

7.6 CONDUCTED SPURIOUS EMISSION

LIMITS

§ 15.247(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the and that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
EXA Signal Analyzer	Agilent	N9010A	MY52220817	03/15/2017
Test S/W	N/A			

Remark: Each piece of equipment is scheduled for calibration once a year.

TEST SETUP



TEST PROCEDURE

The transmitter output is connected to a spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

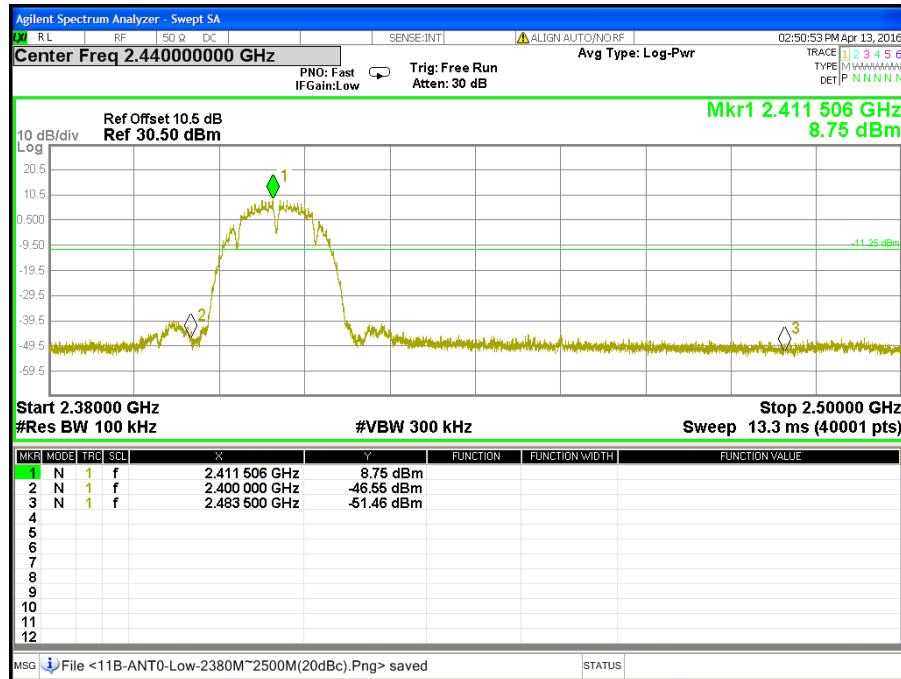
The spectrum from 30 MHz to 26.5 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

TEST RESULTS

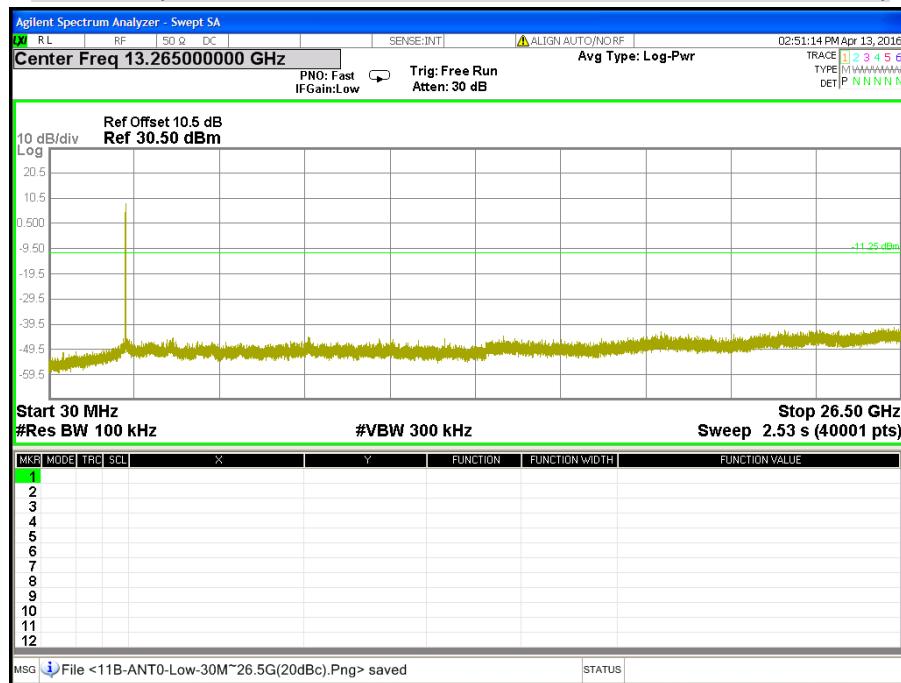
Product Name	Moca AP cable Modem	Test By	Davis Tseng
Test Model	CGNVM-3589	Test Date	2016/04/06
Test Mode	TX Mode	Temp. & Humidity	25°C, 53%

OUT-OF-BAND SPURIOUS EMISSIONS-CONDUCTED MEASUREMENT

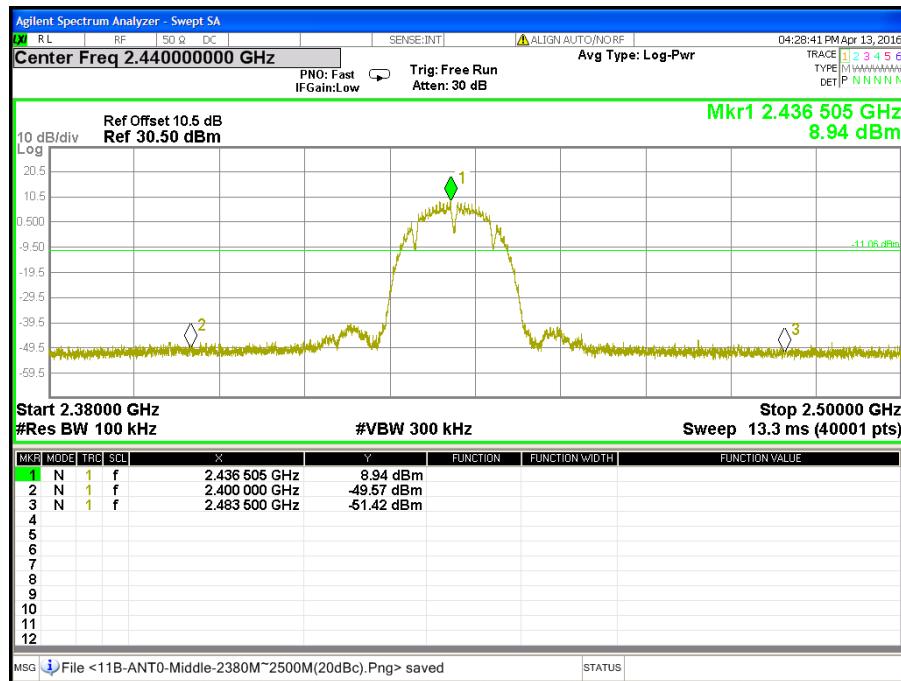
CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11b Mode / Chain 0)



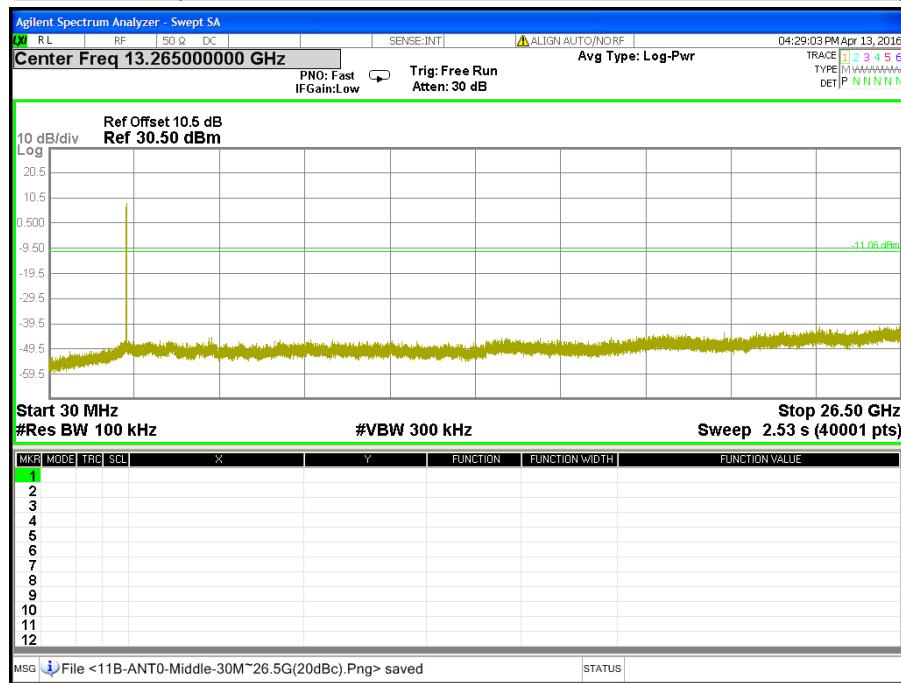
CH Low (30MHz ~ 26.5GHz / IEEE 802.11b Mode / Chain 0)



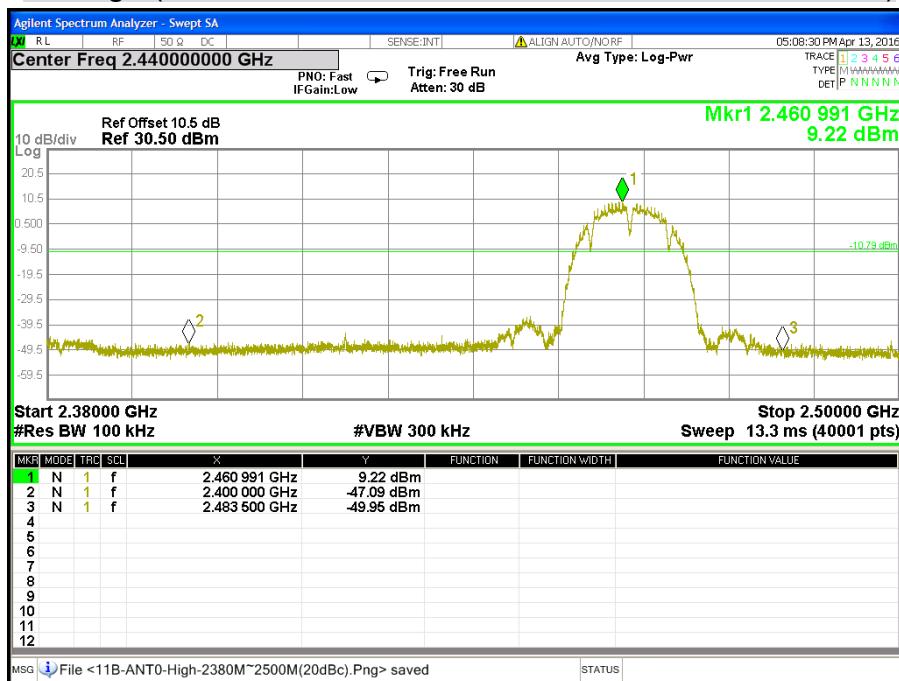
CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11b Mode / Chain 0)



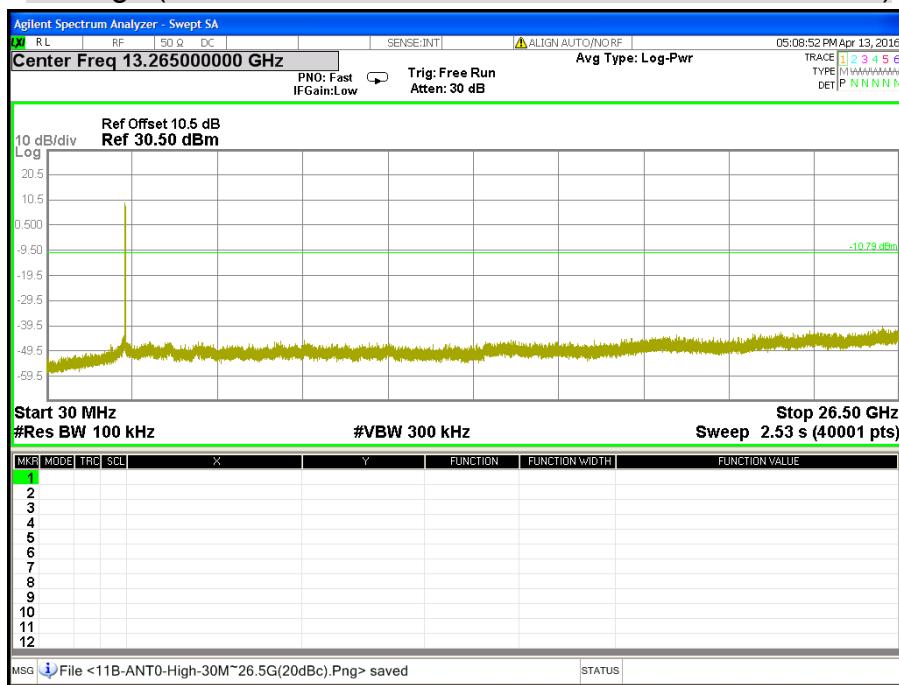
CH Middle (30MHz ~ 26.5GHz / IEEE 802.11b Mode / Chain 0)

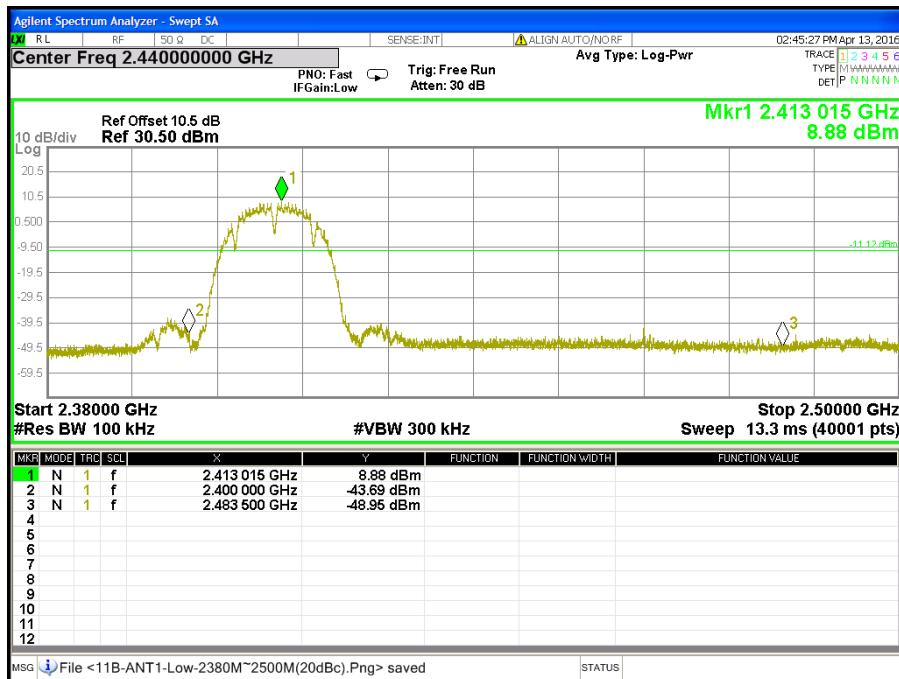
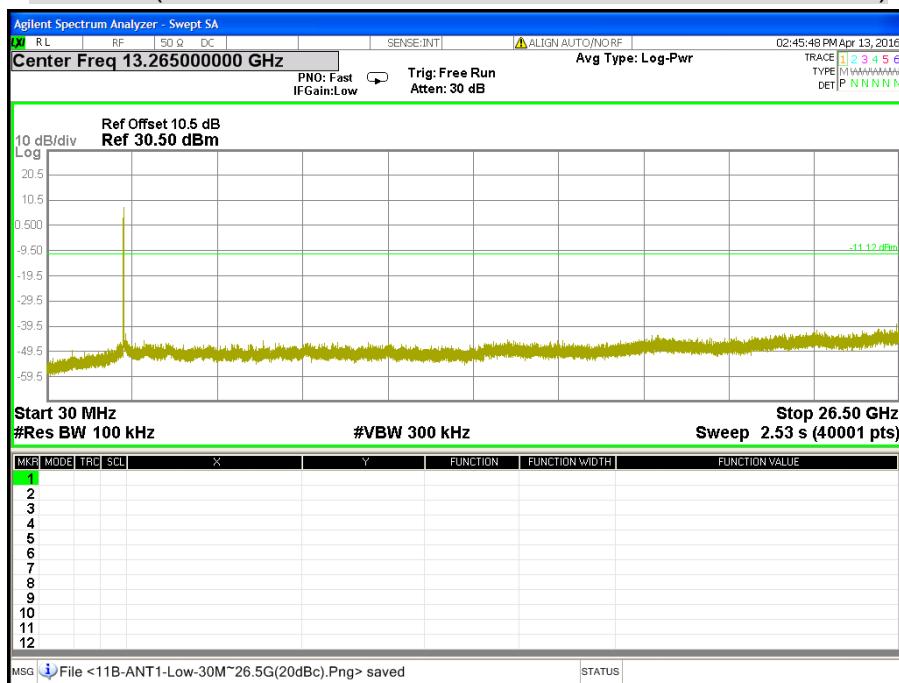


CH High (2.38GHz ~ 2.5GHz / IEEE 802.11b Mode / Chain 0)

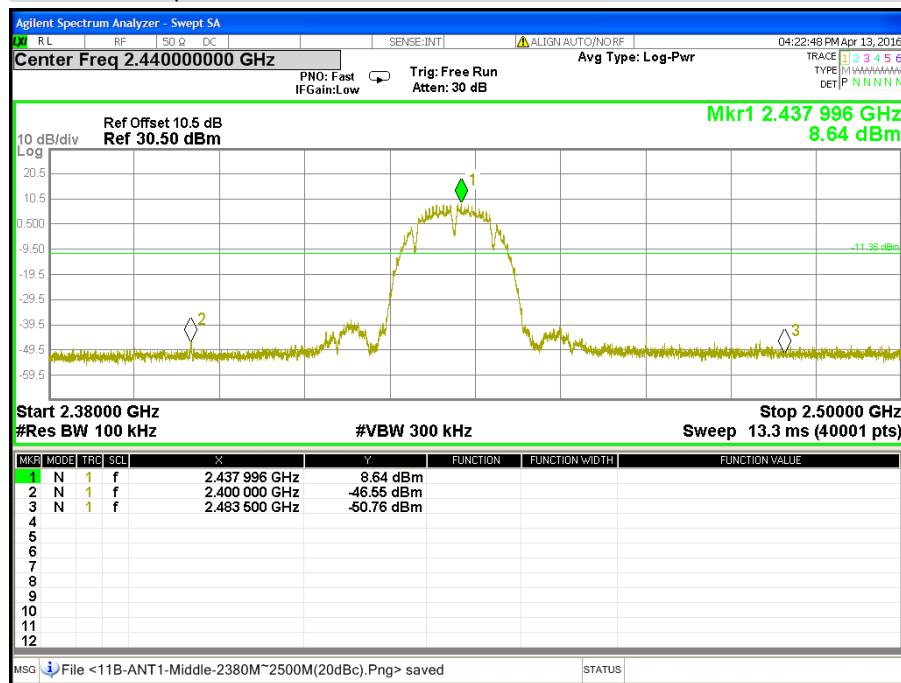


CH High (30MHz ~ 26.5GHz / IEEE 802.11b Mode / Chain 0)

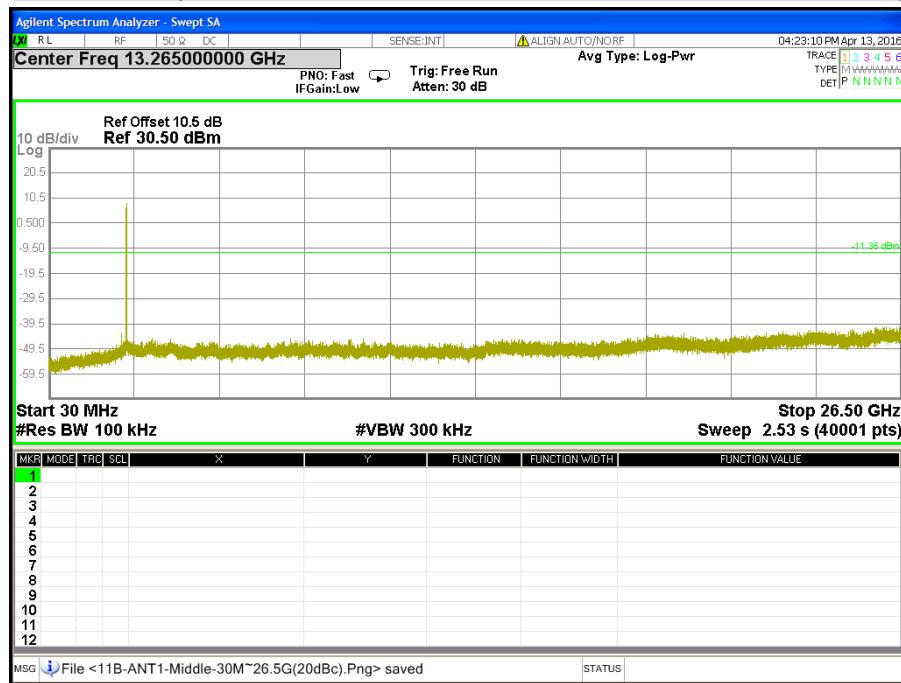


CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11b Mode / Chain 1)**CH Low (30MHz ~ 26.5GHz / IEEE 802.11b Mode / Chain 1)**

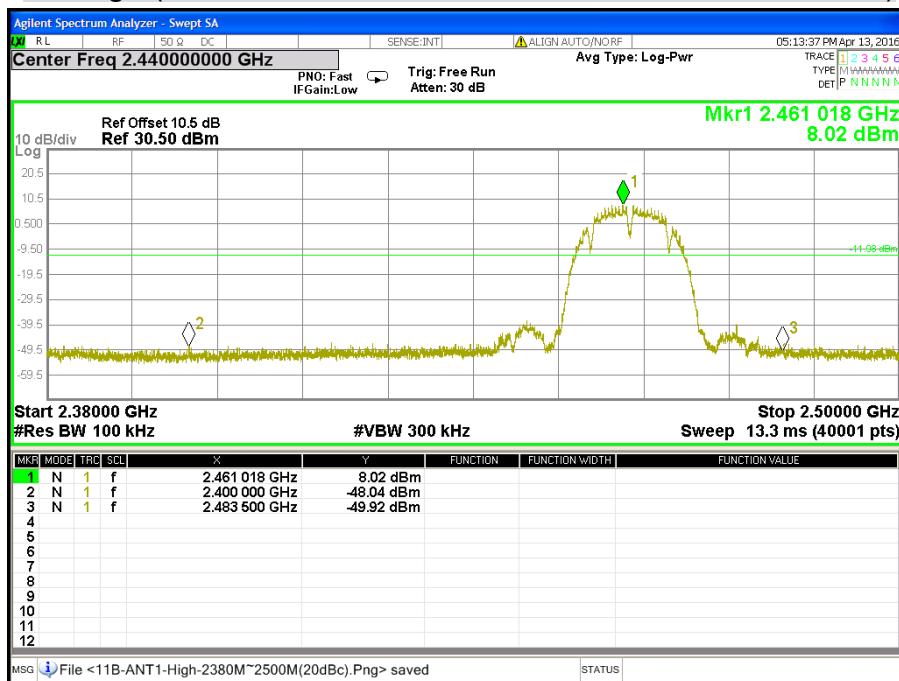
CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11b Mode / Chain 1)



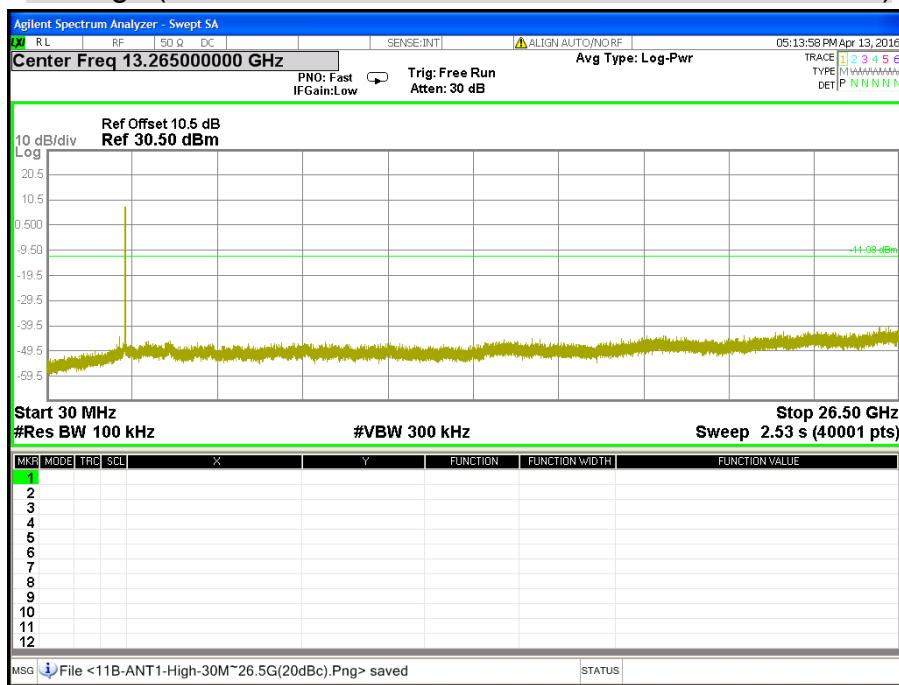
CH Middle (30MHz ~ 26.5GHz / IEEE 802.11b Mode / Chain 1)

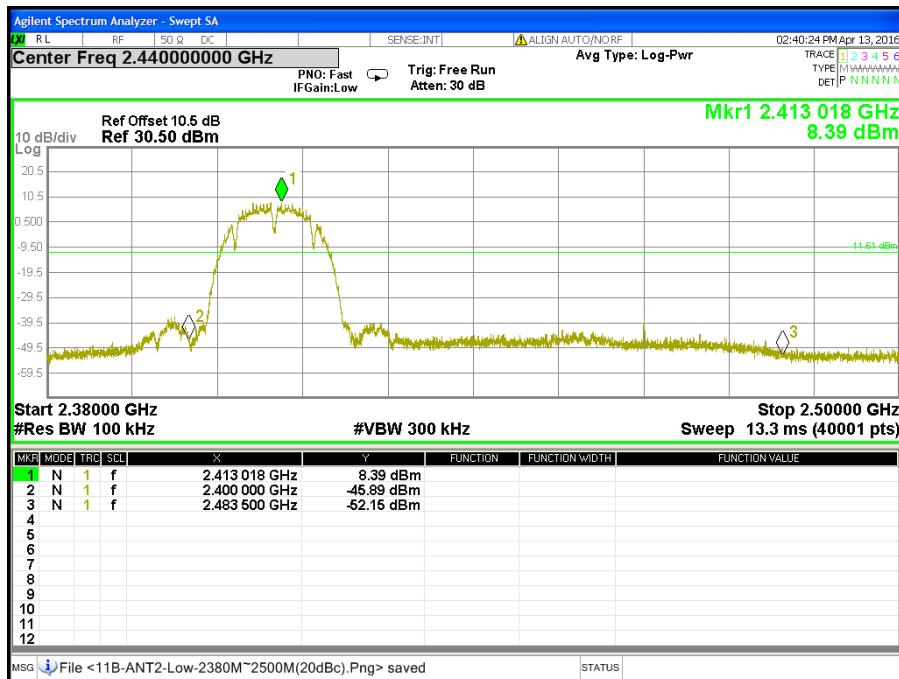
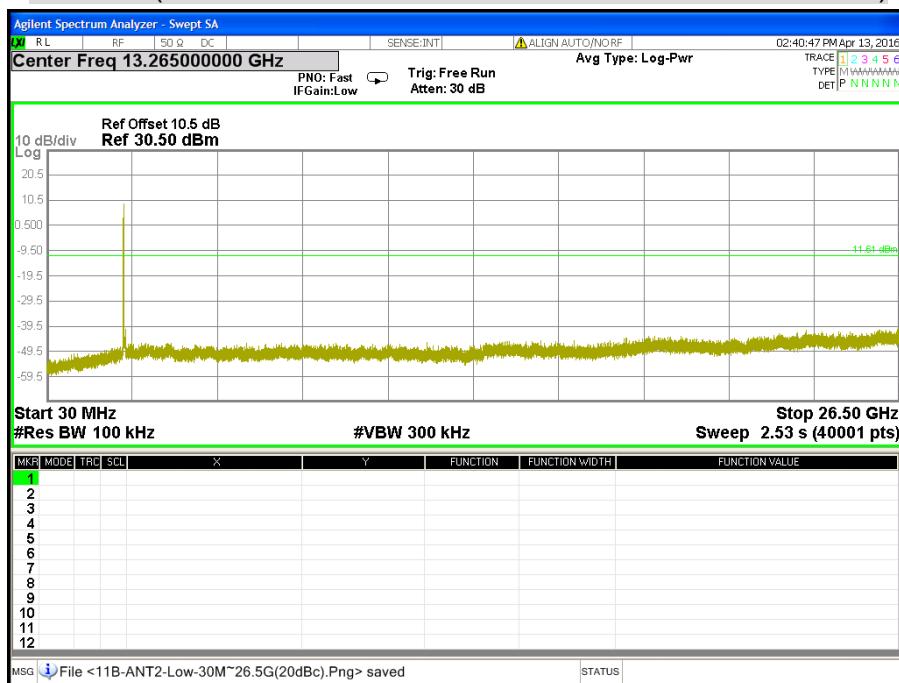


CH High (2.38GHz ~ 2.5GHz / IEEE 802.11b Mode / Chain 1)

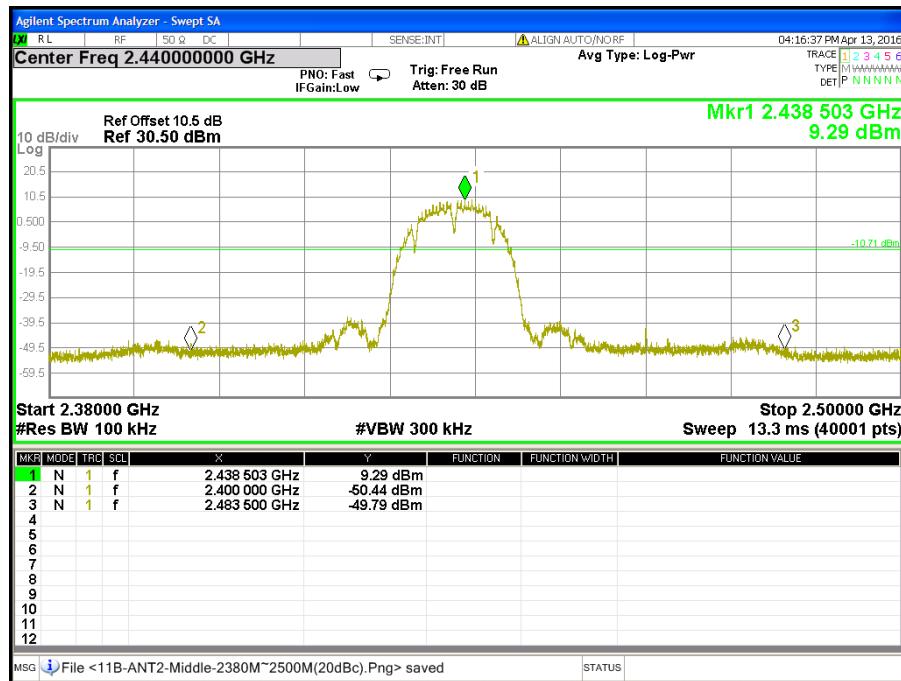


CH High (30MHz ~ 26.5GHz / IEEE 802.11b Mode / Chain 1)

