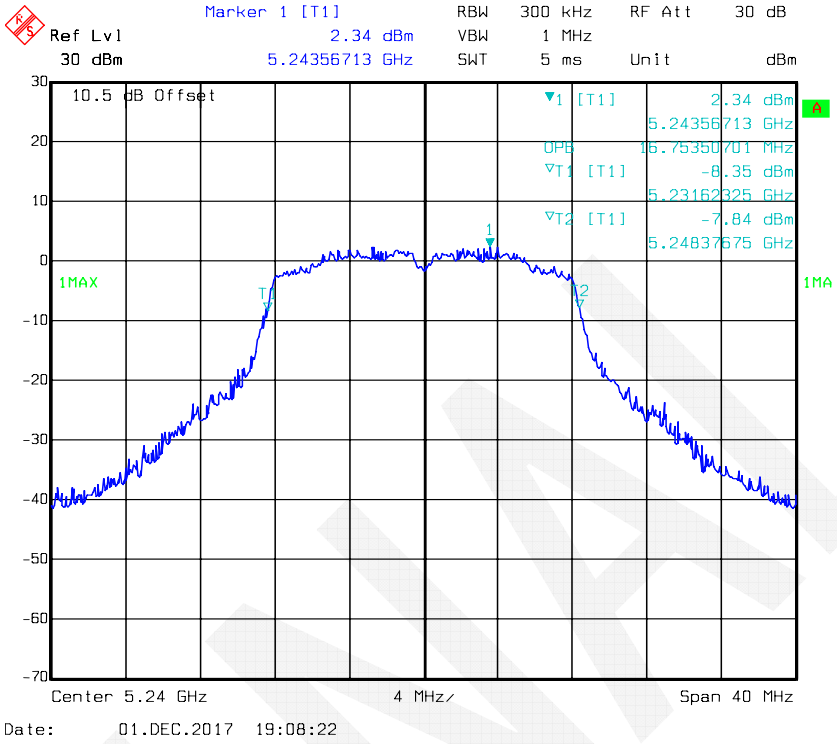
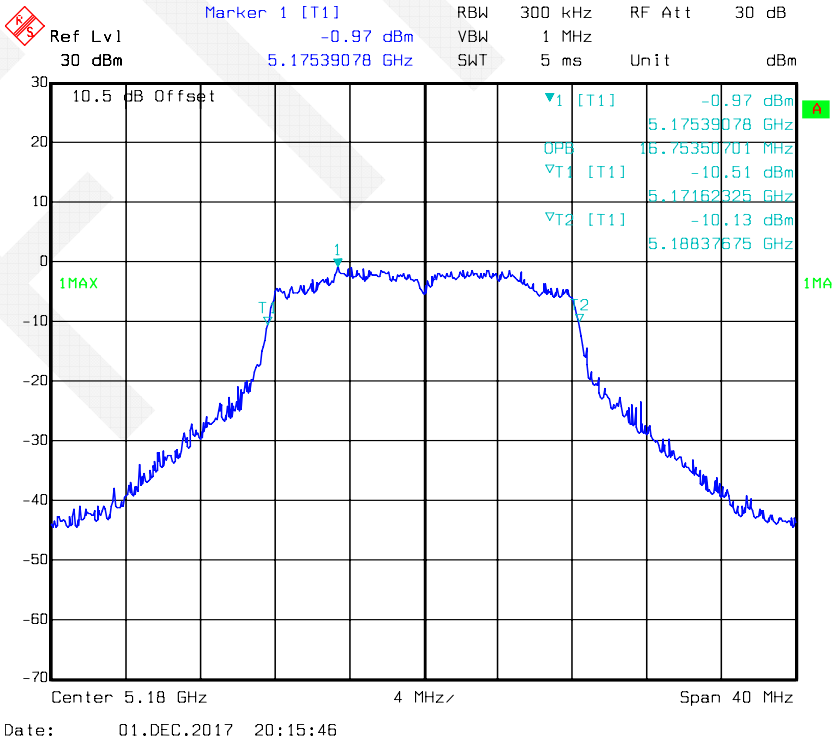
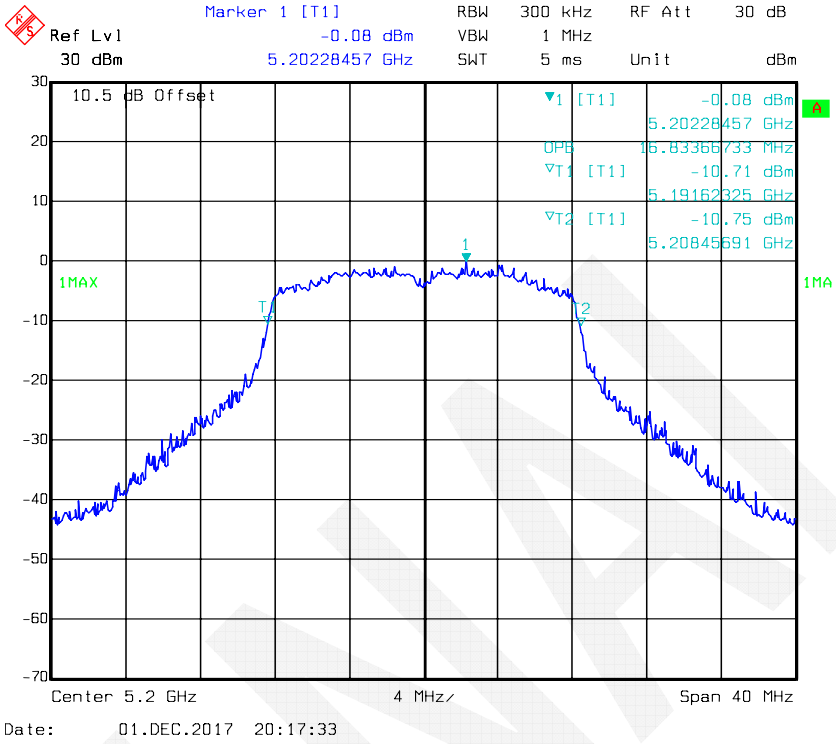
802.11a mode, 99% Occupied Bandwidth -5240 MHz, Antenna 1



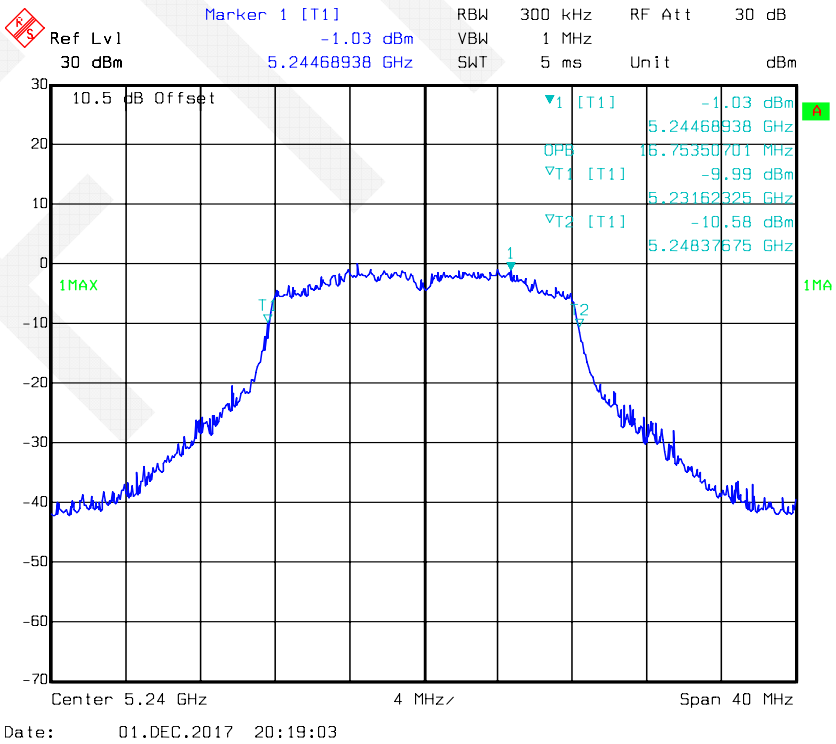
802.11a mode, 99% Occupied Bandwidth-5180 MHz, Antenna 2



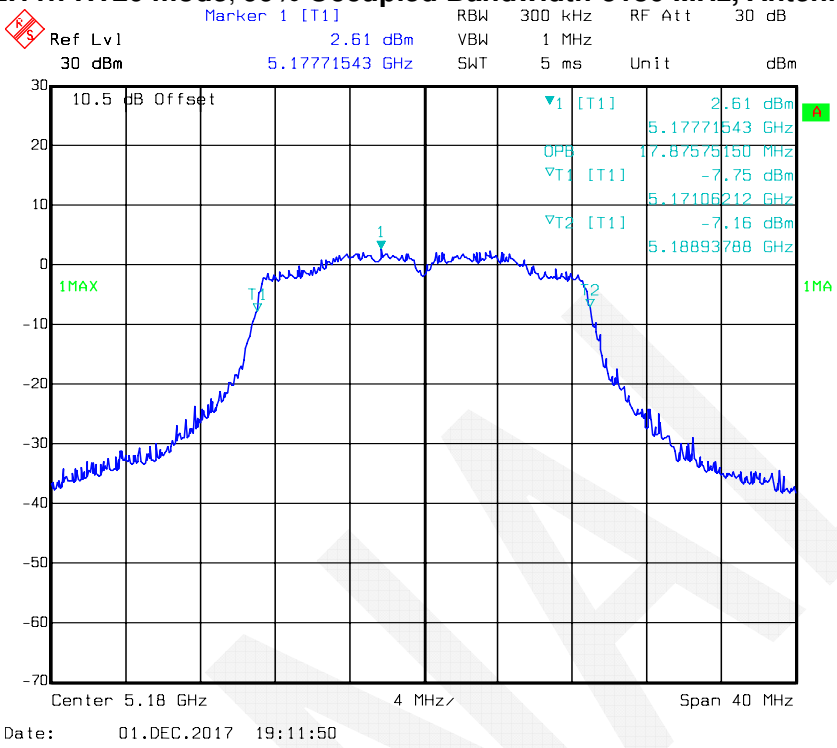
802.11a mode, 99% Occupied Bandwidth -5200 MHz, Antenna 2



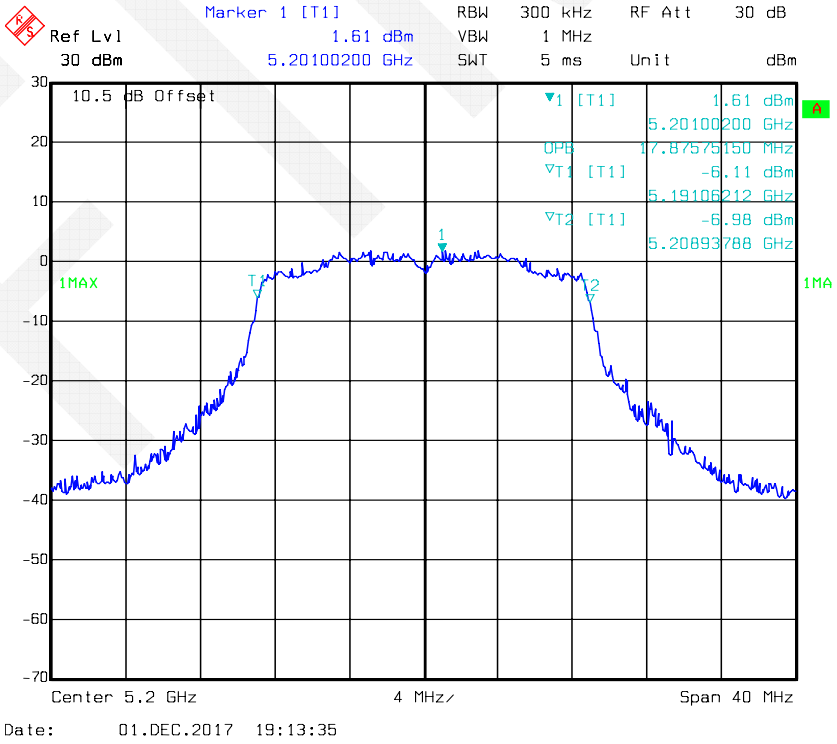
802.11a mode, 99% Occupied Bandwidth -5240 MHz, Antenna 2



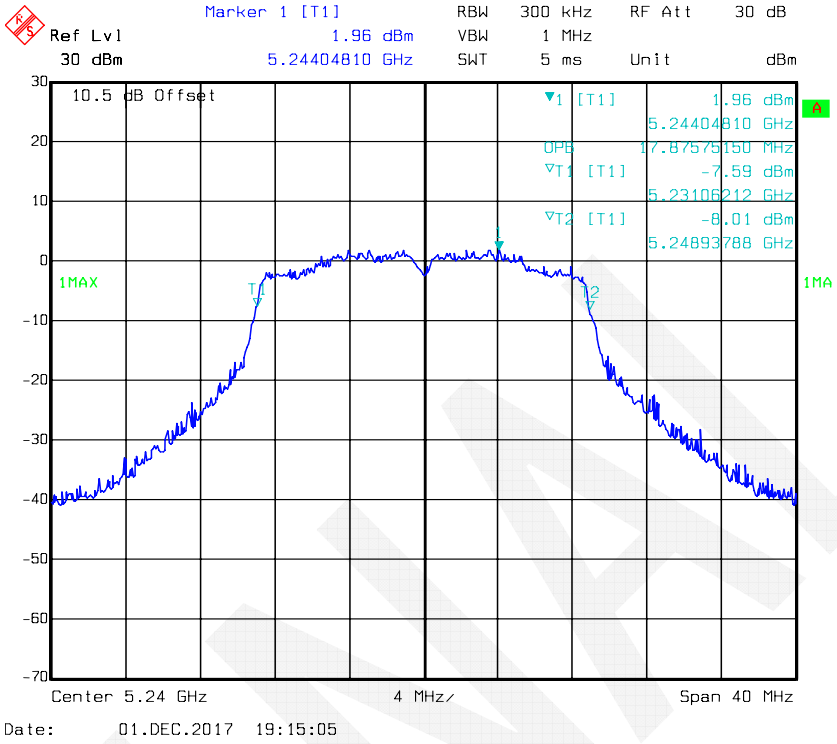
802.11n-HT20 mode, 99% Occupied Bandwidth-5180 MHz, Antenna 1



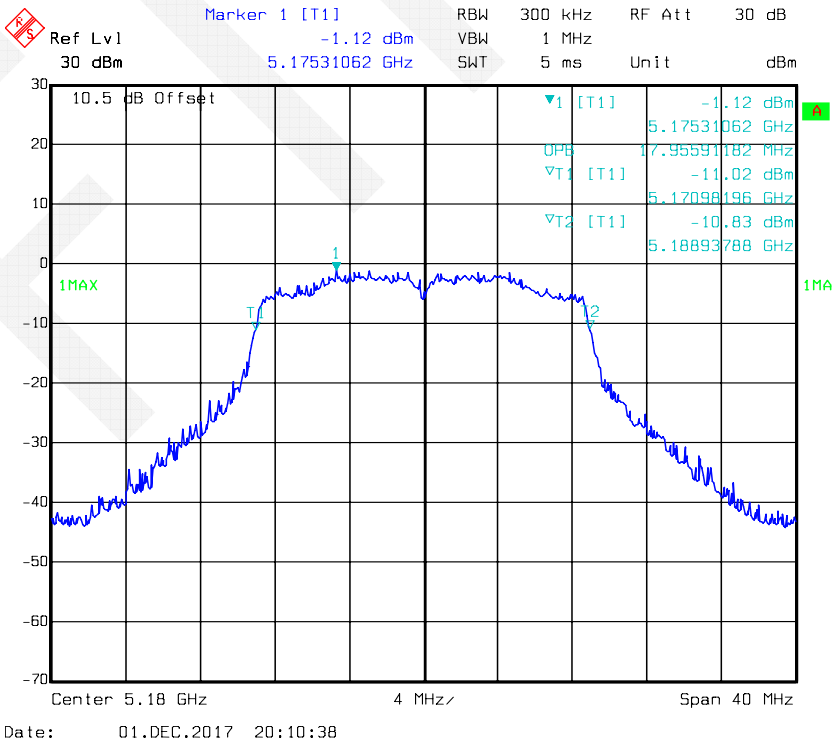
802.11n-HT20 mode, 99% Occupied Bandwidth -5200 MHz, Antenna 1



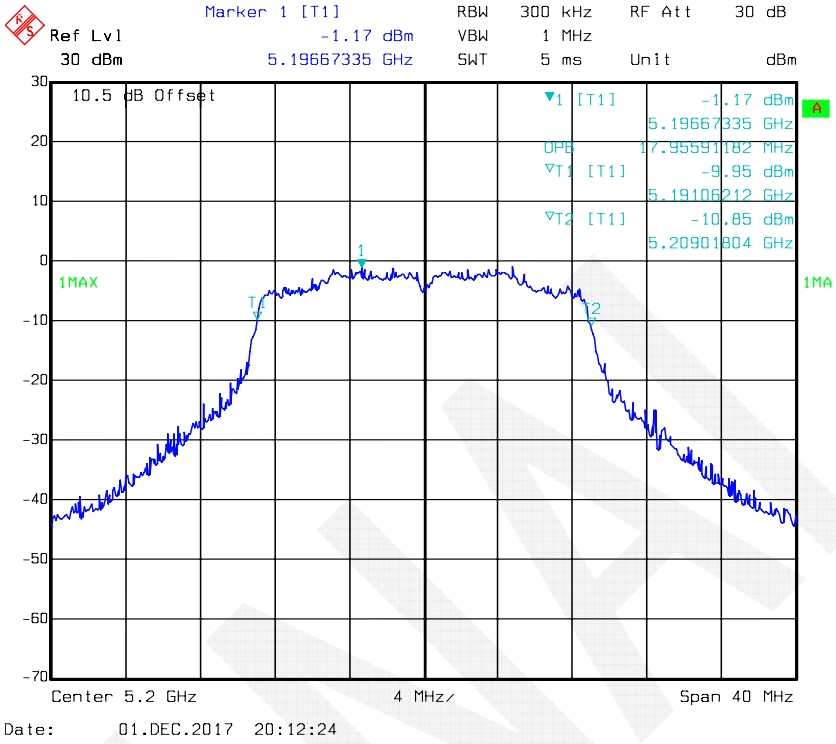
802.11n-HT20 mode, 99% Occupied Bandwidth -5240 MHz, Antenna 1



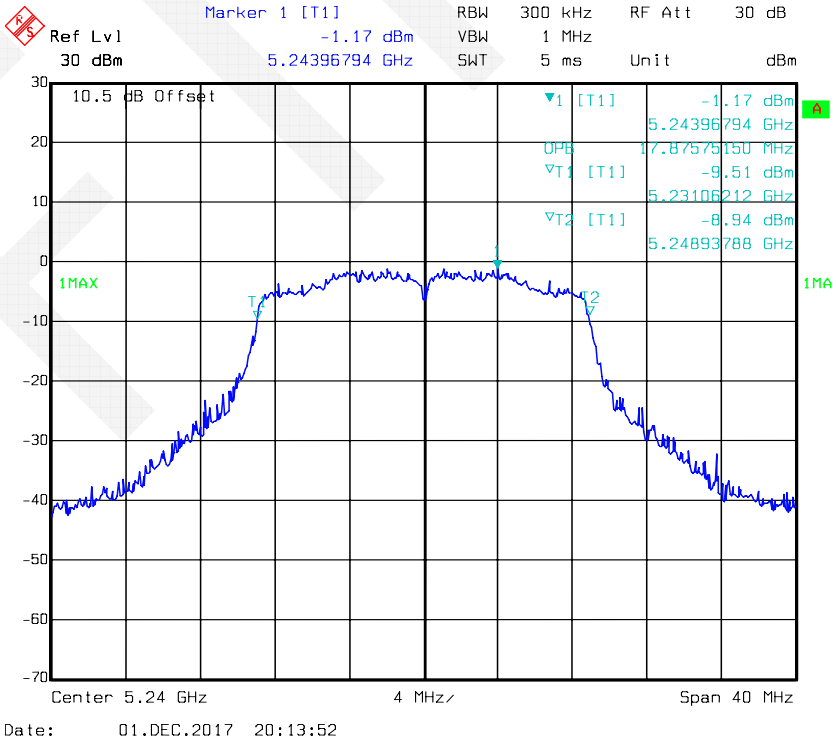
802.11n-HT20 mode, 99% Occupied Bandwidth-5180 MHz, Antenna 2



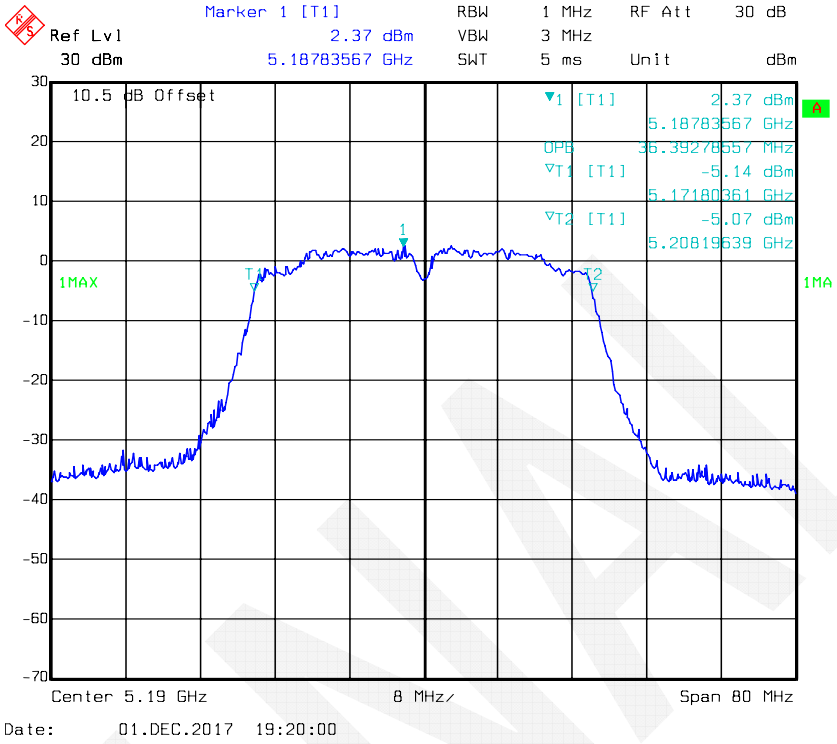
802.11n-HT20 mode, 99% Occupied Bandwidth -5200 MHz, Antenna 2



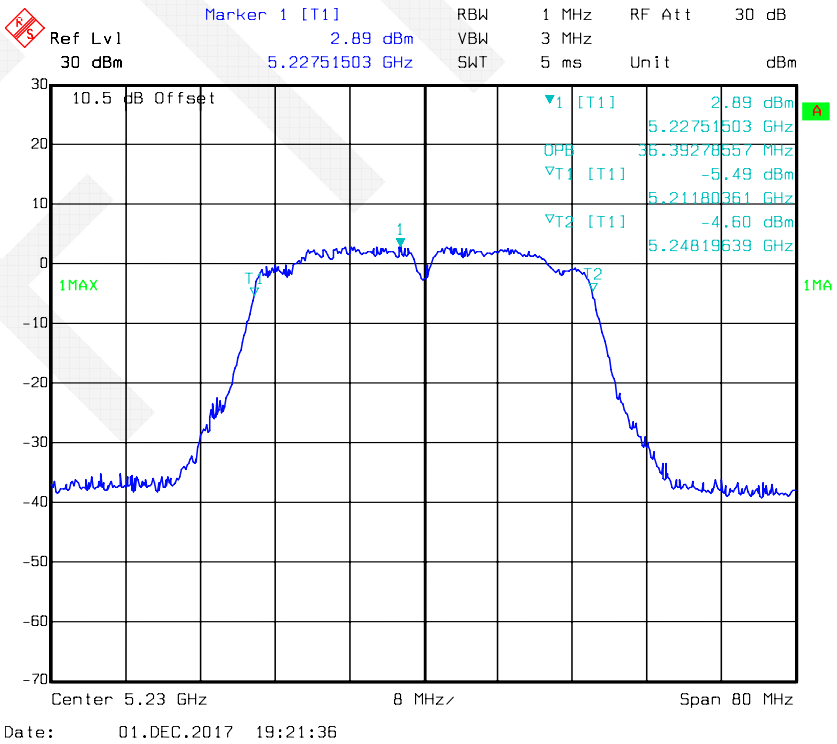
802.11n-HT20 mode, 99% Occupied Bandwidth -5240 MHz, Antenna 2



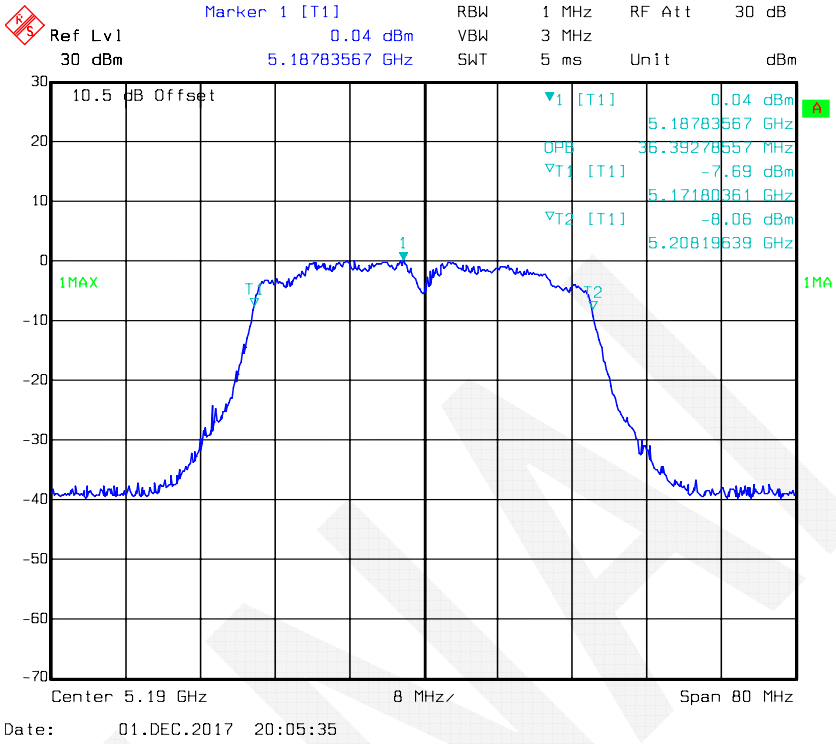
802.11n-HT40 mode, 99% Occupied Bandwidth-5190 MHz, Antenna 1



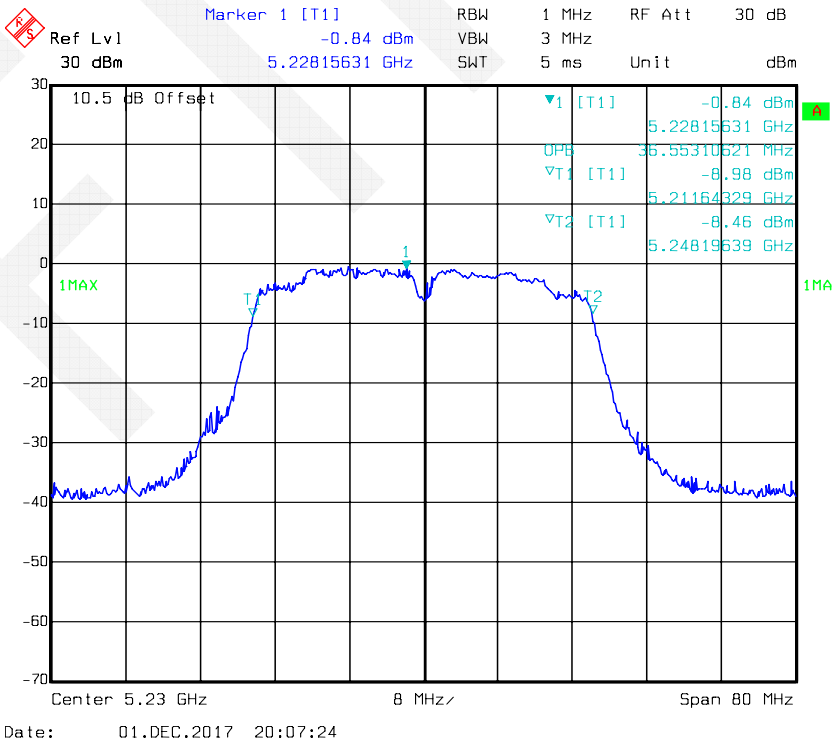
802.11n-HT40 mode, 99% Occupied Bandwidth-5230 MHz, Antenna 1



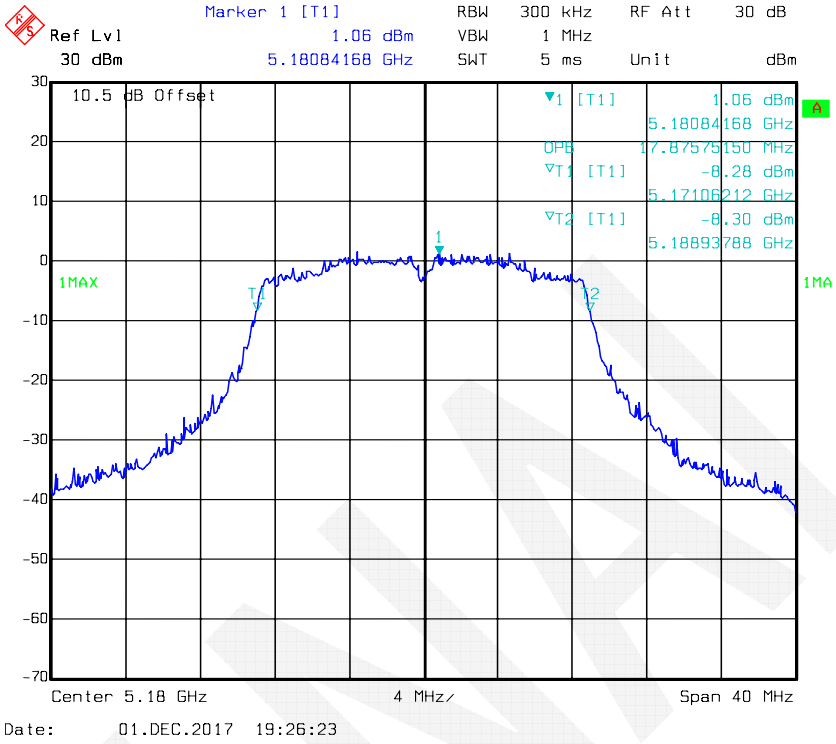
802.11n-HT40 mode, 99% Occupied Bandwidth-5190 MHz, Antenna 2



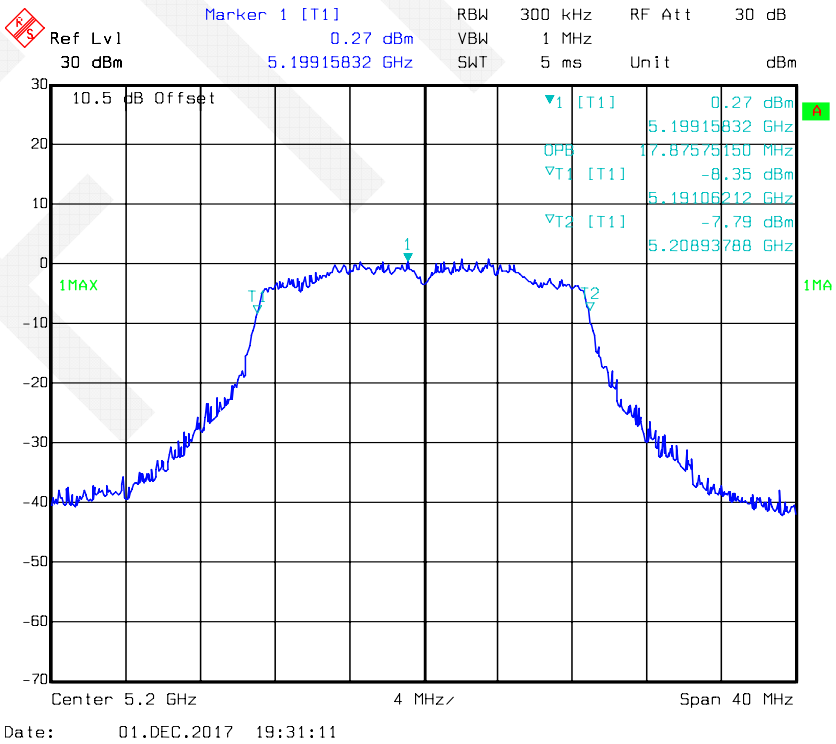
802.11n-HT40 mode, 99% Occupied Bandwidth-5230 MHz, Antenna 2



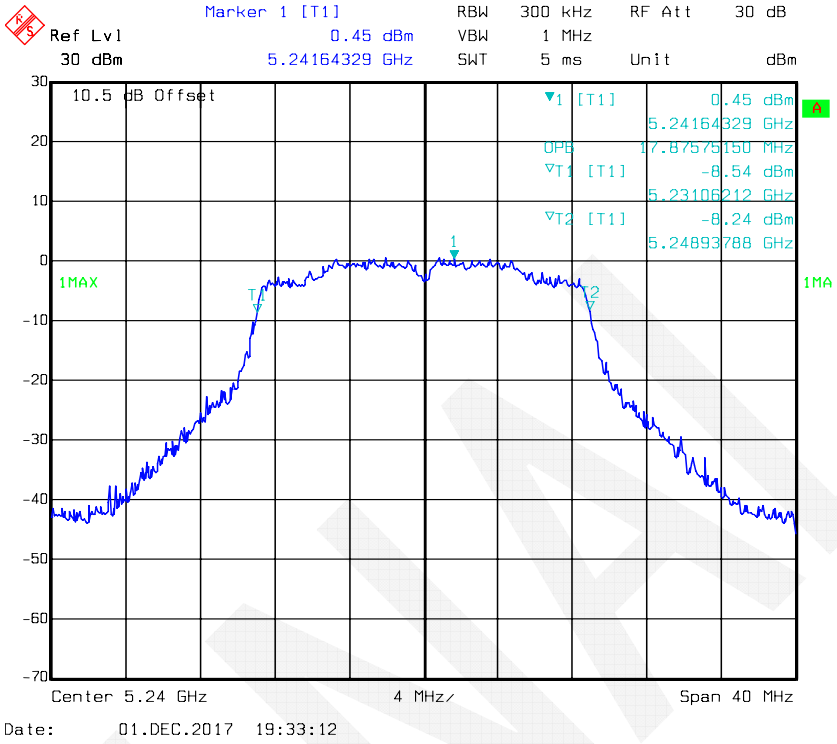
802.11ac20 mode, 99% Occupied Bandwidth-5180 MHz, Antenna 1



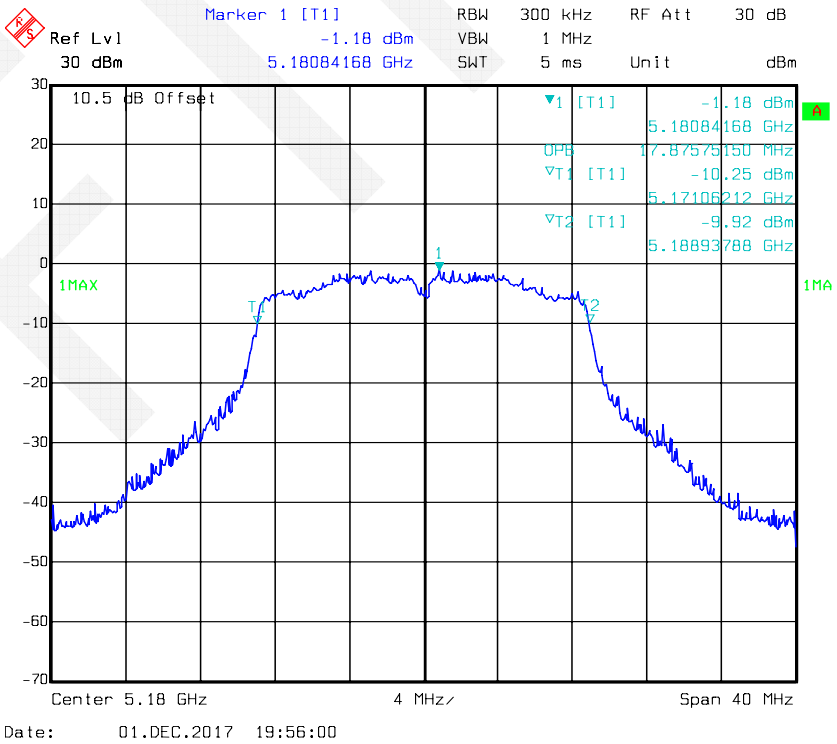
802.11ac20 mode, 99% Occupied Bandwidth-5200 MHz, Antenna 1



