FCC Part 15C
Measurement and Test Report

For

DDC TRADING INC

2480 NW 20th Street #D Miami, Floriad 33142, USA.

FCC ID: 2AGF3-E5

FCC Rule(s):	FCC Part 15C
Product Description:	Mobile phone
Tested Model:	E5
Report No.:	STR16068113I-2
Tested Date:	2016-06-10 to 2016-07-06
Issued Date:	2016-07-09
Tested By:	Irving Liu / Engineer
Reviewed By:	Silin Chen / 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: DDC TRADING INC
Address of applicant: 2480 NW 20th Street #D Miami, Floriad 33142, USA.

Manufacturer: DDC TRADING INC
Address of manufacturer: 2480 NW 20th Street #D Miami, Floriad 33142, USA.

General Description of EUT:	
Product Name:	Mobile phone
Brand Name:	DDC
Model No.:	E5
Hardware version:	H103B
Software version:	1490D.K600.DDC.160505.ALPS.L1.MP6.V2_BIRD6580.WEG.A.L.MV88.B125
IMEI:	35359083042863194/359083042863202
Rated Voltage:	DC 3.7V Li-ion Battery
Battery:	2300mAh
Device Category:	Portable Device
The EUT Main board support GSM850/PCS1900, WCDMA Band 1/2/5, function. It is intended for speech, Multimedia Message Service (MMS) transmission. It is equipped with GPRS class 12 for GSM850/PCS1900, GPS, FM, Bluetooth and Wi-Fi functions. For more information see the following datasheet	
Note: The test data is gathered from a production sample provided by the manufacturer.	

Technical Characteristics of EUT	
Support Standards:	802.11b, 802.11g, 802.11n(HT20, HT40)
Frequency Range:	2412-2462MHz for 802.11b/g/n(HT20) 2422-2452MHz for 802.11n(HT40)
RF Output Power:	14.88dBm (Conducted)
Type of Modulation:	CCK, OFDM, QPSK, BPSK, 16QAM, 64QAM
Data Rate:	1-11Mbps, 6-54Mbps, up to 150Mbps
Quantity of Channels:	11/7
Channel Separation:	5MHz
Type of Antenna:	Integral Antenna
Antenna Gain:	1dBi
Lowest Internal Frequency	26MHz

1.2 Test Standards

The following report is prepared on behalf of the DDC TRADING 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 C63.10-2013, American National Standard for Testing Unlicensed Wireless Devices, and ANSI C63.4-2014, 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 measurement guide KDB 558074 D01 v03r05 for digital transmission systems shall be performed also.

1.4 Test Facility

FCC – Registration No.: 934118

Shenzhen SEM.Test Technology 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 934118.

Industry Canada (IC) Registration No.: 11464A

The 3m Semi-anechoic chamber of Shenzhen SEM.Test Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 11464A.

CNAS Registration No.: L4062

Shenzhen SEM.Test Technology 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 1/F, Building A, Hongwei Industrial Park, Liuxian 2nd 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

EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
USB Cable	1.0	Shielded	Without Ferrite
Earphone	1.2	Unshielded	Without Ferrite

Auxiliary Equipment List and Details

Description	Manufacturer	Model	Serial Number
/	/	/	/

Special Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
/	/	/	/

1.6 Measurement Uncertainty

Measurement uncertainty		
Parameter	Conditions	Uncertainty
RF Output Power	Conducted	±0.42dB
Occupied Bandwidth	Conducted	±1.5%
Power Spectral Density	Conducted	±1.8dB
Conducted Spurious Emission	Conducted	±2.17dB
Conducted Emissions	Conducted	±2.88dB
Transmitter Spurious Emissions	Radiated	±5.1dB

