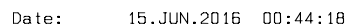
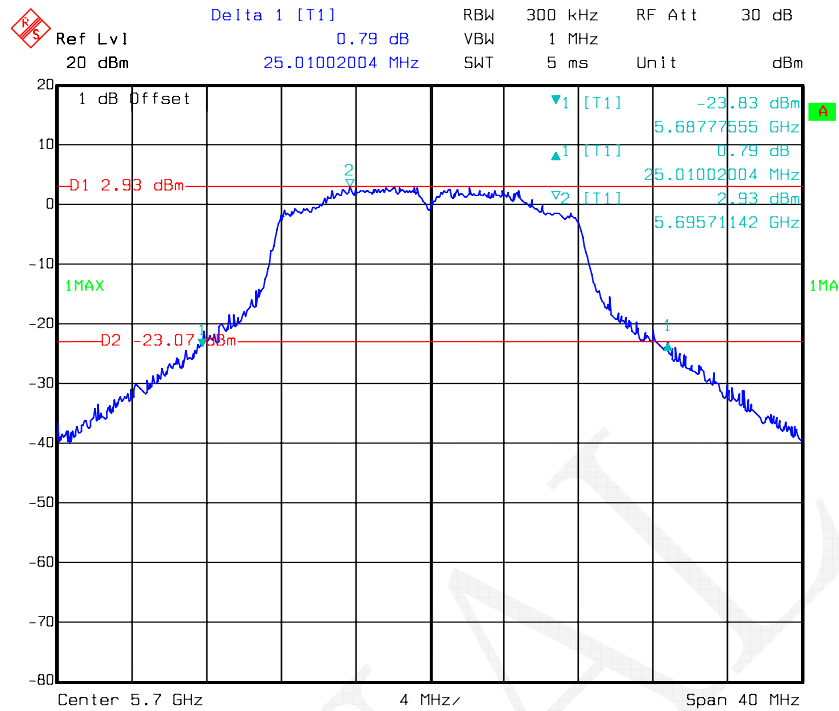


Chain 0:802.11a Low Channel

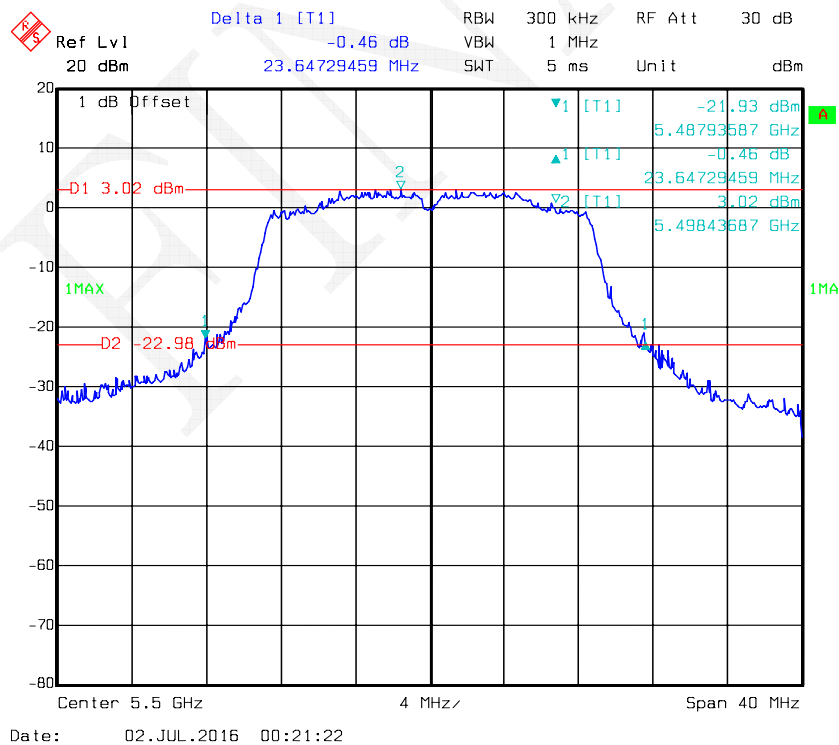


Date: 15.JUN.2016 00:48:16

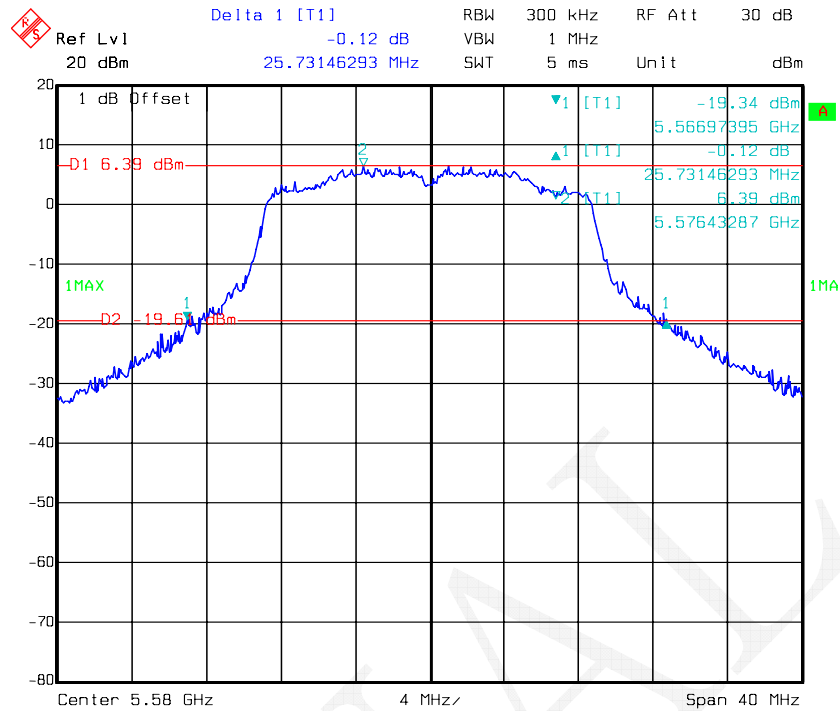
Chain 0:802.11a High Channel



Chain 0:802.11n ht20 Low Channel

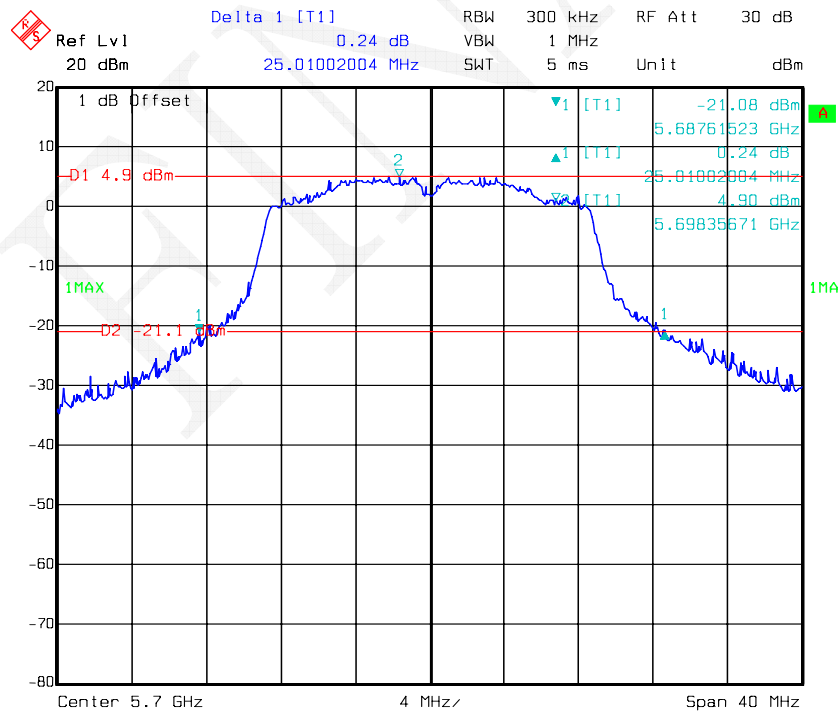


Chain 0:802.11n ht20 Middle Channel



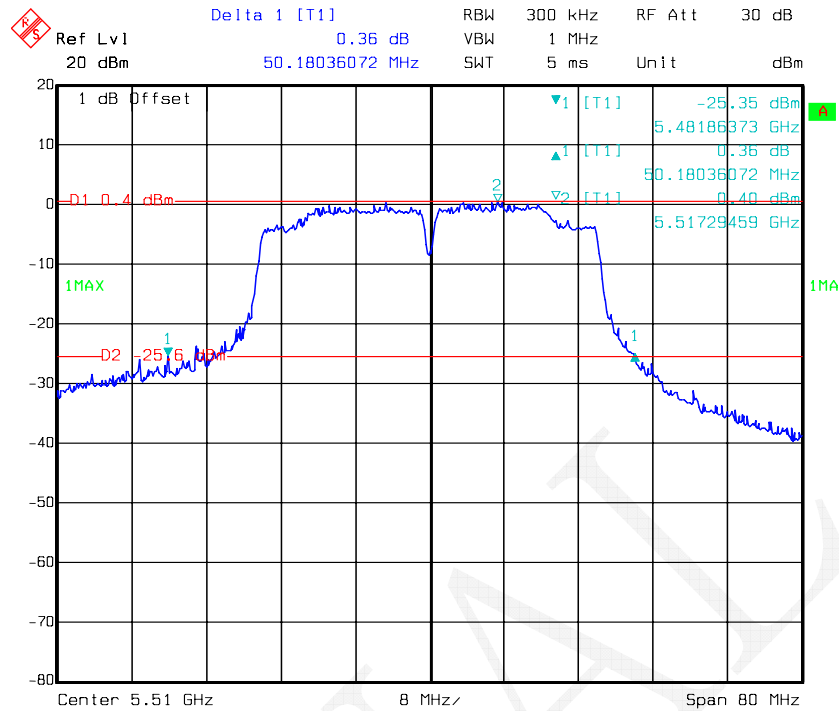
Date: 15.JUN.2016 00:55:54

Chain 0:802.11n ht20 High Channel

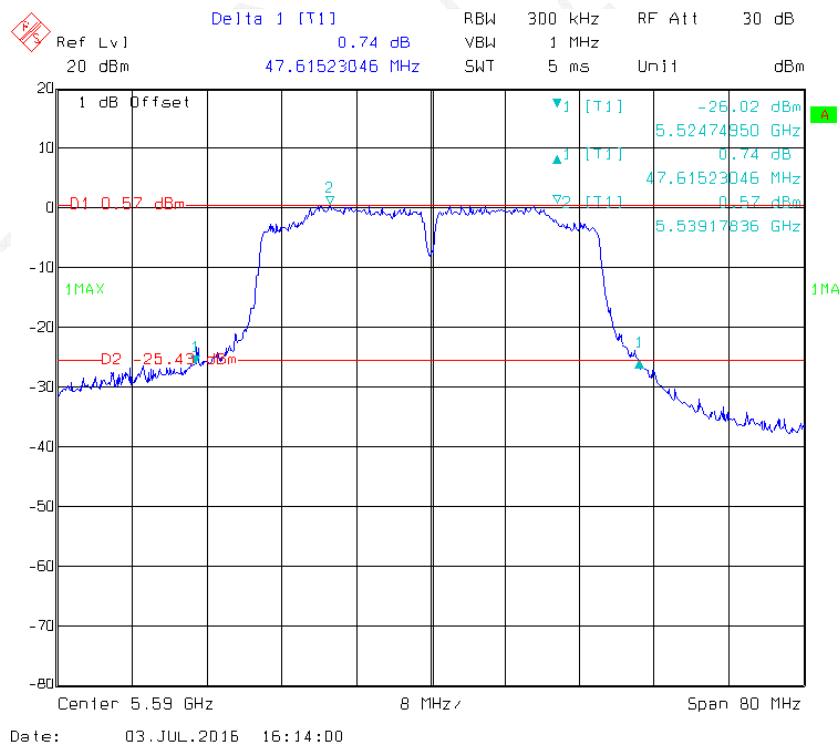


Date: 02.JUL.2016 00:24:51

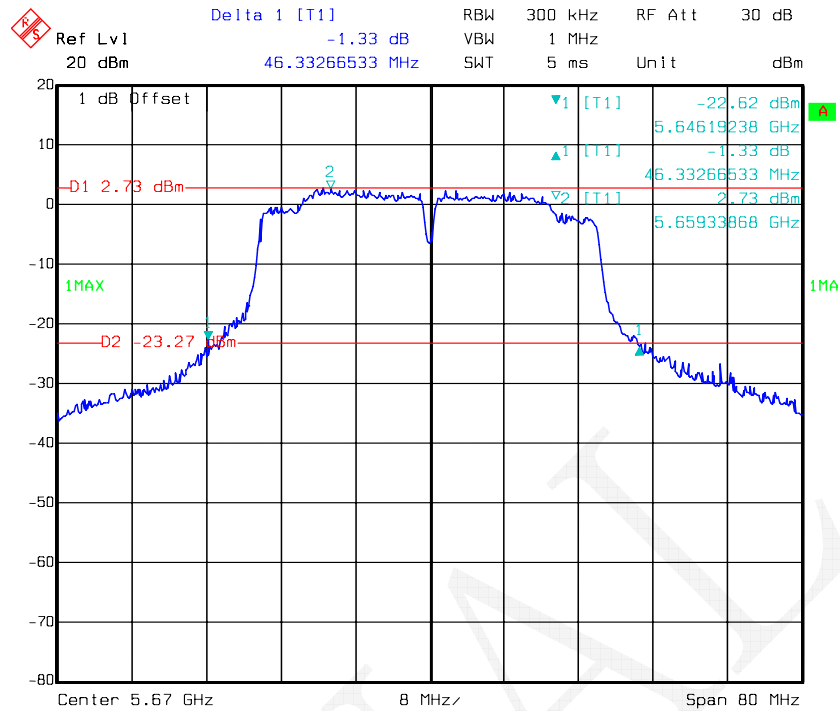
Chain 0:802.11n ht40 Low Channel



Chain 0:802.11n ht40 Middle Channel

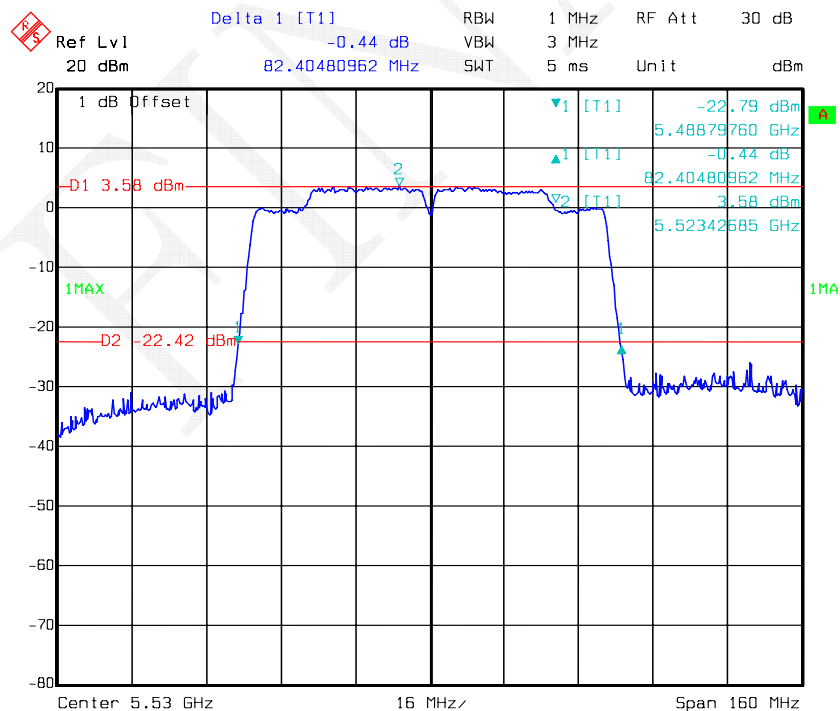


Chain 0:802.11n ht40 High Channel



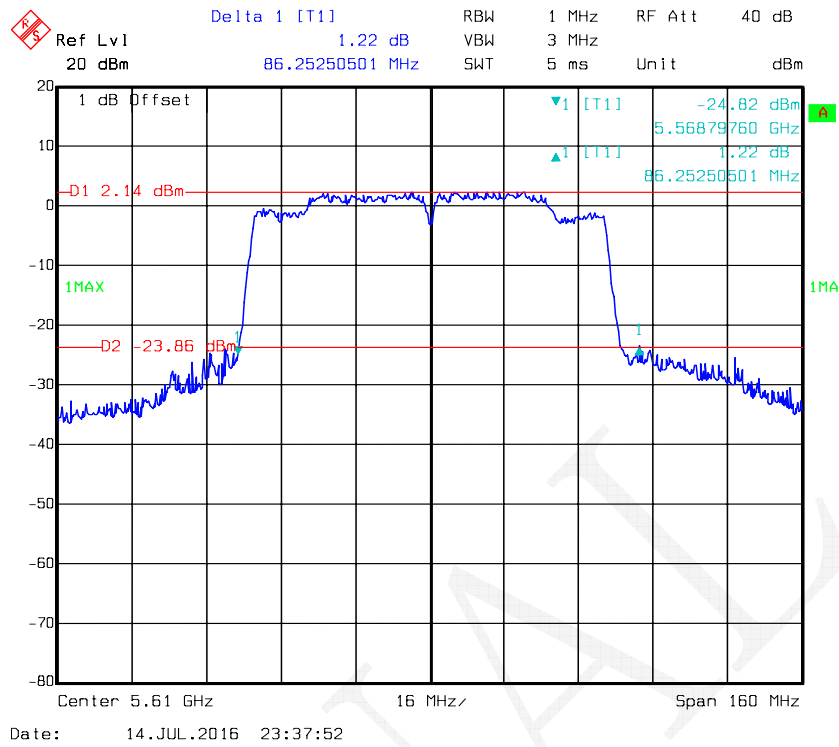
Date: 15.JUN.2016 01:05:13

Chain 0:802.11n ac80 Low Channel



Date: 15.JUN.2016 01:07:40

Chain 0:802.11n ac80 High Channel



Delta 1 [T1] 0.08 dB
 23.96793587 MHz

RBW 300 kHz
 VBW 1 MHz
 SWT 5 ms
 RF Att 30 dB

Ref Lvl 20 dBm
 Unit dBm

1 dB Offset

D1 3.98 dBm

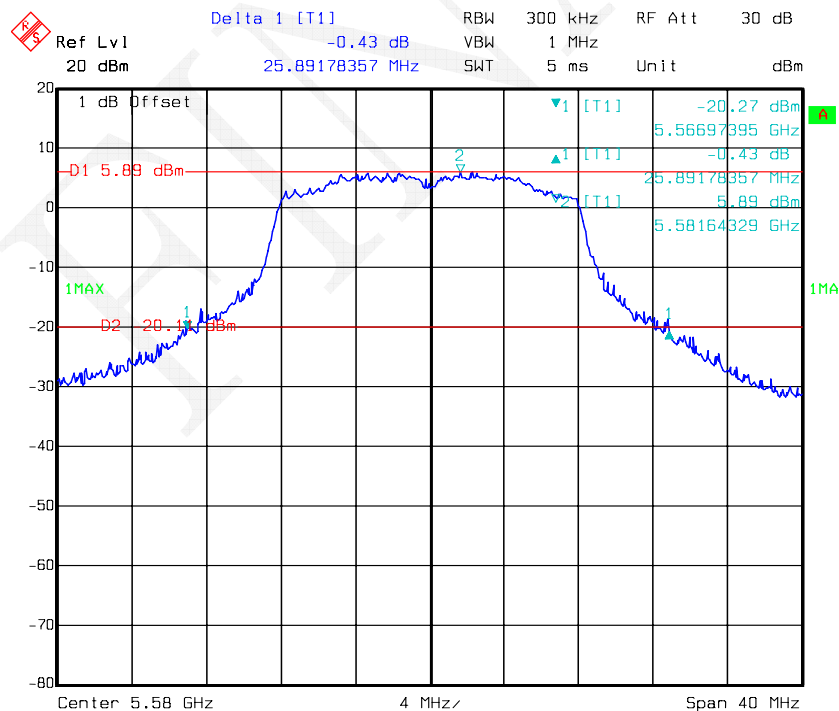
D2 -22.02 dBm

1MAX

1MAX

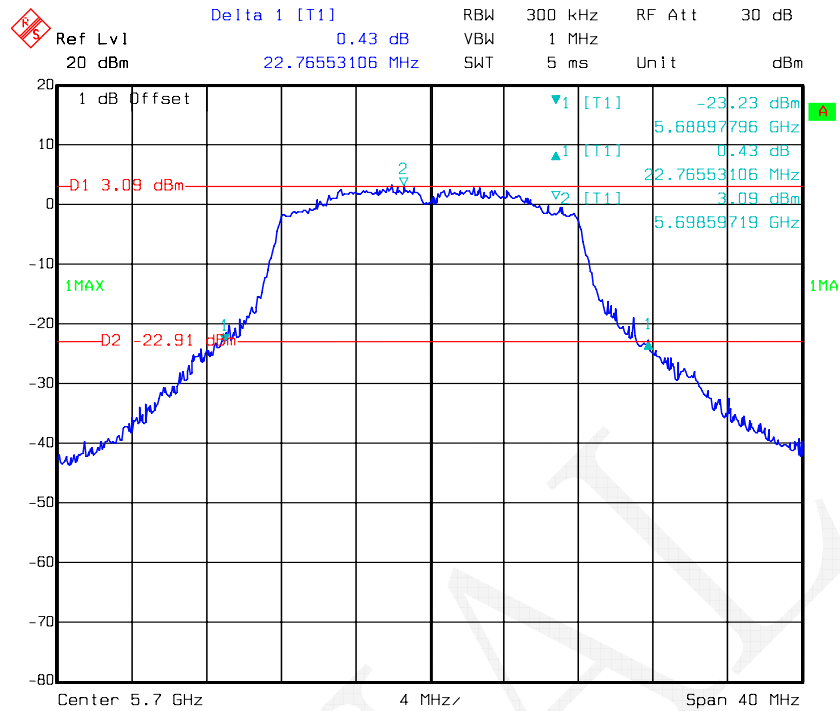
Center 5.5 GHz
 4 MHz/
 Span 40 MHz

Chain 1:802.11a Middle Channel



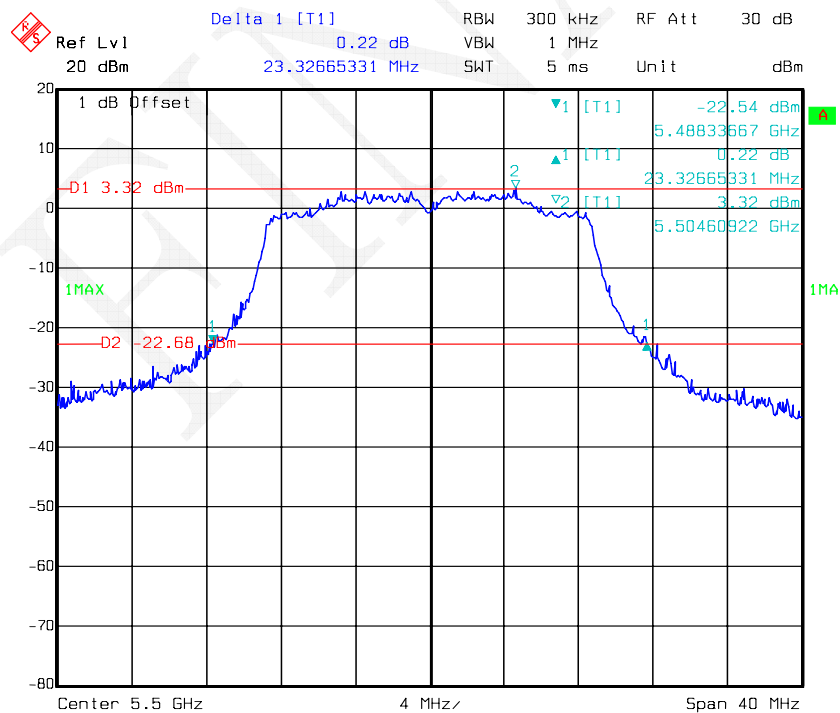
Page 192 of 262

Chain 1:802.11a High Channel



Date: 01.JUL.2016 23:55:50

Chain 1:802.11n ht20 Low Channel



Date: 02.JUL.2016 00:19:17

Delta 1 [T1] -1.05 dB
 Delta 2 [T2] -20.85 dB

Ref Lvl 20 dBm
 Center 5.58 GHz
 4 MHz/
 Span 40 MHz

RBW 300 kHz
 VBW 1 MHz
 SWT 5 ms
 RF Att 30 dB
 Unit dBm

1 dB Offset
 1 MAX
 2 MAX

D1 5.85 dBm
 D2 20.85 dBm

[T1] -19.65 dBm
 5.56689379 GHz
 -1.05 dB
 25.89178357 MHz
 5.85 dBm
 5.58356713 GHz

Date: 02.JUL.2016 00:14:41

Ref Lvl 20 dBm Delta 1 [T1] 0.46 dB RBW 300 kHz RF Att 30 dB
 23.96793587 MHz VBW 1 MHz SWT 5 ms Unit dBm

1 dB Offset

D1 -2.67 dBm

D2 -23.33 dBm

1 MAX

2

1 [T1] -23.24 dBm 5.68833567 GHz

1 [T1] 0.46 dB 23.96793587 MHz

2 [T1] -2.67 dBm 5.69707415 GHz

2 MAX

Center 5.7 GHz 4 MHz/ Span 40 MHz

Date: 03.JUL.2016 15:58:52

Delta 1 [T1] -0.33 dB
 Ref Lvl 20 dBm 53.54709419 MHz
 RBW 300 kHz RF Att 30 dB
 VBW 1 MHz
 SWT 5 ms Unit dBm

1 dB Offset
 -0.33 dBm
 1 MAX
 -26.87 dBm
 5.4797956 GHz
 -0.33 dBm
 53.54709419 MHz
 -26.87 dBm
 5.4797956 GHz
 -0.33 dBm
 53.54709419 MHz

Center 5.51 GHz 8 MHz/ Span 80 MHz

Date: 07.JUL.2016 22:48:13

Ref Lvl 20 dBm

Delta 1 [T1] -0.72 dB

RBW 300 kHz RF Att 30 dB

VBW 1 MHz

SWT 5 ms Unit dBm

1 dB Offset

D1 0.87 dBm

1MAX

D2 -25.13 dBm

1

2

[T1] -24.89 dBm

[T1] 5.52442886 GHz

[T1] -0.72 dB

[T1] 47.77555110 MHz

[T1] 0.87 dBm

[T1] 5.55905812 GHz

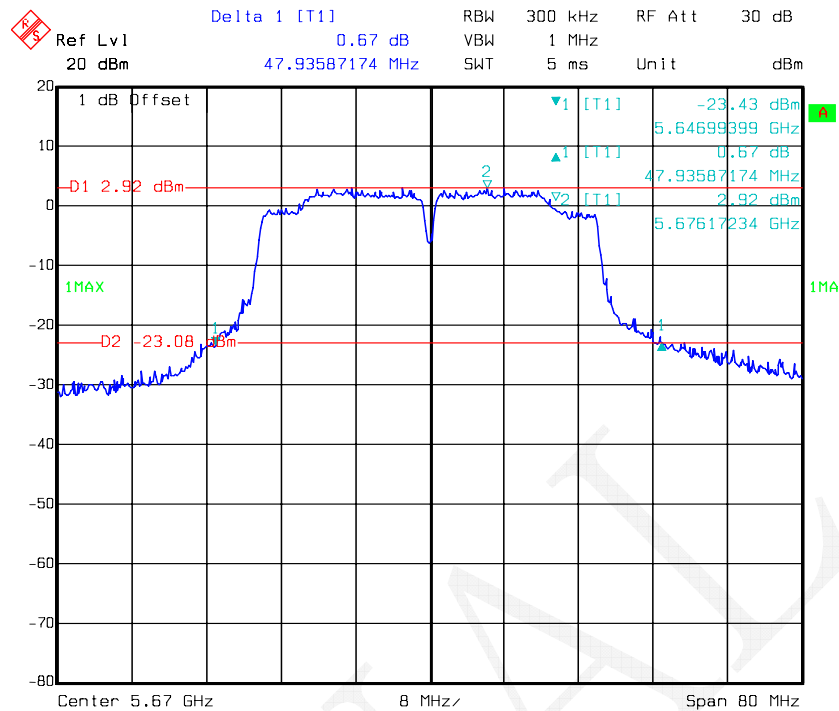
Center 5.59 GHz

8 MHz

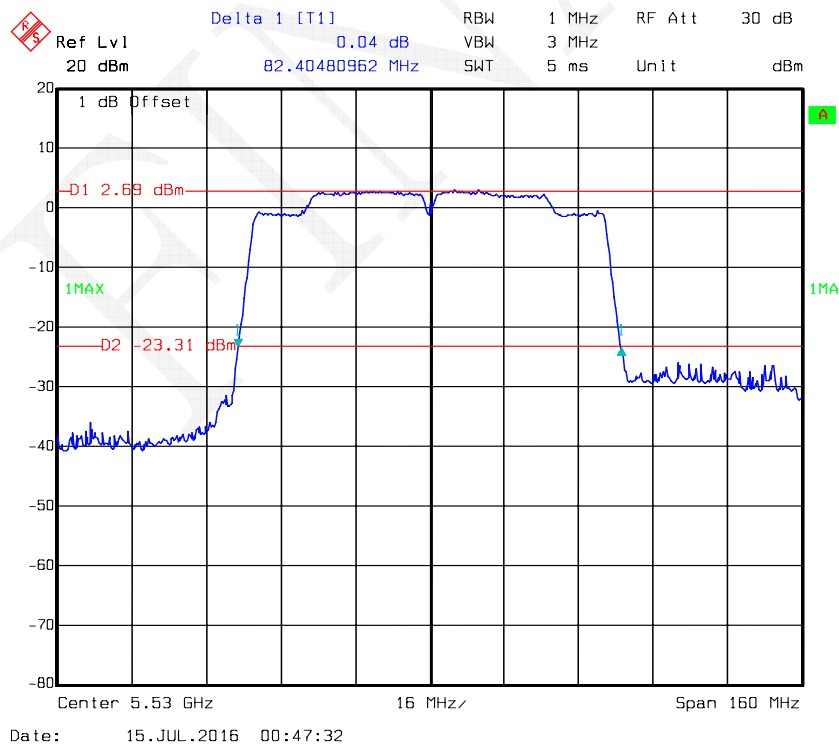
Span 80 MHz

Date: 03.JUL.2016 16:15:37

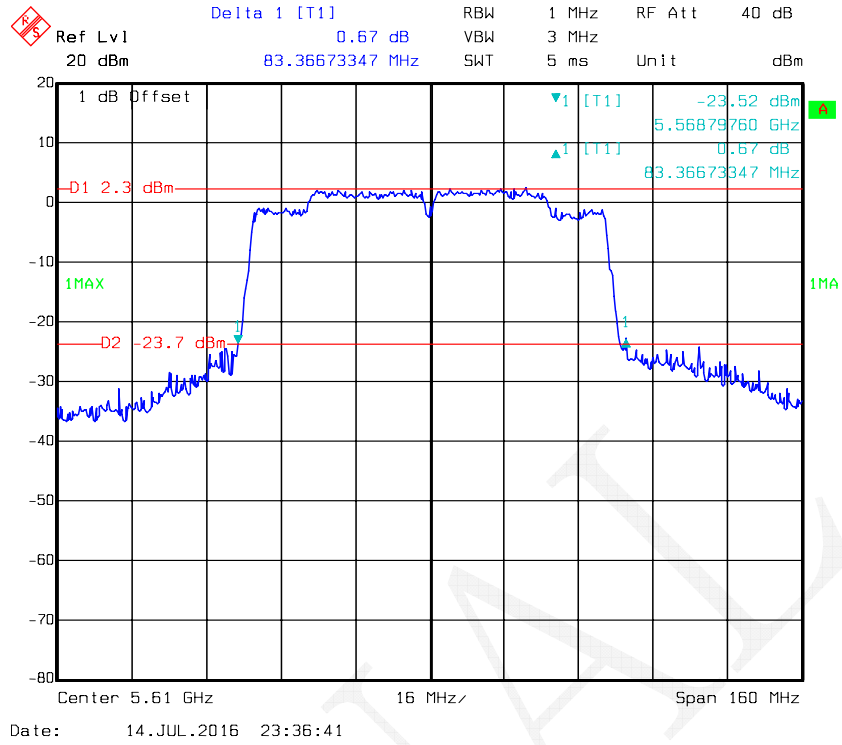
Chain 1:802.11n ht40 High Channel



Chain 1:802.11n ac80 Low Channel

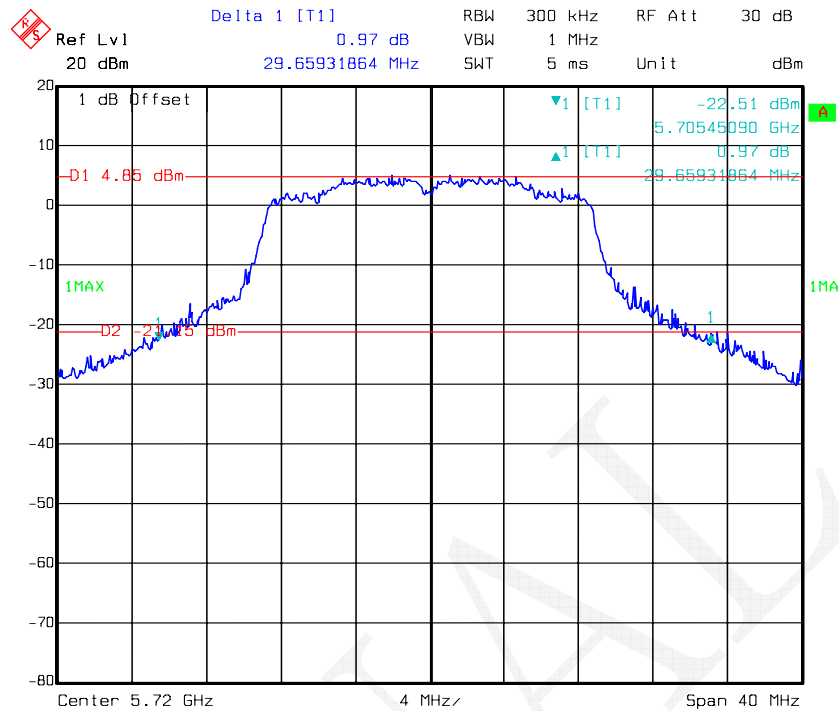


Chain 1:802.11n ac80 High Channel



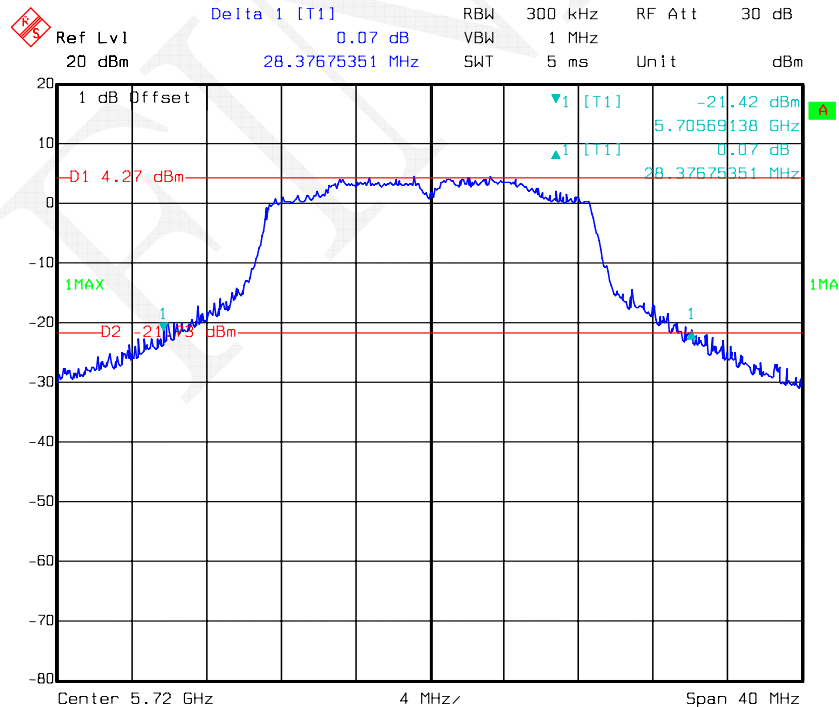
Access Band:

