FCC PART 15.407

TEST REPORT

For

SmartRG, Inc.

501 SE Columbia Shores Blvd., Suite 500, Vancouver, WA 98661 USA

FCC ID: VW7SR400AC

Report Type:	**Product Type:**
Original Report	802.11ac Gigabit Router

Test Engineer:	Simon Wang
Report Number:	RSZ150714017-00C
Report Date:	2015-09-16
Reviewed By:	Jimmy Xiao RF Engineer
Prepared By:	Bay Area Compliance Laboratories Corp. (Shenzhen) 6/F, the 3rd Phase of WanLi Industrial Building ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China Tel: +86-755-33320018 Fax: +86-755-33320008 www.baclcorp.com.cn

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *SmartRG, Inc.*'s product, model number: *SR400ac (FCC ID: VW7SR400AC)* or the "EUT" in this report was an *802.11ac Gigabit Router*, which was measured approximately: 22.4 cm (L) x 19.1 cm (W) x 8.4 cm (H), rated with input voltage: DC 12V from adapter.

Adapter information: Switching Adapter
Model: USA-3SPFH-12FUS 120300
Input: 100-240V~50/60 Hz, 1.0A
Output: DC 12V, 3A

**All measurement and test data in this report was gathered from production sample serial number: 1505733 (Assigned by applicant). The EUT supplied by the applicant was received on 2015-07-14.*

Objective

This type approval report is prepared on behalf of *SmartRG, Inc.* in accordance with Part 2-Subpart J, Part 15-Subparts A, B 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 and part 15B JBP submissions with FCC ID: VW7SR400AC.

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

Measurement uncertainty with RF radiated emission is 5.91 dB for 30MHz-1GHz.and 4.92 dB for above 1GHz, 1.95dB for conducted measurement.

Test Facility

The test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China.

Test site at Bay Area Compliance Laboratories Corp. (Shenzhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on October 31, 2013. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.10-2013.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

SYSTEM TEST CONFIGURATION

Description of Test Configuration

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

EUT Exercise Software

MTool_2.0.1.1 was used.

802.11a: Rate 6Mbps, Power level: 55
802.11n20: Rate MCS0, Power level: 55
802.11n40: Rate MCS7, Power level: 55
802.11ac20：Rate MNSS 0, Power level: 53
802.11ac40：Rate MNSS 7, Power level: 53
802.11ac80: Rate MNSS 7, Power level: 53

Equipment Modifications

No modification was made to the EUT tested.

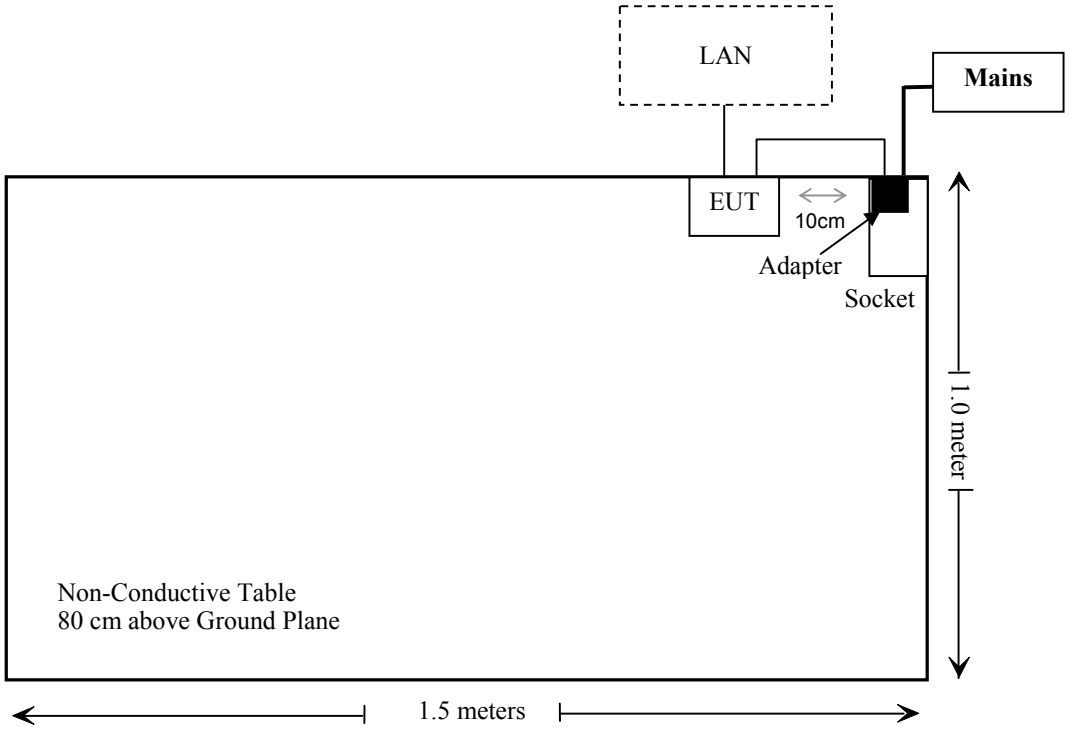
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
/	/	/	/

External I/O Cable

Cable Description	Length (m)	From/Port	To
Unshielding Undetachable DC Power Cable	1.2	EUT	Adapter

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Result
§15.407 (f), §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),(6),(7)	Undesirable Emission& Restricted Bands	Compliance
§15.407(b) (1) (4)	Band Edge	Compliance
§15.407(a) (1),(5),(e)	26 dB Emission Bandwidth & 6dB Bandwidth	Compliance
§15.407(a)(1),(3)	Conducted Transmitter Output Power	Compliance
§15.407 (a)(1),(3)	Power Spectral Density	Compliance

FCC §15.407 (f) & §2.1091 –MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Applicable Standard

According to FCC §2.1091 and §1.1307(b) (1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission's guideline.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) 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;

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculated Formulary:

Predication of MPE limit at a given distance
$S = PG/4\pi R^2$ = power density (in appropriate units, e.g. mW/cm^2);
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);

Calculated Data:

5150-5250MHz:

Mode	Frequency (MHz)	Antenna Gain		Max tune –up Conducted Power		Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)
		(dBi)	(numeric)	(dBm)	(mW)			
802.11a	5150-5250	3.0	2.0	15.0	31.623	20	0.0126	1.0
802.11n-HT20		3.0	2.0	19.5	89.125	20	0.0354	1.0
802.11n-HT40		3.0	2.0	20.0	100.000	20	0.0397	1.0
802.11ac20		3.0	2.0	18.5	70.795	20	0.0281	1.0
802.11ac40		3.0	2.0	19.0	79.433	20	0.0315	1.0
802.11ac80		3.0	2.0	19.5	89.125	20	0.0354	1.0

5725-5850MHz:

Mode	Frequency (MHz)	Antenna Gain		Max tune –up Conducted Power		Evaluation Distance (cm)	Power Density (mW/cm^2)	MPE Limit (mW/cm^2)
		(dBi)	(numeric)	(dBm)	(mW)			
802.11a	5725-5850	3.0	2.0	15.0	31.623	20	0.0126	1.0
802.11n-HT20		3.0	2.0	19.5	89.125	20	0.0354	1.0
802.11n-HT40		3.0	2.0	20.5	112.202	20	0.0446	1.0
802.11ac20		3.0	2.0	17.0	50.119	20	0.0199	1.0
802.11ac40		3.0	2.0	17.0	50.119	20	0.0199	1.0
802.11ac80		3.0	2.0	19.0	79.433	20	0.0315	1.0

Note: 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

This product has three integrated antenna with maximum gain 3.0 dBi which was soldered on PCB, fulfill the requirement of this section, and please refer to the EUT photo.

Result: Compliance.

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

Applicable Standard

FCC §15.207, §15.407(b) (6)

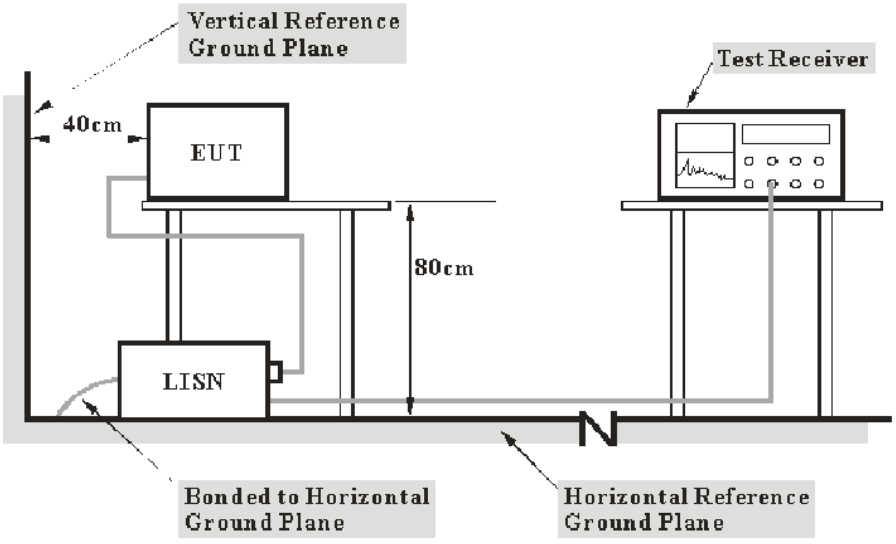
Measurement Uncertainty

Input quantities to be considered for conducted disturbance measurements maybe receiver reading, attenuation of the connection between LISN and receiver, LISN voltage division factor, LISN VDF frequency interpolation and receiver related input quantities, etc.

Based on CISPR 16-4-2:2011, the expended combined standard uncertainty of conducted disturbance test at Bay Area Compliance Laboratories Corp. (Shenzhen) is shown as below. And the uncertainty will not be taken into consideration for the test data recorded in the report

Port	Expanded Measurement uncertainty
AC Mains	3.26 dB (k=2, 95% level of confidence)
CAT 3	3.70 dB (k=2, 95% level of confidence)
CAT 5	3.86 dB (k=2, 95% level of confidence)
CAT 6	4.64 dB (k=2, 95% level of confidence)

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 C63.4-2014 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 120 VAC/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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCS30	100176	2015-06-03	2016-06-03
Rohde & Schwarz	LISN	ESH2-Z5	892107/021	2015-06-09	2016-06-09
Rohde & Schwarz	LISN	ENV216	3560.6650.12-101613-Yb	2015-06-09	2016-06-09
Rohde & Schwarz	Transient Limitor	ESH3Z2	DE25985	2015-05-14	2016-05-14
Rohde & Schwarz	CE Test software	EMC 32	V8.53	NCR	NCR

*** 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).

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15.207, the worst margin reading as below:

12.6 dB at **0.464870 MHz** in the **Line** conducted mode

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

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

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

Test Data

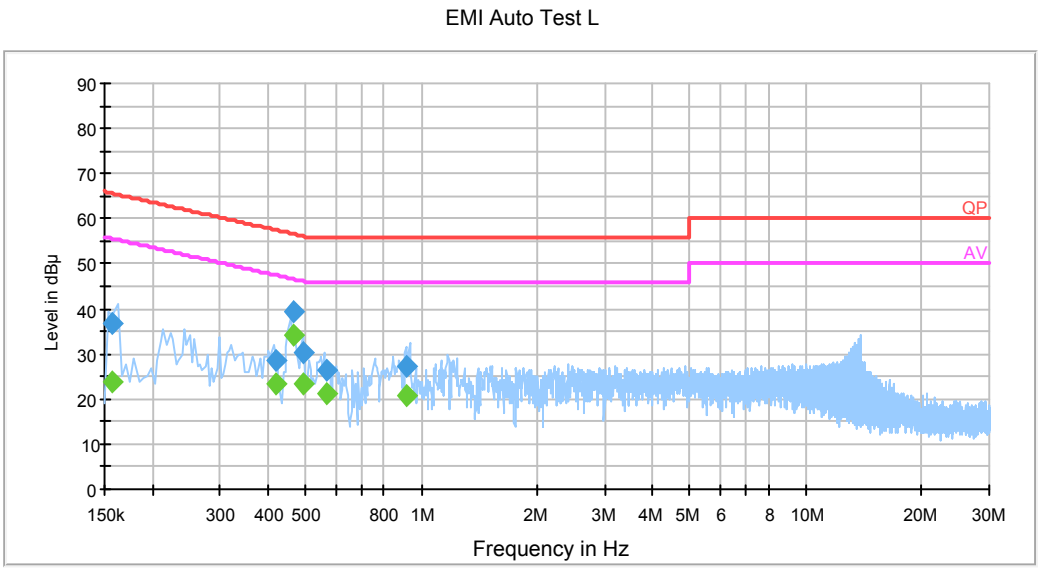
Environmental Conditions

Temperature:	26 ℃
Relative Humidity:	50 %
ATM Pressure:	101.0 kPa

The testing was performed by Simon Wang on 2015-08-19.

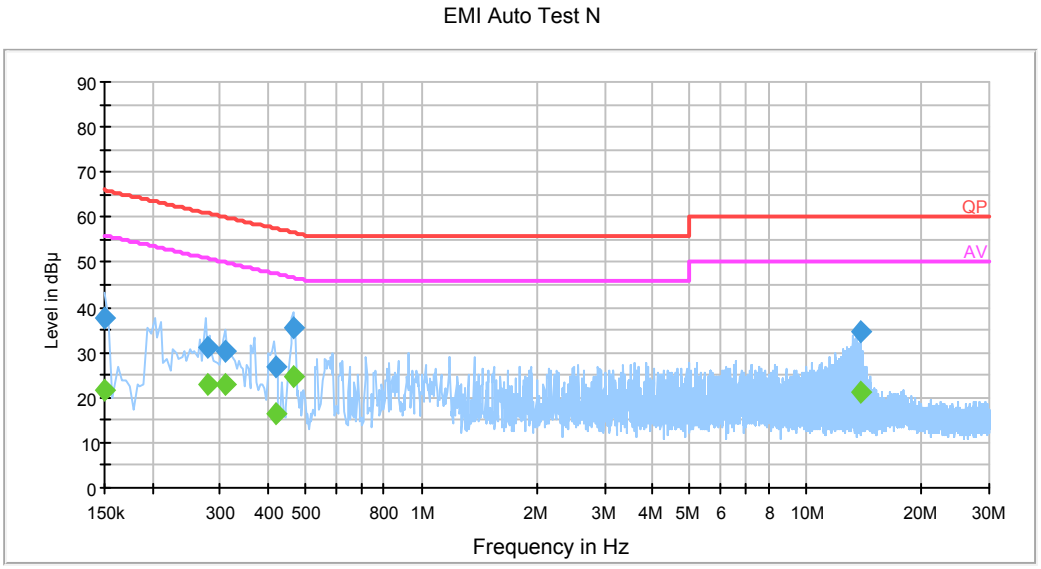
EUT operation mode: Running

AC 120V/60 Hz, Line:



Frequency (MHz)	Corrected Amplitude (dBµV)	Correction Factor (dB)	Limit (dBµV)	Margin (dB)	Detector (PK/Ave./QP)
0.157500	36.6	20.0	65.6	29.0	QP
0.157500	23.6	20.0	55.6	32.0	Ave.
0.419790	28.7	19.9	57.5	28.8	QP
0.419790	23.3	19.9	47.5	24.2	Ave.
0.464870	39.4	19.9	56.6	17.2	QP
0.464870	34.0	19.9	46.6	**12.6**	Ave.
0.490590	30.3	19.9	56.2	25.9	QP
0.490590	23.4	19.9	46.2	22.8	Ave.
0.565630	26.3	19.9	56.0	29.7	QP
0.565630	21.3	19.9	46.0	24.7	Ave.
0.919990	27.3	20.0	56.0	28.7	QP
0.919990	20.9	20.0	46.0	25.1	Ave.

AC120V, 60 Hz, Neutral:



Frequency (MHz)	Corrected Amplitude (dBµV)	Correction Factor (dB)	Limit (dBµV)	Margin (dB)	Detector (PK/Ave./QP)
0.150000	37.8	20.0	66.0	28.2	QP
0.150000	21.8	20.0	56.0	34.2	Ave.
0.277500	31.1	19.9	60.9	29.8	QP
0.277500	23.0	19.9	50.9	27.9	Ave.
0.309350	30.1	19.9	60.0	29.9	QP
0.309350	23.0	19.9	50.0	27.0	Ave.
0.419790	26.9	19.9	57.5	30.6	QP
0.419790	16.3	19.9	47.5	31.2	Ave.
0.463010	35.6	19.9	56.6	21.0	QP
0.463010	24.6	19.9	46.6	22.0	Ave.
13.822670	34.7	20.1	60.0	25.3	QP
13.822670	21.2	20.1	50.0	28.8	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),(4),(6),(7) – UNDESIRABLE EMISSION

Applicable Standard

FCC §15.407 (b) (1), (2), (4), (6), (7); §15.209; §15.205;

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

For transmitters operating in the 5.725–5.825 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of –17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of –27 dBm/MHz.

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

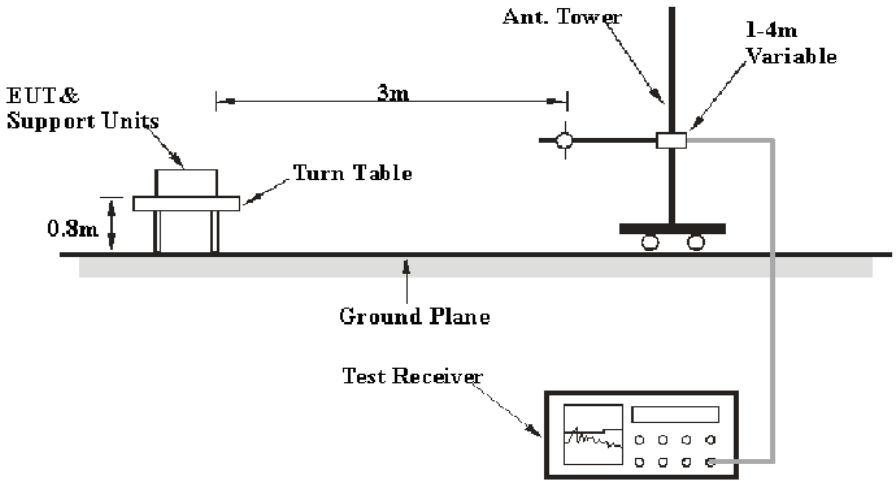
Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

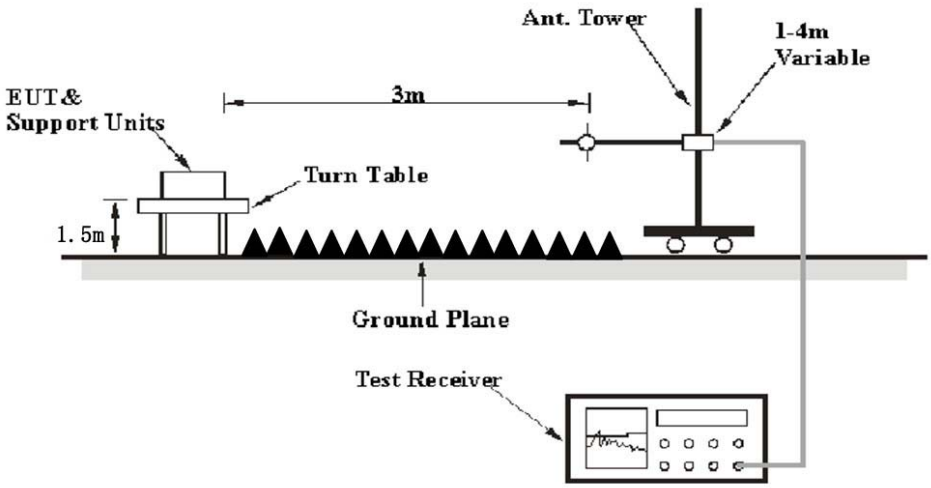
Based on CISPR 16-4-2:2011, the expended combined standard uncertainty of radiation emissions at Bay Area Compliance Laboratories Corp. (Shenzhen) is 5.91 dB for 30MHz-1GHz and 4.92 dB for above 1GHz, 1.95dB for conducted measurement at antenna port. And the uncertainty will not be taken into consideration for the test data recorded in the report.

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 120 VAC/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	Detector
30 MHz – 1000 MHz	100 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	PK
	1 MHz	10 Hz	/	Ave.

Test Procedure

Radiated Spurious Emission

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

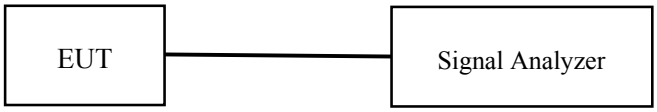
Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all the installation combinations.

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

The EUT is set 1.5 meter away from the testing antenna, which is varied from 1-4 mete, and the EUT is placed on a turntable, the table shall be rotated for 360 degrees to find out the highest emission. The receiving antenna should be changed the polarization both of horizontal and vertical.

Conducted Spurious Emission at Antenna Port

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 ≥ 1MHz, report the peak value out of the oprating band.
3. Repeat above procedures until all frequencies measured were complete.



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:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - 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:

Margin = Limit – Corrected Amplitude

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Amplifier	HP8447E	1937A01046	2015-05-06	2016-05-06
Rohde & Schwarz	EMI Test Receiver	ESCI	101122	2014-11-03	2015-11-03
Sunol Sciences	Broadband Antenna	JB1	A040904-2	2014-12-07	2017-12-06
Mini	Amplifier	ZVA-183-S+	5969001149	2015-04-23	2016-04-23
A.H. System	Horn Antenna	SAS-200/571	135	2013-02-11	2016-02-10
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2014-12-11	2015-12-11
DUCOMMUN	Pre-amplifier	ALN-22093530-01	991373-01	2014-12-02	2015-12-01
Agilent	Spectrum Analyzer	8564E	3943A01781	2013-05-09	2016-05-08
the electro-Mechanics Co.	Horn Antenna	3116	9510-2270	2013-10-14	2016-10-13

*** 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).

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Title 47, Part 15, Subpart C, Section 15.205, 15.209 and 15.407, the worst margin reading as below:

4.29 dB at **15720 MHz** in the **Vetical** polarization
802.11n20 mode: **Chain0+Chain1+chain 2**

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

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

In BACL, $U_{(Lm)}$ 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:	26 ℃
Relative Humidity:	51 %
ATM Pressure:	101.0 kPa

The testing was performed by Simon Wangon 2015-09-09.

EUT operation mode: transmitting (worst case)

30 MHz ~ 40 GHz: (5150-5250 MHz & 5725-5825 MHz)

802.11a mode: **Chain0**

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5180 MHz									
265.70	44.59	QP	115	1.2	H	-13.7	30.89	46	15.11
5180.00	93.01	PK	258	2.2	H	13.89	106.90	/	/
5180.00	78.13	Ave.	258	2.2	H	13.89	92.02	/	/
5180.00	90.82	PK	63	1.0	V	13.89	104.71	/	/
5180.00	77.11	Ave.	63	1.0	V	13.89	91.00	/	/
5113.60	37.16	PK	317	1.6	V	13.97	51.13	74	22.87
5113.60	23.97	Ave.	317	1.6	V	13.97	37.94	54	16.06
5385.10	36.95	PK	242	1.9	V	14.67	51.62	74	22.38
5385.10	21.81	Ave.	242	1.9	V	14.67	36.48	54	17.52
7016.70	37.77	PK	44	1.6	V	18.33	56.10	74	17.90
7016.70	21.83	Ave.	44	1.6	V	18.33	40.16	54	13.84
8045.20	35.22	PK	228	2.2	V	19.65	54.87	74	19.13
8045.20	21.25	Ave.	228	2.2	V	19.65	40.90	54	13.10
10360.00	30.54	PK	84	2.5	H	23.61	54.15	74	19.85
10360.00	15.71	Ave.	84	2.5	H	23.61	39.32	54	14.68
5200 MHz									
265.70	44.57	QP	115	1.2	H	-13.7	30.87	46	15.13
5200.00	92.66	PK	217	2.1	H	13.89	106.55	/	/
5200.00	78.36	Ave.	217	2.1	H	13.89	92.25	/	/
5200.00	90.47	PK	1	2.1	V	13.89	104.36	/	/
5200.00	75.94	Ave.	1	2.1	V	13.89	89.83	/	/
5096.30	36.86	PK	6	2.1	V	13.97	50.83	74	23.17
5096.30	23.73	Ave.	6	2.1	V	13.97	37.70	54	16.30
5402.70	36.78	PK	55	1.2	V	14.67	51.45	74	22.55
5402.70	21.57	Ave.	55	1.2	V	14.67	36.24	54	17.76
7123.40	37.55	PK	193	2.3	V	17.61	55.16	74	18.84
7123.40	21.69	Ave.	193	2.3	V	17.61	39.30	54	14.70
8056.00	35.18	PK	16	2.0	V	19.65	54.83	74	19.17
8056.00	20.97	Ave.	16	2.0	V	19.65	40.62	54	13.38
10400.00	30.31	PK	270	1.7	H	23.61	53.92	74	20.08
10400.00	15.31	Ave.	270	1.7	H	23.61	38.92	54	15.08

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5240 MHz									
265.70	44.54	QP	115	1.2	H	-13.7	30.84	46	15.16
5240.00	90.61	PK	156	2.1	H	13.89	104.50	/	/
5240.00	77.15	Ave.	156	2.1	H	13.89	91.04	/	/
5240.00	88.56	PK	271	1.6	V	13.89	102.45	/	/
5240.00	74.46	Ave.	271	1.6	V	13.89	88.35	/	/
5114.20	36.81	PK	60	1.1	V	13.97	50.78	74	23.22
5114.20	23.6	Ave.	60	1.1	V	13.97	37.57	54	16.43
5465.70	36.59	PK	10	1.4	V	16.70	53.29	74	20.71
5465.70	21.47	Ave.	10	1.4	V	16.70	38.17	54	15.83
6512.30	37.4	PK	310	2.3	V	16.51	53.91	74	20.09
6512.30	21.59	Ave.	310	2.3	V	16.51	38.10	54	15.90
7413.00	34.94	PK	127	1.2	V	18.34	53.28	74	20.72
7413.00	21.01	Ave.	127	1.2	V	18.34	39.35	54	14.65
10480.00	31.63	PK	103	1.6	H	23.61	55.24	74	18.76
10480.00	16.07	Ave.	103	1.6	H	23.61	39.68	54	14.32
5745 MHz									
265.70	44.25	QP	115	1.2	H	-13.7	30.55	46	15.45
5745.00	98.94	PK	182	1.4	H	15.54	114.48	/	/
5745.00	85.49	Ave.	182	1.4	H	15.54	101.03	/	/
5745.00	95.81	PK	98	2.1	V	15.54	111.35	/	/
5745.00	81.31	Ave.	98	2.1	V	15.54	96.85	/	/
5098.30	36.98	PK	110	2.3	V	13.97	50.95	74	23.05
5098.30	24.06	Ave.	110	2.3	V	13.97	38.03	54	15.97
5410.10	37.01	PK	149	1.5	V	14.67	51.68	74	22.32
5410.10	21.7	Ave.	149	1.5	V	14.67	36.37	54	17.63
7485.80	37.66	PK	24	1.2	V	19.15	56.81	74	17.19
7485.80	21.87	Ave.	24	1.2	V	19.15	41.02	54	12.98
7413.00	35.11	PK	241	2.2	V	18.34	53.45	74	20.55
7413.00	21.07	Ave.	241	2.2	V	18.34	39.41	54	14.59
11490.00	31.78	PK	165	1.9	V	24.61	56.39	74	17.61
11490.00	16.2	Ave.	165	1.9	V	24.61	40.81	54	13.19

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5785 MHz									
265.70	44.4	QP	115	1.2	H	-13.7	30.7	46	15.30
5785.00	98.48	PK	230	1.4	H	15.19	113.67	/	/
5785.00	83.41	Ave.	230	1.4	H	15.19	98.60	/	/
5785.00	95.33	PK	12	2.3	V	15.19	110.52	/	/
5785.00	81.34	Ave.	12	2.3	V	15.19	96.53	/	/
5127.80	37.84	PK	180	2.5	V	13.97	51.81	74	22.19
5127.80	23.68	Ave.	180	2.5	V	13.97	37.65	54	16.35
5403.30	36.81	PK	82	1.8	V	14.67	51.48	74	22.52
5403.30	21.43	Ave.	82	1.8	V	14.67	36.10	54	17.90
5615.30	37.55	PK	83	2.3	V	16.47	54.02	74	19.98
5615.30	20.89	Ave.	83	2.3	V	16.47	37.36	54	16.64
7500.80	34.96	PK	339	1.9	V	21.11	56.07	74	17.93
7500.80	19.06	Ave.	339	1.9	V	21.11	40.17	54	13.83
11570.00	30.69	PK	192	1.1	H	25.46	56.15	74	17.85
11570.00	15.63	Ave.	192	1.1	H	25.46	41.09	54	12.91
5825 MHz									
265.70	44.32	QP	115	1.2	H	-13.7	30.62	46	15.38
5825.00	99.37	PK	145	1.8	H	15.19	114.56	/	/
5825.00	84.55	Ave.	145	1.8	H	15.19	99.74	/	/
5825.00	93.93	PK	150	2.5	V	15.19	109.12	/	/
5825.00	79.33	Ave.	150	2.5	V	15.19	94.52	/	/
5101.60	37	PK	175	2.0	V	13.97	50.97	74	23.03
5101.60	23.78	Ave.	175	2.0	V	13.97	37.75	54	16.25
5402.40	36.7	PK	67	1.7	V	14.67	51.37	74	22.63
5402.40	21.37	Ave.	67	1.7	V	14.67	36.04	54	17.96
5621.00	37.38	PK	246	1.5	V	16.47	53.85	74	20.15
5621.00	21.44	Ave.	246	1.5	V	16.47	37.91	54	16.09
7511.10	35.1	PK	44	2.0	V	21.11	56.21	74	17.79
7511.10	20.99	Ave.	44	2.0	V	21.11	42.10	54	11.90
11650.00	31.17	PK	219	2.0	H	25.46	56.63	74	17.37
11650.00	16.13	Ave.	219	2.0	H	25.46	41.59	54	12.41

802.11n20 mode: Chain0+Chain1+chain 2

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5180 MHz									
265.70	44.29	QP	115	1.2	H	-13.7	30.59	46	15.41
5180.00	94.33	PK	227	2.2	H	13.89	108.22	/	/
5180.00	80.15	Ave.	227	2.2	H	13.89	94.04	/	/
5180.00	93.16	PK	125	1.8	V	13.89	107.05	/	/
5180.00	77.69	Ave.	125	1.8	V	13.89	91.58	/	/
5109.05	36.35	PK	33	1.3	H	13.97	50.32	74	23.68
5109.05	17.34	Ave.	33	1.3	H	13.97	31.31	54	22.69
5410.86	38.61	PK	229	1.9	H	14.67	53.28	74	20.72
5410.86	15.96	Ave.	229	1.9	H	14.67	30.63	54	23.37
7006.42	35.33	PK	119	1.8	H	18.33	53.66	74	20.34
7006.42	17.36	Ave.	119	1.8	H	18.33	35.69	54	18.31
7513.56	36.13	PK	242	1.5	H	19.15	55.28	74	18.72
7513.56	16.96	Ave.	242	1.5	H	19.15	36.11	54	17.89
10360.00	35.31	PK	300	2.1	H	23.61	58.92	74	15.08
10360.00	17.29	Ave.	300	2.1	H	23.61	40.90	54	13.10
15540.00	30.11	PK	218	1.3	H	34.14	64.25	74	9.75
15540.00	15.01	Ave.	218	1.3	H	34.14	49.15	54	4.85
5200 MHz									
265.70	44.22	QP	115	1.2	H	-13.7	30.52	46	15.48
5200.00	93.17	PK	90	2.0	H	13.89	107.06	/	/
5200.00	78.96	Ave.	90	2.0	H	13.89	92.85	/	/
5200.00	91.33	PK	9	1.7	V	13.89	105.22	/	/
5200.00	76.55	Ave.	9	1.7	V	13.89	90.44	/	/
5136.36	36.35	PK	124	1.5	H	13.97	50.32	74	23.68
5136.36	17.51	Ave.	124	1.5	H	13.97	31.48	54	22.52
5416.21	37.01	PK	91	1.9	H	14.67	51.68	74	22.32
5416.21	18.54	Ave.	91	1.9	H	14.67	33.21	54	20.79
7531.35	33.65	PK	278	1.6	H	19.15	52.80	74	21.20
7531.35	15.36	Ave.	278	1.6	H	19.15	34.51	54	19.49
7536.91	35.61	PK	353	1.0	H	19.15	54.76	74	19.24
7536.91	15.47	Ave.	353	1.0	H	19.15	34.62	54	19.38
10400.00	30.75	PK	195	2.3	H	23.61	54.36	74	19.64
10400.00	16.54	Ave.	195	2.3	H	23.61	40.15	54	13.85
15600.00	30.65	PK	275	1.7	H	34.14	64.79	74	9.21
15600.00	15.11	Ave.	275	1.7	H	34.14	49.25	54	4.75

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5240 MHz									
265.70	44.19	QP	115	1.2	H	-13.7	30.49	46	15.51
5240.00	90.54	PK	357	2.1	H	13.89	104.43	/	/
5240.00	75.95	Ave.	357	2.1	H	13.89	89.84	/	/
5240.00	88.89	PK	357	1.5	V	13.89	102.78	/	/
5240.00	74.79	Ave.	357	1.5	V	13.89	88.68	/	/
5114.31	35.31	PK	280	2.4	H	13.97	49.28	74	24.72
5114.31	17.51	Ave.	280	2.4	H	13.97	31.48	54	22.52
5413.29	36.33	PK	344	1.5	H	14.67	51.00	74	23.00
5413.29	17.59	Ave.	344	1.5	H	14.67	32.26	54	21.74
7510.37	36.13	PK	332	2.3	H	19.15	55.28	74	18.72
7510.37	17.15	Ave.	332	2.3	H	19.15	36.30	54	17.70
7513.33	35.98	PK	29	2.4	H	19.15	55.13	74	18.87
7513.33	18.16	Ave.	29	2.4	H	19.15	37.31	54	16.69
10480.00	30.59	PK	142	1.9	H	23.61	54.20	74	19.80
10480.00	15.16	Ave.	142	1.9	H	23.61	38.77	54	15.23
15720.00	33.11	PK	325	1.2	V	34.14	67.25	74	6.75
15720.00	15.57	Ave.	325	1.2	V	34.14	49.71	54	**4.29**
5745 MHz									
265.70	44.05	QP	115	1.2	H	-13.7	30.35	46	15.65
5745.00	91.13	PK	113	1.7	H	15.54	106.67	/	/
5745.00	77.77	Ave.	113	1.7	H	15.54	93.31	/	/
5745.00	86.41	PK	294	1.1	V	15.54	101.95	/	/
5745.00	72.92	Ave.	294	1.1	V	15.54	88.46	/	/
5121.10	36.94	PK	229	2.2	V	13.97	50.91	74	23.09
5121.10	23.5	Ave.	229	2.2	V	13.97	37.47	54	16.53
5410.80	36.55	PK	298	2.1	V	14.67	51.22	74	22.78
5410.80	21.7	Ave.	298	2.1	V	14.67	36.37	54	17.63
5622.40	37.55	PK	1	2.1	V	20.45	58.00	74	16.00
5622.40	21.64	Ave.	1	2.1	V	20.45	42.09	54	11.91
7511.70	34.89	PK	333	2.3	V	21.11	56.00	74	18.00
7511.70	20.77	Ave.	333	2.3	V	21.11	41.88	54	12.12
11490.00	30.98	PK	300	1.5	H	24.61	55.59	74	18.41
11490.00	16.15	Ave.	300	1.5	H	24.61	40.76	54	13.24

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5785 MHz									
265.70	44.16	QP	115	1.2	H	-13.7	30.46	46	15.54
5785.00	90.93	PK	35	1.3	H	15.19	106.12	/	/
5785.00	76.78	Ave.	35	1.3	H	15.19	91.97	/	/
5785.00	86.44	PK	16	2.4	V	15.19	101.63	/	/
5785.00	73.13	Ave.	16	2.4	V	15.19	88.32	/	/
5137.69	39.31	PK	133	1.5	H	13.97	53.28	74	20.72
5137.69	19.51	Ave.	133	1.5	H	13.97	33.48	54	20.52
5457.13	38.65	PK	67	2.0	H	16.70	55.35	74	18.65
5457.13	17.65	Ave.	67	2.0	H	16.70	34.35	54	19.65
7556.31	36.19	PK	271	1.5	H	18.82	55.01	74	18.99
7556.31	16.53	Ave.	271	1.5	H	18.82	35.35	54	18.65
7560.37	30.66	PK	240	2.0	H	18.82	49.48	74	24.52
7560.37	16.37	Ave.	240	2.0	H	18.82	35.19	54	18.81
11570.00	31.13	PK	3	2.5	H	25.46	56.59	74	17.41
11570.00	15.27	Ave.	3	2.5	H	25.46	40.73	54	13.27
11570.00	31.22	PK	297	1.5	H	20.09	51.31	74	22.69
11570.00	17.00	Ave.	297	1.5	H	20.09	37.09	54	16.91
5825 MHz									
265.70	44.2	QP	115	1.2	H	-13.7	30.5	46	15.5
5825.00	90.09	PK	158	1.8	V	15.19	105.28	/	/
5825.00	75.38	Ave.	158	1.8	V	15.19	90.57	/	/
5825.00	85.51	PK	207	1.2	V	15.19	100.70	/	/
5825.00	71.58	Ave.	207	1.2	V	15.19	86.77	/	/
5104.43	38.39	PK	328	1.9	H	13.97	52.36	74	21.64
5104.43	16.99	Ave.	328	1.9	H	13.97	30.96	54	23.04
5431.69	37.56	PK	183	1.8	H	14.67	52.23	74	21.77
5431.69	16.50	Ave.	183	1.8	H	14.67	31.17	54	22.83
7513.27	35.15	PK	233	2.1	H	19.15	54.30	74	19.70
7513.27	15.69	Ave.	233	2.1	H	19.15	34.84	54	19.16
7543.71	30.39	PK	65	1.9	H	19.15	49.54	74	24.46
7543.71	15.19	Ave.	65	1.9	H	19.15	34.34	54	19.66
11650.00	30.79	PK	258	2.0	H	25.46	56.25	74	17.75
11650.00	15.34	Ave.	258	2.0	H	25.46	40.80	54	13.20

802.11n40 mode: Chain0+Chain1+chain 2

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5190 MHz									
265.70	44.5	QP	115	1.2	H	-13.7	30.8	46	15.2
5190.00	91.55	PK	288	2.4	H	13.89	105.44	/	/
5190.00	73.44	Ave.	288	2.4	H	13.89	87.33	/	/
5190.00	86.97	PK	163	1.4	V	13.89	100.86	/	/
5190.00	70.75	Ave.	163	1.4	V	13.89	84.64	/	/
5114.70	36.69	PK	163	1.4	V	13.89	50.58	74	23.42
5114.70	23.47	Ave.	163	1.4	V	13.89	37.36	54	16.64
5403.59	36.99	PK	51	1.2	H	14.67	51.66	74	22.34
5403.59	21.62	Ave.	51	1.2	H	14.67	36.29	54	17.71
5618.48	37.42	PK	147	2.4	H	20.45	57.87	74	16.13
5618.48	21.57	Ave.	147	2.4	H	20.45	42.02	54	11.98
7506.62	35.24	PK	75	1.7	H	21.11	56.35	74	17.65
7506.62	21.3	Ave.	75	1.7	H	21.11	42.41	54	11.59
10380.00	30.73	PK	216	2.5	H	23.61	54.34	74	19.66
10380.00	15.46	Ave.	216	2.5	H	23.61	39.07	54	14.93
5230 MHz									
265.70	44.24	QP	115	1.2	H	-13.7	30.54	46	15.46
5230.00	91.21	PK	187	2.3	H	13.89	105.1	/	/
5230.00	76.76	Ave.	187	2.3	H	13.89	90.65	/	/
5230.00	87.89	PK	297	1.5	V	13.89	101.78	/	/
5230.00	73.41	Ave.	297	1.5	V	13.89	87.3	/	/
5128.20	36.97	PK	187	2.3	H	13.89	50.86	74	23.14
5128.20	23.8	Ave.	187	2.3	H	13.89	37.69	54	16.31
5406.30	36.93	PK	297	1.5	V	13.89	50.82	74	23.18
5406.30	21.71	Ave.	297	1.5	V	13.89	35.6	54	18.40
5617.40	37.83	PK	23	1.7	H	16.47	54.30	74	19.70
5617.40	21.72	Ave.	23	1.7	H	16.47	38.19	54	15.81
7515.90	34.97	PK	74	1.1	H	21.11	56.08	74	17.92
7515.90	20.96	Ave.	74	1.1	H	21.11	42.07	54	11.93
10460.00	31.16	PK	348	2.1	V	23.61	54.77	74	19.23
10460.00	15.37	Ave.	348	2.1	V	23.61	38.98	54	15.02

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5755 MHz									
265.70	44.33	QP	115	1.2	H	-13.7	30.63	46	15.37
5755.00	90.68	PK	187	2.3	H	13.89	104.57	/	/
5755.00	75.98	Ave.	187	2.3	H	13.89	89.87	/	/
5755.00	86.85	PK	297	1.5	V	13.89	100.74	/	/
5755.00	72.62	Ave.	297	1.5	V	13.89	86.51	/	/
5104.80	36.71	PK	187	2.3	H	13.89	50.6	74	23.40
5104.80	23.87	Ave.	187	2.3	H	13.89	37.76	54	16.24
5400.60	36.57	PK	297	1.5	V	13.89	50.46	74	23.54
5400.60	21.5	Ave.	297	1.5	V	13.89	35.39	54	18.61
5611.50	37.64	PK	33	1.9	H	16.47	54.11	74	19.89
5611.50	21.61	Ave.	33	1.9	H	16.47	38.08	54	15.92
7500.50	35.14	PK	217	2.4	H	21.11	56.25	74	17.75
7500.50	21.04	Ave.	217	2.4	H	21.11	42.15	54	11.85
11510.00	30.53	PK	161	1.1	V	24.61	55.14	74	18.86
11510.00	15.44	Ave.	161	1.1	V	24.61	40.05	54	13.95
5795 MHz									
265.70	44.15	QP	115	1.2	H	-13.7	30.45	46	15.55
5795.00	89.14	PK	223	1.2	H	15.19	104.33	/	/
5795.00	74.12	Ave.	223	1.2	H	15.19	89.31	/	/
5795.00	86.85	PK	63	1.1	V	15.19	102.04	/	/
5795.00	72.99	Ave.	63	1.1	V	15.19	88.18	/	/
5114.40	37.25	PK	221	1.0	H	13.97	51.22	74	22.78
5114.40	23.98	Ave.	221	1.0	H	13.97	37.95	54	16.05
5415.70	37.02	PK	55	2.2	H	14.67	51.69	74	22.31
5415.70	21.9	Ave.	55	2.2	H	14.67	36.57	54	17.43
5620.80	37.43	PK	76	1.6	H	16.47	53.90	74	20.10
5620.80	21.86	Ave.	76	1.6	H	16.47	38.33	54	15.67
7503.50	35.1	PK	301	1.3	V	21.11	56.21	74	17.79
7503.50	20.97	Ave.	301	1.3	V	21.11	42.08	54	11.92
11590.00	30.38	PK	114	1.6	V	25.46	55.84	74	18.16
11590.00	15.33	Ave.	114	1.6	V	25.46	40.79	54	13.21

802.11ac20 mode: Chain0+Chain1+chain 2

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5180 MHz									
169.50	44.75	QP	39	1.2	H	-14.2	30.55	43.5	12.95
5180.00	94.88	PK	53	1.0	H	13.89	108.77	/	/
5180.00	79.68	Ave.	53	1.0	H	13.89	93.57	/	/
5180.00	92.55	PK	19	1.4	V	13.89	106.44	/	/
5180.00	78.97	Ave.	19	1.4	V	13.89	92.86	/	/
5110.10	36.88	PK	179	2.0	V	13.97	50.85	74	23.15
5110.10	23.82	Ave.	179	2.0	V	13.97	37.79	54	16.21
5381.40	36.86	PK	217	2.0	V	14.67	51.53	74	22.47
5381.40	21.62	Ave.	217	2.0	V	14.67	36.29	54	17.71
7014.20	37.64	PK	157	1.3	V	18.33	55.97	74	18.03
7014.20	21.75	Ave.	157	1.3	V	18.33	40.08	54	13.92
8041.20	34.94	PK	214	2.5	V	19.65	54.59	74	19.41
8041.20	21.18	Ave.	214	2.5	V	19.65	40.83	54	13.17
10360.00	30.56	PK	328	2.3	V	23.61	54.17	74	19.83
10360.00	15.79	Ave.	328	2.3	V	23.61	39.40	54	14.60
5200 MHz									
169.50	44.8	QP	85	1.4	H	-14.2	30.6	43.5	12.9
5200.00	94.54	PK	114	1.7	H	13.89	108.43	/	/
5200.00	80.23	Ave.	114	1.7	H	13.89	94.12	/	/
5200.00	92.66	PK	319	2.0	V	13.89	106.55	/	/
5200.00	77.87	Ave.	319	2.0	V	13.89	91.76	/	/
5092.80	36.74	PK	234	1.6	V	13.97	50.71	74	23.29
5092.80	23.7	Ave.	234	1.6	V	13.97	37.67	54	16.33
5400.20	36.7	PK	46	1.5	V	14.67	51.37	74	22.63
5400.20	21.53	Ave.	46	1.5	V	14.67	36.20	54	17.80
7119.90	37.35	PK	32	1.3	V	17.61	54.96	74	19.04
7119.90	21.7	Ave.	32	1.3	V	17.61	39.31	54	14.69
8051.70	34.82	PK	68	1.6	V	19.65	54.47	74	19.53
8051.70	20.81	Ave.	68	1.6	V	19.65	40.46	54	13.54
10400.00	30.35	PK	138	1.3	V	23.61	53.96	74	20.04
10400.00	15.36	Ave.	138	1.3	V	23.61	38.97	54	15.03

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5240 MHz									
169.50	44.77	QP	32	1.1	H	-14.2	30.57	43.5	12.93
5240.00	92.45	PK	14	1.4	H	13.89	106.34	/	/
5240.00	78.91	Ave.	14	1.4	H	13.89	92.80	/	/
5240.00	90.78	PK	349	1.4	V	13.89	104.67	/	/
5240.00	76.22	Ave.	349	1.4	V	13.89	90.11	/	/
5110.10	36.7	PK	109	2.3	V	13.97	50.67	74	23.33
5110.10	23.3	Ave.	109	2.3	V	13.97	37.27	54	16.73
5461.50	36.32	PK	206	2.1	V	16.70	53.02	74	20.98
5461.50	21.26	Ave.	206	2.1	V	16.70	37.96	54	16.04
6508.50	37.26	PK	59	1.3	V	16.51	53.77	74	20.23
6508.50	21.53	Ave.	59	1.3	V	16.51	38.04	54	15.96
7410.00	34.73	PK	321	1.6	V	18.34	53.07	74	20.93
7410.00	20.69	Ave.	321	1.6	V	18.34	39.03	54	14.97
10480.00	31.65	PK	97	1.6	V	23.61	55.26	74	18.74
10480.00	16.26	Ave.	97	1.6	V	23.61	39.87	54	14.13

802.11ac40 mode: Chain0+Chain1+chain 2

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5190 MHz									
169.50	44.57	QP	132	1.2	H	-14.2	30.37	43.5	13.13
5190.00	90.95	PK	259	1.3	H	13.89	104.84	/	/
5190.00	77.63	Ave.	259	1.3	H	13.89	91.52	/	/
5190.00	86.41	PK	210	1.8	V	13.89	100.30	/	/
5190.00	72.68	Ave.	210	1.8	V	13.89	86.57	/	/
5118.00	36.74	PK	339	1.8	V	13.97	50.71	74	23.29
5118.00	23.33	Ave.	339	1.8	V	13.97	37.30	54	16.70
5406.30	36.31	PK	323	2.3	V	14.67	50.98	74	23.02
5406.30	21.55	Ave.	323	2.3	V	14.67	36.22	54	17.78
5618.10	37.57	PK	345	1.7	V	16.47	54.04	74	19.96
5618.10	21.54	Ave.	345	1.7	V	16.47	38.01	54	15.99
7508.60	34.92	PK	65	2.3	V	21.11	56.03	74	17.97
7508.60	20.76	Ave.	65	2.3	V	21.11	41.87	54	12.13
10380.00	30.98	PK	64	1.9	V	23.61	54.59	74	19.41
10380.00	16.26	Ave.	64	1.9	V	23.61	39.87	54	14.13
5230 MHz									
169.50	44.74	QP	36	1.4	H	-14.2	30.54	43.5	12.96
5230.00	90.55	PK	301	1.1	H	13.89	104.44	/	/
5230.00	76.78	Ave.	301	1.1	H	13.89	90.67	/	/
5230.00	86.1	PK	82	1.1	V	13.89	99.99	/	/
5230.00	73.12	Ave.	82	1.1	V	13.89	87.01	/	/
5134.60	39.04	PK	256	2.4	V	13.97	53.01	74	20.99
5134.60	19.42	Ave.	256	2.4	V	13.97	33.39	54	20.61
5450.10	38.43	PK	88	2.0	V	16.70	55.13	74	18.87
5450.10	17.47	Ave.	88	2.0	V	16.70	34.17	54	19.83
7552.20	36.04	PK	19	2.4	V	18.82	54.86	74	19.14
7552.20	16.38	Ave.	19	2.4	V	18.82	35.20	54	18.80
7556.90	30.58	PK	40	2.0	V	20.82	51.40	74	22.60
7556.90	16.38	Ave.	40	2.0	V	20.82	37.20	54	16.80
10460.00	31.17	PK	133	2.3	V	23.61	54.78	74	19.22
10460.00	15.23	Ave.	133	2.3	V	23.61	38.84	54	15.16

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5755 MHz									
169.50	44.46	QP	16	1.3	H	-14.2	30.26	43.5	13.24
5755.00	91.08	PK	122	2.3	H	15.19	106.27	/	/
5755.00	75.85	Ave.	122	2.3	H	15.19	91.04	/	/
5755.00	88.96	PK	271	1.9	V	15.19	104.15	/	/
5755.00	74.76	Ave.	271	1.9	V	15.19	89.95	/	/
5110.30	38.97	PK	197	1.1	V	13.97	52.94	74	21.06
5110.30	25.66	Ave.	197	1.1	V	13.97	39.63	54	14.37
5412.70	38.88	PK	327	1.1	V	14.67	53.55	74	20.45
5412.70	23.62	Ave.	327	1.1	V	14.67	38.29	54	15.71
5617.20	39.24	PK	236	1.6	V	16.47	55.71	74	18.29
5617.20	23.7	Ave.	236	1.6	V	16.47	40.17	54	13.83
7499.60	36.94	PK	69	1.4	V	21.11	58.05	74	15.95
7499.60	22.86	Ave.	69	1.4	V	21.11	43.97	54	10.03
11510.00	32.59	PK	358	2.3	V	24.61	57.20	74	16.80
11510.00	17.26	Ave.	358	2.3	V	24.61	41.87	54	12.13
5795 MHz									
169.50	44.47	QP	97	1.2	H	-14.2	30.27	43.5	13.23
5795.00	92.61	PK	313	1.0	H	15.19	107.80	/	/
5795.00	78.53	Ave.	313	1.0	H	15.19	93.72	/	/
5795.00	87.32	PK	179	2.1	V	15.19	102.51	/	/
5795.00	72.71	Ave.	179	2.1	V	15.19	87.90	/	/
5114.20	38.55	PK	65	2.5	V	13.97	52.52	74	21.48
5114.20	25.99	Ave.	65	2.5	V	13.97	39.96	54	14.04
5401.60	39.01	PK	168	1.1	V	14.67	53.68	74	20.32
5401.60	23.4	Ave.	168	1.1	V	14.67	38.07	54	15.93
5604.60	39.4	PK	308	1.6	V	16.47	55.87	74	18.13
5604.60	23.51	Ave.	308	1.6	V	16.47	39.98	54	14.02
7502.20	36.62	PK	265	1.7	V	21.11	57.73	74	16.27
7502.40	23.19	Ave.	265	1.7	V	21.11	44.30	54	9.70
11590.00	33	PK	11	2.2	V	25.46	58.46	74	15.54
11590.00	17.96	Ave.	11	2.2	V	25.46	43.42	54	10.58

802.11ac80 mode: Chain0+Chain1+chain 2

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5210 MHz									
265.70	44.08	QP	115	1.2	H	-13.7	30.38	46	15.62
5210	90.55	PK	57	1.5	H	13.89	104.44	/	/
5210	76.75	AV	57	1.5	H	13.89	90.64	/	/
5210	85.43	PK	29	1.7	V	13.89	99.32	/	/
5210	70.97	AV	29	1.7	V	13.89	84.86	/	/
5117.09	36.69	PK	352	1.2	H	13.97	50.66	74	23.34
5117.09	24.01	Ave.	352	1.2	H	13.97	37.98	54	16.02
5404.66	36.99	PK	120	2.4	H	14.67	51.66	74	22.34
5404.66	21.47	Ave.	120	2.4	H	14.67	36.14	54	17.86
5607.09	37.79	PK	75	2.3	H	16.47	54.26	74	19.74
5607.09	21.78	Ave.	75	2.3	H	16.47	38.25	54	15.75
7506.34	34.73	PK	246	1.8	V	21.11	55.84	74	18.16
7506.34	21.22	Ave.	246	1.8	V	21.11	42.33	54	11.67
10420.00	30.89	PK	182	1.8	H	23.61	54.50	74	19.50
10420.00	16.02	Ave.	182	1.8	H	23.61	39.63	54	14.37
5775 MHz									
265.70	44.19	QP	115	1.2	H	-13.7	30.49	46	15.51
5775.00	87.41	PK	86	1.6	H	15.19	102.60	/	/
5775.00	73.85	Ave.	86	1.6	H	15.19	89.04	/	/
5775.00	82.76	PK	36	1.9	V	15.19	97.95	/	/
5775.00	69.38	Ave.	36	1.9	V	15.19	84.57	/	/
5108.70	37.11	PK	274	1.5	H	13.97	51.08	74	22.92
5108.70	23.51	Ave.	274	1.5	H	13.97	37.48	54	16.52
5409.30	36.75	PK	161	1.2	H	14.67	51.42	74	22.58
5409.30	21.73	Ave.	161	1.2	H	14.67	36.40	54	17.60
5618.30	37.45	PK	355	1.2	H	16.47	53.92	74	20.08
5618.30	21.69	Ave.	355	1.2	H	16.47	38.16	54	15.84
7497.60	35.11	PK	59	2.3	H	21.11	56.22	74	17.78
7497.60	20.91	Ave.	59	2.3	H	21.11	42.02	54	11.98
11550.00	30.21	PK	240	1.8	H	25.46	55.67	74	18.33
11550.00	15.41	Ave.	240	1.8	H	25.46	40.87	54	13.13

Note:
Corrected Amplitude = Corrected Factor + Reading
Corrected Factor=Antenna factor (RX) + Cable Loss – Amplifier Factor
Margin = Limit- Corr. Amplitude

§15.407(B) (1),(4) – BAND EDGE

Applicable Standard

FCC §15.407 (b) (1), (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 5.725–5.825 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of –17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of –27 dBm/MHz.

Test Procedure

Radiated emission method, according to KDB 789033 D02 General UNII Test Procedures New Rules v01, clause II.G 3 d) (i), marker-delta method, as described in ANSI C63.10.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Amplifier	HP8447E	1937A01046	2015-05-06	2016-05-06
Rohde & Schwarz	EMI Test Receiver	ESCI	101122	2014-11-03	2015-11-03
Sunol Sciences	Broadband Antenna	JB1	A040904-2	2014-12-07	2017-12-06
Mini	Amplifier	ZVA-183-S+	5969001149	2015-04-23	2016-04-23
A.H. System	Horn Antenna	SAS-200/571	135	2013-02-11	2016-02-10
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2014-12-11	2015-12-11
DUCOMMUN	Pre-amplifier	ALN-22093530-01	991373-01	2014-12-02	2015-12-01
Agilent	Spectrum Analyzer	8564E	3943A01781	2013-05-09	2016-05-08
the electro-Mechanics Co.	Horn Antenna	3116	9510-2270	2013-10-14	2016-10-13

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

Test Data

Environmental Conditions

Temperature:	26 ℃
Relative Humidity:	54 %
ATM Pressure:	101.0 kPa

The testing was performed by Simon Wangon 2015-09-16.

EUT operation mode: Running

802.11a mode:

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5180 MHz									
5180.00	93.01	PK	258	2.2	H	13.89	106.90	/	/
5180.00	78.13	Ave.	258	2.2	H	13.89	92.02	/	/
5180.00	90.82	PK	63	1.0	V	13.89	104.71	/	/
5180.00	77.11	Ave.	63	1.0	V	13.89	91.00	/	/
5148.5	45.31	PK	343	1.1	H	13.97	59.28	74	14.72
5148.5	32.12	Ave.	343	1.1	H	13.97	46.09	54	7.91
5240 MHz									
5240.00	90.61	PK	156	2.1	H	13.89	104.50	/	/
5240.00	77.15	Ave.	156	2.1	H	13.89	91.04	/	/
5240.00	88.56	PK	271	1.6	V	13.89	102.45	/	/
5240.00	74.46	Ave.	271	1.6	V	13.89	88.35	/	/
5350.9	43.25	PK	199	1.5	H	14.67	57.92	74	16.08
5350.9	31.47	Ave.	199	1.5	H	14.67	46.14	54	7.86
5745 MHz									
5745.00	98.94	PK	182	1.4	H	15.54	114.48	/	/
5745.00	85.49	Ave.	182	1.4	H	15.54	101.03	/	/
5745.00	95.81	PK	98	2.1	V	15.54	111.35	/	/
5745.00	81.31	Ave.	98	2.1	V	15.54	96.85	/	/
5714.2	43.62	PK	171	1.4	H	15.54	59.16	74	14.84
5714.2	31.02	Ave.	171	1.4	H	15.54	46.56	54	7.44
5825 MHz									
5825.00	99.37	PK	145	1.8	H	15.19	114.56	/	/
5825.00	84.55	Ave.	145	1.8	H	15.19	99.74	/	/
5825.00	93.93	PK	150	2.5	V	15.19	109.12	/	/
5825.00	79.33	Ave.	150	2.5	V	15.19	94.52	/	/
5860.7	42.78	PK	127	1.4	H	15.23	58.01	74	15.99
5860.7	30.64	Ave.	127	1.4	H	15.23	45.87	54	8.13

802.11n20 mode:

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5180 MHz									
5180.00	94.33	PK	227	2.2	H	13.89	108.22	/	/
5180.00	80.15	Ave.	227	2.2	H	13.89	94.04	/	/
5180.00	93.16	PK	125	1.8	V	13.89	107.05	/	/
5180.00	77.69	Ave.	125	1.8	V	13.89	91.58	/	/
5142.0	46.22	PK	PK	166	1.4	H	60.19	74	13.81
5142.0	32.85	Ave.	Ave.	166	1.4	H	46.82	54	7.18
5240 MHz									
5240.00	90.54	PK	357	2.1	H	13.89	104.43	/	/
5240.00	75.95	Ave.	357	2.1	H	13.89	89.84	/	/
5240.00	88.89	PK	357	1.5	V	13.89	102.78	/	/
5240.00	74.79	Ave.	357	1.5	V	13.89	88.68	/	/
5354.7	43.12	PK	82	1.4	H	13.94	57.06	74	16.94
5354.7	31.07	Ave.	82	1.4	H	13.94	45.01	54	8.99
5745 MHz									
5745.00	91.13	PK	113	1.7	H	15.54	106.67	/	/
5745.00	77.77	Ave.	113	1.7	H	15.54	93.31	/	/
5745.00	86.41	PK	294	1.1	V	15.54	101.95	/	/
5745.00	72.92	Ave.	294	1.1	V	15.54	88.46	/	/
5723.14	44.12	PK	177	2.0	H	15.54	59.66	74	14.34
5723.14	22.4	Ave.	177	2.0	H	15.54	37.94	54	16.06
5825 MHz									
5825	90.09	PK	158	1.8	V	15.19	105.28	/	/
5825	75.38	Ave.	158	1.8	V	15.19	90.57	/	/
5825	85.51	PK	207	1.2	V	15.19	100.70	/	/
5825	71.58	Ave.	207	1.2	V	15.19	86.77	/	/
5867.2	42.98	PK	82	1.3	H	15.23	58.21	74	15.79
5867.2	30.71	Ave.	82	1.3	H	15.23	45.94	54	8.06

802.11n40 mode:

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5190 MHz									
5190	91.55	PK	288	2.4	H	13.89	105.44	/	/
5190	73.44	Ave.	288	2.4	H	13.89	87.33	/	/
5190	86.97	PK	163	1.4	V	13.89	100.86	/	/
5190	70.75	Ave.	163	1.4	V	13.89	84.64	/	/
5145.2	42.58	PK	131	1.2	V	11.83	53.3	74	20.70
5145.2	24.90	Ave.	131	1.2	V	11.83	35.54	54	18.46
5230 MHz									
5230	91.21	PK	187	2.3	H	13.89	105.1	/	/
5230	76.76	Ave.	187	2.3	H	13.89	90.65	/	/
5230	87.89	PK	297	1.5	V	13.89	101.78	/	/
5230	73.41	Ave.	297	1.5	V	13.89	87.3	/	/
5265.1	42.53	PK	174	2.4	V	16.00	58.53	74	15.47
5265.1	24.01	AV	174	2.4	V	16.00	40.01	54	13.99
5755 MHz									
5755.00	90.68	PK	187	2.3	H	13.89	104.57	/	/
5755.00	75.98	Ave.	187	2.3	H	13.89	89.87	/	/
5755.00	86.85	PK	297	1.5	V	13.89	100.74	/	/
5755.00	72.62	Ave.	297	1.5	V	13.89	86.51	/	/
5714.9	43.68	PK	359	1.8	H	15.54	59.22	74	14.78
5714.9	23.75	Ave.	359	1.8	H	15.54	39.29	54	14.71
5795 MHz									
5795	89.14	PK	223	1.2	H	15.19	104.33	/	/
5795	74.12	Ave.	223	1.2	H	15.19	89.31	/	/
5795	86.85	PK	63	1.1	V	15.19	102.04	/	/
5795	72.99	Ave.	63	1.1	V	15.19	88.18	/	/
5855.9	43.62	PK	187	1.5	H	15.23	58.85	74	15.15
5855.9	23.17	Ave.	187	1.5	H	15.23	38.40	54	15.60

802.11ac20 mode:

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5180 MHz									
5180	94.88	PK	53	1.0	H	13.89	108.77	/	/
5180	79.68	Ave.	53	1.0	H	13.89	93.57	/	/
5180	92.55	PK	19	1.4	V	13.89	106.44	/	/
5180	78.97	Ave.	19	1.4	V	13.89	92.86	/	/
5143.2	45.74	PK	46	1.1	H	13.97	59.71	74	14.29
5143.2	23.65	Ave.	46	1.1	H	13.97	37.62	54	16.38
5240 MHz									
5240	92.45	PK	14	1.4	H	13.89	106.34	/	/
5240	78.91	Ave.	14	1.4	H	13.89	92.80	/	/
5240	90.78	PK	349	1.4	V	13.89	104.67	/	/
5240	76.22	Ave.	349	1.4	V	13.89	90.11	/	/
5257.8	44.25	PK	244	1.8	V	16.00	60.25	74	13.75
5257.8	22.59	AV	244	1.8	V	16.00	38.59	54	15.41
5745 MHz									
5745	98.85	PK	61	1.0	H	15.54	114.39	/	/
5745	85.33	Ave.	61	1.0	H	15.54	100.87	/	/
5745	95.56	PK	356	1.9	V	15.54	111.10	/	/
5745	81.1	Ave.	356	1.9	V	15.54	96.64	/	/
5711.3	43.62	PK	350	1.7	H	15.54	59.16	74	14.84
5711.3	22.02	Ave.	350	1.7	H	15.54	37.56	54	16.44
5825 MHz									
5825	98.63	PK	145	1.8	H	15.19	114.56	/	/
5825	83.25	Ave.	145	1.8	H	15.19	99.74	/	/
5825	93.65	PK	150	2.5	V	15.19	109.12	/	/
5825	78.96	Ave.	150	2.5	V	15.19	94.52	/	/
5861.9	43.96	PK	255	2.3	H	15.23	59.19	74	14.81
5861.9	23.88	Ave.	255	2.3	H	15.23	39.11	54	14.89

802.11ac40 mode:

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5190 MHz									
5190	90.95	PK	259	1.3	H	13.89	104.84	/	/
5190	77.63	Ave.	259	1.3	H	13.89	91.52	/	/
5190	86.41	PK	210	1.8	V	13.89	100.30	/	/
5190	72.68	Ave.	210	1.8	V	13.89	86.57	/	/
5144.7	43.15	PK	256	1.6	H	13.97	57.12	74	16.88
5144.7	22.34	Ave.	256	1.6	H	13.97	36.31	54	17.69
5230 MHz									
5230	90.55	PK	301	1.1	H	13.89	104.44	/	/
5230	76.78	Ave.	301	1.1	H	13.89	90.67	/	/
5230	86.1	PK	82	1.1	V	13.89	99.99	/	/
5230	73.12	Ave.	82	1.1	V	13.89	87.01	/	/
5261.4	46.32	PK	279	2.1	H	16.00	62.32	74	11.68
5261.4	24.05	AV	279	2.1	H	16.00	40.05	54	13.95
5755 MHz									
5755	91.08	PK	122	2.3	H	15.19	106.27	/	/
5755	75.85	Ave.	122	2.3	H	15.19	91.04	/	/
5755	88.96	PK	271	1.9	V	15.19	104.15	/	/
5755	74.76	Ave.	271	1.9	V	15.19	89.95	/	/
5718.1	42.56	PK	264	1.3	H	15.54	58.10	74	15.90
5718.1	21.69	Ave.	264	1.3	H	15.54	37.23	54	16.77
5795 MHz									
5795	92.61	PK	313	1.0	H	15.19	107.80	/	/
5795	78.53	Ave.	313	1.0	H	15.19	93.72	/	/
5795	87.32	PK	179	2.1	V	15.19	102.51	/	/
5795	72.71	Ave.	179	2.1	V	15.19	87.90	/	/
5855.4	44.75	PK	250	1.4	H	15.23	59.98	74	14.02
5855.4	22.14	Ave.	250	1.4	H	15.23	37.37	54	16.63

802.11ac80 mode:

Frequency (MHz)	Receiver		Turntable Degree	Rx Antenna		Corrected Factor (dB)	Corrected Amplitude (dBμV/m)	FCC Part 15.407/205/209	
	Reading (dBμV)	Detector (PK/QP/Ave.)		Height (m)	Polar (H/V)			Limit (dBμV/m)	Margin (dB)
5190 MHz									
5190.00	90.55	PK	8	1.7	H	13.89	104.44	/	/
5190.00	76.75	Ave.	8	1.7	H	13.89	90.64	/	/
5190.00	85.43	PK	67	1.1	V	13.89	99.32	/	/
5190.00	70.97	Ave.	67	1.1	V	13.89	84.86	/	/
5110.2	45.63	PK	12	2.5	H	13.97	59.60	74	14.40
5110.2	23.75	Ave.	12	2.5	H	13.97	37.72	54	16.28
5775 MHz									
5775.00	87.41	PK	86	1.6	H	15.19	102.60	/	/
5775.00	73.85	Ave.	86	1.6	H	15.19	89.04	/	/
5775.00	82.76	PK	36	1.9	V	15.19	97.95	/	/
5775.00	69.38	Ave.	36	1.9	V	15.19	84.57	/	/
5889.6	41.42	PK	75	1.5	H	15.23	56.65	74	17.35
5889.6	21.63	Ave.	75	1.5	H	15.23	36.86	54	17.14

Note:
Corrected Amplitude = Corrected Factor + Reading
Corrected Factor=Antenna factor (RX) + Cable Loss – Amplifier Factor
Margin = Limit- Corr. Amplitude

FCC §15.407(a) (1) – 26 dB & 6dB EMISSION BANDWIDTH

Applicable Standard

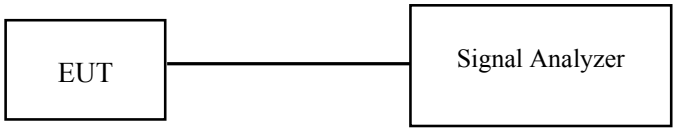
The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band 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)
a) Set RBW = approximately 1% of the emission bandwidth.
b) Set the VBW > RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) 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:
a) Set RBW = 100 kHz.
b) Set the video bandwidth (VBW) ≥ 3 × RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Sweep = auto couple.
f) Allow the trace to stabilize.
g) 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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2014-12-11	2015-12-11

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

Test Data

Environmental Conditions

Temperature:	23 - 26 ℃
Relative Humidity:	50 - 51 %
ATM Pressure:	101.0 kPa

The testing was performed by Simon Wang from 2015-07-27 to 2015-08-09.

