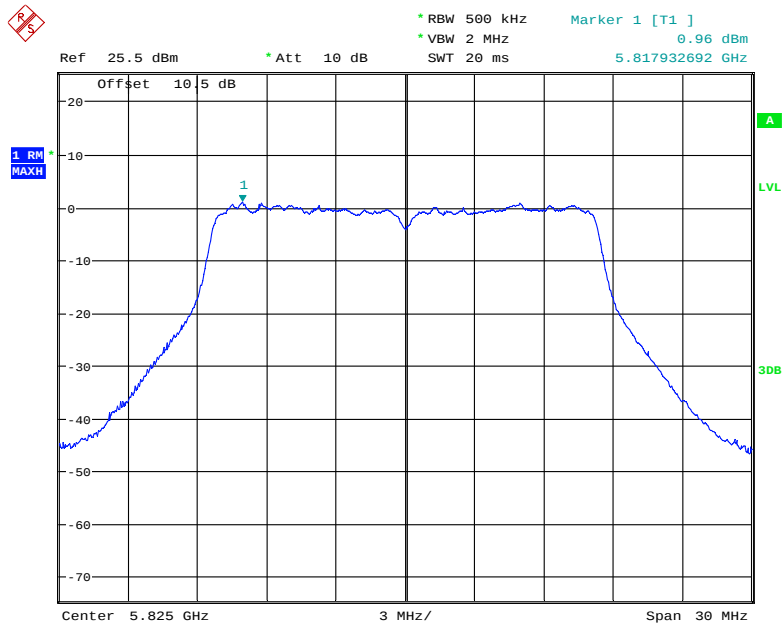
Date: 18.MAR.2018 10:24:45

802.11a mode, Power Spectral Density, 5785 MHz



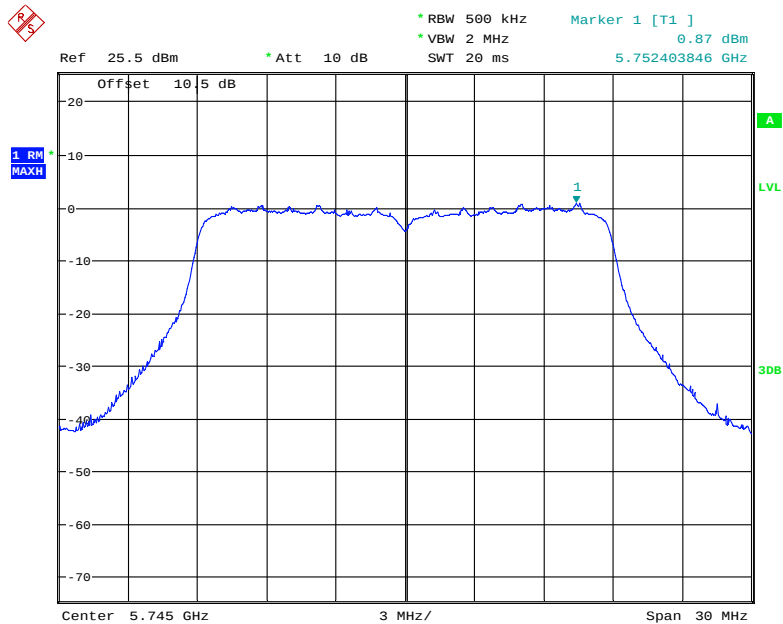
Date: 18.MAR.2018 10:26:23

802.11a mode, Power Spectral Density, 5825 MHz



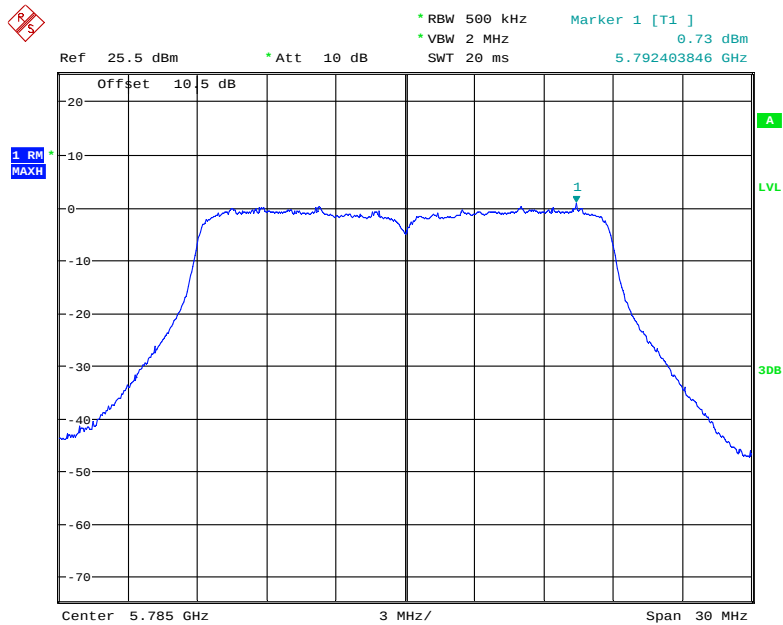
Date: 18.MAR.2018 10:32:39

