FCC Part 15C
Measurement and Test Report

For

Y-Cam Solutions Ltd

Vision House, 3 Dee Road, Richmond, Surrey. UK

FCC ID: V4FBABYV026

FCC Rules:	FCC Part 15C
Product Description:	Network Camera
Tested Model:	BABYV0xx
Report No.:	STR12118050I
Tested Date:	2012-11-12 to 2012-11-20
Issued Date:	2012-12-12
Tested By:	Susan Su / Engineer
Reviewed By:	Lahm Peng / EMC Manager
Approved & Authorized By:	Jandy so / PSQ Manager

Prepared By:

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

Client Information

Applicant:	Y-Cam Solutions Ltd
Address of applicant:	Vision House, 3 Dee Road, Richmond, Surrey. UK
Manufacturer:	Y-Cam Solutions Ltd
Address of manufacturer:	Vision House, 3 Dee Road, Richmond, Surrey. UK

General Description of EUT	
Product Name:	Network Camera
Trade Name:	Y-Cam
Model No.:	BABYV0xx
Rated Voltage:	DC 12V
Power Adapter Model:	FKS308HSC-1201000N (Input: AC 100-240V/0.5A; Output: DC 12V/1.0A)
Note: The test data is gathered from a production sample, provided by the manufacturer.	

Technical Characteristics of EUT	
Support Standards:	802.11b/g/n
Frequency Range:	2412-2462MHz for 11b/g/n(HT20) 2422-2452MHz for 11n(HT40)
RF Output Power:	9.68 dBm (Conducted)
Data Rate:	1-11Mbps, 6-54Mbps, up to 150Mbps
Modulation:	CCK, BPSK, QPSK, 16QAM, 64QAM
Quantity of Channels:	11 for 802.11b/g/n-HT20, 7 for 802.11n-HT40
Channel Separation:	5MHz
Antenna Type:	Integral Antenna
Antenna Gain:	2 dBi
Lowest Internal Frequency of EUT:	24MHz
Device Category:	Portable Device

1.2 Test Standards

The following report is prepared on behalf of the Y-Cam Solutions Ltd Inc in accordance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the Federal Communication Commissions rules.

The objective is to determine compliance with FCC Part 15, Subpart C, and section 15.203, 15.205, 15.207, 15.209 and 15.247 of the Federal Communication Commissions rules.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product, which result in lowering the emission, should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz. The public notice KDB 558074 for digital transmission systems shall be performed also.

1.4 Test Facility

- **FCC – Registration No.: 994117**
  SEM.Test Compliance Services Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files and the Registration is 994117.

- **Industry Canada (IC) Registration No.: 7673A**
  The 3m Semi-anechoic chamber of SEM.Test Compliance Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 7673A.

- **CNAS Registration No.: L4062**
  Shenzhen SEM.Test Electronics Service Co., Ltd. is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L4062. All measurement facilities used to collect the measurement data are located at 3/F, Jinbao Commerce Building, Xin'an Fanshen Road, Bao'an District, Shenzhen, P.R.C (518101)

1.5 EUT Setup and Test Mode

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. All testing shall be performed under maximum output power condition, and to measure its highest possible emissions level, more detailed description as follows:

Test Mode List		
Test Mode	Description	Remark
TM1	802.11b	2412MHz, 2437MHz, 2462MHz
TM2	802.11g	2412MHz, 2437MHz, 2462MHz
TM3	802.11n-HT20	2412MHz, 2437MHz, 2462MHz
TM4	802.11n-HT40	2422MHz, 2437MHz, 2452MHz

Special Cable List and Details			
Cable Description	Length (m)	Shielded/ Unshielded	With / Without Ferrite
USB Cable	1.5	Unshielded	With Ferrite

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
/	/	/	/

2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test Item	Result
§ 15.203; § 15.247(b)(4)(i)	Antenna Requirement	Compliant
§ 15.207(a)	Conducted Emission	Compliant
§ 15.247(e)	Power Spectral Density	Compliant
§ 15.247(a)(2)	6 dB Bandwidth	Compliant
§ 15.247(b)(3)	RF Output Power	Compliant
§ 15.209(a)(d)	Radiated Emission	Compliant
§ 15.247(d)	Band Edge (Out of Band Emissions)	Compliant

N/A: not applicable

3. RF Exposure

3.1 Standard Applicable

According to Part 15.247(i), 1.1307(b)(1), and 2.1093, the portable transmitter must comply the RF exposure requirements.

3.2 Test Result

This product complied with the requirement of the RF exposure.

4. Antenna Requirement

4.1 Standard Applicable

According to FCC Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

4.2 Evaluation Information

This product complied with the requirement of the RF exposure.

5. Power Spectral Density

5.1 Standard Applicable

According to 15.247(a)(1)(iii), For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

5.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2012-03-28	2013-03-27
Attenuator	ATTEN	ATS100-4-20	/	2012-03-28	2013-03-27

5.3 Test Procedure

According to the KDB 558074, the test method of power spectral density as below:

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.
3. Set the RBW ≥ 3 kHz.
4. Set the VBW ≥ 3 x RBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

5.4 Environmental Conditions

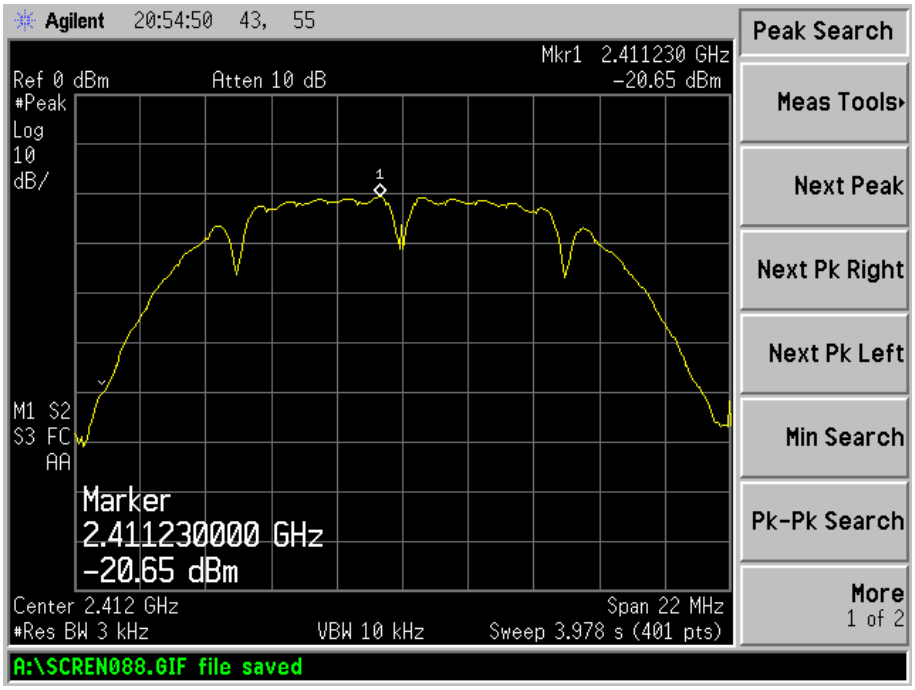
Temperature:	23° C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

5.5 Summary of Test Results/Plots

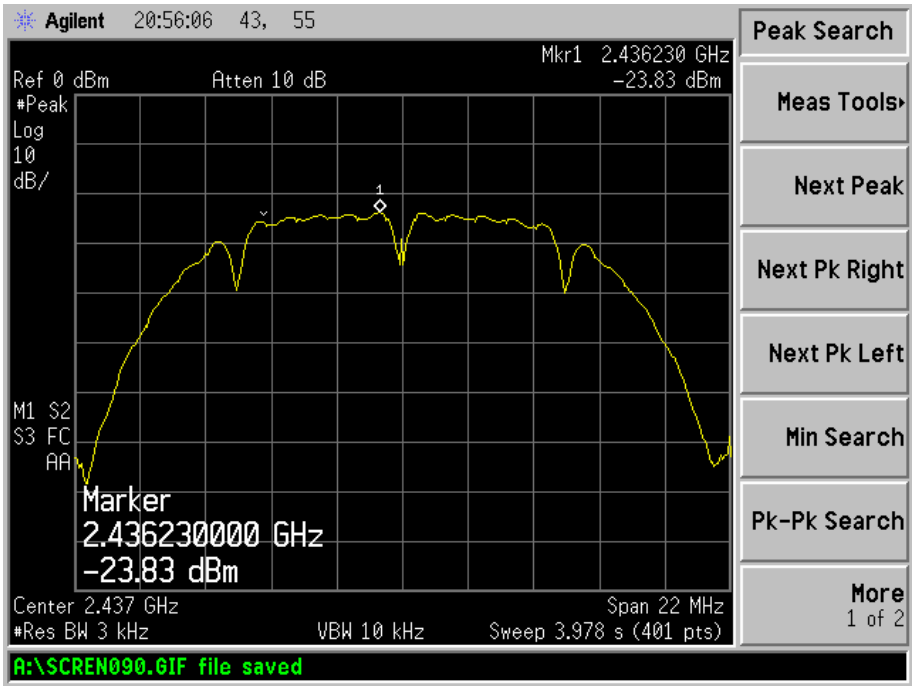
Test Mode	Test Channel MHz	Power Spectral Density dBm/3kHz	Limit dBm/3kHz
802.11b	2412	-20.65	8
	2437	-23.83	8
	2462	-23.48	8
802.11g	2412	-24.06	8
	2437	-27.17	8
	2462	-26.98	8
802.11n HT20	2412	-25.07	8
	2437	-27.50	8
	2462	-27.23	8
802.11n HT40	2422	-28.89	8
	2437	-30.75	8
	2452	-30.02	8

Please refer to the following test plots:

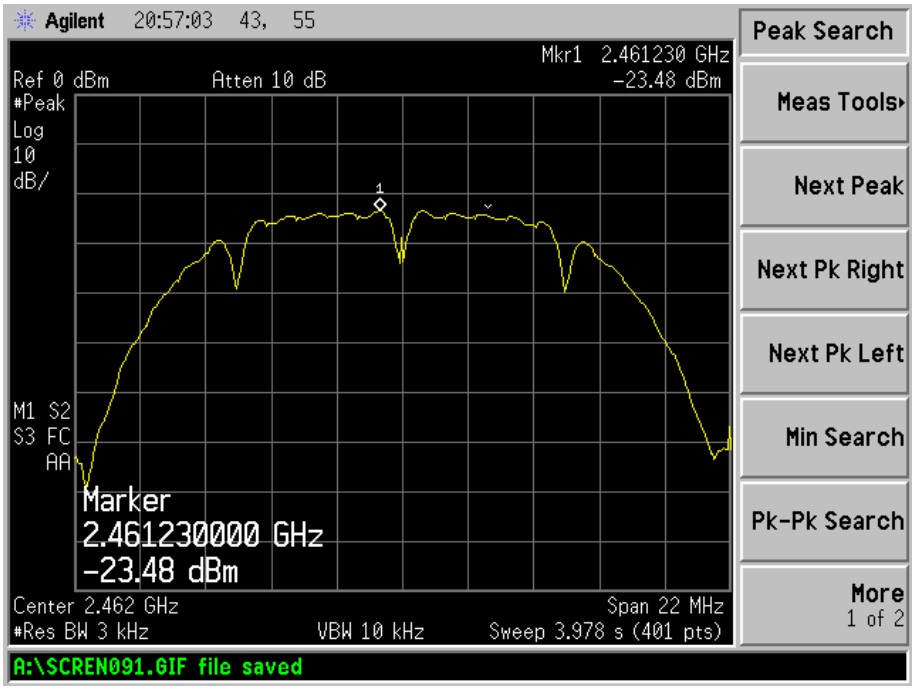
802.11b-Low Channel



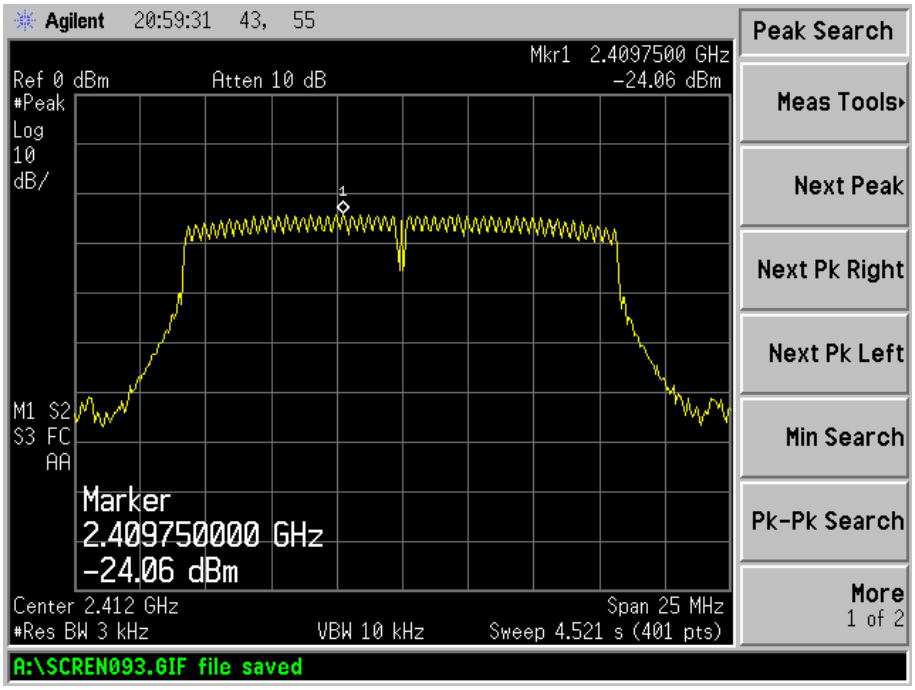
802.11b-Middle Channel



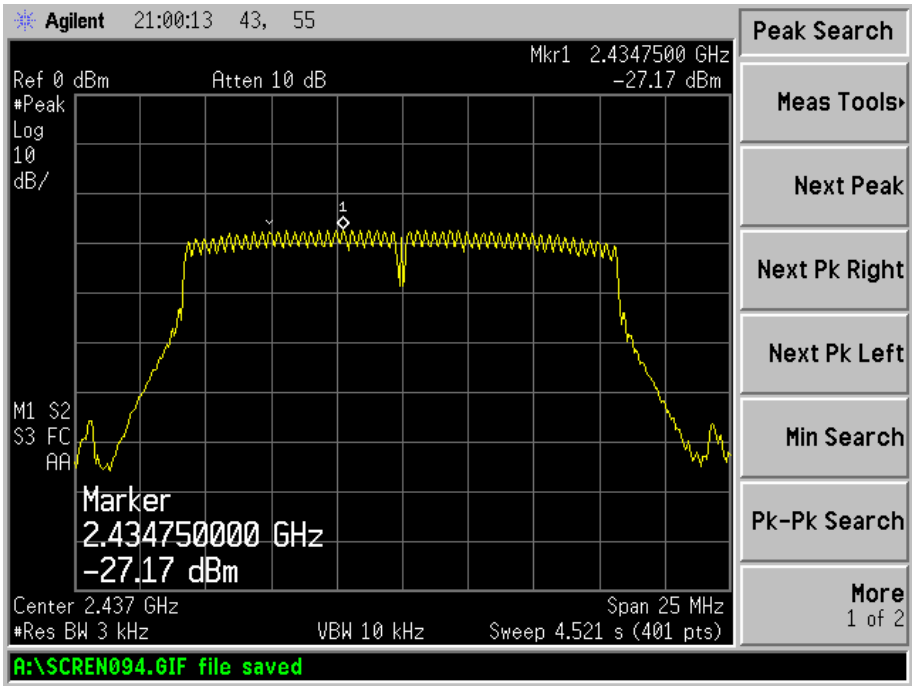
802.11b-High Channel



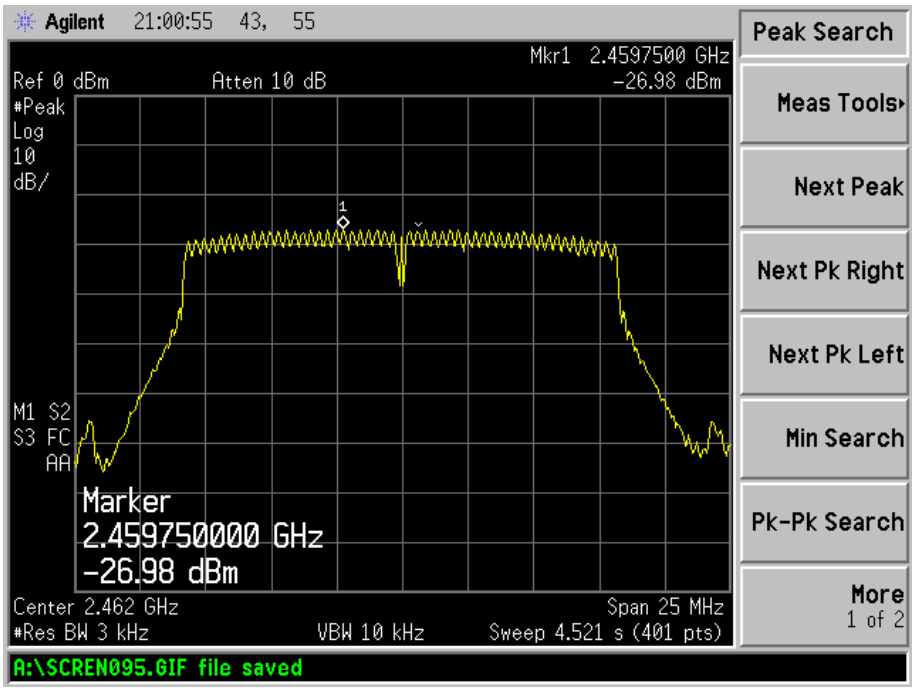
802.11g-Low Channel



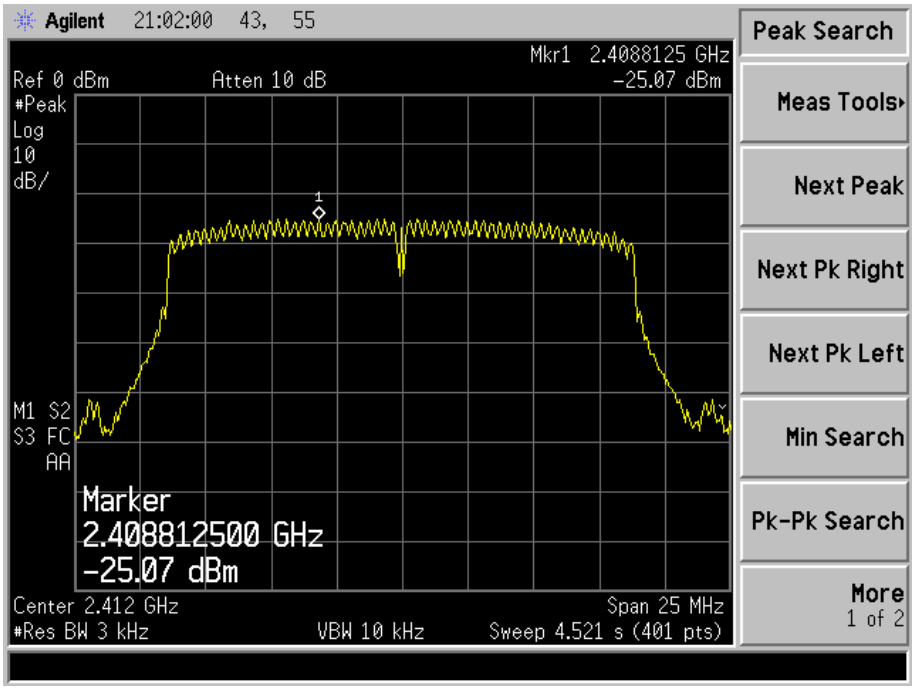
802.11g-Middle Channel



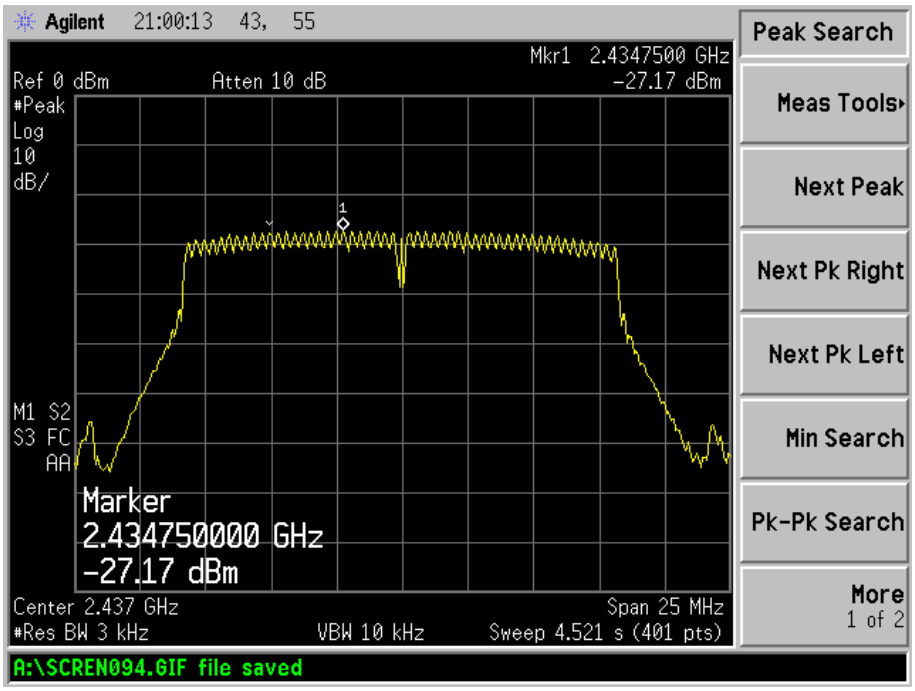
802.11g-High Channel



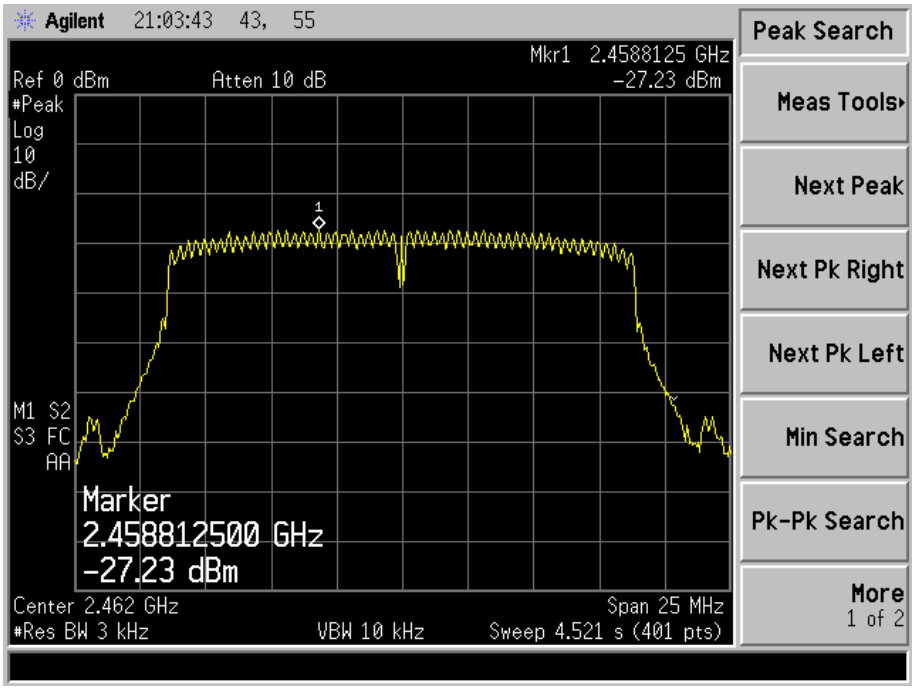
802.11n-HT20-Low Channel



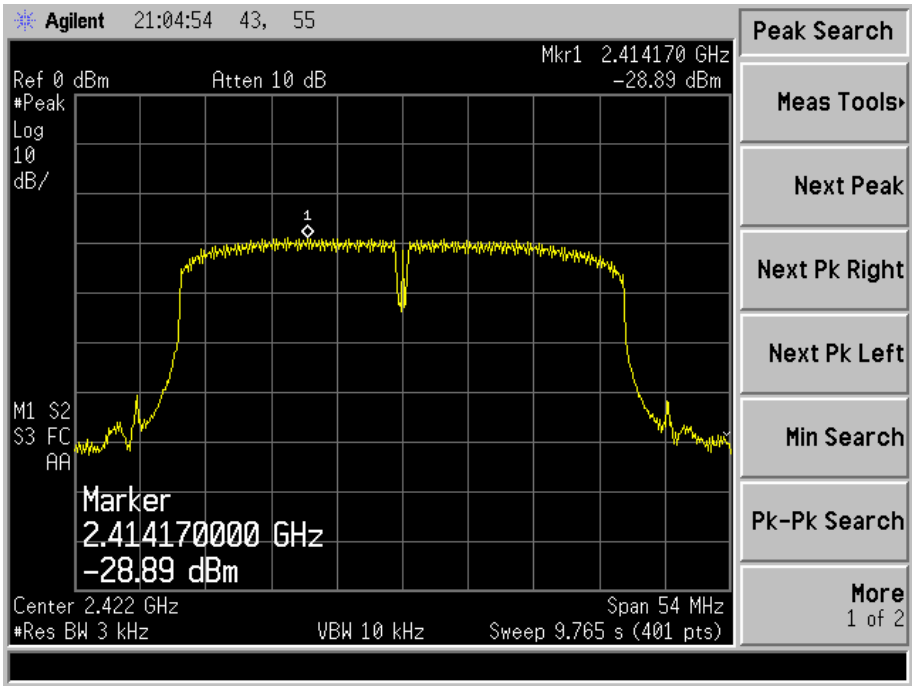
802.11n-HT20-Middle Channel



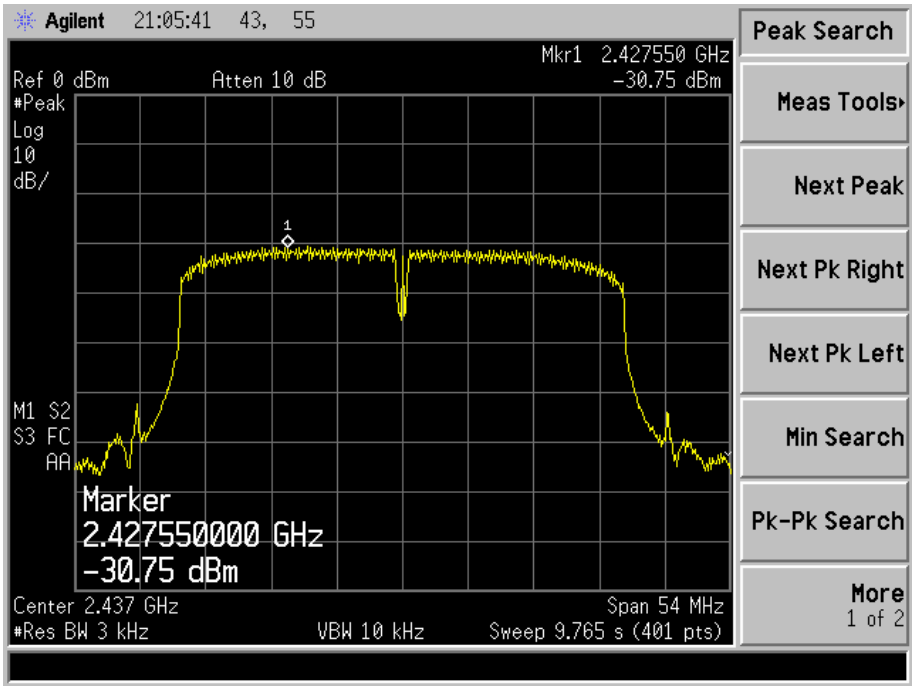
802.11n-HT20-High Channel



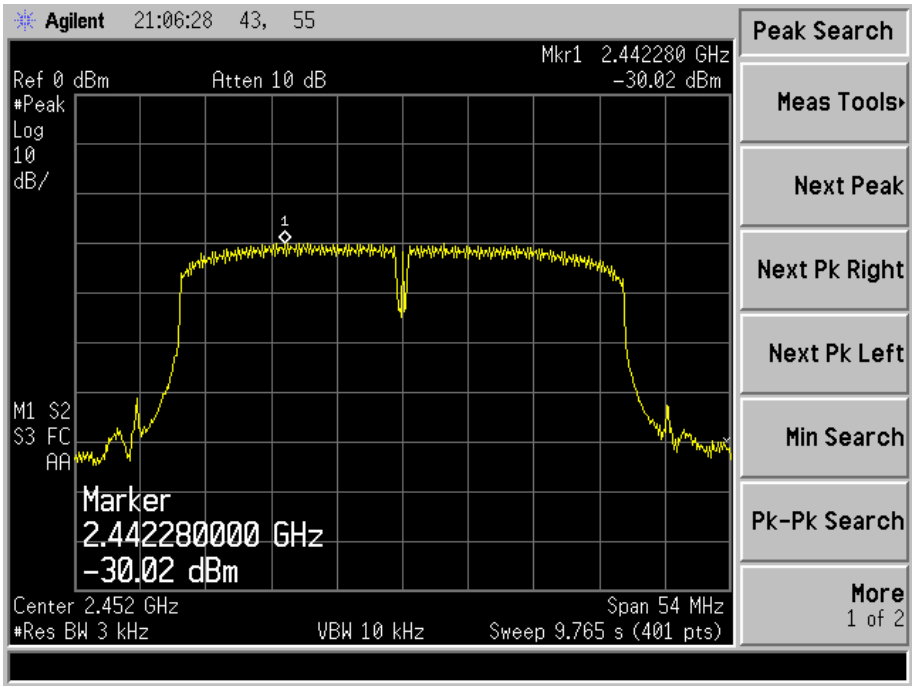
802.11n-HT40-Low Channel



802.11n-HT40-Middle Channel



802.11n-HT40-High Channel



6. 6dB Bandwidth

6.1 Standard Applicable

According to 15.247(a)(2). Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

6.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2012-03-28	2013-03-27
Attenuator	ATTEN	ATS100-4-20	/	2012-03-28	2013-03-27

6.3 Test Procedure

According to the KDB 558074, the test method of emission bandwidth as below:

1. Set resolution bandwidth (RBW) = 1-5% or DTS BW, not to exceed 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

6.4 Environmental Conditions

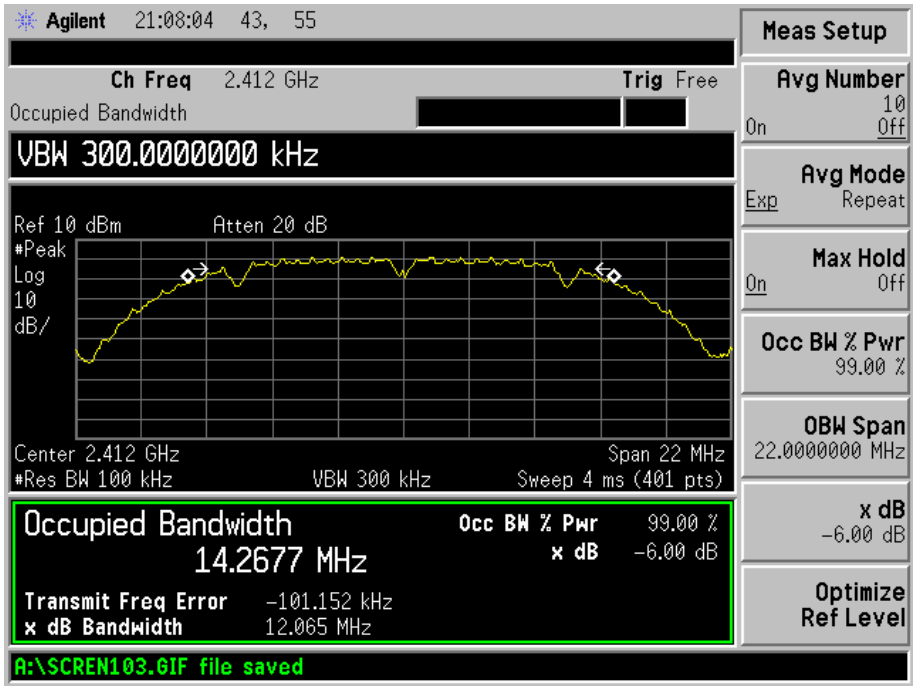
Temperature:	24° C
Relative Humidity:	53%
ATM Pressure:	1018 mbar

6.5 Summary of Test Results/Plots

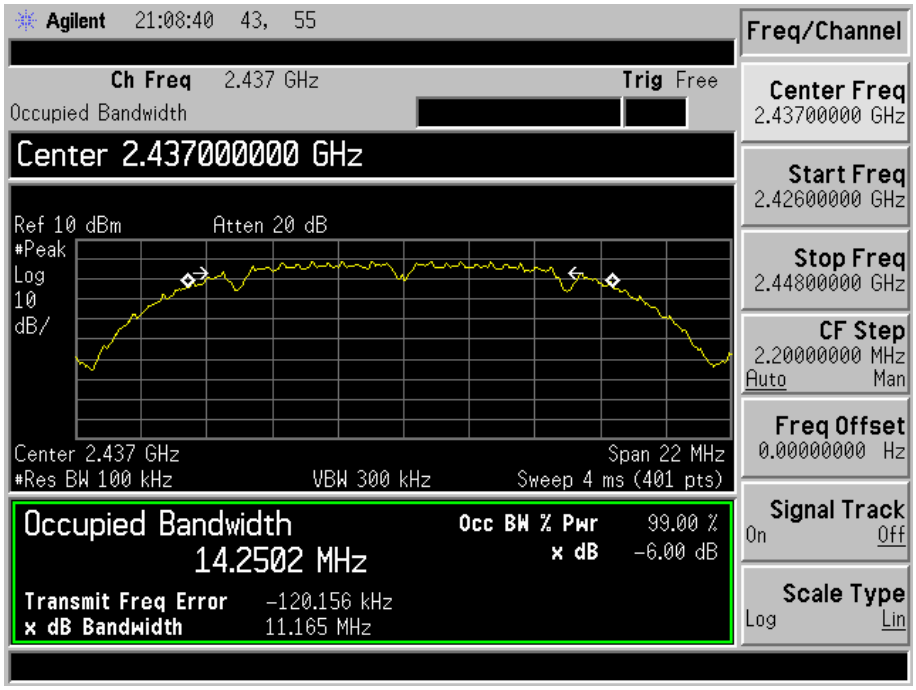
Test Mode	Test Channel MHz	6 dB Bandwidth kHz	Limit kHz
802.11b	2412	12065	500
	2437	11165	500
	2462	12082	500
802.11g	2412	16364	500
	2437	16415	500
	2462	16379	500
802.11n-HT20	2412	17552	500
	2437	17339	500
	2462	17312	500
802.11n-HT40	2422	34873	500
	2437	35204	500
	2452	35122	500

Please refer to the following test plots:

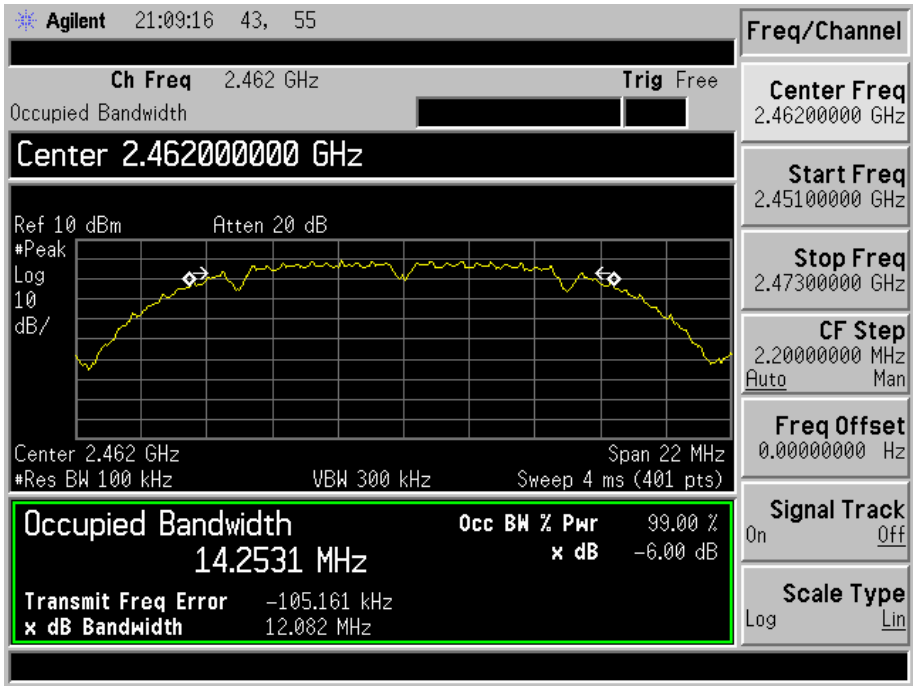
802.11b-Low Channel



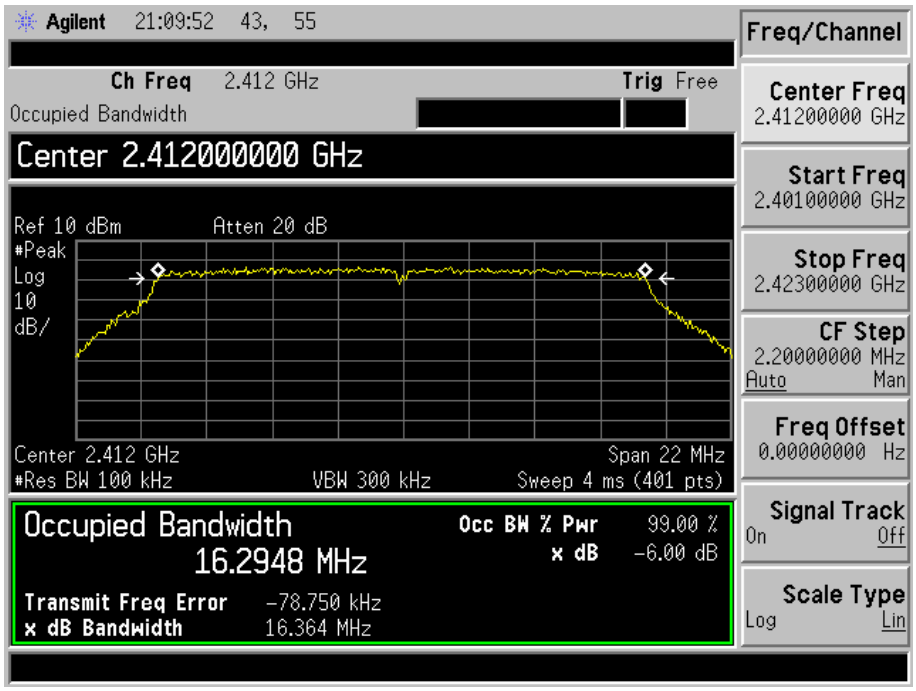
802.11b-Middle Channel



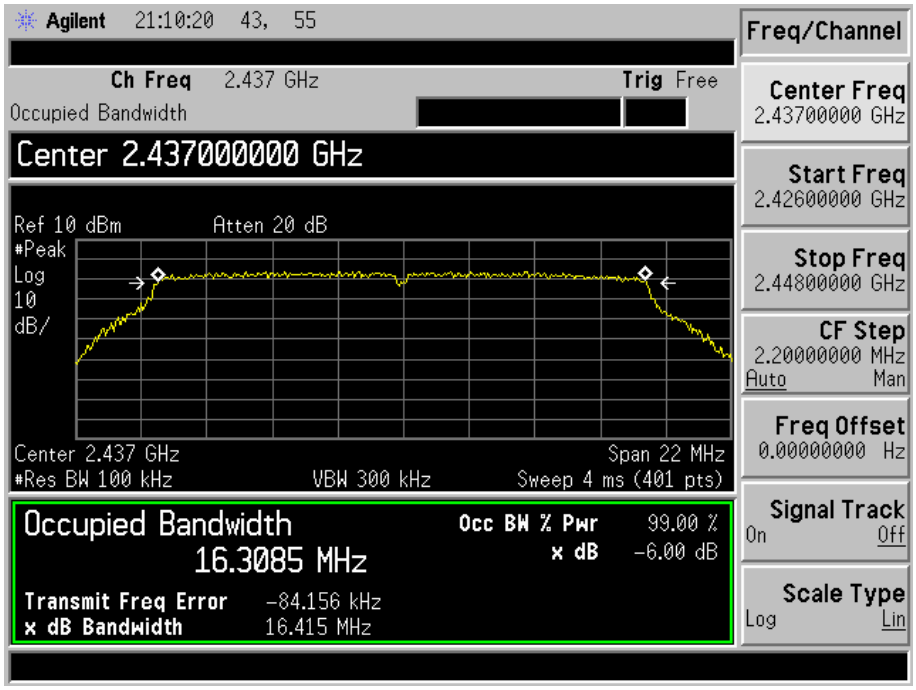
802.11b-High Channel



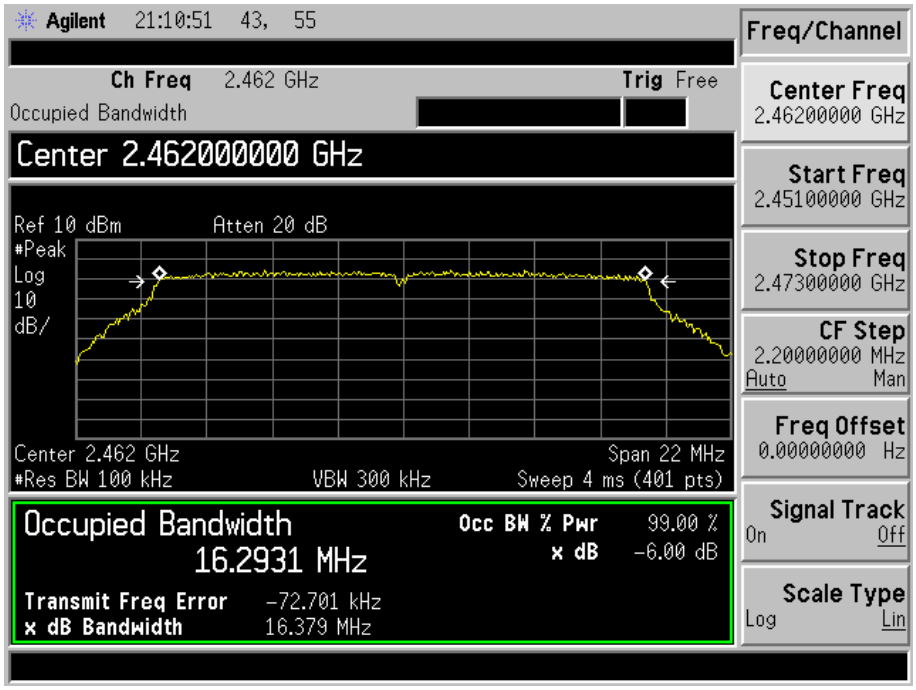
802.11g-Low Channel



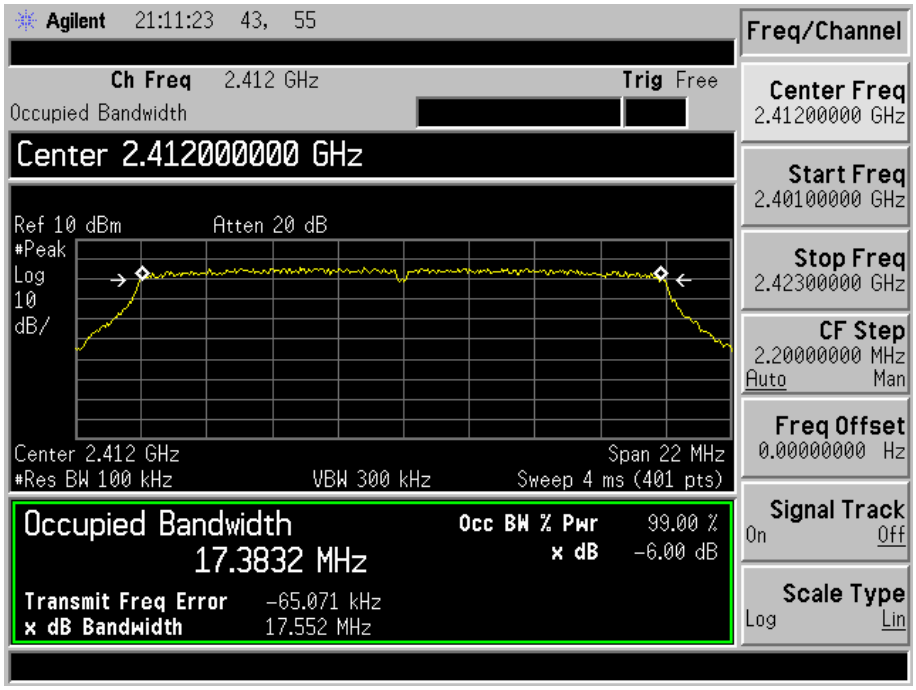
802.11g-Middle Channel



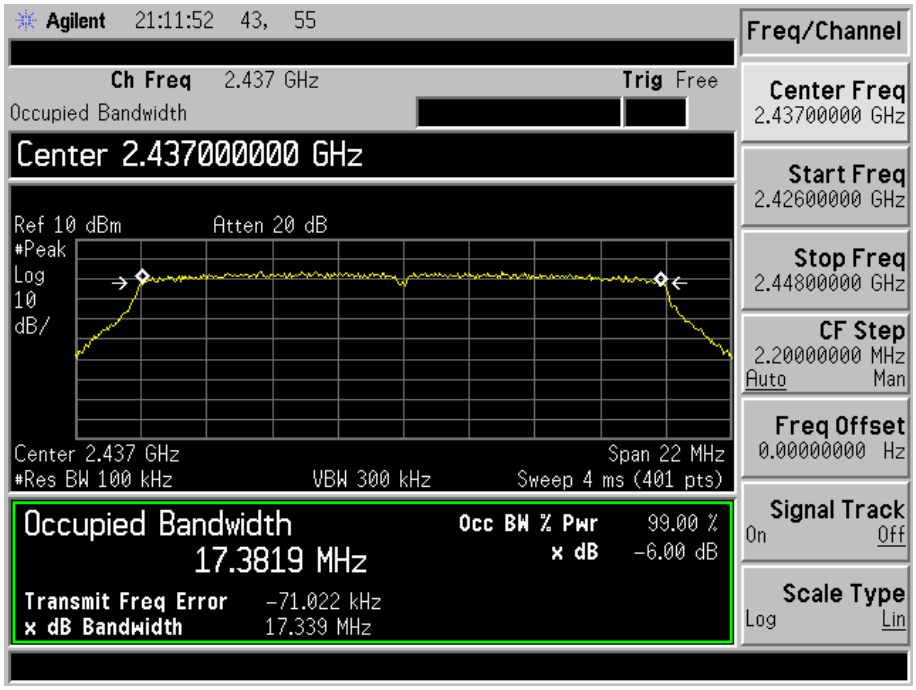
802.11g-High Channel



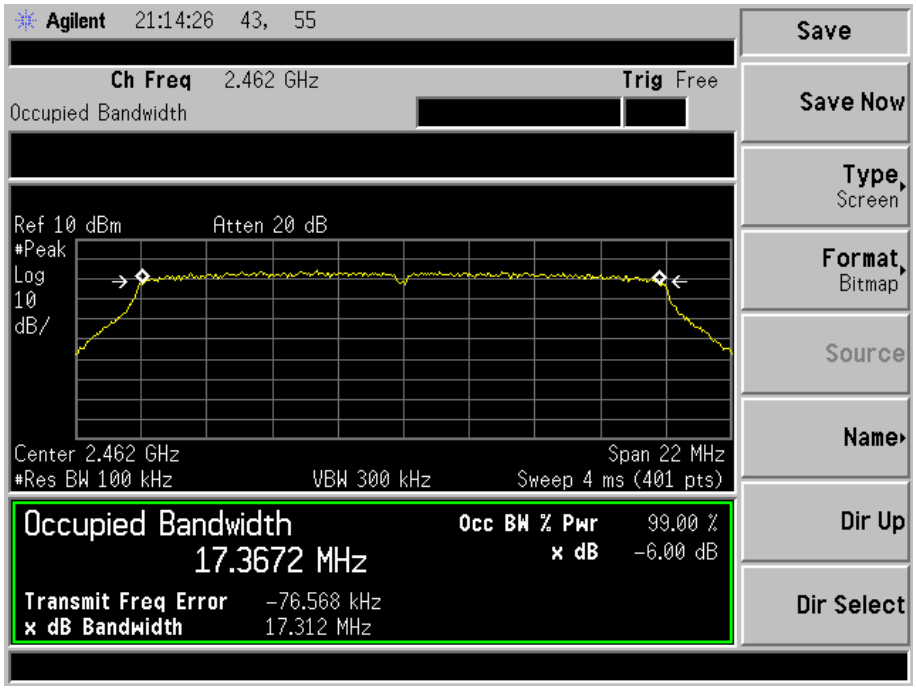
802.11n-HT20-Low Channel



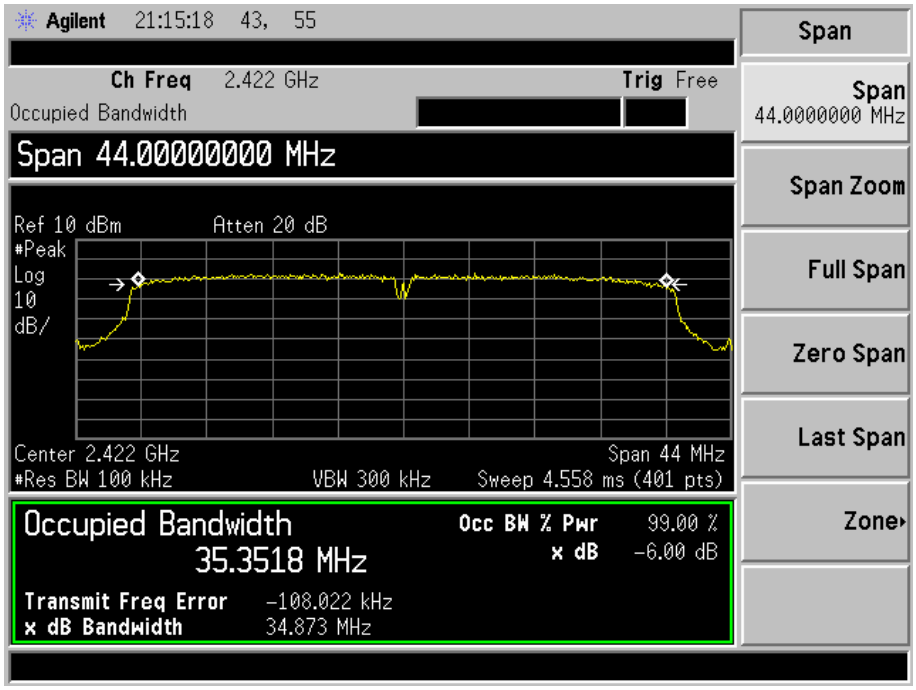
802.11n-HT20-Middle Channel



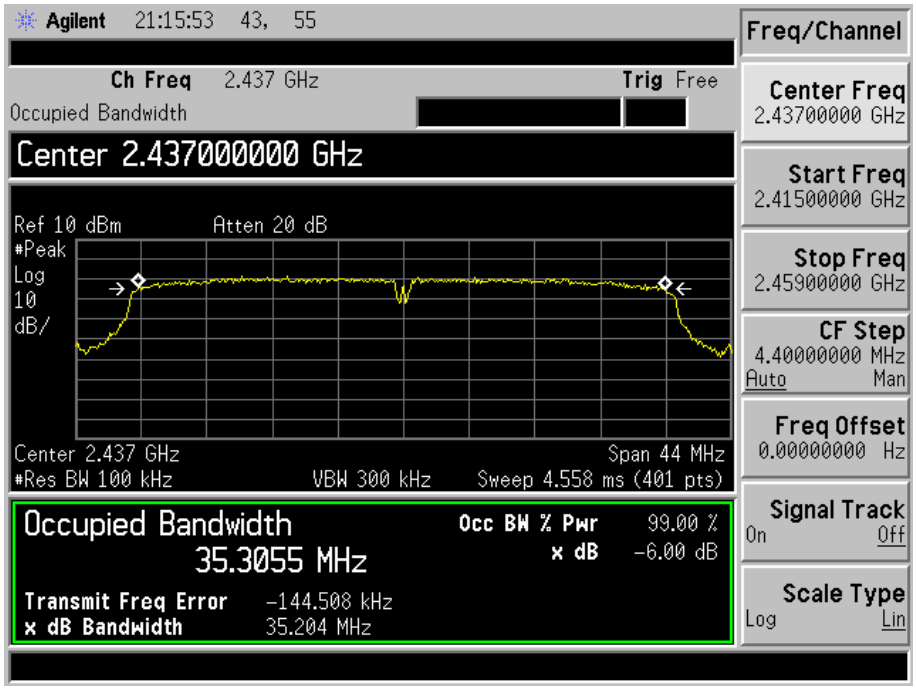
802.11n-HT20-High Channel



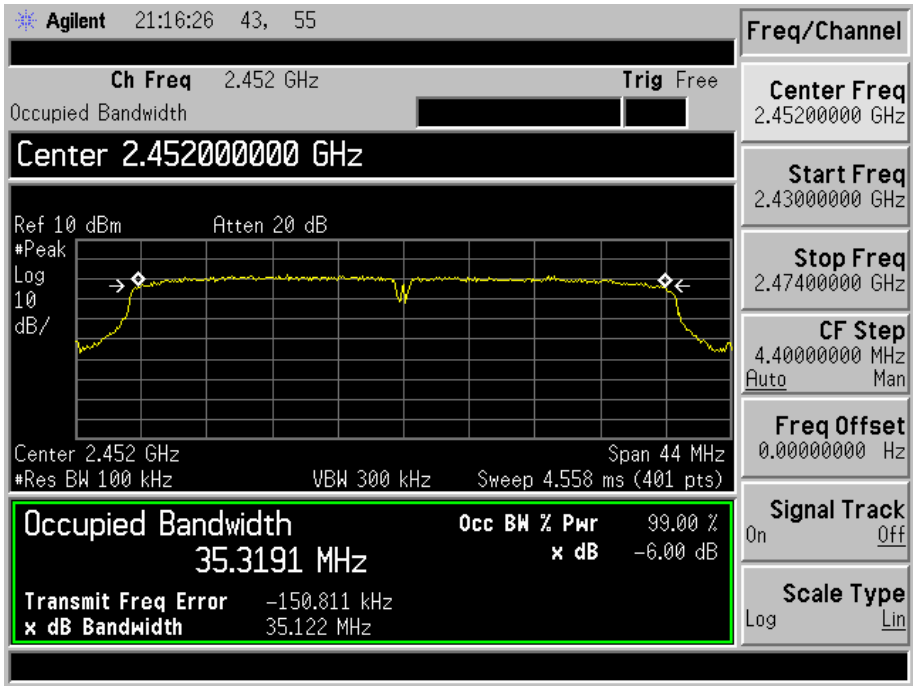
802.11n-HT40-Low Channel



802.11n-HT40-Middle Channel



802.11n-HT40-High Channel



7. RF Output Power

7.1 Standard Applicable

According to 15.247(b)(3). For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt.

7.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	Agilent	E4402B	US41192821	2012-03-28	2013-03-27
Attenuator	ATTEN	ATS100-4-20	/	2012-03-28	2013-03-27

7.3 Test Procedure

According to section 15.247(b)-power output of the KDB-558074 (2012),

1. This procedure provides an integrated measurement alternative when the maximum available RBW < EBW.
2. Set the RBW = 1 MHz.
3. Set the VBW = 3 MHz.
4. Set the span to a value that is 5-30 % greater than the EBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the spectrum analyzer's integrated band power measurement function with band limits set equal to the EBW band edges (for some analyzers, this may require a manual override to ensure use of peak detector). If the spectrum analyzer does not have a band power function, sum the spectrum levels (in linear power units) at 1 MHz intervals extending across the EBW of the spectrum.

7.4 Environmental Conditions

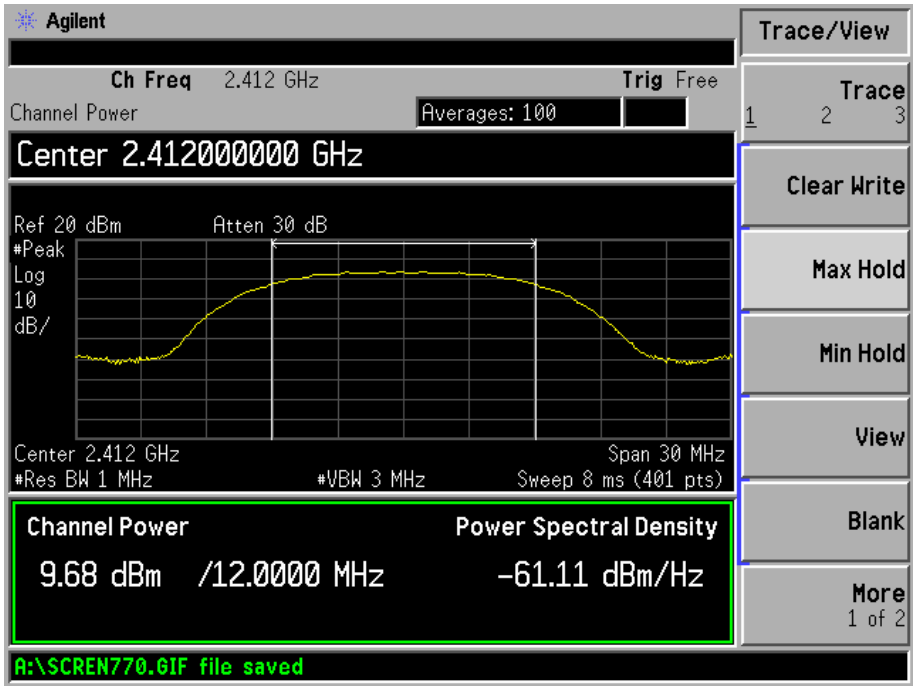
Temperature:	21° C
Relative Humidity:	55%
ATM Pressure:	1011 mbar

7.5 Summary of Test Results/Plots

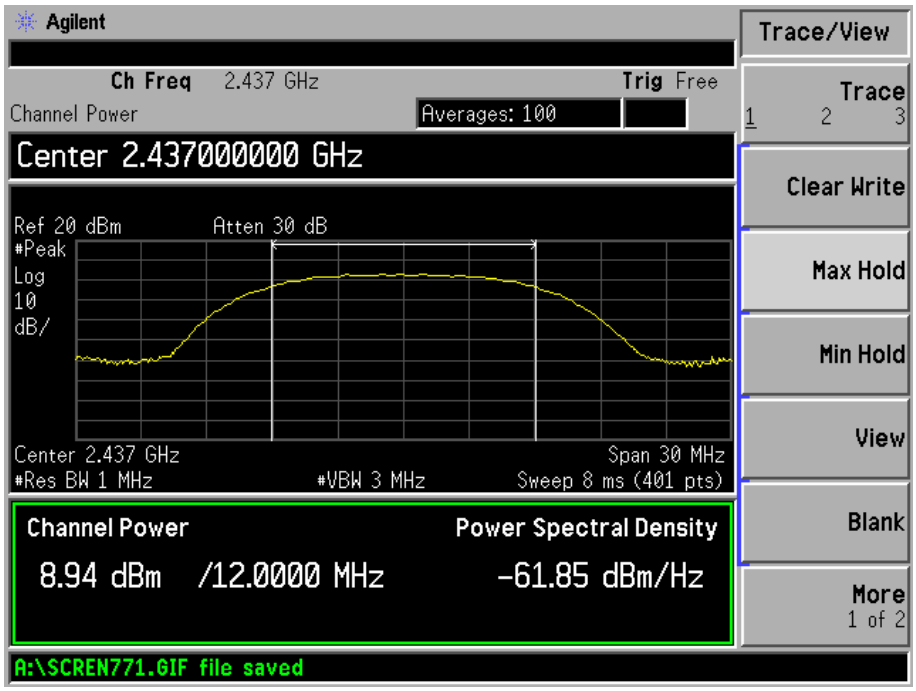
Test Mode	Frequency MHz	Reading dBm	Output Power mW	Limit mW
802.11b _1Mbps	2412	9.68	9.2897	1000
	2437	8.94	7.8343	1000
	2462	8.36	6.8549	1000
802.11b _11Mbps	2412	9.54	8.9950	1000
	2437	8.81	7.6033	1000
	2462	8.21	6.6222	1000
802.11g_6Mbps	2412	7.67	5.8479	1000
	2437	7.32	5.3951	1000
	2462	7.66	5.8344	1000
802.11g_54Mbps	2412	7.33	5.4075	1000
	2437	7.20	5.2481	1000
	2462	7.63	5.7943	1000
802.11n HT20_MCS0	2412	7.71	5.9020	1000
	2437	7.78	5.9979	1000
	2462	7.55	5.6885	1000
802.11n HT20_MCS7	2412	7.69	5.8749	1000
	2437	7.02	5.0350	1000
	2462	7.28	5.3456	1000
802.11n HT40_MCS0	2422	5.29	3.3806	1000
	2437	4.66	2.9242	1000
	2452	4.43	2.7733	1000
802.11n HT40_MCS7	2422	5.10	3.2359	1000
	2437	4.44	2.7797	1000
	2452	4.20	2.6303	1000

Please refer to the following test plots:

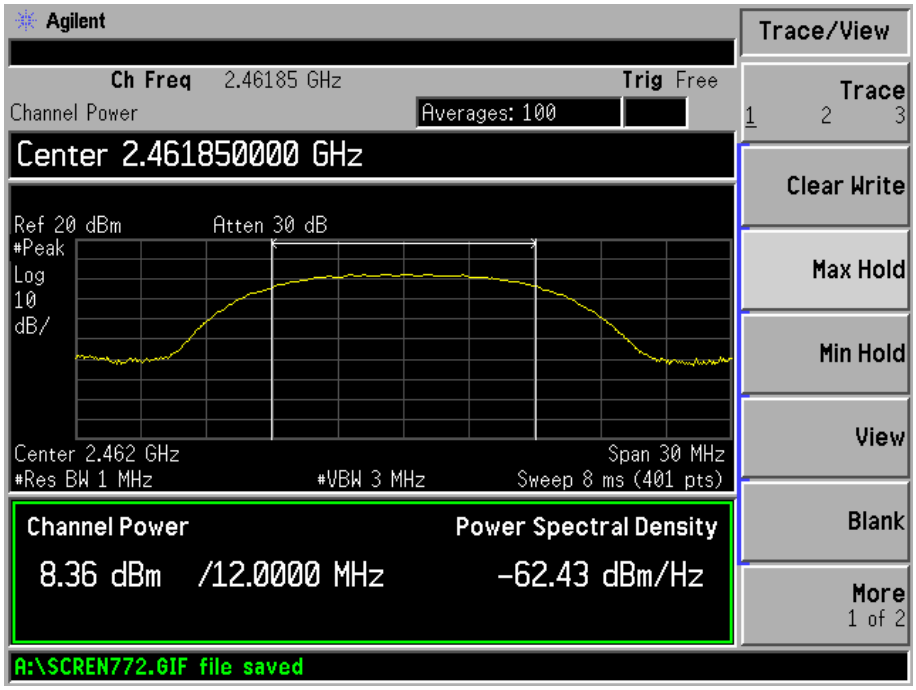
802.11b-1Mbps-Low Channel



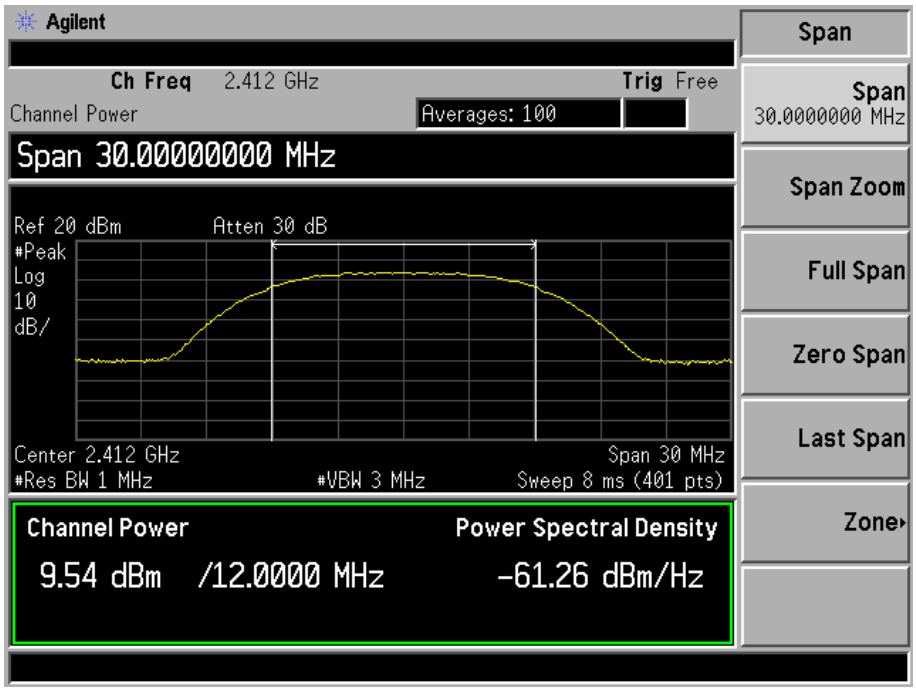
802.11b-1Mbps-Middle Channel



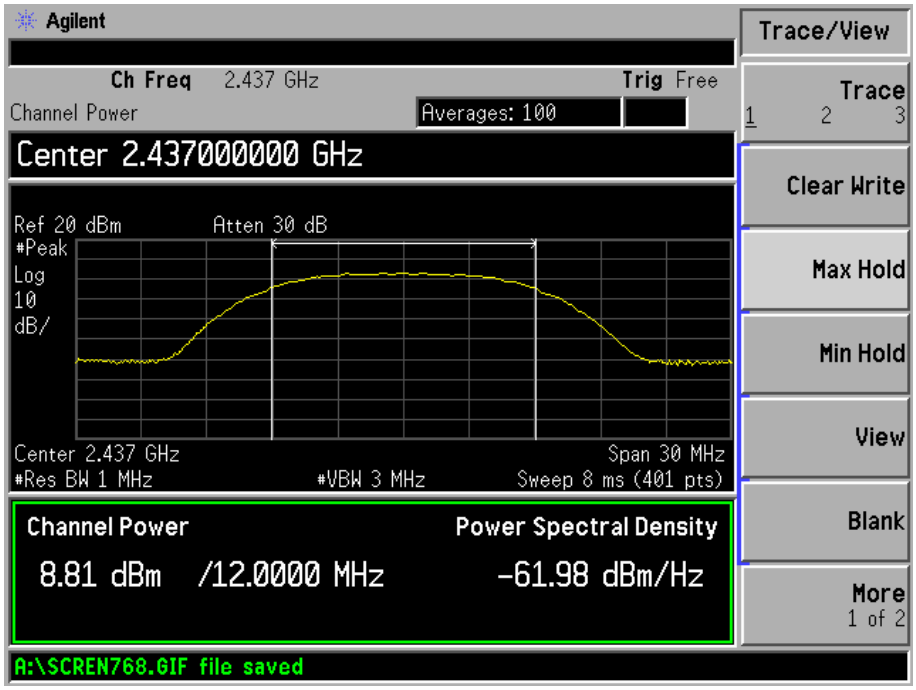
802.11b-1Mpbs-High Channel



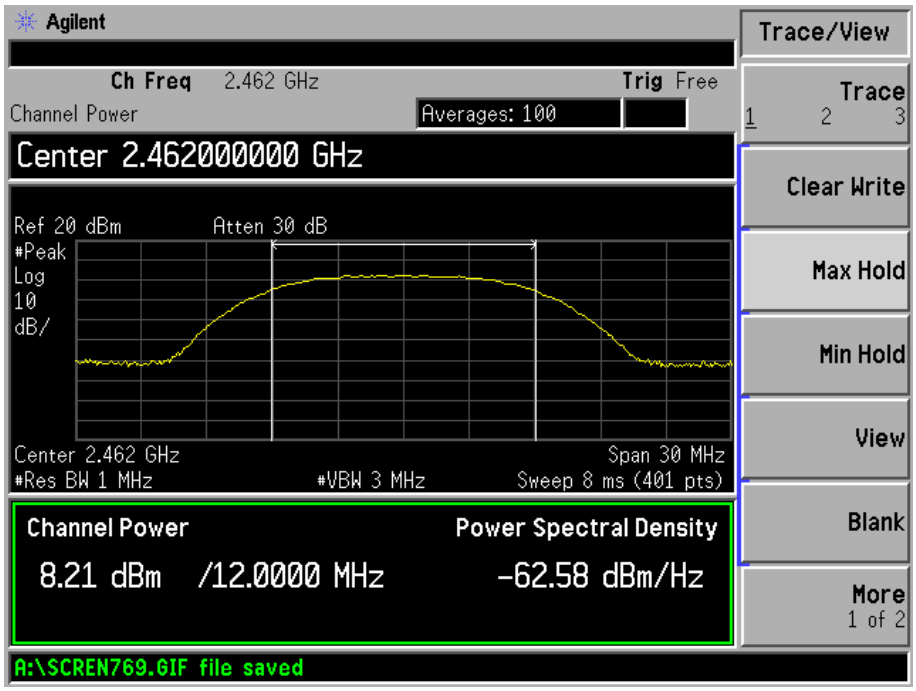
802.11b11Mbps-Low Channel



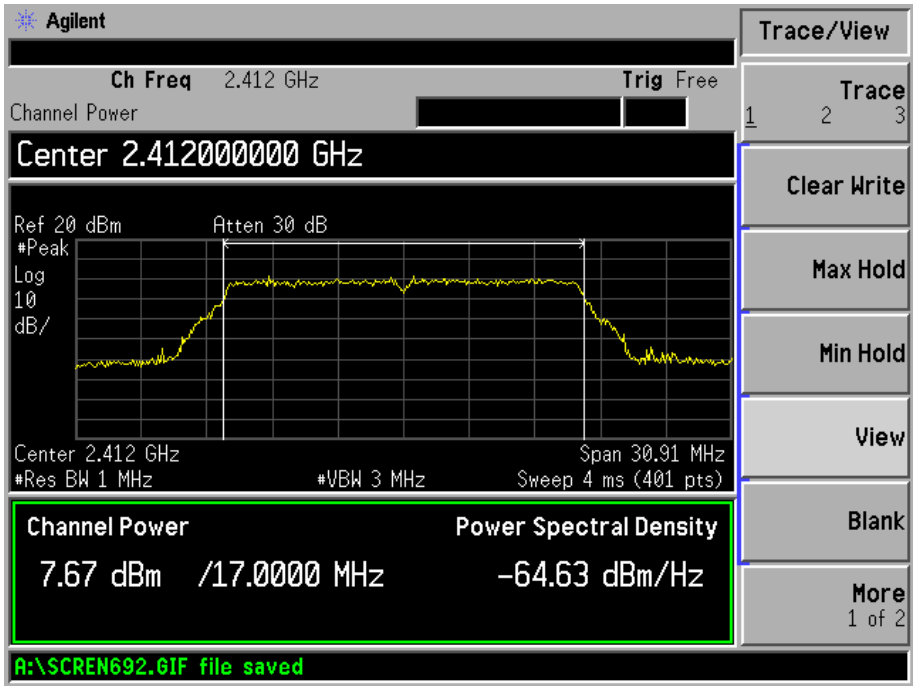
802.11b-11Mbps-Middle Channel



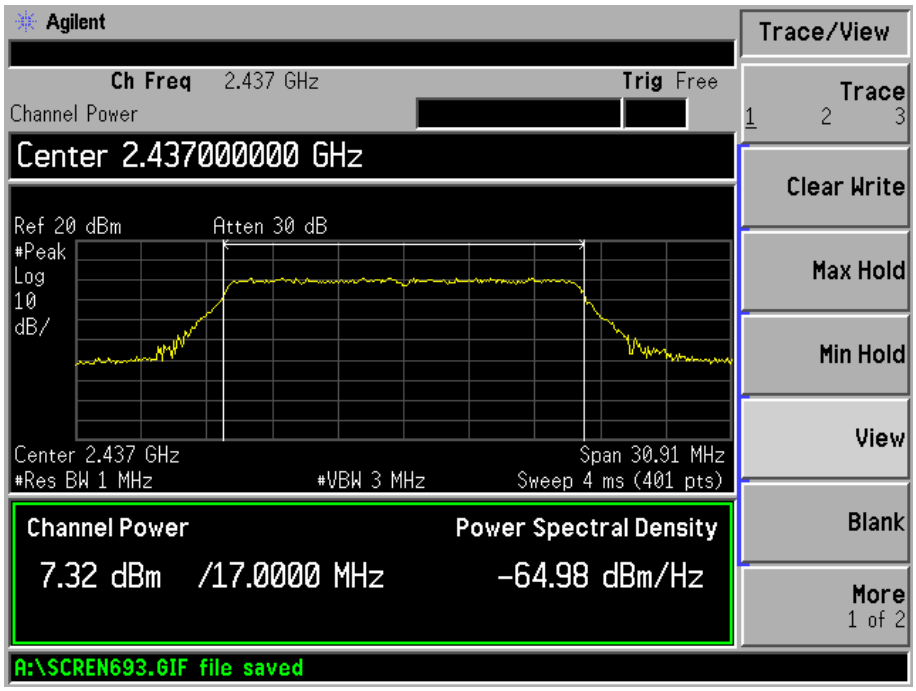
802.11b-11Mpbs-High Channel



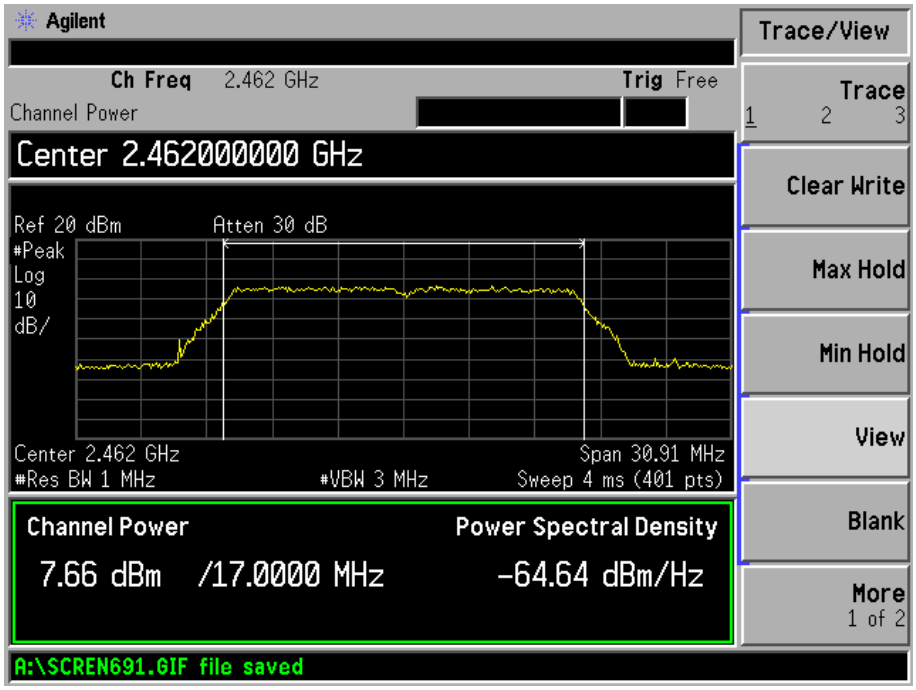
802.11g-6Mbps-Low Channel



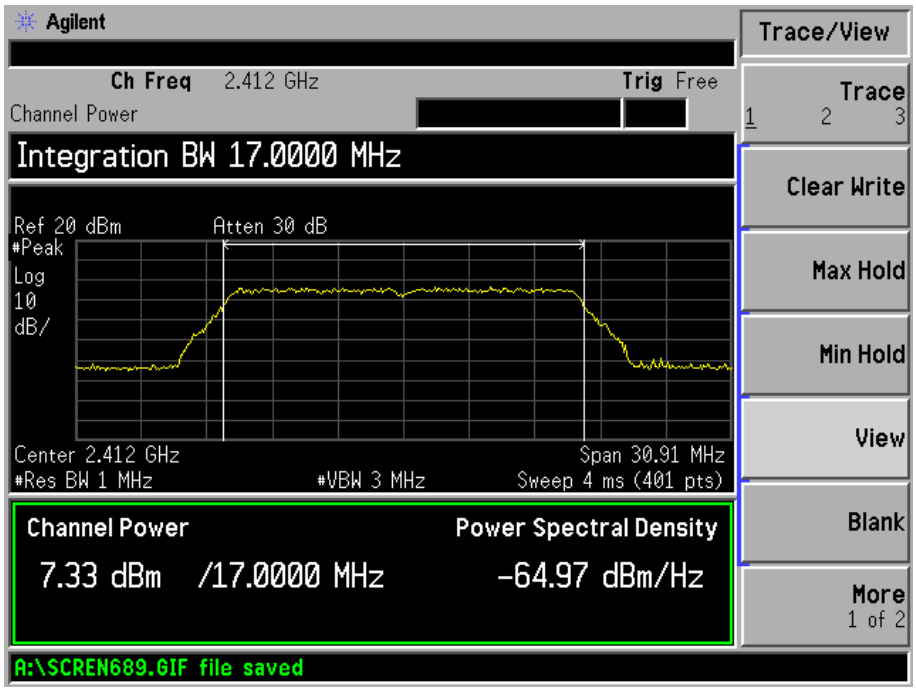
802.11g-6Mbps-Middle Channel



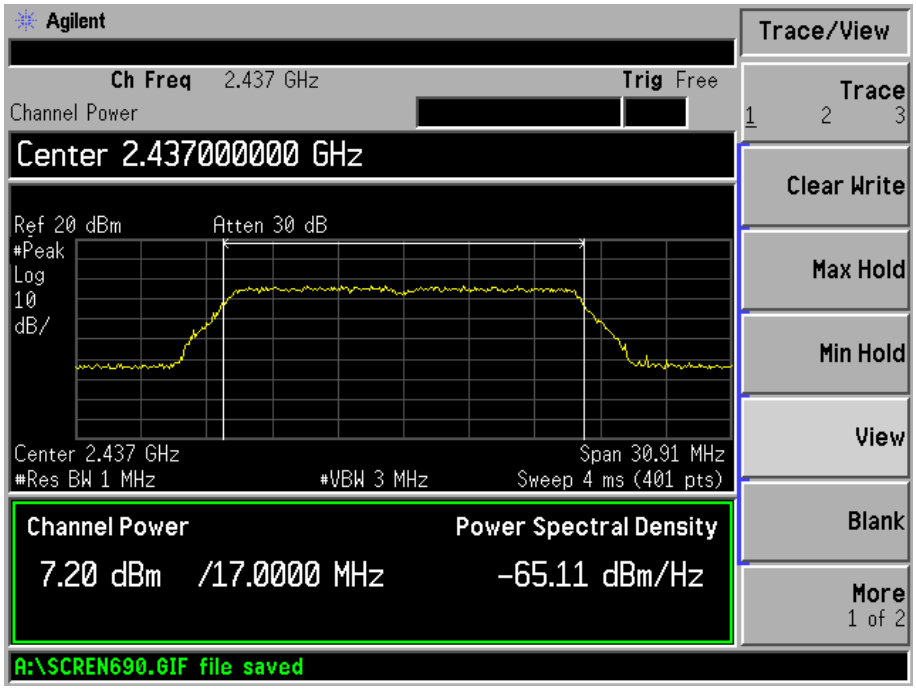
802.11 g-6Mpbs-High Channel



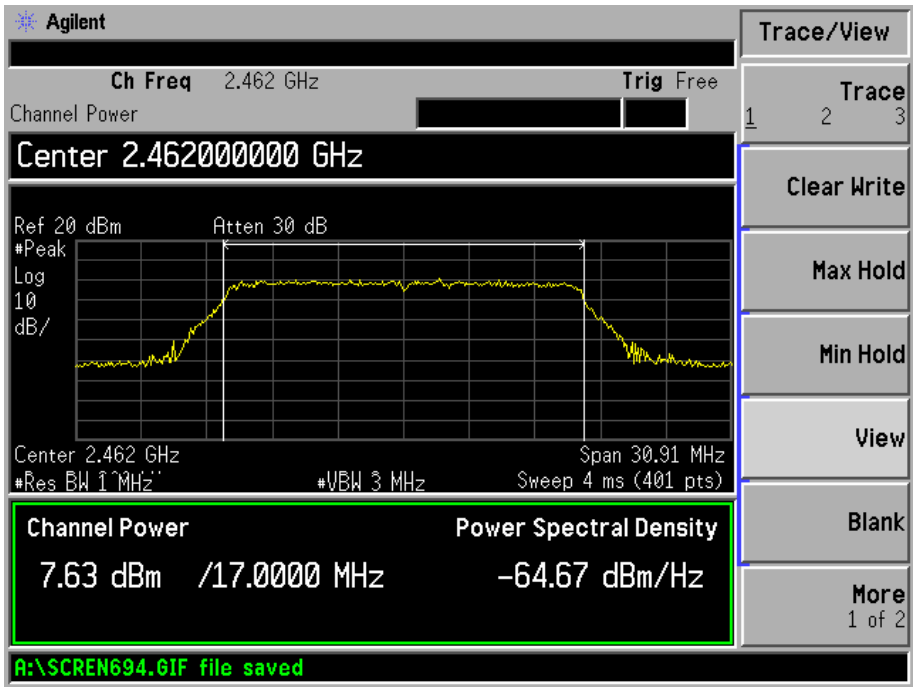
802.11g-54Mbps-Lows Channel



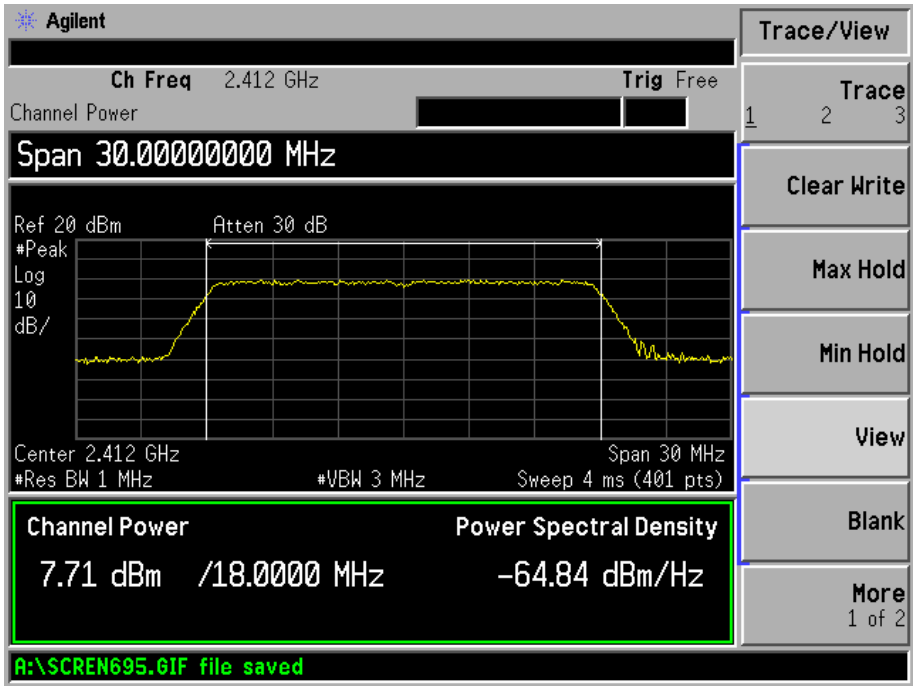
802.11g-54Mbps-Middle Channel



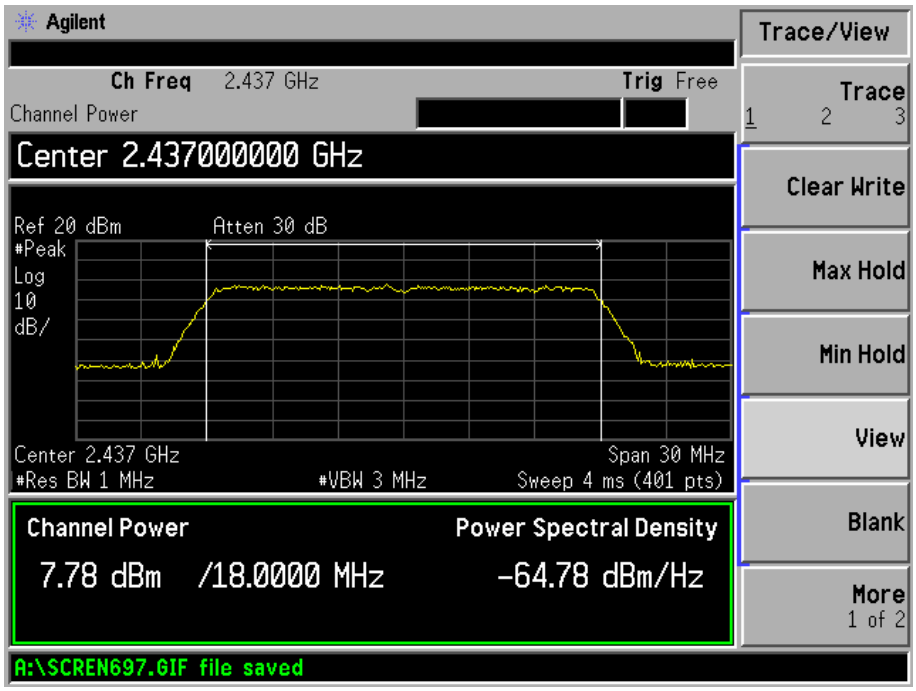
802.11g-54Mpbs-High Channel



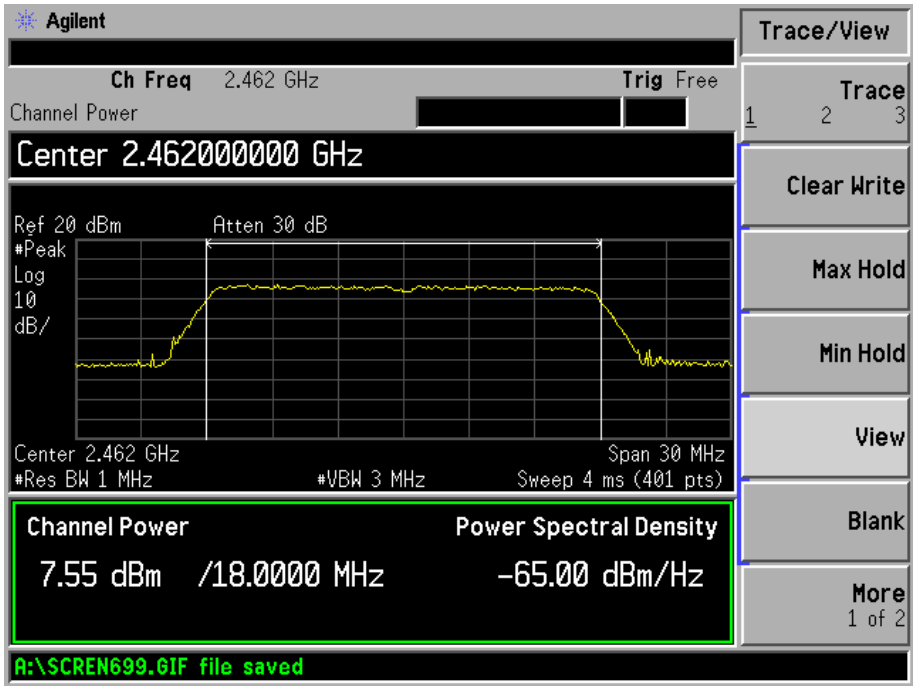
802.11n-HT20-MCS0-Low Channel



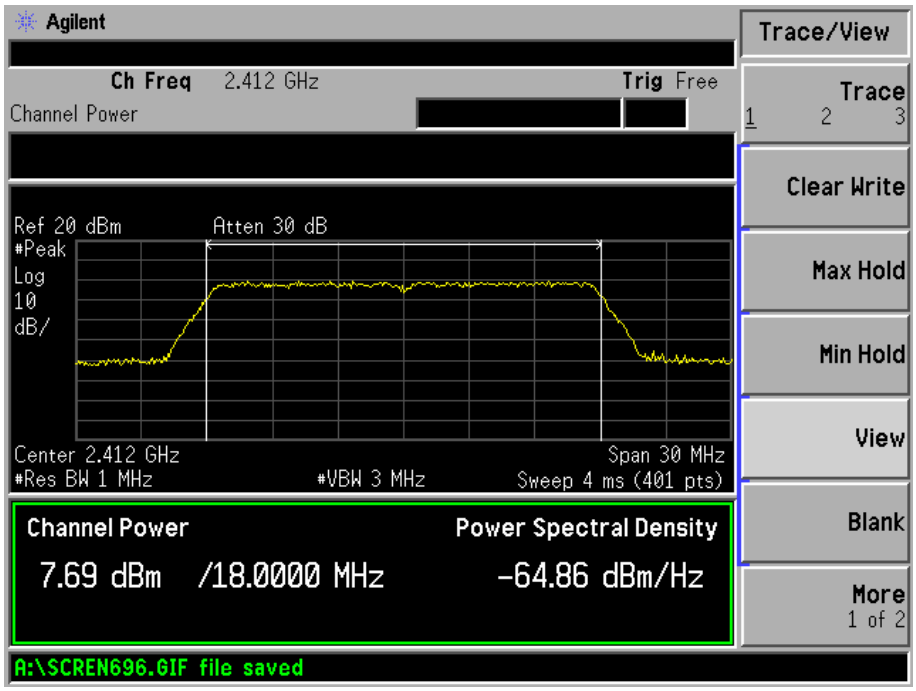
802.11n-HT20-MCS0-Middle Channel



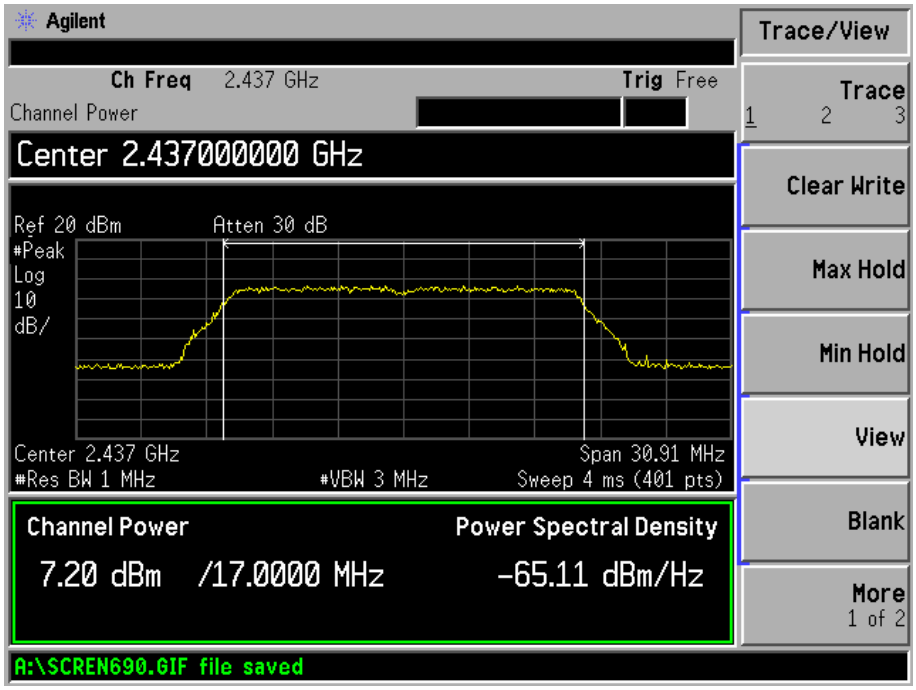
802.11n-HT20-MCS0-High Channel



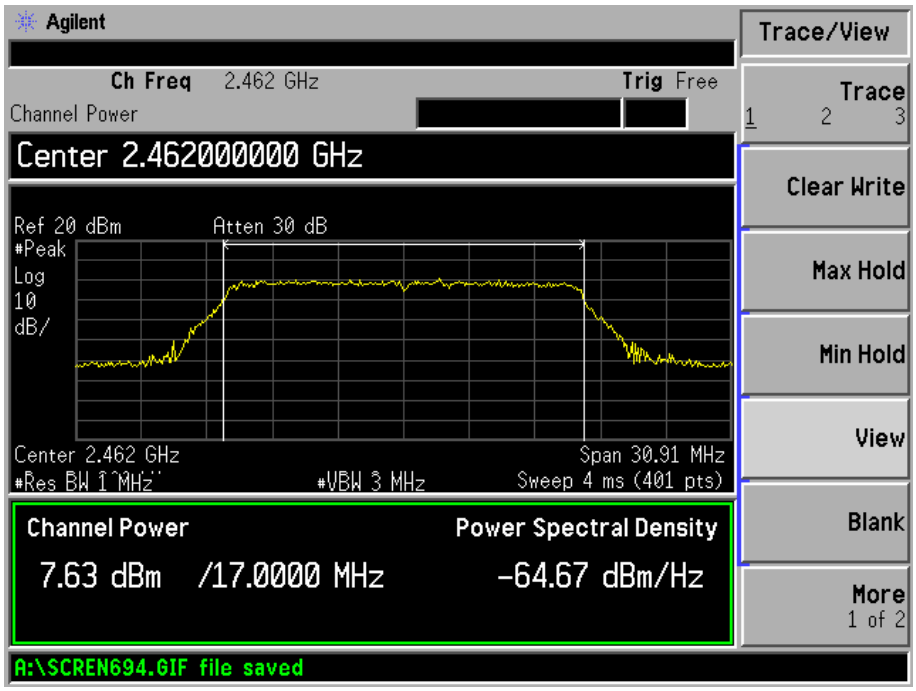
802.11n-HT20-MCS7-Low Channel



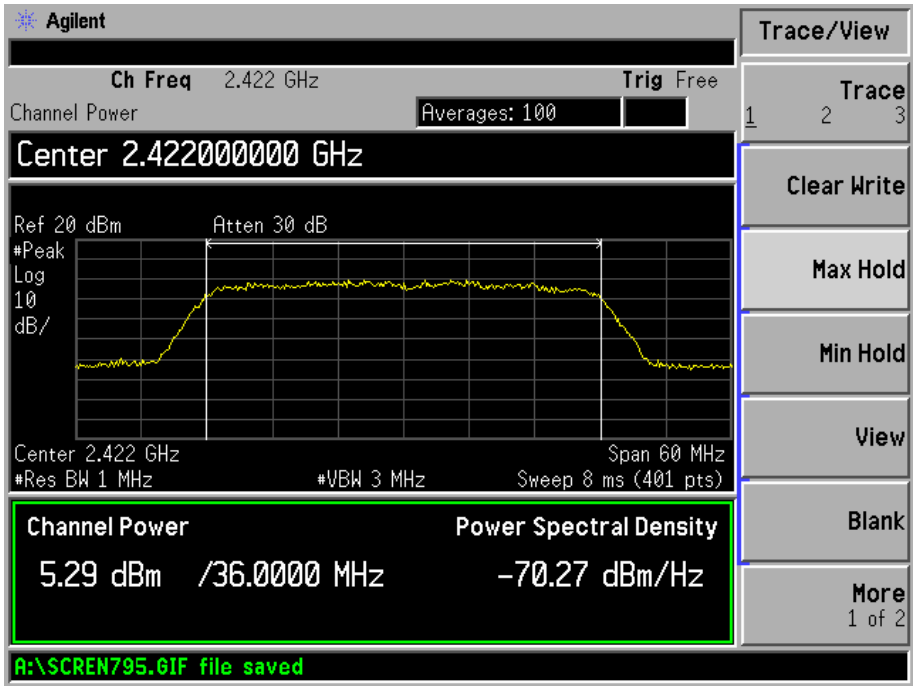
802.11n-HT20-MCS7-Middle Channel



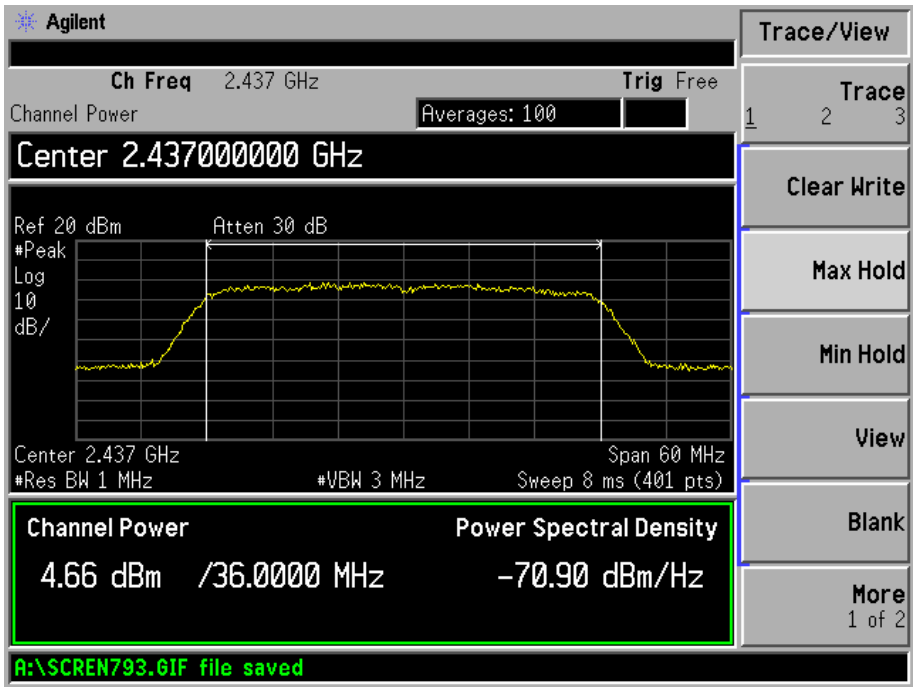
802.11n-HT20-MCS7-High Channel



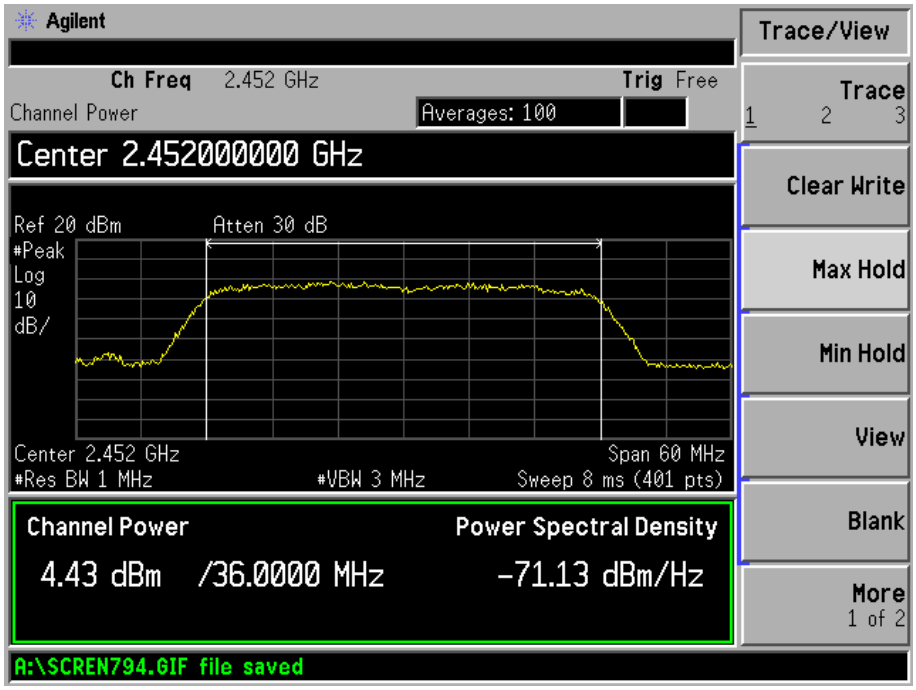
802.11n-HT40-MCS0-Low Channel



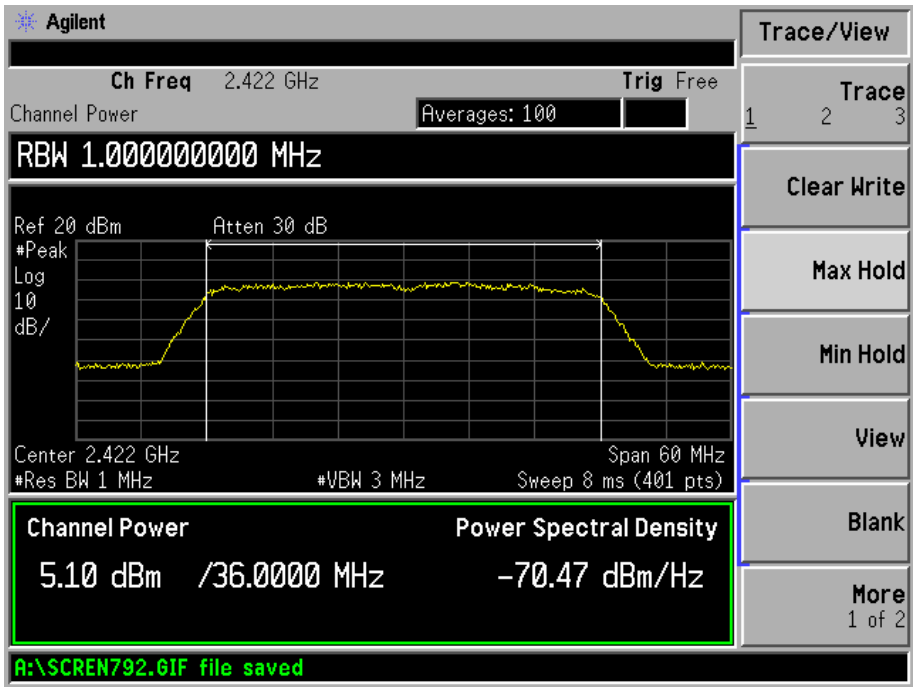
802.11n-HT40-MCS0-Middle Channel



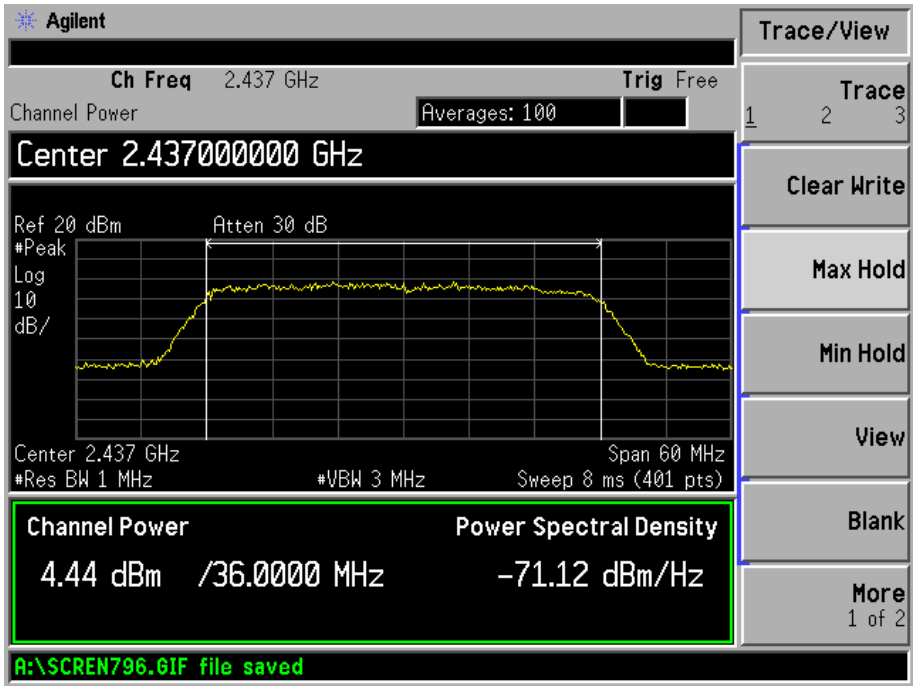
802.11n-HT40-MCS0-High Channel



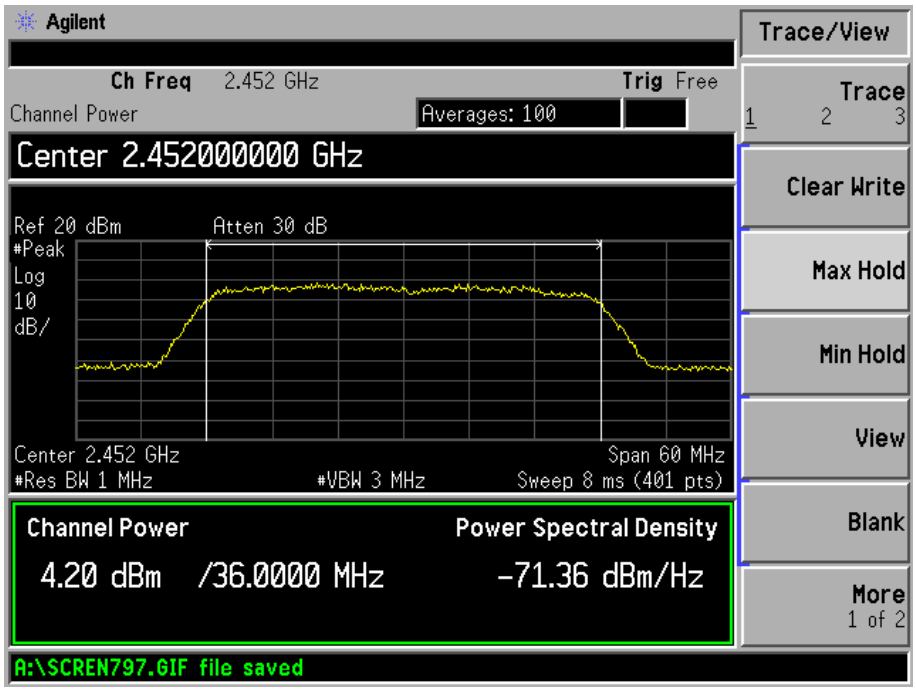
802.11n-HT40-MCS7-Low Channel



802.11n-HT40-MCS7-Middle Channel



802.11n-HT40-MCS7-High Channel



8. Field Strength of Spurious Emissions

8.1 Measurement Uncertainty

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement is ±5.10 dB.

8.2 Standard Applicable

According to §15.247(d), in any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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 band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. 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).

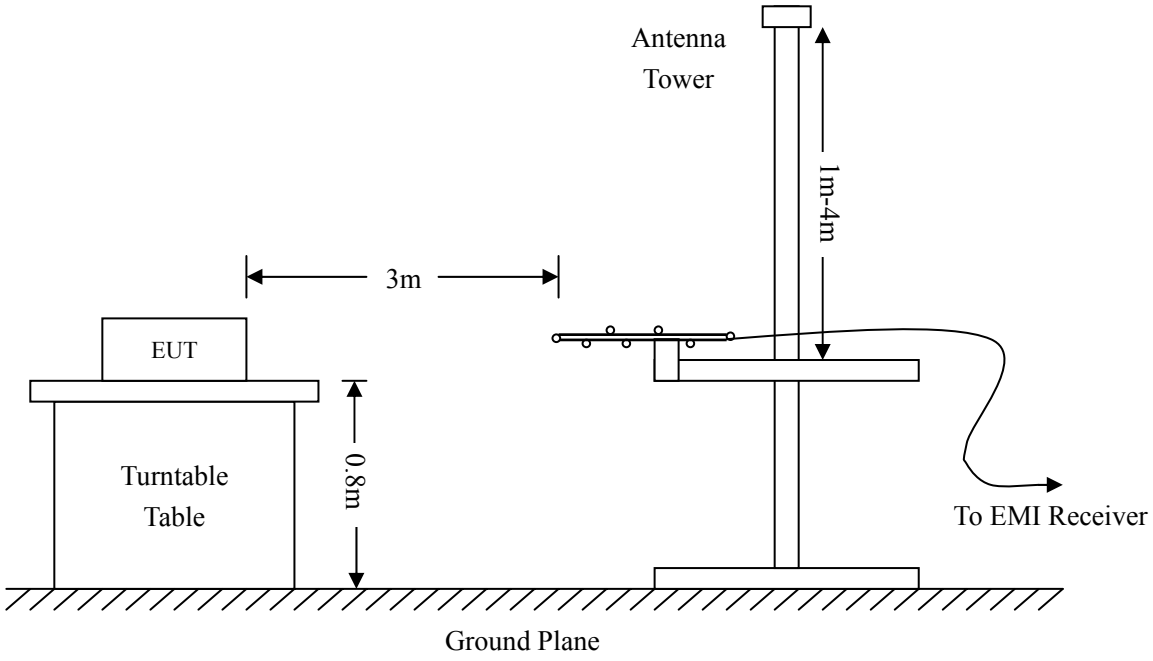
The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in §15.35 for limiting peak emissions apply. Spurious Radiated Emissions measurements starting below or at the lowest crystal frequency.

8.3 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2012-03-28	2013-03-27
EMI Test Receiver	R&S	ESVB	825471/005	2012-03-28	2013-03-27
Pre-amplifier	Agilent	8447F	3113A06717	2012-03-28	2013-03-27
Pre-amplifier	Compliance Direction	PAP-0118	24002	2012-03-28	2013-03-27
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2012-02-25	2013-02-24
Horn Antenna	ETS	3117	00086197	2012-02-25	2013-02-24
Horn Antenna	ETS	3116B	00088203	2012-02-25	2013-02-24
Loop Antenna	SCHWARZECK	HFRA 5165	9365	2012-02-25	2013-02-24

8.4 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.205 15.247(a) and FCC Part 15.209 Limit.
The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.
The spacing between the peripherals was 10 cm.



8.5 Corrected Amplitude & Margin Calculation

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

Corr. Ampl. = Indicated Reading + Ant. Factor + Cable Loss – Ampl. Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dBμV means the emission is 6dBμV below the maximum limit for Class B. The equation for margin calculation is as follows:

Margin = Corr. Ampl. – FCC Part 15 Limit

8.6 Environmental Conditions

Temperature:	24 °C
Relative Humidity:	52%
ATM Pressure:	1012 mbar

8.7 Summary of Test Results/Plots

According to the data below, the FCC Part 15.205, 15.209 and 15.247 standards, and had the worst margin of:

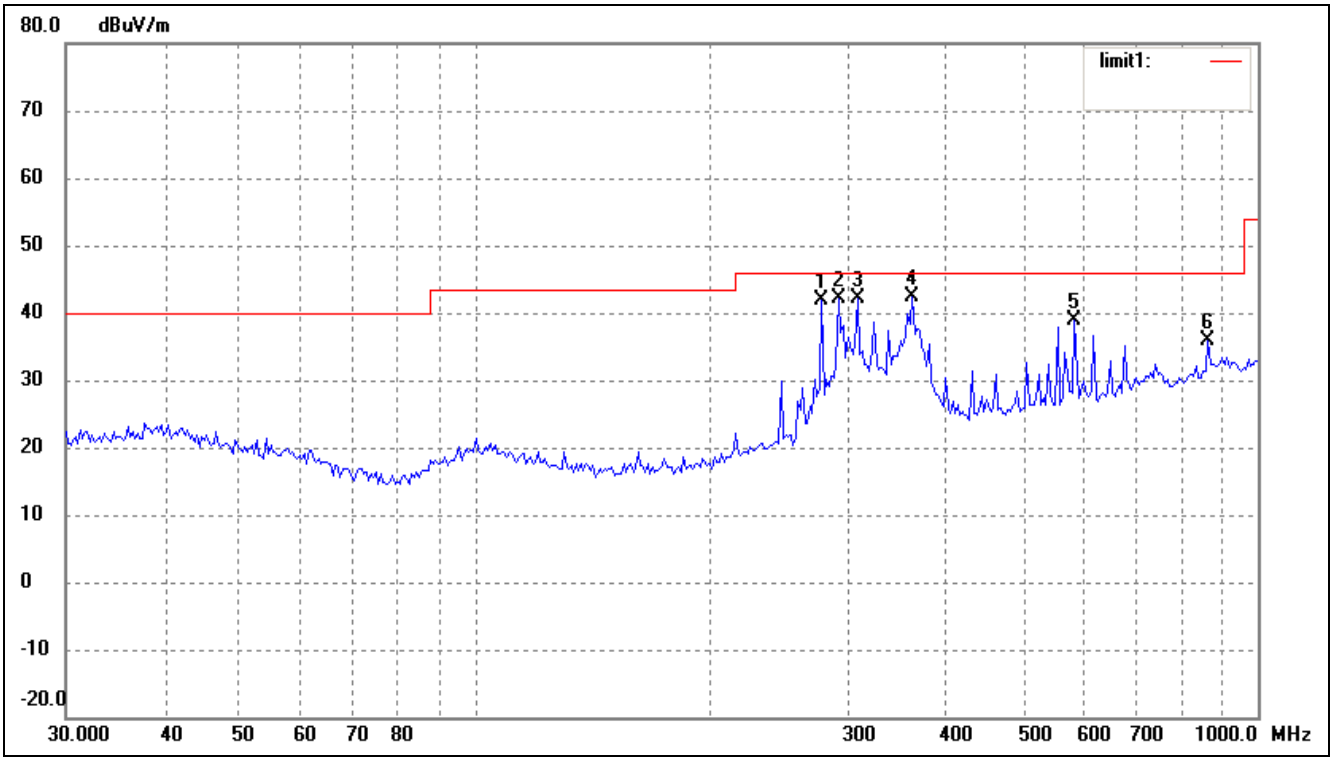
-2.17 dB at **291.0360 MHz** in the **Horizontal** polarization for **802.11n-HT40 Middle Channel**, **9kHz** to **25 GHz**, **3 Meters**

Note: this EUT was tested in 3 orthogonal positions and the worst case position data was reported.