EUT operation mode: Transmitting

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

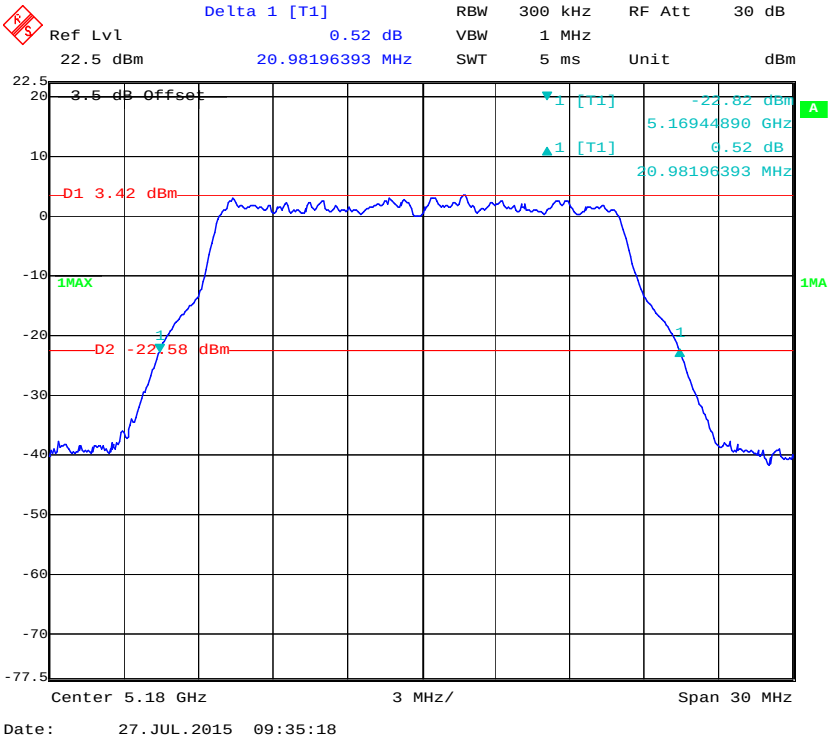
5150 MHz – 5250 MHz:

Frequency (MHz)	Antenna Port	26dB Emission Bandwidth (MHz)
802.11a		
5180	Chain 0	20.98
	Chain 1	20.92
	Chain 2	20.92
5200	Chain 0	20.98
	Chain 1	20.92
	Chain 2	20.92
5220	Chain 0	20.98
	Chain 1	20.92
	Chain 2	20.92
5240	Chain 0	20.98
	Chain 1	20.92
	Chain 2	20.92

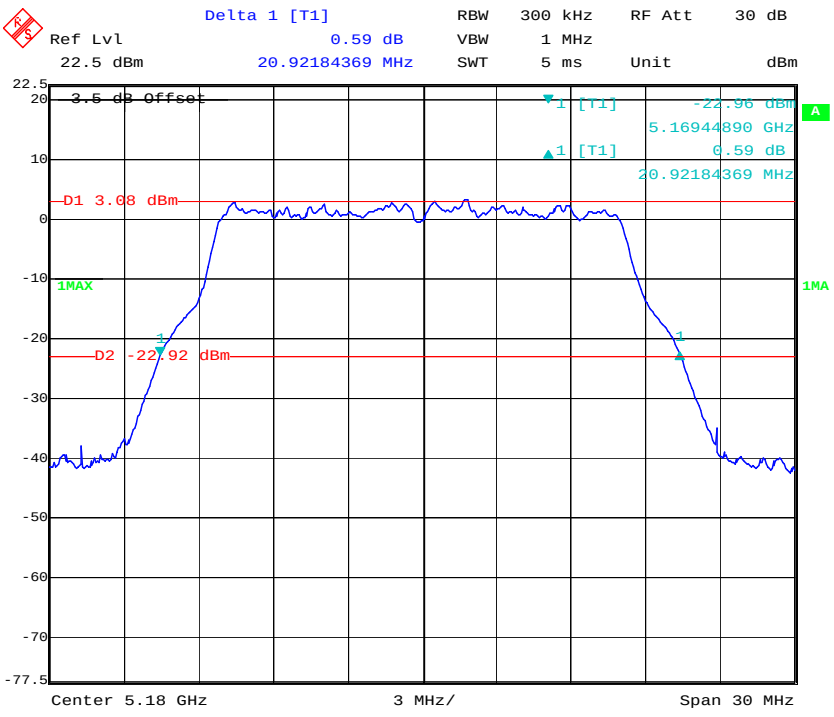
Frequency (MHz)	Antenna Port	26dB Emission Bandwidth (MHz)
802.11n20		
5180	Chain 0	21.40
	Chain 1	21.58
	Chain 2	21.40
5200	Chain 0	21.40
	Chain 1	21.28
	Chain 2	21.40
5220	Chain 0	21.40
	Chain 1	21.40
	Chain 2	21.28
5240	Chain 0	21.58
	Chain 1	21.40
	Chain 2	21.34
802.11n40		
5190	Chain 0	39.68
	Chain 1	39.68
	Chain 2	39.68
5230	Chain 0	39.68
	Chain 1	39.68
	Chain 2	39.80
802.11ac20		
5180	Chain 0	21.64
	Chain 1	21.58
	Chain 2	21.76
5200	Chain 0	21.64
	Chain 1	21.76
	Chain 2	21.76
5240	Chain 0	21.64
	Chain 1	21.76
	Chain 2	21.76

Frequency (MHz)	Antenna Port	26dB Emission Bandwidth (MHz)
802.11ac40		
5190	Chain 0	40.28
	Chain 1	40.18
	Chain 2	40.18
5230	Chain 0	40.28
	Chain 1	40.18
	Chain 2	40.18
802.11ac80		
5210	Chain 0	81.53
	Chain 1	81.76
	Chain 2	82.00

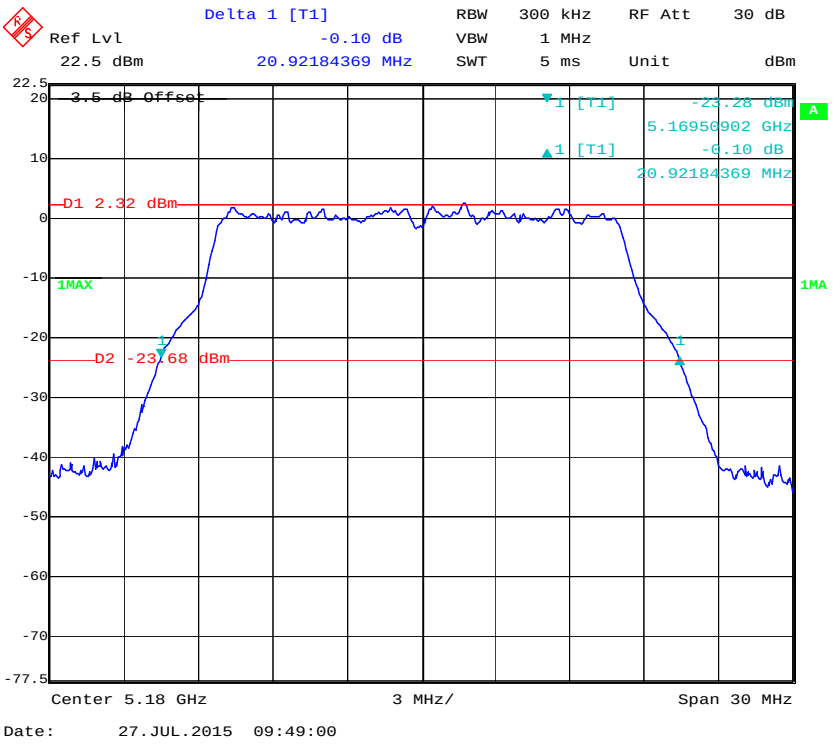
802.11a mode, 26dB Emission Bandwidth, Antenna 0, 5180 MHz



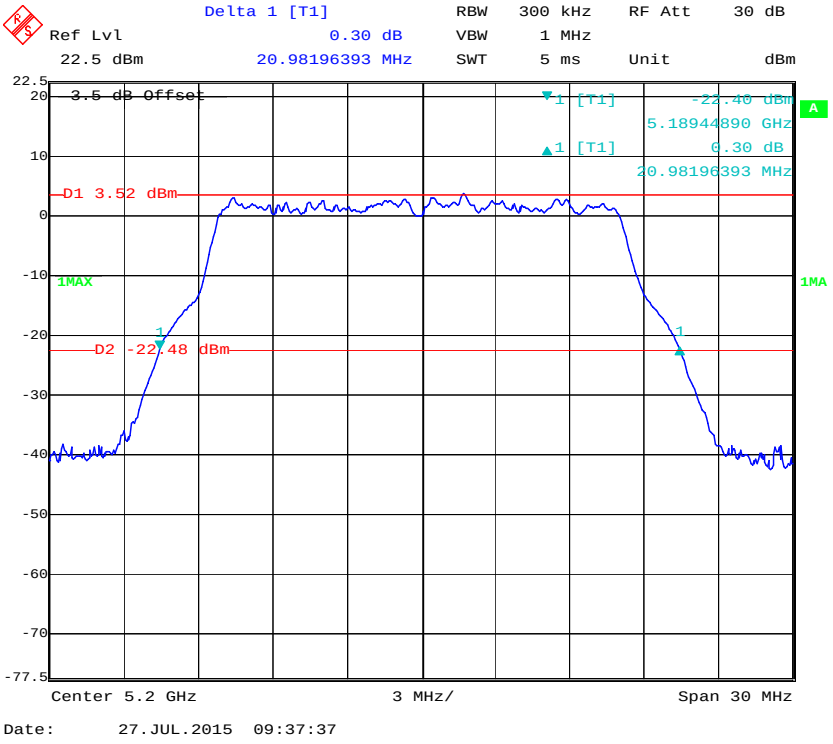
802.11a mode, 26dB Emission Bandwidth, Antenna 1, 5180 MHz



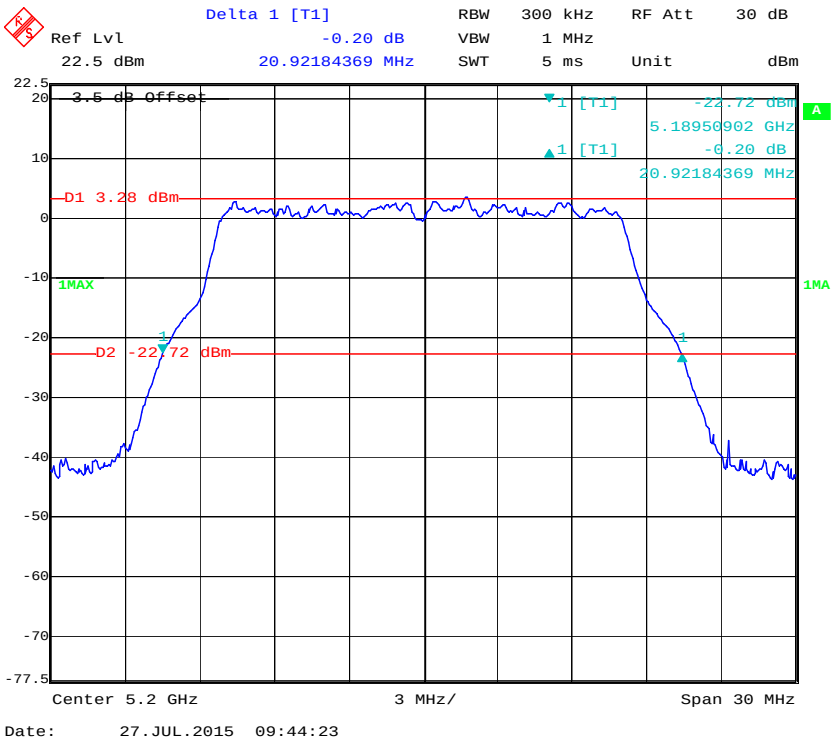
802.11a mode, 26dB Emission Bandwidth, Antenna 2, 5180 MHz



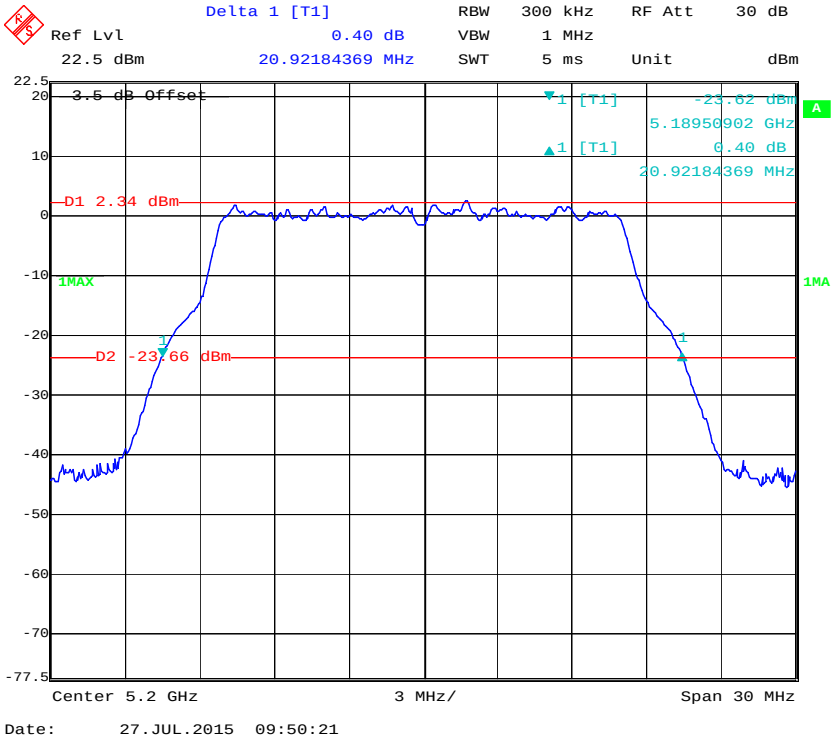
802.11a mode, 26dB Emission Bandwidth, Antenna 0, 5200 MHz



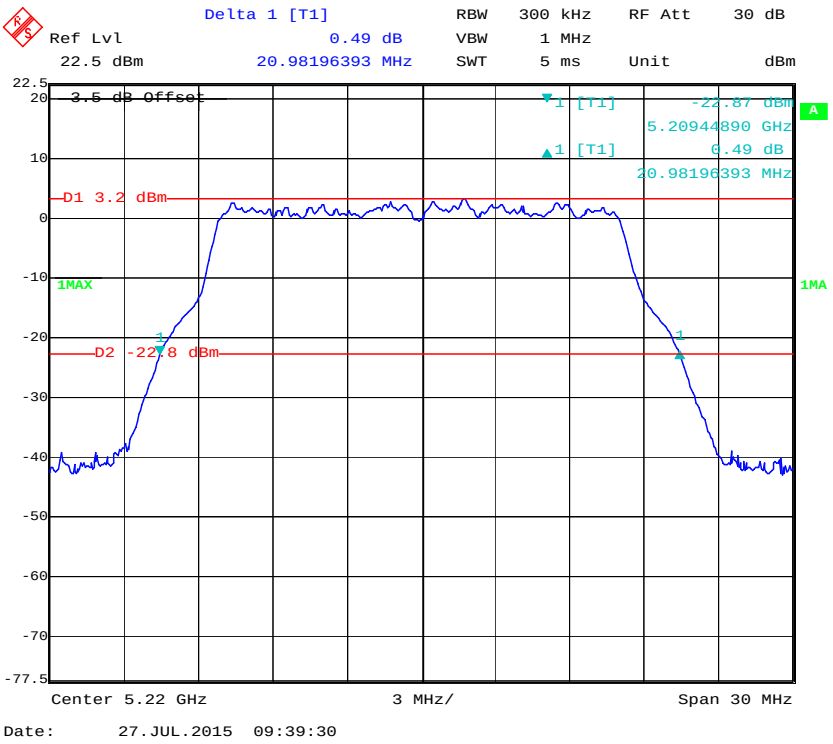
802.11a mode, 26dB Emission Bandwidth, Antenna 1, 5200 MHz



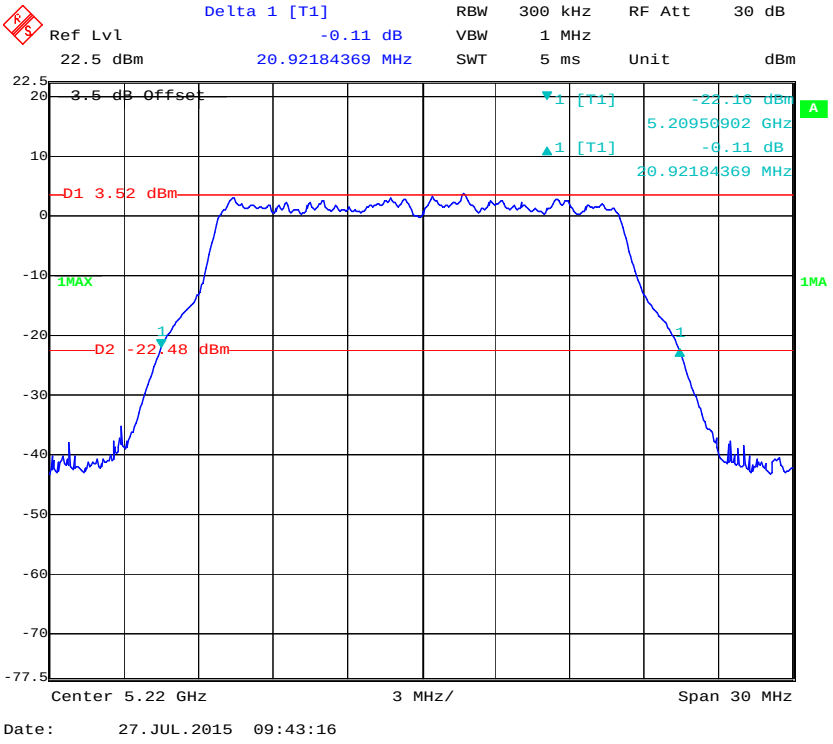
802.11a mode, 26dB Emission Bandwidth, Antenna 2, 5200 MHz



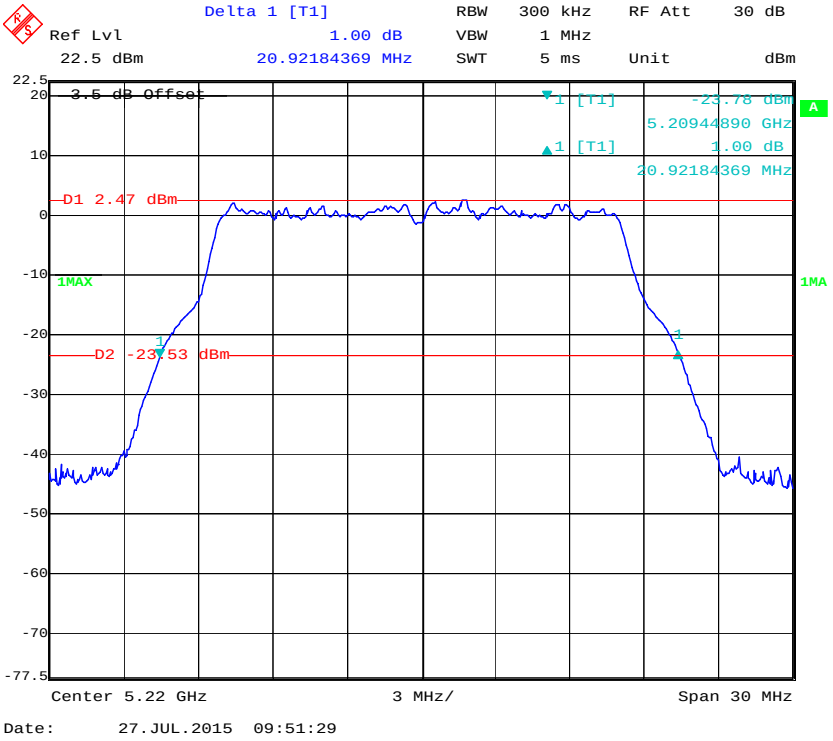
802.11a mode, 26dB Emission Bandwidth, Antenna 0, 5220 MHz



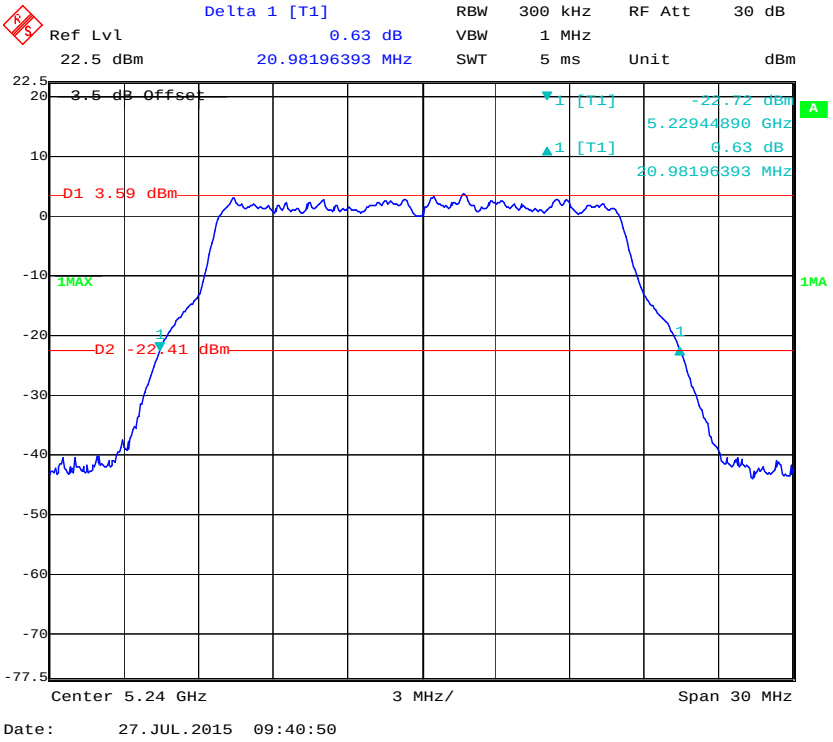
802.11a mode, 26dB Emission Bandwidth, Antenna 1, 5220 MHz



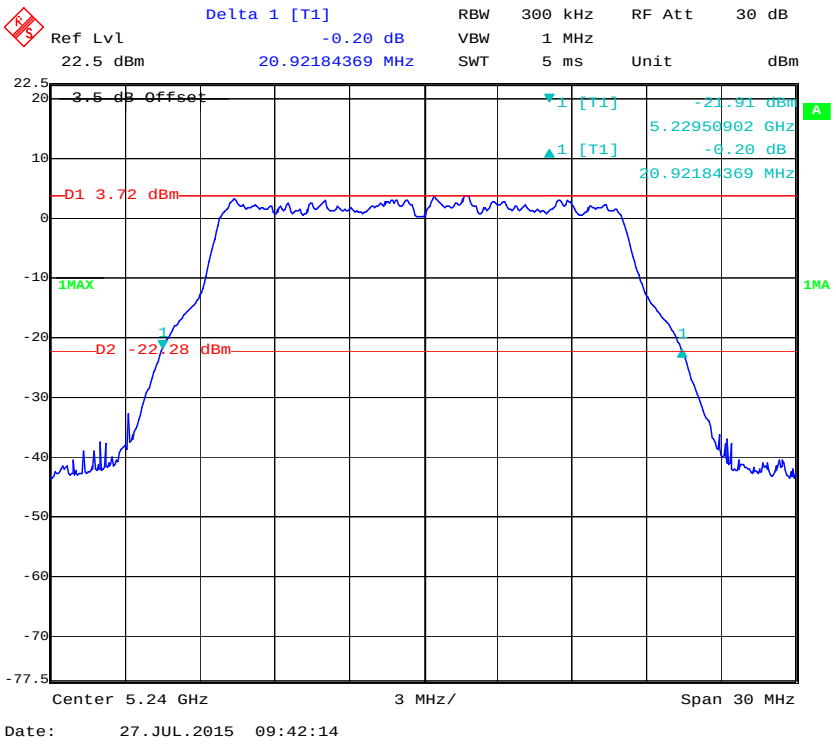
802.11a mode, 26dB Emission Bandwidth, Antenna 2, 5220 MHz



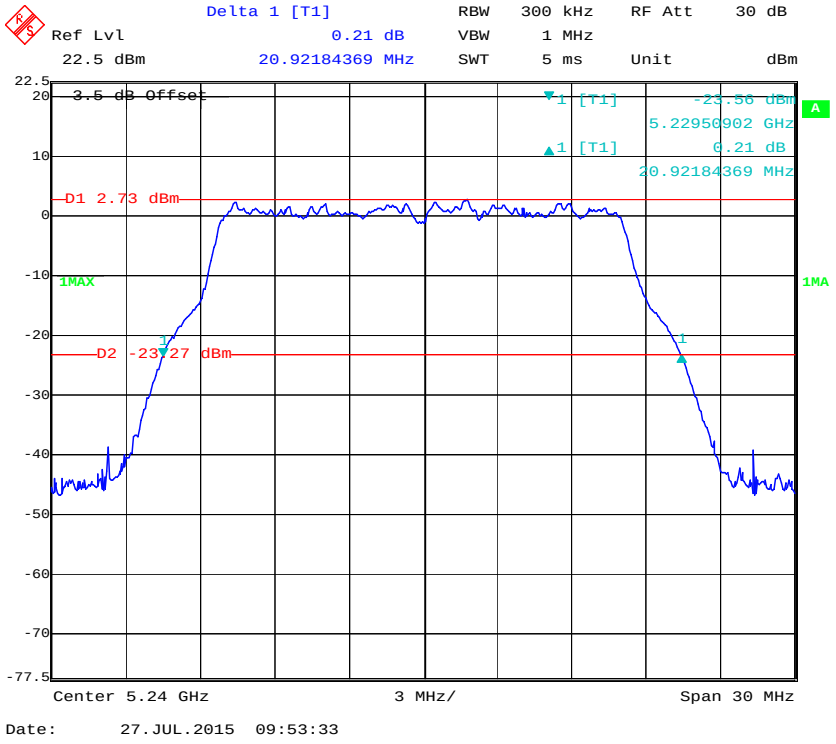
802.11a mode, 26dB Emission Bandwidth, Antenna 0, 5240 MHz



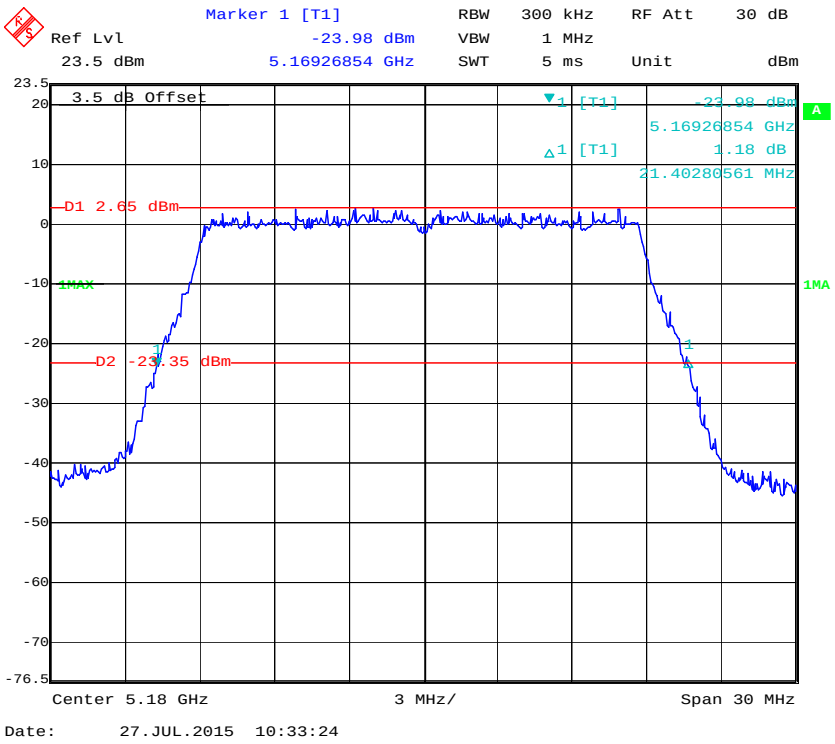
802.11a mode, 26dB Emission Bandwidth, Antenna 1, 5240 MHz



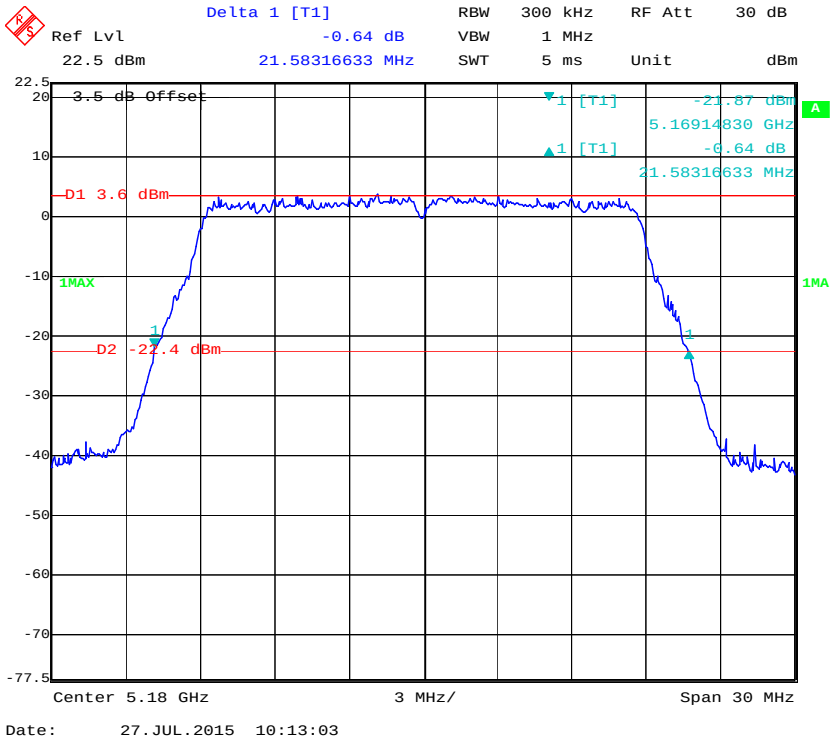
802.11a mode, 26dB Emission Bandwidth, Antenna 2, 5240 MHz



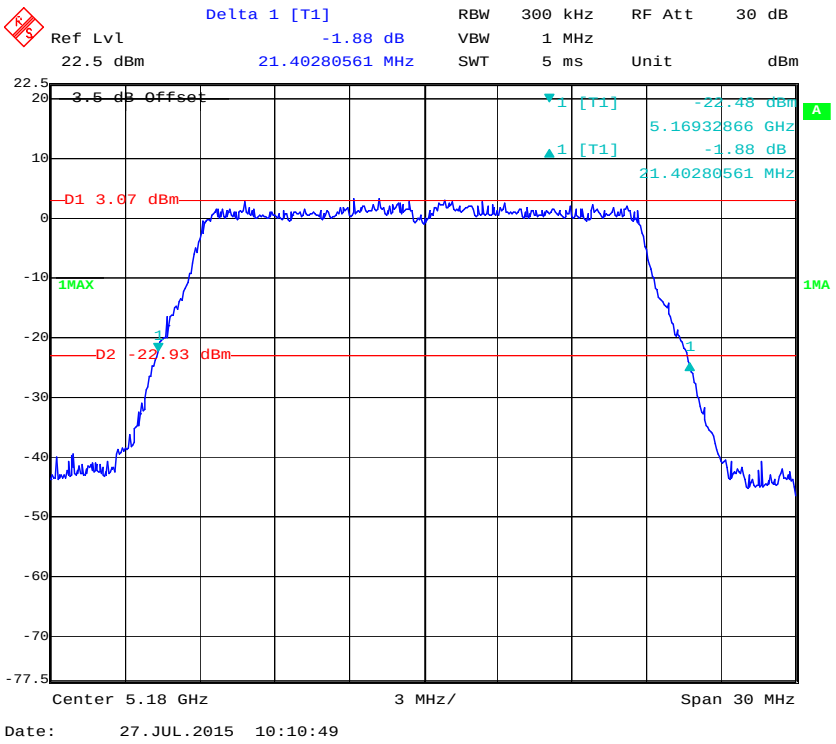
802.11n20 mode, 26dB Emission Bandwidth, Antenna 0, 5180 MHz



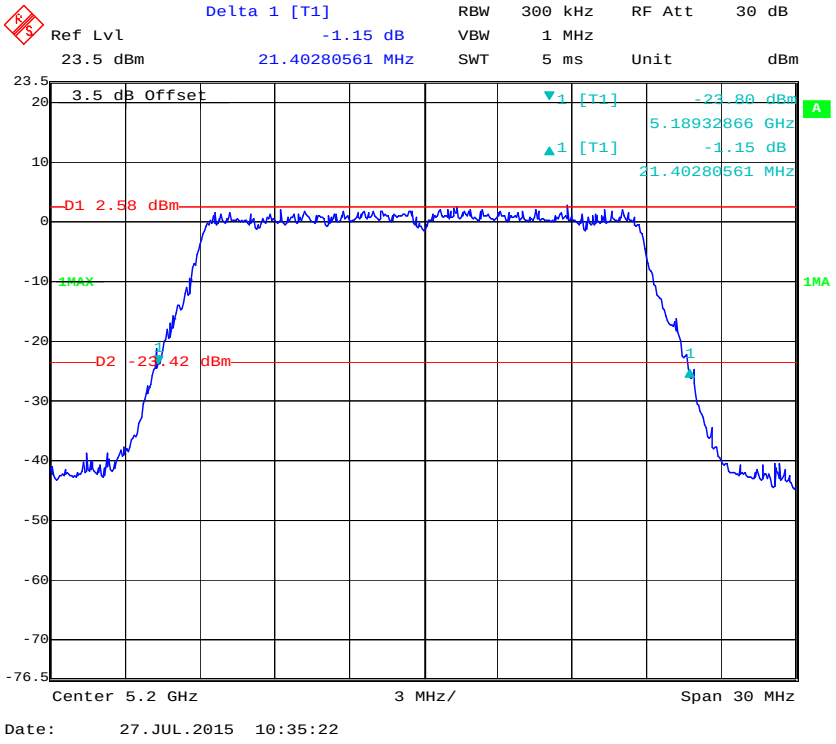
802.11n20 mode, 26dB Emission Bandwidth, Antenna 1, 5180 MHz



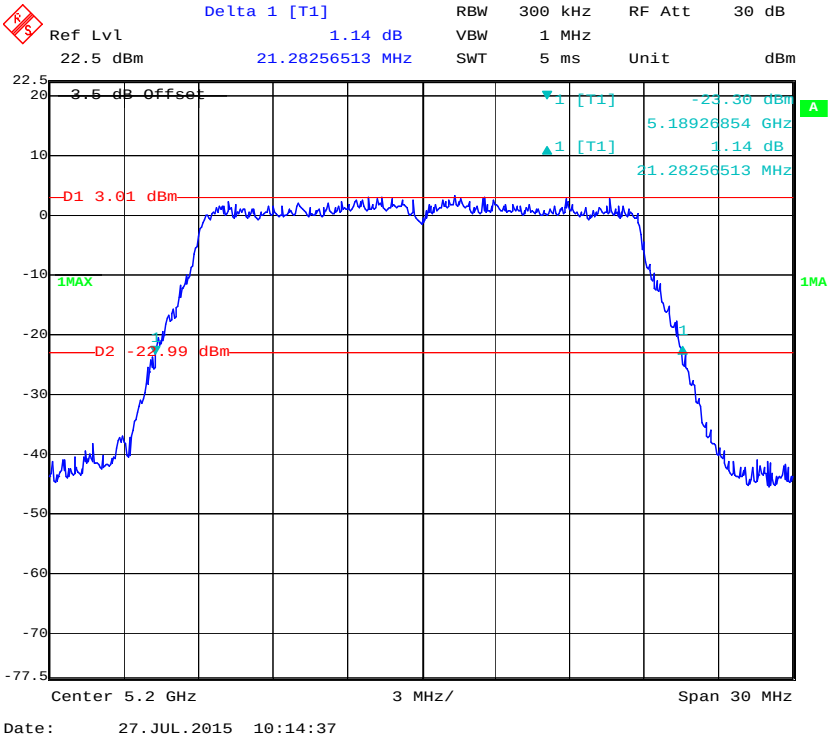
802.11n20 mode, 26dB Emission Bandwidth, Antenna 2, 5180 MHz



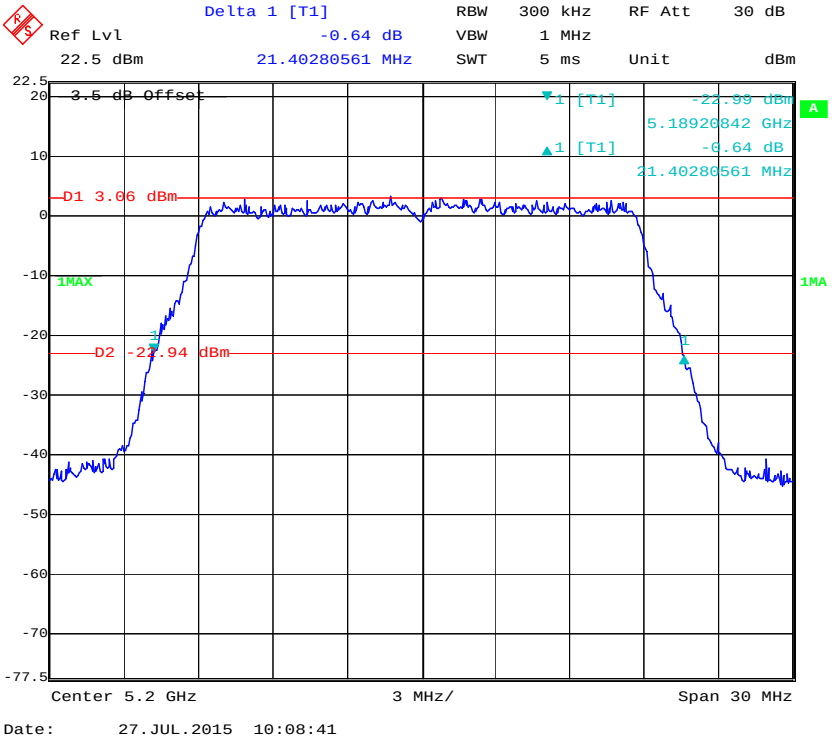
802.11n20 mode, 26dB Emission Bandwidth, Antenna 0, 5200 MHz



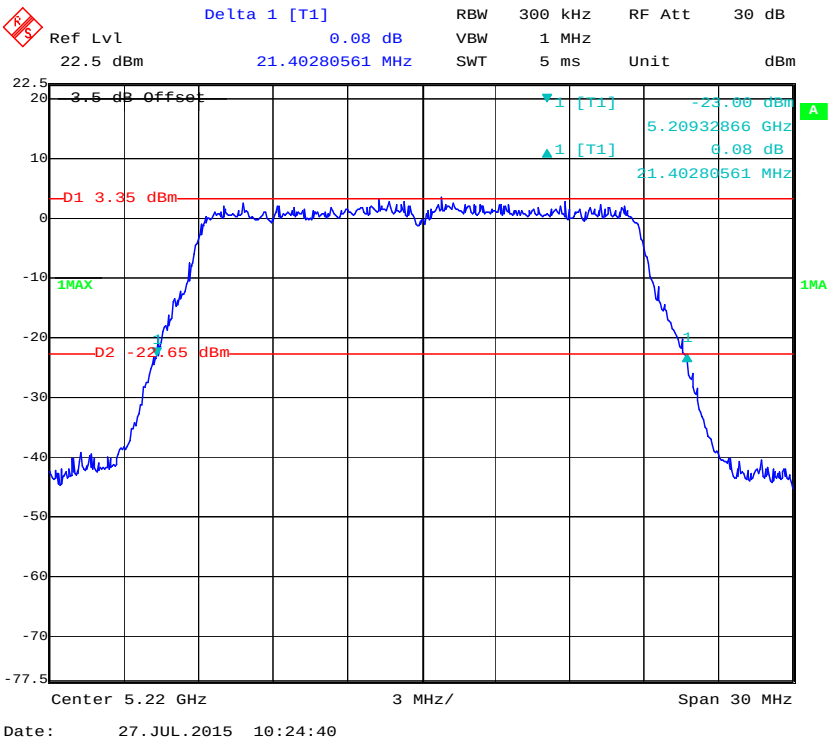
802.11n20 mode, 26dB Emission Bandwidth, Antenna 1, 5200 MHz



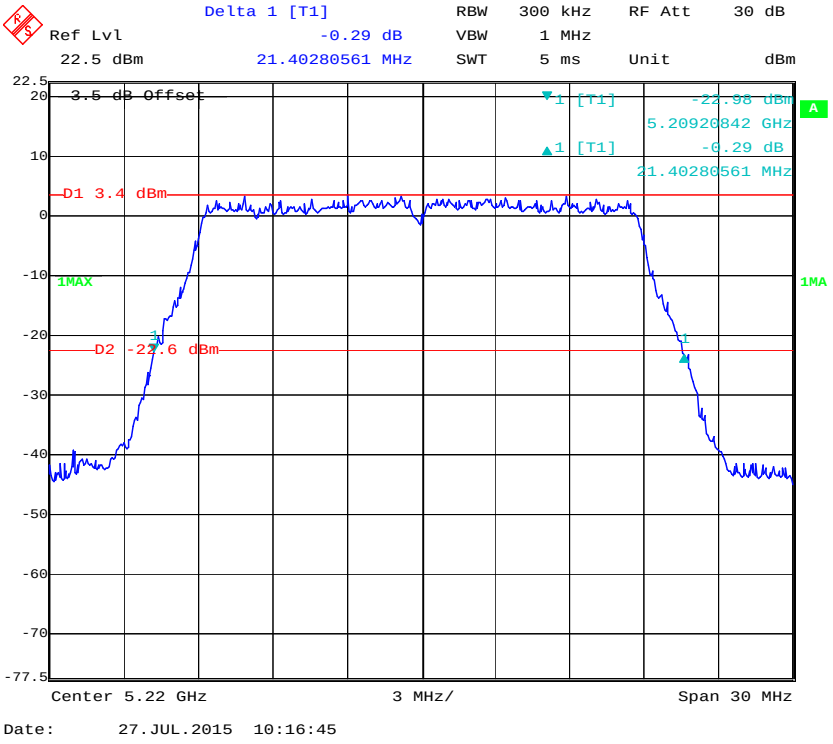
802.11n20 mode, 26dB Emission Bandwidth, Antenna 2, 5200 MHz



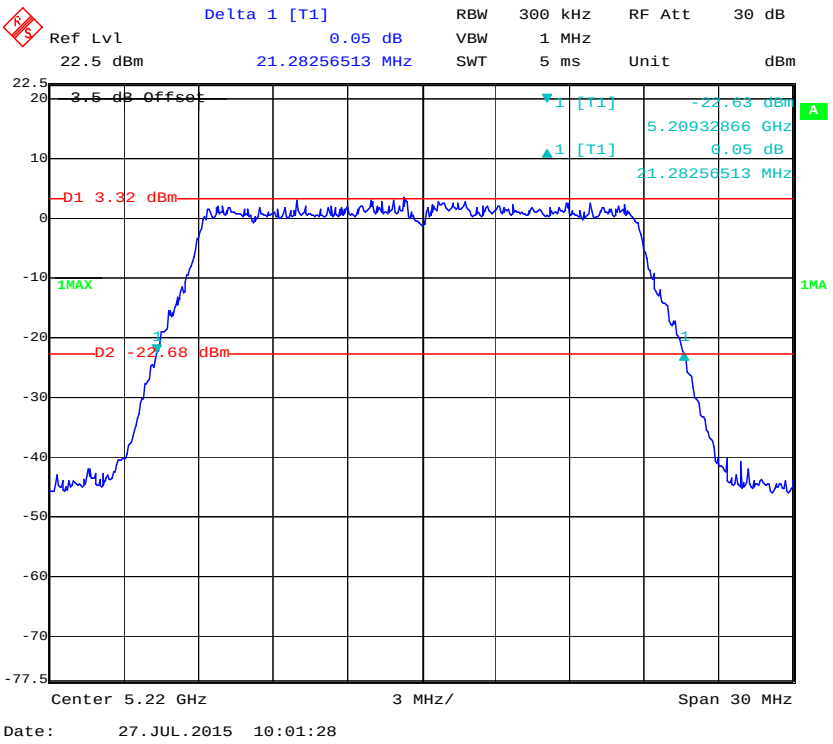
802.11n20 mode, 26dB Emission Bandwidth, Antenna 0, 5220 MHz



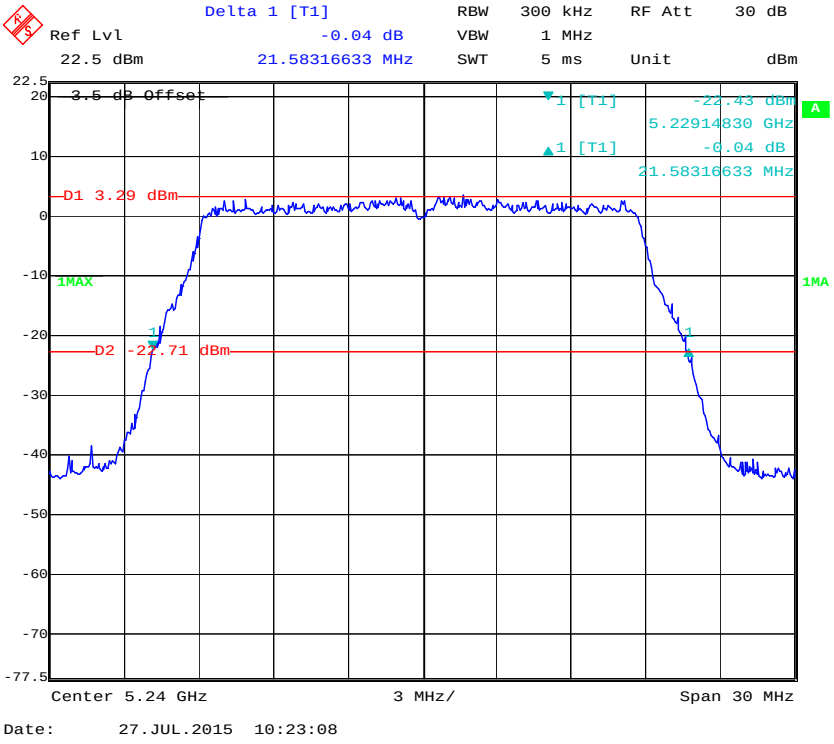
802.11n20 mode, 26dB Emission Bandwidth, Antenna 1, 5220 MHz



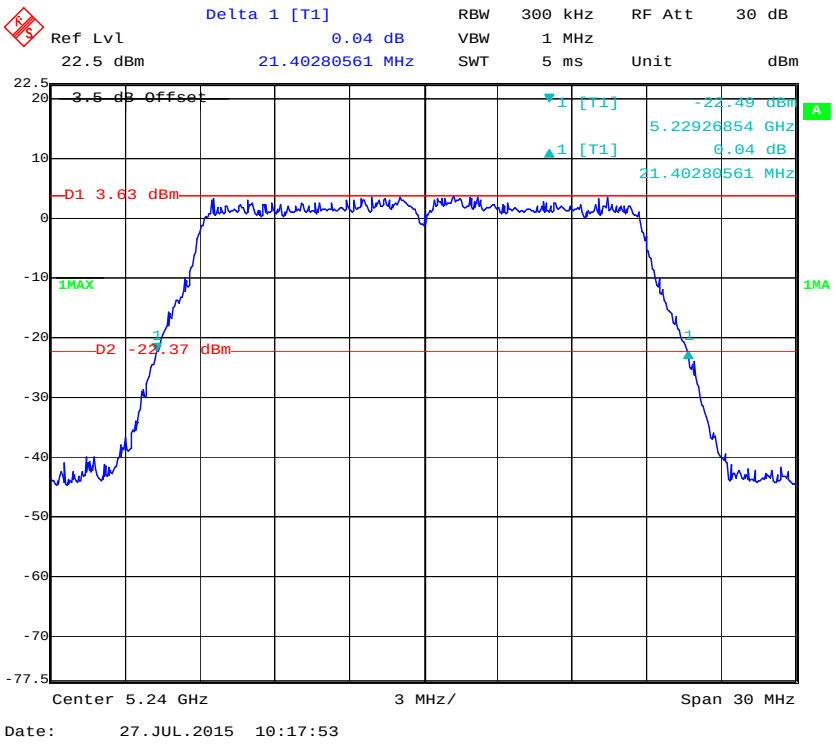
802.11n20 mode, 26dB Emission Bandwidth, Antenna 2, 5220 MHz



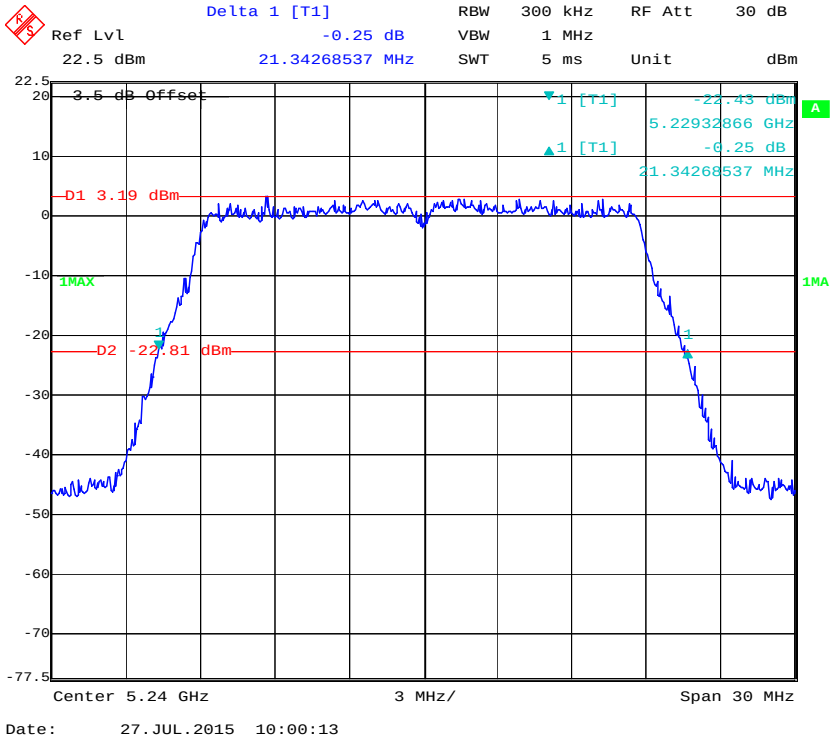
802.11n20 mode, 26dB Emission Bandwidth, Antenna 0, 5240 MHz



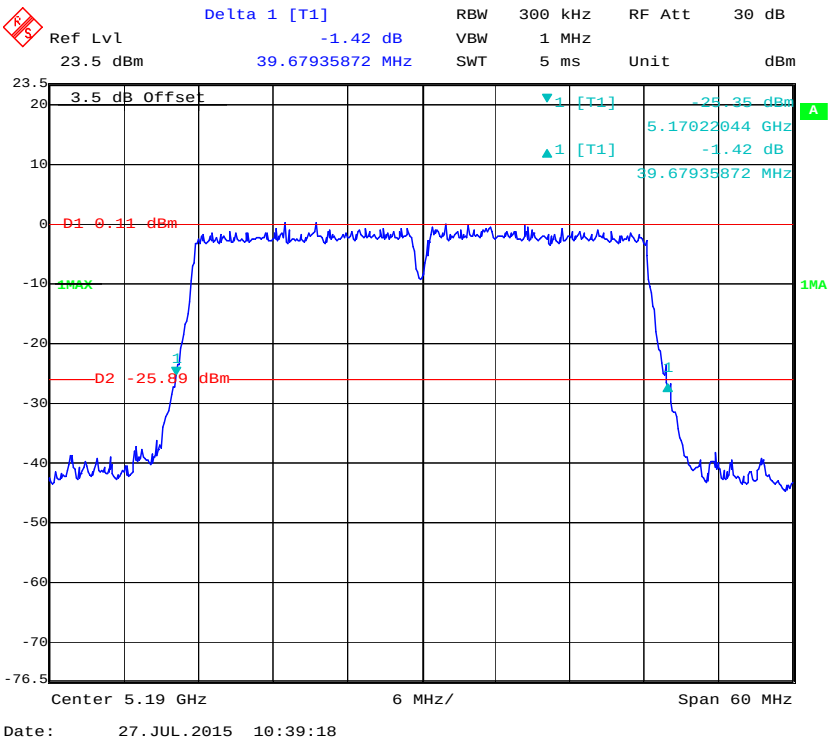
802.11n20 mode, 26dB Emission Bandwidth, Antenna 1, 5240 MHz



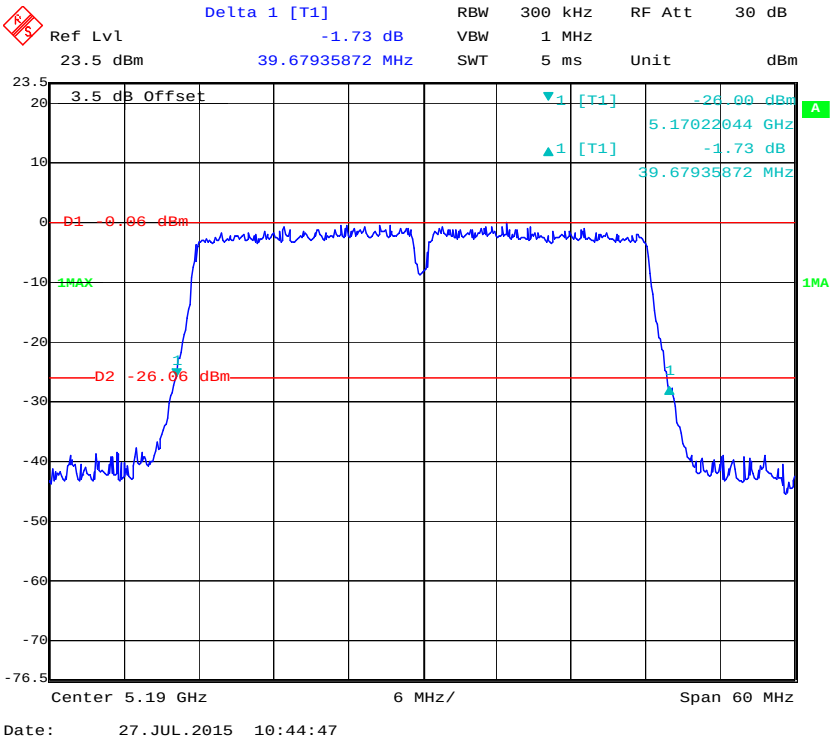
802.11n20 mode, 26dB Emission Bandwidth, Antenna 2, 5240 MHz



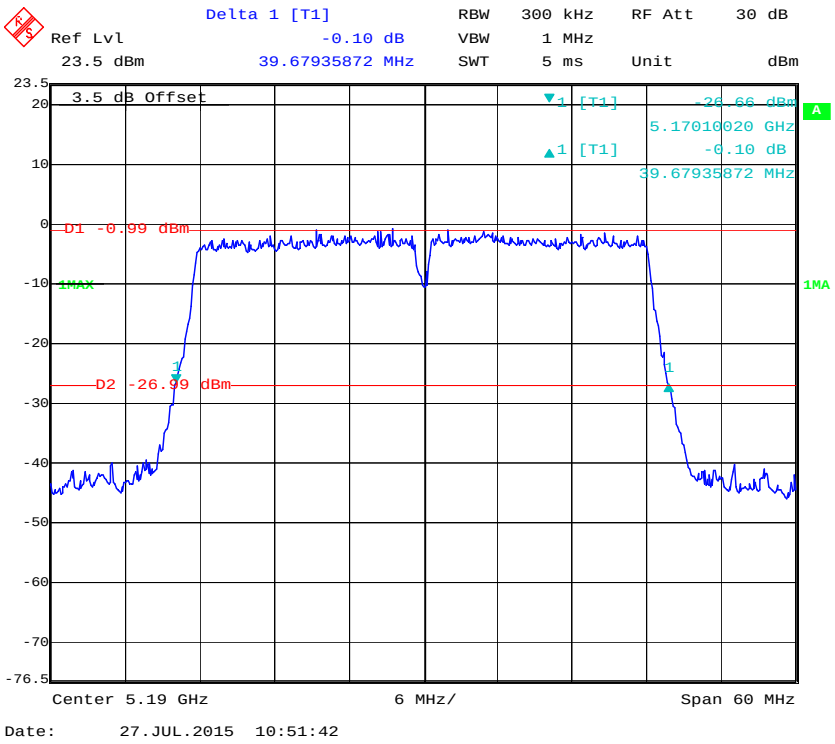
802.11n40 mode, 26dB Emission Bandwidth, Antenna 0, 5190 MHz



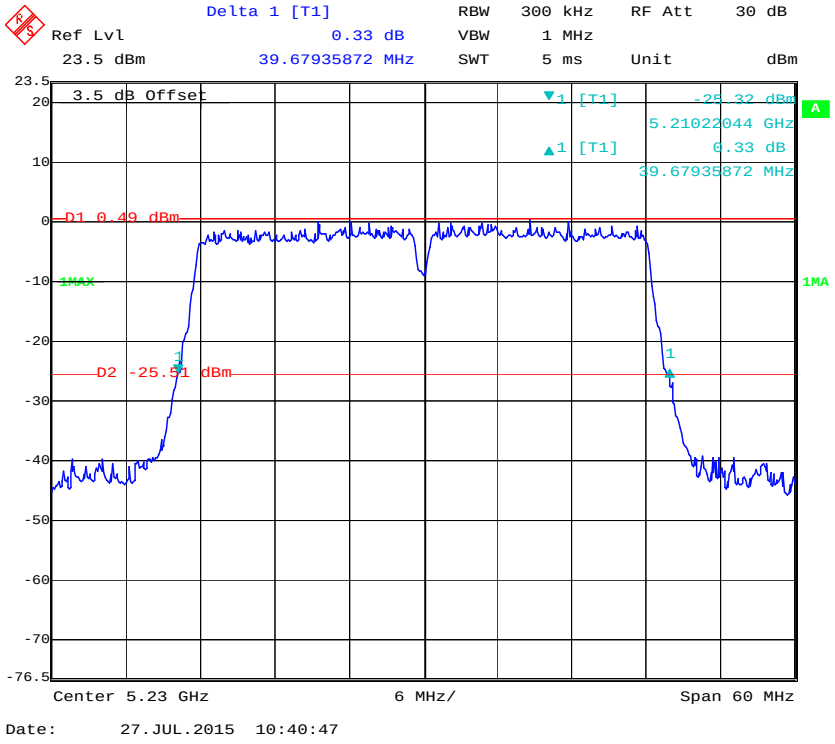
802.11n40 mode, 26dB Emission Bandwidth, Antenna 1, 5190 MHz



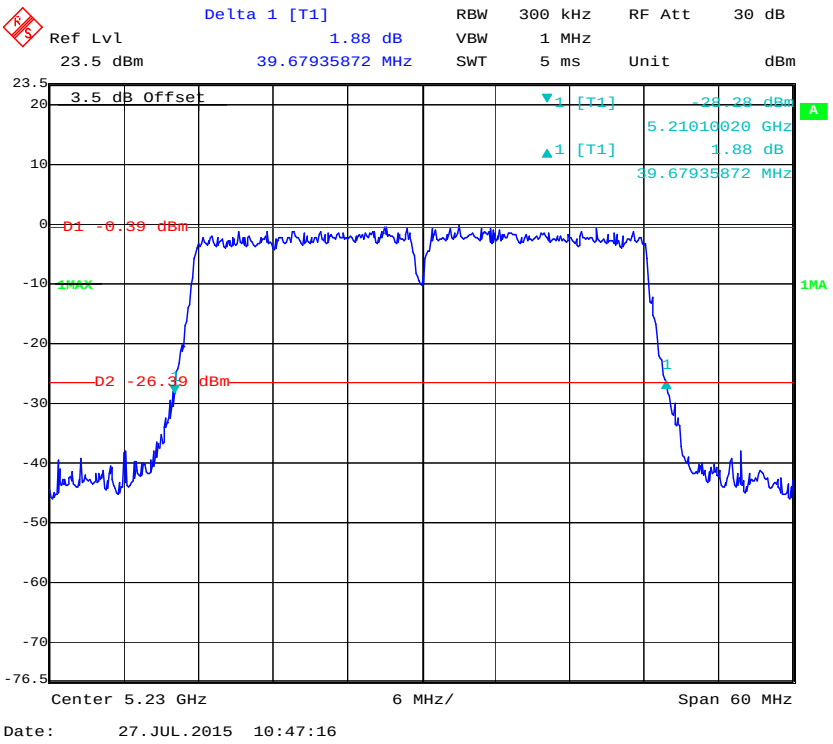
802.11n40 mode, 26dB Emission Bandwidth, Antenna 2, 5190 MHz



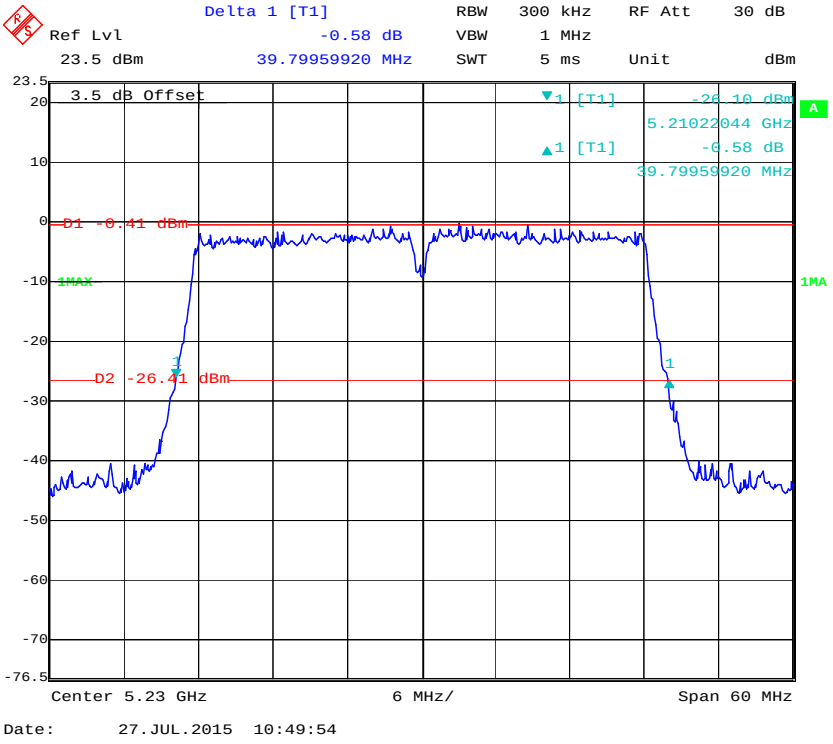
802.11n40 mode, 26dB Emission Bandwidth, Antenna 0, 5230 MHz



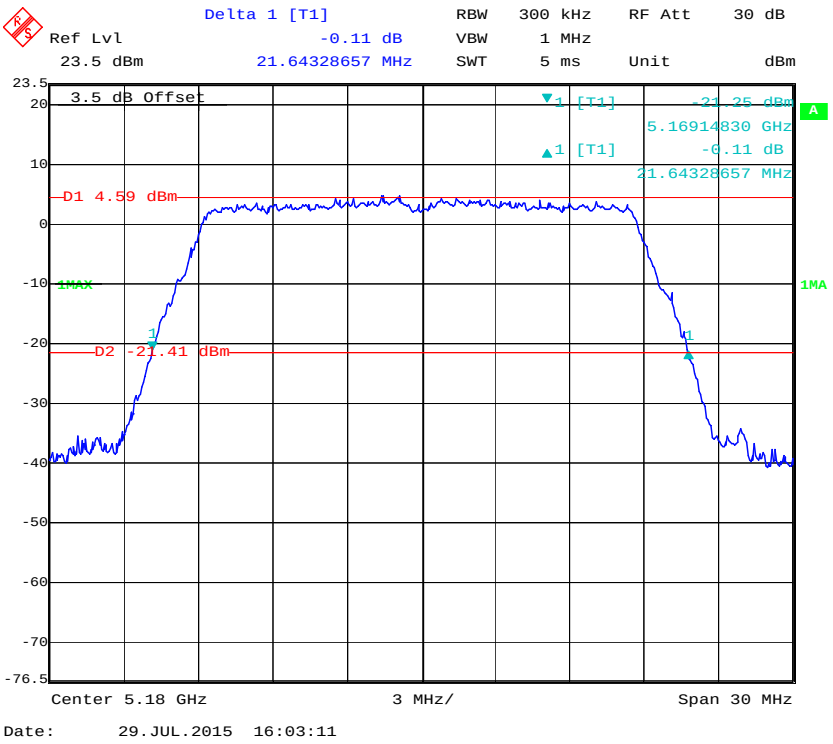
802.11n40 mode, 26dB Emission Bandwidth, Antenna 1, 5230 MHz



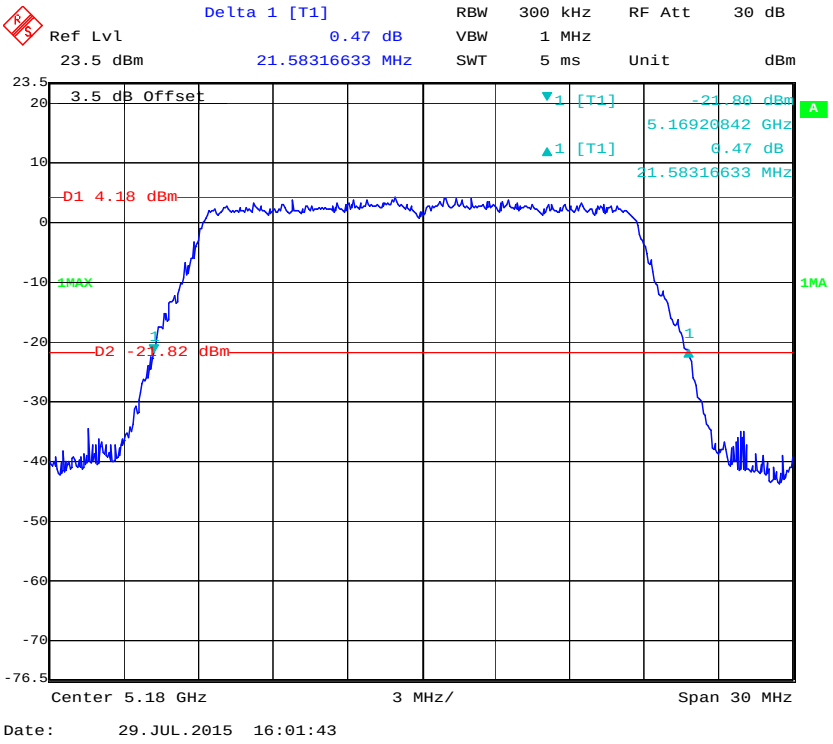
802.11n40 mode, 26dB Emission Bandwidth, Antenna 2, 5230 MHz



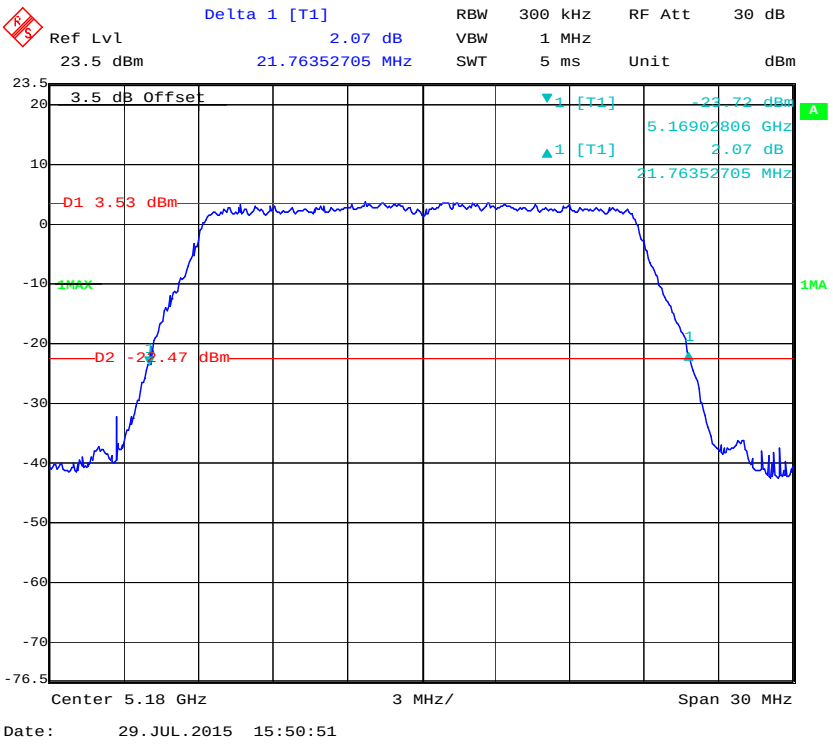
802.11ac20 mode, 26dB Emission Bandwidth, Antenna 0, 5180 MHz



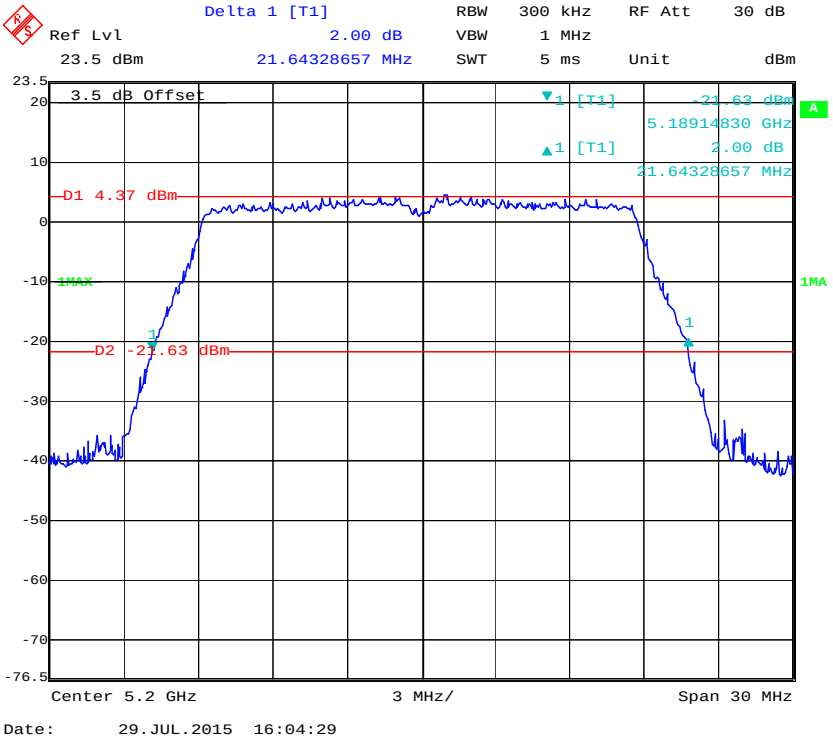
802.11ac20 mode, 26dB Emission Bandwidth, Antenna 1, 5180 MHz



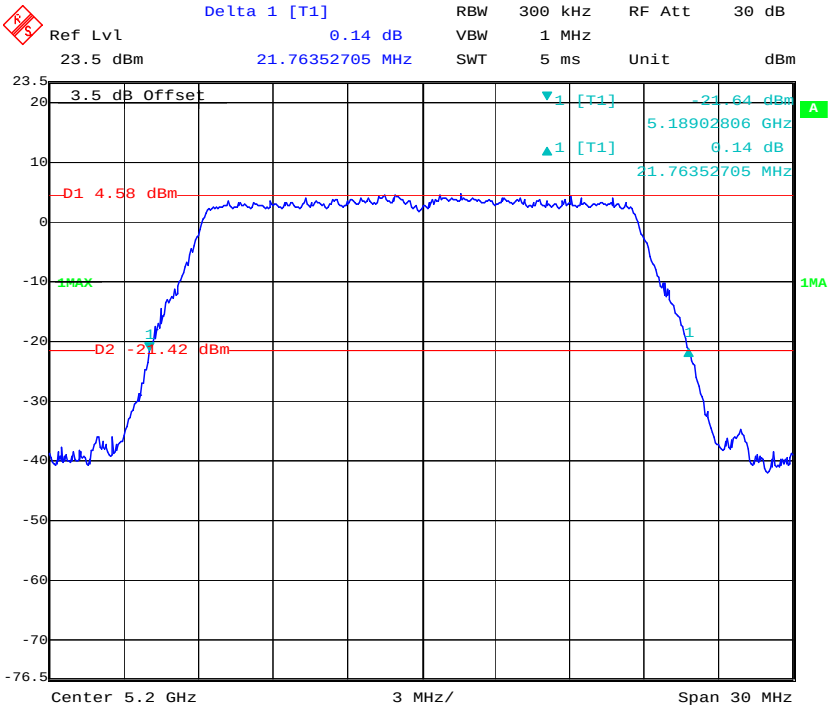
802.11ac20 mode, 26dB Emission Bandwidth, Antenna 2, 5180 MHz



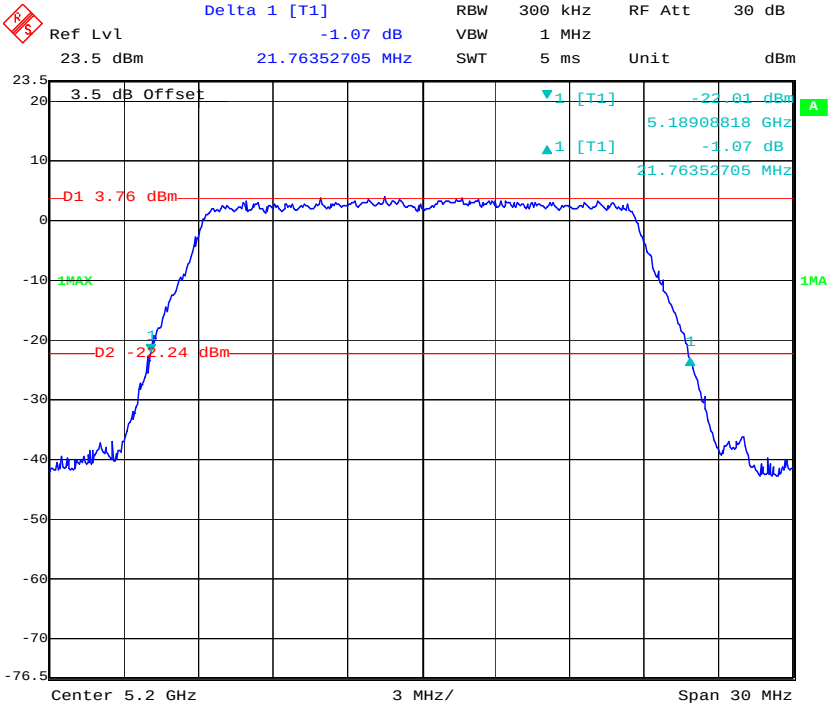
802.11ac20 mode, 26dB Emission Bandwidth, Antenna 0, 5200 MHz



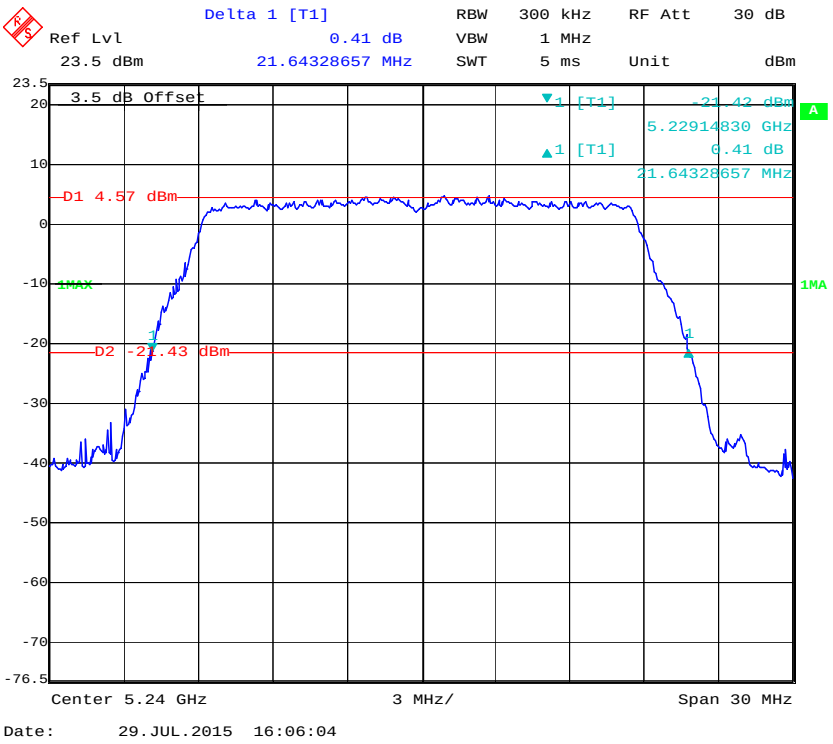
802.11ac20 mode, 26dB Emission Bandwidth, Antenna 1, 5200 MHz



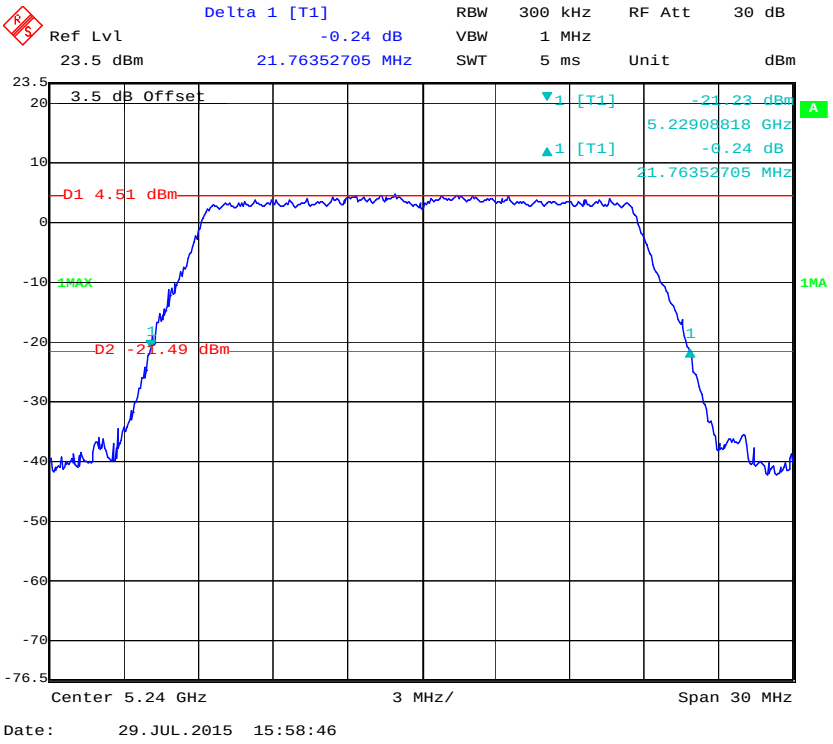
802.11ac20 mode, 26dB Emission Bandwidth, Antenna 2, 5200 MHz



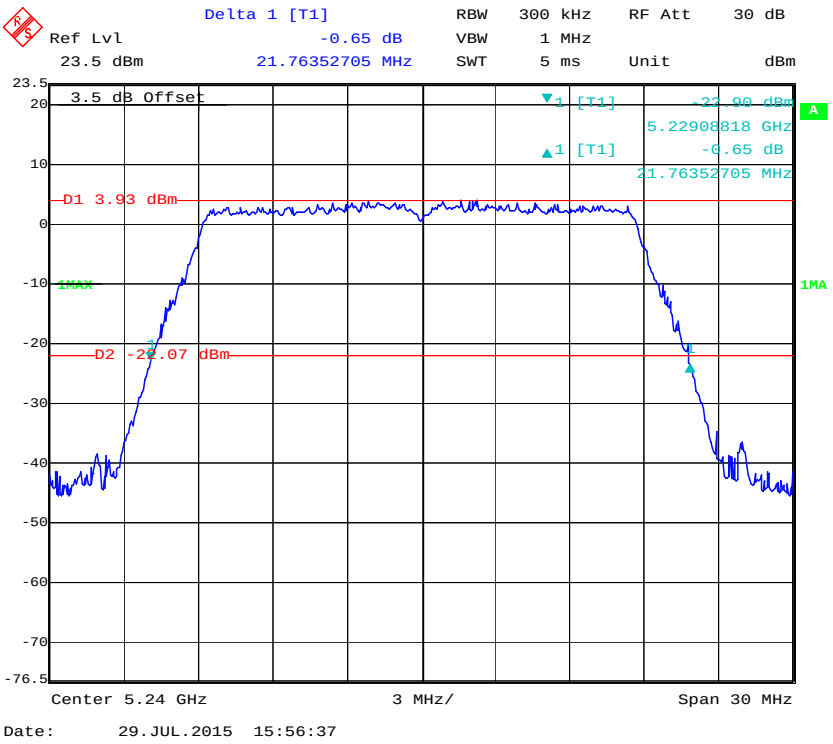
802.11ac20 mode, 26dB Emission Bandwidth, Antenna 0, 5240 MHz



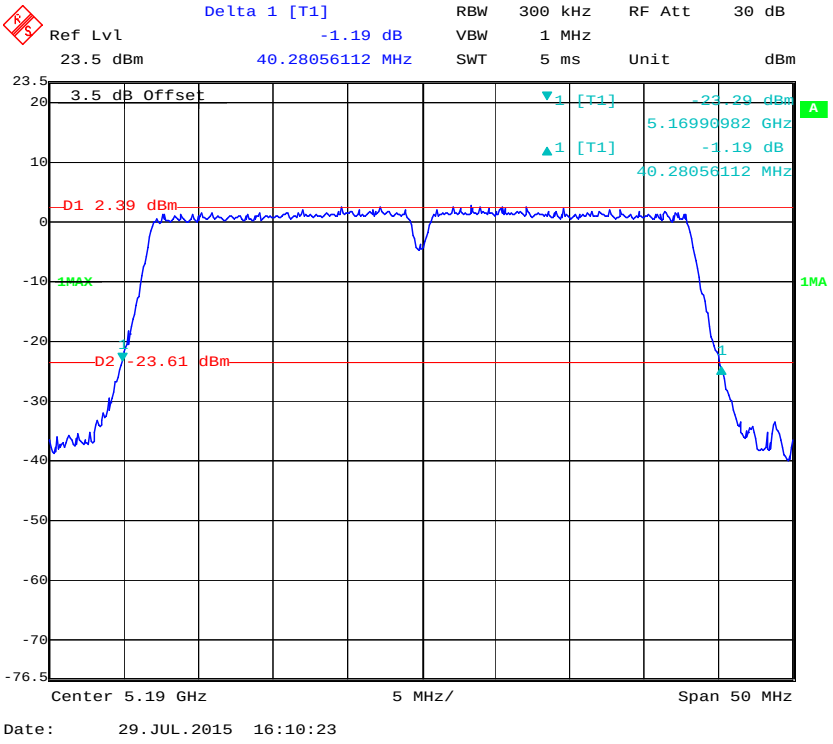
802.11ac20 mode, 26dB Emission Bandwidth, Antenna 1, 5240 MHz



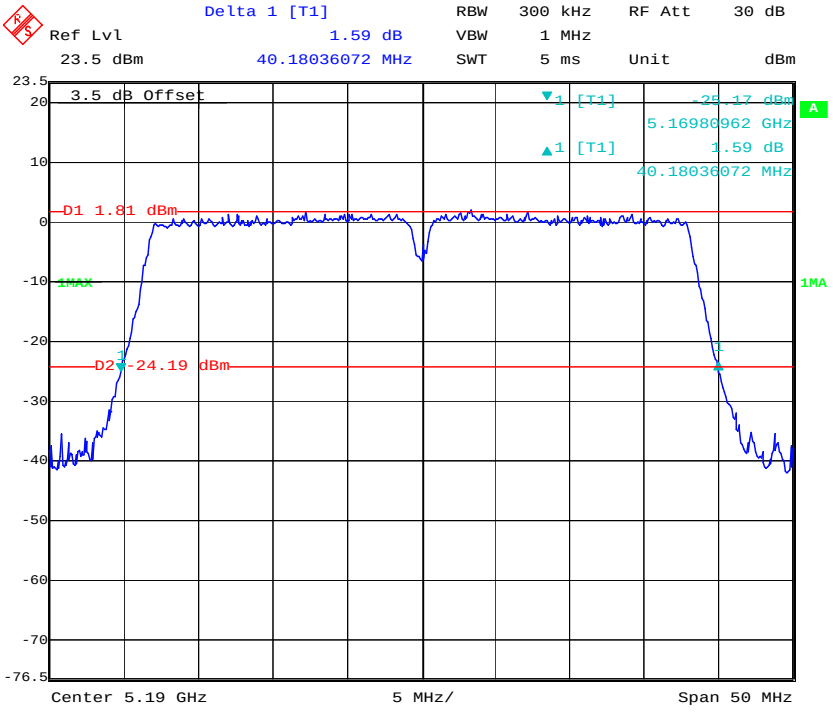
802.11ac20 mode, 26dB Emission Bandwidth, Antenna 2, 5240 MHz



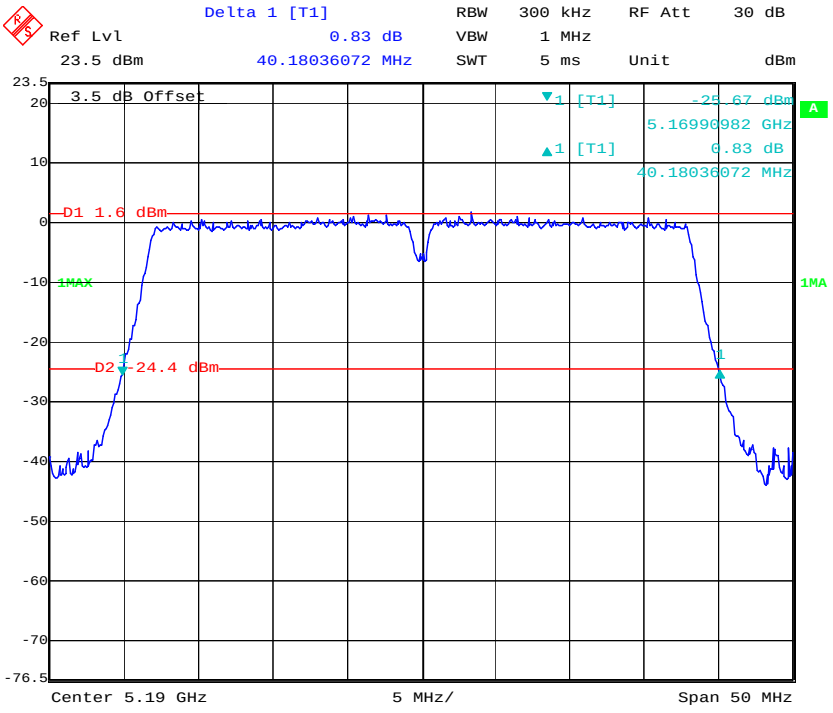
802.11ac40 mode, 26dB Emission Bandwidth, Antenna 0, 5190 MHz



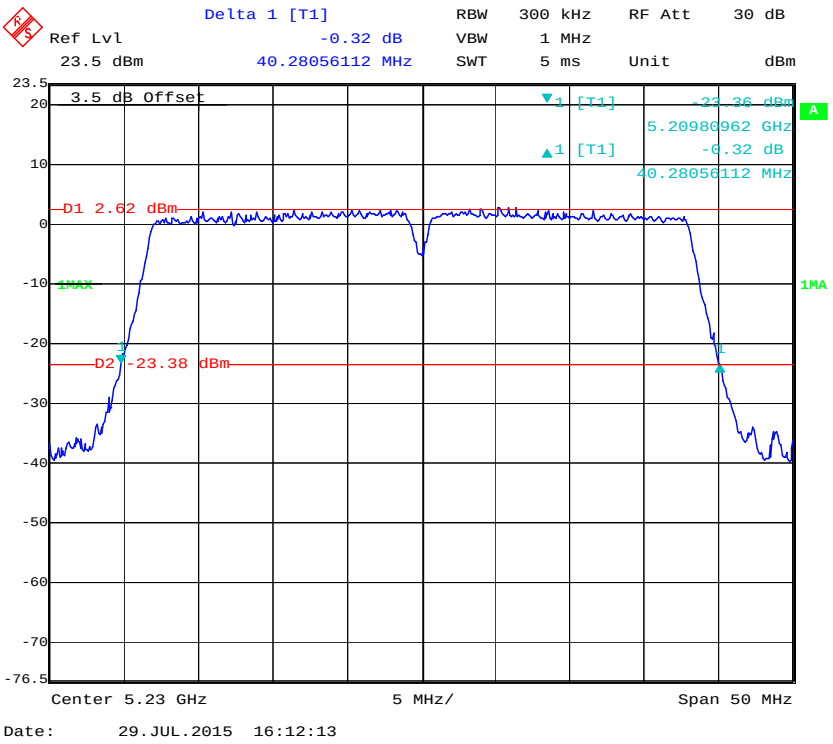
802.11ac40 mode, 26dB Emission Bandwidth, Antenna 1, 5190 MHz