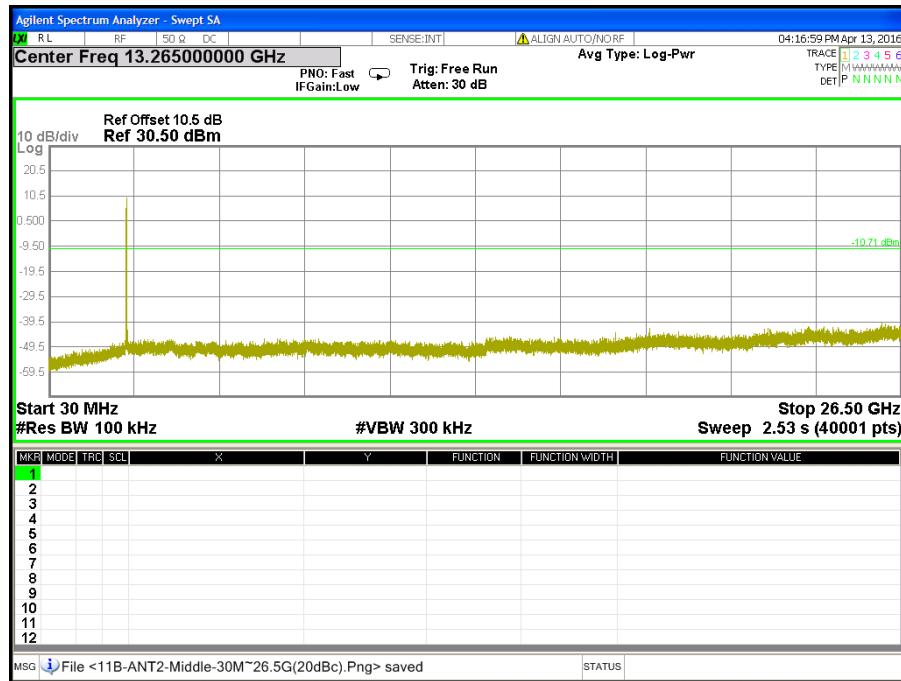


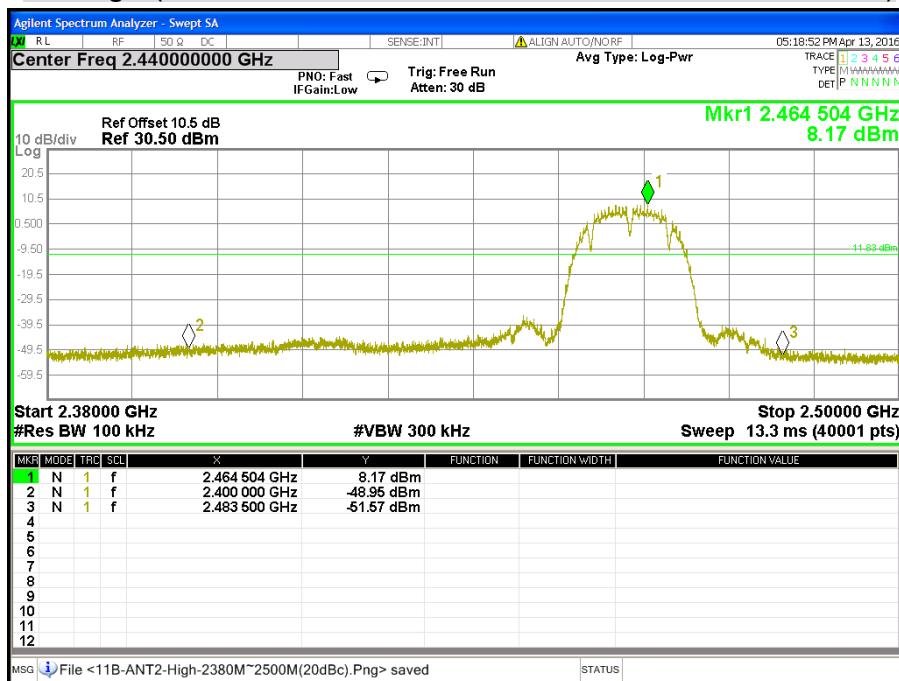
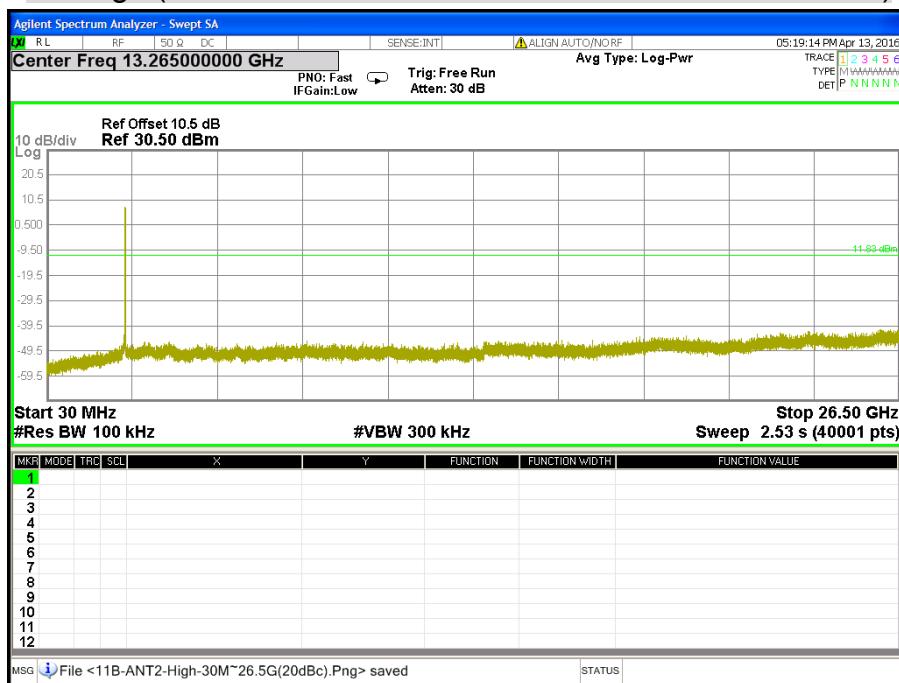
CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11b Mode / Chain 2)**CH Low (30MHz ~ 26.5GHz / IEEE 802.11b Mode / Chain 2)**

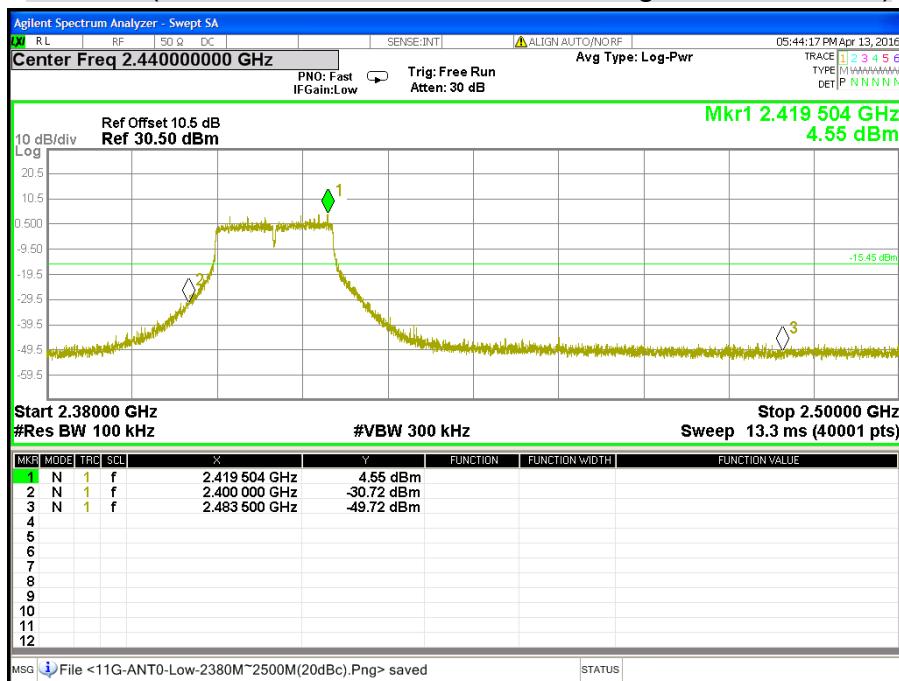
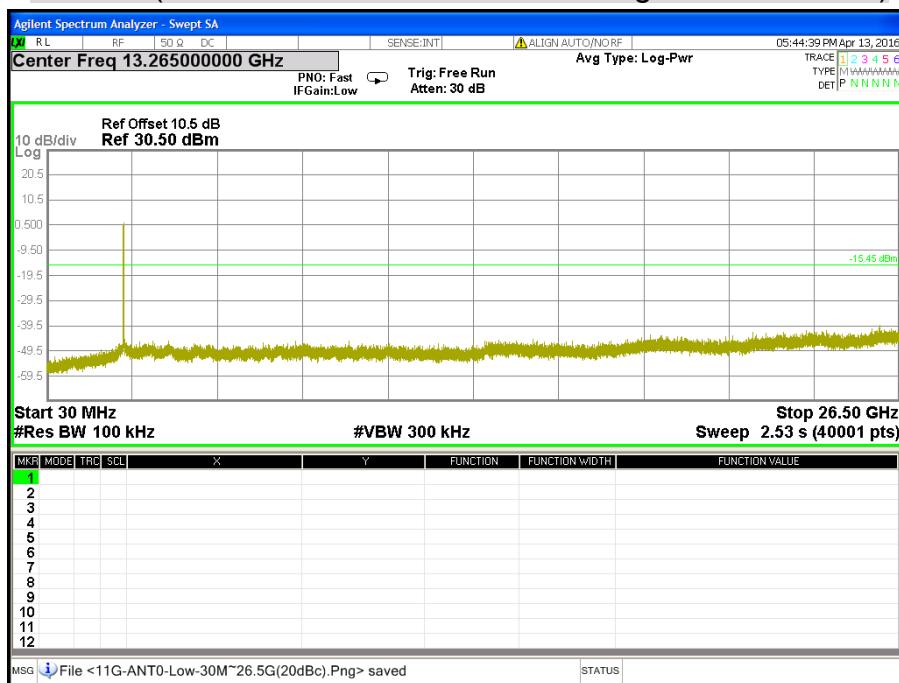
CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11b Mode / Chain 2)



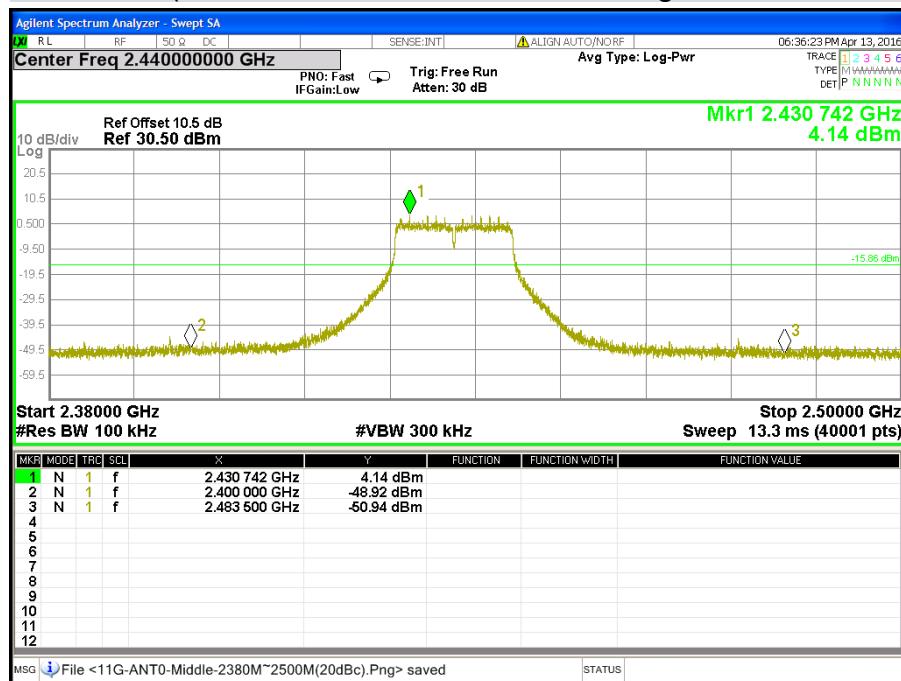
CH Middle (30MHz ~ 26.5GHz / IEEE 802.11b Mode / Chain 2)



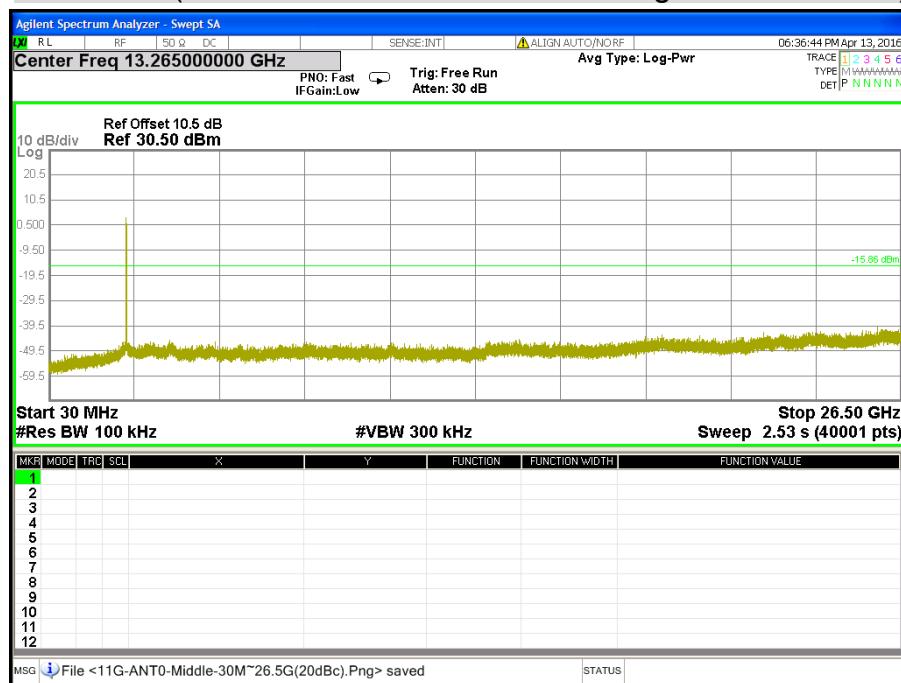
CH High (2.38GHz ~ 2.5GHz / IEEE 802.11b Mode / Chain 2)**CH High (30MHz ~ 26.5GHz / IEEE 802.11b Mode / Chain 2)**

CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11g Mode / Chain 0)**CH Low (30MHz ~ 26.5GHz / IEEE 802.11g Mode / Chain 0)**

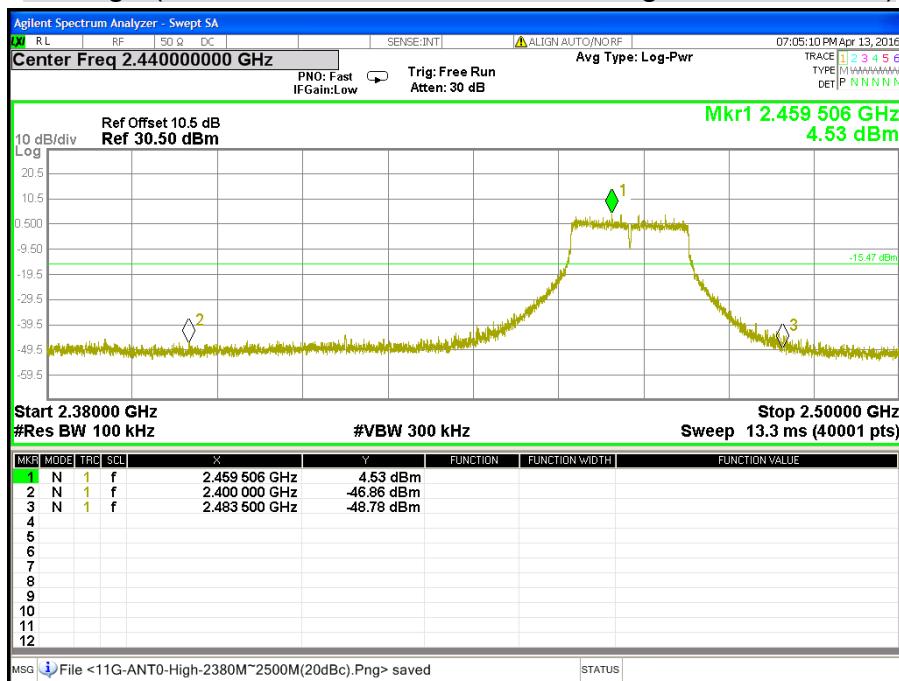
CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11g Mode / Chain 0)



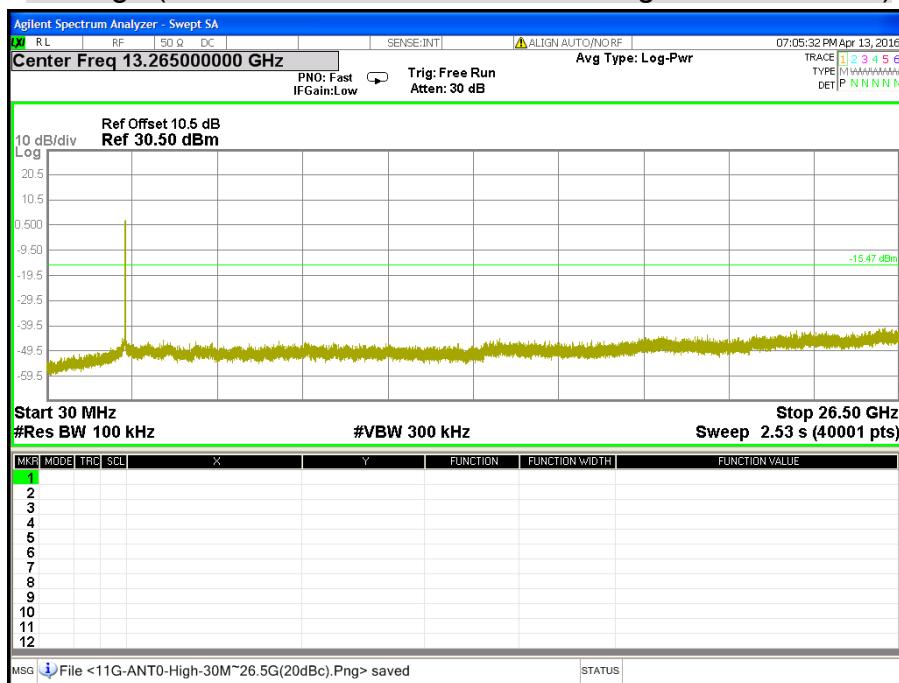
CH Middle (30MHz ~ 26.5GHz / IEEE 802.11g Mode / Chain 0)

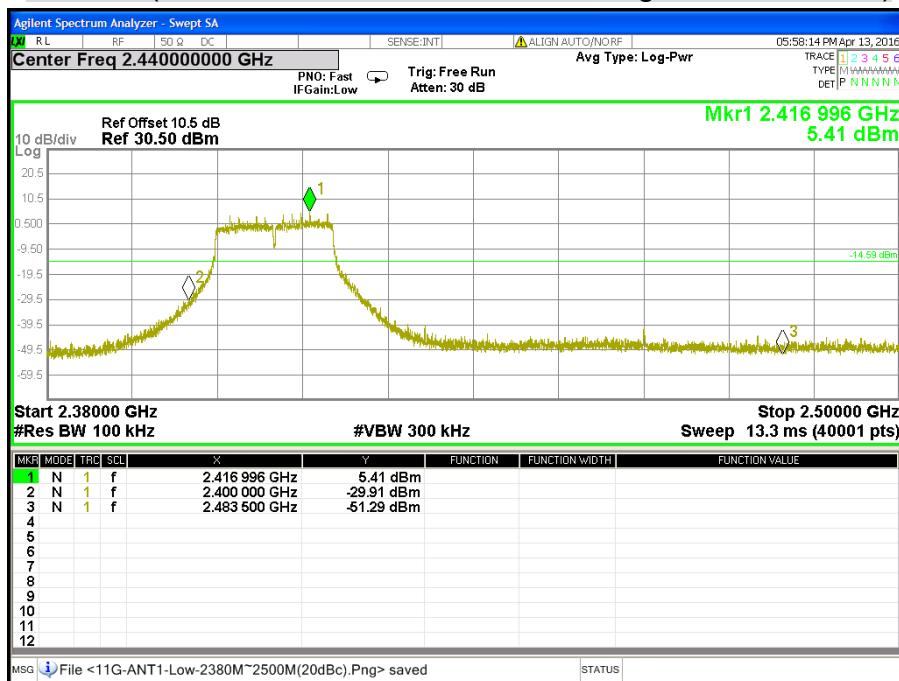
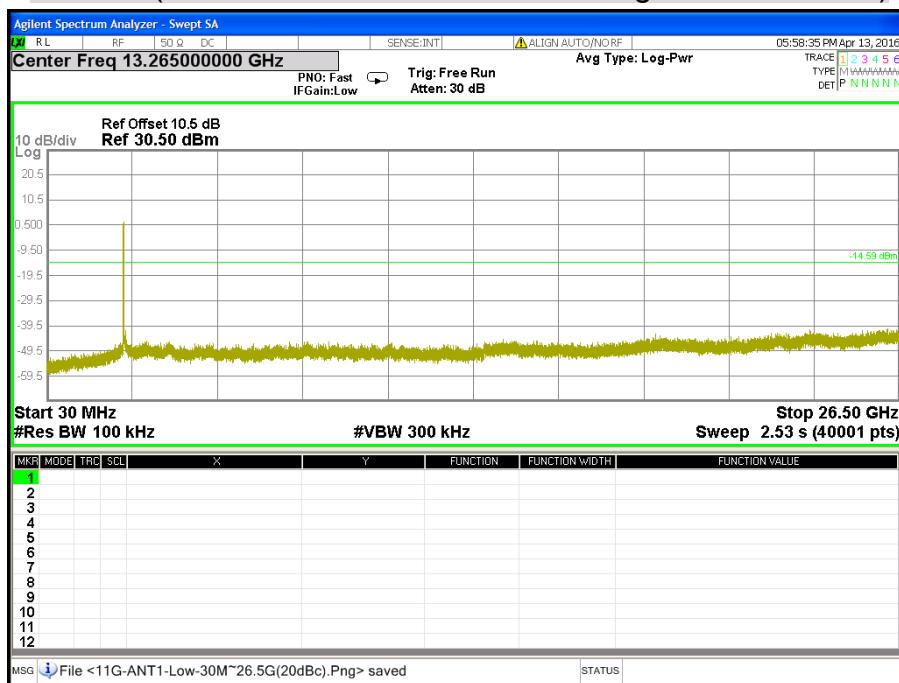


CH High (2.38GHz ~ 2.5GHz / IEEE 802.11g Mode / Chain 0)

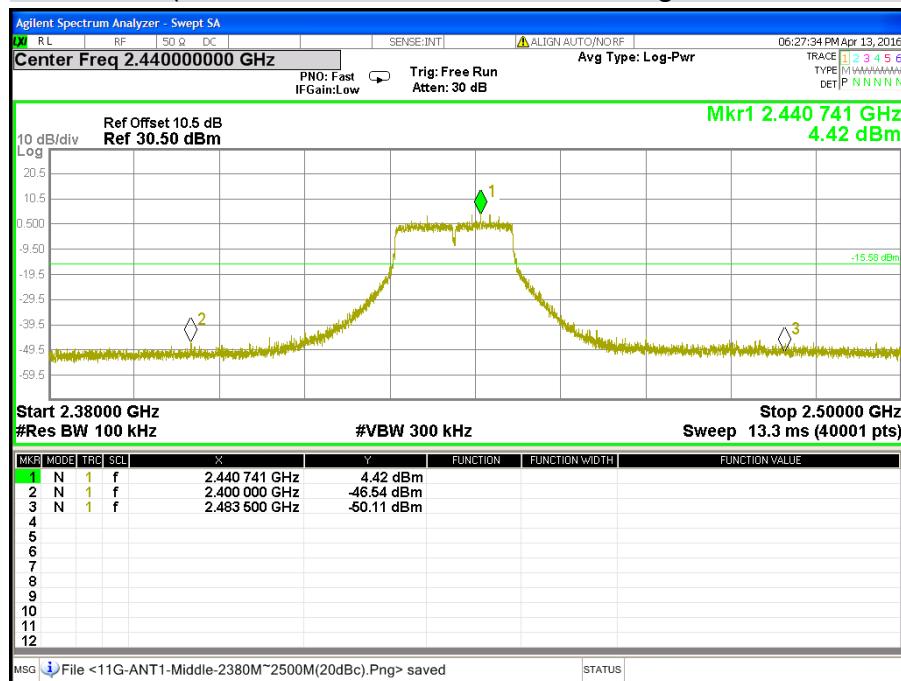


CH High (30MHz ~ 26.5GHz / IEEE 802.11g Mode / Chain 0)

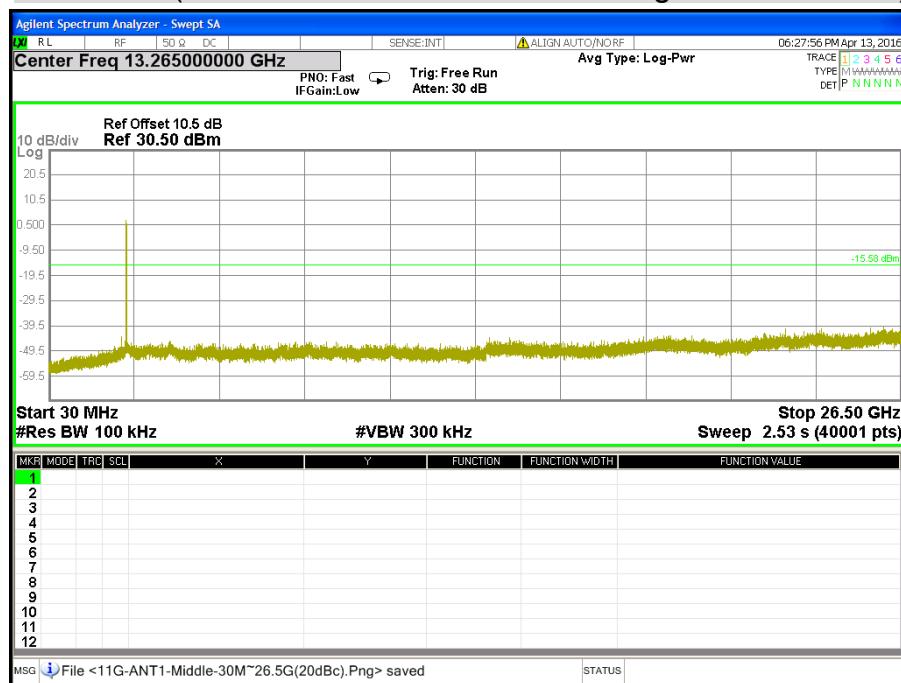


CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11g Mode / Chain 1)**CH Low (30MHz ~ 26.5GHz / IEEE 802.11g Mode / Chain 1)**

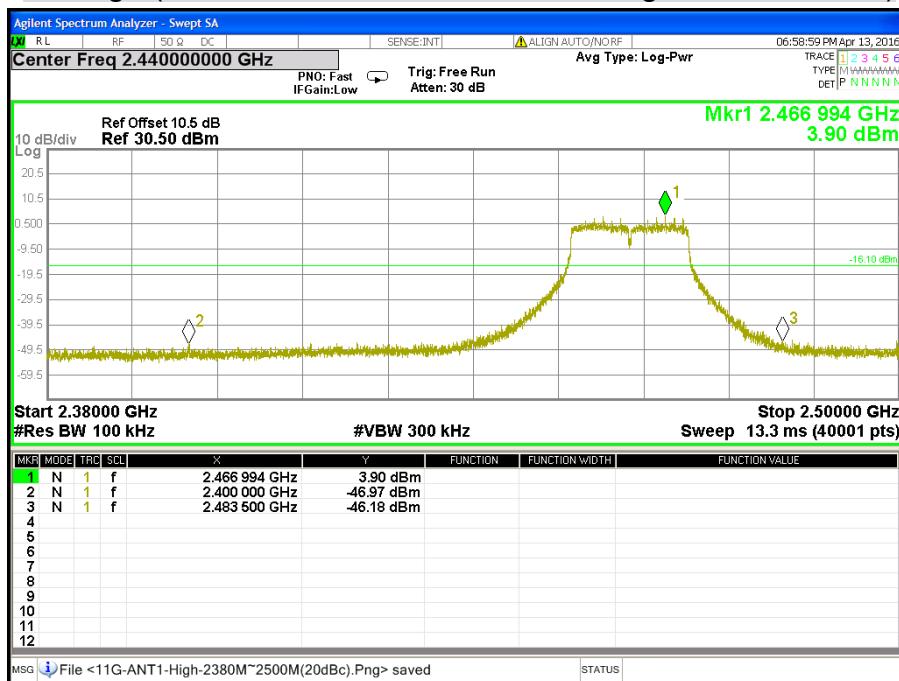
CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11g Mode / Chain 1)



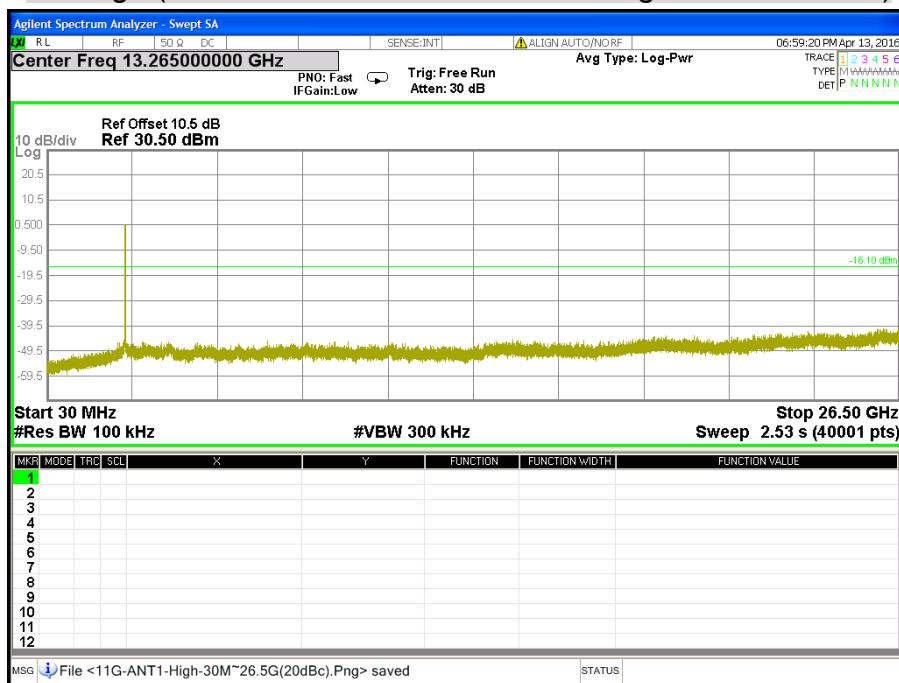
CH Middle (30MHz ~ 26.5GHz / IEEE 802.11g Mode / Chain 1)