802.11n20 mode, Power Spectral Density, 5745 MHz



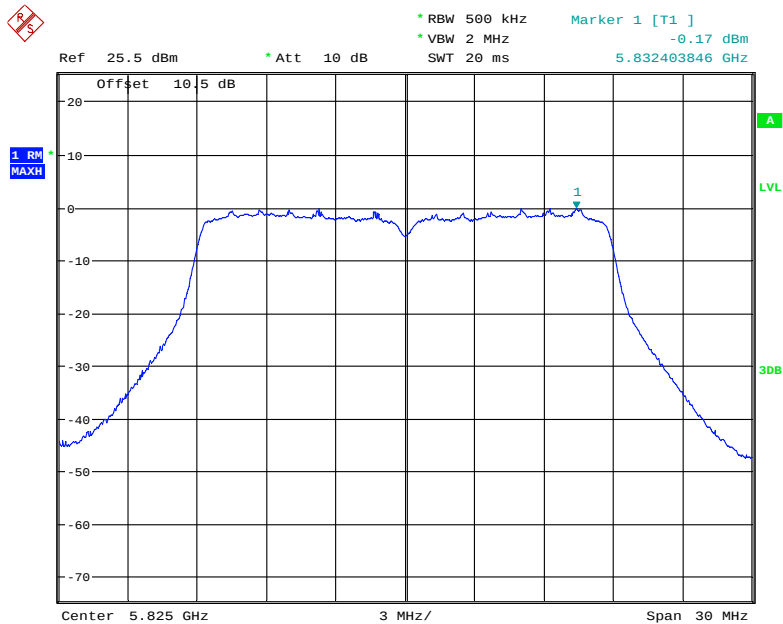
Date: 18.MAR.2018 10:22:11

802.11n20 mode, Power Spectral Density, 5785 MHz



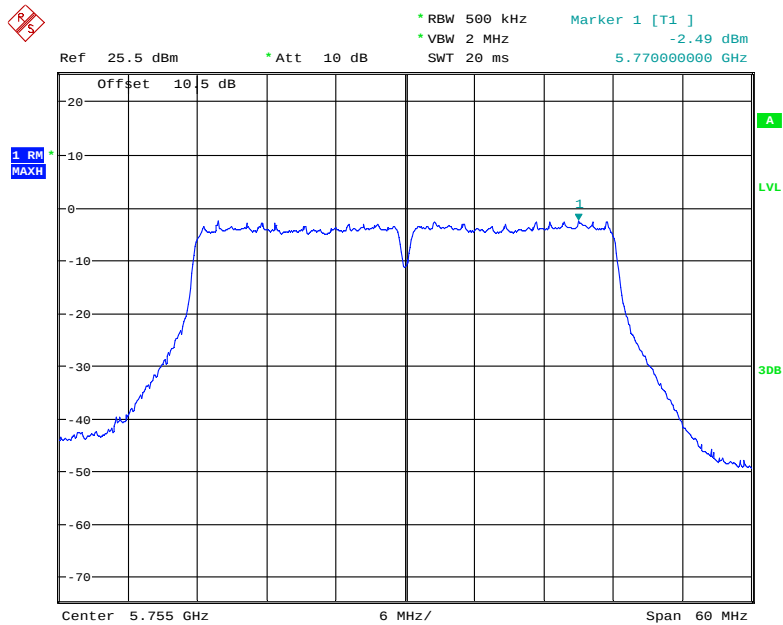
Date: 18.MAR.2018 10:28:56

802.11n20 mode, Power Spectral Density, 5825 MHz



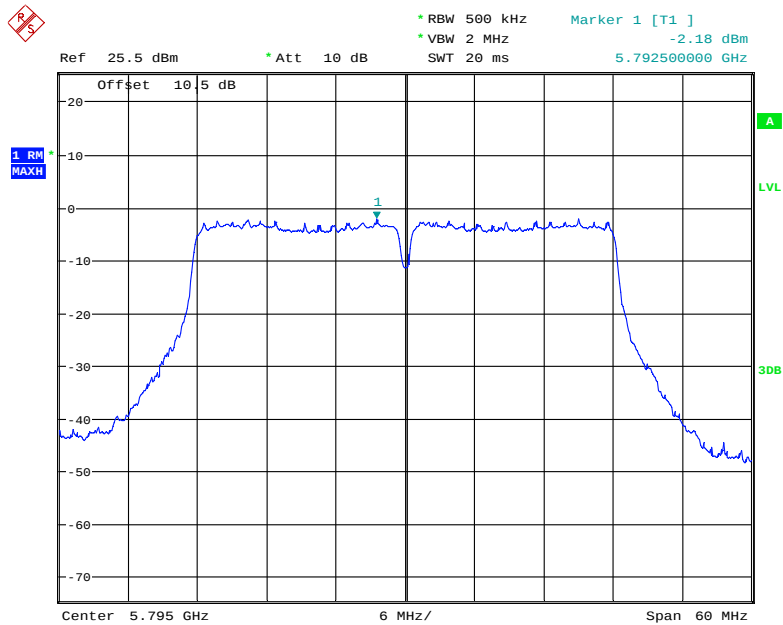