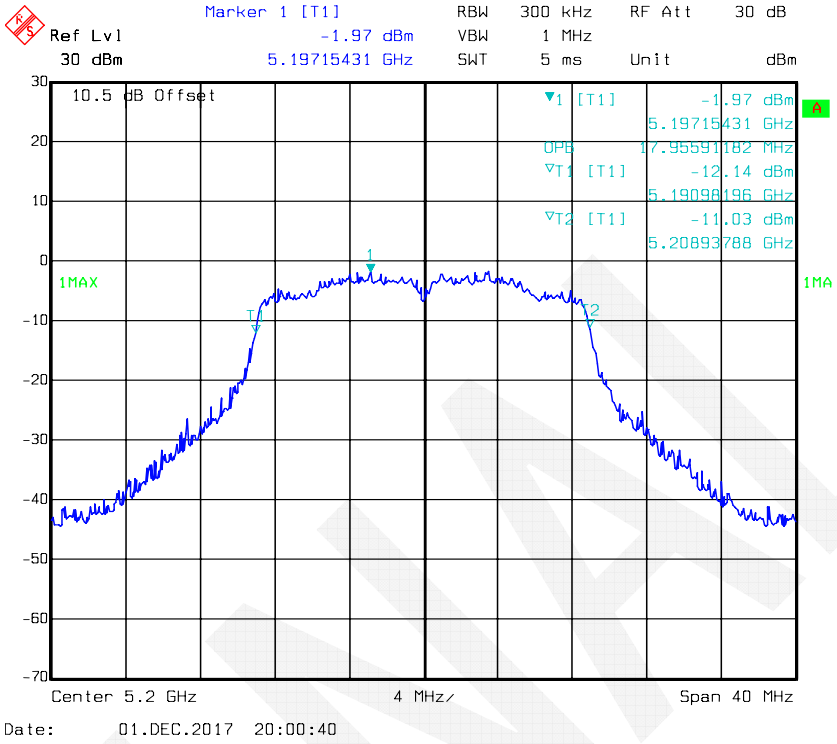
802.11ac20 mode, 99% Occupied Bandwidth-5240 MHz, Antenna 1



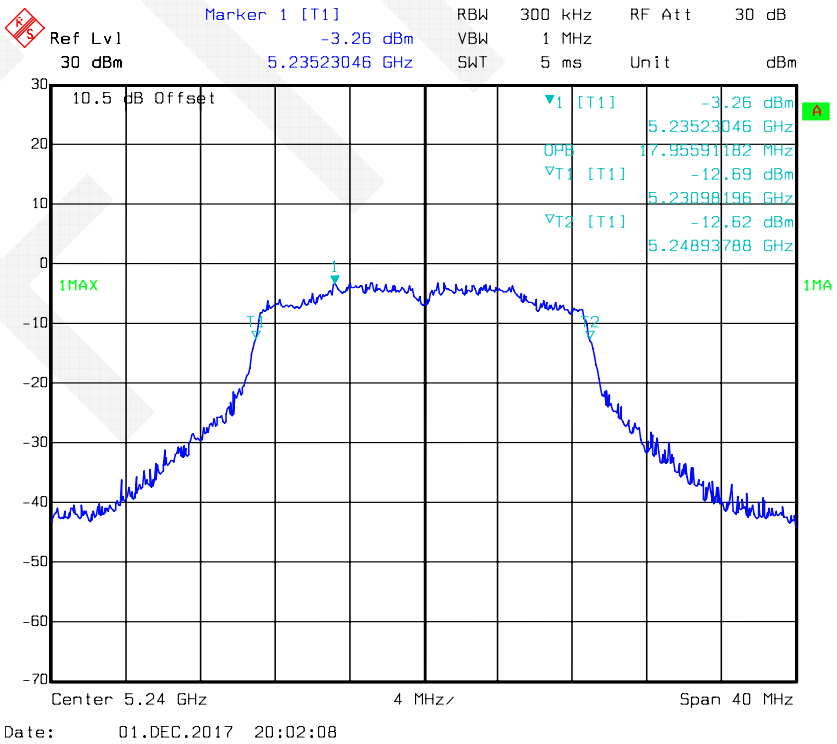
802.11ac20 mode, 99% Occupied Bandwidth-5180 MHz, Antenna 2



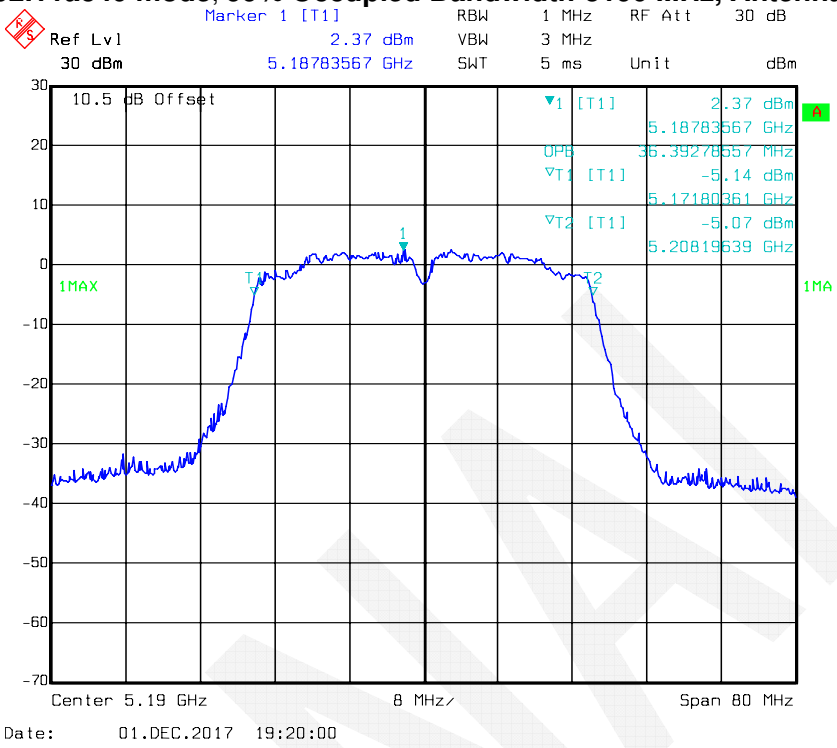
802.11ac20 mode, 99% Occupied Bandwidth-5200 MHz, Antenna 2



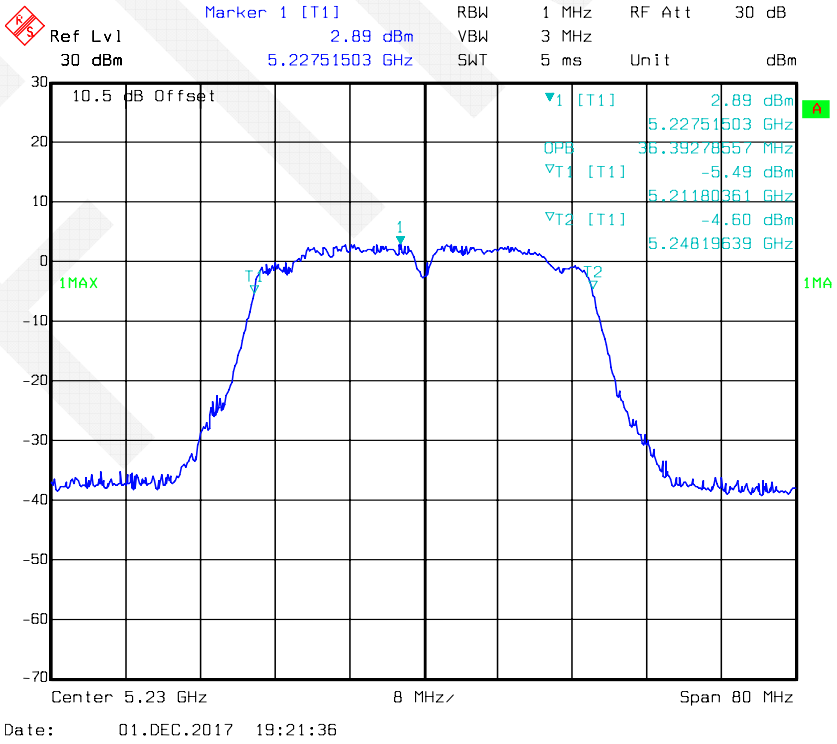
802.11ac20 mode, 99% Occupied Bandwidth-5240 MHz, Antenna 2



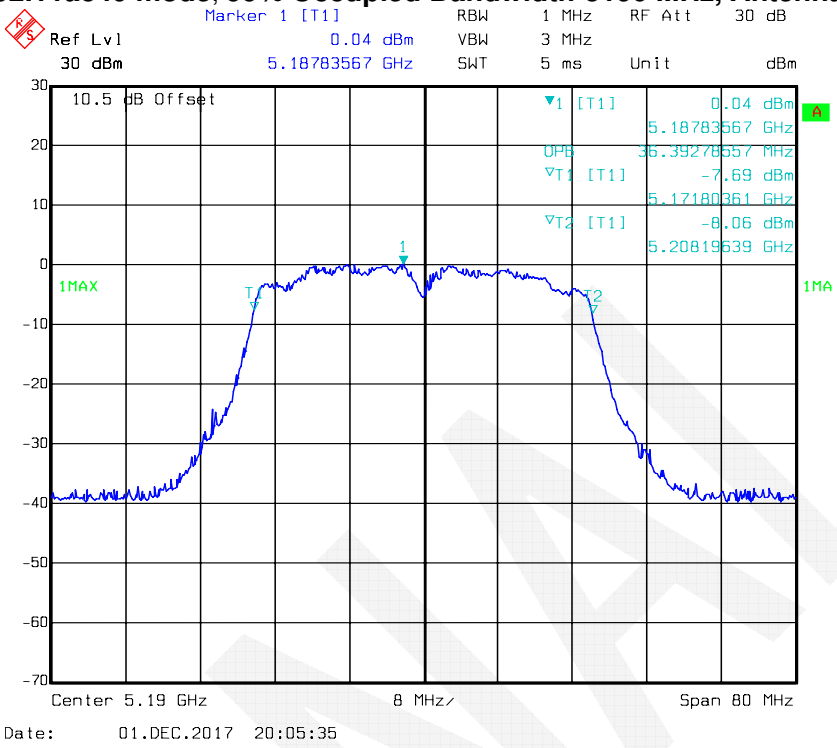
802.11ac40 mode, 99% Occupied Bandwidth-5190 MHz, Antenna 1



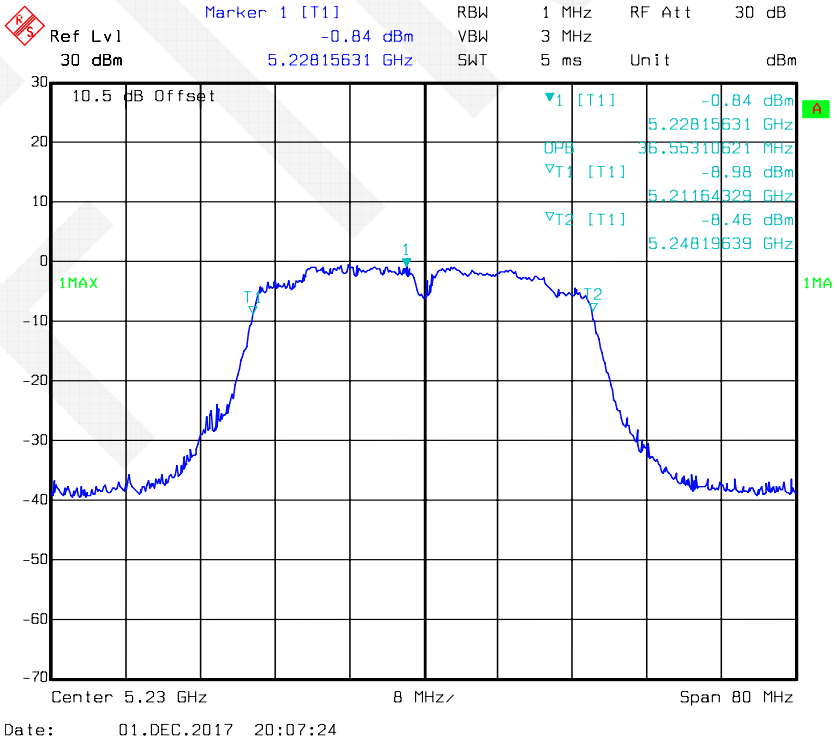
802.11ac40 mode, 99% Occupied Bandwidth-5230 MHz, Antenna 1



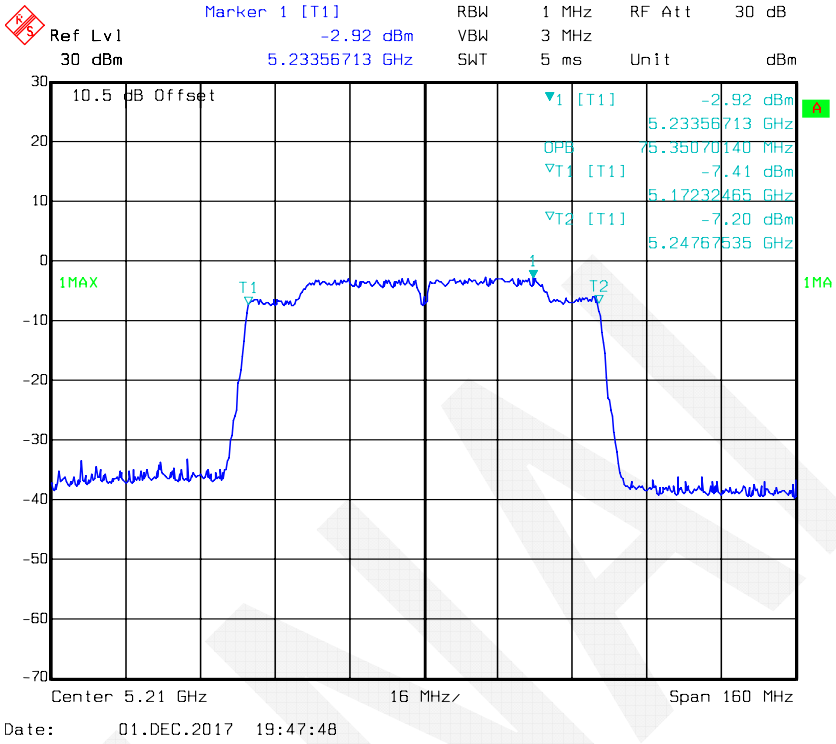
802.11ac40 mode, 99% Occupied Bandwidth-5190 MHz, Antenna 2



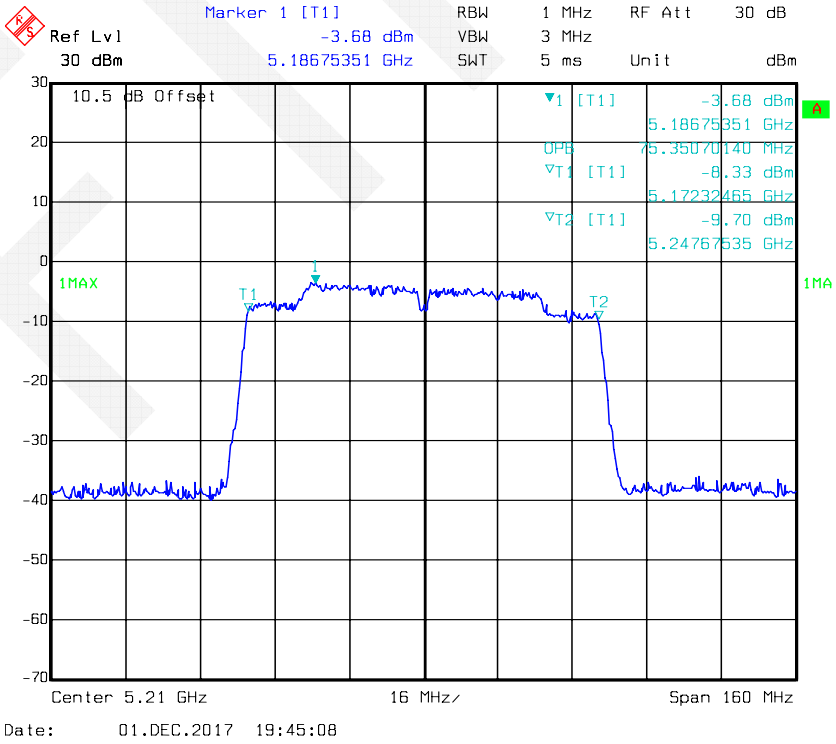
802.11ac40 mode, 99% Occupied Bandwidth-5230 MHz, Antenna 2



802.11ac80 mode, 99% Occupied Bandwidth-5210 MHz, Antenna 1



802.11ac80 mode, 99% Occupied Bandwidth-5210 MHz, Antenna 2

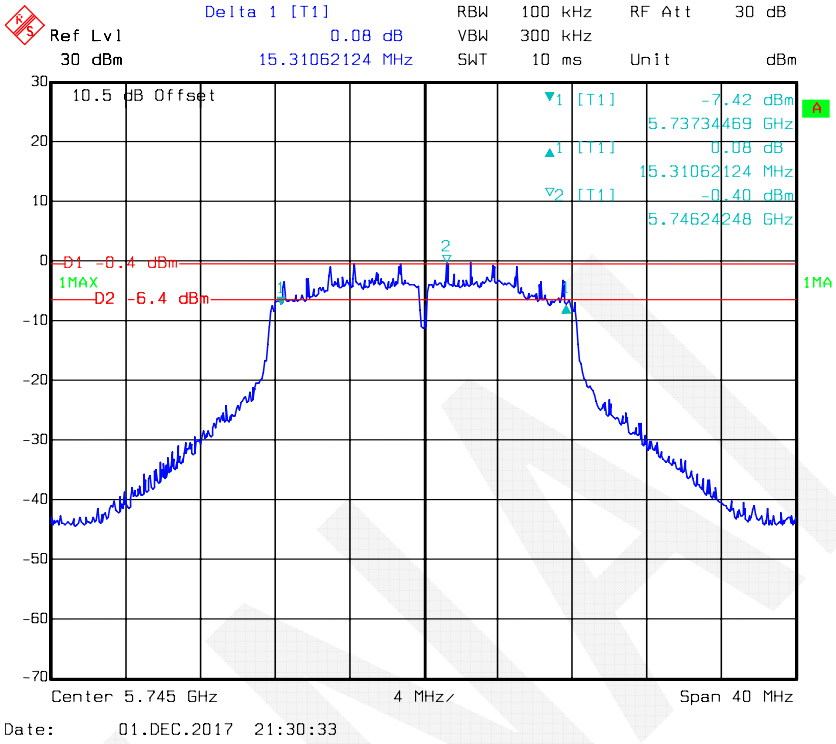


For 5725-5850 MHz:

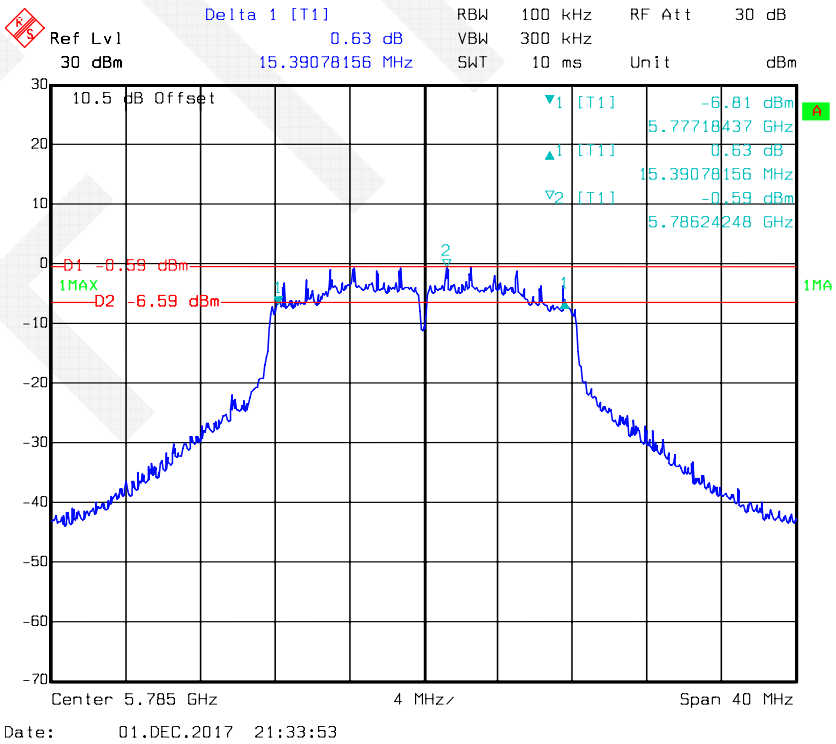
Mode	Channel	Frequency (MHz)	6dB Bandwidth (MHz)		99% Occupied Bandwidth (MHz)	
			Antenna 0	Antenna 2	Antenna 1	Antenna 2
802.11a	Low	5745	15.31	15.39	16.67	16.67
	Middle	5785	15.39	15.71	16.83	16.75
	High	5825	15.47	15.47	16.83	16.75
802.11n-HT20	Low	5745	15.55	15.23	17.88	17.88
	Middle	5785	15.39	15.31	17.96	17.88
	High	5825	15.55	15.39	17.96	17.88
802.11n-HT40	Low	5755	35.43	35.43	36.39	36.39
	High	5795	35.43	35.43	36.39	36.39
802.11ac20	Low	5745	15.31	15.55	17.96	17.88
	Middle	5785	16.11	15.23	17.96	17.96
	High	5825	15.47	15.31	17.96	17.88
802.11ac40	Low	5755	35.43	35.43	36.39	36.39
	High	5795	35.43	35.43	36.39	36.55
802.11ac80	-	5775	75.67	75.67	75.35	75.35

Note: the 99% Occupied Bandwidth doesn't extend U-NII-2C band 5470-5725MHz.

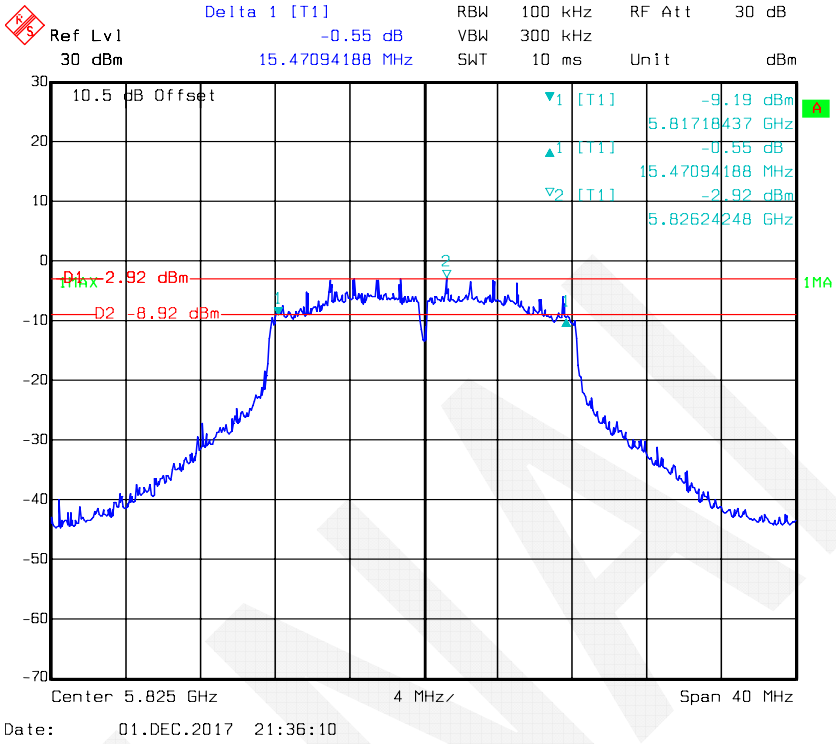
802.11a mode, 6 dB Bandwidth-5745 MHz, Antenna 1



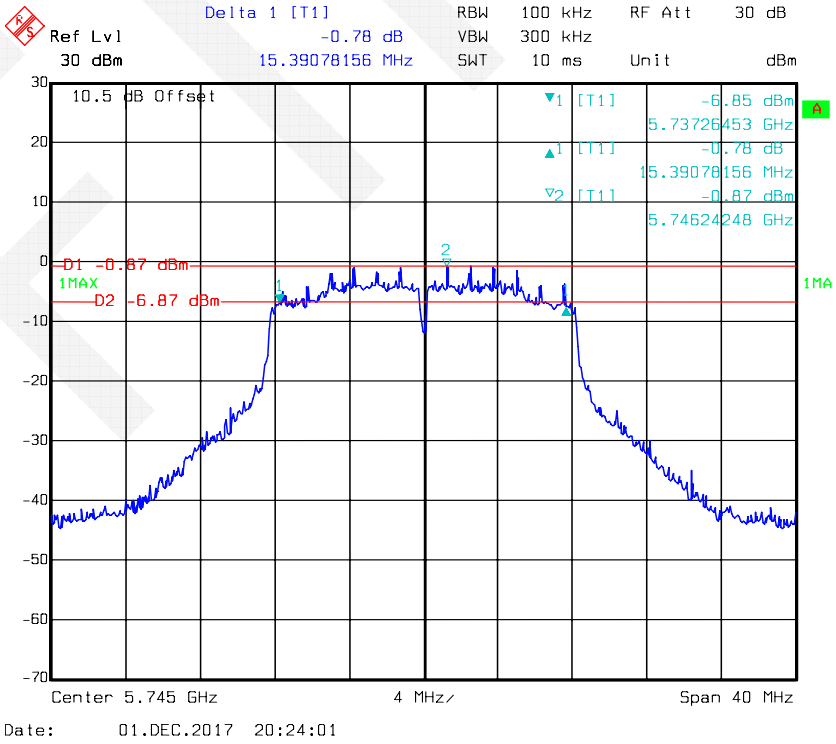
802.11a mode, 6 dB Bandwidth-5785 MHz, Antenna 1



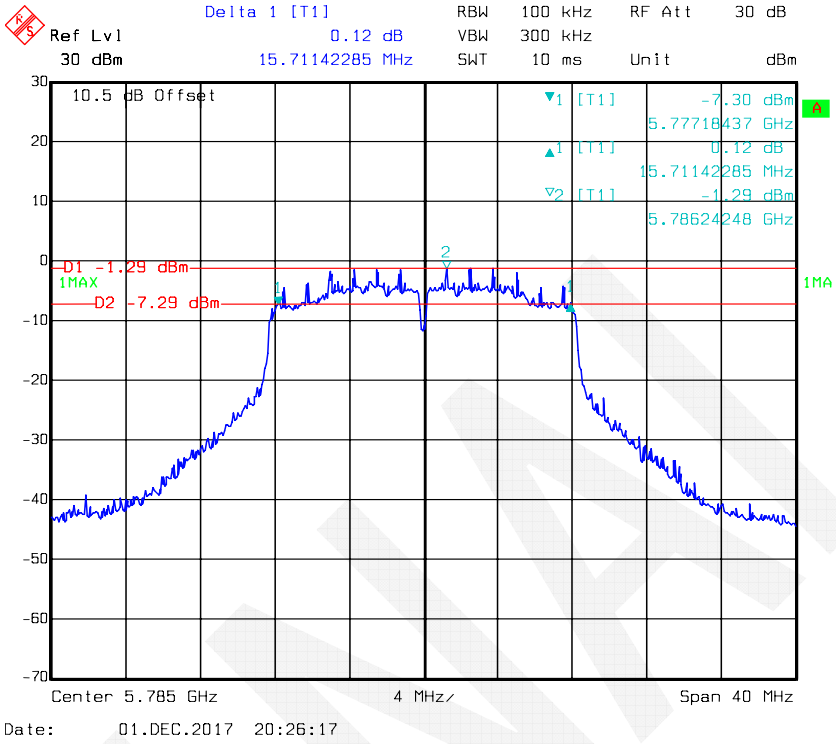
802.11a mode, 6 dB Bandwidth-5825 MHz, Antenna 1



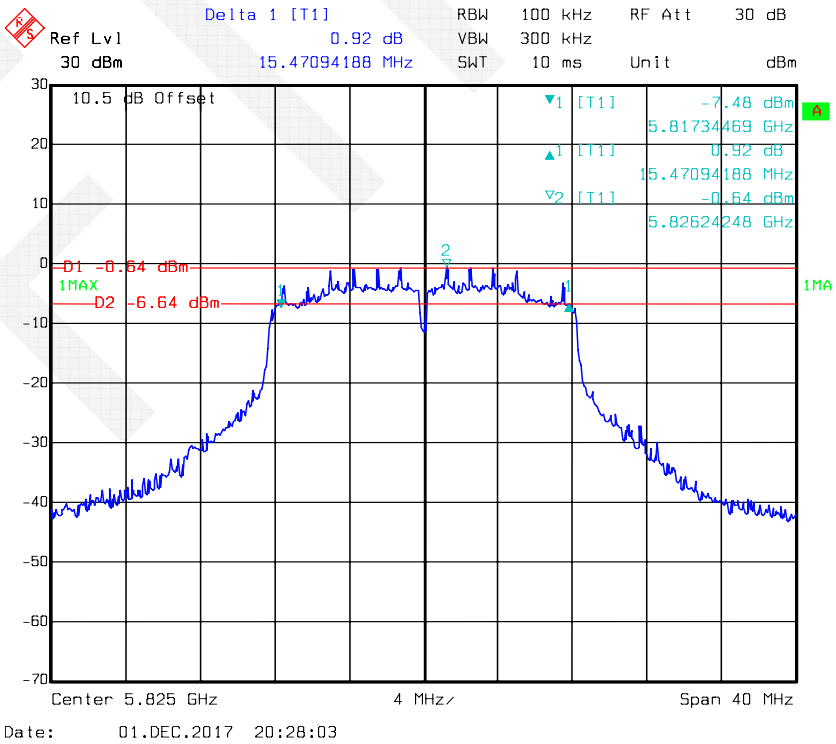
802.11a mode, 6 dB Bandwidth-5745 MHz, Antenna 2



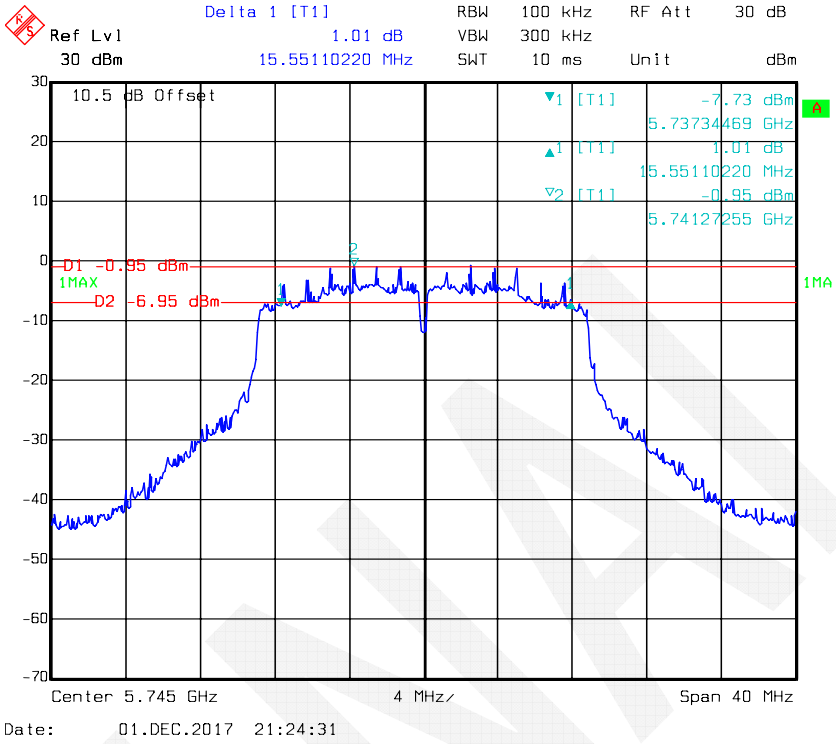
802.11a mode, 6 dB Bandwidth-5785 MHz, Antenna 2



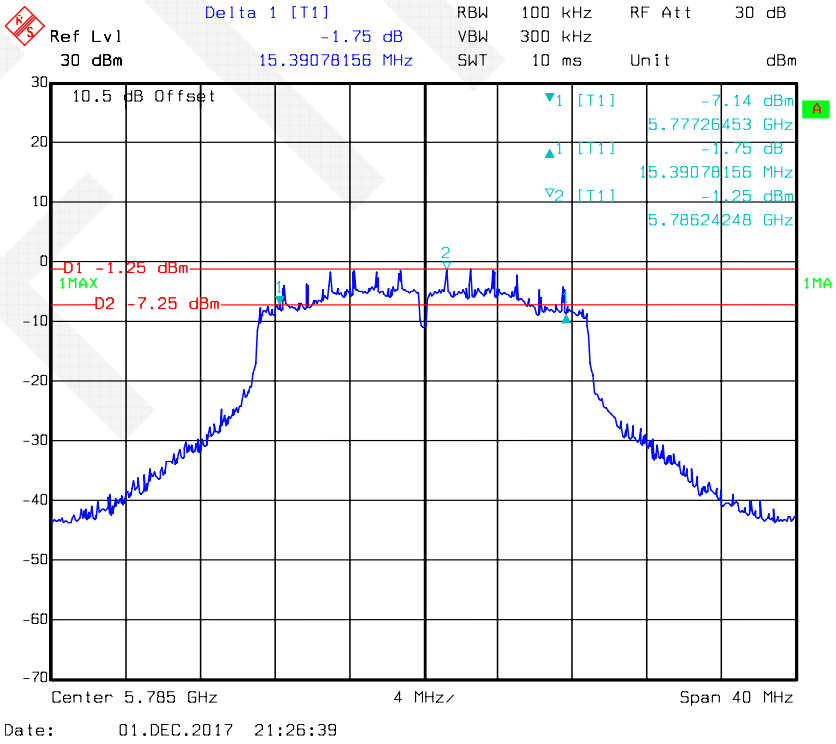
802.11a mode, 6 dB Bandwidth-5825 MHz, Antenna 2



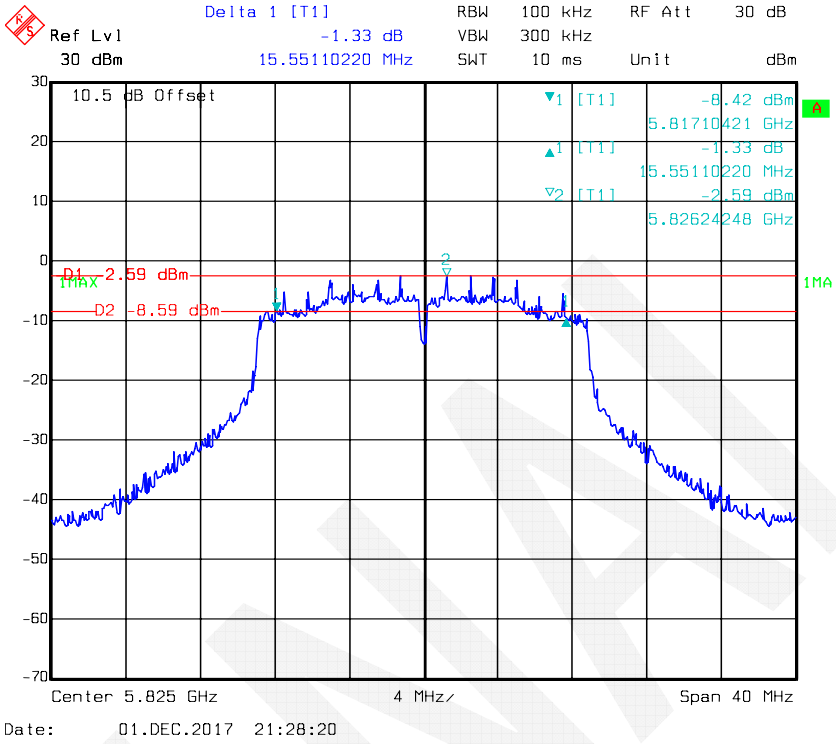
802.11n-HT20 mode, 6 dB Bandwidth-5745 MHz, Antenna 1



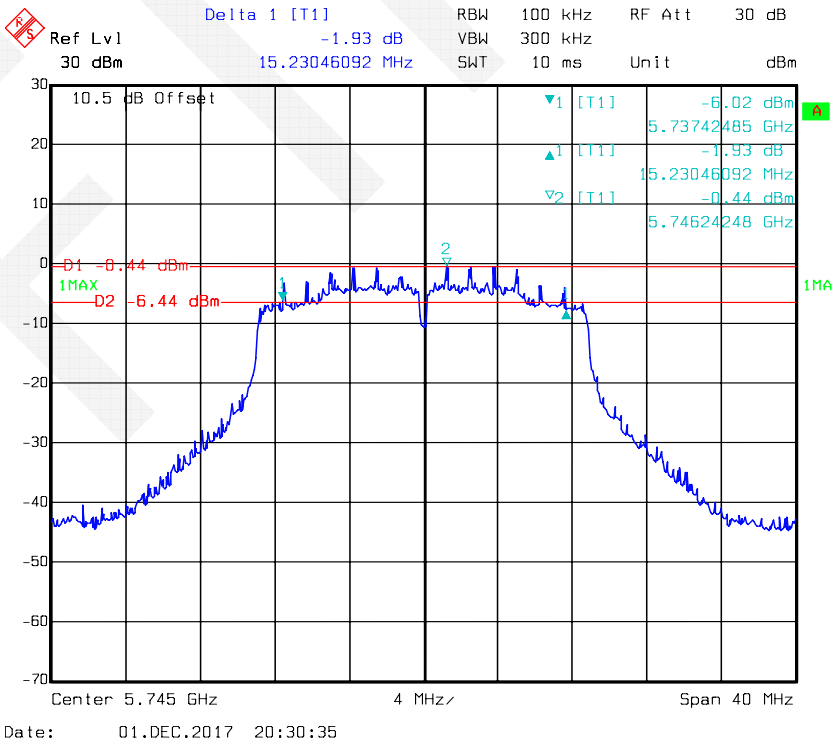
802.11n-HT20 mode, 6 dB Bandwidth-5785 MHz, Antenna 1