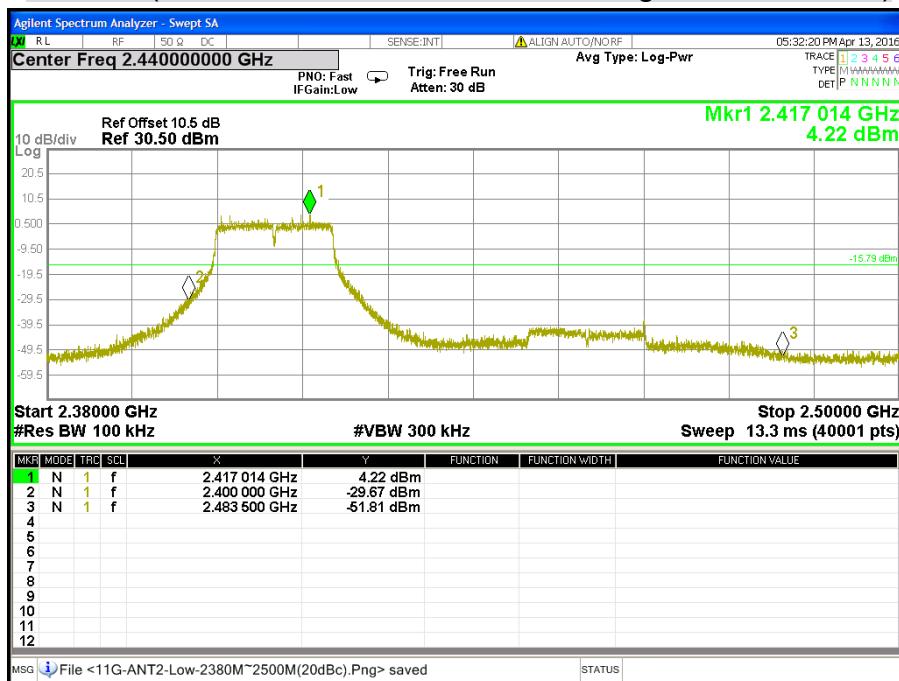
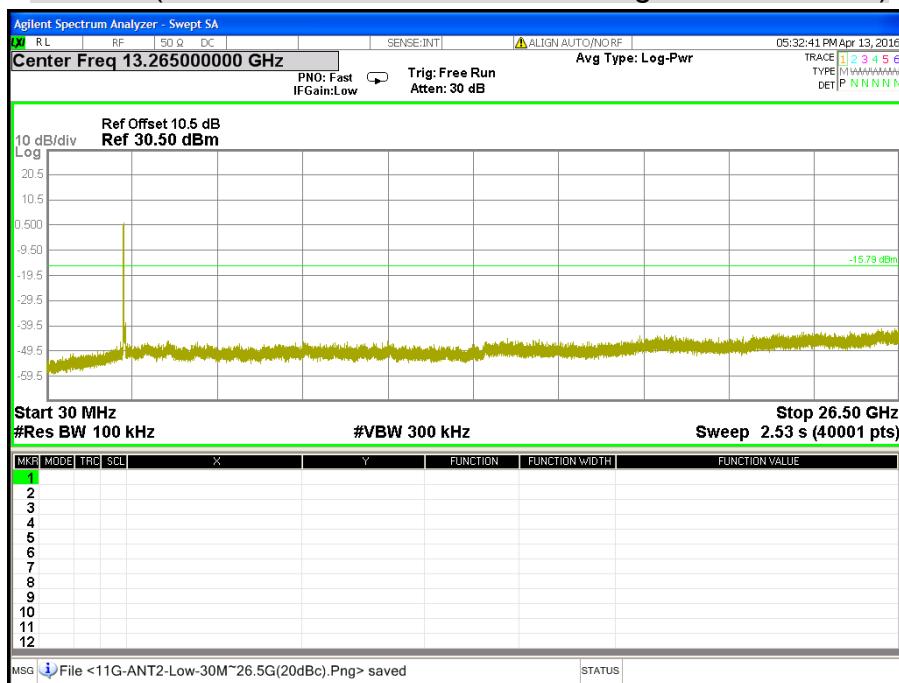


CH High (2.38GHz ~ 2.5GHz / IEEE 802.11g Mode / Chain 1)

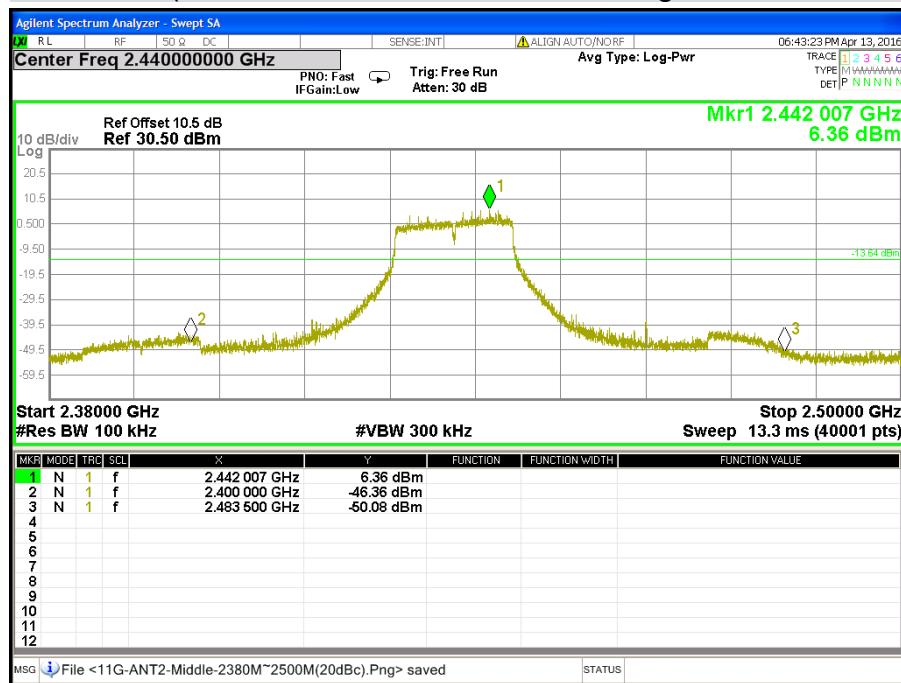


CH High (30MHz ~ 26.5GHz / IEEE 802.11g Mode / Chain 1)

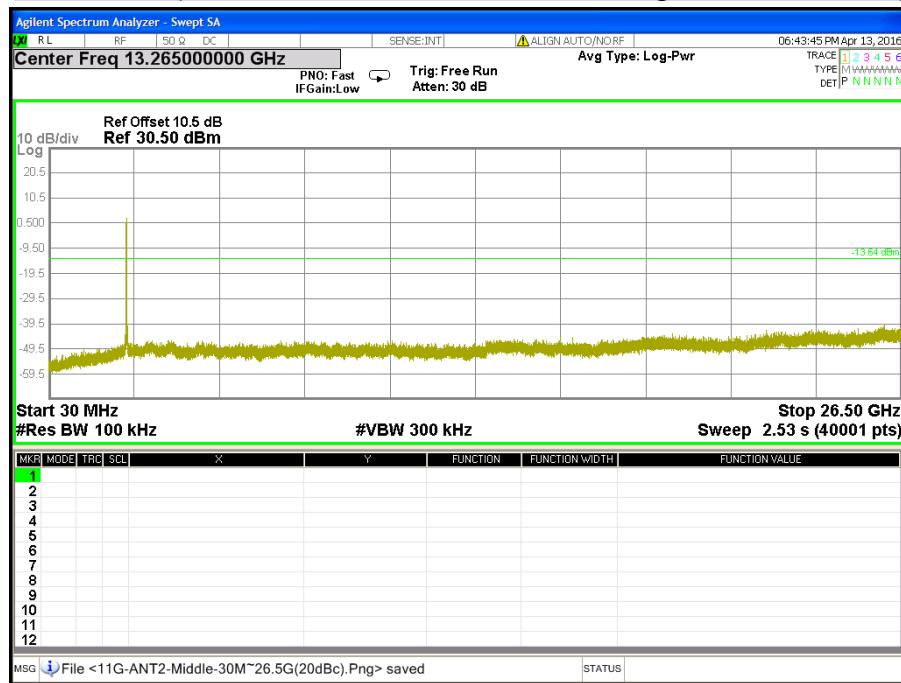


CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11g Mode / Chain 2)**CH Low (30MHz ~ 26.5GHz / IEEE 802.11g Mode / Chain 2)**

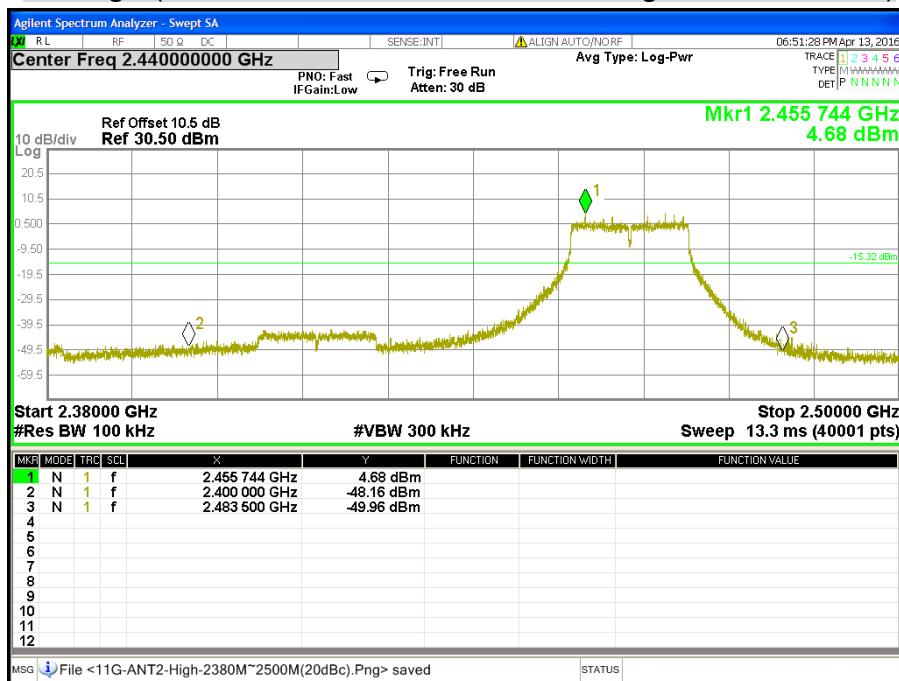
CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11g Mode / Chain 2)



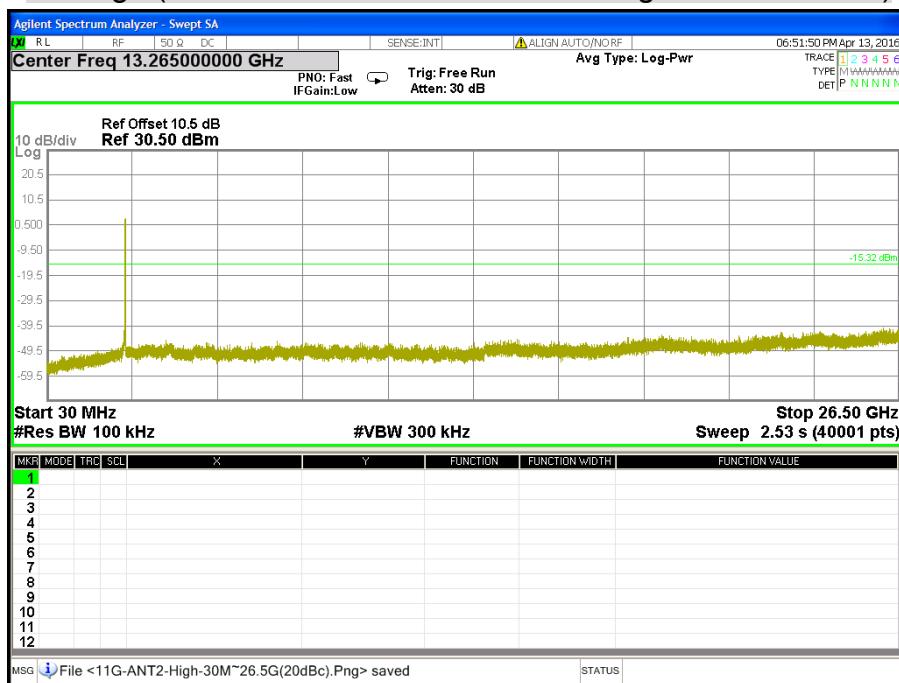
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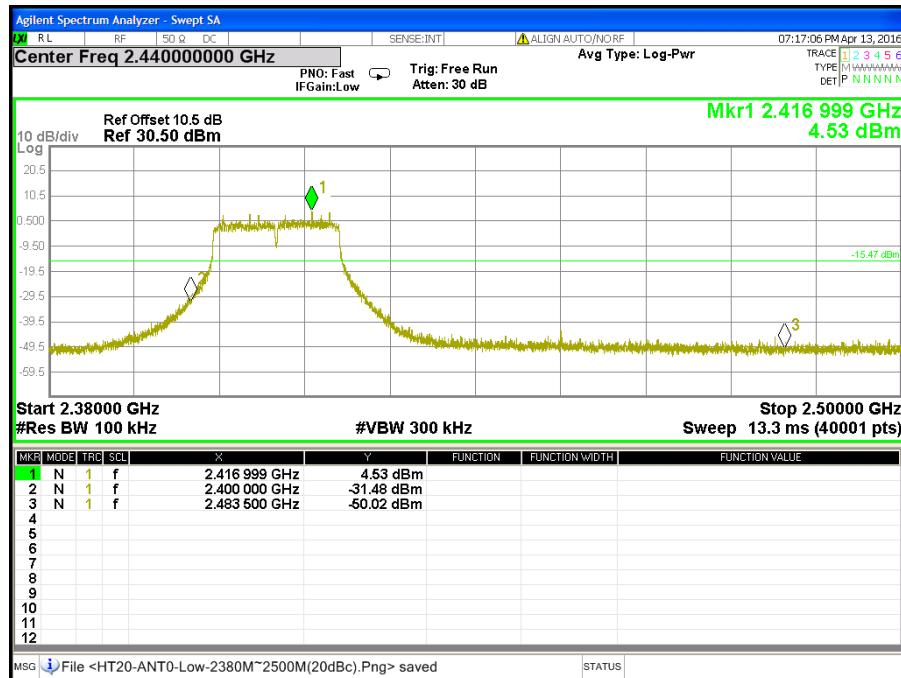
CH High (2.38GHz ~ 2.5GHz / IEEE 802.11g Mode / Chain 2)



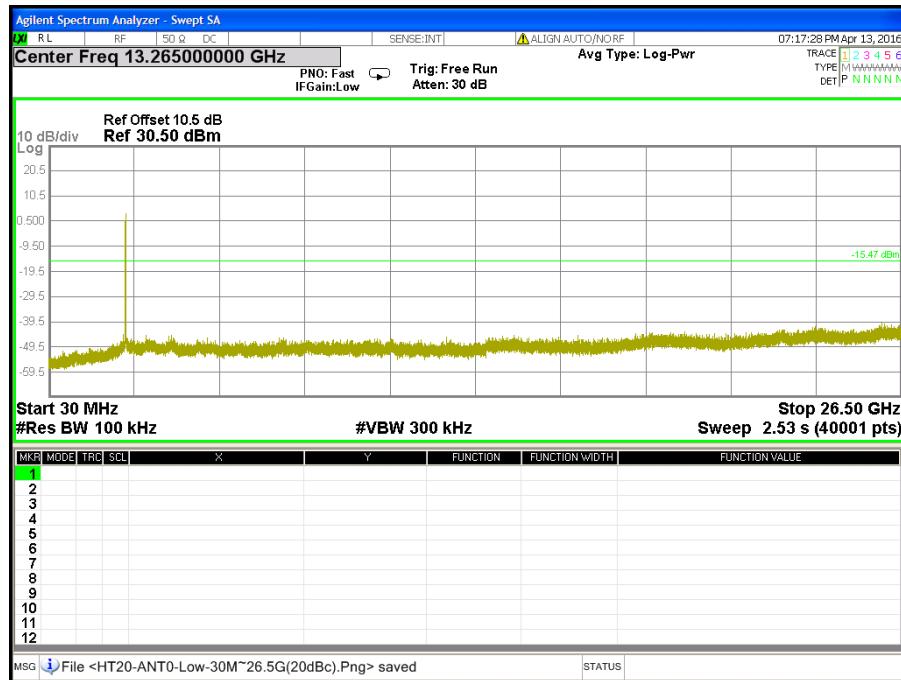
CH High (30MHz ~ 26.5GHz / IEEE 802.11g Mode / Chain 2)



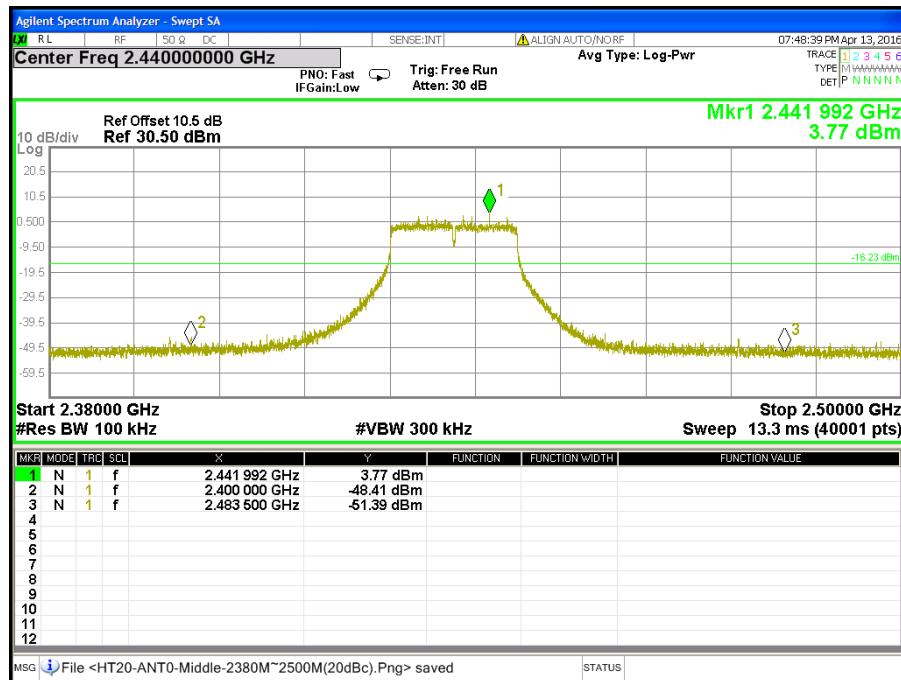
CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT20 Mode / Chain 0)



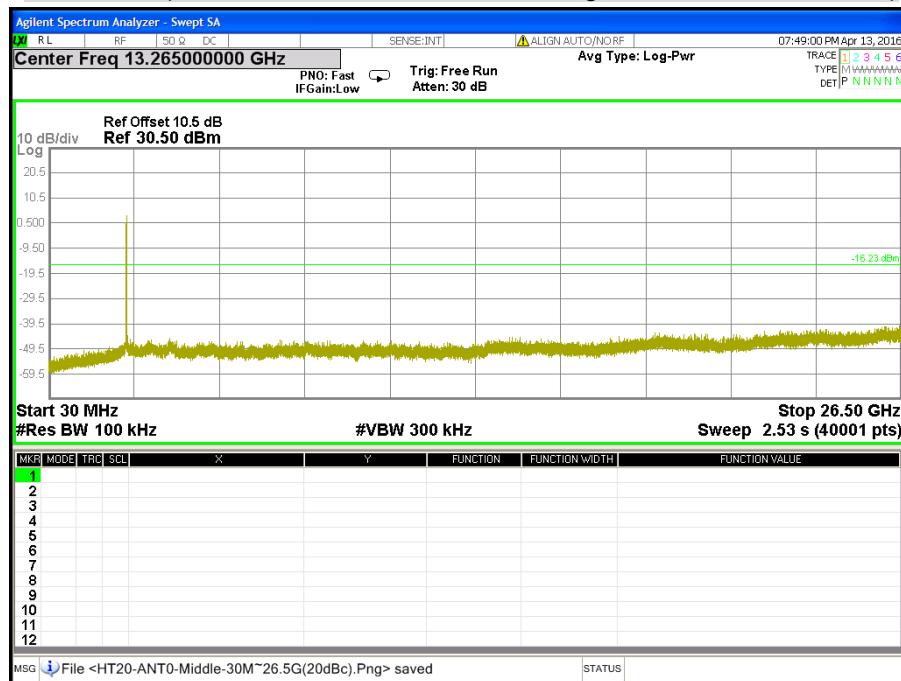
CH Low (30MHz ~ 26.5GHz / IEEE 802.11gn HT20 Mode / Chain 0)



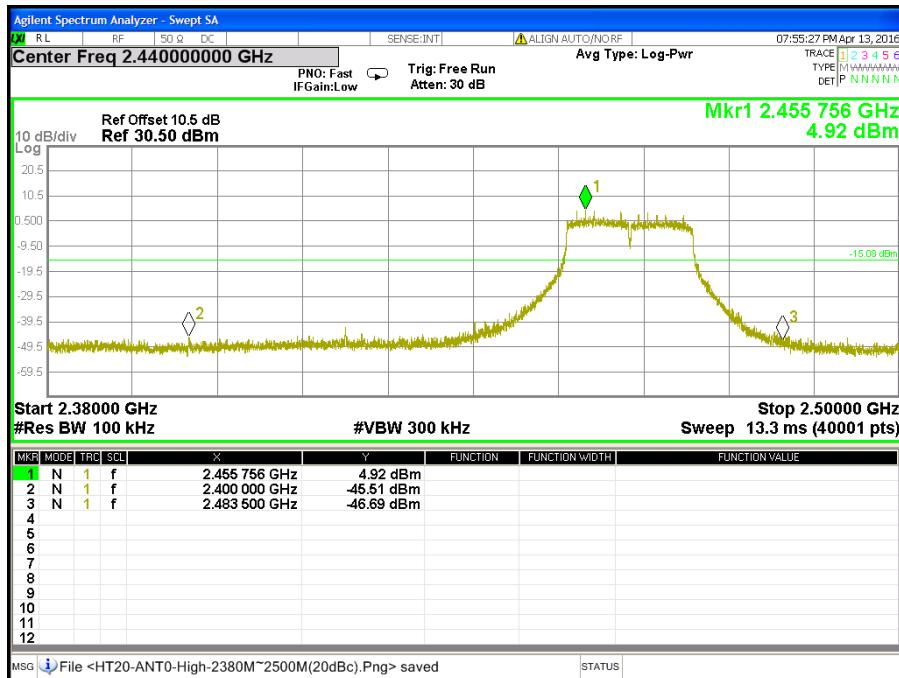
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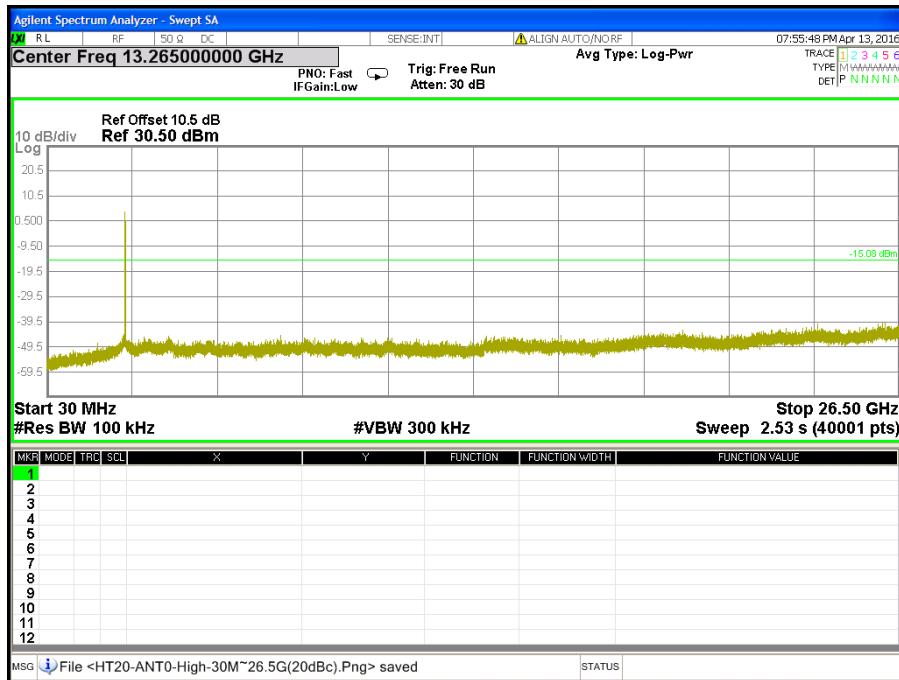
CH Middle (30MHz ~ 26.5GHz / IEEE 802.11gn HT20 Mode / Chain 0)



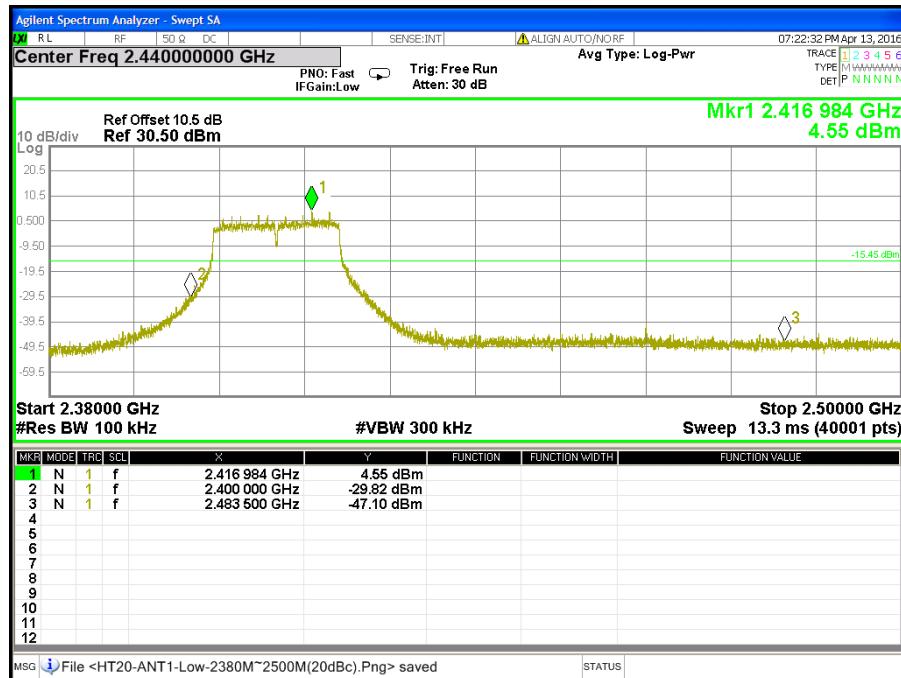
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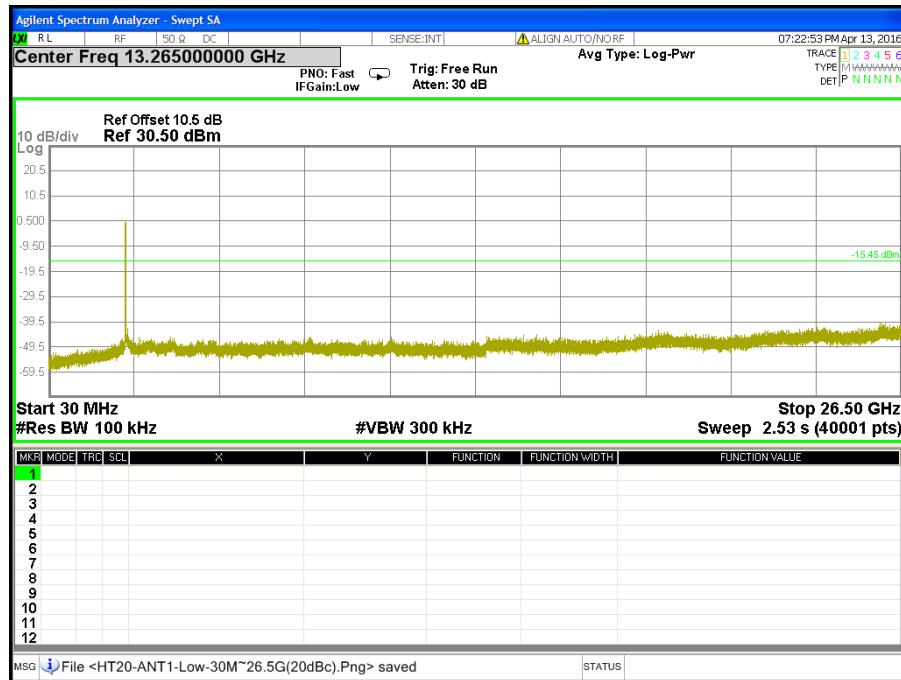
CH High (30MHz ~ 26.5GHz / IEEE 802.11gn HT20 Mode / Chain 0)