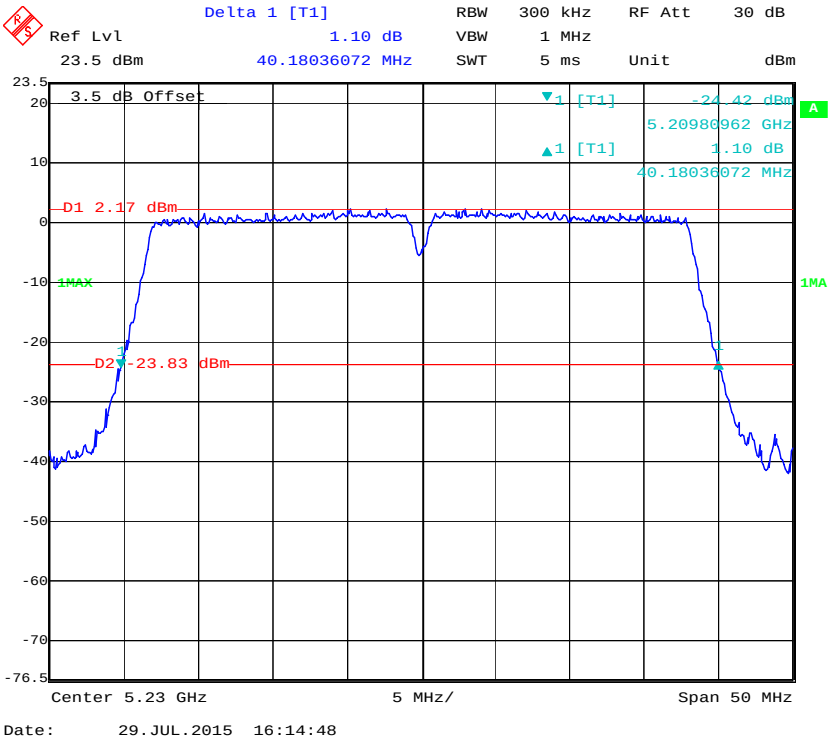
802.11ac40 mode, 26dB Emission Bandwidth, Antenna 2, 5190 MHz



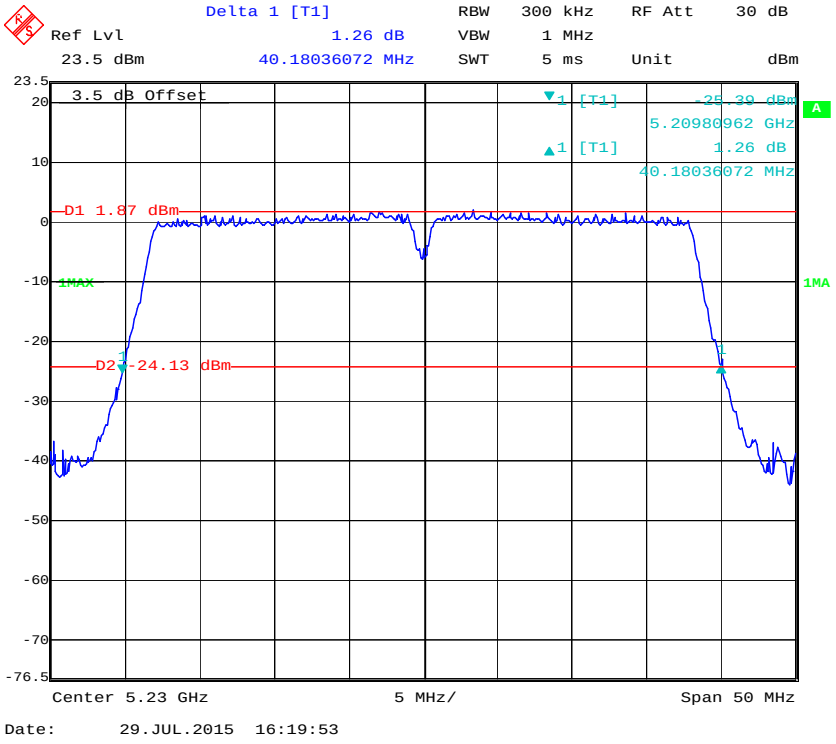
802.11ac40 mode, 26dB Emission Bandwidth, Antenna 0, 5230 MHz



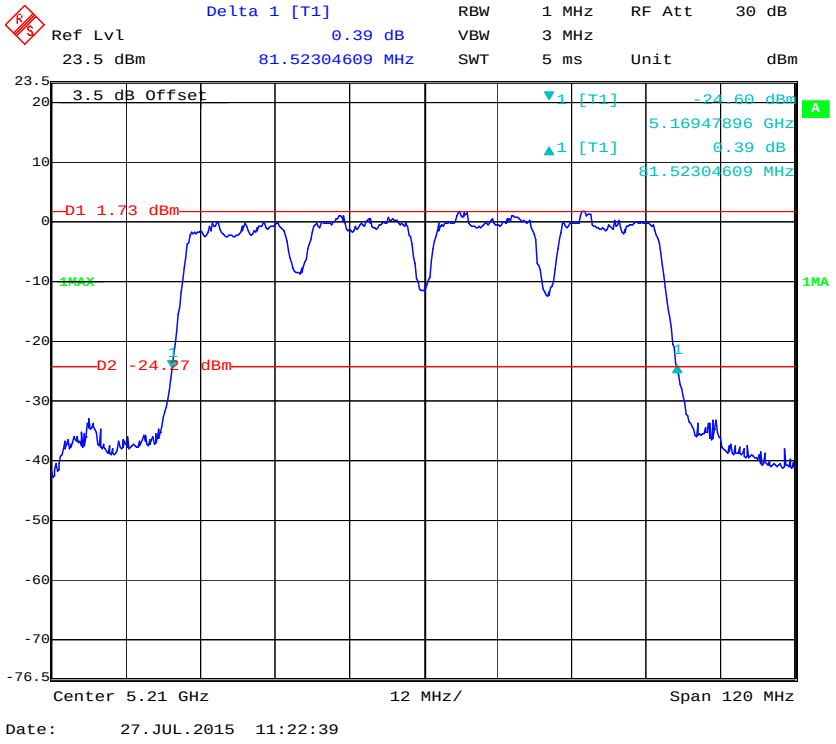
802.11ac40 mode, 26dB Emission Bandwidth, Antenna 1, 5230 MHz



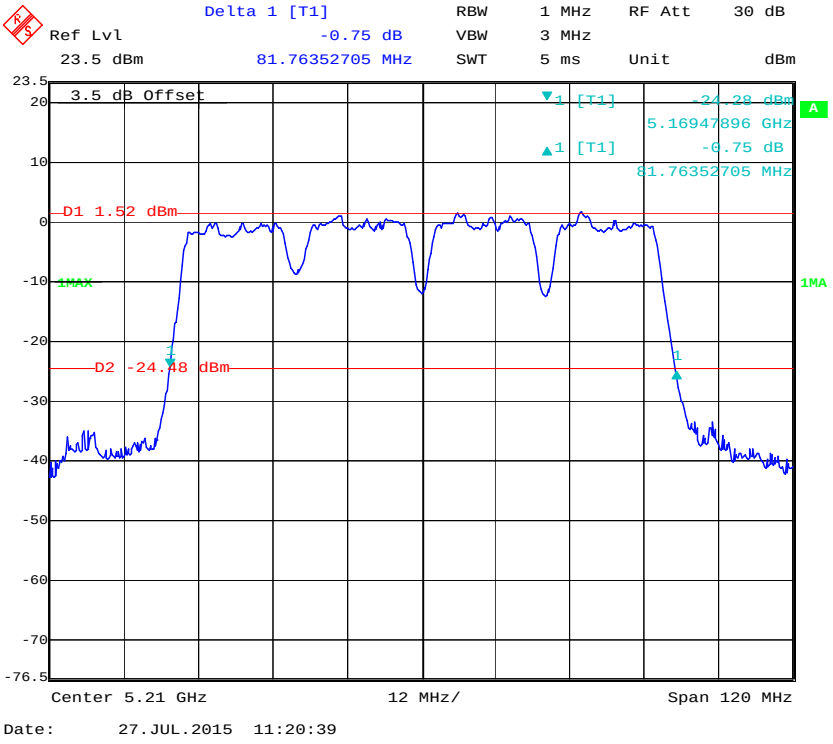
802.11ac40 mode, 26dB Emission Bandwidth, Antenna 2, 5230 MHz



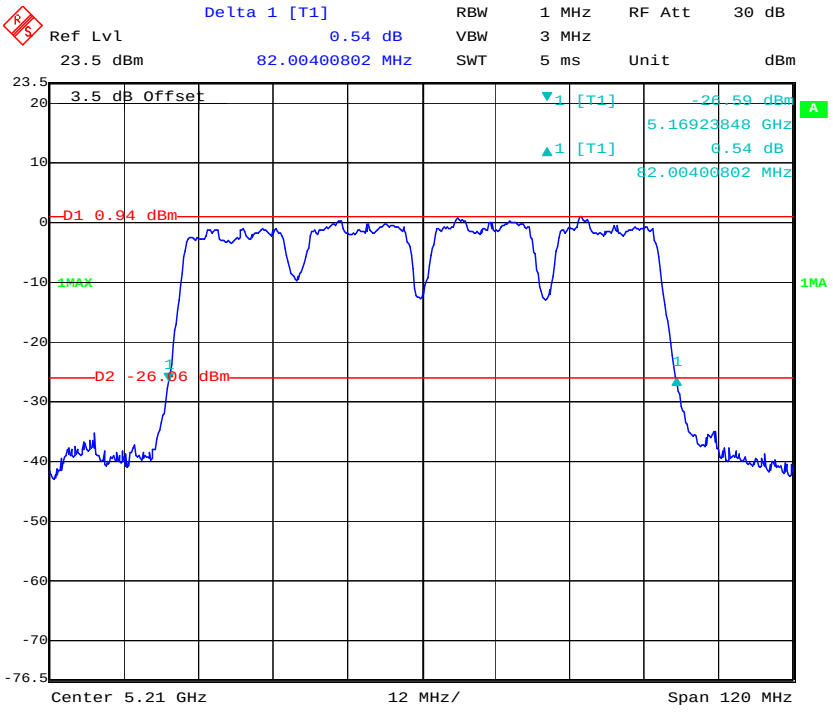
802.11ac80 mode, 26dB Emission Bandwidth, Antenna 0, 5210 MHz



802.11ac80 mode, 26dB Emission Bandwidth, Antenna 1, 5210 MHz



802.11ac80 mode, 26dB Emission Bandwidth, Antenna 2, 5210 MHz

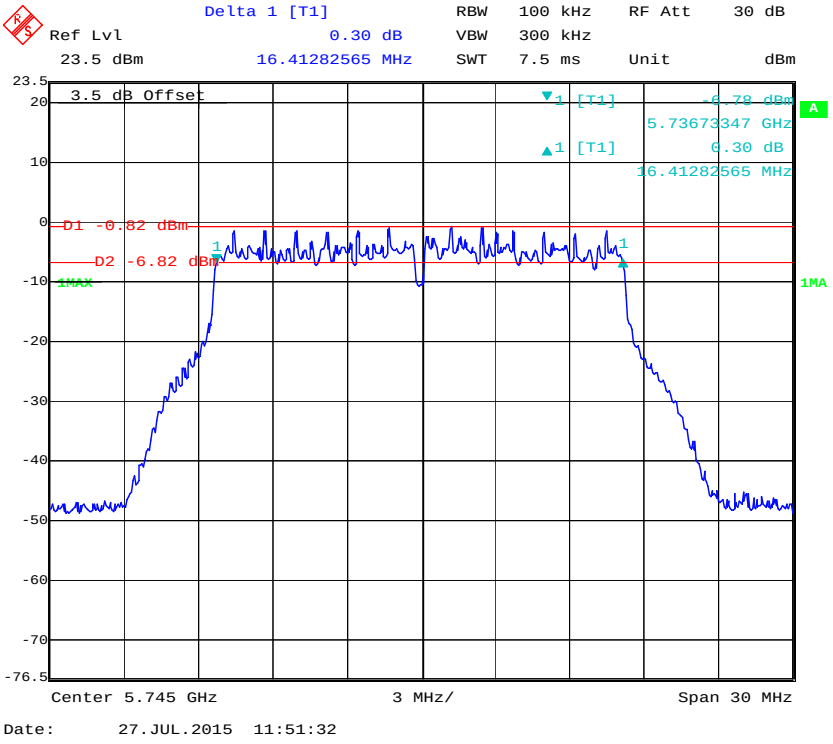


5725 MHz – 5825 MHz:

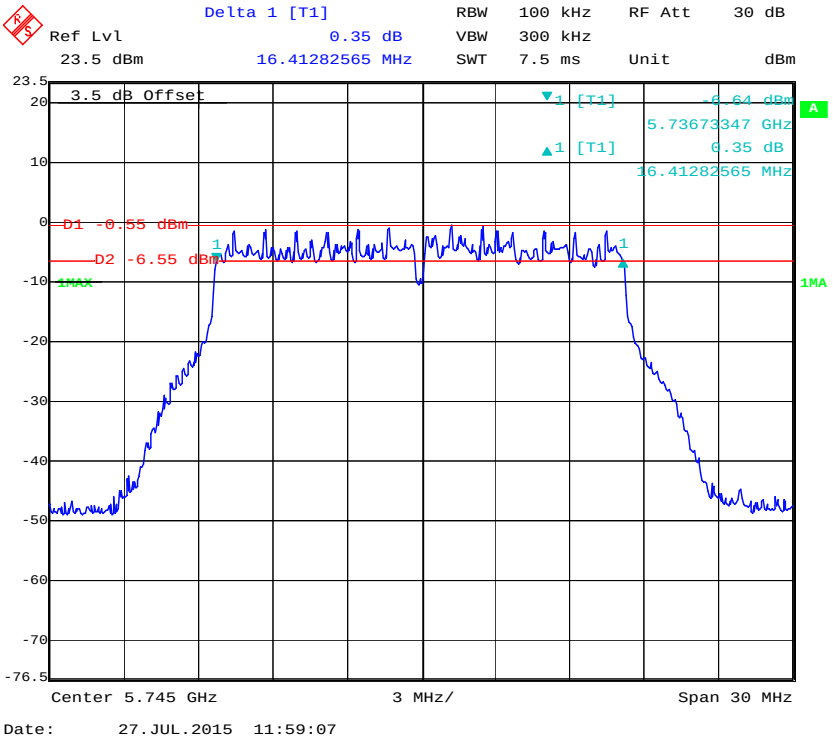
Frequency (MHz)	Antenna Port	6dB Emission Bandwidth (MHz)	Limit (MHz)
802.11a			
5745	Chain 0	16.41	0.5
	Chain 1	16.41	0.5
	Chain 2	16.41	0.5
5785	Chain 0	16.41	0.5
	Chain 1	16.41	0.5
	Chain 2	16.41	0.5
5825	Chain 0	16.41	0.5
	Chain 1	16.41	0.5
	Chain 2	16.41	0.5
802.11n20			
5745	Chain 0	17.80	0.5
	Chain 1	17.80	0.5
	Chain 2	17.80	0.5
5785	Chain 0	17.80	0.5
	Chain 1	17.80	0.5
	Chain 2	17.80	0.5
5825	Chain 0	17.80	0.5
	Chain 1	17.80	0.5
	Chain 2	17.80	0.5

Frequency (MHz)	Antenna Port	6dB Emission Bandwidth (MHz)	Limit (MHz)
802.11n40			
5755	Chain 0	36.57	0.5
	Chain 1	36.57	0.5
	Chain 2	36.57	0.5
5795	Chain 0	36.57	0.5
	Chain 1	36.57	0.5
	Chain 2	36.57	0.5
802.11ac20			
5745	Chain 0	17.62	0.5
	Chain 1	17.67	0.5
	Chain 2	17.62	0.5
5785	Chain 0	17.62	0.5
	Chain 1	17.62	0.5
	Chain 2	17.62	0.5
5825	Chain 0	17.68	0.5
	Chain 1	17.62	0.5
	Chain 2	17.49	0.5
802.11ac40			
5755	Chain 0	36.31	0.5
	Chain 1	36.31	0.5
	Chain 2	36.31	0.5
5795	Chain 0	36.43	0.5
	Chain 1	36.31	0.5
	Chain 2	36.43	0.5
802.11ac80			
5775	Chain 0	76.71	0.5
	Chain 1	76.71	0.5
	Chain 2	76.71	0.5

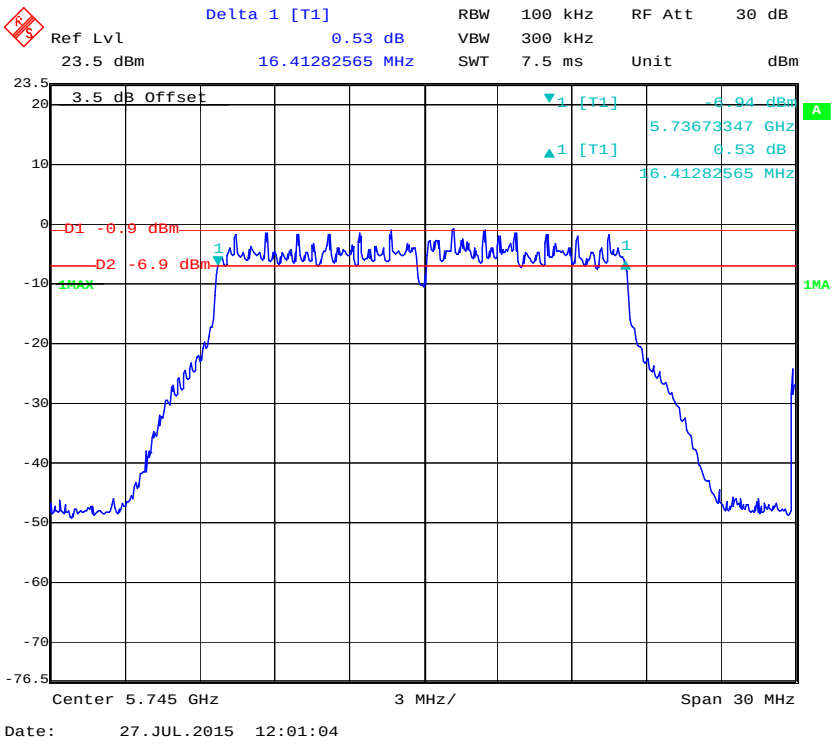
802.11a mode, 6dB Emission Bandwidth, Antenna 0, 5745 MHz



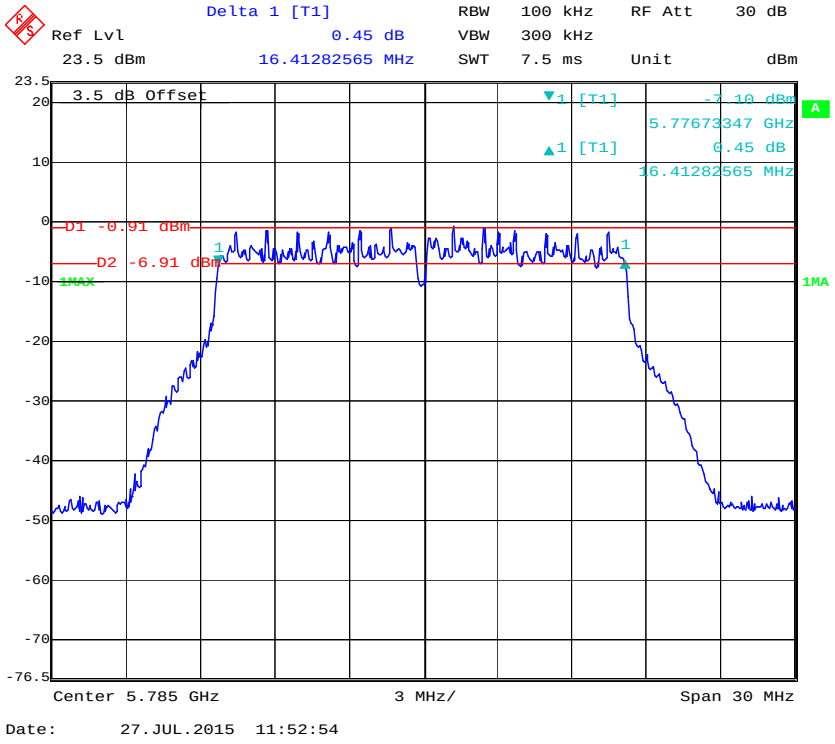
802.11a mode, 6dB Emission Bandwidth, Antenna 1, 5745 MHz



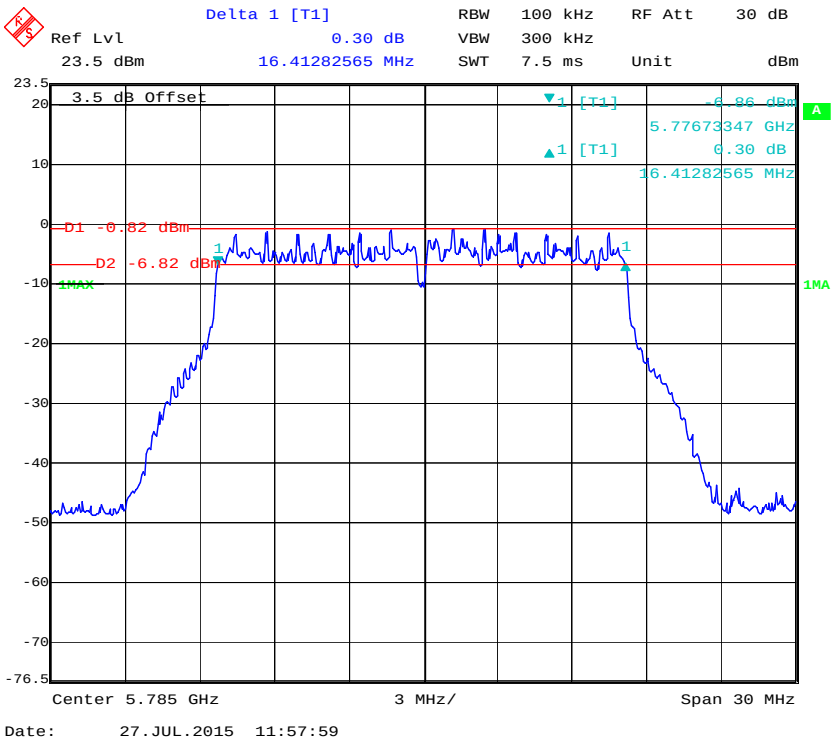
802.11a mode, 6dB Emission Bandwidth, Antenna 2, 5745 MHz



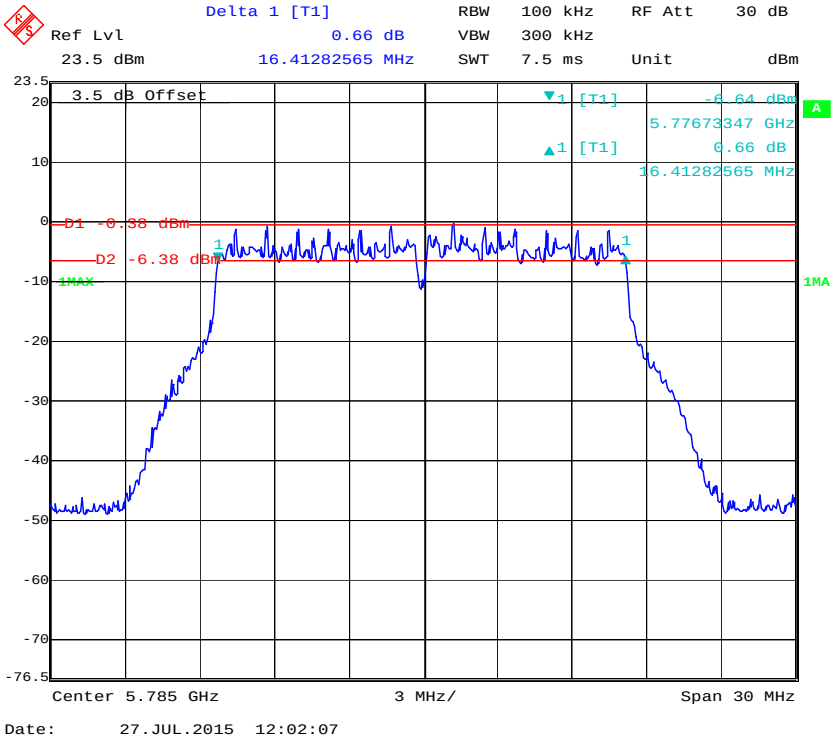
802.11a mode, 6dB Emission Bandwidth, Antenna 0, 5785 MHz



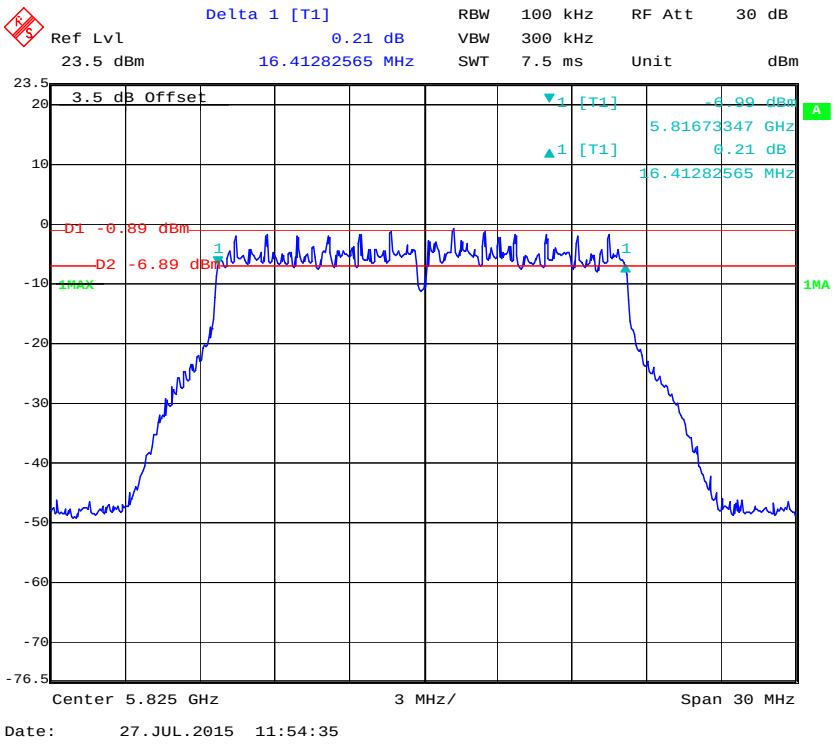
802.11a mode, 6dB Emission Bandwidth, Antenna 1, 5785 MHz



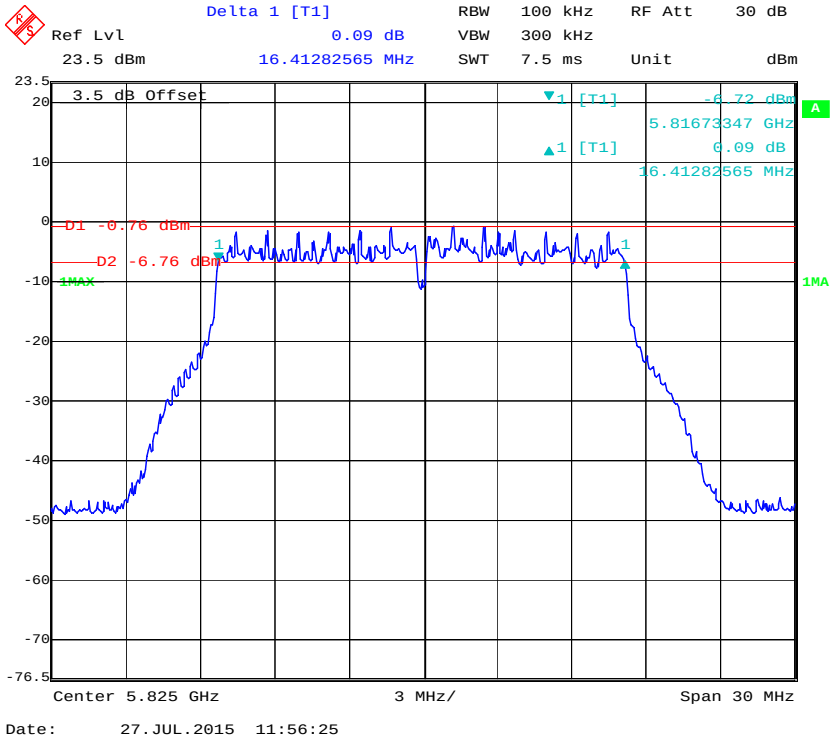
802.11a mode, 6dB Emission Bandwidth, Antenna 2, 5785 MHz



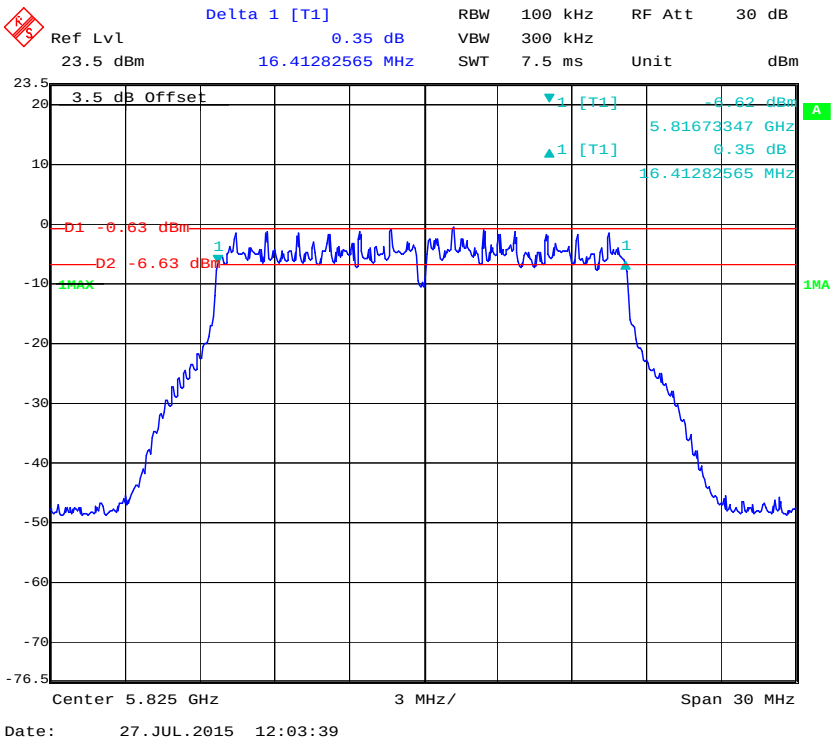
802.11a mode, 6dB Emission Bandwidth, Antenna 0, 5825 MHz



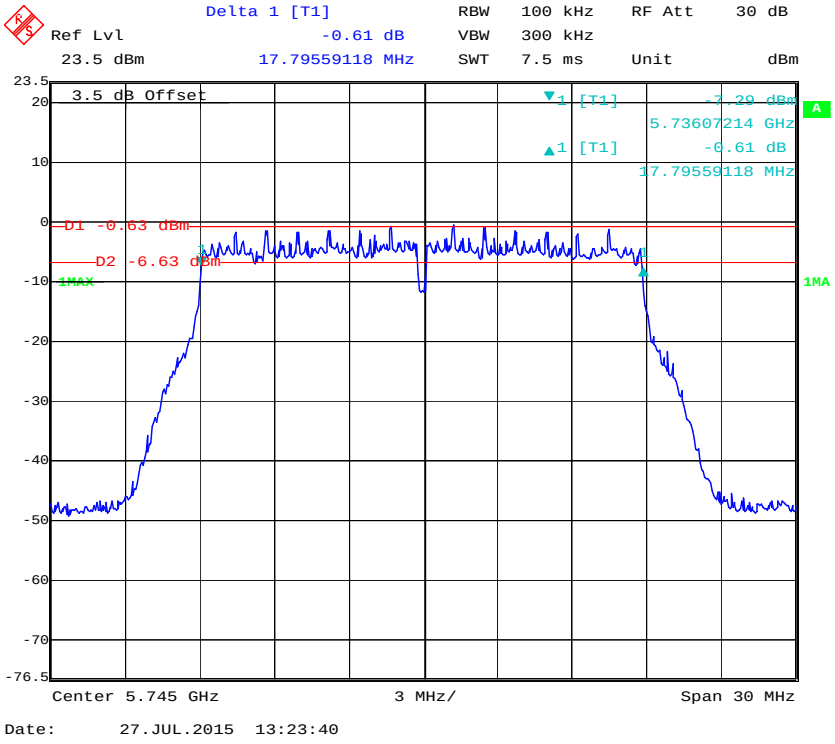
802.11a mode, 6dB Emission Bandwidth, Antenna 1, 5825 MHz



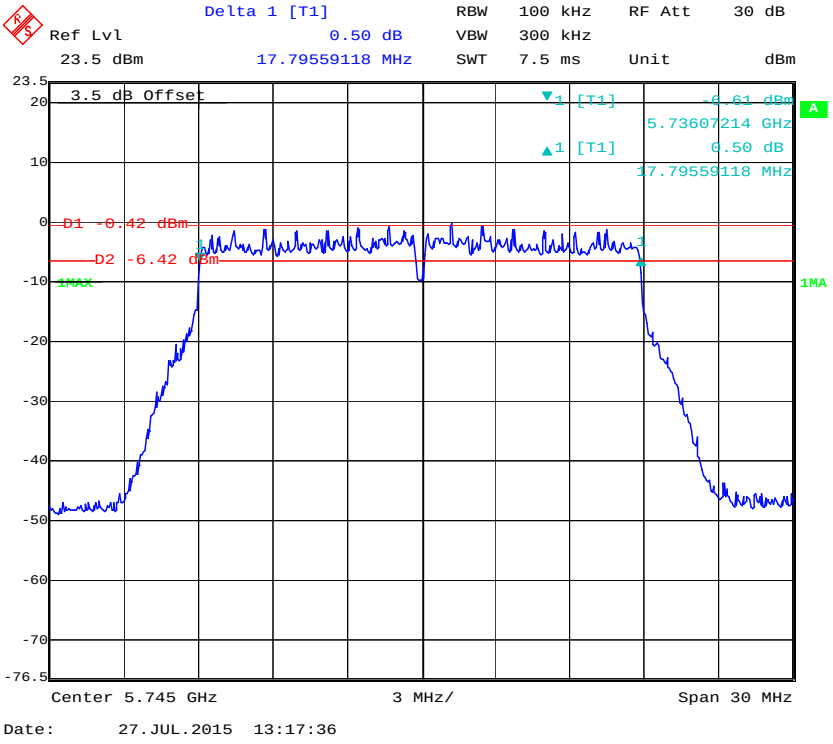
802.11a mode, 6dB Emission Bandwidth, Antenna 2, 5825 MHz



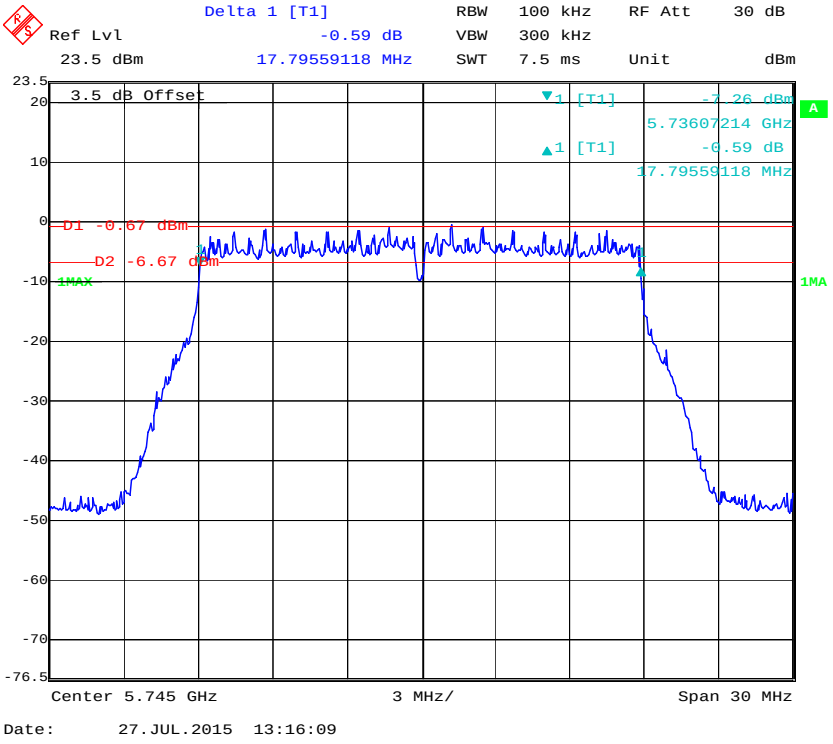
802.11n20 mode, 6dB Emission Bandwidth, Antenna 0, 5745 MHz



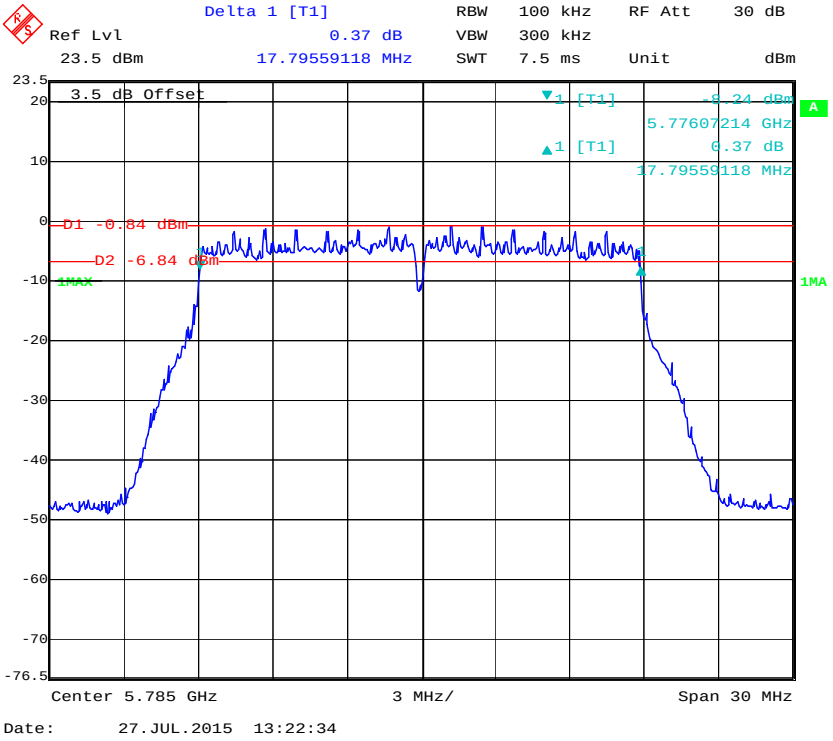
802.11n20 mode, 6dB Emission Bandwidth, Antenna 1, 5745 MHz



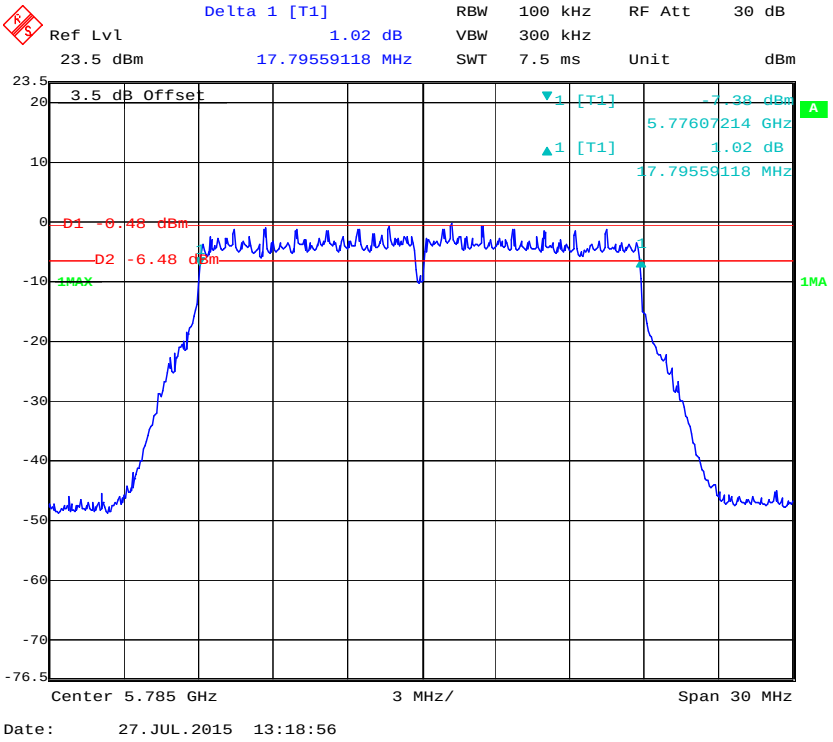
802.11n20 mode, 6dB Emission Bandwidth, Antenna 2, 5745 MHz



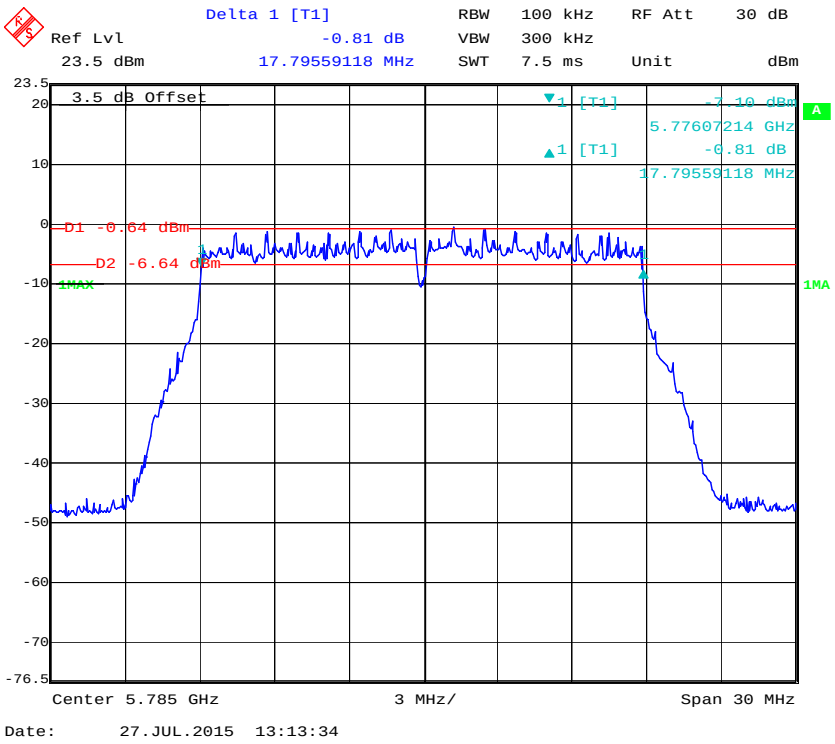
802.11n20 mode, 6dB Emission Bandwidth, Antenna 0, 5785 MHz



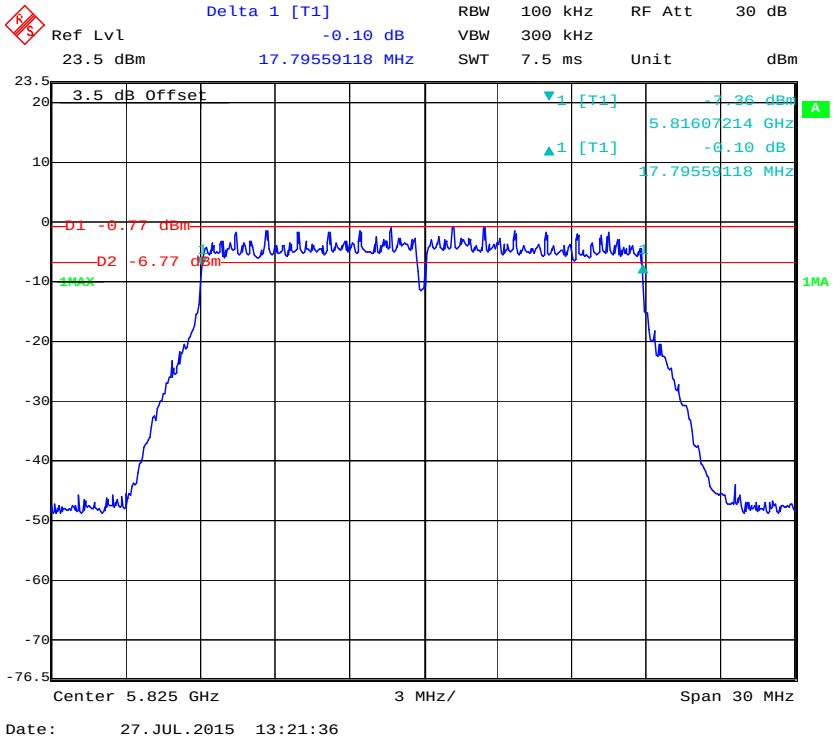
802.11n20 mode, 6dB Emission Bandwidth, Antenna 1, 5785 MHz



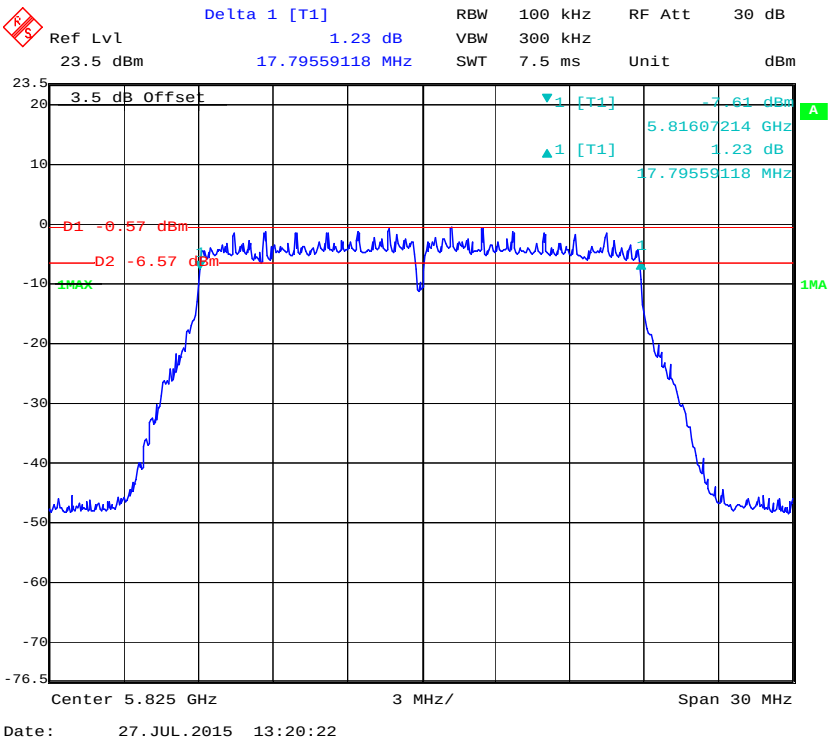
802.11n20 mode, 6dB Emission Bandwidth, Antenna 2, 5785 MHz



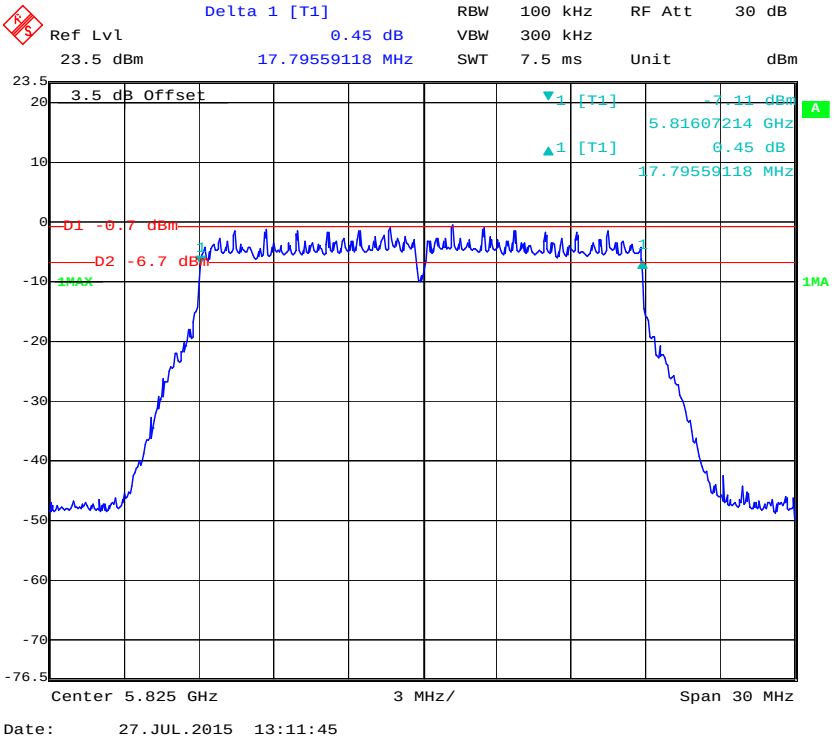
802.11n20 mode, 6dB Emission Bandwidth, Antenna 0, 5825 MHz



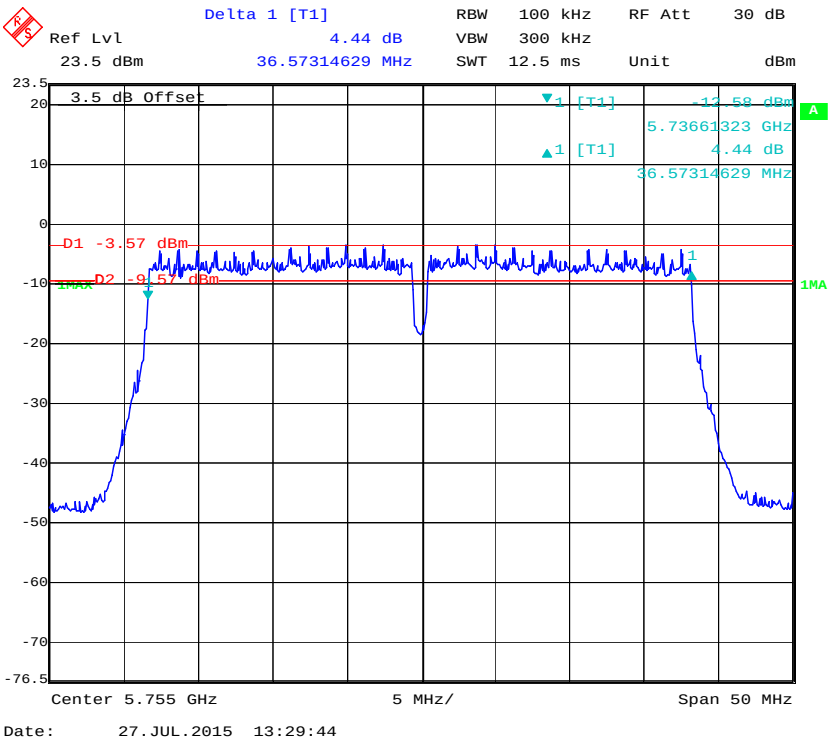
802.11n20 mode, 6dB Emission Bandwidth, Antenna 1, 5825 MHz



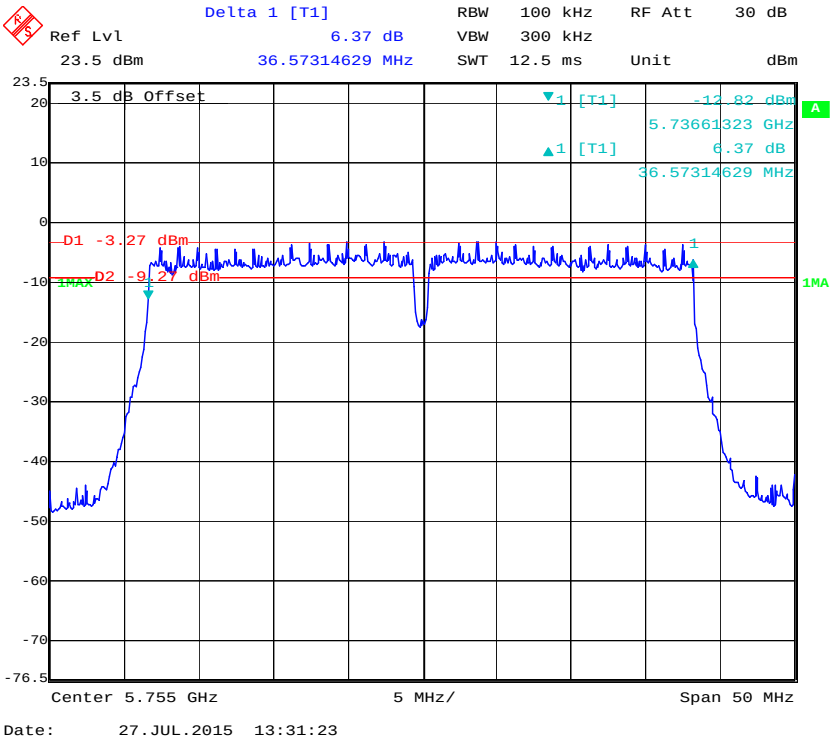
802.11n20 mode, 6dB Emission Bandwidth, Antenna 2, 5825 MHz



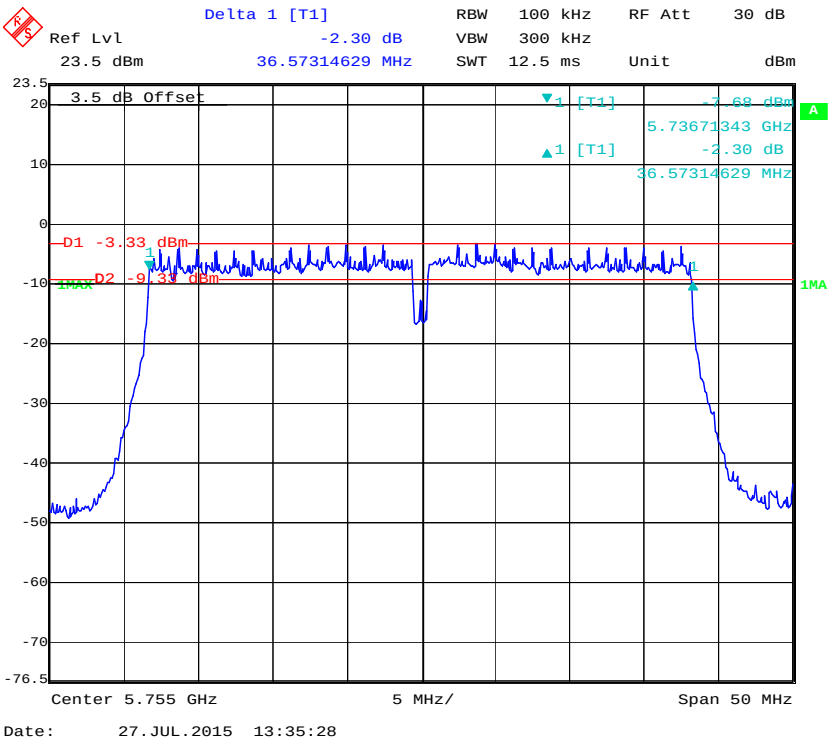
802.11n40 mode, 6dB Emission Bandwidth, Antenna 0, 5755 MHz



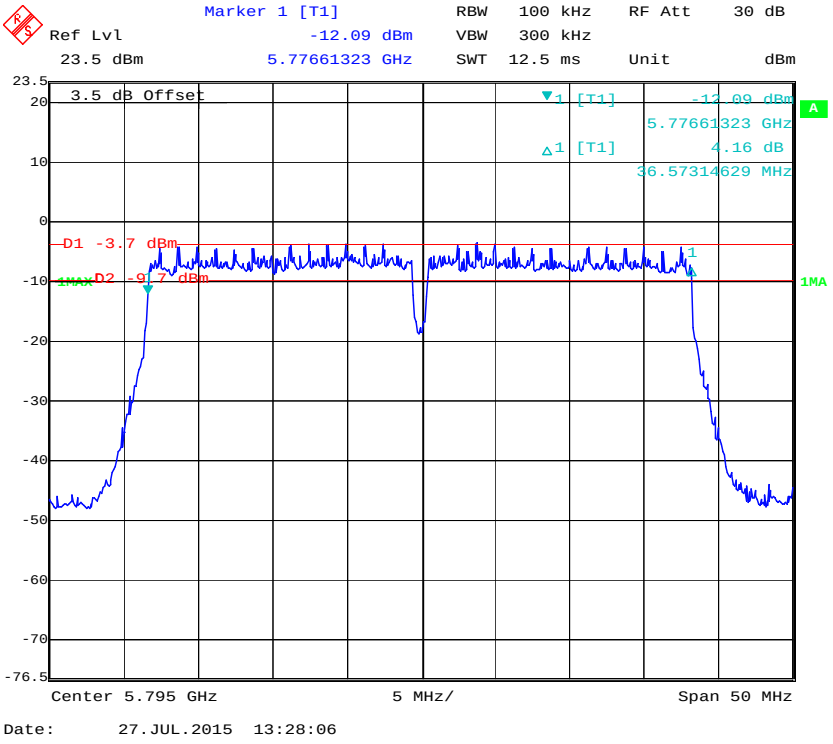
802.11n40 mode, 6dB Emission Bandwidth, Antenna 1, 5755 MHz



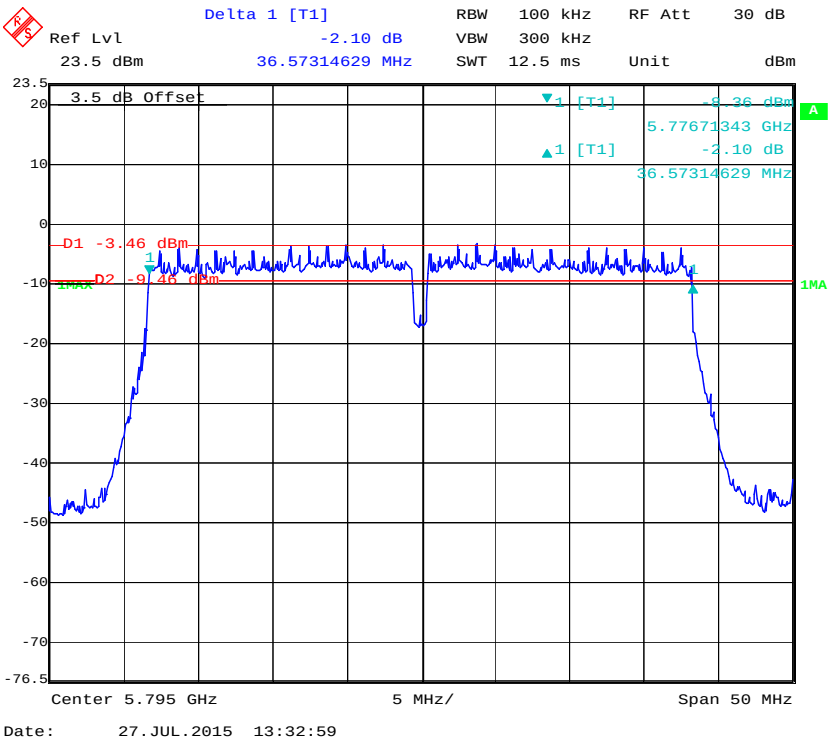
802.11n40 mode, 6dB Emission Bandwidth, Antenna 2, 5755 MHz



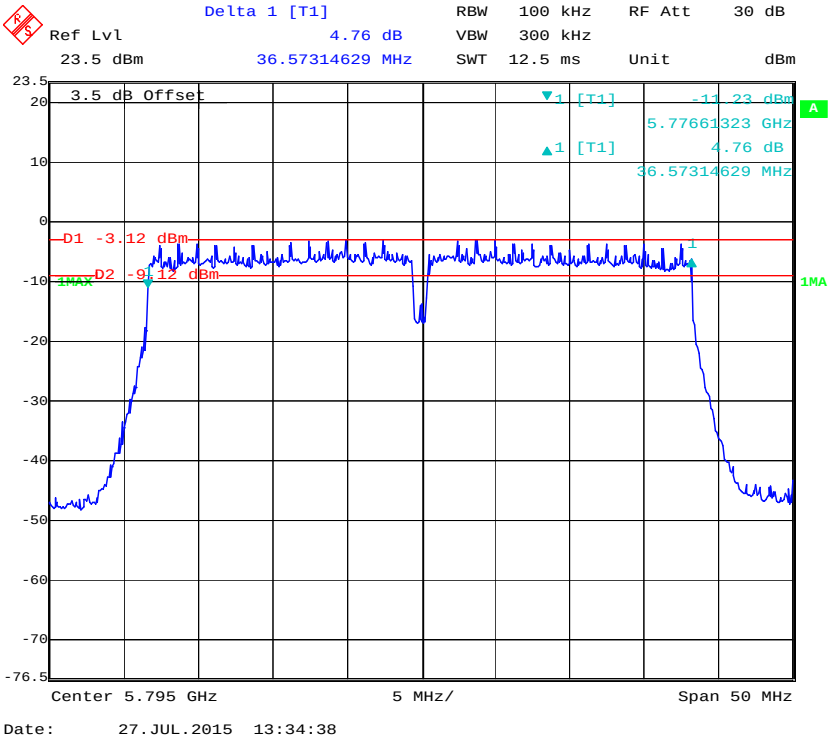
802.11n40 mode, 6dB Emission Bandwidth, Antenna 0, 5795 MHz



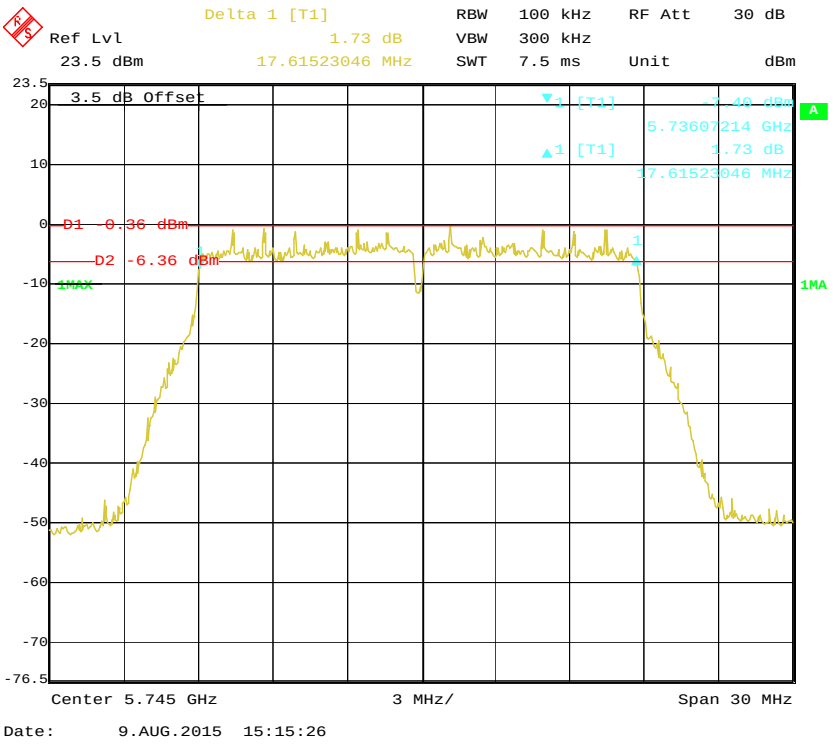
802.11n40 mode, 6dB Emission Bandwidth, Antenna 1, 5795 MHz



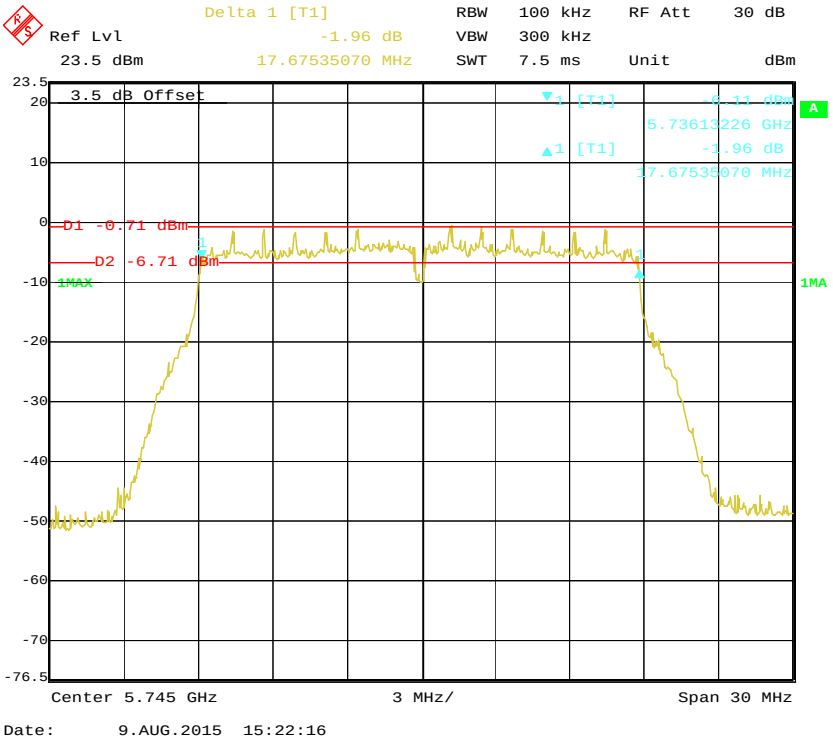
802.11n40 mode, 6dB Emission Bandwidth, Antenna 2, 5795 MHz



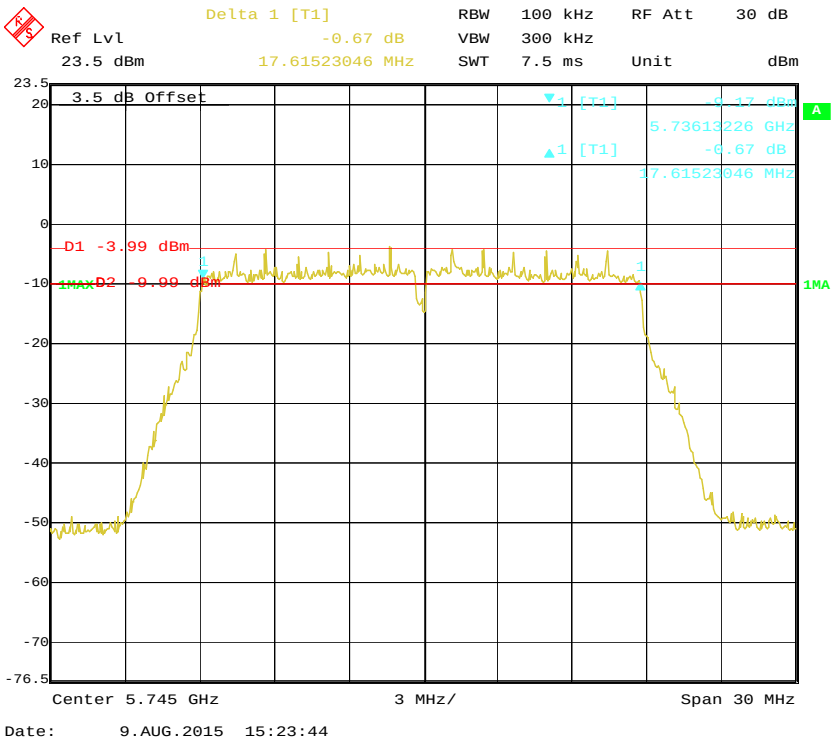
802.11ac20 mode, 6dB Emission Bandwidth, Antenna 0, 5745 MHz



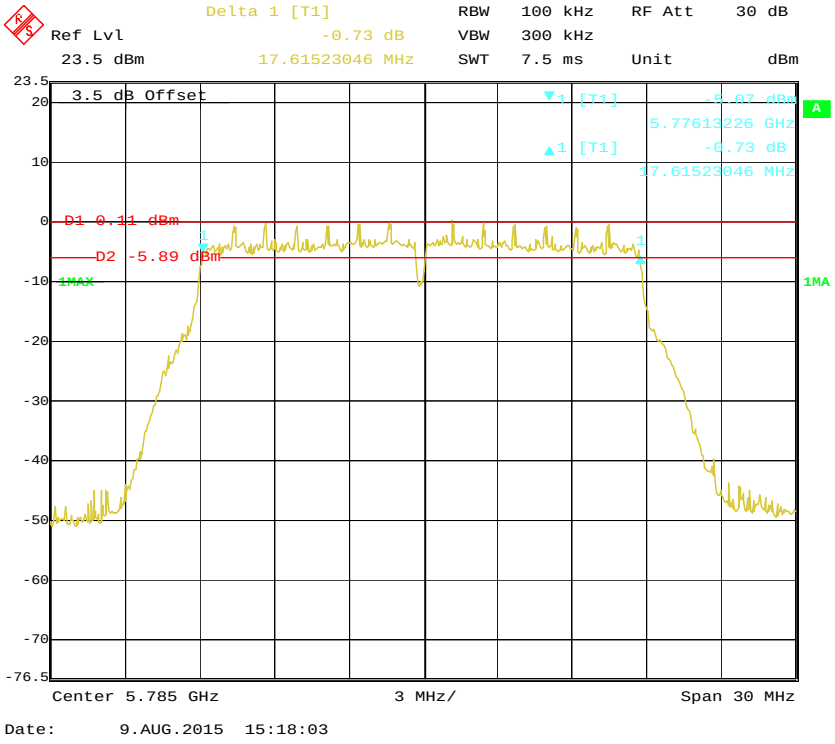
802.11ac20 mode, 6dB Emission Bandwidth, Antenna 1, 5745 MHz



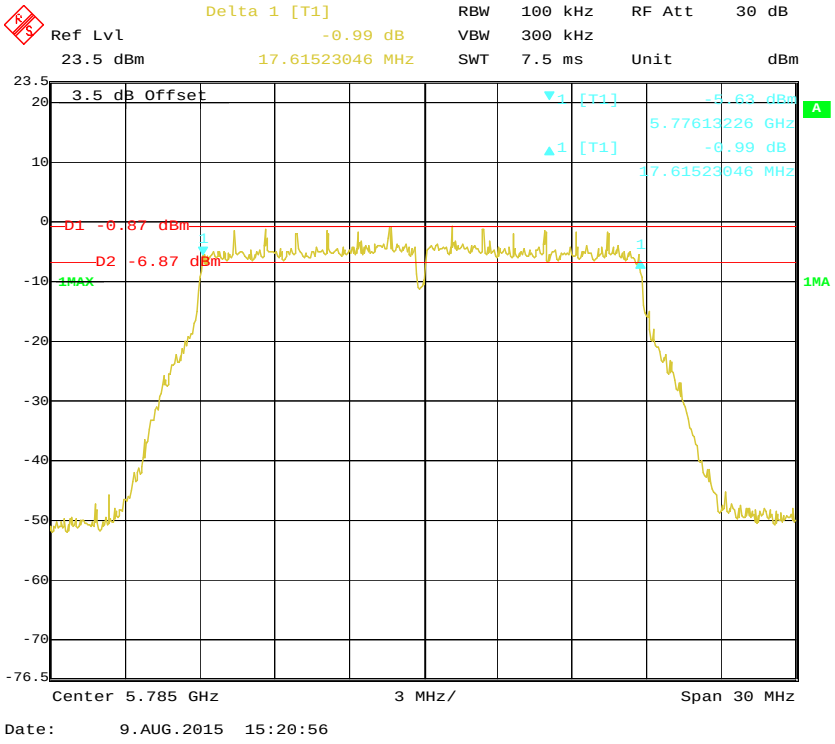
802.11ac20 mode, 6dB Emission Bandwidth, Antenna 2, 5745 MHz



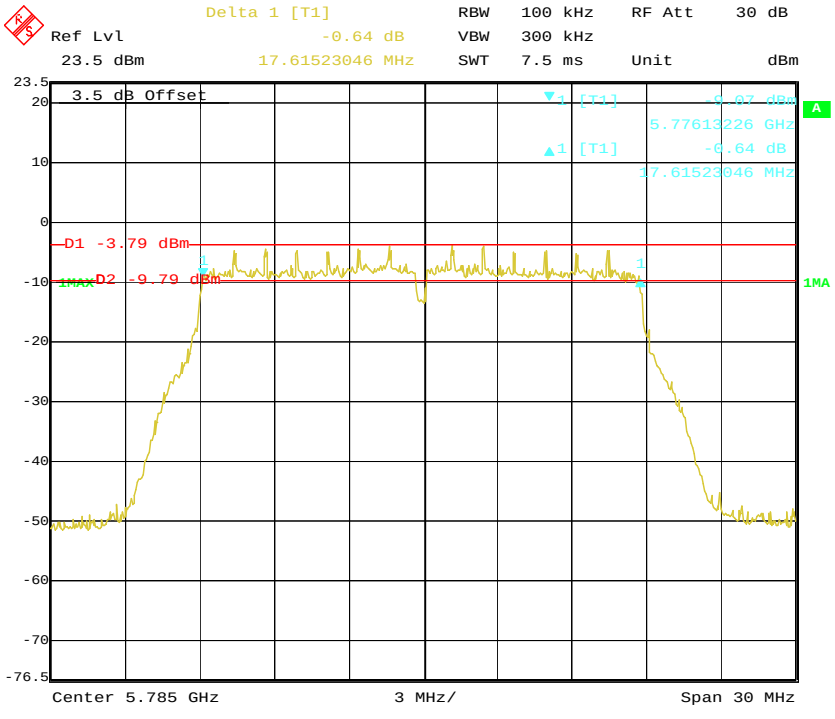
802.11ac20 mode, 6dB Emission Bandwidth, Antenna 0, 5785 MHz



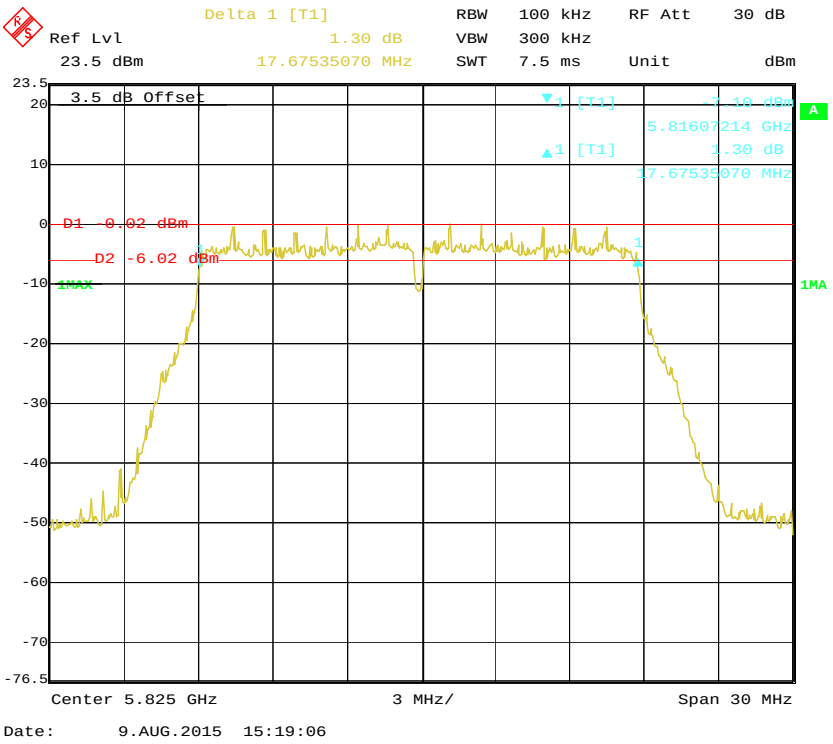
802.11ac20 mode, 6dB Emission Bandwidth, Antenna 1, 5785 MHz



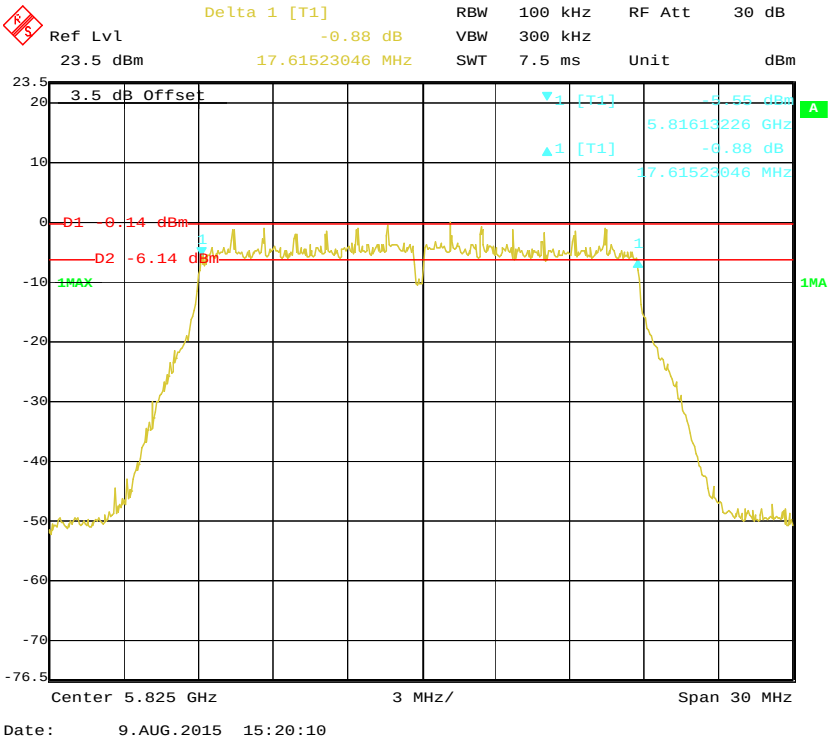
802.11ac20 mode, 6dB Emission Bandwidth, Antenna 2, 5785 MHz



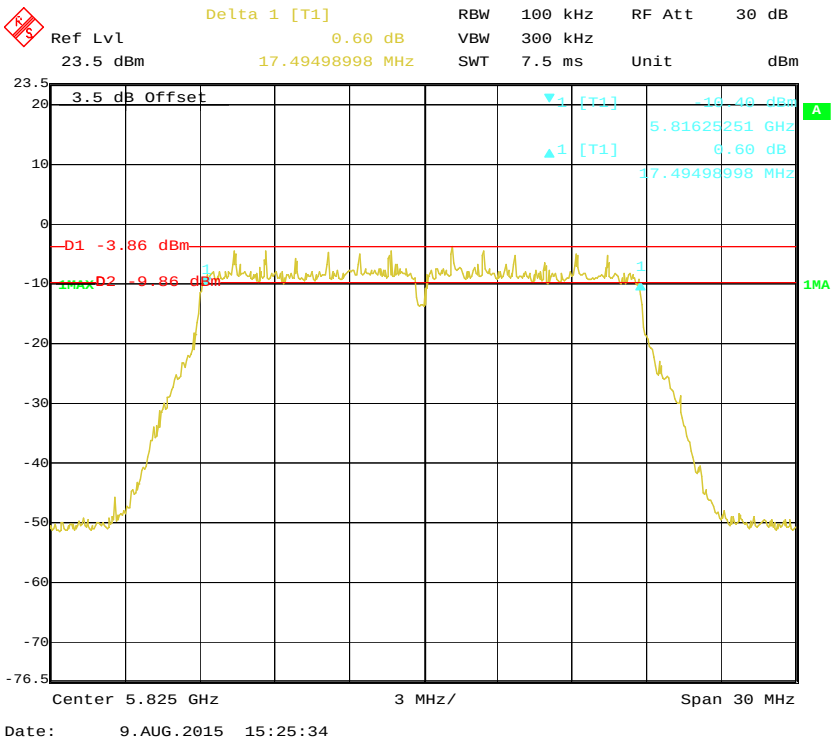
802.11ac20 mode, 6dB Emission Bandwidth, Antenna 0, 5825 MHz