Date: 18.MAR.2018 10:30:29

802.11n40 mode, Power Spectral Density, 5755 MHz



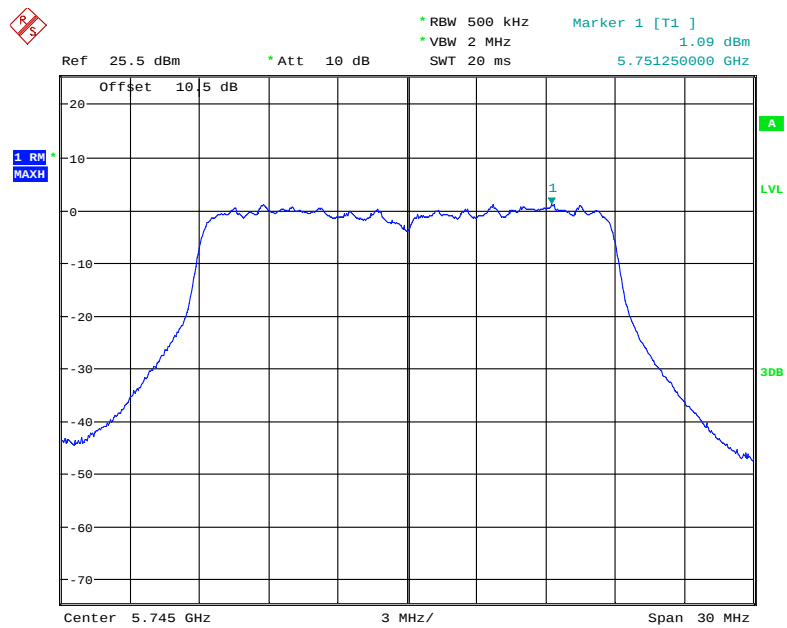
Date: 18.MAR.2018 10:34:57

802.11n40 mode, Power Spectral Density, 5795 MHz



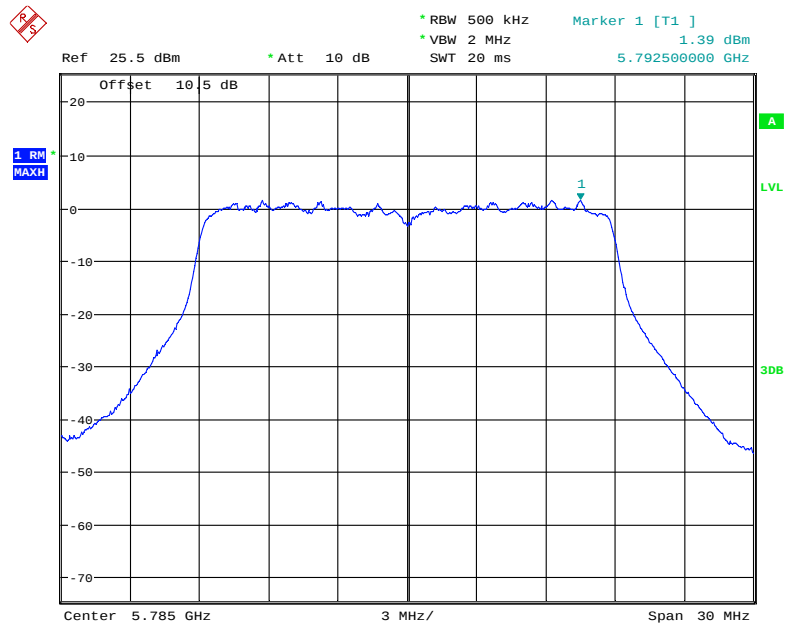
Date: 18.MAR.2018 10:40:28

802.11ac20 mode, Power Spectral Density, 5745 MHz