Chain 0:802.11ac20 5720MHz



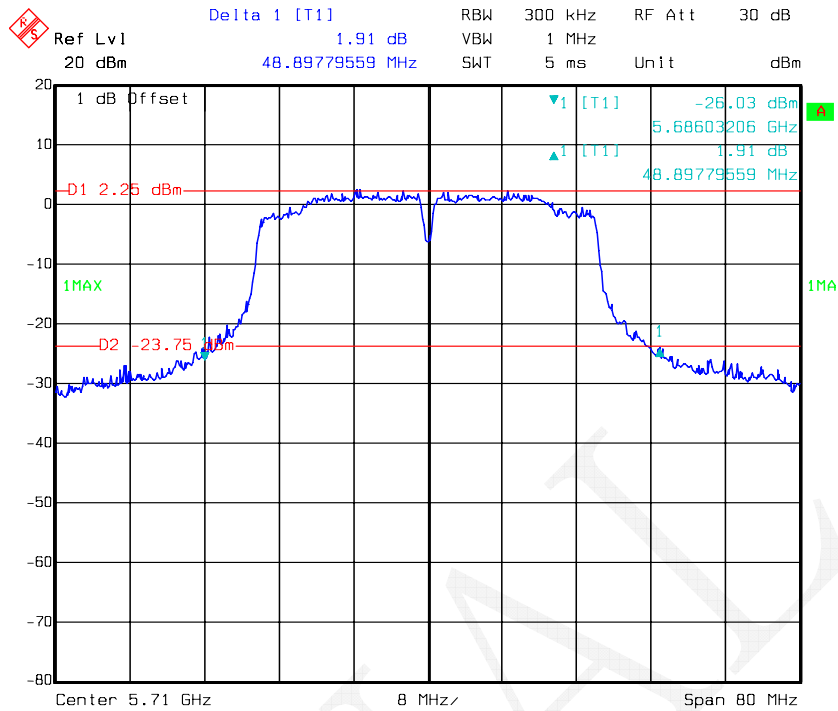
Date: 08.JUL.2016 01:49:08

Chain 1:802.11ac20 5720MHz



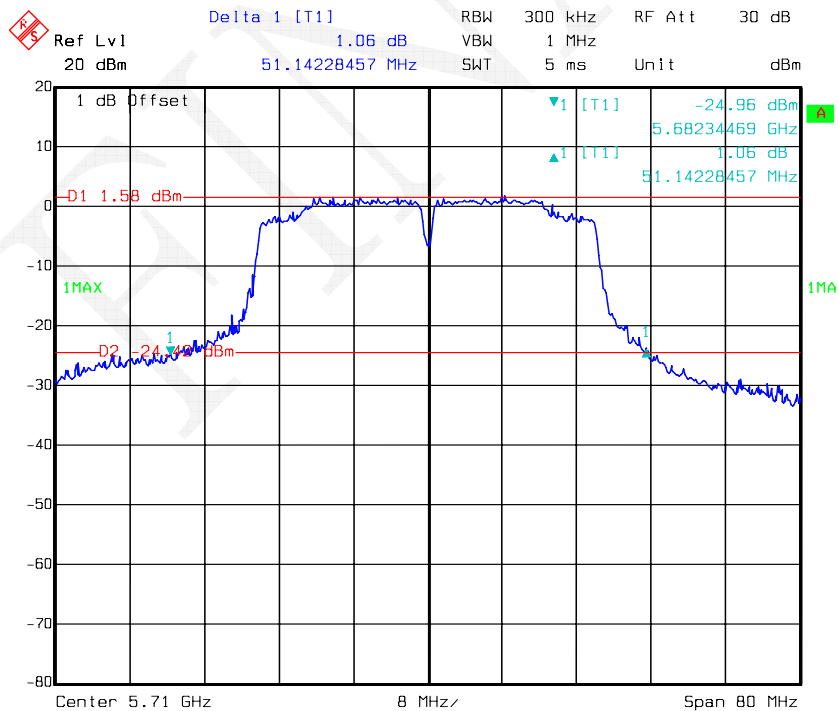
Date: 08.JUL.2016 01:48:17

Chain 0:802.11vht40 5710MHz



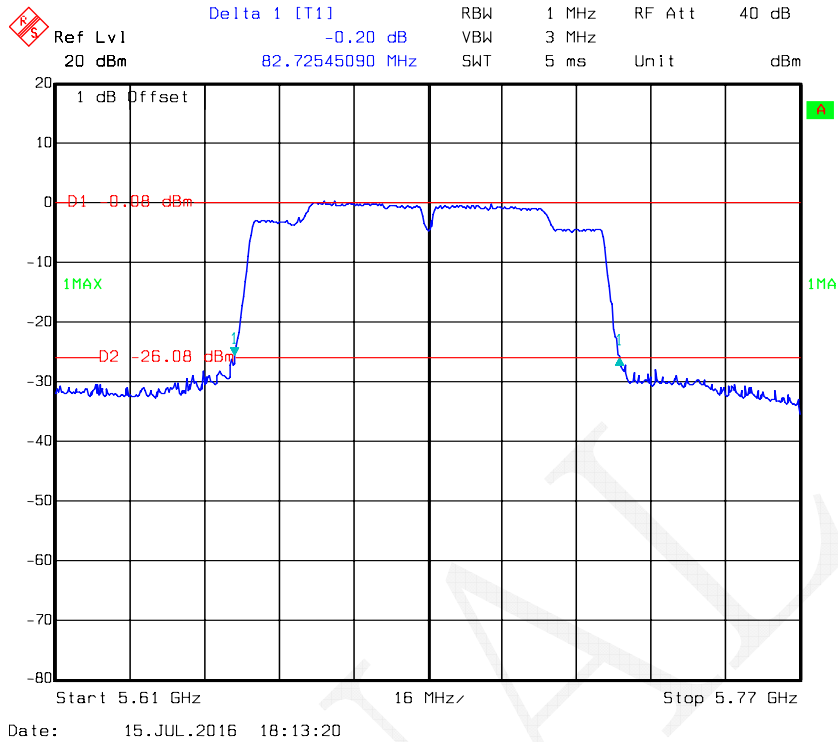
Date: 08.JUL.2016 01:42:19

Chain 1:802.11vht40 5710MHz

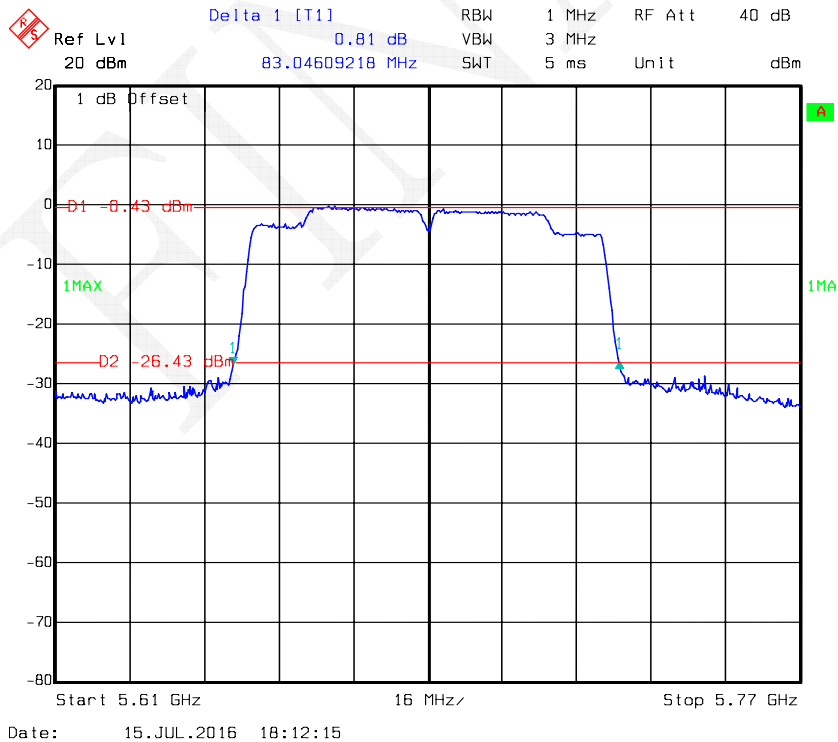


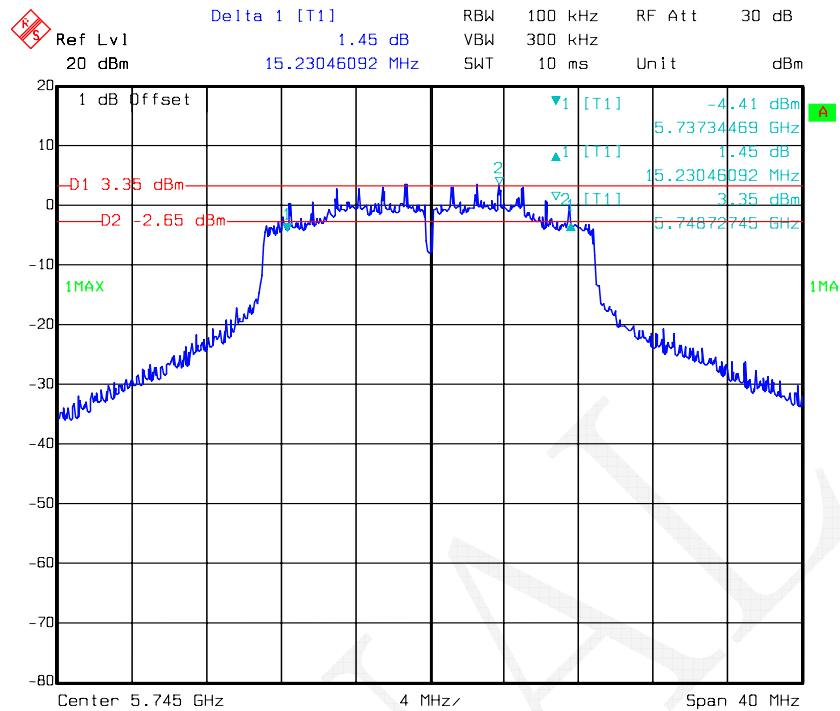
Date: 08.JUL.2016 01:43:44

Chain 0:802.11 vht40 5690MHz

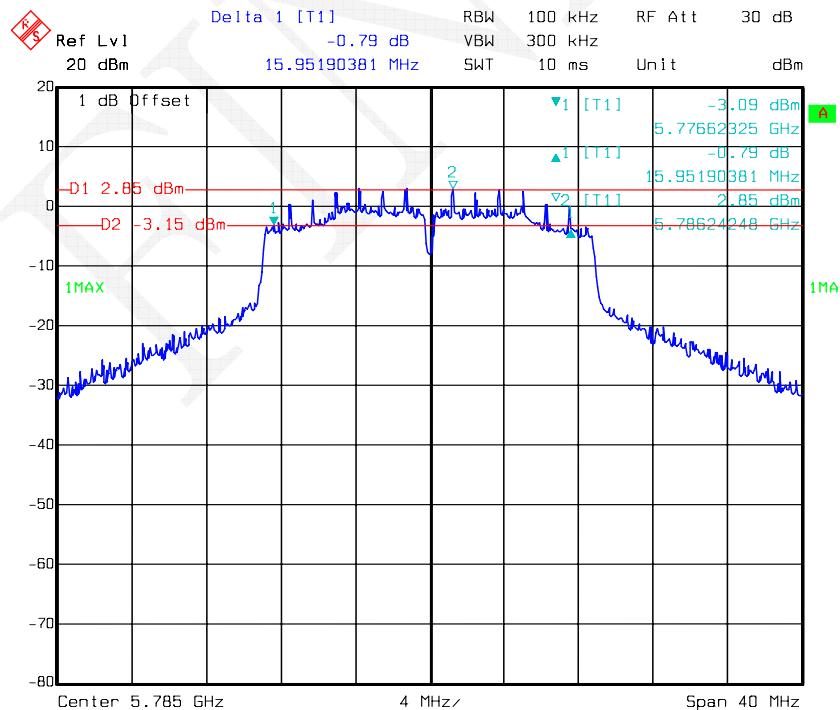


Chain 1:802.11 vht40 5690MHz



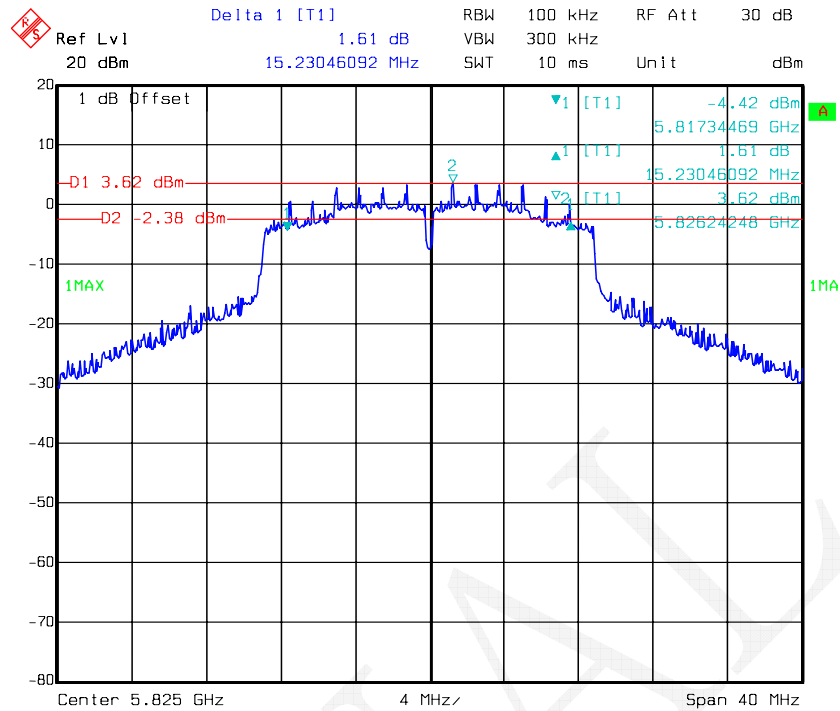
5725-5850MHz, 6dB Minimum Emission Bandwidth:**Chain 0:802.11a Low Channel**

Date: 03.JUL.2016 16:43:02

Chain 0:802.11a Middle Channel

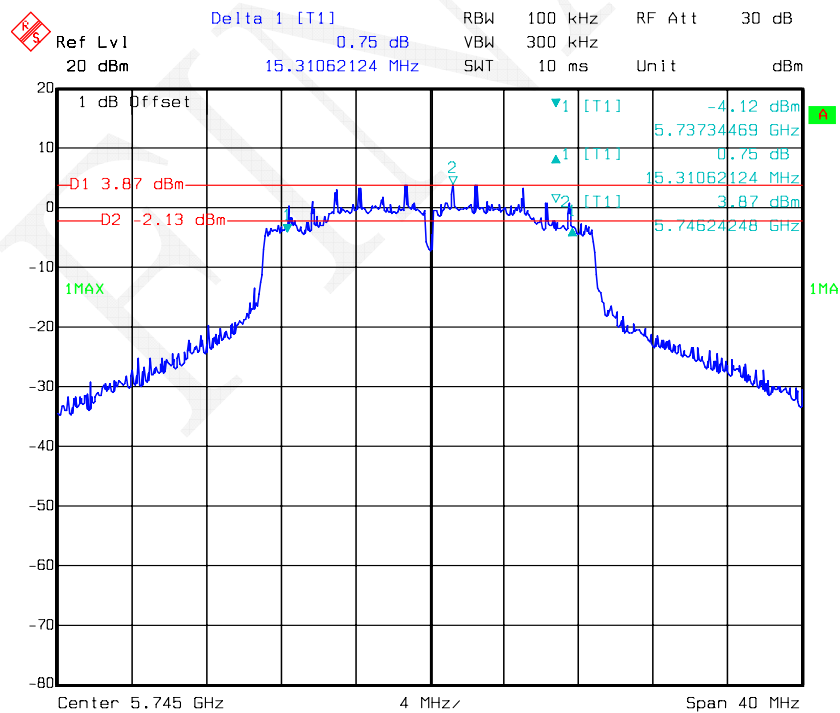
Date: 03.JUL.2016 16:52:50

Chain 0:802.11a High Channel



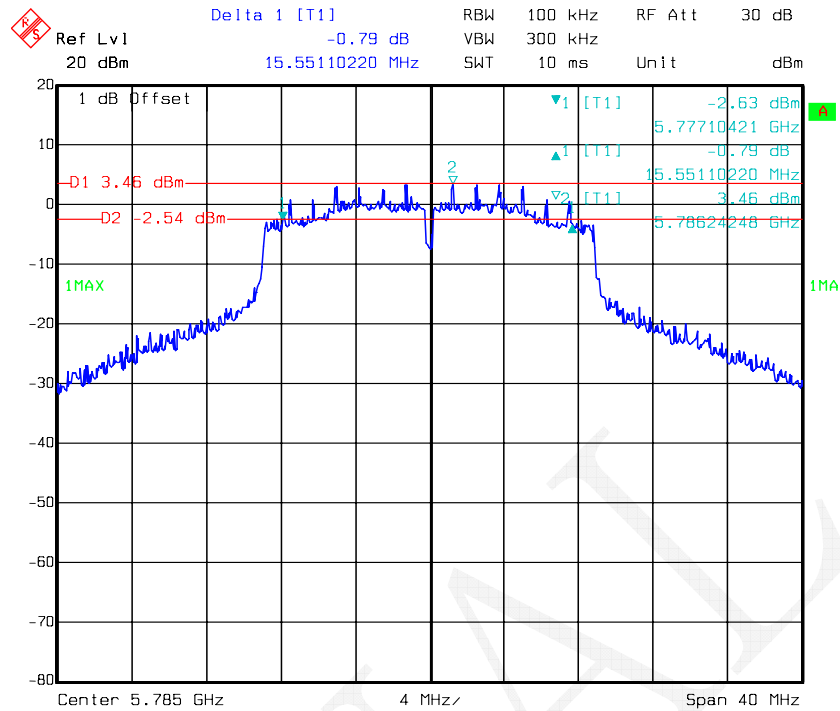
Date: 03.JUL.2016 16:58:59

Chain 0:802.11n ht20 Low Channel

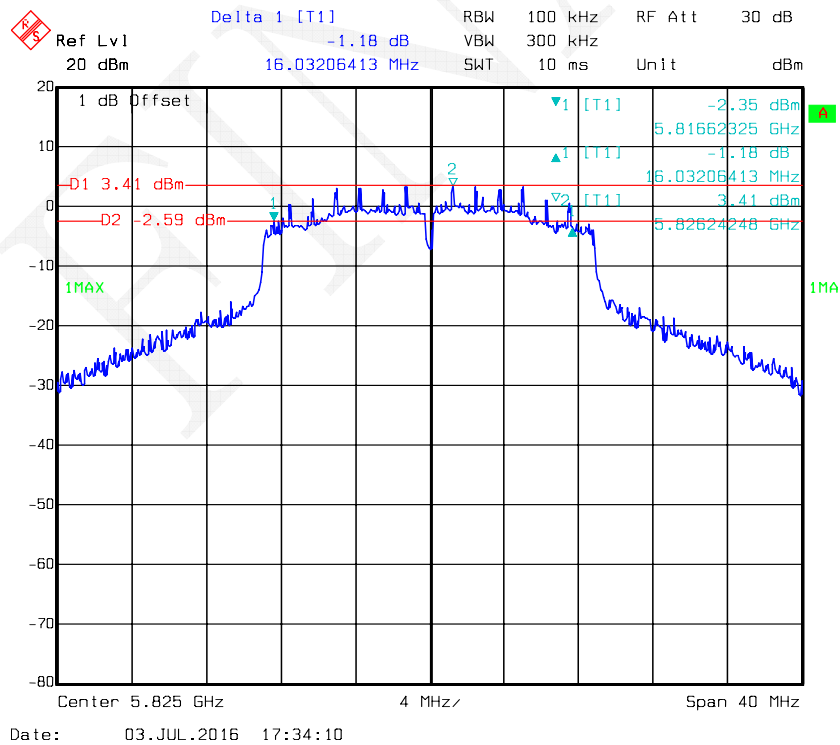


Date: 03.JUL.2016 17:17:36

Chain 0:802.11n ht20 Middle Channel



Chain 0:802.11n ht20 High Channel



Delta 1 [T1]

Ref Lvl 1 dB Offset

20 dBm 1.24 dB

35.27054108 MHz

RBW 100 kHz RF Att 30 dB

VBW 300 kHz

SWT 20 ms Unit dBm

1 dB Offset

D1 1.91 dBm

D2 -4.09 dBm

1MAX

Center 5.755 GHz

8 MHz

Span 80 MHz

Date: 03.JUL.2016 17:38:19

Ref Lvl 20 dBm Delta 1 [T1] 1.48 dB RBW 100 kHz RF Att 30 dB

35.27054108 MHz VBW 300 kHz Unit dBm

20 10 0 -10 -20 -30 -40 -50 -60 -70 -80

1 dB Offset

D1 0.89 dBm D2 -5.11 dBm

1MAX

Center 5.795 GHz 8 MHz/ Span 80 MHz

1 [T1] -5.63 dBm 5.77728457 GHz 1.48 dB 35.27054108 MHz 0.02 dBm 5.78994890 GHz

Delta 1 [T1] 1.83 dB RBW 100 kHz RF Att 30 dB

Ref Lvl 20 dBm 75.67134269 MHz VBW 300 kHz SWT 40 ms Unit dBm

1 dB Offset

D1 -0.46 dBm D2 -6.46 dBm

1MAX 1MA

Center 5.775 GHz 16 MHz Span 160 MHz

Date: 03.JUL.2016 17:51:43

Ref Lvl 20 dBm Delta 1 [T1] 1.35 dB RBW 100 kHz RF Att 30 dB
 20 dBm 15.23046092 MHz VSW 10 ms Unit dBm