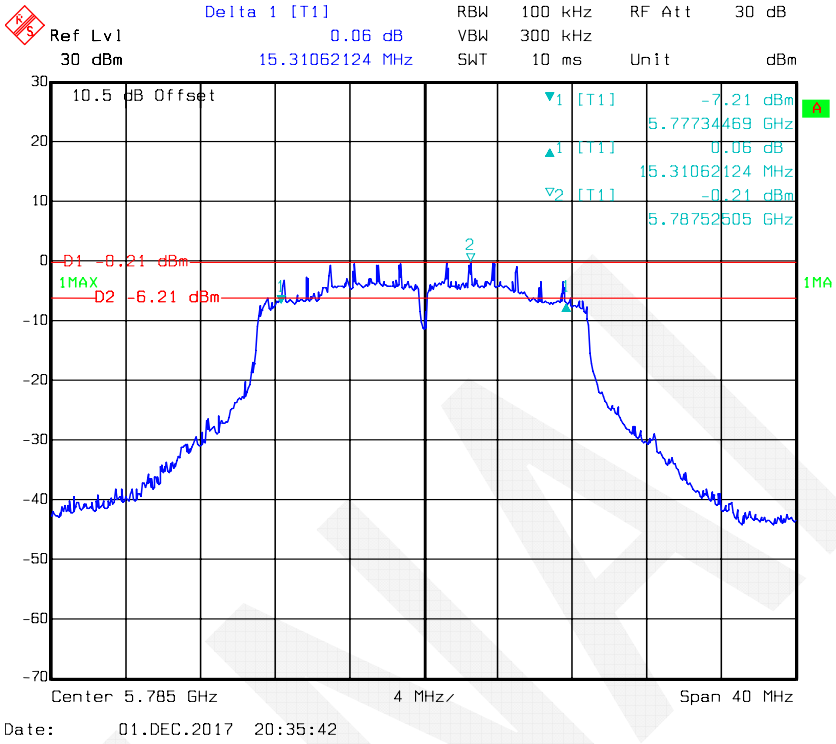
802.11n-HT20 mode, 6 dB Bandwidth-5825 MHz, Antenna 1



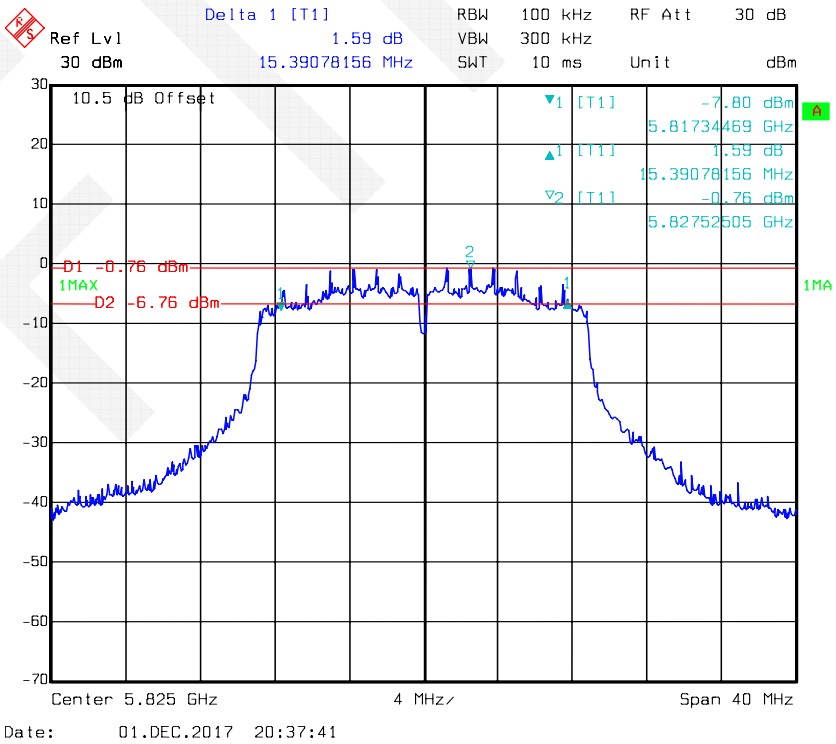
802.11n-HT20 mode, 6 dB Bandwidth-5745 MHz, Antenna 2



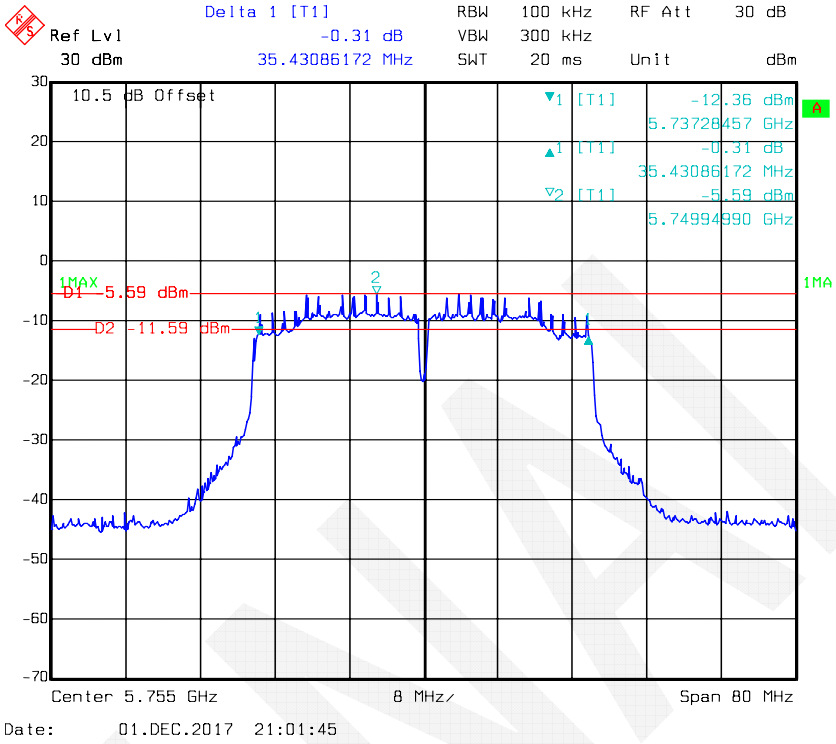
802.11n-HT20 mode, 6 dB Bandwidth-5785 MHz, Antenna 2



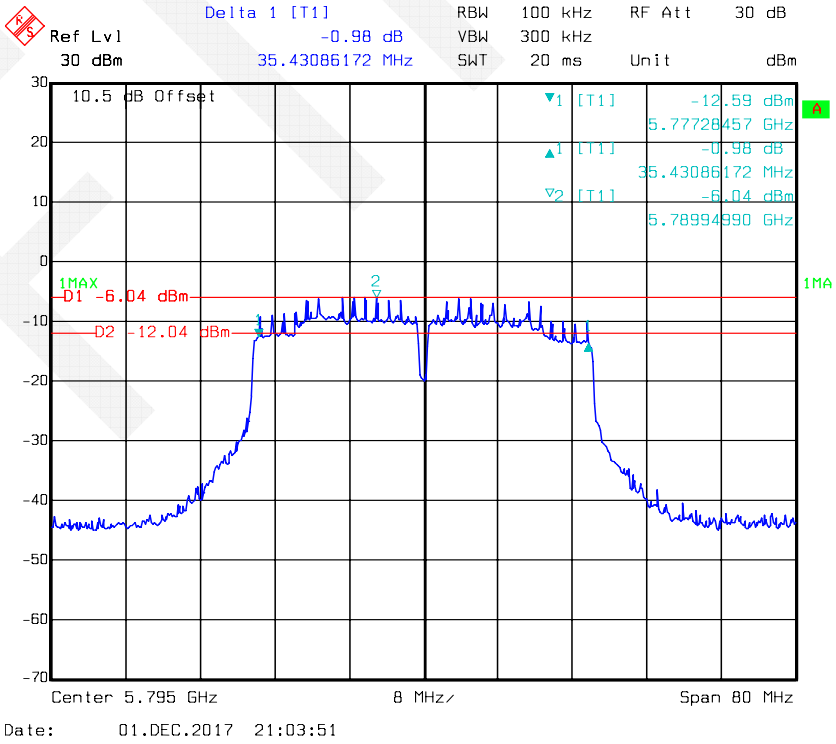
802.11n-HT20 mode, 6 dB Bandwidth-5825 MHz, Antenna 2



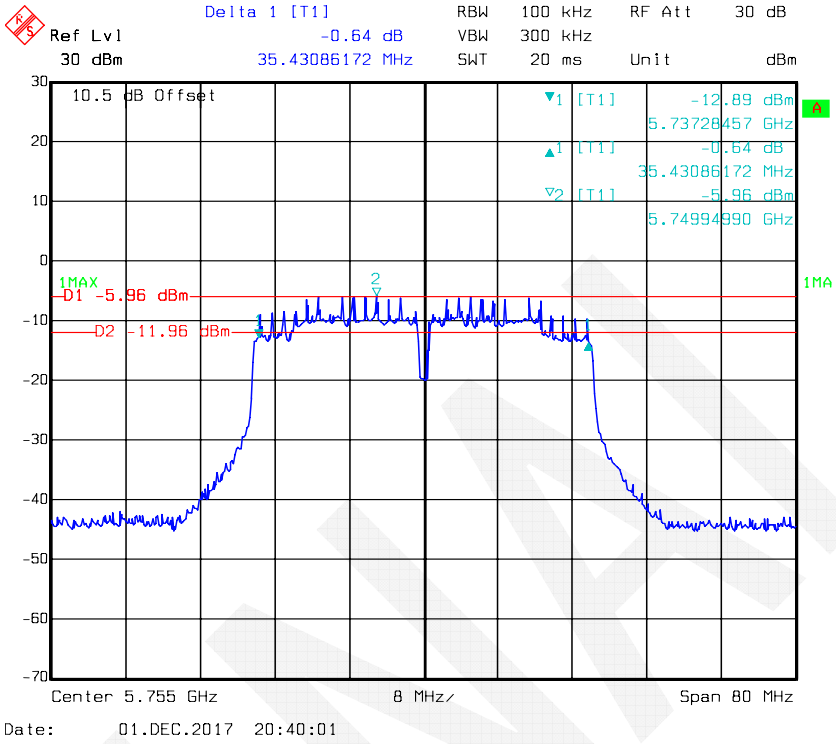
802.11n-HT40 mode, 6 dB Bandwidth-5755 MHz, Antenna 1



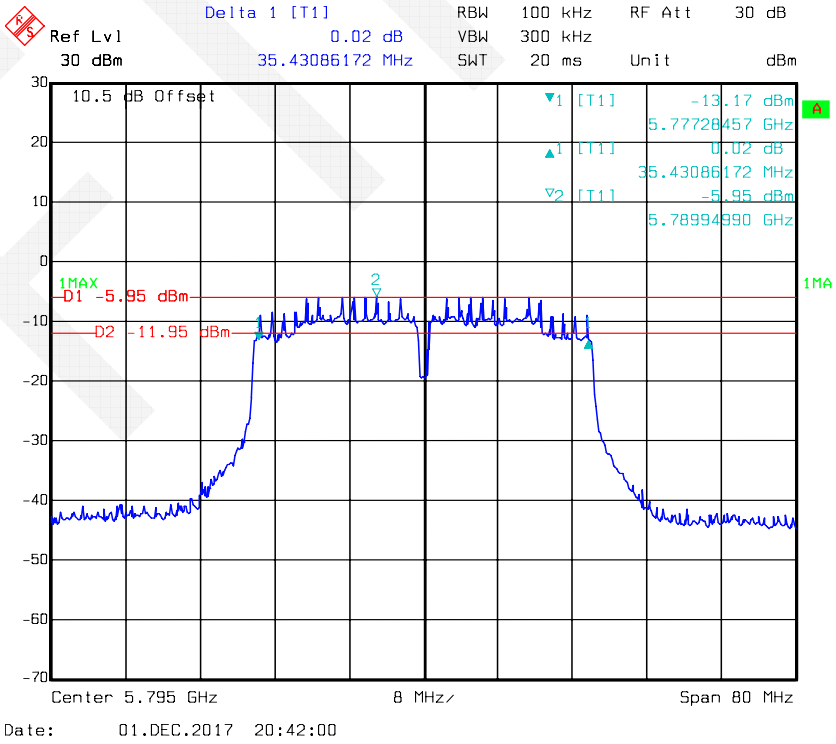
802.11n-HT40 mode, 6 dB Bandwidth-5795 MHz, Antenna 1



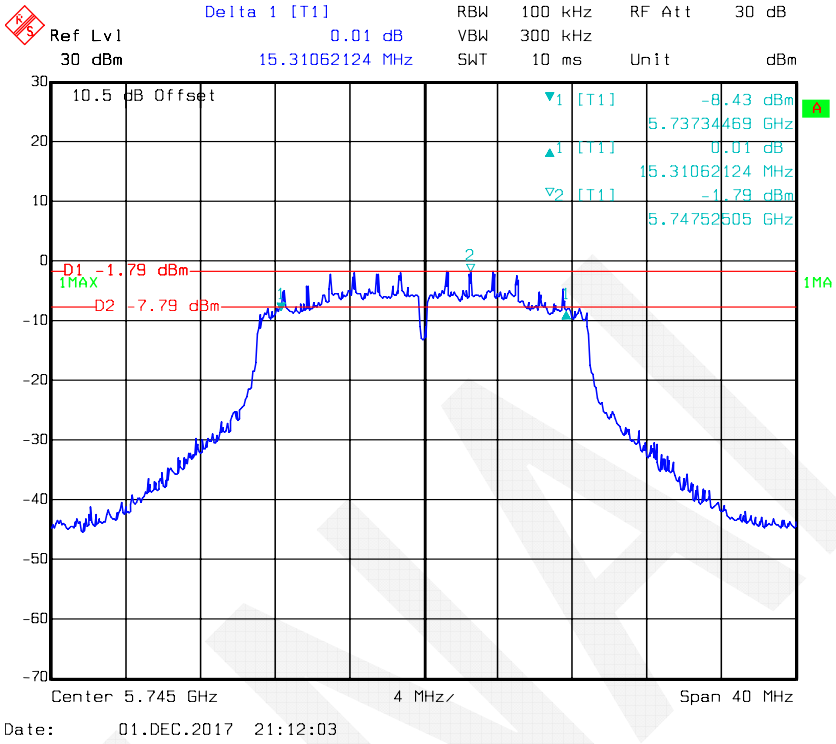
802.11n-HT40 mode, 6 dB Bandwidth-5755 MHz, Antenna 2



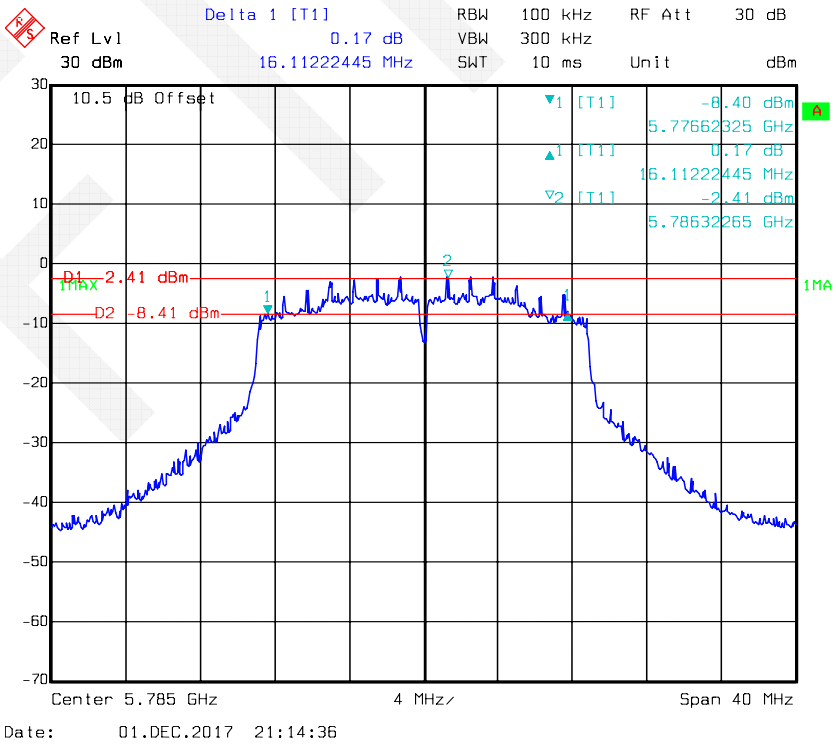
802.11n-HT40 mode, 6 dB Bandwidth-5795 MHz, Antenna 2



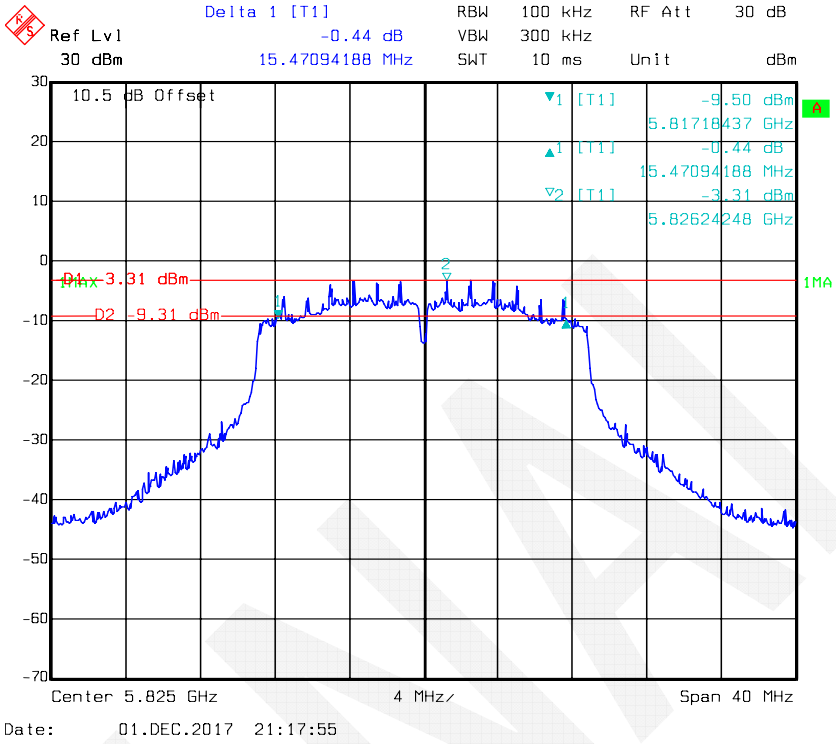
802.11ac20 mode, 6 dB Bandwidth-5745 MHz, Antenna 1



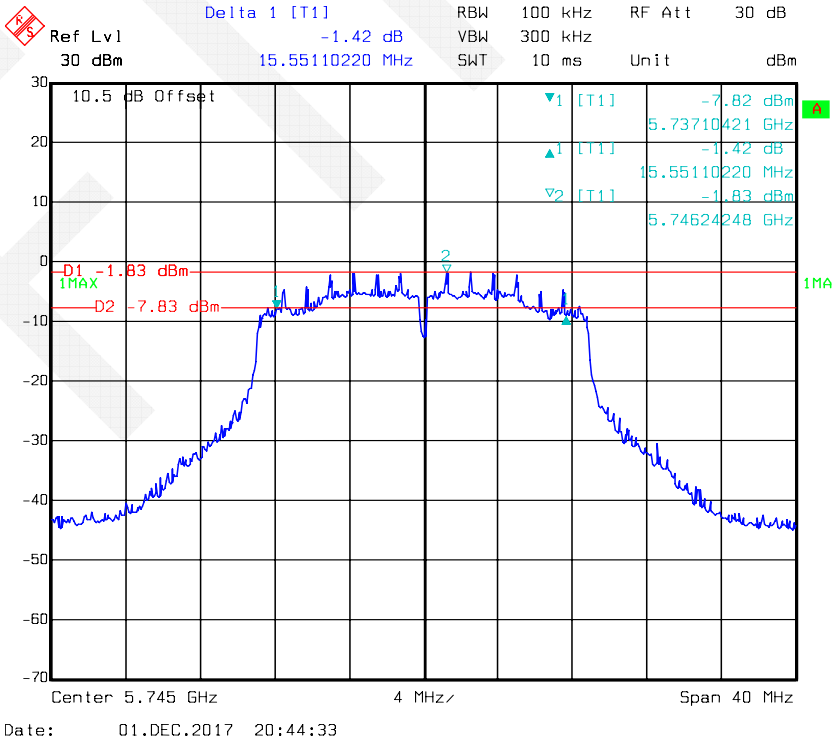
802.11ac20 mode, 6 dB Bandwidth-5785 MHz, Antenna 1



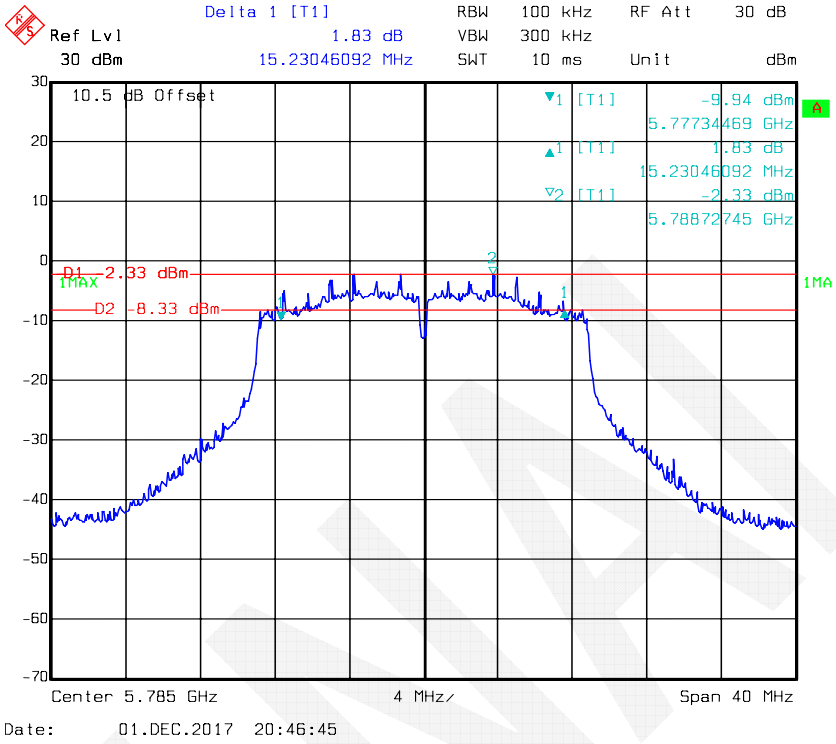
802.11ac20 mode, 6 dB Bandwidth-5825 MHz, Antenna 1



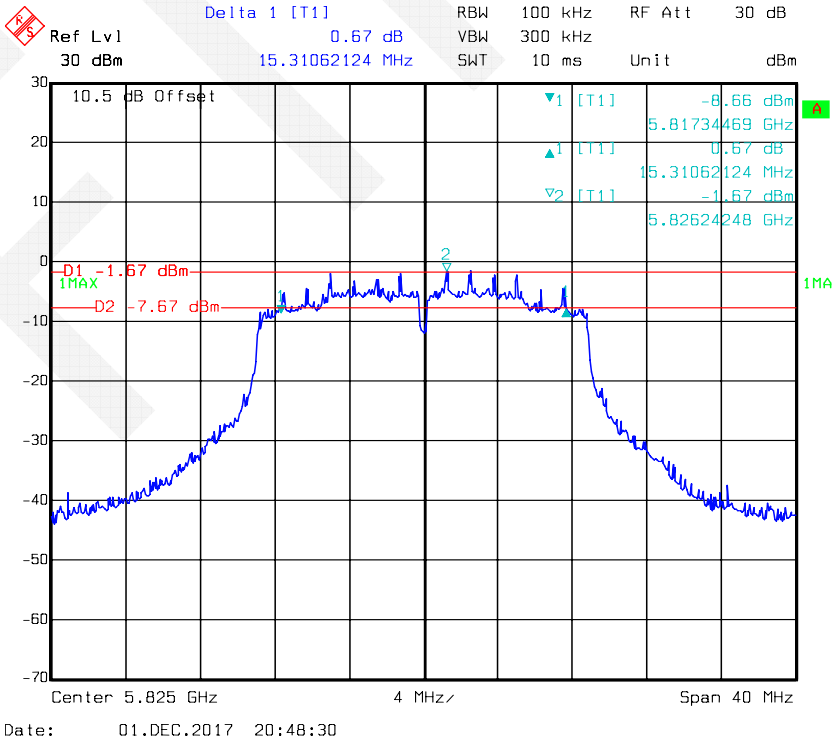
802.11ac20 mode, 6 dB Bandwidth-5745 MHz, Antenna 2



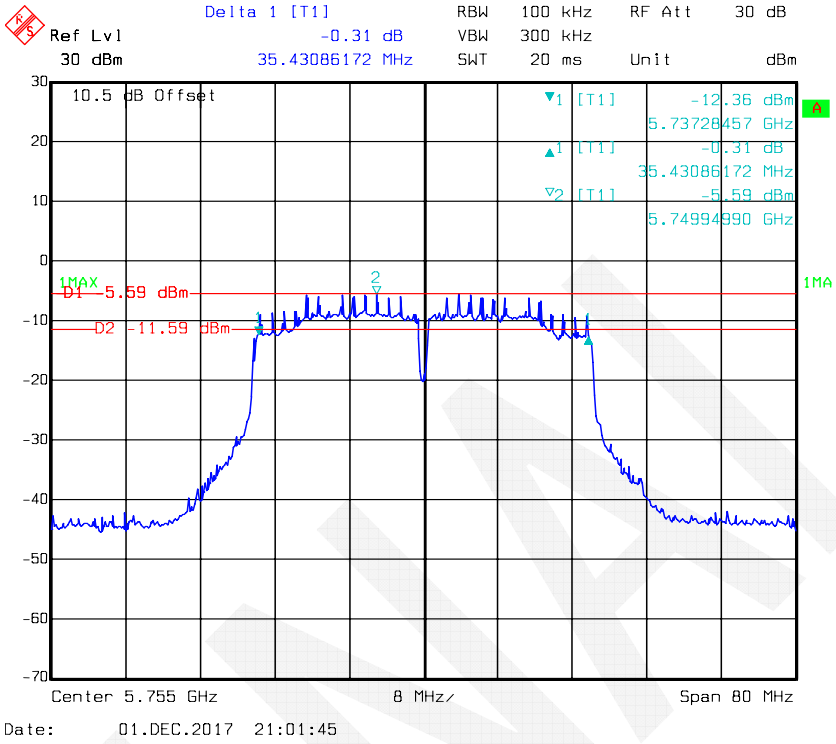
802.11ac20 mode, 6 dB Bandwidth-5785 MHz, Antenna 2



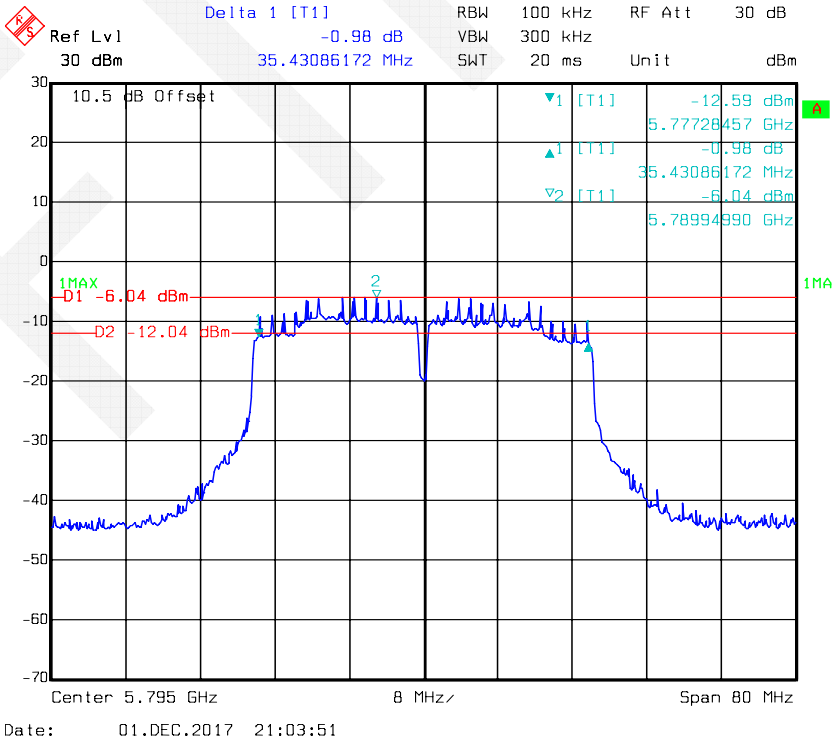
802.11ac20 mode, 6 dB Bandwidth-5825 MHz, Antenna 2



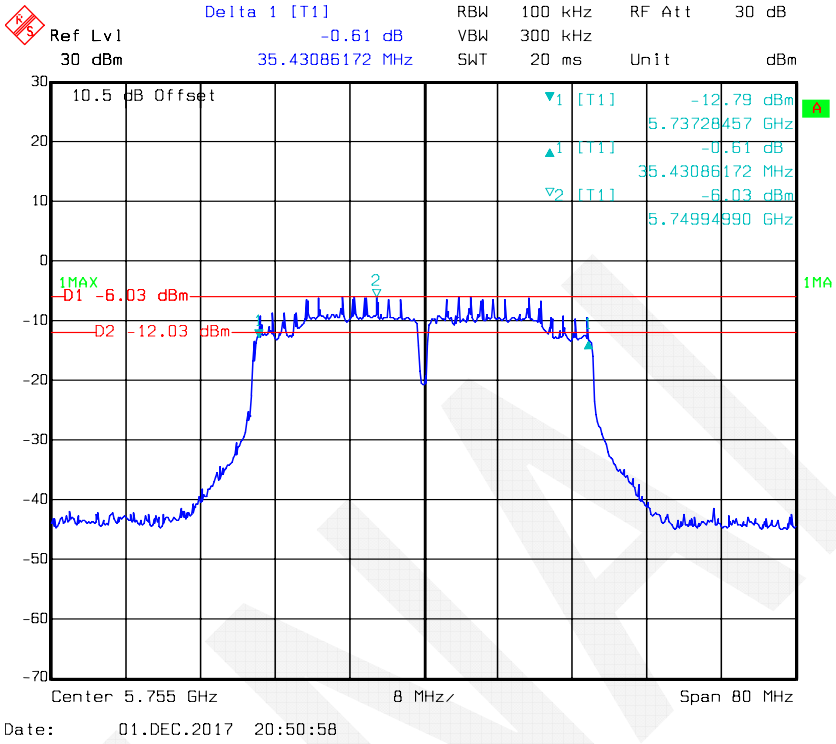
802.11ac40 mode, 6 dB Bandwidth-5755 MHz, Antenna 1



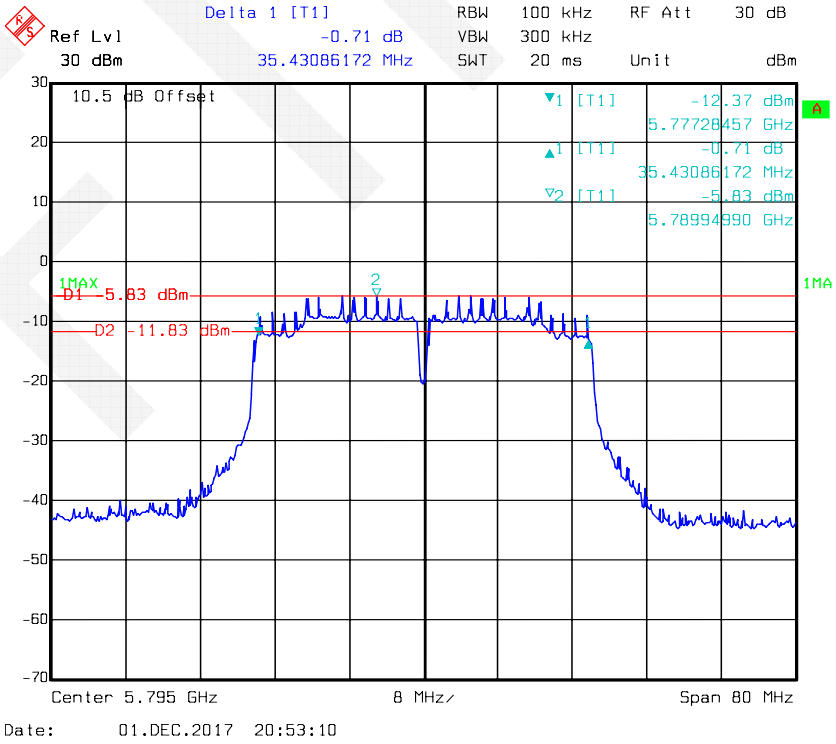
802.11ac40 mode, 6 dB Bandwidth-5795 MHz, Antenna 1



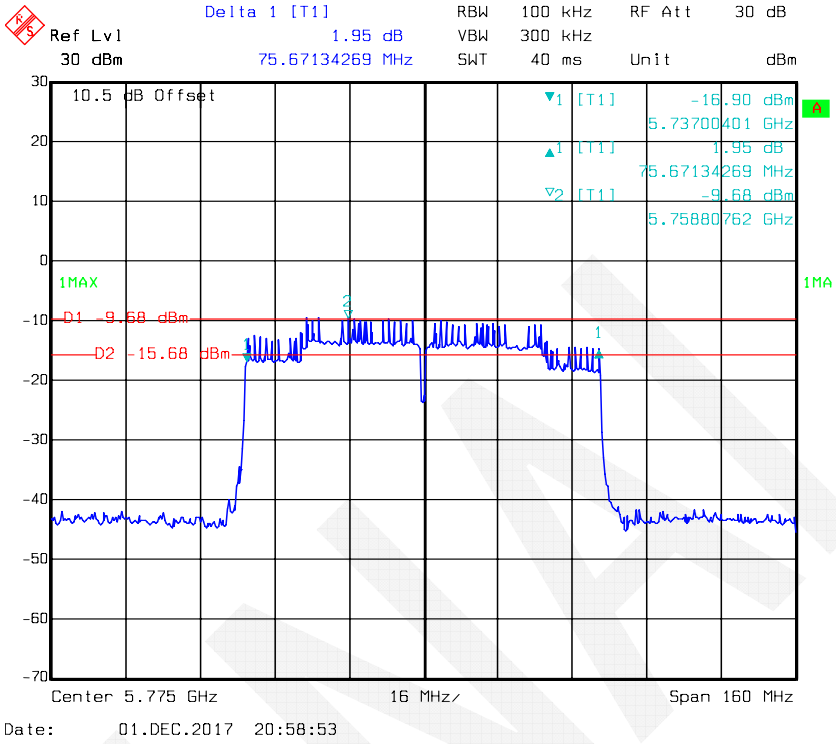
802.11ac40 mode, 6 dB Bandwidth-5755 MHz, Antenna 2



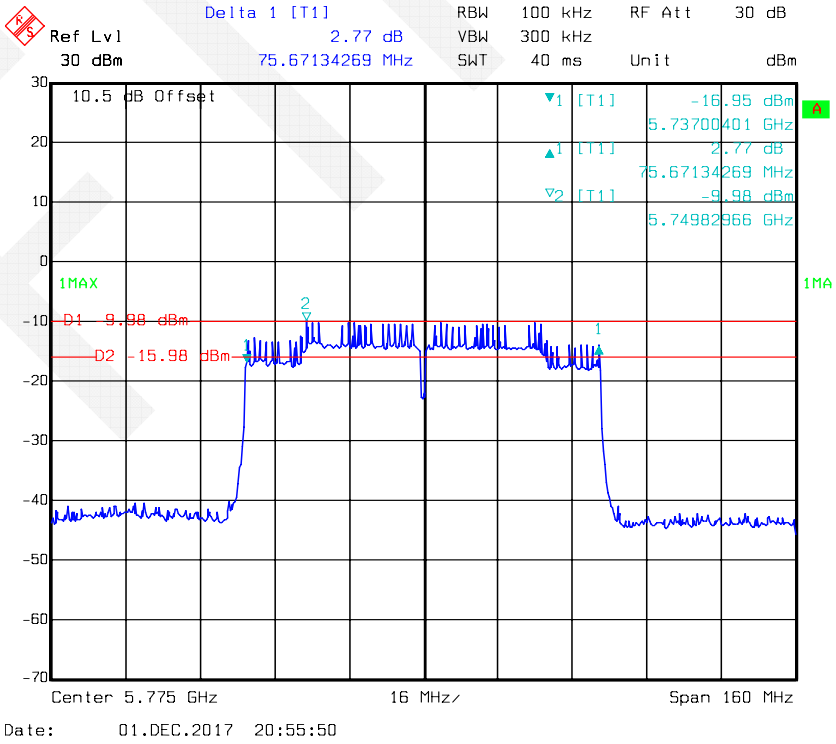
802.11ac40 mode, 6 dB Bandwidth-5795 MHz, Antenna 2