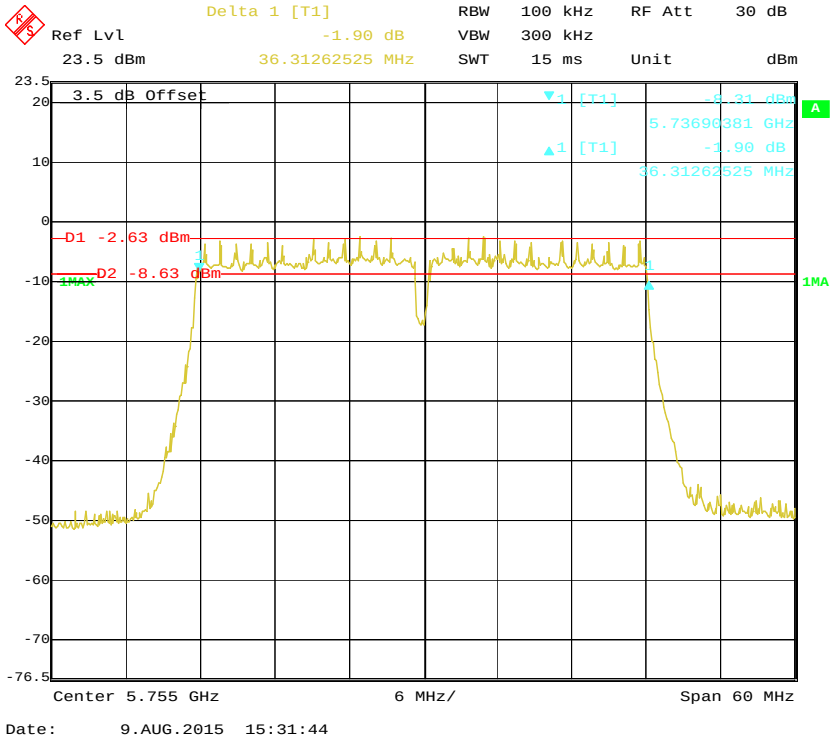
802.11ac20 mode, 6dB Emission Bandwidth, Antenna 1, 5825 MHz



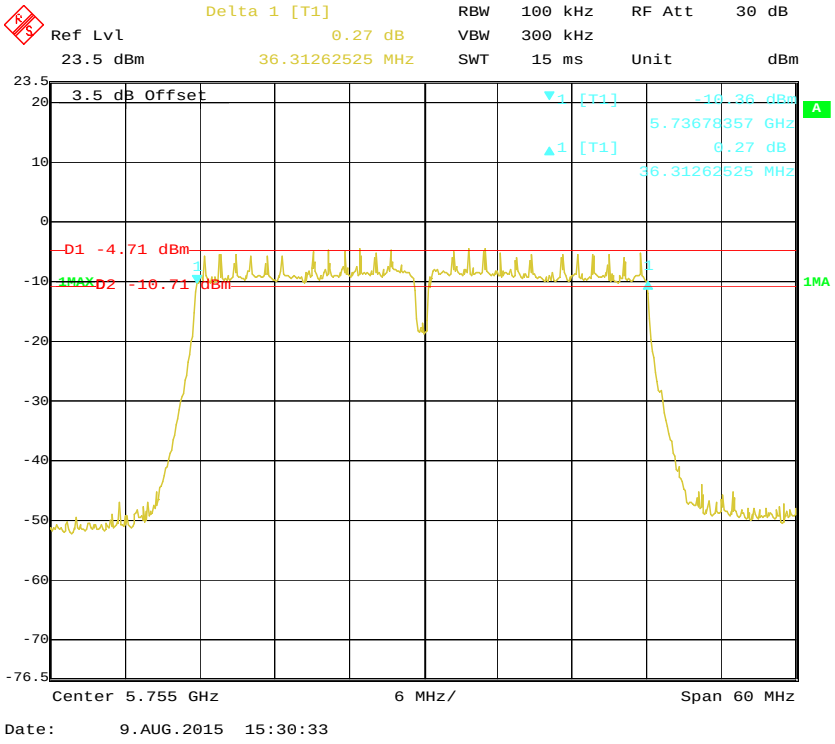
802.11ac20 mode, 6dB Emission Bandwidth, Antenna 2, 5825 MHz



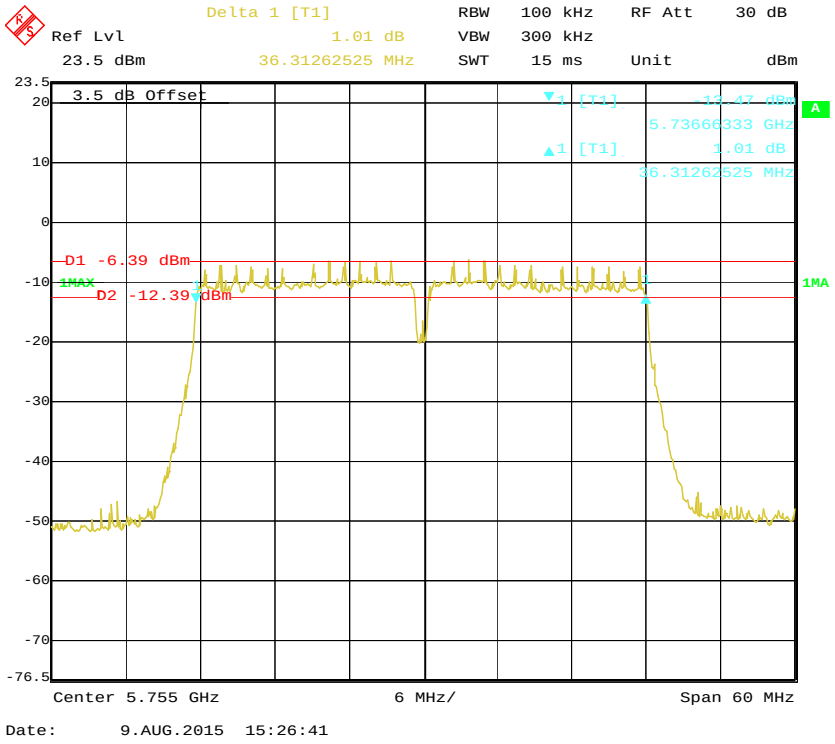
802.11ac40 mode, 6dB Emission Bandwidth, Antenna 0, 5755 MHz



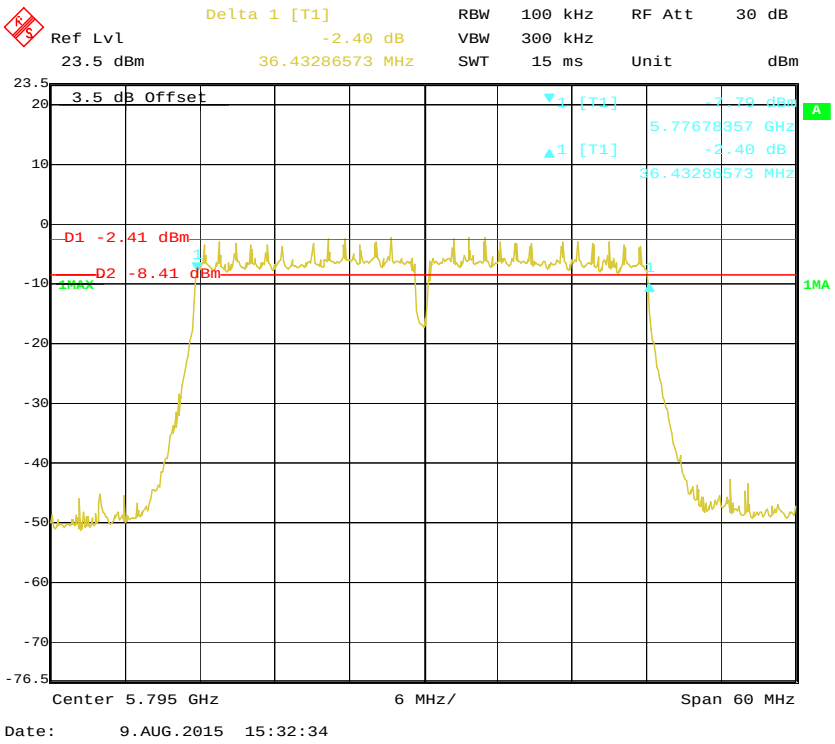
802.11ac40 mode, 6dB Emission Bandwidth, Antenna 1, 5755 MHz



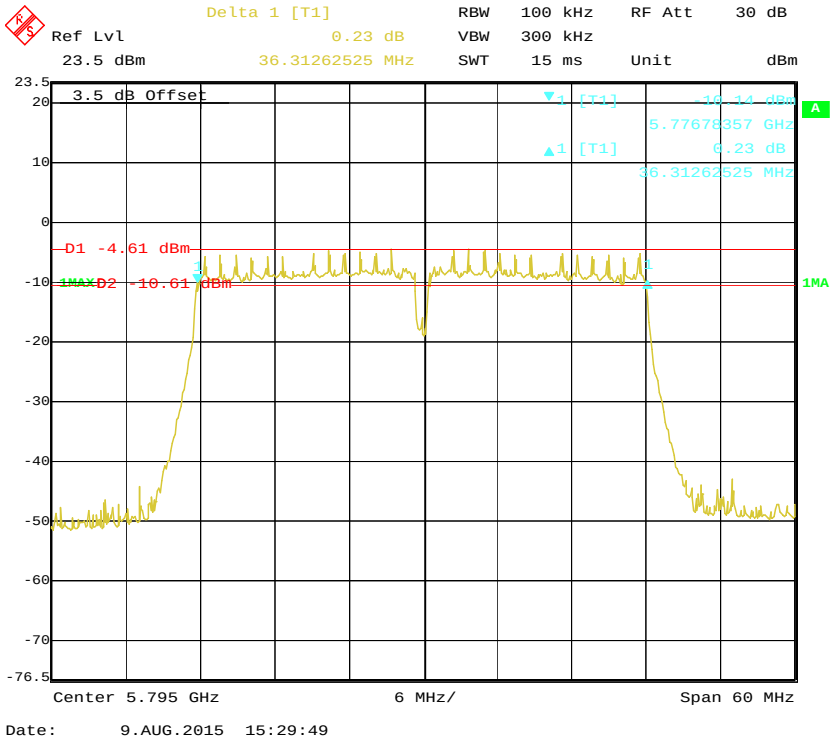
802.11ac40 mode, 6dB Emission Bandwidth, Antenna 2, 5755 MHz



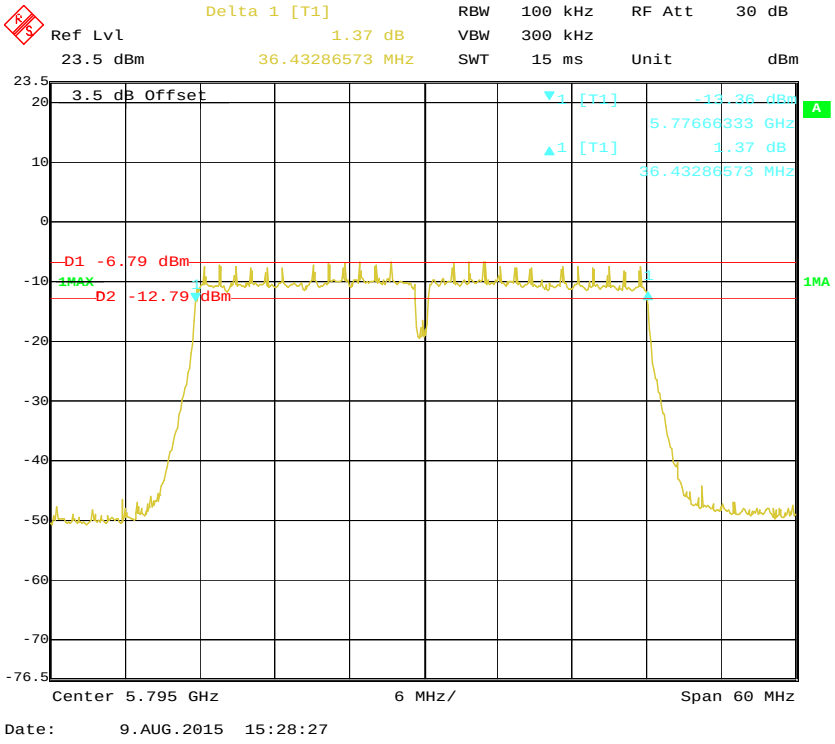
802.11ac40 mode, 6dB Emission Bandwidth, Antenna 0, 5795 MHz



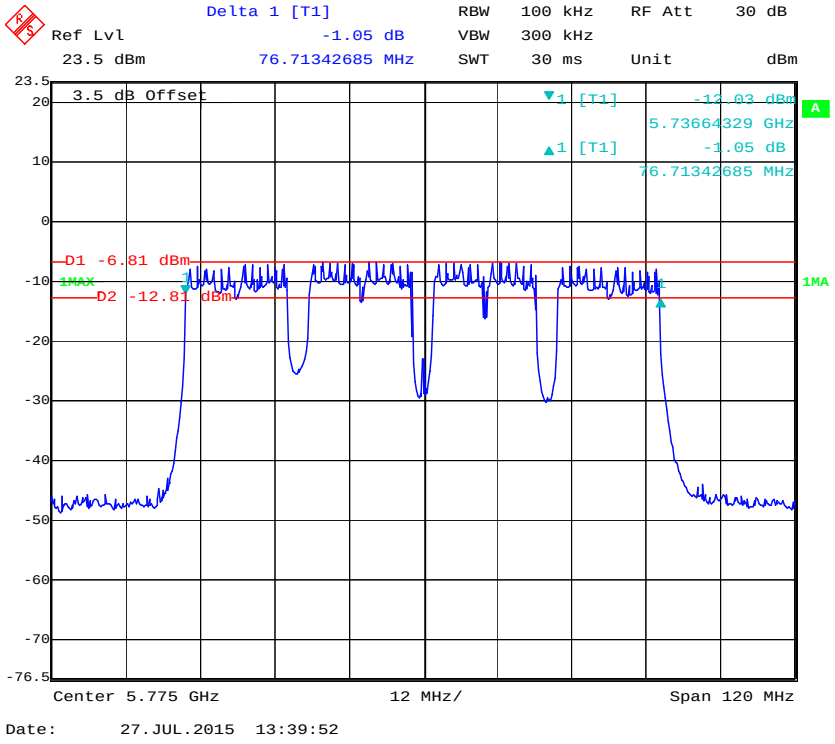
802.11ac40 mode, 6dB Emission Bandwidth, Antenna 1, 5795 MHz



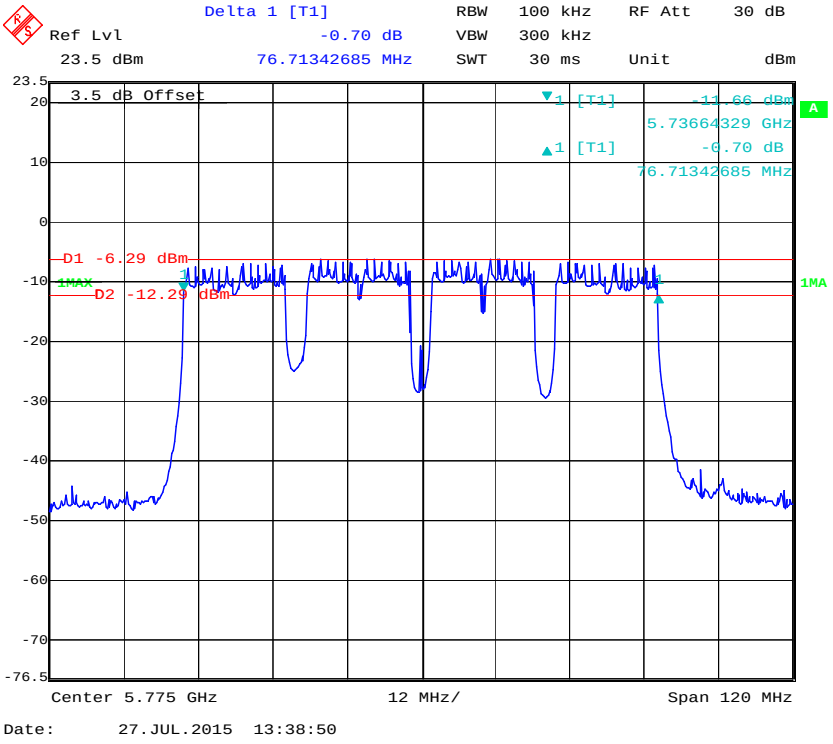
802.11ac40 mode, 6dB Emission Bandwidth, Antenna 2, 5795 MHz



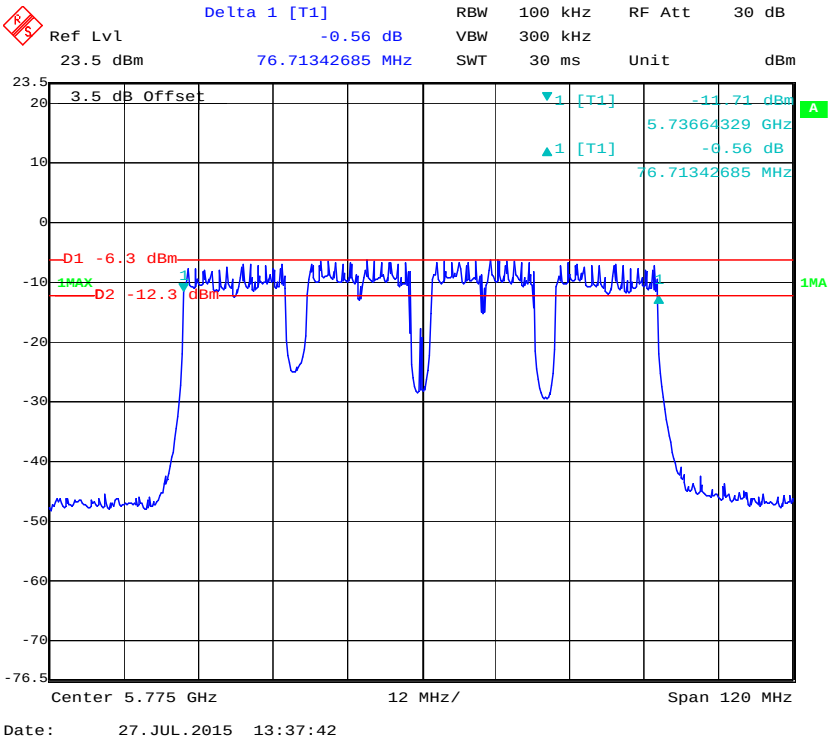
802.11ac80 mode, 6dB Emission Bandwidth, Antenna 0, 5775 MHz



802.11ac80 mode, 6dB Emission Bandwidth, Antenna 1, 5775 MHz



802.11ac80 mode, 6dB Emission Bandwidth, Antenna 2, 5775 MHz



FCC §15.407(a) (1) (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 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

Set span to encompass the entire EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.

(ii) Set RBW = 1 MHz.

(iii) Set VBW ≥ 3 MHz.

(iv) Number of points in sweep ≥ 2 Span / RBW. (This ensures that bin-to-bin spacing is ≤ RBW/2, so that narrowband signals are not lost between frequency bins.)

(v) Manually set sweep time ≥ 10 * (number of points in sweep) * (symbol period of the transmitted signal), but not less than the automatic default sweep time.

(vi) Set detector = RMS.

(vii) The EUT shall be operated at 100 percent duty cycle.

(viii) Perform a single sweep.

(ix) Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2014-12-11	2015-12-11
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2015-12-11	2016-12-11

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

Test Data

Environmental Conditions

Temperature:	23 – 26 ℃
Relative Humidity:	50 - 56 %
ATM Pressure:	101.0 kPa

The testing was performed by Simon Wang from 2015-07-28 to 2015-12-21.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the following tables and plots.
Note: Duty Cycle = Ton/Tp*100%, if Duty cycle is below 98%, the offset should be as below:
offset = cable loss+ attenuation+ 10*lg(1/Duty Cycle)
to every mode,the duty cycle is:
802.11a:0.94
802.11n20:0.94
802.11n40:0.90
802.11ac20:0.996
802.11ac40:0.998
802.11ac80:0.941

5150 MHz – 5250 MHz:

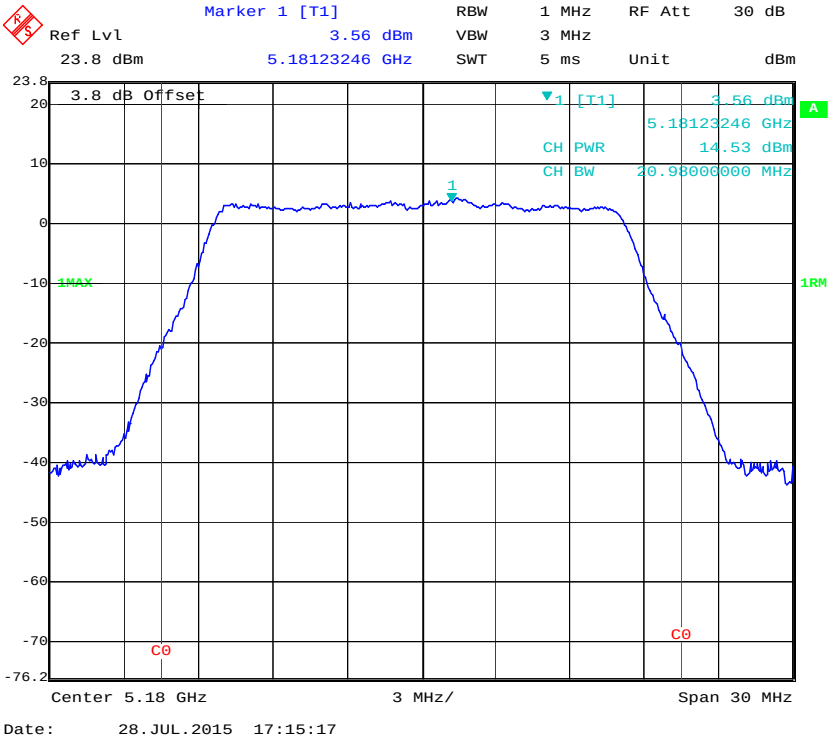
Frequency (MHz)	Antenna Port	Output Power (dBm)	Output Power (dBm) Chain0+Chain1+chain 2	Limit (dBm)
802.11a				
5180	0	14.53	/	30
	1	14.18		
	2	13.71		
5200	0	14.28	/	
	1	14.21		
	2	13.44		
5220	0	14.36	/	
	1	14.25		
	2	13.81		
5240	0	14.73	/	
	1	14.59		
	2	13.93		
802.11n20				
5180	0	14.72	18.98	28.2
	1	14.06		
	2	13.78		
5200	0	14.51	19.14	
	1	14.58		
	2	13.99		
5220	0	14.75	19.26	
	1	14.74		
	2	13.92		
5240	0	14.63	19.14	
	1	14.60		
	2	13.84		
802.11n40				
5190	0	14.96	19.62	28.2
	1	14.89		
	2	14.68		
5230	0	14.91	19.87	
	1	15.53		
	2	14.82		

Note: the gain of each antenna is 3dBi;
For simultaneous transmission mode of three antennas, the directional gain=3+10*logN=7.8dBi, which is higher than 6dBi, so power limit should be reduced by 1.8dB.

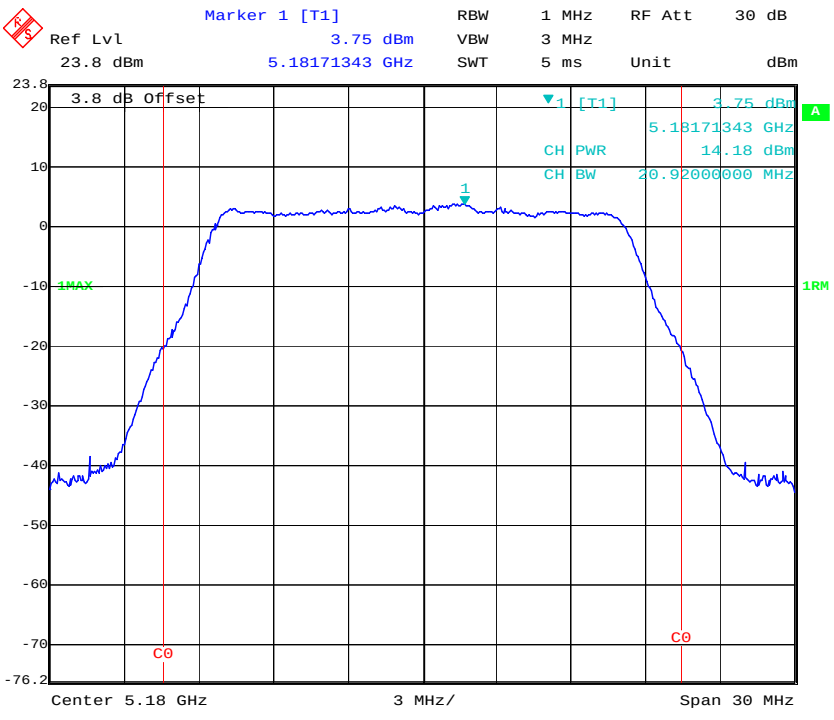
Frequency (MHz)	Antenna Port	Output Power (dBm)	Output Power (dBm) Chain0+Chain1+chain 2	Limit (dBm)
802.11ac20				
5180	0	13.09	17.93	28.2
	1	13.29		
	2	13.08		
5200	0	13.11	18.01	
	1	13.57		
	2	13.02		
5240	0	13.26	18.32	
	1	14.10		
	2	13.24		
802.11ac40				
5190	0	14.16	18.66	28.2
	1	13.94		
	2	13.55		
5230	0	14.04	18.72	
	1	14.14		
	2	13.66		
802.11ac80				
5210	0	14.82	19.37	28.2
	1	14.79		
	2	14.16		

Note: the gain of each antenna is 3dBi;
For simultaneous transmission mode of three antennas, the directional gain=3+10*logN=7.8dBi, which is higher than 6dBi, so power limit should be reduced by 1.8dB.

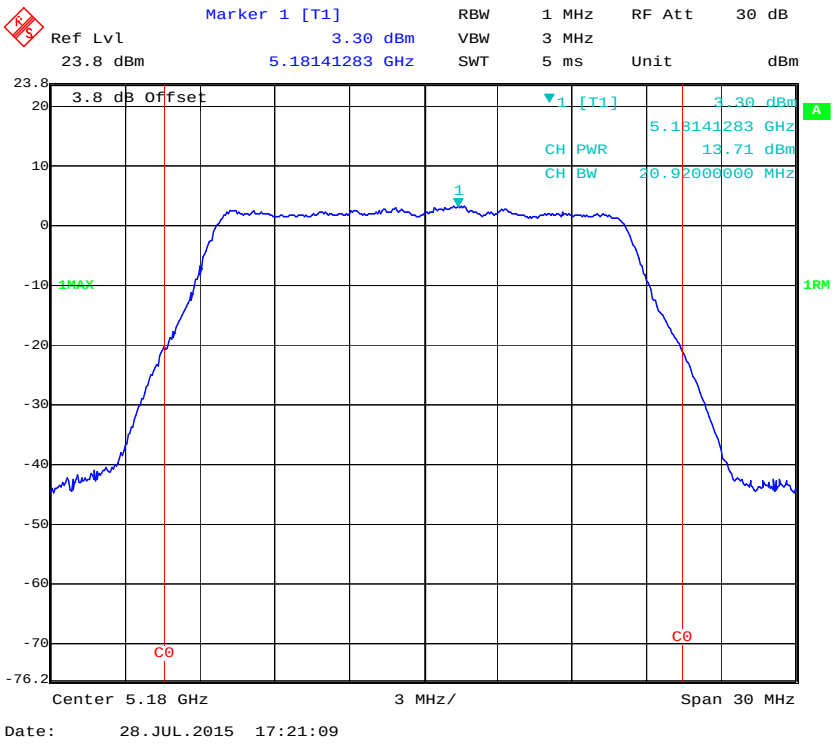
802.11a mode, RF Conducted Output Power, Antenn 0, 5180 MHz



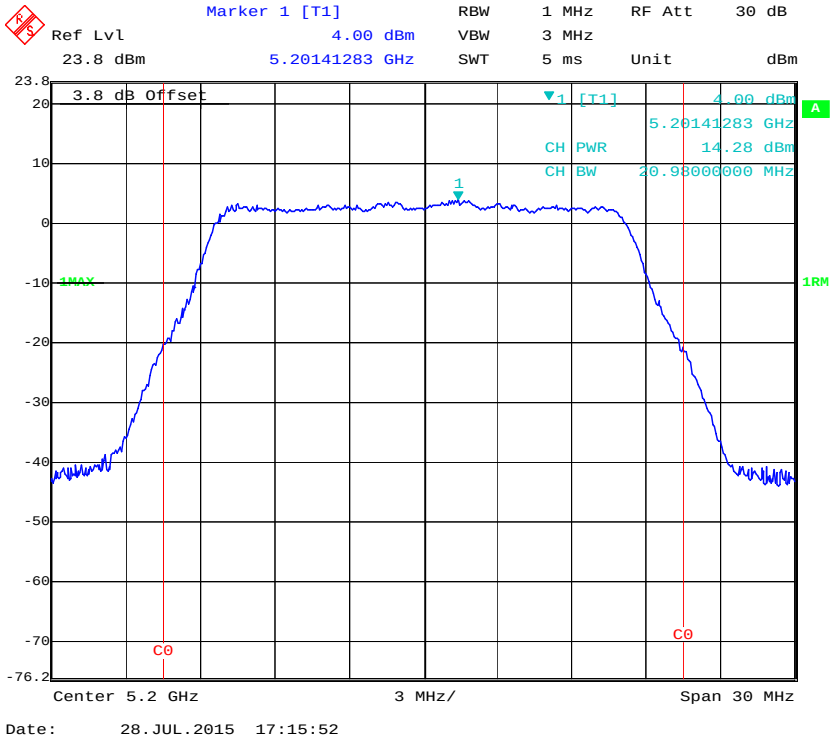
802.11a mode, RF Conducted Output Power, Antenn 1, 5180 MHz



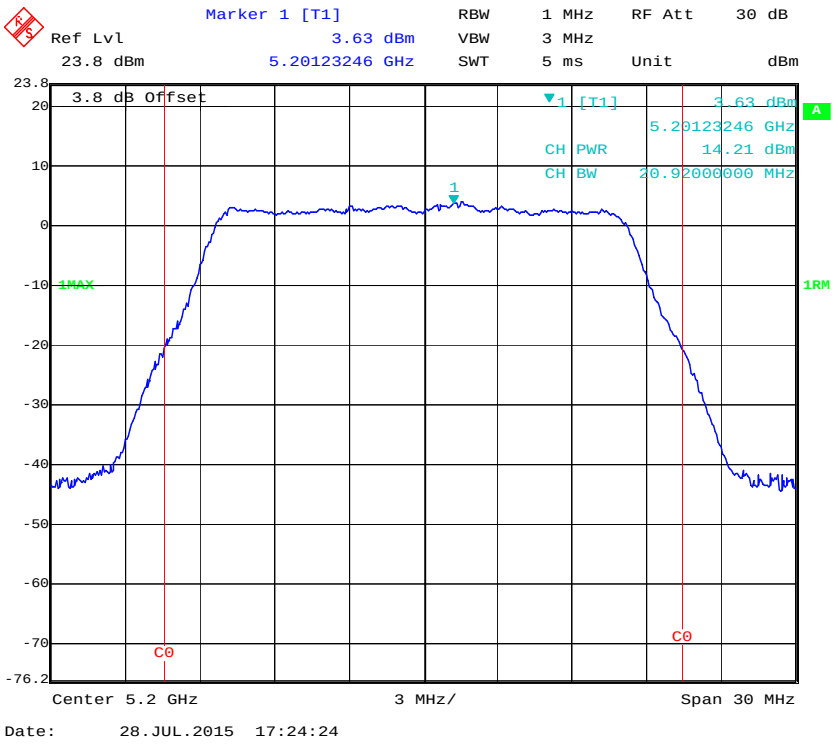
802.11a mode, RF Conducted Output Power, Antenn 2, 5180 MHz



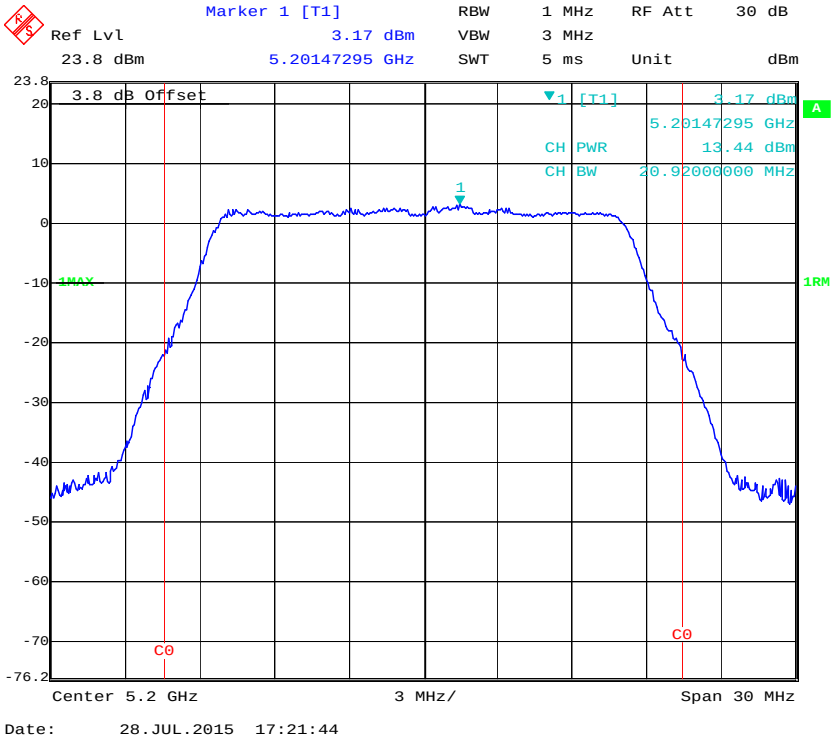
802.11a mode, RF Conducted Output Power, Antenn 0, 5200 MHz



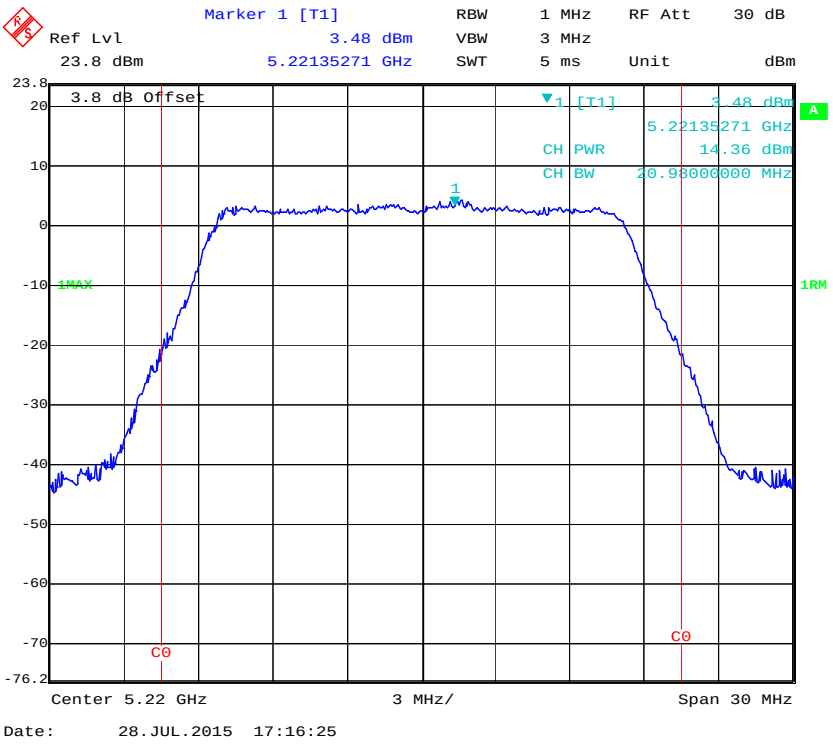
802.11a mode, RF Conducted Output Power, Antenn 1, 5200 MHz



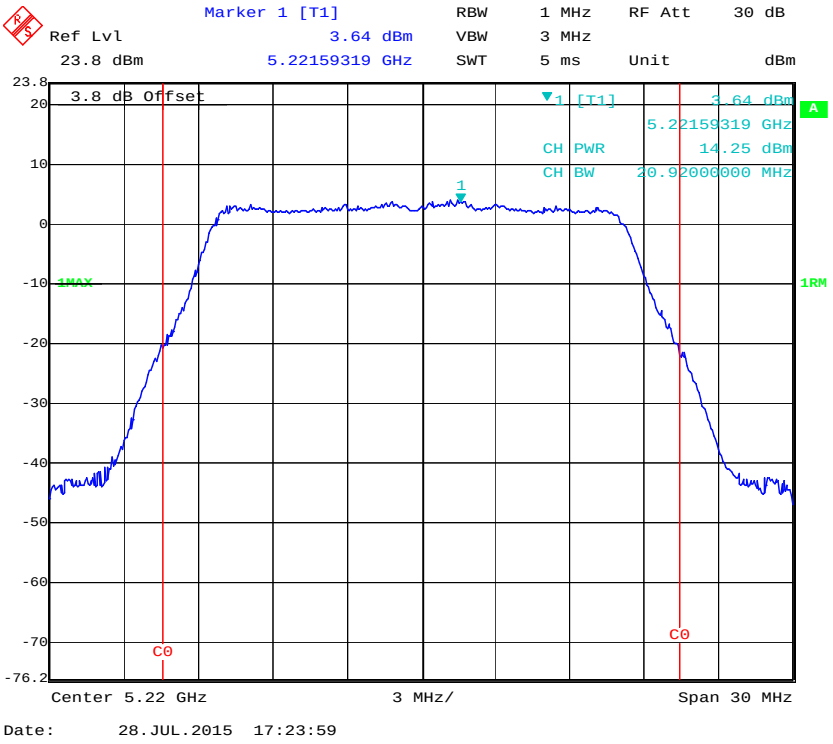
802.11a mode, RF Conducted Output Power, Antenn 2, 5200 MHz



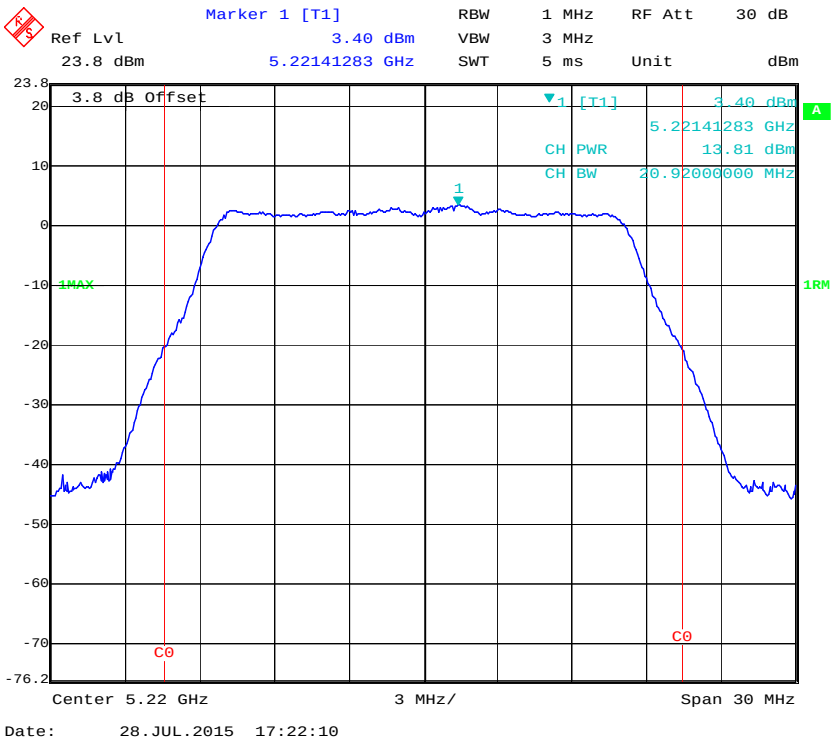
802.11a mode, RF Conducted Output Power, Antenn 0, 5220 MHz



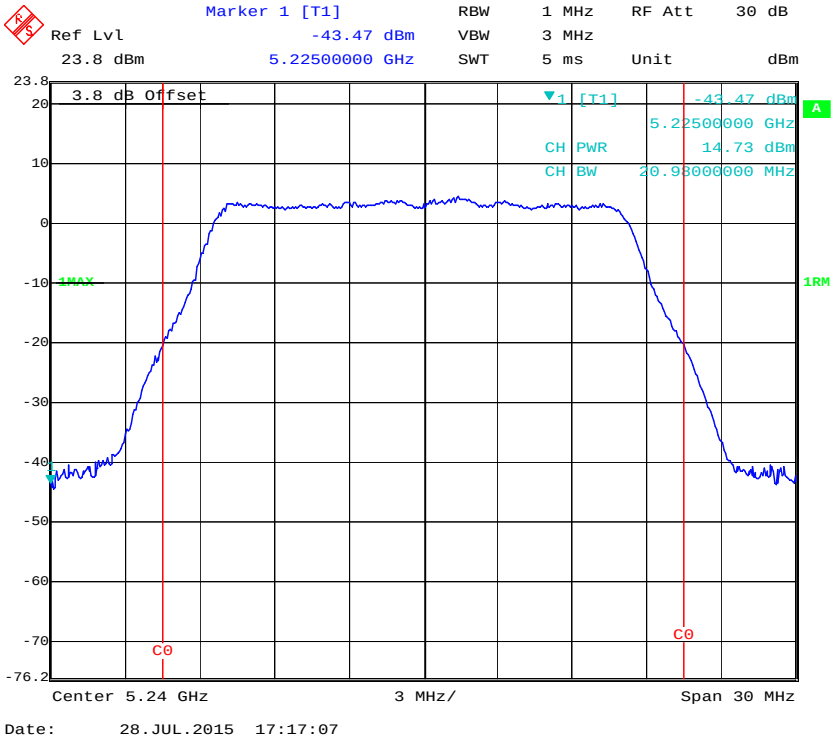
802.11a mode, RF Conducted Output Power, Antenn 1, 5220 MHz



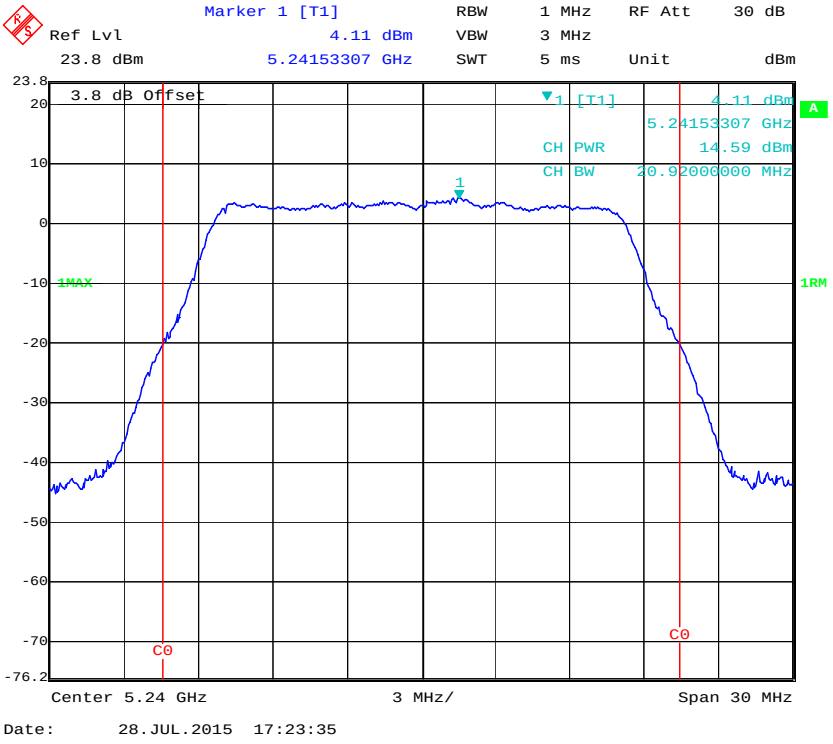
802.11a mode, RF Conducted Output Power, Antenn 2, 5220 MHz



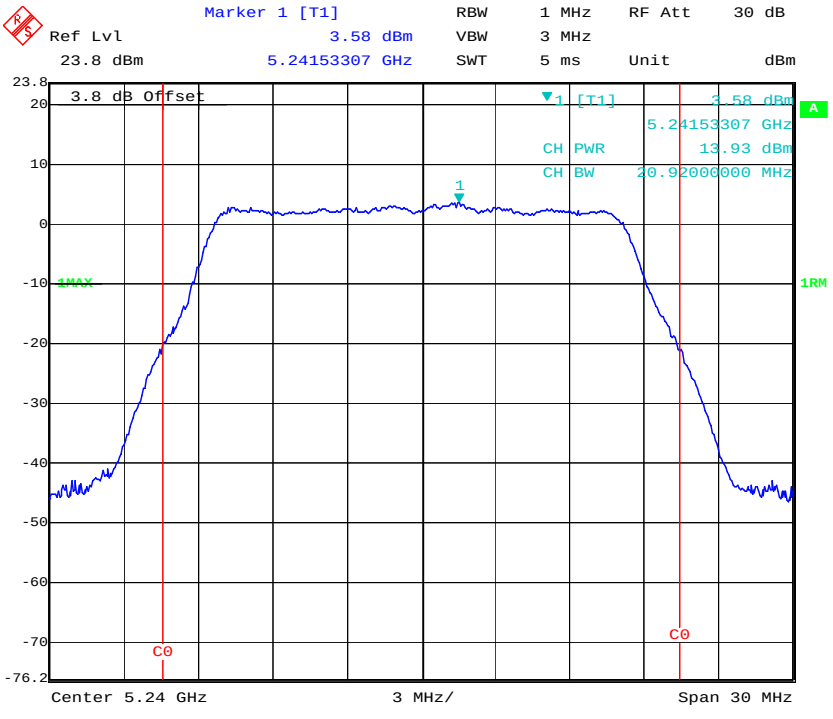
802.11a mode, RF Conducted Output Power, Antenn 0, 5240 MHz



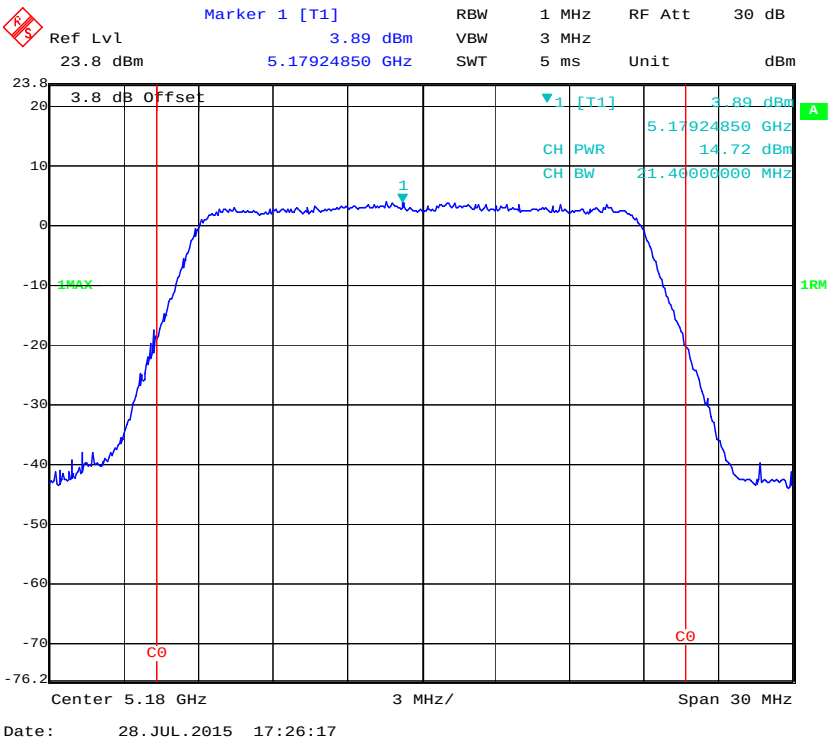
802.11a mode, RF Conducted Output Power, Antenn 1, 5240 MHz



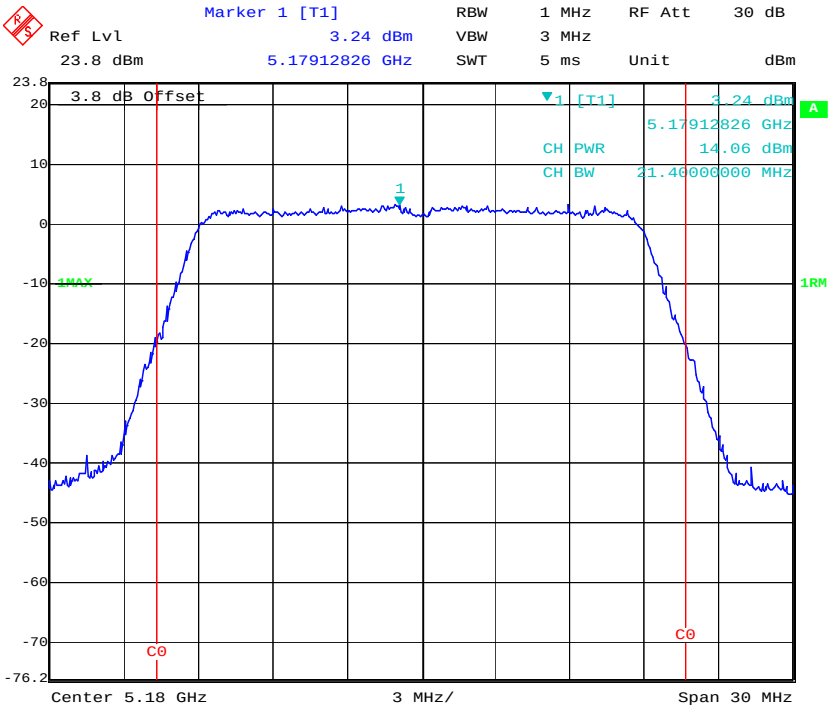
802.11a mode, RF Conducted Output Power, Antenn 2, 5240 MHz



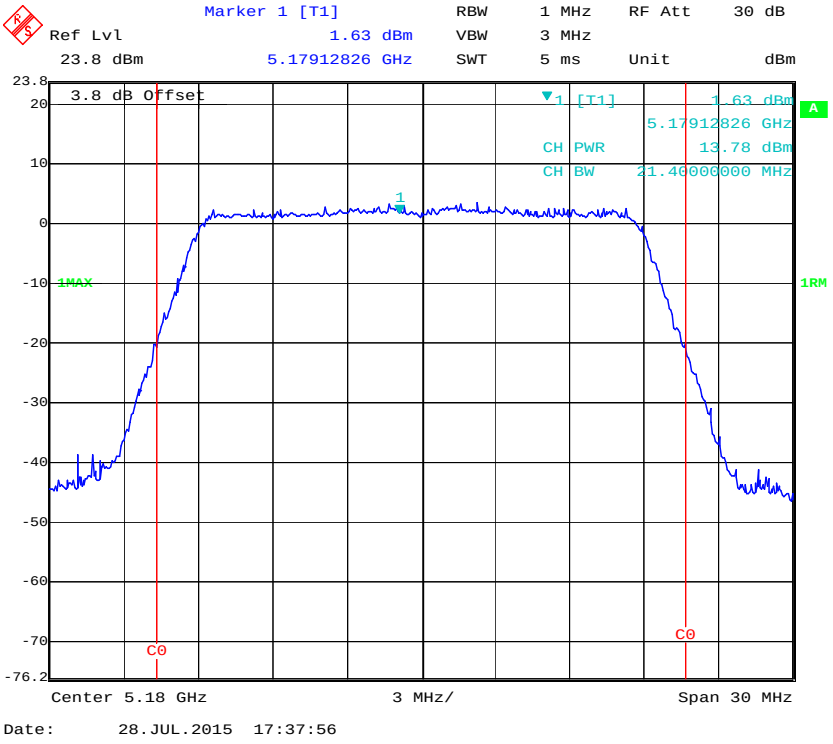
802.11n20 mode, RF Conducted Output Power, Antenn 0, 5180 MHz



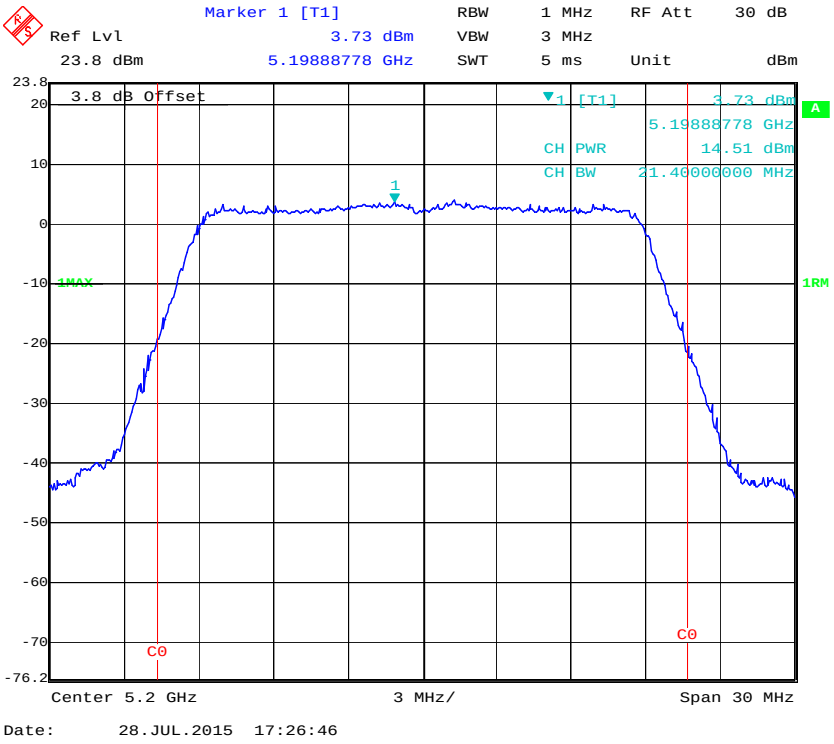
802.11n20 mode, RF Conducted Output Power, Antenn 1, 5180 MHz



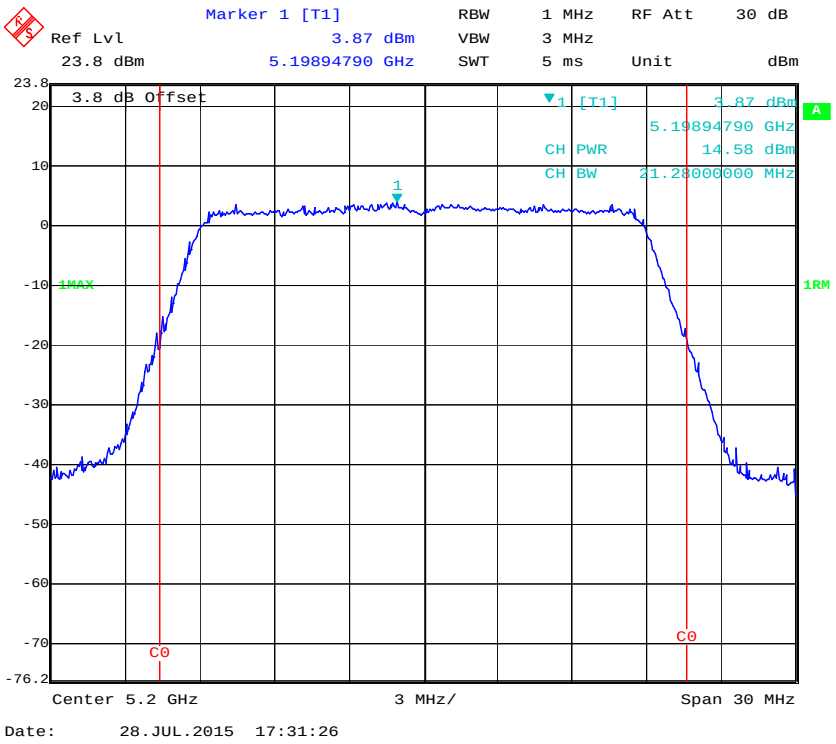
802.11n20 mode, RF Conducted Output Power, Antenn 2, 5180 MHz



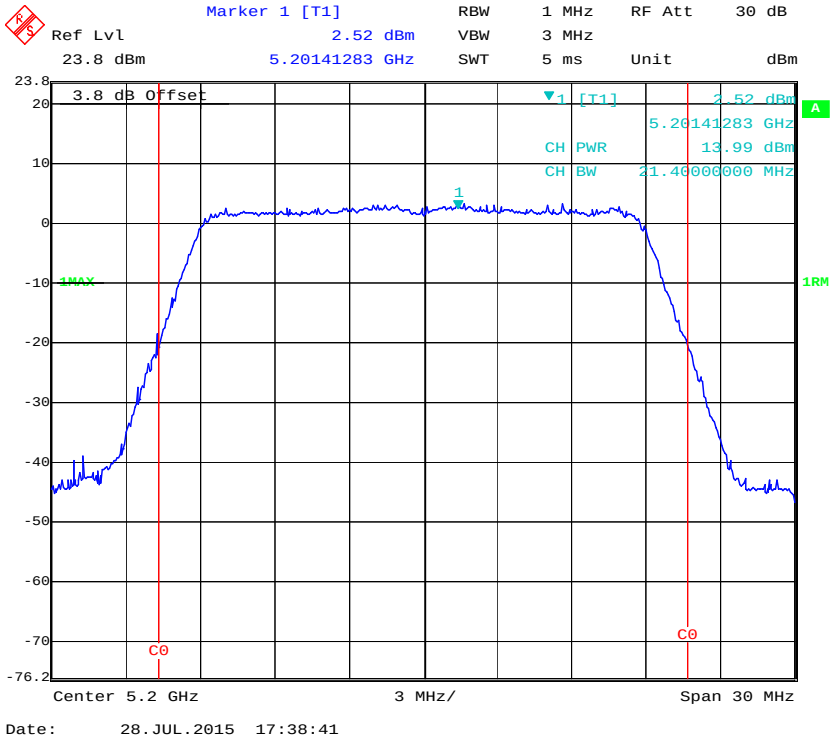
802.11n20 mode, RF Conducted Output Power, Antenn 0, 5200 MHz



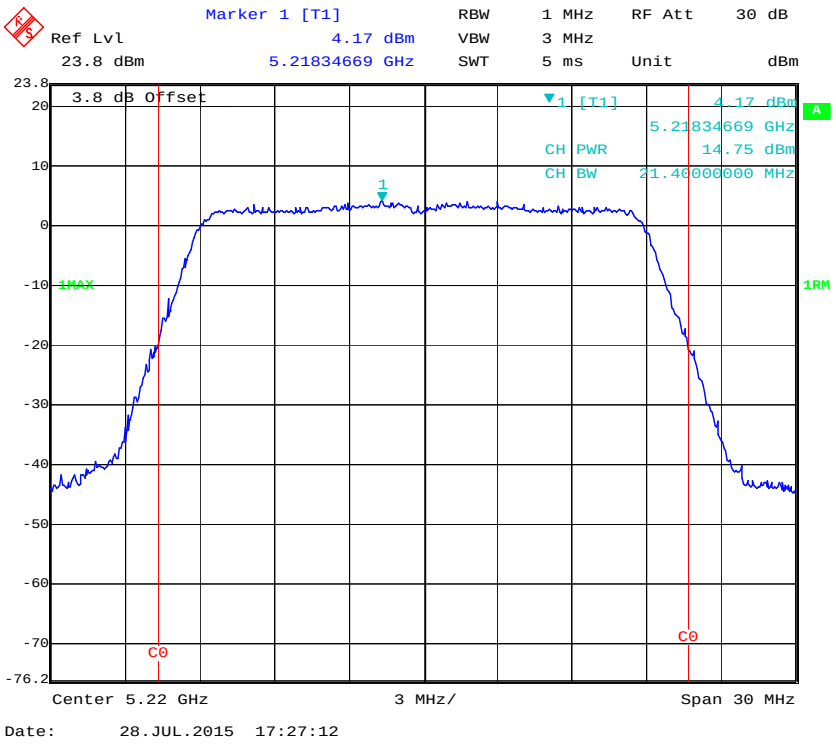
802.11n20 mode, RF Conducted Output Power, Antenn 1, 5200 MHz



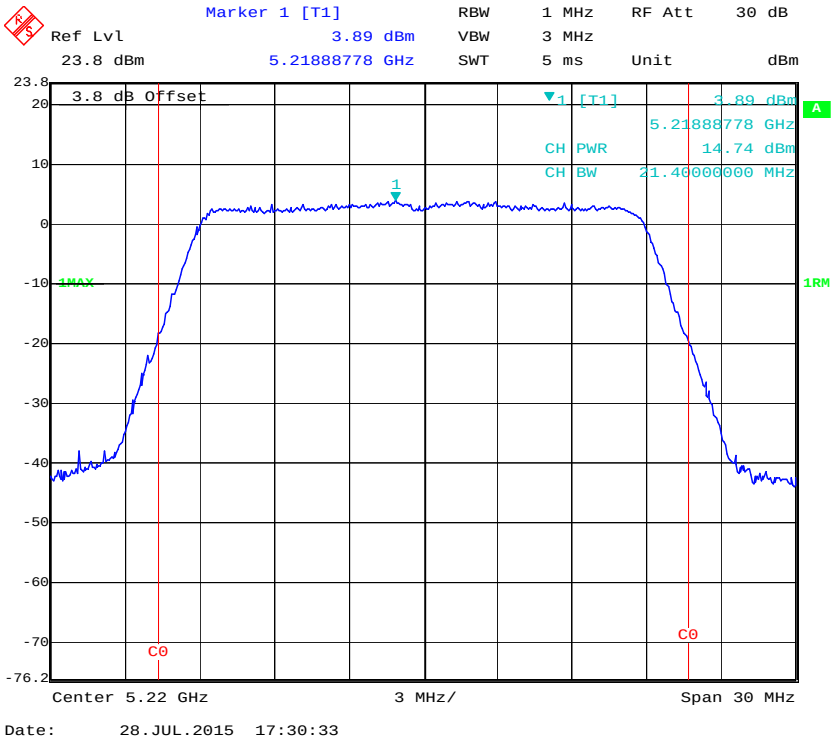
802.11n20 mode, RF Conducted Output Power, Antenn 2, 5200 MHz



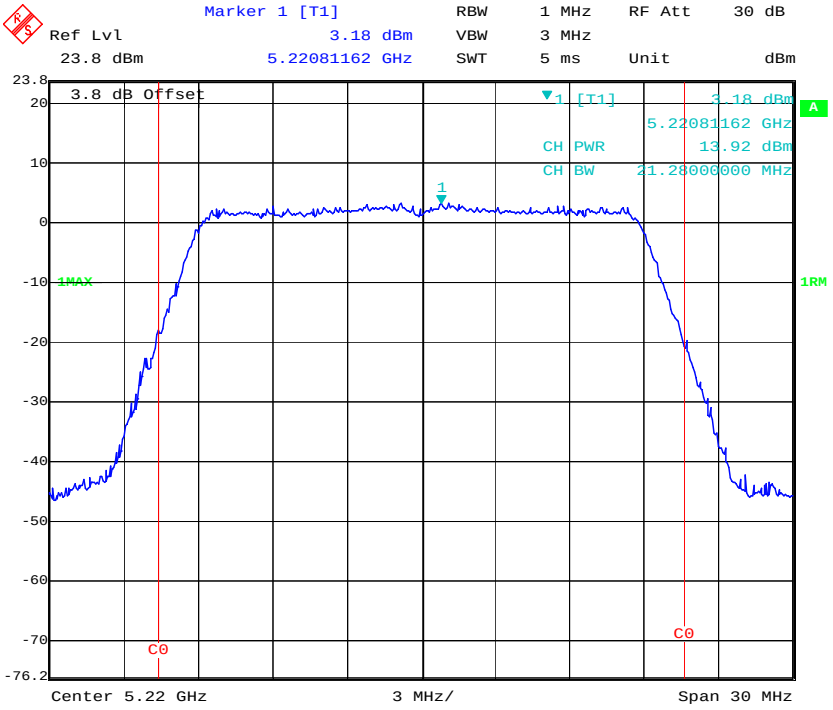
802.11n20 mode, RF Conducted Output Power, Antenn 0, 5220 MHz



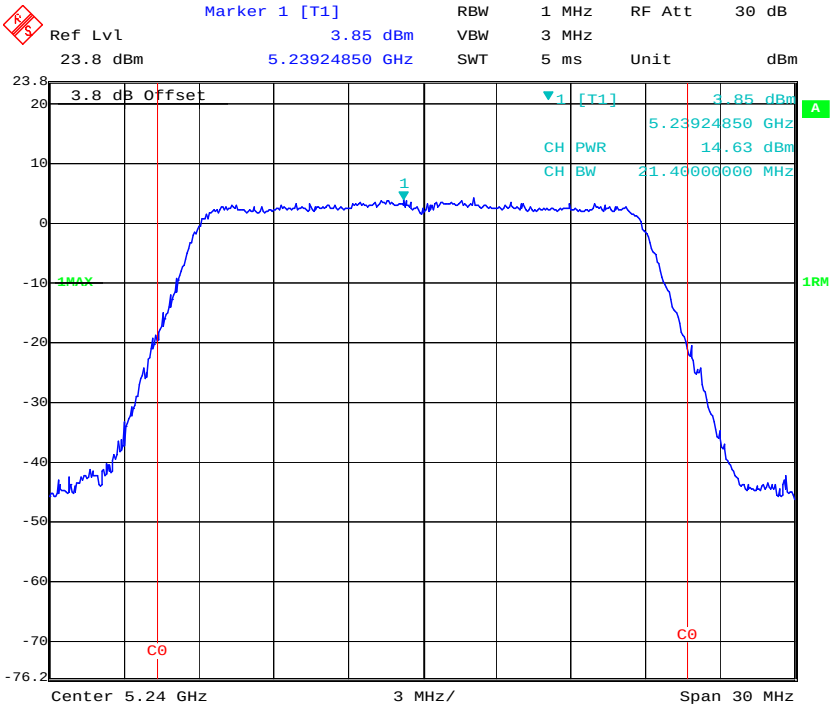
802.11n20 mode, RF Conducted Output Power, Antenn 1, 5220 MHz



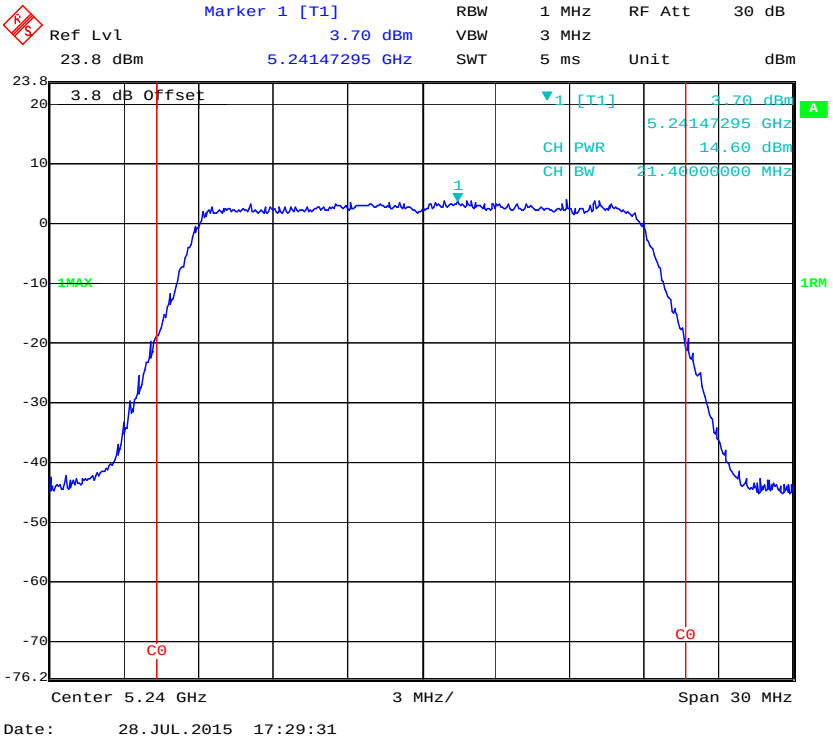
802.11n20 mode, RF Conducted Output Power, Antenn 2, 5220 MHz



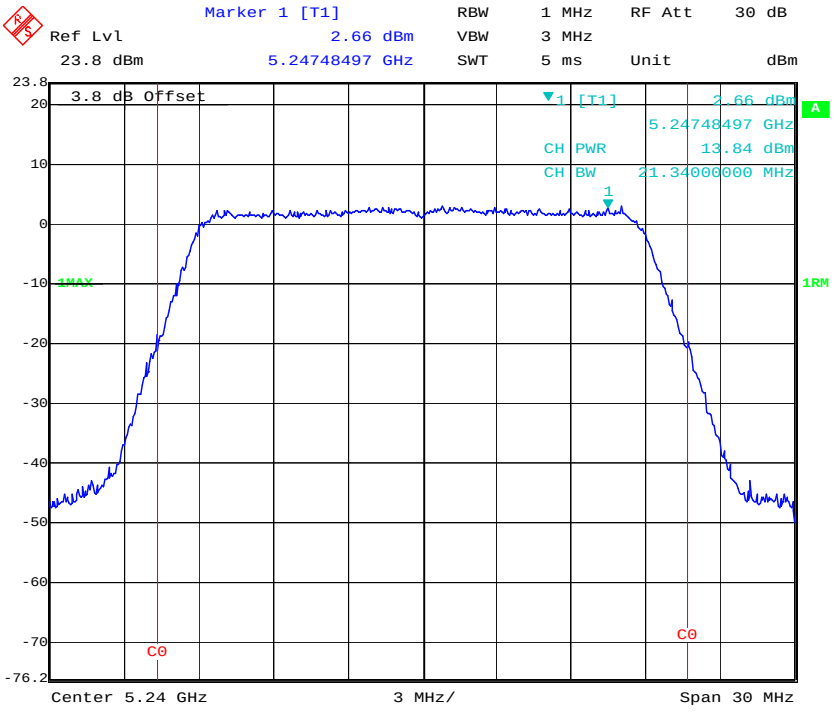
802.11n20 mode, RF Conducted Output Power, Antenn 0, 5240 MHz



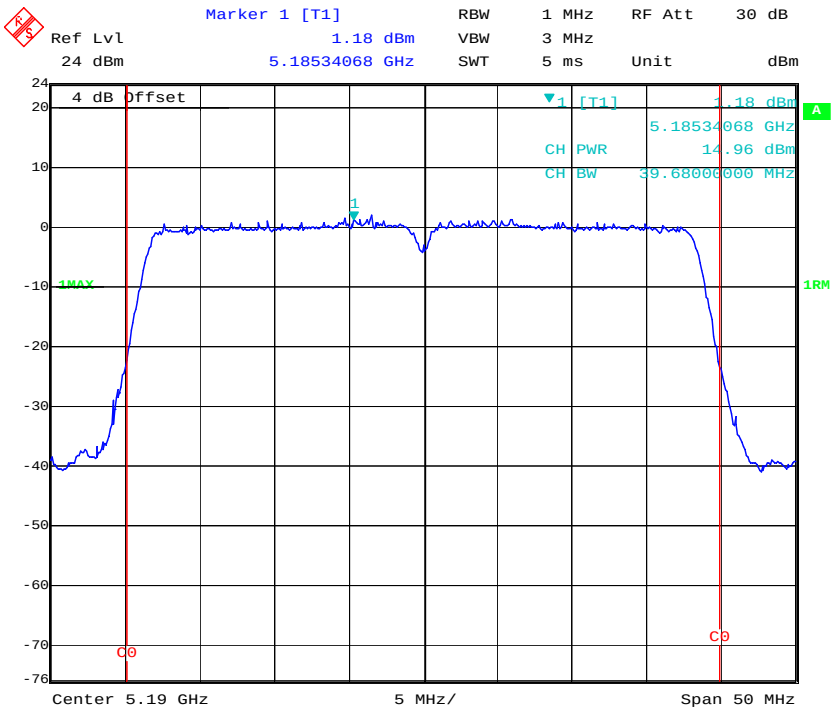
802.11n20 mode, RF Conducted Output Power, Antenn 1, 5240 MHz



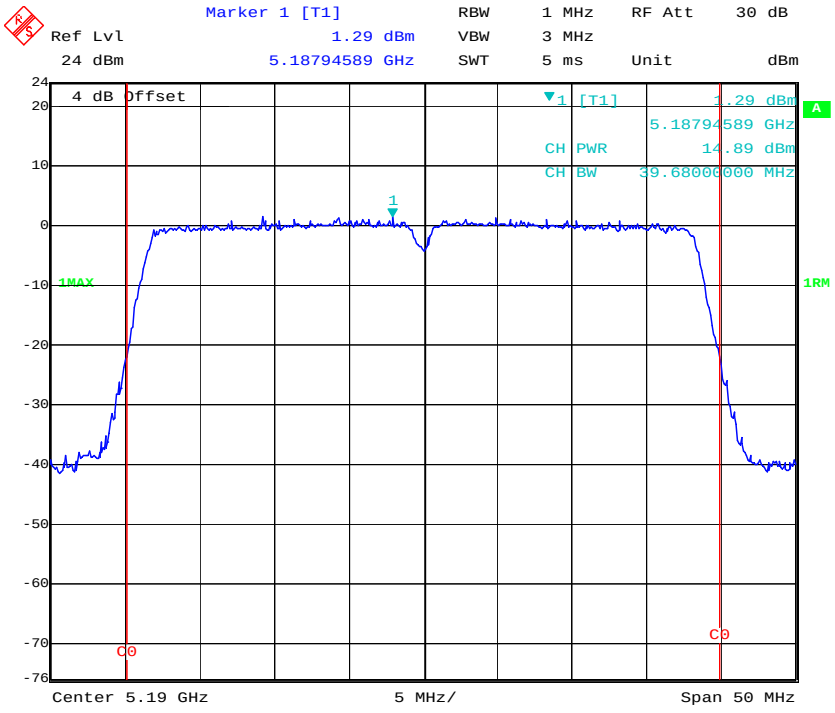
802.11n20 mode, RF Conducted Output Power, Antenn 2, 5240 MHz



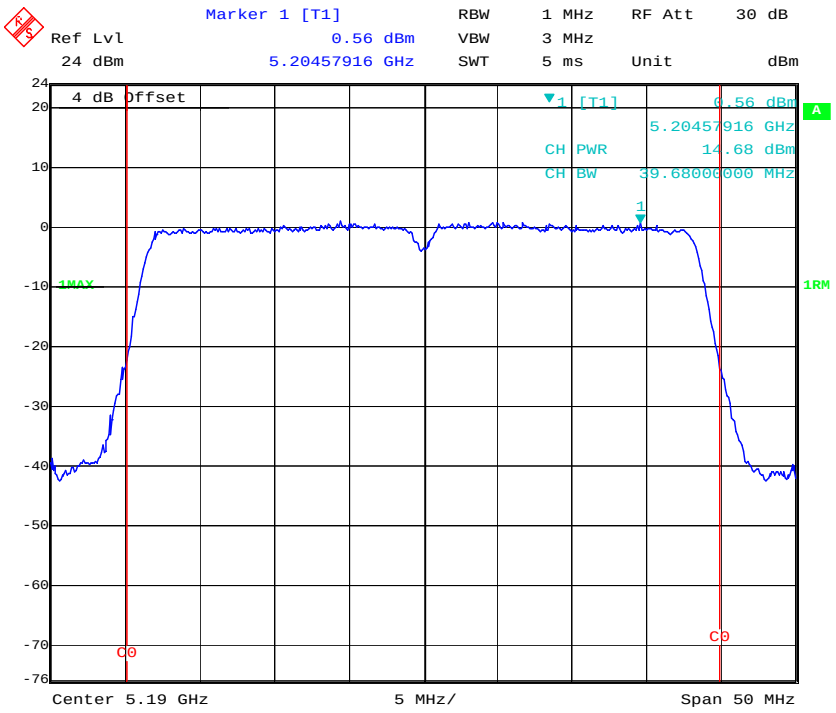
802.11n40 mode, RF Conducted Output Power, Antenn 0, 5190 MHz



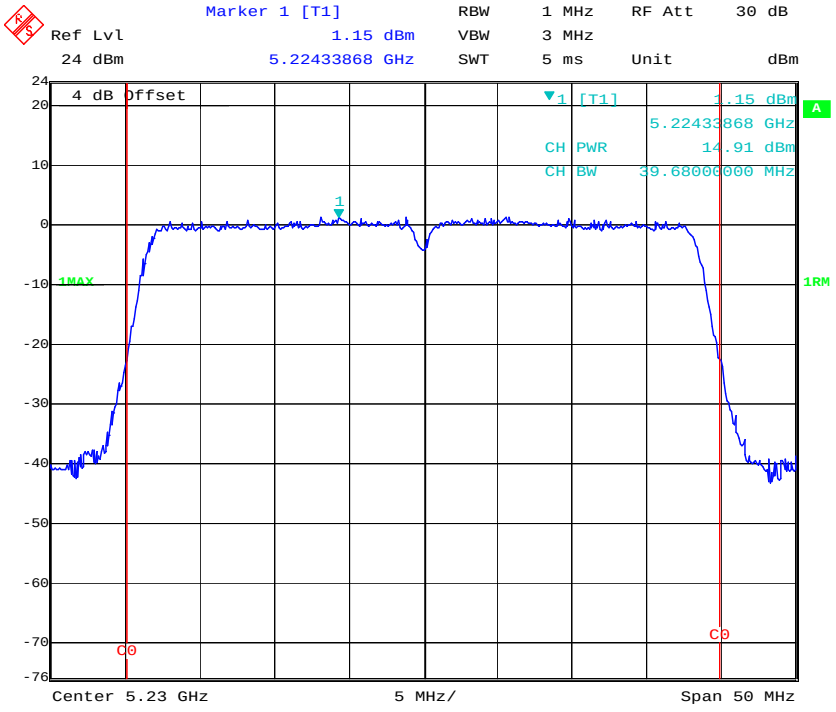
802.11n40 mode, RF Conducted Output Power, Antenn 1, 5190 MHz