1 dB Offset

-D1 3.32 dBm

-D2 -2.68 dBm

1MAX

1 [T1] -4.55 dBm 5.73734469 GHz

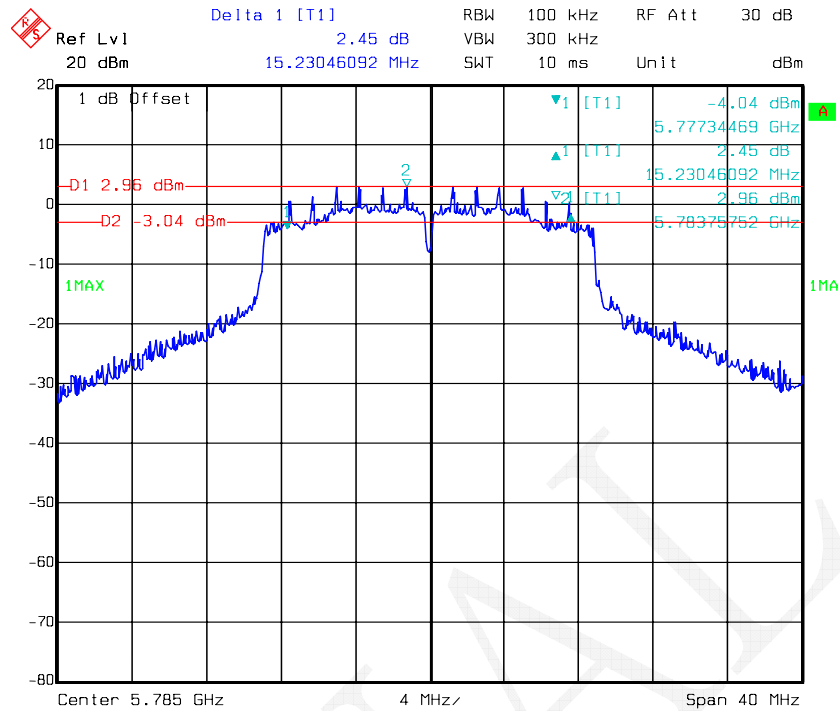
2 [T1] 1.35 dBm 15.23046092 MHz

3 [T1] 3.32 dBm 5.74624248 GHz

Center 5.745 GHz 4 MHz/ Span 40 MHz

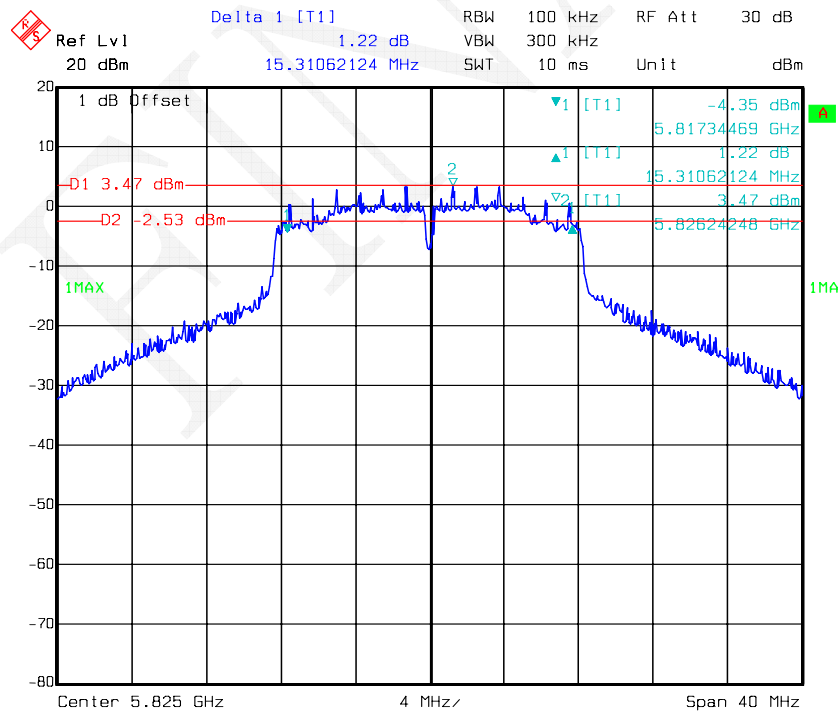
Date: 03.JUL.2016 16:45:53

Chain 1:802.11a Middle Channel



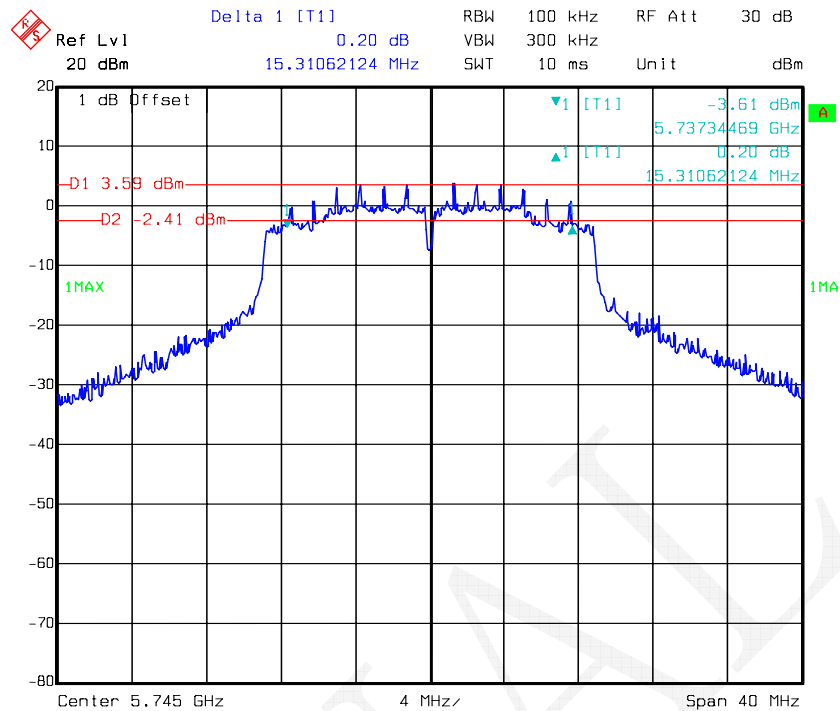
Date: 03.JUL.2016 16:50:31

Chain 1:802.11a High Channel



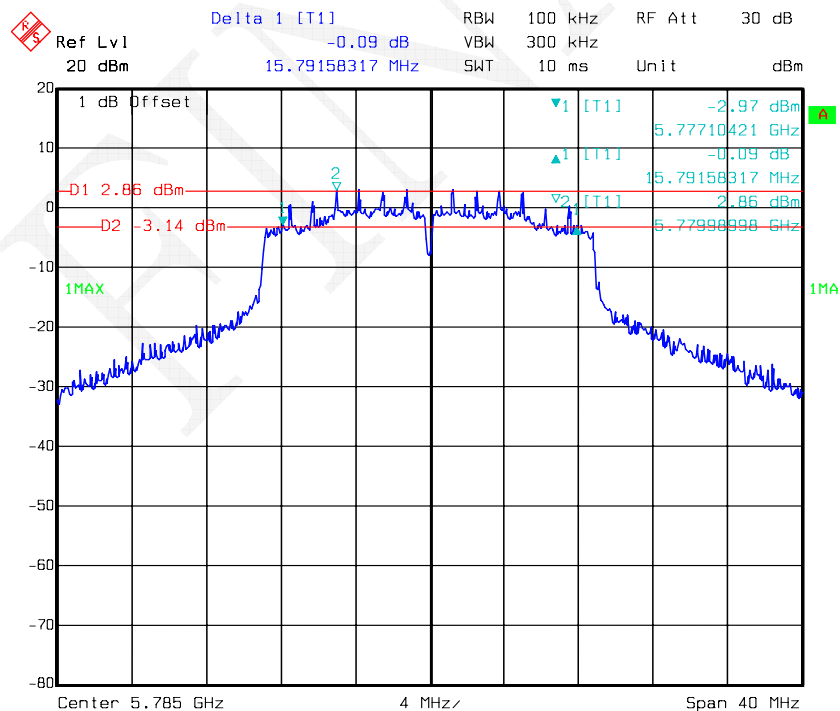
Date: 03.JUL.2016 17:05:09

Chain 1:802.11n ht20 Low Channel



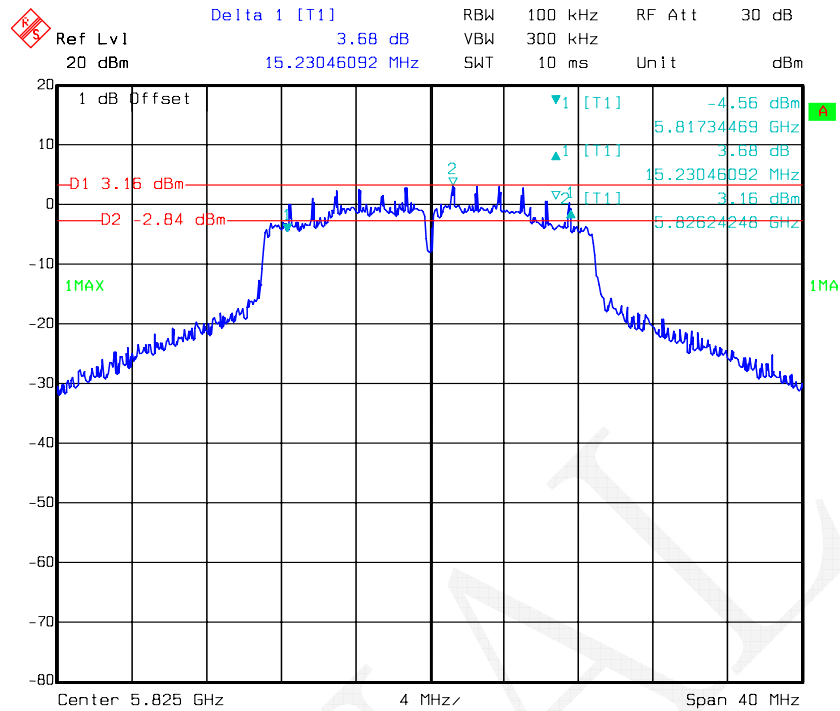
Date: 07.JUL.2016 22:54:15

Chain 1:802.11n ht20 Middle Channel

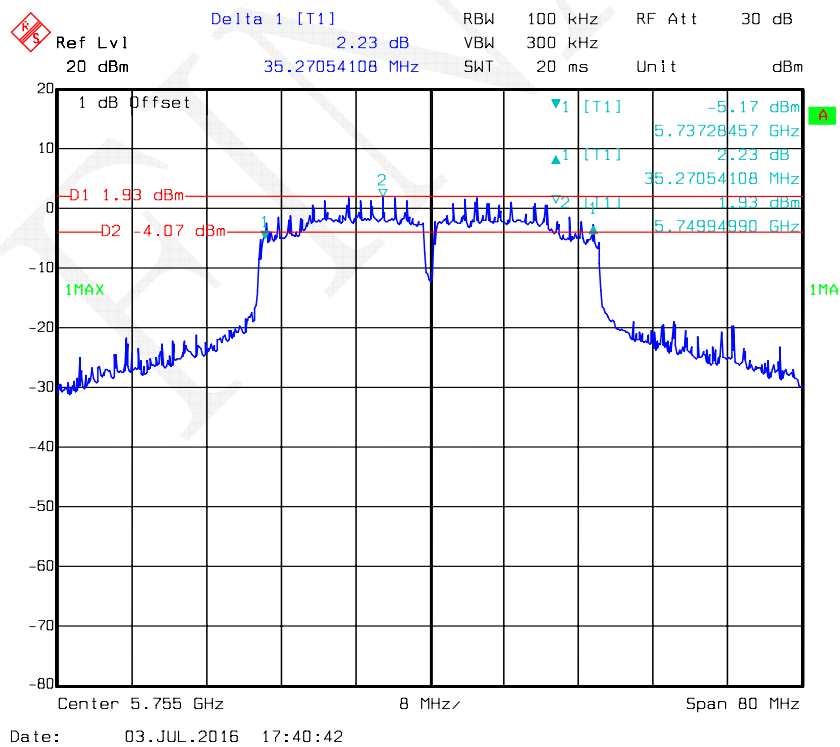


Date: 03.JUL.2016 17:23:05

Chain 1:802.11n ht20 High Channel



Chain 1:802.11n ht40 Low Channel



Ref Lvl 20 dBm Delta 1 [T1] 1.54 dB RBW 100 kHz RF Att 30 dB
 20 dBm 35.27054108 MHz SWT 20 ms Unit dBm

1 dB Offset

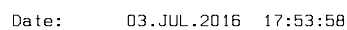
D1 0.6 dBm D2 -5.4 dBm

1MAX

Center 5.795 GHz 8 MHz/ Span 80 MHz

Delta 1 [T1] -5.62 dBm 5.77728457 GHz
 1.54 dB 35.27054108 MHz
 0.60 dBm 5.78994990 GHz

Chain 1:802.11n ac80 Middle Channel



FCC §15.407(a) (1) (ii) (4) –MAXIMUM CONDUCTED OUTPUT POWER**Applicable Standard**

(a) Power limits:

(1) For the band 5.15-5.25 GHz.

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

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points 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. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. 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.

(iv) For mobile and portable 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.

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

(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.

(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 Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	Wideband Power Sensor	N1921A	MY54210016	2015-11-03	2016-11-03
Agilent	Wideband Power Sensor	N1921A	MY54170013	2015-11-03	2016-11-03
Agilent	P-Series Power Meter	N1912A	MY5000448	2015-11-03	2016-11-03

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

Test Procedure

According to KDB789033 D02 General U-NII Test Procedures New Rules v01r02

Test Data

Environmental Conditions

Temperature:	26.8 °C
Relative Humidity:	50 %
ATM Pressure:	100.3 kPa

The testing was performed by Costa Dong on 2016-07-03.

Test Mode: Transmitting

SISO Mode:

UNII Band	Mode	Channel	Frequency (MHz)	Maximum Conducted Average Output Power (dBm)		Limit (dBm)
				Chain 0	Chain 1	
5150-5250MHz	802.11 a	Low	5180	12.06	13.17	24
		Middle	5200	12.45	13.5	24
		High	5240	12.99	13.16	24
	5G 802.11 n20	Low	5180	11.97	12.35	24
		Middle	5200	12.74	13.19	24
		High	5240	12.87	12.98	24
	5G 802.11 n40	Low	5190	10.48	12.13	24
		High	5230	13.07	13.92	24
	802.11 ac80	Middle	5210	12.18	11.1	24
5250-5350MHz	802.11 a	Low	5260	14.09	13.63	24
		Middle	5280	13.96	13.17	24
		High	5320	12.19	10.47	24
	5G 802.11 n20	Low	5260	14.13	13.61	24
		Middle	5280	13.86	13.04	24
		High	5320	12.95	12.98	24
	5G 802.11 n40	Low	5270	14.36	14.32	24
		High	5310	12.11	12.28	24
	802.11 ac80	Middle	5290	11.89	11.25	24
5470-5725MHz	802.11 a	Low	5500	12.66	12.93	24
		Middle	5580	14.56	14.38	24
		High	5700	11.41	11.37	24
	5G 802.11 n20	Low	5500	11.74	11.35	24
		Middle	5580	14.83	14.59	24
		High	5700	11.35	11.09	24
	5G 802.11 n40	Low	5510	12.21	11.77	24
		Middle	5590	12.43	12.75	24
		High	5670	14.33	14.8	24
Cross Band	802.11 ac80	Low	5530	12.57	12.18	24
		High	5610	12.33	12.09	24
		Middle	5690	14.62	14.58	24
5725-5850MHz	802.11 a	Low	5745	14.54	14.22	30
		Middle	5785	14	13.89	30
		High	5825	14.37	14.53	30
	5G 802.11 n20	Low	5745	14.78	14.23	30
		Middle	5785	14.21	13.92	30
		High	5825	14.42	14.2	30
	5G 802.11 n40	Low	5755	15.69	15.69	30
		High	5795	14.75	14.82	30
	802.11 ac80	Middle	5775	15.02	15.00	30

MIMO Mode:

UNII Band	Mode	Channel	Frequency (MHz)	Maximum Conducted Average Output Power (dBm)			Limit (dBm)
				Chain 0	Chain 1	Total	
5150-5250MHz	5G 802.11 n20	Low	5180	10.25	10.24	13.26	24
		Middle	5200	9.49	9.81	12.66	24
		High	5240	9.8	9.79	12.81	24
	5G 802.11 n40	Low	5190	8.29	8.52	11.42	24
		High	5230	10.48	10.28	13.39	24
	802.11 ac80	Middle	5210	9.58	9.88	12.74	24
5250-5350MHz	5G 802.11 n20	Low	5260	9.95	10.03	13	24
		Middle	5280	10.24	10.25	13.26	24
		High	5320	9.51	10.22	12.89	24
	5G 802.11 n40	Low	5270	10.27	10.3	13.3	24
		High	5310	10.13	10.14	13.15	24
	802.11 ac80	Middle	5290	8.48	9.1	11.81	24
5470-5725MHz	5G 802.11 n20	Low	5500	9.11	8.52	11.84	24
		Middle	5580	10.08	9.62	12.87	24
		High	5700	9.42	9.84	12.65	24
	5G 802.11 n40	Low	5510	9.52	9.48	12.51	24
		Middle	5590	9.89	9.16	12.55	24
		High	5670	10.63	11.37	14.03	24
	802.11 ac80	Low	5530	10.44	10.22	13.34	24
		High	5610	11.15	11.61	14.49	24
Cross Band	802.11ac20	High	5720	11.47	11.69	14.59	24
	802.11ac40	High	5710	12.34	12.11	15.24	24
	802.11ac80	High	5690	12.25	12.17	15.22	24
5725-5850MHz	5G 802.11 n20	Low	5745	11.22	11.26	14.25	30
		Middle	5785	10.58	10.56	13.58	30
		High	5825	10.73	10.76	13.76	30
	5G 802.11 n40	Low	5755	10.37	10.65	13.52	30
		High	5795	10.31	10.32	13.33	30
	802.11 ac80	Middle	5775	12.19	12.45	15.33	30

Note 1: For 5250-5350MHz & 5470-5725MHz Band, Emission bandwidth is greater than 20 MHz, $11 + 10 \log_{10} B = 24.01 > 24$, so the PSD Limit is 24dBm.

Note 2: the device is a mobile and portable client device. the 2 antenna maximum antenna gains are 6.0dBi, and 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 $N_{ANT} \leq 4$;

So:

Directional gain = GANT + Array Gain = 6.0dBi = 6dBi

The power limit need reduce 0dB.

FCC §15.407(a) - POWER SPECTRAL DENSITY

Applicable Standard

(a) Power limits:

(1) For the band 5.15-5.25 GHz.

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

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points 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. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. 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.

(iv) For mobile and portable 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.

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

(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.

Test Procedure

According to KDB 789033 D02 General U-NII Test Procedures New Rules v01r02

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	Spectrum Analyzer	FSP 38	100478	2015-05-09	2016-05-09

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

Test Data

Environmental Conditions

Temperature:	26.2 – 28.6 °C
Relative Humidity:	39 - 58%
ATM Pressure:	99.3-100.4 kPa

The testing was performed by Costa Dong from 2016-06-14 to 2016-07-15.

Test Result: Compliance.

Test Mode: Transmitting

Note: per output power test, the SISO mode was the worst, so only SISO mode was test for this item, and used to evaluate MIMO mode compliance.

UNII Band	Mode	Channel	Frequency (MHz)	Power Spectral Density (dBm/MHz)			Limit (dBm/MHz)
				Chain 0	Chain 1	Total	
5150-5250MHz	802.11 a	Low	5180	0.06	1.4	3.79	7.98
		Middle	5200	1.03	1.83	4.46	7.98
		High	5240	1.69	1.62	4.67	7.98
	802.11 n20	Low	5180	0.05	1.09	3.61	7.98
		Middle	5200	1.33	1.48	4.42	7.98
		High	5240	1.16	1.42	4.30	7.98
	802.11 n40	Low	5190	-4.69	-3.18	-0.86	7.98
		High	5230	-2.07	-1.39	1.29	7.98
	802.11 ac80	Middle	5210	-6.23	-6.89	-3.54	7.98
5250-5350MHz	802.11 a	Low	5260	2.23	2.12	5.19	7.98
		Middle	5280	2	1.31	4.68	7.98
		High	5320	0.31	-1.25	2.61	7.98
	802.11 n20	Low	5260	2.01	1.71	4.87	7.98
		Middle	5280	1.84	1.42	4.65	7.98
		High	5320	1.05	1.01	4.04	7.98
	802.11 n40	Low	5270	-0.67	-0.67	2.34	7.98
		High	5310	-2.72	-3.1	0.10	7.98
	802.11 ac80	Middle	5290	-6.47	-6.6	-3.52	7.98
5470-5725MHz	802.11 a	Low	5500	2.56	2.6	5.59	7.98
		Middle	5580	4.24	4.08	7.17	7.98
		High	5700	1.29	1.4	4.36	7.98
	802.11 n20	Low	5500	1.35	1.49	4.43	7.98
		Middle	5580	4.36	4.11	7.25	7.98
		High	5700	1.44	1.35	4.41	7.98
	802.11 n40	Low	5510	-1.15	-1.41	1.73	7.98
		Middle	5590	-1.12	-0.72	2.09	7.98
		High	5670	1.22	1.21	4.23	7.98
Cross Band Low edge	802.11 ac80	Low	5530	-4.06	-4.29	-1.16	7.98
		High	5610	-4.33	-4.77	-1.53	7.98
		Middle	5690	-1.75	-1.98	1.15	7.98

Note: the device is a client device. the 2 antenna maximum antenna gain are 6.01dBi, and employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices:

$$\text{Array Gain} = 10 \log(\text{NANT}/\text{NSS}) \text{ dB.}$$

So:

$$\text{Directional gain} = \text{GANT} + \text{Array Gain} = 6.01 + 10 * \log(2) = 9.02 \text{ dBi}$$

The Power density Limits was reduce 3.02dB

UNII Band	Mode	Channel	Frequency (MHz)	Reading (dBm/300kHz)		integrated value	Power Spectral Density (dBm/500kHz)			Limit (dBm/500kHz)
				Chain 0	Chain 1					
5725-5850 MHz	802.11a	Low	5745	2.94	2.01	2.22	5.16	4.23	7.73	26.98
		Middle	5785	2.71	1.3	2.22	4.93	3.52	7.29	26.98
		High	5825	3.14	3.58	2.22	5.36	5.80	8.59	26.98
	802.11n20	Low	5745	2.89	2.63	2.22	5.11	4.85	7.99	26.98
		Middle	5785	2.07	2.15	2.22	4.29	4.37	7.34	26.98
		High	5825	1.94	2.13	2.22	4.16	4.35	7.26	26.98
	802.11n40	Low	5755	0.68	0.6	2.22	2.90	2.82	5.87	26.98
		High	5795	0.00	0.04	2.22	2.22	2.26	5.25	26.98
	802.11ac80	Middle	5775	-2.37	-2.35	2.22	-0.15	-0.13	2.87	26.98
Cross Band Up edge	802.11ac20	High	5720	-0.57	-1.13	2.22	1.65	1.09	4.39	26.98
	802.11ac40	High	5710	-4.05	-4.13	2.22	-1.83	-1.91	1.14	26.98
	802.11ac80	High	5690	-6.16	-6.45	2.22	-3.94	-4.23	-1.07	26.98

Note 1: According to KDB789033 D02 General U-NII Test Procedures New Rules v01r02, the test value for 5725-5850 MHz should add $10 \cdot \log(500\text{kHz}/\text{RBW})$ to the measured result.

Note 2: the device is a client device. the 2 antenna maximum antenna gain are 6.01dBi, and employed Cyclic Delay Diversity (CDD) for 802.11 MIMO transmitting, per KDB 662911 D01 Multiple Transmitter Output v02r01, for power spectral density (PSD) measurements on the devices:

$$\text{Array Gain} = 10 \log(\text{NANT}/\text{NSS}) \text{ dB.}$$

So:

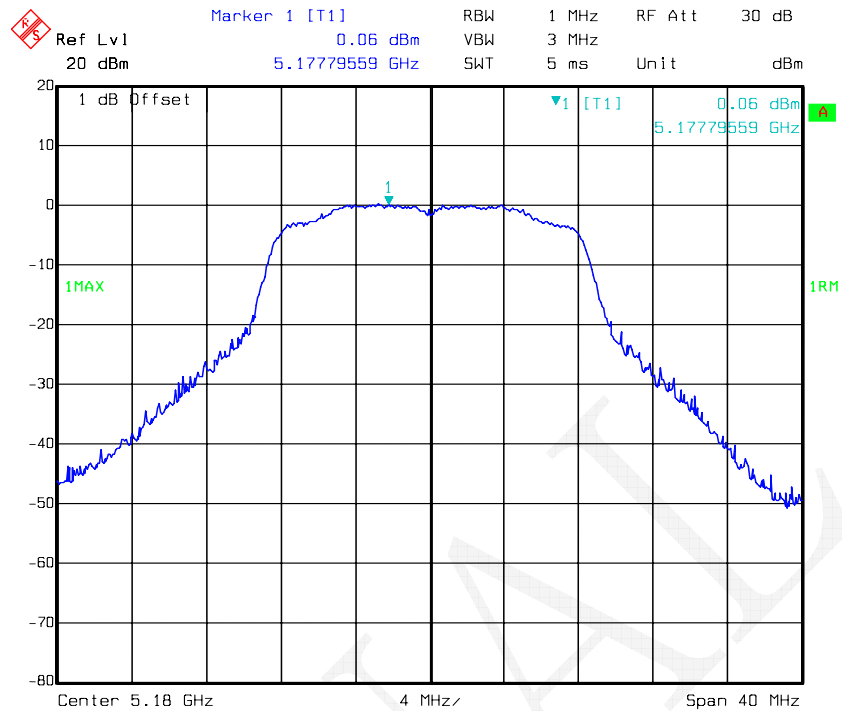
$$\text{Directional gain} = \text{GANT} + \text{Array Gain} = 6.01 + 10 \cdot \log(2) = 9.02 \text{ dBi}$$

The Power density Limits was reduce 3.02dB

Please refer to the following plots

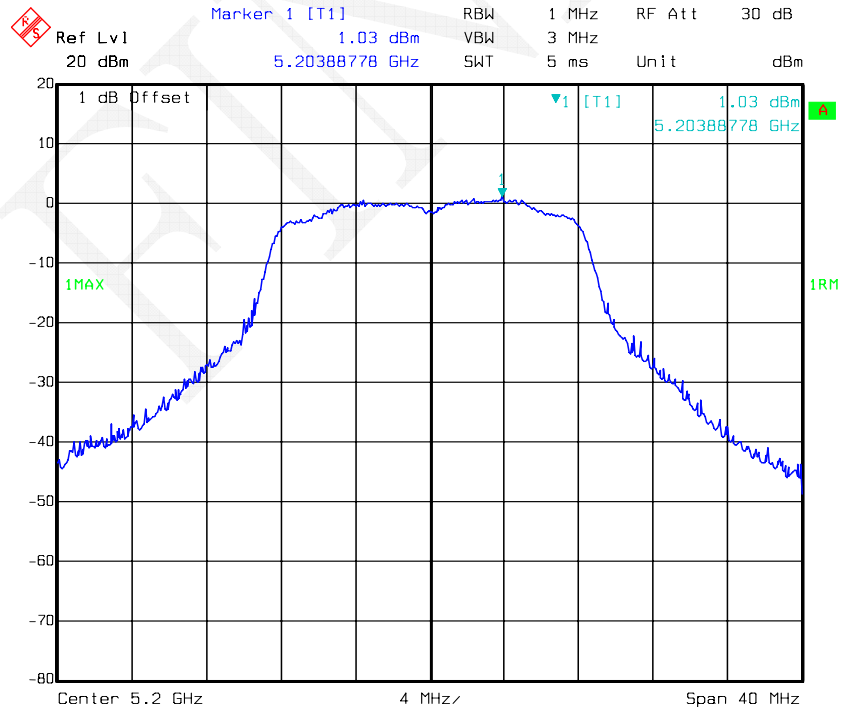
5150-5250MHz:

Chain 0: Power Spectral Density, 802.11a Low Channel



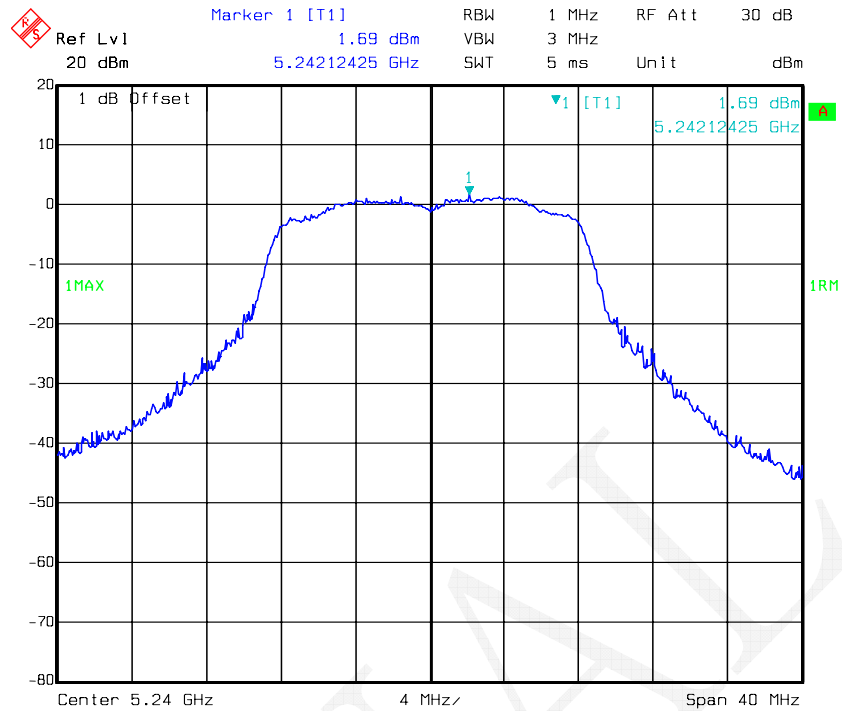
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Chain 0: Power Spectral Density, 802.11a Middle Channel



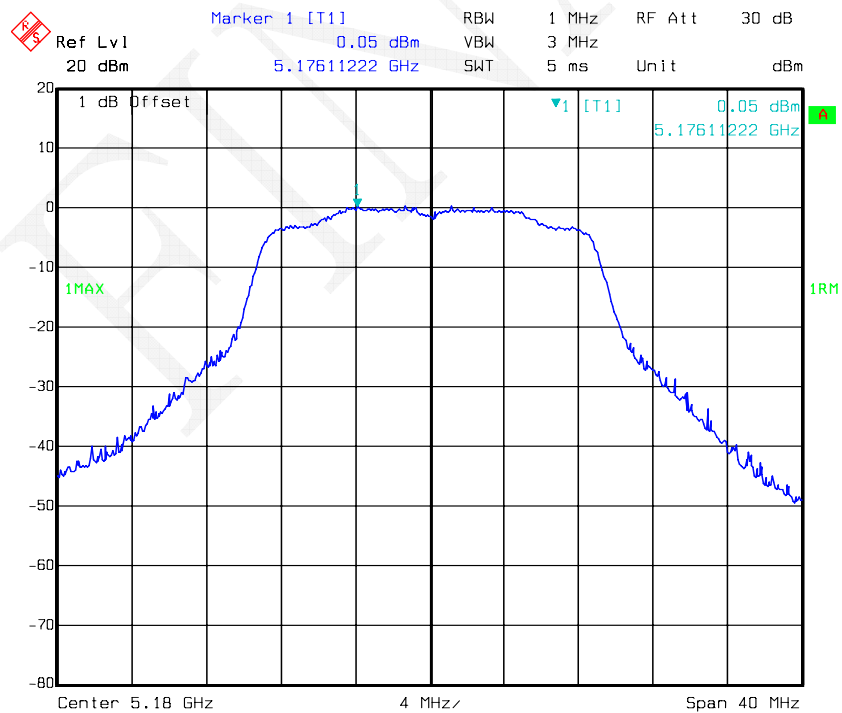
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Chain 0: Power Spectral Density, 802.11a High Channel