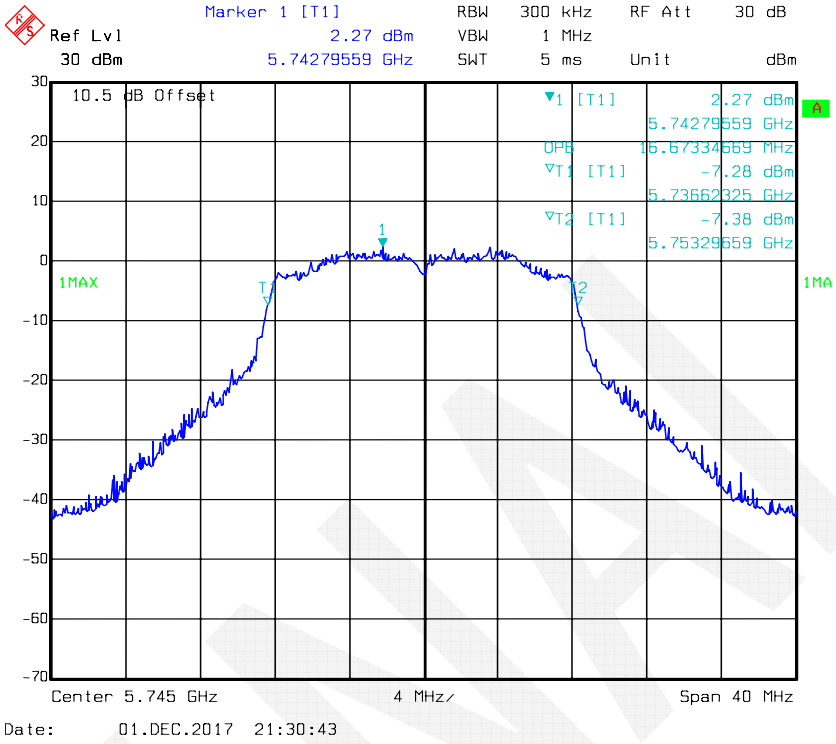
802.11ac80 mode, 6 dB Bandwidth-5775 MHz, Antenna 1



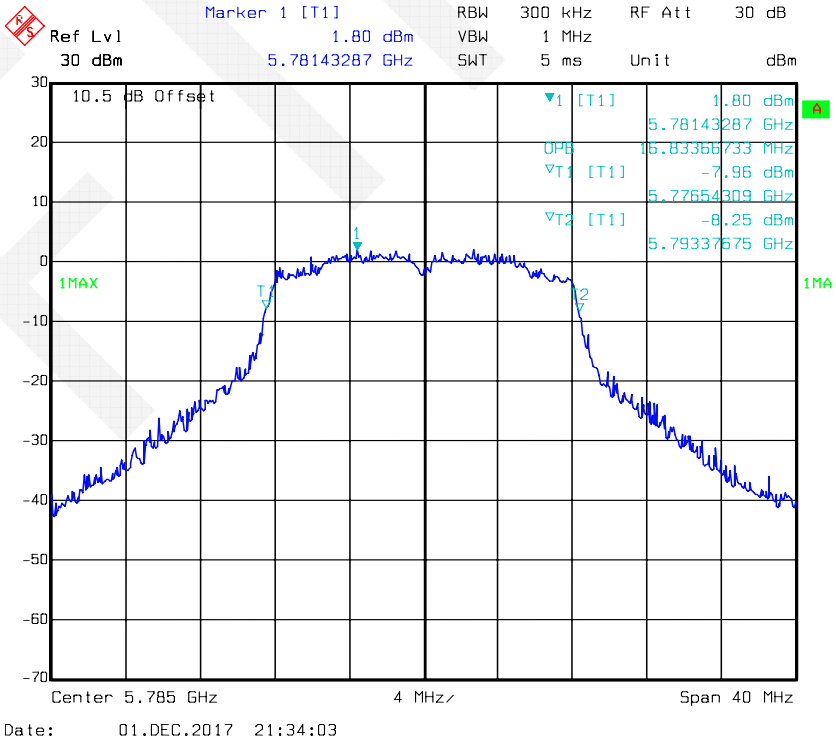
802.11ac80 mode, 6 dB Bandwidth-5775 MHz, Antenna 2



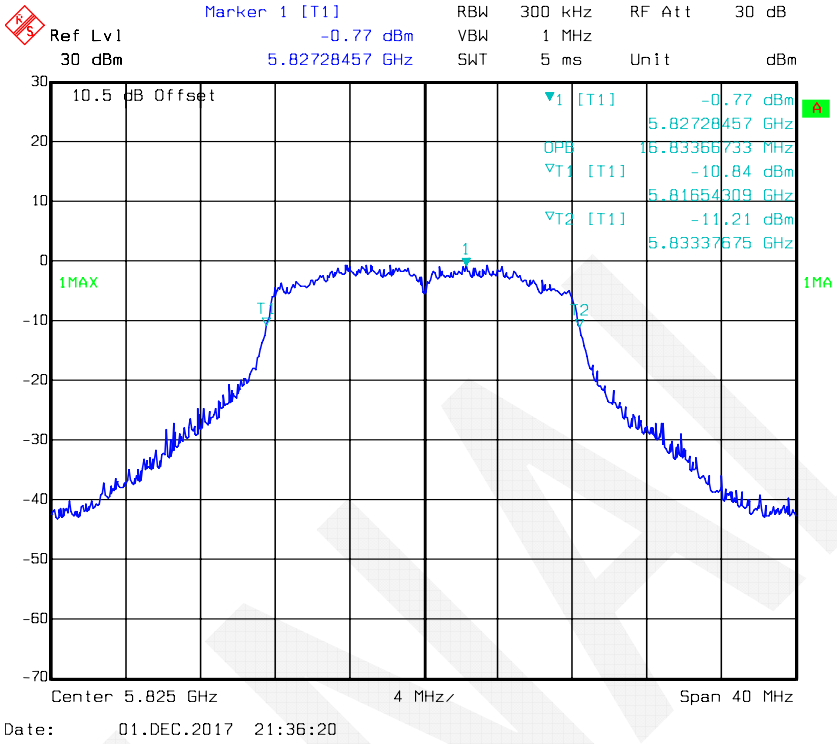
802.11a mode, 99% Occupied Bandwidth-5745 MHz, Antenna 1



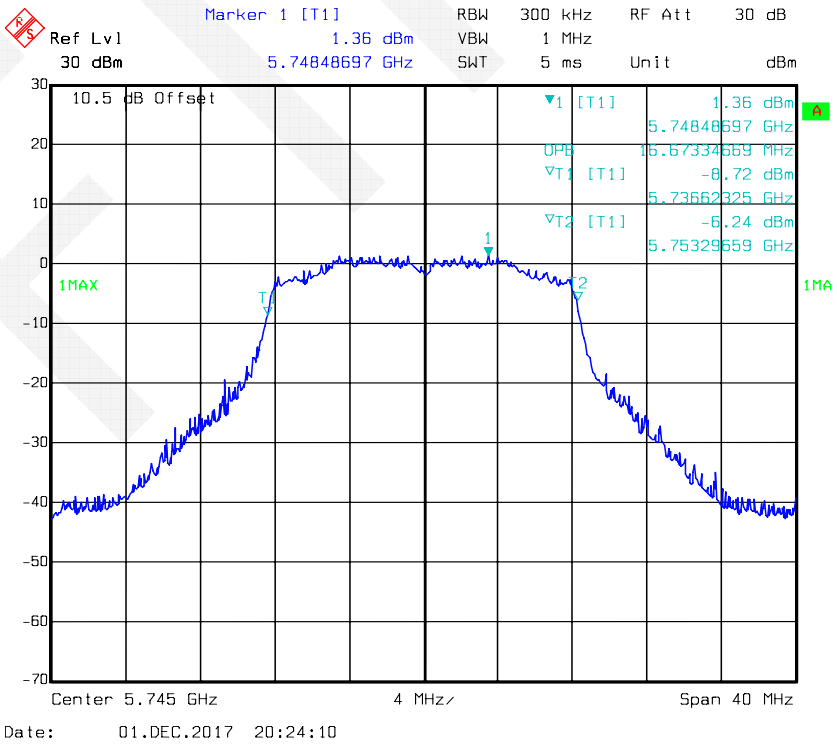
802.11a mode, 99% Occupied Bandwidth -5785 MHz, Antenna 1



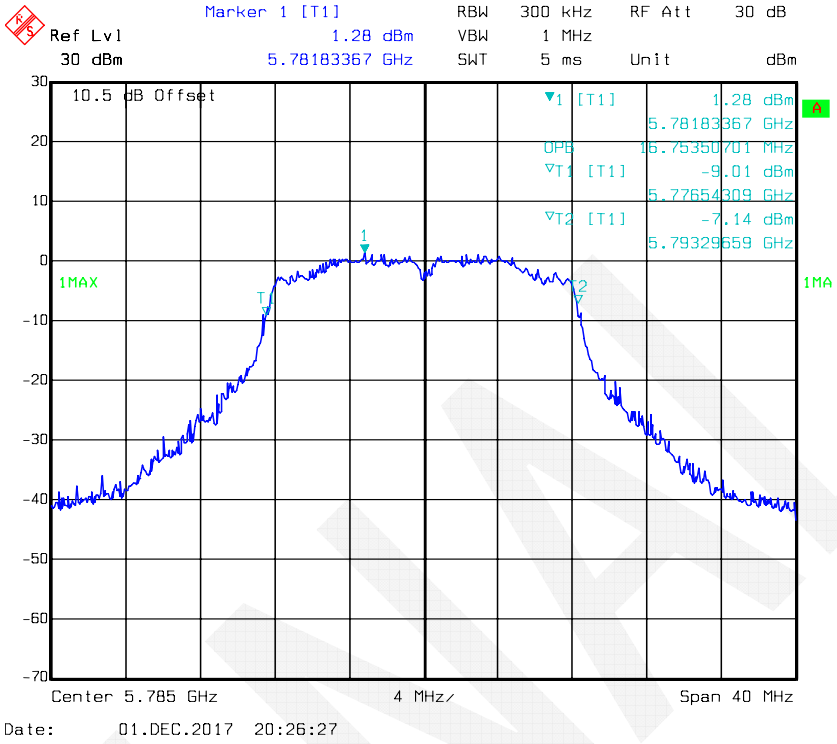
802.11a mode, 99% Occupied Bandwidth -5825 MHz, Antenna 1



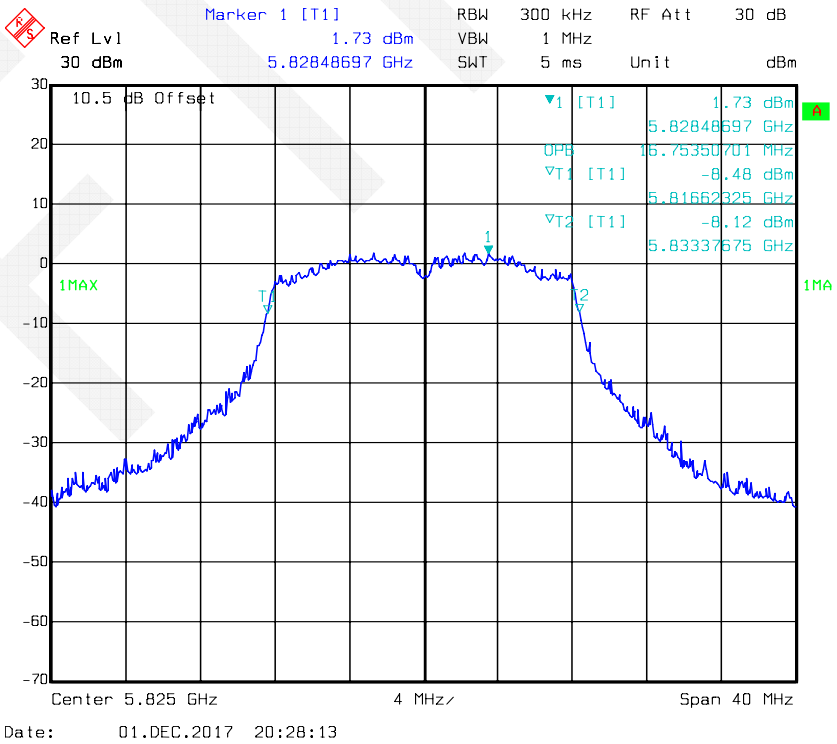
802.11a mode, 99% Occupied Bandwidth-5745 MHz, Antenna 2



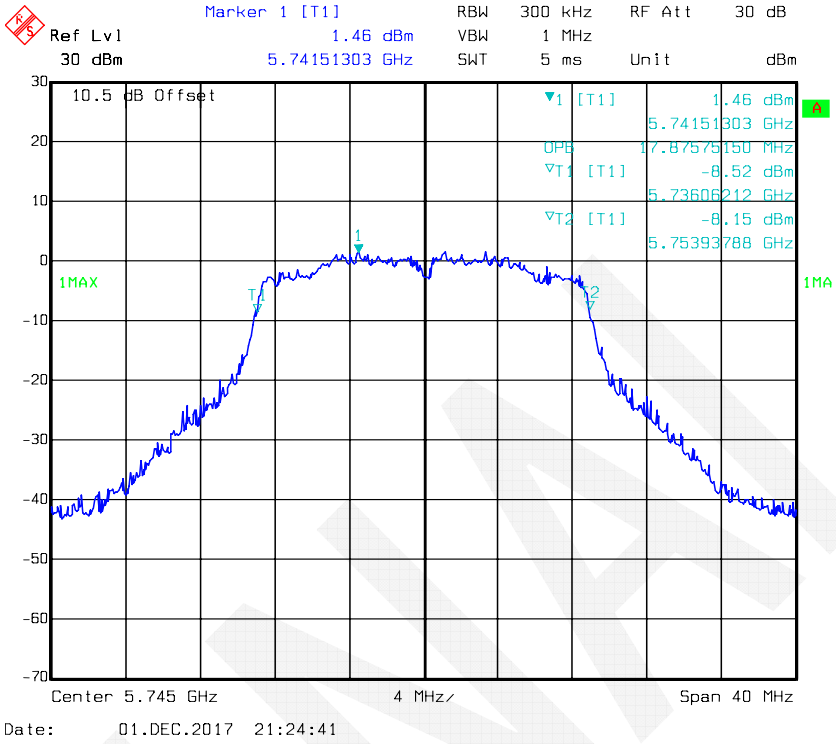
802.11a mode, 99% Occupied Bandwidth -5785 MHz, Antenna 2



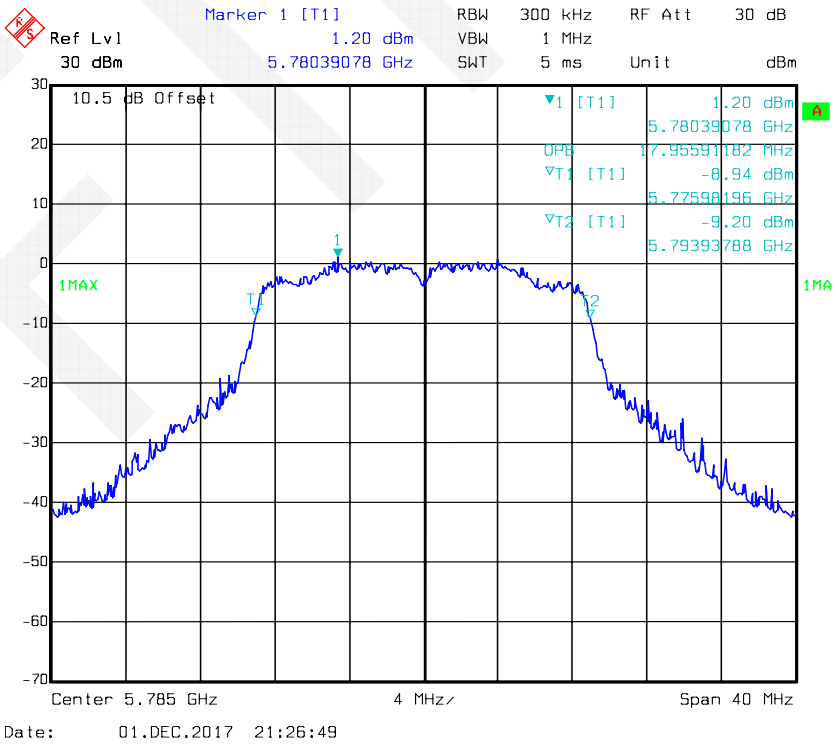
802.11a mode, 99% Occupied Bandwidth -5825 MHz, Antenna 2



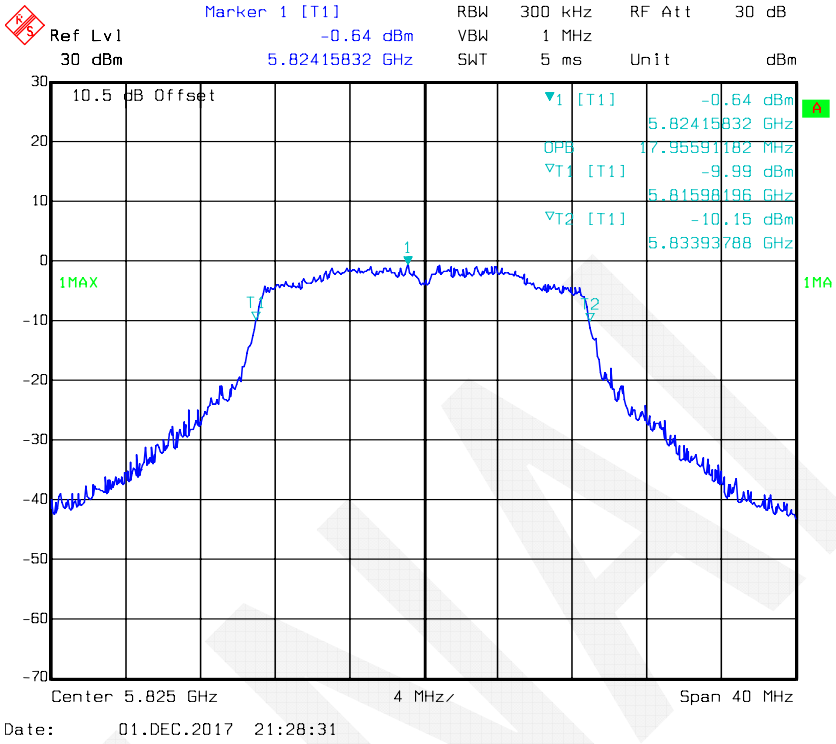
802.11n-HT20 mode, 99% Occupied Bandwidth-5745 MHz, Antenna 1



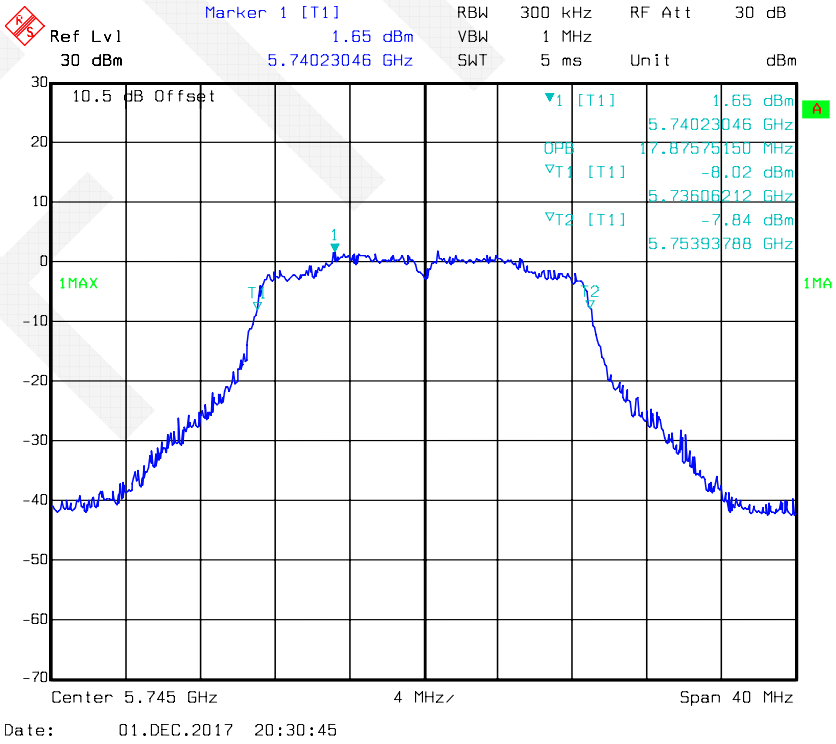
802.11n-HT20 mode, 99% Occupied Bandwidth-5785 MHz, Antenna 1



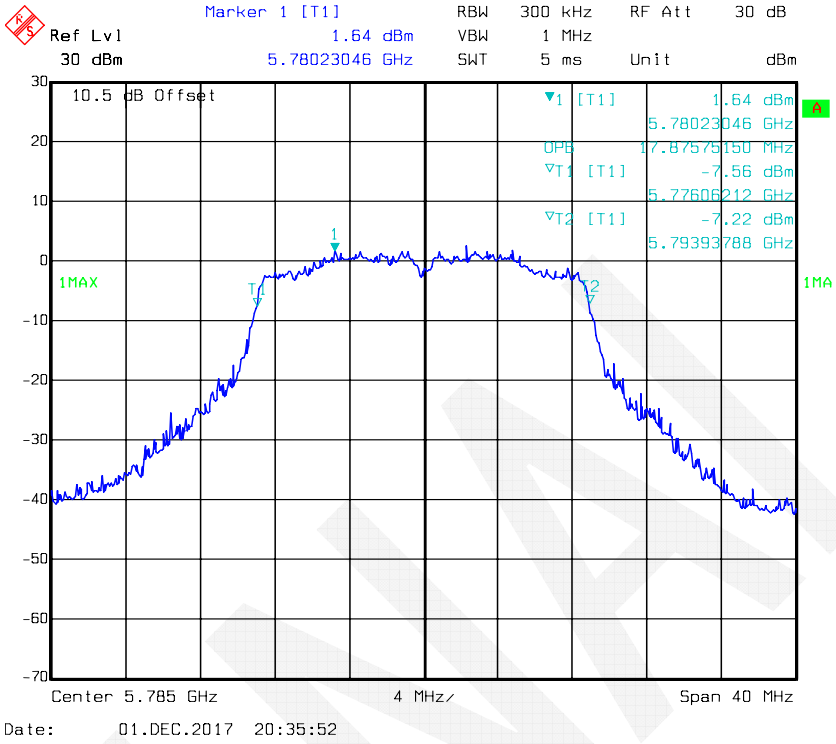
802.11n-HT20 mode, 99% Occupied Bandwidth-5825 MHz, Antenna 1



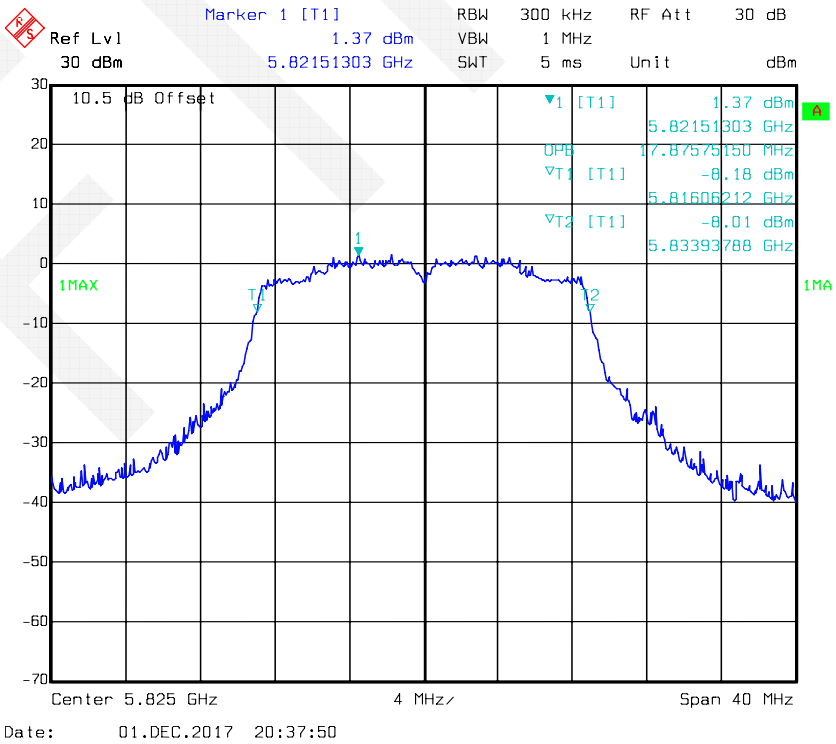
802.11n-HT20 mode, 99% Occupied Bandwidth-5745 MHz, Antenna 2



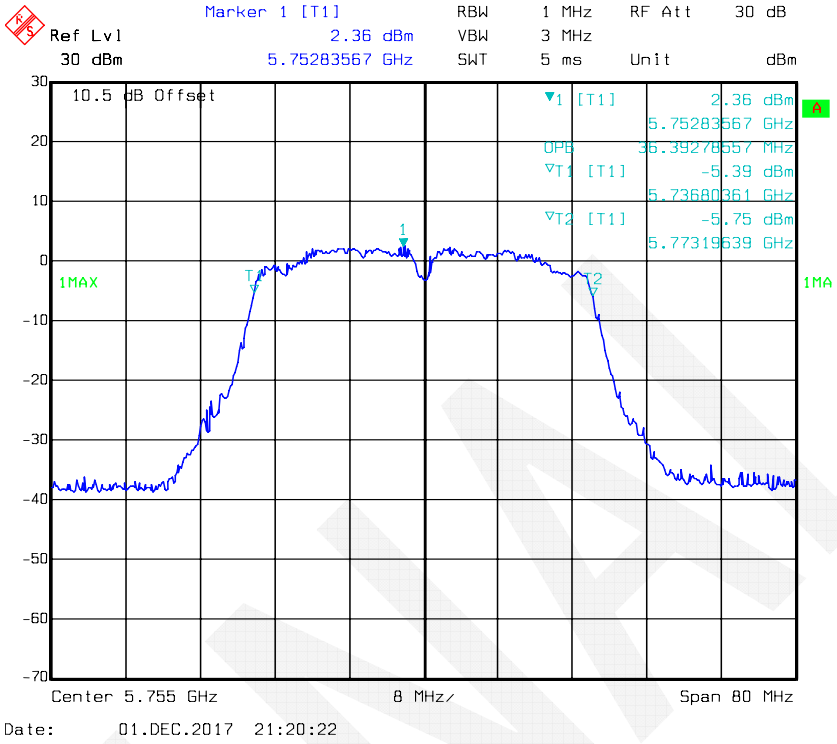
802.11n-HT20 mode, 99% Occupied Bandwidth-5785 MHz, Antenna 2



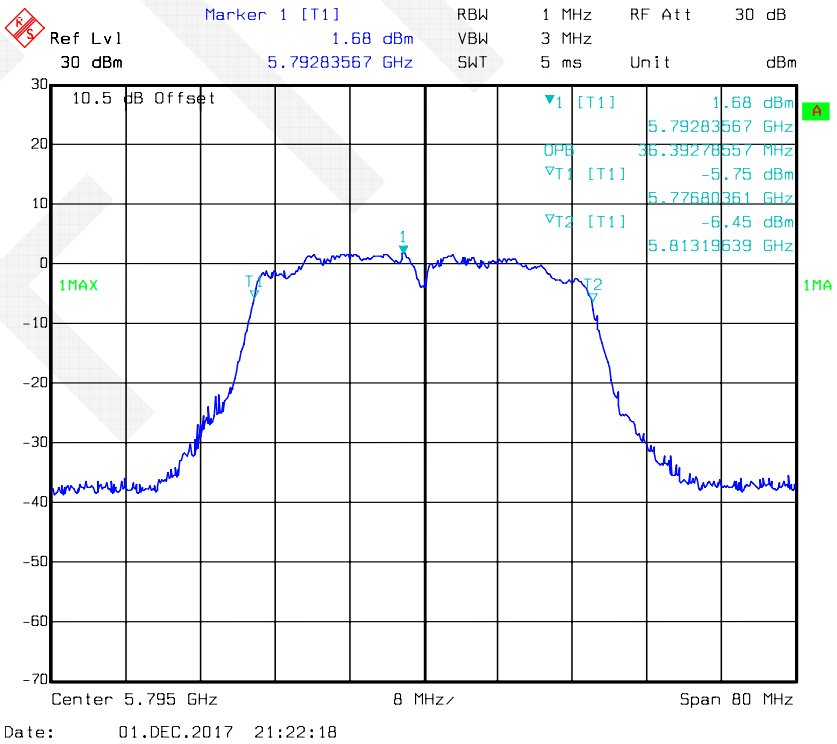
802.11n-HT20 mode, 99% Occupied Bandwidth-5825 MHz, Antenna 2



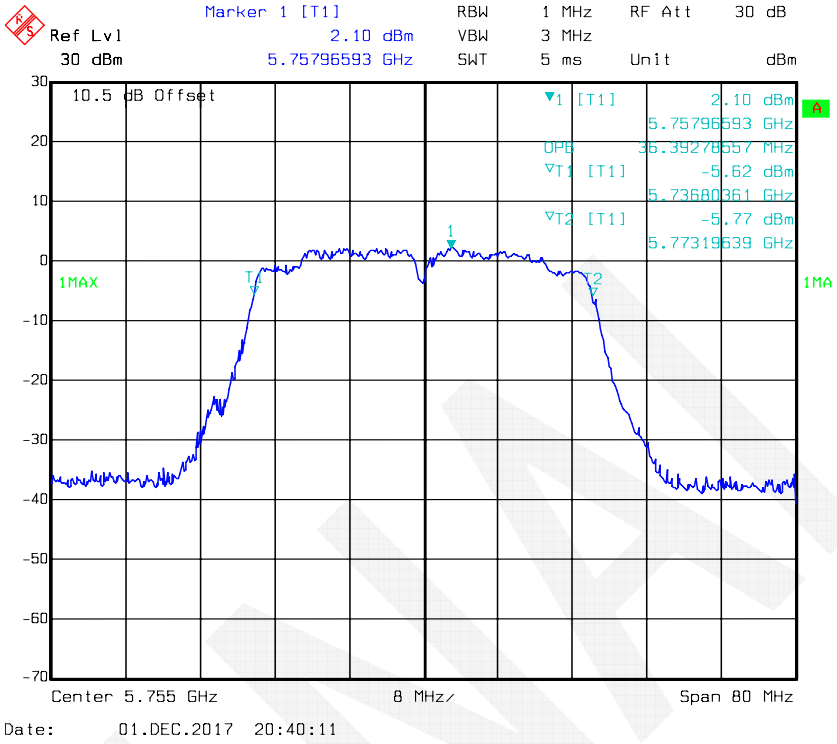
802.11n-HT40 mode, 99% Occupied Bandwidth-5755 MHz, Antenna 1



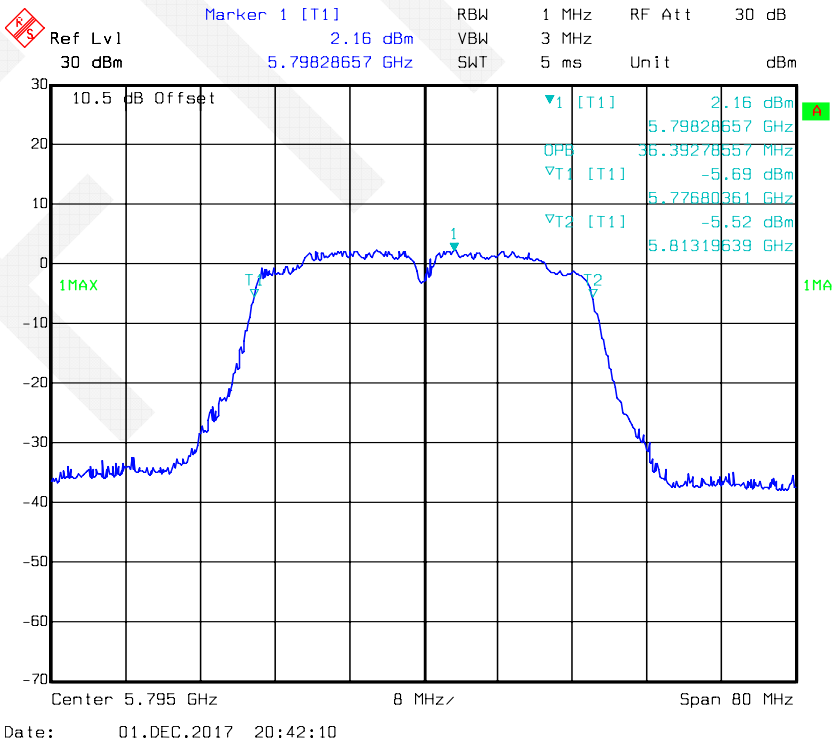
802.11n-HT40 mode, 99% Occupied Bandwidth-5795 MHz, Antenna 1



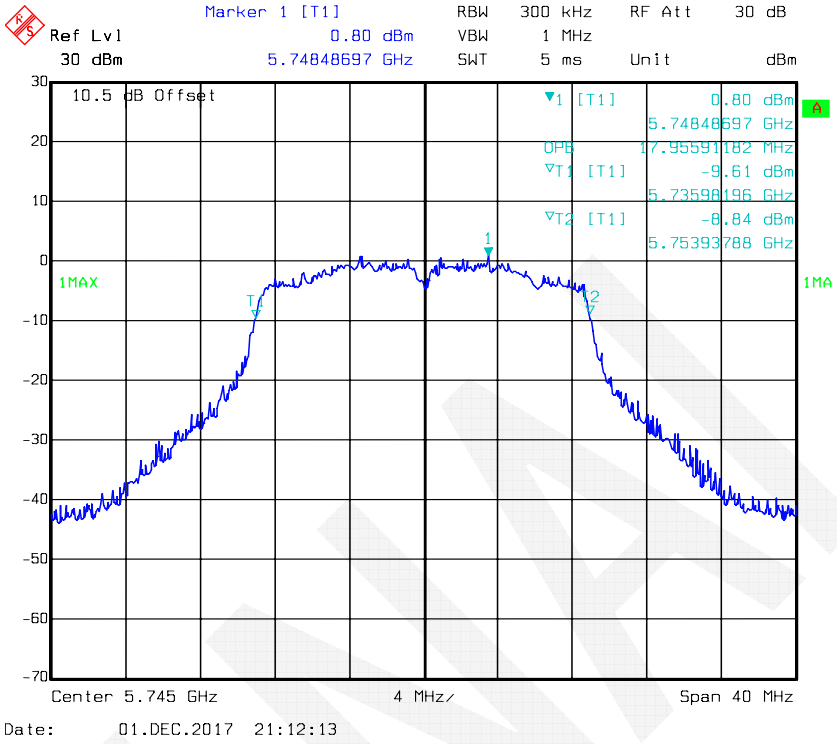
802.11n-HT40 mode, 99% Occupied Bandwidth-5755 MHz, Antenna 2



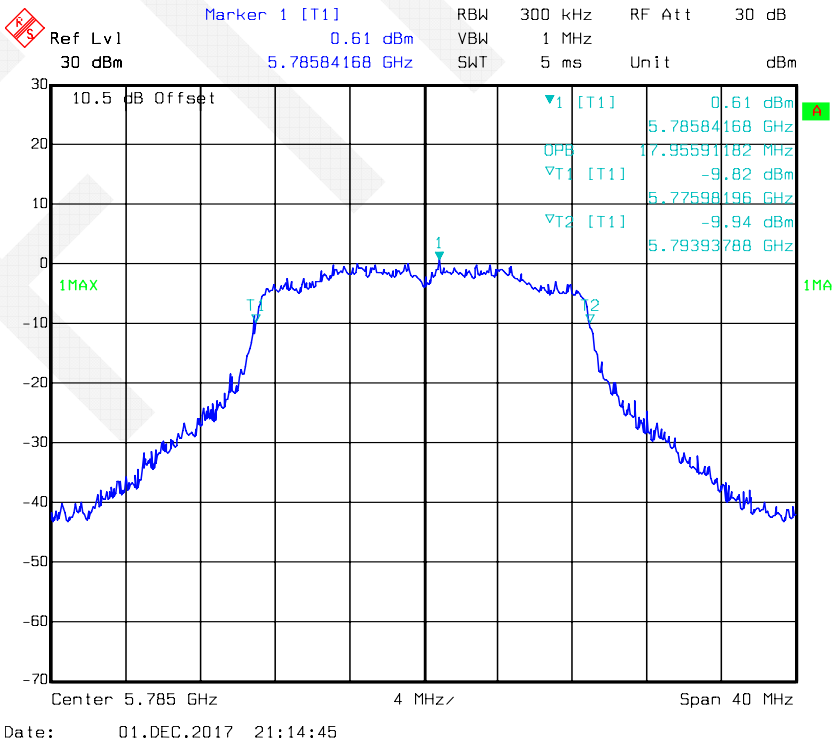
802.11n-HT40 mode, 99% Occupied Bandwidth-5795 MHz, Antenna 2