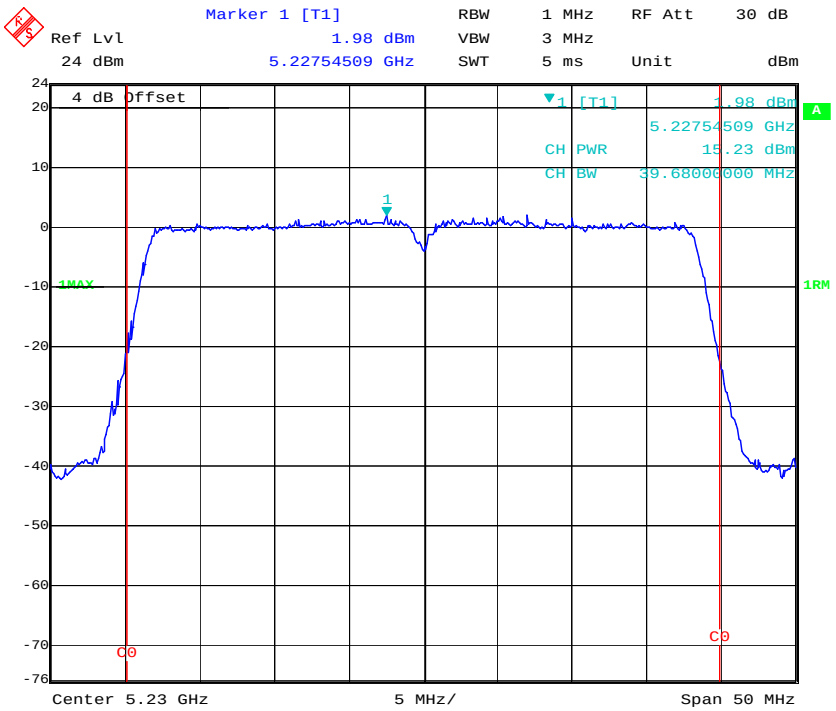
802.11n40 mode, RF Conducted Output Power, Antenn 2, 5190 MHz



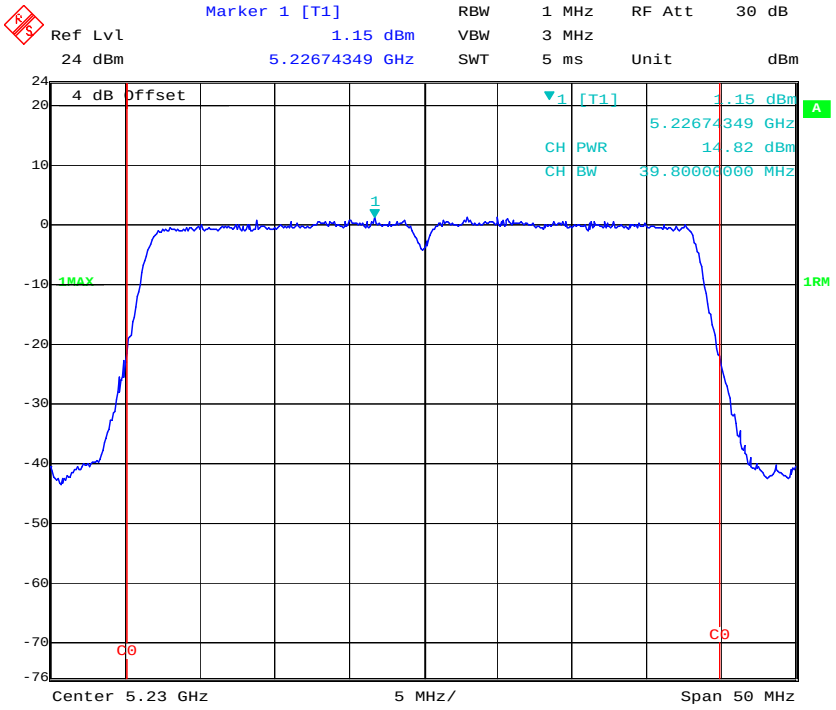
802.11n40 mode, RF Conducted Output Power, Antenn 0, 5230 MHz



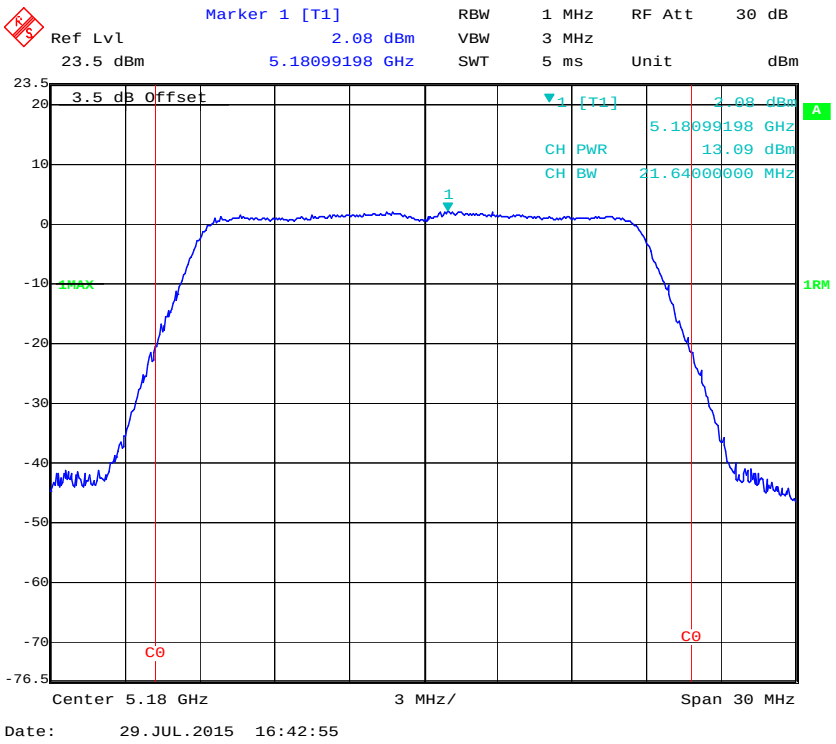
802.11n40 mode, RF Conducted Output Power, Antenn 1, 5230 MHz



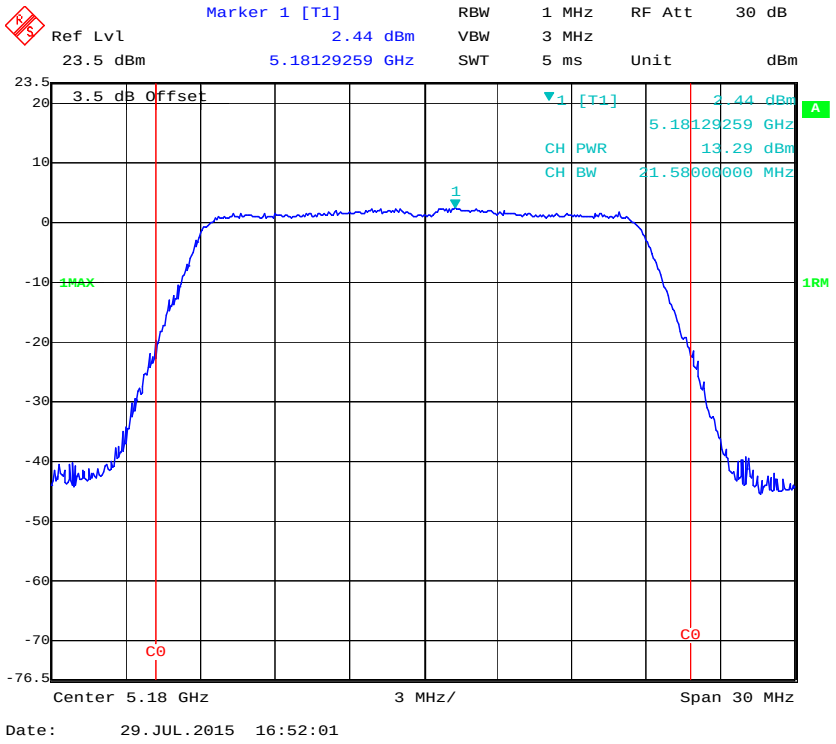
802.11n40 mode, RF Conducted Output Power, Antenn 2, 5230 MHz



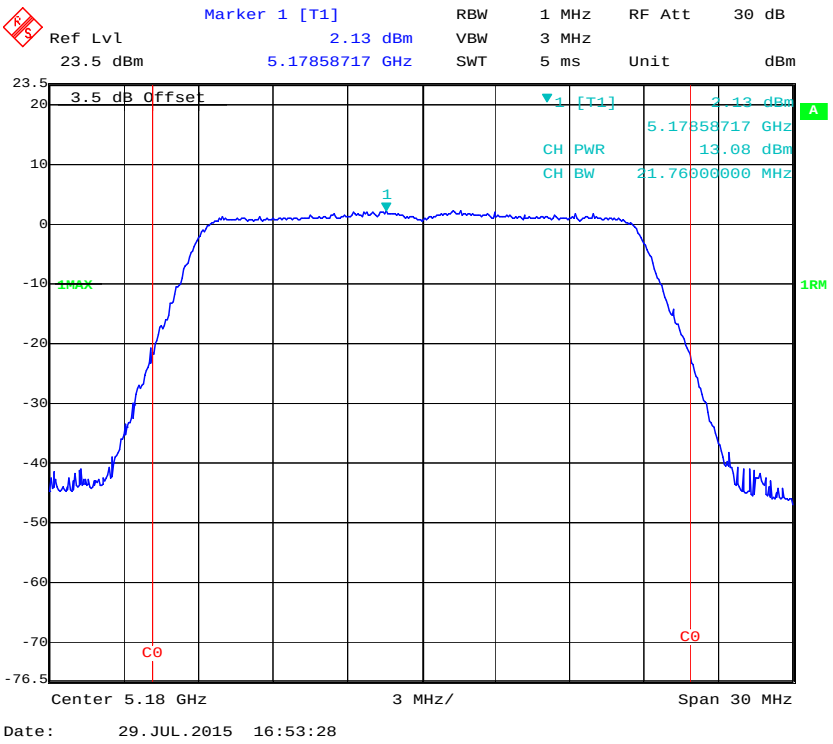
802.11ac20 mode, RF Conducted Output Power, Antenn 0, 5180 MHz



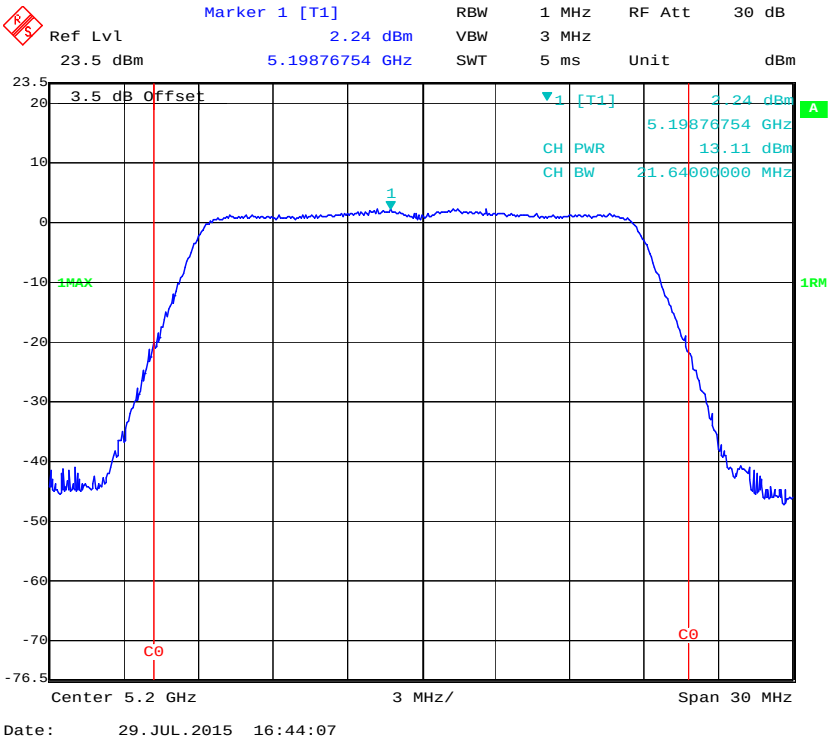
802.11ac20 mode, RF Conducted Output Power, Antenn 1, 5180 MHz



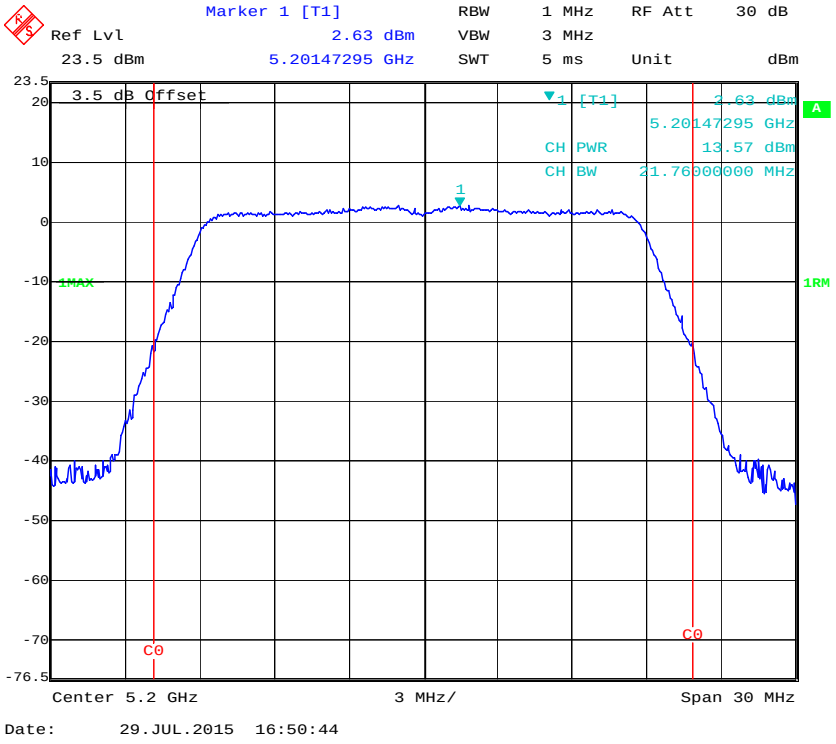
802.11ac20 mode, RF Conducted Output Power, Antenn 2, 5180 MHz



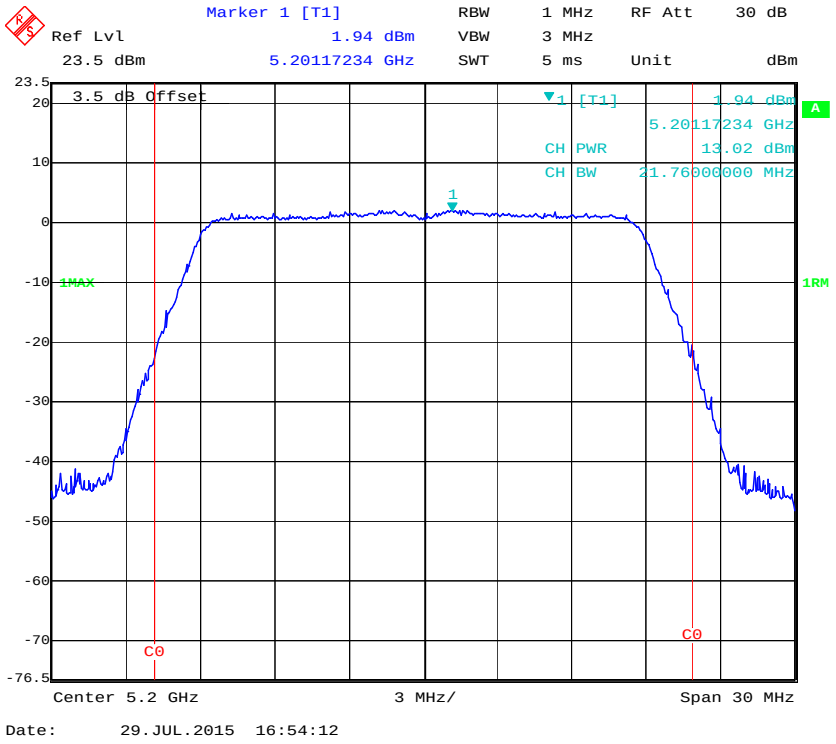
802.11ac20 mode, RF Conducted Output Power, Antenn 0, 5200 MHz



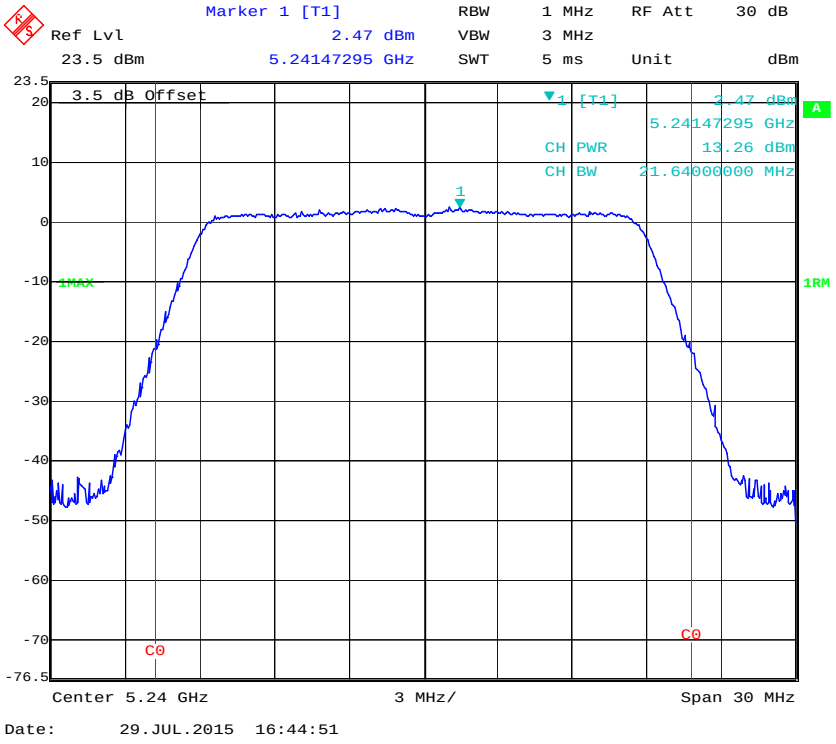
802.11ac20 mode, RF Conducted Output Power, Antenn 1, 5200 MHz



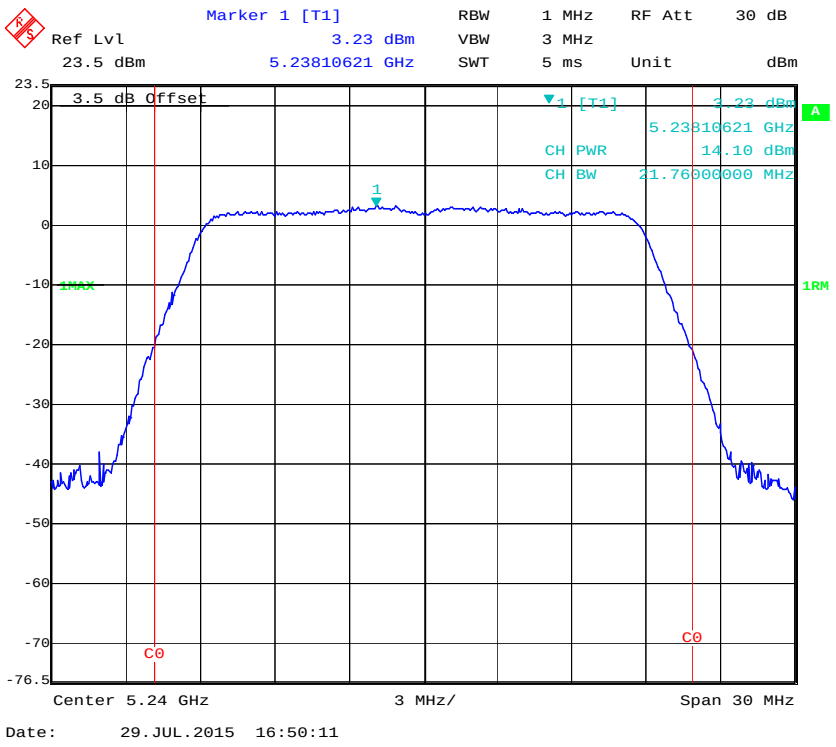
802.11ac20 mode, RF Conducted Output Power, Antenn 2, 5200 MHz



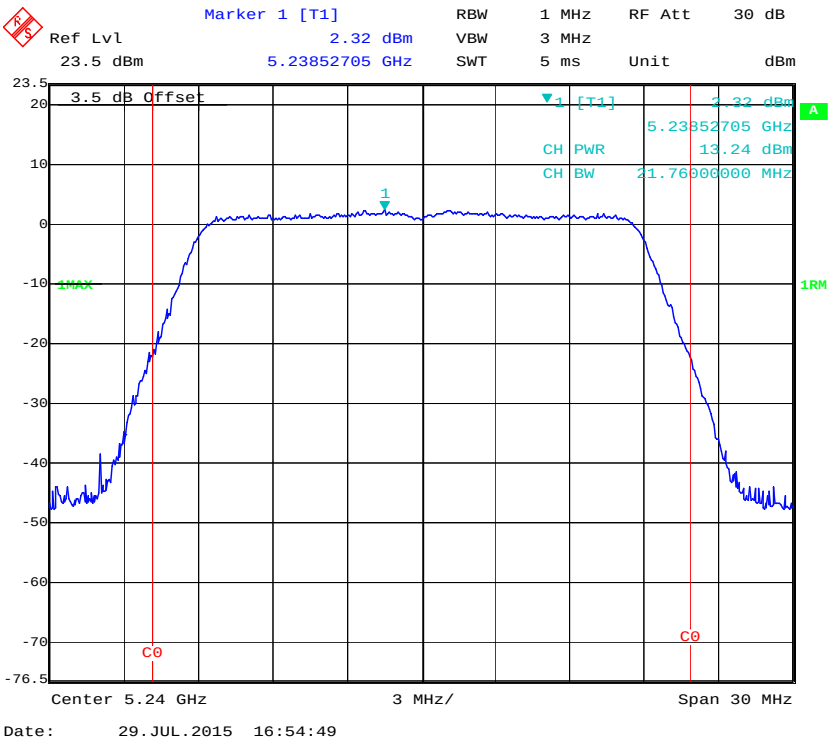
802.11ac20 mode, RF Conducted Output Power, Antenn 0, 5240 MHz



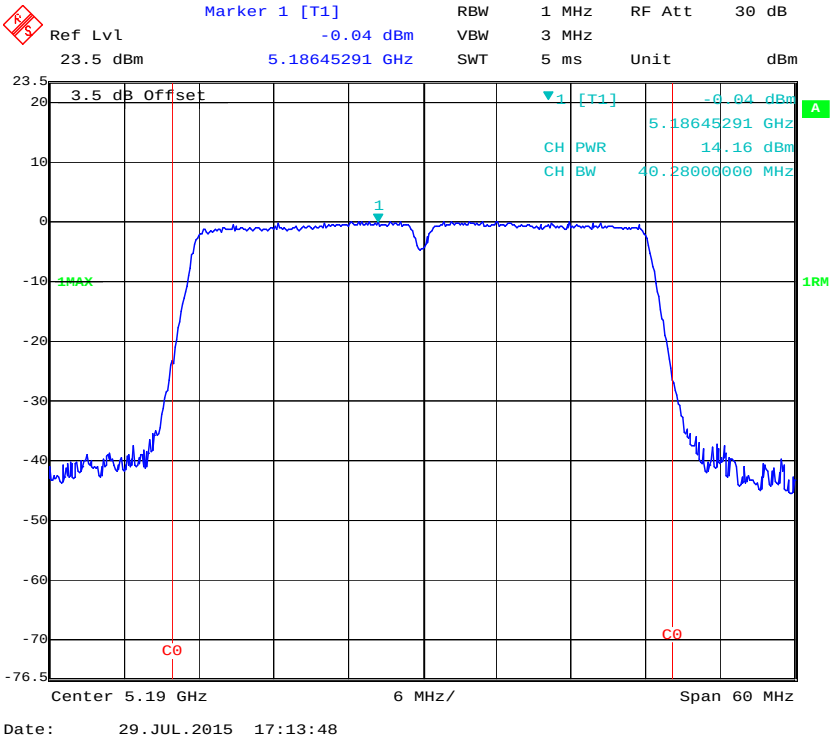
802.11ac20 mode, RF Conducted Output Power, Antenn 1, 5240 MHz



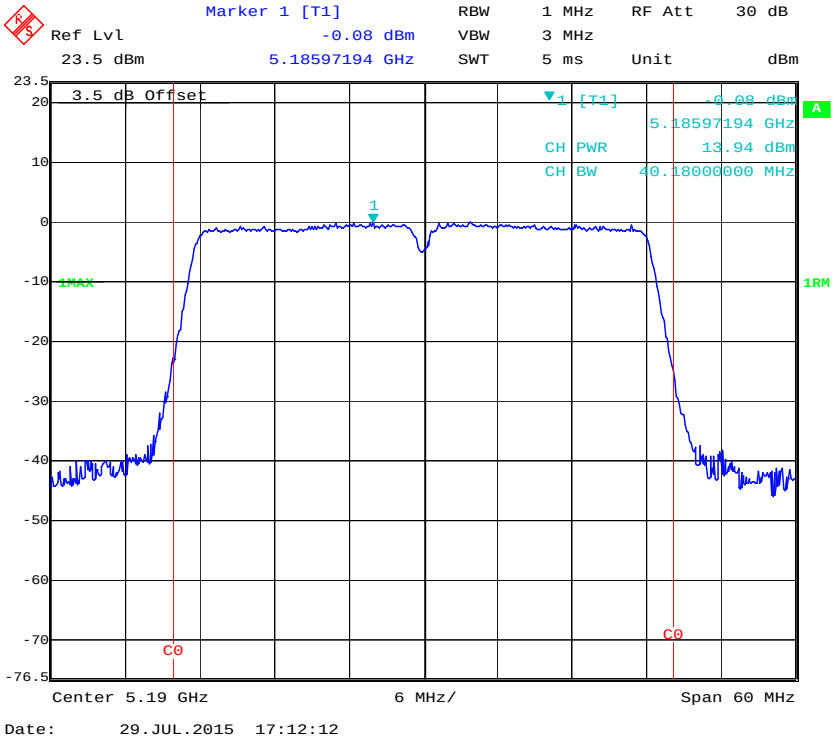
802.11ac20 mode, RF Conducted Output Power, Antenn 2, 5240 MHz



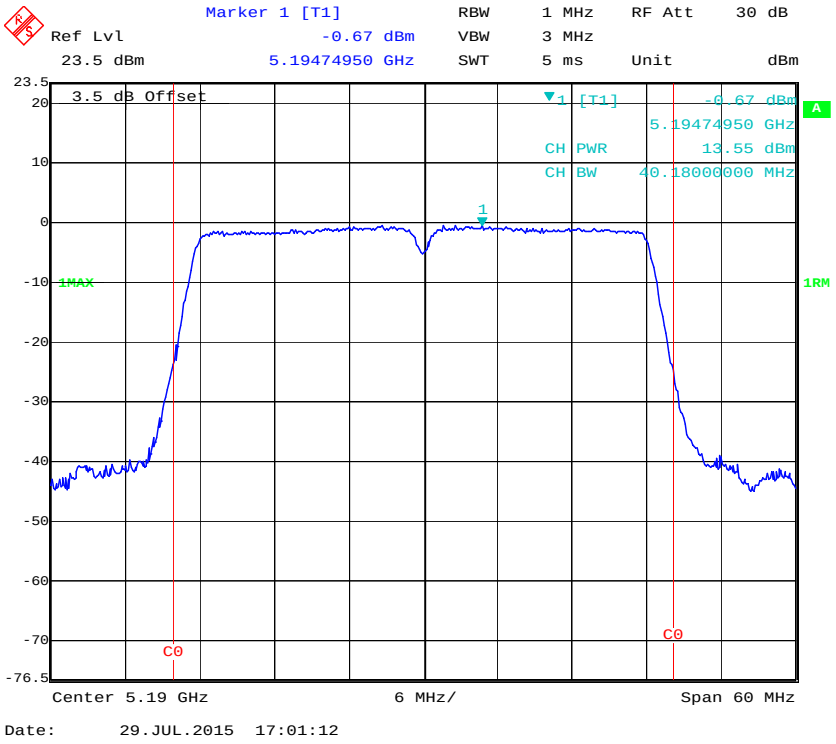
802.11ac40 mode, RF Conducted Output Power, Antenn 0, 5190 MHz



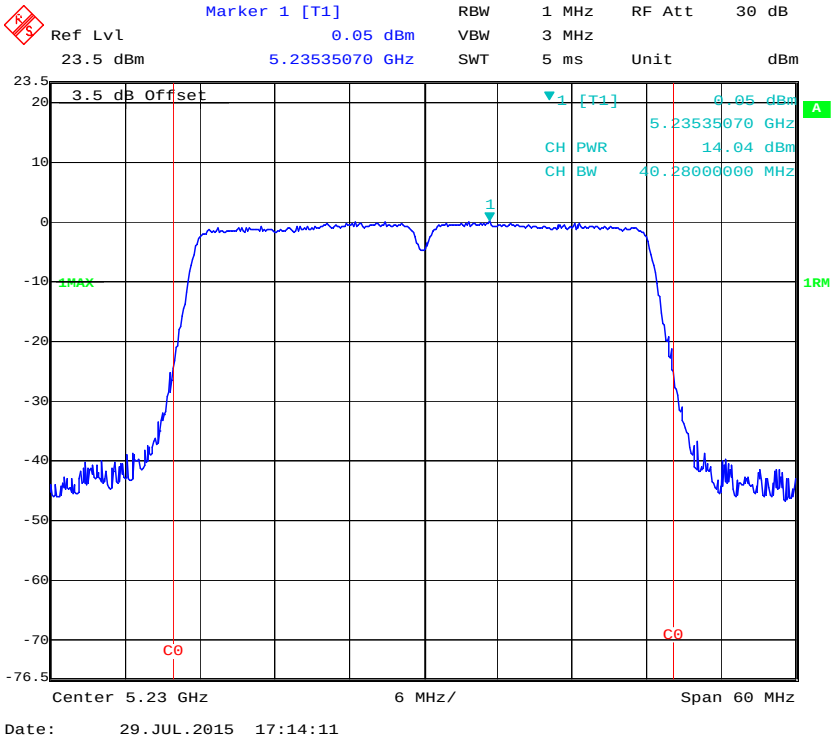
802.11ac40 mode, RF Conducted Output Power, Antenn 1, 5190 MHz



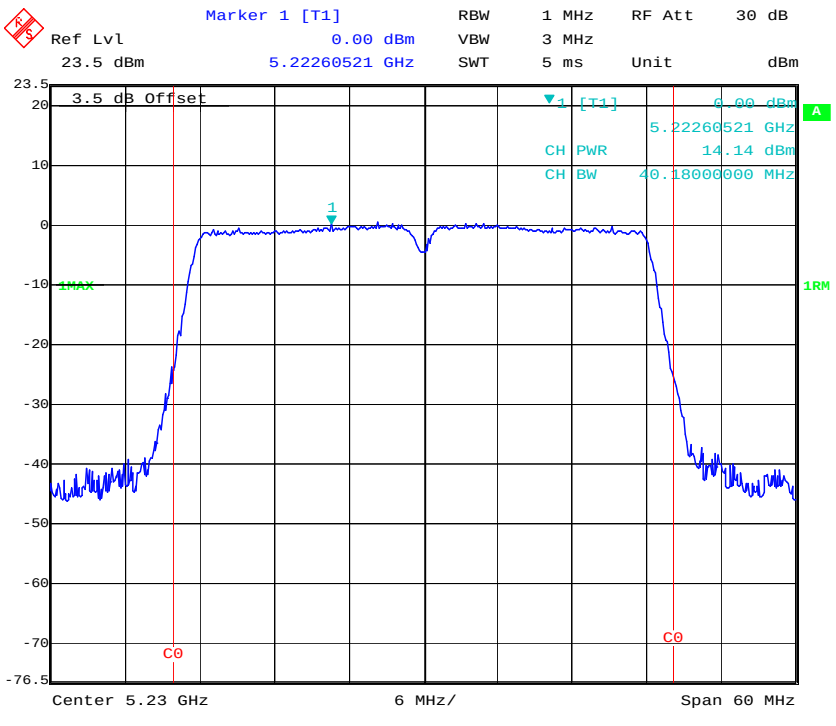
802.11ac40 mode, RF Conducted Output Power, Antenn 2, 5190 MHz



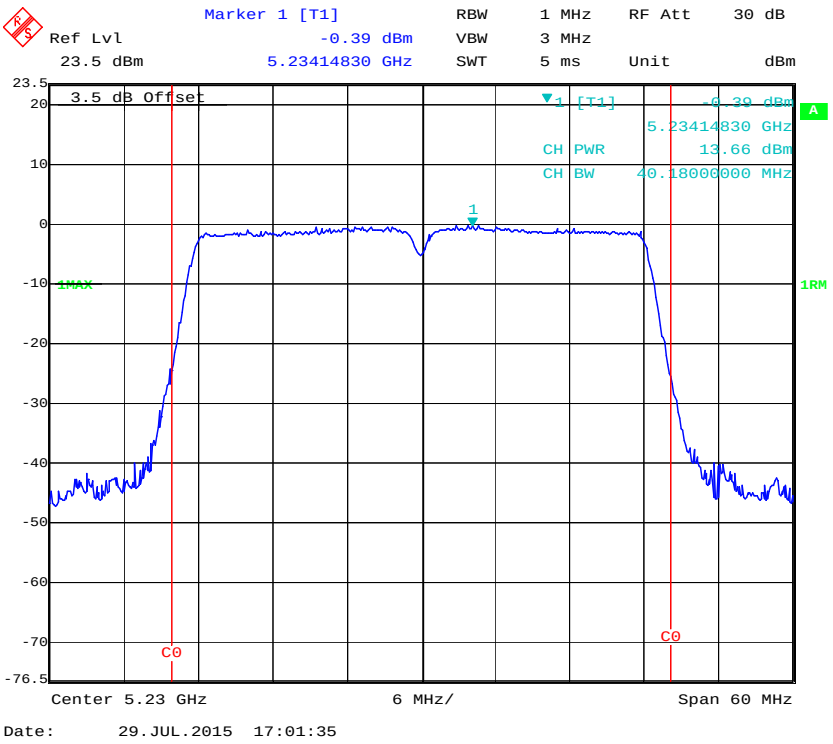
802.11ac40 mode, RF Conducted Output Power, Antenn 0, 5230 MHz



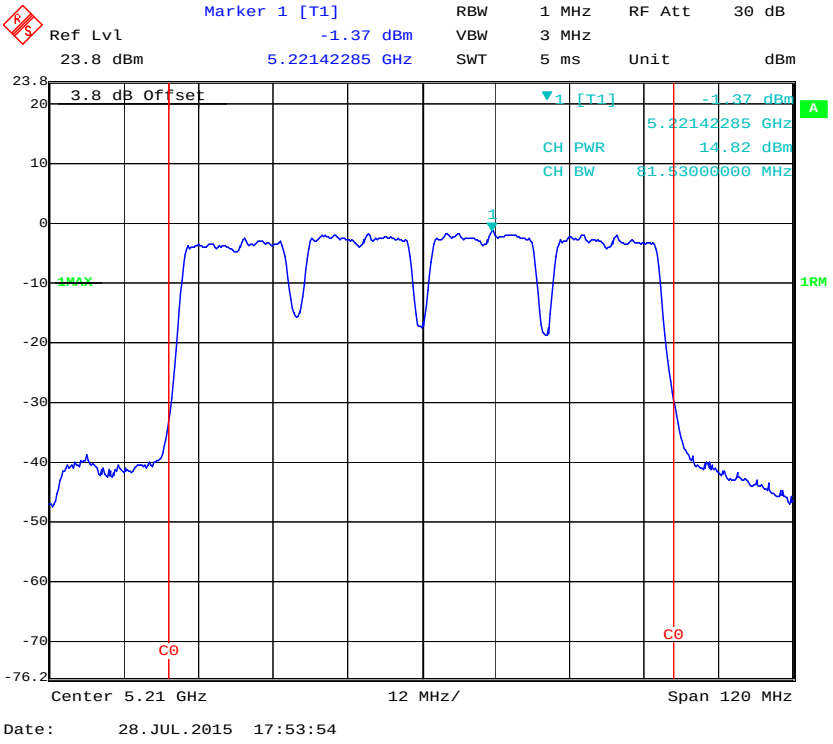
802.11ac40 mode, RF Conducted Output Power, Antenn 1, 5230 MHz



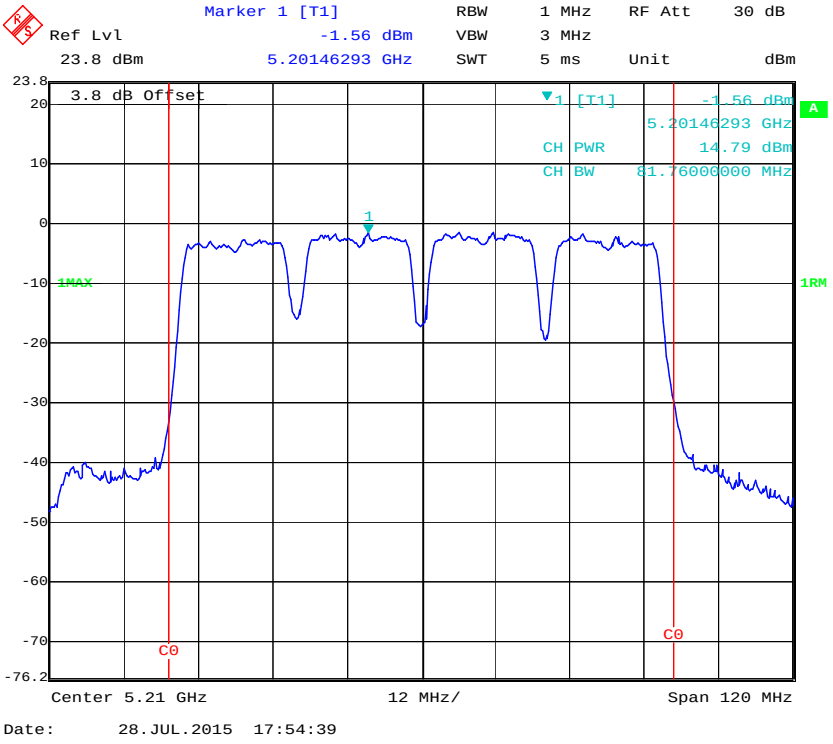
802.11ac40 mode, RF Conducted Output Power, Antenn 2, 5230 MHz



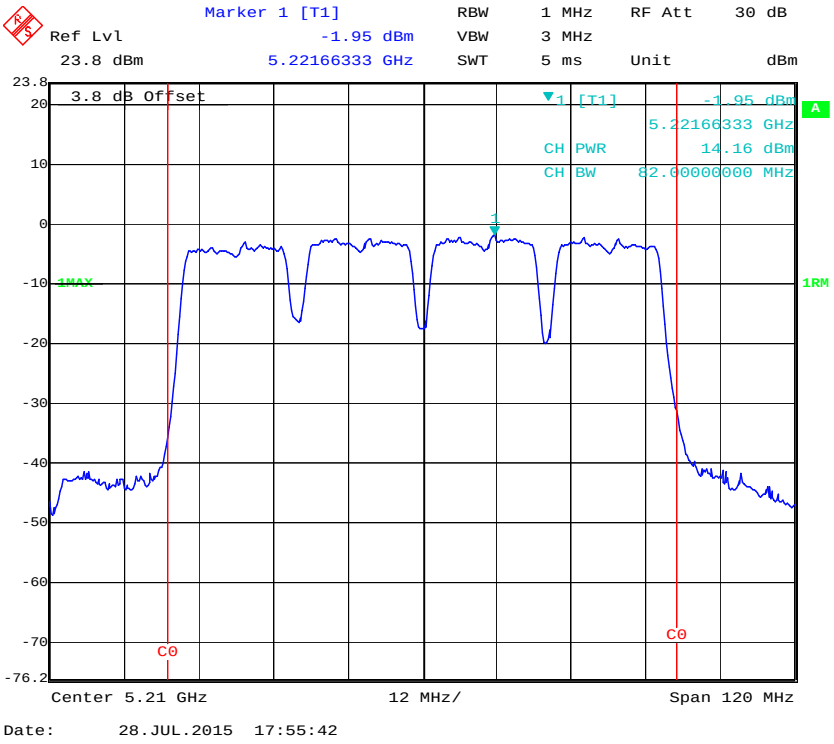
802.11ac80 mode, RF Conducted Output Power, Antenn 0, 5210 MHz



802.11ac80 mode, RF Conducted Output Power, Antenn 1, 5210 MHz



802.11ac80 mode, RF Conducted Output Power, Antenn 2, 5210 MHz



5725 MHz – 5825 MHz:

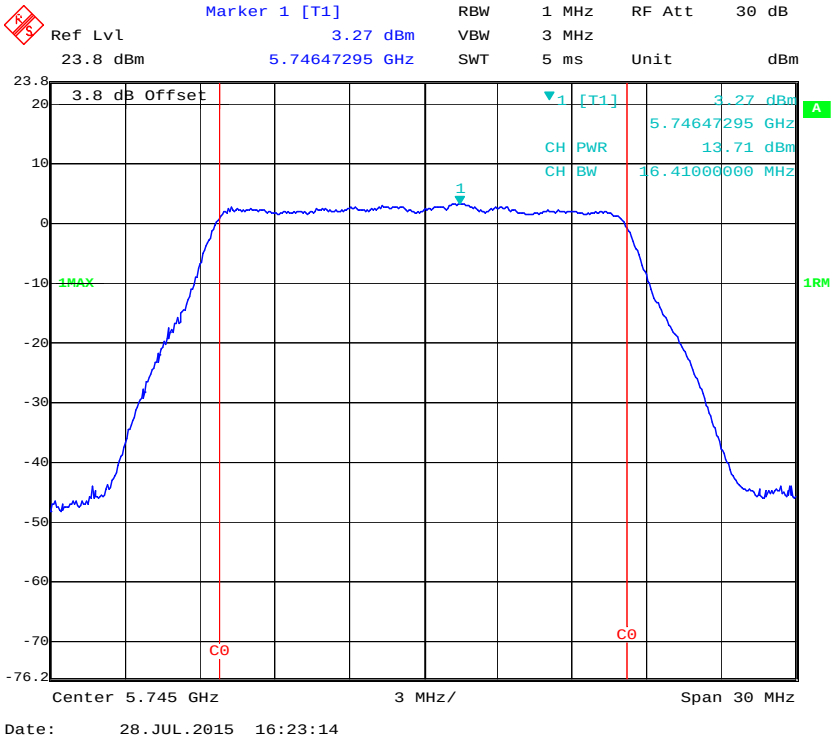
Frequency (MHz)	Antenna Port	Output Power (dBm)	Output Power (dBm) Chain0+Chain1+chain 2	Limit (dBm)
802.11a				
5745	0	13.71	/	30
	1	13.77		
	2	13.85		
5785	0	13.56	/	
	1	14.39		
	2	14.10		
5825	0	14.49	/	
	1	14.62		
	2	14.38		
802.11n20				
5745	0	14.03	18.87	28.2
	1	14.14		
	2	14.14		
5785	0	14.60	19.32	
	1	14.69		
	2	14.34		
5825	0	14.59	19.38	
	1	14.62		
	2	14.62		
802.11n40				
5755	0	14.63	19.48	28.2
	1	14.84		
	2	14.65		
5795	0	15.10	20.07	
	1	15.29		
	2	15.49		

Note: the gain of each antenna is 3dBi;
For simultaneous transmission mode of three antennas, the directional gain=3+10*logN=7.8dBi, which is higher than 6dBi, so power limit should be reduced by 1.8dB.

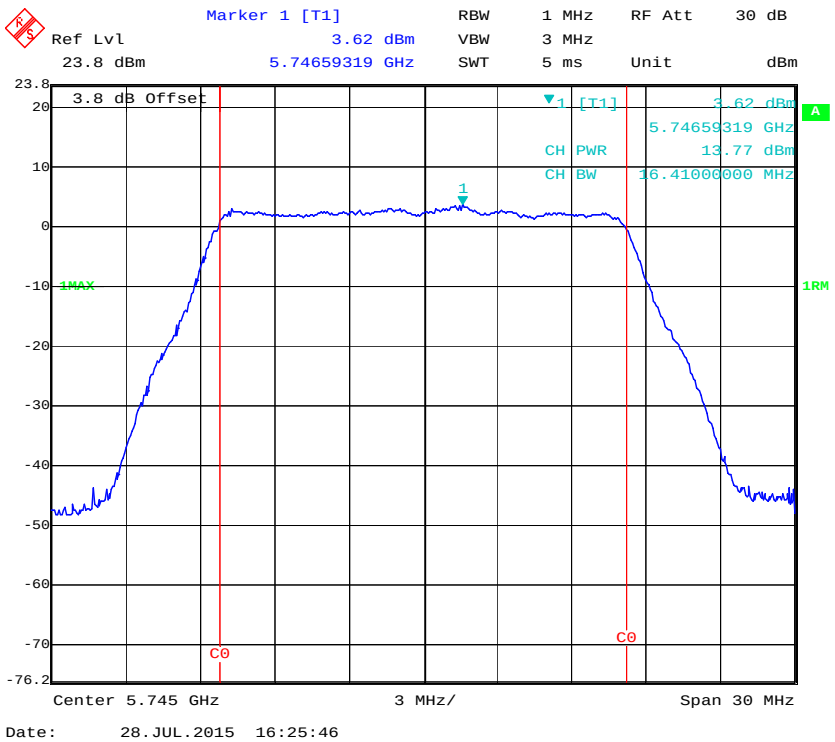
Frequency (MHz)	Antenna Port	Output Power (dBm)	Output Power (dBm) Chain0+Chain1+chain 2	Limit (dBm)
802.11ac20				
5745	0	11.73	16.43	28.2
	1	11.13		
	2	12.07		
5785	0	11.86	16.49	
	1	11.06		
	2	12.17		
5825	0	11.98	16.61	
	1	11.11		
	2	12.33		
802.11ac40				
5755	0	12.23	16.76	28.2
	1	11.67		
	2	12.06		
5795	0	12.13	16.88	
	1	11.92		
	2	12.26		
802.11ac80				
5775	0	14.19	18.95	28.2
	1	14.23		
	2	14.12		

Note: the gain of each antenna is 3dBi;
For simultaneous transmission mode of three antennas, the directional gain=3+10*logN=7.8dBi, which is higher than 6dBi, so power limit should be reduced by 1.8dB.

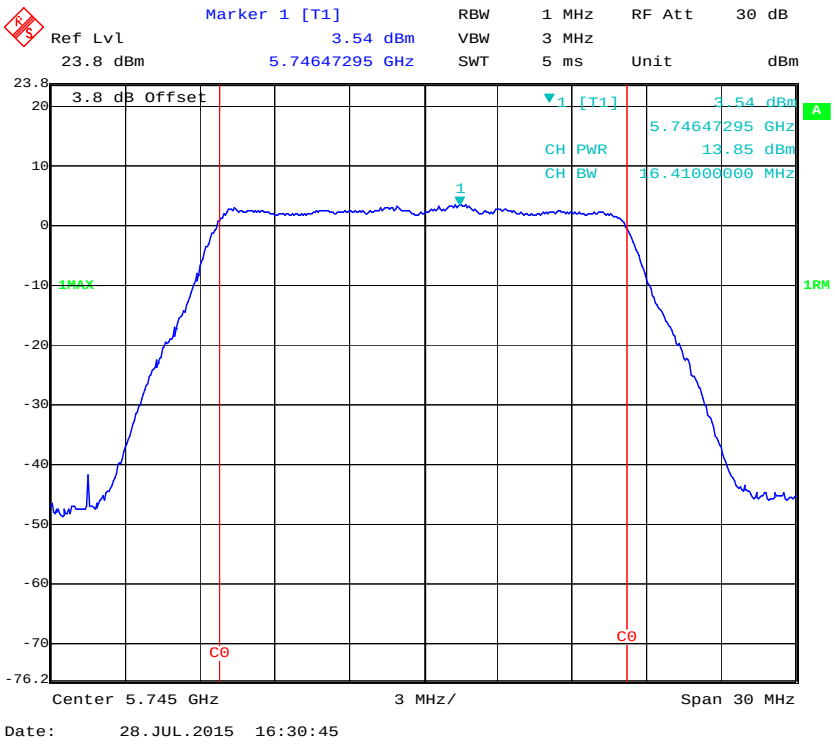
802.11a mode, RF Conducted Output Power, Antenn 0, 5745 MHz



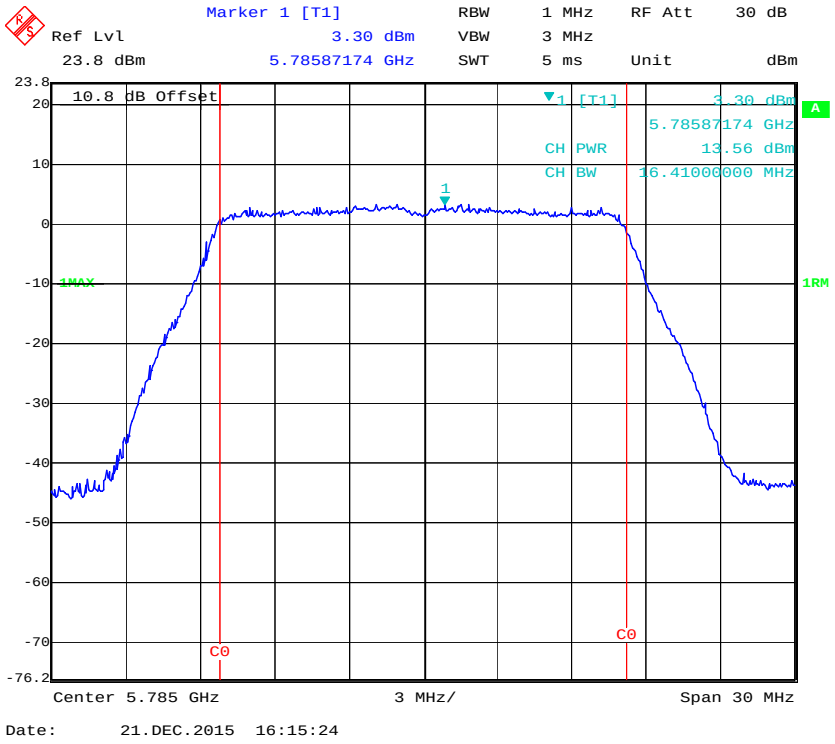
802.11a mode, RF Conducted Output Power, Antenn 1, 5745 MHz



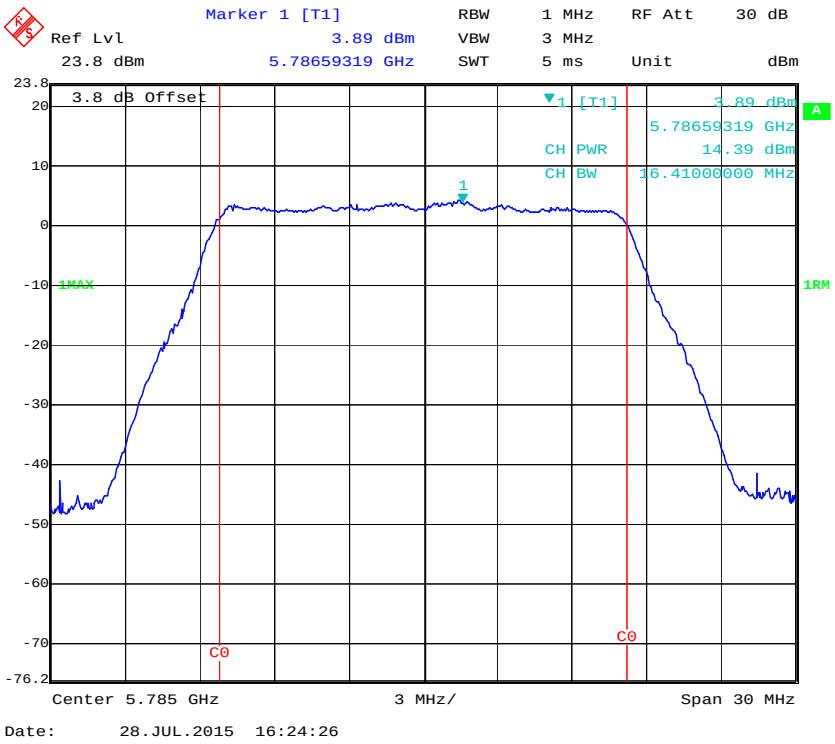
802.11a mode, RF Conducted Output Power, Antenn 2, 5745 MHz



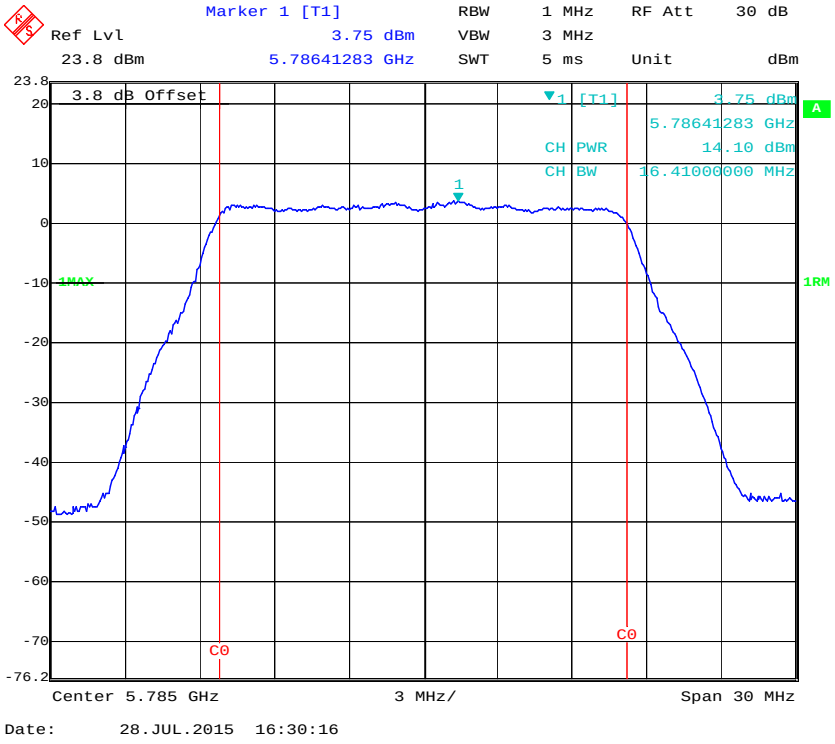
802.11a mode, RF Conducted Output Power, Antenn 0, 5785 MHz



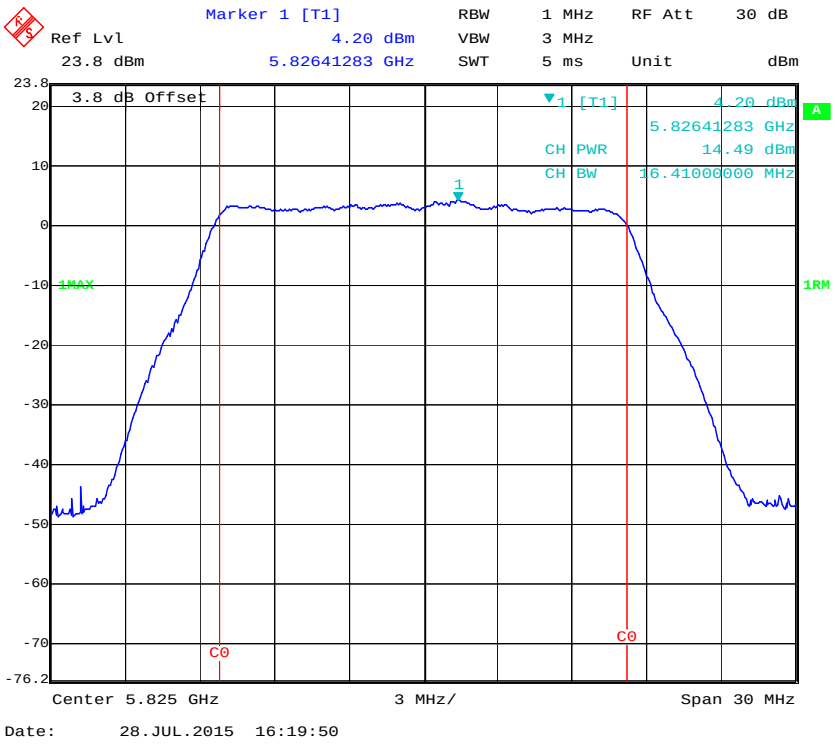
802.11a mode, RF Conducted Output Power, Antenn 1, 5785 MHz



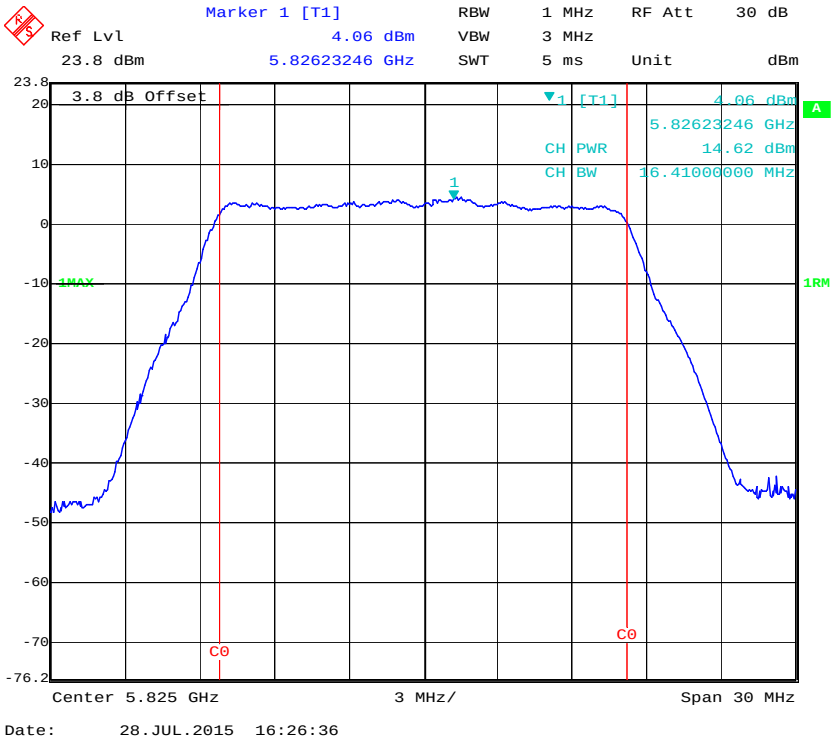
802.11a mode, RF Conducted Output Power, Antenn 2, 5785 MHz



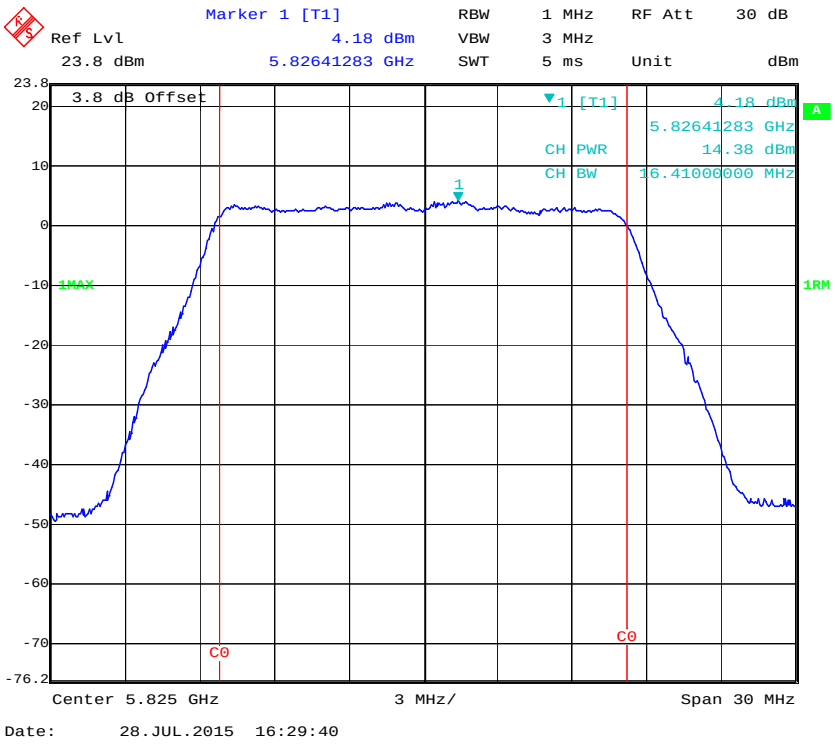
802.11a mode, RF Conducted Output Power, Antenn 0, 5825 MHz



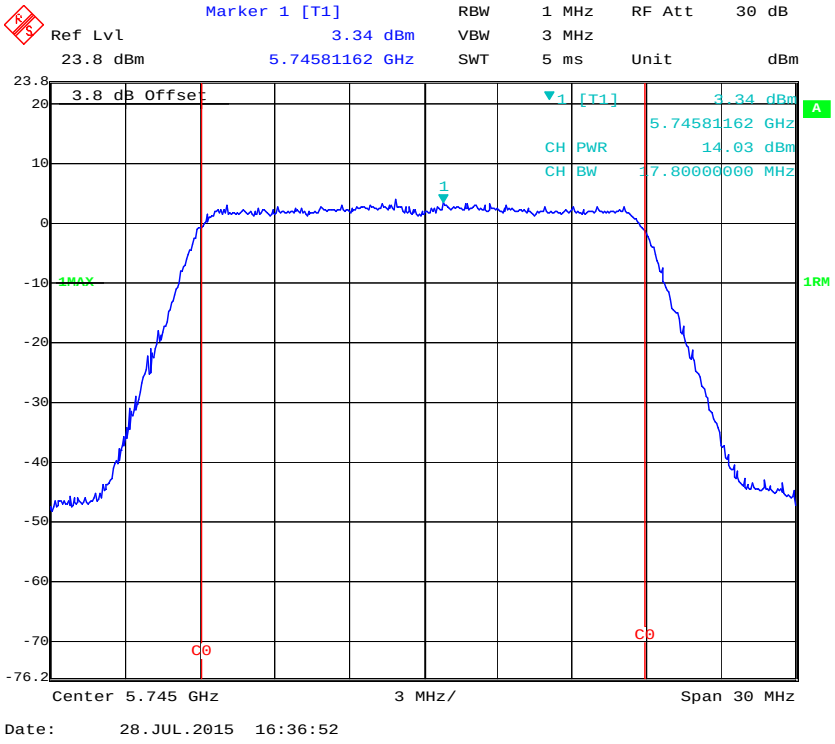
802.11a mode, RF Conducted Output Power, Antenn 1, 5825 MHz



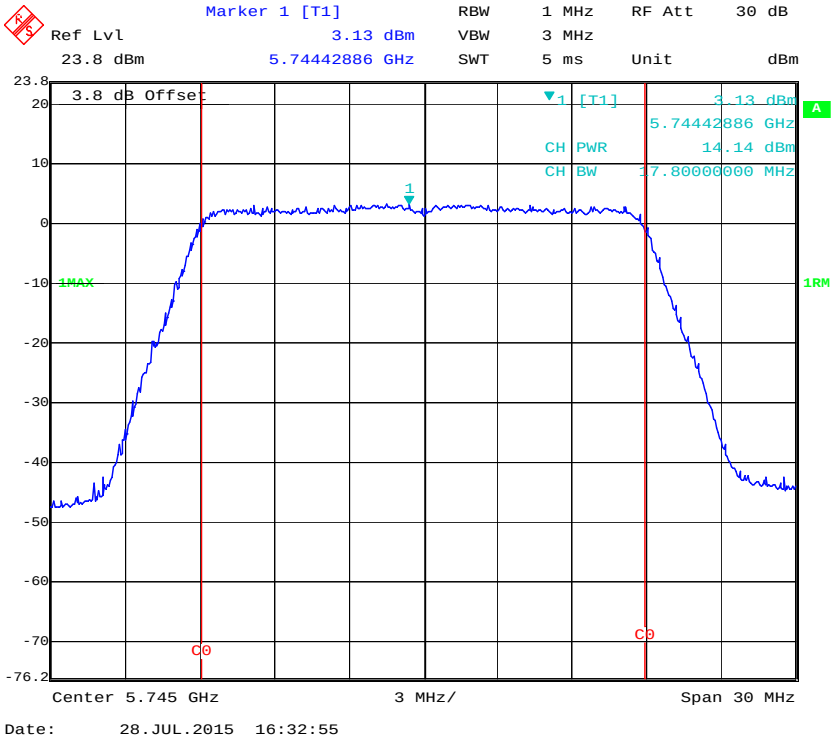
802.11a mode, RF Conducted Output Power, Antenn 2, 5825 MHz



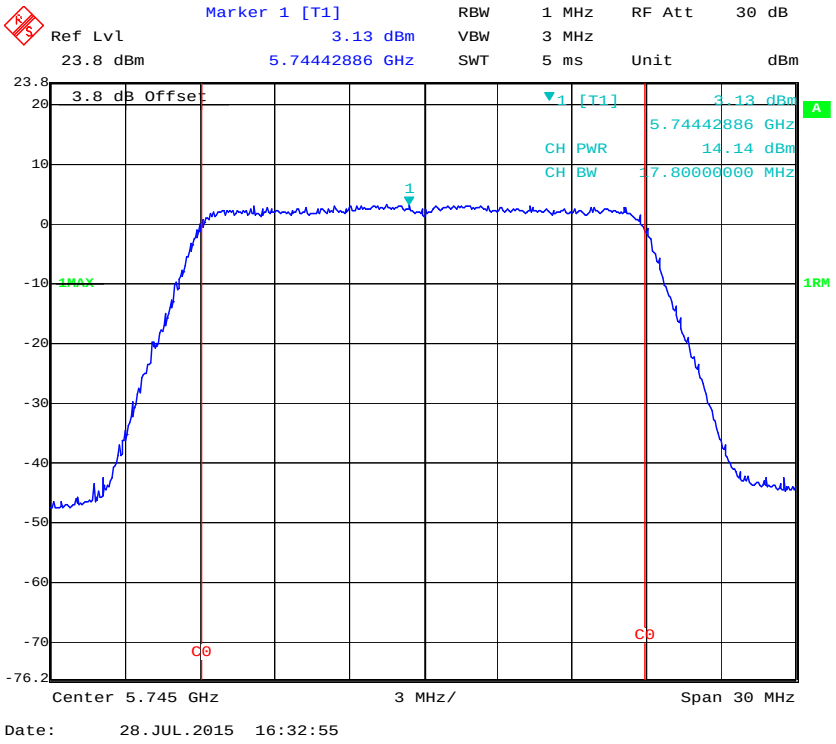
802.11n20 mode, RF Conducted Output Power, Antenn 0, 5745 MHz



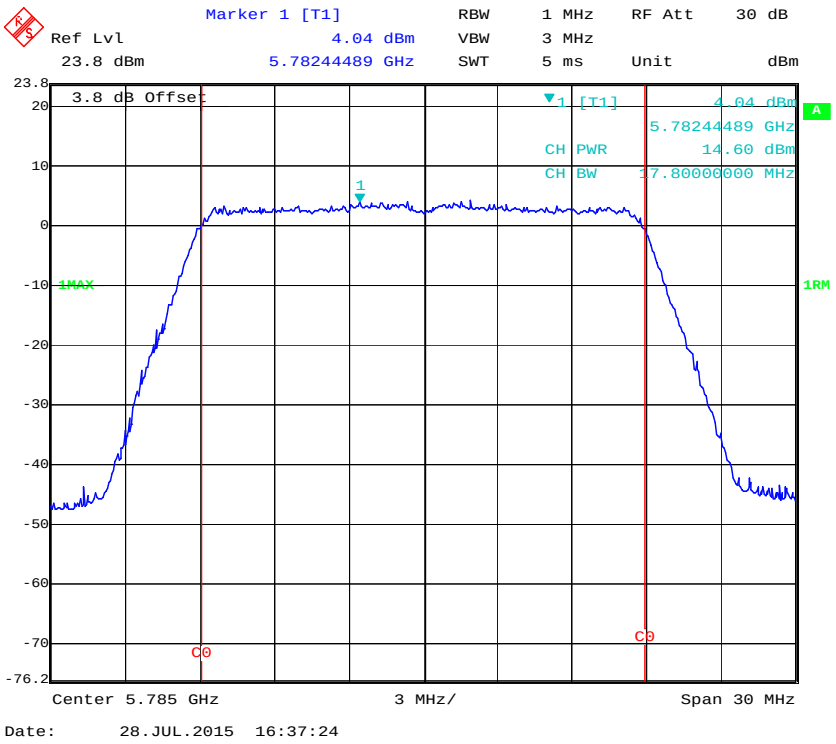
802.11n20 mode, RF Conducted Output Power, Antenn 1, 5745 MHz



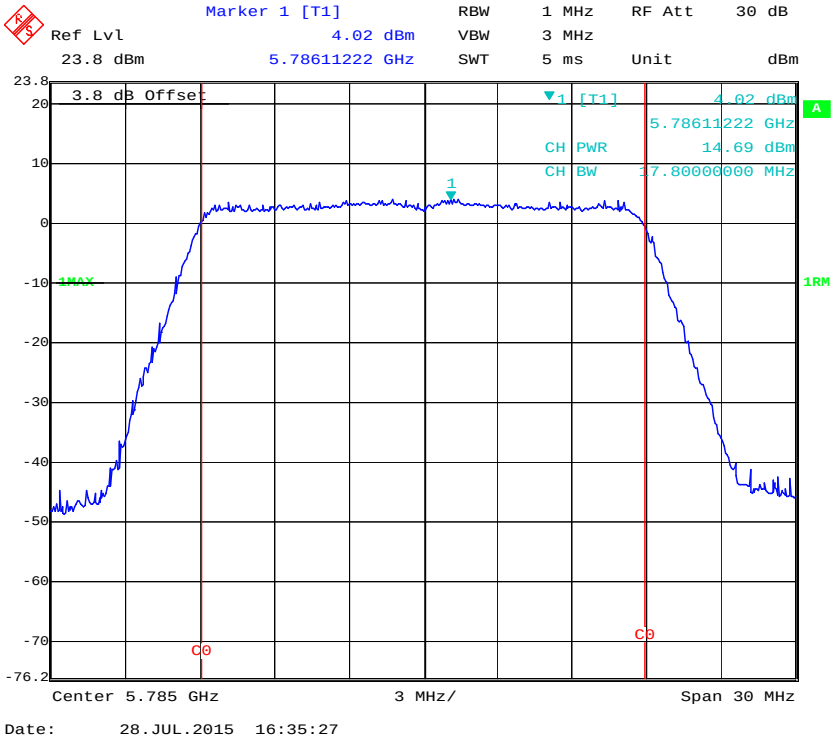
802.11n20 mode, RF Conducted Output Power, Antenn 2, 5745 MHz



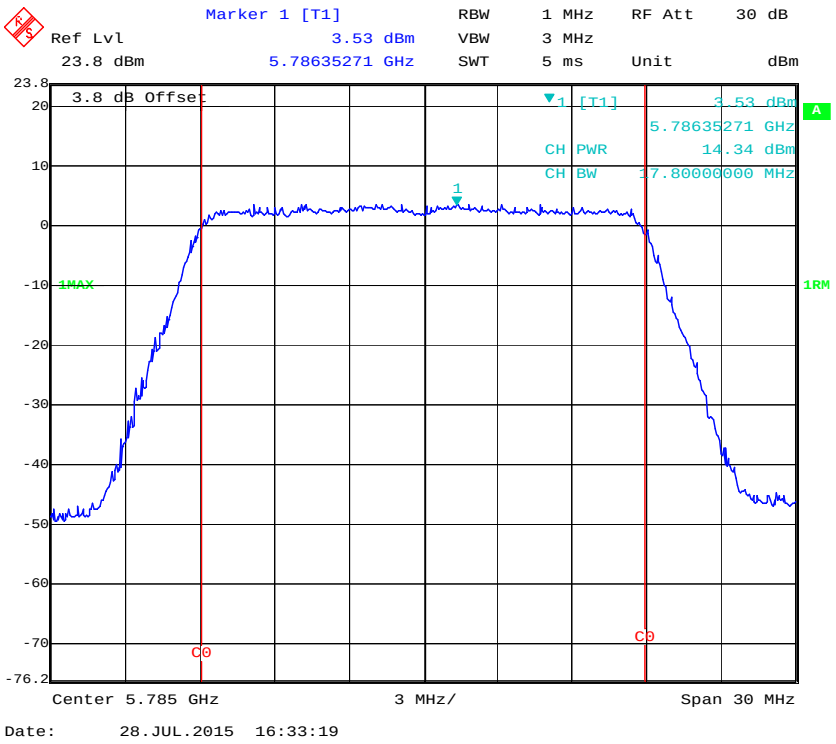
802.11n20 mode, RF Conducted Output Power, Antenn 0, 5785 MHz



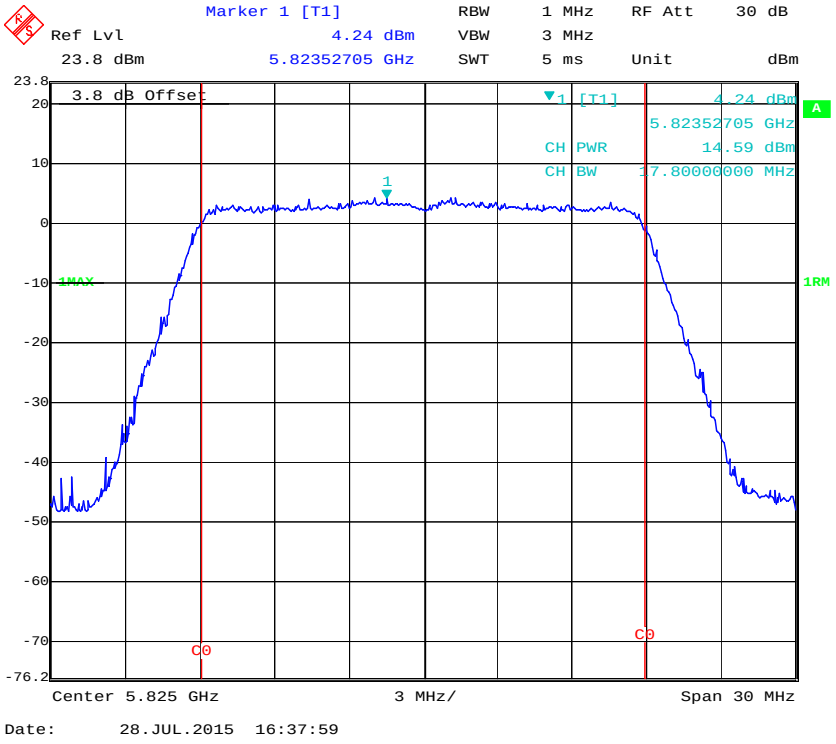
802.11n20 mode, RF Conducted Output Power, Antenn 1, 5785 MHz



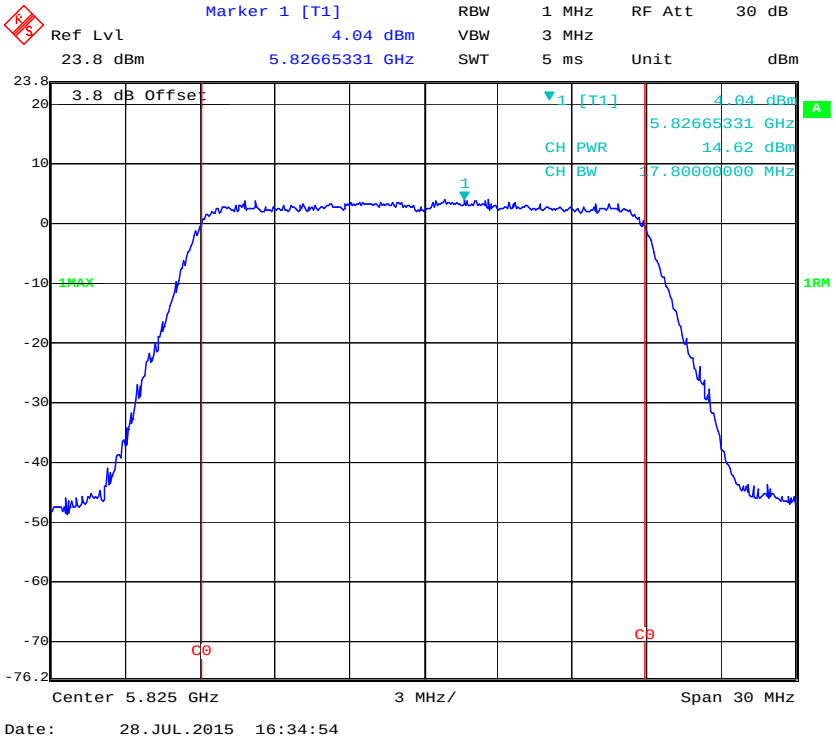
802.11n20 mode, RF Conducted Output Power, Antenn 2, 5785 MHz



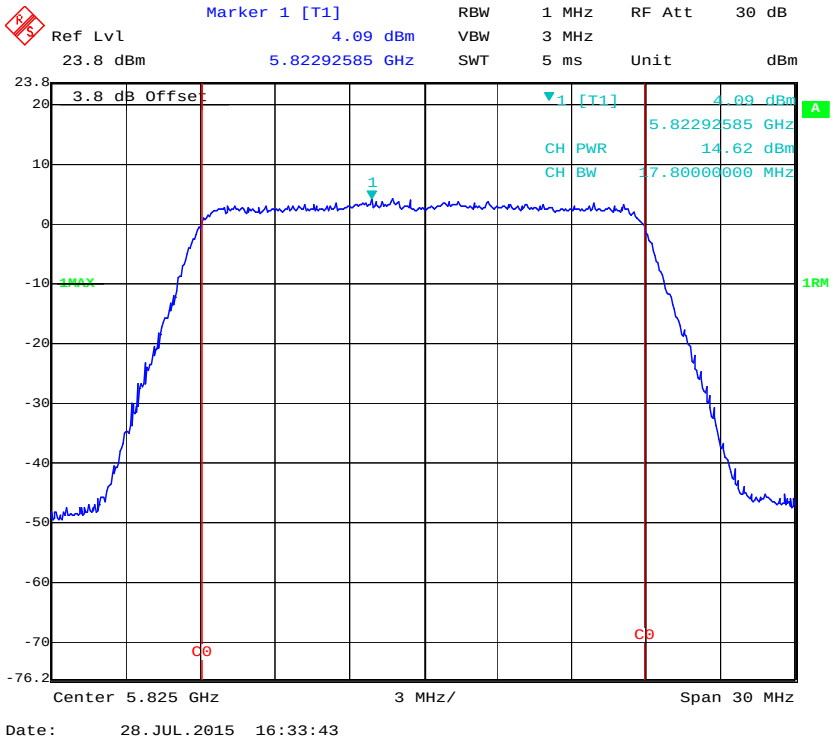
802.11n20 mode, RF Conducted Output Power, Antenn 0, 5825 MHz