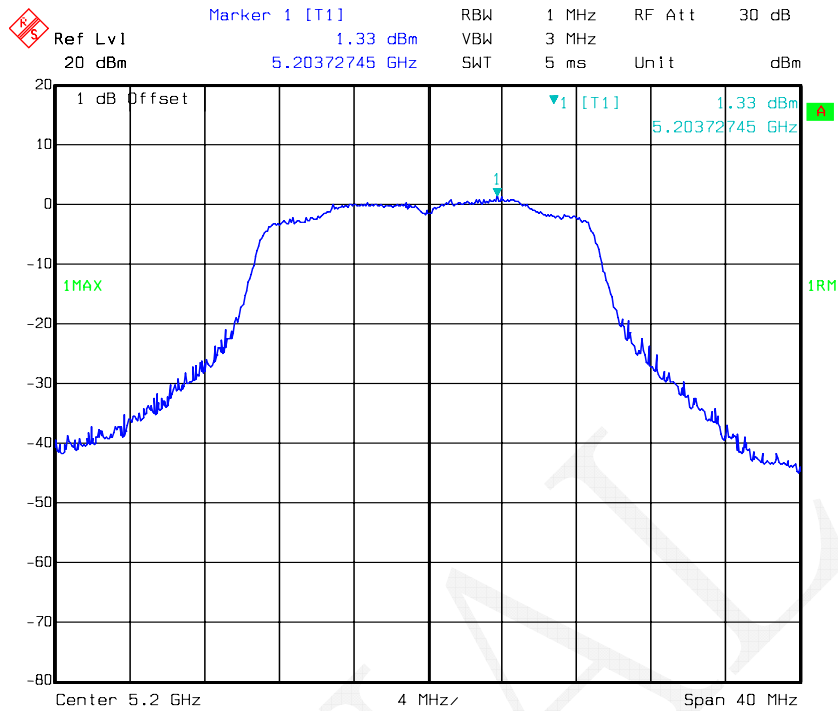


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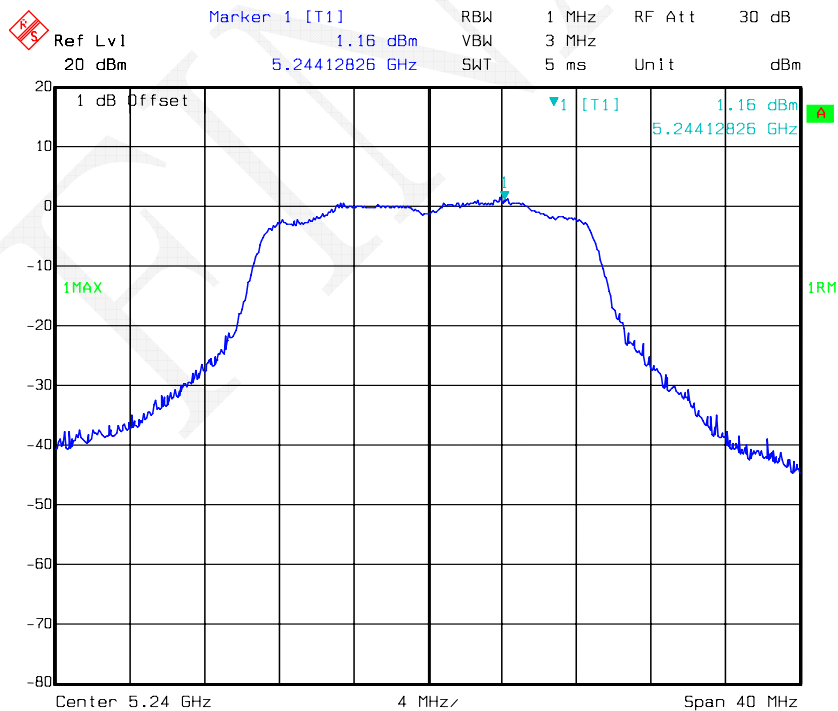
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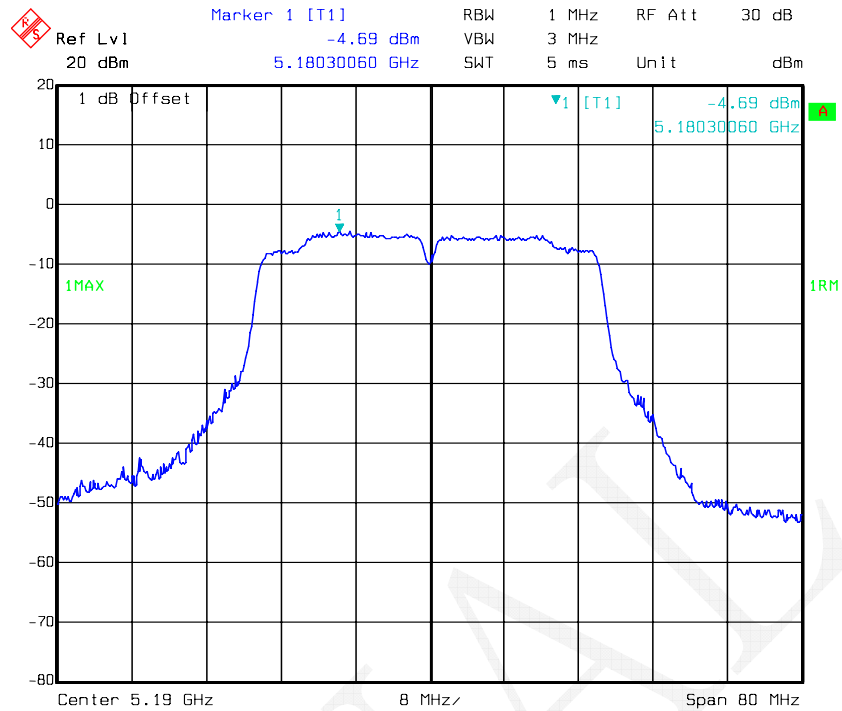
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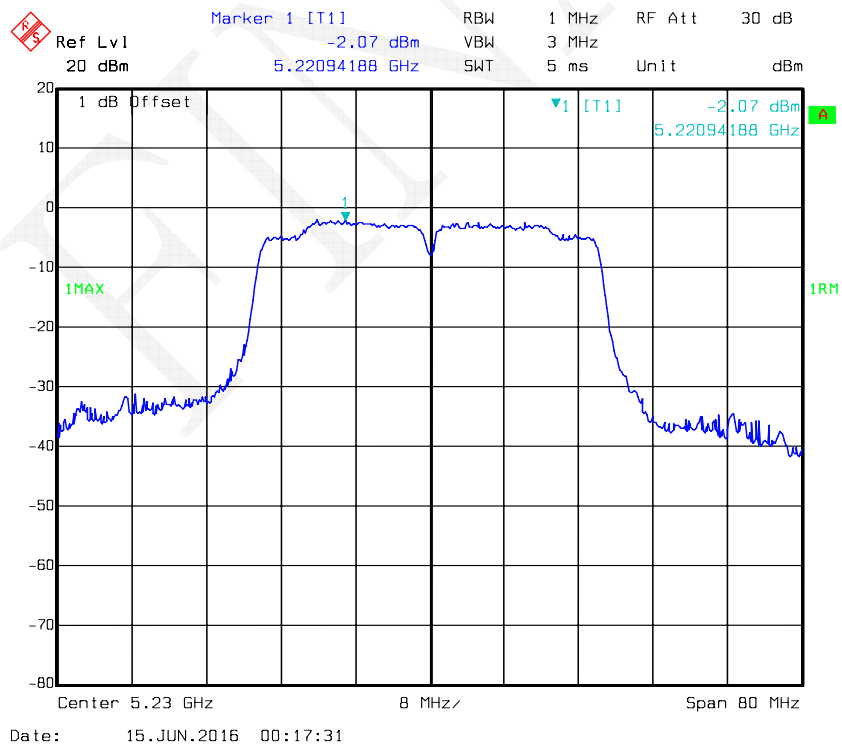
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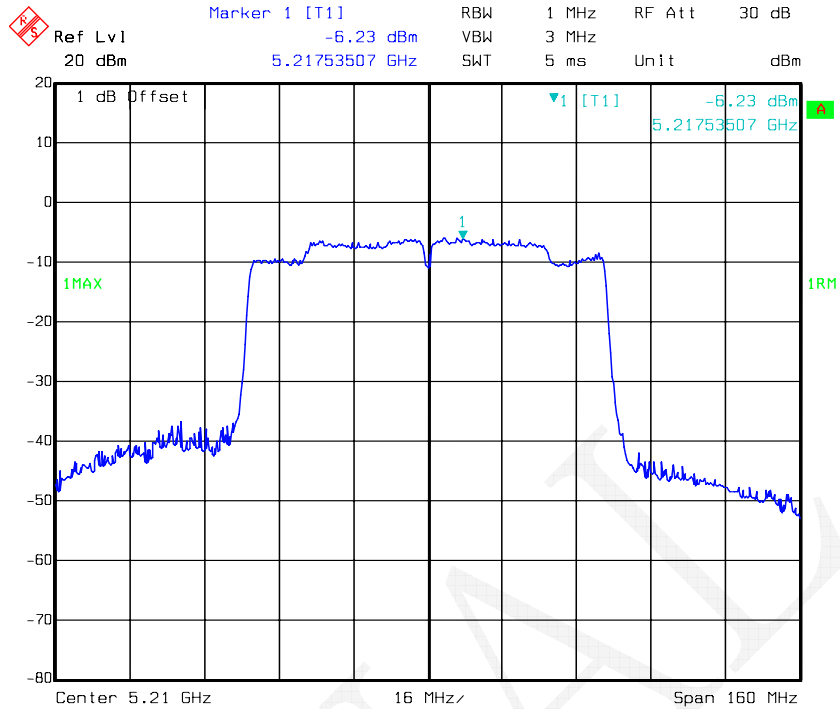
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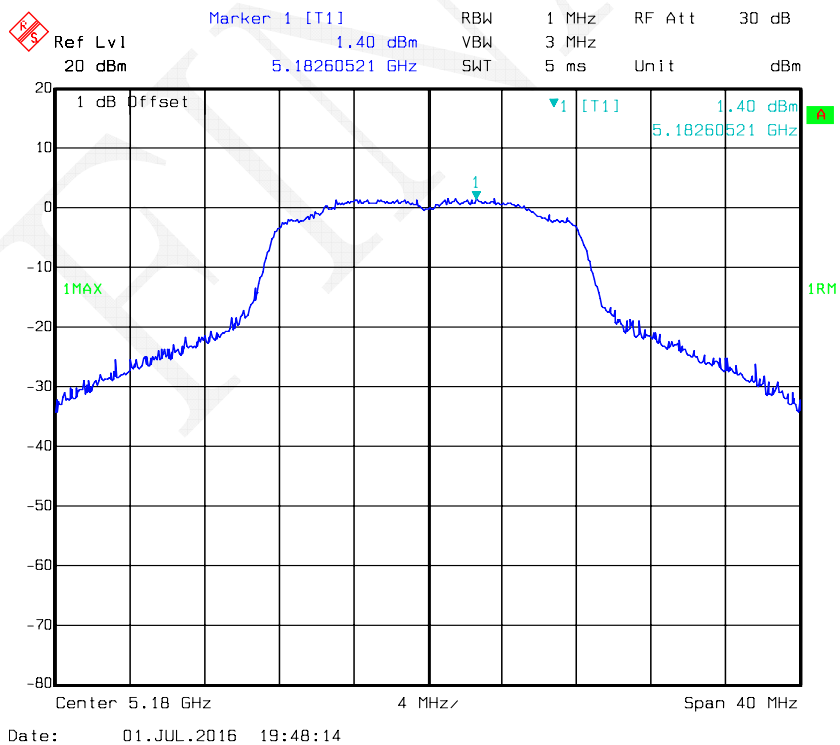
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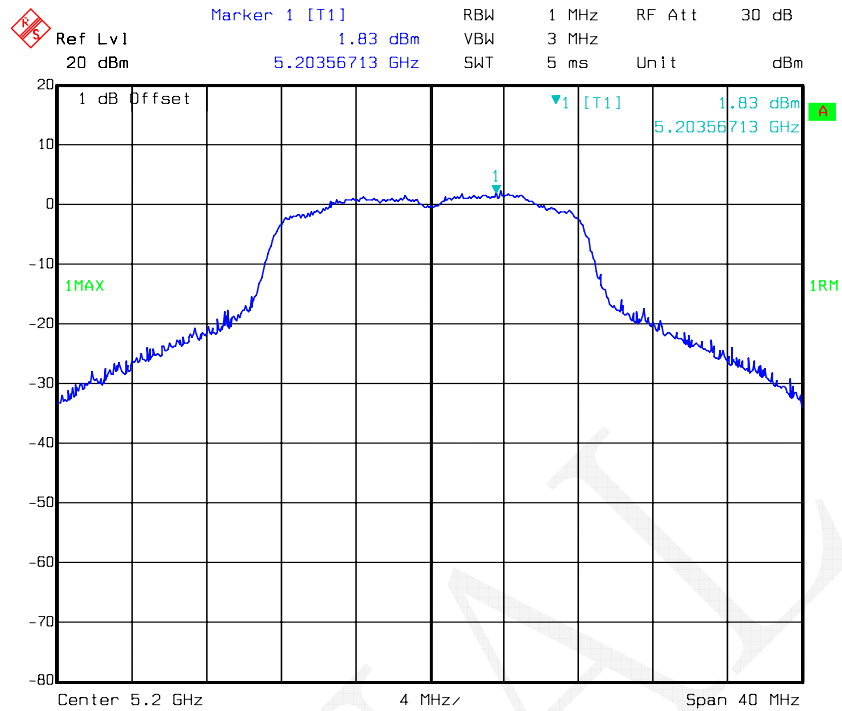
Chain 0: Power Spectral Density, 802.11n ac80 Middle Channel



Chain 1: Power Spectral Density, 802.11a Low Channel

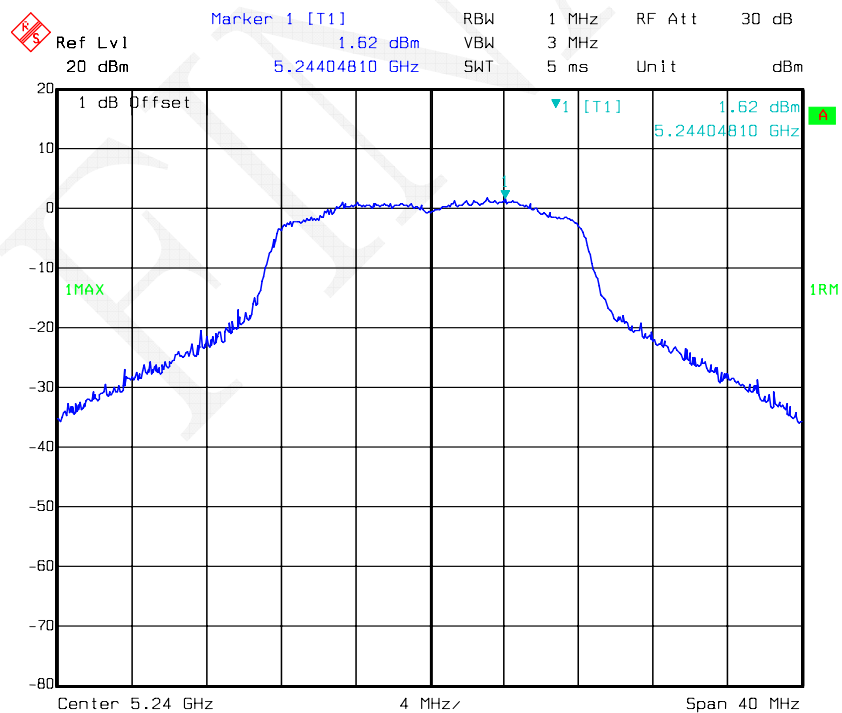


Chain 1: Power Spectral Density, 802.11a Middle Channel



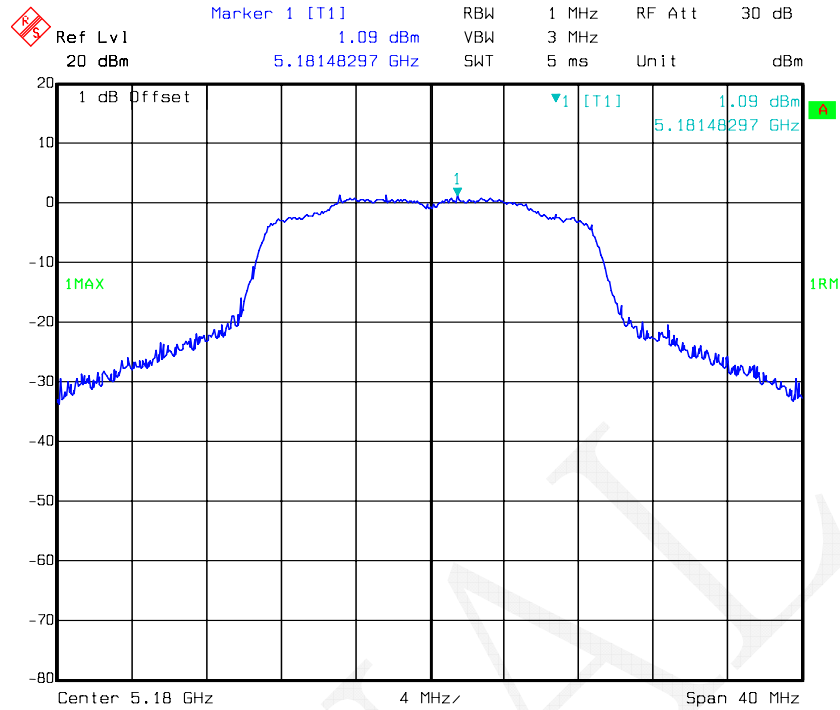
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Chain 1: Power Spectral Density, 802.11a High Channel

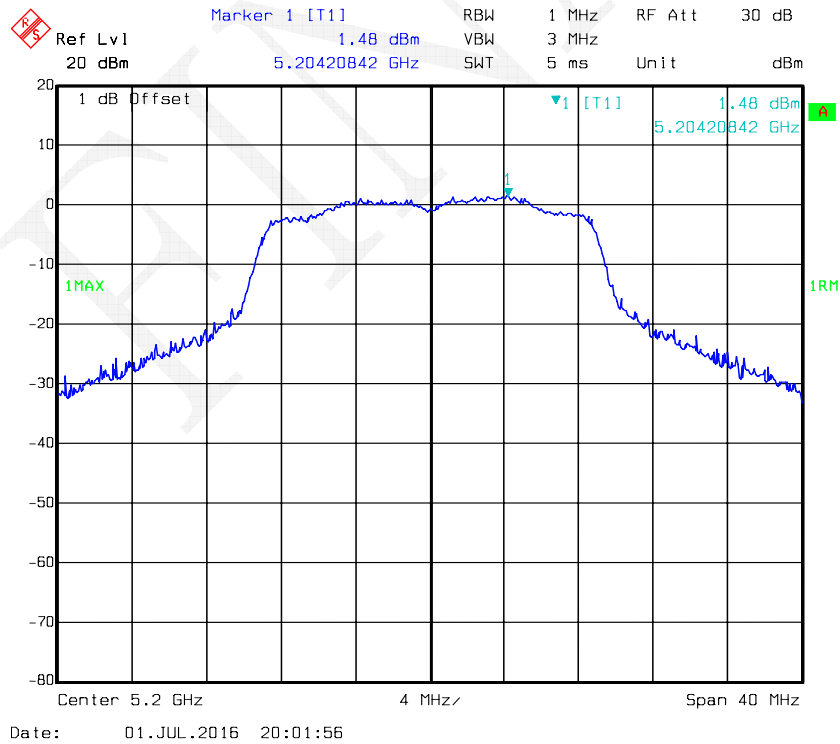


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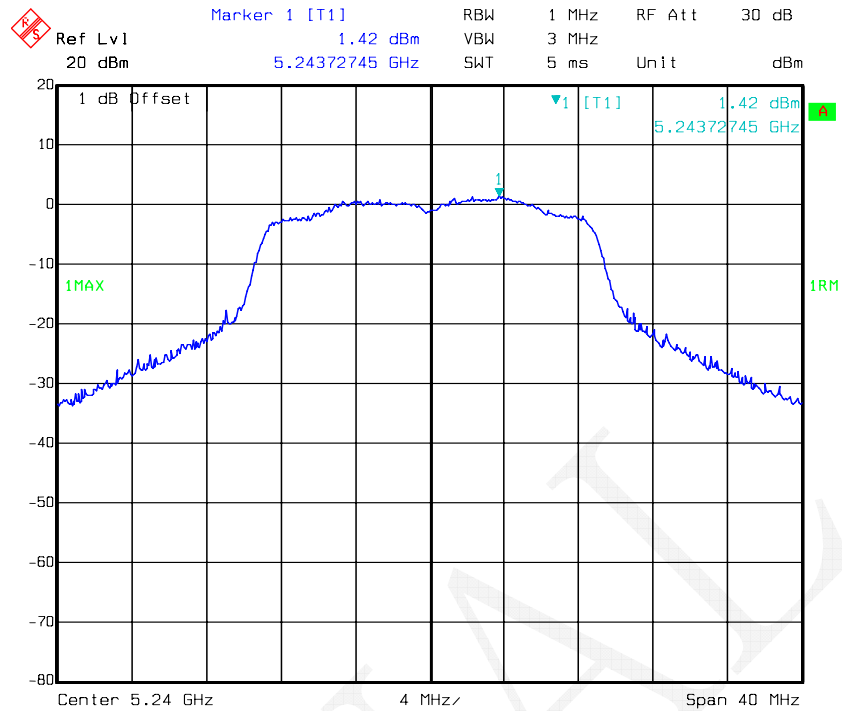
Chain 1: Power Spectral Density, 802.11n ht20 Low Channel



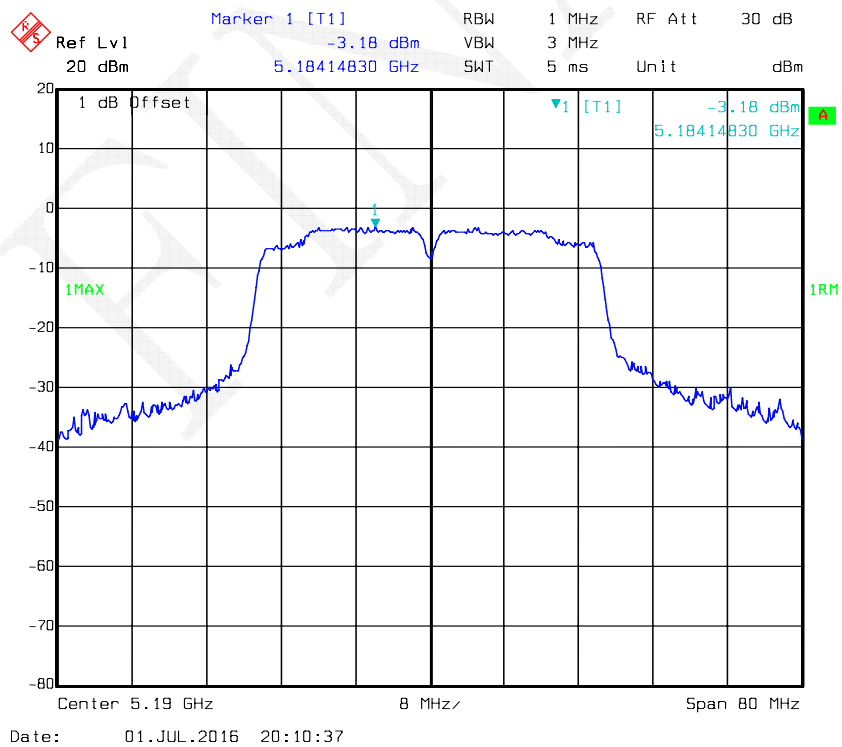
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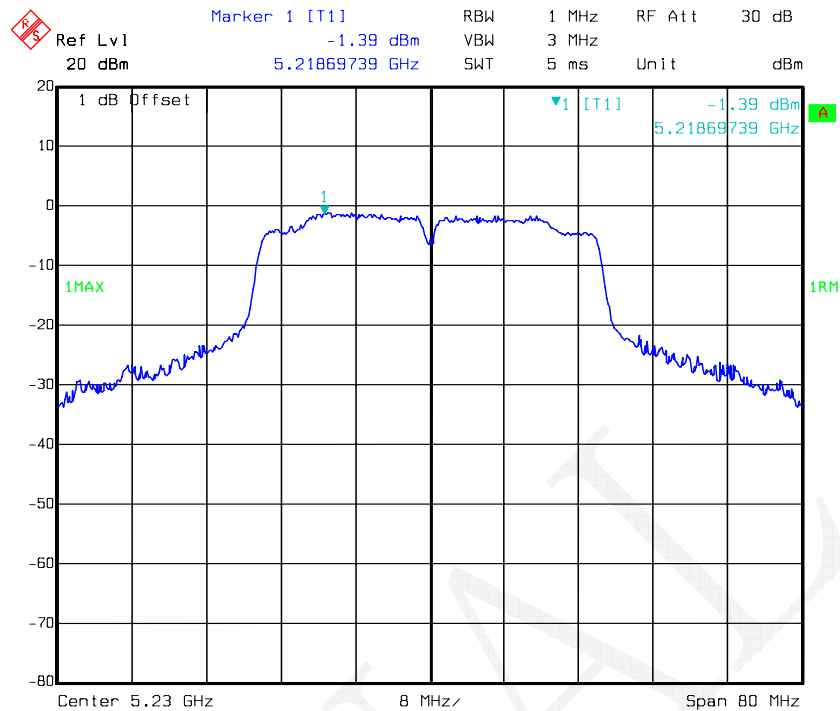


Chain 1: Power Spectral Density, 802.11n ht20 High Channel

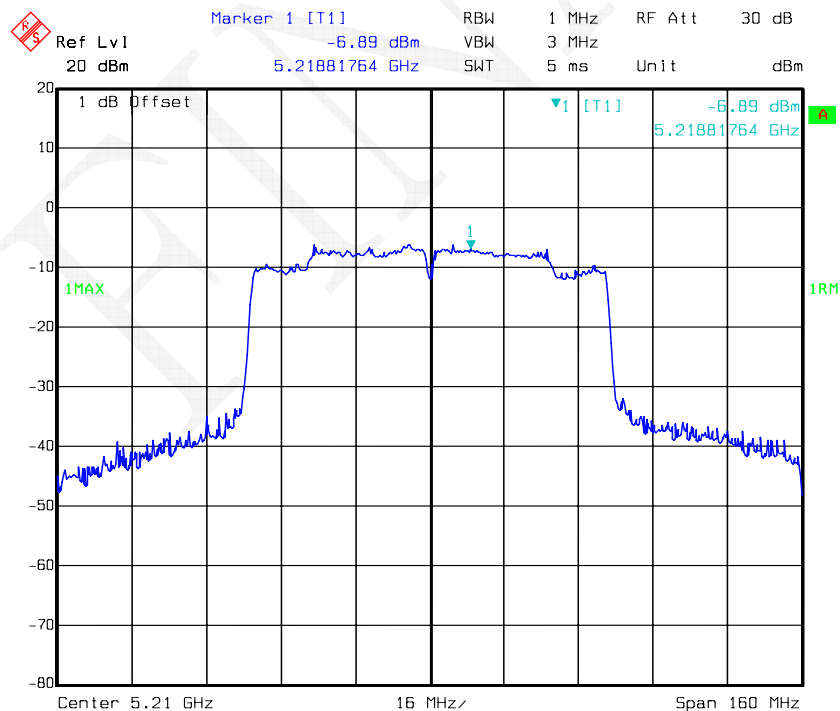


Chain 1: Power Spectral Density, 802.11n ht40 Low Channel



Chain 1: Power Spectral Density, 802.11n ht40 High Channel

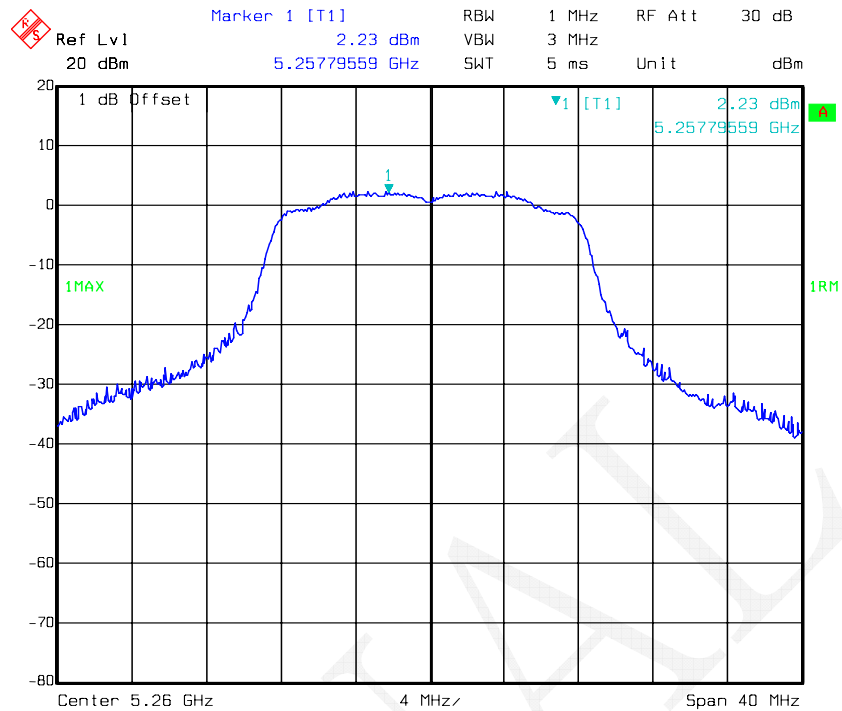
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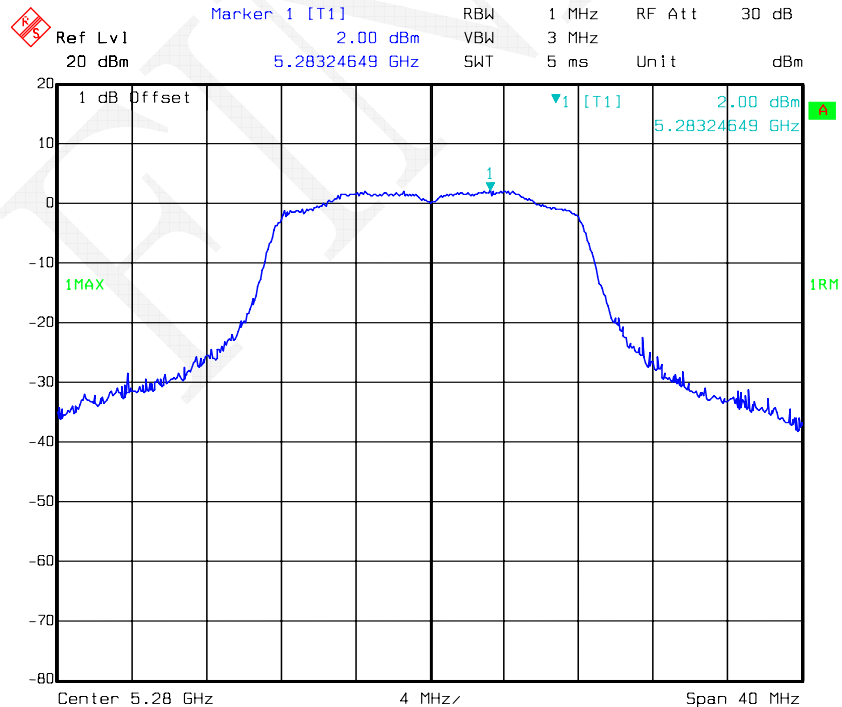
5250-5350MHz:

Chain 0: Power Spectral Density, 802.11a Low Channel



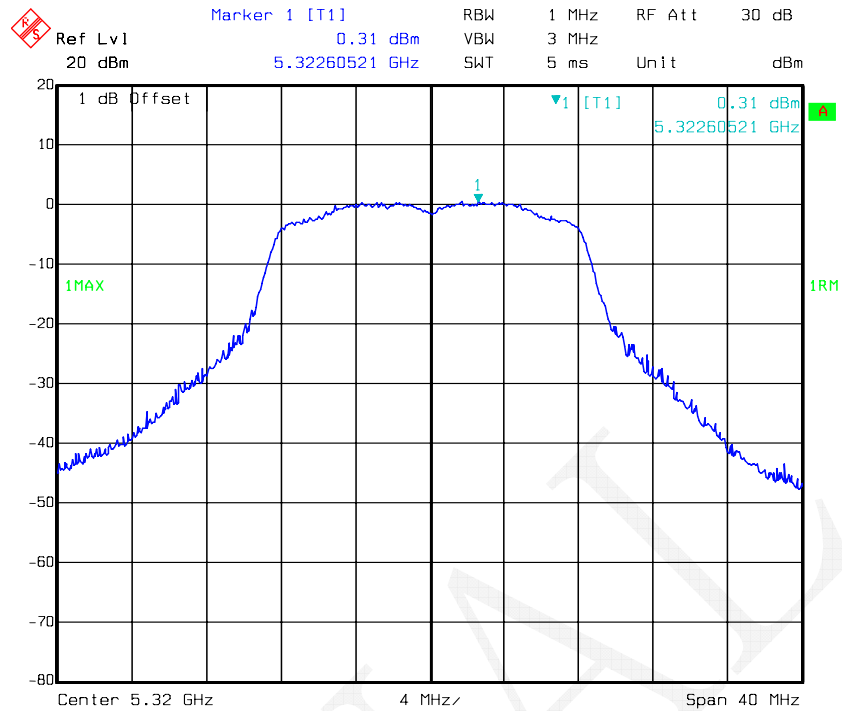
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Chain 0: Power Spectral Density, 802.11a Middle Channel

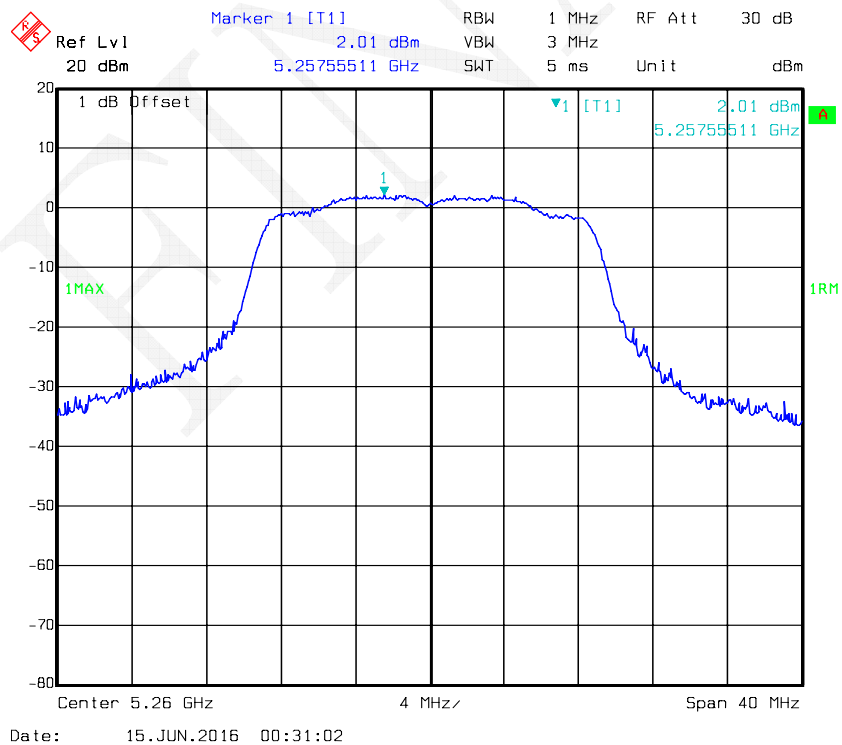


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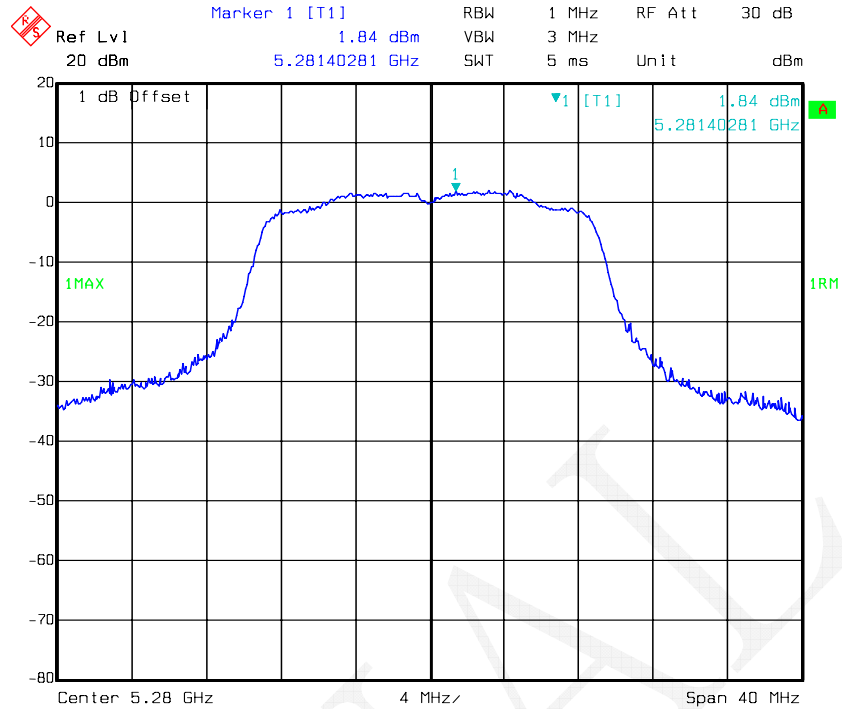
Chain 0: Power Spectral Density, 802.11a High Channel