Plot of Radiated Emissions Test Data (30MHz to 1GHz)

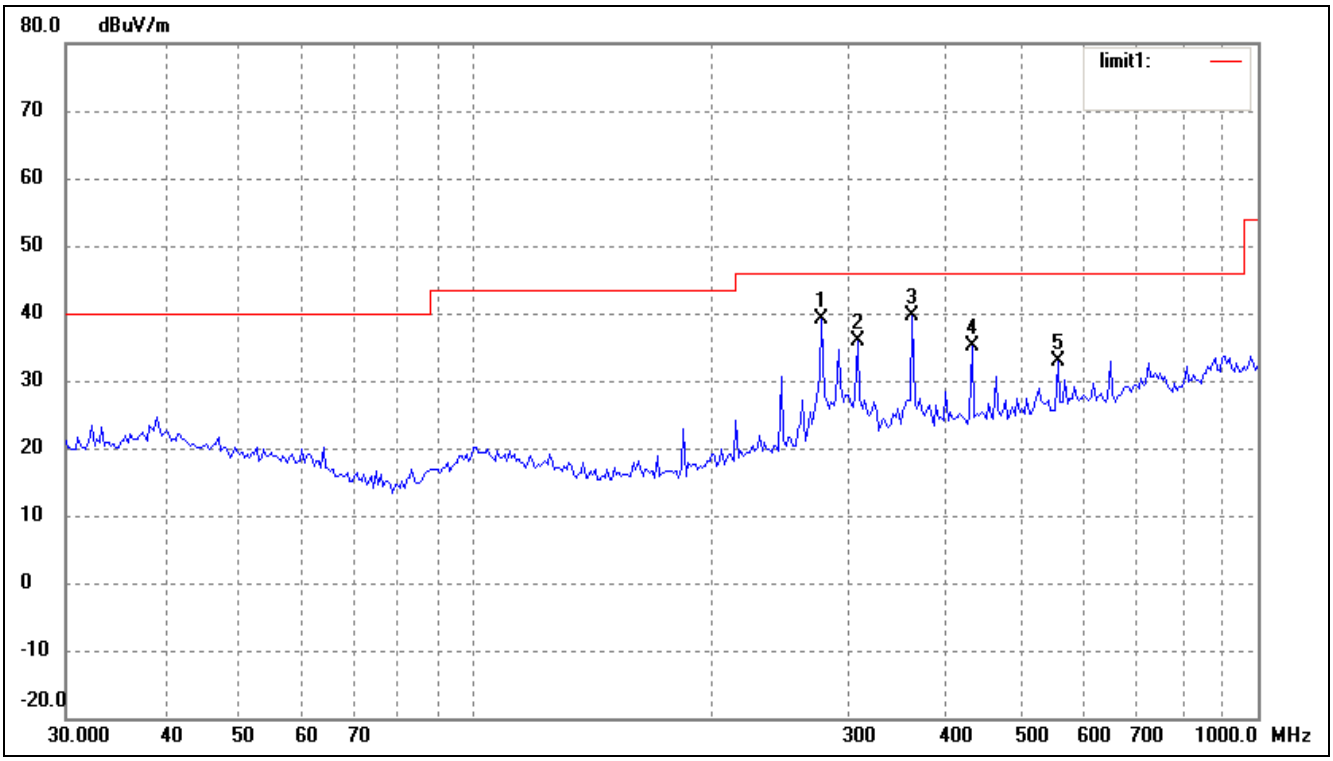
EUT: *Network Camera*
Tested Model: *BABYV0xx*
Operating Condition: *802.11b Transmitting Low Channel-2412MHz*
Comment: *AC 120V/60Hz; adapter DC 12V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	277.0935	33.71	8.13	41.84	46.00	-4.16	25	100	peak
2	291.0360	33.28	8.79	42.07	46.00	-3.93	145	100	peak
3	307.8313	32.92	9.20	42.12	46.00	-3.88	65	100	peak
4	361.7139	33.10	9.26	42.36	46.00	-3.64	245	100	peak
5	582.7425	26.25	12.60	38.85	46.00	-7.15	26	100	peak
6	863.0562	19.54	16.30	35.84	46.00	-10.16	24	100	peak

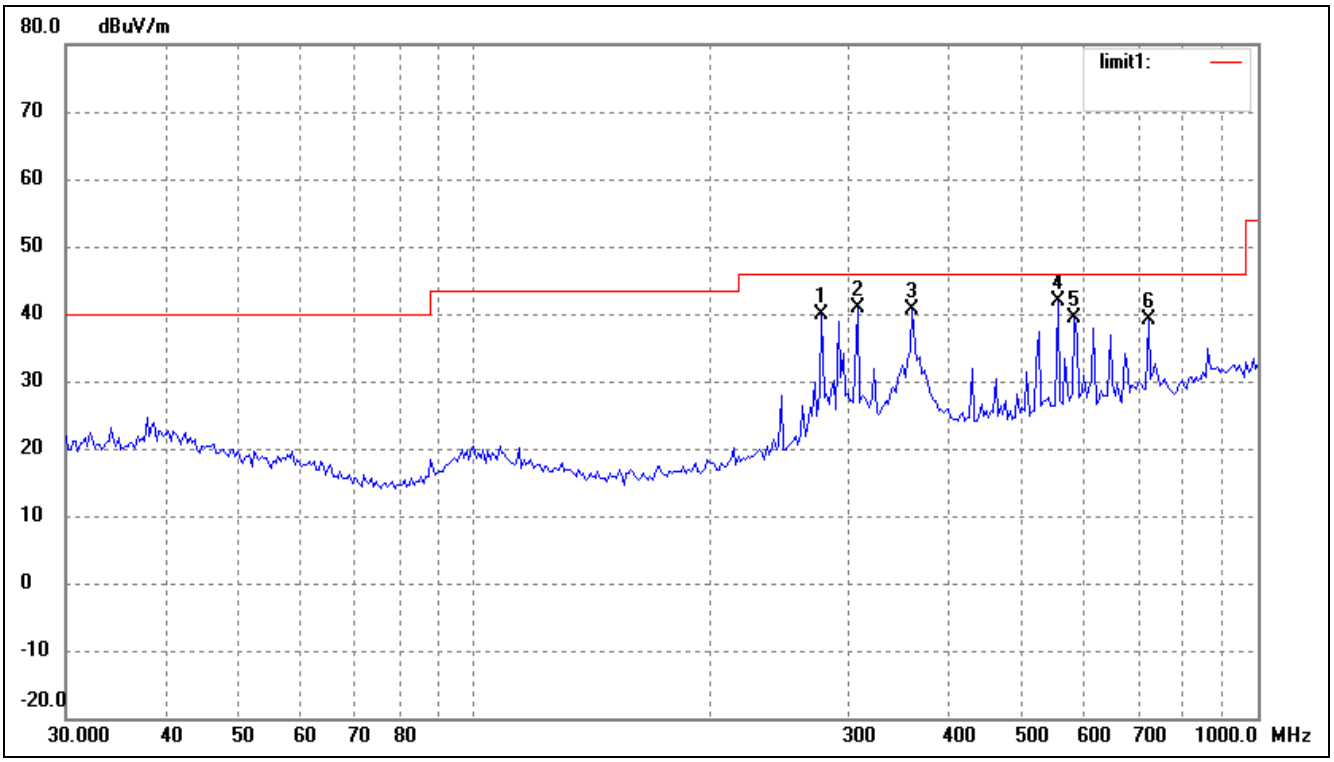
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	277.0935	30.96	8.13	39.09	46.00	-6.91	324	100	peak
2	307.8313	26.76	9.20	35.96	46.00	-10.04	51	100	peak
3	361.7139	30.48	9.26	39.74	46.00	-6.26	75	100	peak
4	431.0316	25.48	9.74	35.22	46.00	-10.78	69	100	peak
5	554.8254	21.54	11.42	32.96	46.00	-13.04	246	100	peak

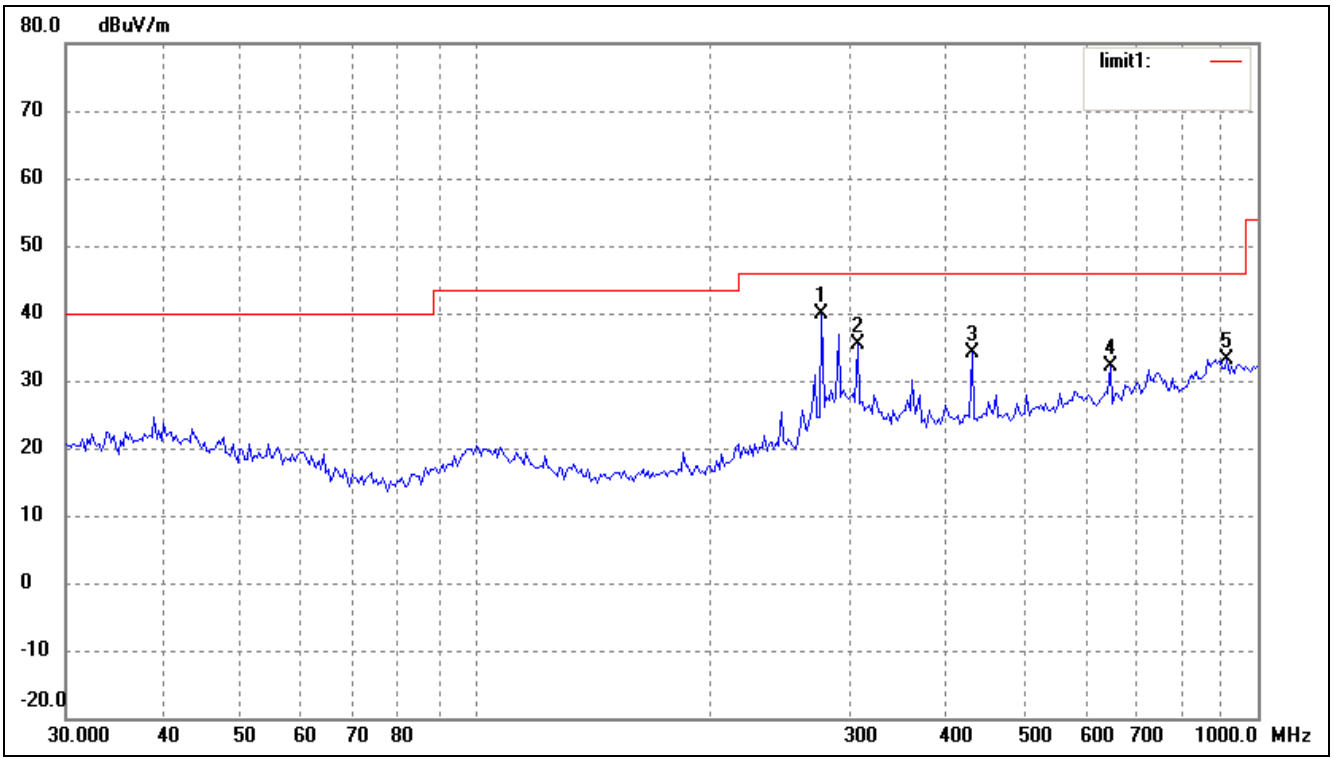
Operating Condition: *802.11b Transmitting Middle Channel-2437MHz*
Comment: *AC 120V/60Hz; adapter DC 12V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	277.0935	31.81	8.13	39.94	46.00	-6.06	325	100	peak
2	307.8313	31.71	9.20	40.91	46.00	-5.09	14	100	peak
3	361.7139	31.32	9.26	40.58	46.00	-5.42	306	100	peak
4	554.8254	30.55	11.42	41.97	46.00	-4.03	54	100	peak
5	582.7425	26.90	12.60	39.50	46.00	-6.50	87	100	peak
6	724.2611	24.53	14.56	39.09	46.00	-6.91	125	100	peak

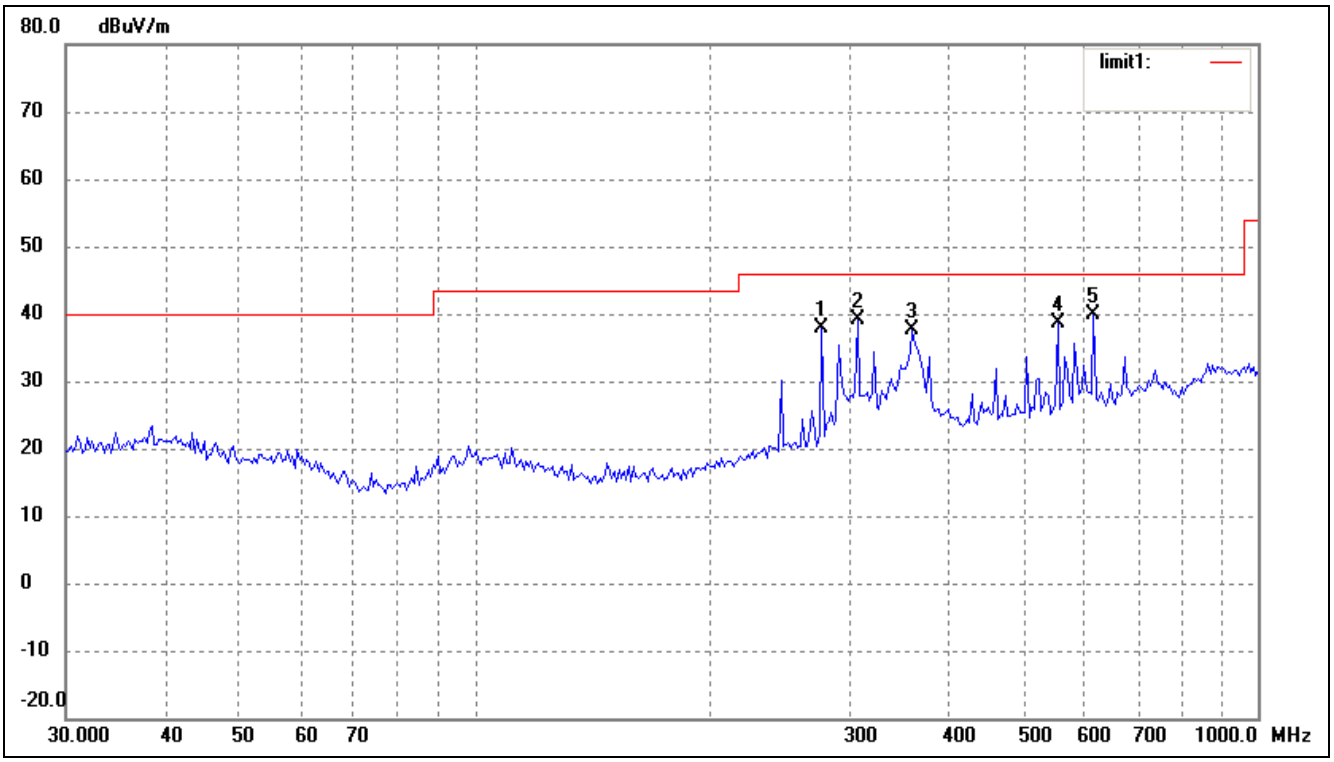
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	277.0935	31.65	8.13	39.78	46.00	-6.22	258	100	peak
2	307.8313	26.30	9.20	35.50	46.00	-10.50	64	100	peak
3	431.0316	24.41	9.74	34.15	46.00	-11.85	71	100	peak
4	647.3856	19.81	12.37	32.18	46.00	-13.82	57	100	peak
5	912.8620	16.66	16.51	33.17	46.00	-12.83	25	100	peak

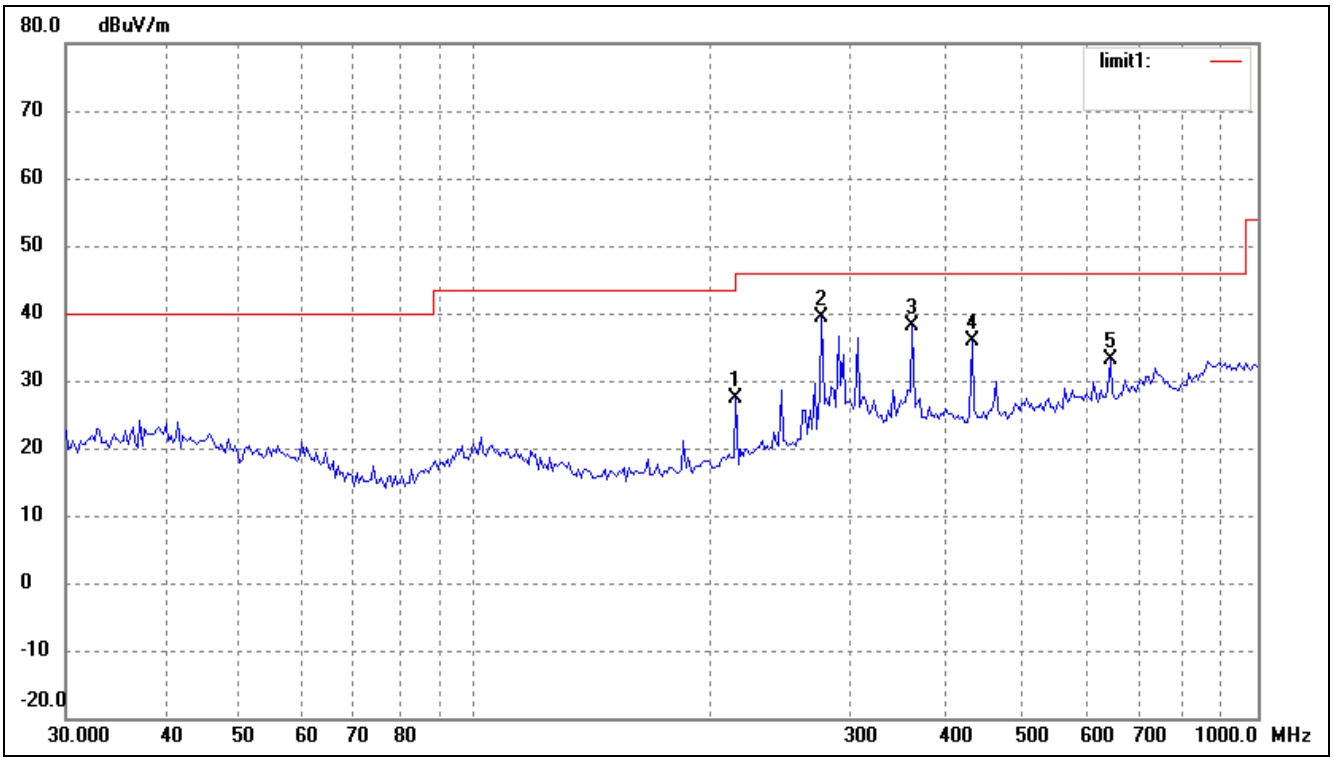
Operating Condition: *802.11b Transmitting High Channel-2462MHz*
Comment: *AC 120V/60Hz; adapter DC 12V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	277.0935	29.72	8.13	37.85	46.00	-8.15	325	100	peak
2	307.8313	29.94	9.20	39.14	46.00	-6.86	47	100	peak
3	361.7139	28.47	9.26	37.73	46.00	-8.27	158	100	peak
4	554.8254	27.23	11.42	38.65	46.00	-7.35	64	100	peak
5	616.3718	27.75	12.07	39.82	46.00	-6.18	155	100	peak

Test Specification: *Vertical*

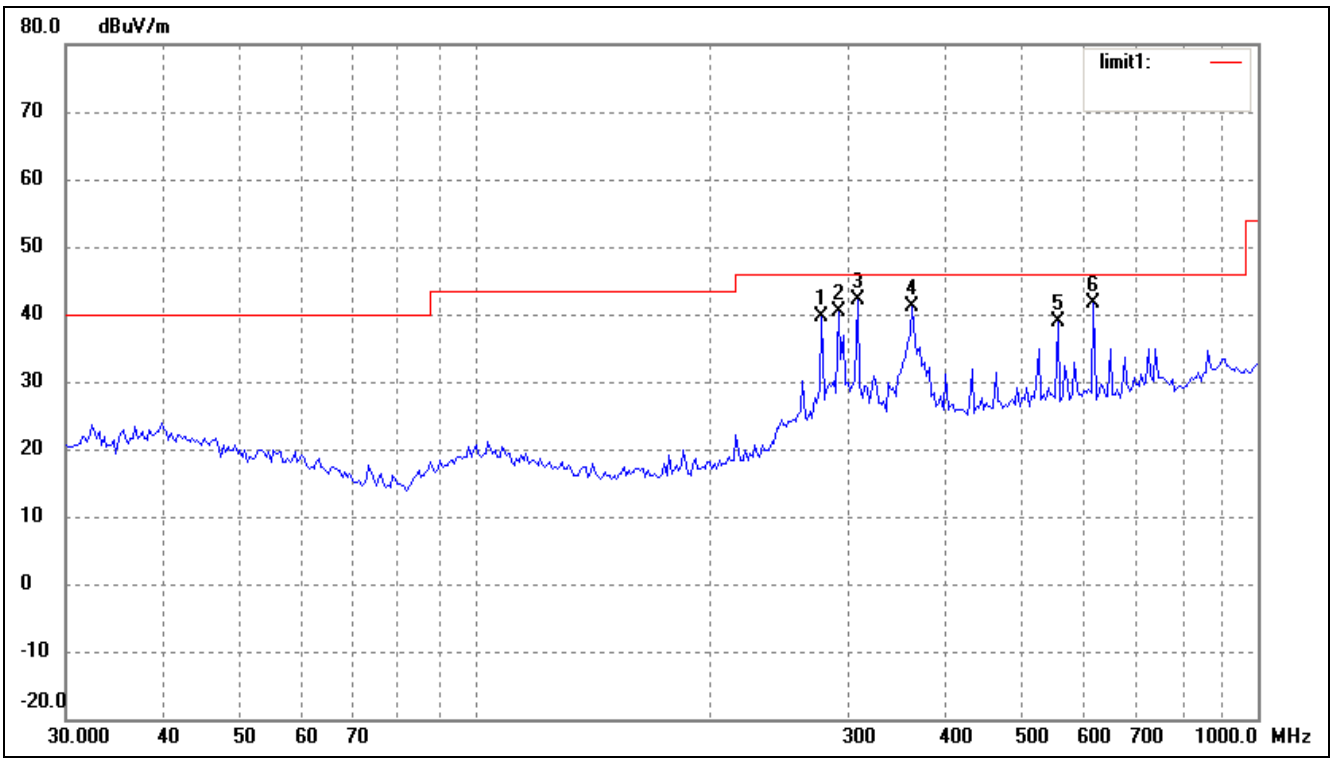


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	215.2678	22.52	4.74	27.26	43.50	-16.24	258	100	peak
2	277.0935	31.33	8.13	39.46	46.00	-6.54	64	100	peak
3	361.7139	28.88	9.26	38.14	46.00	-7.86	71	100	peak
4	431.0316	26.21	9.74	35.95	46.00	-10.05	69	100	peak
5	647.3856	20.67	12.37	33.04	46.00	-12.96	325	100	peak

Plot of Radiated Emissions Test Data (30MHz to 1GHz)

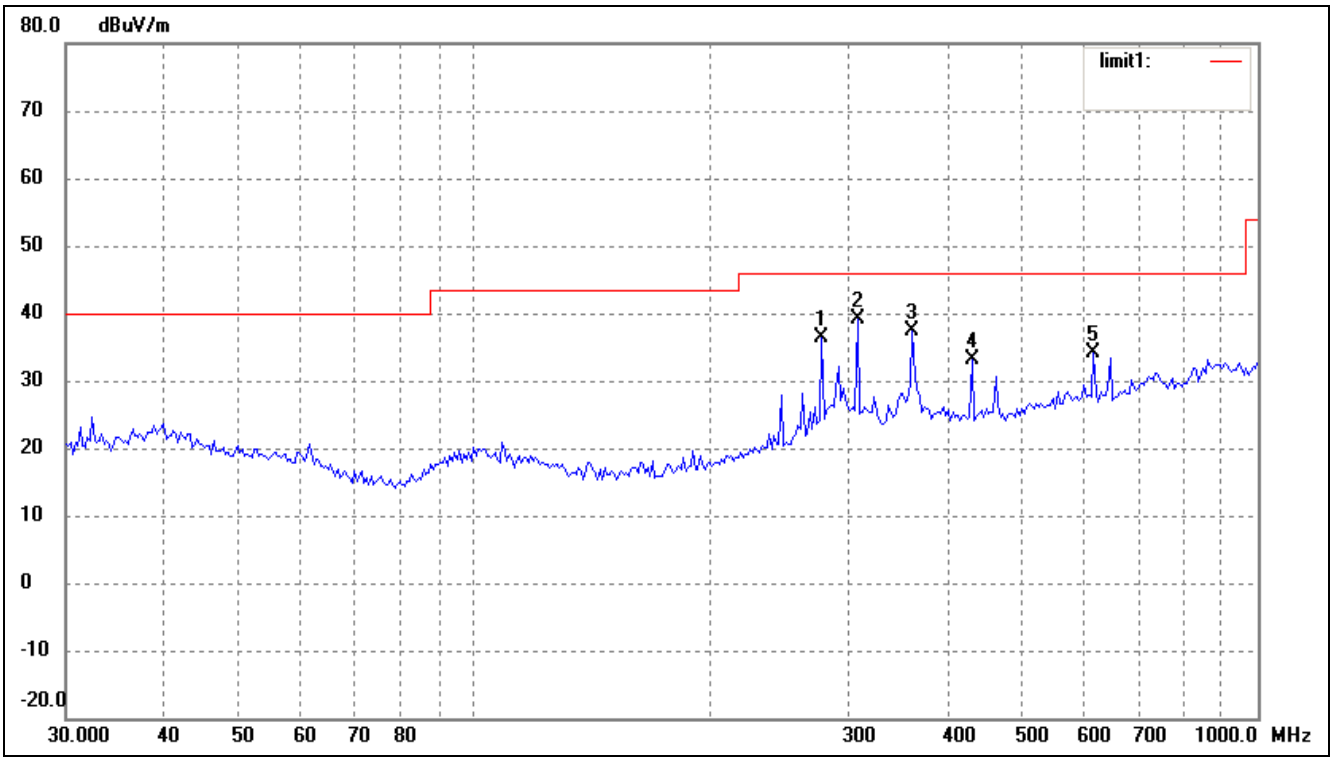
EUT: *Network Camera*
Tested Model: *BABYV0xx*
Operating Condition: *802.11g Transmitting Low Channel-2412MHz*
Comment: *AC 120V/60Hz; adapter DC 12V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	277.0935	31.60	8.13	39.73	46.00	-6.27	26	100	peak
2	291.0360	31.50	8.79	40.29	46.00	-5.71	57	100	peak
3	307.8313	32.87	9.20	42.07	46.00	-3.93	247	100	peak
4	361.7139	31.94	9.26	41.20	46.00	-4.80	112	100	peak
5	554.8254	27.52	11.42	38.94	46.00	-7.06	55	100	peak
6	616.3718	29.50	12.07	41.57	46.00	-4.43	35	100	peak

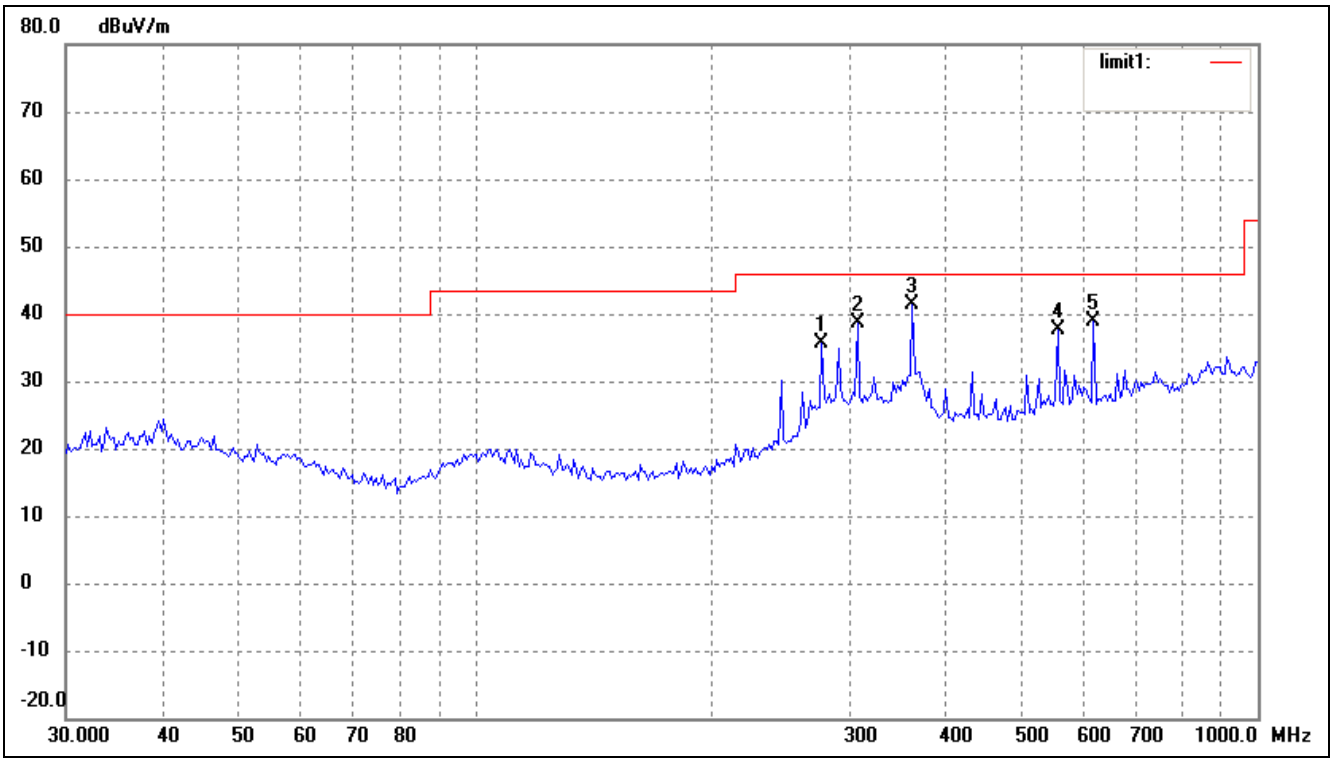
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	277.0935	28.27	8.13	36.40	46.00	-9.60	255	100	peak
2	307.8313	30.04	9.20	39.24	46.00	-6.76	304	100	peak
3	361.7139	28.04	9.26	37.30	46.00	-8.70	11	100	peak
4	431.0316	23.34	9.74	33.08	46.00	-12.92	54	100	peak
5	616.3718	21.98	12.07	34.05	46.00	-11.95	25	100	peak

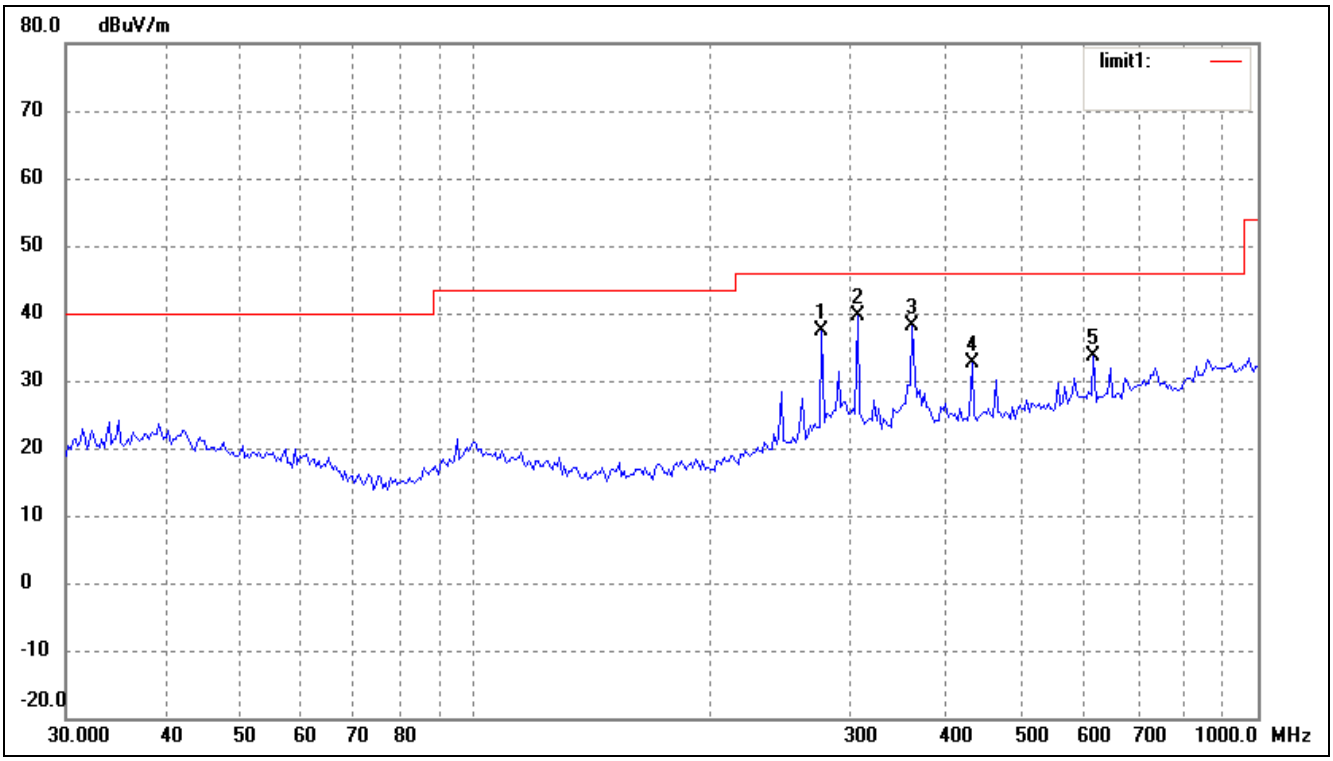
Operating Condition: *802.11g Transmitting Middle Channel-2437MHz*
Comment: *AC 120V/60Hz; adapter DC 12V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	277.0935	27.38	8.13	35.51	46.00	-10.49	256	100	peak
2	307.8313	29.34	9.20	38.54	46.00	-7.46	24	100	peak
3	361.7139	32.01	9.26	41.27	46.00	-4.73	125	100	peak
4	554.8254	26.13	11.42	37.55	46.00	-8.45	145	100	peak
5	616.3718	26.73	12.07	38.80	46.00	-7.20	30	100	peak

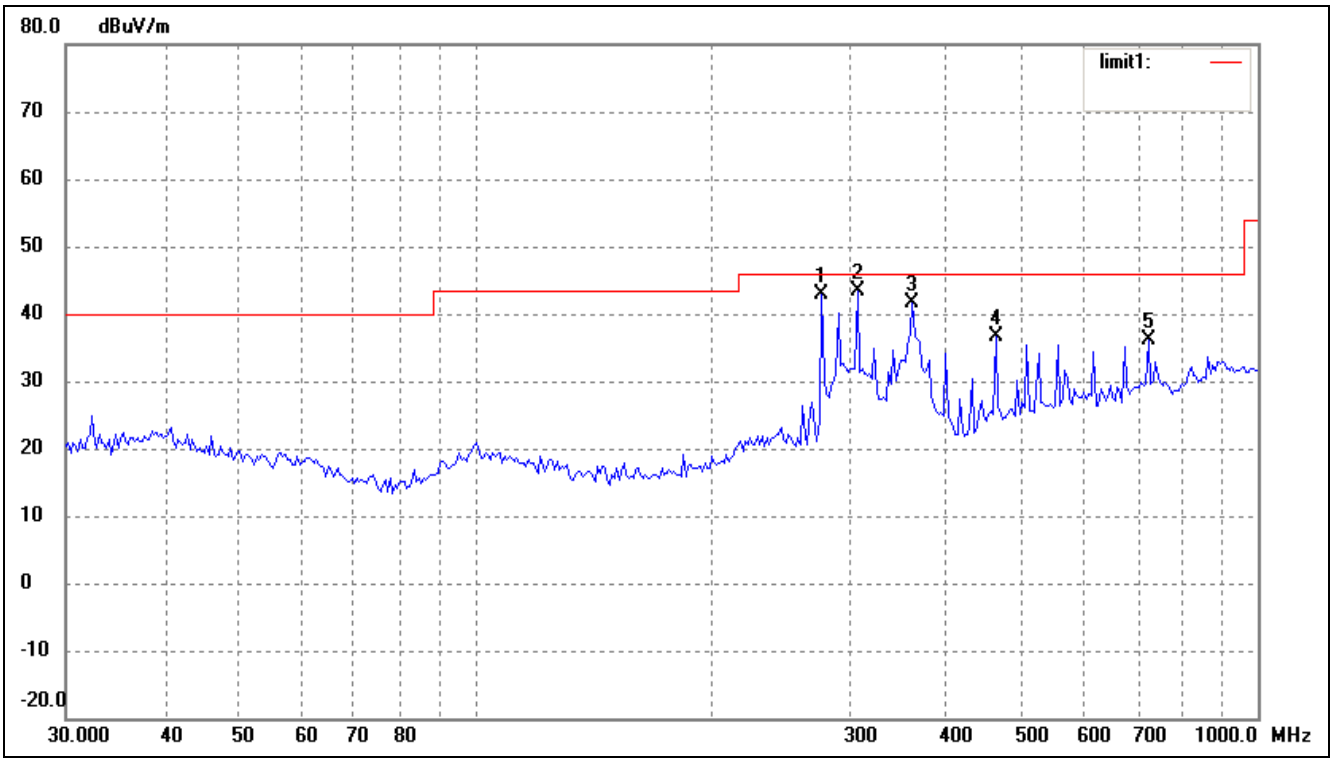
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	277.0935	29.35	8.13	37.48	46.00	-8.52	360	100	peak
2	307.8313	30.45	9.20	39.65	46.00	-6.35	24	100	peak
3	361.7139	28.96	9.26	38.22	46.00	-7.78	57	100	peak
4	431.0316	22.81	9.74	32.55	46.00	-13.45	68	100	peak
5	616.3718	21.58	12.07	33.65	46.00	-12.35	102	100	peak