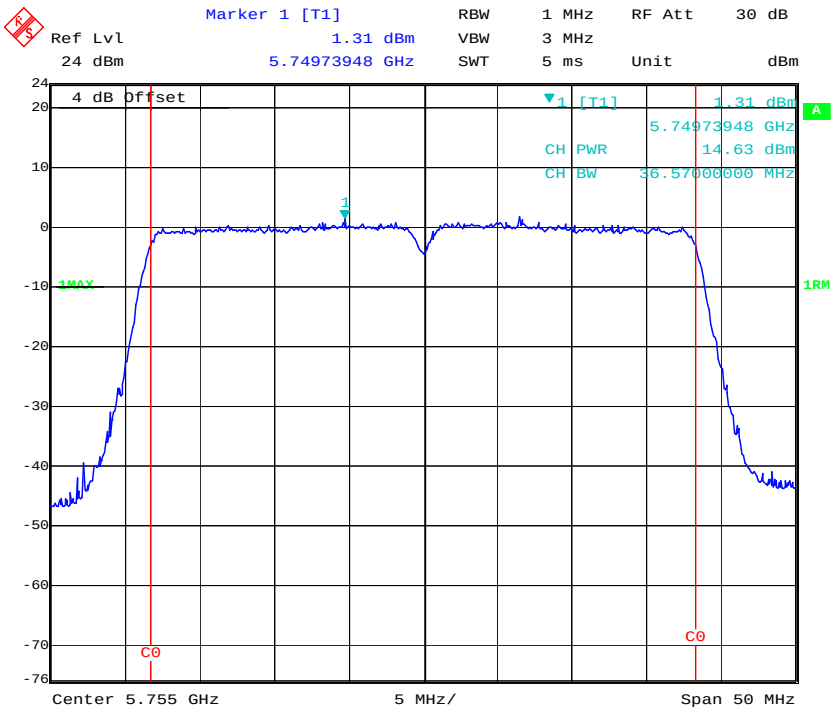
802.11n20 mode, RF Conducted Output Power, Antenn 1, 5825 MHz



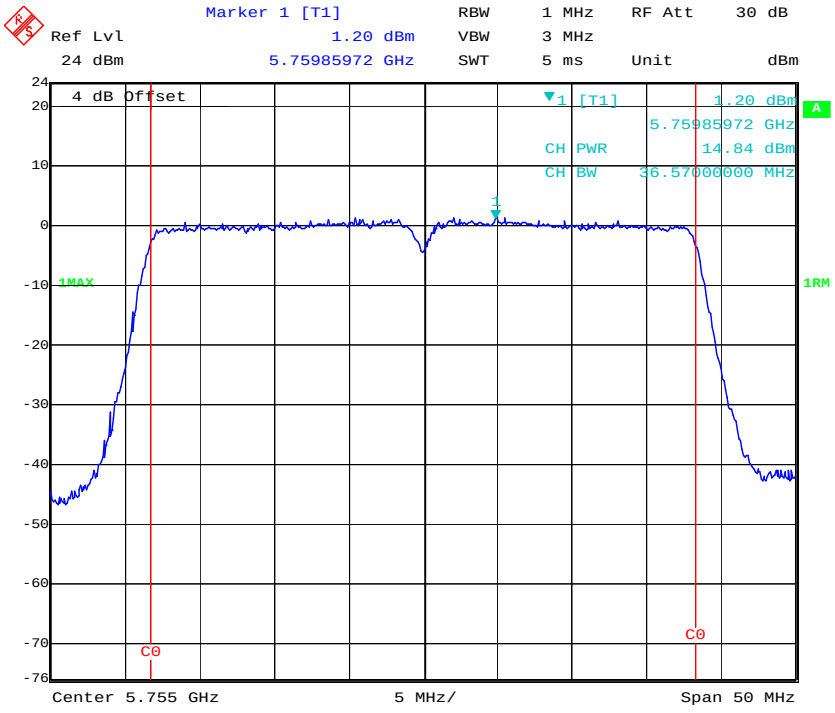
802.11n20 mode, RF Conducted Output Power, Antenn 2, 5825 MHz



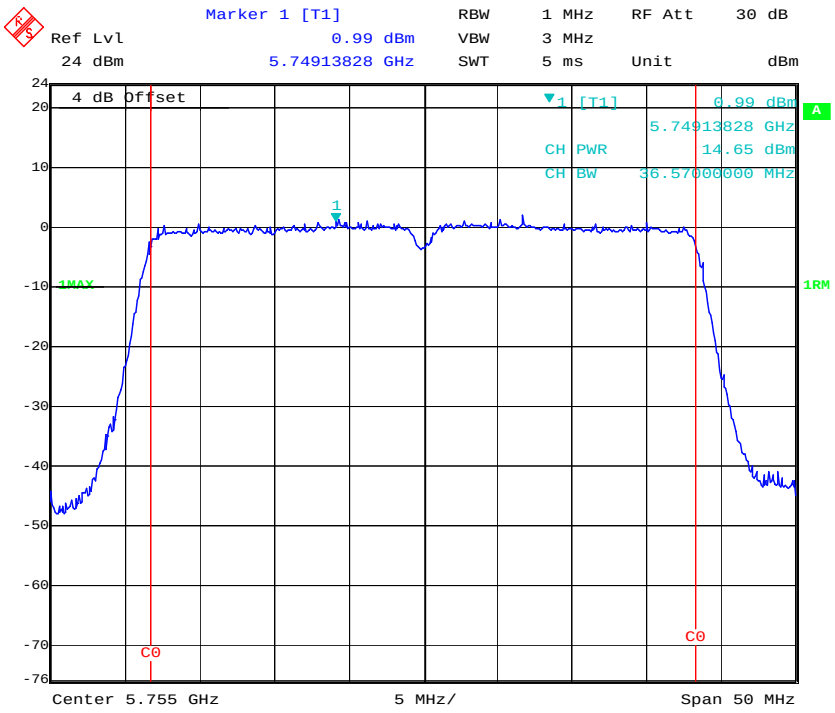
802.11n40 mode, RF Conducted Output Power, Antenn 0, 5755 MHz



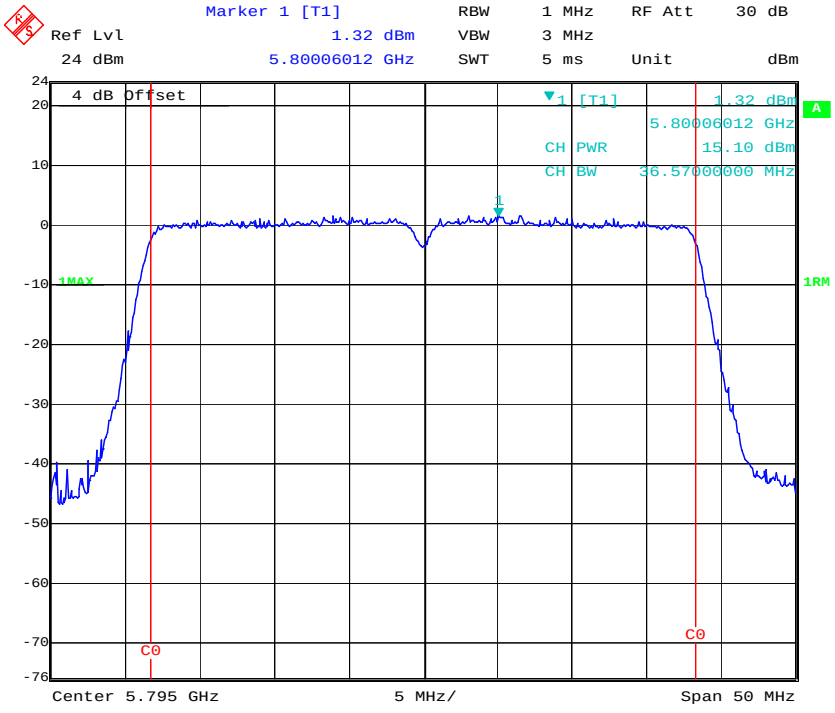
802.11n40 mode, RF Conducted Output Power, Antenn 1, 5755 MHz



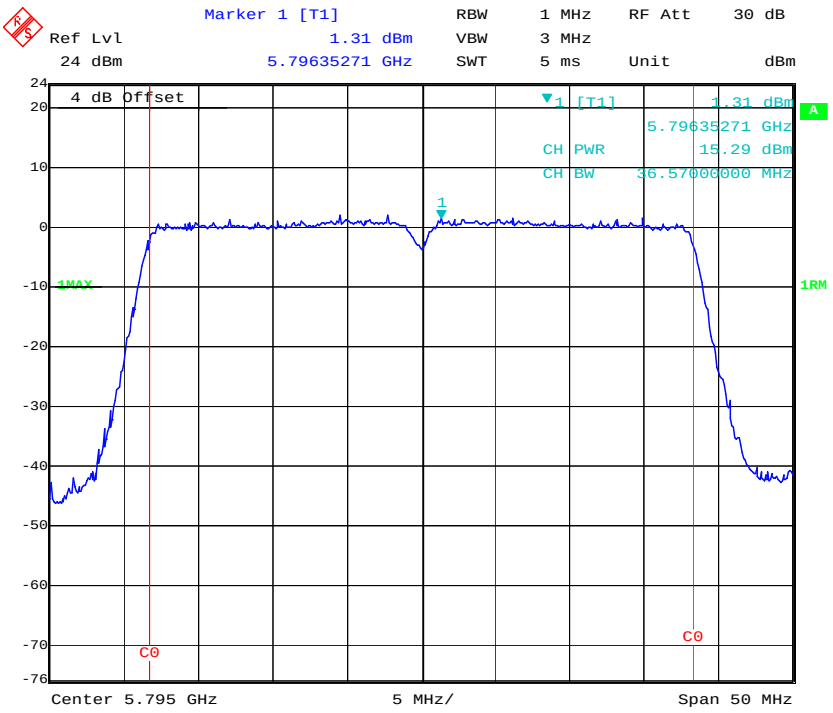
802.11n40 mode, RF Conducted Output Power, Antenn 2, 5755 MHz



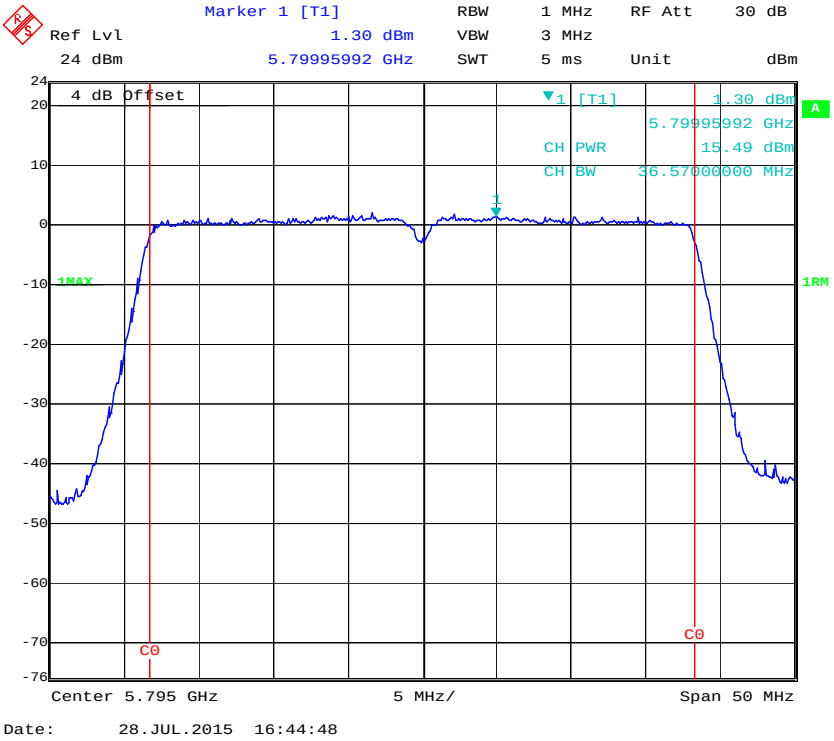
802.11n40 mode, RF Conducted Output Power, Antenn 0, 5795 MHz



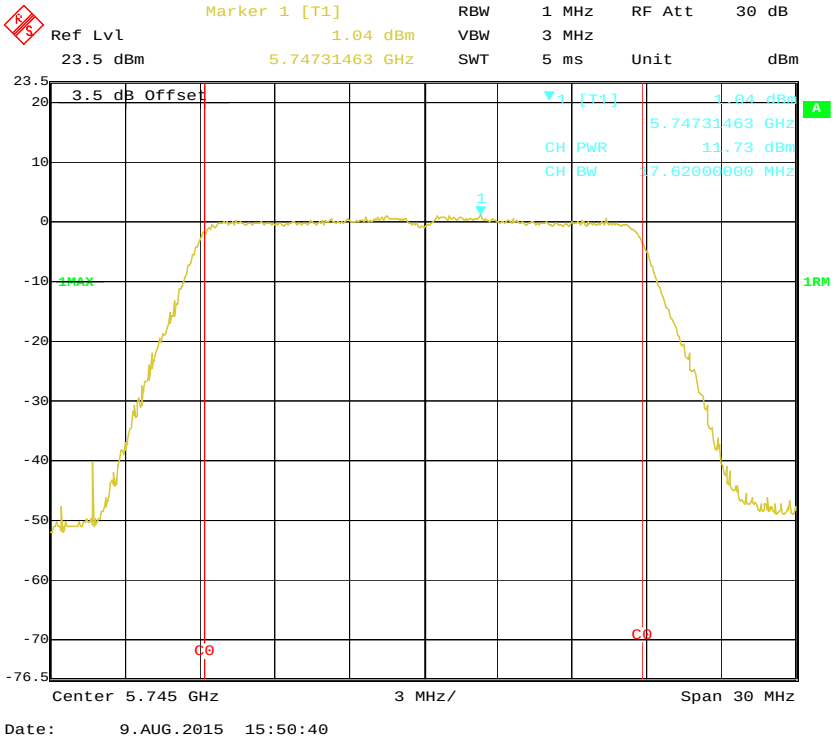
802.11n40 mode, RF Conducted Output Power, Antenn 1, 5795 MHz



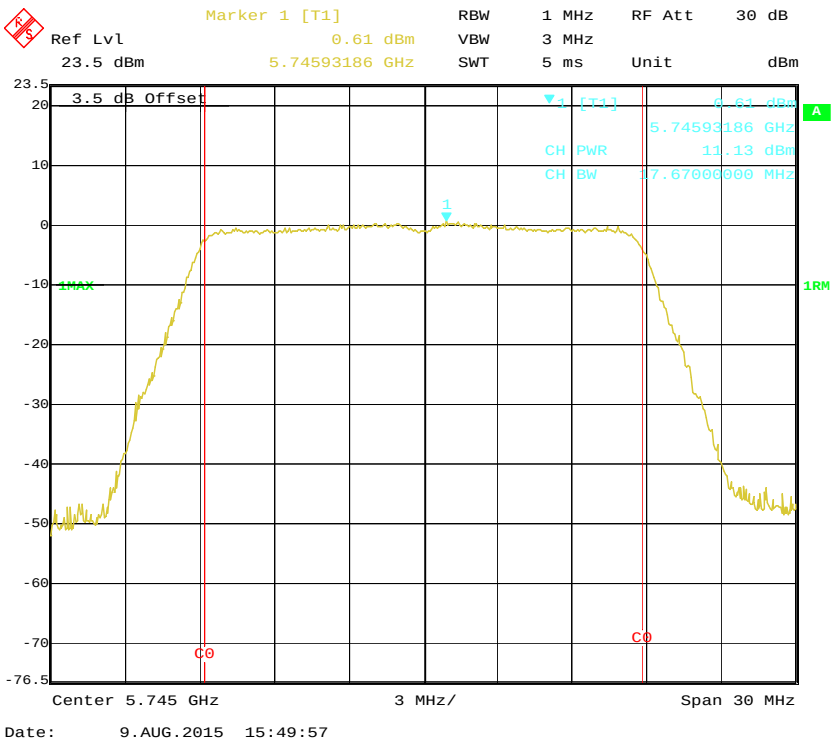
802.11n40 mode, RF Conducted Output Power, Antenn 2, 5795 MHz



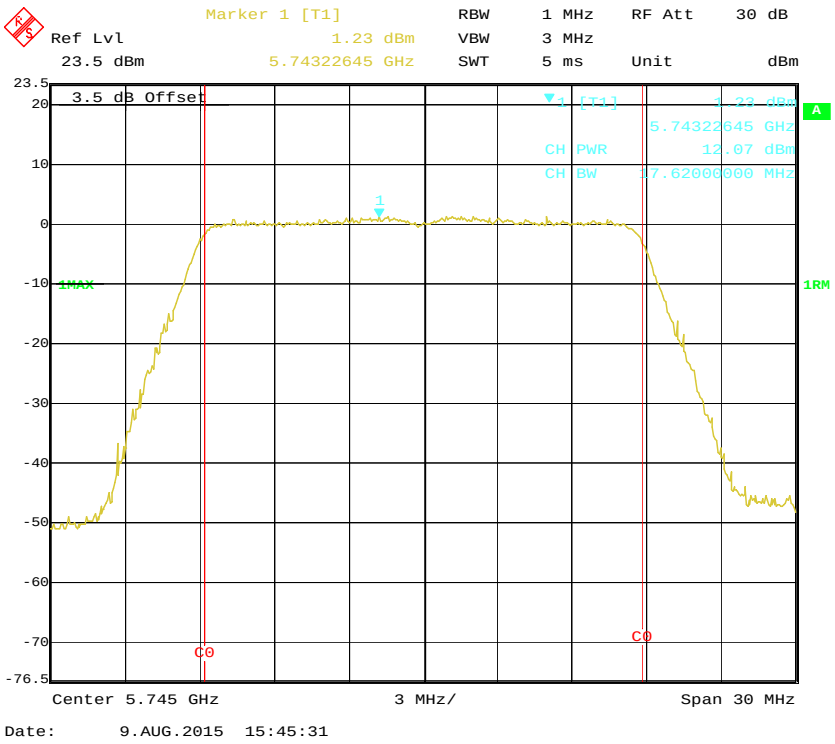
802.11ac20 mode, RF Conducted Output Power, Antenn 0, 5745 MHz



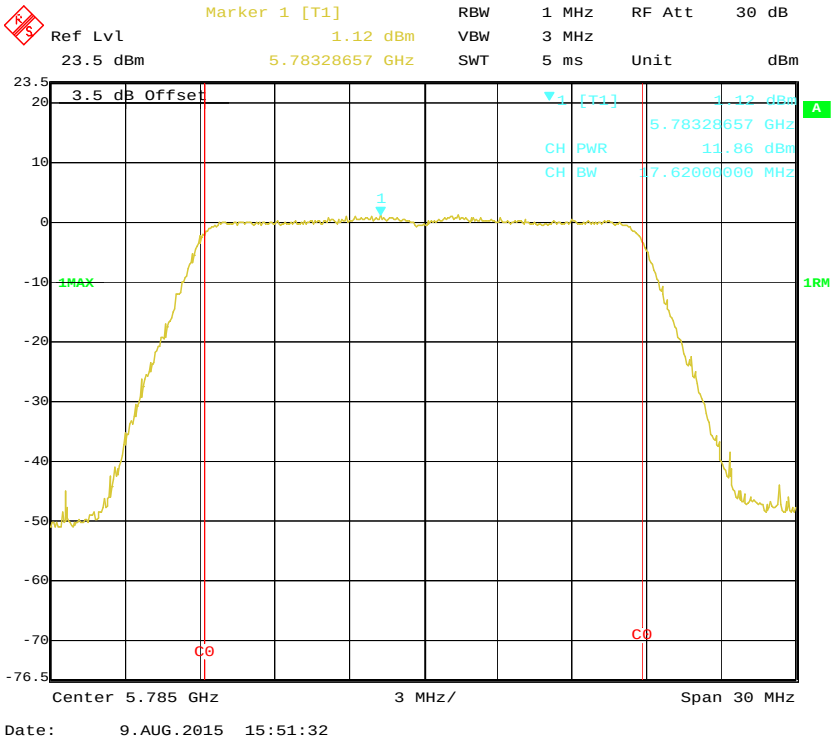
802.11ac20 mode, RF Conducted Output Power, Antenn 1, 5745 MHz



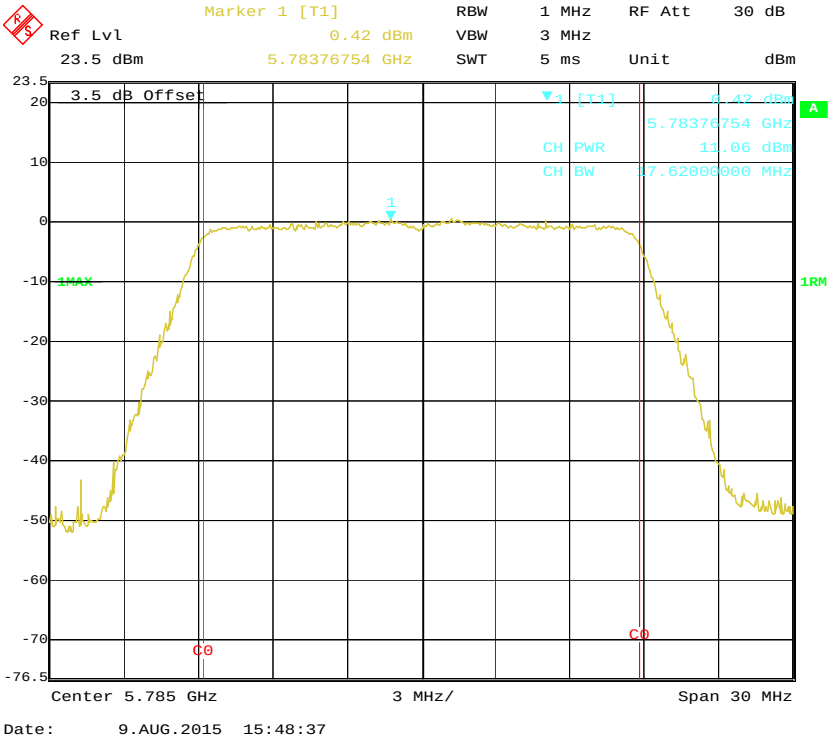
802.11ac20 mode, RF Conducted Output Power, Antenn 2, 5745 MHz



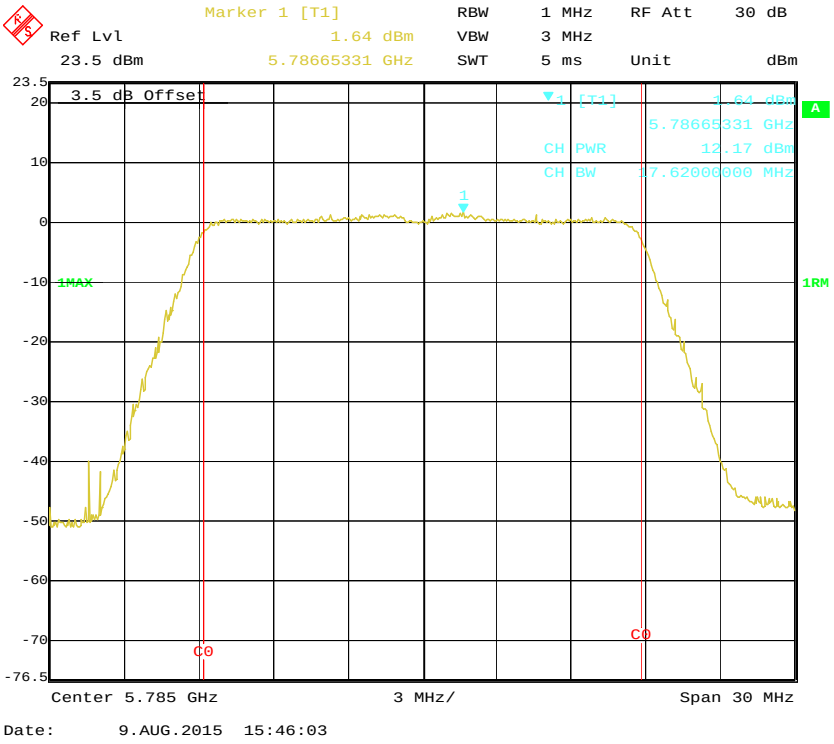
802.11ac20 mode, RF Conducted Output Power, Antenn 0, 5785 MHz



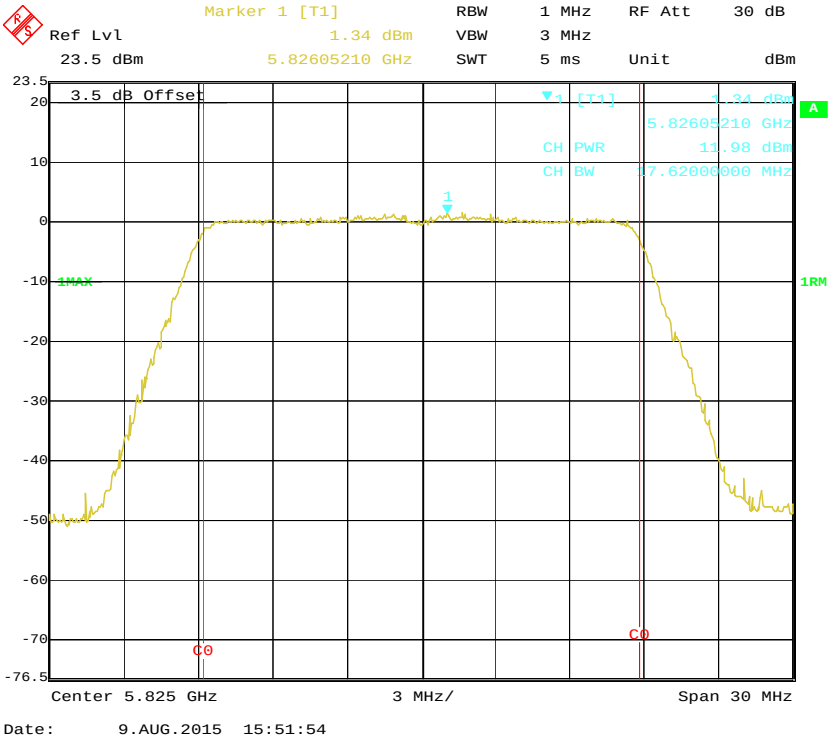
802.11ac20 mode, RF Conducted Output Power, Antenn 1, 5785 MHz



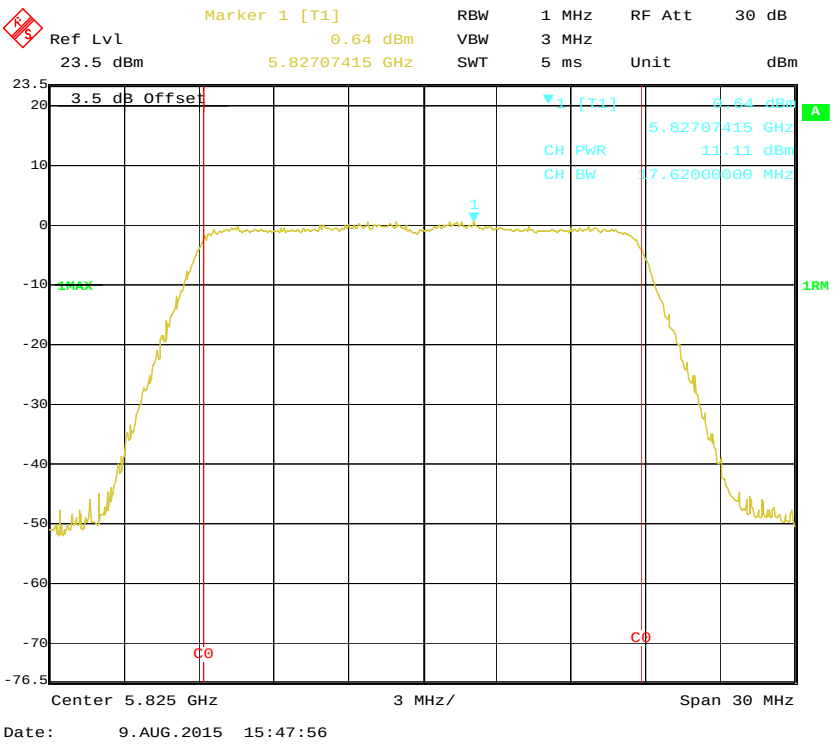
802.11ac20 mode, RF Conducted Output Power, Antenn 2, 5785 MHz



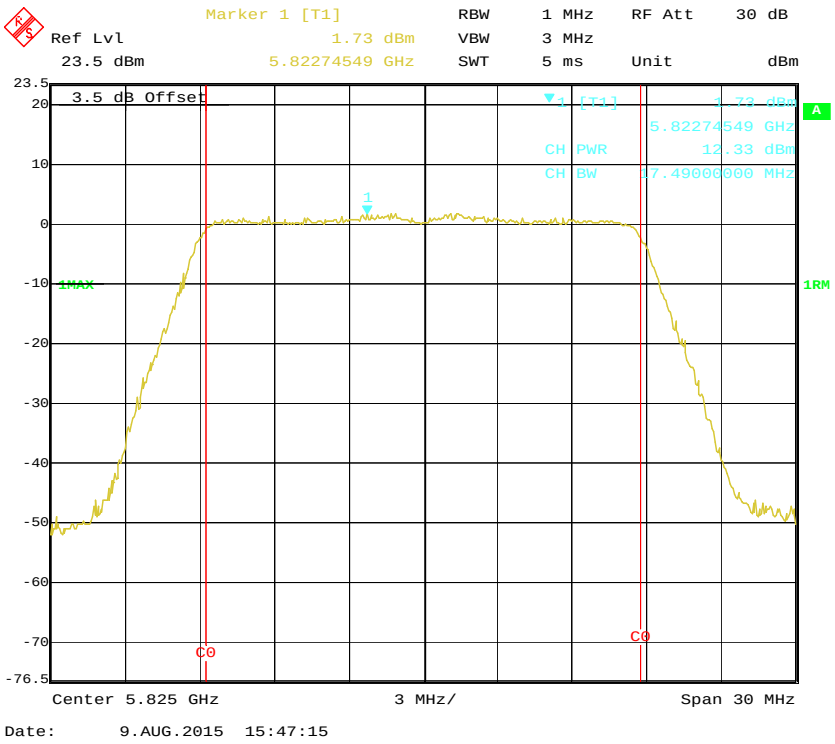
802.11ac20 mode, RF Conducted Output Power, Antenn 0, 5825 MHz



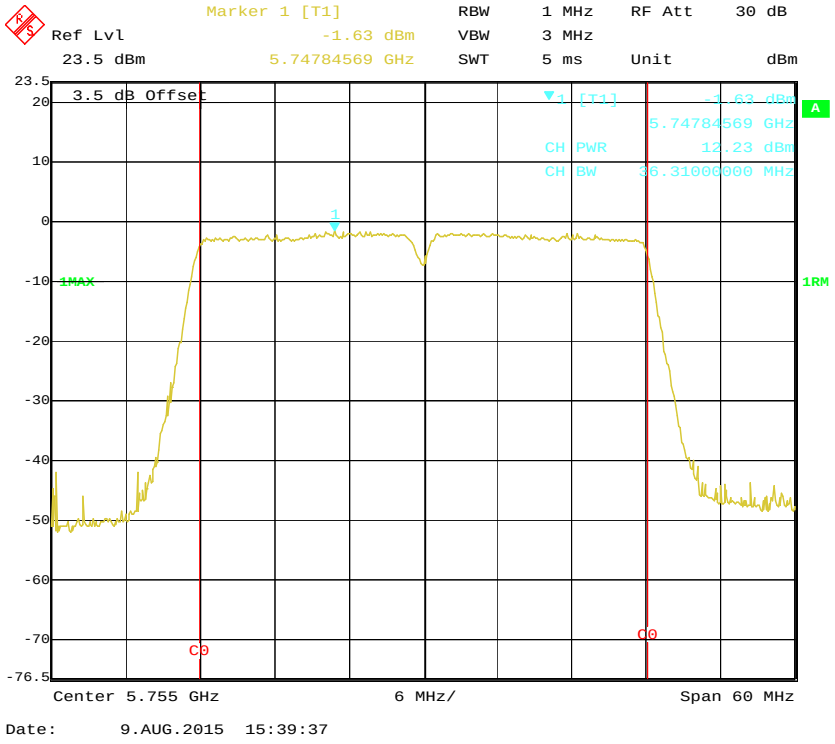
802.11ac20 mode, RF Conducted Output Power, Antenn 1, 5825 MHz



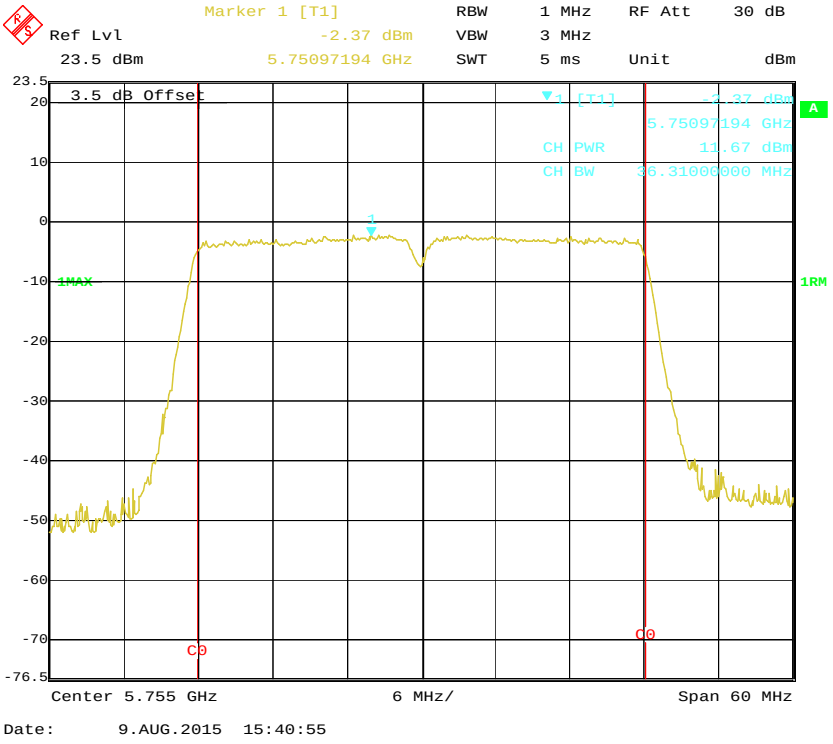
802.11ac20 mode, RF Conducted Output Power, Antenn 2, 5825 MHz



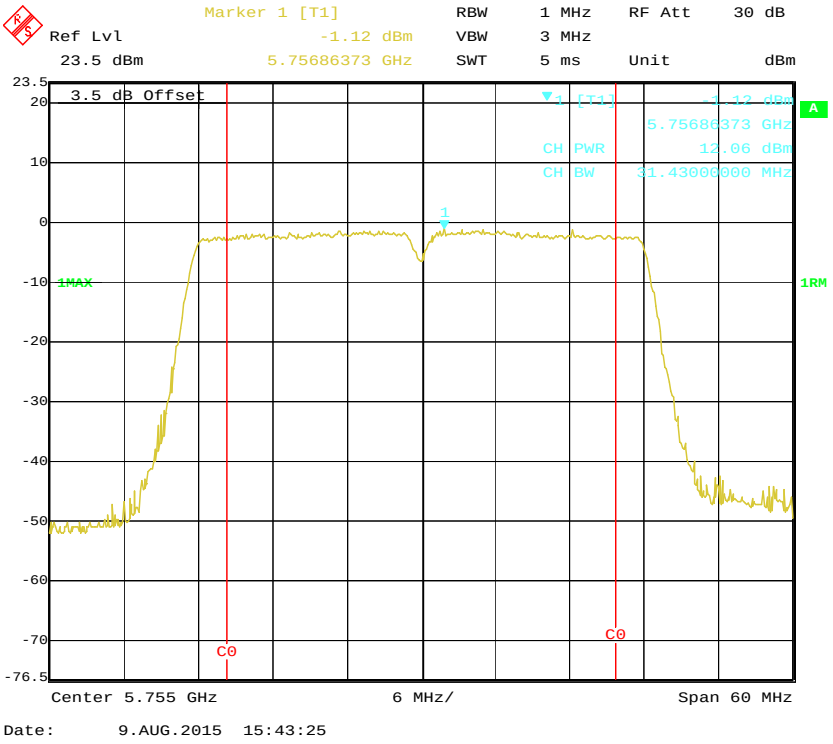
802.11ac40 mode, RF Conducted Output Power, Antenn 0, 5755 MHz



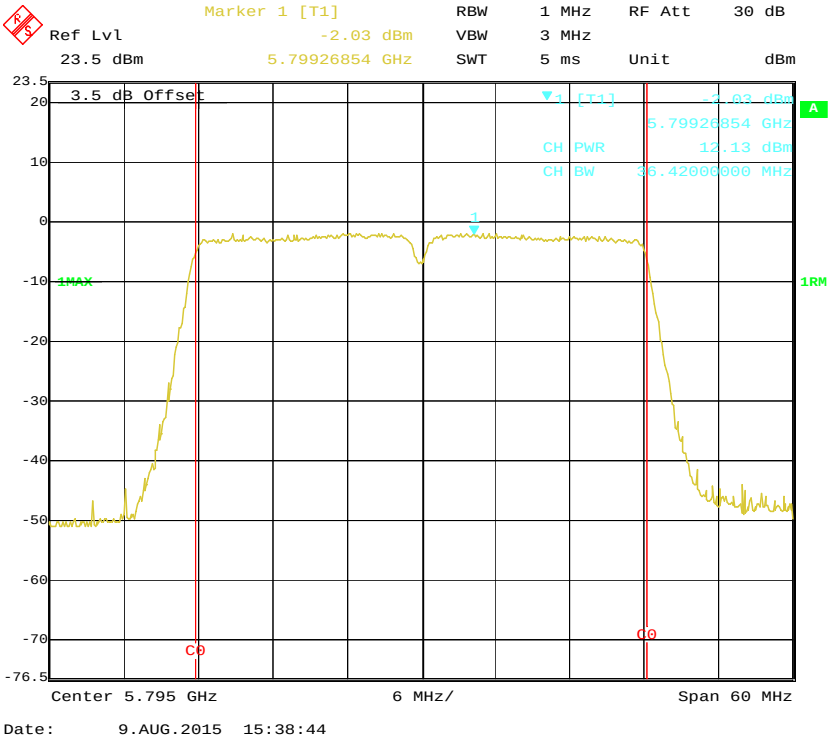
802.11ac40 mode, RF Conducted Output Power, Antenn 1, 5755 MHz



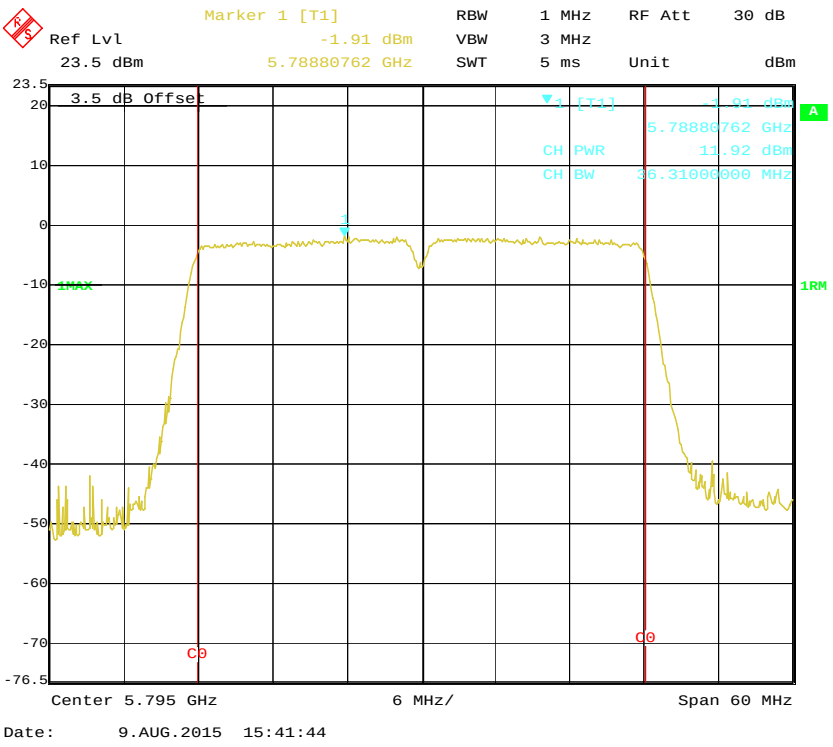
802.11ac40 mode, RF Conducted Output Power, Antenn 2, 5755 MHz



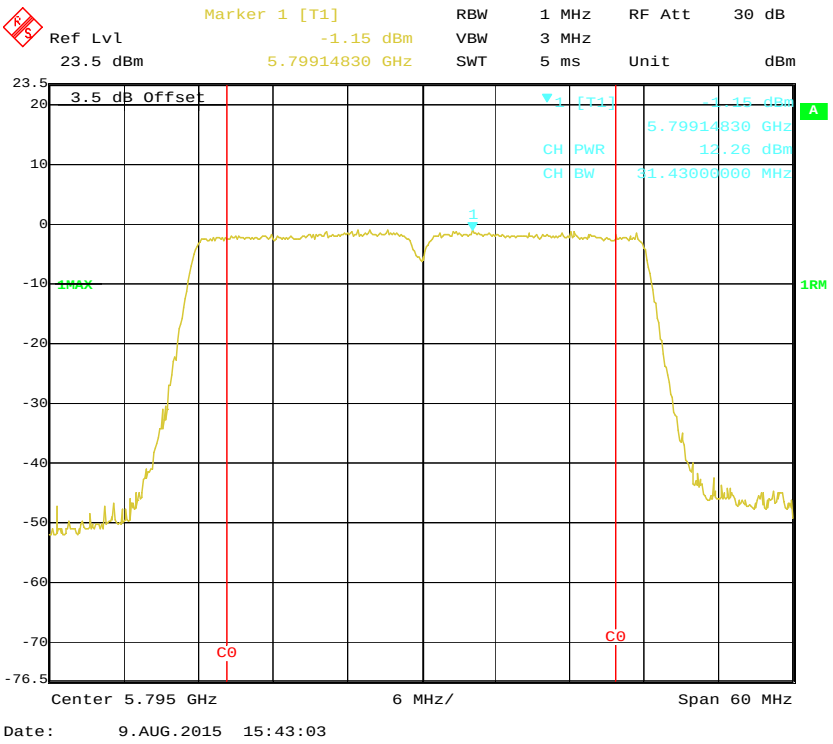
802.11ac40 mode, RF Conducted Output Power, Antenn 0, 5795 MHz



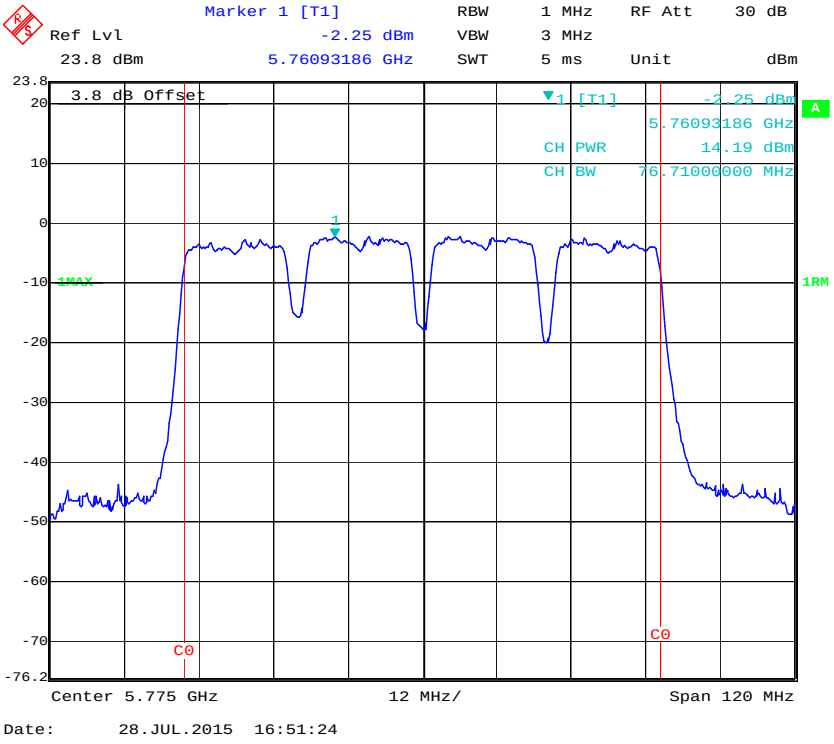
802.11ac40 mode, RF Conducted Output Power, Antenn 1, 5795 MHz



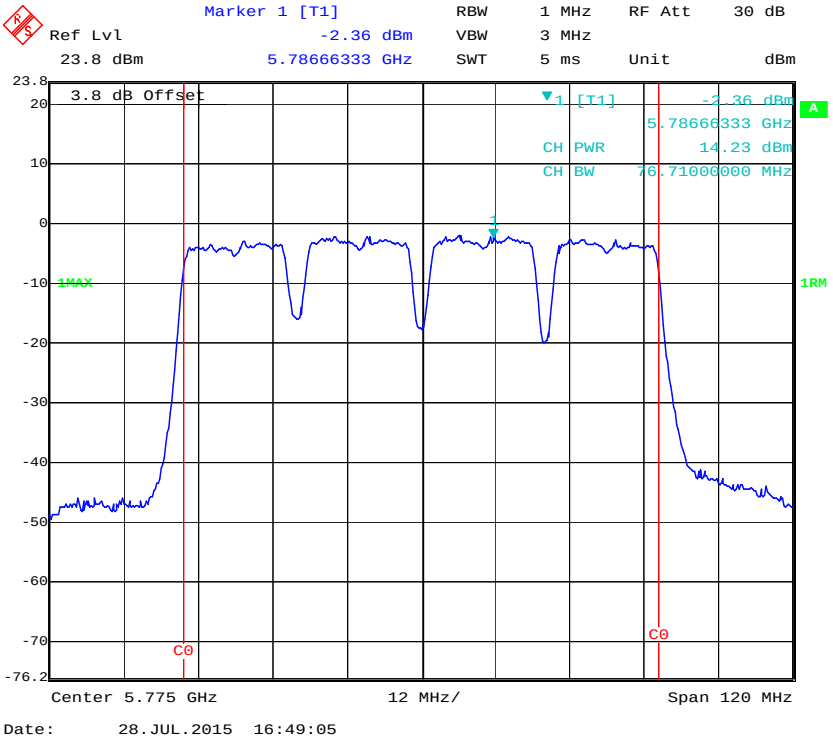
802.11ac40 mode, RF Conducted Output Power, Antenn 2, 5795 MHz



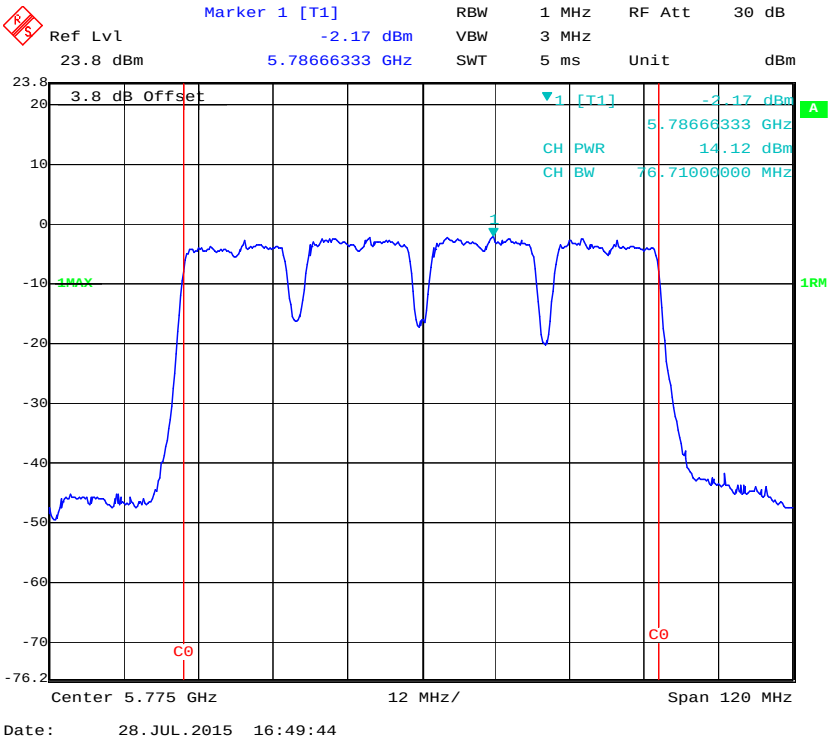
802.11ac80 mode, RF Conducted Output Power, Antenn 0, 5775 MHz



802.11ac80 mode, RF Conducted Output Power, Antenn 1, 5775 MHz



802.11ac80 mode, RF Conducted Output Power, Antenn 2, 5775 MHz



FCC §15.407(a) (1) (5) - POWER SPECTRAL DENSITY

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 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

Set span to encompass the entire EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.

(ii) Set RBW = 1 MHz.

(iii) Set VBW ≥ 3 MHz.

(iv) Number of points in sweep ≥ 2 Span / RBW. (This ensures that bin-to-bin spacing is ≤ RBW/2, so that narrowband signals are not lost between frequency bins.)

(v) Manually set sweep time ≥ 10 * (number of points in sweep) * (symbol period of the transmitted signal), but not less than the automatic default sweep time.

(vi) Set detector = RMS.

(vii) The EUT shall be operated at 100 percent duty cycle.

(viii) Perform a single sweep.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2014-12-11	2015-12-11
Rohde & Schwarz	Signal Analyzer	FSIQ26	8386001028	2015-12-11	2016-12-11

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

Test Data

Environmental Conditions

Temperature:	23 - 26 ℃
Relative Humidity:	50 - 56 %
ATM Pressure:	101.0 kPa

The testing was performed by Simon Wang from 2015-07-28 to 2015-12-20.

EUT operation mode: Transmitting

Test Result: Pass

Please refer to the following tables and plots.

Please refer to the following tables and plots.
Note: Duty Cycle = Ton/Tp*100%, if Duty cycle is below 98%, the offset should be as below:
offset = cable loss+ attenuation+ 10*lg(1/Duty Cycle)
to every mode,the duty cycle is:
802.11a:0.94
802.11n20:0.94
802.11n40:0.90
802.11ac20:0.996
802.11ac40:0.998
802.11ac80:0.941

5150 MHz – 5250 MHz:

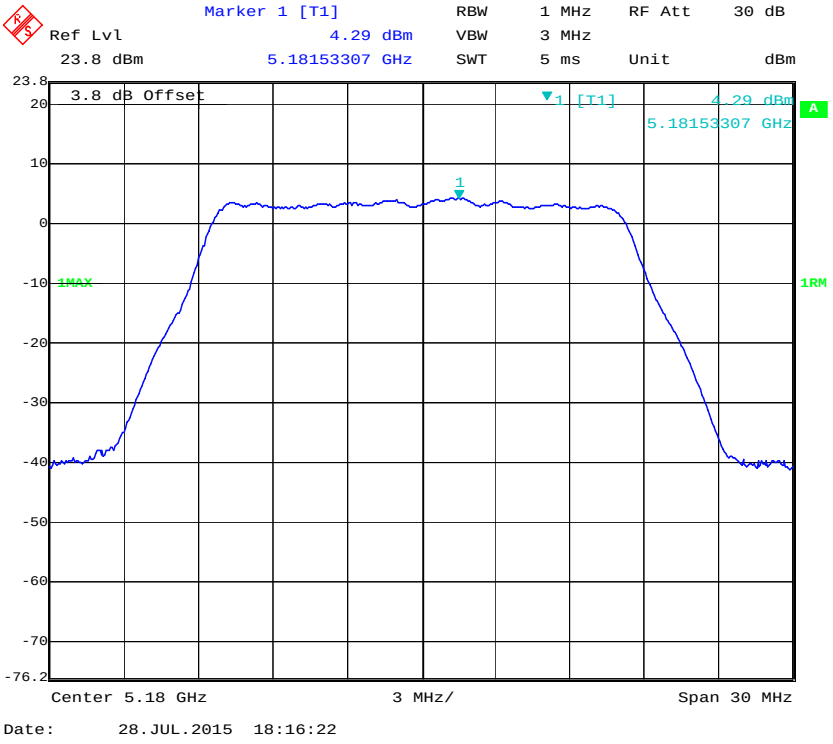
Frequency (MHz)	Antenna Port	Power Spectral Density (dBm/MHz)	Power spectral density (dBm/MHz) Chain0+Chain1+chain 2	Limit (dBm/MHz)
802.11a				
5180	0	4.29	/	17
	1	3.88		
	2	3.15		
5200	0	4.27	/	
	1	3.78		
	2	3.91		
5220	0	4.32	/	
	1	3.99		
	2	3.28		
5240	0	4.28	/	
	1	4.20		
	2	3.55		
802.11n20				
5180	0	4.21	8.58	15.2
	1	3.88		
	2	3.28		
5200	0	3.79	8.48	
	1	4.00		
	2	3.30		
5220	0	4.27	8.66	
	1	4.01		
	2	3.34		
5240	0	4.21	8.82	
	1	4.47		
	2	3.41		
802.11n40				
5190	0	1.04	5.71	15.2
	1	1.17		
	2	0.57		
5230	0	1.40	6.16	
	1	1.51		
	2	1.26		

Note: the gain of each antenna is 3dBi;
For simultaneous transmission mode of three antennas, the directional gain=3+10*logN=7.8dBi, which is higher than 6dBi, so power limit should be reduced by 1.8dB.

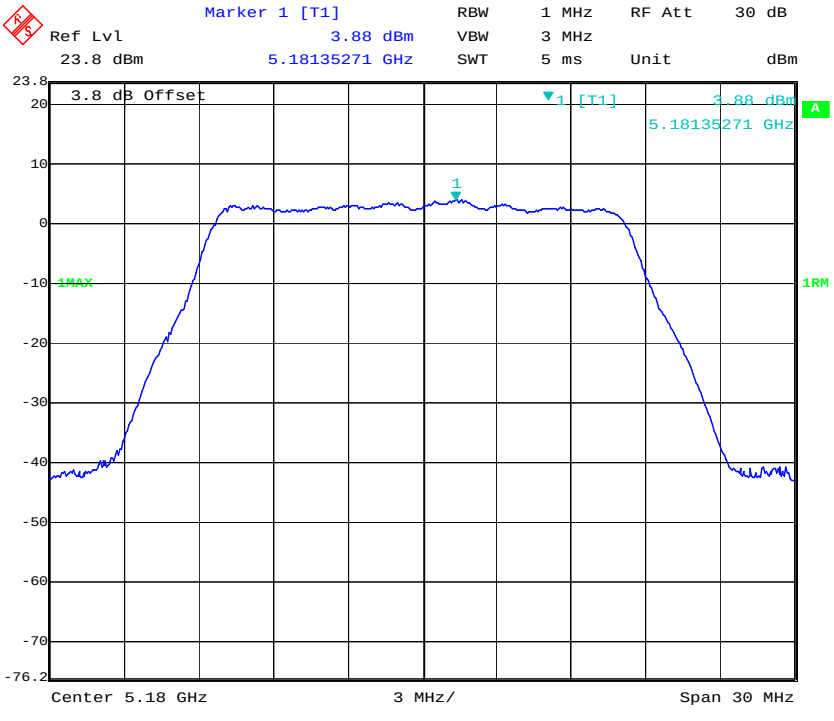
Frequency (MHz)	Antenna Port	Power Spectral Density (dBm/MHz)	Power spectral density (dBm/MHz) Chain0+Chain1+chain 2	Limit (dBm/MHz)
802.11ac20				
5180	0	2.34	7.05	15.2
	1	2.49		
	2	1.98		
5200	0	2.54	7.06	
	1	2.23		
	2	2.08		
5240	0	2.85	7.56	
	1	2.86		
	2	2.65		
802.11ac40				
5190	0	0.02	4.64	15.2
	1	0.08		
	2	-0.52		
5230	0	0.04	4.71	
	1	0.14		
	2	-0.39		
802.11ac80				
5210	0	-1.32	3.12	15.2
	1	-1.68		
	2	-1.99		

Note: the gain of each antenna is 3dBi;
For simultaneous transmission mode of three antennas, the directional gain=3+10*logN=7.8dBi, which is higher than 6dBi, so power limit should be reduced by 1.8dB.

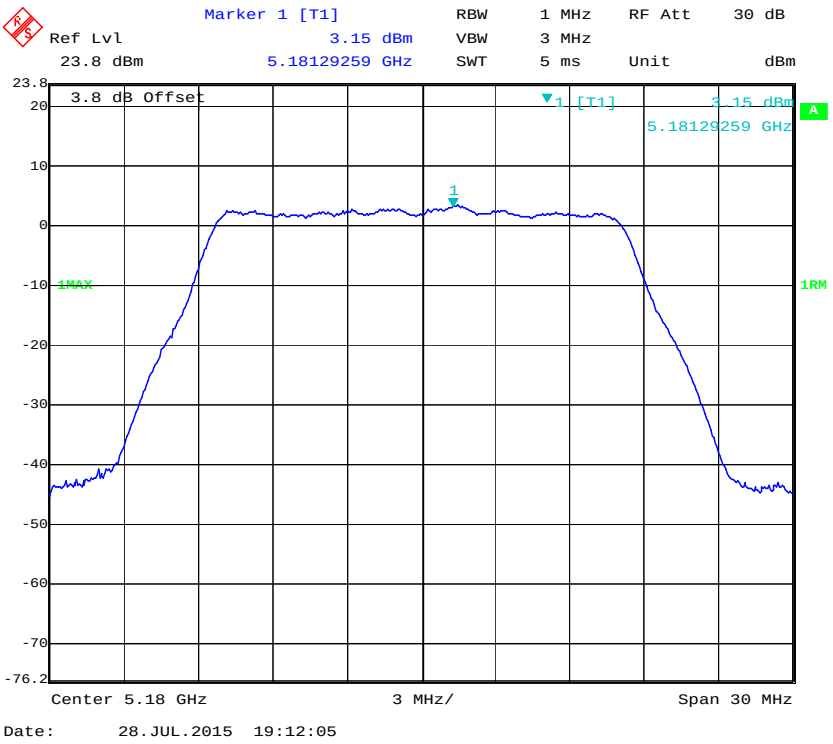
802.11a mode, Power Spectral Density, Antenn 0, 5180 MHz



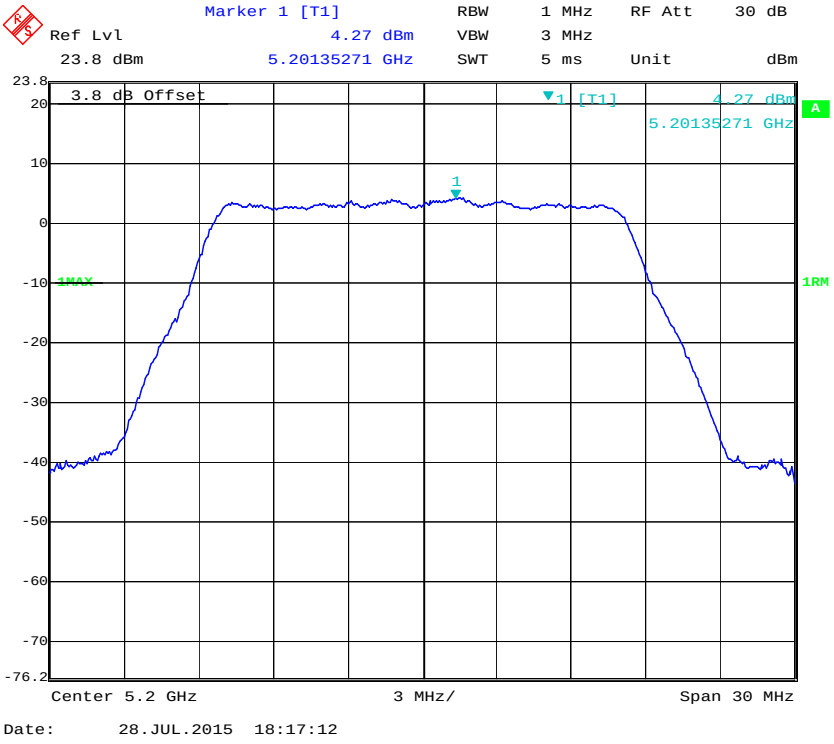
802.11a mode, Power Spectral Density, Antenn 1, 5180 MHz



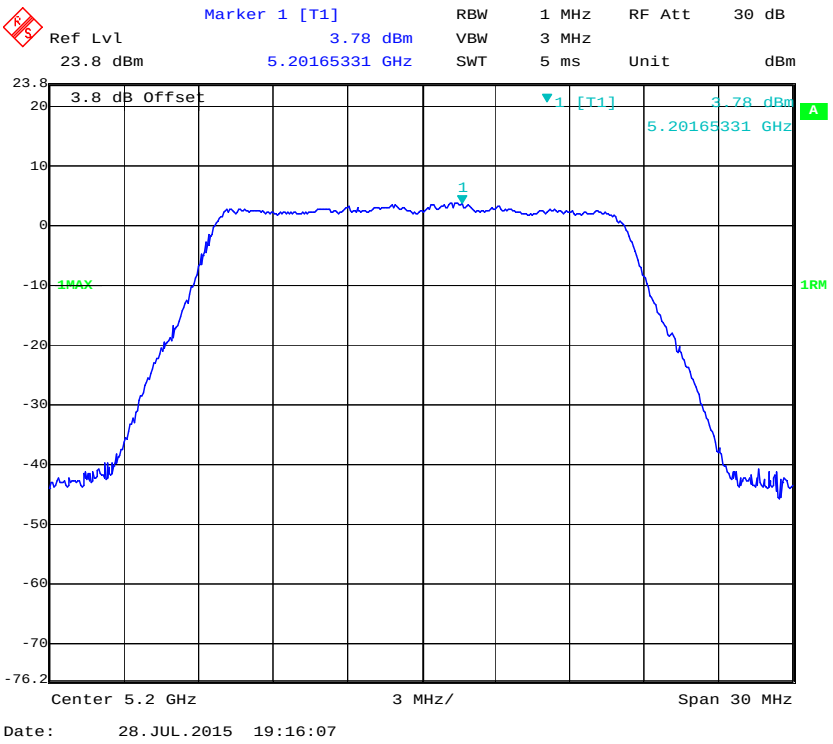
802.11a mode, Power Spectral Density, Antenn 2, 5180 MHz



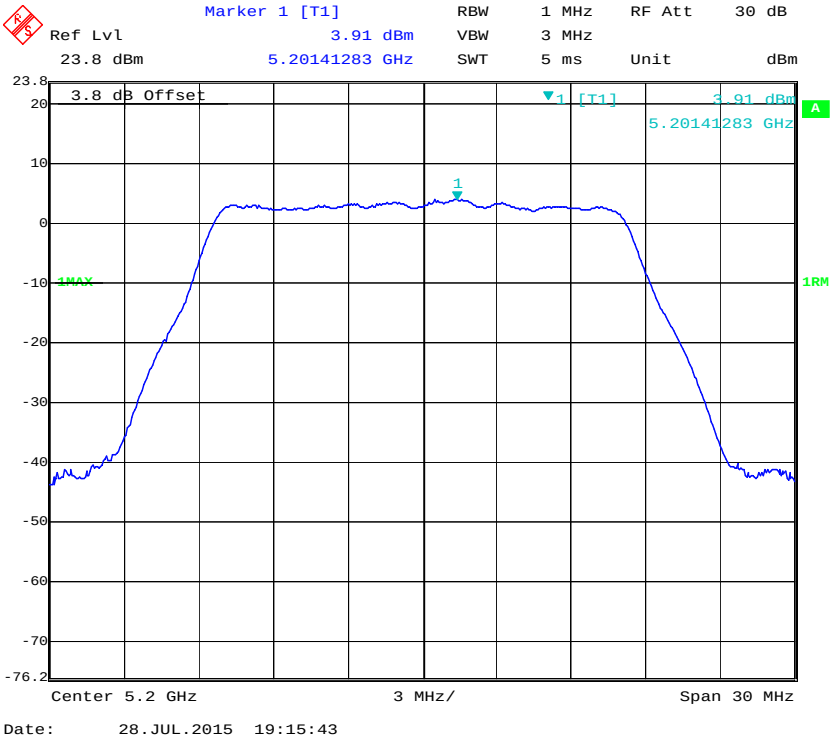
802.11a mode, Power Spectral Density, Antenn 0, 5200 MHz



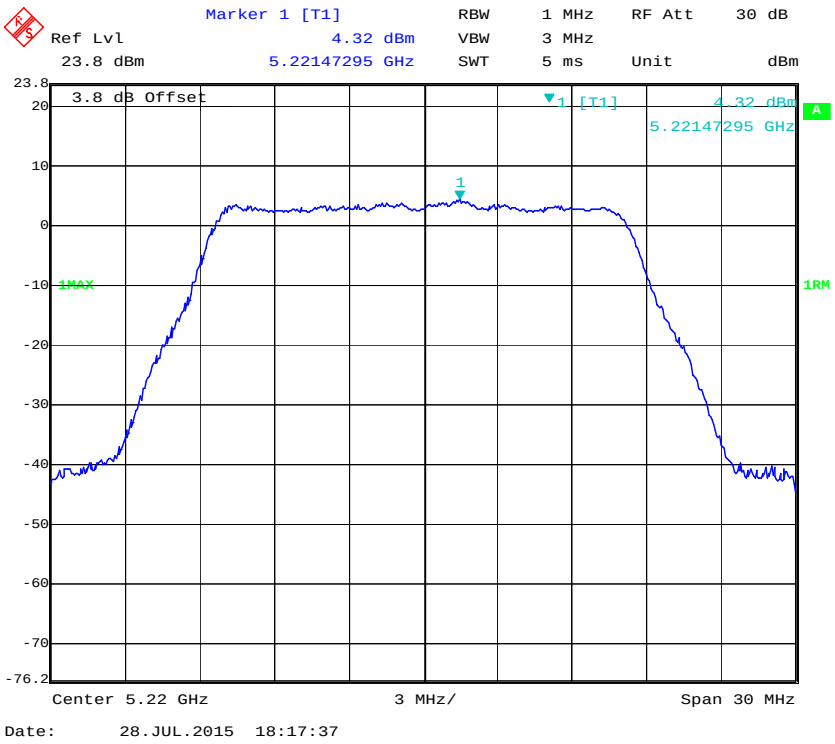
802.11a mode, Power Spectral Density, Antenn 1, 5200 MHz



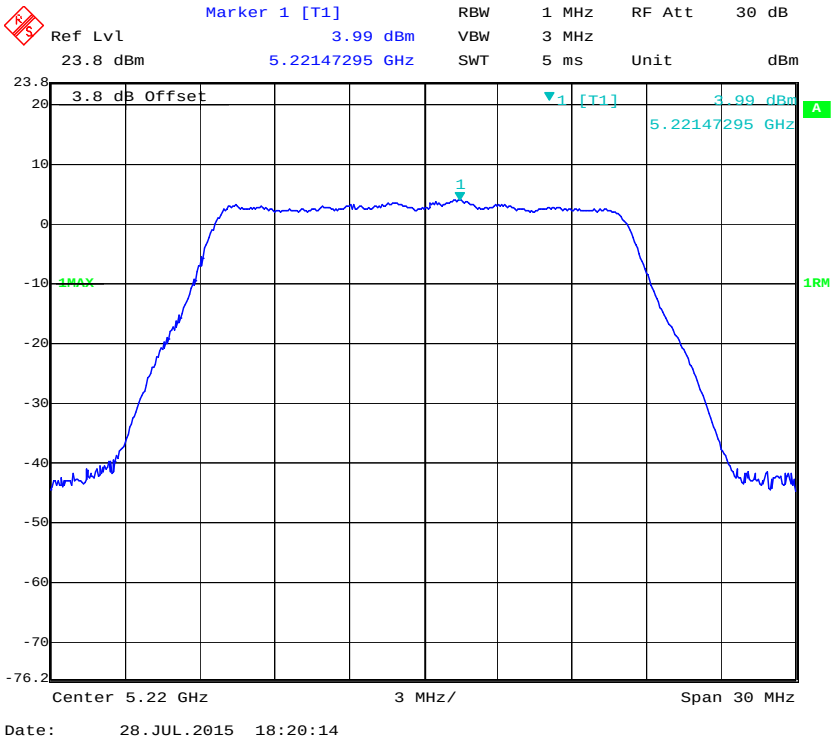
802.11a mode, Power Spectral Density, Antenn 2, 5200 MHz



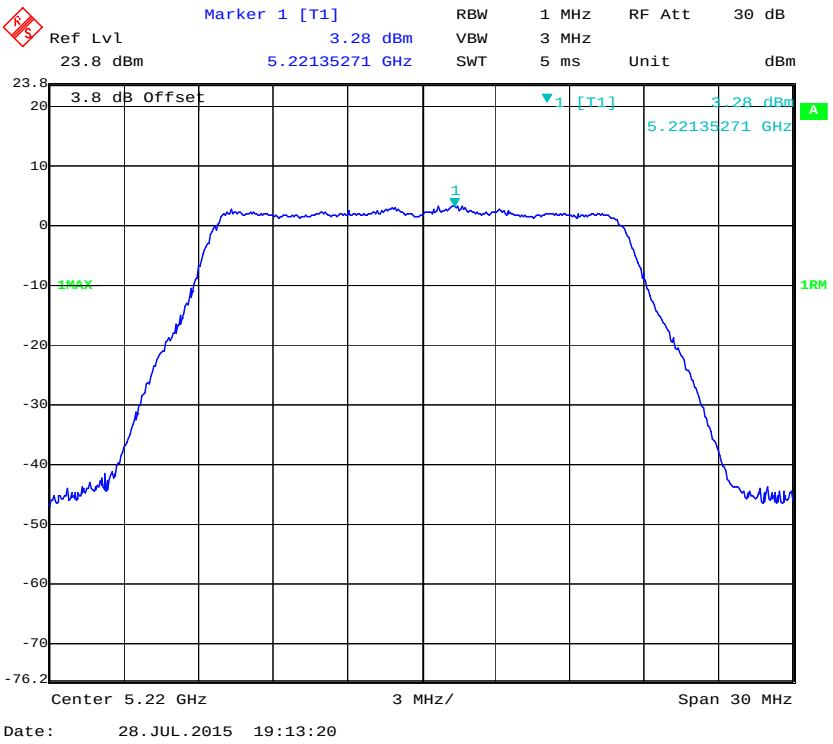
802.11a mode, Power Spectral Density, Antenn 0, 5220 MHz



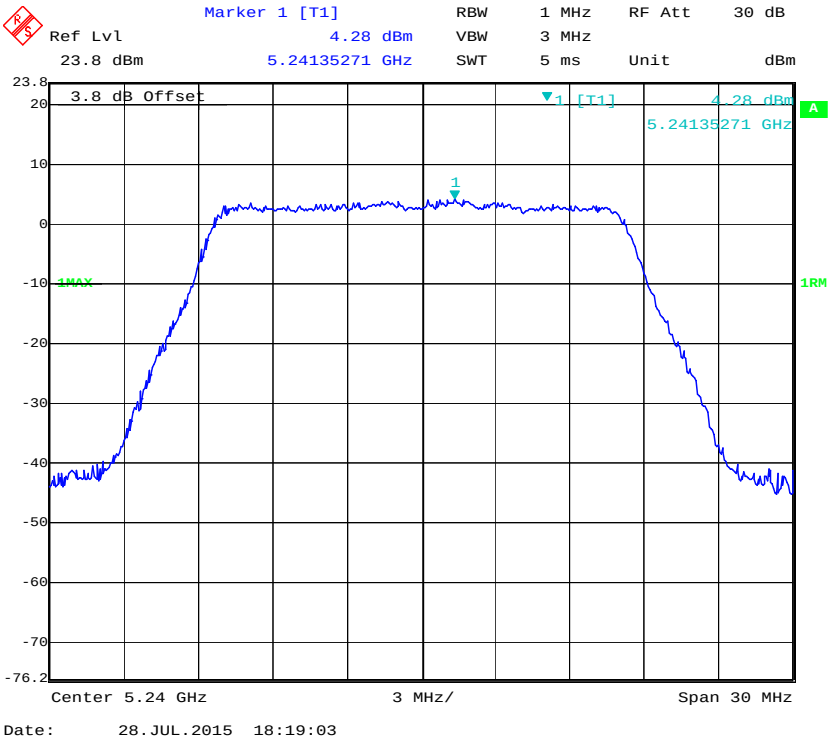
802.11a mode, Power Spectral Density, Antenn 1, 5220 MHz



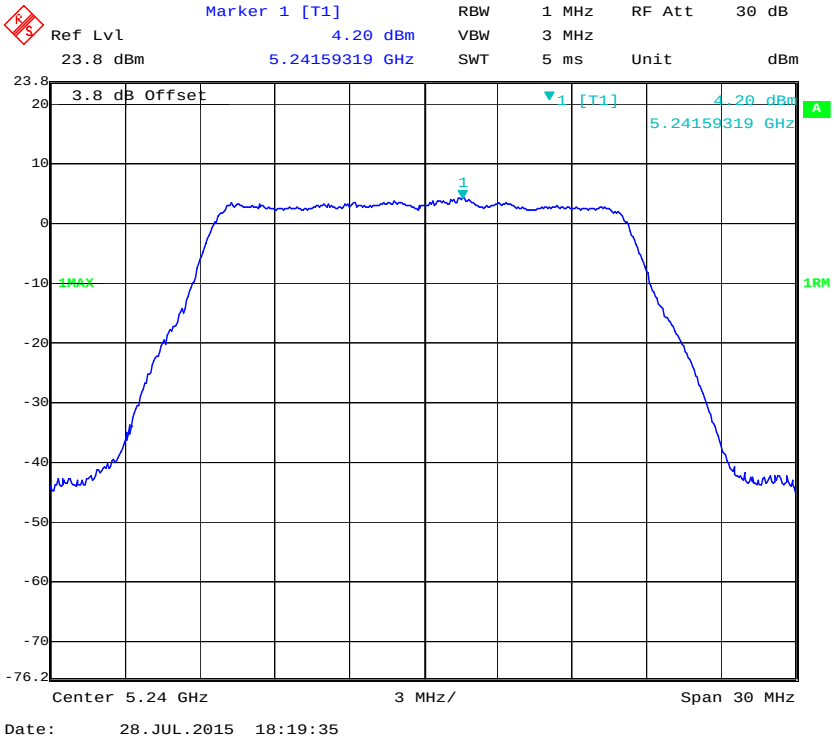
802.11a mode, Power Spectral Density, Antenn 2, 5220 MHz



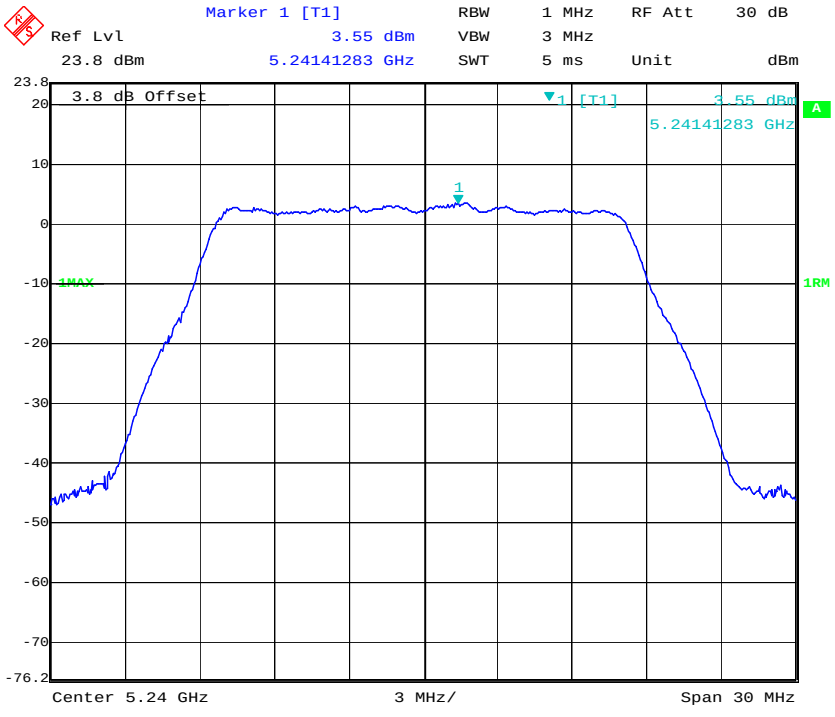
802.11a mode, Power Spectral Density, Antenn 0, 5240 MHz



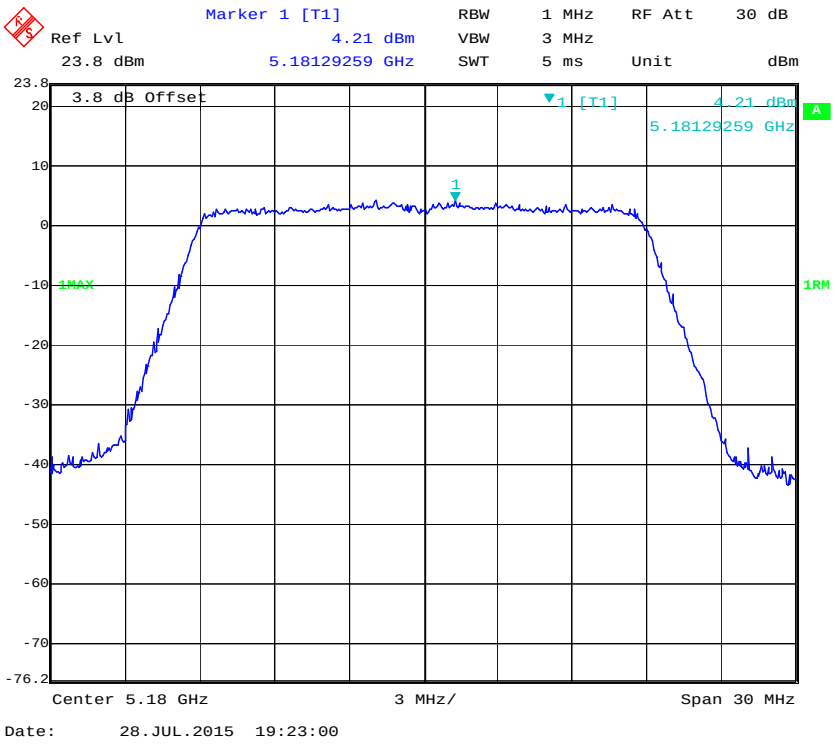
802.11a mode, Power Spectral Density, Antenn 1, 5240 MHz