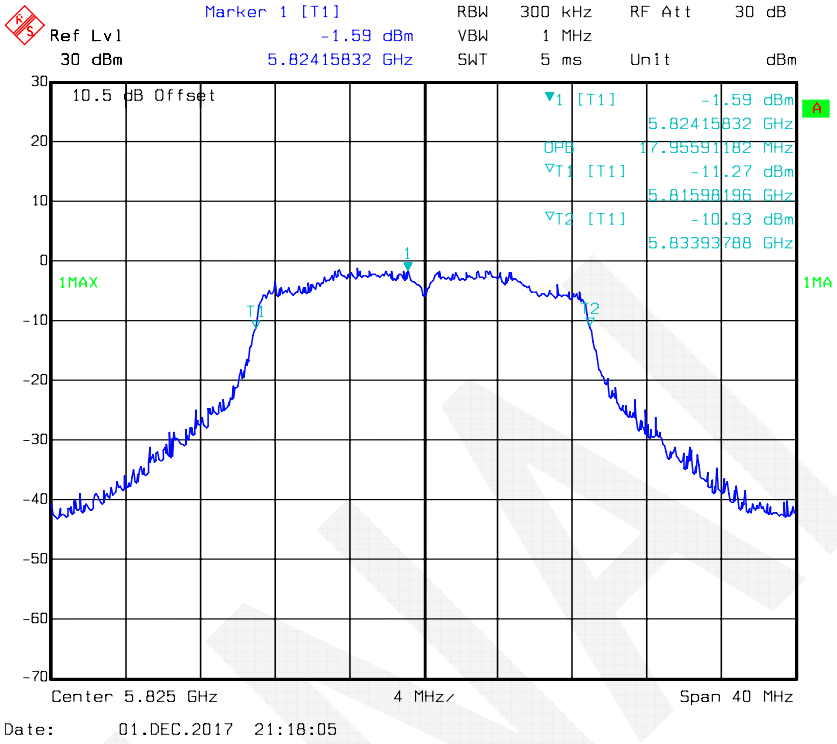
802.11ac20 mode, 99% Occupied Bandwidth-5745 MHz, Antenna 1



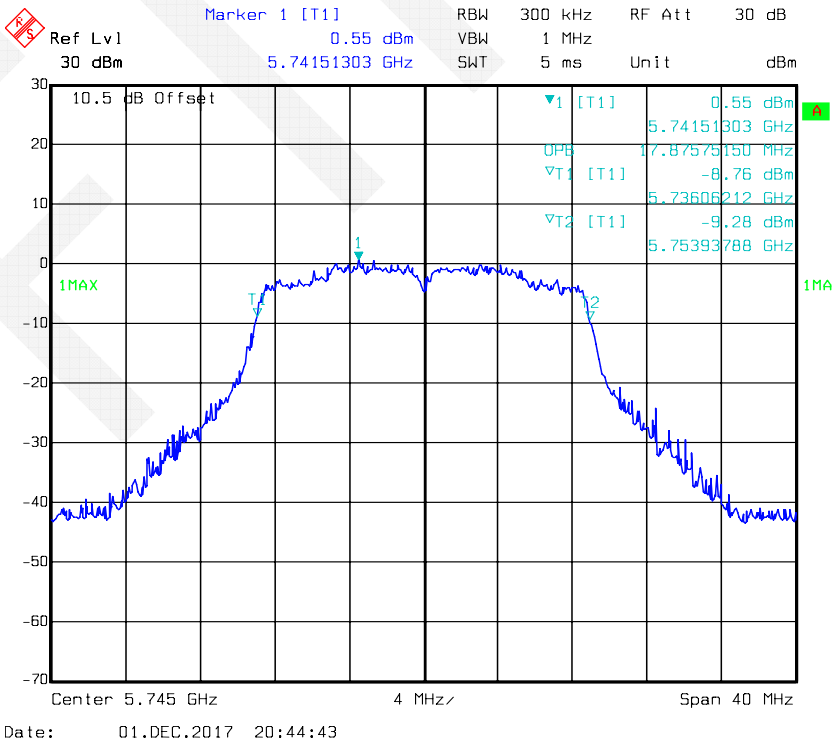
802.11ac20 mode, 99% Occupied Bandwidth-5785 MHz, Antenna 1



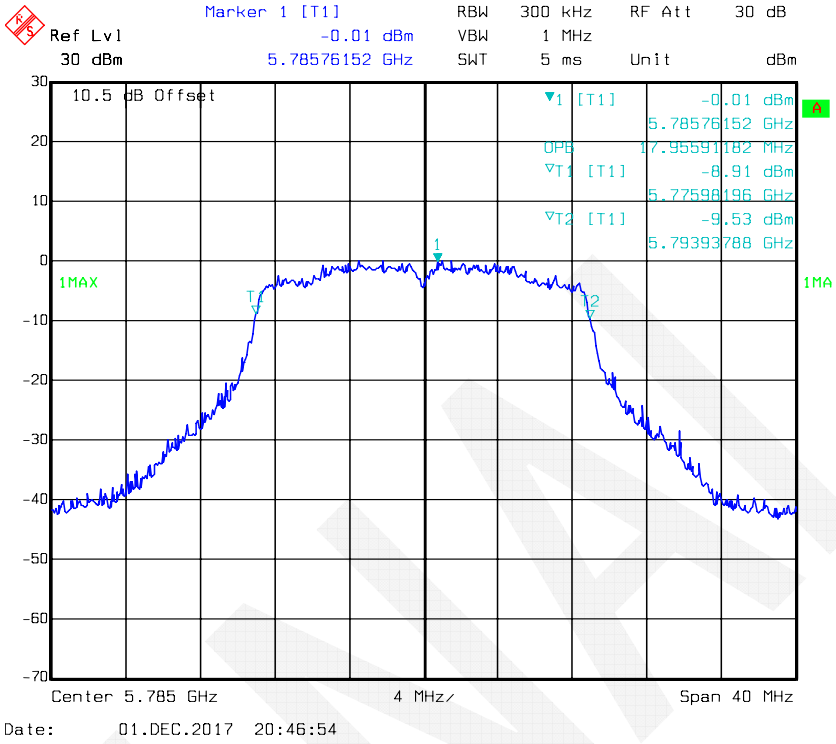
802.11ac20 mode, 99% Occupied Bandwidth-5825 MHz, Antenna 1



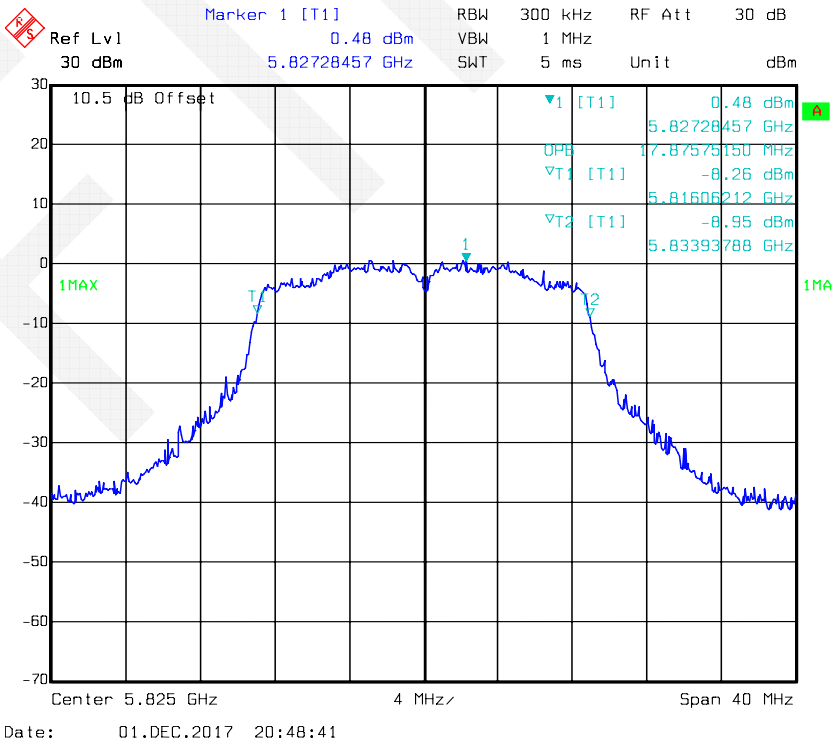
802.11ac20 mode, 99% Occupied Bandwidth-5745 MHz, Antenna 2



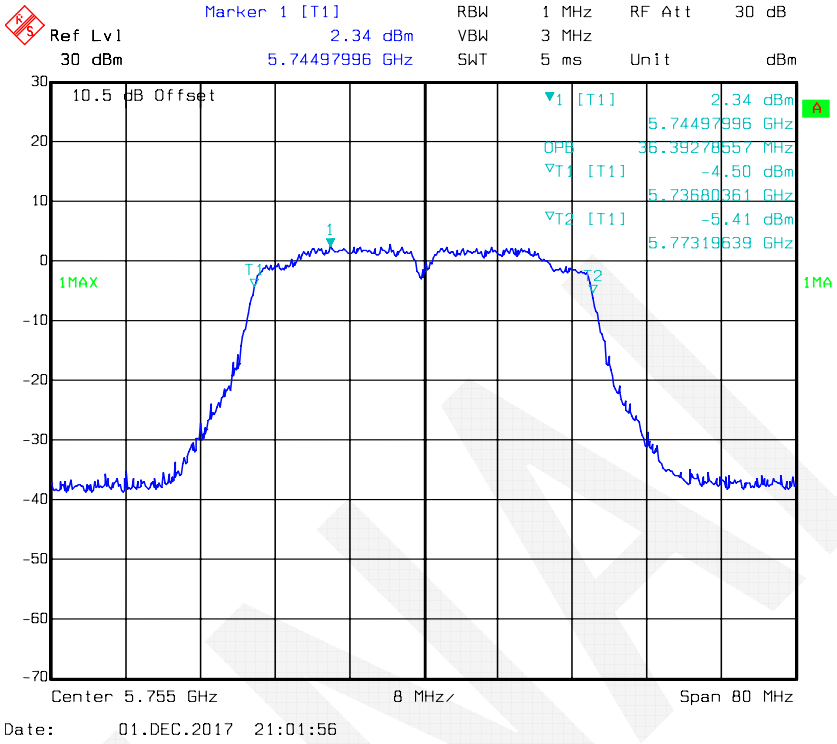
802.11ac20 mode, 99% Occupied Bandwidth-5785 MHz, Antenna 2



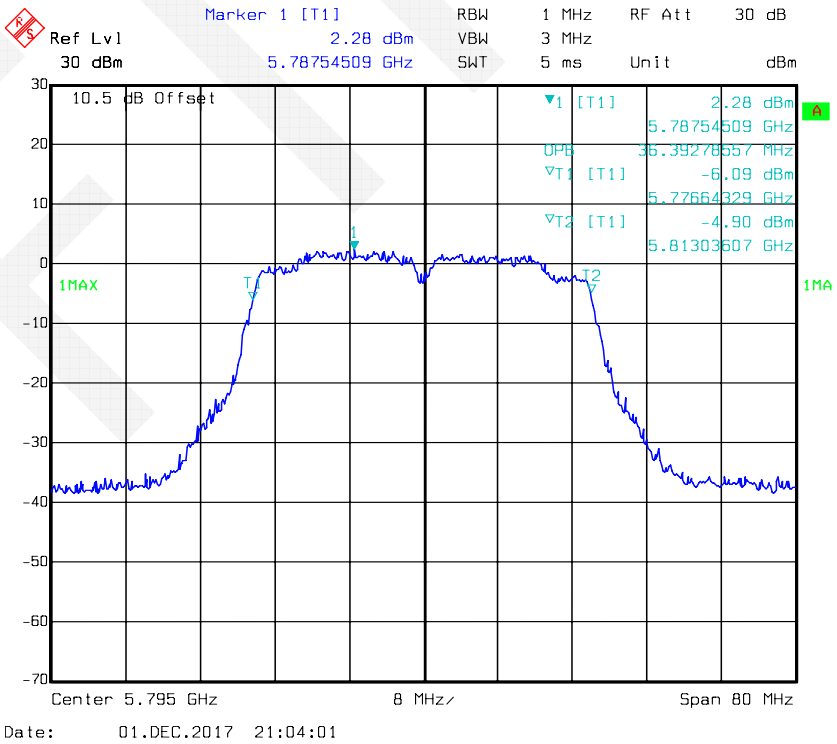
802.11ac20 mode, 99% Occupied Bandwidth-5825 MHz, Antenna 2



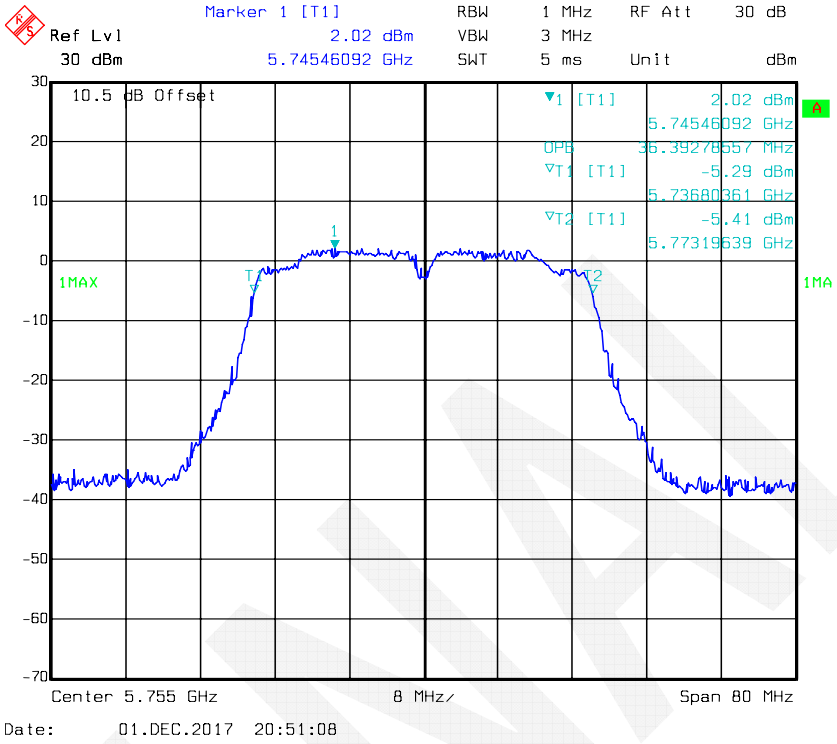
802.11ac40 mode, 99% Occupied Bandwidth-5755 MHz, Antenna 1



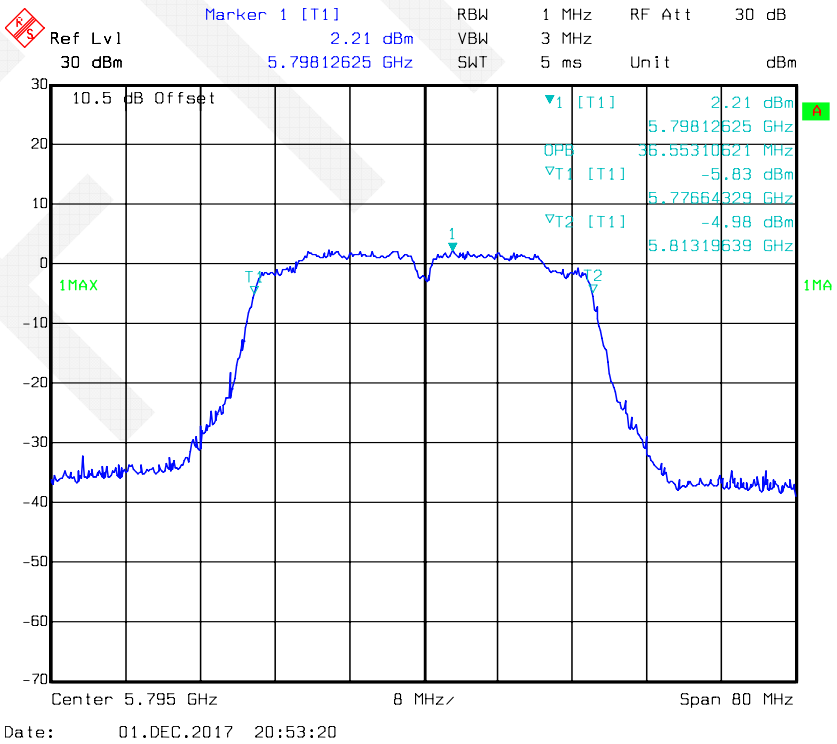
802.11ac40 mode, 99% Occupied Bandwidth-5795 MHz, Antenna 1



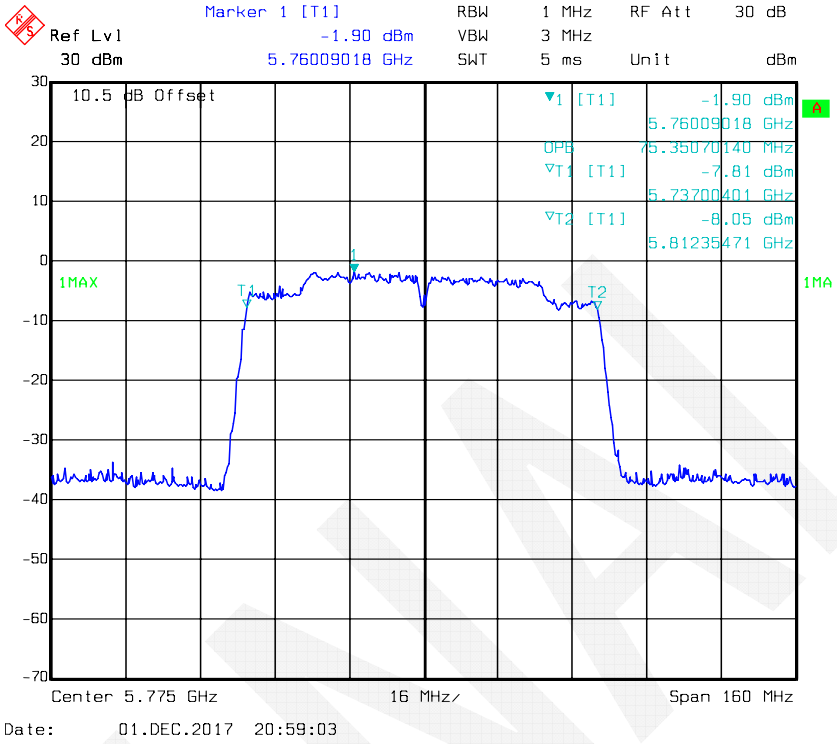
802.11ac40 mode, 99% Occupied Bandwidth-5755 MHz, Antenna 2



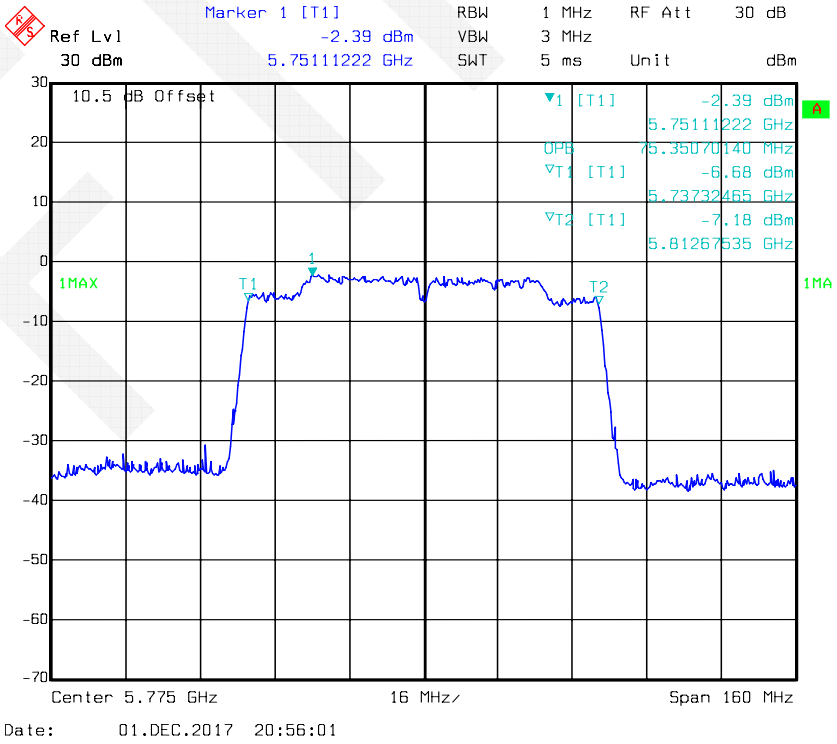
802.11ac40 mode, 99% Occupied Bandwidth-5795 MHz, Antenna 2



802.11ac80 mode, 99% Occupied Bandwidth-5775 MHz, Antenna 1



802.11ac80 mode, 99% Occupied Bandwidth-5775 MHz, Antenna 2



FCC §15.407(g) – FREQUENCY STABILITY

Applicable Standard

FCC §15.407(g)

(g) Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

Test Procedure

According to ANSI C63.10-2013 “American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices”.

Test Data

Environmental Conditions

Temperature:	18 °C
Relative Humidity:	54 %
ATM Pressure:	96.8 kPa

The testing was performed by Tom Tang on 2017-12-01.

Test Mode: Transmitting (Test was performed at Antenna 2)

Test Result: Compliant

For 5150-5250 MHz:

802.11a				
Temperature	**Voltage**	**FL at Low Test Channel**	**FH at High Test Channel**	**Limit**
℃	**Vac**	**MHz**	**MHz**	
0	120	5171.6226	5248.3765	FL and FH Within 5150~5250MHz range
10		5171.6231	5248.3758	
20		5171.6233	5248.3768	
30		5171.6243	5248.3769	
40		5171.6244	5248.3773	
25	102	5171.6250	5248.3786	
25	138	5171.6255	5248.3796	

802.11n-HT20				
Temperature	**Voltage**	**FL at Low Test Channel**	**FH at High Test Channel**	**Limit**
℃	**Vac**	**MHz**	**MHz**	
0	120	5171.0611	5248.9360	FL and FH Within 5150~5250MHz range
10		5171.0621	5248.9365	
20		5171.0621	5248.9379	
30		5171.0622	5248.9380	
40		5171.0629	5248.9385	
25	102	5171.0632	5248.9385	
25	138	5171.0638	5248.9390	

802.11n40				
Temperature	**Voltage**	**FL at Low Test Channel**	**FH at High Test Channel**	**Limit**
℃	**Vac**	**MHz**	**MHz**	
0	120	5171.8035	5248.1961	FL and FH Within 5150~5250MHz range
10		5171.8019	5248.1943	
20		5171.8036	5248.1964	
30		5171.8039	5248.1967	
40		5171.8040	5248.1974	
25	102	5171.8045	5248.1978	
25	138	5171.8048	5248.1986	

802.11ac20				
Temperature	**Voltage**	**FL at Low Test Channel**	**FH at High Test Channel**	**Limit**
℃	**Vac**	**MHz**	**MHz**	
0	120	5171.0604	5248.9364	FL and FH Within 5150~5250MHz range
10		5171.0614	5248.9369	
20		5171.0621	5248.9379	
30		5171.0623	5248.9384	
40		5171.0627	5248.9398	
25	102	5171.0633	5248.9400	
25	138	5171.0635	5248.9403	

802.11ac40				
Temperature	**Voltage**	**FL at Low Test Channel**	**FH at High Test Channel**	**Limit**
℃	**Vac**	**MHz**	**MHz**	
0	120	5171.8035	5248.1941	FL and FH Within 5150~5250MHz range
10		5171.8034	5248.1955	
20		5171.8036	5248.1964	
30		5171.8048	5248.1968	
40		5171.8061	5248.1975	
25	102	5171.8064	5248.1980	
25	138	5171.8072	5248.1989	

802.11ac80				
Temperature	**Voltage**	**FL at Low Test Channel**	**FH at High Test Channel**	**Limit**
℃	**Vac**	**MHz**	**MHz**	
0	120	5172.3237	5247.6731	FL and FH Within 5150~5250MHz range
10		5172.3246	5247.6741	
20		5172.3247	5247.6754	
30		5172.3250	5247.6760	
40		5172.3256	5247.6762	
25	102	5172.3267	5247.6765	
25	138	5172.3272	5247.6772	

For 5725-5850 MHz:

802.11a				
Temperature	**Voltage**	**FL at Low Test Channel**	**FH at High Test Channel**	**Limit**
℃	**Vac**	**MHz**	**MHz**	
0	120	5736.6230	5833.3750	FL and FH Within 5725~5850MHz range
10		5736.6245	5833.3764	
20		5736.6233	5833.3768	
30		5736.6248	5833.3780	
40		5736.6252	5833.3783	
25	102	5736.6265	5833.3795	
25	138	5736.6266	5833.3805	

802.11n-HT20				
Temperature	**Voltage**	**FL at Low Test Channel**	**FH at High Test Channel**	**Limit**
℃	**Vac**	**MHz**	**MHz**	
0	120	5736.0611	5833.9361	FL and FH Within 5725~5850MHz range
10		5736.0610	5833.9360	
20		5736.0621	5833.9379	
30		5736.0622	5833.9379	
40		5736.0634	5833.9386	
25	102	5736.0648	5833.9391	
25	138	5736.0653	5833.9394	

802.11n-HT40				
Temperature	**Voltage**	**FL at Low Test Channel**	**FH at High Test Channel**	**Limit**
℃	**Vac**	**MHz**	**MHz**	
0	120	5736.8034	5813.0337	FL and FH Within 5725~5850MHz range
10		5736.8034	5813.0349	
20		5736.8036	5813.0361	
30		5736.8044	5813.0376	
40		5736.8056	5813.0384	
25	102	5736.8058	5813.0386	
25	138	5736.8072	5813.0391	

802.11ac20				
Temperature	**Voltage**	**FL at Low Test Channel**	**FH at High Test Channel**	**Limit**
℃	**Vac**	**MHz**	**MHz**	
0	120	5735.9800	5833.9377	FL and FH Within 5725~5850MHz range
10		5735.9814	5833.9355	
20		5735.9820	5833.9379	
30		5735.9834	5833.9380	
40		5735.9849	5833.9383	
25	102	5735.9853	5833.9394	
25	138	5735.9866	5833.9404	

802.11ac40				
Temperature	**Voltage**	**FL at Low Test Channel**	**FH at High Test Channel**	**Limit**
℃	**Vac**	**MHz**	**MHz**	
0	120	5736.8034	5813.0337	FL and FH Within 5725~5850MHz range
10		5736.8034	5813.0349	
20		5736.8036	5813.0361	
30		5736.8044	5813.0376	
40		5736.8056	5813.0384	
25	102	5736.8058	5813.0386	
25	138	5736.8072	5813.0391	

802.11ac80				
Temperature	**Voltage**	**FL at Low Test Channel**	**FH at High Test Channel**	**Limit**
℃	**Vac**	**MHz**	**MHz**	
0	120	5737.3236	5812.6748	FL and FH Within 5725~5850MHz range
10		5737.3254	5812.6752	
20		5737.3247	5812.6754	
30		5737.3259	5812.6764	
40		5737.3262	5812.6767	
25	102	5737.3274	5812.6769	
25	138	5737.3281	5812.6783	

FCC §15.407(a) (1)(IV), (3), (4) – CONDUCTED TRANSMITTER OUTPUT POWER

Applicable Standard

(a) *Power limits:*

(1) For the band 5.15-5.25 GHz.

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

(3) 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.

NOTE TO PARAGRAPH (*A*)(3): The Commission strongly recommends that parties employing U-NII devices to provide critical communications services should determine if there are any nearby Government radar systems that could affect their operation.

(4) The maximum conducted output power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage.

Test Procedure

According to 789033 D02 General UNII Test Procedures New Rules v01r04

Test Data

Environmental Conditions

Temperature:	18 °C
Relative Humidity:	54 %
ATM Pressure:	96.8 kPa

The testing was performed by Tom Tang from 2017-12-01.

Test Mode: Transmitting

For 5150-5250 MHz:

Mode	Channel	Frequency (MHz)	Conducted Average Power (dBm)		Total (dBm)	Limit (dBm)
			Antenna 1	Antenna 2		
802.11a	Low	5180	10.71	8.05	/	22.8
	Middle	5200	11.29	8.25	/	22.8
	High	5240	11.22	8.25	/	22.8
802.11n-HT20	Low	5180	11.41	8.04	13.05	22.8
	Middle	5200	11.14	8.13	12.90	22.8
	High	5240	11.11	8.11	12.87	22.8
802.11n-HT40	Low	5190	8.55	6.13	10.52	22.8
	High	5230	9.17	5.56	10.74	22.8
802.11ac20	Low	5180	10.42	7.88	12.34	22.8
	Middle	5200	9.64	7.24	11.61	22.8
	High	5240	9.75	6.21	11.34	22.8
802.11ac40	Low	5190	9.52	7.00	11.45	22.8
	High	5230	9.15	6.15	10.91	22.8
802.11ac 80	-	5210	6.79	5.55	9.22	22.8

For 5725-5850 MHz:

Mode	Channel	Frequency (MHz)	Conducted Average Power (dBm)		Total (dBm)	Limit (dBm)
			Antenna 1	Antenna 2		
802.11a	Low	5745	10.98	11.21	/	28.8
	Middle	5785	10.79	10.60	/	28.8
	High	5825	8.47	11.20	/	28.8
802.11n-HT20	Low	5745	10.52	11.14	13.85	28.8
	Middle	5785	10.69	10.98	13.85	28.8
	High	5825	8.75	10.56	12.76	28.8
802.11n-HT40	Low	5755	8.51	8.45	11.49	28.8
	High	5795	7.83	8.64	11.26	28.8
802.11ac20	Low	5745	10.45	9.47	13.00	28.8
	Middle	5785	9.94	9.98	12.97	28.8
	High	5825	8.22	9.99	12.20	28.8
802.11ac40	Low	5755	9.40	9.12	12.27	28.8
	High	5795	8.25	8.62	11.45	28.8
802.11ac 80	-	5775	7.37	7.28	10.34	28.8

Note:
1. The max antenna gain is 7.2dBi.
2. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power measurements on IEEE 802.11 devices:

Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4;

So:

Directional gain = GANT + Array Gain = 7.2 dBi ＞ 6dBi
Power Limit was reduced 1.2dB in SISO and MIMO mode.

FCC §15.407(a) (1) (iv) (3) (5) - POWER SPECTRAL DENSITY

Applicable Standard

(a) Power limits:

(1) For the band 5.15-5.25 GHz.

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

(3) 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.

(5) 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.

Test Procedure

According to KDB 789033 D02 General UNII Test Procedures New Rules v01r04

Test Data

Environmental Conditions

Temperature:	18 °C
Relative Humidity:	54 %
ATM Pressure:	96.8 kPa

** The testing was performed by Tom Tang on 2017-12-01.*

Test Mode: Transmitting

Test Result: Pass

For 5150-5250 MHz:

Mode	Channel	Frequency (MHz)	Power Spectral Density (dBm/MHz)		Total (dBm/MHz)	Limit (dBm/MHz)
			Antenna 1	Antenna 2		
802.11a	Low	5180	1.14	-2.34	/	9.8
	Middle	5200	1.06	-2.08	/	9.8
	High	5240	1.28	-1.73	/	9.8
802.11n-HT20	Low	5180	0.93	-2.50	2.56	6.8
	Middle	5200	0.60	-2.45	2.35	6.8
	High	5240	0.60	-2.37	2.37	6.8
802.11n-HT40	Low	5190	-5.12	-7.57	-3.16	6.8
	High	5230	-4.75	-8.02	-3.07	6.8
802.11ac20	Low	5180	-0.02	-2.64	1.87	6.8
	Middle	5200	-0.97	-3.39	1.00	6.8
	High	5240	-0.78	-4.32	0.81	6.8
802.11ac40	Low	5190	-3.66	-6.66	-1.90	6.8
	High	5230	-4.86	-7.44	-2.95	6.8
802.11ac80	-	5210	-10.16	-10.98	-7.54	6.8

Note:
1. The max antenna gain is 7.2dBi.
2. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density measurements on IEEE 802.11 devices:

Array Gain = $10*\log(N_{ANT}/N_{SS})$dB

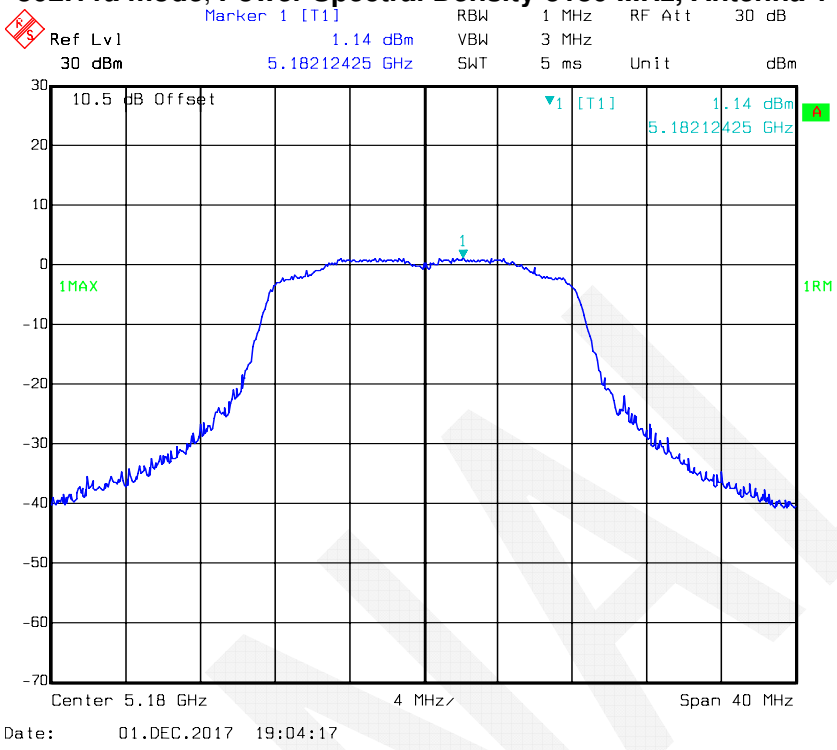
So:

Directional gain = GANT + Array Gain = 7.2+10*log(2)=10.2dBi>6dBi

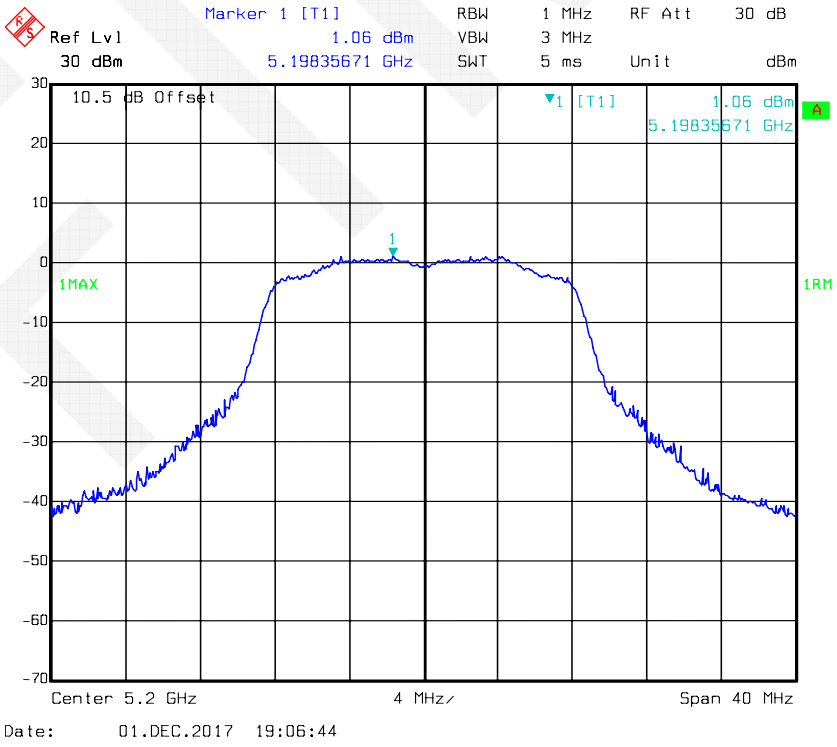
The power density Limit was reduced 1.2dB in SISO mode.

The power density Limit was reduced 4.2dB in MIMO mode.