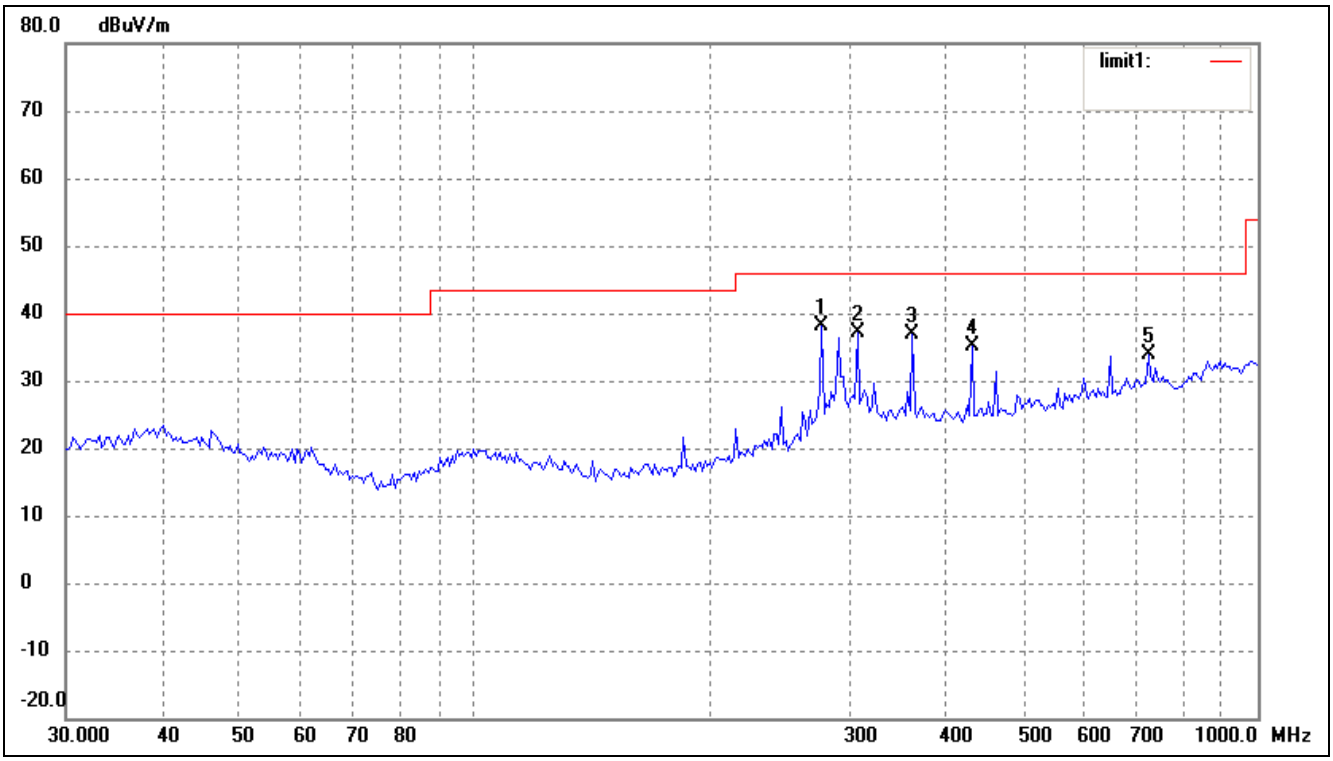
Operating Condition: *802.11g Transmitting High Channel-2462MHz*
Comment: *AC 120V/60Hz; adapter DC 12V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	277.0935	34.72	8.13	42.85	46.00	-3.15	236	100	peak
2	307.8313	34.10	9.20	43.30	46.00	-2.70	44	100	peak
3	361.7139	32.40	9.26	41.66	46.00	-4.34	74	100	peak
4	462.3455	26.18	10.49	36.67	46.00	-9.33	51	100	peak
5	724.2611	21.64	14.56	36.20	46.00	-9.80	266	100	peak

Test Specification: *Vertical*

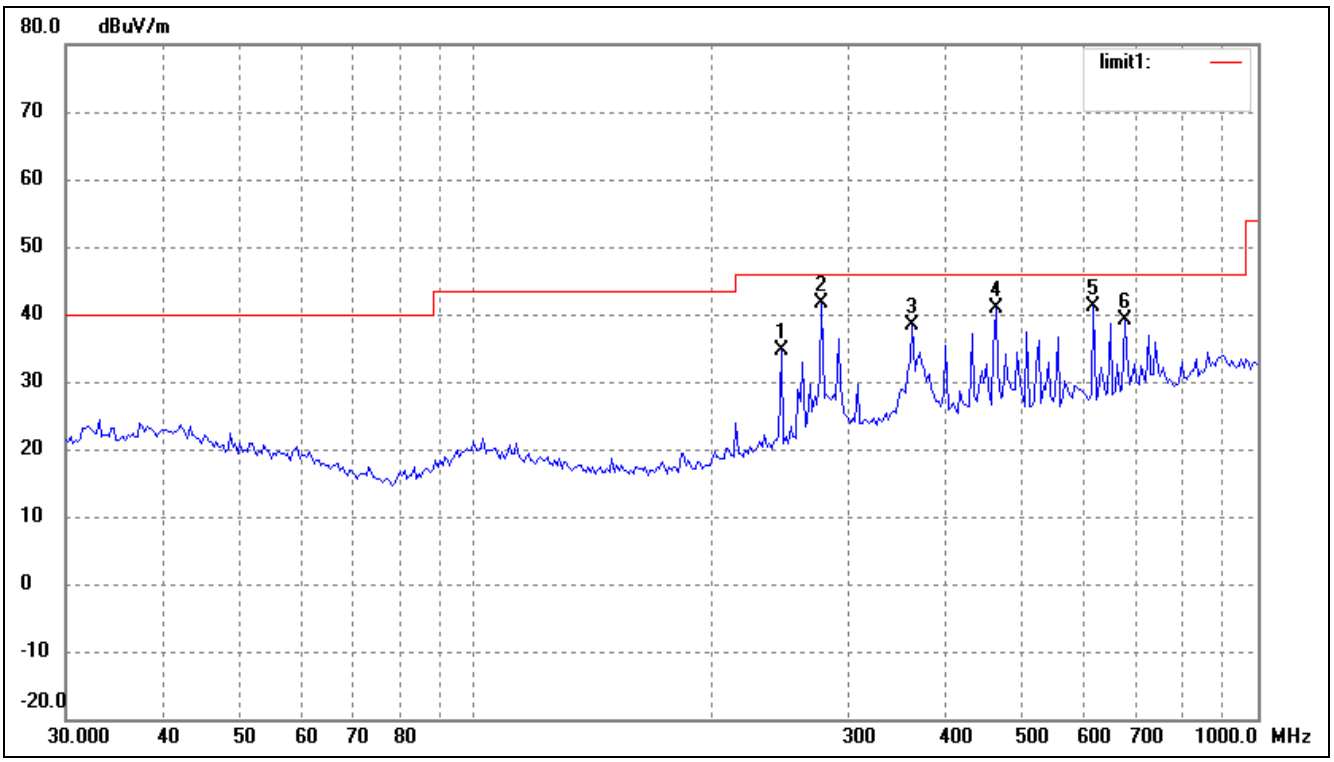


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	277.0935	30.01	8.13	38.14	46.00	-7.86	255	100	peak
2	307.8313	27.95	9.20	37.15	46.00	-8.85	74	100	peak
3	361.7139	27.63	9.26	36.89	46.00	-9.11	115	100	peak
4	431.0316	25.33	9.74	35.07	46.00	-10.93	65	100	peak
5	724.2611	19.40	14.56	33.96	46.00	-12.04	360	100	peak

Plot of Radiated Emissions Test Data (30MHz to 1GHz)

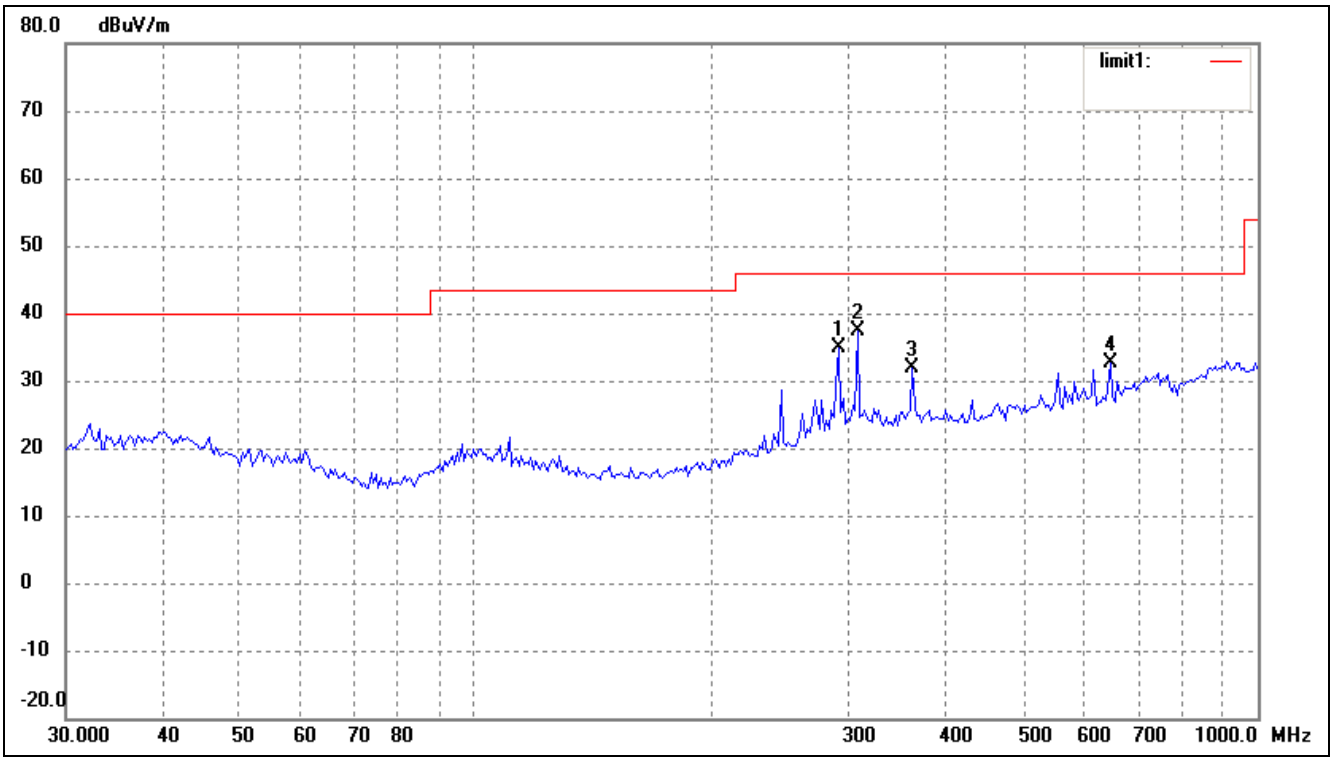
EUT: *Network Camera*
Tested Model: *BABYV0xx*
Operating Condition: *802.11n-HT20 Transmitting Low Channel-2412MHz*
Comment: *AC 120V/60Hz; adapter DC 12V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	245.9509	28.16	6.47	34.63	46.00	-11.37	256	100	peak
2	277.0935	33.47	8.13	41.60	46.00	-4.40	74	100	peak
3	361.7139	29.16	9.26	38.42	46.00	-7.58	147	100	peak
4	462.3455	30.35	10.49	40.84	46.00	-5.16	65	100	peak
5	616.3718	29.04	12.07	41.11	46.00	-4.89	102	100	peak
6	675.2080	26.35	12.90	39.25	46.00	-6.75	55	100	peak

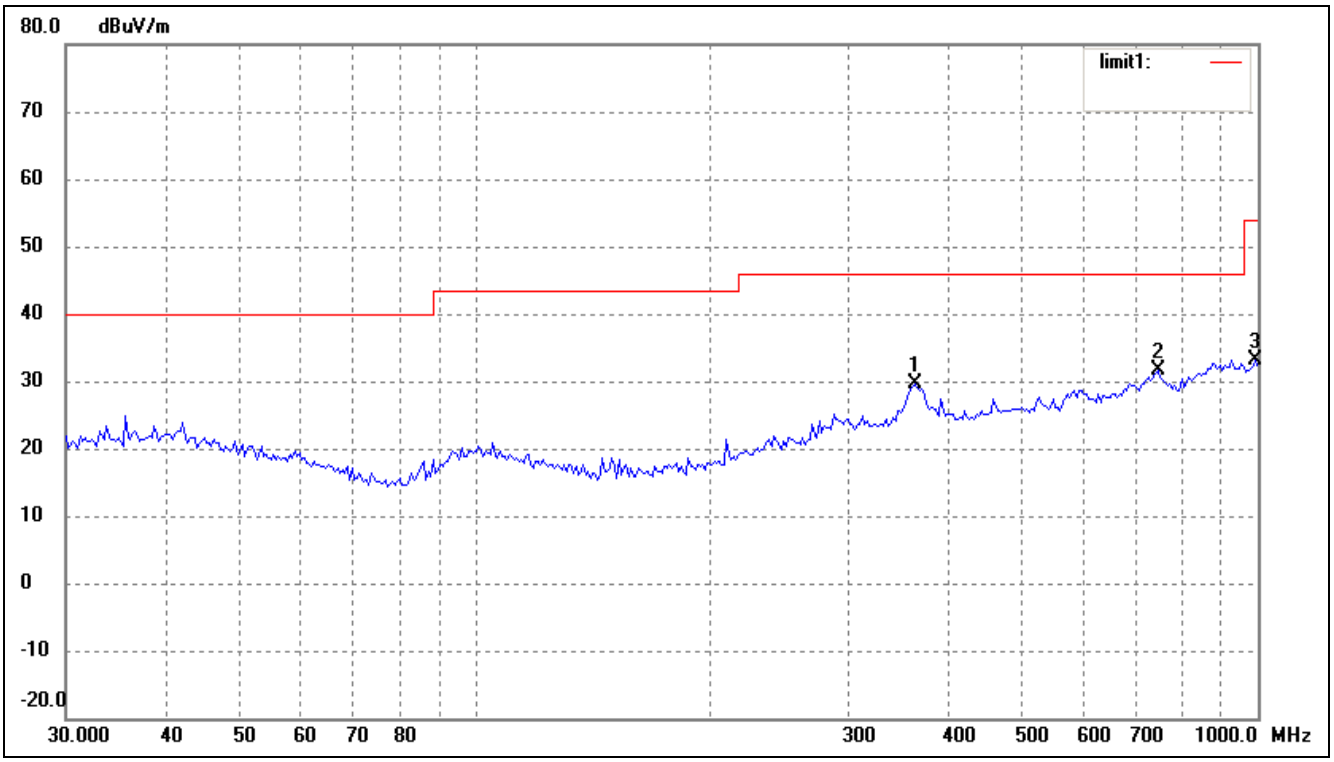
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	291.0360	26.13	8.79	34.92	46.00	-11.08	255	100	peak
2	307.8313	28.26	9.20	37.46	46.00	-8.54	68	100	peak
3	361.7139	22.61	9.26	31.87	46.00	-14.13	47	100	peak
4	647.3856	20.24	12.37	32.61	46.00	-13.39	15	100	peak

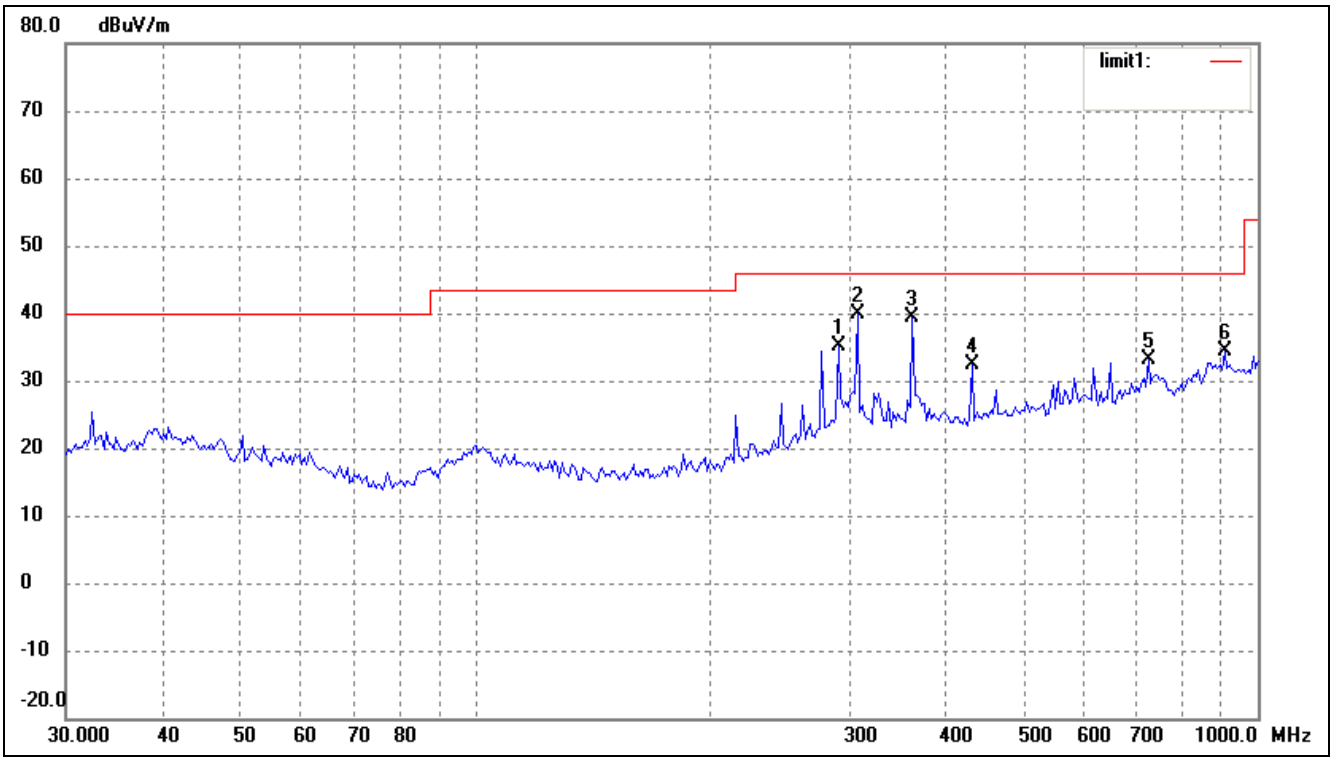
Operating Condition: *802.11n-HT20 Transmitting Middle Channel-2437MHz*
Comment: *AC 120V/60Hz; adapter DC 12V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	364.2595	20.25	9.26	29.51	46.00	-16.49	311	100	peak
2	744.8661	16.28	15.30	31.58	46.00	-14.42	24	100	peak
3	993.0114	16.03	17.00	33.03	54.00	-20.97	51	100	peak

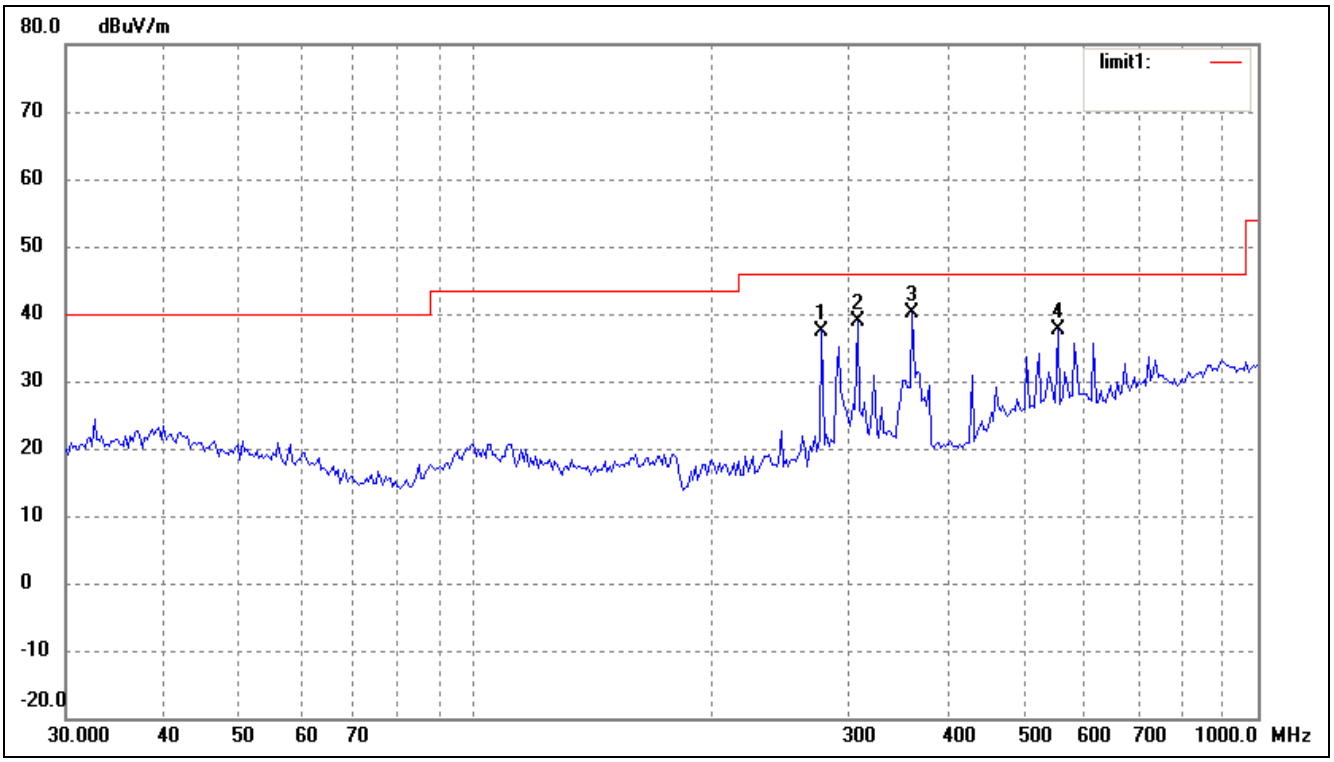
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	291.0360	26.37	8.79	35.16	46.00	-10.84	35	100	peak
2	307.8313	30.76	9.20	39.96	46.00	-6.04	47	100	peak
3	361.7139	30.03	9.26	39.29	46.00	-6.71	115	100	peak
4	431.0316	22.54	9.74	32.28	46.00	-13.72	15	100	peak
5	724.2611	18.50	14.56	33.06	46.00	-12.94	258	100	peak
6	906.4824	17.74	16.63	34.37	46.00	-11.63	24	100	peak

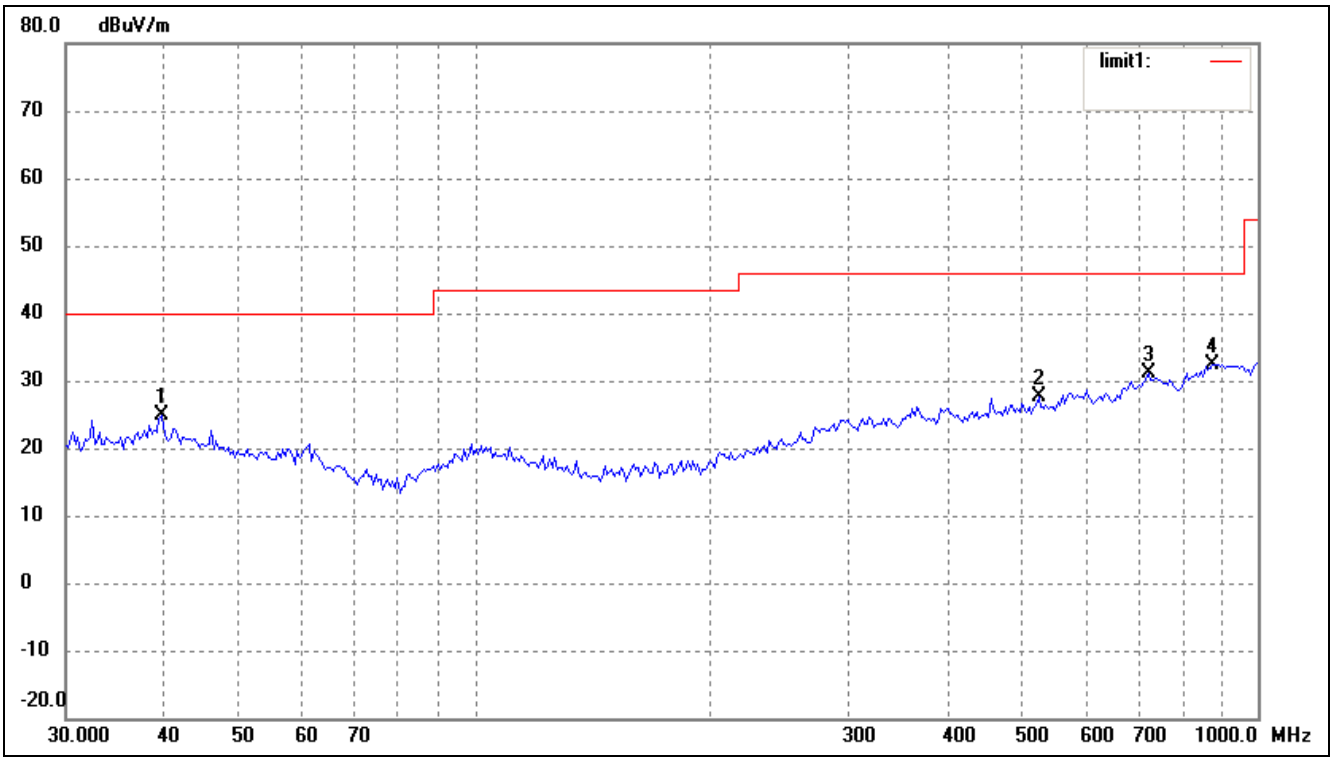
Operating Condition: *802.11n-HT20 Transmitting High Channel-2462MHz*
Comment: *AC 120V/60Hz; adapter DC 12V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	277.0935	29.37	8.13	37.50	46.00	-8.50	24	100	peak
2	307.8313	29.59	9.20	38.79	46.00	-7.21	22	100	peak
3	361.7139	30.91	9.26	40.17	46.00	-5.83	44	100	peak
4	554.8254	26.14	11.42	37.56	46.00	-8.44	62	100	peak

Test Specification: *Vertical*

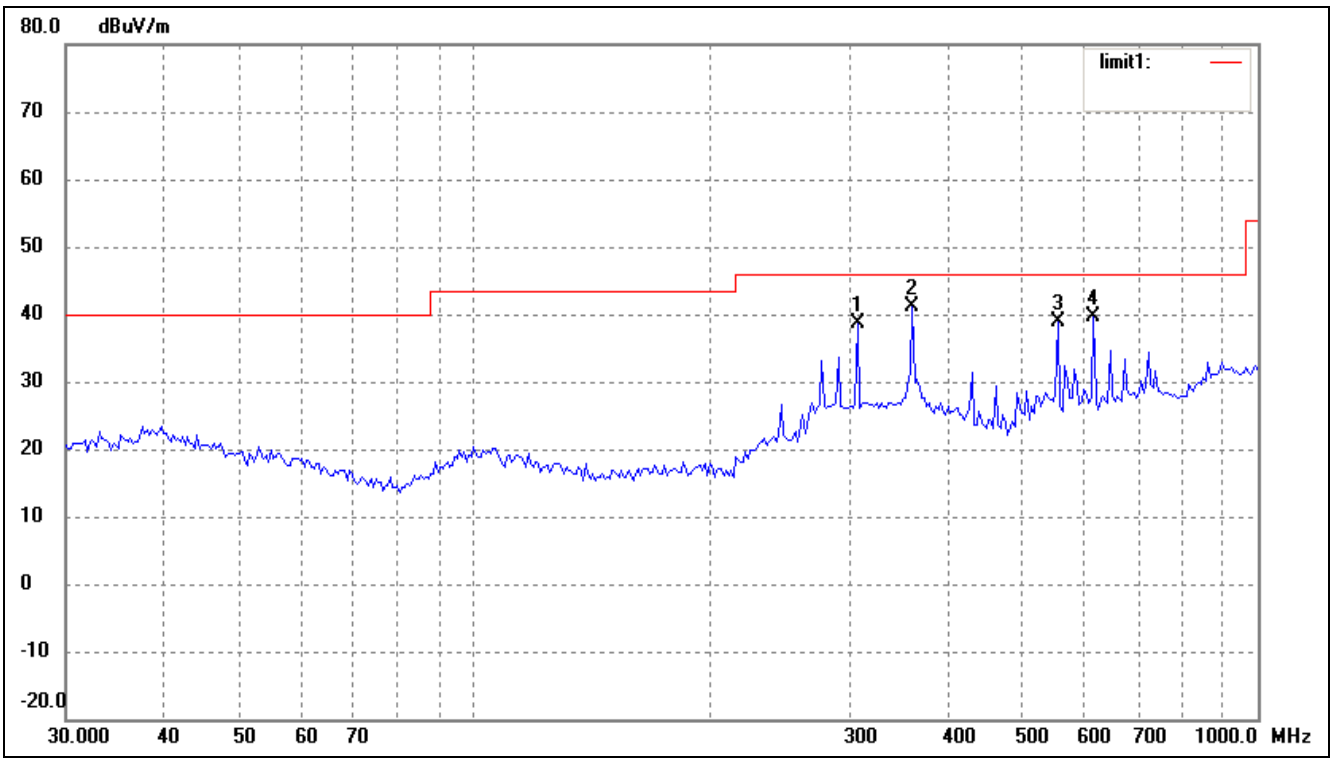


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	39.7147	15.94	8.82	24.76	40.00	-15.24	26	100	peak
2	524.5541	16.32	11.33	27.65	46.00	-18.35	77	100	peak
3	724.2611	16.51	14.56	31.07	46.00	-14.93	115	100	peak
4	875.2470	15.79	16.62	32.41	46.00	-13.59	147	100	peak

Plot of Radiated Emissions Test Data (30MHz to 1GHz)

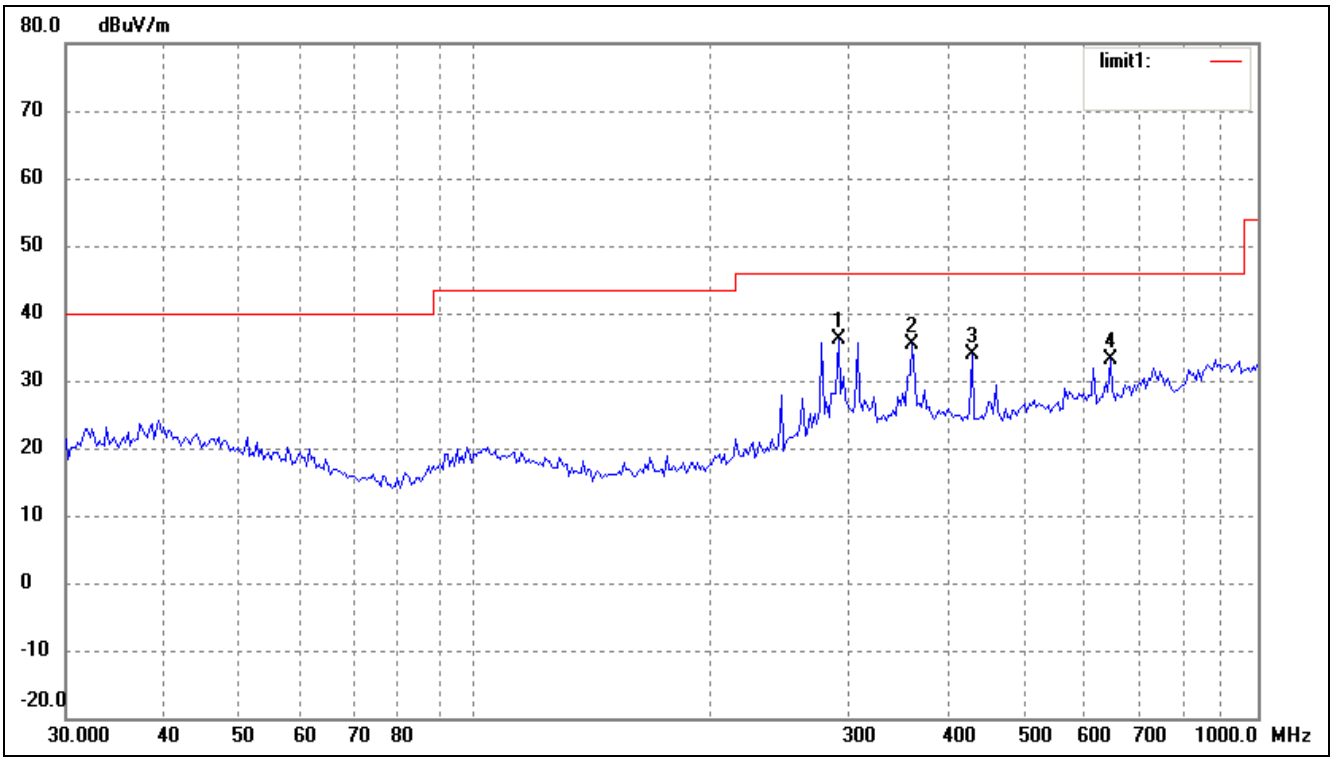
EUT: *Network Camera*
Tested Model: *BABYV0xx*
Operating Condition: *802.11n-HT40 Transmitting Low Channel-2422MHz*
Comment: *AC 120V/60Hz; adapter DC 12V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	307.8313	29.48	9.20	38.68	46.00	-7.32	305	100	peak
2	361.7139	31.85	9.26	41.11	46.00	-4.89	64	100	peak
3	554.8254	27.47	11.42	38.89	46.00	-7.11	155	100	peak
4	616.3718	27.62	12.07	39.69	46.00	-6.31	14	100	peak

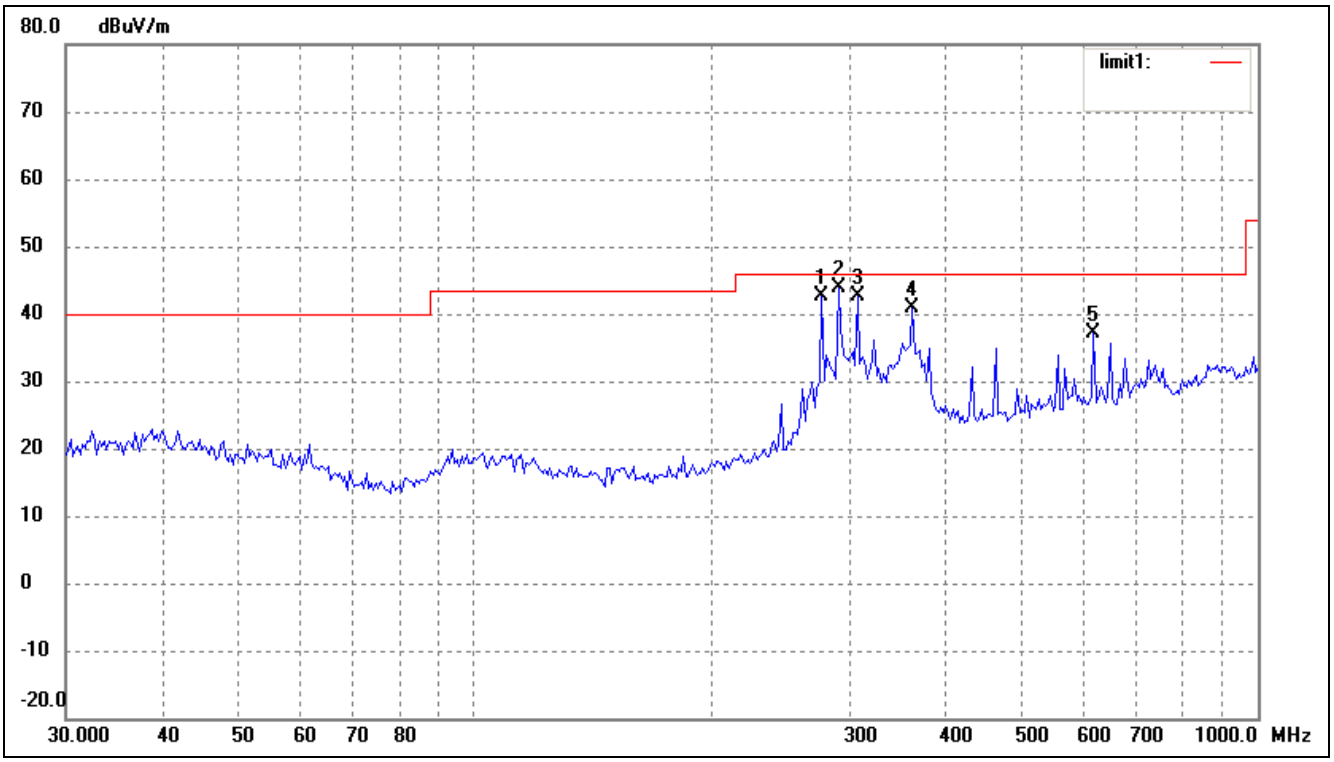
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	291.0360	27.22	8.79	36.01	46.00	-9.99	256	100	peak
2	361.7139	26.14	9.26	35.40	46.00	-10.60	44	100	peak
3	431.0316	24.24	9.74	33.98	46.00	-12.02	78	100	peak
4	647.3856	20.68	12.37	33.05	46.00	-12.95	155	100	peak