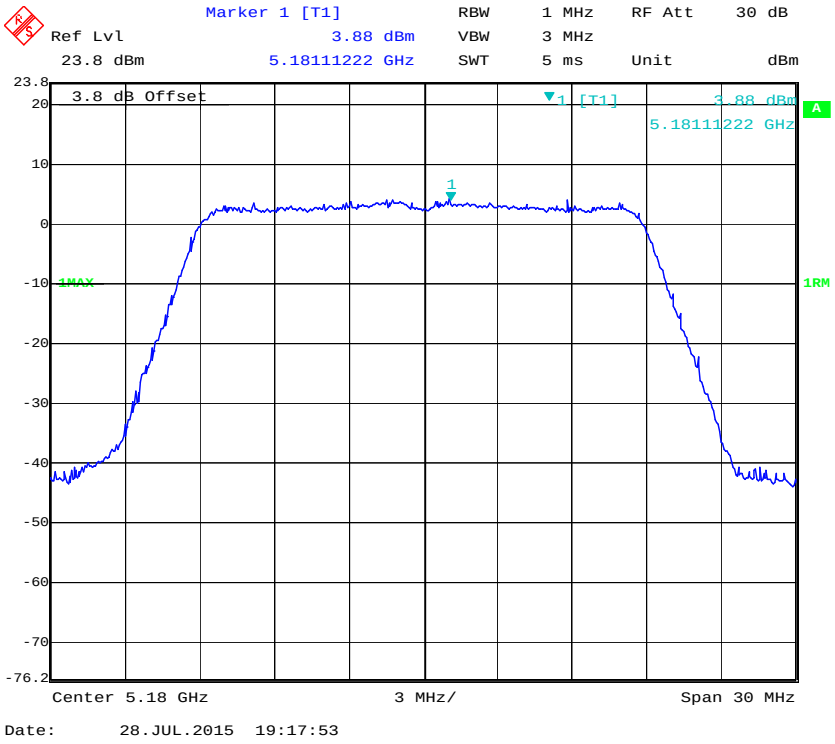
802.11a mode, Power Spectral Density, Antenn 2, 5240 MHz



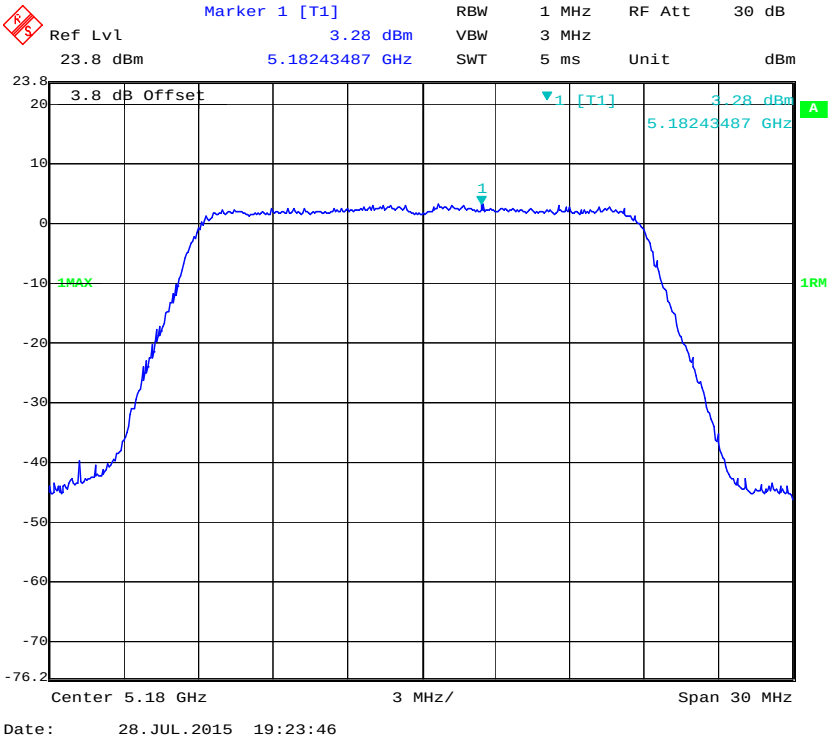
802.11n20 mode, Power Spectral Density, Antenn 0, 5180 MHz



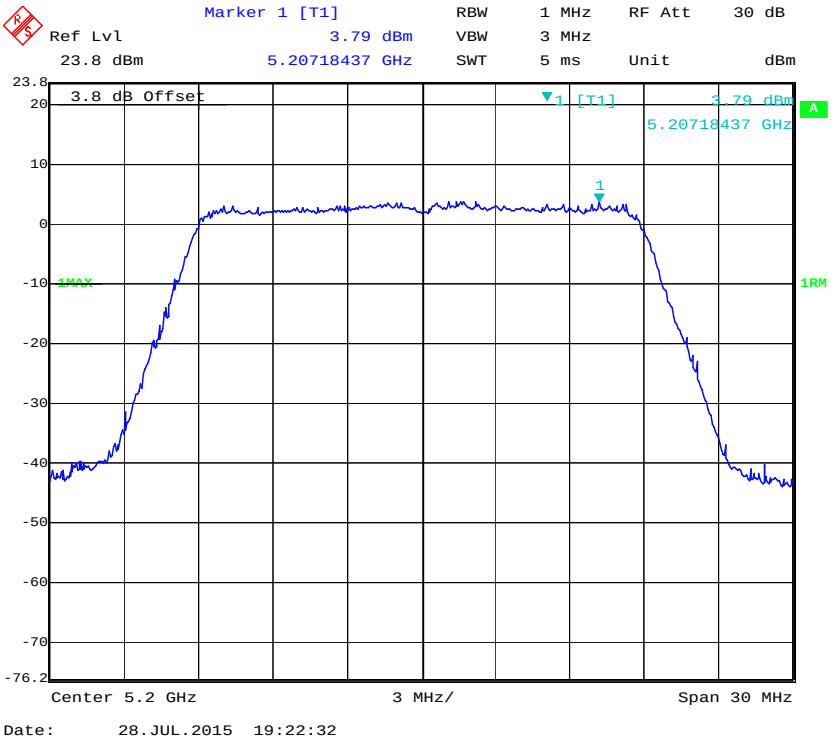
802.11n20 mode, Power Spectral Density, Antenn 1, 5180 MHz



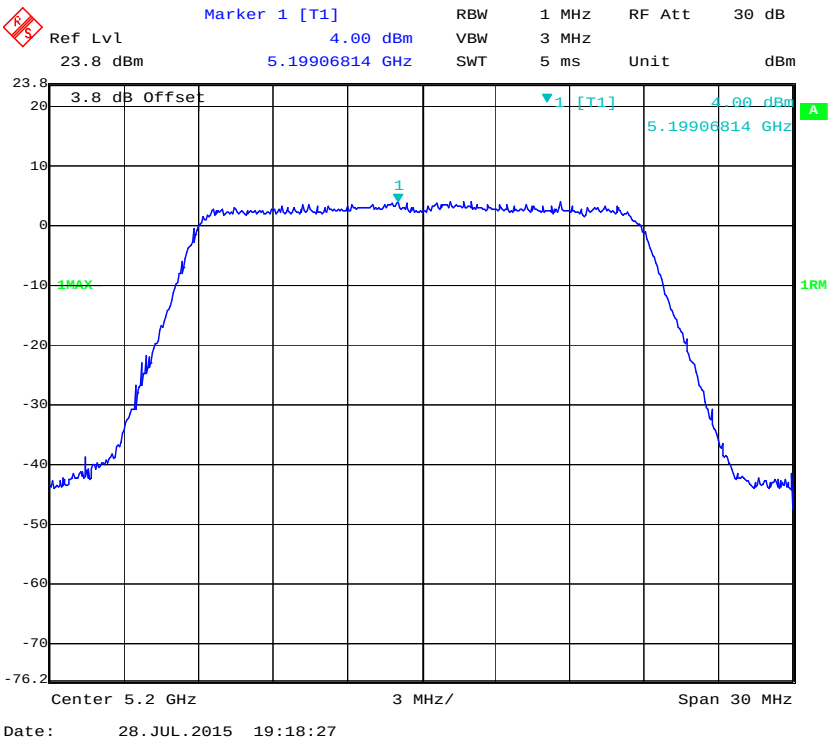
802.11n20 mode, Power Spectral Density, Antenn 2, 5180 MHz



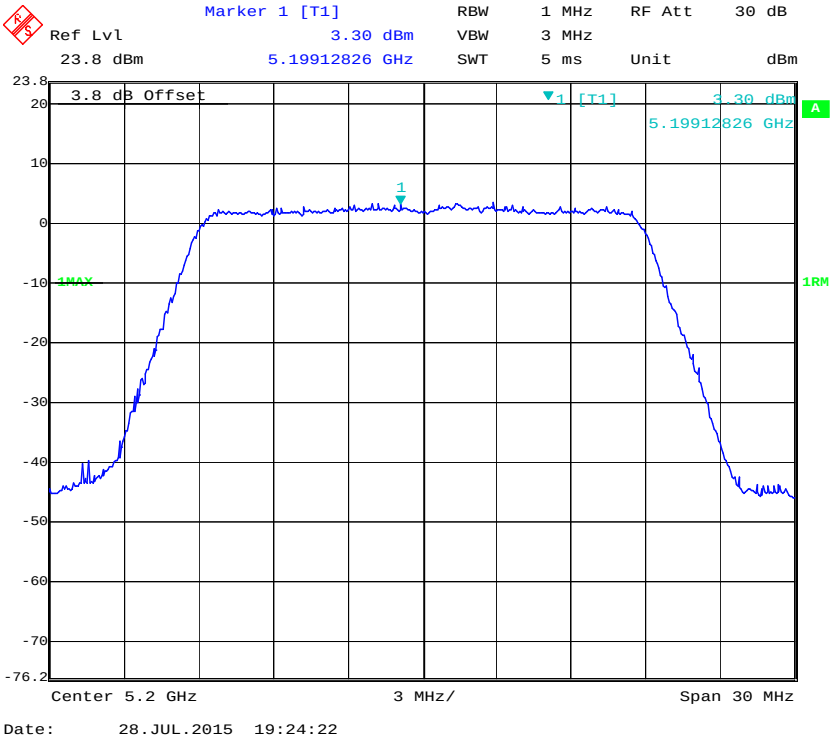
802.11n20 mode, Power Spectral Density, Antenn 0, 5200 MHz



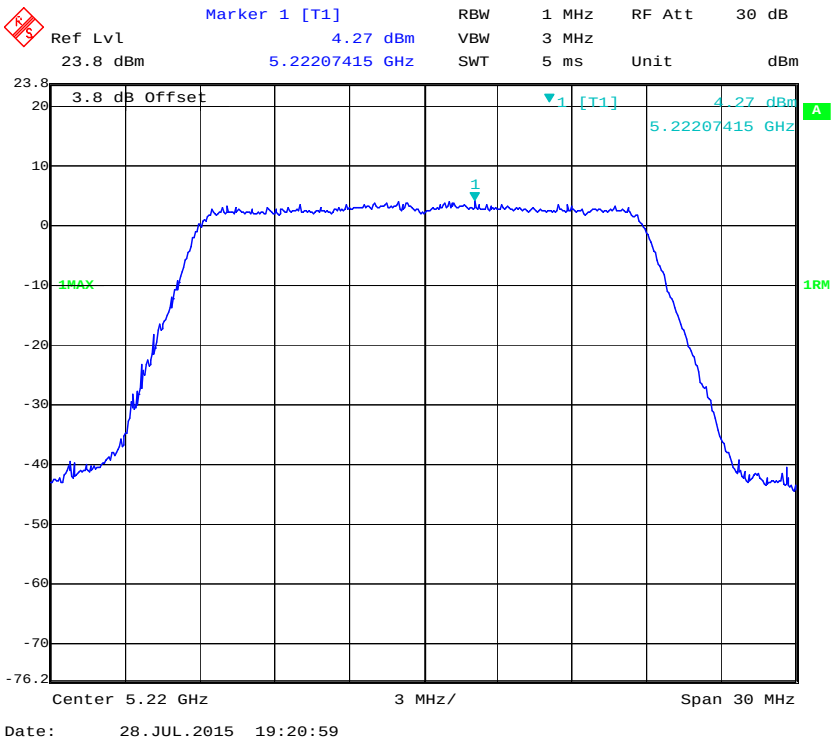
802.11n20 mode, Power Spectral Density, Antenn 1, 5200 MHz



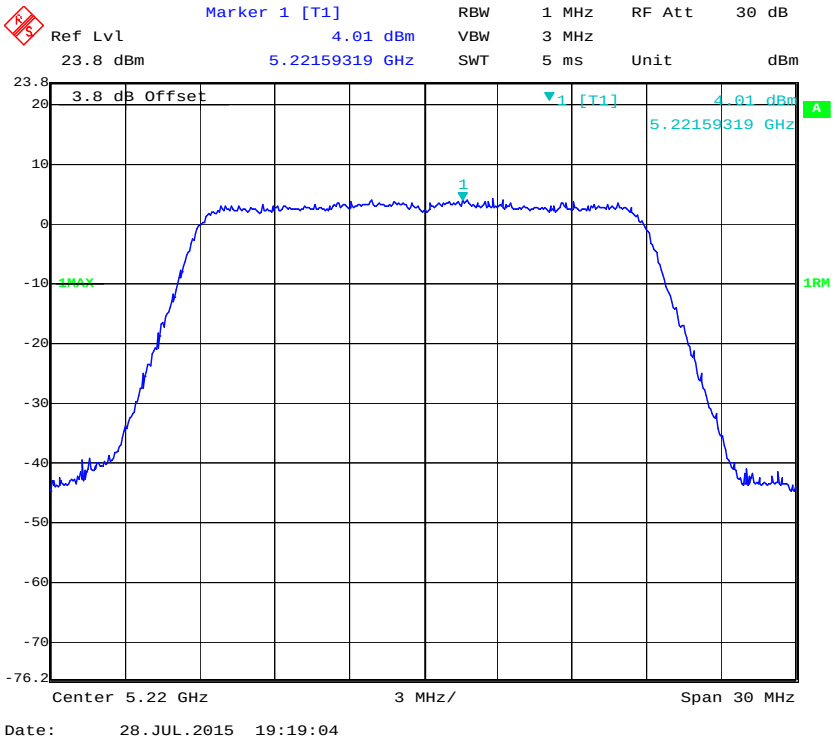
802.11n20 mode, Power Spectral Density, Antenn 2, 5200 MHz



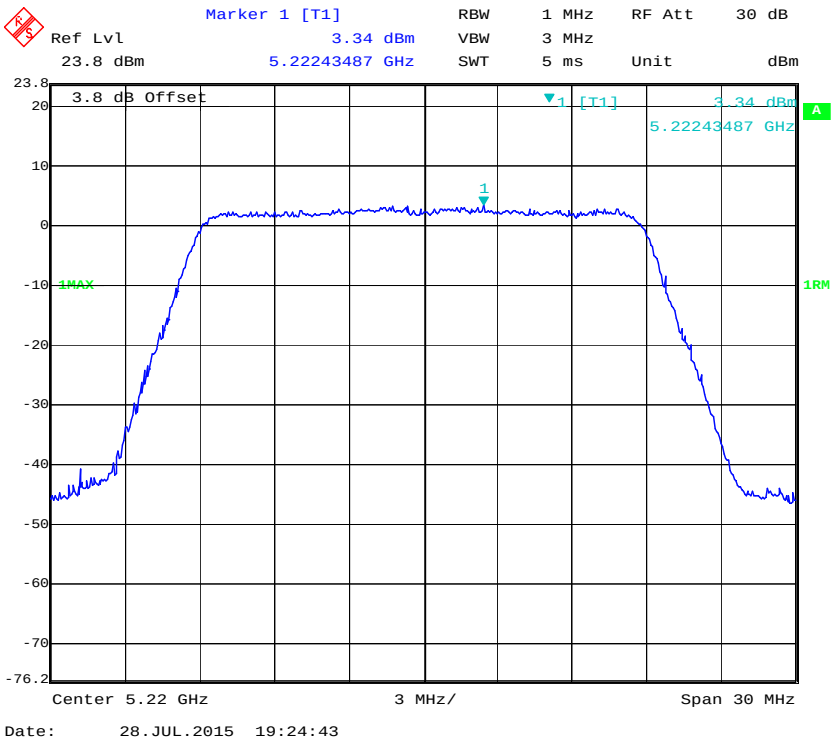
802.11n20 mode, Power Spectral Density, Antenn 0, 5220 MHz



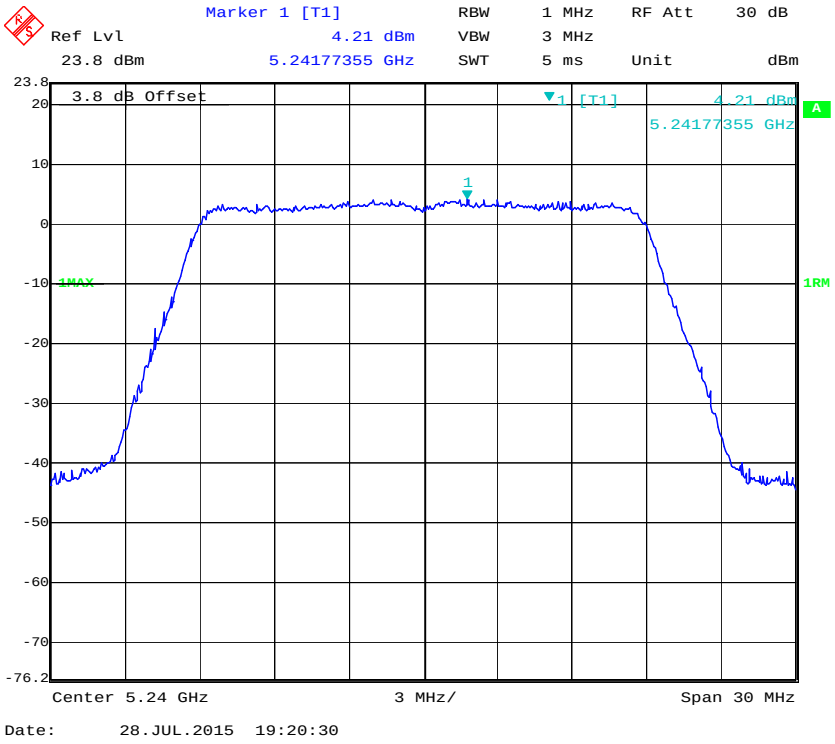
802.11n20 mode, Power Spectral Density, Antenn 1, 5220 MHz



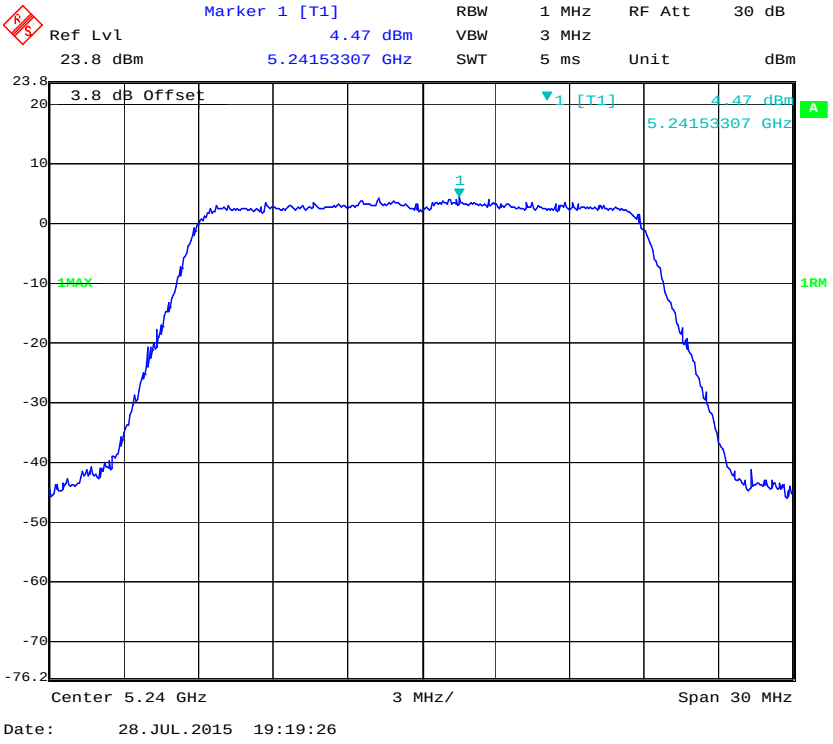
802.11n20 mode, RF Power Spectral Density, Antenn 2, 5220 MHz



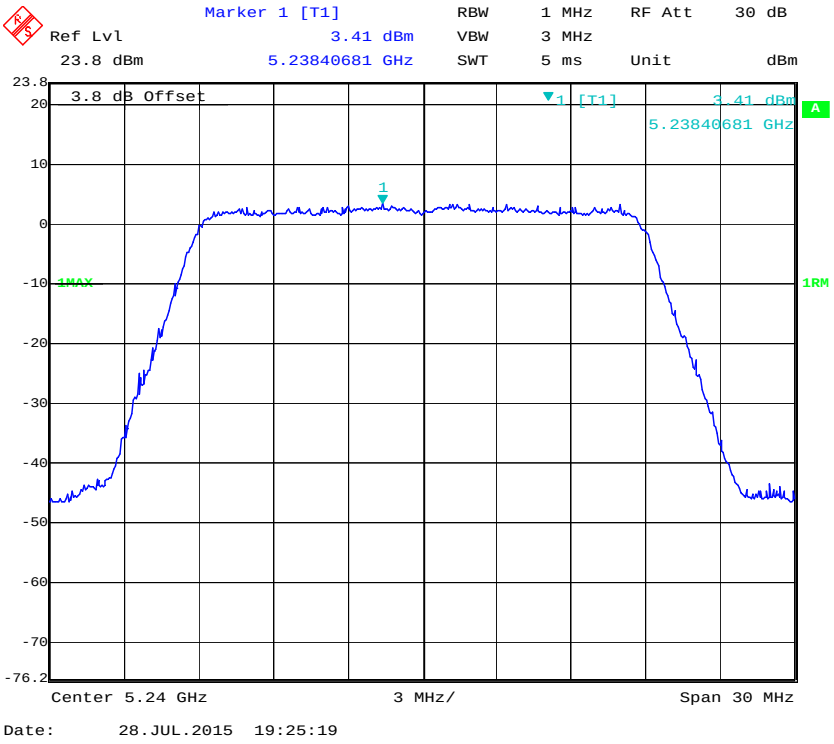
802.11n20 mode, Power Spectral Density, Antenn 0, 5240 MHz



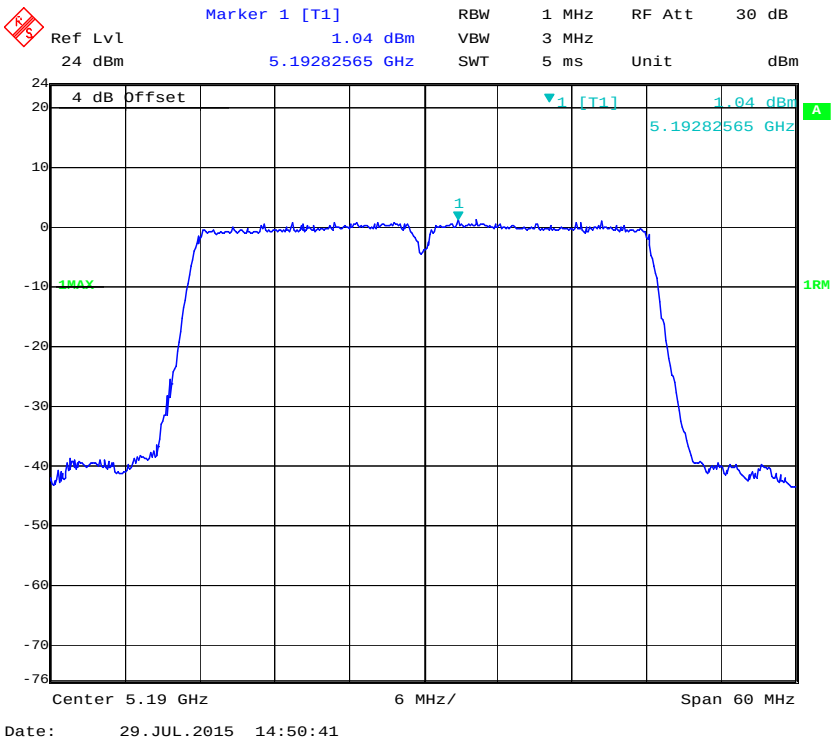
802.11n20 mode, Power Spectral Density, Antenn 1, 5240 MHz



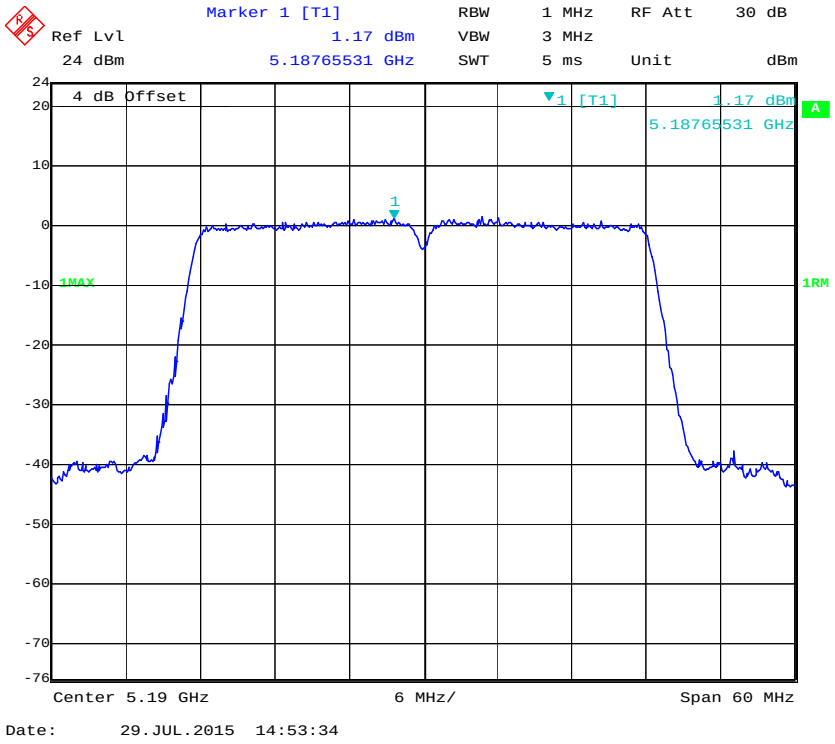
802.11n20 mode, RF Power Spectral Density, Antenn 2, 5240 MHz



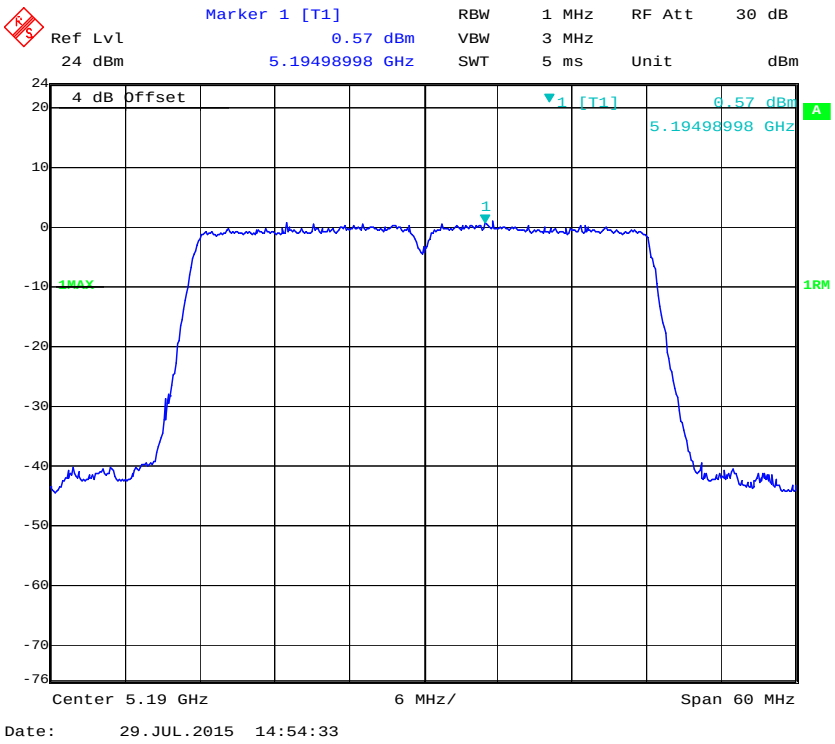
802.11n40 mode, Power Spectral Density, Antenn 0, 5190 MHz



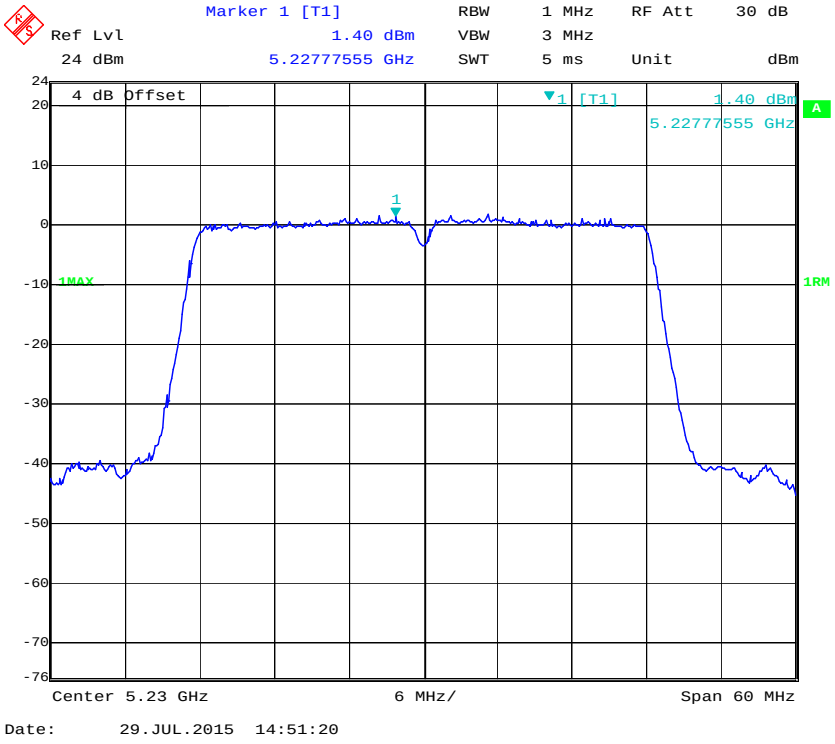
802.11n40 mode, Power Spectral Density, Antenn 1, 5190 MHz



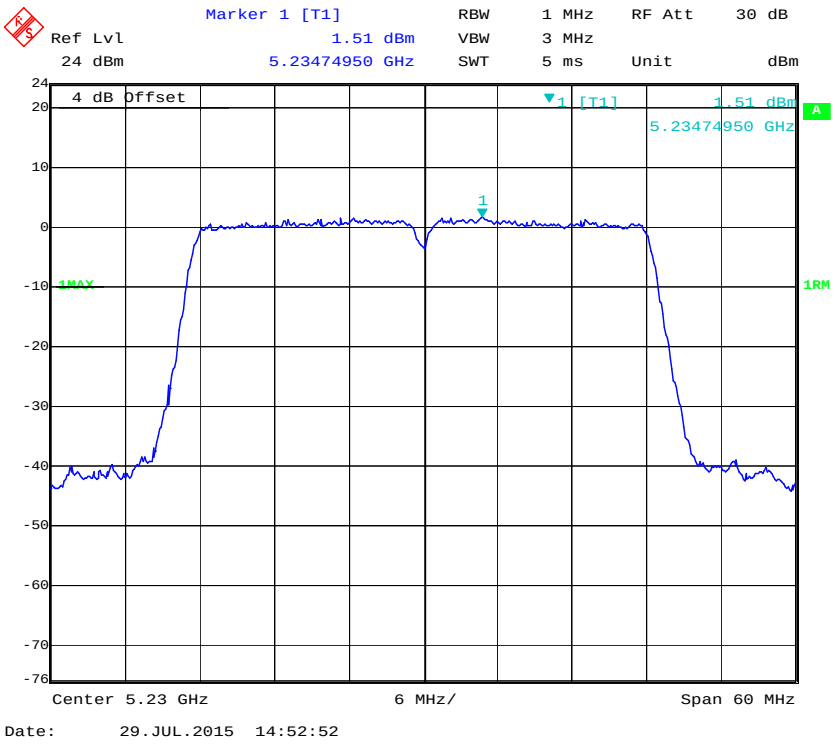
802.11n40 mode, Power Spectral Density, Antenn 2, 5190 MHz



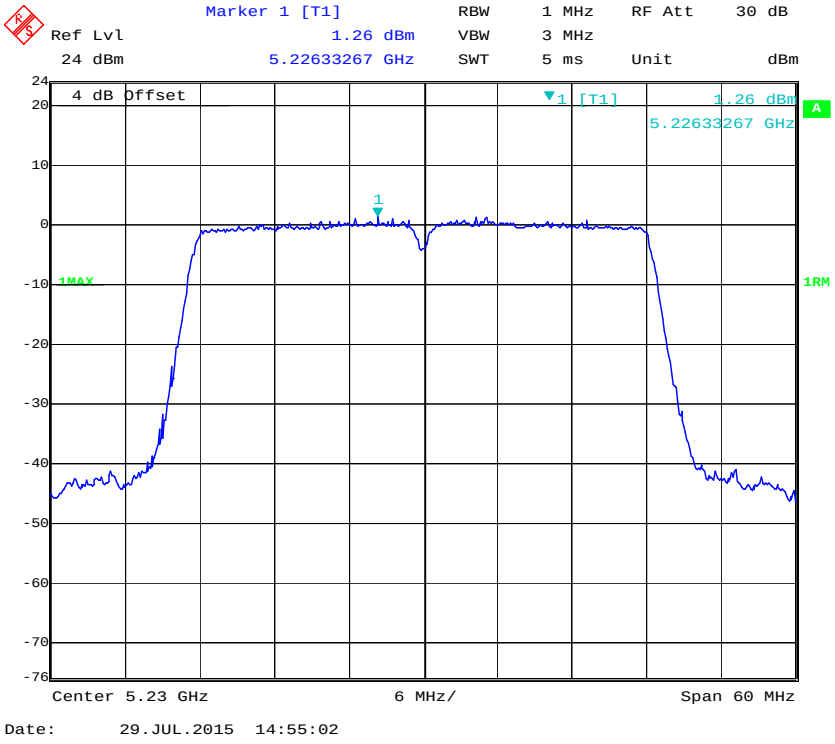
802.11n40 mode, Power Spectral Density, Antenn 0, 5230 MHz



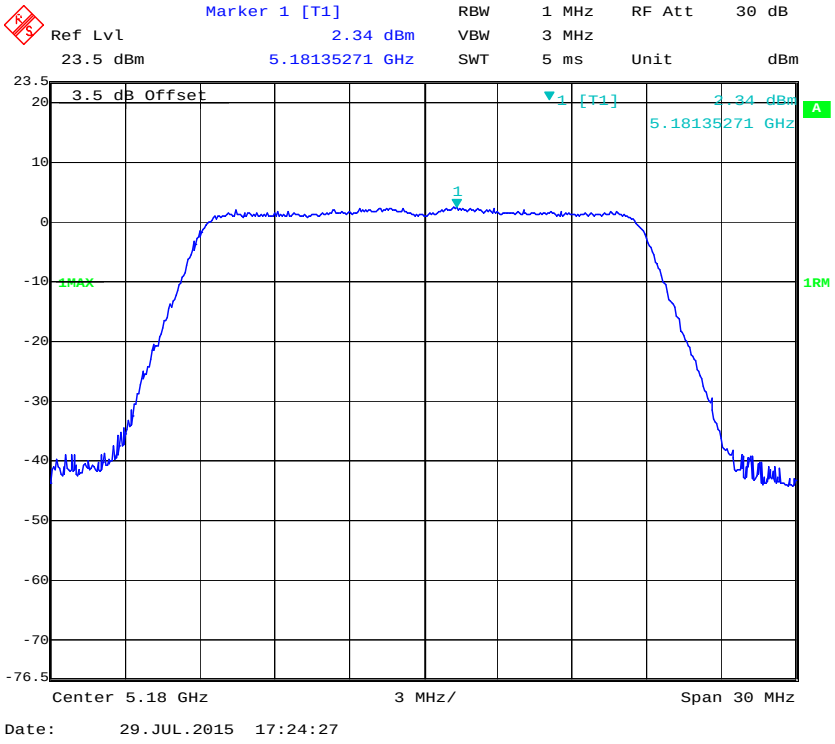
802.11n40 mode, Power Spectral Density, Antenn 1, 5230 MHz



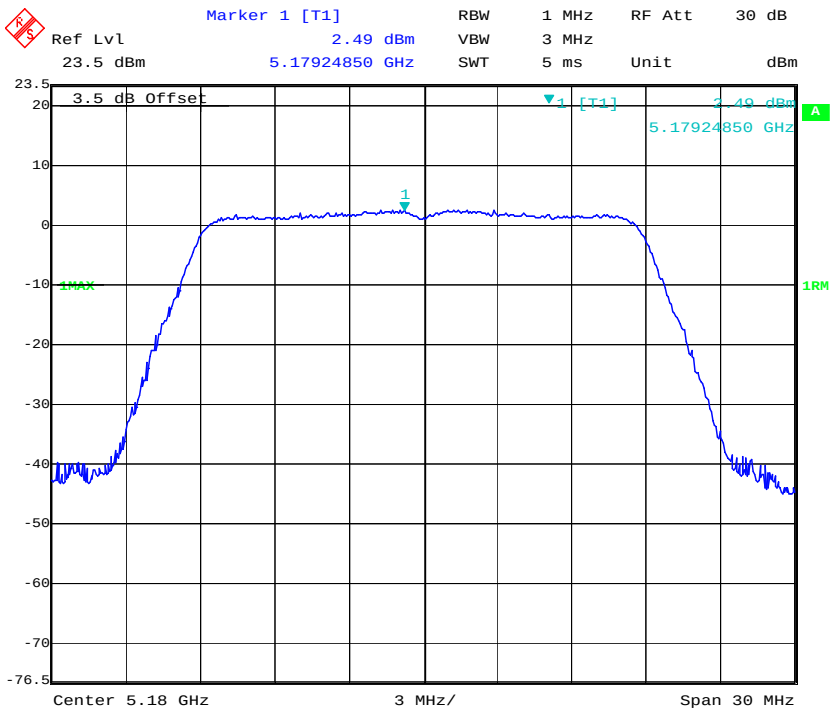
802.11n40 mode, Power Spectral Density, Antenn 2, 5230 MHz



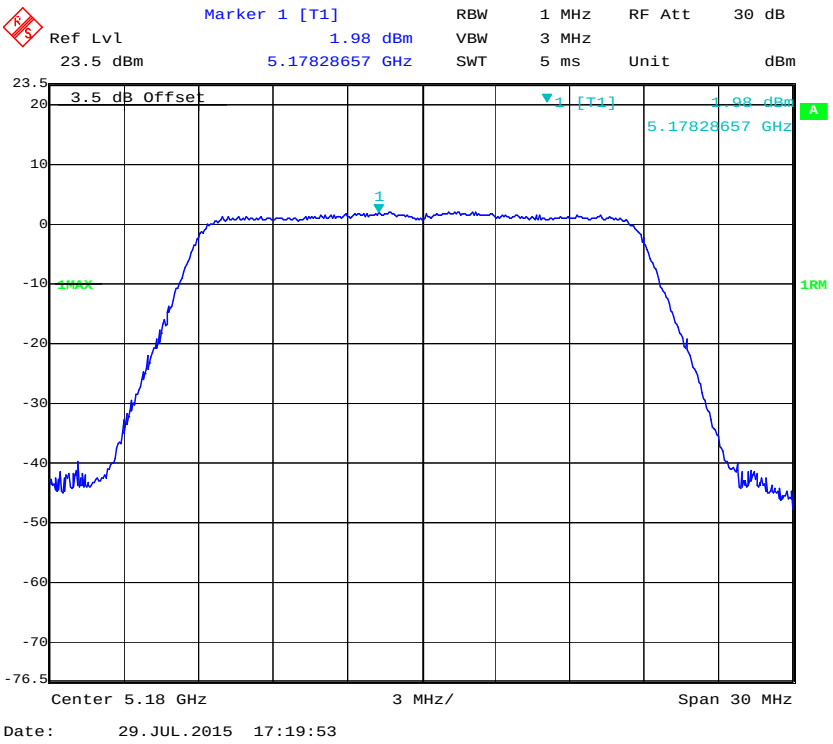
802.11ac20 mode, Power Spectral Density, Antenn 0, 5180 MHz



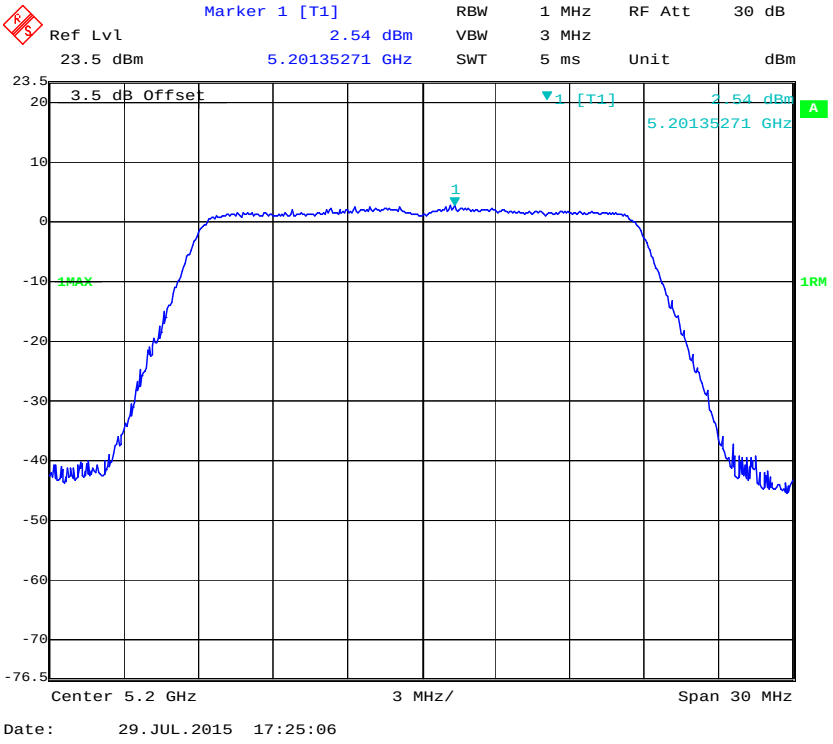
802. 11ac20 mode, Power Spectral Density, Antenn 1, 5180 MHz



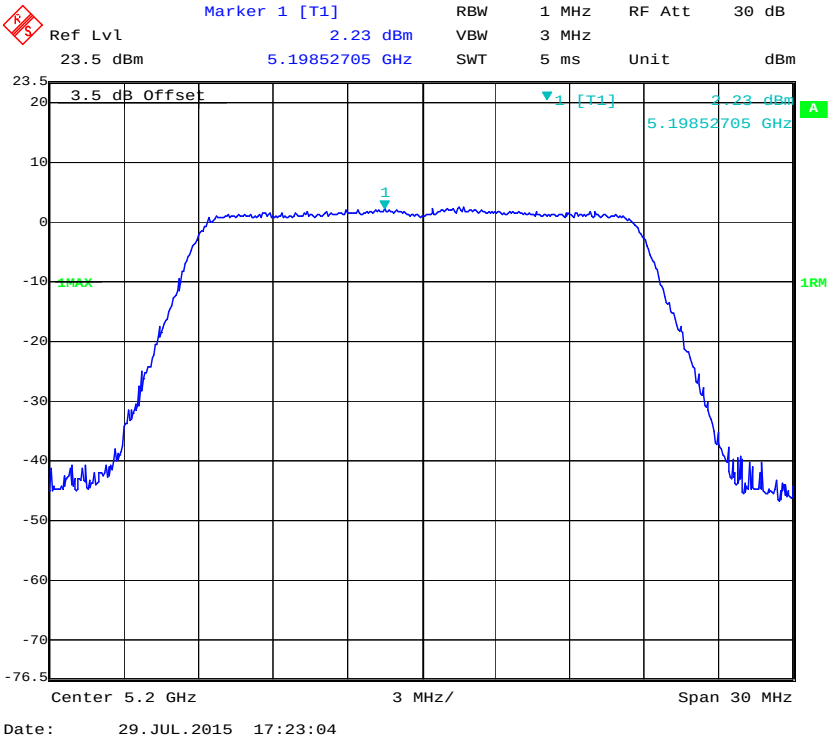
802. 11ac20 mode, Power Spectral Density, Antenn 2, 5180 MHz



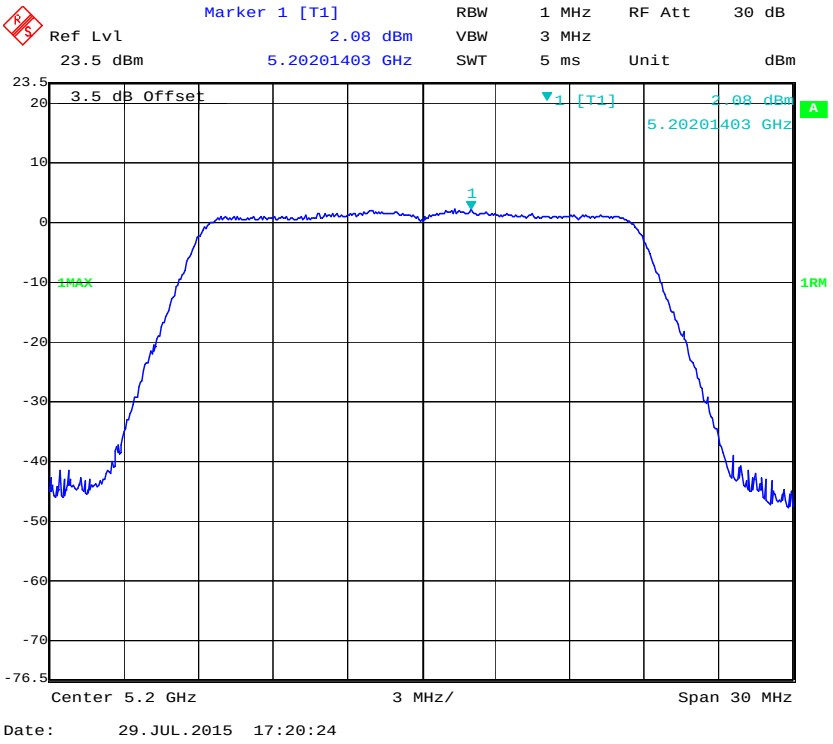
802. 11ac20 mode, Power Spectral Density, Antenn 0, 5200 MHz



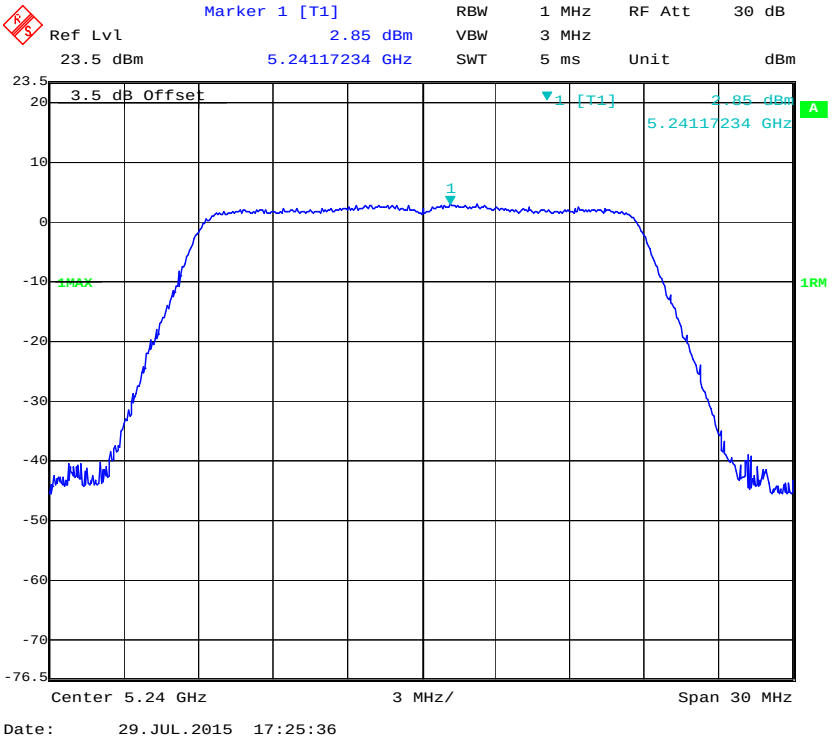
802. 11ac20 mode, Power Spectral Density, Antenn 1, 5200 MHz



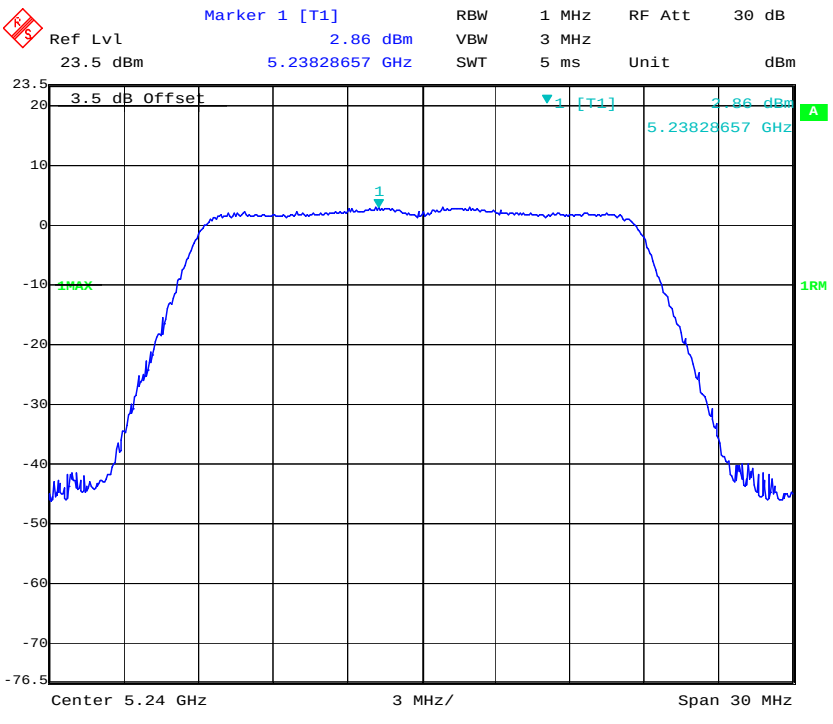
802. 11ac20 mode, Power Spectral Density, Antenn 2, 5200 MHz



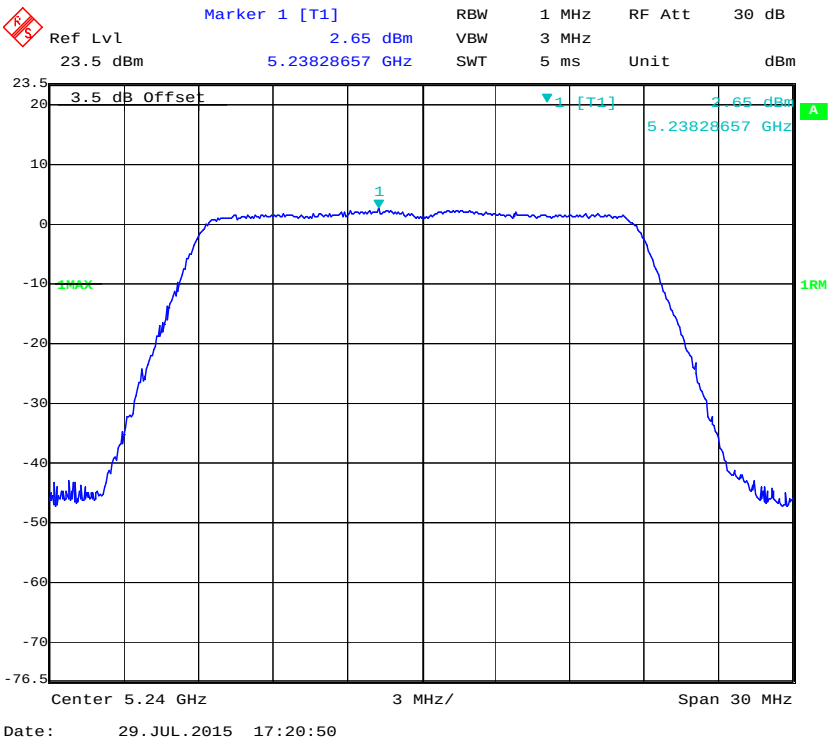
802. 11ac20 mode, Power Spectral Density, Antenn 0, 5240 MHz



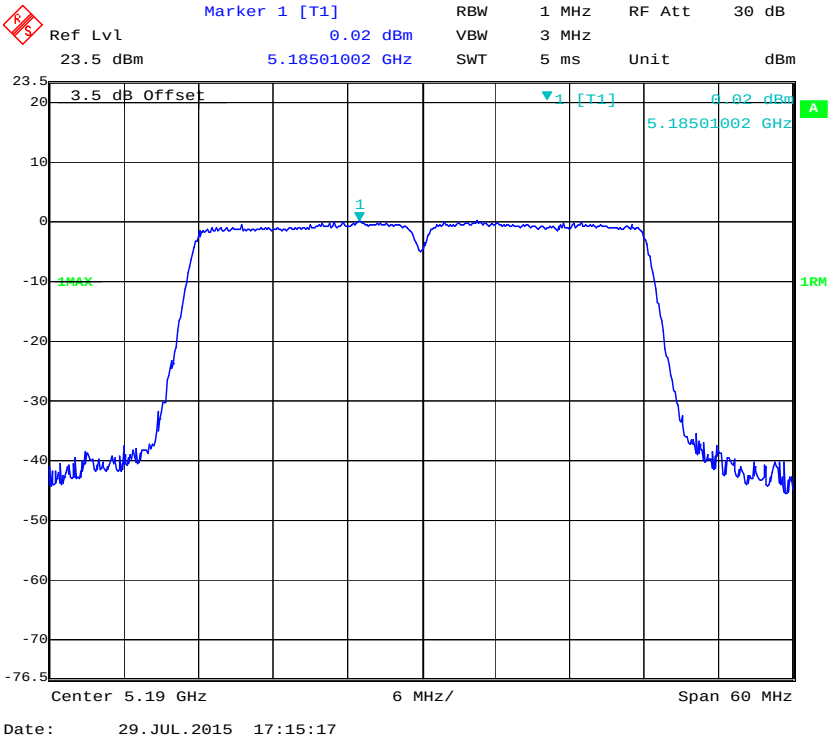
802. 11ac20 mode, Power Spectral Density, Antenn 1, 5240 MHz



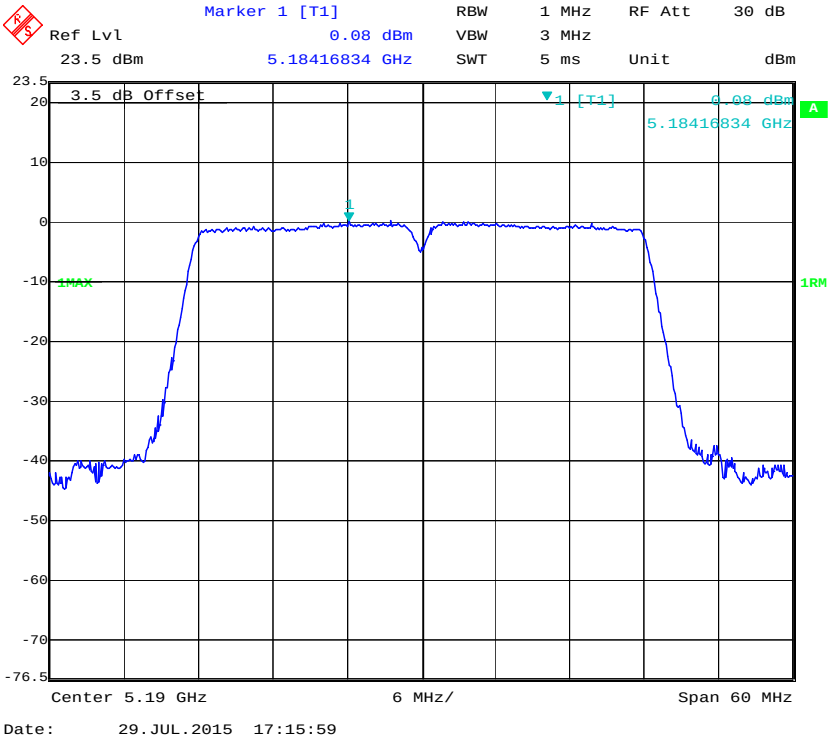
802. 11ac20 mode, Power Spectral Density, Antenn 2, 5240 MHz



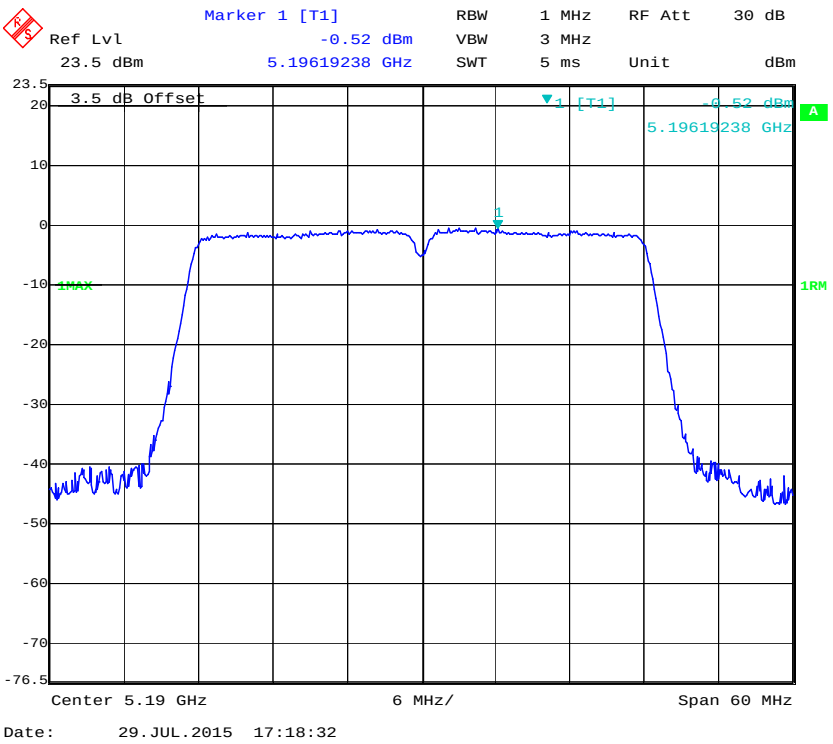
802. 11ac40 mode, Power Spectral Density, Antenn 0, 5190 MHz



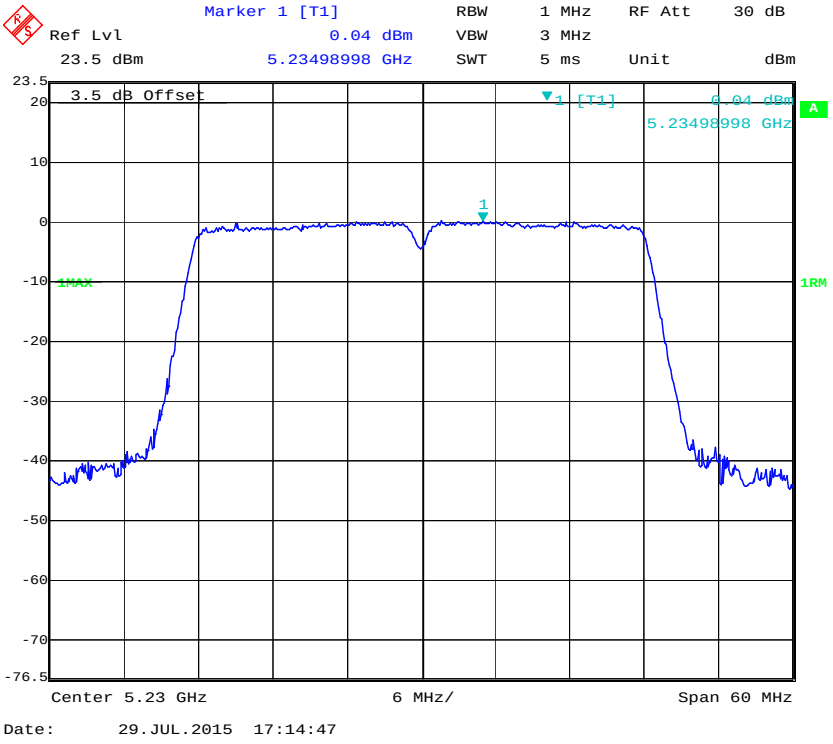
802. 11ac40 mode, Power Spectral Density, Antenn 1, 5190 MHz



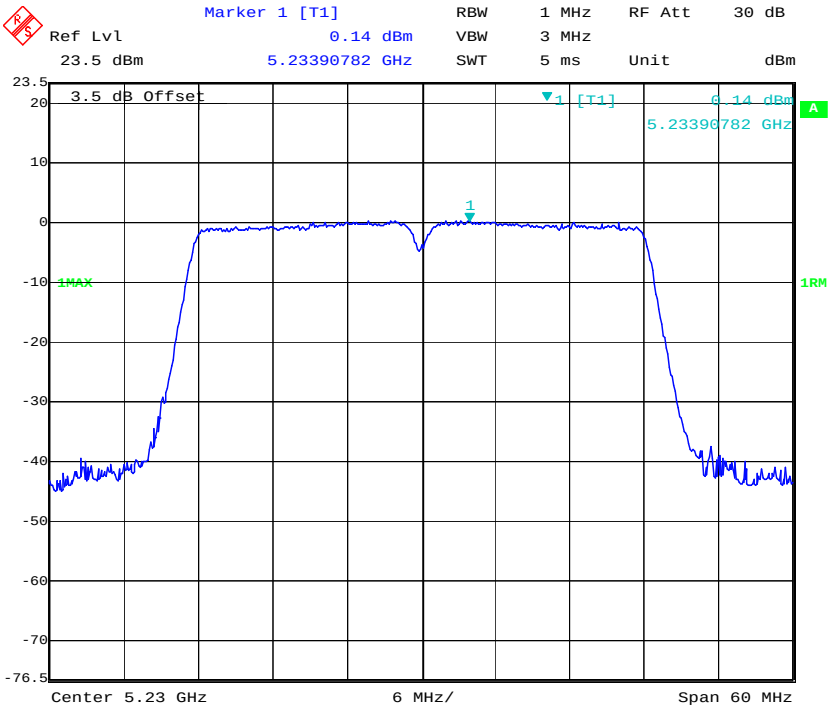
802. 11ac40 mode, Power Spectral Density, Antenn 2, 5190 MHz



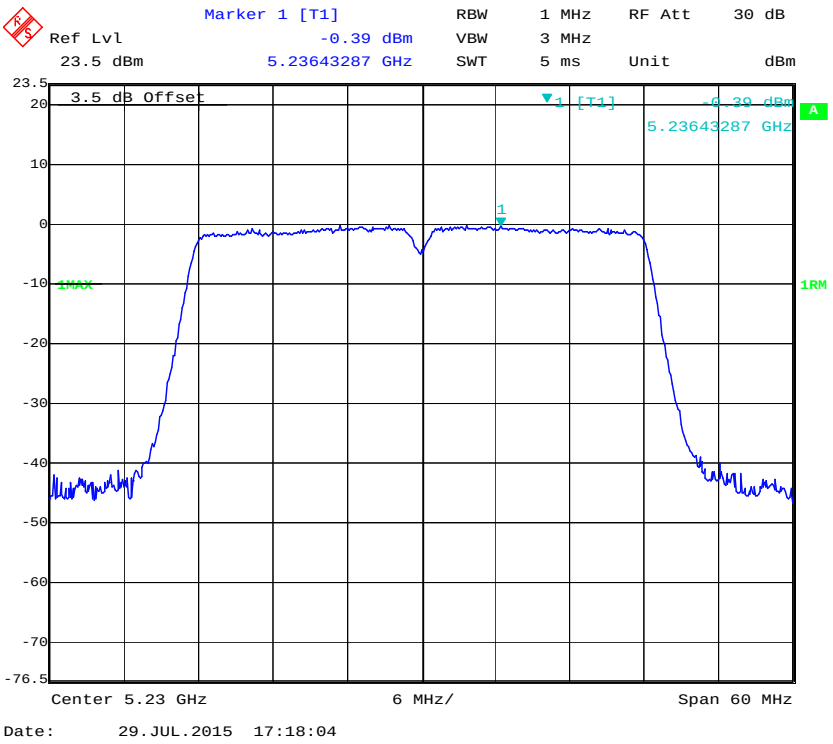
802. 11ac40 mode, Power Spectral Density, Antenn 0, 5230 MHz



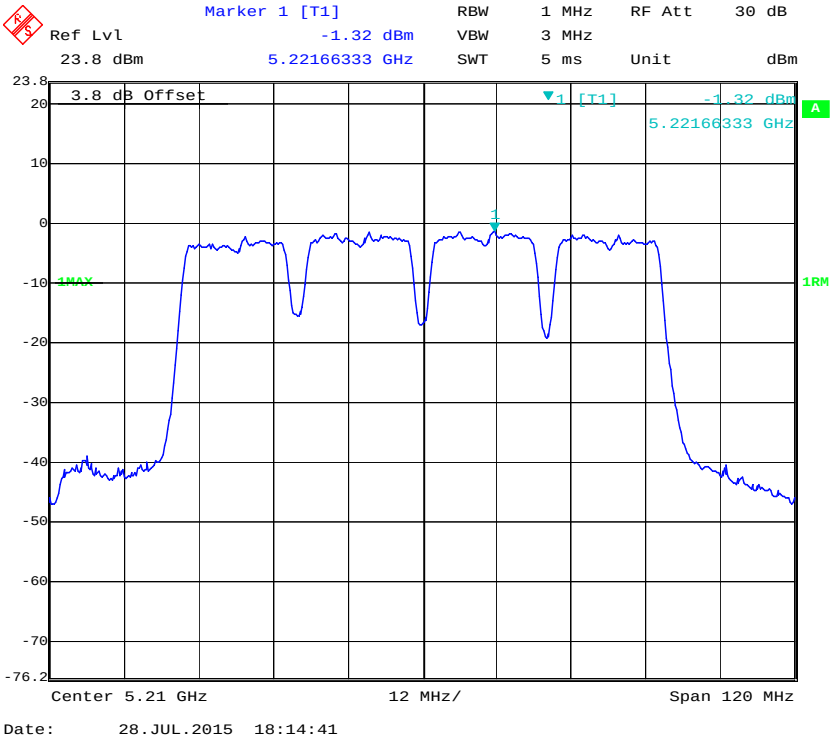
802. 11ac40 mode, Power Spectral Density, Antenn 1, 5230 MHz



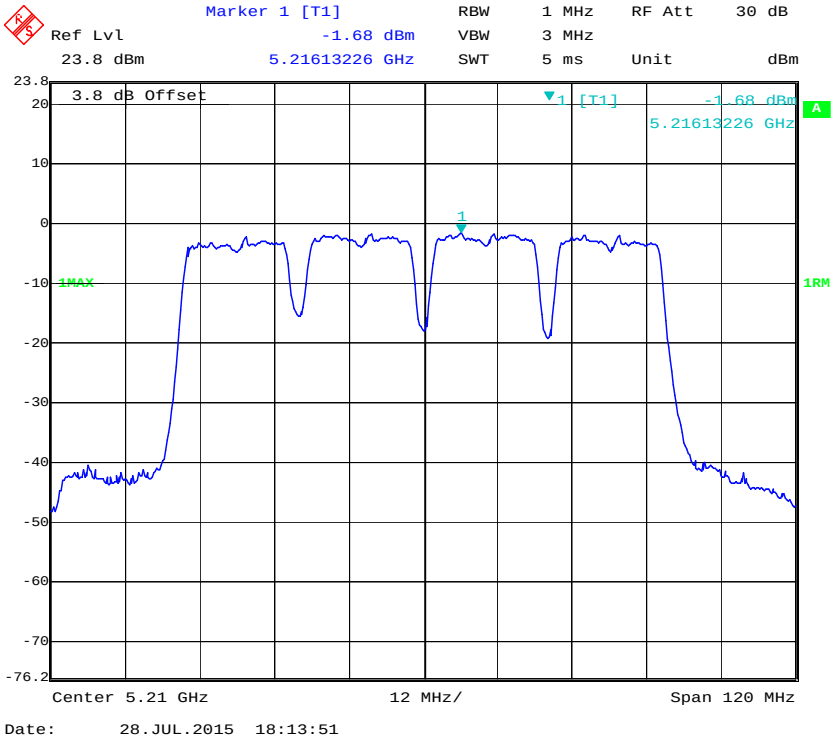
802. 11ac40 mode, Power Spectral Density, Antenn 2, 5230 MHz



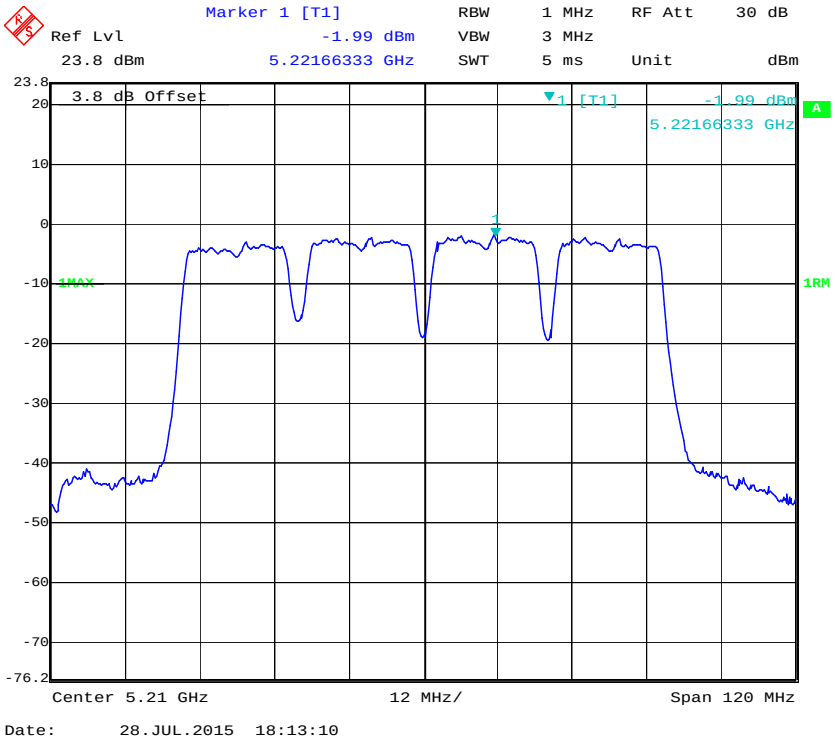
802.11ac80 mode, Power Spectral Density, Antenn 0, 5210 MHz



802.11ac80 mode, Power Spectral Density, Antenn 1, 5210 MHz



802.11ac80 mode, Power Spectral Density, Antenn 2, 5210 MHz



5725 MHz – 5825 MHz:

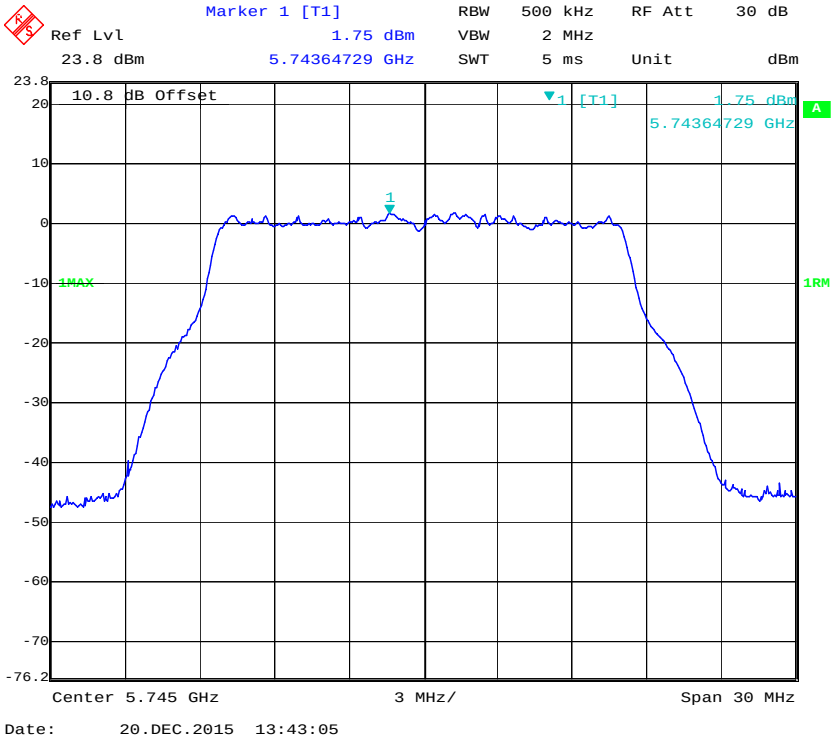
Frequency (MHz)	Antenna Port	Power Spectral Density (dBm/500kHz)	Power spectral density (dBm/500kHz) Chain0+Chain1+chain 2	Limit (dBm/500kHz)
802.11a				
5745	0	1.75	/	30
	1	1.98		
	2	2.04		
5785	0	1.86	/	
	1	1.99		
	2	1.90		
5825	0	2.14	/	
	1	2.07		
	2	1.99		
802.11n20				
5745	0	1.95	6.61	28.2
	1	1.76		
	2	1.81		
5785	0	2.05	6.88	
	1	2.10		
	2	2.17		
5825	0	2.14	6.84	
	1	2.07		
	2	1.99		
802.11n40				
5755	0	-0.79	3.96	28.2
	1	-0.78		
	2	-0.86		
5795	0	-0.44	4.27	
	1	-0.51		
	2	-0.56		

Note: the gain of each antenna is 3dBi;
For simultaneous transmission mode of three antennas, the directional gain=3+10*logN=7.8dBi, which is higher than 6dBi, so power limit should be reduced by 1.8dB.

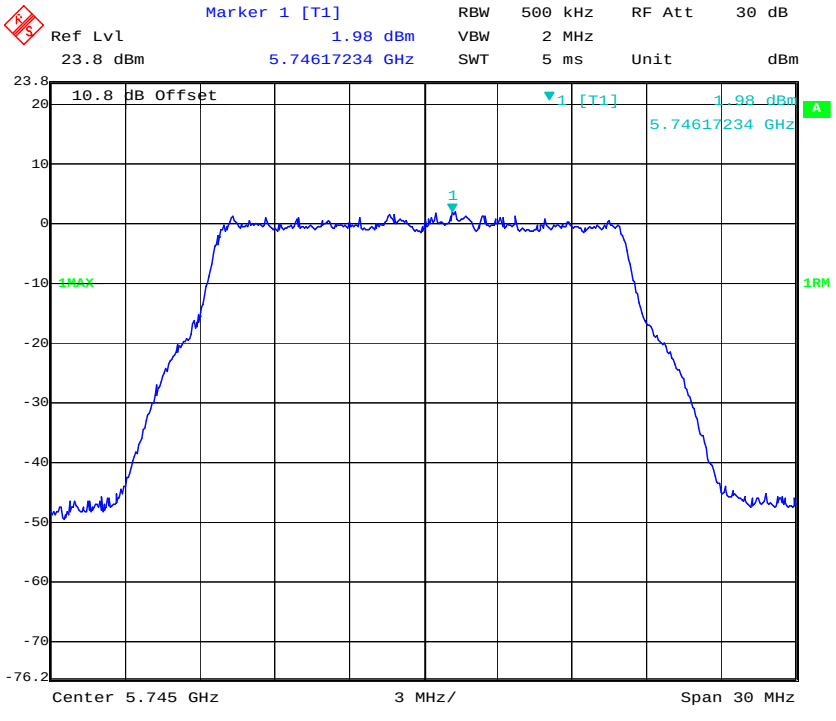
Frequency (MHz)	Antenna Port	Power Spectral Density (dBm/500kHz)	Power spectral density (dBm/500kHz) Chain0+Chain1+chain 2	Limit (dBm/500kHz)
802.11ac20				
5745	0	1.81	6.25	28.2
	1	1.29		
	2	1.32		
5785	0	1.57	6.33	
	1	1.44		
	2	1.67		
5825	0	1.67	6.52	
	1	1.64		
	2	1.94		
802.11ac40				
5755	0	-1.65	3.34	28.2
	1	-1.47		
	2	-1.20		
5795	0	-1.01	3.67	
	1	-1.23		
	2	-1.06		
802.11ac80				
5775	0	-3.78	1.04	28.2
	1	-3.70		
	2	-3.72		

Note: the gain of each antenna is 3dBi;
For simultaneous transmission mode of three antennas, the directional gain=3+10*logN=7.8dBi, which is higher than 6dBi, so power limit should be reduced by 1.8dB.