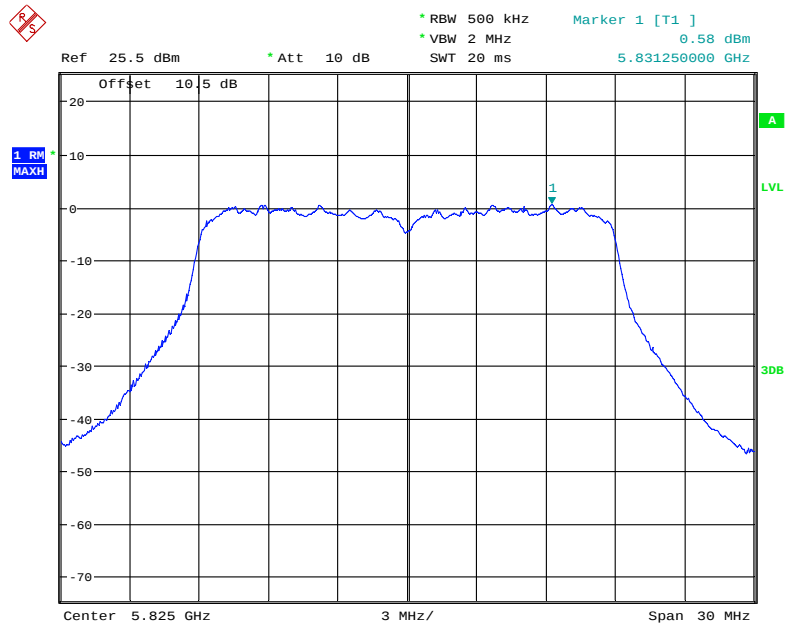
Date: 18.MAR.2018 10:23:36

802.11ac20 mode, Power Spectral Density, 5785 MHz



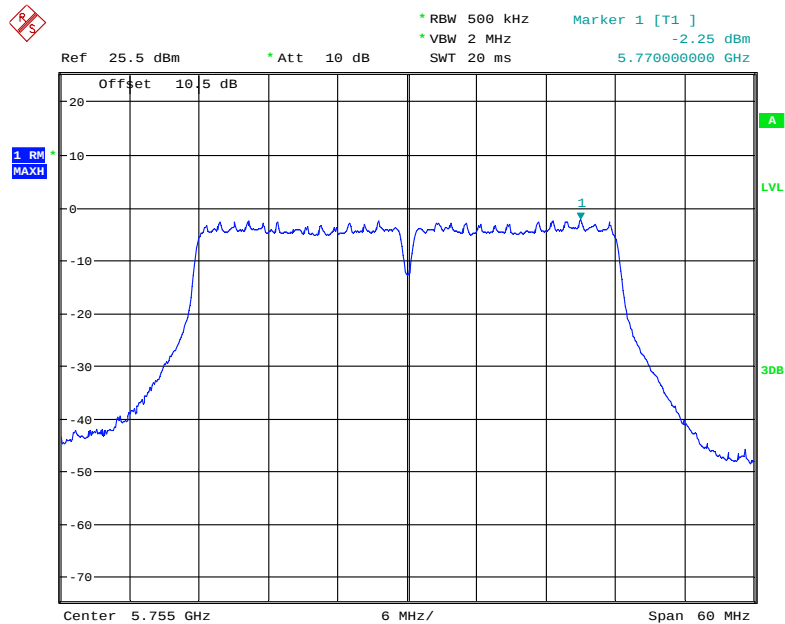
Date: 18.MAR.2018 10:27:32

802.11ac20 mode, Power Spectral Density, 5825 MHz

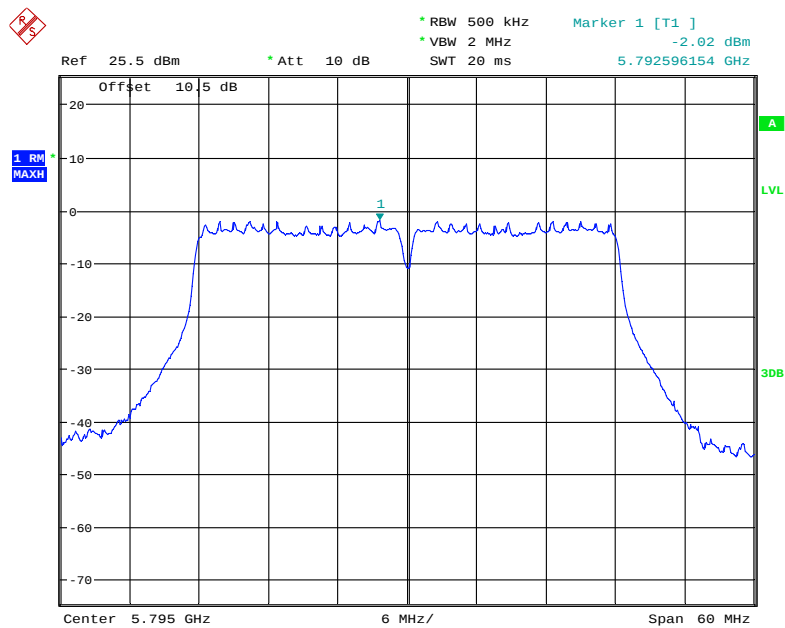


Date: 18.MAR.2018 10:31:37