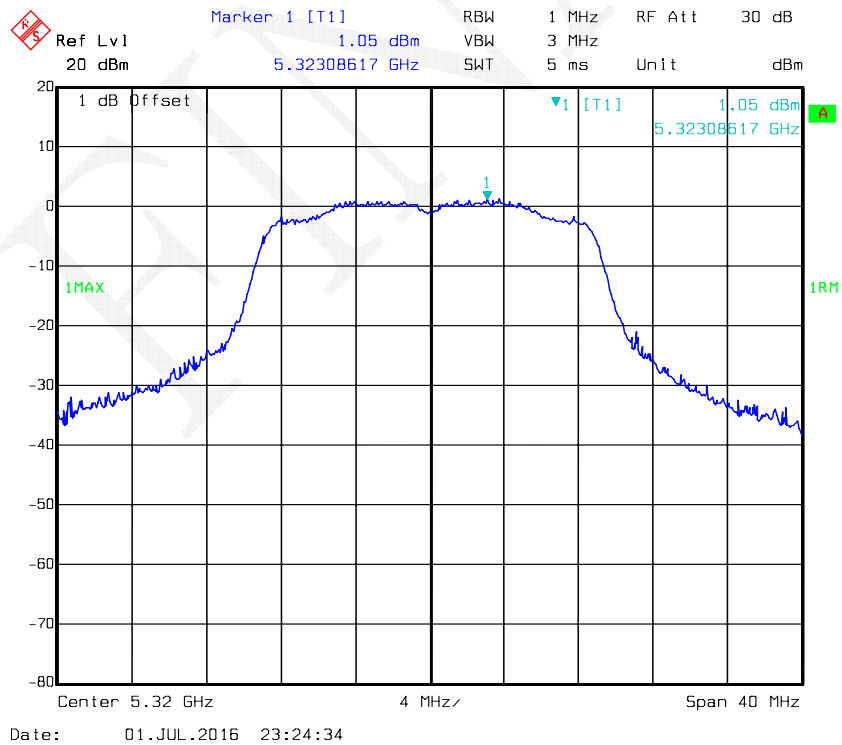
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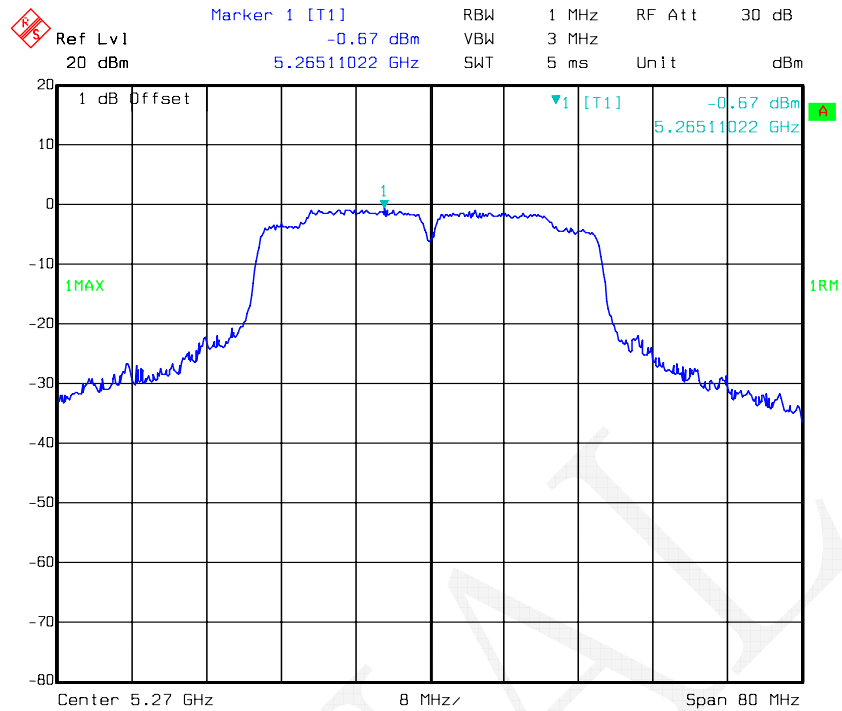
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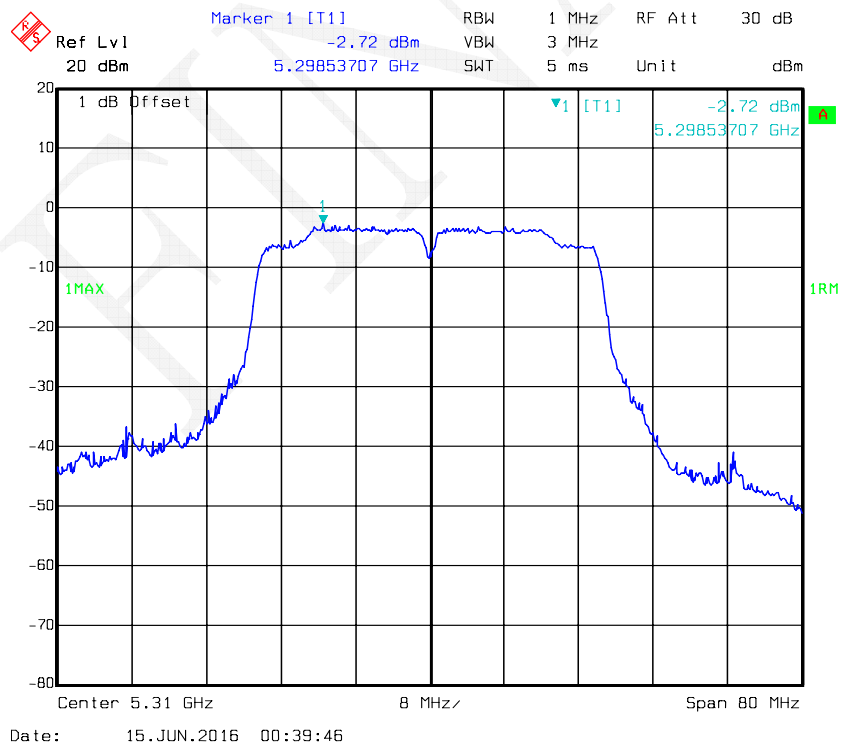
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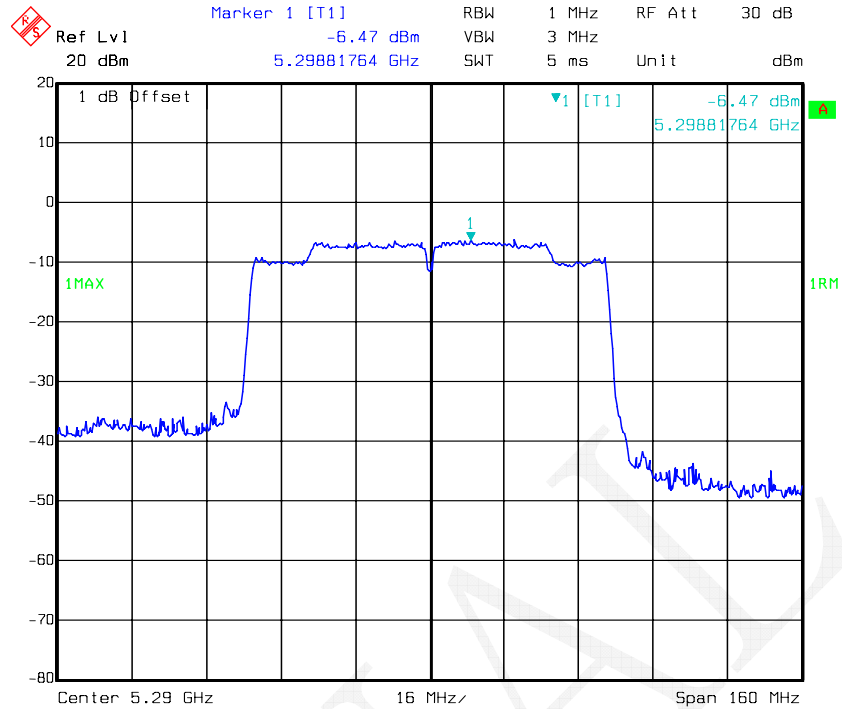
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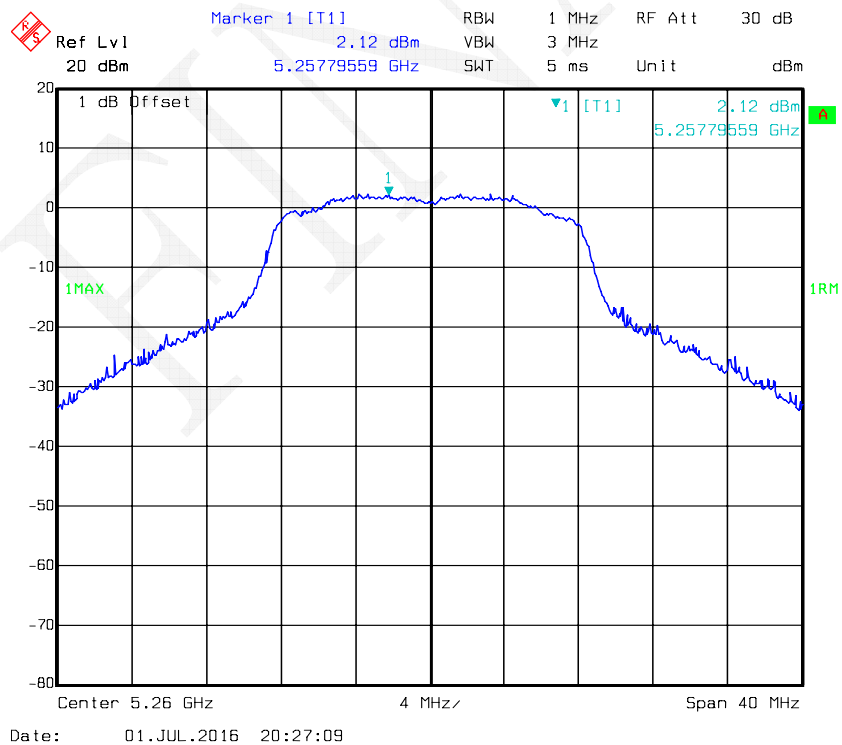
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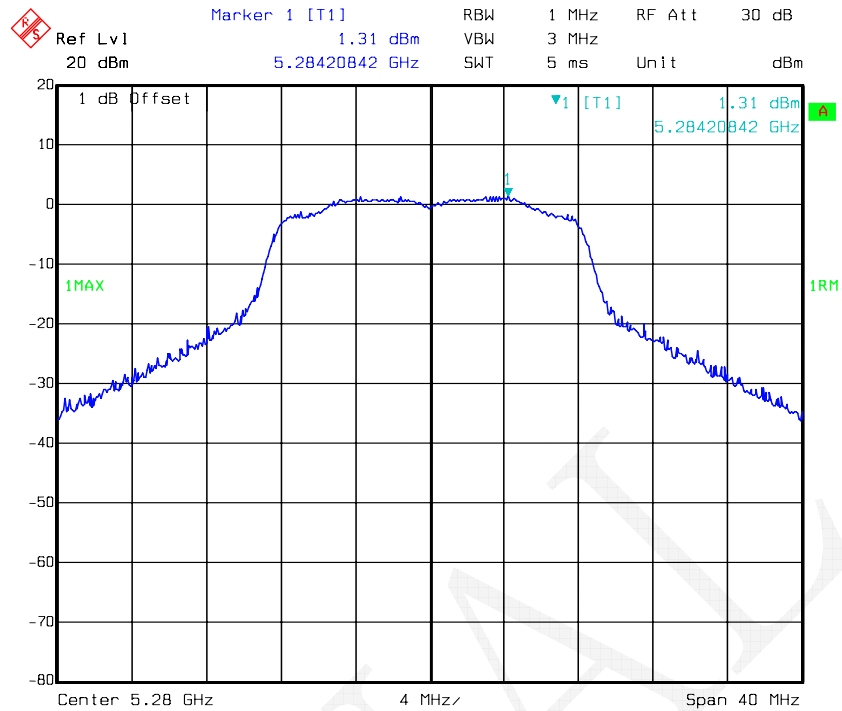
Chain 0: Power Spectral Density, 802.11n ac80 Middle Channel



Chain 1: Power Spectral Density, 802.11a Low Channel

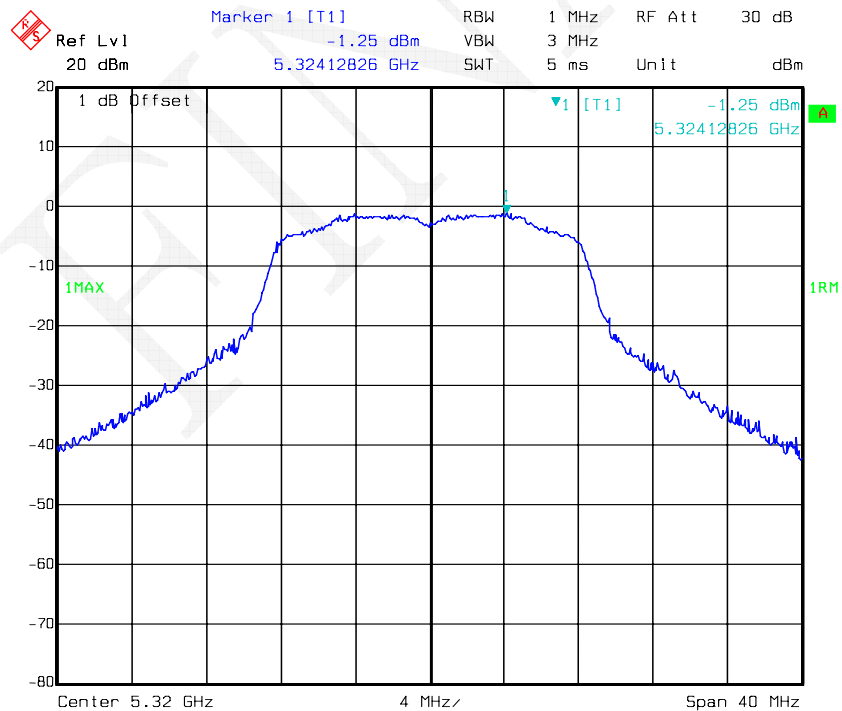


Chain 1: Power Spectral Density, 802.11a Middle Channel



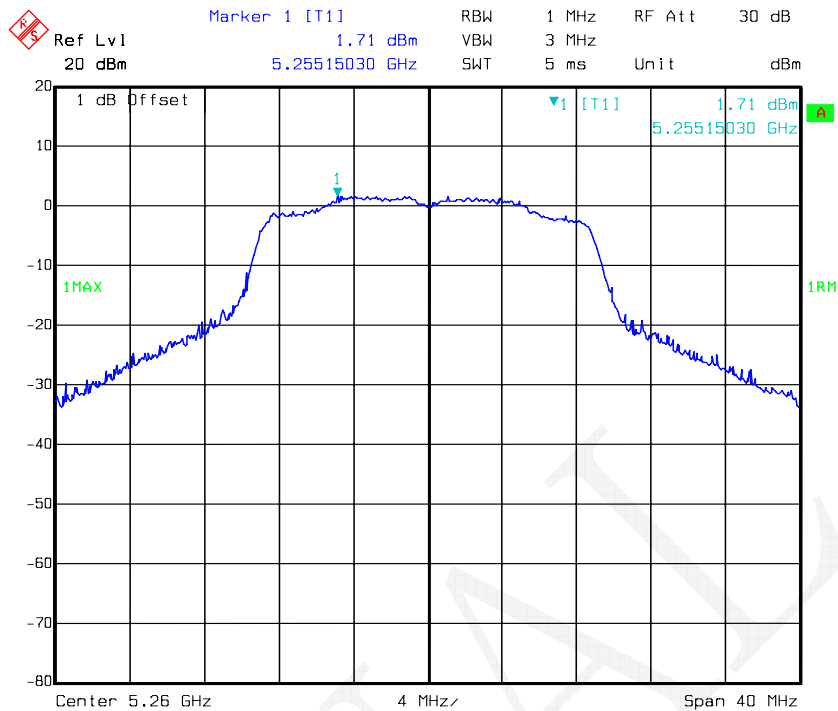
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Chain 1: Power Spectral Density, 802.11a High Channel



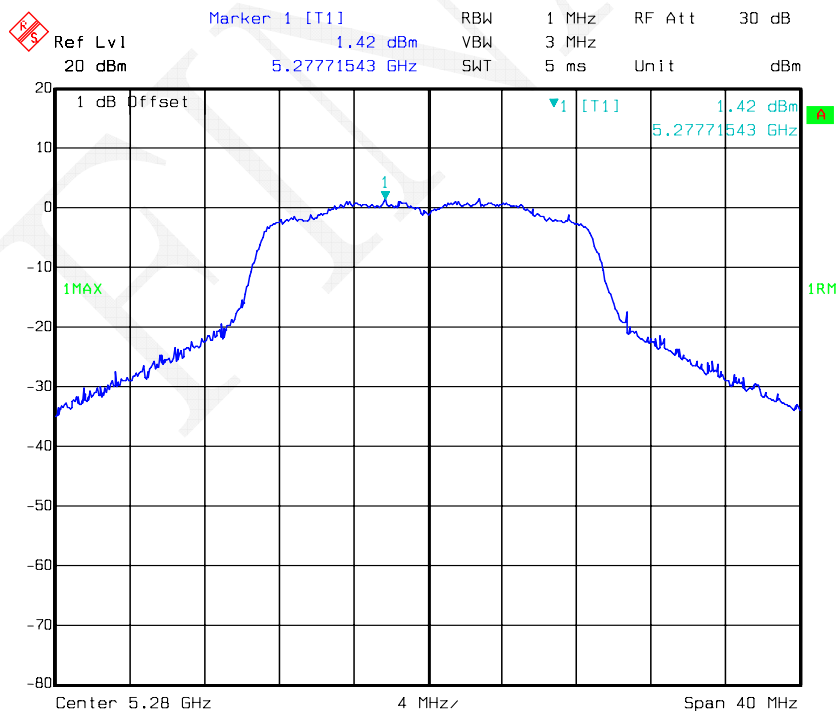
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Chain 1: Power Spectral Density, 802.11n ht20 Low Channel



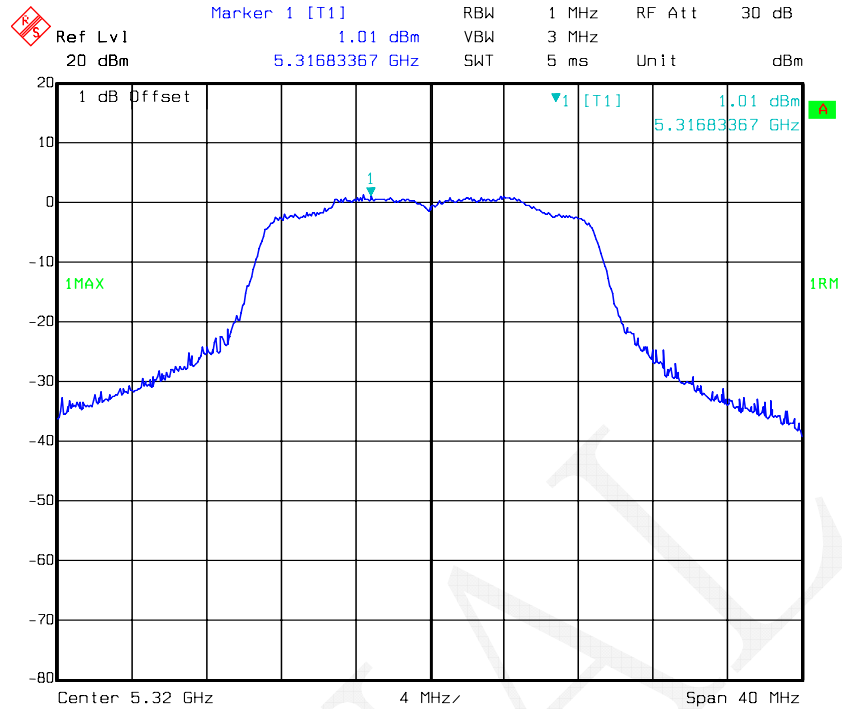
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Chain 1: Power Spectral Density, 802.11n ht20 Middle Channel



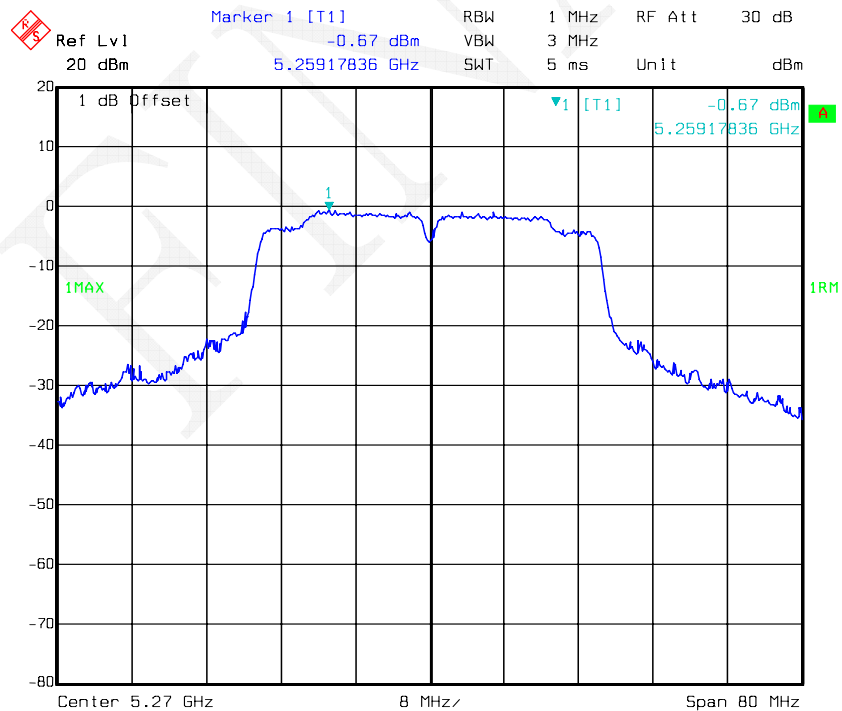
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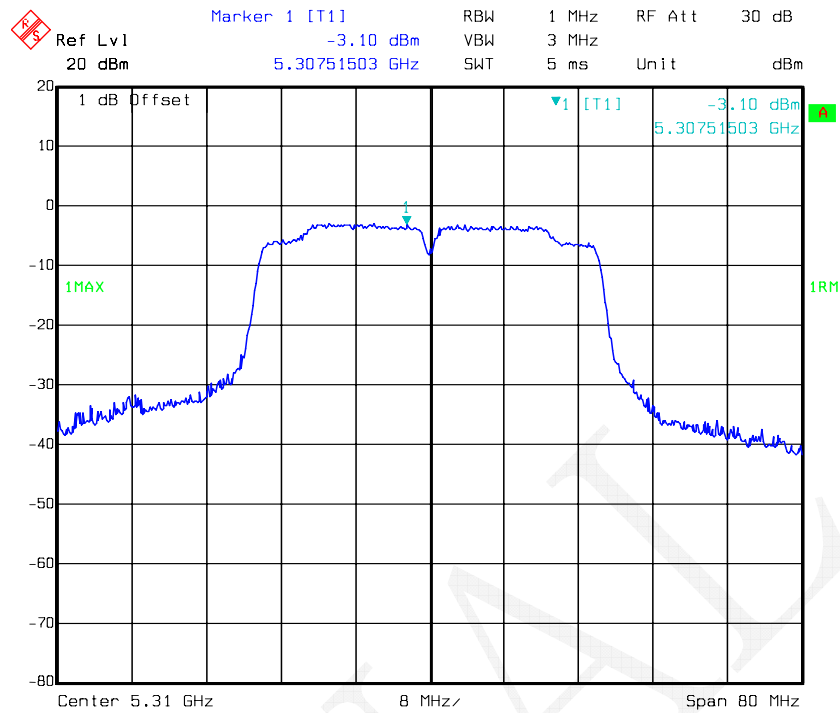
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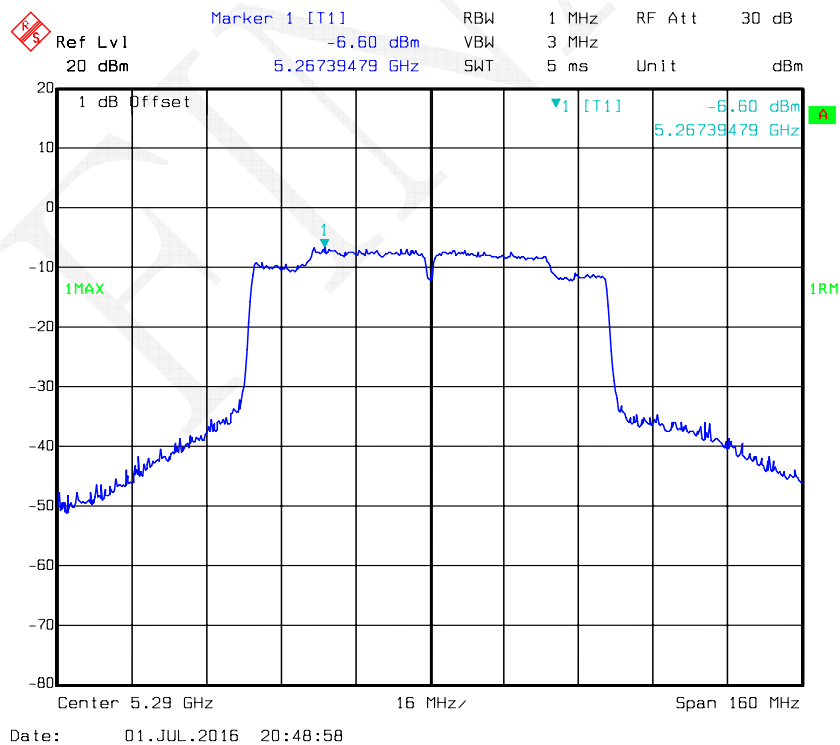


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Chain 1: Power Spectral Density, 802.11n ht40 High Channel

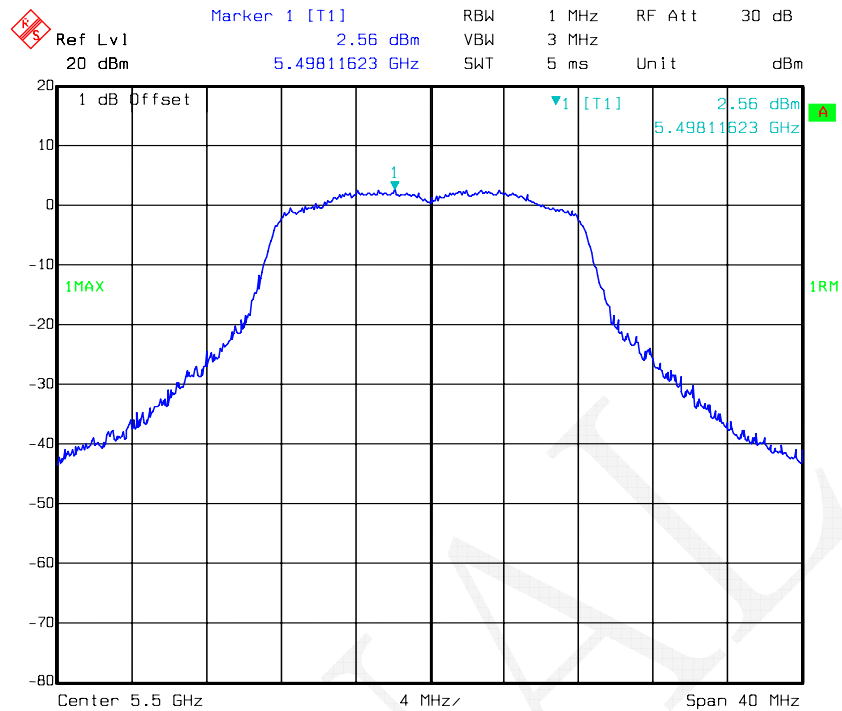


Chain 1: Power Spectral Density, 802.11n ac80 Middle Channel

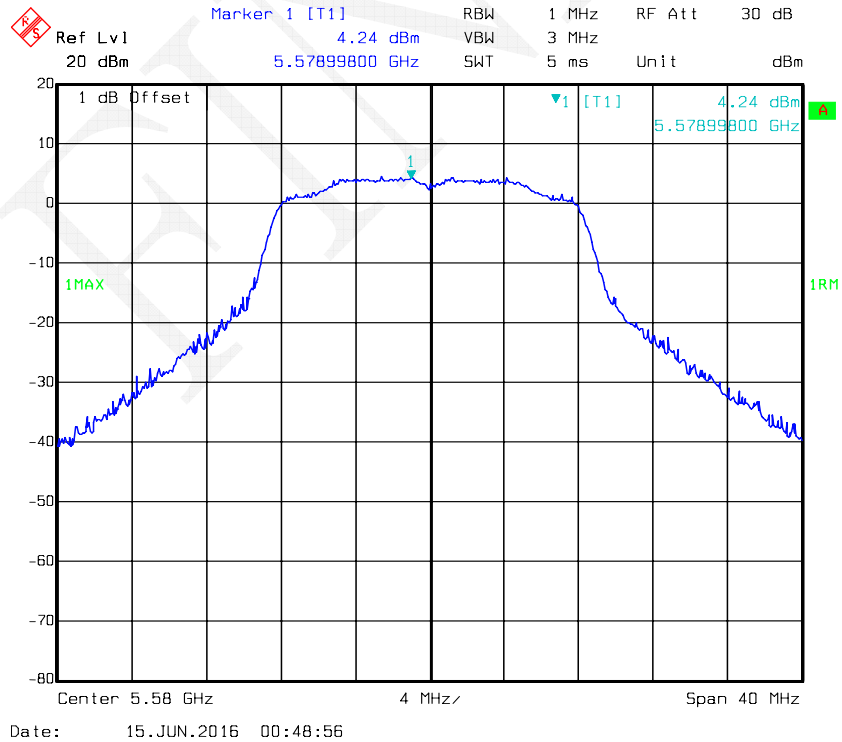


5470-5725MHz:

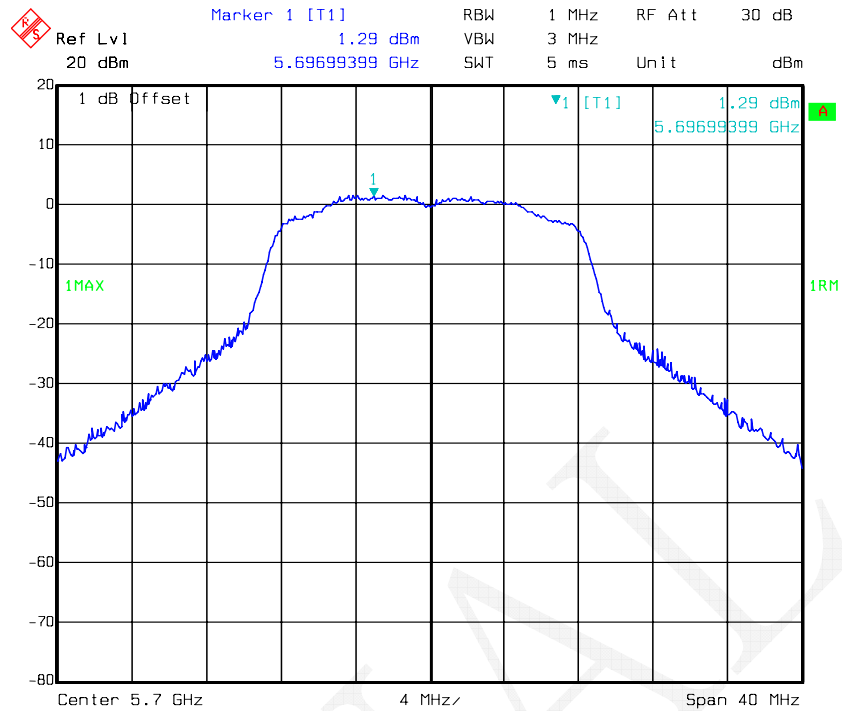
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Chain 0: Power Spectral Density, 802.11a Middle Channel

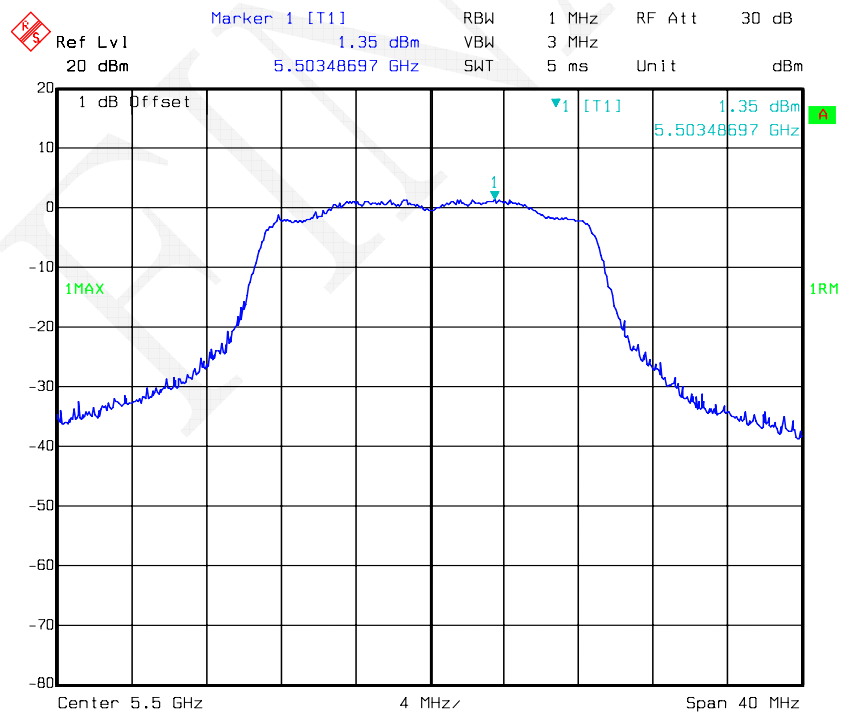


Chain 0: Power Spectral Density, 802.11a High Channel



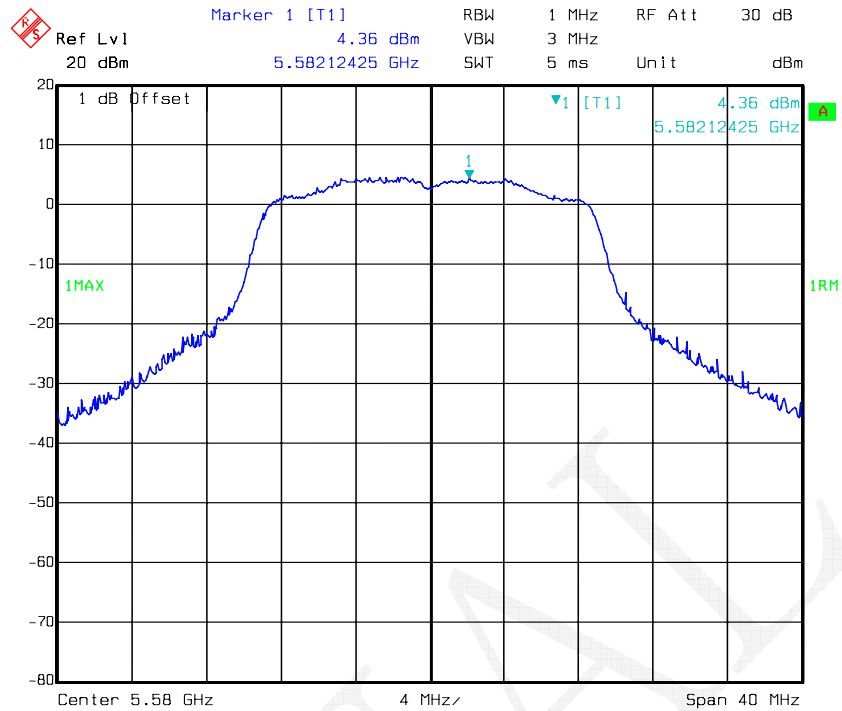
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Chain 0: Power Spectral Density, 802.11n ht20 Low Channel



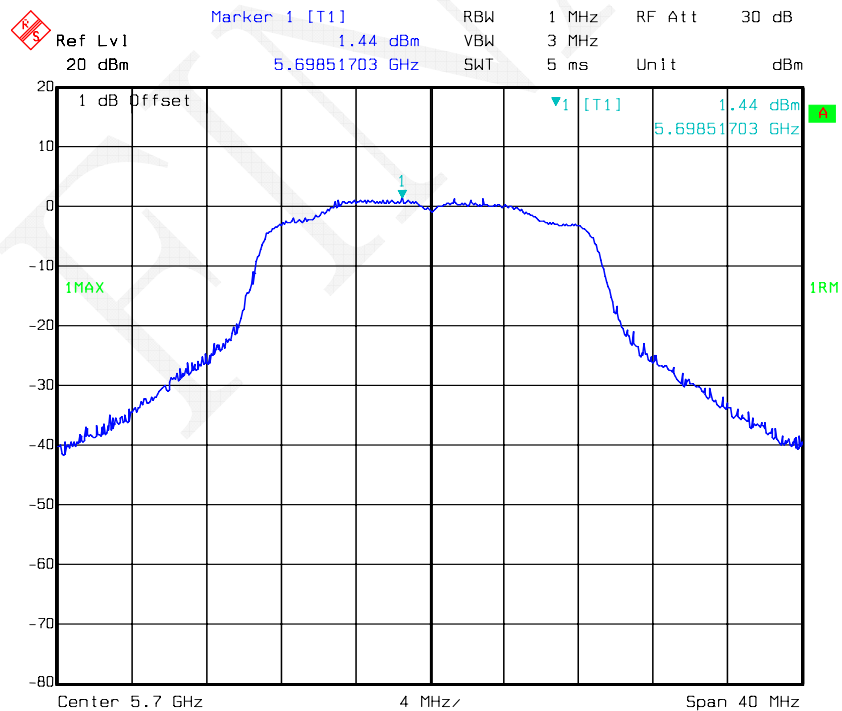
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Chain 0: Power Spectral Density, 802.11n ht20 Middle Channel



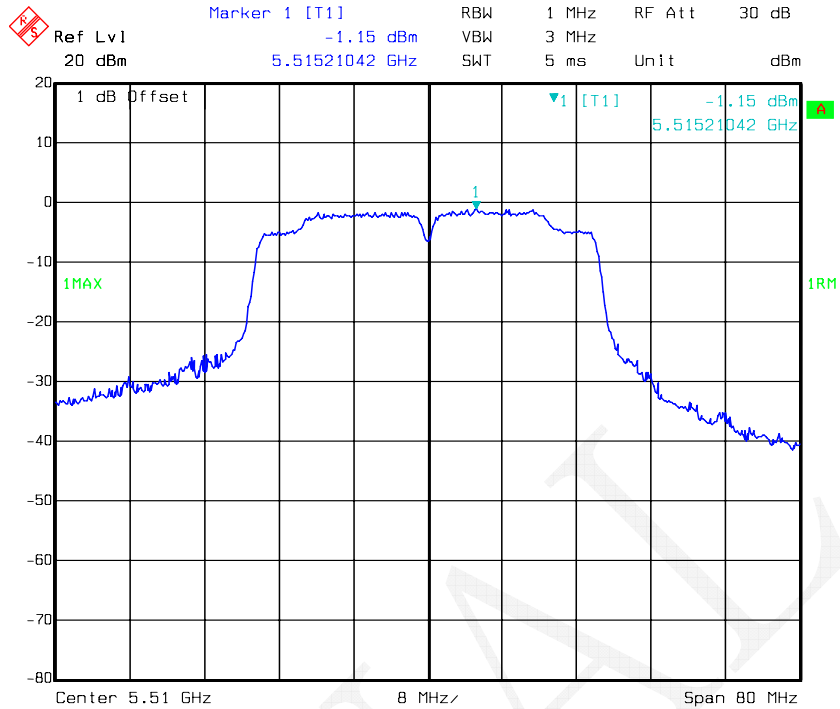
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Chain 0: Power Spectral Density, 802.11n ht20 High Channel

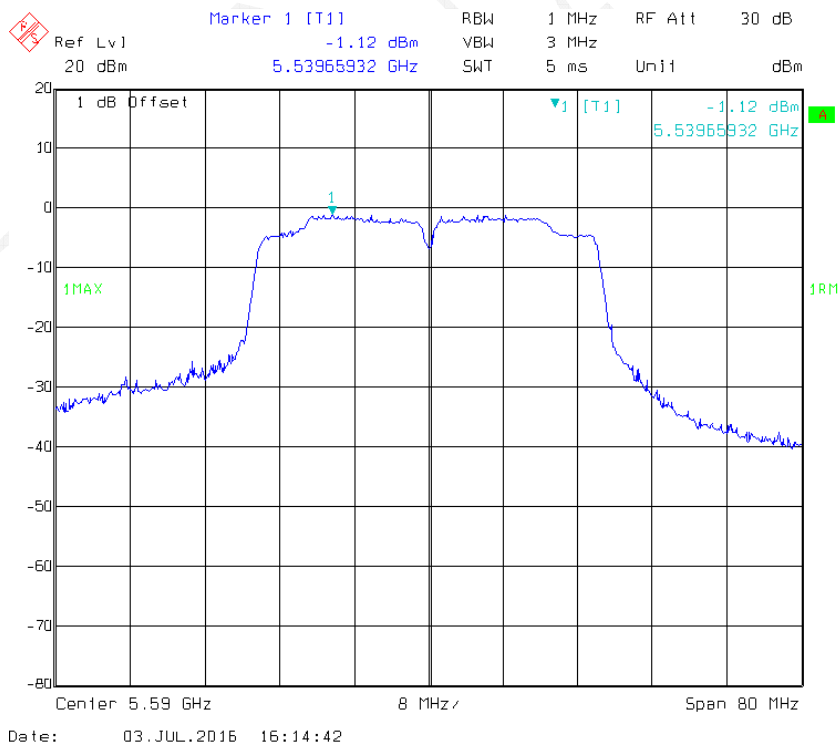


Date: 15.JUN.2016 00:59:11

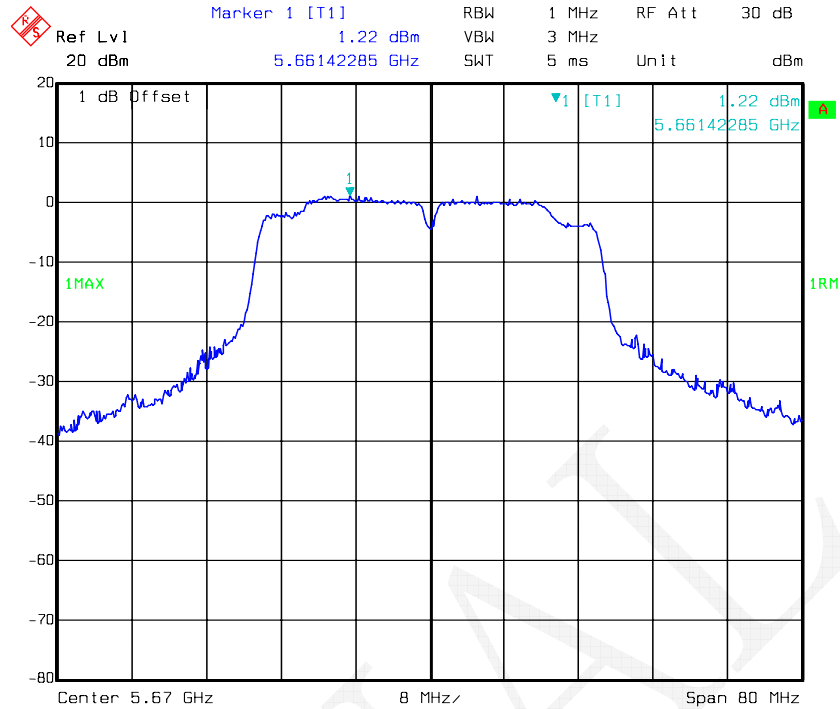
Chain 0: Power Spectral Density, 802.11n ht40 Low Channel



Chain 0: Power Spectral Density, 802.11n ht40 Middle Channel

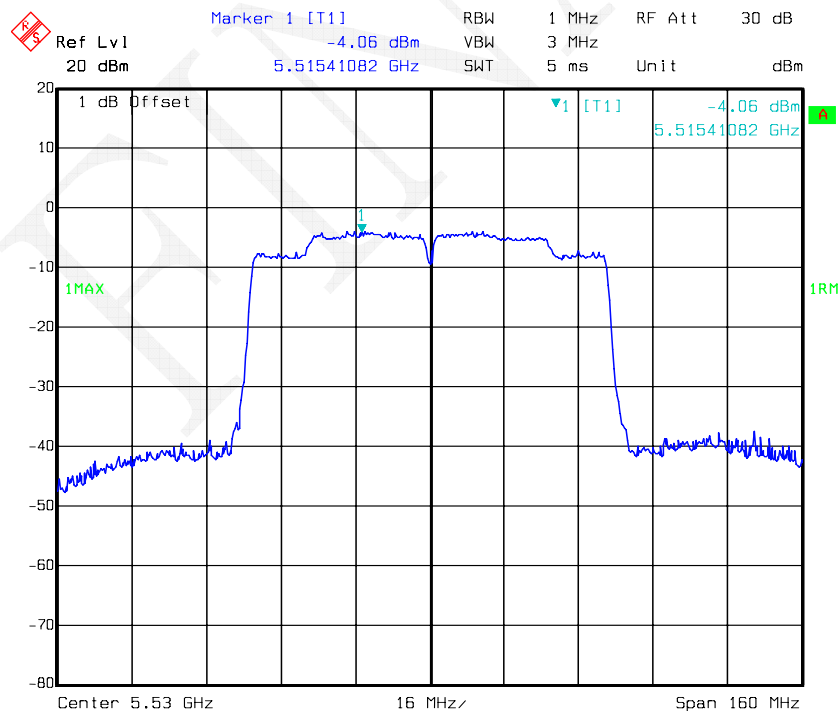


Chain 0: Power Spectral Density, 802.11n ht40 High Channel



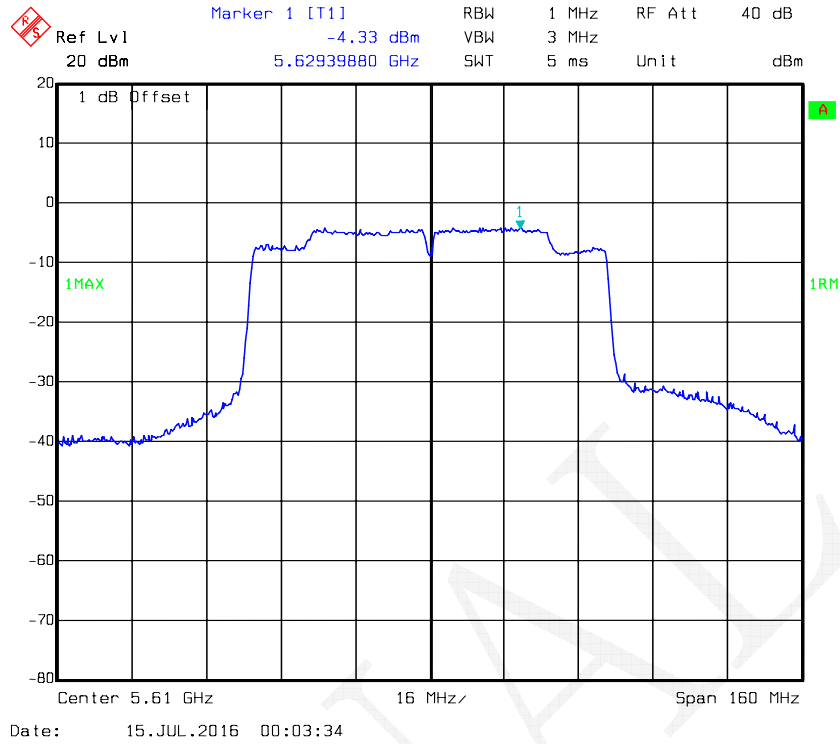
Date: 15.JUN.2016 01:05:56

Chain 0: Power Spectral Density, 802.11n ac80 Low Channel

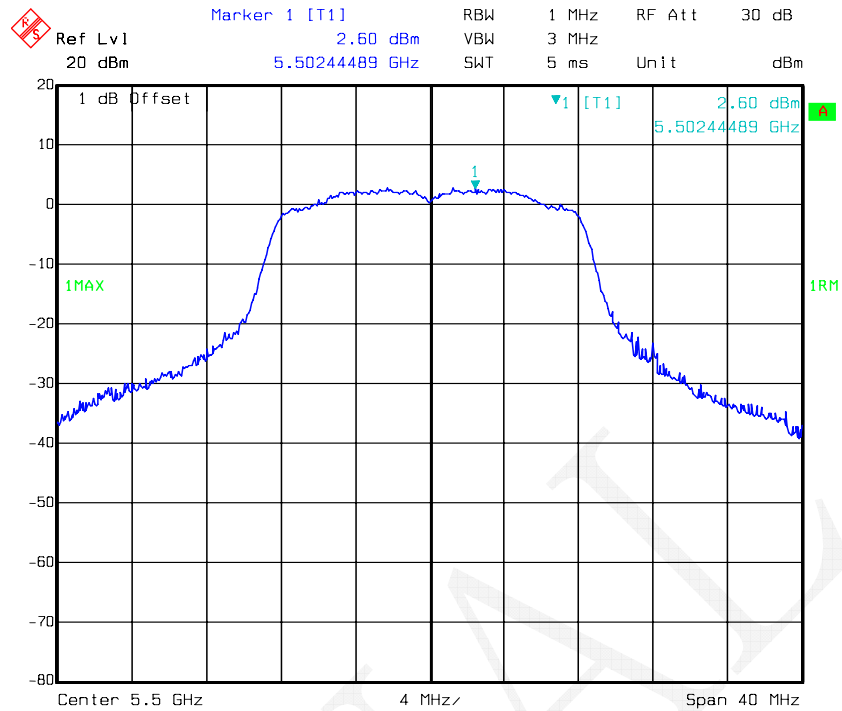


Date: 15.JUN.2016 01:08:21

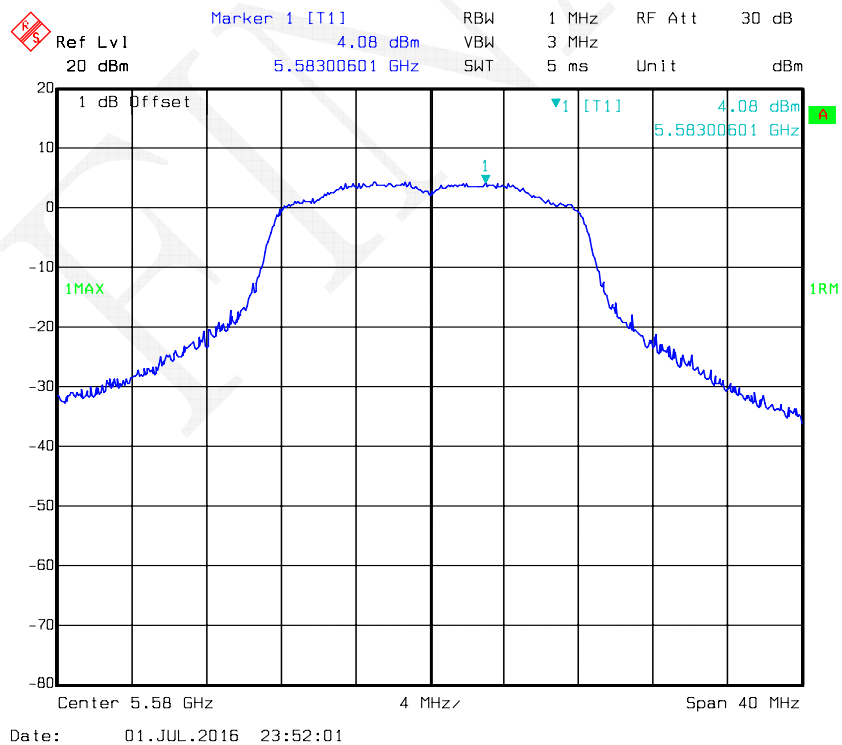
Chain 0: Power Spectral Density, 802.11n ac80 High Channel



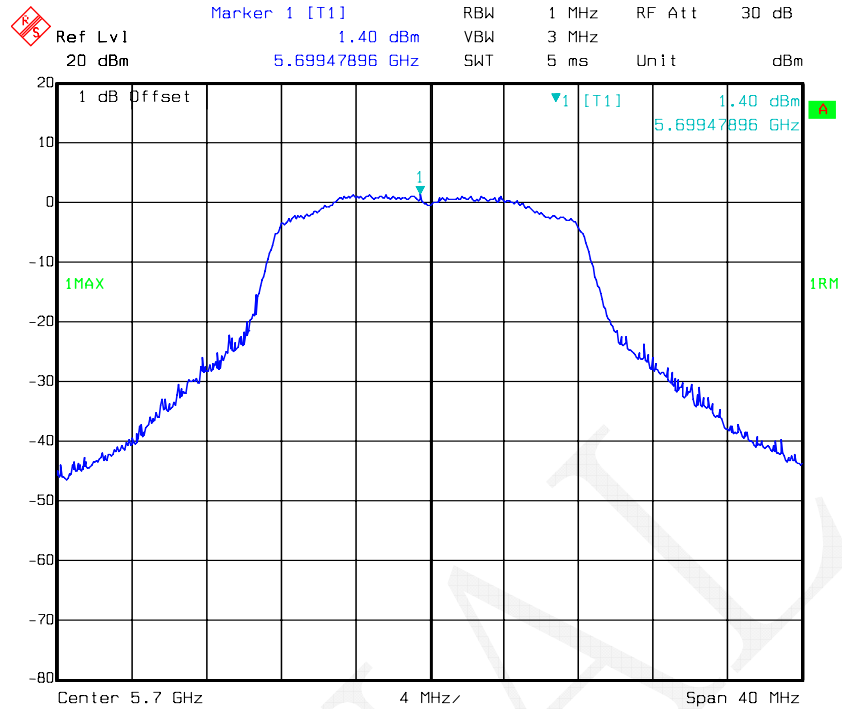
Chain 1: Power Spectral Density, 802.11a Low Channel