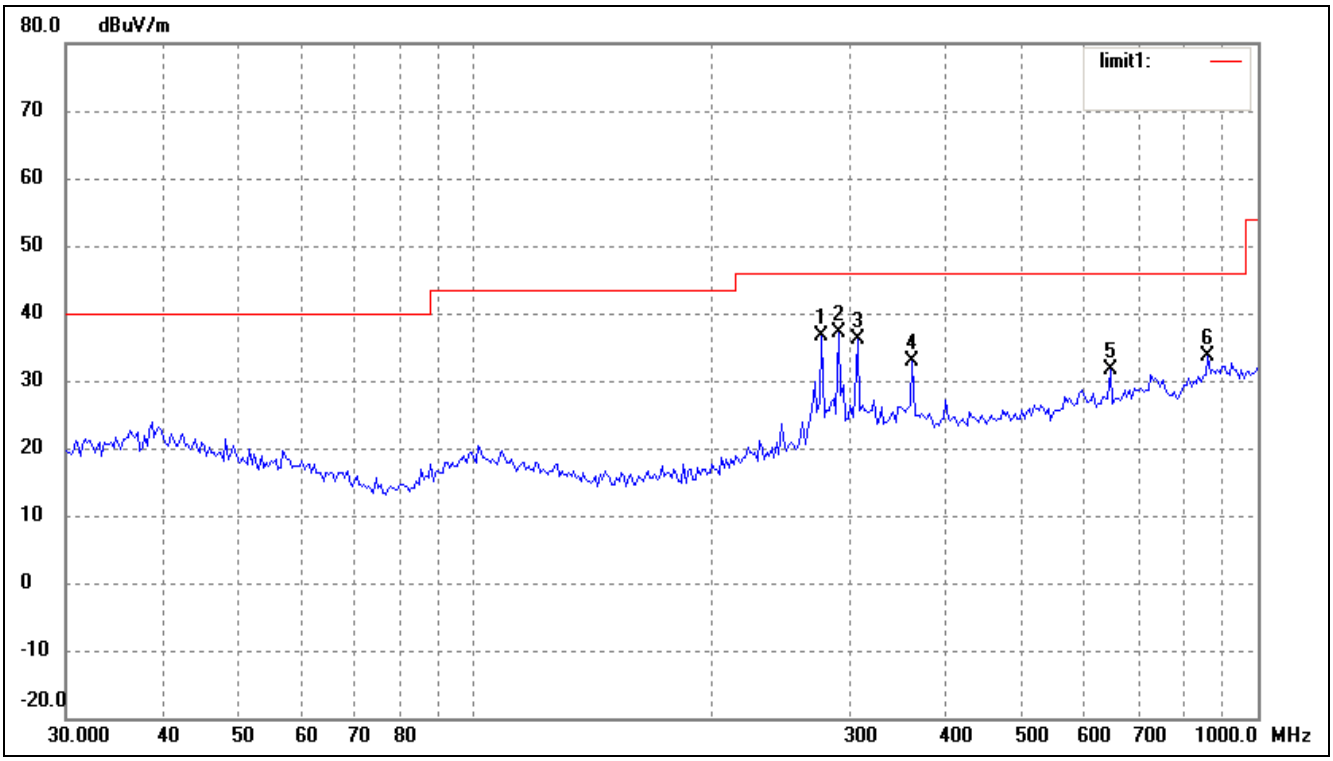
Operating Condition: *802.11n-HT40 Transmitting Middle Channel-2437MHz*
Comment: *AC 120V/60Hz; adapter DC 12V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	277.0935	34.41	8.13	42.54	46.00	-3.46	360	100	peak
2	291.0360	35.04	8.79	43.83	46.00	-2.17	28	100	peak
3	307.8313	33.41	9.20	42.61	46.00	-3.39	78	100	peak
4	361.7139	31.53	9.26	40.79	46.00	-5.21	24	100	peak
5	616.3718	25.13	12.07	37.20	46.00	-8.80	36	100	peak

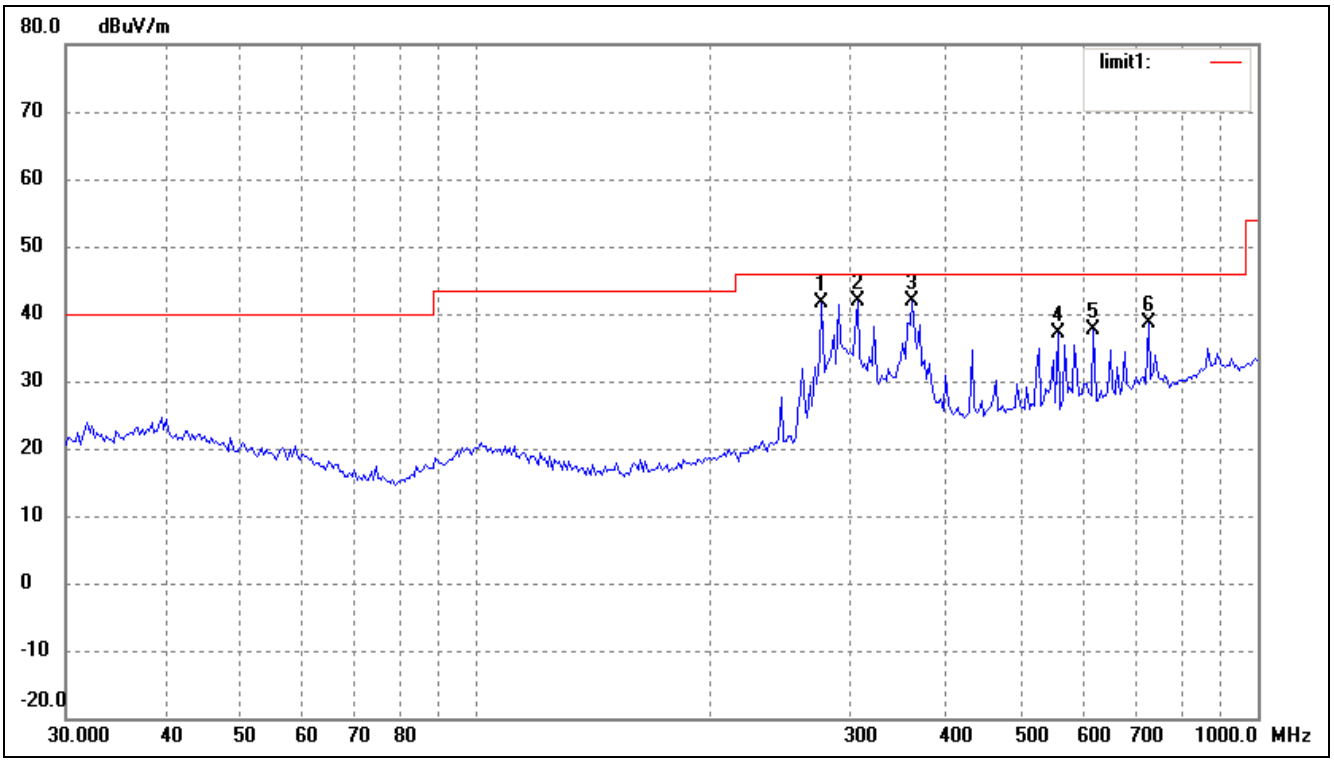
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	277.0935	28.38	8.13	36.51	46.00	-9.49	255	100	peak
2	291.0360	28.32	8.79	37.11	46.00	-8.89	64	100	peak
3	307.8313	27.00	9.20	36.20	46.00	-9.80	11	100	peak
4	361.7139	23.69	9.26	32.95	46.00	-13.05	244	100	peak
5	647.3856	19.20	12.37	31.57	46.00	-14.43	64	100	peak
6	863.0562	17.29	16.30	33.59	46.00	-12.41	21	100	peak

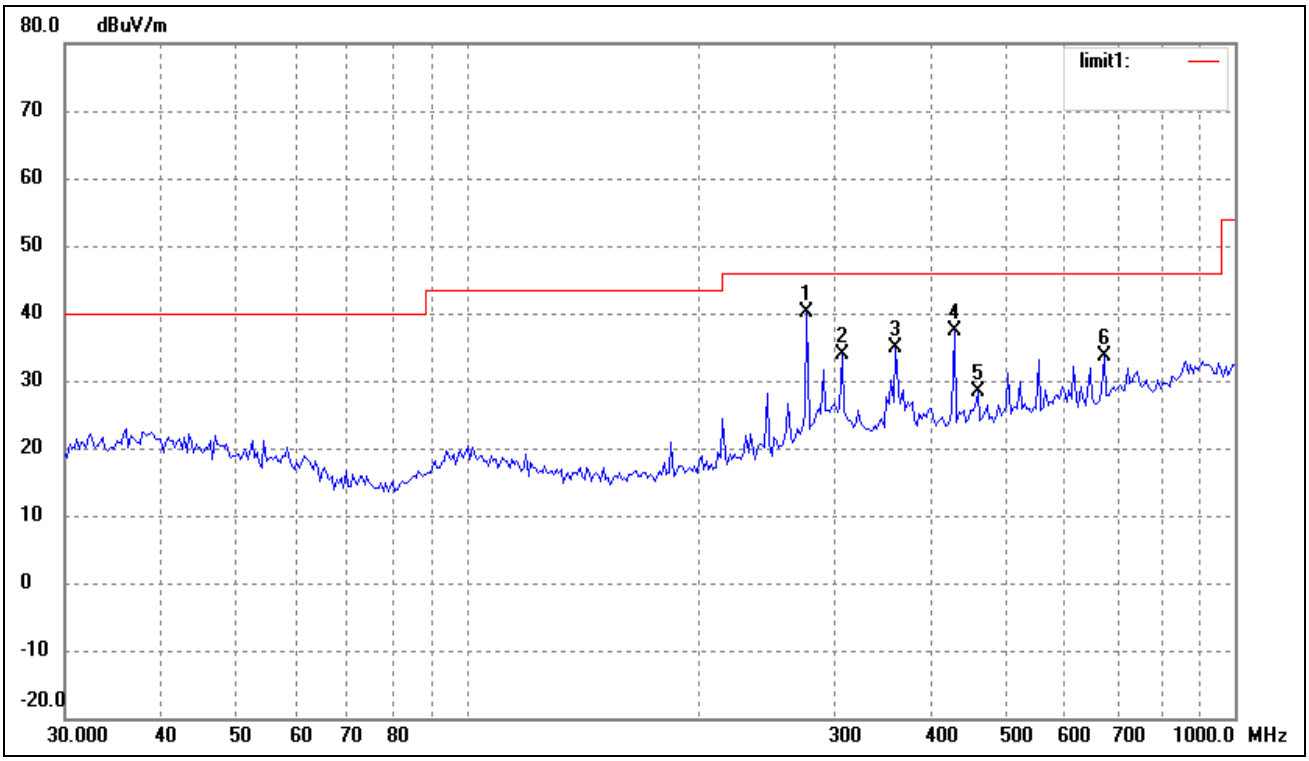
Operating Condition: *802.11n-HT40 Transmitting High Channel-2452MHz*
Comment: *AC 120V/60Hz; adapter DC 12V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	277.0935	33.58	8.13	41.71	46.00	-4.29	305	100	peak
2	307.8313	32.68	9.20	41.88	46.00	-4.12	74	100	peak
3	361.7139	32.50	9.26	41.76	46.00	-4.24	57	100	peak
4	554.8254	25.72	11.42	37.14	46.00	-8.86	91	100	peak
5	616.3718	25.62	12.07	37.69	46.00	-8.31	25	100	peak
6	724.2611	23.95	14.56	38.51	46.00	-7.49	165	100	peak

Test Specification: *Vertical*

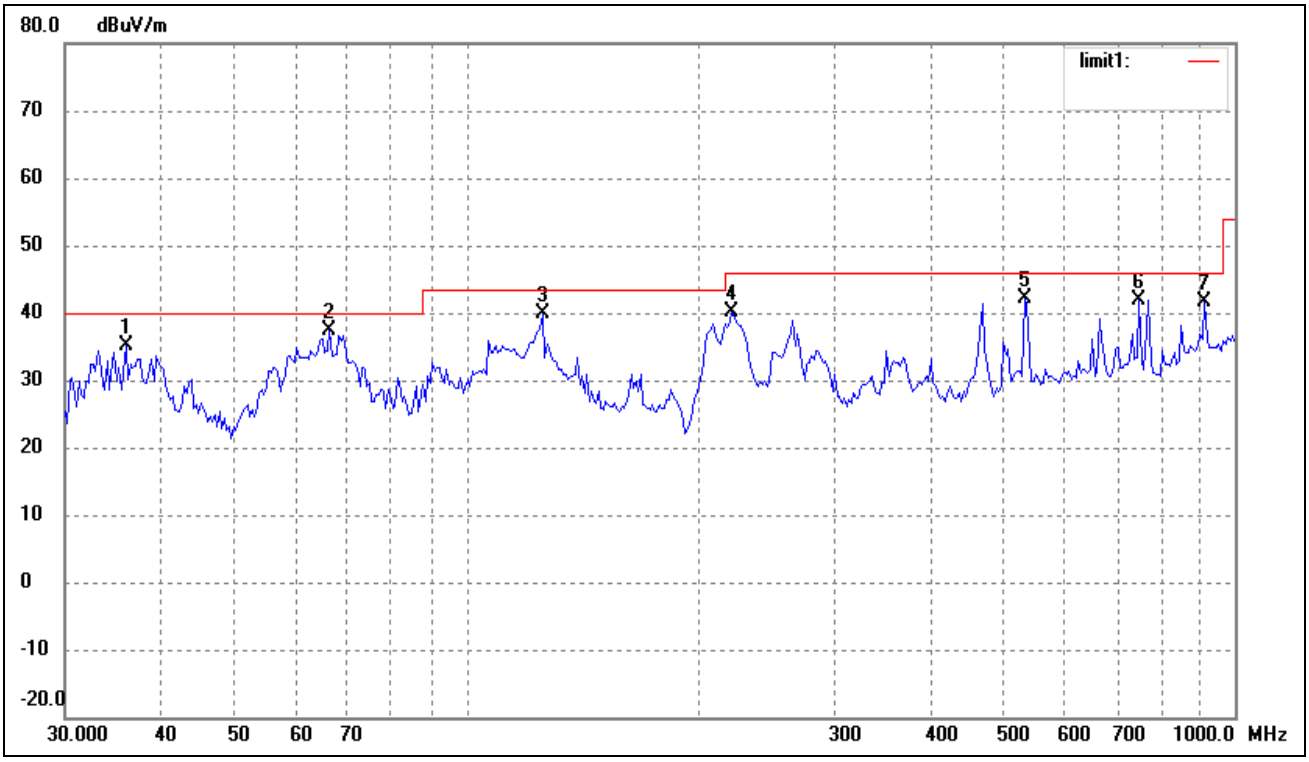


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	277.0935	32.02	8.13	40.15	46.00	-5.85	360	100	peak
2	307.8313	24.79	9.20	33.99	46.00	-12.01	24	100	peak
3	361.7139	25.51	9.26	34.77	46.00	-11.23	87	100	peak
4	431.0316	27.70	9.74	37.44	46.00	-8.56	66	100	peak
5	462.3455	17.92	10.49	28.41	46.00	-17.59	85	100	peak
6	675.2080	20.69	12.90	33.59	46.00	-12.41	54	100	peak

Plot of Radiated Emissions Test Data (30MHz to 1GHz)

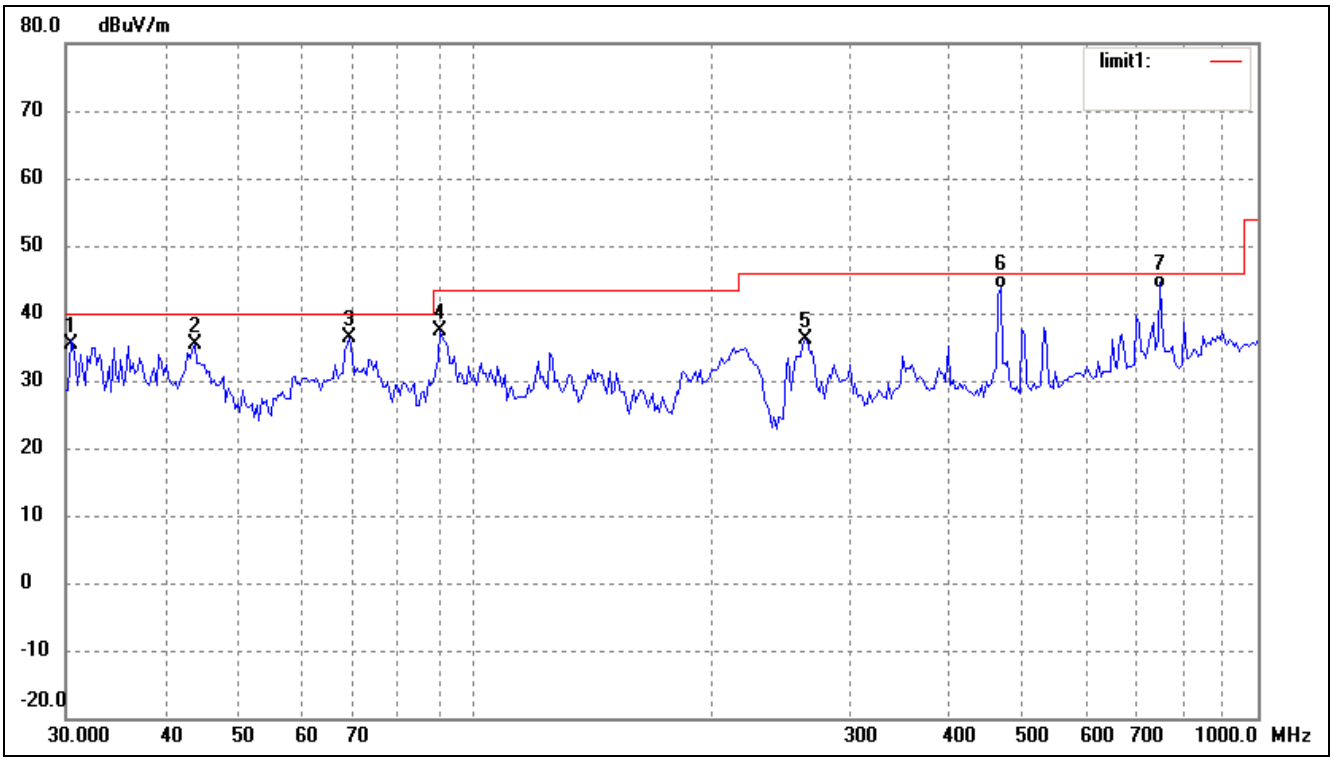
EUT: *Network Camera*
Tested Model: *BABYV0xx*
Operating Condition: *Operating*
Comment: *AC 120V/60Hz; adapter DC 12V*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	36.0007	26.05	9.04	35.09	40.00	-4.91	145	100	peak
2	66.2661	33.73	3.71	37.44	40.00	-2.56	87	100	peak
3	125.4457	35.45	4.46	39.91	43.50	-3.59	66	100	peak
4	221.3920	34.09	6.00	40.09	46.00	-5.91	215	100	peak
5	531.9634	29.23	12.99	42.22	46.00	-3.78	55	100	peak
6	750.1082	24.20	17.78	41.98	46.00	-4.02	26	100	peak
7	912.8619	22.70	18.93	41.63	46.00	-4.37	25	100	peak

Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(°)	(cm)	
1	30.6376	27.14	8.15	35.29	40.00	-4.71	217	100	peak
2	43.8119	26.84	8.53	35.37	40.00	-4.63	66	100	peak
3	69.1140	33.64	2.80	36.44	40.00	-3.56	32	100	peak
4	90.2205	33.03	4.42	37.45	43.50	-6.05	24	100	peak
5	263.8190	28.06	8.00	36.06	46.00	-9.94	360	100	peak
6	468.8761	32.00	11.62	43.62	46.00	-2.38	24	100	QP
7	750.1082	25.80	17.78	43.58	46.00	-2.42	64	100	QP

Spurious Emissions Above 1GHz

Test Mode: 802.11b

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2412MHz							
4824.000	61.6	-3.87	57.73	74.00	-16.27	H	PK
4824.000	43.85	-3.87	39.98	54.00	-14.02	H	AV
7236.000	54.8	1.10	55.90	74.00	-18.1	H	PK
7236.000	41.45	1.10	42.55	54.00	-11.45	H	AV
4824.000	69.18	-3.86	65.32	74.00	-8.68	V	PK
4824.000	50.44	-3.86	46.58	54.00	-7.42	V	AV
7236.000	52.37	1.10	53.47	74.00	-20.53	V	PK
7236.000	42.93	1.10	44.03	54.00	-9.97	V	AV
Middle Channel-2437MHz							
4874.000	60.08	-3.74	56.34	74.00	-17.66	H	PK
4874.000	45	-3.74	41.26	54.00	-12.74	H	AV
7311.000	50.88	1.47	52.35	74.00	-21.65	H	PK
7311.000	38.57	1.47	40.04	54.00	-13.96	H	AV
4874.000	64.13	-3.74	60.39	74.00	-13.61	V	PK
4874.000	49.41	-3.74	45.67	54.00	-8.33	V	AV
7311.000	50.78	1.47	52.25	74.00	-21.75	V	PK
7311.000	38.78	1.47	40.25	54.00	-13.75	V	AV
High Channel-2462MHz							
4924.000	57.14	-3.59	53.55	74.00	-20.45	H	PK
4924.000	43.06	-3.59	39.47	54.00	-14.53	H	AV
7386.000	48.69	1.79	50.48	74.00	-23.52	H	PK
7386.000	40.48	1.79	42.27	54.00	-11.73	H	AV
4924.000	62.32	-3.59	58.73	74.00	-15.27	V	PK
4924.000	46.12	-3.59	42.53	54.00	-11.47	V	AV
7386.000	47.89	1.79	49.68	74.00	-24.32	V	PK
7386.000	39.56	1.79	41.35	54.00	-12.65	V	AV

Test Mode: 802.11g

Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel-2412MHz							
4824.000	62.24	-3.86	58.38	74.00	-15.62	H	PK
4824.000	46.09	-3.86	42.23	54.00	-11.77	H	AV
7236.000	50.48	1.10	51.58	74.00	-22.42	H	PK
7236.000	40.92	1.10	42.02	54.00	-11.98	H	AV
4824.000	68.13	-3.86	64.27	74.00	-9.73	V	PK
4824.000	51.71	-3.86	47.85	54.00	-6.15	V	AV
7236.000	49.17	1.10	50.27	74.00	-23.73	V	PK
7236.000	38.34	1.10	39.44	54.00	-14.56	V	AV
Middle Channel-2437MHz							
4874.000	61.53	-3.74	57.79	74.00	-16.21	H	PK
4874.000	48.32	-3.74	44.58	54.00	-9.42	H	AV
7311.000	50.61	1.47	52.08	74.00	-21.92	H	PK
7311.000	38.87	1.47	40.34	54.00	-13.66	H	AV
4874.000	67.97	-3.74	64.23	74.00	-9.77	V	PK
4874.000	51.31	-3.74	47.57	54.00	-6.43	V	AV
7311.000	51.65	1.47	53.12	74.00	-20.88	V	PK
7311.000	38.9	1.47	40.37	54.00	-13.63	V	AV
High Channel-2462MHz							
4924.000	59.33	-3.59	55.74	74.00	-18.26	H	PK
4924.000	46.97	-3.59	43.38	54.00	-10.62	H	AV
7386.000	54.04	1.79	55.83	74.00	-18.17	H	PK
7386.000	41.45	1.79	43.24	54.00	-10.76	H	AV
4924.000	63.97	-3.59	60.38	74.00	-13.62	V	PK
4924.000	46.15	-3.59	42.56	54.00	-11.44	V	AV
7386.000	46.98	1.79	48.77	74.00	-25.23	V	PK
7386.000	38.16	1.79	39.95	54.00	-14.05	V	AV

Test Mode: 802.11n-HT20

Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel-2412MHz							
4824.000	60.88	-3.86	57.02	74.00	-16.98	H	PK
4824.000	46.25	-3.86	42.39	54.00	-11.61	H	AV
7236.000	53.55	1.10	54.65	74.00	-19.35	H	PK
7236.000	40.17	1.10	41.27	54.00	-12.73	H	AV
4824.000	63.21	-3.86	59.35	74.00	-14.65	V	PK
4824.000	51.42	-3.86	47.56	54.00	-6.44	V	AV
7236.000	52.68	1.10	53.78	74.00	-20.22	V	PK
7236.000	39.14	1.10	40.24	54.00	-13.76	V	AV
Middle Channel-2437MHz							
4874.000	60.07	-3.74	56.33	74.00	-17.67	H	PK
4874.000	44.9	-3.74	41.16	54.00	-12.84	H	AV
7311.000	55.07	1.47	56.54	74.00	-17.46	H	PK
7311.000	41.31	1.47	42.78	54.00	-11.22	H	AV
4874.000	64.04	-3.74	60.30	74.00	-13.7	V	PK
4874.000	50.33	-3.74	46.59	54.00	-7.41	V	AV
7311.000	52.1	1.47	53.57	74.00	-20.43	V	PK
7311.000	38.77	1.47	40.24	54.00	-13.76	V	AV
High Channel-2462MHz							
4924.000	60.09	-3.59	56.50	74.00	-17.5	H	PK
4924.000	46.69	-3.59	43.10	54.00	-10.9	H	AV
7386.000	53.96	1.79	55.75	74.00	-18.25	H	PK
7386.000	39.54	1.79	41.33	54.00	-12.67	H	AV
4924.000	65.09	-3.59	61.50	74.00	-12.5	V	PK
4924.000	50.23	-3.59	46.64	54.00	-7.36	V	AV
7386.000	52.45	1.79	54.24	74.00	-19.76	V	PK
7386.000	40.46	1.79	42.25	54.00	-11.75	V	AV

Test Mode: 802.11n-HT40

Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel-2422MHz							
4844.000	60.07	-3.90	56.17	74.00	-17.83	H	PK
4824.000	48.14	-3.90	44.24	54.00	-9.76	H	AV
7266.000	57.27	1.06	58.33	74.00	-15.67	H	PK
7266.000	43.24	1.06	44.30	54.00	-9.7	H	AV
4844.000	64.33	-3.90	60.43	74.00	-13.57	V	PK
4824.000	50.63	-3.90	46.73	54.00	-7.27	V	AV
7266.000	52.21	1.06	53.27	74.00	-20.73	V	PK
7266.000	41.24	1.06	42.30	54.00	-11.7	V	AV
Middle Channel-2437MHz							
4874.000	59.39	-3.74	55.65	74.00	-18.35	H	PK
4874.000	45.26	-3.74	41.52	54.00	-12.48	H	AV
7311.000	52.11	1.47	53.58	74.00	-20.42	H	PK
7311.000	39.76	1.47	41.23	54.00	-12.77	H	AV
4874.000	63.77	-3.74	60.03	74.00	-13.97	V	PK
4874.000	49	-3.74	45.26	54.00	-8.74	V	AV
7311.000	49.86	1.47	51.33	74.00	-22.67	V	PK
7311.000	39.31	1.47	40.78	54.00	-13.22	V	AV
High Channel-2452MHz							
4904.000	58.07	-3.63	54.44	74.00	-19.56	H	PK
4904.000	46.96	-3.63	43.33	54.00	-10.67	H	AV
7356.000	52.96	1.62	54.58	74.00	-19.42	H	PK
7356.000	41.02	1.62	42.64	54.00	-11.36	H	AV
4904.000	64.86	-3.63	61.23	74.00	-12.77	V	PK
4904.000	48.3	-3.63	44.67	54.00	-9.33	V	AV
7356.000	50.71	1.62	52.33	74.00	-21.67	V	PK
7356.000	41.87	1.62	43.49	54.00	-10.51	V	AV

Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, which above 5th Harmonics are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
The measurements greater than 20dB below the limit from 9kHz to 30MHz.

9. Out of Band Emissions

9.1 Standard Applicable

According to §15.247 (d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated 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 band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. 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).

9.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
Spectrum Analyzer	R&S	FSP	836079/035	2012-03-28	2013-03-27
EMI Test Receiver	R&S	ESVB	825471/005	2012-03-28	2013-03-27
Pre-amplifier	Agilent	8447F	3113A06717	2012-03-28	2013-03-27
Pre-amplifier	Compliance Direction	PAP-0118	24002	2012-03-28	2013-03-27
Trilog Broadband Antenna	SCHWARZBECK	VULB9163	9163-333	2012-02-25	2013-02-24
Horn Antenna	ETS	3117	00086197	2012-02-25	2013-02-24

9.3 Test Procedure

According to the KDB 558074, the band-edge radiated test method as follows:

Set span = wide enough to capture the peak level of the emission operating on the channel closest to the bandedge, as well as any modulation products which fall outside of the authorized band of operation (2310MHz to 2420MHz for low bandedge, 2460MHz to 2500MHz for the high bandedge)
RBW = 1MHz, VBW = 1MHz for peak value measured
RBW = 1MHz, VBW = 10Hz for average value measured
Sweep = auto; Detector function = peak/average; Trace = max hold

All the trace to stabilize, set the marker on the emission at the bandedge, or on the highest modulation porduct outside of the band, if this level is greater than that at the bandedge. Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. Those emission must comply with the 15.209 limit for fall in the restricted bands listed in section 15.205. Note that the method of measurement KDB publication number: 913591 may be used for the radiated bandedge measurements.

9.4 Environmental Conditions

Temperature:	23°C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

9.5 Summary of Test Results/Plots

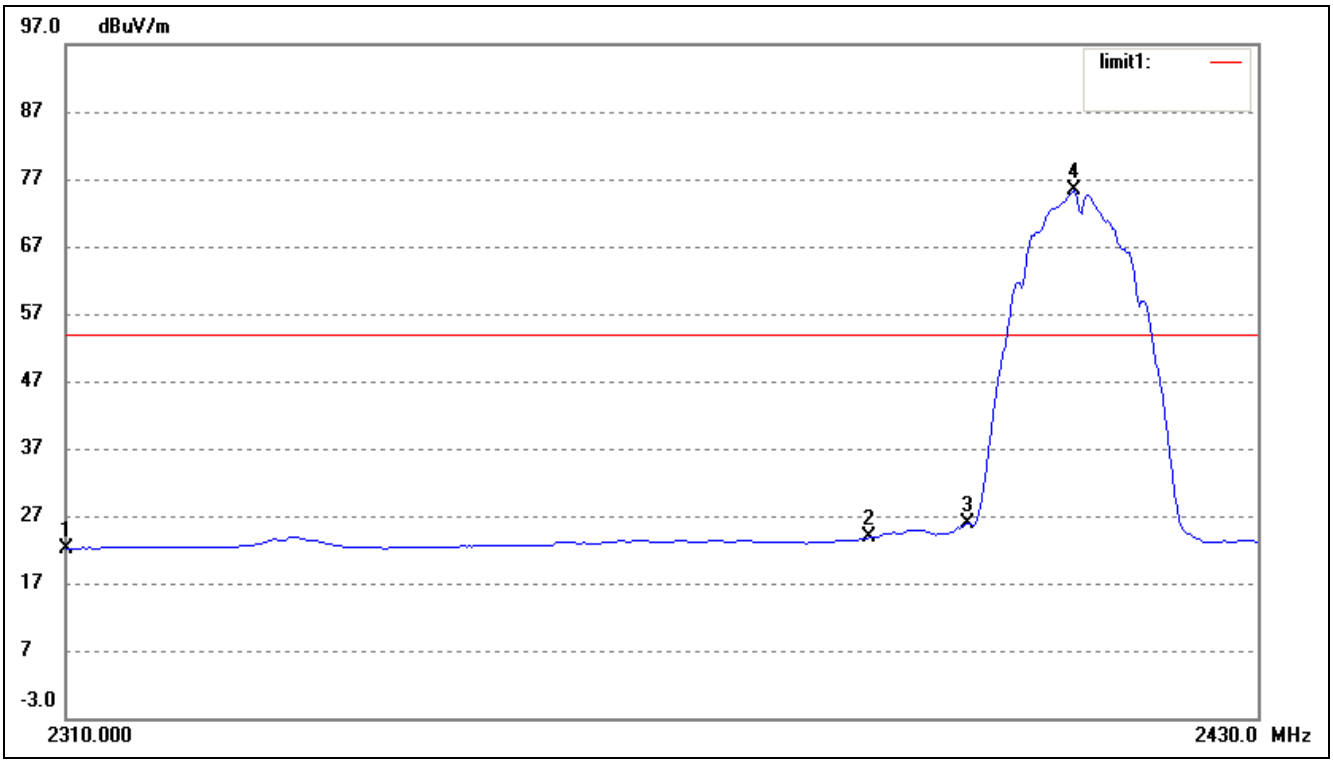
Test Mode	Test Frequency MHz	Limit dBuV / dBc	Result
802.11b	2310.00	<54 dBuV	Pass
	2390.00	<54 dBuV	Pass
	2400.00	>20dBc	Pass
	2483.50	<54 dBuV	Pass
802.11g	2310.00	<54 dBuV	Pass
	2390.00	<54 dBuV	Pass
	2400.00	>20dBc	Pass
	2483.50	<54 dBuV	Pass
802.11n-HT20	2310.00	<54 dBuV	Pass
	2390.00	<54 dBuV	Pass
	2400.00	>20dBc	Pass
	2483.50	<54 dBuV	Pass
802.11n-HT40	2310.00	<54 dBuV	Pass
	2390.00	<54 dBuV	Pass
	2396.94	<54 dBuV	Pass
	2400.00	>20dBc	Pass
	2483.50	<54 dBuV	Pass

The edge emissions are below the FCC 15.209 Limits or complies with the 15.247(d) requirements.

Please refer to the test plots as below.

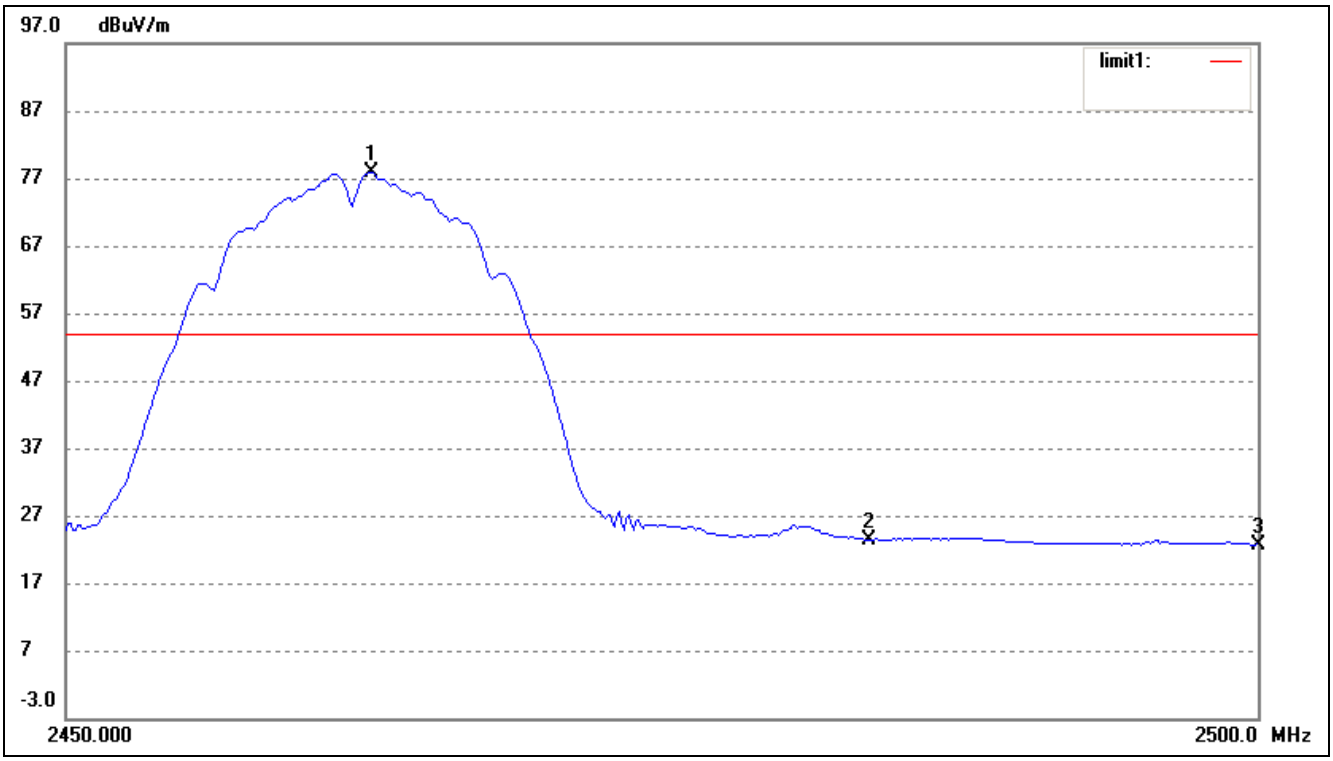
Bandedge (Radiated)

802.11b-Lowest Bandedge



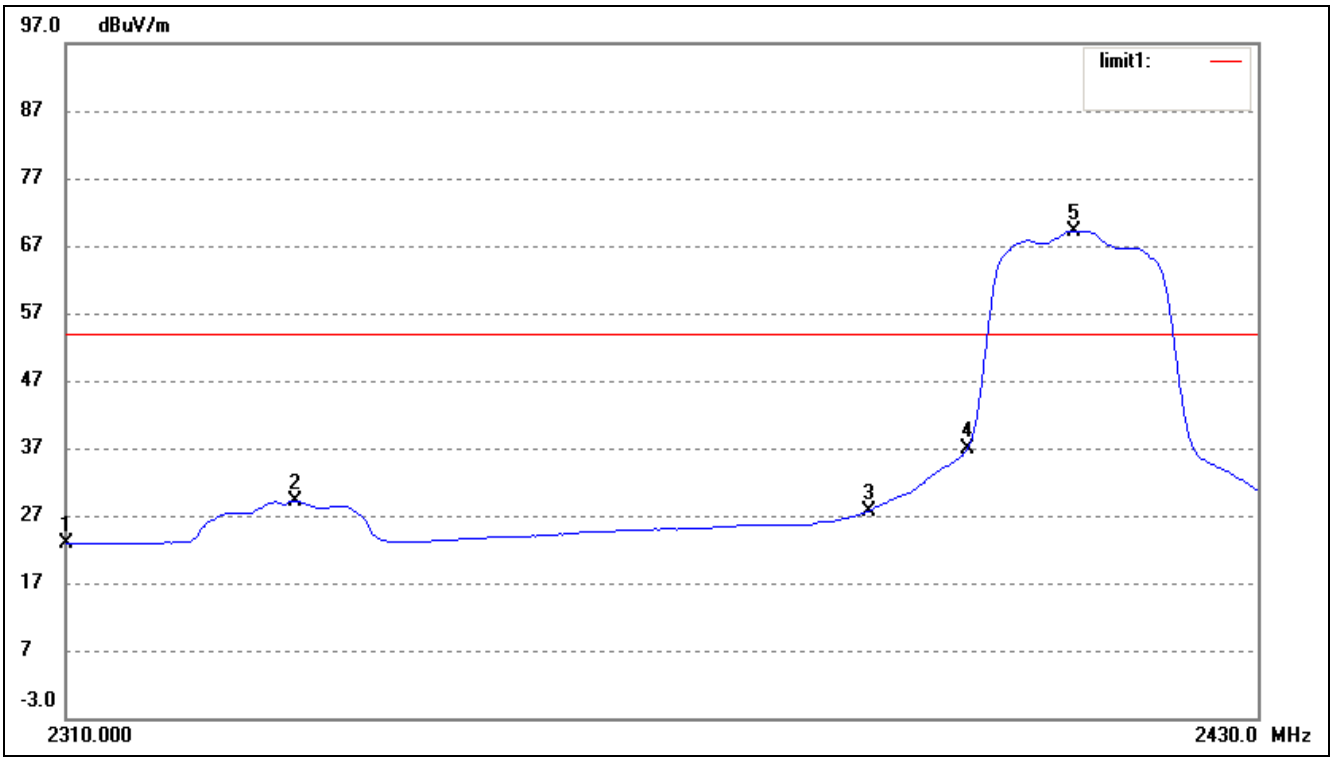
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	33.93	-11.72	22.21	54.00	-31.79	Average Detector
	2310.000	48.02	-11.72	36.30	74.00	-37.70	Peak Detector
2	2390.000	35.53	-11.75	23.78	54.00	-30.22	Average Detector
	2390.000	50.99	-11.75	39.24	74.00	-34.76	Peak Detector
3	2400.000	37.51	-11.75	25.76	Delta=49.55		Average Detector
4	2411.122	87.06	-11.75	75.31			Average Detector