1.7 Test Equipment List and Details

No.	Description	Manufacturer	Model	Serial No.	Cal Date	Due Date
SEMT-1072	Spectrum Analyzer	Agilent	E4407B	MY41440400	2016-06-04	2017-06-03
SEMT-1031	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2016-06-04	2017-06-03
SEMT-1007	EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2016-06-04	2017-06-03
SEMT-1008	Amplifier	Agilent	8447F	3113A06717	2016-06-04	2017-06-03
SEMT-1043	Amplifier	C&D	PAP-1G18	2002	2016-06-04	2017-06-03
SEMT-1011	Broadband Antenna	Schwarz beck	VULB9163	9163-333	2016-06-04	2017-06-03
SEMT-1042	Horn Antenna	ETS	3117	00086197	2016-06-04	2017-06-03
SEMT-1121	Horn Antenna	ETS	3116B	00088203	2016-06-04	2017-06-03
SEMT-1069	Loop Antenna	Schwarz beck	FMZB 1516	9773	2016-06-04	2017-06-03
SEMT-1001	EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2016-06-04	2017-06-03
SEMT-1003	L.I.S.N	Schwarz beck	NSLK8126	8126-224	2016-06-04	2017-06-03
SEMT-1002	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2016-06-04	2017-06-03

2. SUMMARY OF TEST RESULTS

FCC Rules	Description of Test Item	Result
§ 2.1093	RF Exposure	Compliant
§ 15.203; § 15.247(b)(4)(i)	Antenna Requirement	Compliant
§15.205	Restricted Band of Operation	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)	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 § 1.1307 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, please see the RF Exposure Report.

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 has an integral antenna, fulfill the requirement of this section.

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 Procedure

According to the KDB 558074 D01 v03r05, such specifications require that the same method as used to determine the conducted output power shall also be used to determine the power spectral density. The test method of power spectral density as below:

a) Set instrument center frequency to DTS channel center frequency.
b) Set span to at least 1.5 times the OBW.
c) Set RBW to: 3 kHz ≤ RBW ≤ 100 kHz. .
d) Set VBW ≥3 x RBW.
e) Detector = power averaging (RMS) or sample detector (when RMS not available).
f) Ensure that the number of measurement points in the sweep ≥ 2 x span/RBW.
g) Sweep time = auto couple.
h) Employ trace averaging (RMS) mode over a minimum of 100 traces.
i) Use the peak marker function to determine the maximum amplitude level.
j) If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat (note that this may require zooming in on the emission of interest and reducing the span in order to meet the minimum measurement point requirement as the RBW is reduced).

5.3 Environmental Conditions

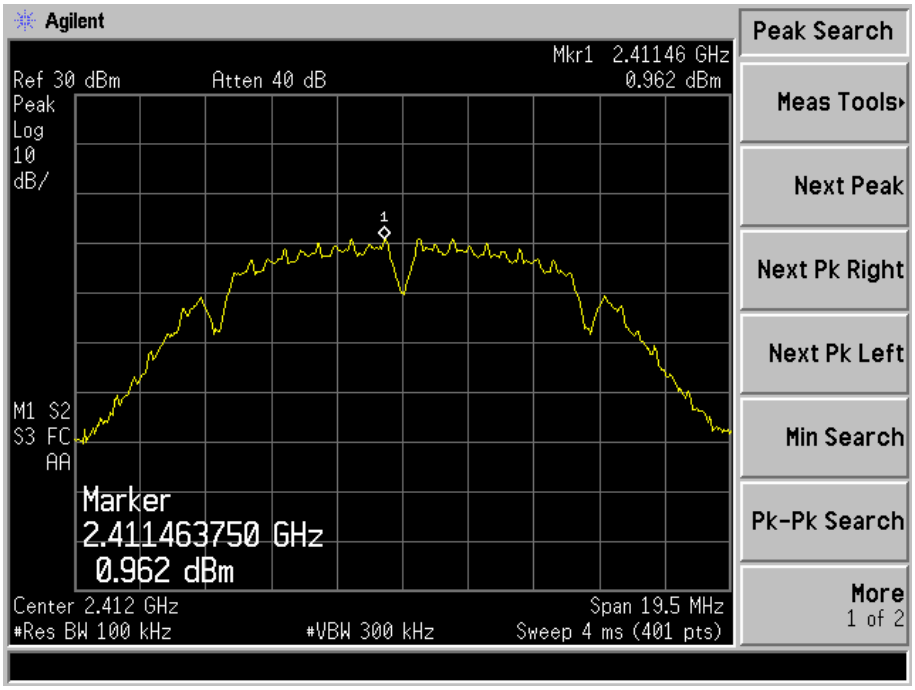
Temperature:	26° C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