Chain 1: Power Spectral Density, 802.11a Middle Channel

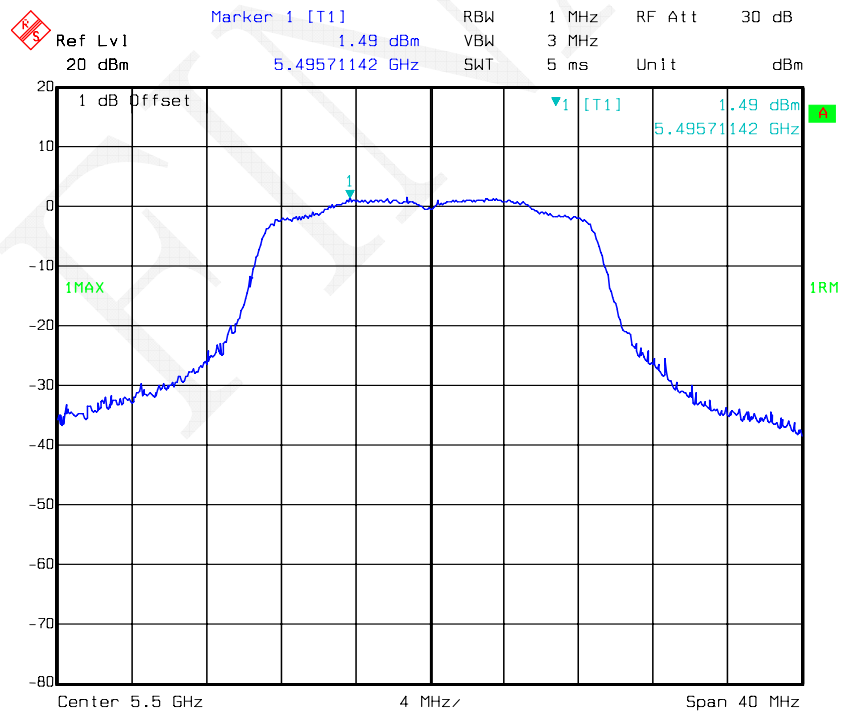


Chain 1: Power Spectral Density, 802.11a High Channel



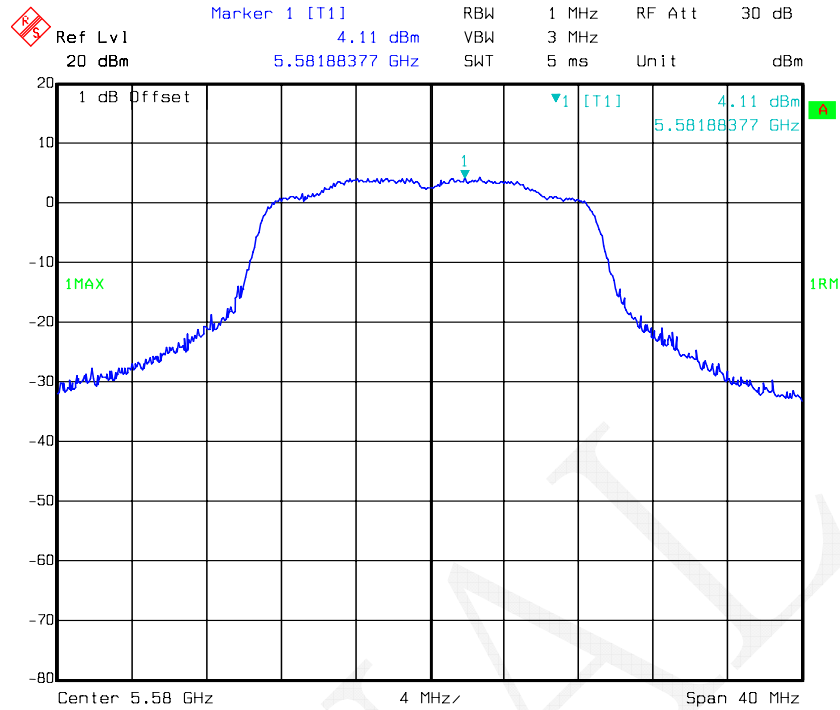
Date: 01.JUL.2016 23:56:31

Chain 1: Power Spectral Density, 802.11n ht20 Low Channel



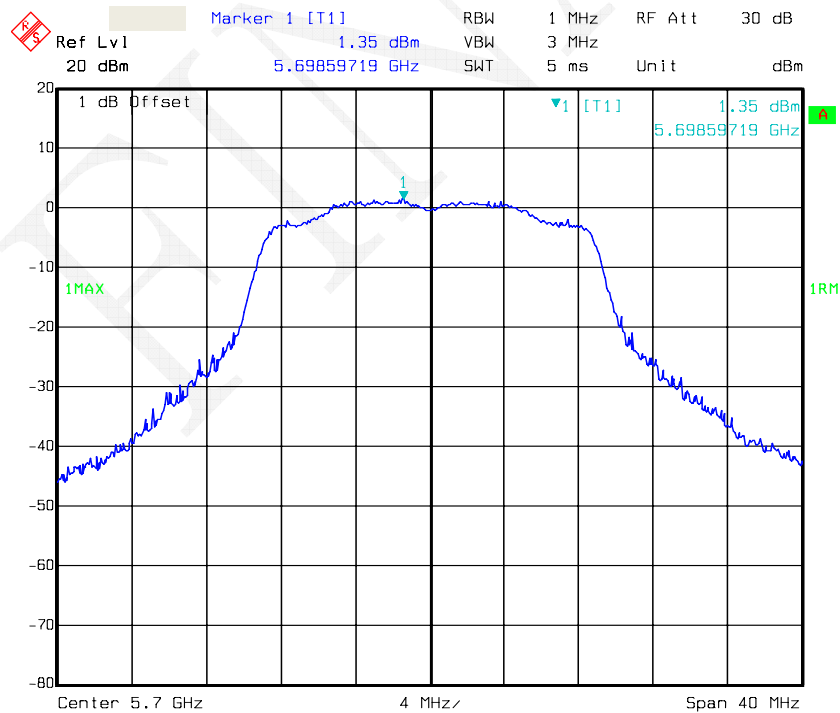
Date: 02.JUL.2016 00:20:01

Chain 1: Power Spectral Density, 802.11n ht20 Middle Channel



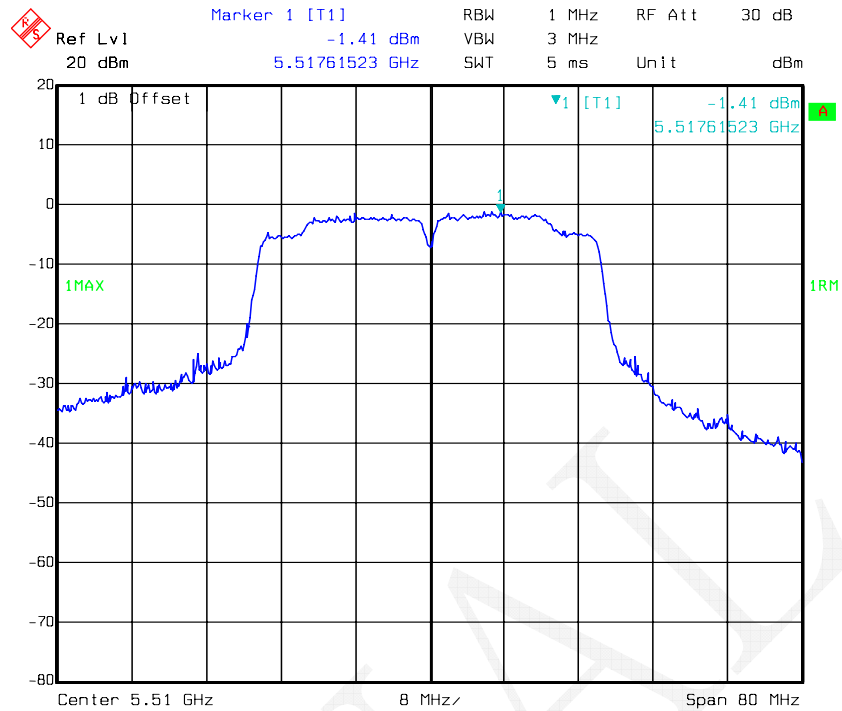
Date: 02.JUL.2016 00:15:24

Chain 1: Power Spectral Density, 802.11n ht20 High Channel



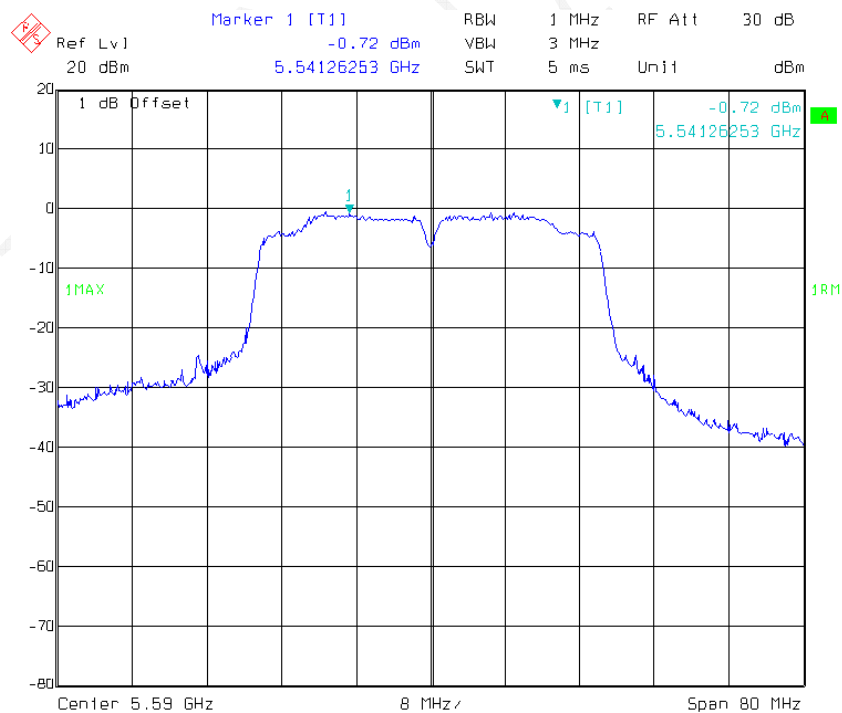
Date: 03.JUL.2016 15:59:36

Chain 1: Power Spectral Density, 802.11n ht40 Low Channel

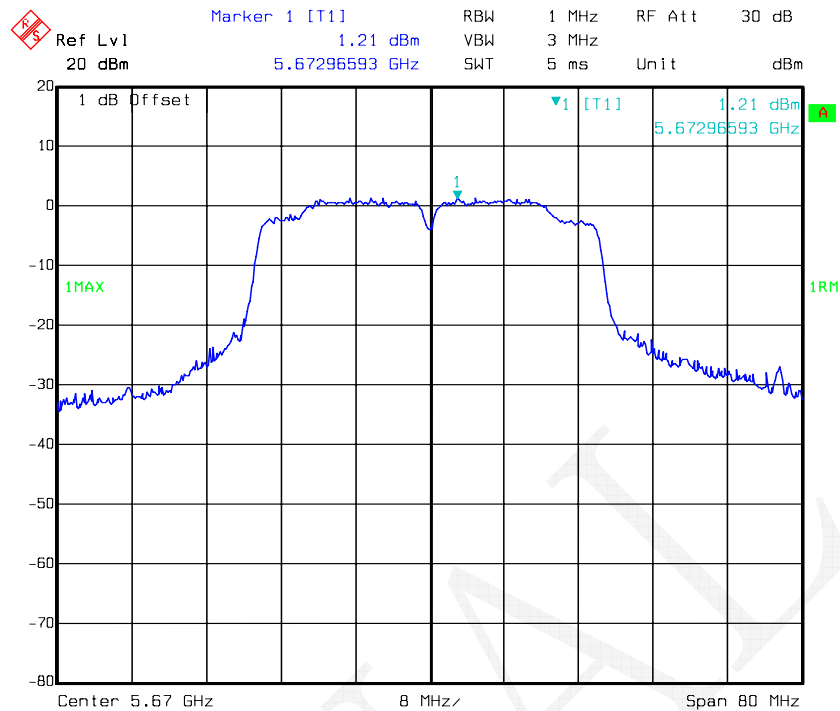


Date: 03.JUL.2016 16:06:53

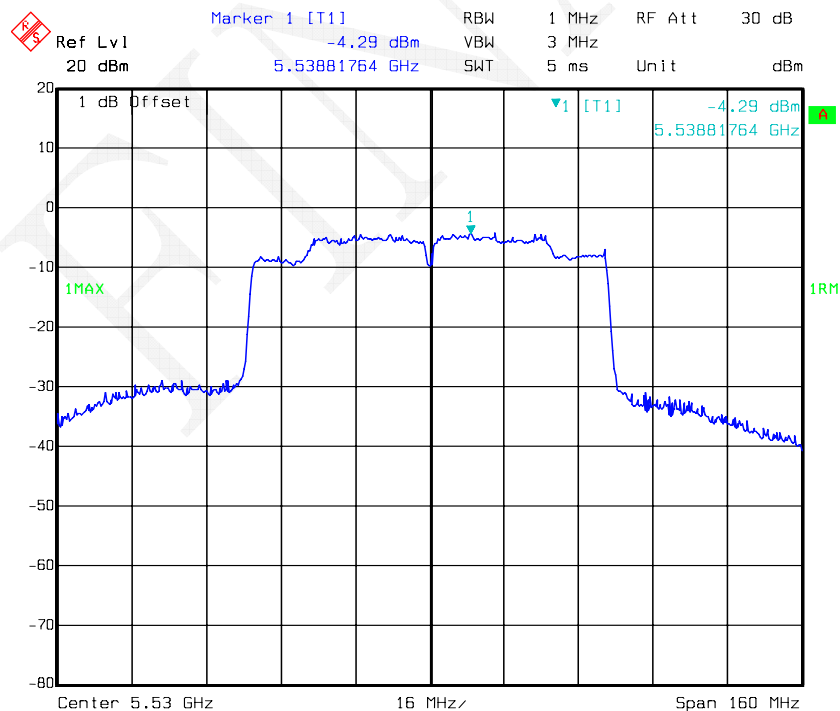
Chain 1: Power Spectral Density, 802.11n ht40 Middle Channel



Date: 03.JUL.2016 16:16:18

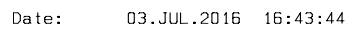
Chain 1: Power Spectral Density, 802.11n ht40 High Channel

Date: 03.JUL.2016 16:20:21

Chain 1: Power Spectral Density, 802.11n ac80 Low Channel

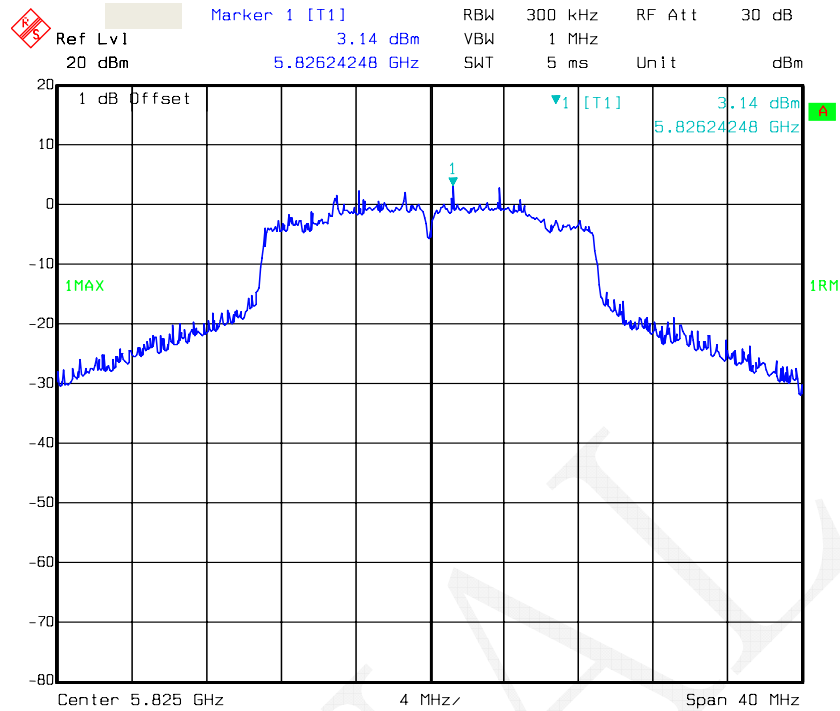
Date: 03.JUL.2016 16:24:34

Chain 0: Power Spectral Density, 802.11a Low Channel



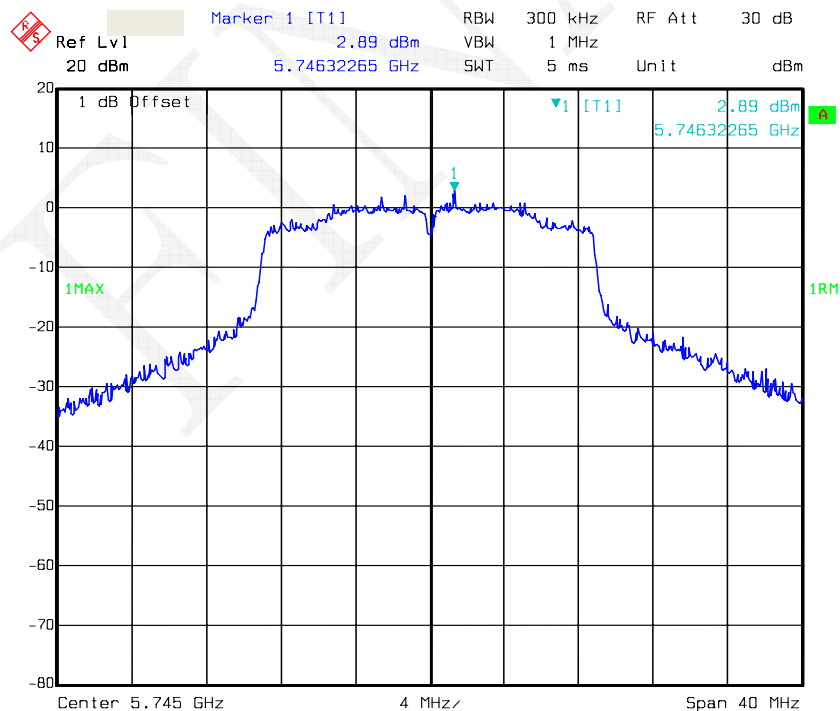
Date: 03.JUL.2016 16:53:34

Chain 0: Power Spectral Density, 802.11a High Channel



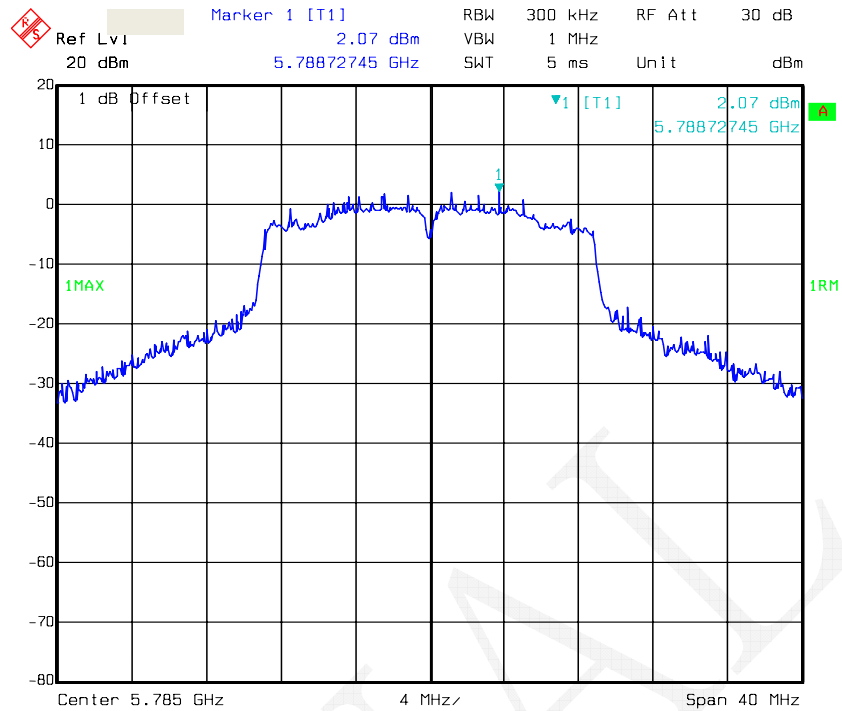
Date: 03.JUL.2016 16:59:41

Chain 0: Power Spectral Density, 802.11n ht20 Low Channel



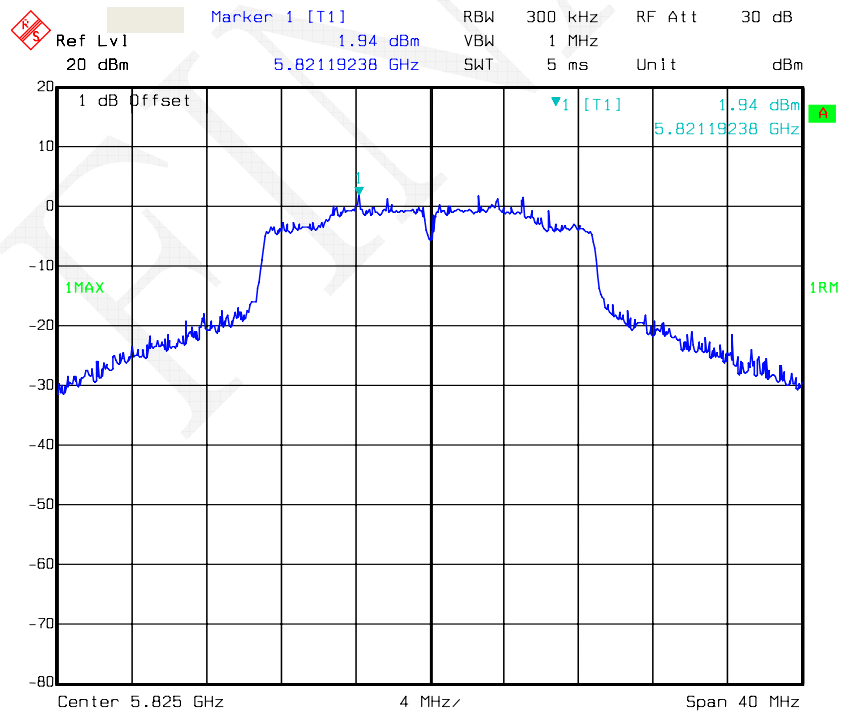
Date: 03.JUL.2016 17:18:17

Chain 0: Power Spectral Density, 802.11n ht20 Middle Channel

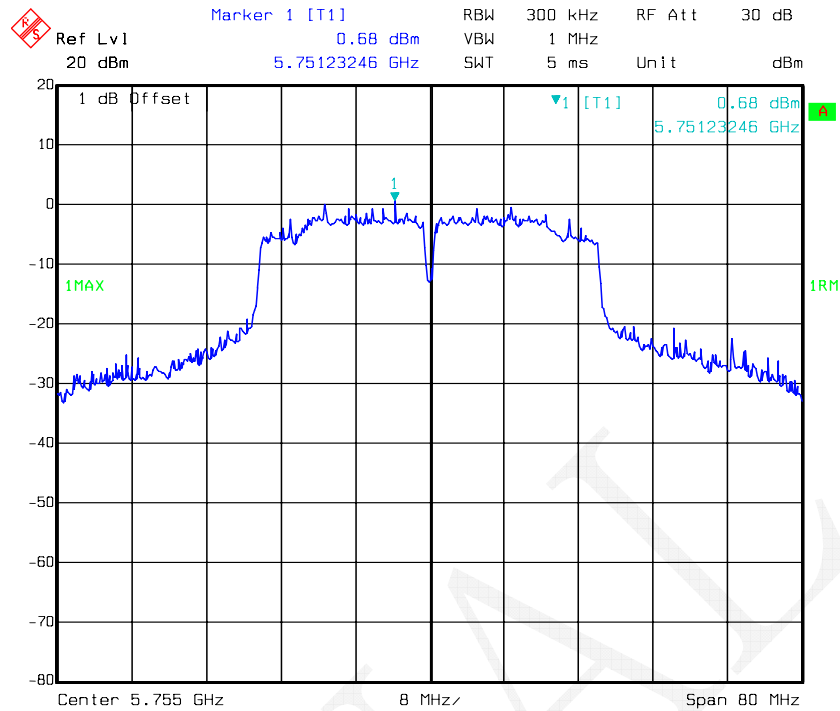


Date: 03.JUL.2016 17:26:40

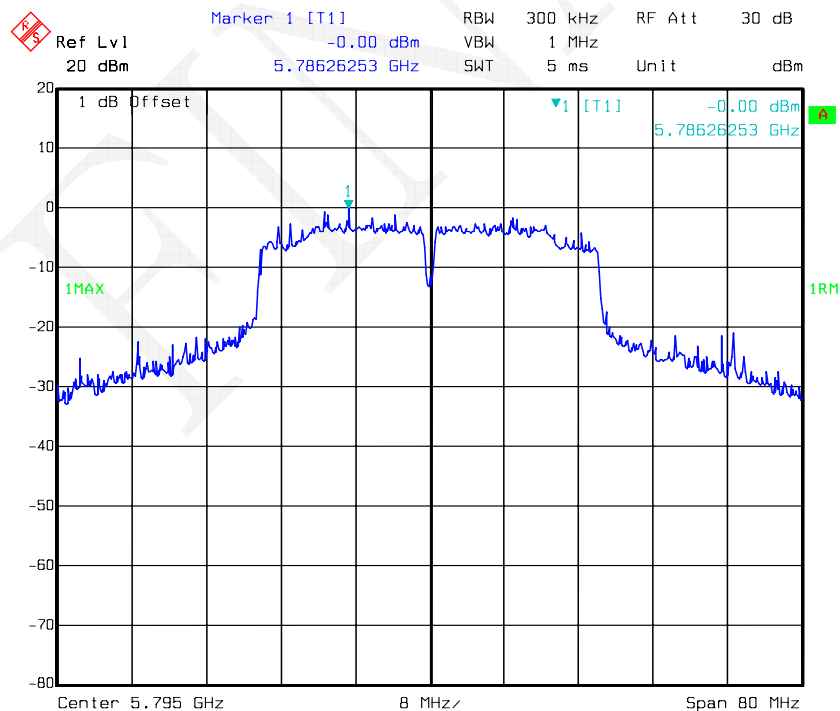
Chain 0: Power Spectral Density, 802.11n ht20 High Channel



Date: 03.JUL.2016 17:34:53

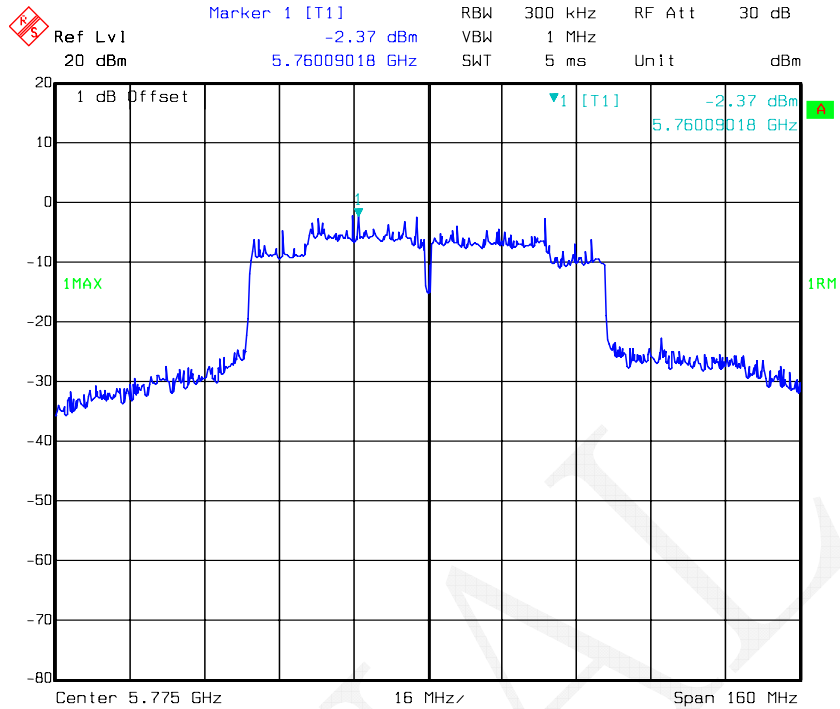
Chain 0: Power Spectral Density, 802.11n ht40 Low Channel

Date: 03.JUL.2016 17:39:01

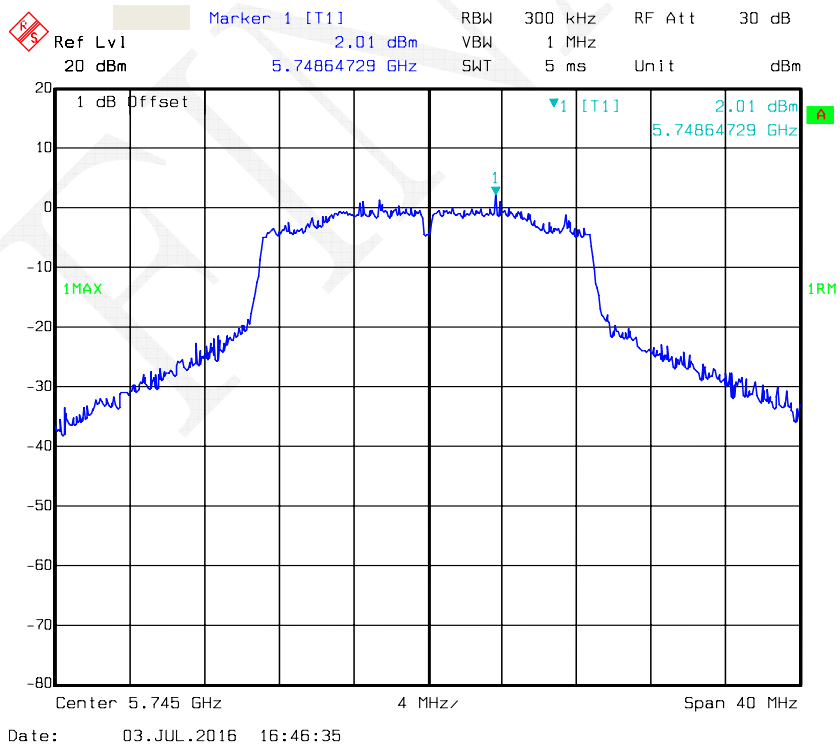
Chain 0: Power Spectral Density, 802.11n ht40 High Channel

Date: 03.JUL.2016 17:48:28

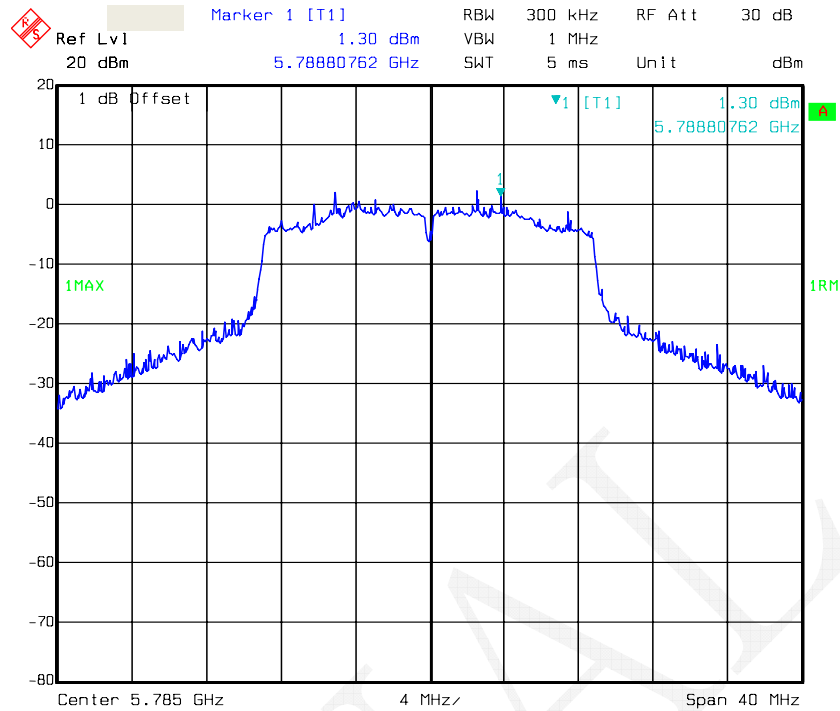
Chain 0: Power Spectral Density, 802.11n ac80 Middle Channel