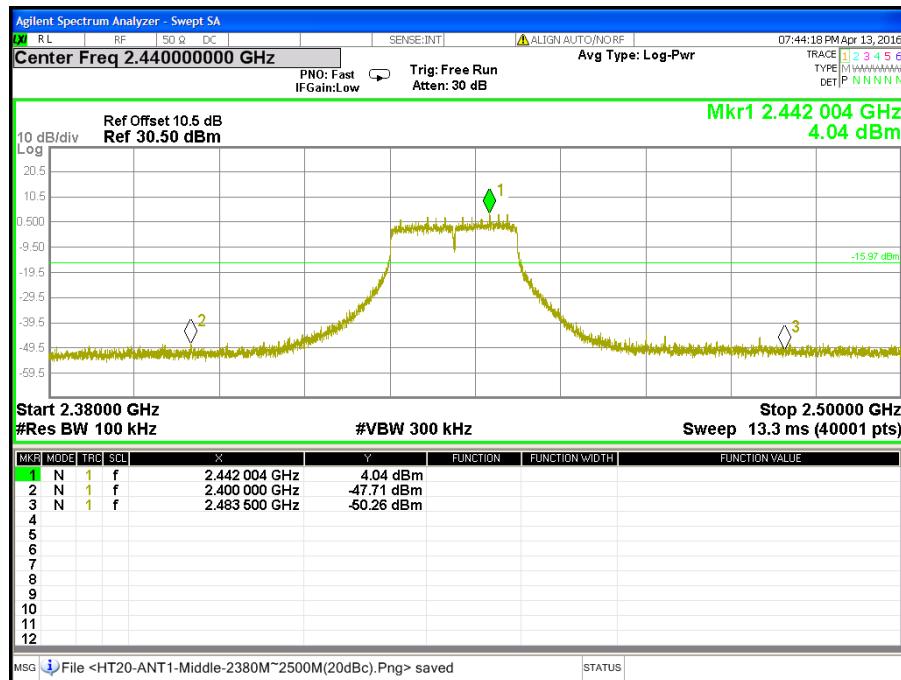
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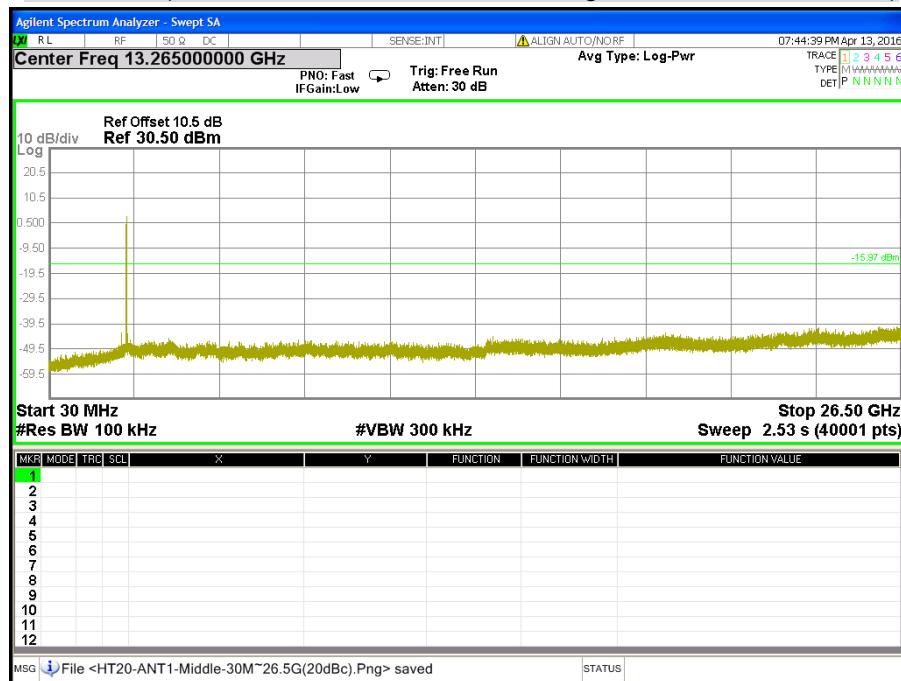
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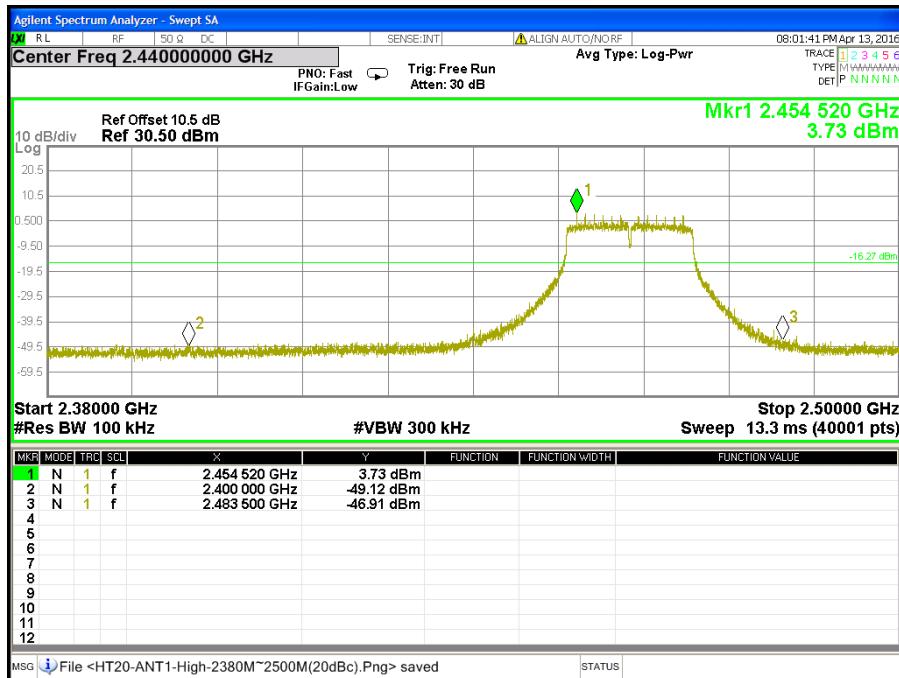
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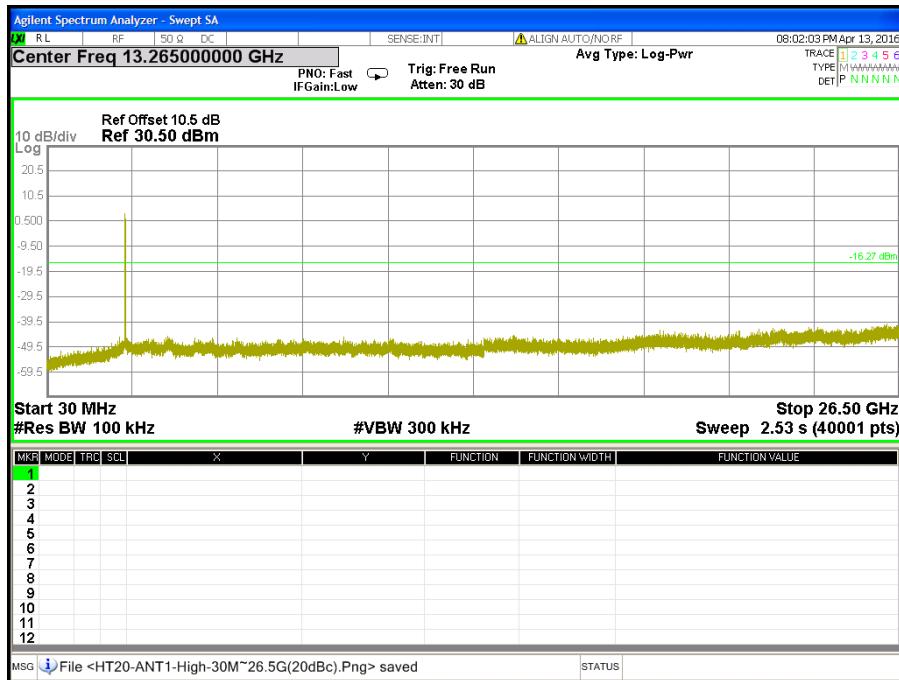
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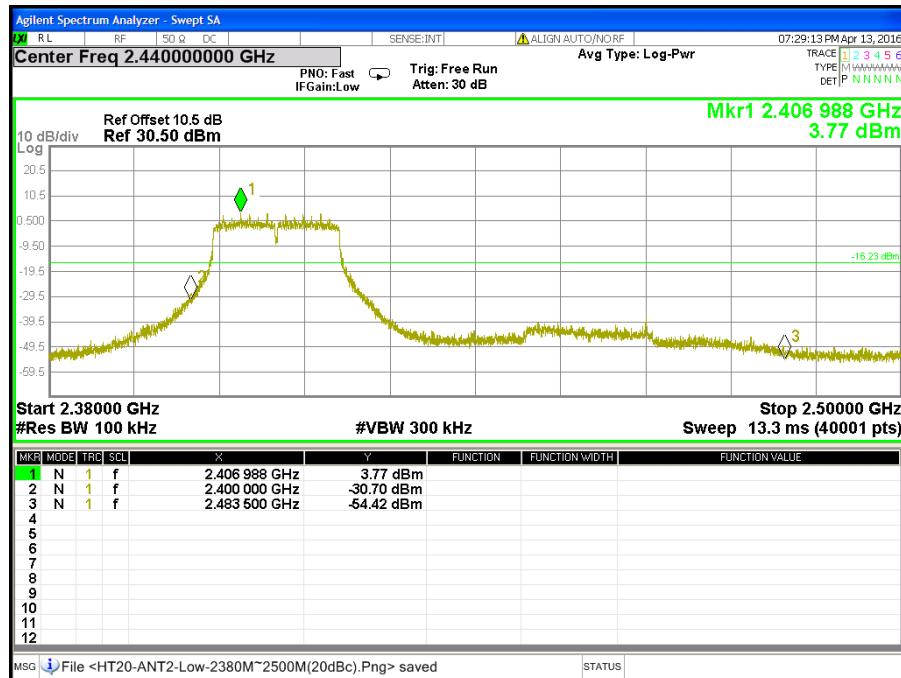
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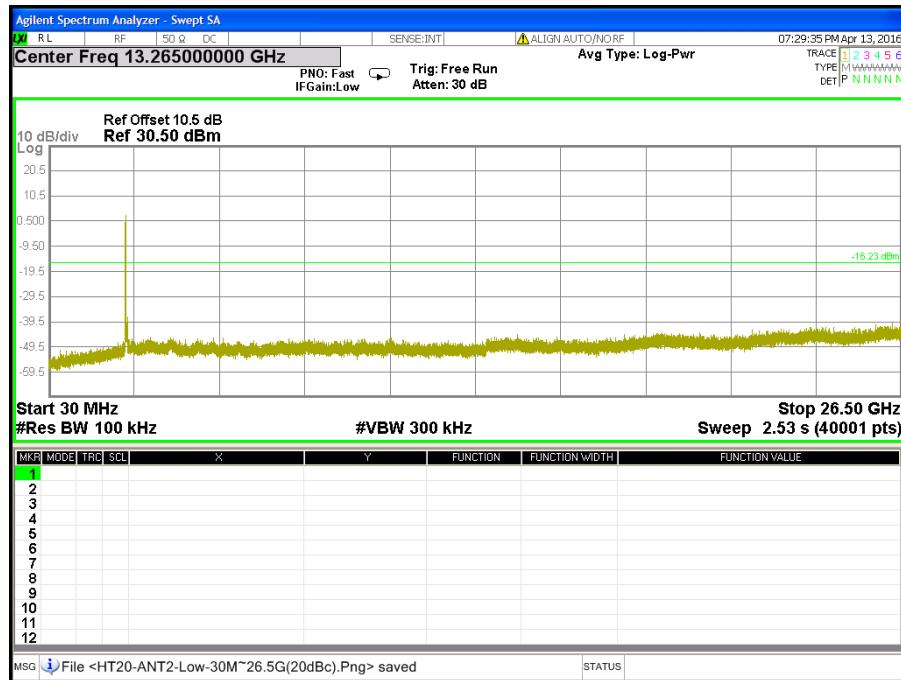
CH High (30MHz ~ 26.5GHz / IEEE 802.11gn HT20 Mode / Chain 1)



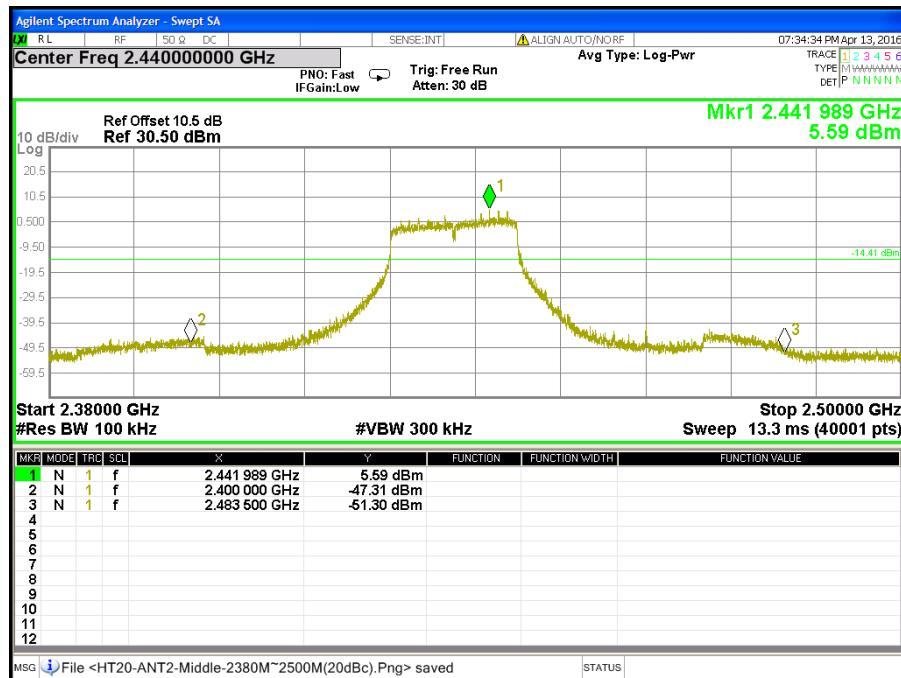
CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT20 Mode / Chain 2)



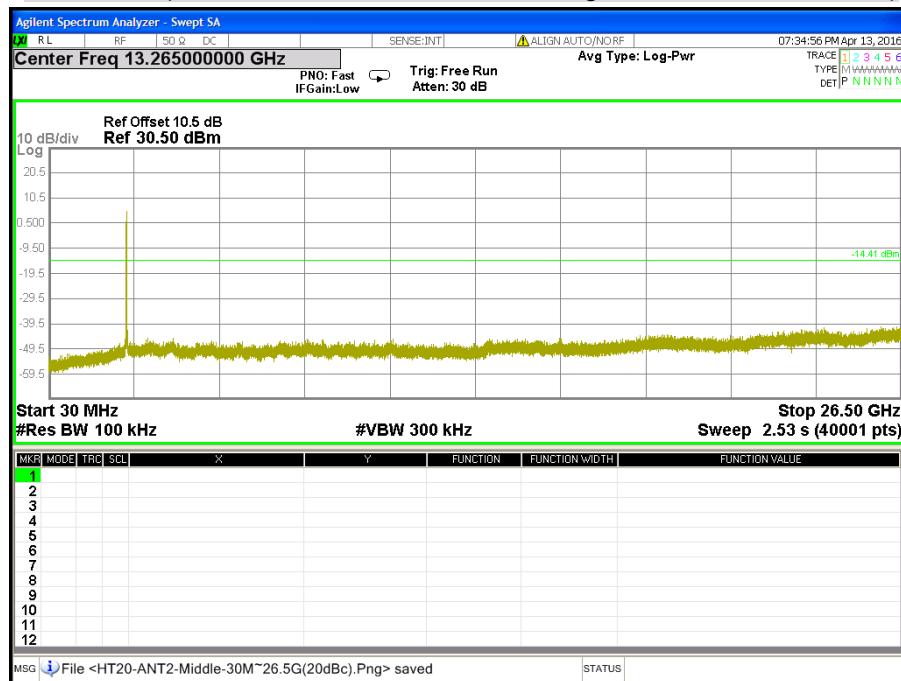
CH Low (30MHz ~ 26.5GHz / IEEE 802.11gn HT20 Mode / Chain 2)



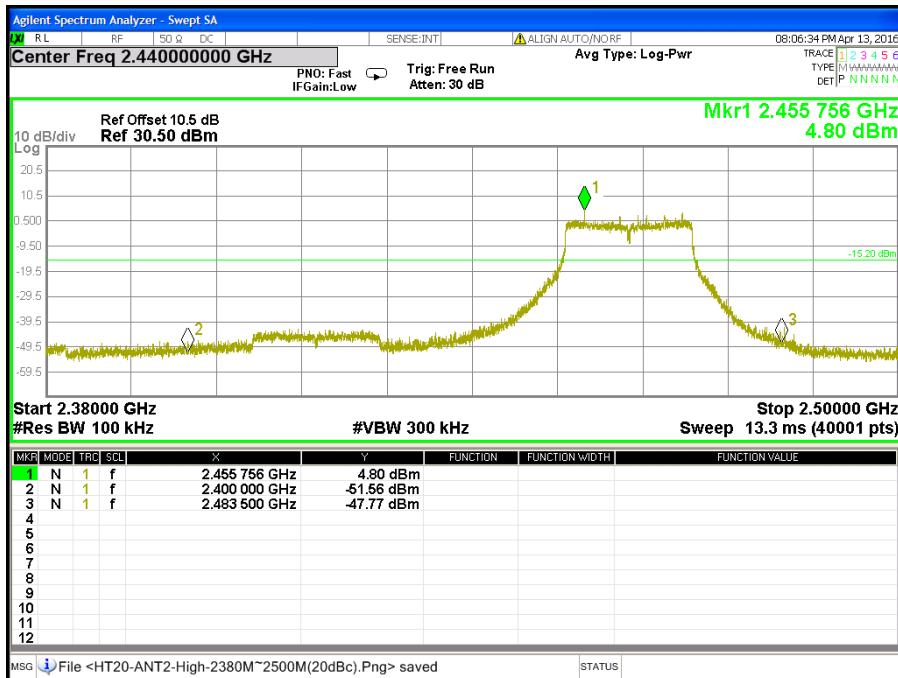
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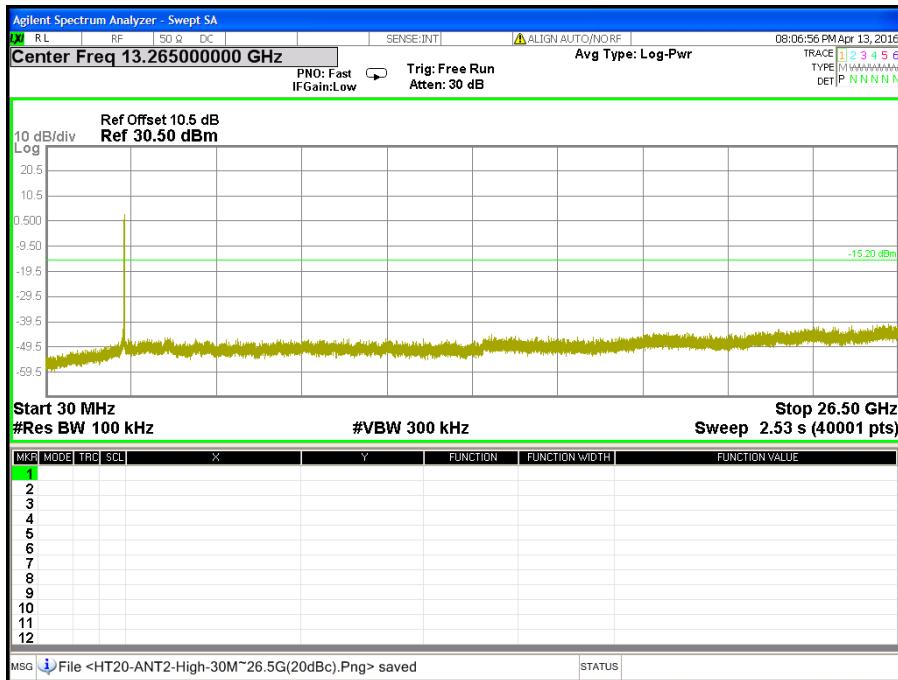
CH Middle (30MHz ~ 26.5GHz / IEEE 802.11gn HT20 Mode / Chain 2)



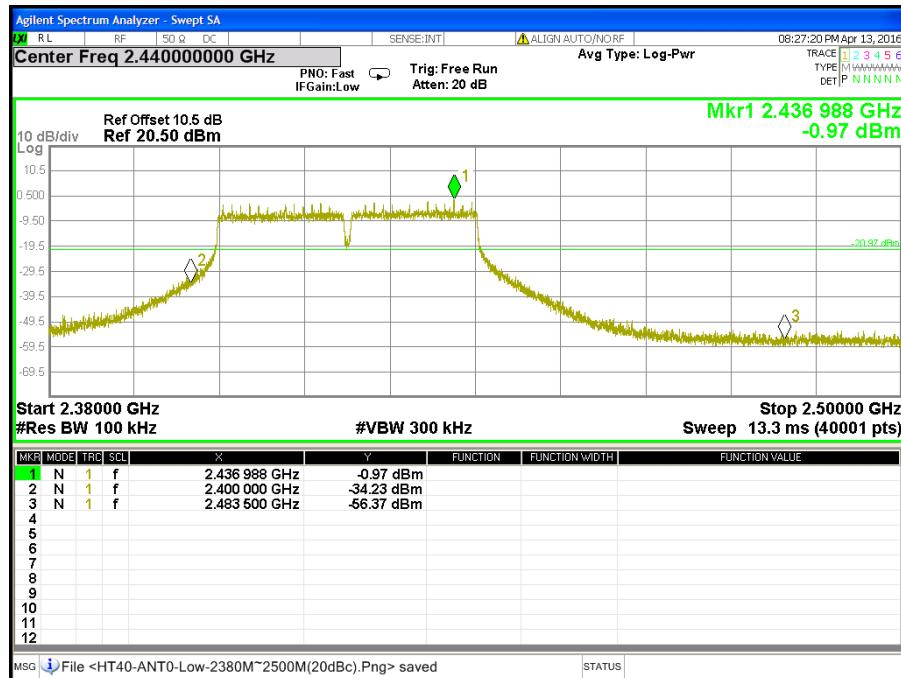
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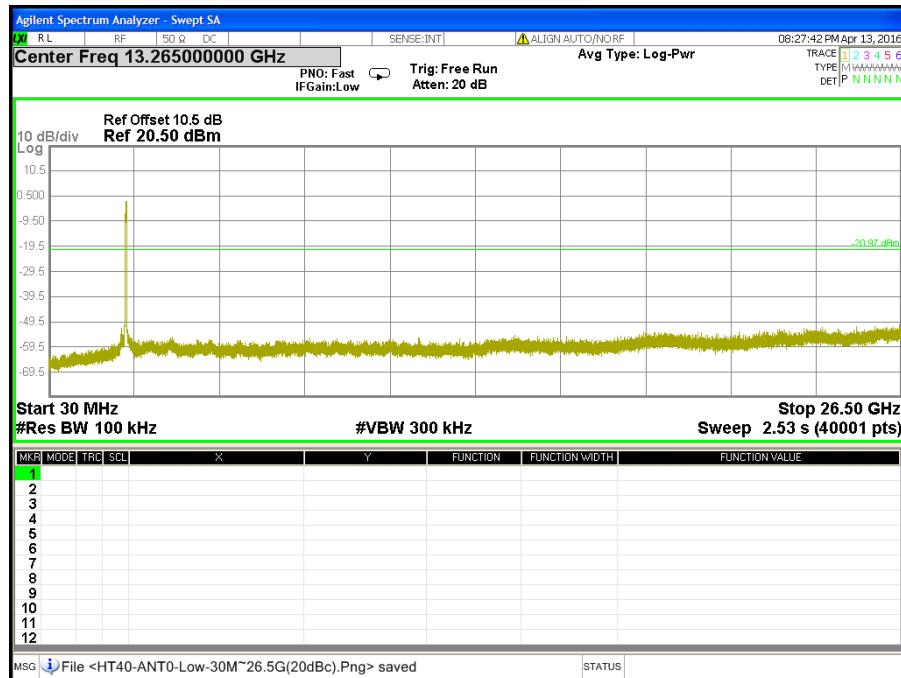
CH High (30MHz ~ 26.5GHz / IEEE 802.11gn HT20 Mode / Chain 2)



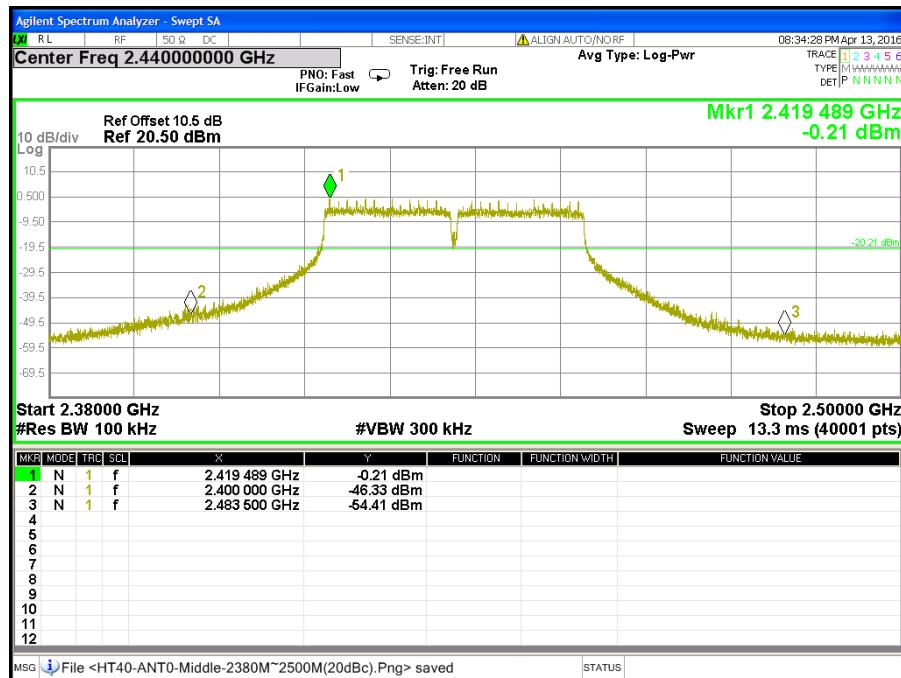
CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT40 Mode / Chain 0)



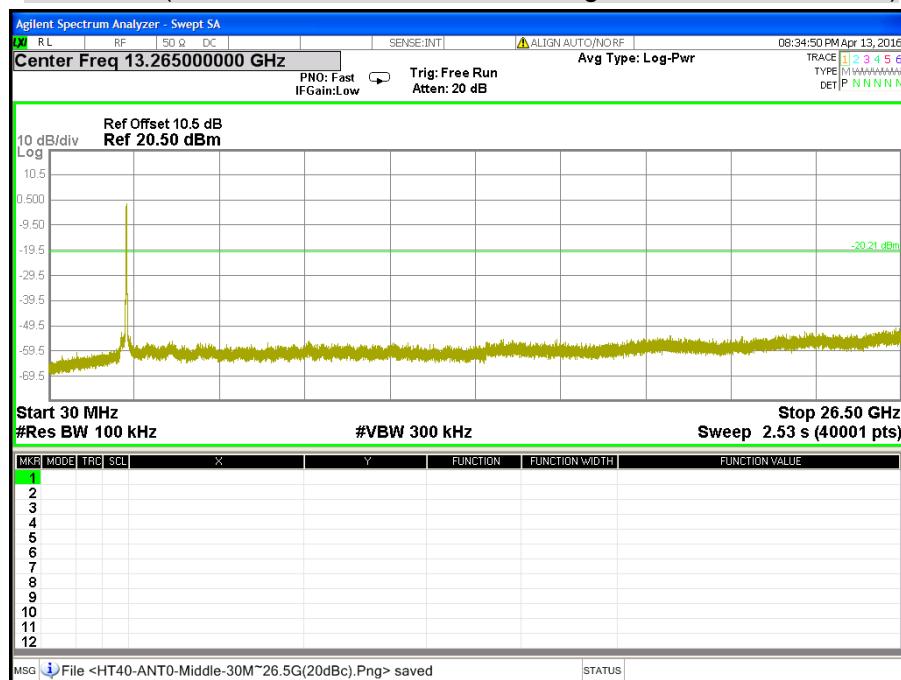
CH Low (30MHz ~ 26.5GHz / IEEE 802.11gn HT40 Mode / Chain 0)



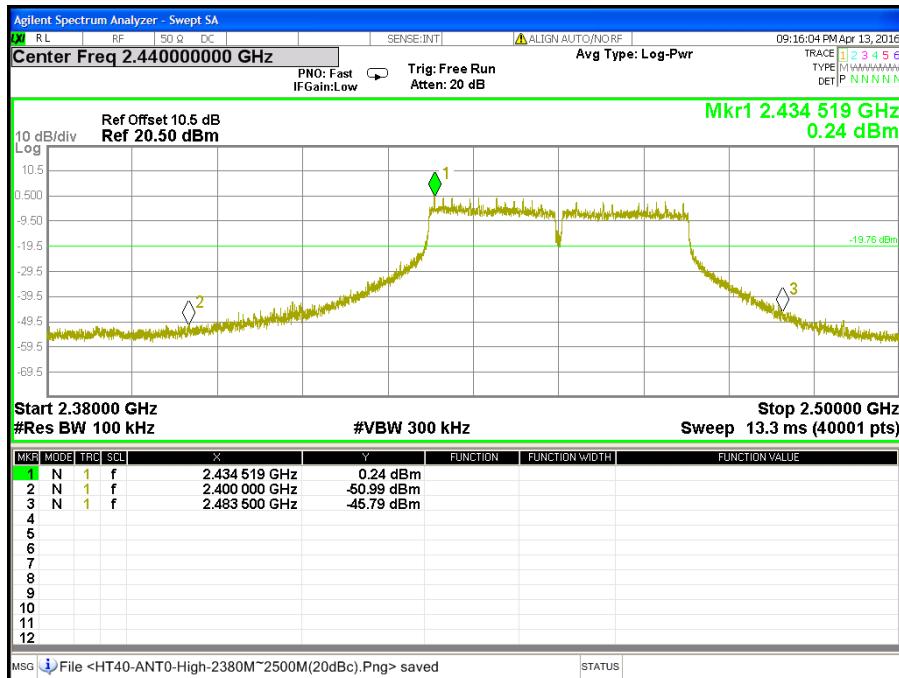
CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT40 Mode / Chain 0)



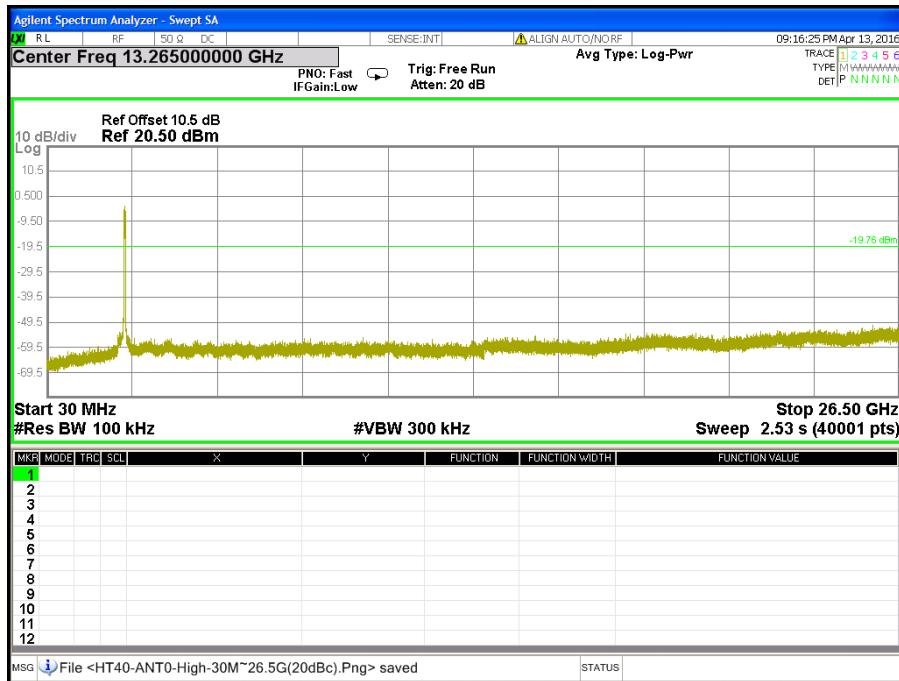
CH Middle (30MHz ~ 26.5GHz / IEEE 802.11gn HT40 Mode / Chain 0)