802.11b-Highest Bandedge



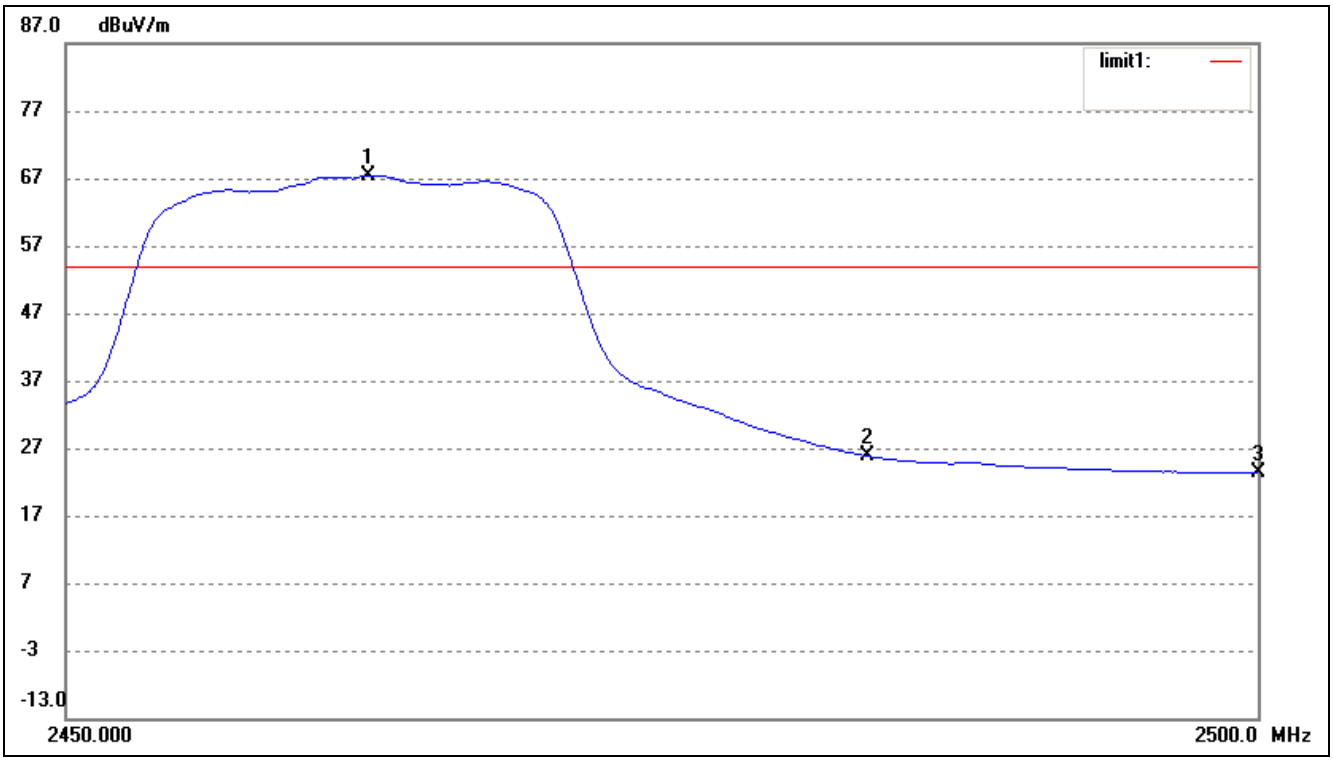
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2483.500	Delta=56.52		21.44	54.00	-32.56	Average Detector
	2483.500			35.07	74.00	-38.93	Peak Detector
2	2500.000	34.53	-11.78	22.75	54.00	-31.25	Average Detector
	2500.000	47.85	-11.78	36.07	74.00	-37.93	Peak Detector
3	2462.704	89.74	-11.78	77.96	/	/	Average Detector
	2462.704	94.72	-11.78	91.59	/	/	Peak Detector

802.11g-Lowest Bandedge



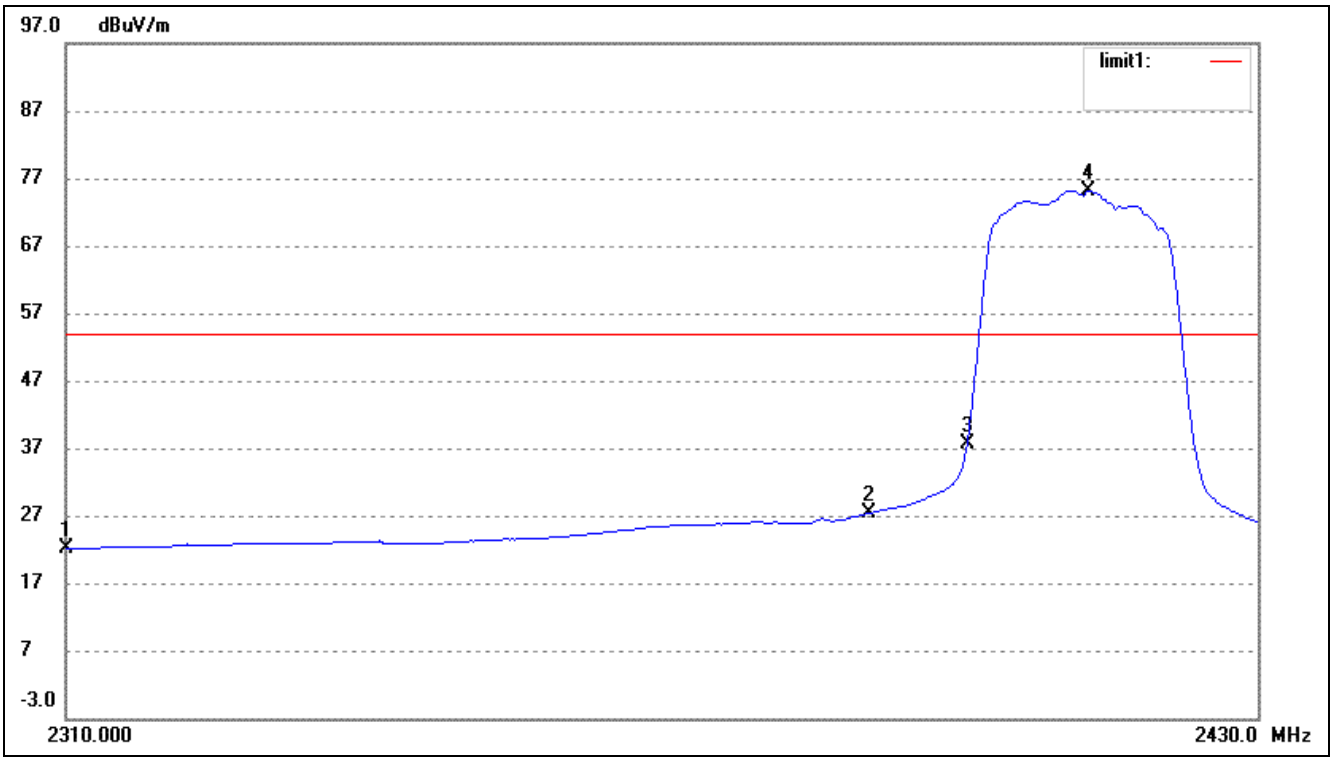
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	34.52	-11.72	22.80	54.00	-31.20	Average Detector
	2310.000	46.84	-11.72	35.12	74.00	-38.88	Peak Detector
2	2332.571	40.96	-11.73	29.23	54.00	-24.77	Average Detector
	2332.571	56.28	-11.73	44.55	74.00	-29.45	Peak Detector
3	2390.000	39.47	-11.75	27.72	54.00	-26.28	Average Detector
	2390.000	56.99	-11.75	45.24	74.00	-28.76	Peak Detector
4	2400.000	48.61	-11.75	36.86	Delta=32.37		Average Detector
5	2411.122	80.98	-11.75	69.23			Average Detector

802.11g-Highest Bandedge



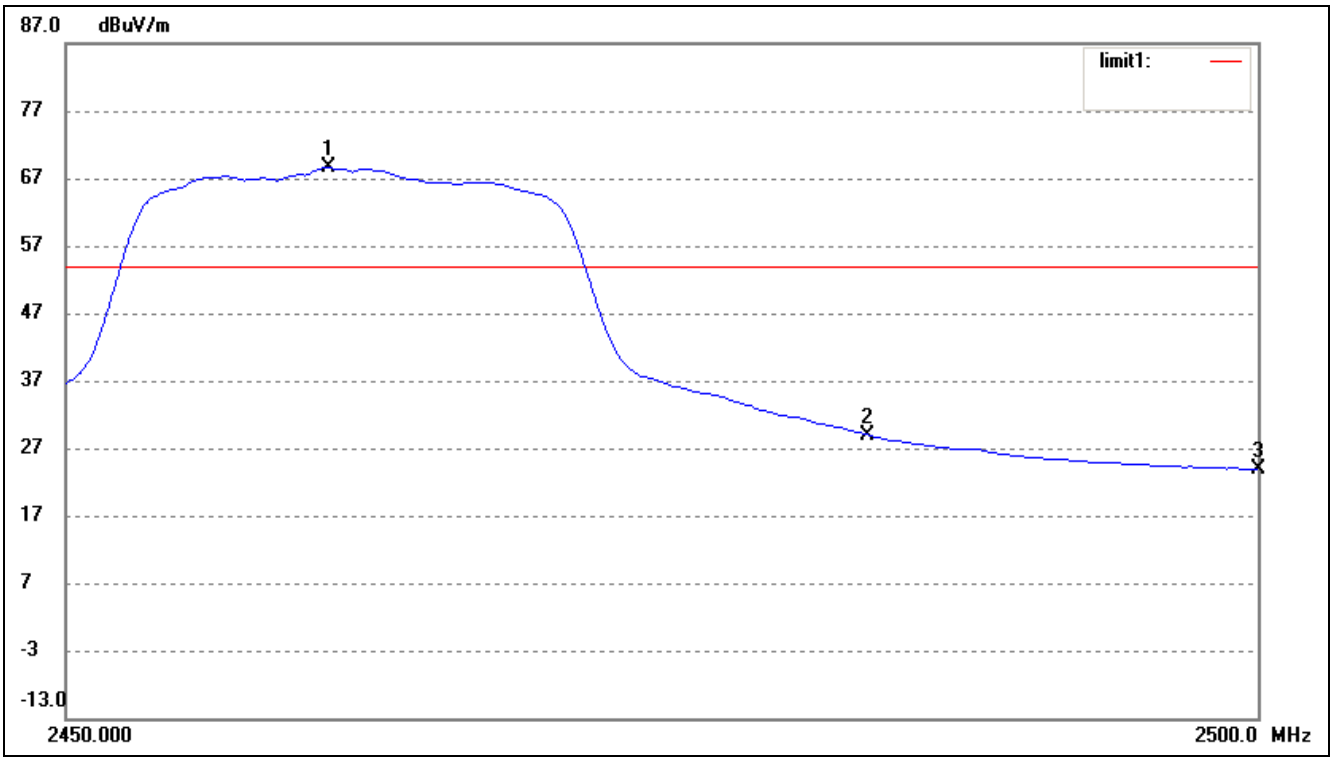
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2462.604	79.24	-11.78	67.46	/	/	Average Detector
	2462.604	101.92	-11.77	90.15	/	/	Peak Detector
2	2483.500	Delta=43.98		23.48	54.00	-30.52	Average Detector
	2483.500			46.17	74.00	-27.83	Peak Detector
3	2500.000	35.15	-11.78	23.37	54.00	-30.63	Average Detector
	2500.000	47.66	-11.78	35.88	74.00	-38.12	Peak Detector

802.11n-HT20-Lowest Bandedge



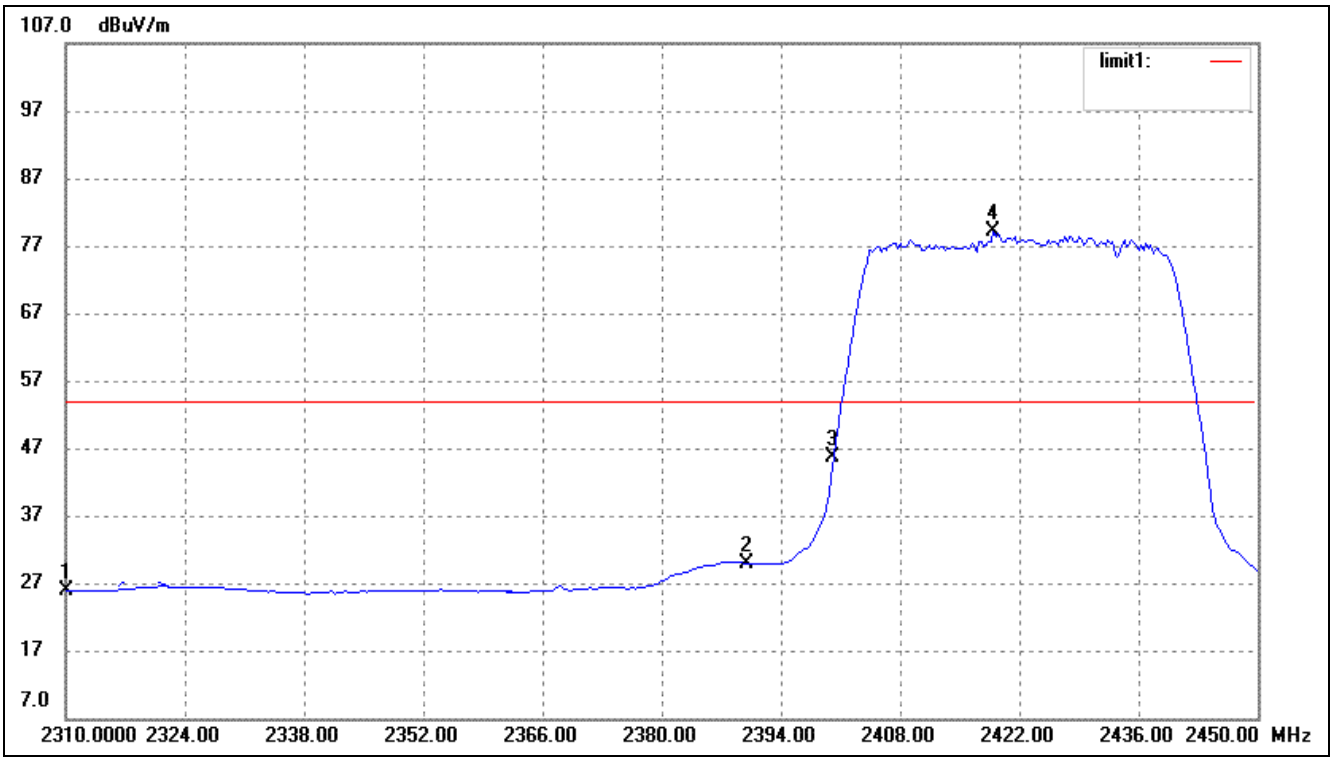
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	33.91	-11.72	22.19	54.00	-31.81	Average Detector
	2310.000	47.64	-11.72	35.92	74.00	-38.08	Peak Detector
2	2390.000	39.10	-11.75	27.35	54.00	-26.65	Average Detector
	2390.000	55.40	-11.75	43.65	74.00	-30.35	Peak Detector
3	2400.000	49.37	-11.75	37.62	Delta=37.57		Average Detector
4	2412.588	86.95	-11.76	75.19			Average Detector

802.11 n-HT20-Highest Bandedge



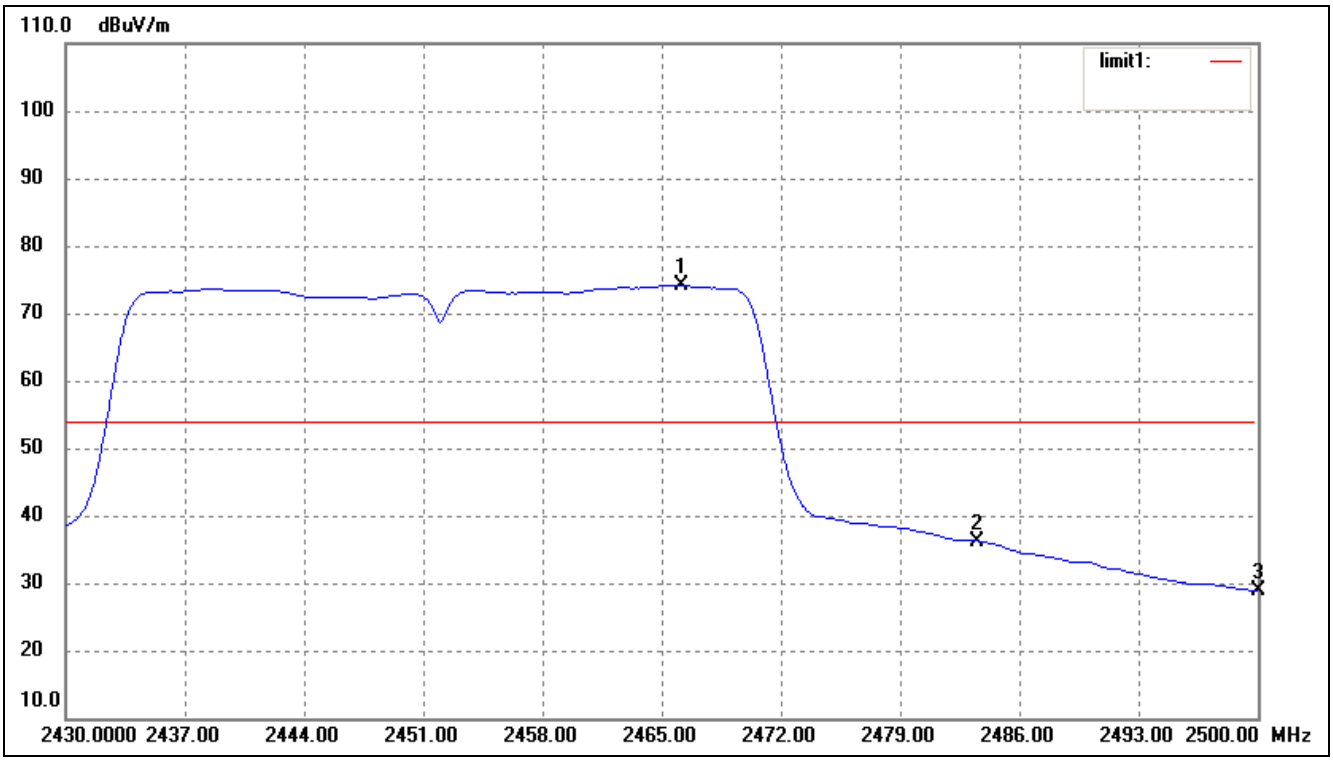
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2460.914	80.39	-11.77	68.62	/	/	Average Detector
	2459.919	103.75	-11.77	91.98	/	/	Peak Detector
2	2483.500	Delta=42.78		25.84	54.00	-28.16	Average Detector
	2483.500			49.20	74.00	-24.80	Peak Detector
3	2500.000	35.71	-11.78	23.93	54.00	-30.07	Average Detector
	2500.000	48.32	-11.78	36.54	74.00	-37.46	Peak Detector

802.11n-HT40-Lowest Bandedge



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	37.53	-11.72	25.81	54.00	-28.19	Average Detector
	2310.000	53.03	-11.72	41.31	74.00	-32.69	Peak Detector
2	2390.000	41.54	-11.75	29.79	54.00	-24.21	Average Detector
	2390.000	62.75	-11.75	51.00	74.00	-23.00	Peak Detector
3	2400.000	57.30	-11.75	45.55	Delta=33.70		Average Detector
4	2418.920	91.01	-11.76	79.25			Average Detector

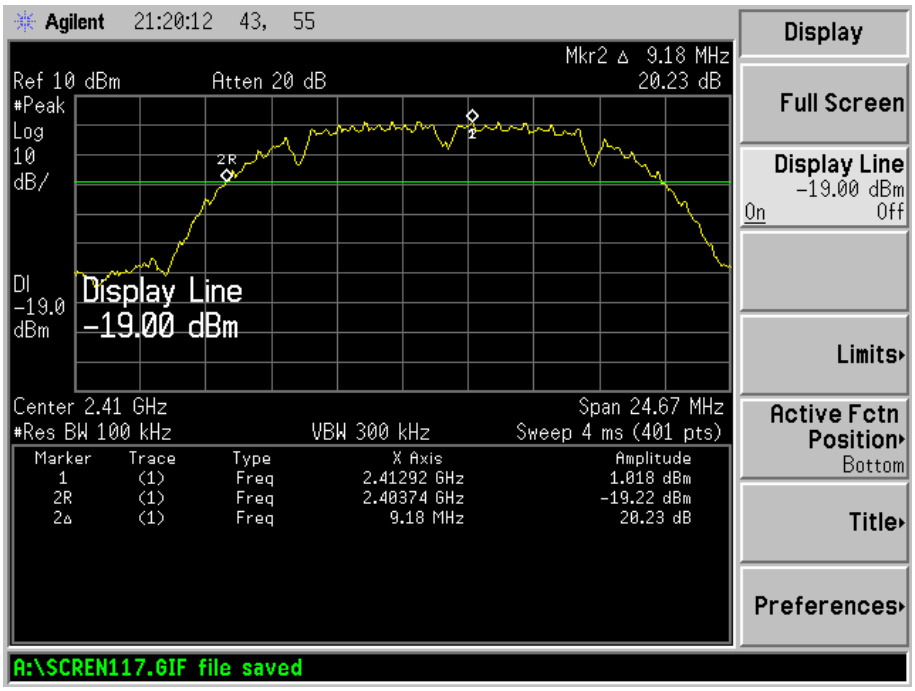
802.11n-HT40-Highest Bandedge



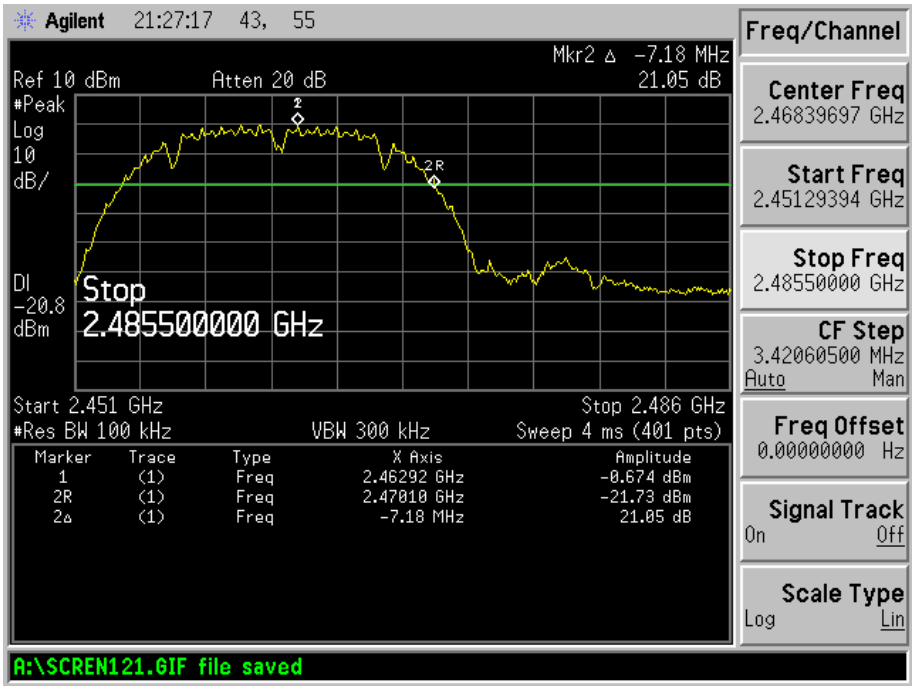
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2466.120	85.82	-11.77	74.05	/	/	Average Detector
	2465.100	98.31	-11.77	86.54	/	/	Peak Detector
2	2483.500	Delta=45.93		28.12	54.00	-25.88	Average Detector
	2483.500			40.61	74.00	-33.39	Peak Detector
3	2500.000	40.56	-11.78	28.78	54.00	-25.22	Average Detector
	2500.000	52.01	-11.78	40.23	74.00	-33.77	Peak Detector

Bandedge (Conducted)