Chain 1: Power Spectral Density, 802.11a Low Channel

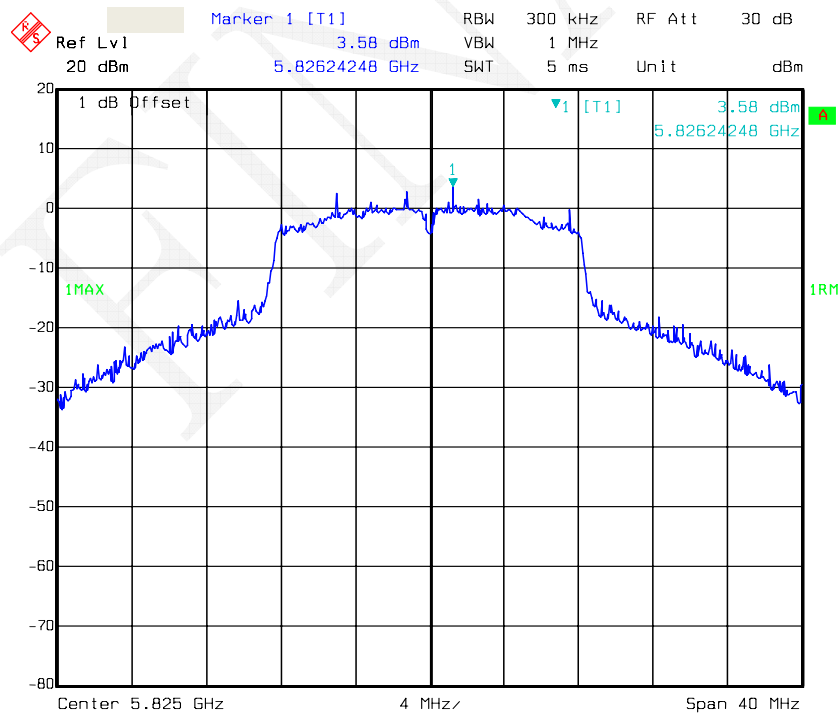


Chain 1: Power Spectral Density, 802.11a Middle Channel



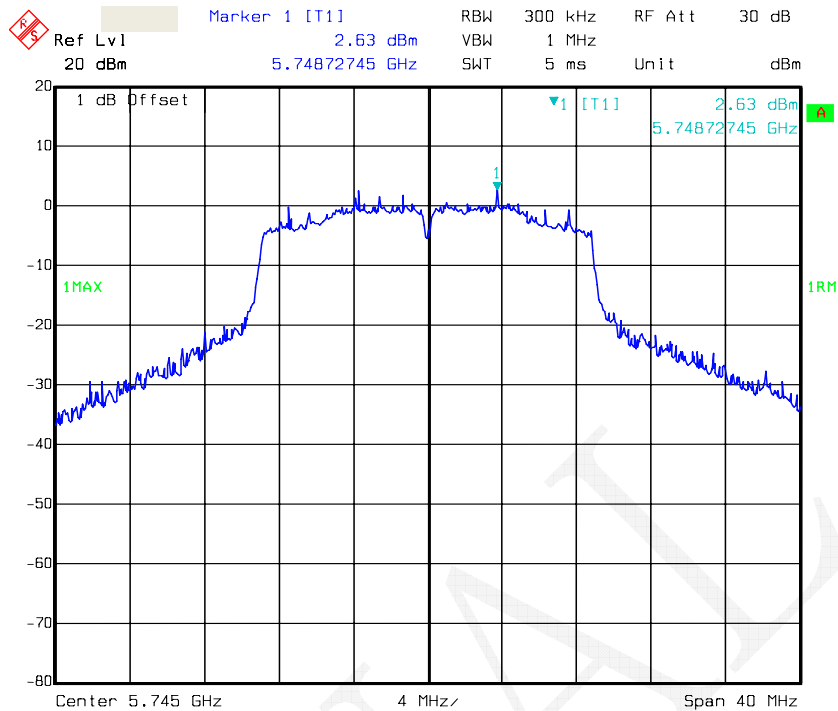
Date: 03.JUL.2016 16:51:13

Chain 1: Power Spectral Density, 802.11a High Channel



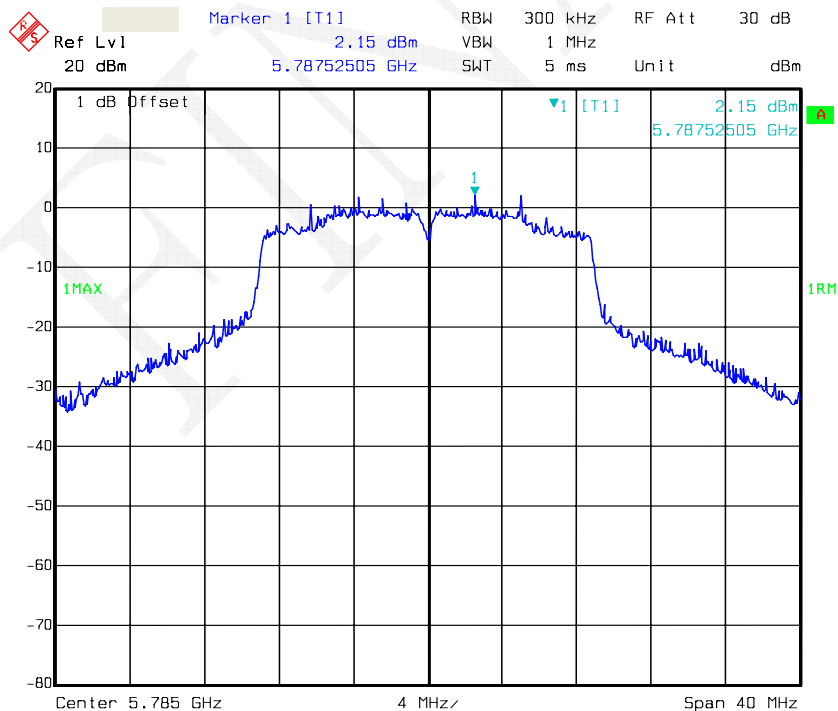
Date: 03.JUL.2016 17:05:51

Chain 1: Power Spectral Density, 802.11n ht20 Low Channel



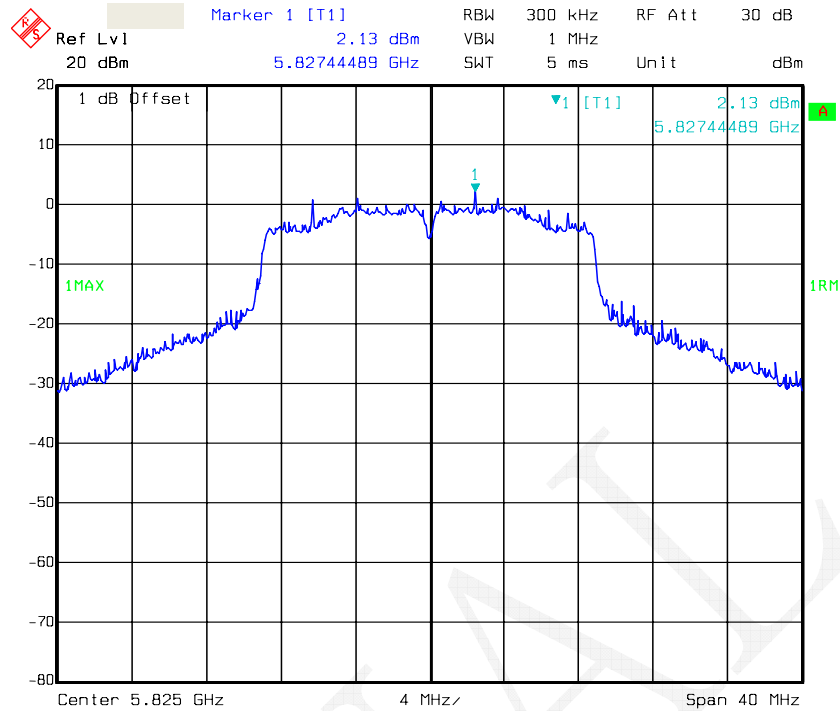
Date: 03.JUL.2016 17:15:36

Chain 1: Power Spectral Density, 802.11n ht20 Middle Channel



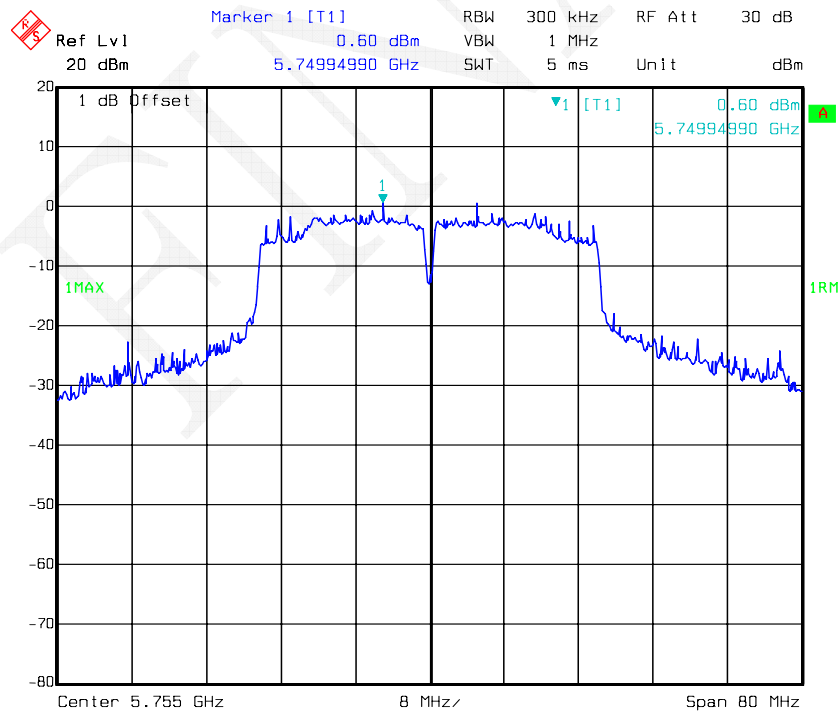
Date: 03.JUL.2016 17:23:46

Chain 1: Power Spectral Density, 802.11n ht20 High Channel



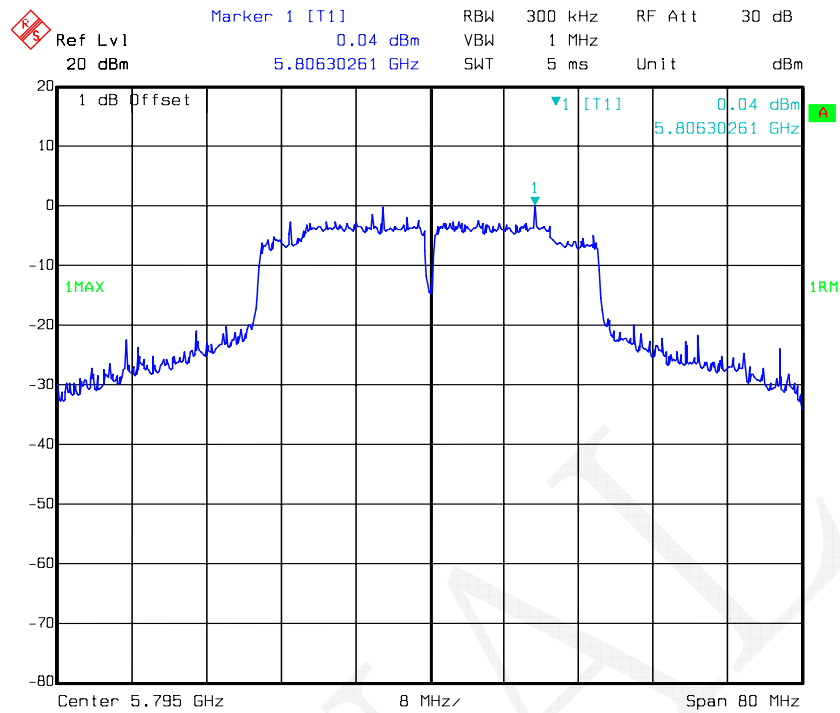
Date: 03.JUL.2016 17:32:17

Chain 1: Power Spectral Density, 802.11n ht40 Low Channel



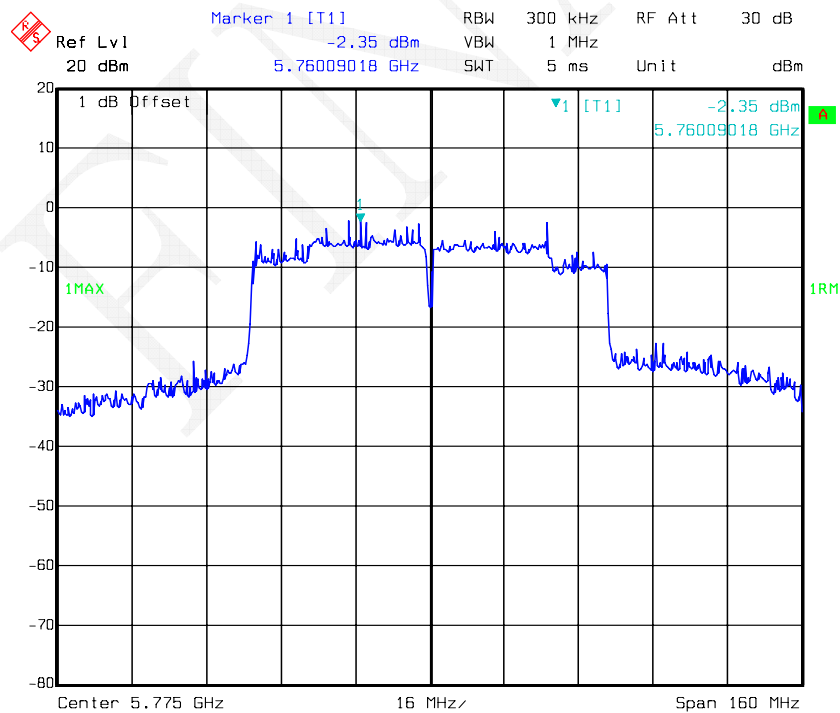
Date: 03.JUL.2016 17:41:24

Chain 1: Power Spectral Density, 802.11n ht40 High Channel



Date: 03.JUL.2016 17:45:33

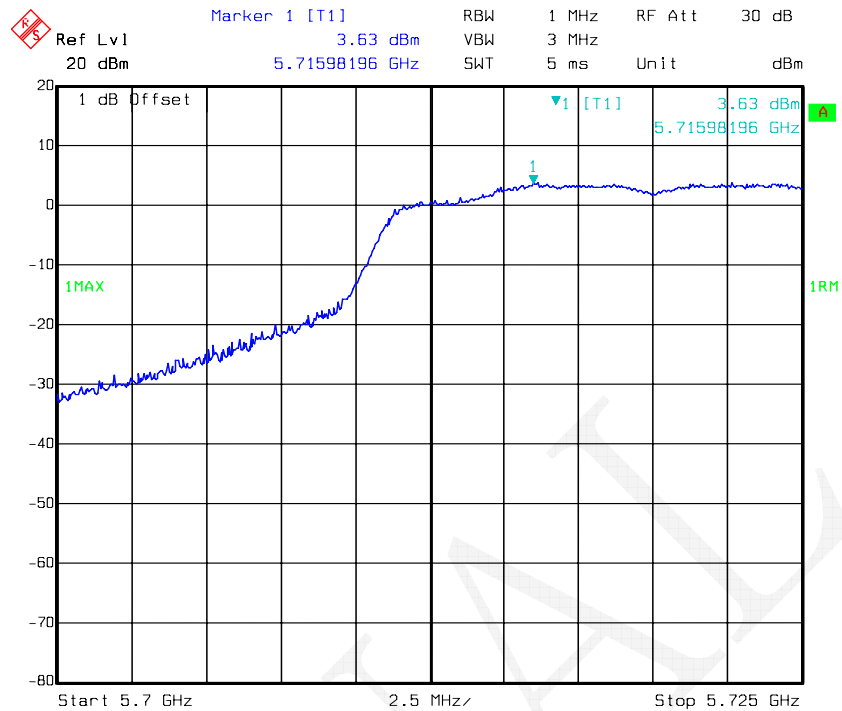
Chain 1: Power Spectral Density, 802.11n ac80 Middle Channel



Date: 03.JUL.2016 17:54:39

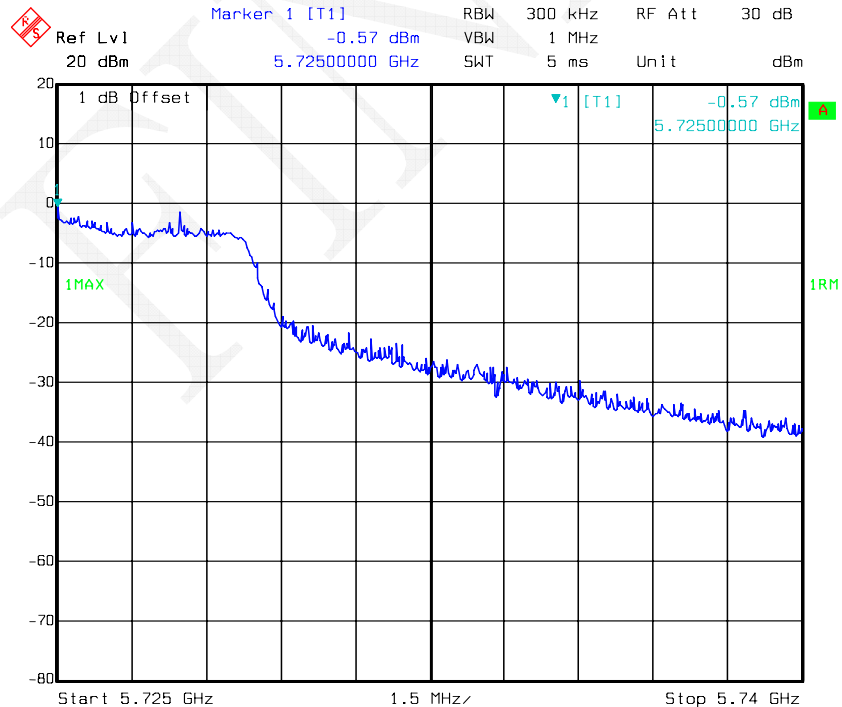
Cross Band:

Chain 0: Power Spectral Density, 802.11vht20 Low



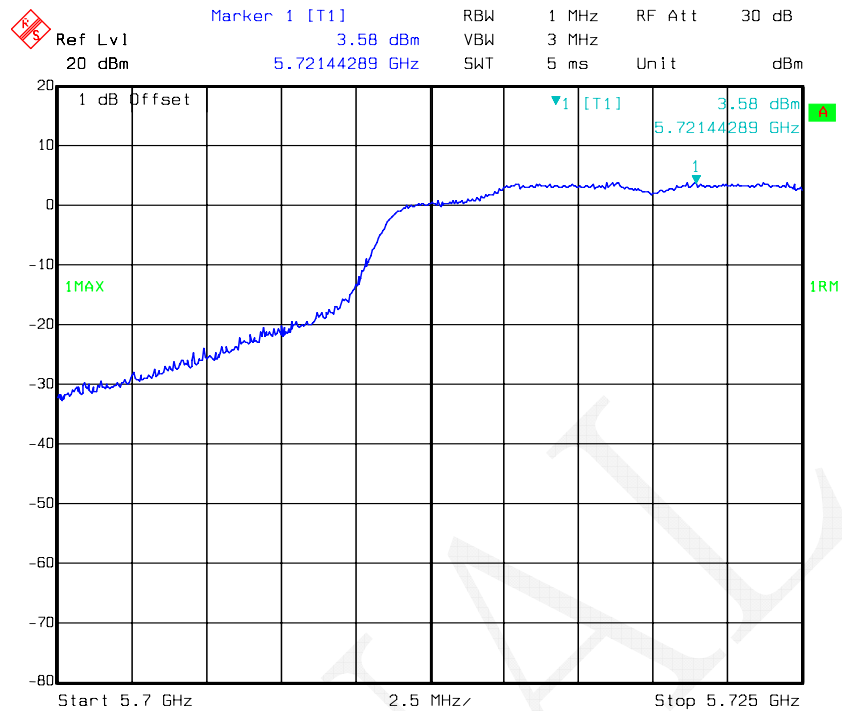
Date: 08.JUL.2016 01:52:46

Chain 0: Power Spectral Density, 802.11vht20 High



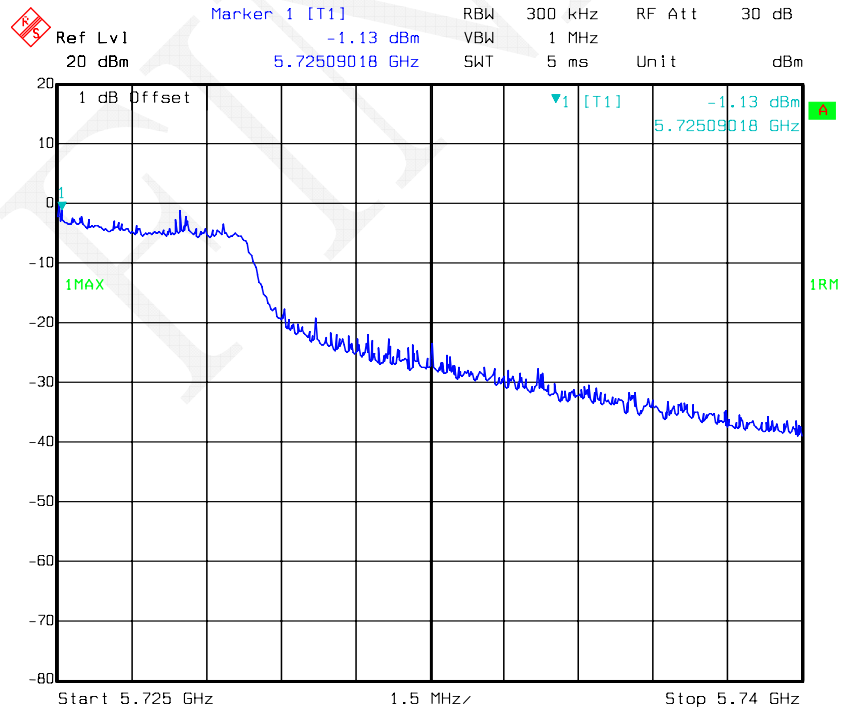
Date: 08.JUL.2016 01:51:49

Chain 1: Power Spectral Density, 802.11vht20 Low



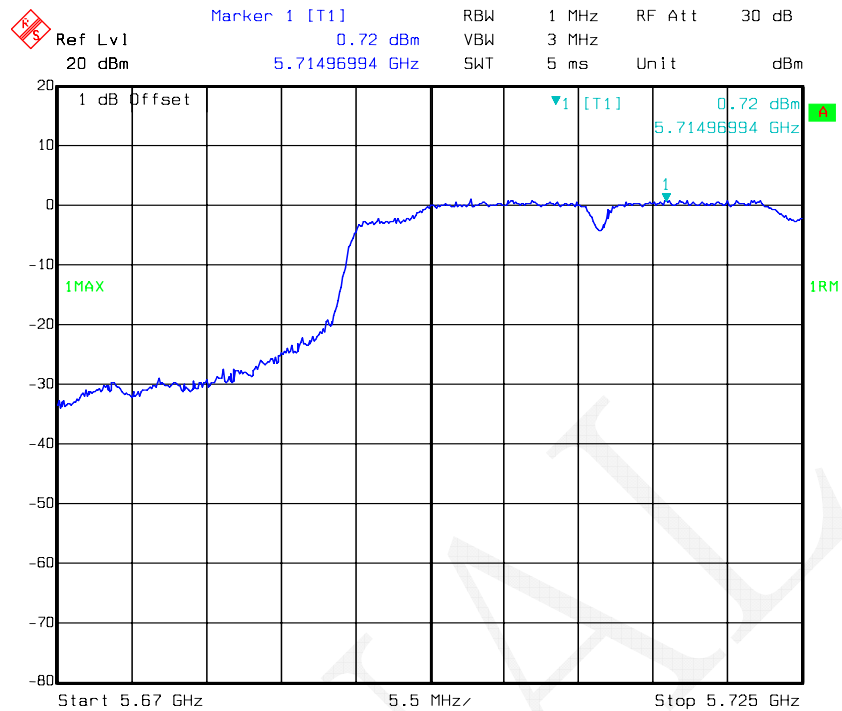
Date: 08.JUL.2016 01:53:07

Chain 1: Power Spectral Density, 802.11vht20 High



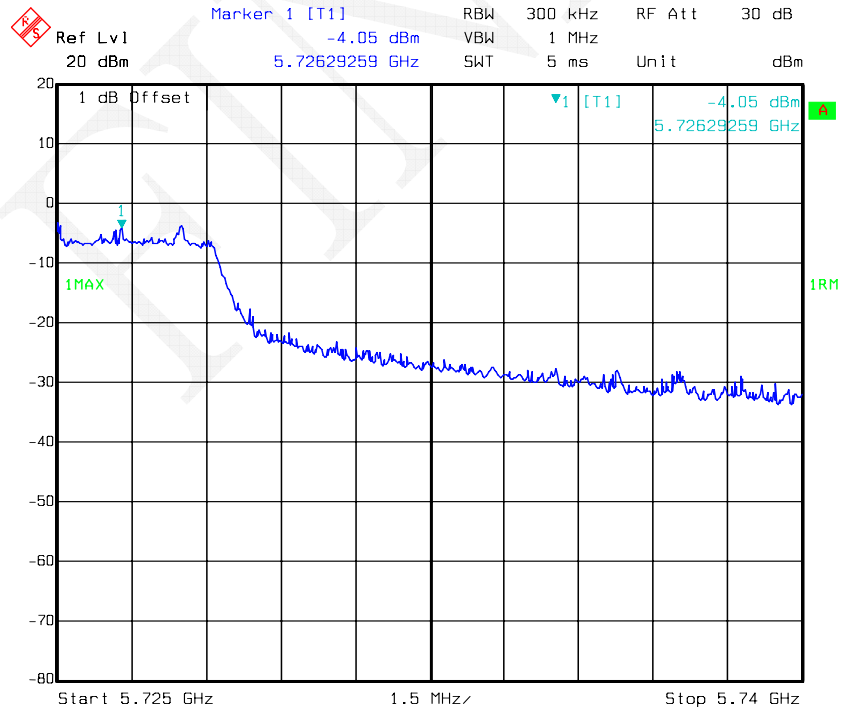
Date: 08.JUL.2016 01:52:01

Chain 0: Power Spectral Density, 802.11vht40 Low



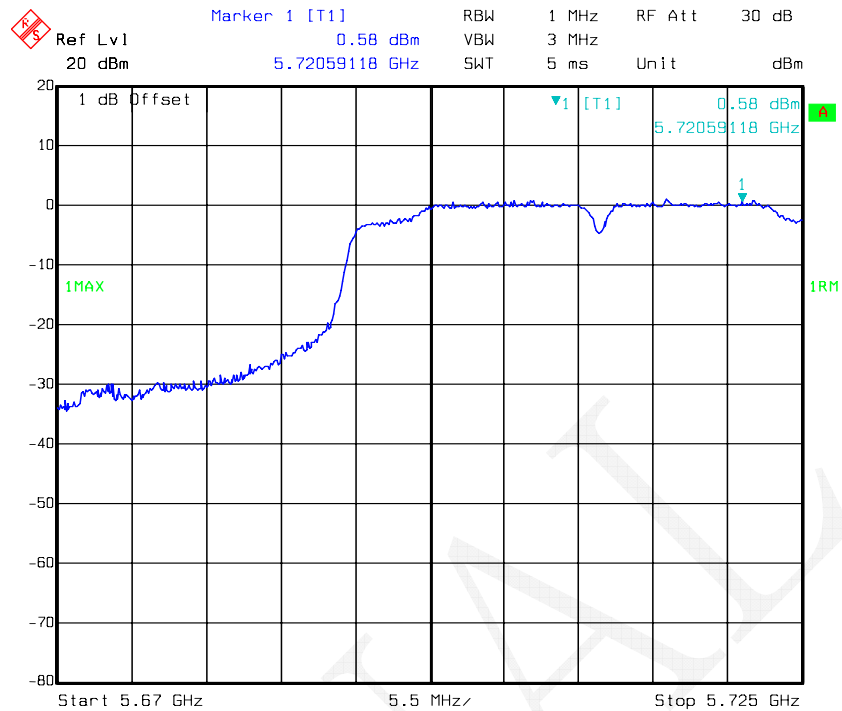
Date: 08.JUL.2016 01:46:12

Chain 0: Power Spectral Density, 802.11vht40 High



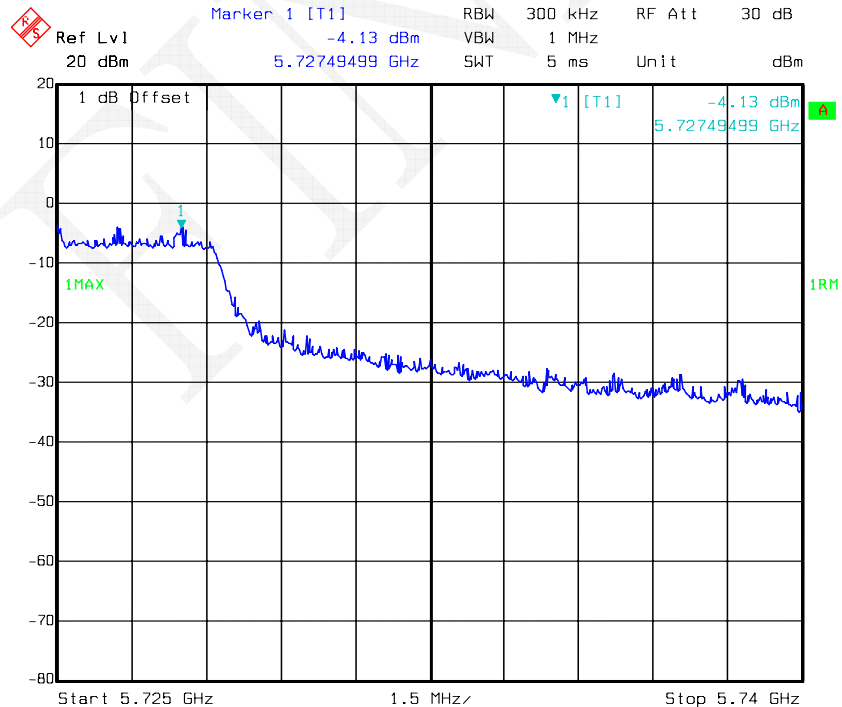
Date: 08.JUL.2016 01:45:26

Chain 1: Power Spectral Density, 802.11vht40 Low



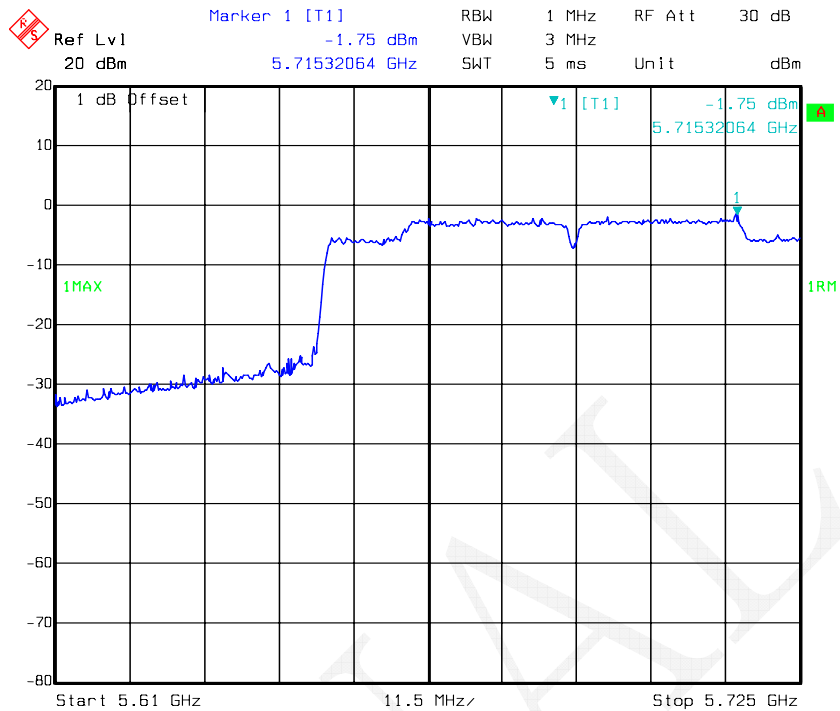
Date: 08.JUL.2016 01:46:21

Chain 1: Power Spectral Density, 802.11vht40 High



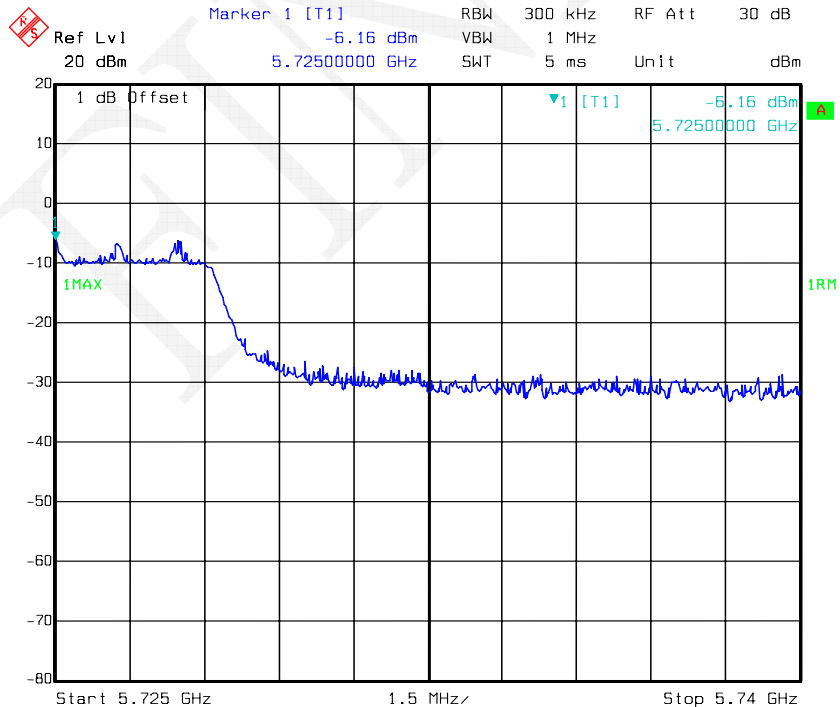
Date: 08.JUL.2016 01:45:36

Chain 0: Power Spectral Density, 802.11vht80 Low



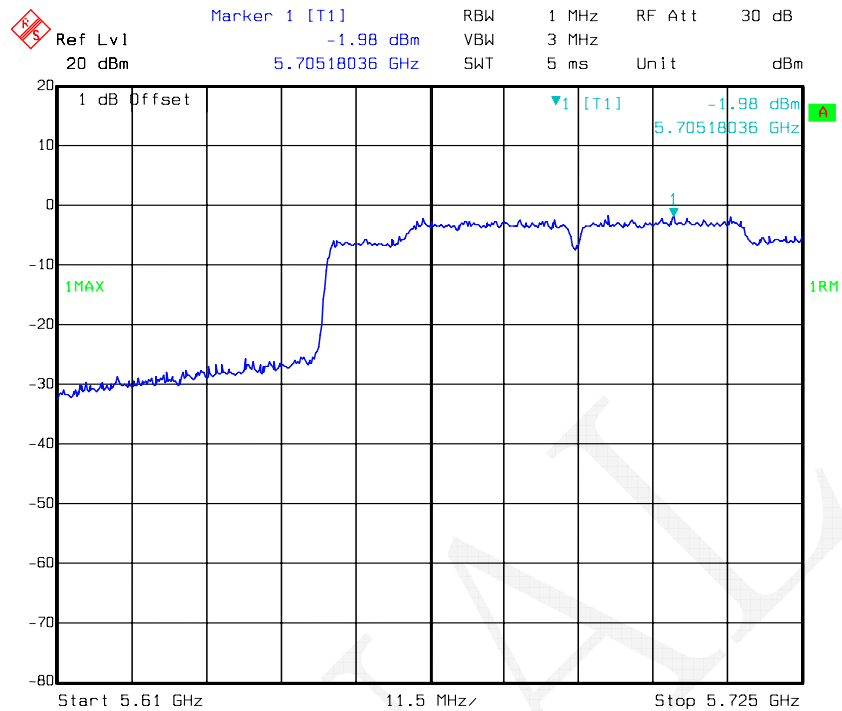
Date: 08.JUL.2016 01:38:41

Chain 0: Power Spectral Density, 802.11vht80 High



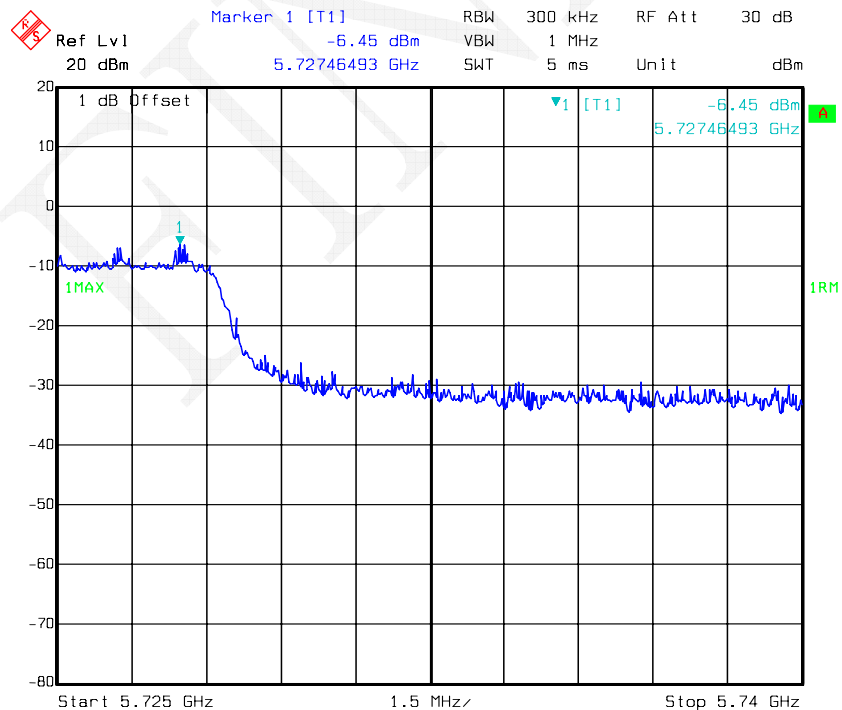
Date: 08.JUL.2016 01:39:14

Chain 1: Power Spectral Density, 802.11vht80 Low



Date: 08.JUL.2016 01:38:18

Chain 1: Power Spectral Density, 802.11vht80 High



Date: 08.JUL.2016 01:39:29

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