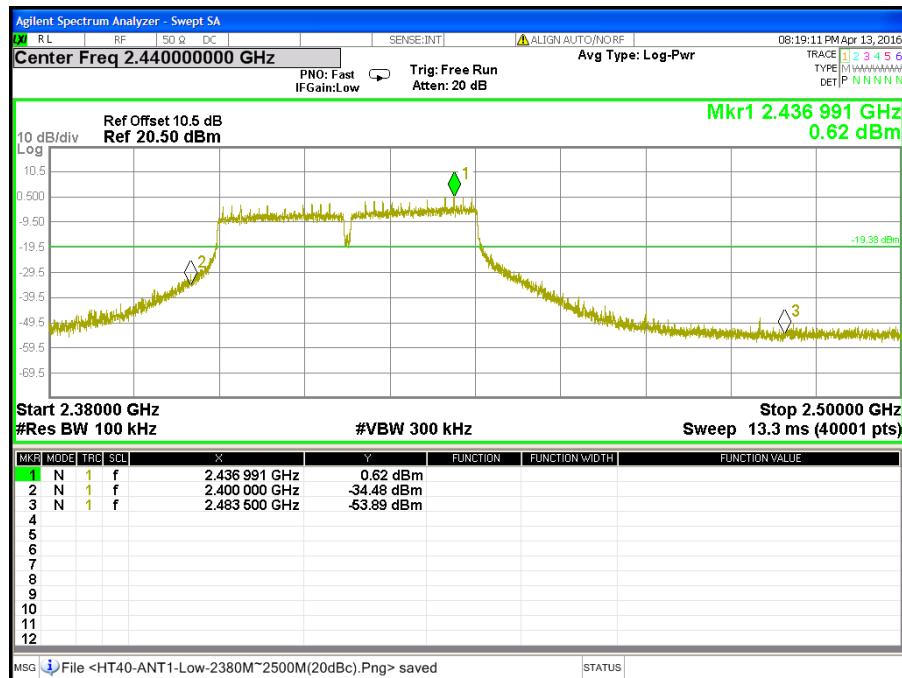
CH High (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT40 Mode / Chain 0)



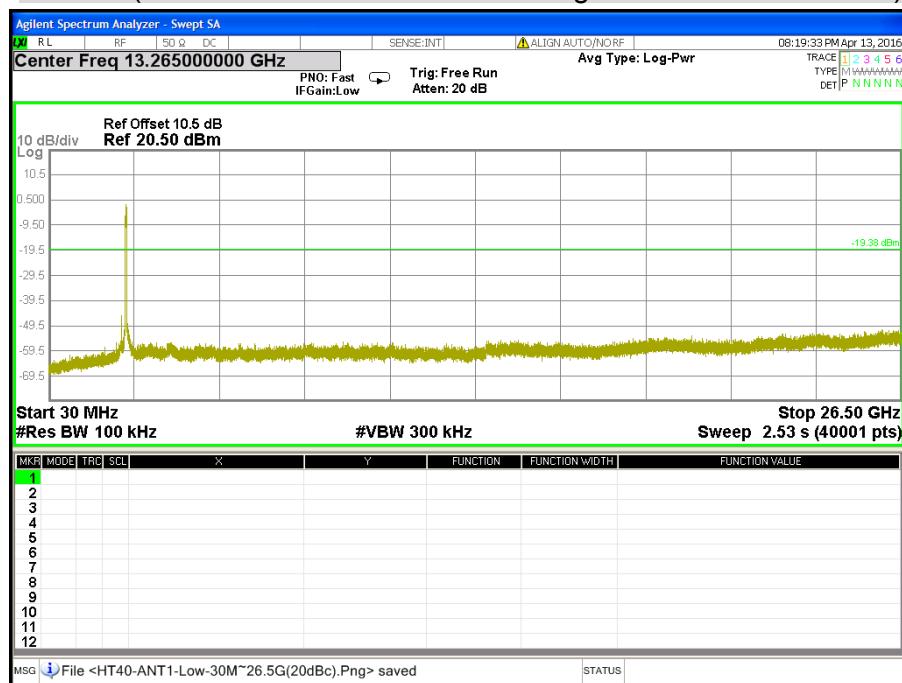
CH High (30MHz ~ 26.5GHz / IEEE 802.11gn HT40 Mode / Chain 0)



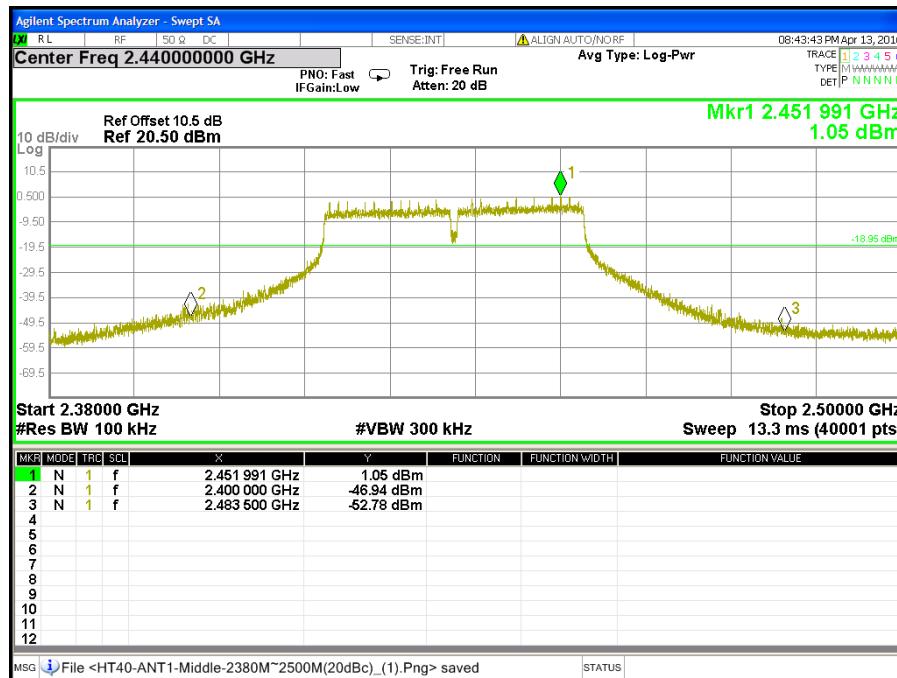
CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT40 Mode / Chain 1)



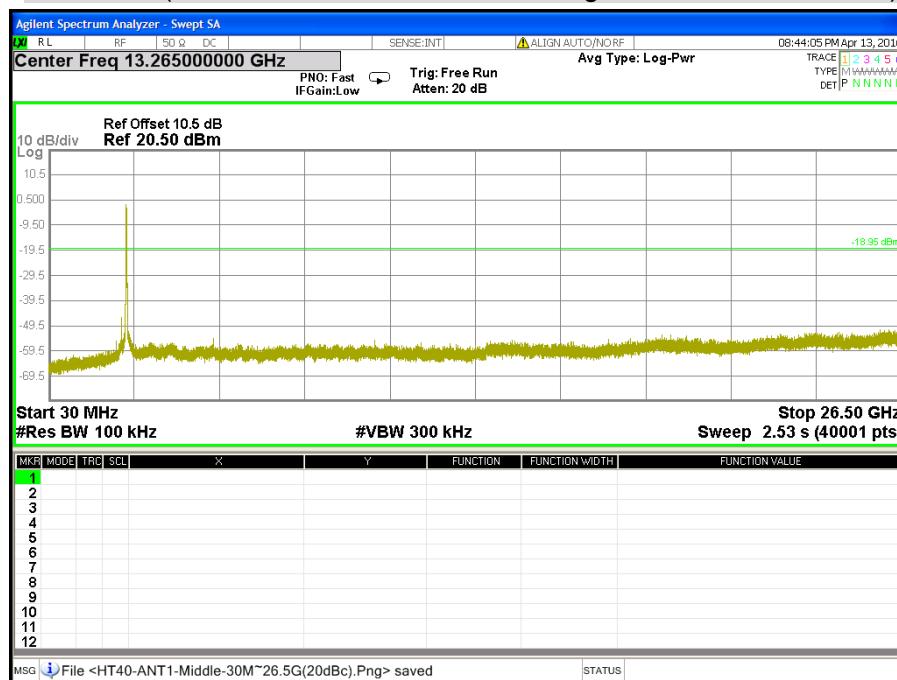
CH Low (30MHz ~ 26.5GHz / IEEE 802.11gn HT40 Mode / Chain 1)



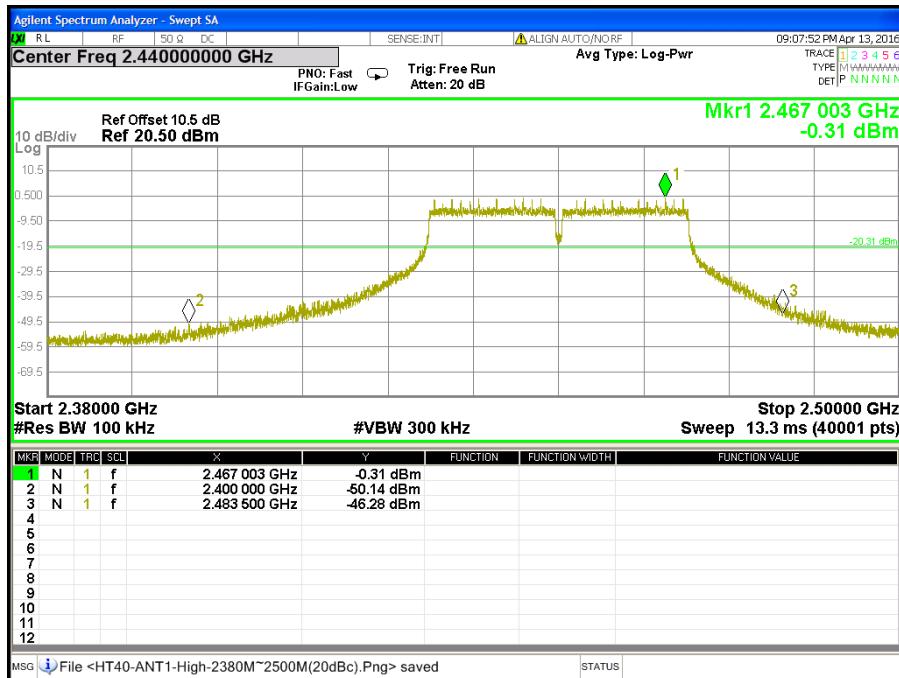
CH Middle (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT40 Mode / Chain 1)



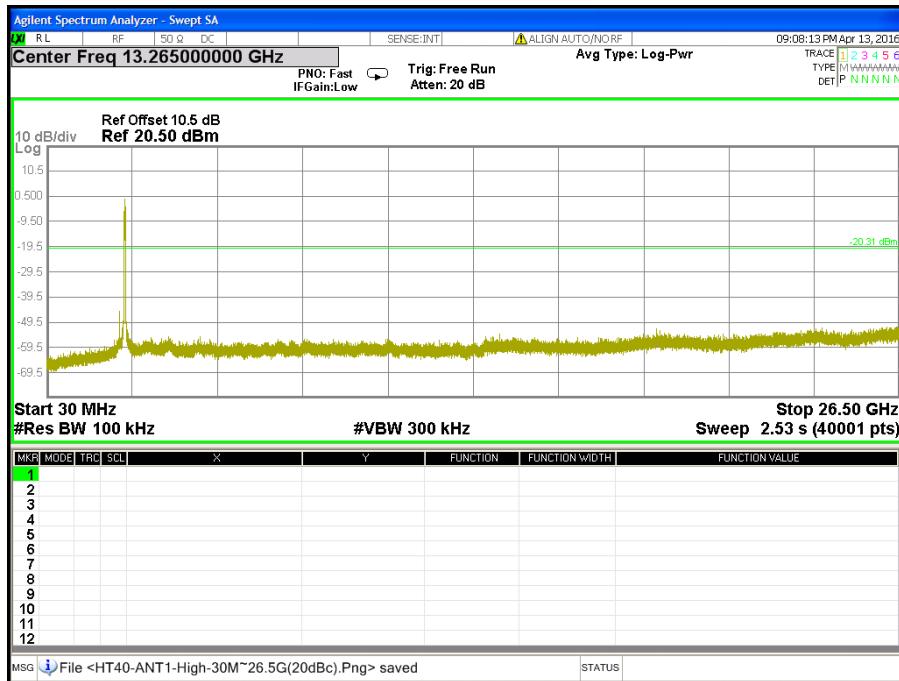
CH Middle (30MHz ~ 26.5GHz / IEEE 802.11gn HT40 Mode / Chain 1)



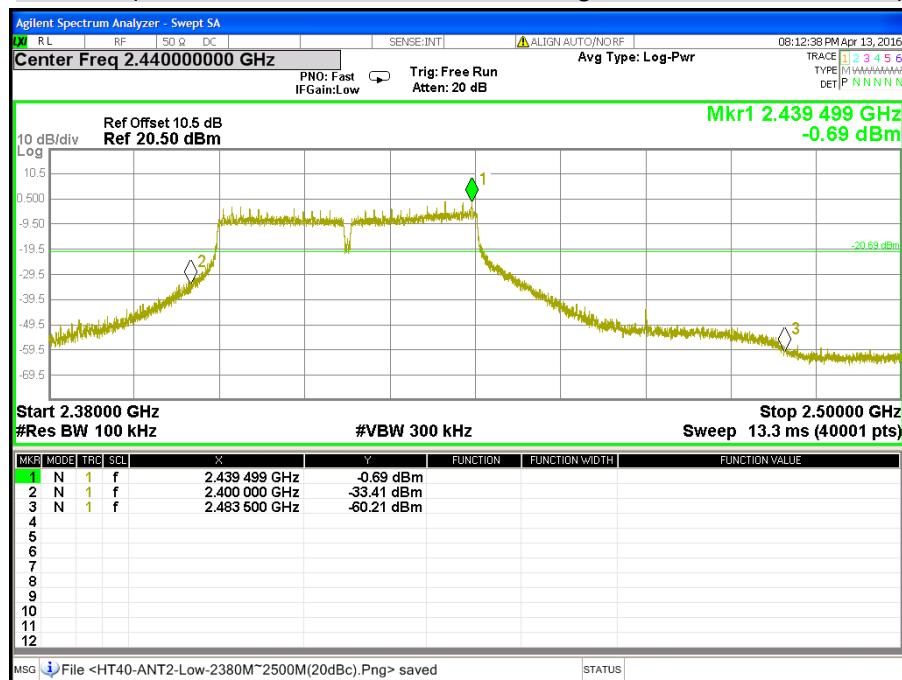
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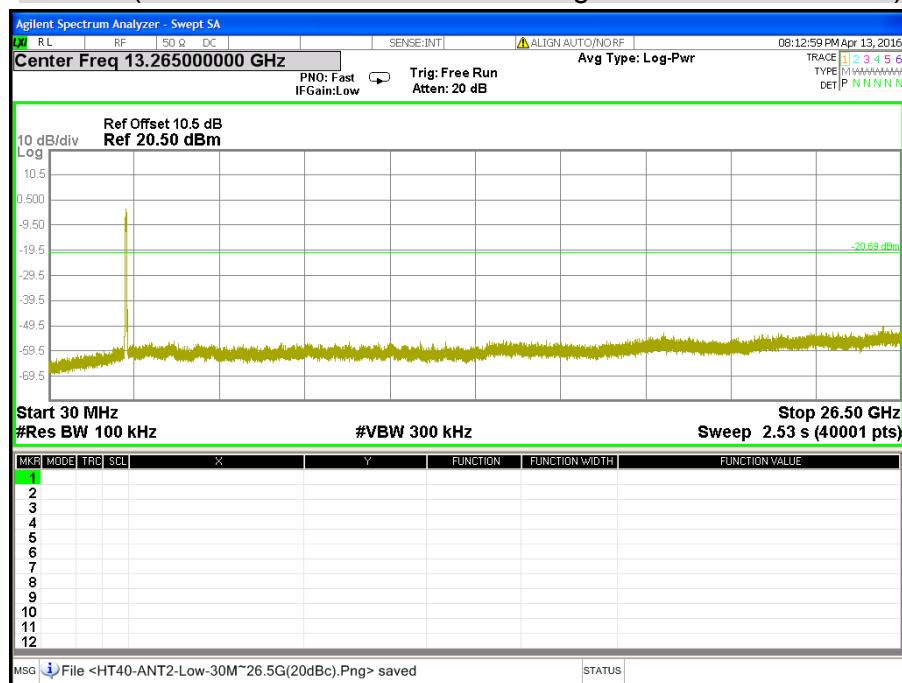
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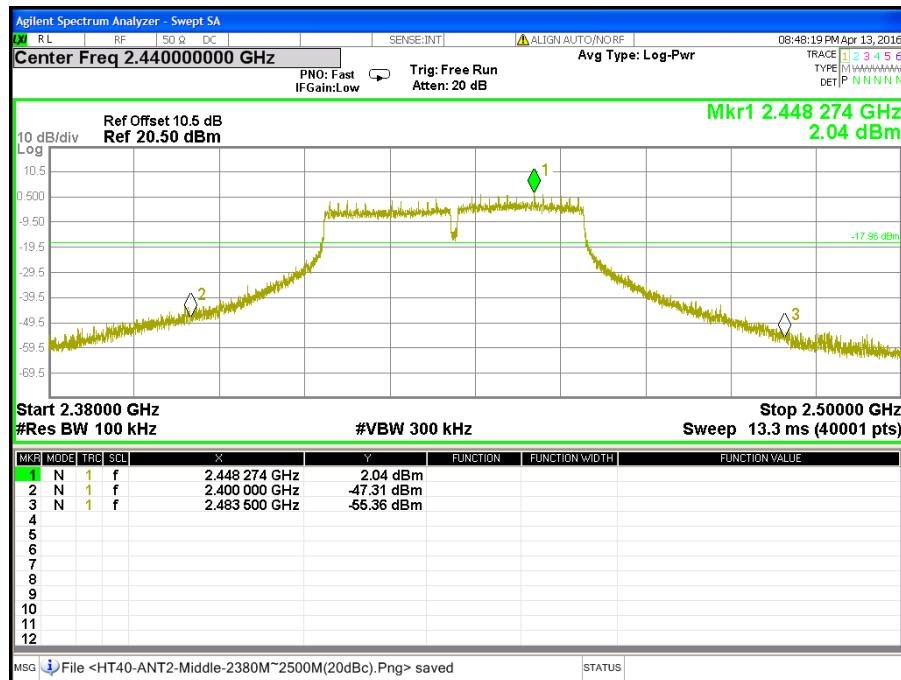
CH Low (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT40 Mode / Chain 2)



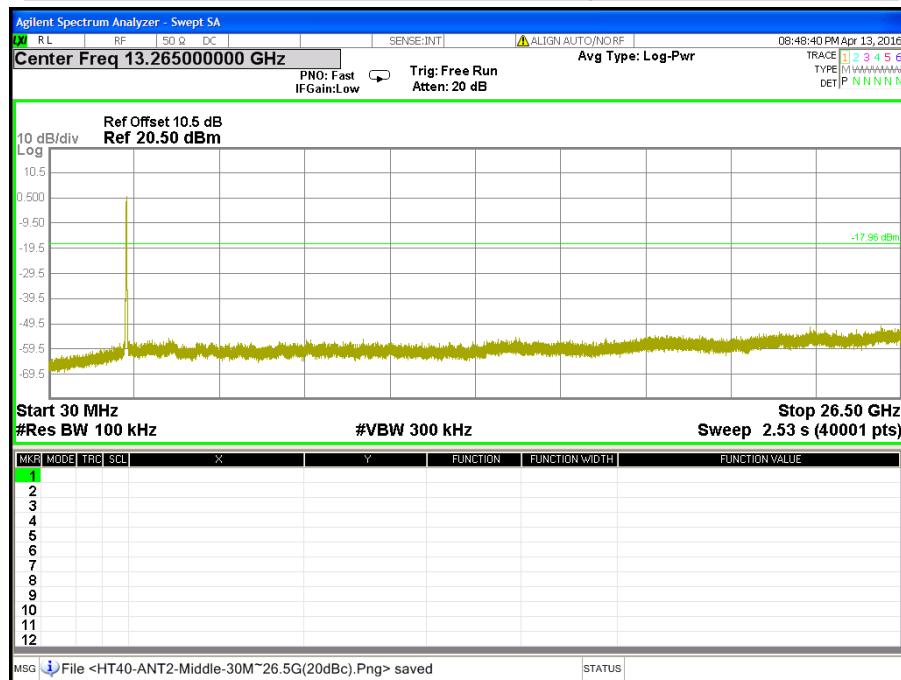
CH Low (30MHz ~ 26.5GHz / IEEE 802.11gn HT40 Mode / Chain 2)



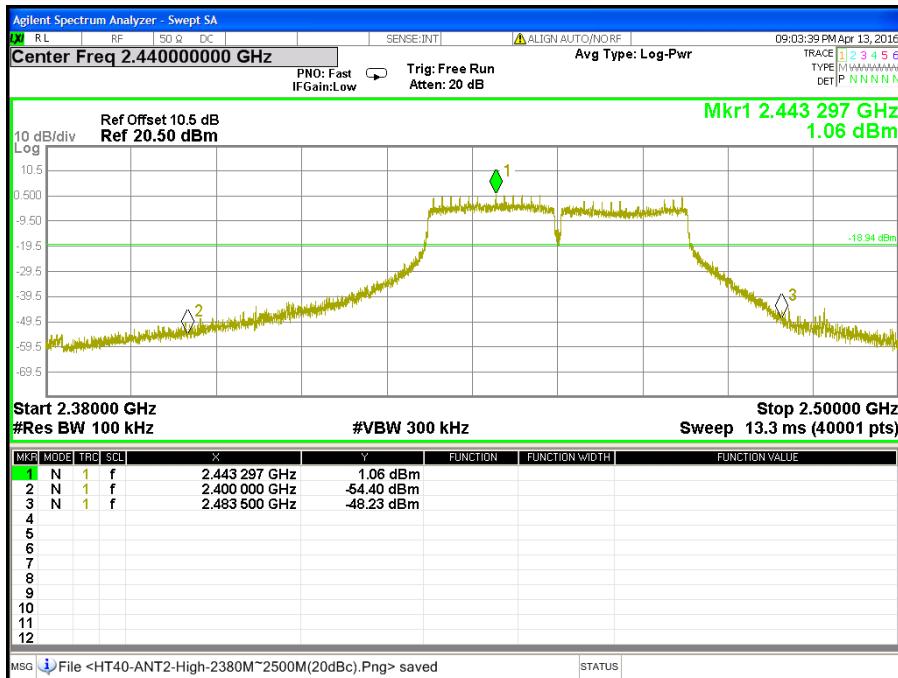
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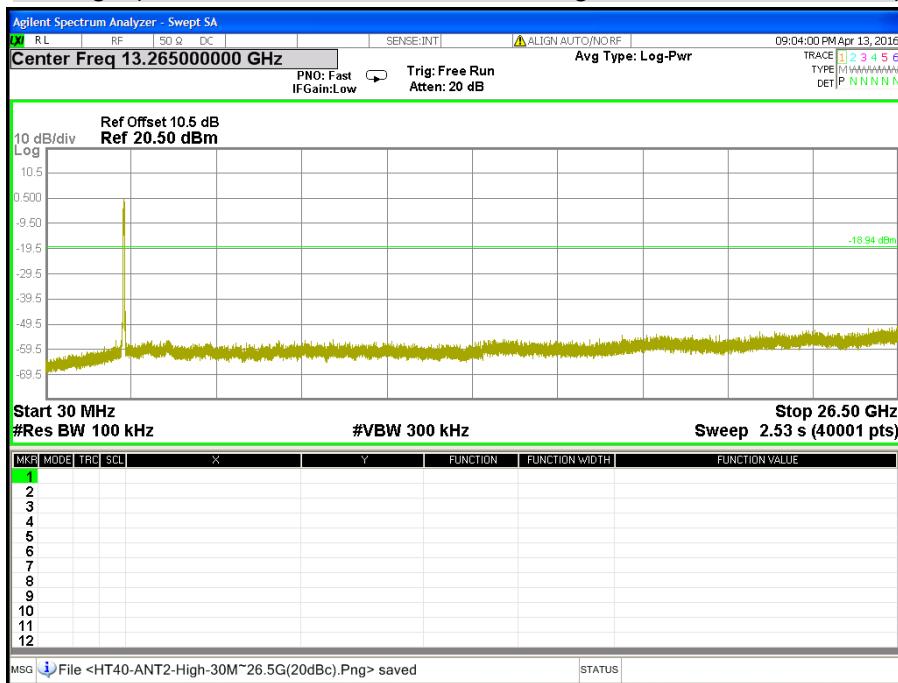
CH Middle (30MHz ~ 26.5GHz / IEEE 802.11gn HT40 Mode / Chain 2)



CH High (2.38GHz ~ 2.5GHz / IEEE 802.11gn HT40 Mode / Chain 2)



CH High (30MHz ~ 26.5GHz / IEEE 802.11gn HT40 Mode / Chain 2)



7.7 RADIATED EMISSION

LIMITS

(1) According to § 15.205 (a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3338	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)
13.36 - 13.41			

Remark:

1. ¹ Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.
2. ² Above 38.6

(2) According to § 15.205 (b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

(3) According to § 15.209 (a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 – 0.490	2400/F(KHz)	300
0.490 – 1.705	24000/F(KHz)	30
1.705 – 30.0	30	30
30 - 88	100 **	3
88 - 216	150 **	3
216 - 960	200 **	3
Above 960	500	3

Remark: **Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

(4) According to § 15.209 (b) In the emission table above, the tighter limit applies at the band edges.

TEST EQUIPMENT**Radiated Emission / 966Chamber_B**

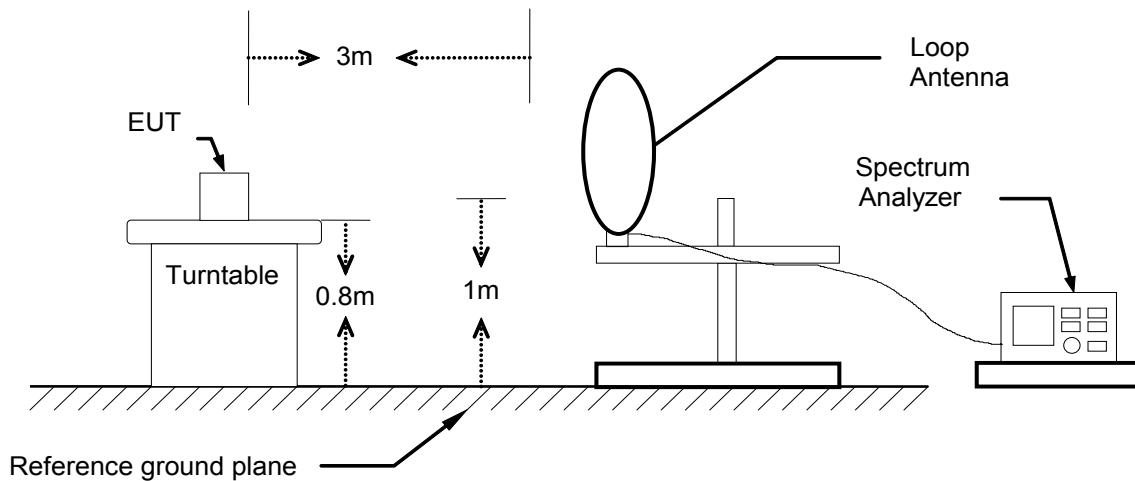
Name of Equipment	Manufacture	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY46180323	04/12/2017
EMI Test Receiver	Rohde & Schwarz	ESCI	101131	03/15/2017
Bi-log Antenna	TESEQ	CBL 6112D	35403	08/04/2016
Broad-Band Horn Antenna	Schwarzbeck	BBHA 9120 D	9120D-778	08/09/2016
Double-Ridged Waveguide Horn	ETS-LINDGREN	3117	00078733	11/25/2016
Horn Antenna	COM-POWER	AH-840	03077	12/08/2016
Pre-Amplifier	Agilent	8447D	2944A10052	07/14/2016
Pre-Amplifier	Agilent	8449B	3008A01916	07/14/2016
LOOP Antenna	COM-POWER	AL-130	121060	05/24/2016
Test S/W			E3.815206a	

Remark: Each piece of equipment is scheduled for calibration once a year.

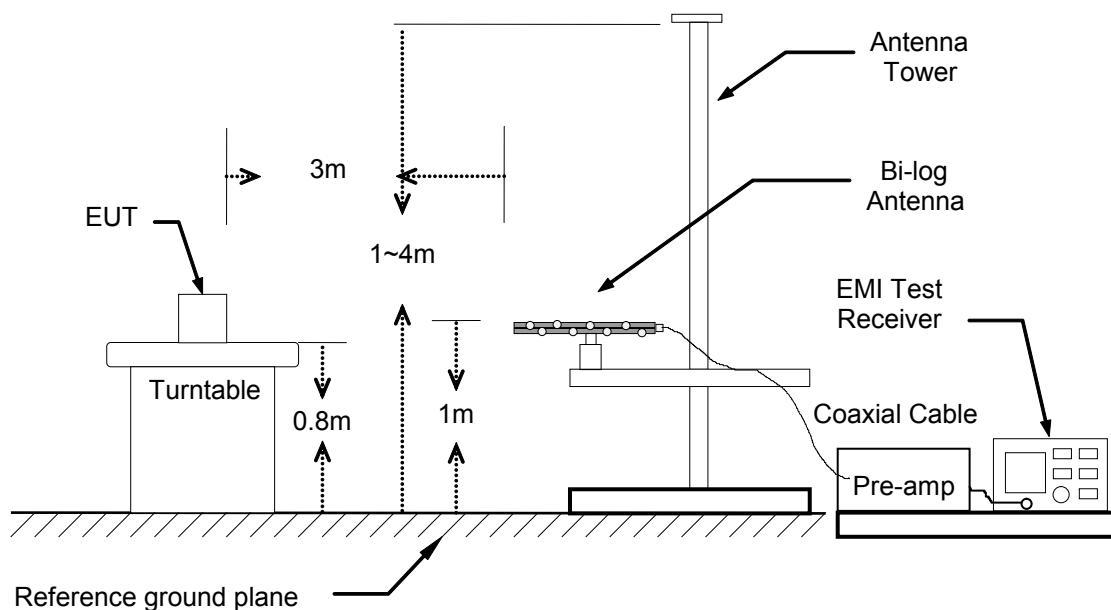
TEST SETUP

The diagram below shows the test setup that is utilized to make the measurements for emission below 1GHz.