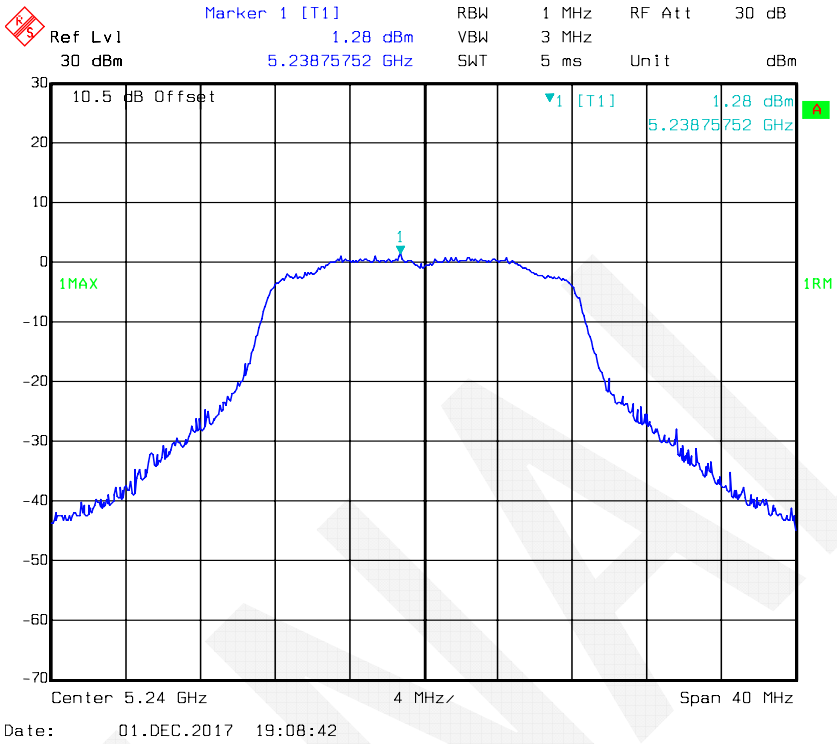
802.11a mode, Power Spectral Density-5180 MHz, Antenna 1



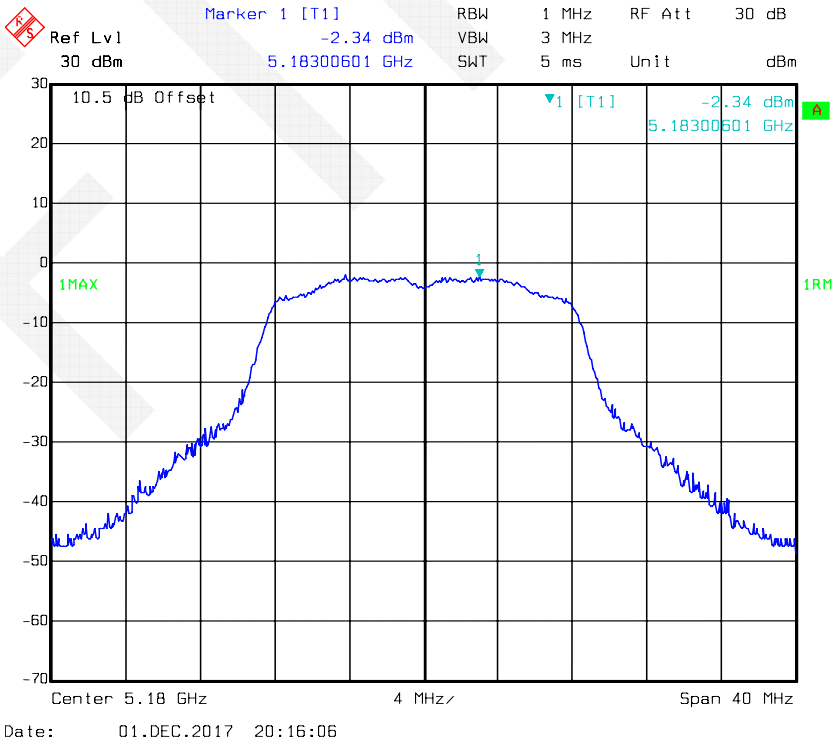
802.11a mode, Power Spectral Density-5200 MHz, Antenna 1



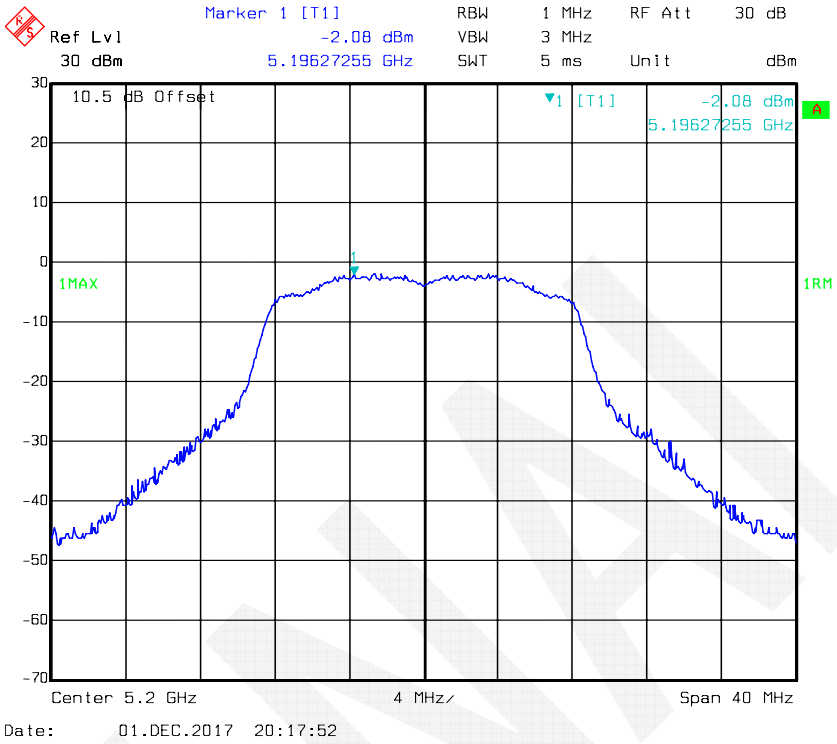
802.11a mode, Power Spectral Density-5240 MHz, Antenna 1



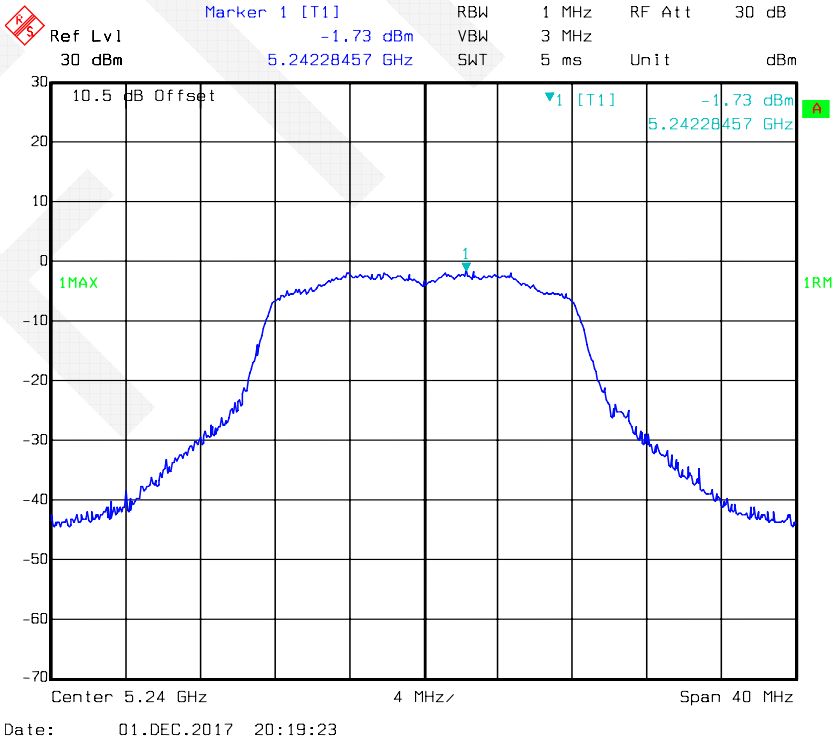
802.11a mode, Power Spectral Density-5180 MHz, Antenna 2



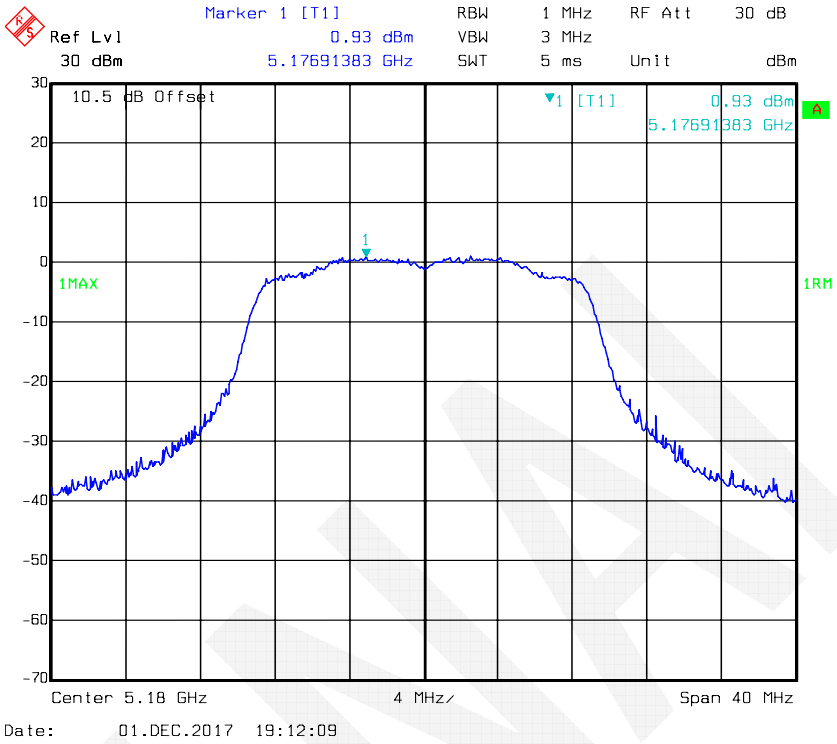
802.11a mode, Power Spectral Density-5200 MHz, Antenna 2



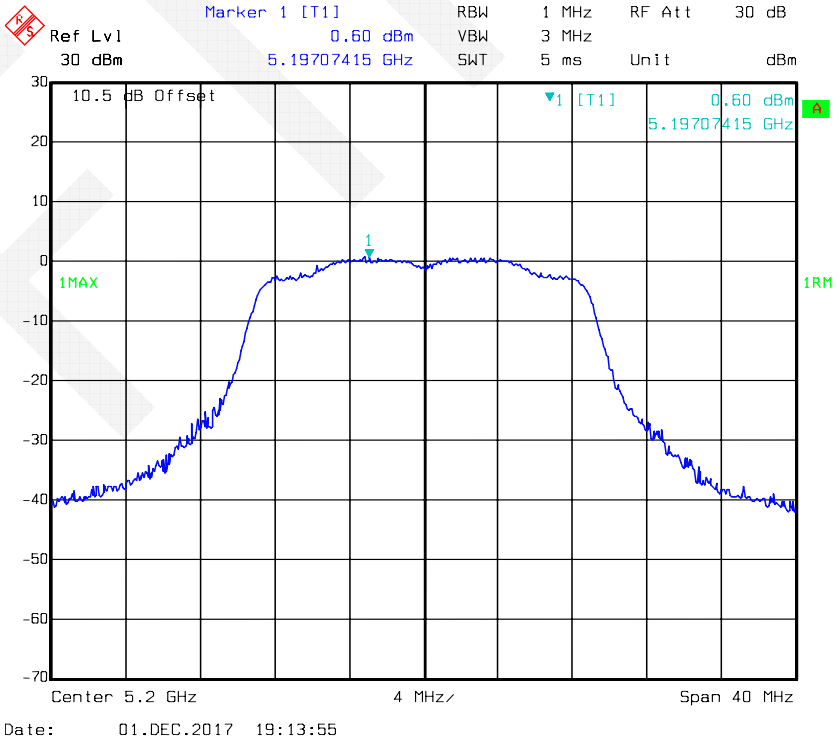
802.11a mode, Power Spectral Density-5240 MHz, Antenna 2



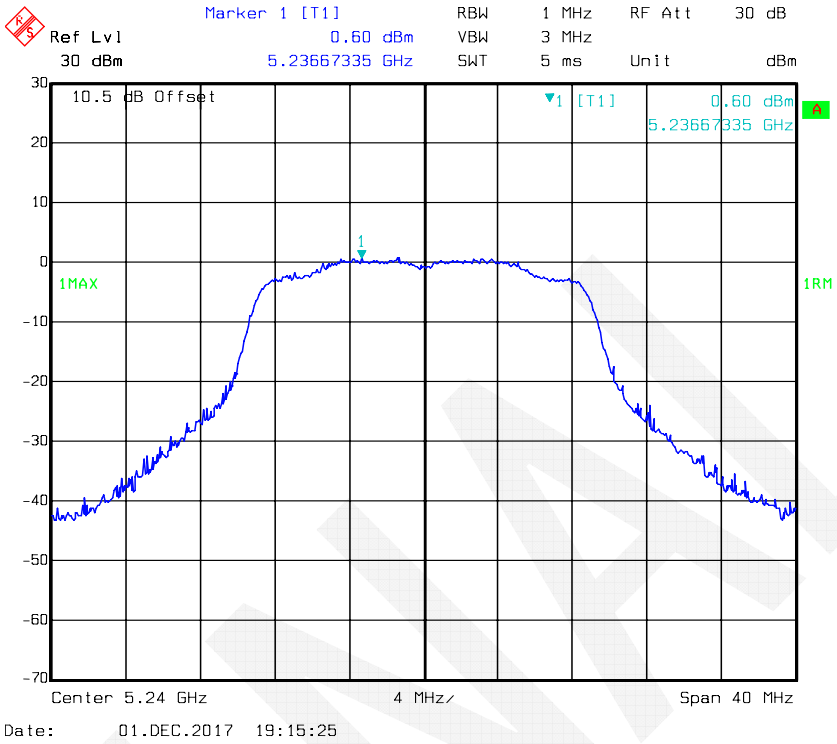
802.11n-HT20 mode, Power Spectral Density-5180 MHz, Antenna 1



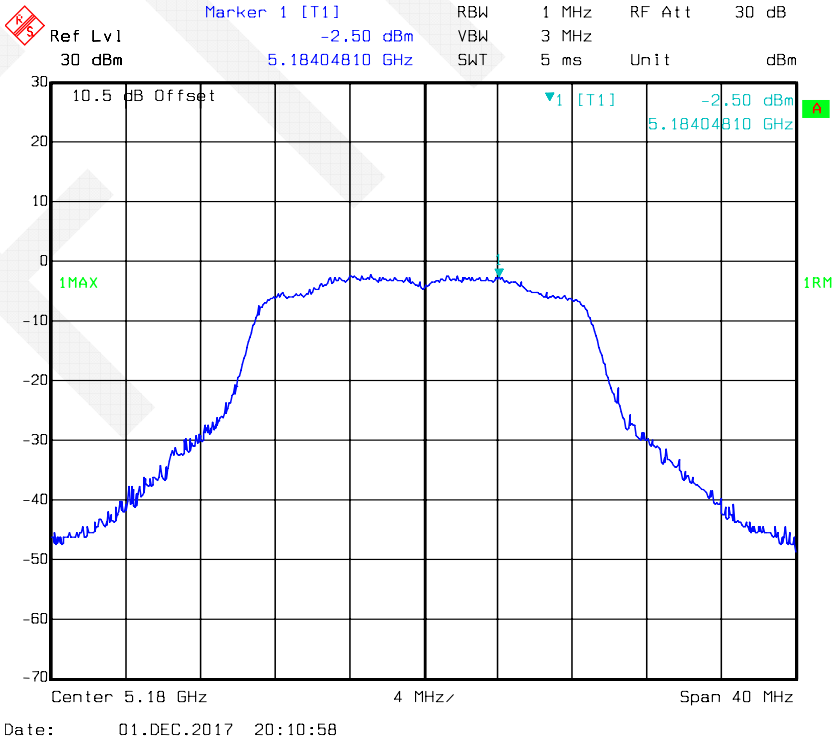
802.11n-HT20 mode, Power Spectral Density-5200 MHz, Antenna 1



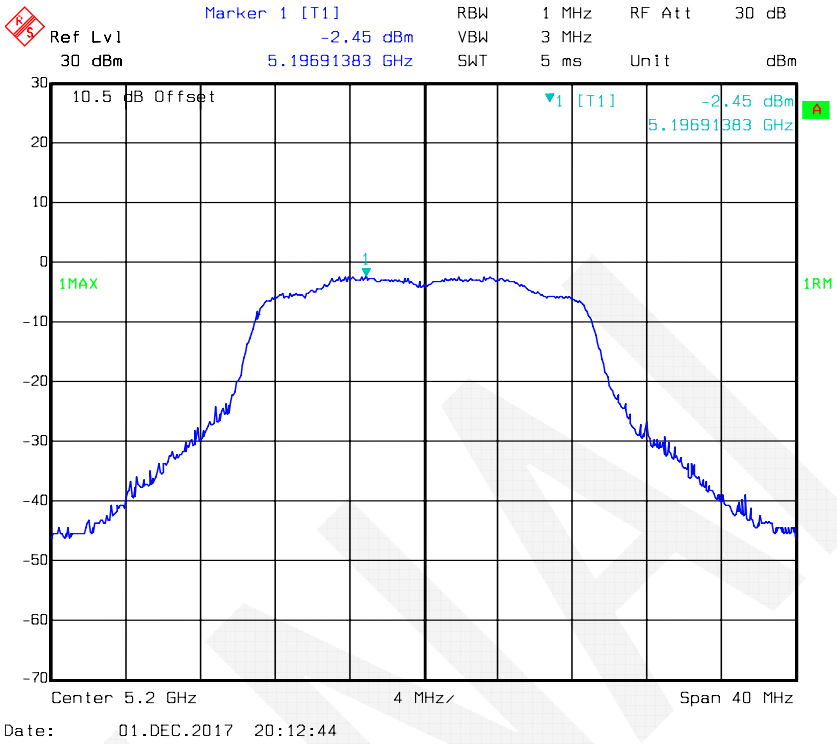
802.11n-HT20 mode, Power Spectral Density-5240 MHz, Antenna 1



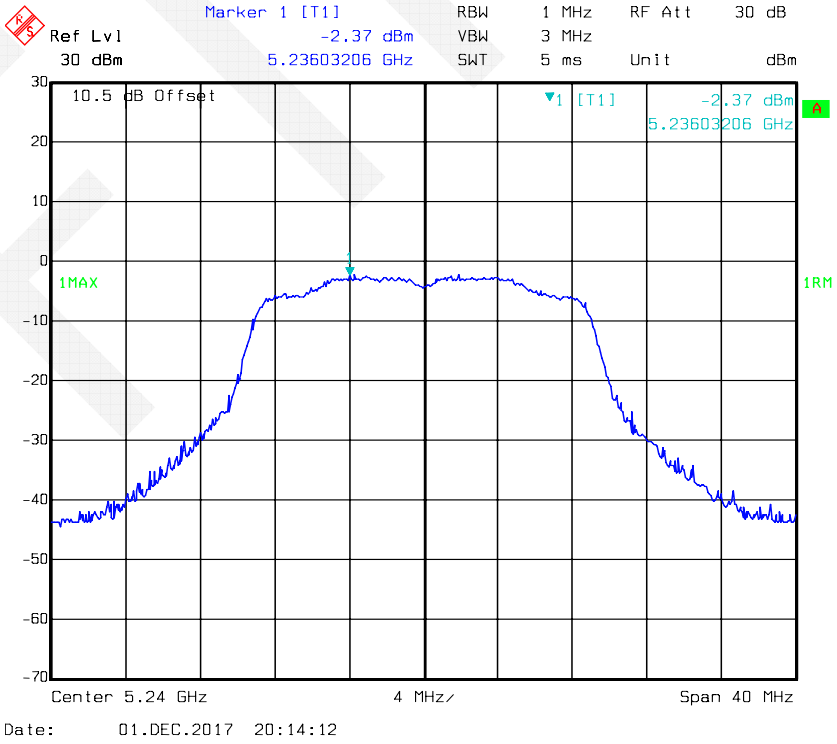
802.11n-HT20 mode, Power Spectral Density-5180 MHz, Antenna 2



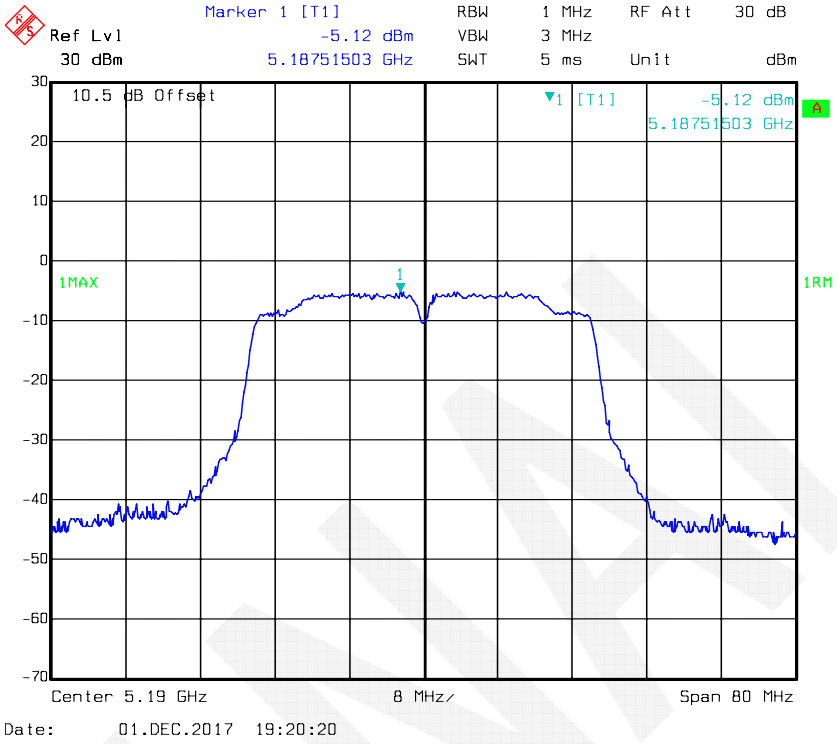
802.11n-HT20 mode, Power Spectral Density-5200 MHz, Antenna 2



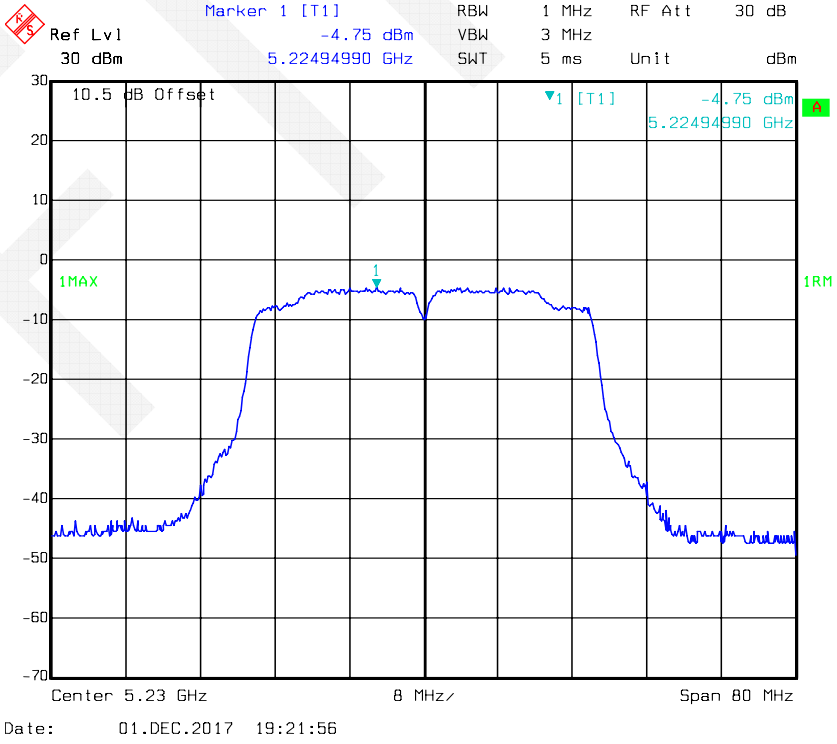
802.11n-HT20 mode, Power Spectral Density-5240 MHz, Antenna 2



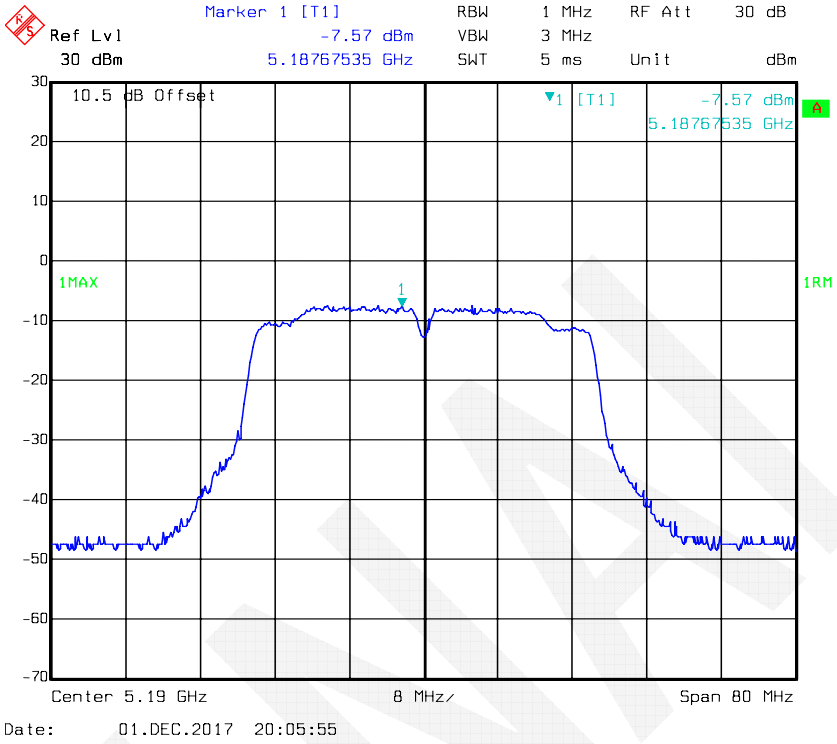
802.11n-HT40 mode, Power Spectral Density-5190 MHz, Antenna 1



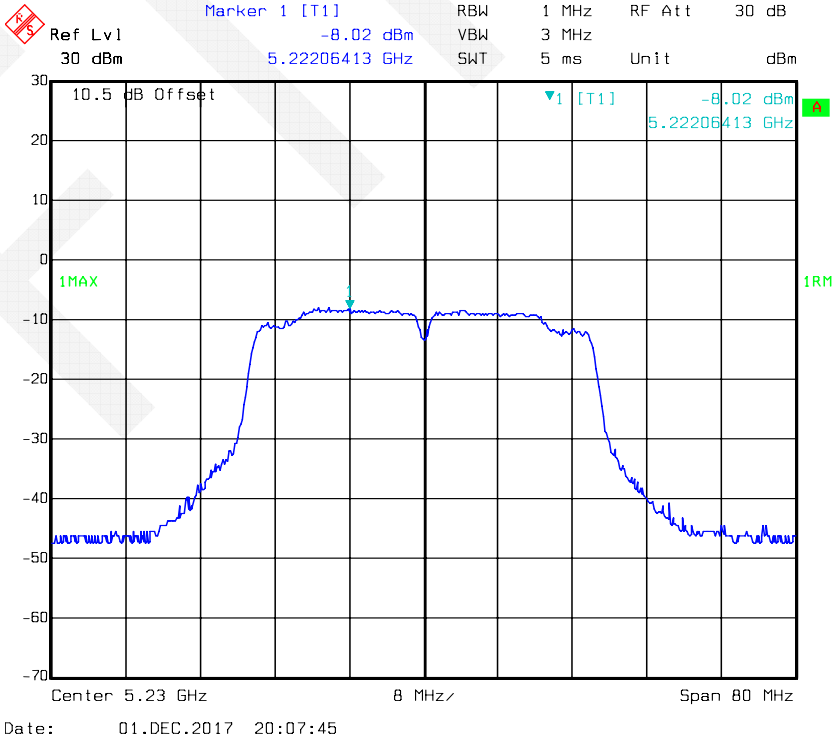
802.11n-HT40 mode, Power Spectral Density-5230 MHz, Antenna 1



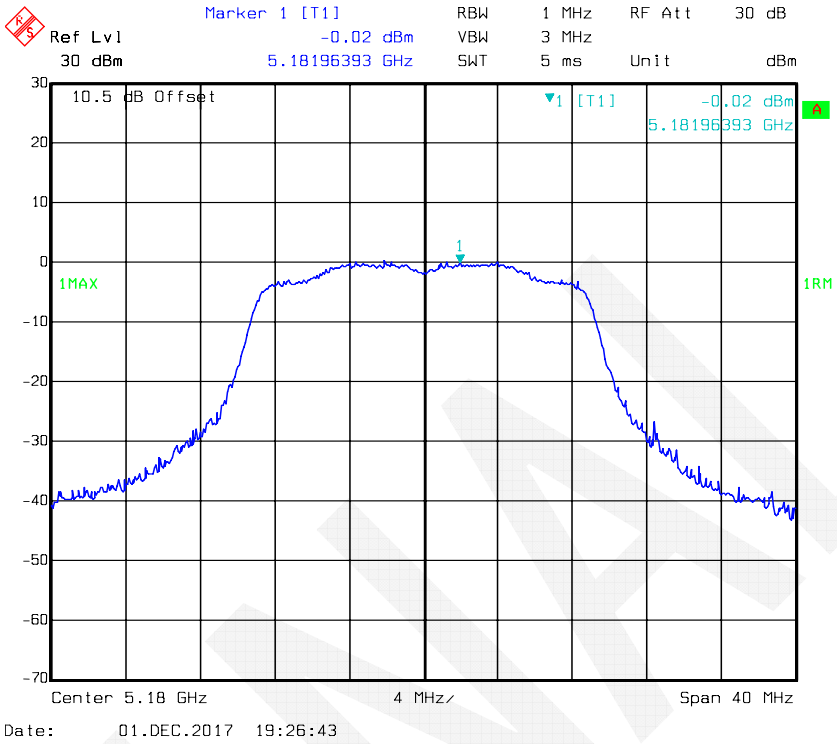
802.11n-HT40 mode, Power Spectral Density-5190 MHz, Antenna 2



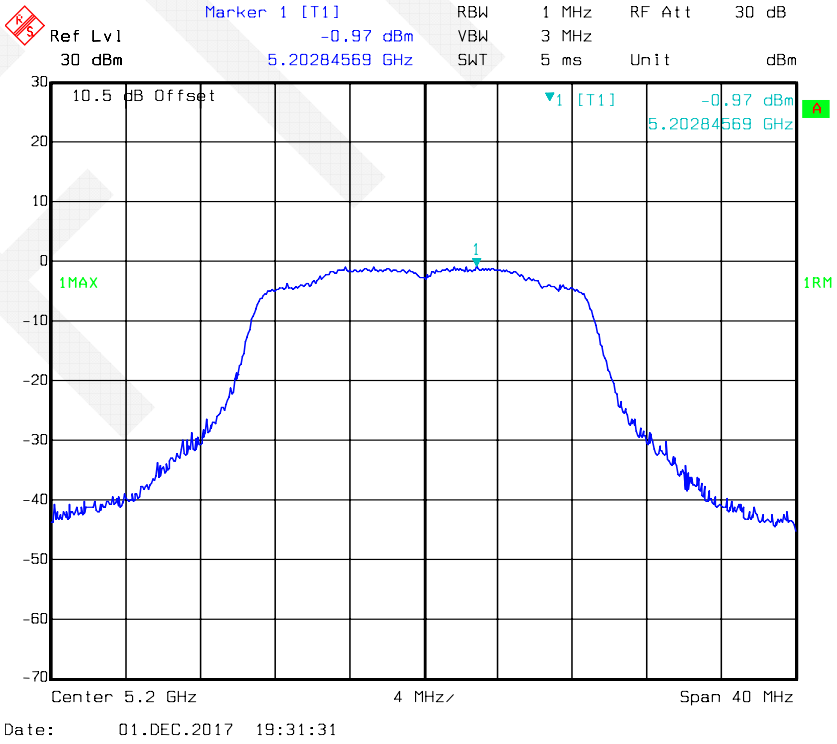
802.11n-HT40 mode, Power Spectral Density-5230 MHz, Antenna 2



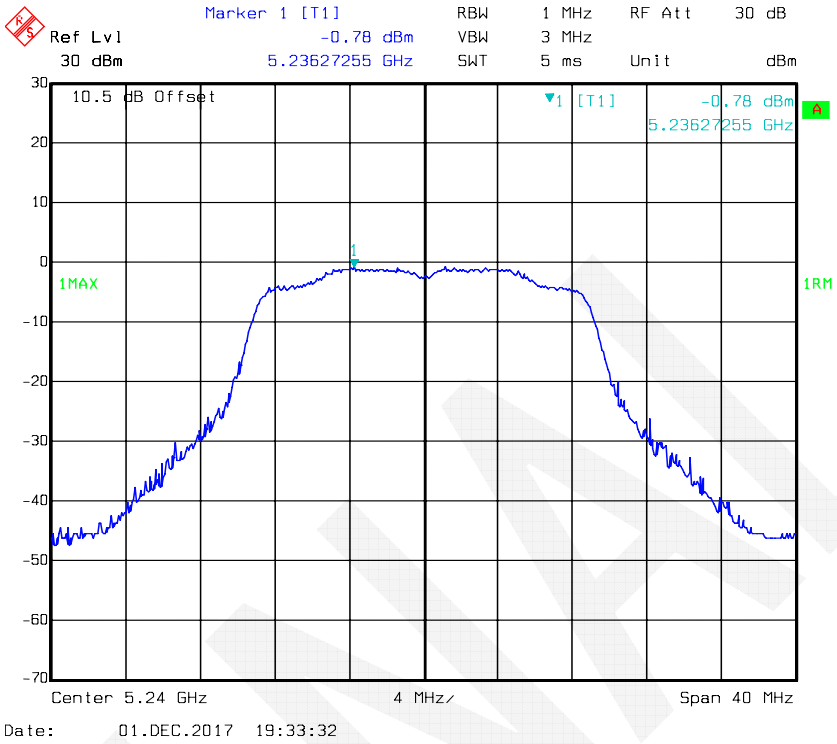
802.11ac20 mode, Power Spectral Density-5180 MHz, Antenna 1



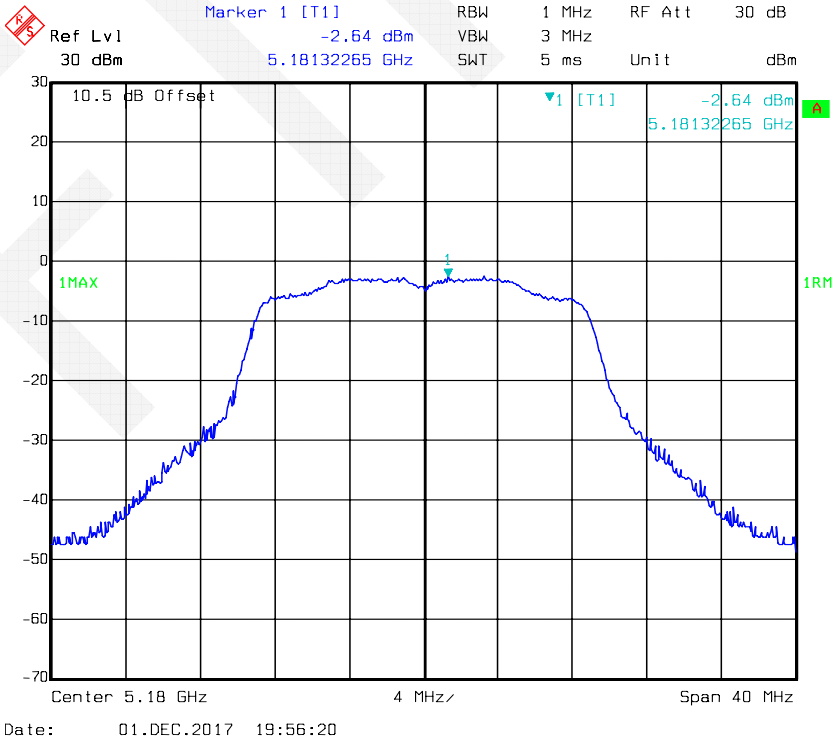
802.11ac20 mode, Power Spectral Density-5200 MHz, Antenna 1



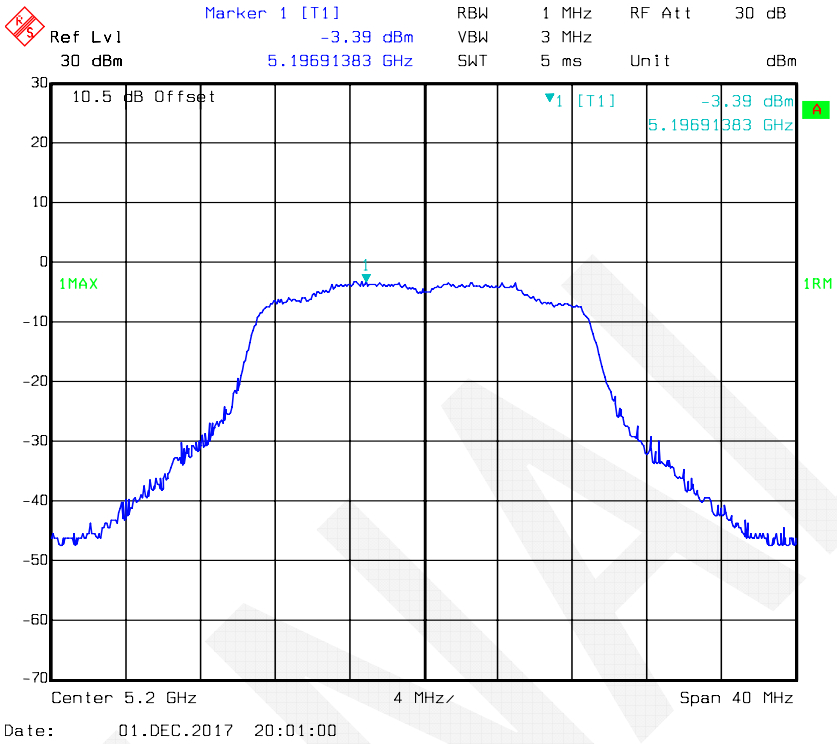
802.11ac20 mode, Power Spectral Density-5240 MHz, Antenna 1