5.4 Summary of Test Results/Plots

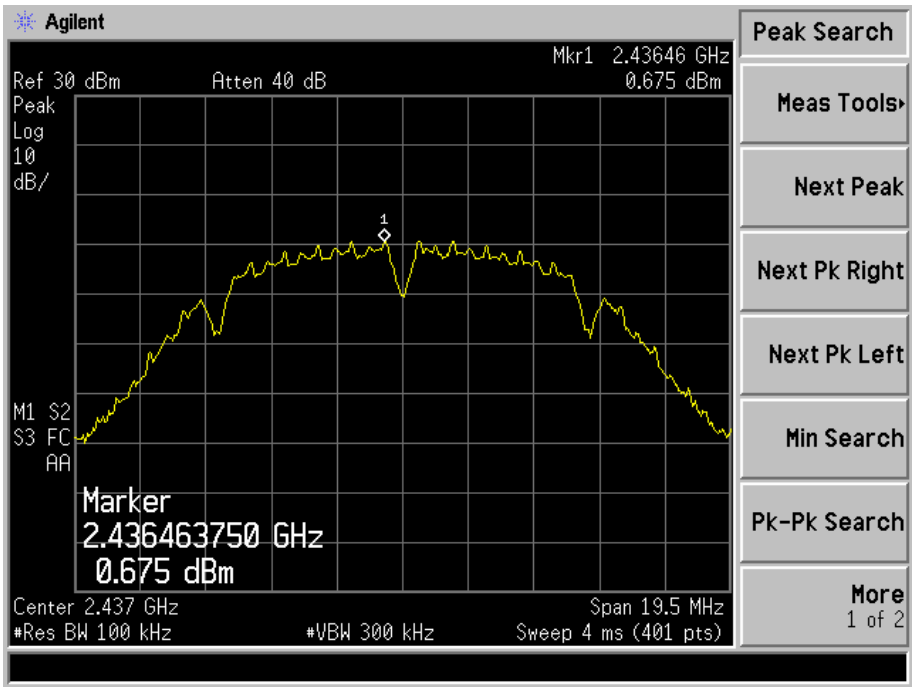
Test Mode	Test Channel MHz	Power Spectral Density dBm/100kHz	Limit dBm/3kHz
802.11b	2412	0.962	8
	2437	0.675	8
	2462	0.163	8
802.11g	2412	-3.467	8
	2437	-2.55	8
	2462	-2.336	8
802.11n HT20	2412	-2.886	8
	2437	-2.899	8
	2462	-3.561	8
802.11n HT40	2422	-5.188	8
	2437	-5.82	8
	2452	-6.204	8

Please refer to the following test plots:

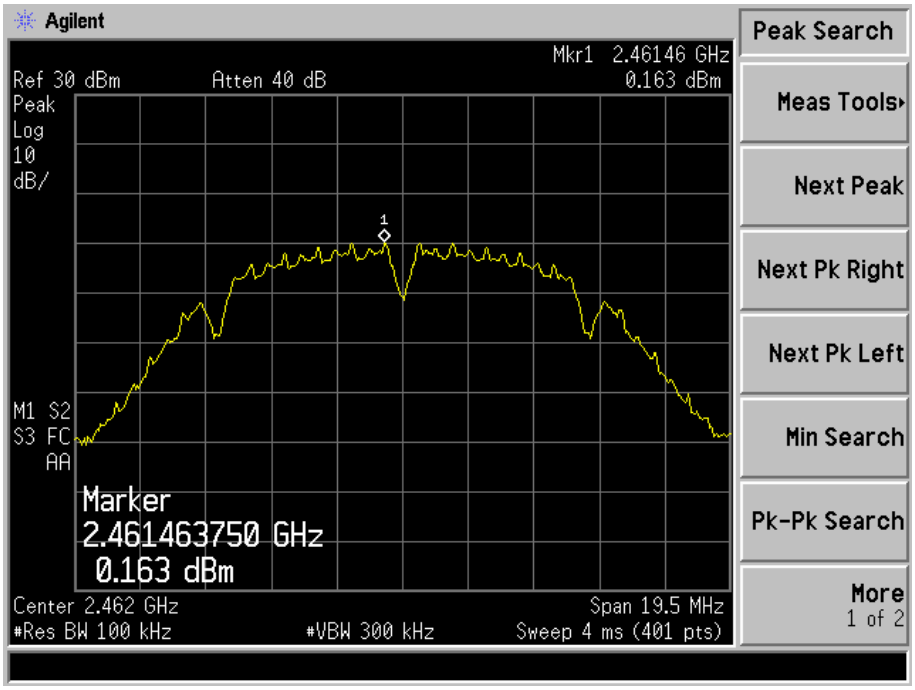
802.11b-Low Channel



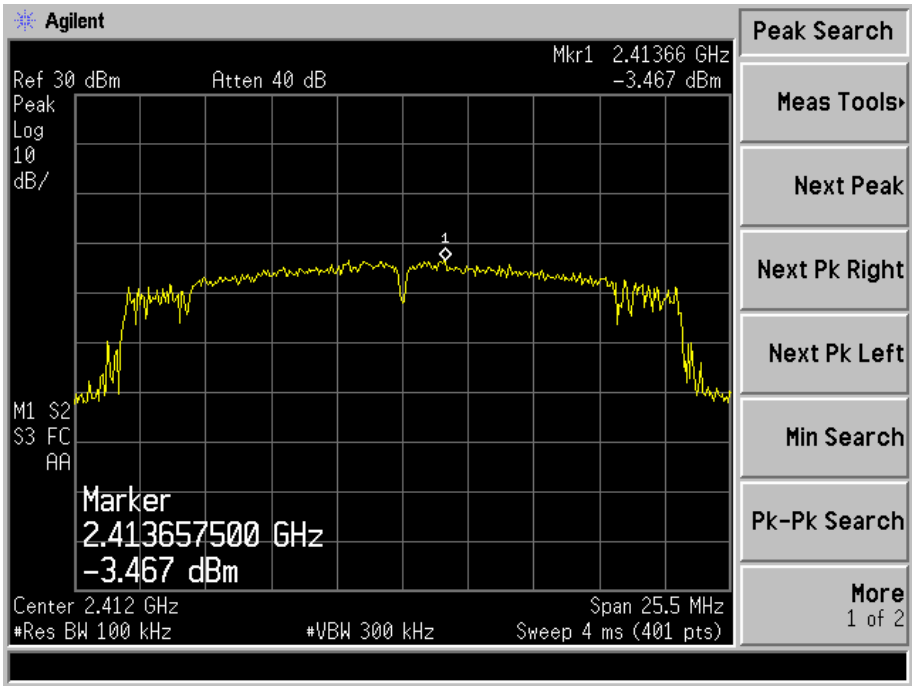
802.11b-Middle Channel



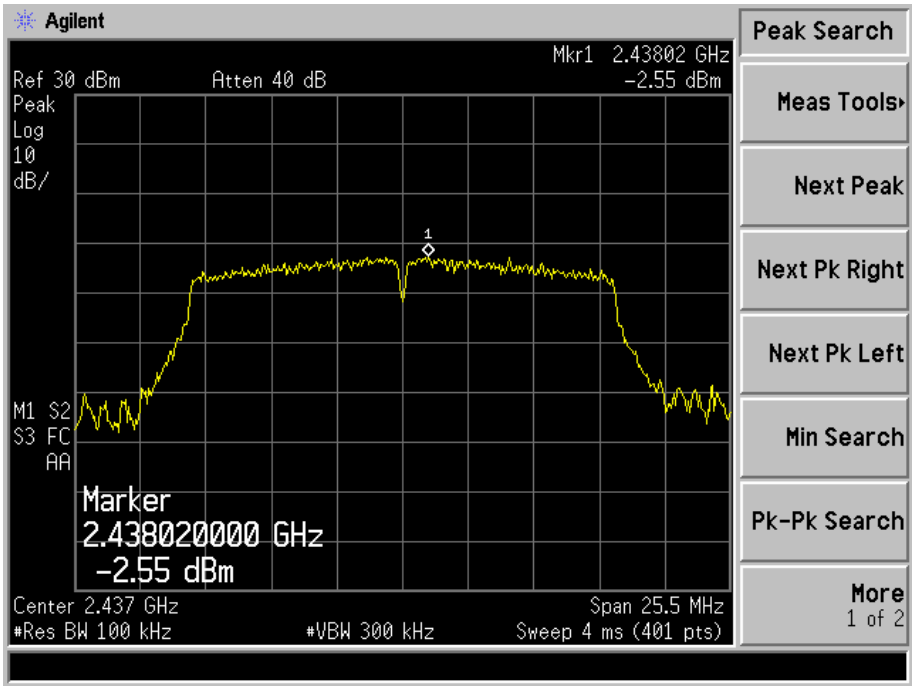