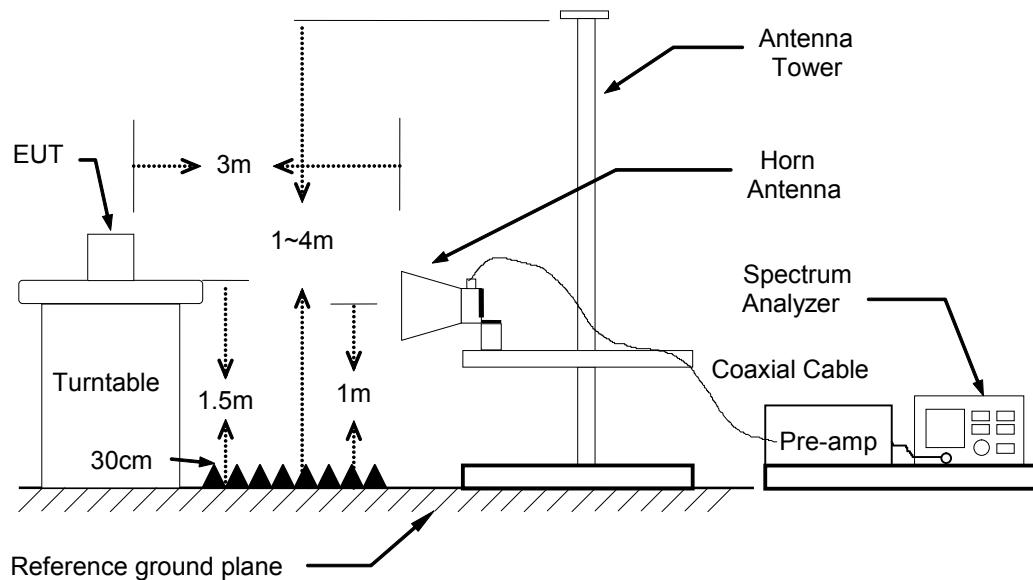
9kHz ~ 30MHz



30MHz ~ 1GHz



The diagram below shows the test setup that is utilized to make the measurements for emission above 1GHz.



TEST PROCEDURE

1. The EUT was placed on the top of a rotating table 0.8 and 1.5 meters above the ground. The table was rotated 360 degrees to determine the position of the highest radiation.
2. While measuring the radiated emission below 1GHz, the EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. While measuring the radiated emission above 1GHz, the EUT was set 3 meters away from the interference-receiving antenna.
3. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarization of the antenna are set to make the measurement.
4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the table was turned from 0 degrees to 360 degrees to find the maximum reading.
5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold mode.
6. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

Remark:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 KHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection and frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz for Average detection (AV) at frequency above 1GHz.

TEST RESULTS**Below 1 GHz (9kHz ~ 30MHz)**

No emission found between lowest internal used/generated frequency to 30MHz.

Below 1 GHz (30MHz ~ 1GHz)

Product Name	Moca AP cable Modem	Test By	Jey Li
Test Model	CGNVM-3589	Test Date	2016/05/09
Test Mode	Mode 2	Temp. & Humidity	22°C, 56%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
86.26	54.13	-18.53	35.60	40.00	-4.40	202	200	Peak
125.06	53.45	-14.35	39.10	43.50	-4.40	92	200	Peak
270.56	51.52	-11.90	39.62	46.00	-6.38	216	100	Peak
375.32	54.30	-9.66	44.64	46.00	-1.36	30	100	QP
625.58	49.74	-6.44	43.30	46.00	-2.70	199	100	Peak
875.84	49.10	-3.19	45.91	46.00	-0.09	12	100	QP

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
32.91	47.40	-9.78	37.62	40.00	-2.38	166	100	QP
49.40	58.50	-18.89	39.61	40.00	-0.39	64	100	QP
57.16	59.20	-20.47	38.73	40.00	-1.27	320	100	QP
68.80	58.60	-20.65	37.95	40.00	-2.05	208	100	QP
125.06	57.84	-14.35	43.49	43.50	-0.01	48	100	QP
375.32	55.51	-9.66	45.85	46.00	-0.15	135	100	QP
625.58	51.36	-6.44	44.92	46.00	-1.08	103	100	Peak

Remark:

1. Quasi-peak test would be performed if the peak result were greater than the quasi-peak limit.
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Loss (dB) – PreAmp.Gain (dB)
3. Result (dBuV/m) = Reading (dBuV) + Correction Factor (dB/m)
4. Margin (dB) = Remark result (dBuV/m) - Quasi-peak limit (dBuV/m).

Above 1 GHz

Product Name	Moca AP cable Modem	Test By	Rex Chiu
Test Model	CGNVM-3589	Test Date	2016/03/25
Test Mode	IEEE 802.11b Mode / TX / CH Low	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2160.00	47.92	2.40	50.32	74.00	-23.68	215	100	Peak
2286.00	46.10	2.64	48.74	54.00	-5.26	171	100	Average
2286.00	54.45	2.64	57.09	74.00	-16.91	171	100	Peak
2490.00	48.00	3.03	51.03	54.00	-2.97	159	200	Average
2490.00	53.94	3.03	56.97	74.00	-17.03	159	200	Peak
3240.00	47.93	4.37	52.30	74.00	-21.70	198	100	Peak
3780.00	46.53	5.63	52.16	74.00	-21.84	191	200	Peak
5400.00	44.10	9.32	53.42	54.00	-0.58	92	200	Average
5400.00	43.43	9.32	52.75	74.00	-21.25	92	200	Peak
7020.00	39.04	12.35	51.39	74.00	-22.61	70	200	Peak
7560.00	40.30	12.45	52.75	54.00	-1.25	97	200	Average
7560.00	40.68	12.45	53.13	74.00	-20.87	97	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2128.00	47.30	2.34	49.64	74.00	-24.36	246	200	Peak
2128.00	47.30	2.34	49.64	74.00	-24.36	246	200	Peak
2288.00	44.60	2.65	47.25	54.00	-6.75	262	200	Average
2288.00	51.32	2.65	53.97	74.00	-20.03	262	200	Peak
2494.00	48.90	3.04	51.94	54.00	-2.06	219	200	Average
2494.00	55.39	3.04	58.43	74.00	-15.57	219	200	Peak
3240.00	45.89	4.37	50.26	74.00	-23.74	101	100	Peak
3780.00	45.54	5.63	51.17	74.00	-22.83	103	200	Peak
5400.00	42.03	9.32	51.35	74.00	-22.65	60	200	Peak
7020.00	40.00	12.35	52.35	54.00	-1.65	28	200	Average
7020.00	43.03	12.35	55.38	74.00	-18.62	28	200	Peak
7560.00	40.90	12.45	53.35	54.00	-0.65	56	200	Average
7560.00	41.17	12.45	53.62	74.00	-20.38	56	200	Peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
4. Result = Reading + Correction Factor
Margin = Result - Limit
Remark Peak = Result(PK) - Limit(PK)
Remark AVG = Result(AV) - Limit(AV)

Product Name	Moca AP cable Modem	Test By	Rex Chiu
Test Model	CGNVM-3589	Test Date	2016/03/25
Test Mode	IEEE 802.11b Mode / TX / CH Middle	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2288.00	46.80	2.65	49.45	54.00	-4.55	75	200	Average
2288.00	51.70	2.65	54.35	74.00	-19.65	75	200	Peak
2360.00	48.80	2.78	51.58	54.00	-2.42	152	100	Average
2360.00	55.64	2.78	58.42	74.00	-15.58	152	100	Peak
2492.00	43.30	3.03	46.33	54.00	-7.67	180	100	Average
2492.00	52.11	3.03	55.14	74.00	-18.86	180	100	Peak
3240.00	47.86	4.37	52.23	74.00	-21.77	184	100	Peak
3780.00	46.51	5.63	52.14	74.00	-21.86	202	100	Peak
5400.00	43.27	9.32	52.59	74.00	-21.41	68	200	Peak
7305.00	40.80	12.37	53.17	54.00	-0.83	196	200	Average
7305.00	44.37	12.37	56.74	74.00	-17.26	196	200	Peak
7560.00	40.50	12.45	52.95	54.00	-1.05	99	200	Average
7560.00	41.06	12.45	53.51	74.00	-20.49	99	200	Peak
12180.00	31.70	19.88	51.58	54.00	-2.42	213	100	Average
12180.00	37.97	19.88	57.85	74.00	-16.15	213	100	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1794.00	52.29	0.11	52.40	74.00	-21.60	236	200	Peak
2288.00	42.50	2.65	45.15	54.00	-8.85	187	200	Average
2288.00	49.48	2.65	52.13	74.00	-21.87	187	200	Peak
2356.00	45.30	2.78	48.08	54.00	-5.92	267	200	Average
2356.00	53.44	2.78	56.22	74.00	-17.78	267	200	Peak
2484.00	43.70	3.02	46.72	54.00	-7.28	220	200	Average
2484.00	52.50	3.02	55.52	74.00	-18.48	220	200	Peak
3780.00	44.87	5.63	50.50	74.00	-23.50	89	200	Peak
5400.00	40.90	9.32	50.22	74.00	-23.78	103	200	Peak
7020.00	38.00	12.35	50.35	54.00	-3.65	40	200	Average
7020.00	41.04	12.35	53.39	74.00	-20.61	40	200	Peak
7305.00	40.50	12.37	52.87	54.00	-1.13	139	200	Average
7305.00	42.94	12.37	55.31	74.00	-18.69	139	200	Peak
7560.00	41.10	12.45	53.55	54.00	-0.45	49	200	Average
7560.00	41.63	12.45	54.08	74.00	-19.92	49	200	Peak
12180.00	32.50	19.88	52.38	54.00	-1.62	309	100	Average
12180.00	38.30	19.88	58.18	74.00	-15.82	309	100	Peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

4. Result = Reading + Correction Factor

Margin = Result - Limit

Remark Peak = Result(PK) - Limit(PK)

Remark AVG = Result(AV) - Limit(AV)

Product Name	Moca AP cable Modem	Test By	Rex Chiu
Test Model	CGNVM-3589	Test Date	2016/03/25
Test Mode	IEEE 802.11b Mode / TX / CH High	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2338.00	45.00	2.74	47.74	54.00	-6.26	175	200	Average
2338.00	56.49	2.74	59.23	74.00	-14.77	175	200	Peak
2378.00	50.70	2.82	53.52	54.00	-0.48	177	200	Average
2378.00	56.55	2.82	59.37	74.00	-14.63	177	200	Peak
2526.00	43.80	3.11	46.91	54.00	-7.09	150	200	Average
2526.00	51.87	3.11	54.98	74.00	-19.02	150	200	Peak
3240.00	46.70	4.37	51.07	54.00	-2.93	222	100	Average
3240.00	48.80	4.37	53.17	74.00	-20.83	222	100	Peak
3780.00	46.05	5.63	51.68	74.00	-22.32	189	100	Peak
5400.00	44.20	9.32	53.52	54.00	-0.48	66	200	Average
5400.00	43.75	9.32	53.07	74.00	-20.93	66	200	Peak
7560.00	40.40	12.45	52.85	54.00	-1.15	100	200	Average
7560.00	40.93	12.45	53.38	74.00	-20.62	100	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2288.00	44.30	2.65	46.95	54.00	-7.05	289	200	Average
2288.00	50.61	2.65	53.26	74.00	-20.74	289	200	Peak
2378.00	48.90	2.82	51.72	54.00	-2.28	282	200	Average
2378.00	54.69	2.82	57.51	74.00	-16.49	282	200	Peak
2502.00	45.20	3.05	48.25	54.00	-5.75	110	200	Average
2502.00	53.61	3.05	56.66	74.00	-17.34	110	200	Peak
3240.00	44.95	4.37	49.32	74.00	-24.68	106	100	Peak
3780.00	45.47	5.63	51.10	74.00	-22.90	95	200	Peak
5400.00	41.39	9.32	50.71	74.00	-23.29	124	200	Peak
7020.00	38.90	12.35	51.25	54.00	-2.75	45	200	Average
7020.00	41.92	12.35	54.27	74.00	-19.73	45	200	Peak
7560.00	41.00	12.45	53.45	54.00	-0.55	77	200	Average
7560.00	41.44	12.45	53.89	74.00	-20.11	77	200	Peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
4. Result = Reading + Correction Factor
Margin = Result - Limit
Remark Peak = Result(PK) - Limit(PK)
Remark AVG = Result(AV) - Limit(AV)

Product Name	Moca AP cable Modem	Test By	Rex Chiu
Test Model	CGNVM-3589	Test Date	2016/03/25
Test Mode	IEEE 802.11g Mode / TX / CH Low	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2160.00	48.33	2.40	50.73	74.00	-23.27	188	200	Peak
2288.00	48.20	2.65	50.85	54.00	-3.15	141	200	Average
2288.00	52.27	2.65	54.92	74.00	-19.08	141	200	Peak
2492.00	43.20	3.03	46.23	54.00	-7.77	121	200	Average
2492.00	52.71	3.03	55.74	74.00	-18.26	121	200	Peak
3240.00	46.70	4.37	51.07	54.00	-2.93	207	200	Average
3240.00	48.72	4.37	53.09	74.00	-20.91	207	200	Peak
3780.00	46.68	5.63	52.31	74.00	-21.69	164	100	Peak
5400.00	44.11	9.32	53.43	54.00	-0.57	62	200	Average
5400.00	44.38	9.32	53.70	74.00	-20.30	62	200	Peak
7560.00	40.39	12.45	52.84	54.00	-1.16	80	200	Average
7560.00	40.31	12.45	52.76	74.00	-21.24	80	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2004.00	47.61	2.11	49.72	74.00	-24.28	224	200	Peak
2288.00	49.17	2.65	51.82	74.00	-22.18	282	200	Peak
2490.00	44.50	3.03	47.53	54.00	-6.47	127	200	Average
2490.00	53.29	3.03	56.32	74.00	-17.68	127	200	Peak
3240.00	44.83	4.37	49.20	74.00	-24.80	95	100	Peak
3780.00	46.95	5.63	52.58	74.00	-21.42	101	200	Peak
5400.00	41.77	9.32	51.09	74.00	-22.91	92	200	Peak
7020.00	38.50	12.35	50.85	54.00	-3.15	50	100	Average
7020.00	41.59	12.35	53.94	74.00	-20.06	50	100	Peak
7560.00	40.96	12.45	53.41	54.00	-0.59	60	200	Average
7560.00	42.24	12.45	54.69	74.00	-19.31	60	200	Peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

4. Result = Reading + Correction Factor

Margin = Result - Limit

Remark Peak = Result(PK) - Limit(PK)

Remark AVG = Result(AV) - Limit(AV)

Product Name	Moca AP cable Modem	Test By	Rex Chiu
Test Model	CGNVM-3589	Test Date	2016/03/25
Test Mode	IEEE 802.11g Mode / TX / CH Middle	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2288.00	46.80	2.65	49.45	54.00	-4.55	75	200	Average
2288.00	51.86	2.65	54.51	74.00	-19.49	75	200	Peak
2390.00	50.60	2.84	53.44	54.00	-0.56	327	100	Average
2390.00	57.00	2.84	59.84	74.00	-14.16	327	100	Peak
2488.00	45.20	3.03	48.23	54.00	-5.77	147	200	Average
2488.00	54.64	3.03	57.67	74.00	-16.33	147	200	Peak
3240.00	46.40	4.37	50.77	54.00	-3.23	184	200	Average
3240.00	48.47	4.37	52.84	74.00	-21.16	184	200	Peak
3780.00	46.94	5.63	52.57	74.00	-21.43	166	100	Peak
5400.00	44.20	9.32	53.52	54.00	-0.48	89	200	Average
5400.00	43.58	9.32	52.90	74.00	-21.10	89	200	Peak
7020.00	39.62	12.35	51.97	74.00	-22.03	152	200	Peak
7320.00	40.17	12.37	52.54	74.00	-21.46	181	100	Peak
7560.00	40.38	12.45	52.83	54.00	-1.17	78	200	Average
7560.00	40.54	12.45	52.99	74.00	-21.01	78	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2390.00	47.50	2.84	50.34	54.00	-3.66	360	200	Average
2390.00	55.06	2.84	57.90	74.00	-16.10	360	200	Peak
2484.00	44.90	3.02	47.92	54.00	-6.08	121	200	Average
2484.00	54.00	3.02	57.02	74.00	-16.98	121	200	Peak
2514.00	45.30	3.08	48.38	54.00	-5.62	14	200	Average
2514.00	54.54	3.08	57.62	74.00	-16.38	14	200	Peak
3240.00	46.20	4.37	50.57	74.00	-23.43	91	100	Peak
3780.00	45.69	5.63	51.32	74.00	-22.68	101	200	Peak
5400.00	42.11	9.32	51.43	74.00	-22.57	128	200	Peak
7020.00	38.20	12.35	50.55	54.00	-3.45	44	200	Average
7020.00	41.24	12.35	53.59	74.00	-20.41	44	200	Peak
7305.00	40.50	12.37	52.87	74.00	-21.13	26	200	Peak
7305.00	40.20	12.37	52.57	74.00	-21.43	26	200	Peak
7560.00	41.00	12.45	53.45	54.00	-0.55	47	200	Average
7560.00	42.01	12.45	54.46	74.00	-19.54	47	200	Peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
4. Result = Reading + Correction Factor
Margin = Result - Limit
Remark Peak = Result(PK) - Limit(PK)
Remark AVG = Result(AV) - Limit(AV)

Product Name	Moca AP cable Modem	Test By	Rex Chiu
Test Model	CGNVM-3589	Test Date	2016/03/25
Test Mode	IEEE 802.11g Mode / TX / CH High	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2288.00	47.70	2.65	50.35	54.00	-3.65	62	200	Average
2288.00	50.26	2.65	52.91	74.00	-21.09	62	200	Peak
2380.00	48.70	2.82	51.52	54.00	-2.48	160	200	Average
2380.00	56.43	2.82	59.25	74.00	-14.75	160	200	Peak
2502.00	42.30	3.05	45.35	54.00	-8.65	148	100	Average
2502.00	51.88	3.05	54.93	74.00	-19.07	148	100	Peak
3240.00	46.30	4.37	50.67	54.00	-3.33	222	100	Average
3240.00	48.40	4.37	52.77	74.00	-21.23	222	100	Peak
3780.00	46.25	5.63	51.88	74.00	-22.12	164	100	Peak
5400.00	44.15	9.32	53.47	54.00	-0.53	61	200	Average
5400.00	43.53	9.32	52.85	74.00	-21.15	61	200	Peak
7020.00	39.42	12.35	51.77	74.00	-22.23	75	200	Peak
7560.00	40.35	12.45	52.80	54.00	-1.20	102	200	Average
7560.00	40.73	12.45	53.18	74.00	-20.82	102	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2288.00	43.00	2.65	45.65	54.00	-8.35	277	200	Average
2288.00	50.09	2.65	52.74	74.00	-21.26	277	200	Peak
2374.00	45.20	2.81	48.01	54.00	-5.99	360	200	Average
2374.00	53.44	2.81	56.25	74.00	-17.75	360	200	Peak
2502.00	42.10	3.05	45.15	54.00	-8.85	0	200	Average
2502.00	51.33	3.05	54.38	74.00	-19.62	0	200	Peak
3240.00	45.76	4.37	50.13	74.00	-23.87	92	100	Peak
3780.00	44.15	5.63	49.78	74.00	-24.22	108	200	Peak
5400.00	41.69	9.32	51.01	74.00	-22.99	36	200	Peak
7020.00	38.60	12.35	50.95	54.00	-3.05	40	200	Average
7020.00	41.63	12.35	53.98	74.00	-20.02	40	200	Peak
7560.00	40.93	12.45	53.38	54.00	-0.62	56	200	Average
7560.00	41.91	12.45	54.36	74.00	-19.64	56	200	Peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
4. Result = Reading + Correction Factor
Margin = Result - Limit
Remark Peak = Result(PK) - Limit(PK)
Remark AVG = Result(AV) - Limit(AV)

Product Name	Moca AP cable Modem	Test By	Rex Chiu
Test Model	CGNVM-3589	Test Date	2016/03/25
Test Mode	IEEE 802.11gn HT20 Mode / TX / CH Low	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2240.00	44.30	2.56	46.86	54.00	-7.14	62	200	Average
2240.00	51.09	2.56	53.65	74.00	-20.35	62	200	Peak
2288.00	47.63	2.65	50.28	54.00	-3.72	160	200	Average
2288.00	52.14	2.65	54.79	74.00	-19.21	160	200	Peak
2490.00	44.60	3.03	47.63	54.00	-6.37	163	100	Average
2490.00	53.82	3.03	56.85	74.00	-17.15	163	100	Peak
3240.00	46.50	4.37	50.87	54.00	-3.13	194	100	Average
3240.00	48.53	4.37	52.90	74.00	-21.10	194	100	Peak
3780.00	46.95	5.63	52.58	74.00	-21.42	191	200	Peak
5400.00	44.12	9.32	53.44	54.00	-0.56	65	200	Average
5400.00	44.04	9.32	53.36	74.00	-20.64	65	200	Peak
7020.00	39.36	12.35	51.71	74.00	-22.29	119	200	Peak
7560.00	40.38	12.45	52.83	54.00	-1.17	81	200	Average
7560.00	41.82	12.45	54.27	74.00	-19.73	81	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1076.00	54.16	-2.73	51.43	74.00	-22.57	195	200	Peak
2288.00	49.88	2.65	52.53	74.00	-21.47	291	200	Peak
2490.00	46.00	3.03	49.03	54.00	-4.97	134	200	Average
2490.00	55.32	3.03	58.35	74.00	-15.65	134	200	Peak
3240.00	45.53	4.37	49.90	74.00	-24.10	237	100	Peak
3780.00	44.49	5.63	50.12	74.00	-23.88	115	200	Peak
5400.00	41.15	9.32	50.47	74.00	-23.53	88	200	Peak
7020.00	37.60	12.35	49.95	54.00	-4.05	47	200	Average
7020.00	40.67	12.35	53.02	74.00	-20.98	47	200	Peak
7560.00	40.96	12.45	53.41	54.00	-0.59	129	100	Average
7560.00	41.86	12.45	54.31	74.00	-19.69	129	100	Peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
4. Result = Reading + Correction Factor
Margin = Result - Limit
Remark Peak = Result(PK) - Limit(PK)
Remark AVG = Result(AV) - Limit(AV)

Product Name	Moca AP cable Modem	Test By	Rex Chiu
Test Model	CGNVM-3589	Test Date	2016/03/25
Test Mode	IEEE 802.11gn HT20 Mode / TX / CH Middle	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
=====								
1622.00	47.30	-1.56	45.74	54.00	-8.26	138	100	Average
1622.00	56.49	-1.56	54.93	74.00	-19.07	138	100	Peak
2288.00	47.70	2.65	50.35	54.00	-3.65	252	200	Average
2288.00	51.42	2.65	54.07	74.00	-19.93	252	200	Peak
2388.00	49.70	2.84	52.54	54.00	-1.46	318	200	Average
2388.00	58.77	2.84	61.61	74.00	-12.39	318	200	Peak
2486.00	45.30	3.02	48.32	54.00	-5.68	151	200	Average
2486.00	55.77	3.02	58.79	74.00	-15.21	151	200	Peak
3240.00	48.05	4.37	52.42	74.00	-21.58	192	100	Peak
3780.00	46.59	5.63	52.22	74.00	-21.78	201	100	Peak
5400.00	44.08	9.32	53.40	54.00	-0.60	64	200	Average
5400.00	44.02	9.32	53.34	74.00	-20.66	64	200	Peak
7020.00	38.60	12.35	50.95	74.00	-23.05	72	200	Peak
7320.00	30.70	12.37	43.07	54.00	-10.93	206	200	Average
7320.00	42.69	12.37	55.06	74.00	-18.94	206	200	Peak
7560.00	40.40	12.45	52.85	54.00	-1.15	82	200	Average
7560.00	41.55	12.45	54.00	74.00	-20.00	82	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
=====								
1008.00	37.30	-2.73	34.57	54.00	-19.43	145	100	Average
1008.00	57.53	-2.73	54.80	74.00	-19.20	145	100	Peak
2288.00	44.50	2.65	47.15	54.00	-6.85	263	200	Average
2288.00	50.96	2.65	53.61	74.00	-20.39	263	200	Peak
2390.00	46.90	2.84	49.74	54.00	-4.26	4	200	Average
2390.00	52.56	2.84	55.40	74.00	-18.60	4	200	Peak
2484.00	45.30	3.02	48.32	54.00	-5.68	130	200	Average
2484.00	54.42	3.02	57.44	74.00	-16.56	130	200	Peak
3240.00	44.98	4.37	49.35	74.00	-24.65	57	200	Peak
3780.00	43.76	5.63	49.39	74.00	-24.61	78	200	Peak
5400.00	41.03	9.32	50.35	74.00	-23.65	136	200	Peak
7020.00	38.80	12.35	51.15	54.00	-2.85	46	200	Average
7020.00	41.85	12.35	54.20	74.00	-19.80	46	200	Peak
7320.00	30.90	12.37	43.27	54.00	-10.73	317	200	Average
7320.00	41.79	12.37	54.16	74.00	-19.84	317	200	Peak
7560.00	40.93	12.45	53.38	54.00	-0.62	46	200	Average
7560.00	41.61	12.45	54.06	74.00	-19.94	46	200	Peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

4. Result = Reading + Correction Factor

Margin = Result - Limit

Remark Peak = Result(PK) - Limit(PK)

Remark AVG = Result(AV) - Limit(AV)

Product Name	Moca AP cable Modem	Test By	Rex Chiu
Test Model	CGNVM-3589	Test Date	2016/03/25
Test Mode	IEEE 802.11gn HT20 Mode / TX / CH High	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2288.00	47.22	2.65	49.87	54.00	-4.13	73	200	Average
2288.00	51.71	2.65	54.36	74.00	-19.64	73	200	Peak
2380.00	49.70	2.82	52.52	54.00	-1.48	176	200	Average
2380.00	55.50	2.82	58.32	74.00	-15.68	176	200	Peak
2514.00	43.30	3.08	46.38	54.00	-7.62	153	100	Average
2514.00	51.01	3.08	54.09	74.00	-19.91	153	100	Peak
3240.00	46.90	4.37	51.27	54.00	-2.73	223	200	Average
3240.00	48.91	4.37	53.28	74.00	-20.72	223	200	Peak
3780.00	46.56	5.63	52.19	74.00	-21.81	187	200	Peak
5400.00	44.08	9.32	53.40	54.00	-0.60	65	200	Average
5400.00	43.52	9.32	52.84	74.00	-21.16	65	200	Peak
7020.00	38.94	12.35	51.29	74.00	-22.71	318	100	Peak
7560.00	40.32	12.45	52.77	54.00	-1.23	101	200	Average
7560.00	41.27	12.45	53.72	74.00	-20.28	101	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2280.00	49.29	2.63	51.92	74.00	-22.08	323	200	Peak
2390.00	46.30	2.84	49.14	54.00	-4.86	9	200	Average
2390.00	52.96	2.84	55.80	74.00	-18.20	9	200	Peak
2514.00	43.90	3.08	46.98	54.00	-7.02	0	200	Average
2514.00	51.80	3.08	54.88	74.00	-19.12	0	200	Peak
3240.00	46.53	4.37	50.90	74.00	-23.10	54	200	Peak
3780.00	44.35	5.63	49.98	74.00	-24.02	248	100	Peak
5400.00	42.34	9.32	51.66	74.00	-22.34	97	200	Peak
7020.00	38.50	12.35	50.85	54.00	-3.15	56	200	Average
7020.00	41.54	12.35	53.89	74.00	-20.11	56	200	Peak
7560.00	40.86	12.45	53.31	54.00	-0.69	61	200	Average
7560.00	41.10	12.45	53.55	74.00	-20.45	61	200	Peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
4. Result = Reading + Correction Factor
Margin = Result - Limit
Remark Peak = Result(PK) - Limit(PK)
Remark AVG = Result(AV) - Limit(AV)

Product Name	Moca AP cable Modem	Test By	Rex Chiu
Test Model	CGNVM-3589	Test Date	2016/03/25
Test Mode	IEEE 802.11gn HT40 Mode / TX / CH Low	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2160.00	48.88	2.40	51.28	74.00	-22.72	202	200	Peak
2288.00	49.73	2.65	52.38	54.00	-1.62	144	100	Average
2288.00	51.79	2.65	54.44	74.00	-19.56	144	100	Peak
2498.00	40.00	3.05	43.05	54.00	-10.95	166	200	Average
2498.00	50.65	3.05	53.70	74.00	-20.30	166	200	Peak
3240.00	46.60	4.37	50.97	54.00	-3.03	176	100	Average
3240.00	48.62	4.37	52.99	74.00	-21.01	176	100	Peak
3780.00	46.49	5.63	52.12	74.00	-21.88	158	100	Peak
5400.00	44.18	9.32	53.50	54.00	-0.50	78	200	Average
5400.00	43.83	9.32	53.15	74.00	-20.85	78	200	Peak
7560.00	40.60	12.45	53.05	54.00	-0.95	88	200	Average
7560.00	42.29	12.45	54.74	74.00	-19.26	88	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2012.00	47.34	2.12	49.46	74.00	-24.54	115	200	Peak
2288.00	48.86	2.65	51.51	74.00	-22.49	278	200	Peak
2486.00	40.10	3.02	43.12	54.00	-10.88	203	200	Average
2486.00	50.71	3.02	53.73	74.00	-20.27	203	200	Peak
3240.00	45.23	4.37	49.60	74.00	-24.40	51	200	Peak
3780.00	44.20	5.63	49.83	74.00	-24.17	112	100	Peak
5400.00	41.29	9.32	50.61	74.00	-23.39	94	200	Peak
7020.00	39.00	12.35	51.35	54.00	-2.65	74	100	Average
7020.00	42.02	12.35	54.37	74.00	-19.63	74	100	Peak
7560.00	41.20	12.45	53.65	54.00	-0.35	47	200	Average
7560.00	41.93	12.45	54.38	74.00	-19.62	47	200	Peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.
4. Result = Reading + Correction Factor
Margin = Result - Limit
Remark Peak = Result(PK) - Limit(PK)
Remark AVG = Result(AV) - Limit(AV)