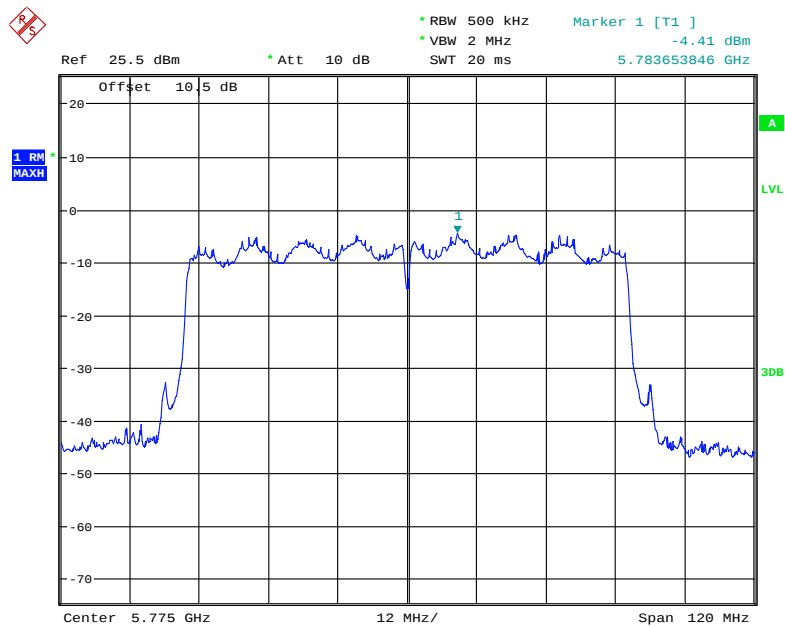
802.11ac40 mode, Power Spectral Density, 5755 MHz



Date: 18.MAR.2018 10:38:08

802.11ac40 mode, Power Spectral Density, 5795 MHz

Date: 18.MAR.2018 10:39:23

802.11ac80 mode, Power Spectral Density, 5775 MHz

Date: 18.MAR.2018 11:06:40

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