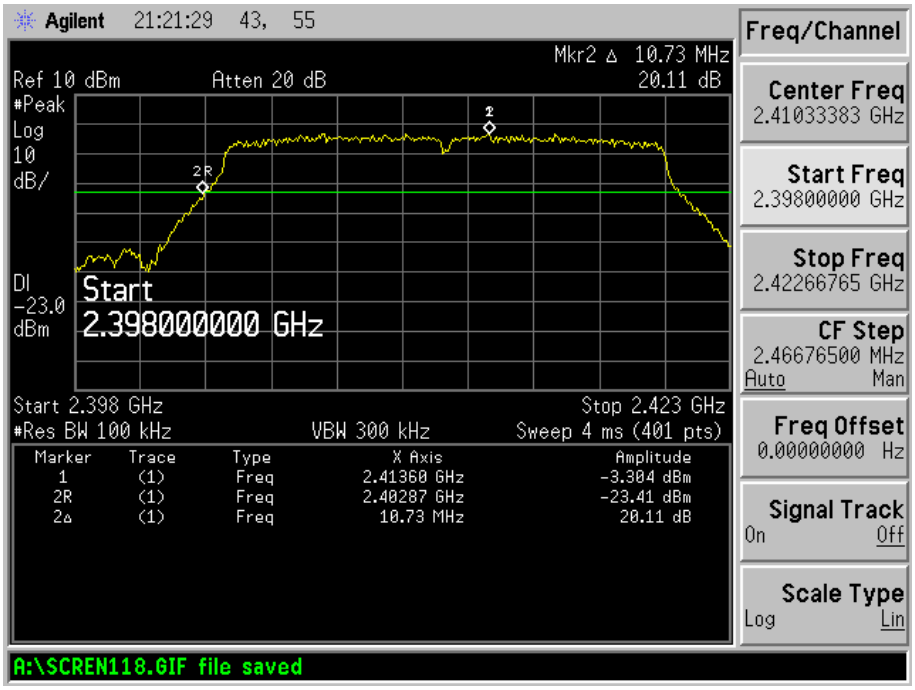
802.11b-Lowest Bandedge



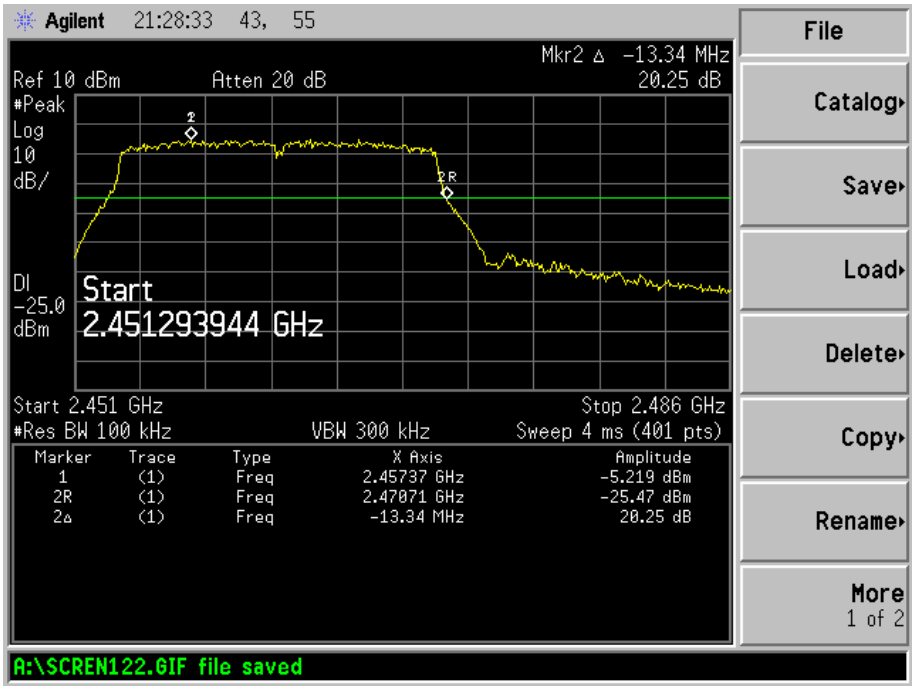
802.11b-Highest Bandedge



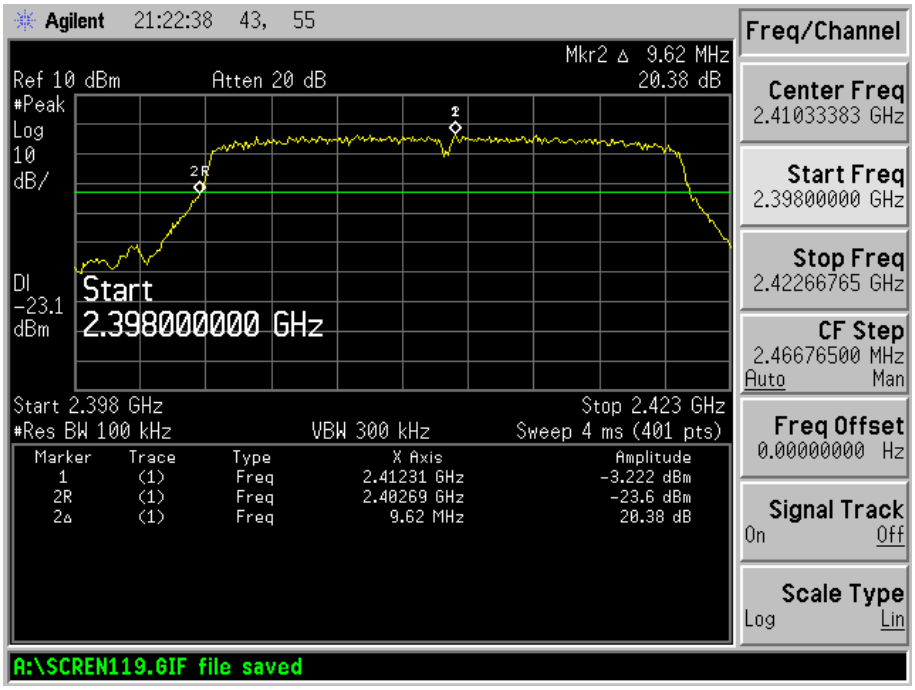
802.11g-Lowest Bandedge



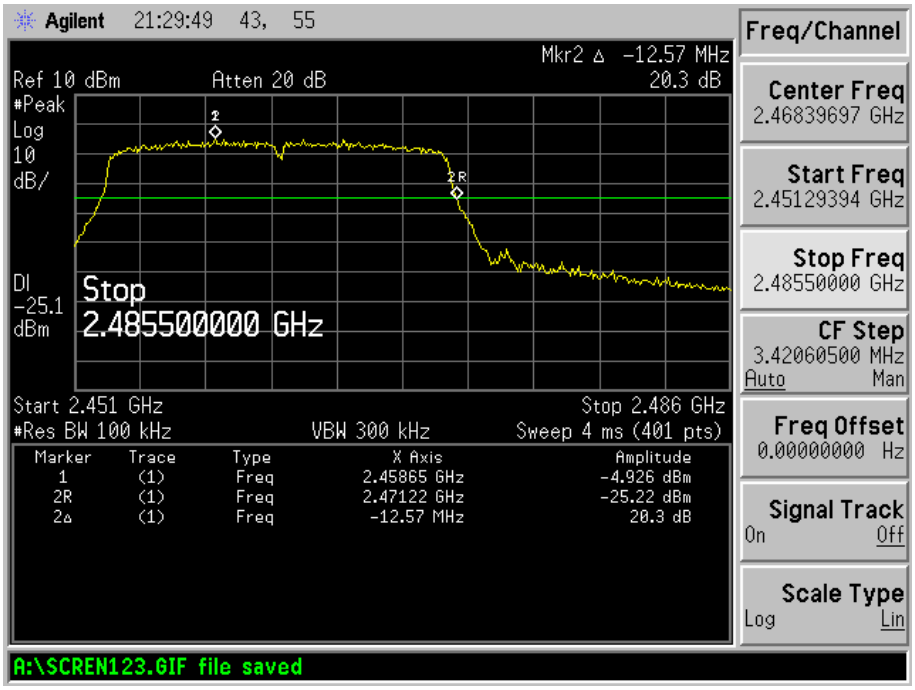
802.11g-Highest Bandedge



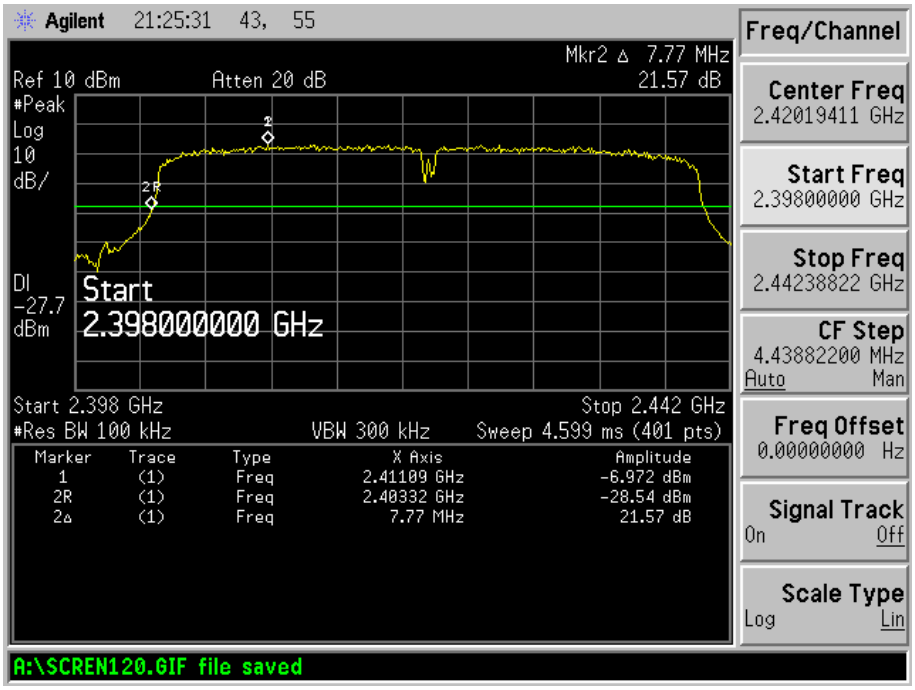
802.11n-HT20-Lowest Bandedge



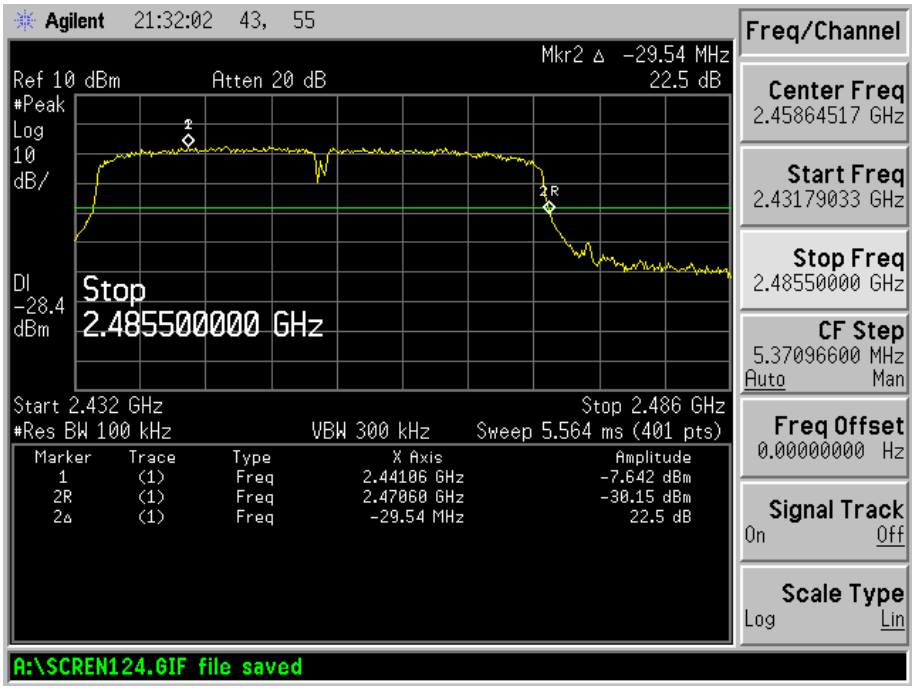
802.11n-HT20-Highest Bandedge



802.11n-HT40-Lowest Bandedge

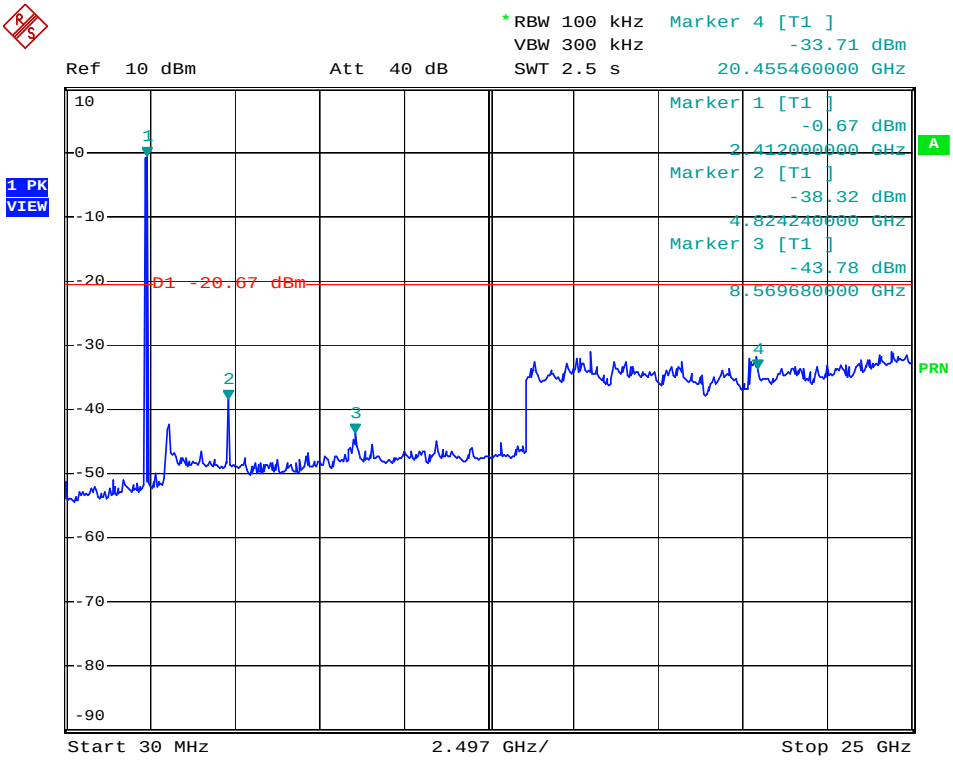


802.11n-HT40-Highest Bandedge

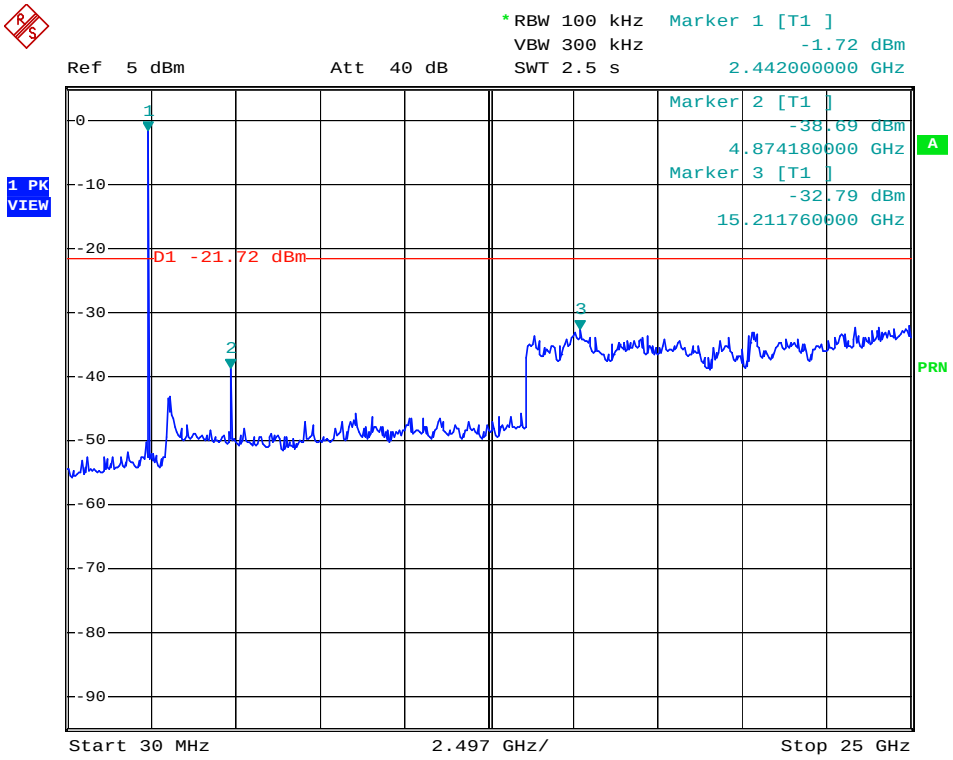


Conducted Spurious Emission

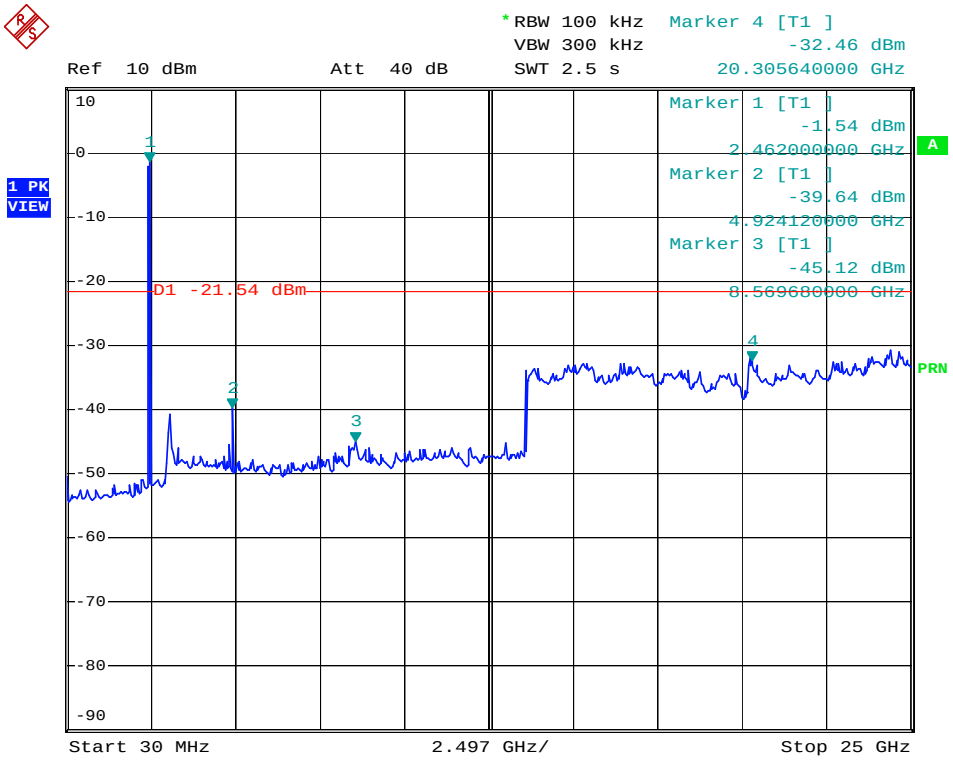
802.11b_Low Channel



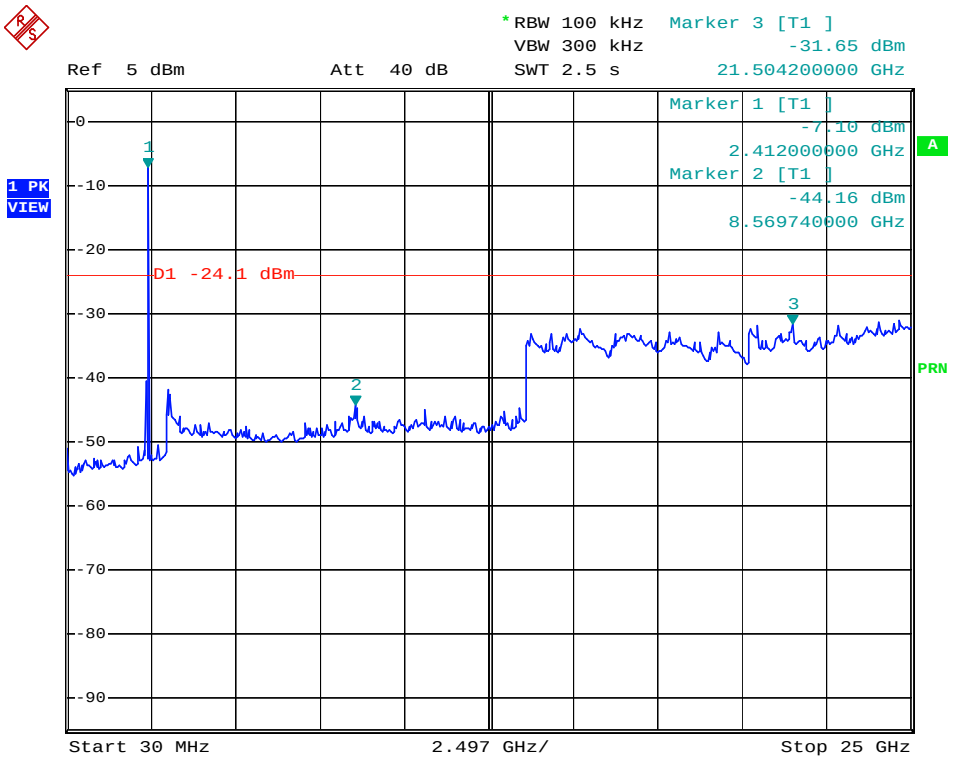
802.11b_Middle Channel



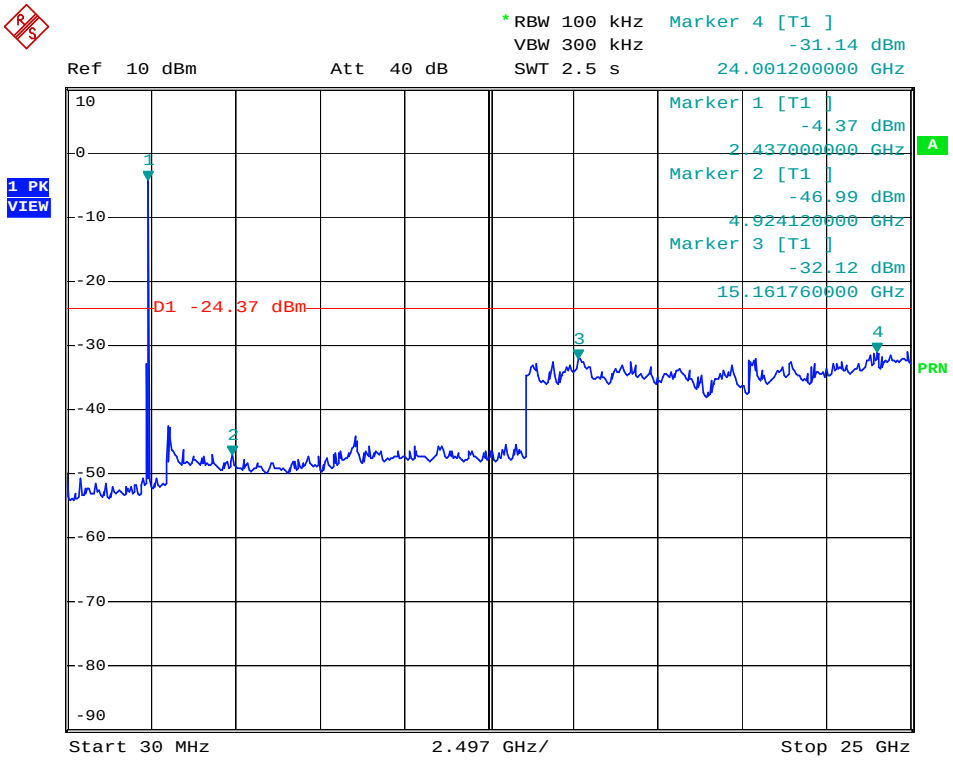
802.11b_High Channel



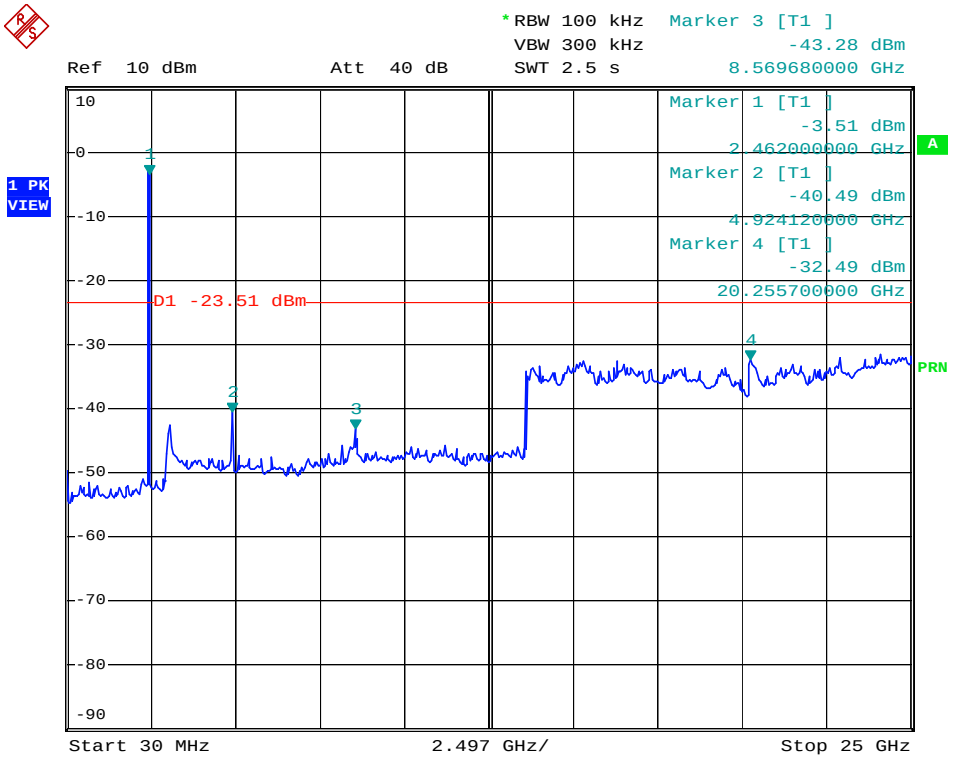
802.11g_Low Channel



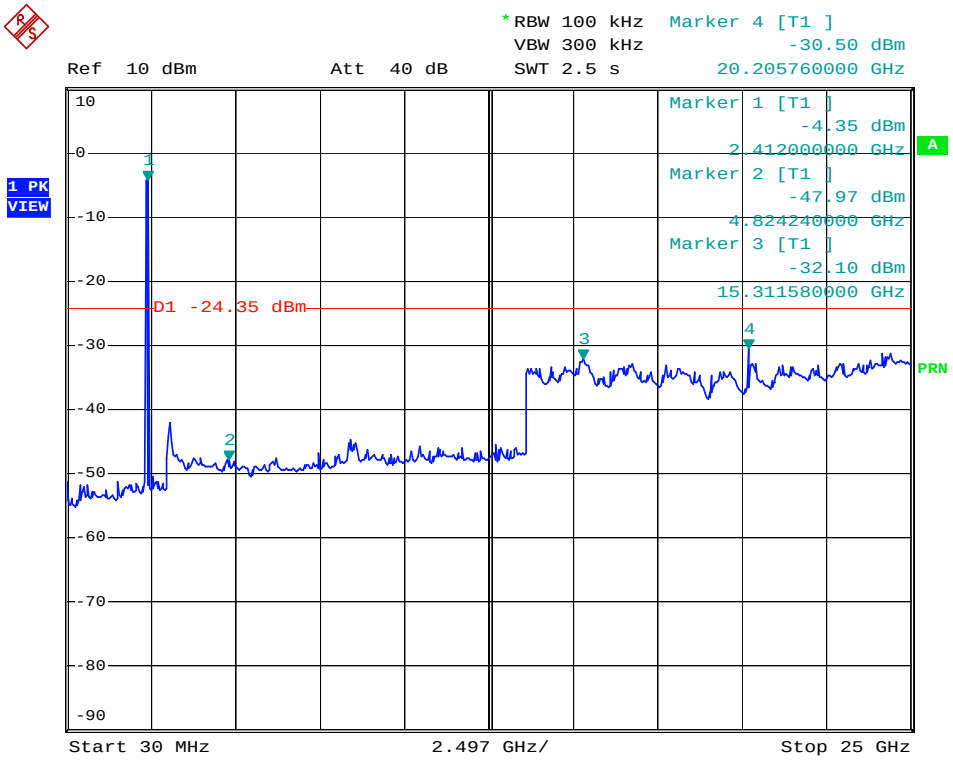
802.11g_Middle Channel



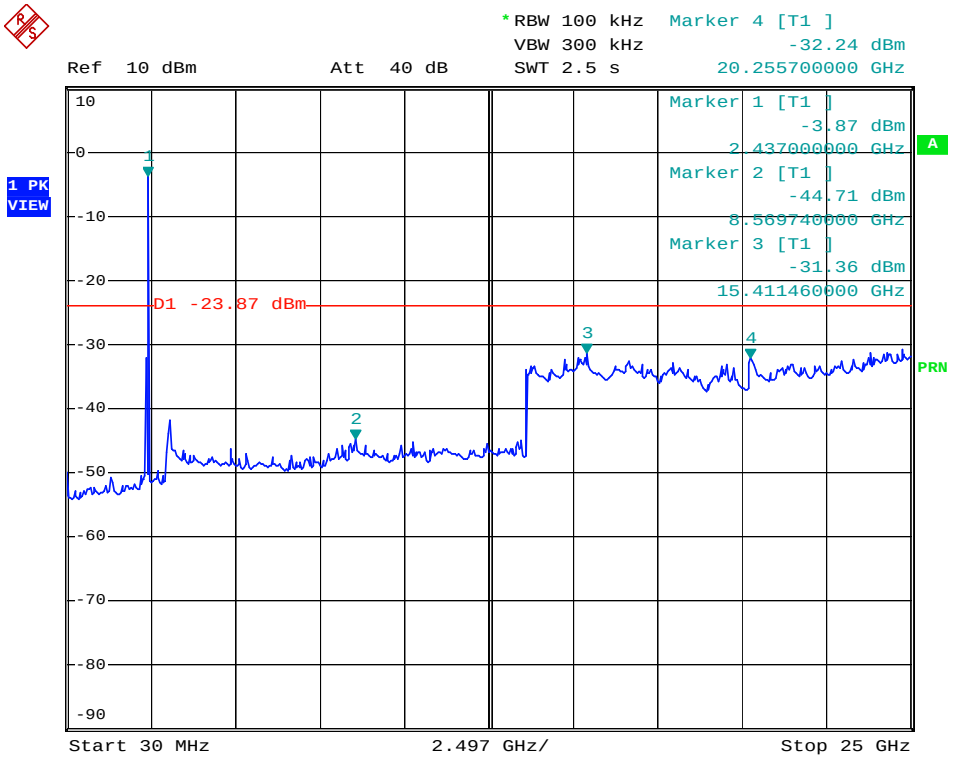
802.11g_High Channel



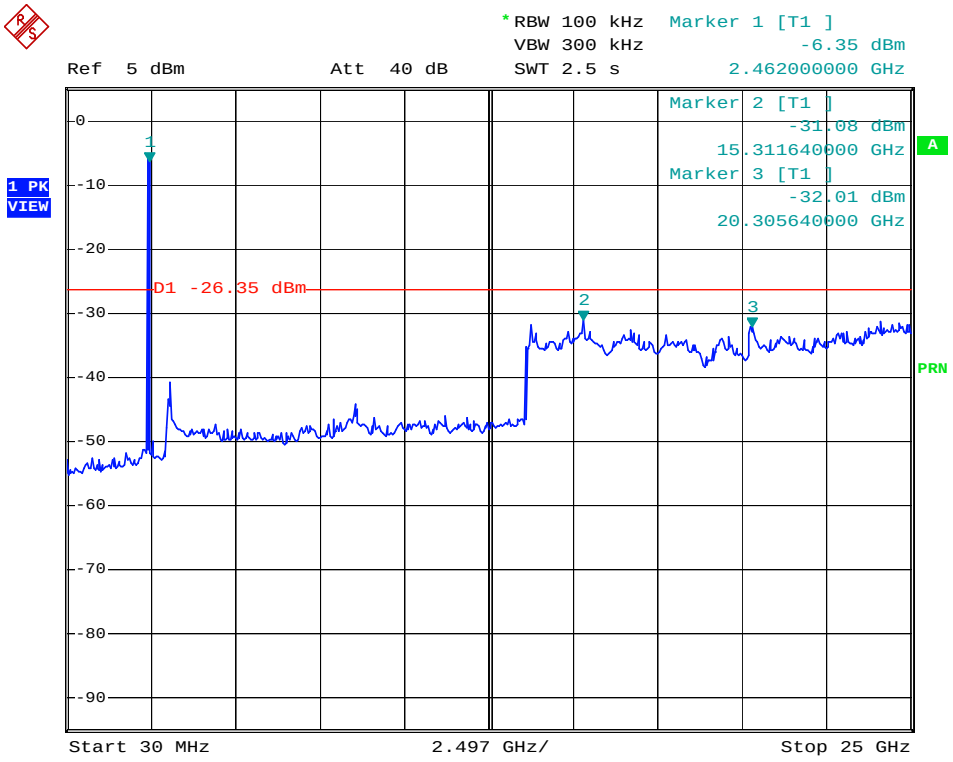
802.11n-HT20_Low Channel



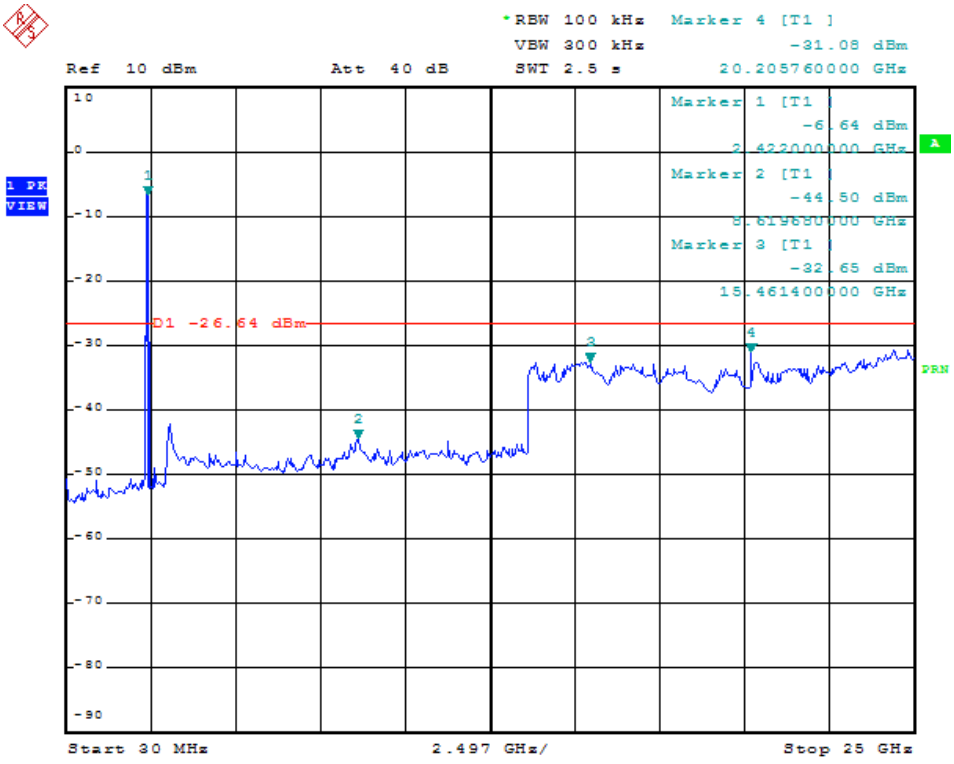
802.11n-HT20_Middle Channel



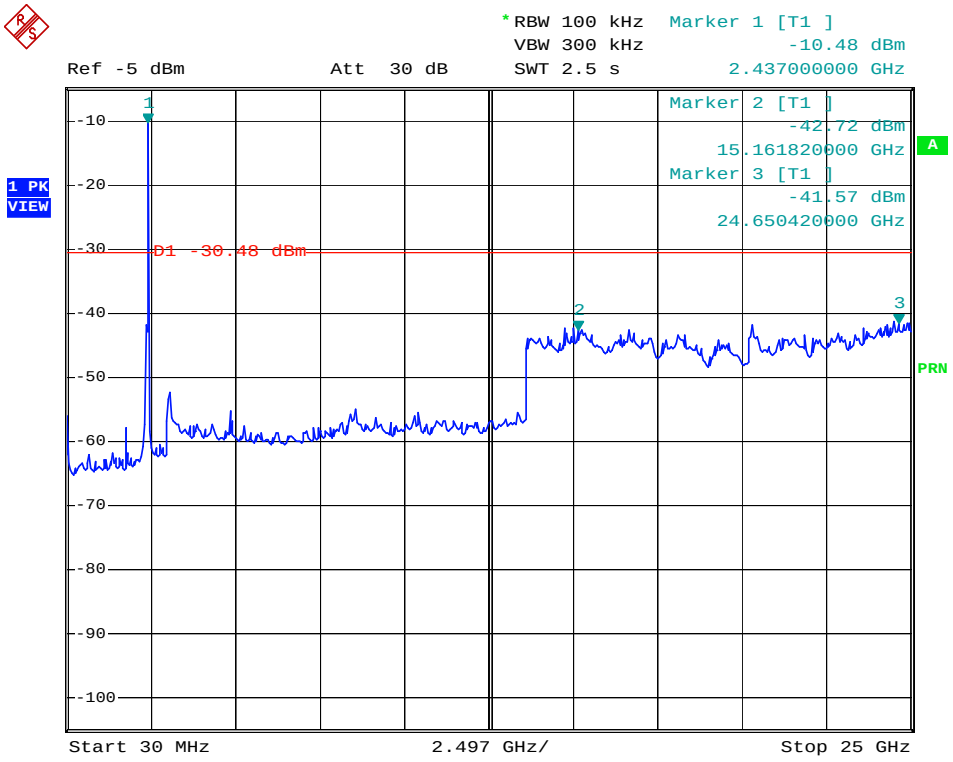
802.11n-HT20_High Channel



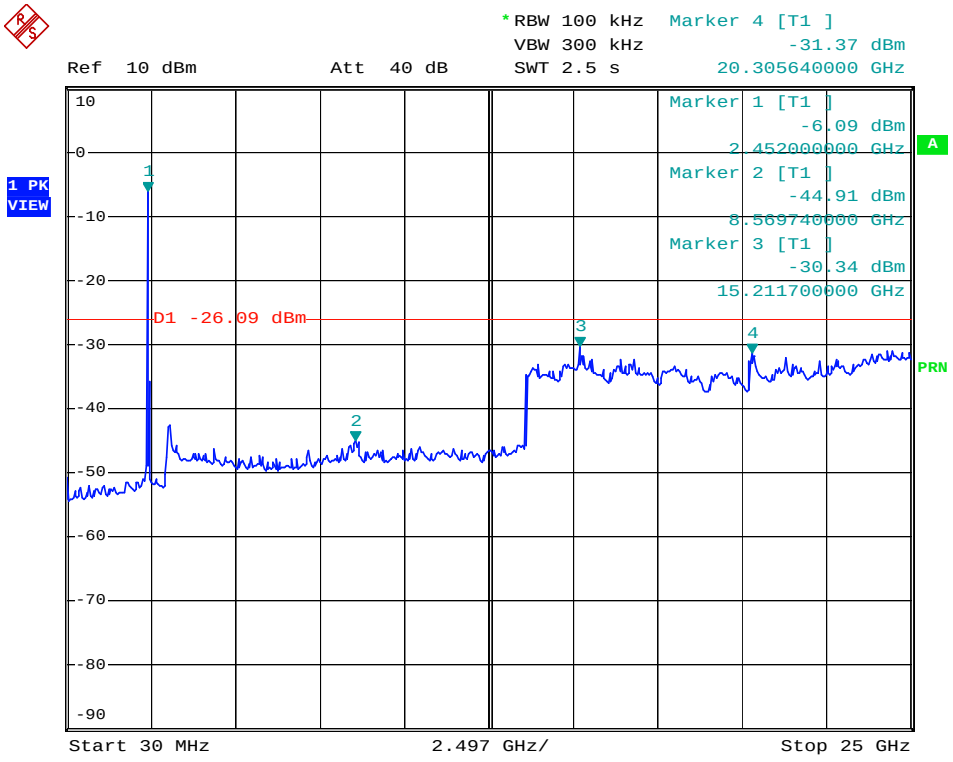
802.11n-HT40_Low Channel



802.11n-HT40_Middle Channel



802.11n-HT40_High Channel



10. Conducted Emissions

10.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement is ± 2.88 dB.

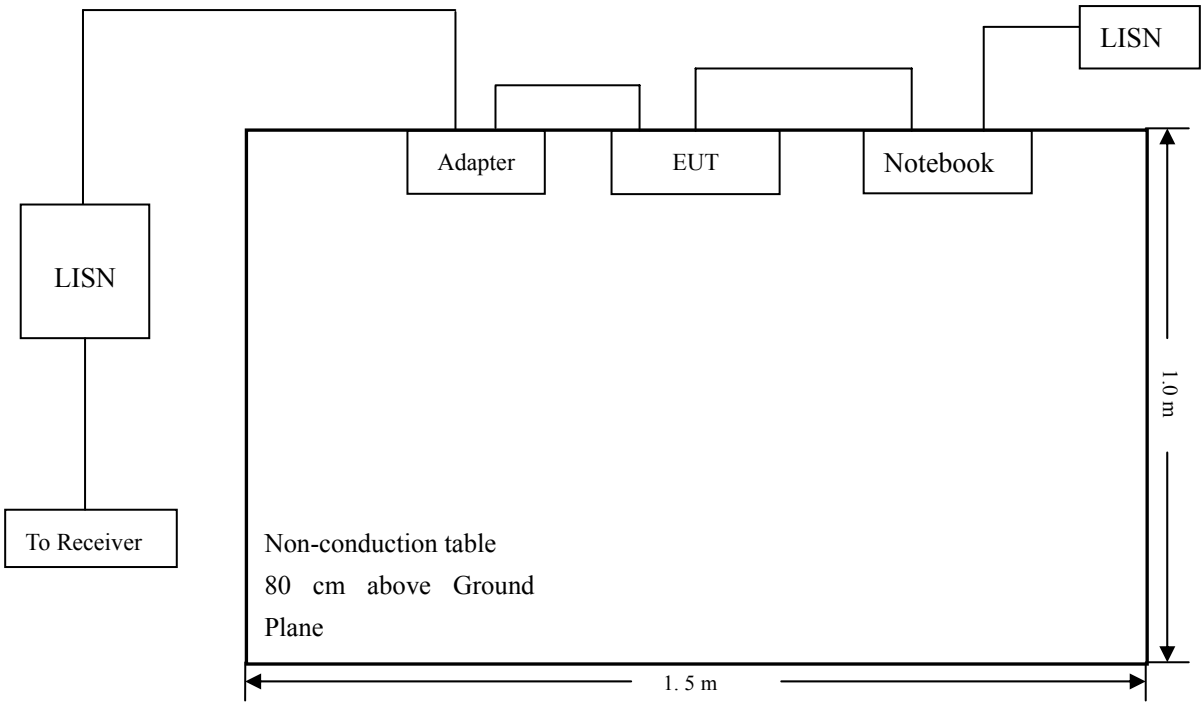
10.2 Test Equipment List and Details

Description	Manufacturer	Model	Serial Number	Cal. Date	Due. Date
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2012-03-28	2013-03-27
L.I.S.N	Schwarz beck	NSLK8126	8126-224	2012-03-28	2013-03-27
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2012-03-28	2013-03-27

10.3 Test Procedure

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15.207 Limit.
The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.
The spacing between the peripherals was 10 cm.

10.4 Basic Test Setup Block Diagram



10.5 Environmental Conditions

Temperature:	25 °C
Relative Humidity:	52%
ATM Pressure:	1012 mbar

10.6 Test Receiver Setup

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

Start Frequency ..... 150 kHz
Stop Frequency..... 30 MHz
Sweep Speed ..... Auto
IF Bandwidth..... 10 kHz
Quasi-Peak Adapter Bandwidth ..... 9 kHz
Quasi-Peak Adapter Mode ..... Normal

10.7 Summary of Test Results/Plots

According to the data in section 10.8, the EUT complied with the FCC Part 15.207 Conducted margin for a Class B device, with the *worst* margin reading of:

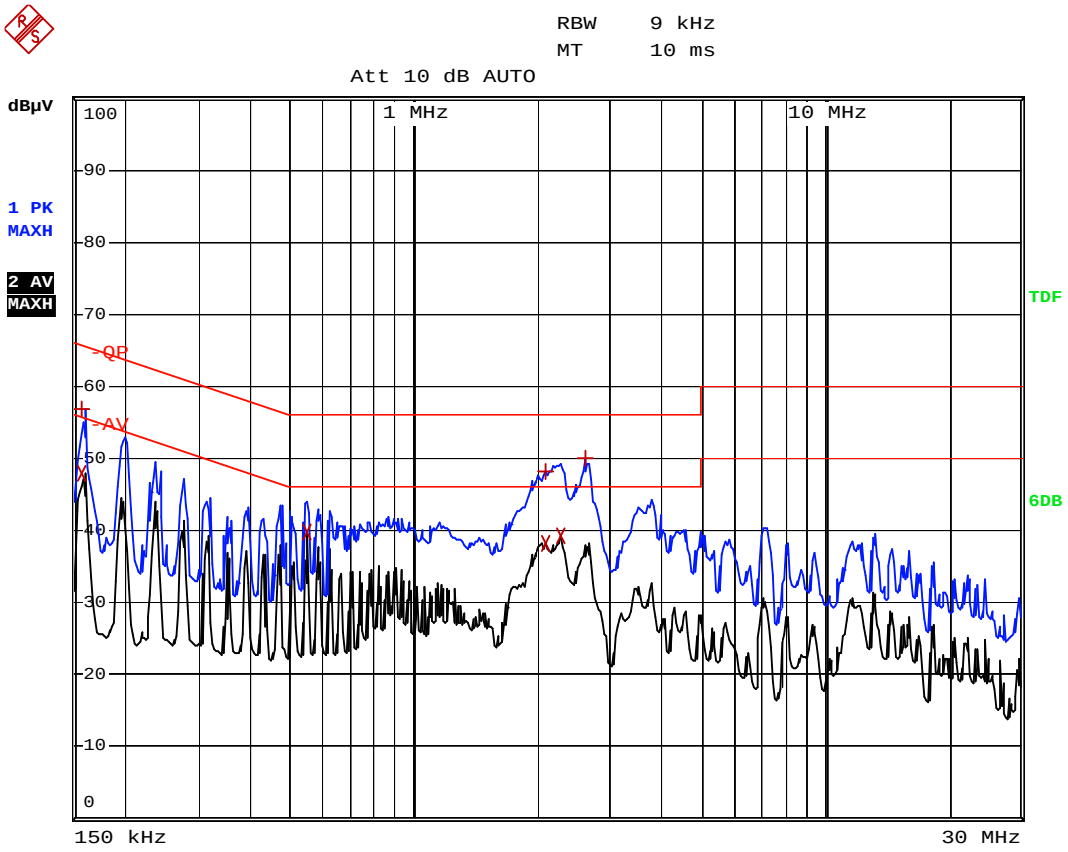
-4.37 dB at 2.314 MHz in the **Line** mode**, Peak** detector, **0.15-30MHz**

10.8 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

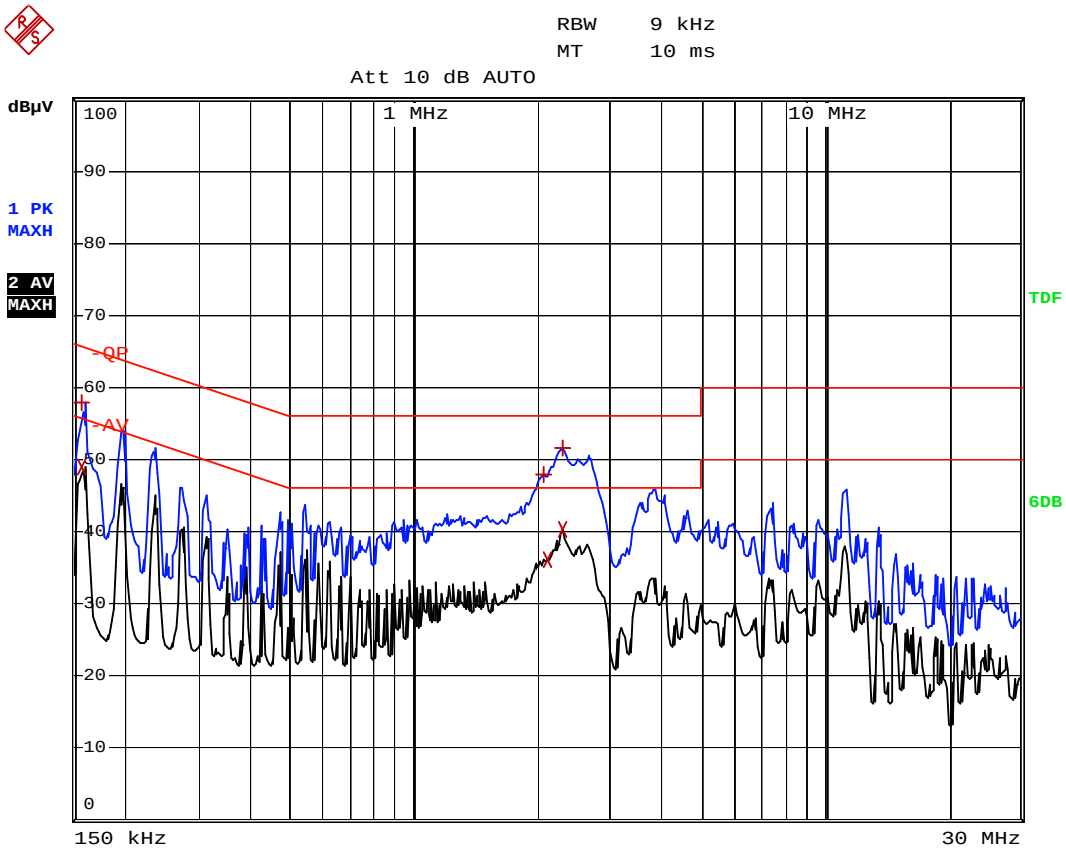
EUT: *Network Camera*
Tested Model: *BABYV0xx*
Operating Condition: *Operating*
Comment: *120V/60Hz, DC12V adapter*

Test Specification: *Neutral*



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Max Peak	158 kHz	56.87	-8.69
2 Average	158 kHz	47.98	-7.58
2 Average	546 kHz	39.75	-6.24
2 Average	2.086 MHz	38.25	-7.74
1 Max Peak	2.102 MHz	48.29	-7.70
2 Average	2.27 MHz	39.14	-6.85
1 Max Peak	2.622 MHz	50.12	-5.87

Test Specification: *Line*



EDIT PEAK LIST (Prescan Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dBµV	DELTA LIMIT dB
1 Max Peak	158 kHz	57.97	-7.58
2 Average	158 kHz	49.01	-6.55
1 Max Peak	2.066 MHz	47.96	-8.03
2 Average	2.118 MHz	36.21	-9.78
2 Average	2.306 MHz	40.33	-5.66
1 Max Peak	2.314 MHz	51.62	-4.37

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