Product Name	Moca AP cable Modem	Test By	Rex Chiu
Test Model	CGNVM-3589	Test Date	2016/03/25
Test Mode	IEEE 802.11gn HT40 Mode / TX / CH Middle	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2160.00	48.61	2.40	51.01	74.00	-22.99	210	100	Peak
2390.00	50.36	2.84	53.20	54.00	-0.80	327	200	Average
2390.00	64.44	2.84	67.28	74.00	-6.72	327	200	Peak
2488.00	47.38	3.03	50.41	54.00	-3.59	293	100	Average
2488.00	62.32	3.03	65.35	74.00	-8.65	293	100	Peak
3240.00	46.60	4.37	50.97	54.00	-3.03	209	200	Average
3240.00	48.67	4.37	53.04	74.00	-20.96	209	200	Peak
3780.00	45.95	5.63	51.58	74.00	-22.42	199	200	Peak
5400.00	44.12	9.32	53.44	54.00	-0.56	71	200	Average
5400.00	44.55	9.32	53.87	74.00	-20.13	71	200	Peak
7020.00	38.06	12.35	50.41	74.00	-23.59	78	200	Peak
7560.00	40.36	12.45	52.81	54.00	-1.19	94	200	Average
7560.00	40.96	12.45	53.41	74.00	-20.59	94	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
1982.00	47.10	1.93	49.03	74.00	-24.97	354	100	Peak
2390.00	49.72	2.84	52.56	54.00	-1.44	352	200	Average
2390.00	63.51	2.84	66.35	74.00	-7.65	352	200	Peak
2484.00	45.30	3.02	48.32	54.00	-5.68	0	100	Average
2484.00	60.81	3.02	63.83	74.00	-10.17	0	100	Peak
3240.00	45.36	4.37	49.73	74.00	-24.27	28	200	Peak
3780.00	44.60	5.63	50.23	74.00	-23.77	256	100	Peak
5400.00	39.89	9.32	49.21	74.00	-24.79	88	200	Peak
7020.00	38.40	12.35	50.75	54.00	-3.25	62	100	Average
7020.00	41.43	12.35	53.78	74.00	-20.22	62	100	Peak
7560.00	40.98	12.45	53.43	54.00	-0.57	41	200	Average
7560.00	41.19	12.45	53.64	74.00	-20.36	41	200	Peak

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

4. Result = Reading + Correction Factor

Margin = Result - Limit

Remark Peak = Result(PK) - Limit(PK)

Remark AVG = Result(AV) - Limit(AV)

Product Name	Moca AP cable Modem	Test By	Rex Chiu
Test Model	CGNVM-3589	Test Date	2016/03/25
Test Mode	IEEE 802.11gn HT40 Mode / TX / CH High	Temp. & Humidity	25°C, 50%

966Chamber_B at 3Meter / Horizontal

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2288.00	49.30	2.65	51.95	54.00	-2.05	76	200	Average
2288.00	51.76	2.65	54.41	74.00	-19.59	76	200	Peak
2390.00	45.50	2.84	48.34	54.00	-5.66	162	200	Average
2390.00	53.68	2.84	56.52	74.00	-17.48	162	200	Peak
2508.00	43.20	3.07	46.27	54.00	-7.73	209	200	Average
2508.00	51.98	3.07	55.05	74.00	-18.95	209	200	Peak
3240.00	48.18	4.37	52.55	74.00	-21.45	181	100	Peak
3780.00	46.80	5.63	52.43	74.00	-21.57	194	200	Peak
5400.00	44.13	9.32	53.45	54.00	-0.55	70	200	Average
5400.00	43.78	9.32	53.10	74.00	-20.90	70	200	Peak
7560.00	40.38	12.45	52.83	54.00	-1.17	91	200	Average
7560.00	41.38	12.45	53.83	74.00	-20.17	91	200	Peak

966Chamber_B at 3Meter / Vertical

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2288.00	44.60	2.65	47.25	54.00	-6.75	156	200	Average
2288.00	50.07	2.65	52.72	74.00	-21.28	156	200	Peak
2378.00	41.40	2.82	44.22	54.00	-9.78	275	200	Average
2378.00	50.77	2.82	53.59	74.00	-20.41	275	200	Peak
2504.00	44.50	3.06	47.56	54.00	-6.44	239	200	Average
2504.00	52.74	3.06	55.80	74.00	-18.20	239	200	Peak
3240.00	46.19	4.37	50.56	74.00	-23.44	60	200	Peak
3780.00	44.28	5.63	49.91	74.00	-24.09	94	200	Peak
5400.00	41.59	9.32	50.91	74.00	-23.09	83	200	Peak
7020.00	38.60	12.35	50.95	54.00	-3.05	33	200	Average
7020.00	41.65	12.35	54.00	74.00	-20.00	33	200	Peak
7560.00	40.95	12.45	53.40	54.00	-0.60	37	200	Average
7560.00	41.85	12.45	54.30	74.00	-19.70	37	200	Peak

Remark:

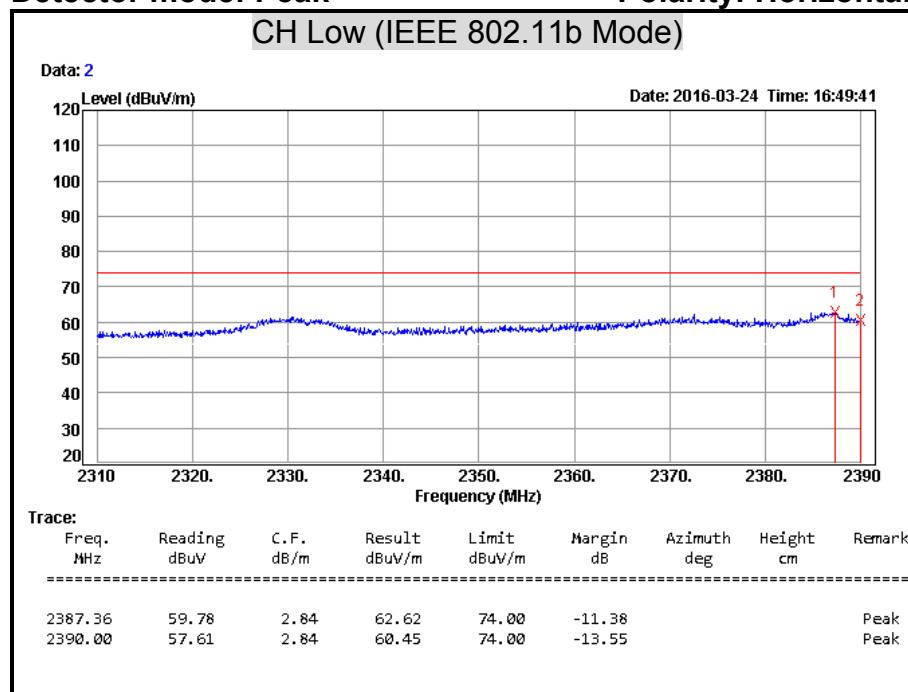
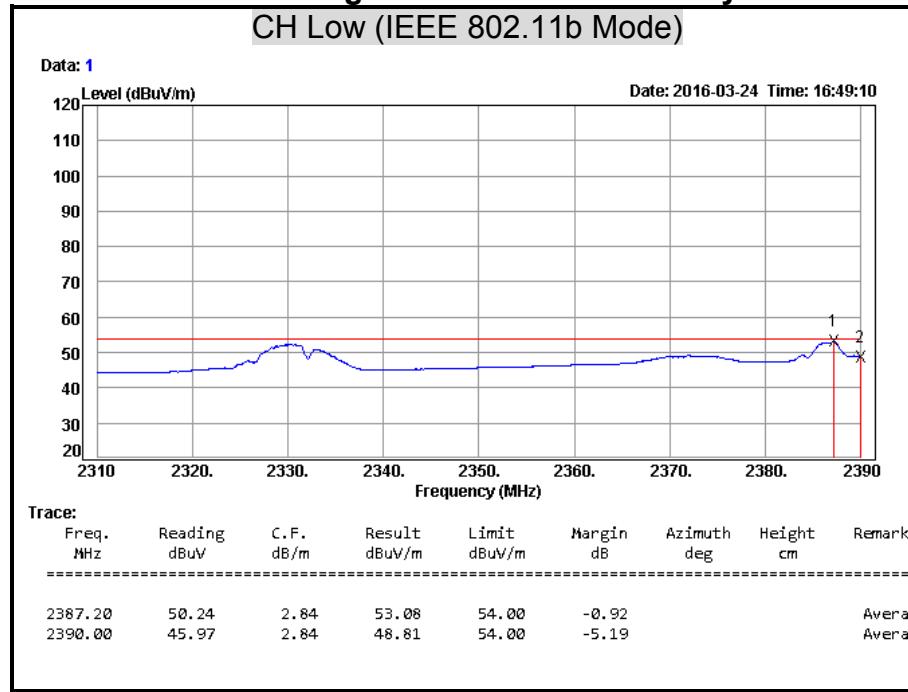
1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Average test would be performed if the peak result were greater than the average limit.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.

4. Result = Reading + Correction Factor

Margin = Result - Limit

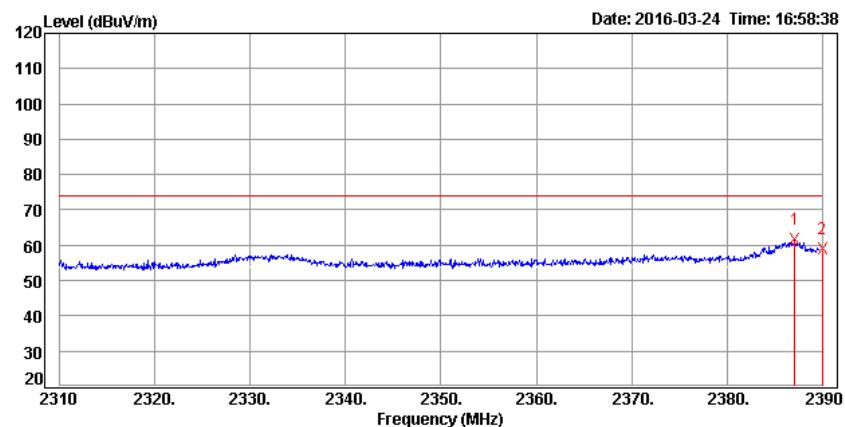
Remark Peak = Result(PK) - Limit(PK)

Remark AVG = Result(AV) - Limit(AV)

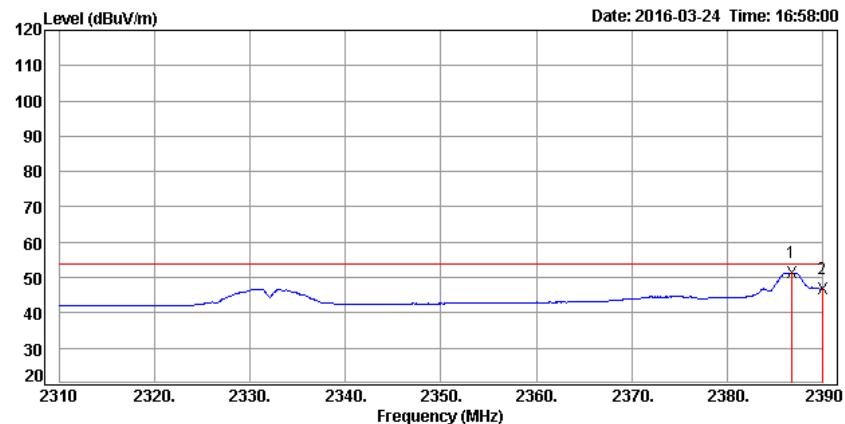
Restricted Band Edges**Detector mode: Peak****Polarity: Horizontal****Detector mode: Average****Polarity: Horizontal**

Detector mode: Peak**Polarity: Vertical****CH Low (IEEE 802.11b Mode)**

Data: 4

**Detector mode: Average****Polarity: Vertical****CH Low (IEEE 802.11b Mode)**

Data: 3

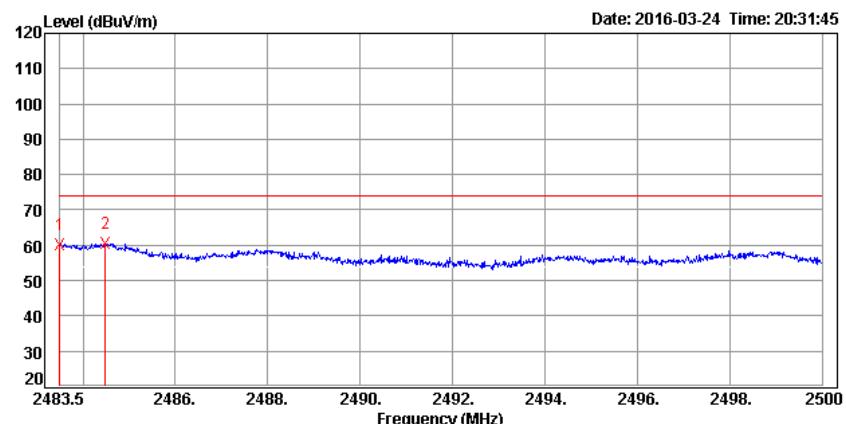


Detector mode: Peak

Polarity: Horizontal

CH High (IEEE 802.11b Mode)

Data: 30



Detector mode: Average

Polarity: Horizontal

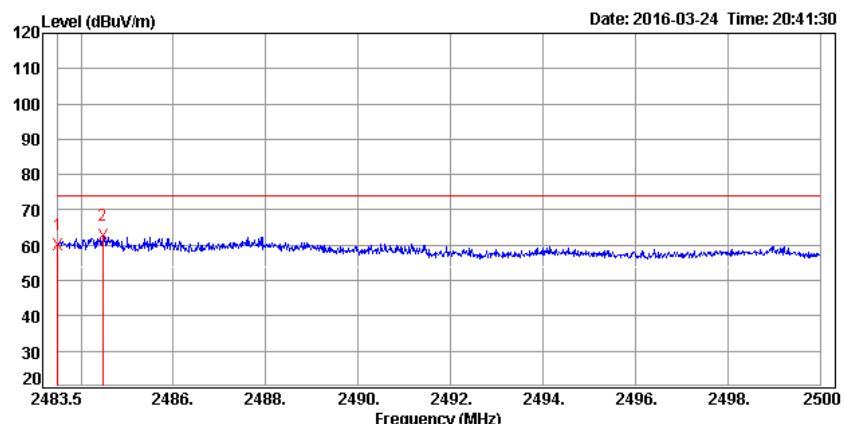
CH High (IEEE 802.11b Mode)

Data: 29

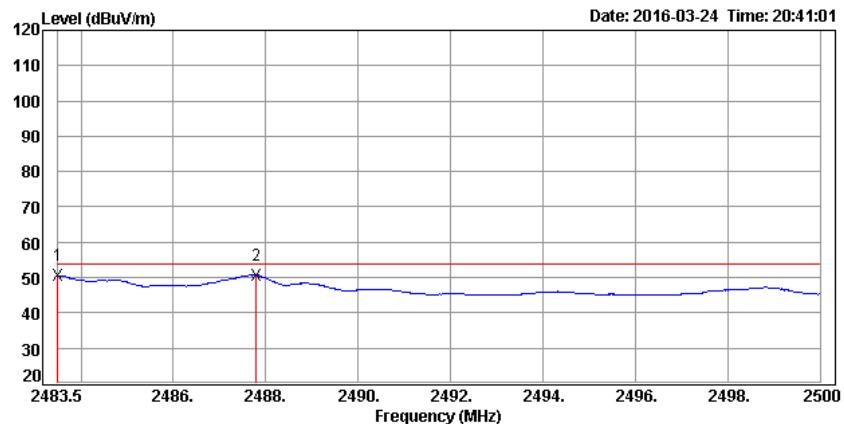


Detector mode: Peak**Polarity: Vertical****CH High (IEEE 802.11b Mode)**

Data: 32

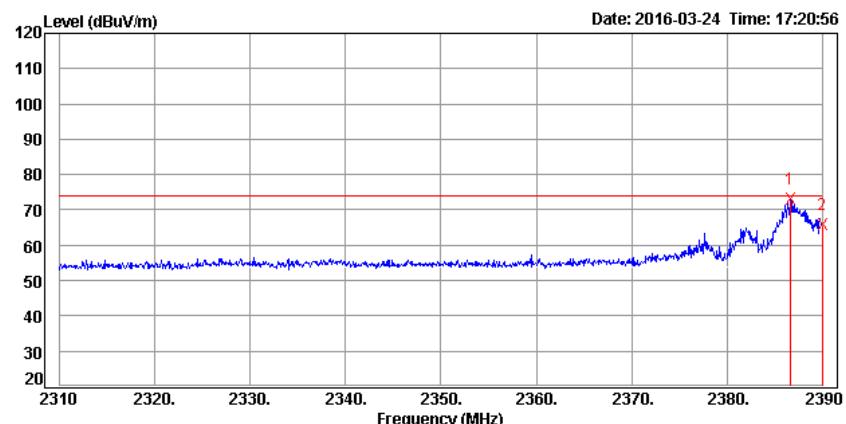
**Detector mode: Average****Polarity: Vertical****CH High (IEEE 802.11b Mode)**

Data: 31



Detector mode: Peak**Polarity: Horizontal****CH Low (IEEE 802.11g Mode)**

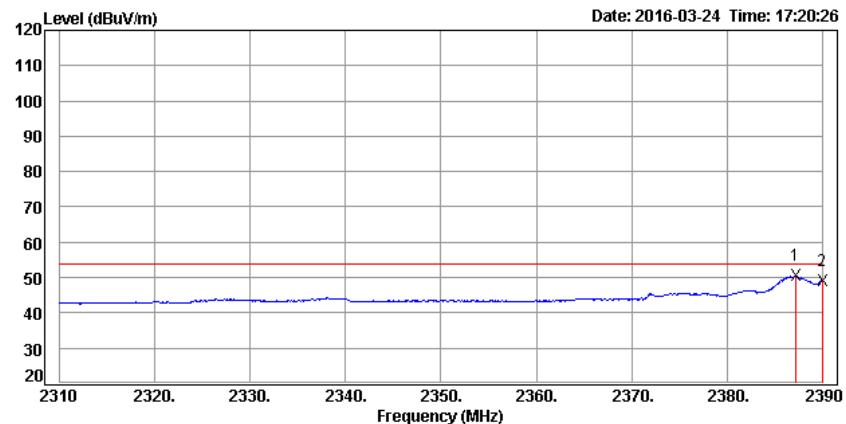
Data: 6

**Trace:**

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2386.64	70.06	2.83	72.89	74.00	-1.11			Peak
2390.00	62.81	2.84	65.65	74.00	-8.35			Peak

Detector mode: Average**Polarity: Horizontal****CH Low (IEEE 802.11g Mode)**

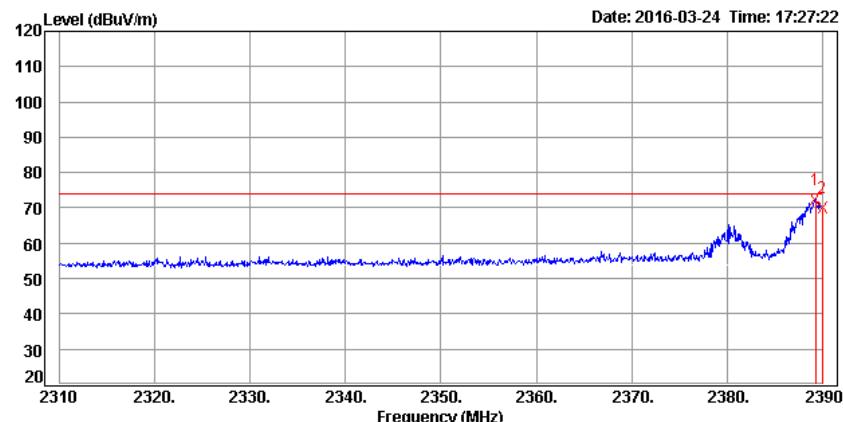
Data: 5

**Trace:**

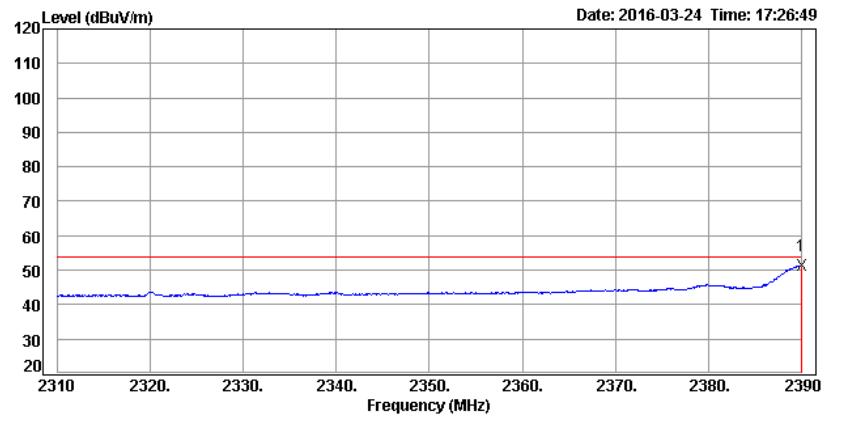
Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2387.20	47.65	2.84	50.49	54.00	-3.51			Average
2390.00	46.35	2.84	49.19	54.00	-4.81			Average

Detector mode: Peak**Polarity: Vertical****CH Low (IEEE 802.11g Mode)**

Data: 8

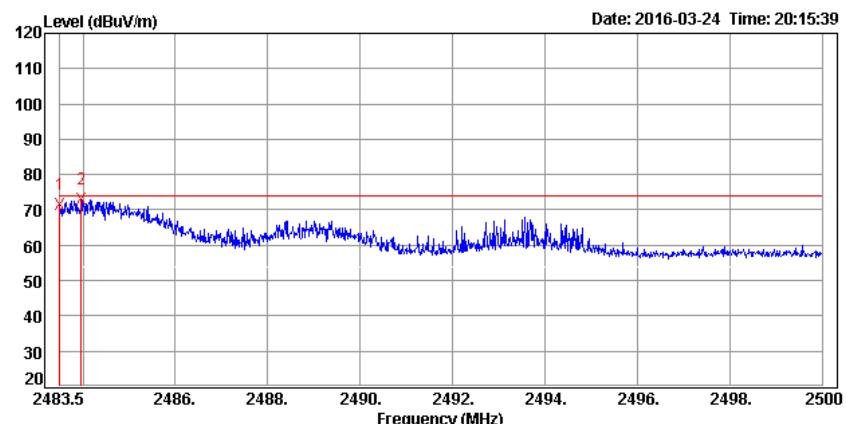
**Detector mode: Average****Polarity: Vertical****CH Low (IEEE 802.11g Mode)**

Data: 7

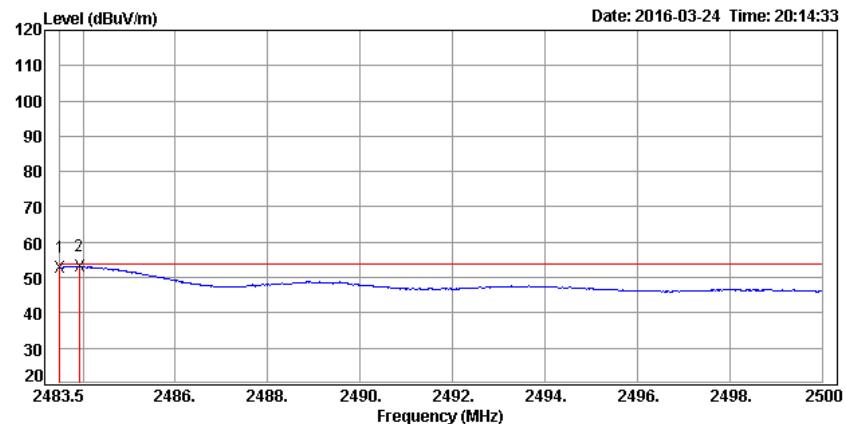


Detector mode: Peak**Polarity: Horizontal****CH High (IEEE 802.11g Mode)**

Data: 26

**Detector mode: Average****Polarity: Horizontal****CH High (IEEE 802.11g Mode)**

Data: 25

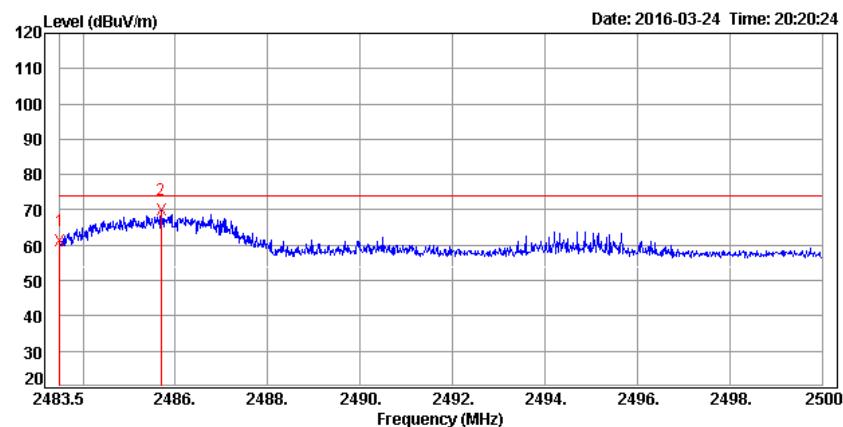


Detector mode: Peak

Polarity: Vertical

CH High (IEEE 802.11g Mode)

Data: 28

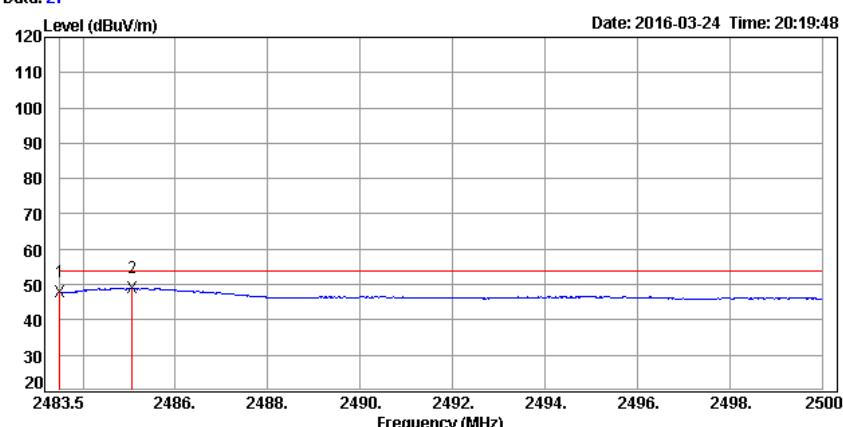


Detector mode: Average

Polarity: Vertical

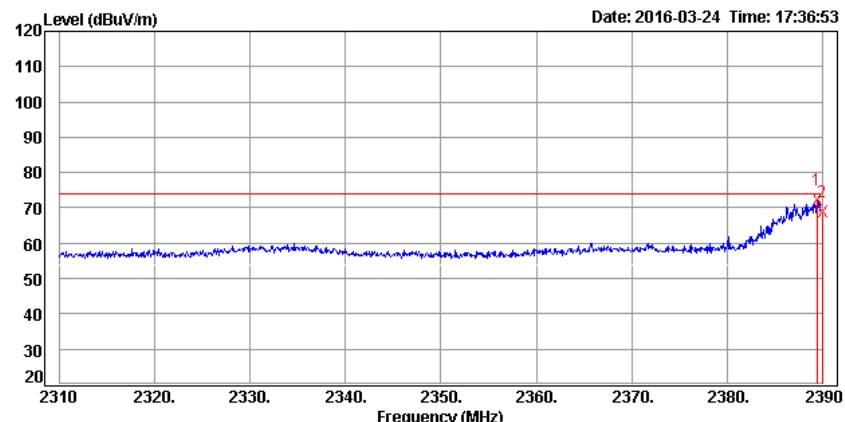
CH High (IEEE 802.11g Mode)

Data: 27

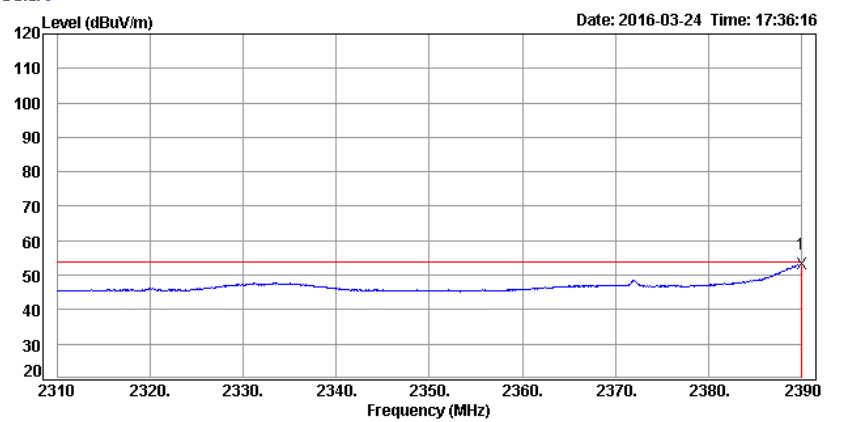


Detector mode: Peak**Polarity: Horizontal****CH Low (IEEE 802.11gn HT20 Mode)**

Data: 10

**Detector mode: Average****Polarity: Horizontal****CH Low (IEEE 802.11gn HT20 Mode)**

Data: 9

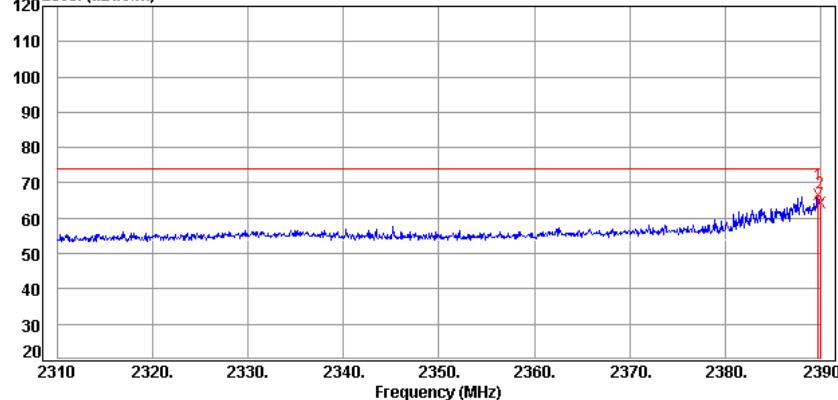


Detector mode: Peak**Polarity: Vertical****CH Low (IEEE 802.11gn HT20 Mode)**

Data: 12

Level (dBuV/m)

Date: 2016-03-24 Time: 17:42:59



Trace:

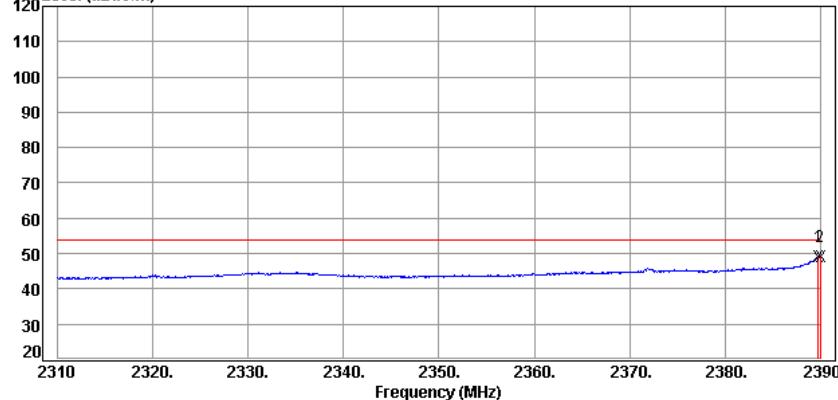
Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2389.84	63.78	2.84	66.62	74.00	-7.38			Peak
2390.00	61.27	2.84	64.11	74.00	-9.89			Peak