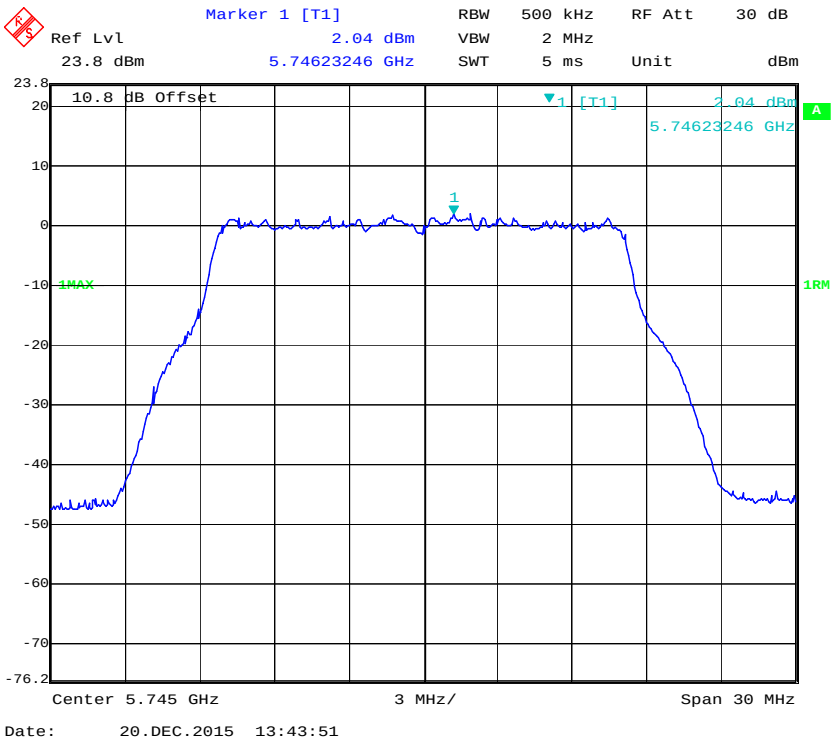
802.11a mode, Power Spectral Density, Antenn 0, 5745 MHz



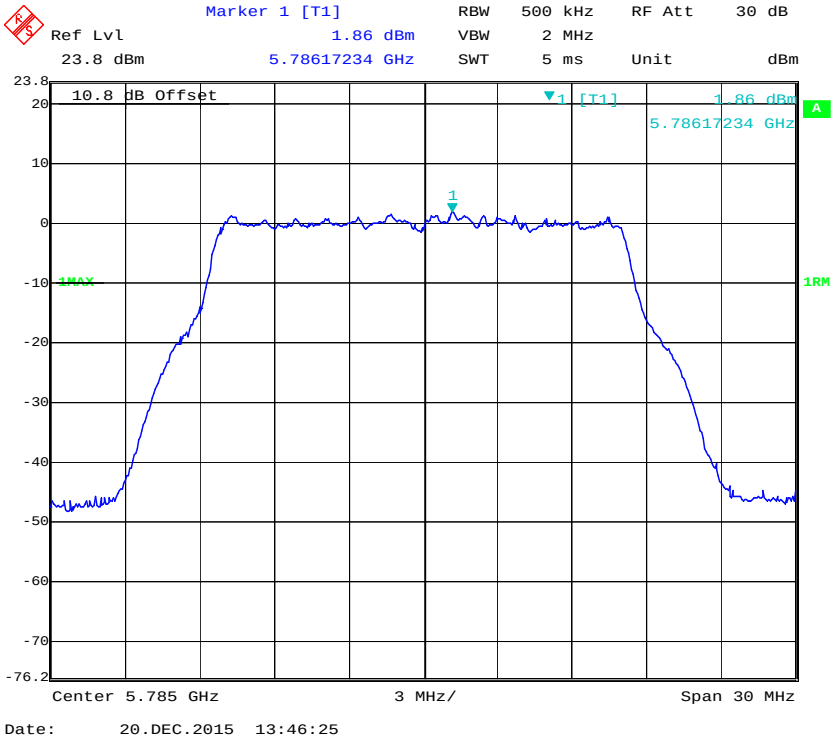
802.11a mode, Power Spectral Density, Antenn 1, 5745 MHz



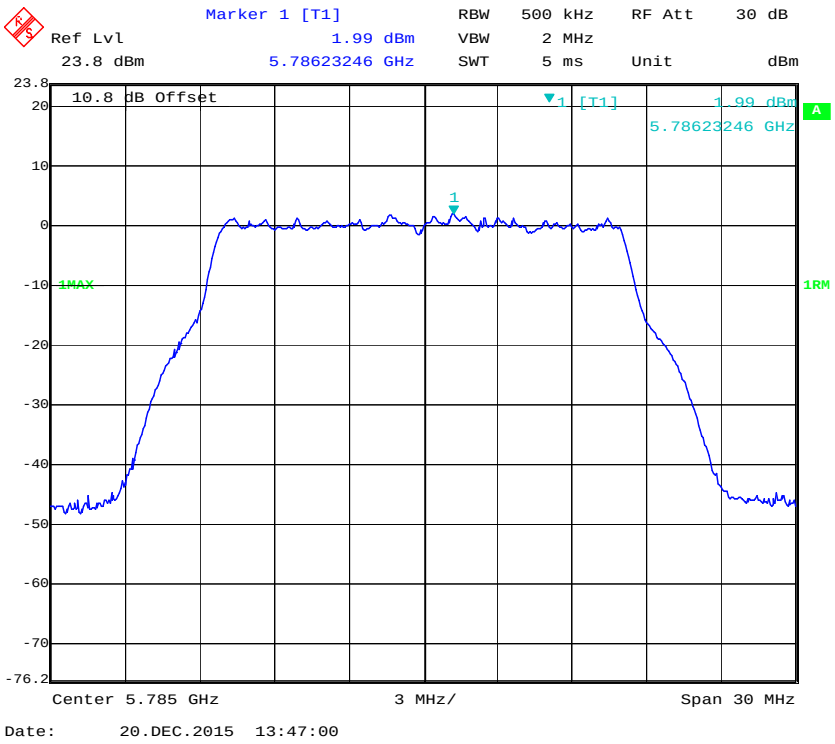
802.11a mode, Power Spectral Density, Antenn 2, 5745 MHz



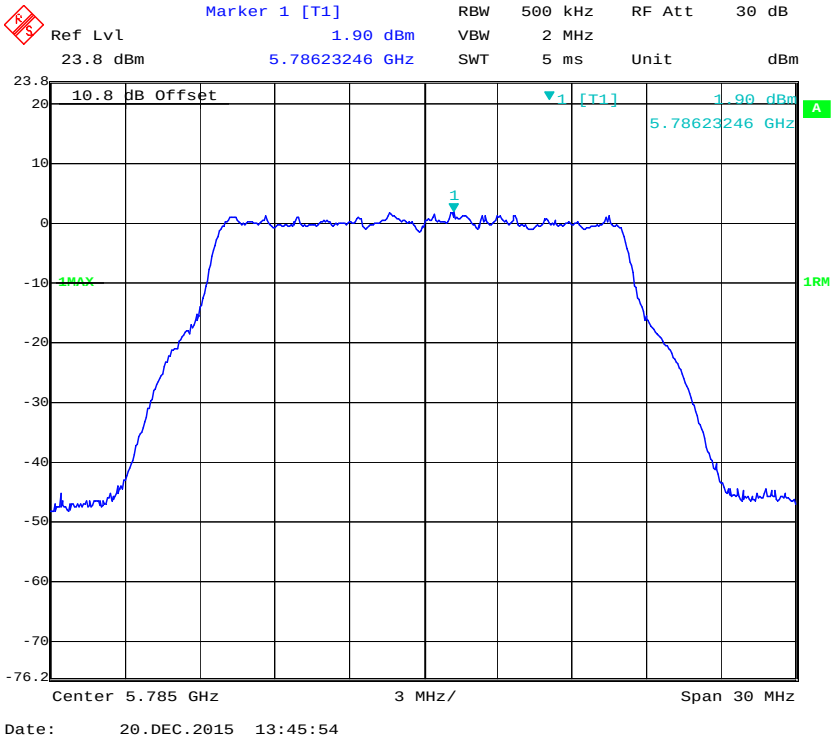
802.11a mode, Power Spectral Density, Antenn 0, 5785 MHz



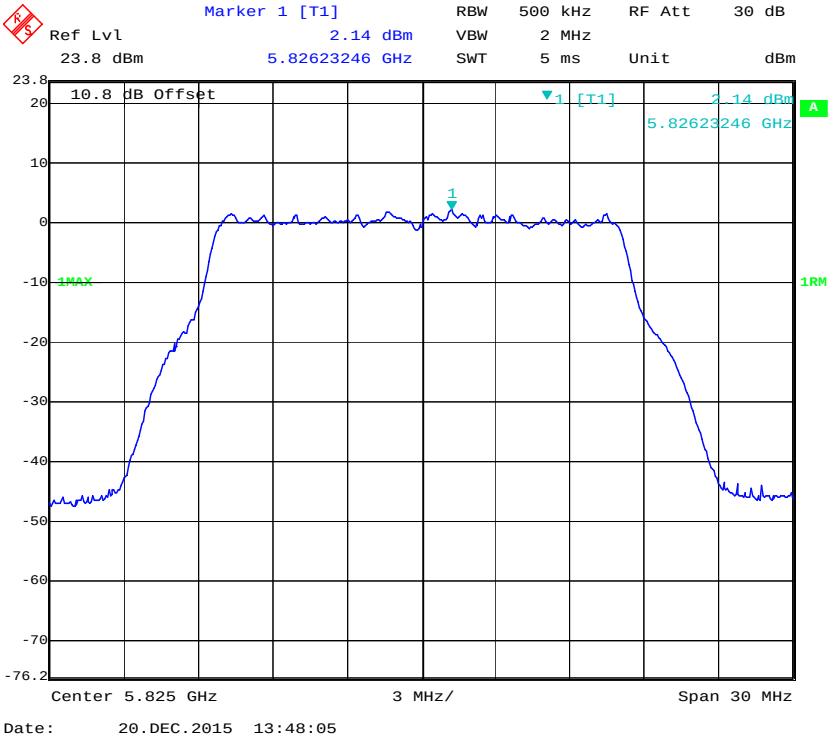
802.11a mode, Power Spectral Density, Antenn 1, 5785 MHz



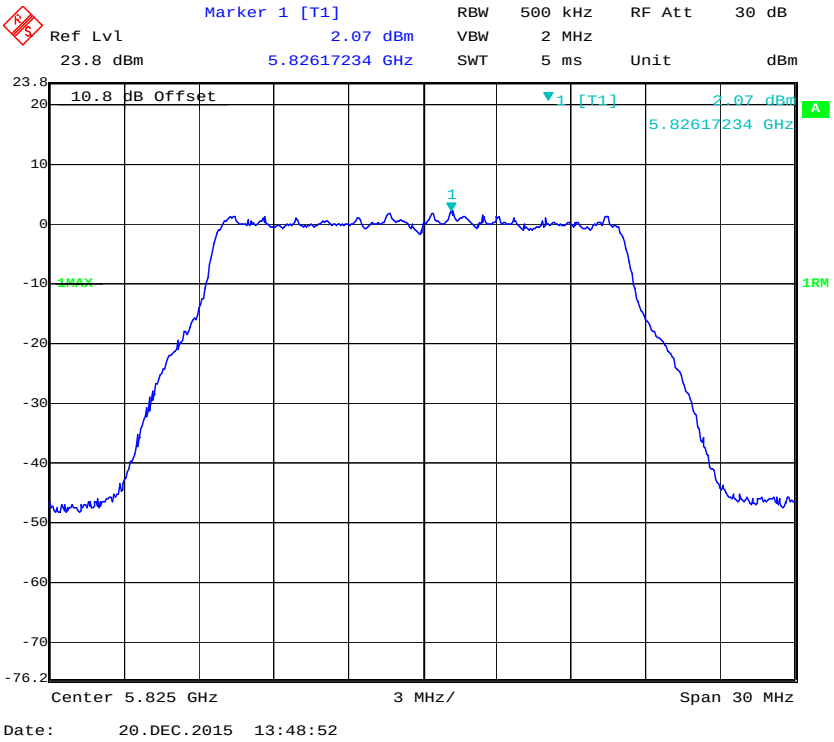
802.11a mode, Power Spectral Density, Antenn 2, 5785 MHz



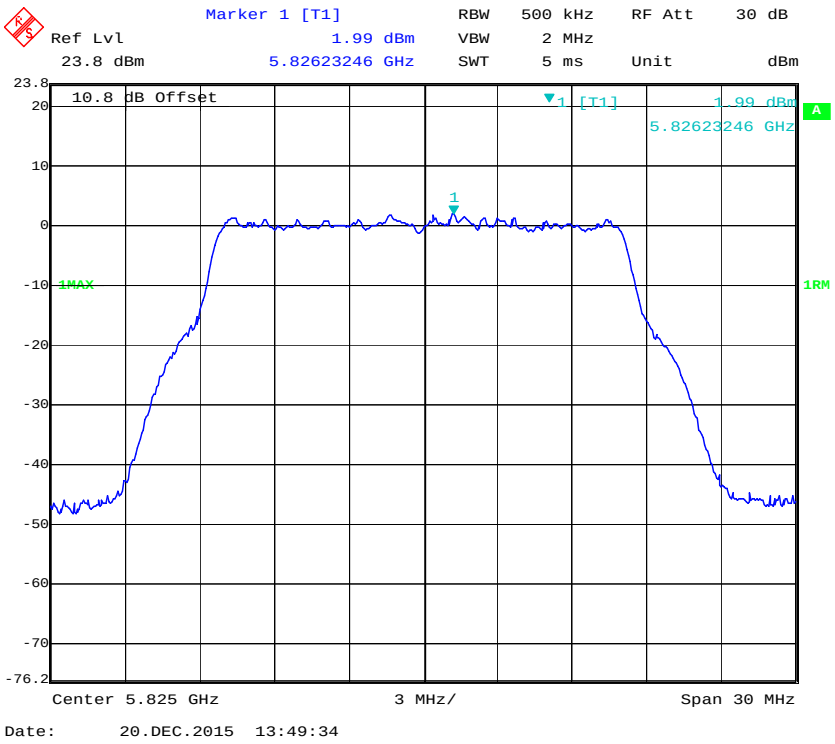
802.11a mode, Power Spectral Density, Antenn 0, 5825 MHz



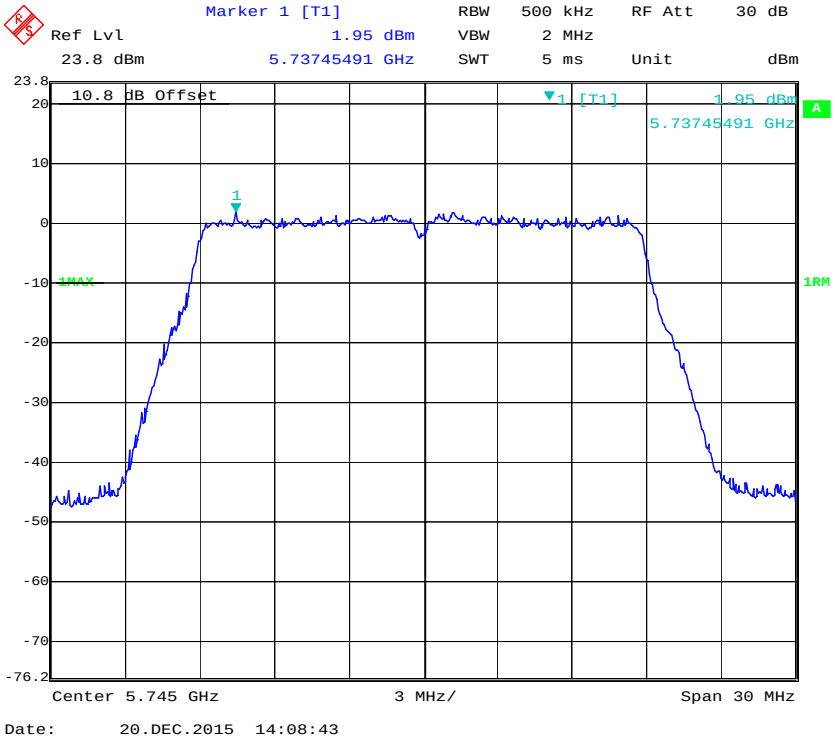
802.11a mode, Power Spectral Density, Antenn 1, 5825 MHz



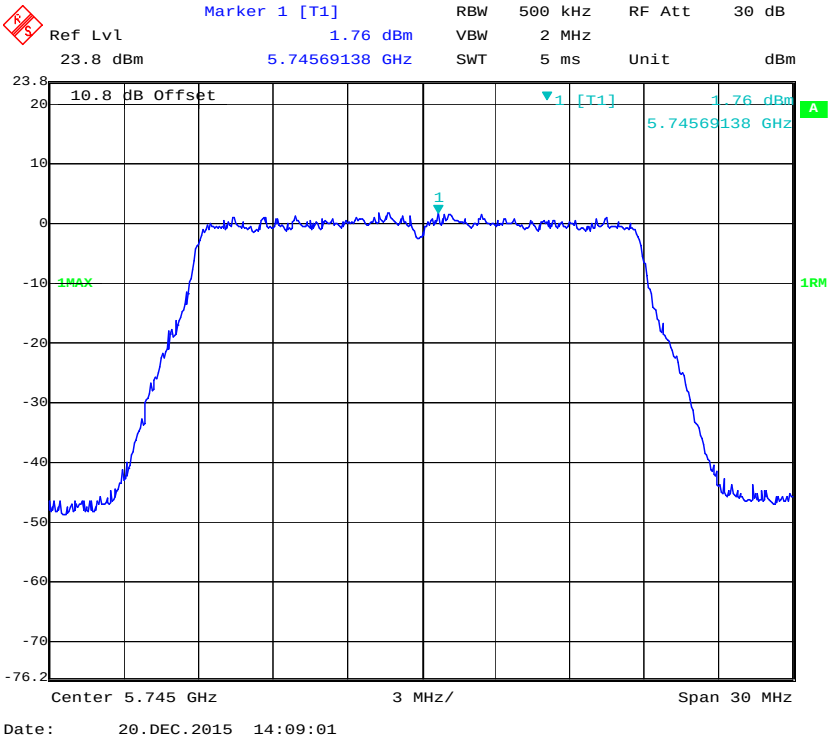
802.11a mode, Power Spectral Density, Antenn 2, 5825 MHz



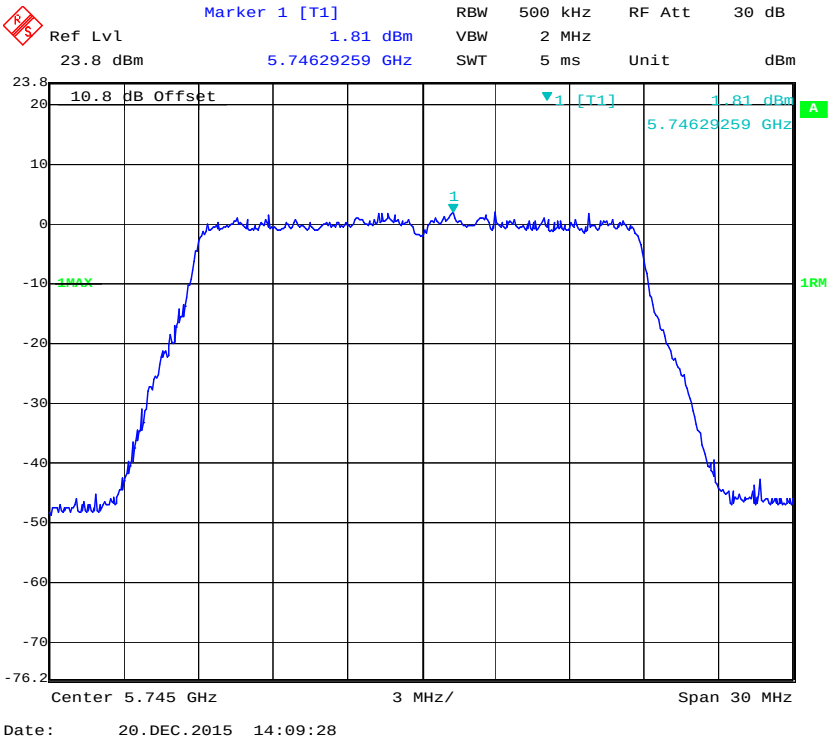
802.11n20 mode, Power Spectral Density, Antenn 0, 5745 MHz



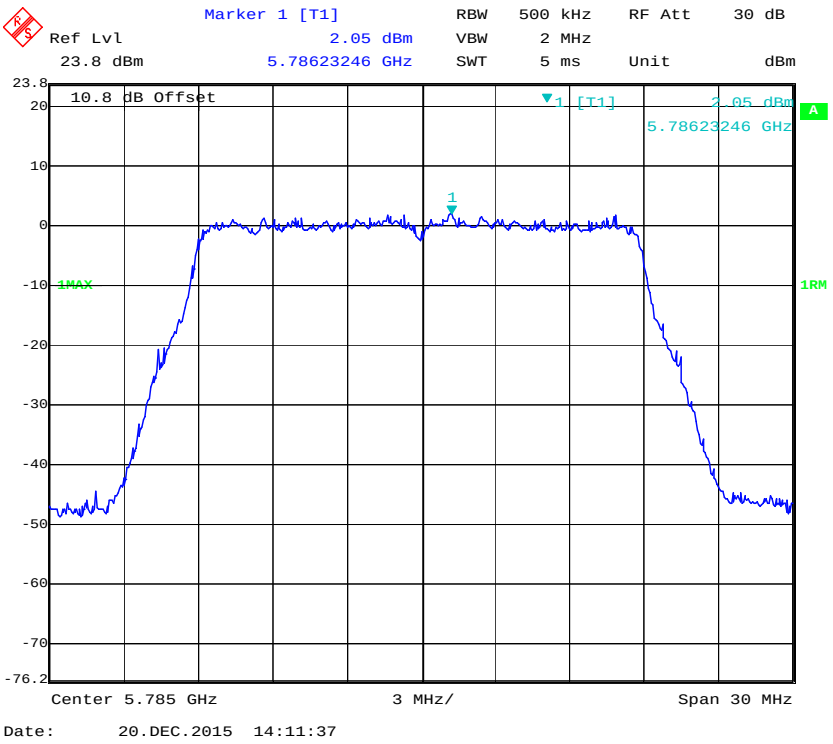
802.11n20 mode, Power Spectral Density, Antenn 1, 5745 MHz



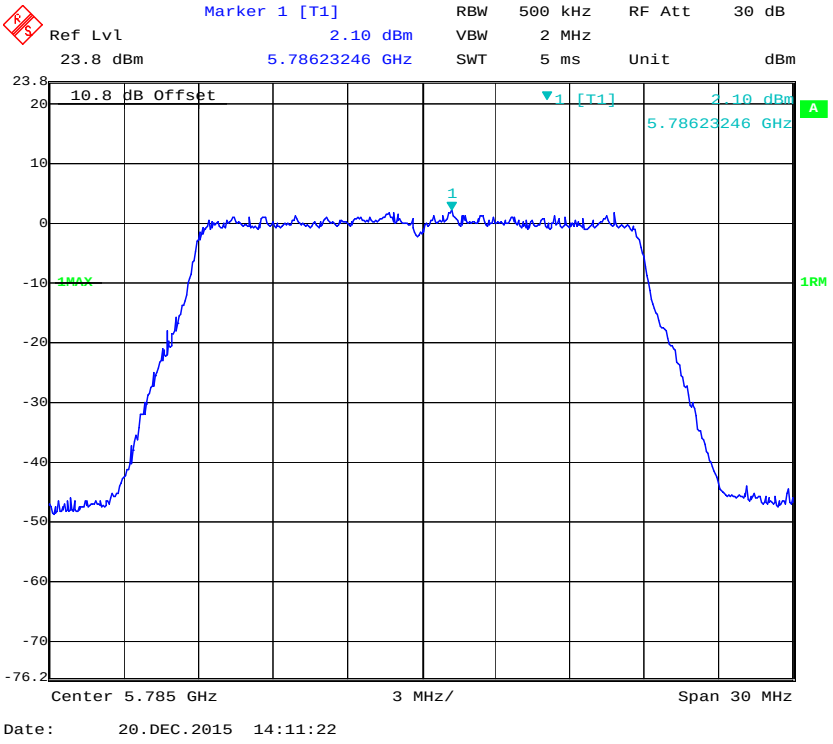
802.11n20 mode, Power Spectral Density, Antenn 2, 5745 MHz



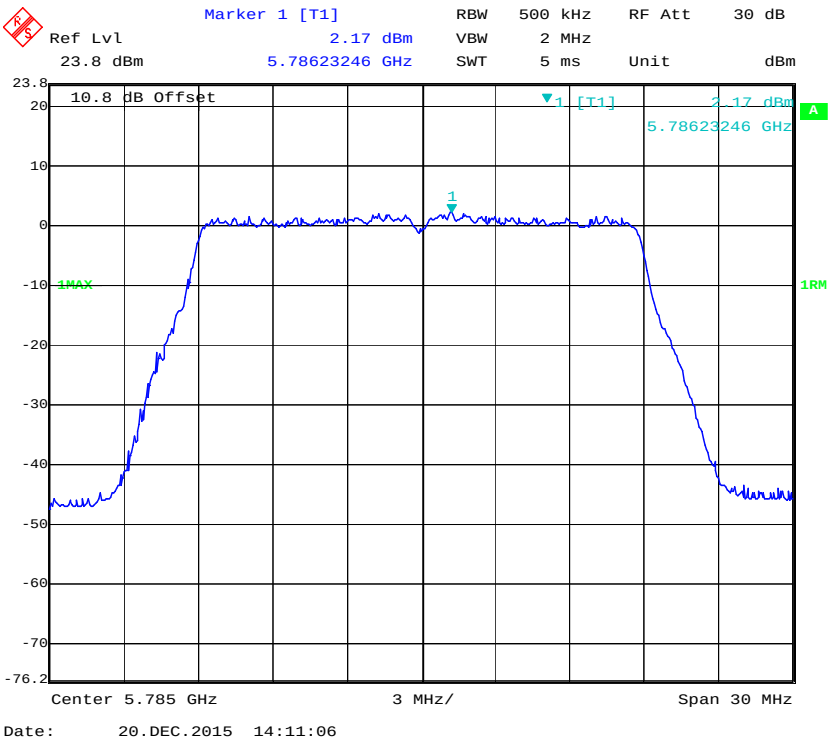
802.11n20 mode, Power Spectral Density, Antenn 0, 5785 MHz



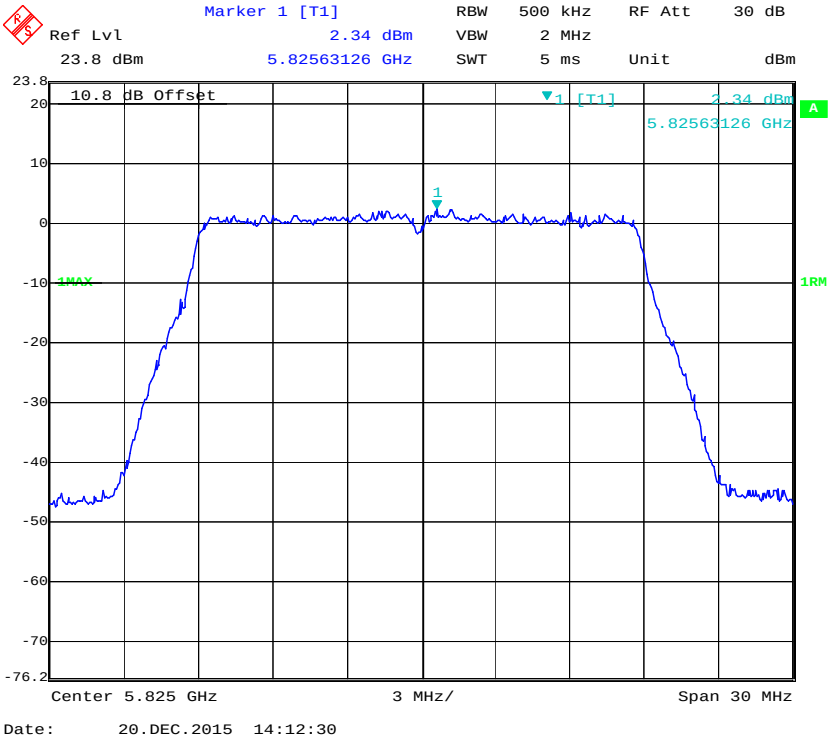
802.11n20 mode, Power Spectral Density, Antenn 1, 5785 MHz



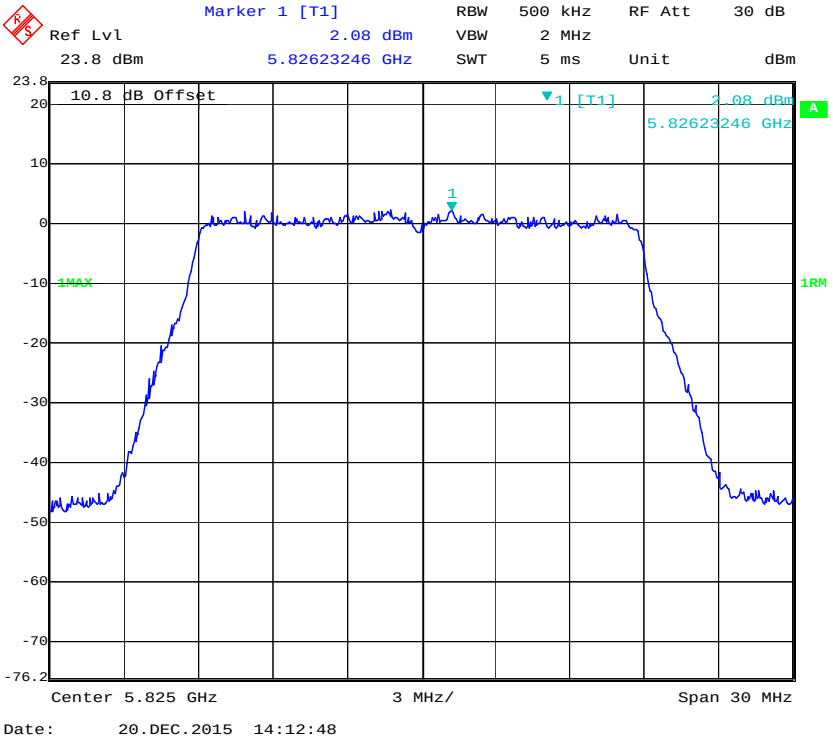
802.11n20 mode, Power Spectral Density, Antenn 2, 5785 MHz



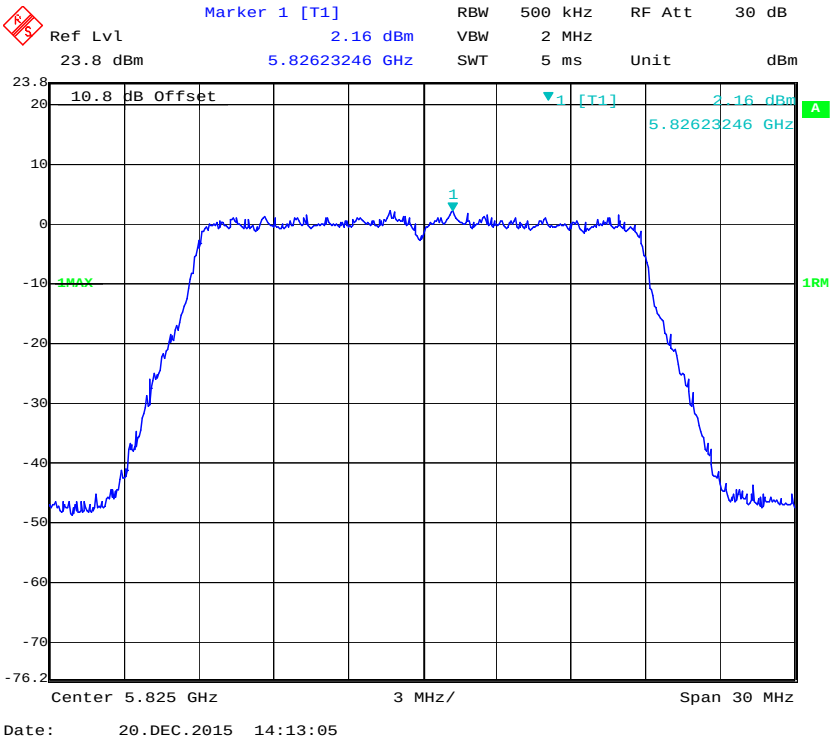
802.11n20 mode, Power Spectral Density, Antenn 0, 5825 MHz



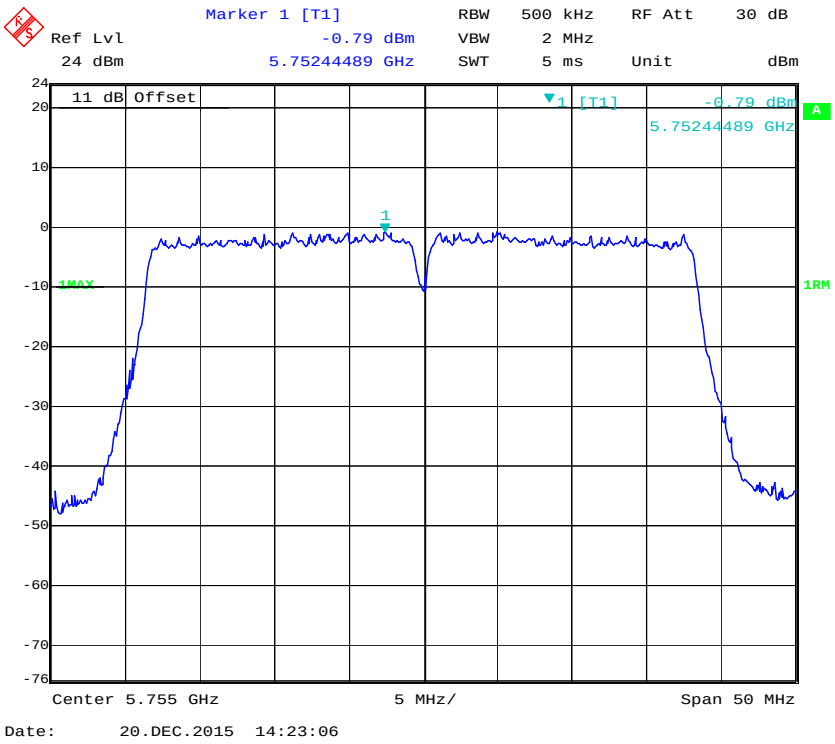
802.11n20 mode, Power Spectral Density, Antenn 1, 5825 MHz



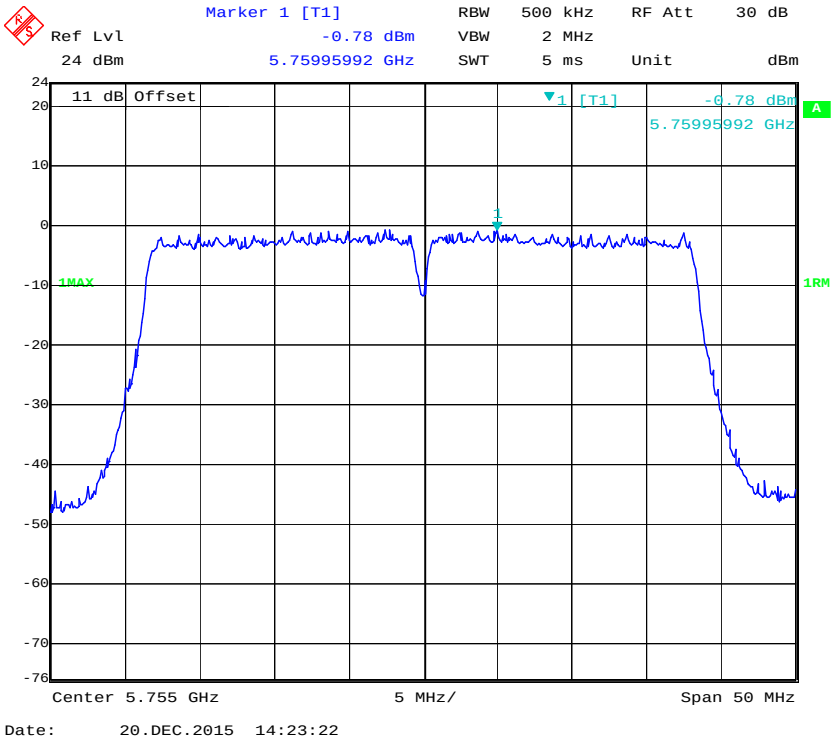
802.11n20 mode, Power Spectral Density, Antenn 2, 5825 MHz



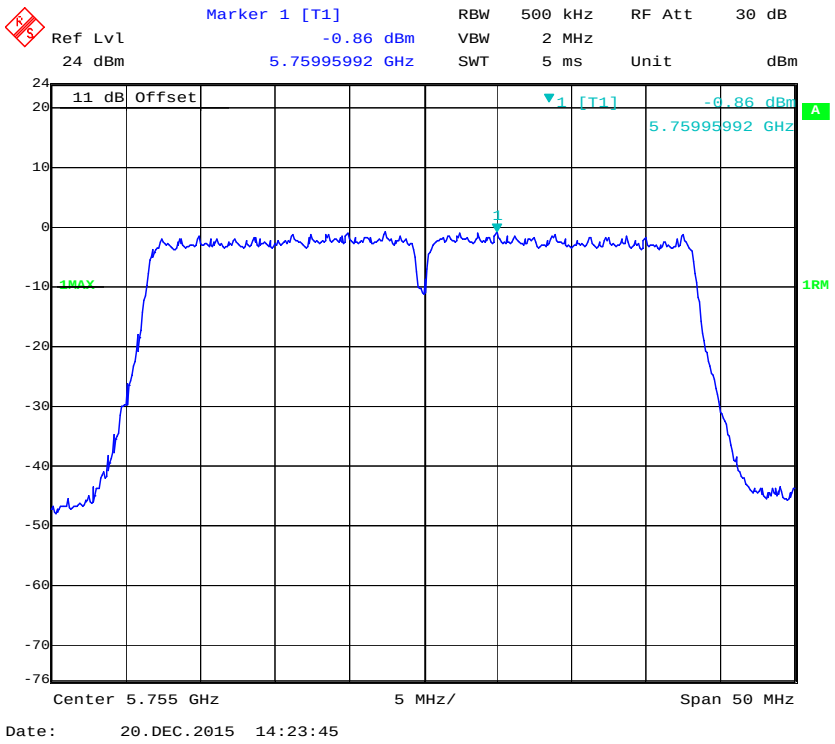
802.11n40 mode, Power Spectral Density, Antenn 0, 5755 MHz



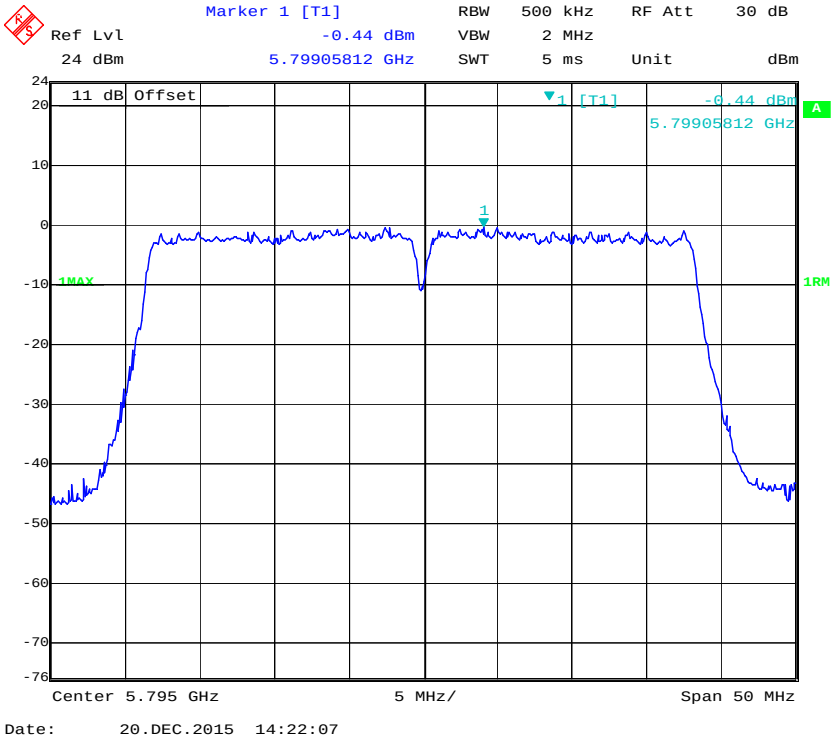
802.11n40 mode, Power Spectral Density, Antenn 1, 5755 MHz



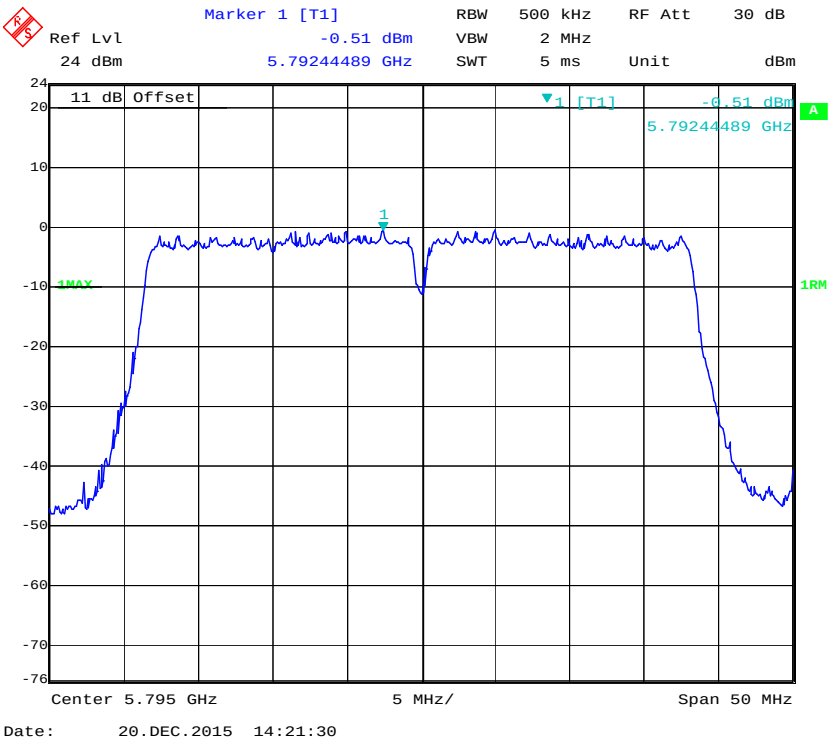
802.11n40 mode, Power Spectral Density, Antenn 2, 5755 MHz



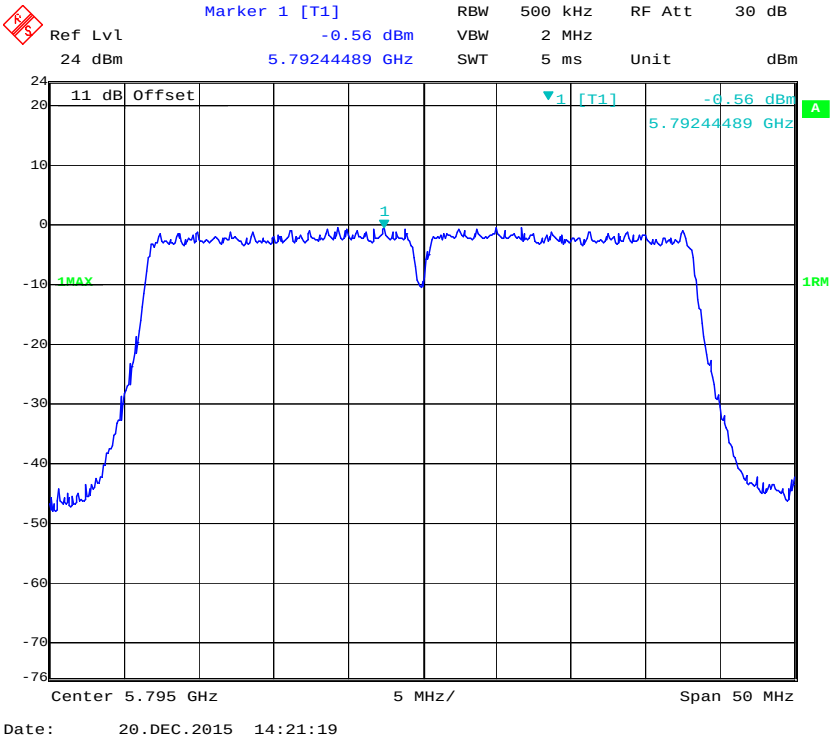
802.11n40 mode, Power Spectral Density, Antenn 0, 5795 MHz



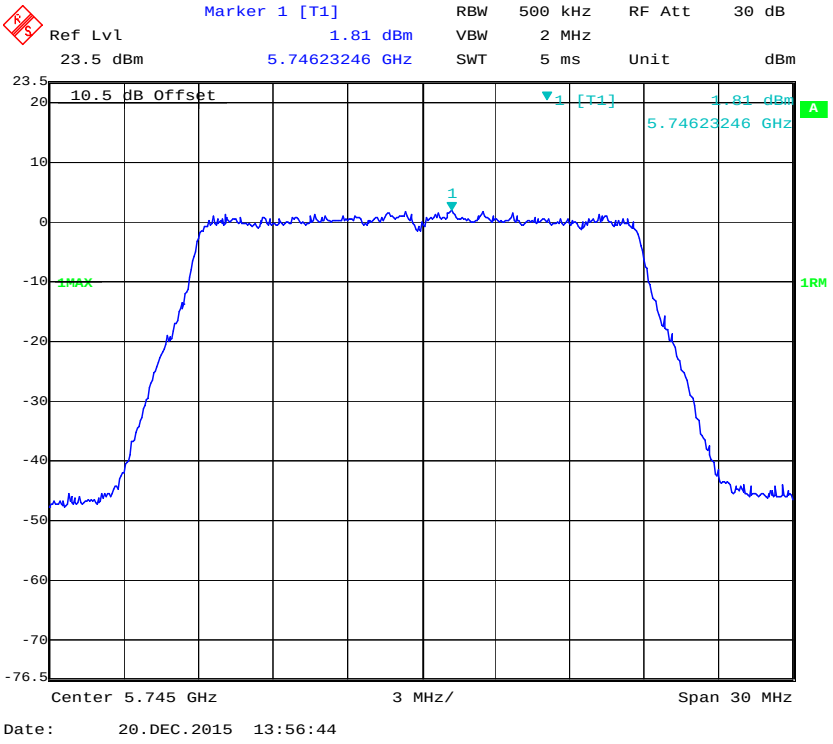
802.11n40 mode, Power Spectral Density, Antenn 1, 5795 MHz



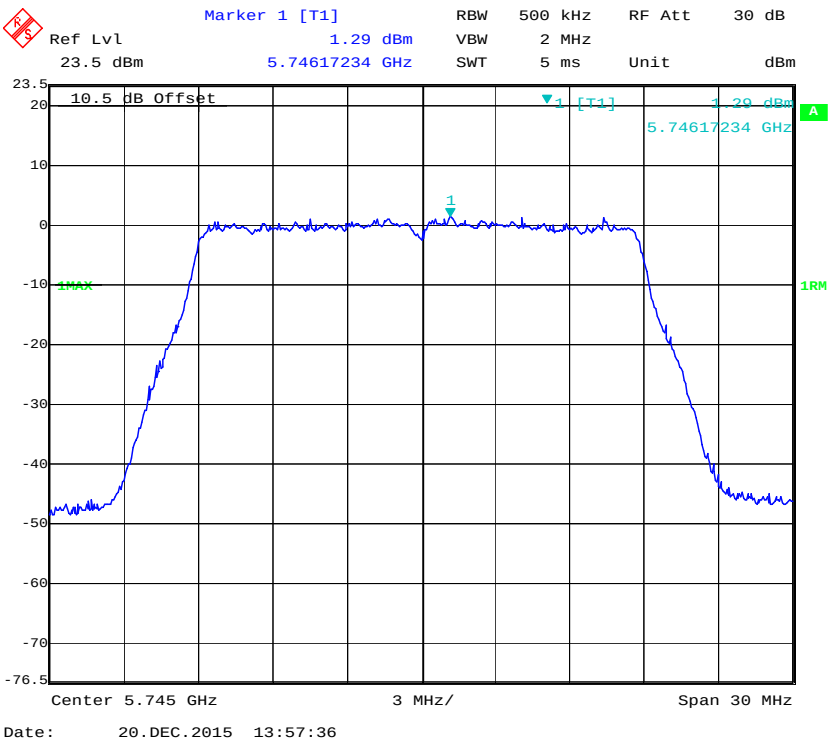
802.11n40 mode, Power Spectral Density, Antenn 2, 5795 MHz



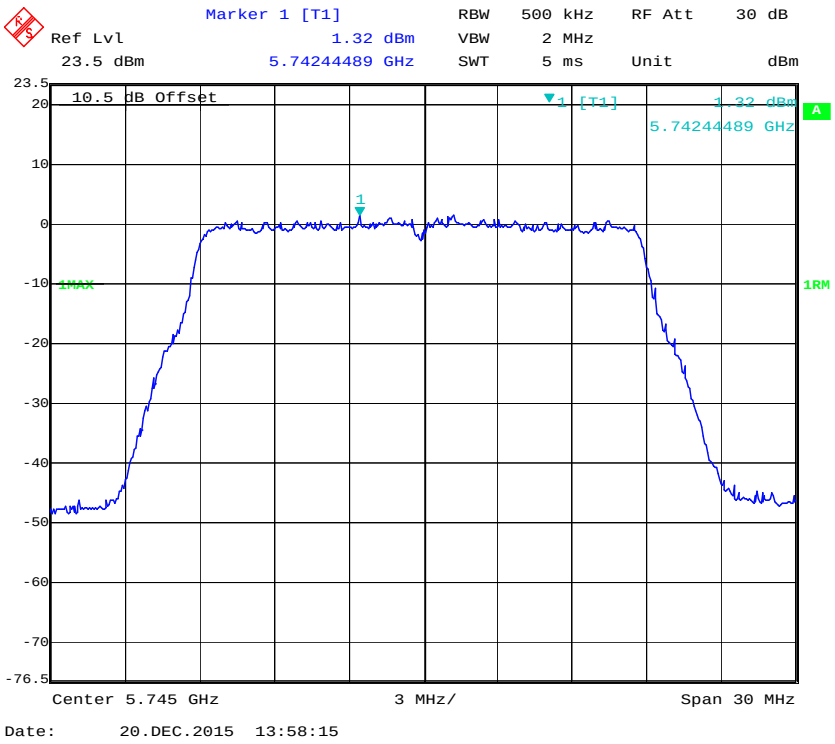
802.11ac20 mode, Power Spectral Density, Antenn 0, 5745 MHz



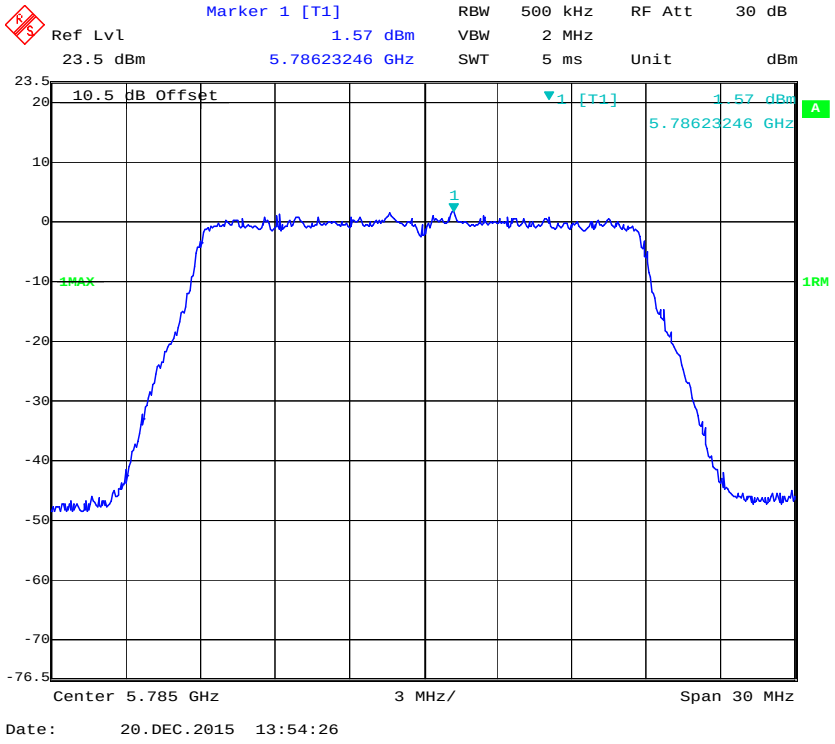
802. 11ac20 mode, Power Spectral Density, Antenn 1, 5745 MHz



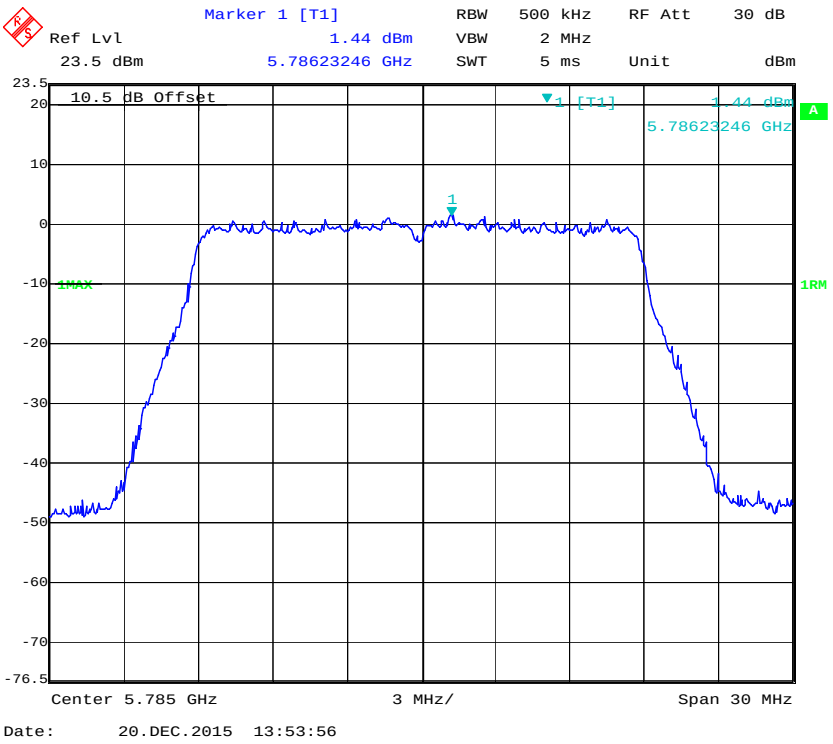
802. 11ac20 mode, Power Spectral Density, Antenn 2, 5745 MHz



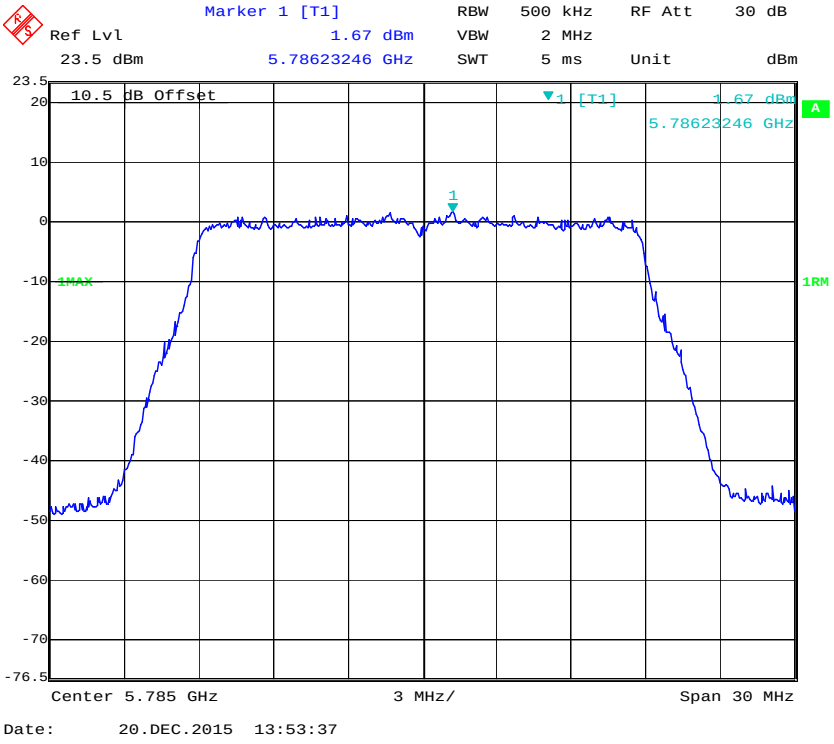
802. 11ac20 mode, Power Spectral Density, Antenn 0, 5785 MHz



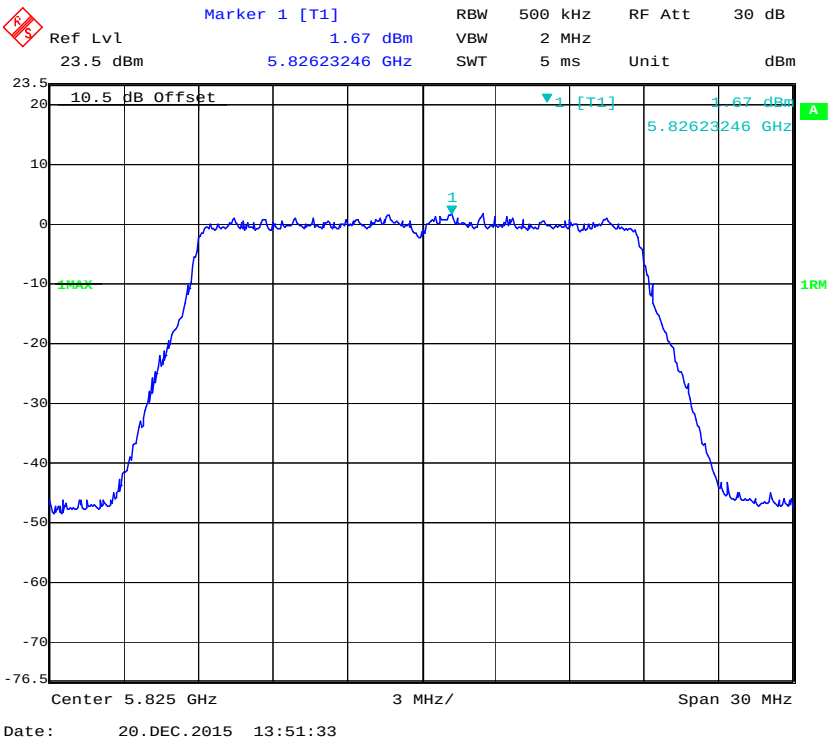
802. 11ac20 mode, Power Spectral Density, Antenn 1, 5785 MHz



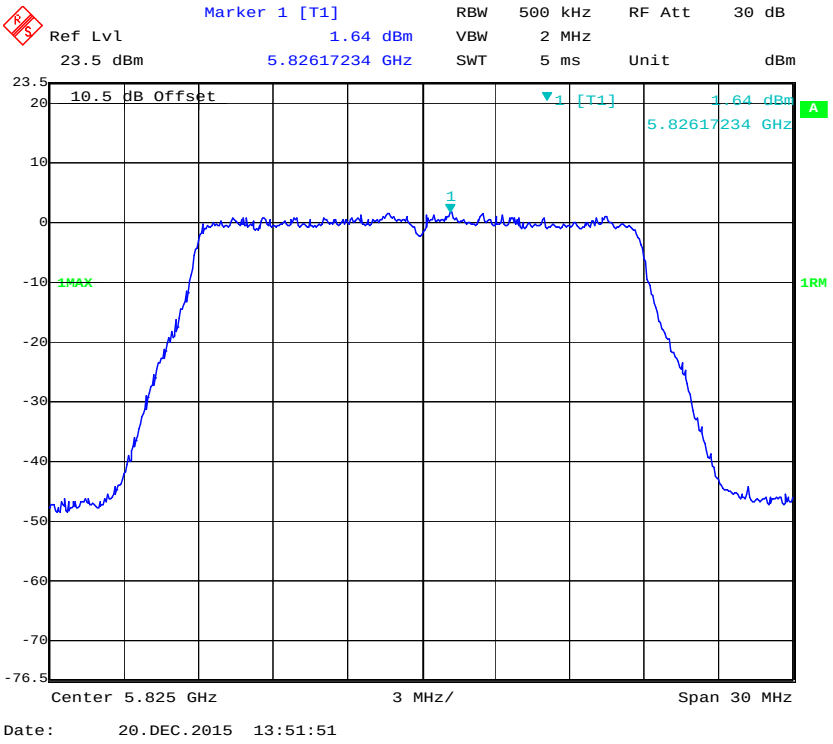
802. 11ac20 mode, Power Spectral Density, Antenn 2, 5785 MHz



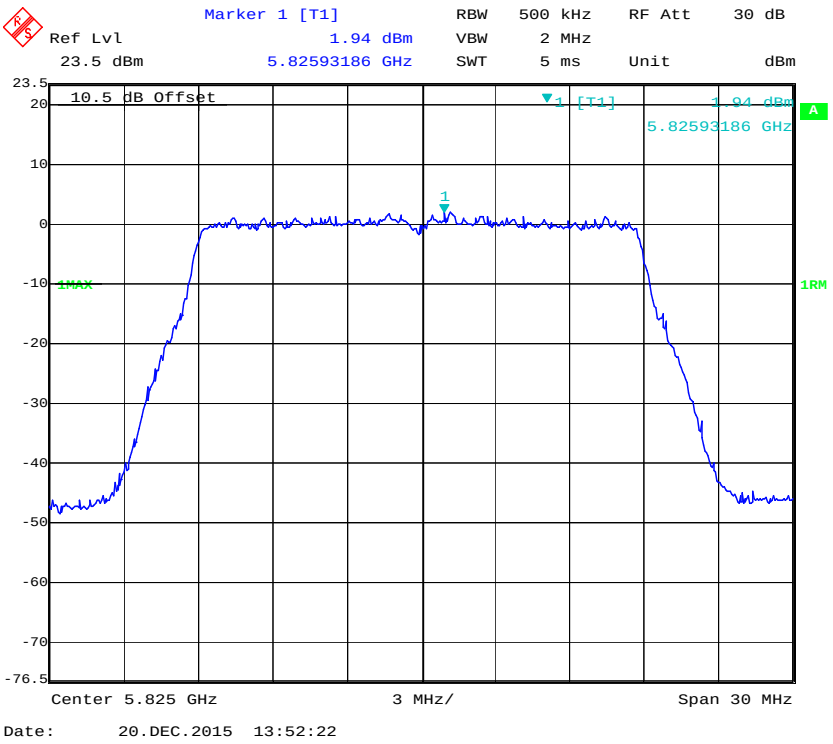
802. 11ac20 mode, Power Spectral Density, Antenn 0, 5825 MHz



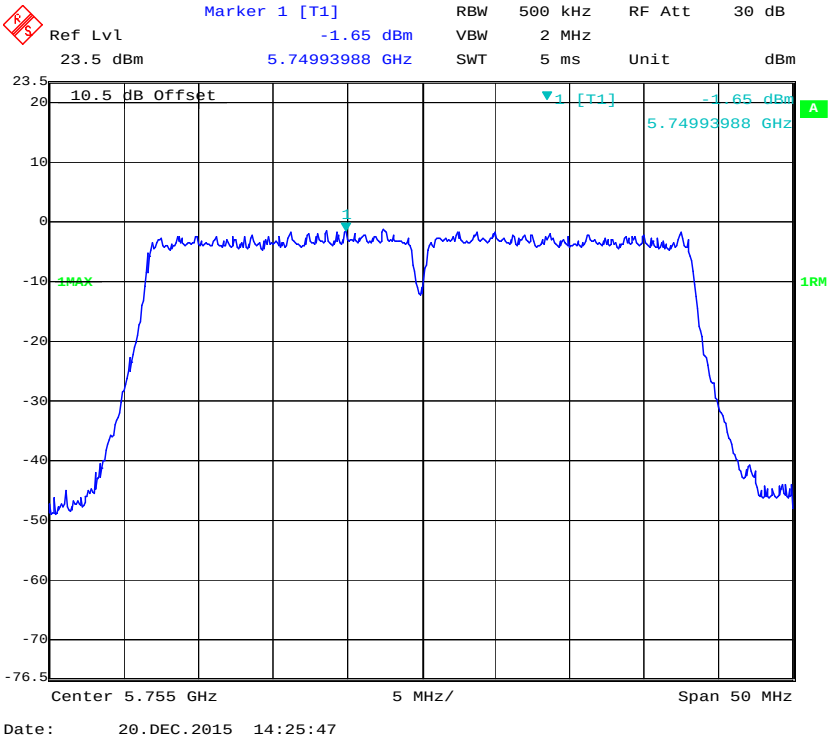
802. 11ac20 mode, Power Spectral Density, Antenn 1, 5825 MHz



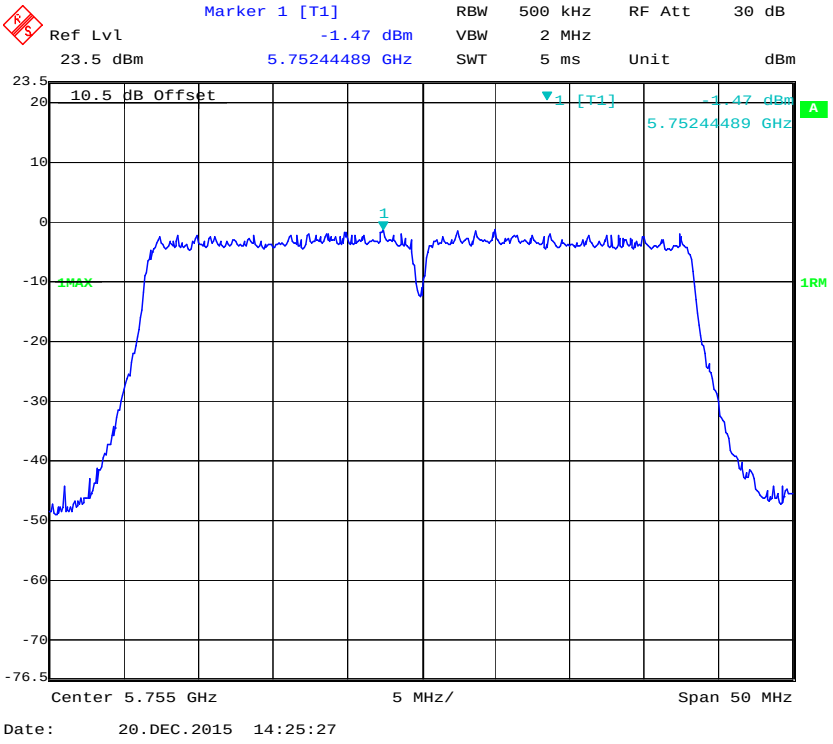
802. 11ac20 mode, Power Spectral Density, Antenn 2, 5825 MHz



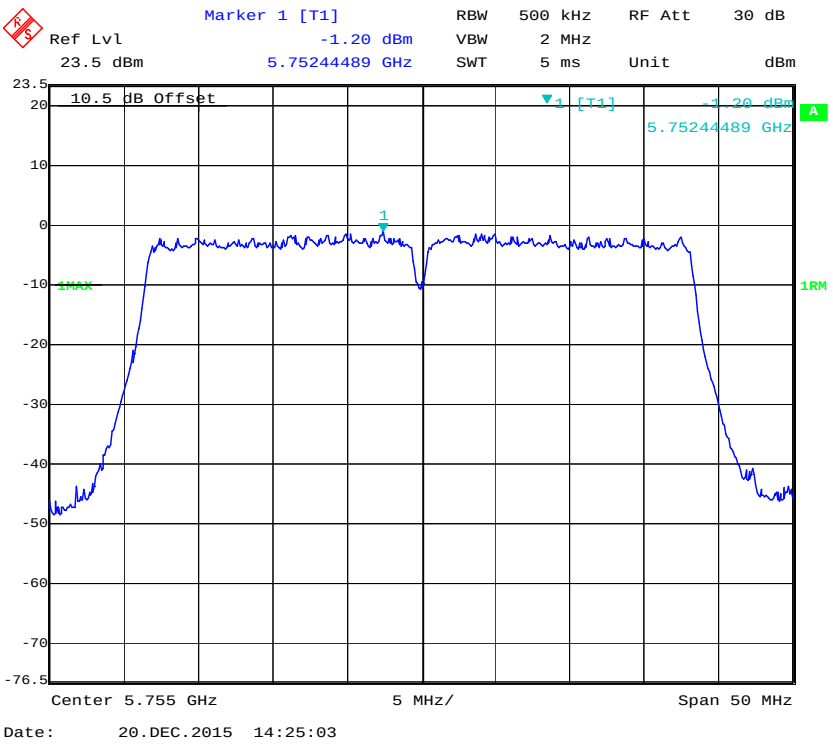
802. 11ac40 mode, Power Spectral Density, Antenn 0, 5755 MHz



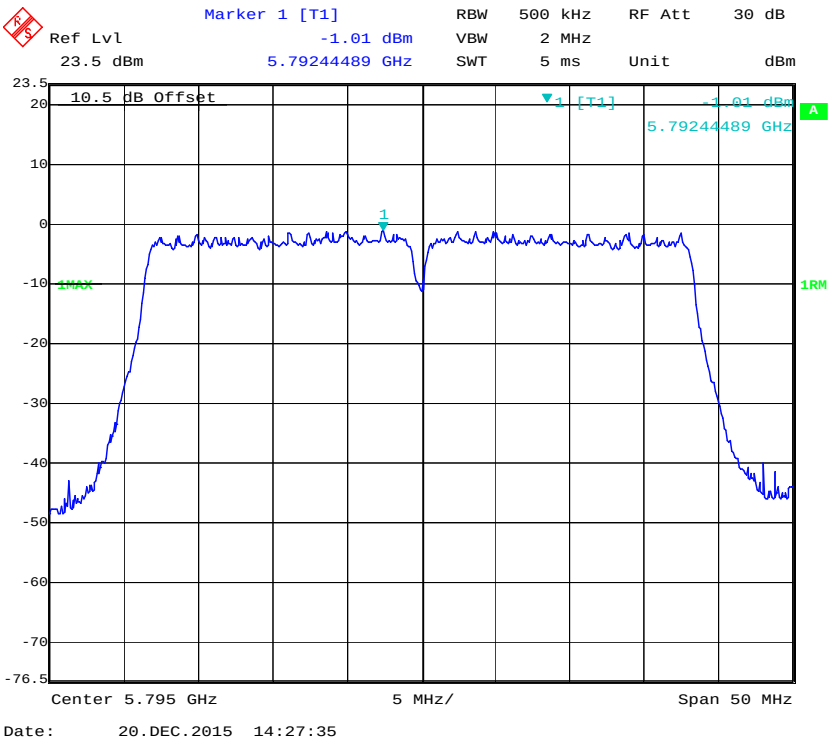
802. 11ac40 mode, Power Spectral Density, Antenn 1, 5755 MHz



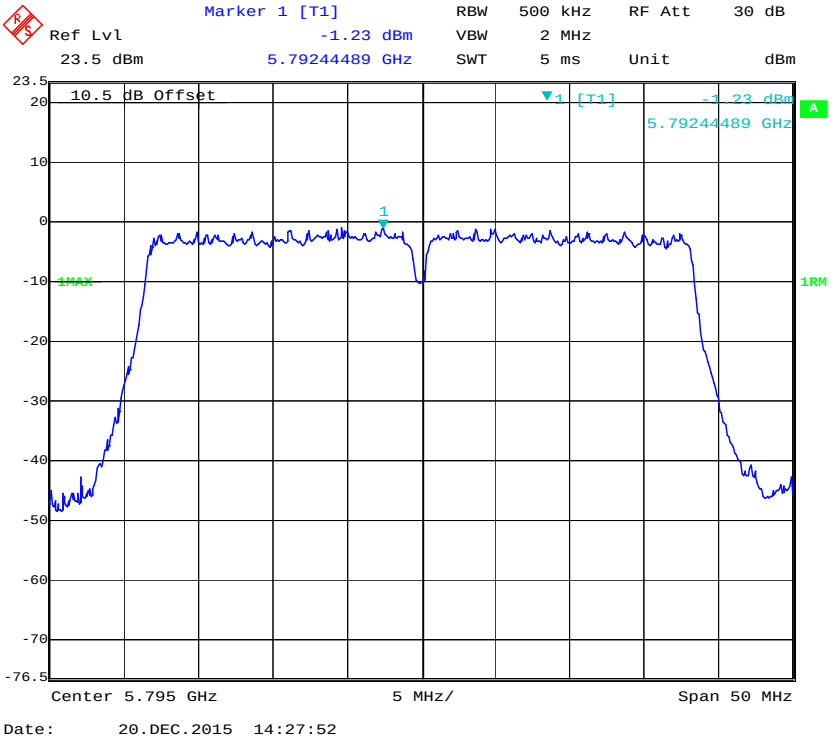
802. 11ac40 mode, Power Spectral Density, Antenn 2, 5755 MHz



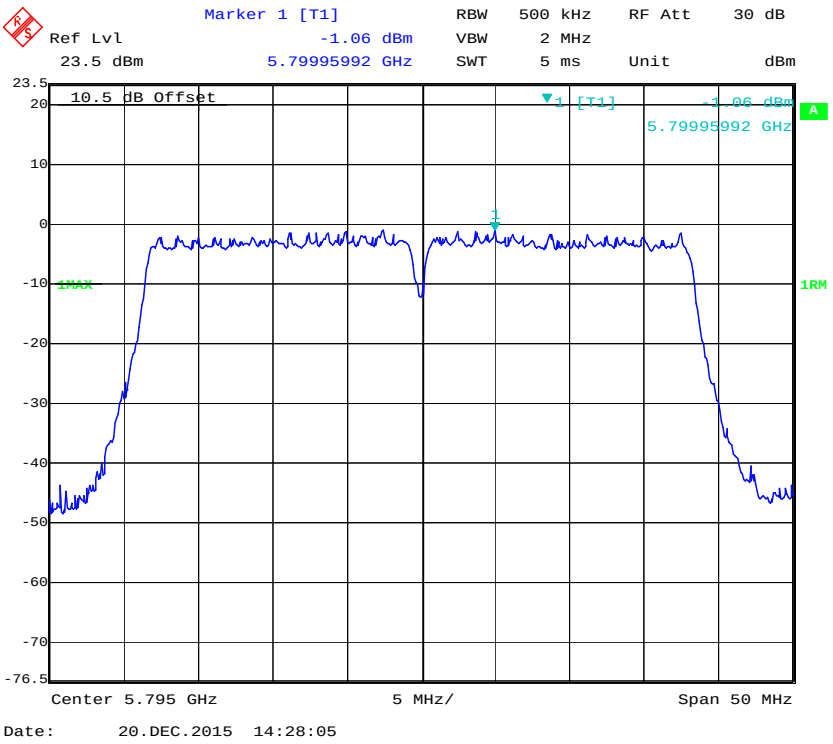
802. 11ac40 mode, Power Spectral Density, Antenn 0, 5795 MHz



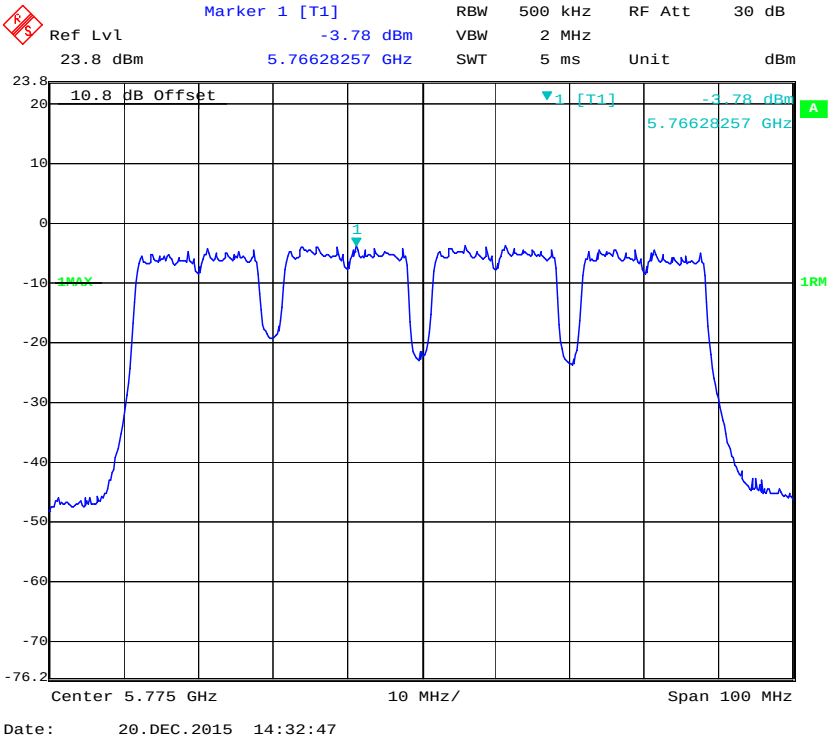
802. 11ac40 mode, Power Spectral Density, Antenn 1, 5795 MHz



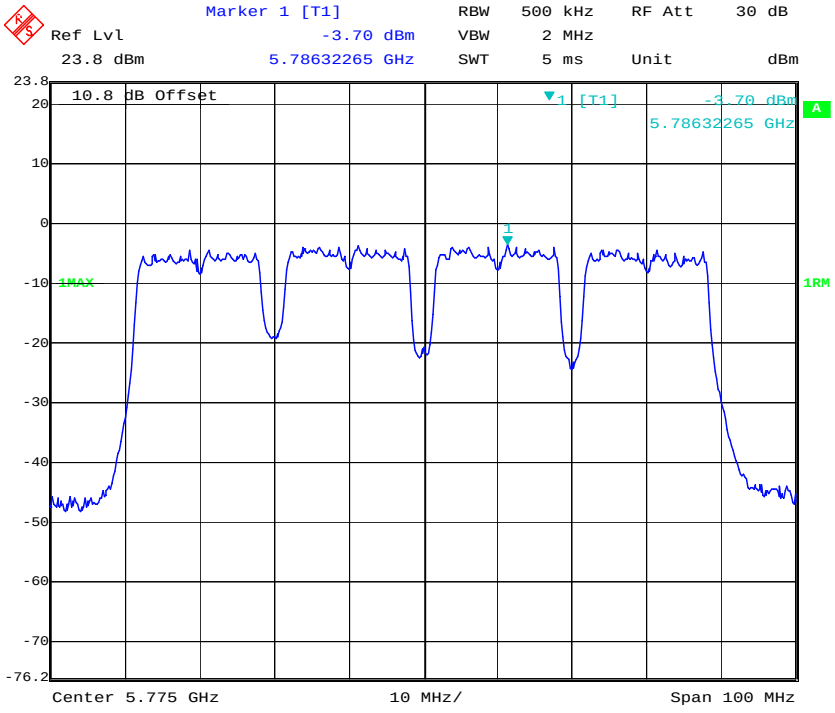
802. 11ac40 mode, Power Spectral Density, Antenn 2, 5795 MHz



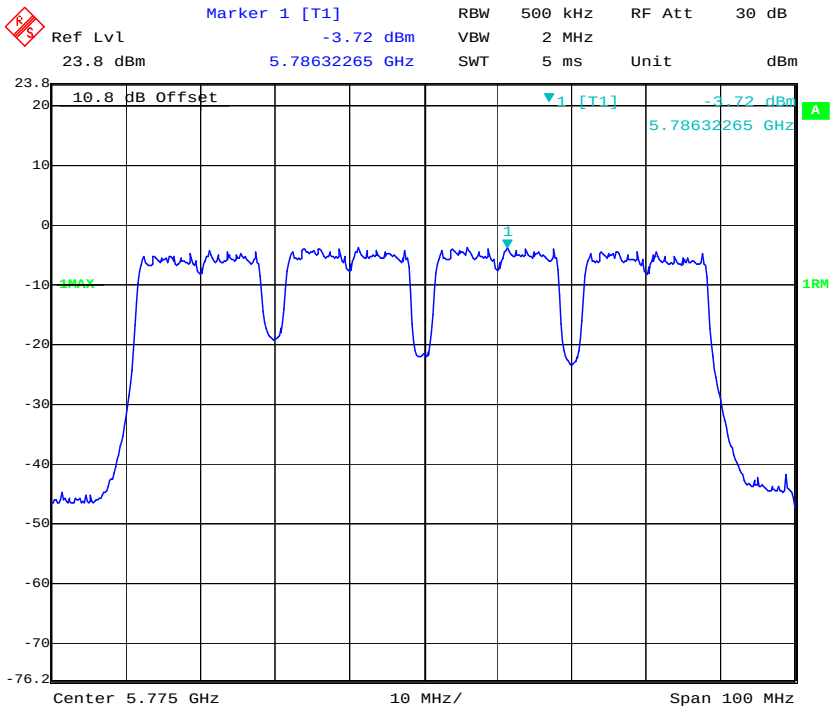
802.11ac80 mode, Power Spectral Density, Antenn 0, 5775 MHz



802.11ac80 mode, Power Spectral Density, Antenn 1, 5775 MHz



802.11ac80 mode, Power Spectral Density, Antenn 2, 5775 MHz



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