802.11b-High Channel



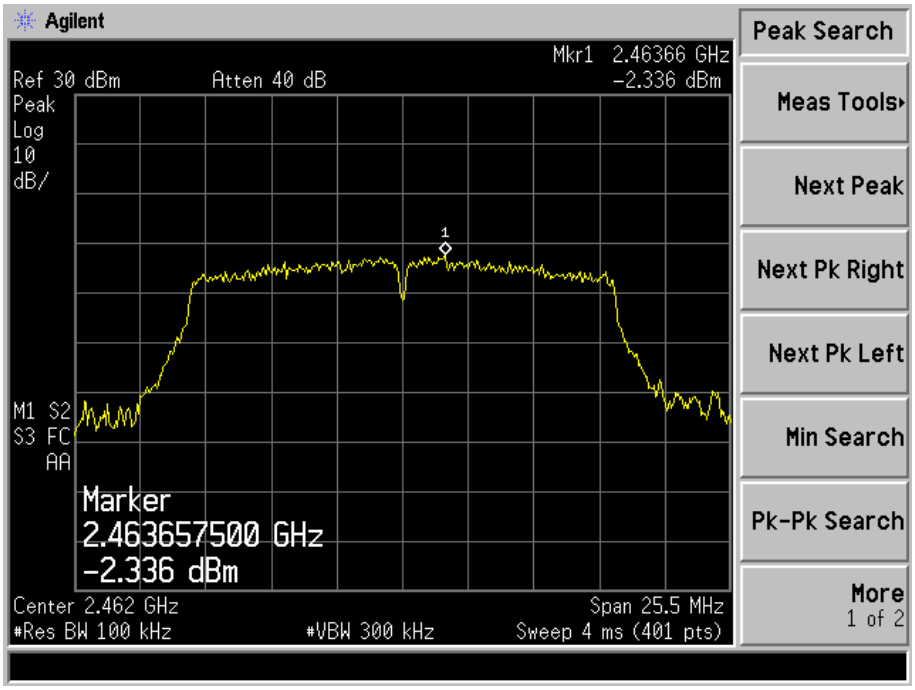
802.11g-Low Channel



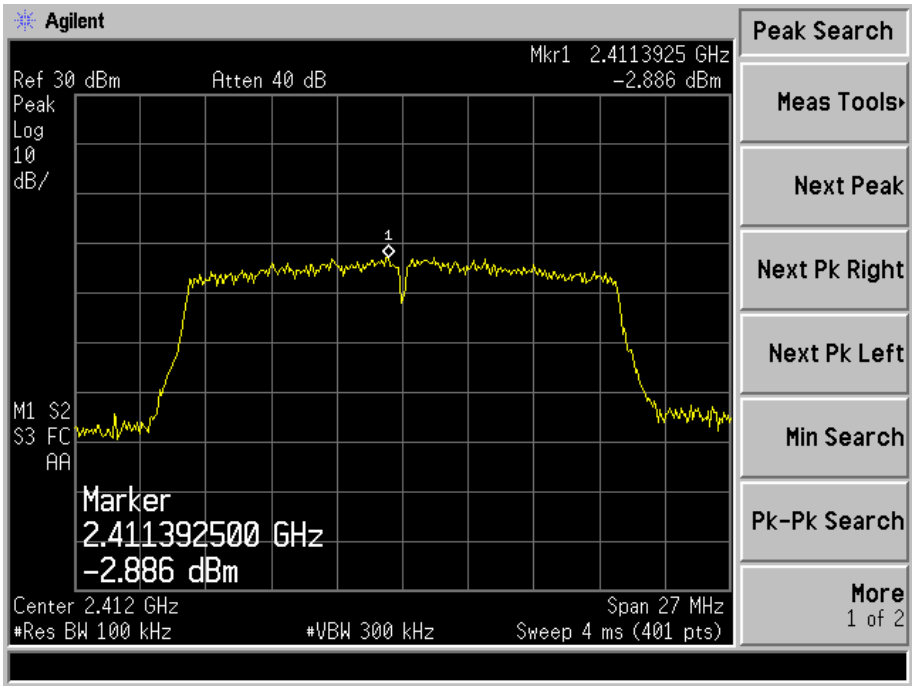