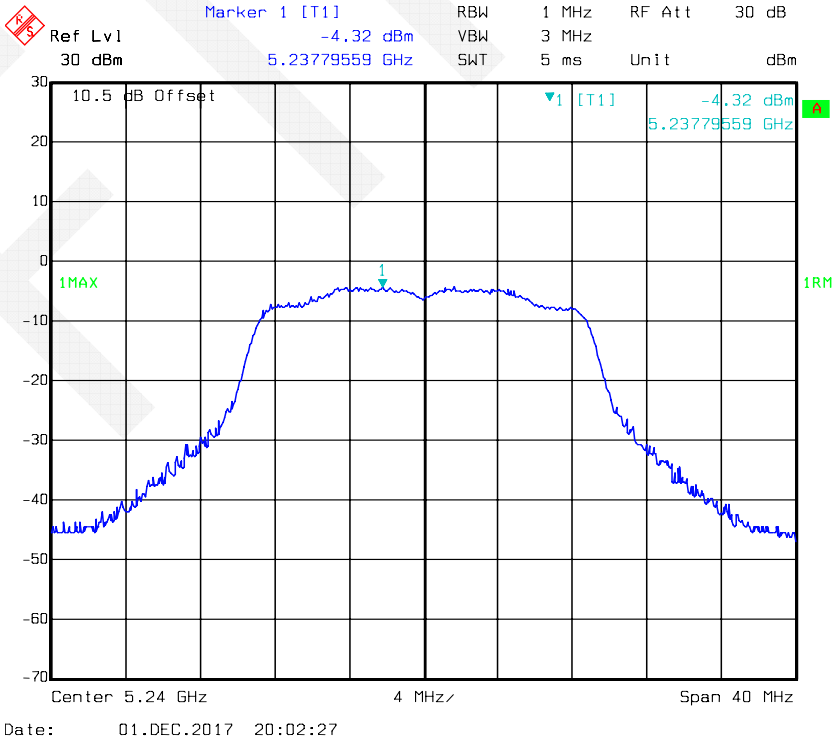
802.11ac20 mode, Power Spectral Density-5180 MHz, Antenna 2



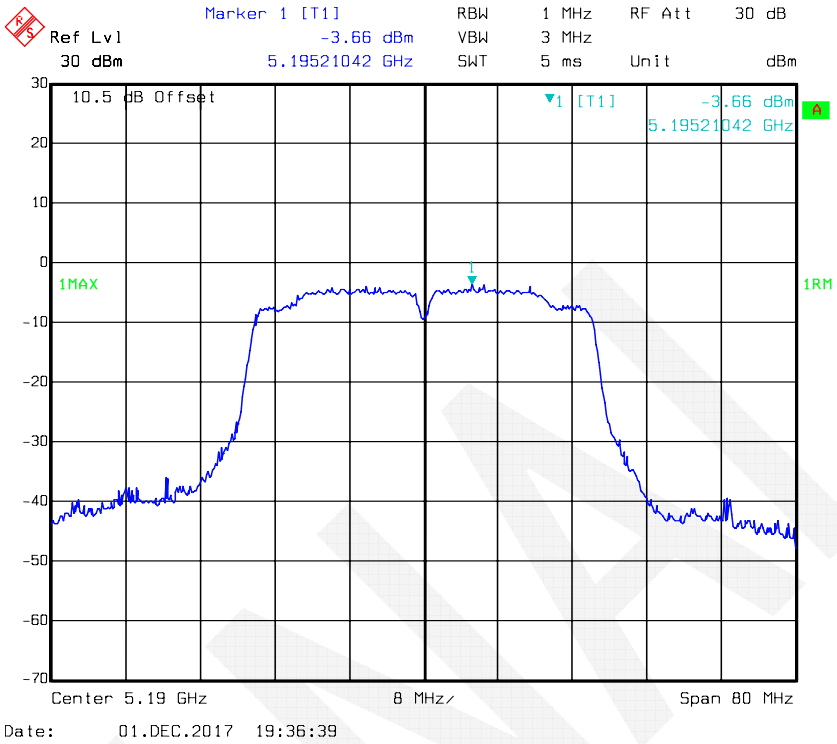
802.11ac20 mode, Power Spectral Density-5200 MHz, Antenna 2



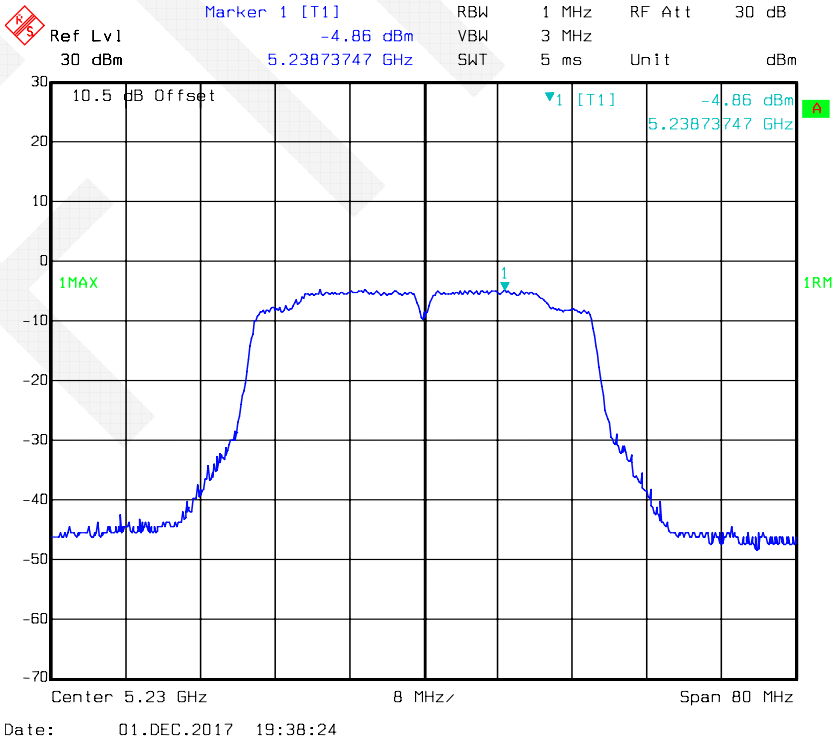
802.11ac20 mode, Power Spectral Density-5240 MHz, Antenna 2



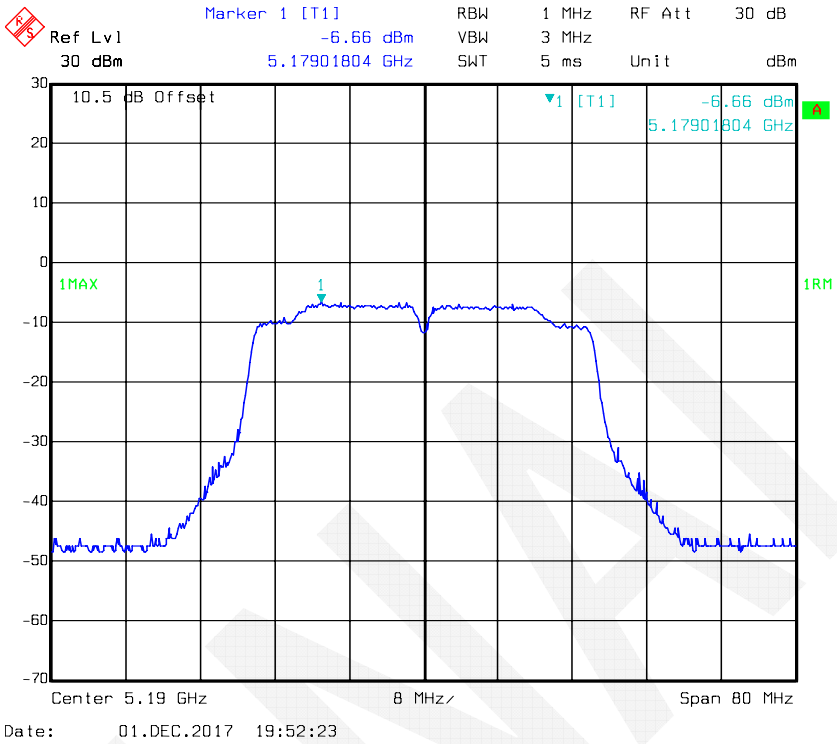
802.11ac40 mode, Power Spectral Density-5190 MHz, Antenna 1



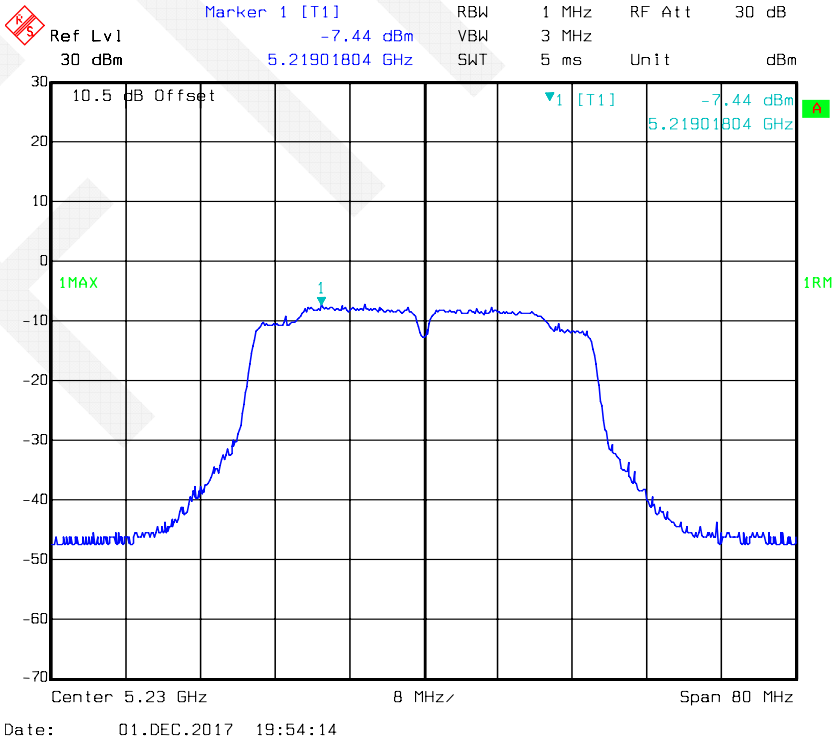
802.11ac40 mode, Power Spectral Density-5230 MHz, Antenna 1



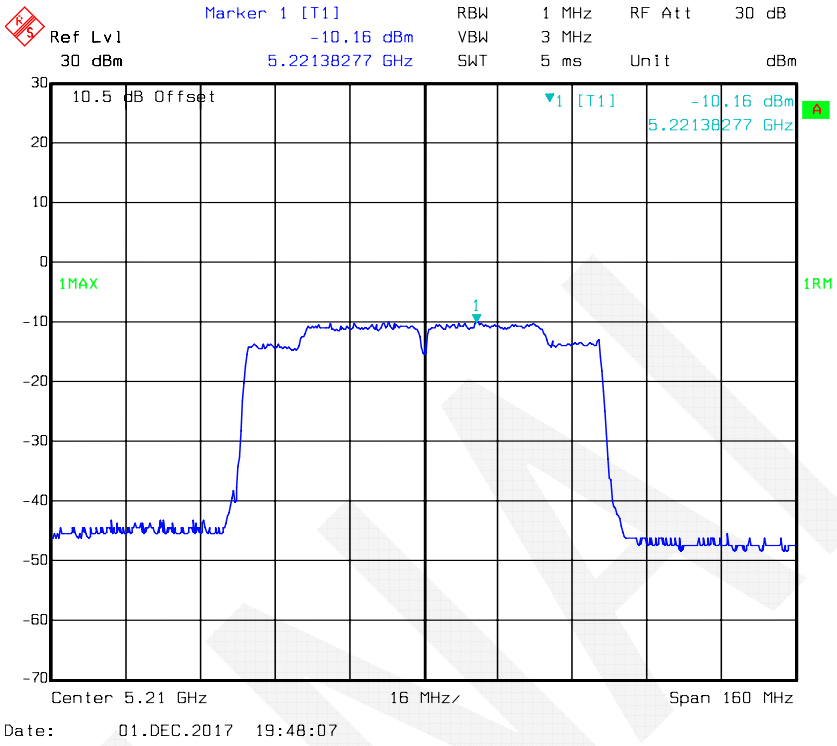
802.11ac40 mode, Power Spectral Density-5190 MHz, Antenna 2



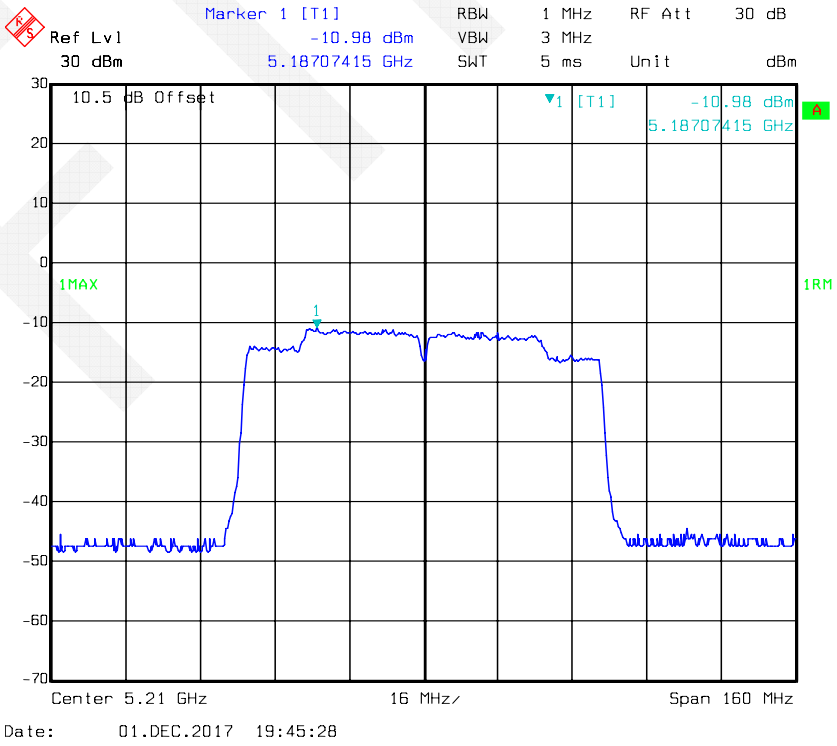
802.11ac40 mode, Power Spectral Density-5230 MHz, Antenna 2



802.11ac 80 mode, Power Spectral Density-5210 MHz, Antenna 1



802.11ac 80 mode, Power Spectral Density-5210 MHz, Antenna 2



For 5725-5850 MHz:

Mode	Channel	Frequency (MHz)	Power Spectral Density (dBm/500kHz)		Total (dBm/500kHz)	Limit (dBm/500kHz)
			Antenna 1	Antenna 2		
802.11a	Low	5745	-3.44	-2.07	/	28.8
	Middle	5785	-4.80	-3.04	/	28.8
	High	5825	-5.97	-2.11	/	28.8
802.11n-HT20	Low	5745	-4.19	-3.06	-0.58	25.8
	Middle	5785	-5.49	-3.40	-1.31	25.8
	High	5825	-6.38	-3.64	-1.79	25.8
802.11n-HT40	Low	5755	-6.64	-5.42	-2.98	25.8
	High	5795	-8.15	-5.38	-3.54	25.8
802.11ac20	Low	5745	-3.75	-2.14	0.14	25.8
	Middle	5785	-4.74	-2.39	-0.40	25.8
	High	5825	-5.35	-2.06	-0.39	25.8
802.11ac40	Low	5755	-6.65	-5.15	-2.83	25.8
	High	5795	-7.59	-5.27	-3.27	25.8
802.11ac80	-	5775	-9.10	-7.28	-5.09	25.8

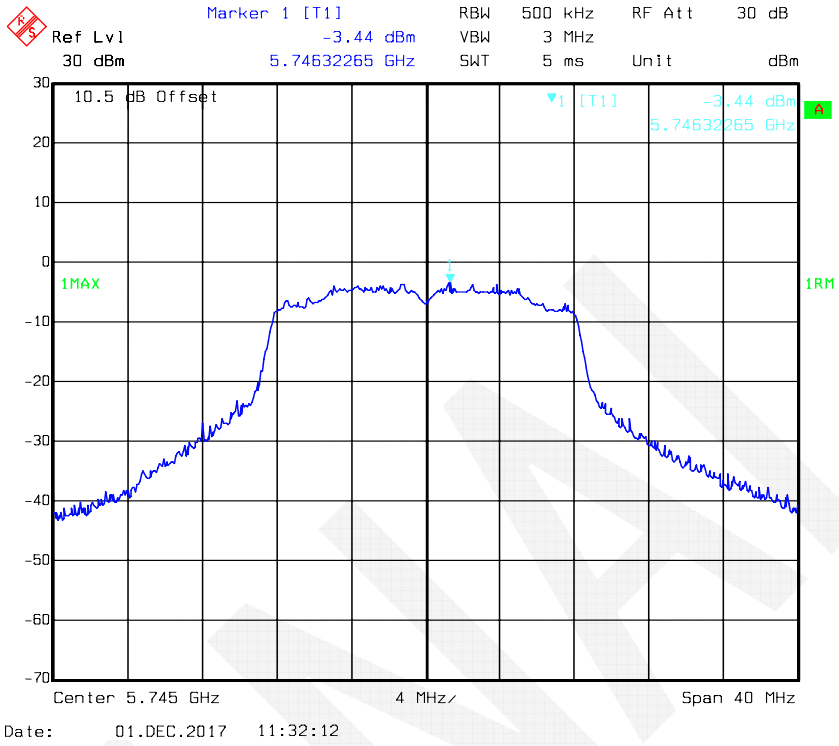
Note:
1. The max antenna gain is 7.2dBi.
2. The device employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density measurements on IEEE 802.11 devices:

Array Gain = $10*\log(N_{ANT}/N_{SS})$dB

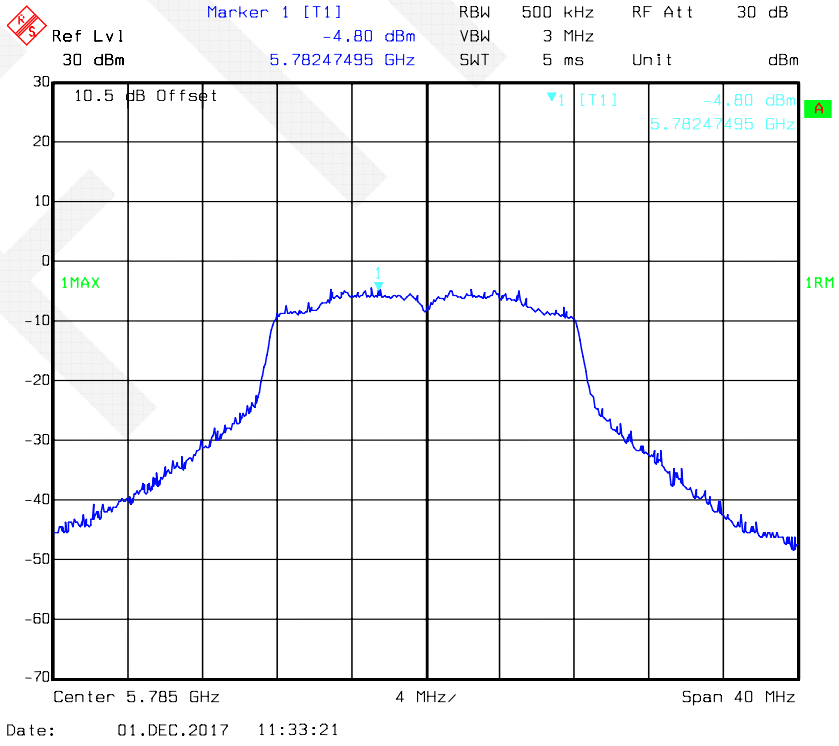
So:

Directional gain = GANT + Array Gain = 7.2+10*log(2)=10.2dBi>6dBi
The power density Limit was reduced 1.2dB in SISO mode.
The power density Limit was reduced 4.2dB in MIMO mode.

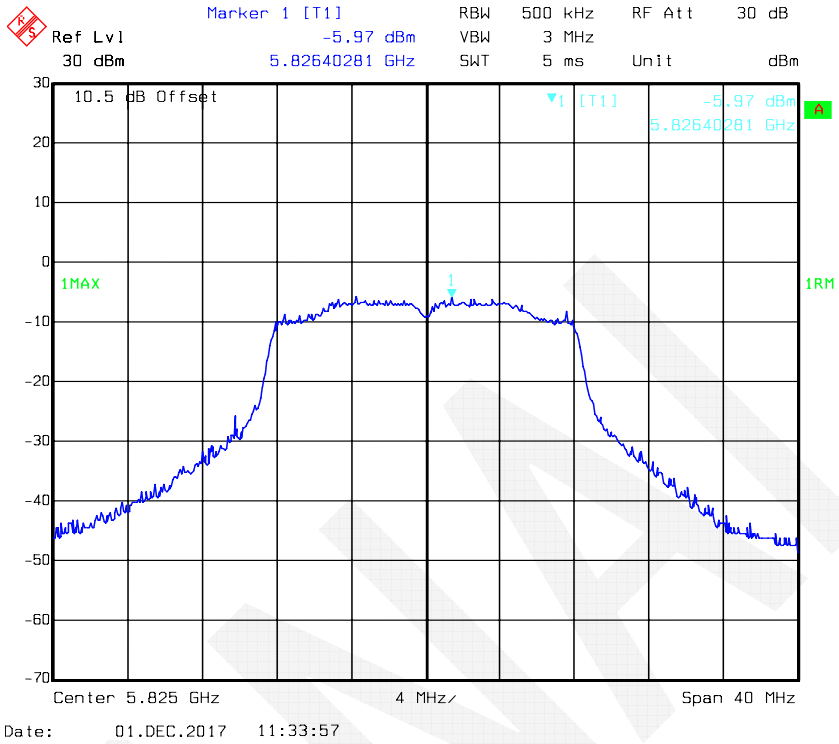
802.11a mode, Power Spectral Density-5745 MHz, Antenna 1



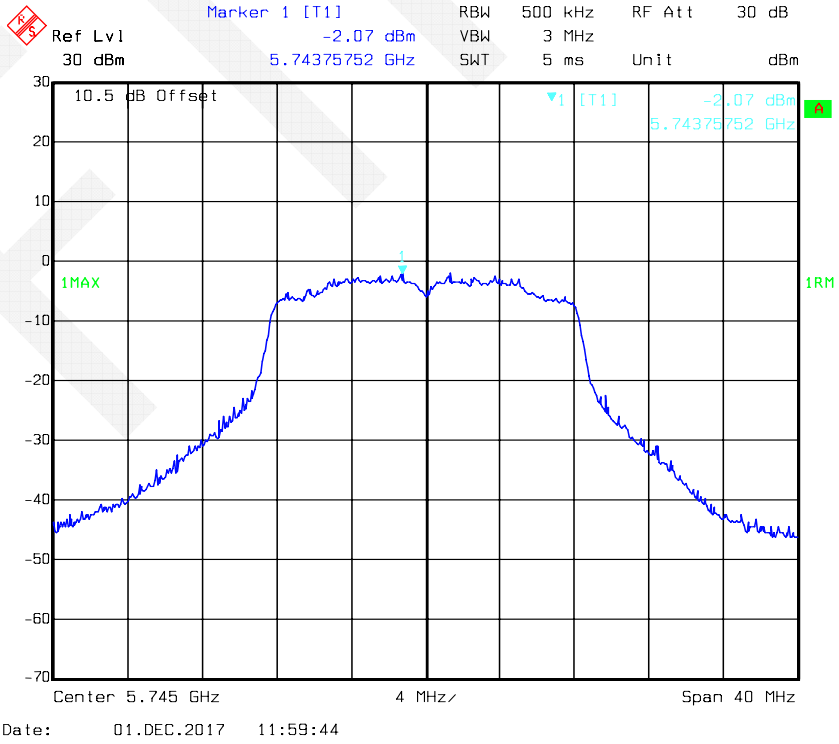
802.11a mode, Power Spectral Density-5785 MHz, Antenna 1



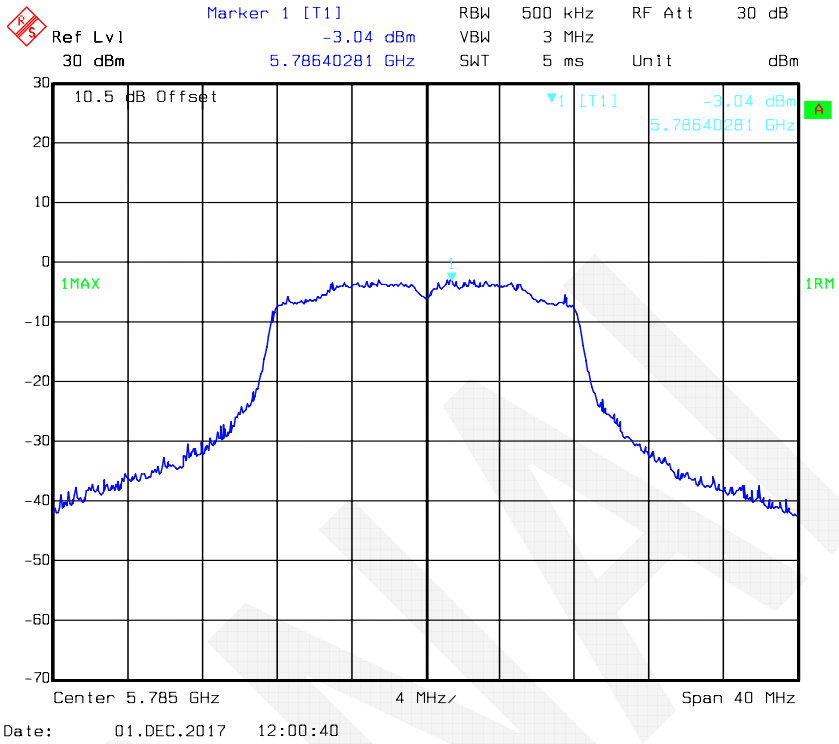
802.11a mode, Power Spectral Density-5825 MHz, Antenna 1



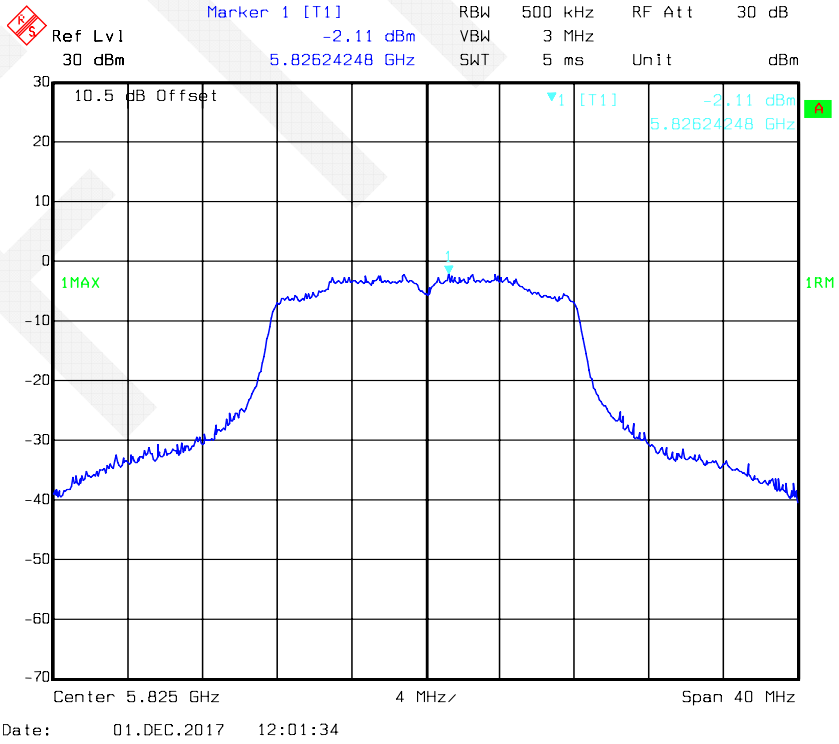
802.11a mode, Power Spectral Density-5745 MHz, Antenna 2



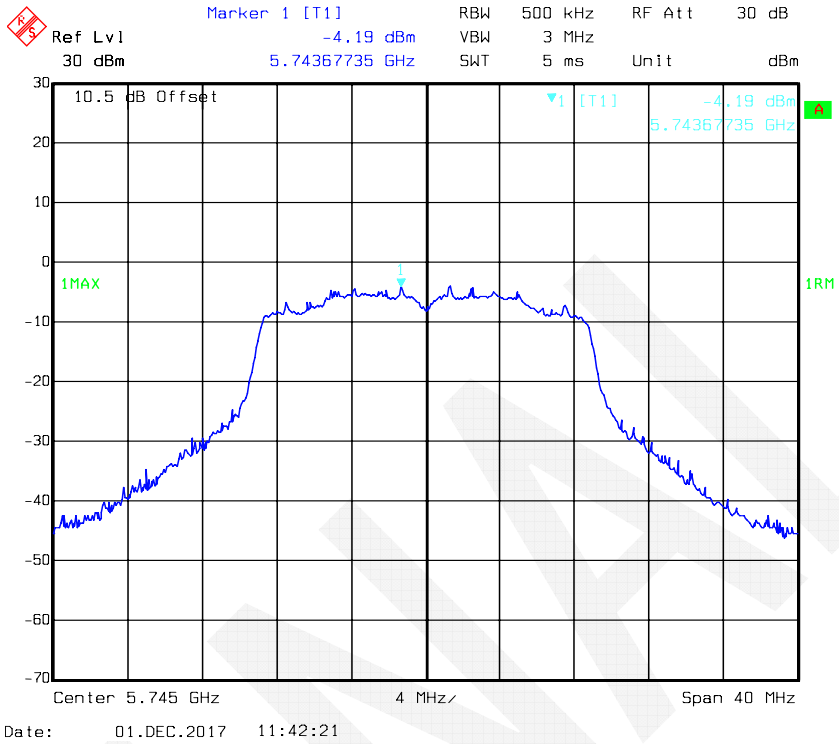
802.11a mode, Power Spectral Density-5785 MHz, Antenna 2



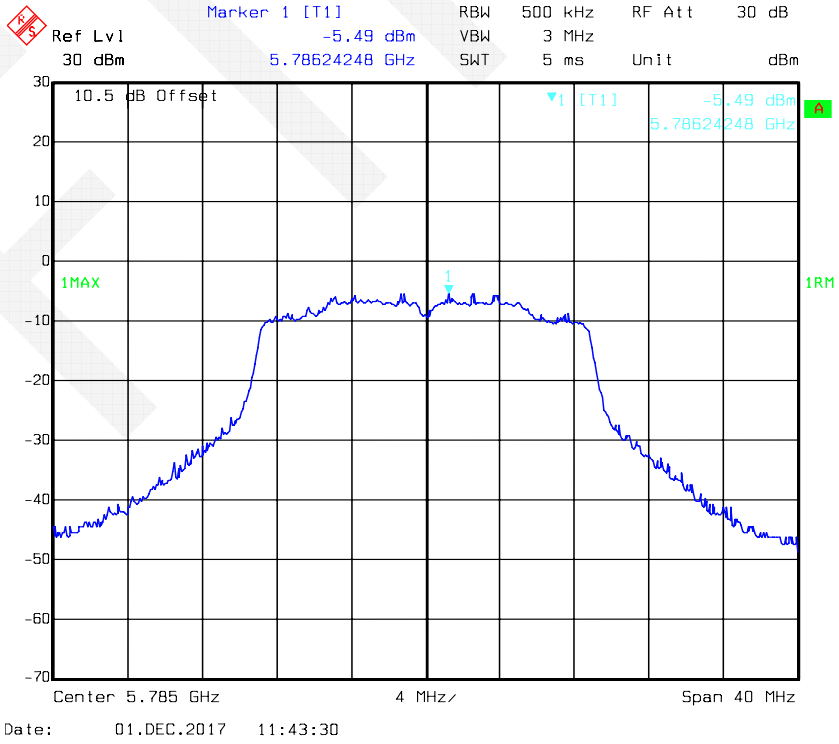
802.11a mode, Power Spectral Density-5825 MHz, Antenna 2



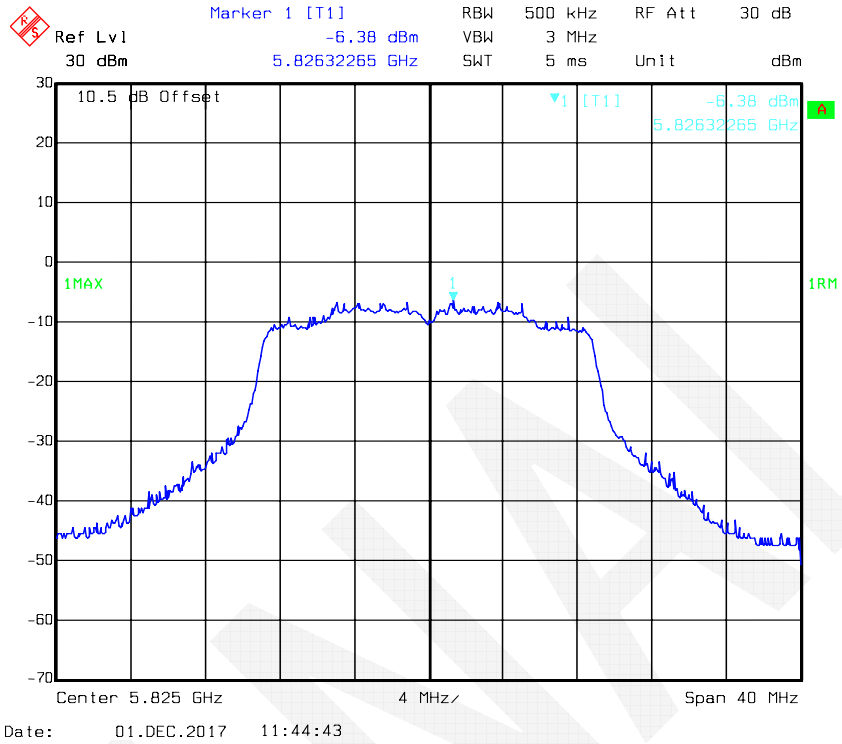
802.11n-HT20 mode, Power Spectral Density-5745 MHz, Antenna 1



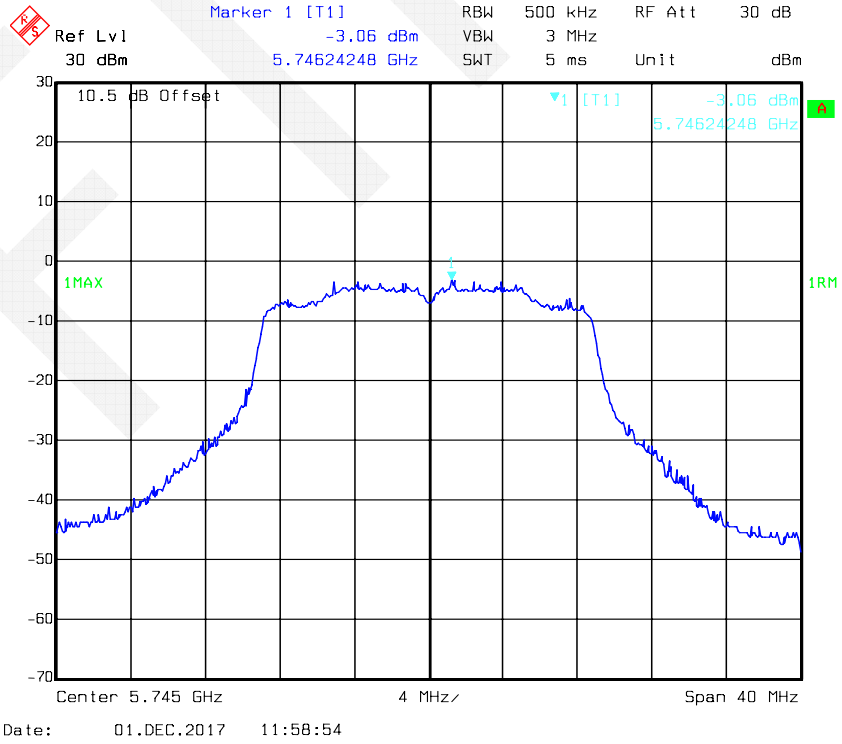
802.11n-HT20 mode, Power Spectral Density-5785 MHz, Antenna 1