Detector mode: Average**Polarity: Vertical****CH Low (IEEE 802.11gn HT20 Mode)**

Data: 11

Level (dBuV/m)

Date: 2016-03-24 Time: 17:42:16

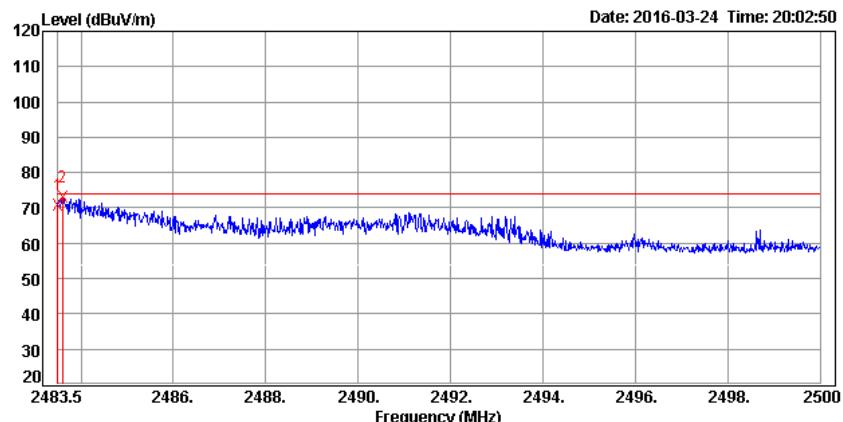


Trace:

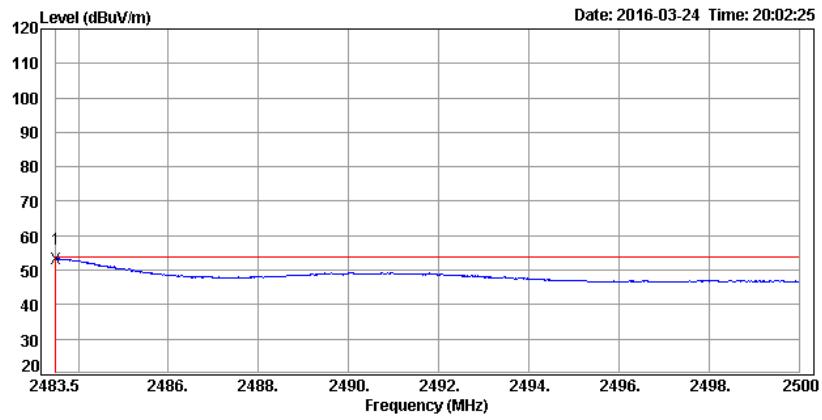
Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2389.84	46.30	2.84	49.14	54.00	-4.86			Average
2390.00	46.30	2.84	49.14	54.00	-4.86			Average

Detector mode: Peak**Polarity: Horizontal****CH High (IEEE 802.11gn HT20 Mode)**

Data: 22

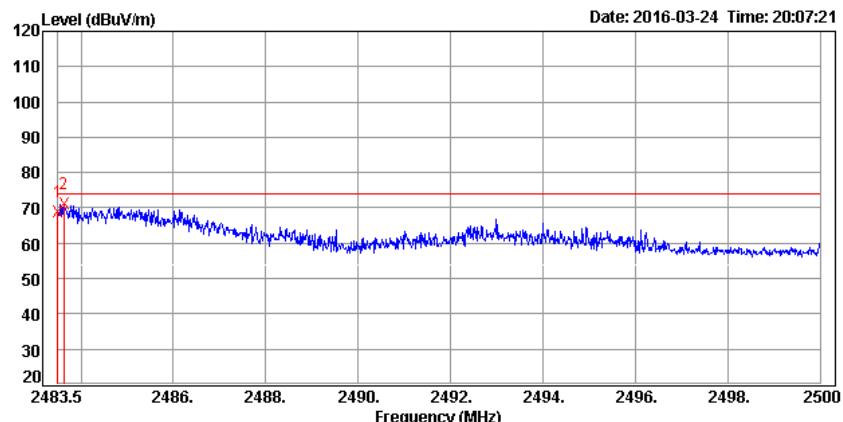
**Detector mode: Average****Polarity: Horizontal****CH High (IEEE 802.11gn HT20 Mode)**

Data: 21

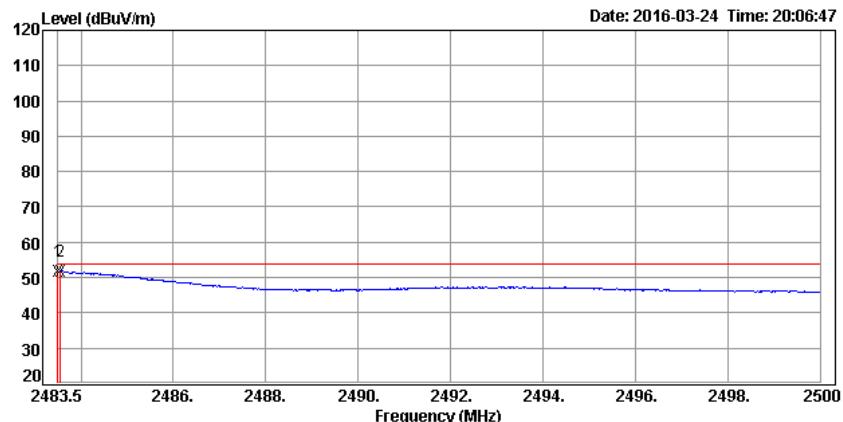


Detector mode: Peak**Polarity: Vertical****CH High (IEEE 802.11gn HT20 Mode)**

Data: 24

**Detector mode: Average****Polarity: Vertical****CH High (IEEE 802.11gn HT20 Mode)**

Data: 23

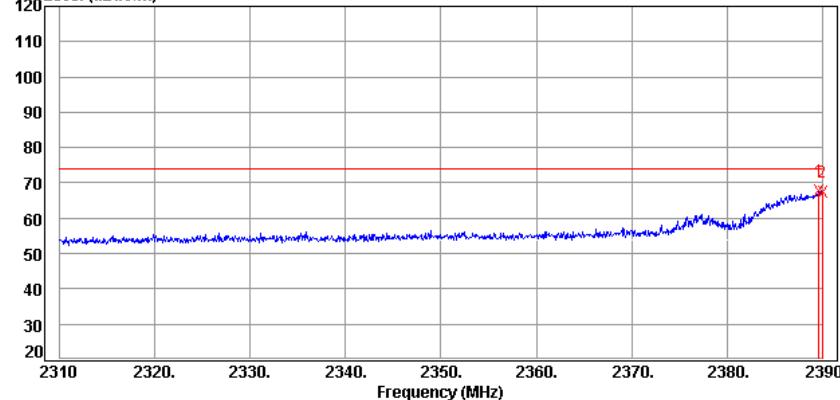


Detector mode: Peak**Polarity: Horizontal****CH Low (IEEE 802.11gn HT40 Mode)**

Data: 14

Level (dBuV/m)

Date: 2016-03-24 Time: 17:50:52

**Trace:**

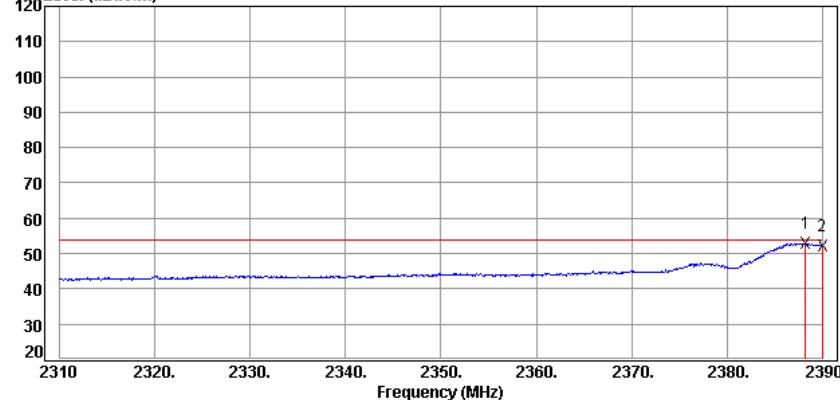
Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2389.68	64.70	2.84	67.54	74.00	-6.46			Peak
2390.00	64.63	2.84	67.47	74.00	-6.53			Peak

Detector mode: Average**Polarity: Horizontal****CH Low (IEEE 802.11gn HT40 Mode)**

Data: 13

Level (dBuV/m)

Date: 2016-03-24 Time: 17:50:08

**Trace:**

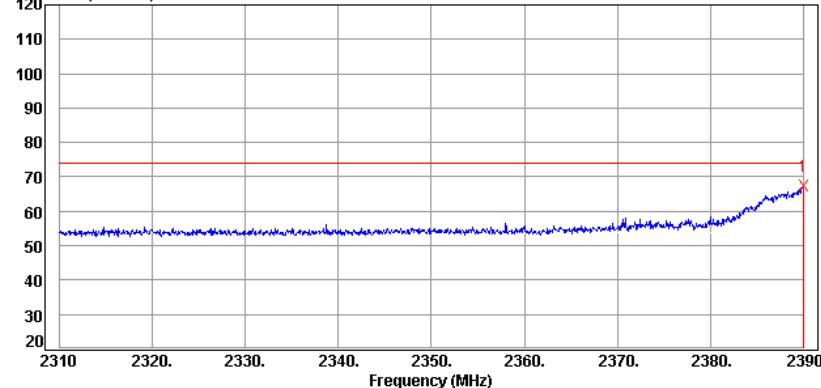
Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2388.24	50.03	2.84	52.87	54.00	-1.13			Average
2390.00	49.33	2.84	52.17	54.00	-1.83			Average

Detector mode: Peak**Polarity: Vertical****CH Low (IEEE 802.11gn HT40 Mode)**

Data: 16

Level (dBuV/m)

Date: 2016-03-24 Time: 17:55:58



Trace:

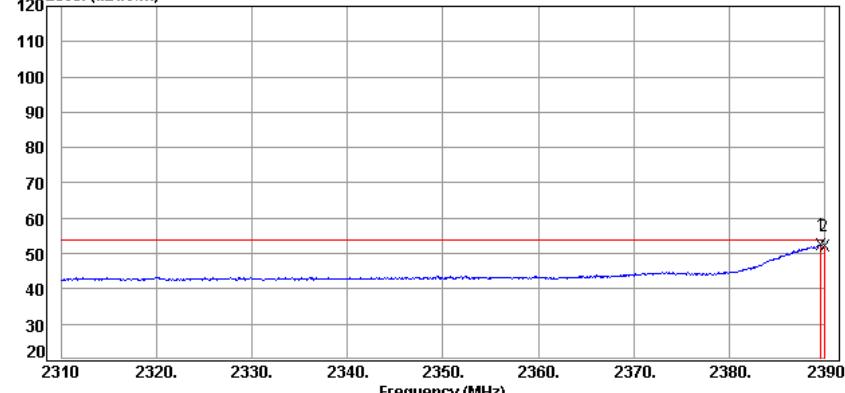
Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
<hr/>								
2390.00	64.48	2.84	67.32	74.00	-6.68			Peak

Detector mode: Average**Polarity: Vertical****CH Low (IEEE 802.11gn HT40 Mode)**

Data: 15

Level (dBuV/m)

Date: 2016-03-24 Time: 17:55:30

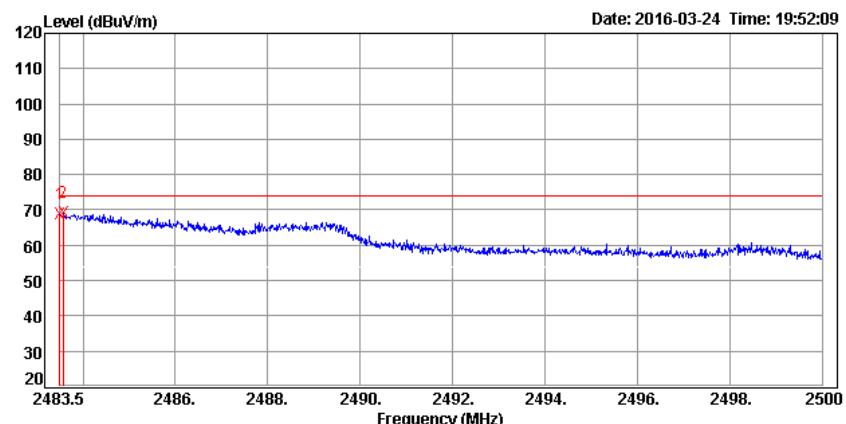


Trace:

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
<hr/>								
2389.68	49.62	2.84	52.46	54.00	-1.54			Average
2390.00	49.26	2.84	52.10	54.00	-1.90			Average

Detector mode: Peak**Polarity: Horizontal****CH High (IEEE 802.11gn HT40 Mode)**

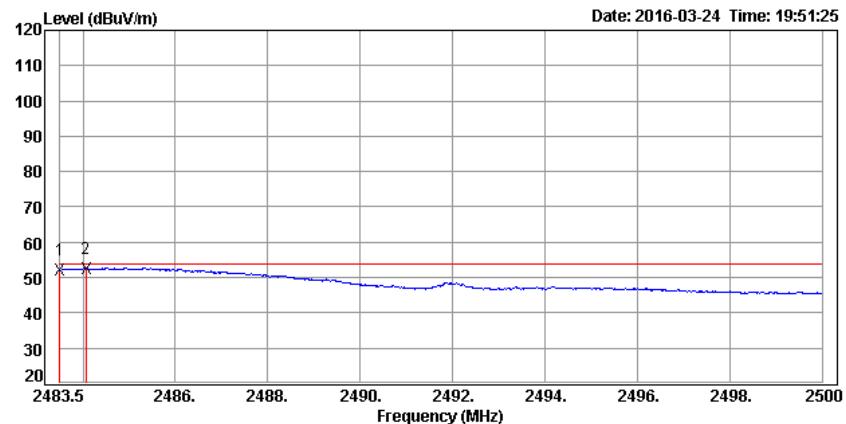
Data: 18

**Trace:**

Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	65.72	3.02	68.74	74.00	-5.26			Peak
2483.57	66.04	3.02	69.06	74.00	-4.94			Peak

Detector mode: Average**Polarity: Horizontal****CH High (IEEE 802.11gn HT40 Mode)**

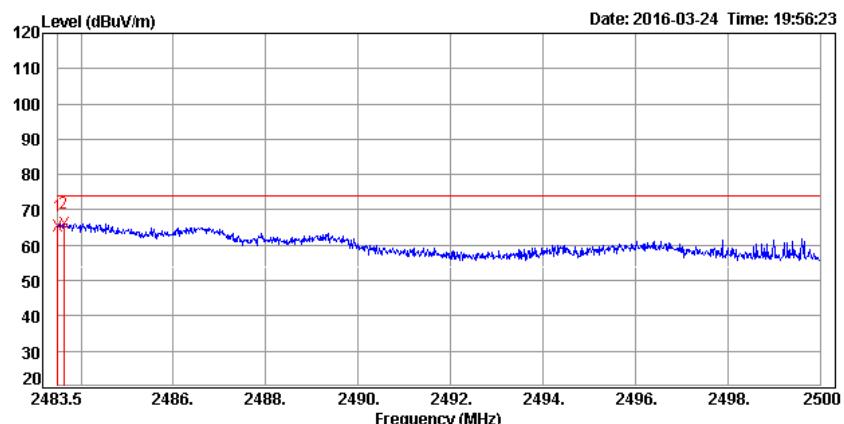
Data: 17

**Trace:**

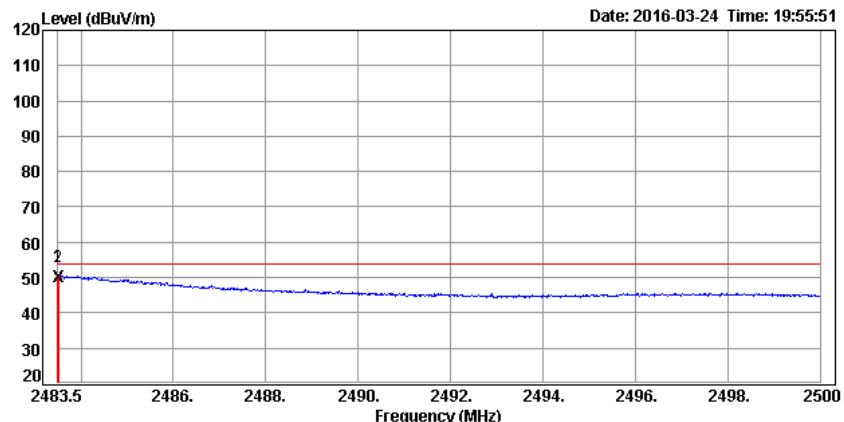
Freq. MHz	Reading dBuV	C.F. dB/m	Result dBuV/m	Limit dBuV/m	Margin dB	Azimuth deg	Height cm	Remark
2483.50	49.04	3.02	52.06	54.00	-1.94			Average
2484.06	49.67	3.02	52.69	54.00	-1.31			Average

Detector mode: Peak**Polarity: Vertical****CH High (IEEE 802.11gn HT40 Mode)**

Data: 20

**Detector mode: Average****Polarity: Vertical****CH High (IEEE 802.11gn HT40 Mode)**

Data: 19



7.8 CONDUCTED EMISSION

LIMITS

§ 15.207 (a) Except as shown in paragraph (b) and (c) this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table, as measured using a 50 μ H/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal.

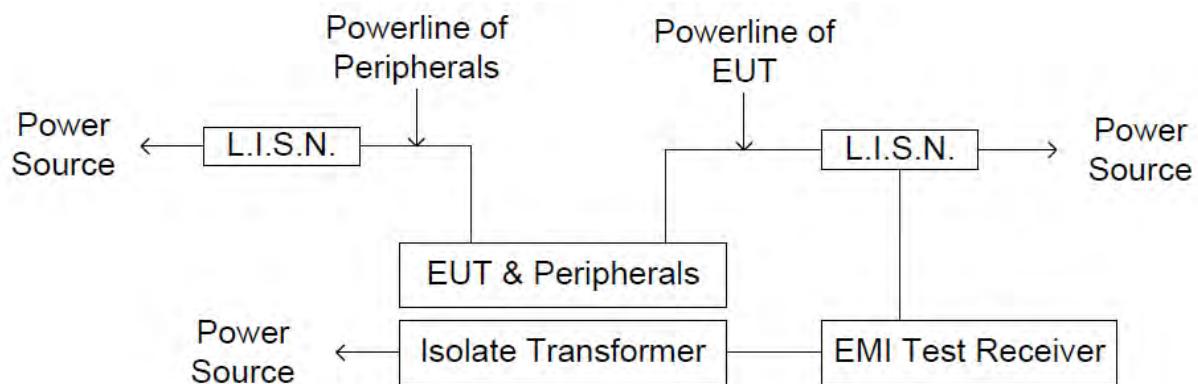
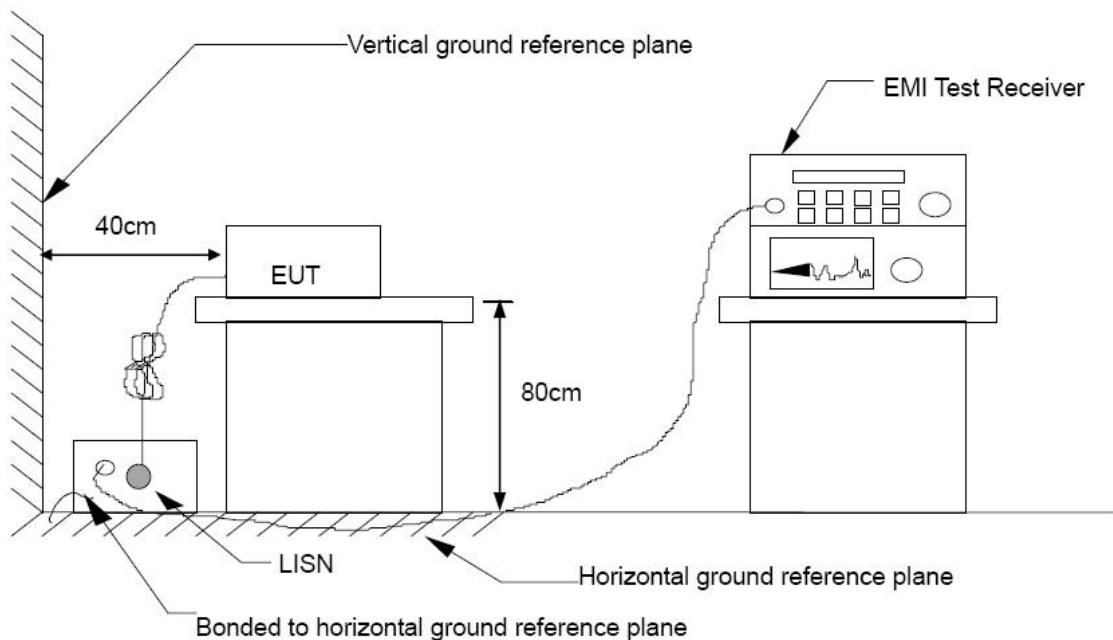
The lower limit applies at the boundary between the frequency ranges.

Frequency Range (MHz)	Conducted Limit (dB μ V)	
	Quasi-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5.00	56	46
5.00 - 30.0	60	50

TEST EQUIPMENT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
L.I.S.N	Schwarzbeck	NSLK 8127	8127 465	08/05/2016
L.I.S.N	Schwarzbeck	NSLK 8127	8127 473	03/10/2017
EMI Test Receiver	Rohde & Schwarz	ESHS 30	838550/003	10/31/2016
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100111	06/28/2016
Test S/W		E3.815206a		

Remark: Each piece of equipment is scheduled for calibration once a year.

TEST SETUP

TEST PROCEDURE

The basic test procedure was in accordance with ANSI C63.10:2013.

The test procedure is performed in a 4m × 3m × 2.4m (L×W×H) shielded room.

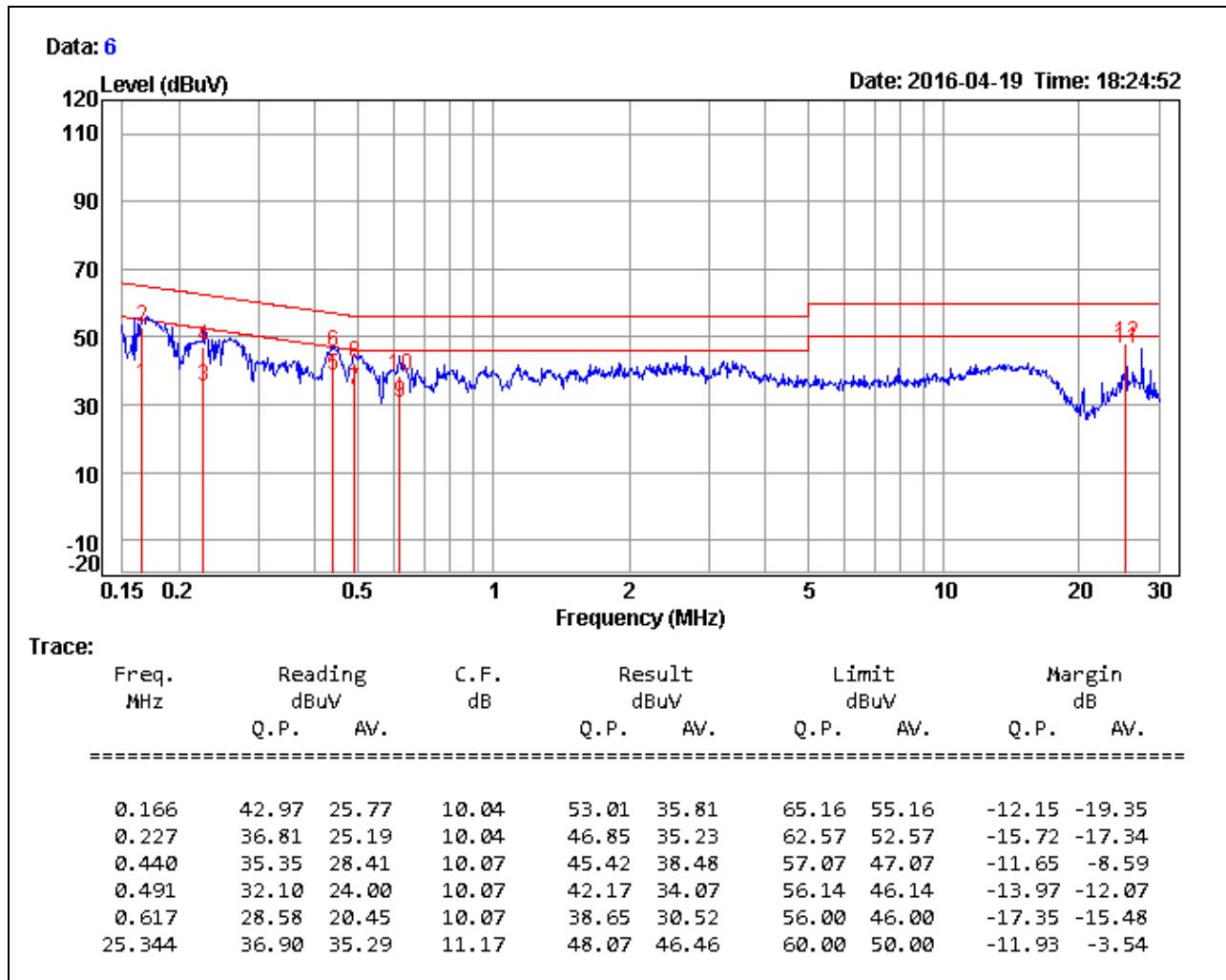
The EUT along with its peripherals were placed on a 1.0m (W) × 1.5m (L) and 0.8m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane.

The EUT was connected to power mains through a line impedance stabilization network (LISN) which provides 50 ohm coupling impedance for measuring instrument and the chassis ground was bounded to the horizontal ground plane of shielded room. All peripherals were connected to the second LISN and the chassis ground also bounded to the horizontal ground plane of shielded room.

The EUT was located so that the distance between the boundary of the EUT and the closest surface of the LISN is 0.8 m. Where a mains flexible cord was provided by the manufacturer shall be 1 m long, or if in excess of 1 m, the excess cable was folded back and forth as far as possible so as to form a bundle not exceeding 0.4 m in length.

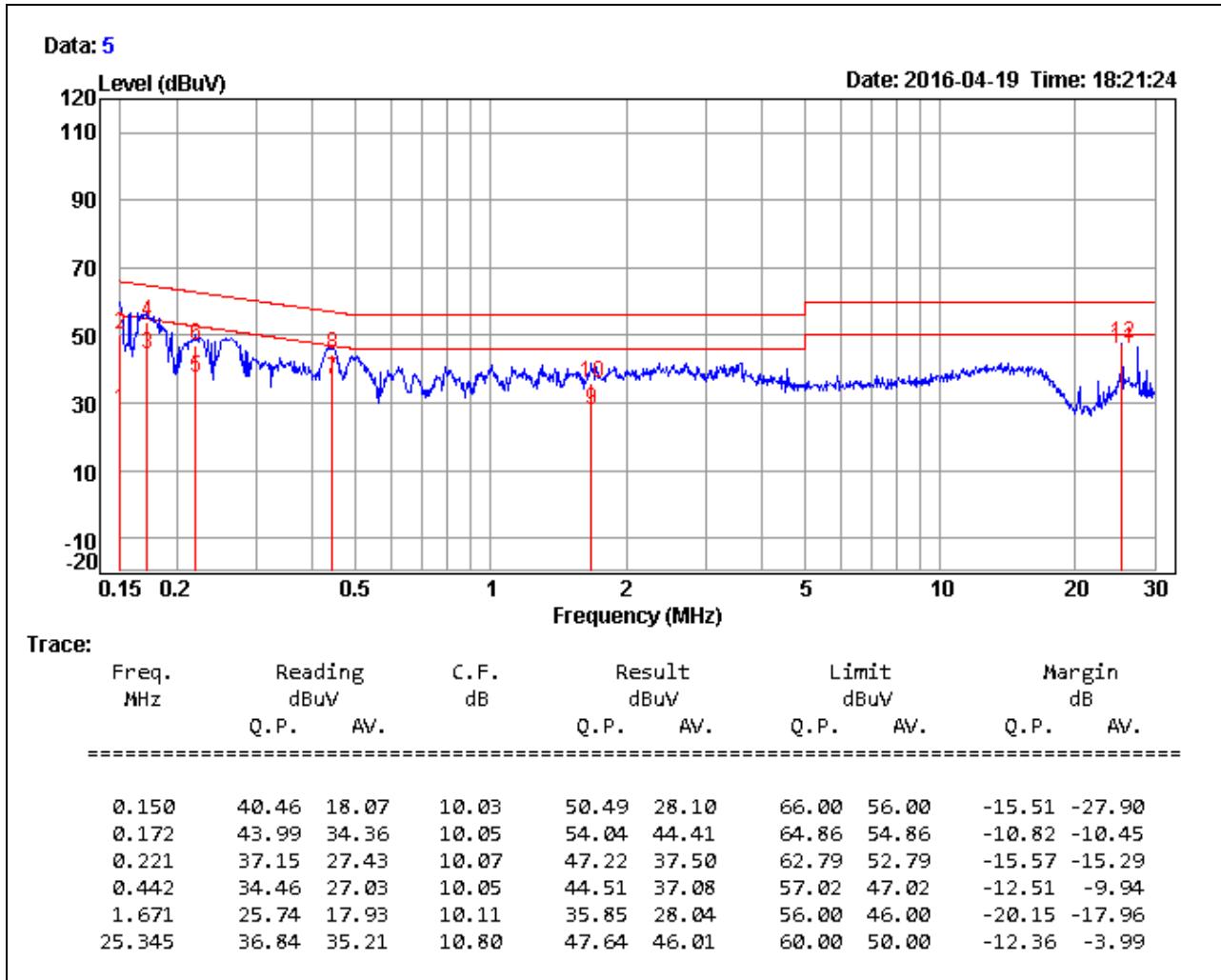
TEST RESULTS

Product Name	Moca AP cable Modem	Test By	Audi Chang
Test Model	CGNVM-3589	Test Date	2016/04/19
Test Mode	Mode 2	Temp. & Humidity	26 °C, 49%

LINE**Remark:**

1. Correction Factor = Insertion loss + Cable loss
2. Result level = Reading Value + Correction factor
3. Margin value = Result level – Limit value

Product Name	Moca AP cable Modem	Test By	Audi Chang
Test Model	CGNVM-3589	Test Date	2016/04/19
Test Mode	Mode 2	Temp. & Humidity	26°C, 49%

NEUTRAL**Remark:**

1. Correction Factor = Insertion loss + Cable loss
2. Result level = Reading Value + Correction factor
3. Margin value = Result level – Limit value