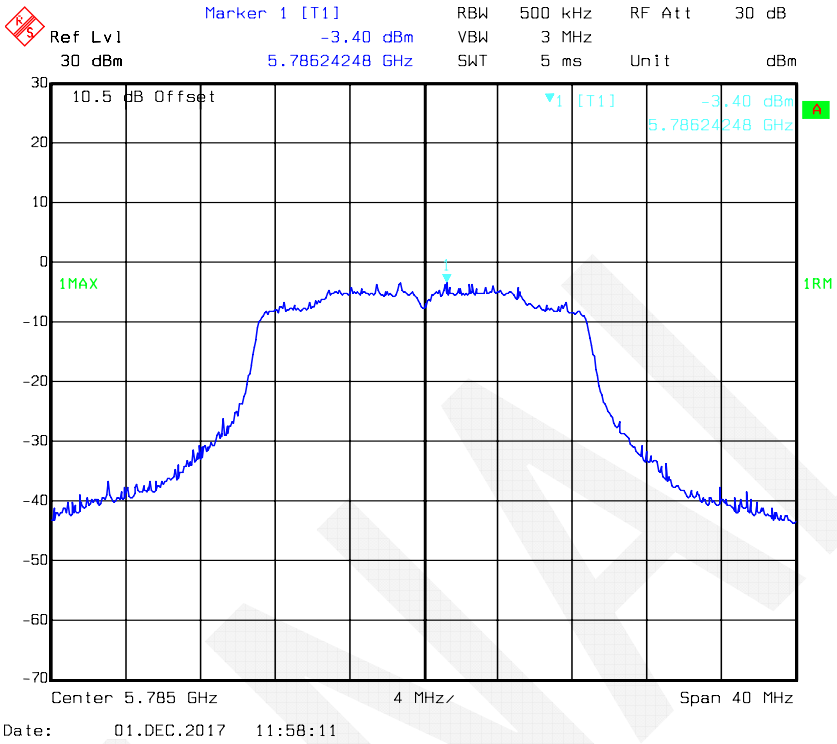
802.11n-HT20 mode, Power Spectral Density-5825 MHz, Antenna 1



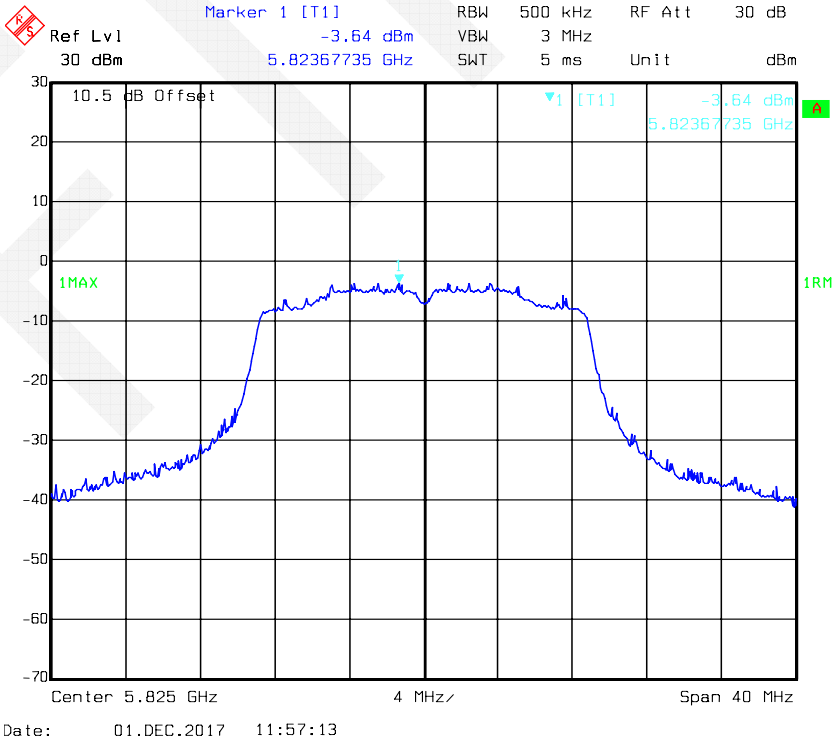
802.11n-HT20 mode, Power Spectral Density-5745 MHz, Antenna 2



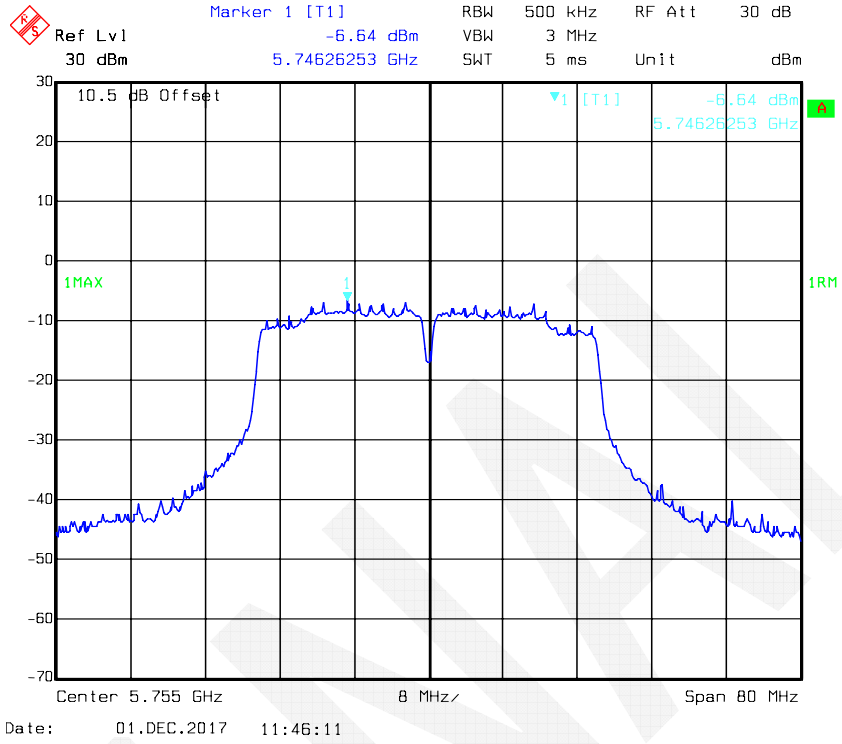
802.11n-HT20 mode, Power Spectral Density-5785 MHz, Antenna 2



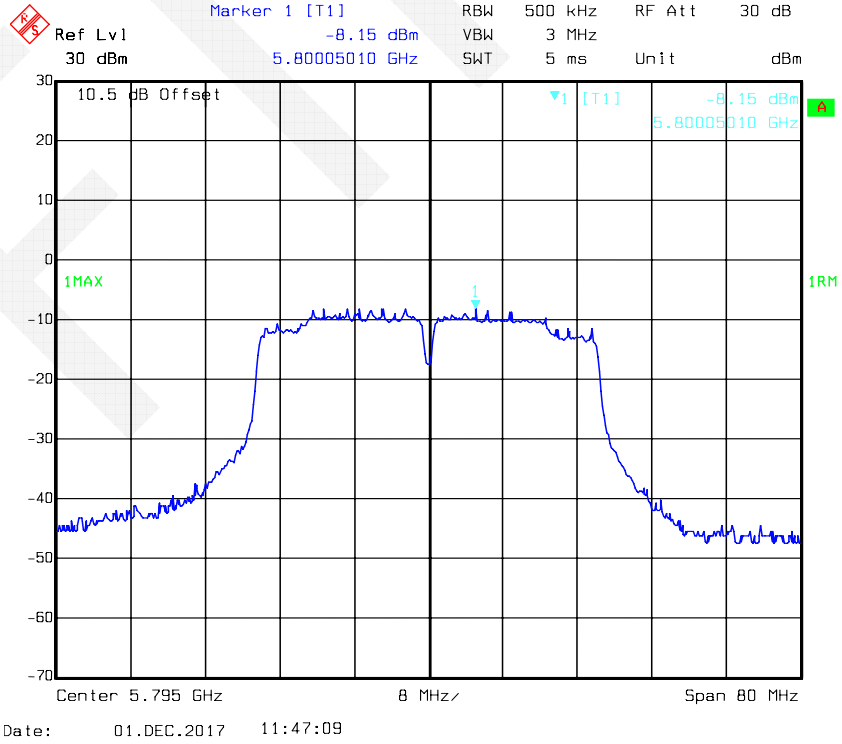
802.11n-HT20 mode, Power Spectral Density-5825 MHz, Antenna 2



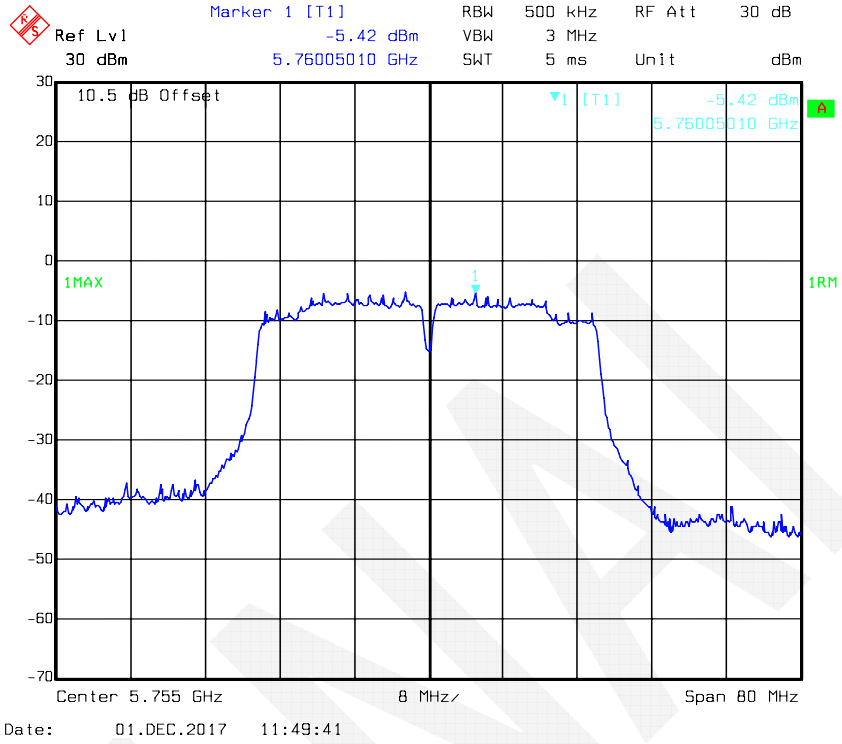
802.11n-HT40 mode, Power Spectral Density-5755 MHz, Antenna 1



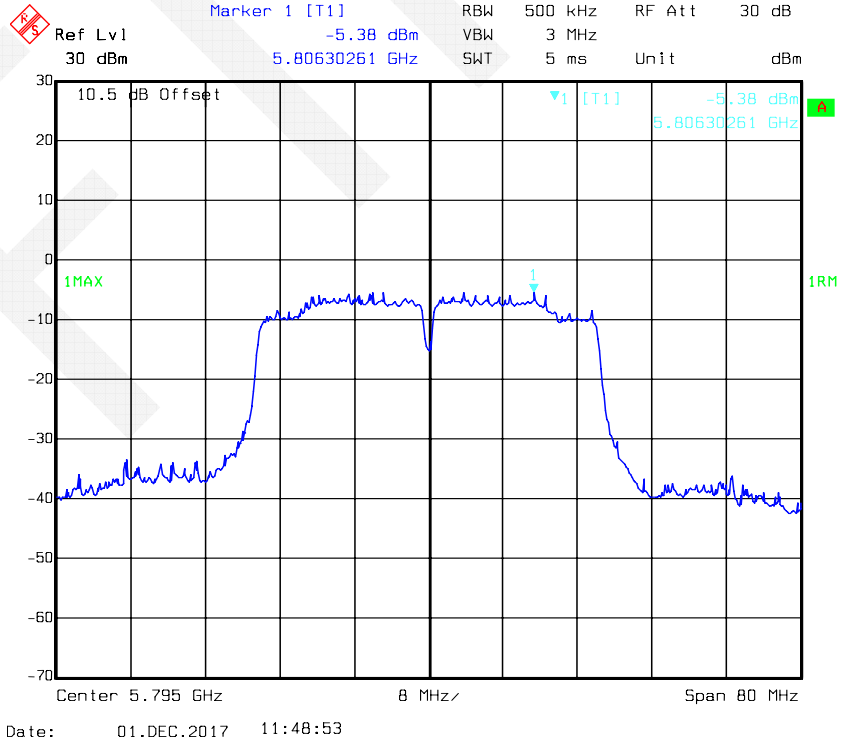
802.11n-HT40 mode, Power Spectral Density-5795 MHz, Antenna 1



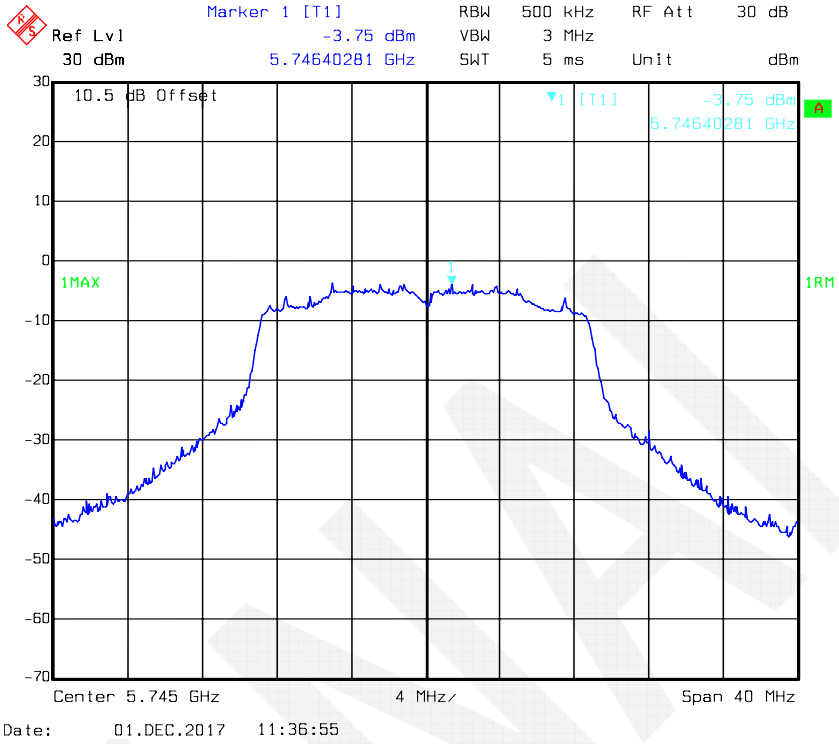
802.11n-HT40 mode, Power Spectral Density-5755 MHz, Antenna 2



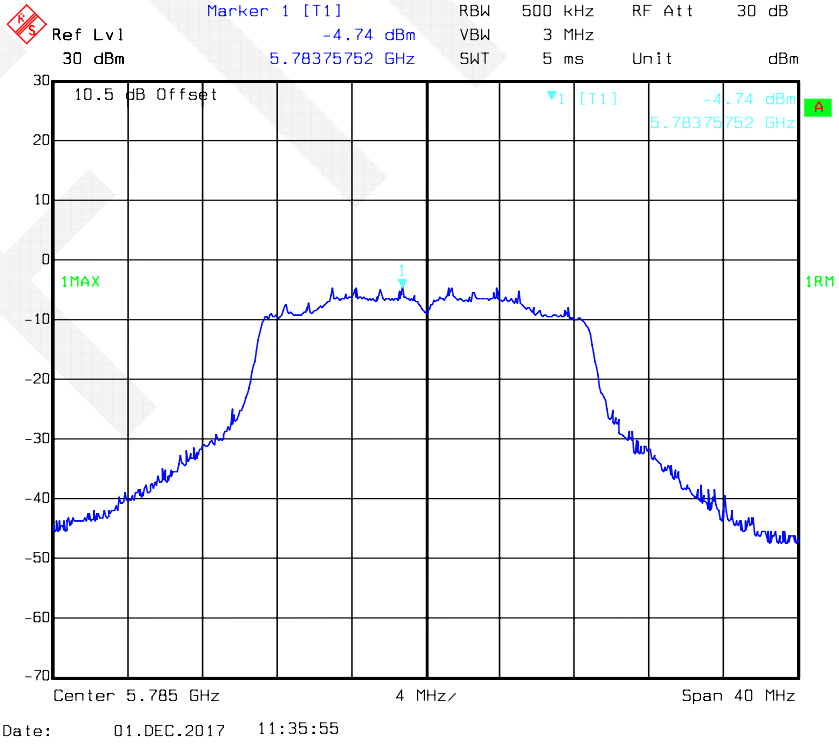
802.11n-HT40 mode, Power Spectral Density-5795 MHz, Antenna 2



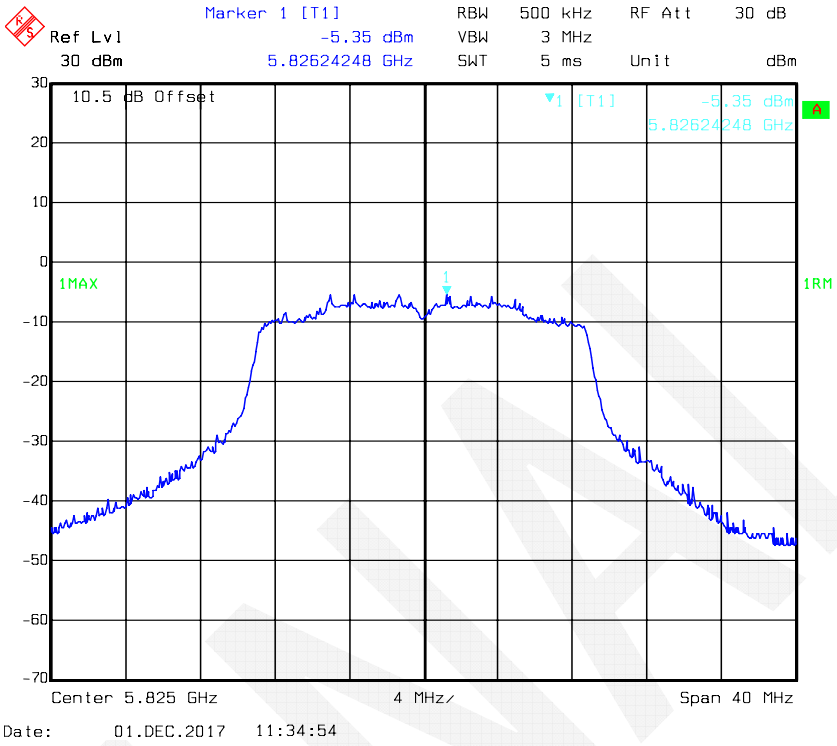
802.11ac20 mode, Power Spectral Density-5745 MHz, Antenna 1



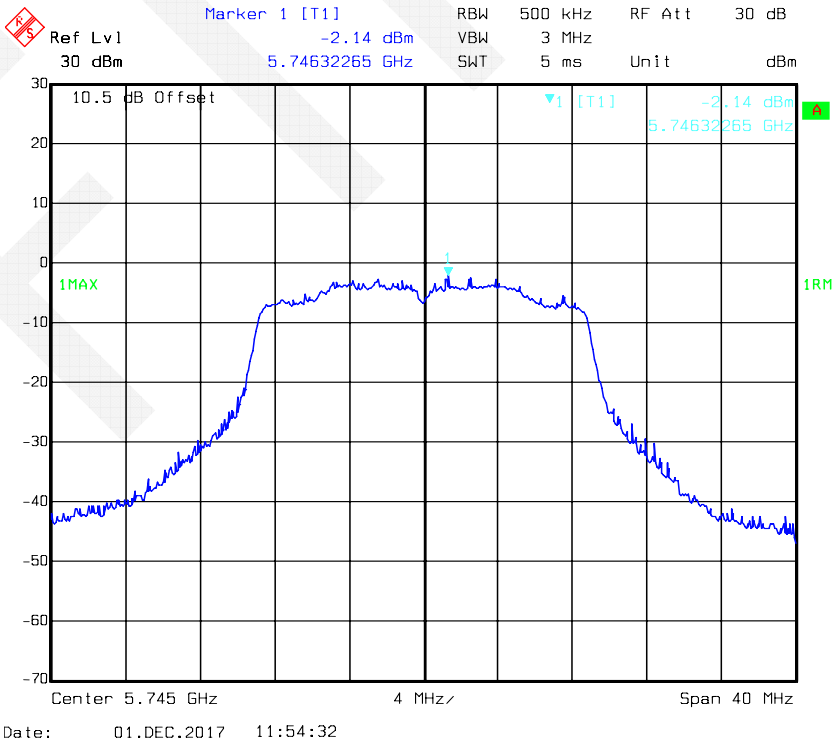
802.11ac20 mode, Power Spectral Density-5785 MHz, Antenna 1



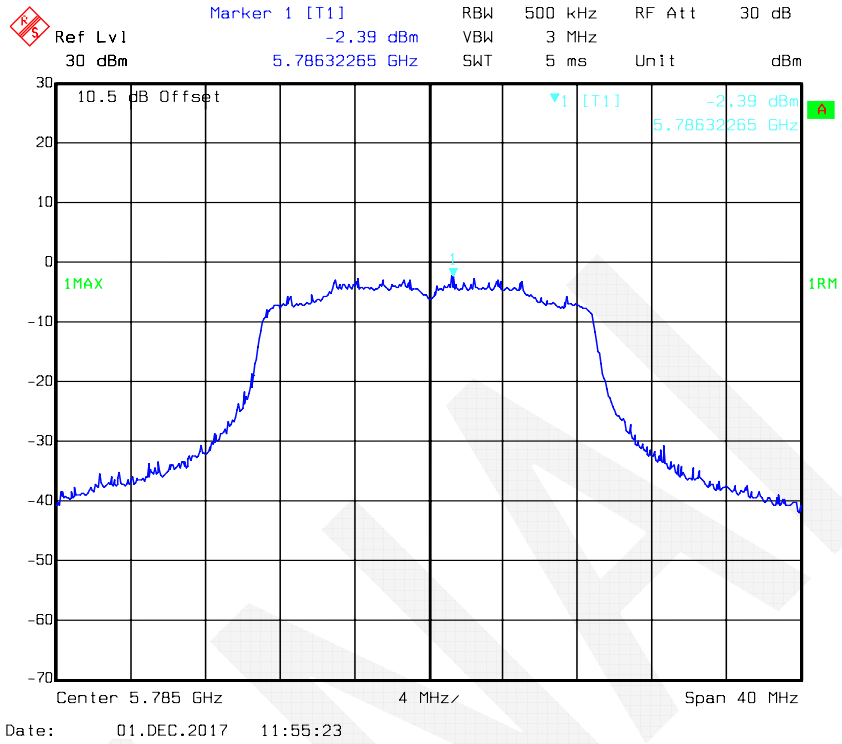
802.11ac20 mode, Power Spectral Density-5825 MHz, Antenna 1



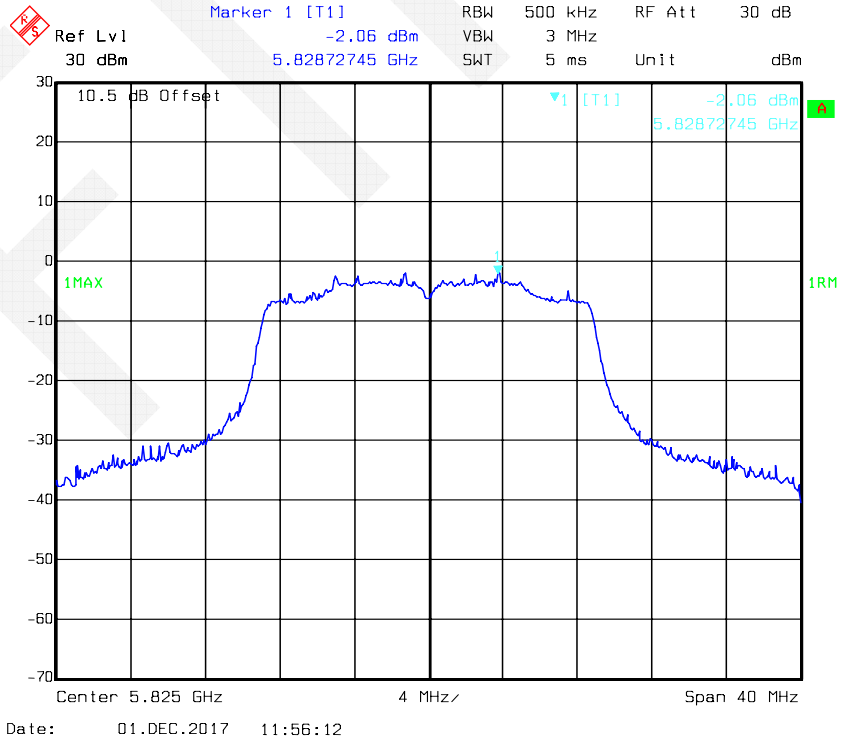
802.11ac20 mode, Power Spectral Density-5745 MHz, Antenna 2



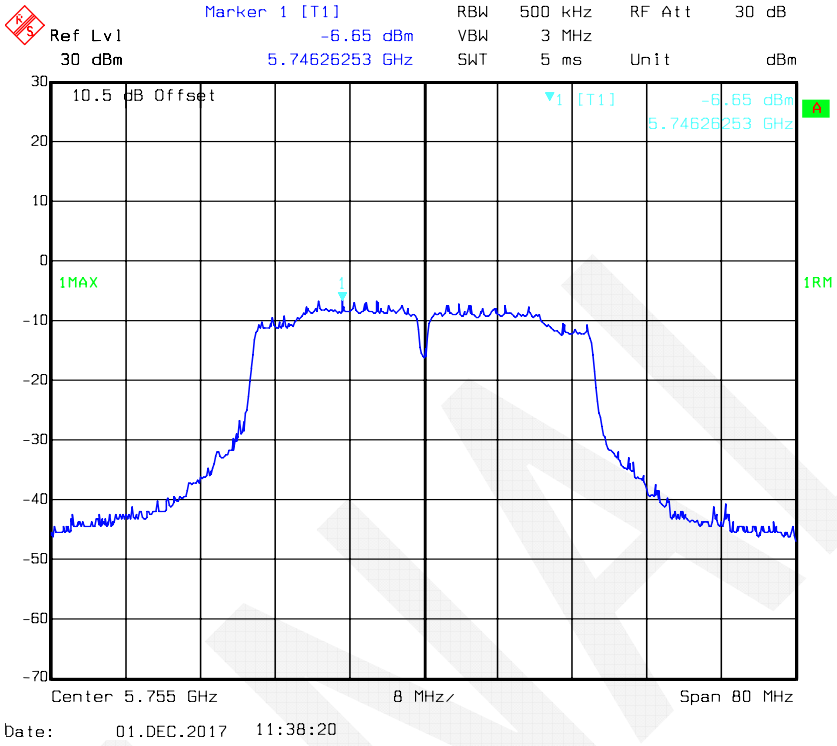
802.11ac20 mode, Power Spectral Density-5785 MHz, Antenna 2



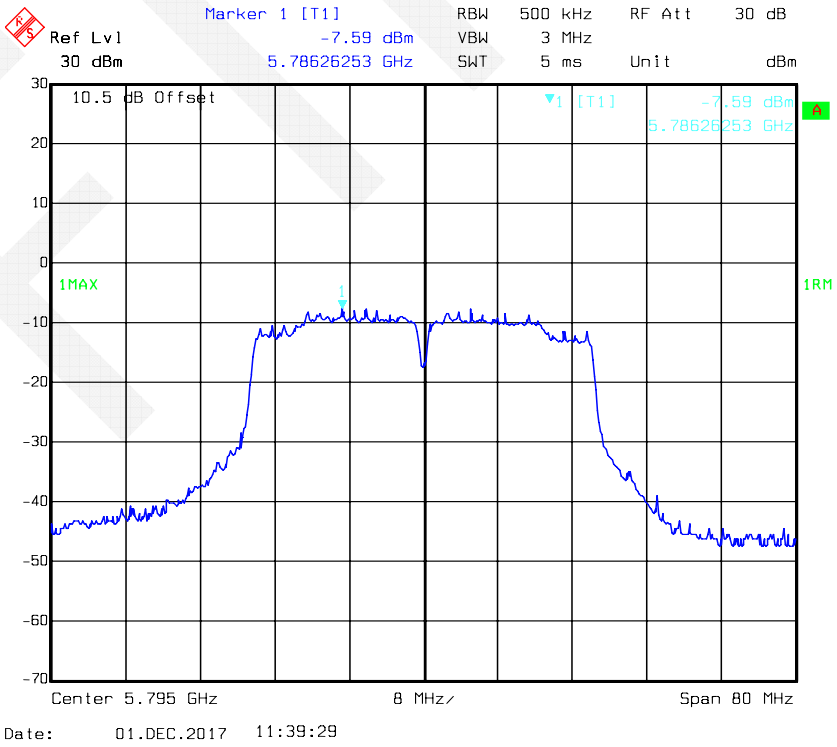
802.11ac20 mode, Power Spectral Density-5825 MHz, Antenna 2



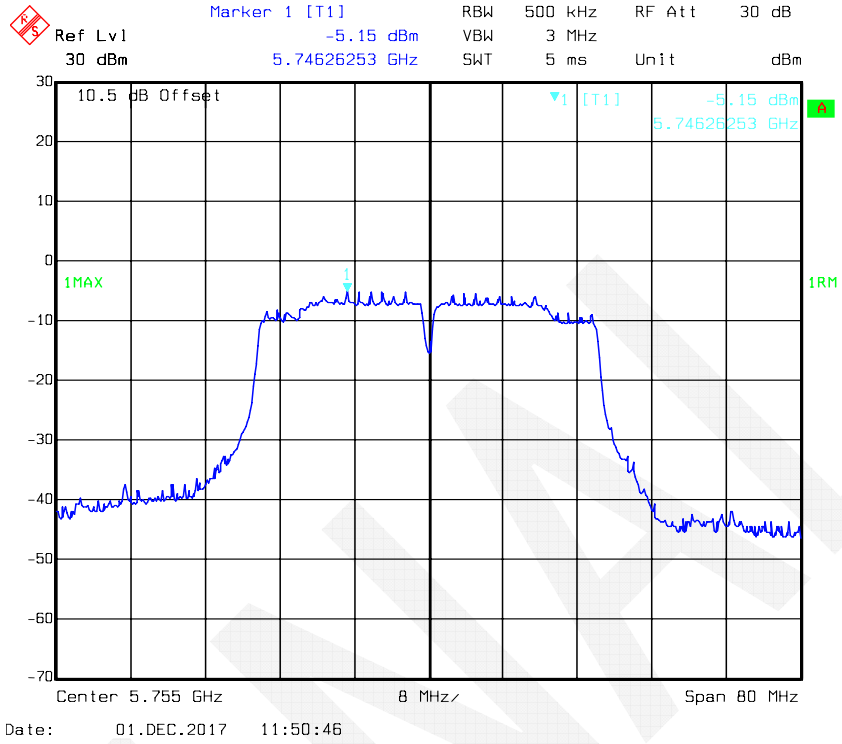
802.11ac40 mode, Power Spectral Density-5755 MHz, Antenna 1



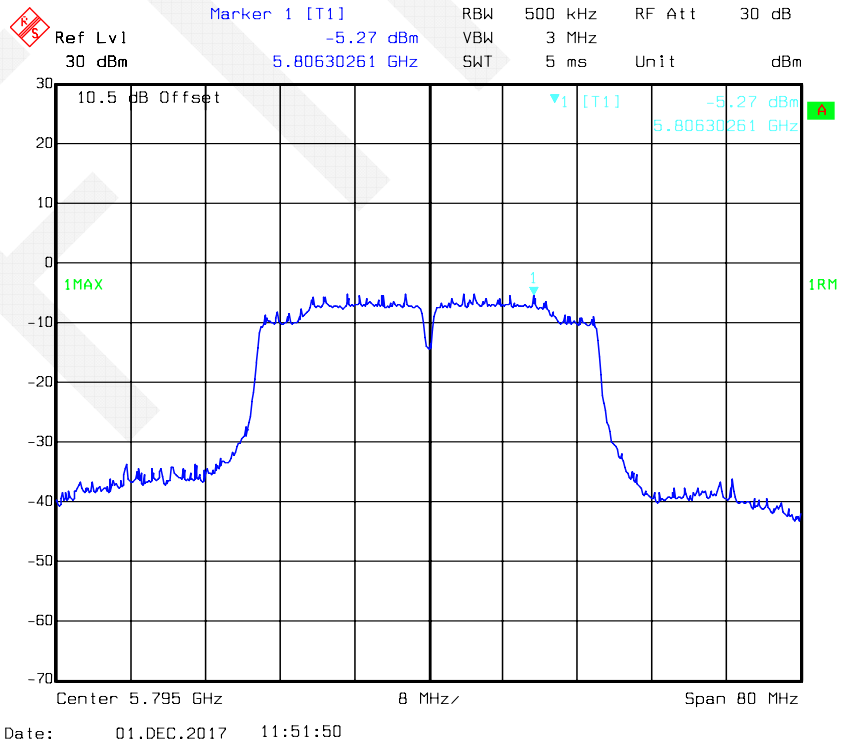
802.11ac40 mode, Power Spectral Density-5795 MHz, Antenna 1



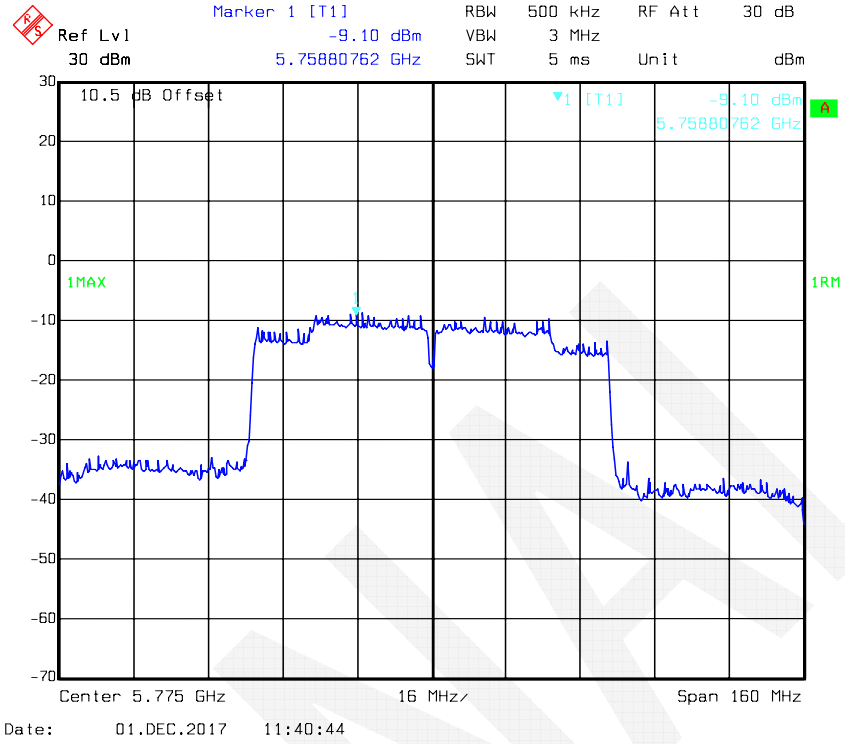
802.11ac40 mode, Power Spectral Density-5755 MHz, Antenna 2



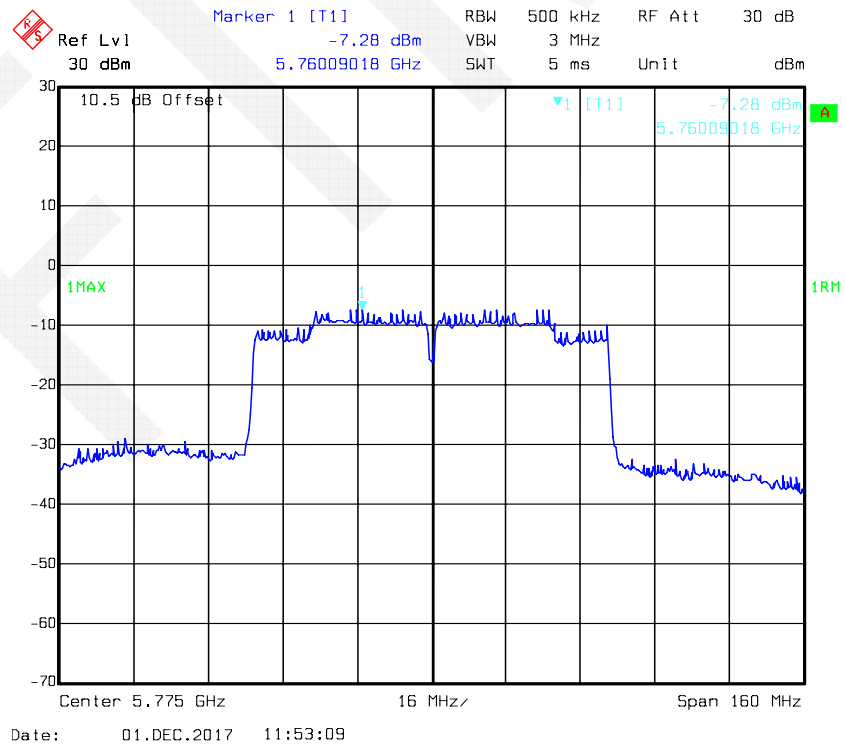
802.11ac40 mode, Power Spectral Density-5795 MHz, Antenna 2



802.11ac80 mode, Power Spectral Density-5775 MHz, Antenna 1



802.11ac80 mode, Power Spectral Density-5775 MHz, Antenna 2



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