802.11g-Middle Channel



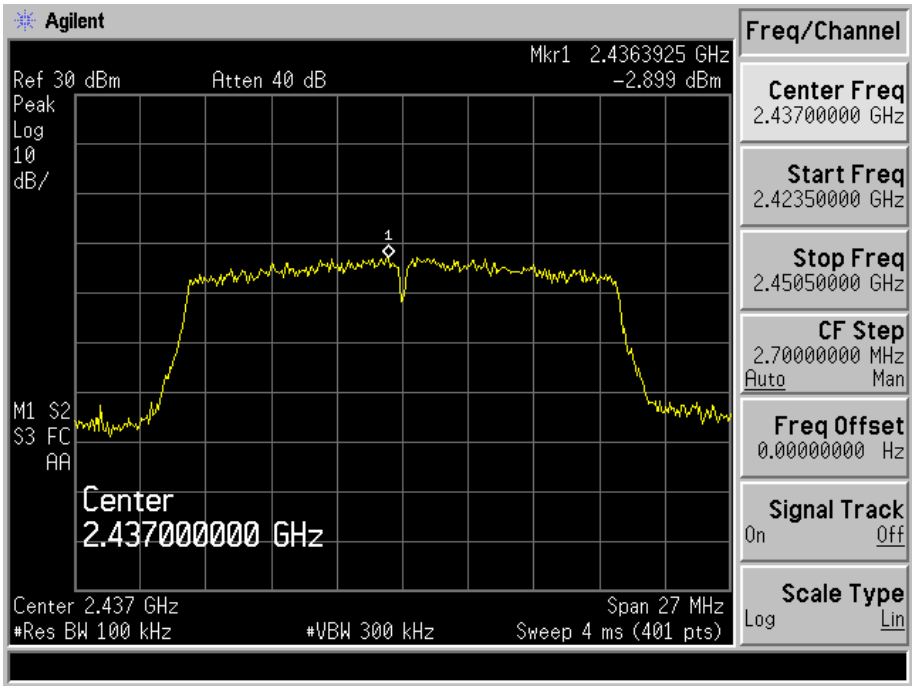
802.11g-High Channel



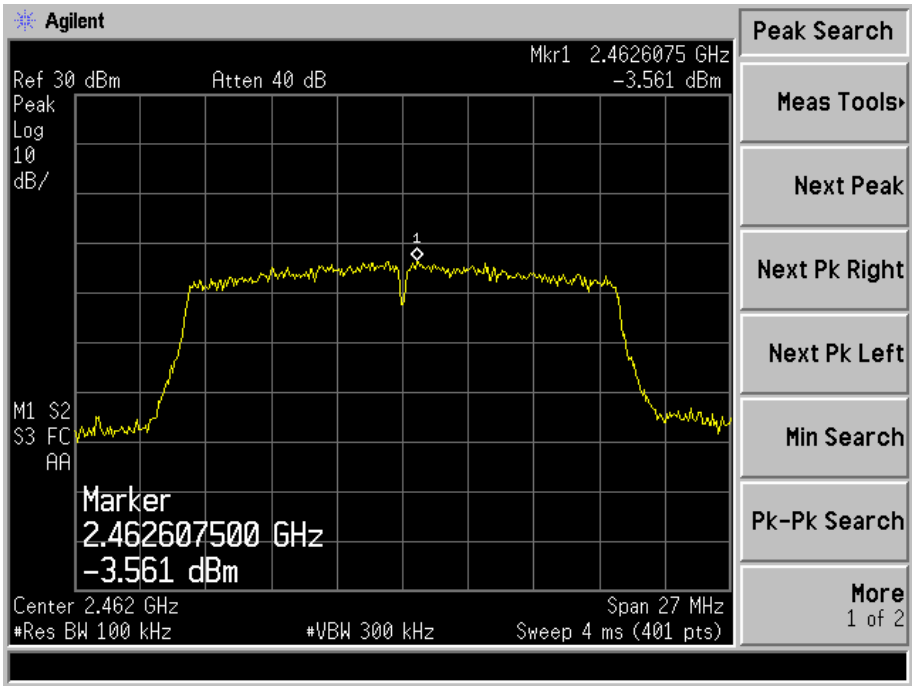
802.11n-HT20-Low Channel



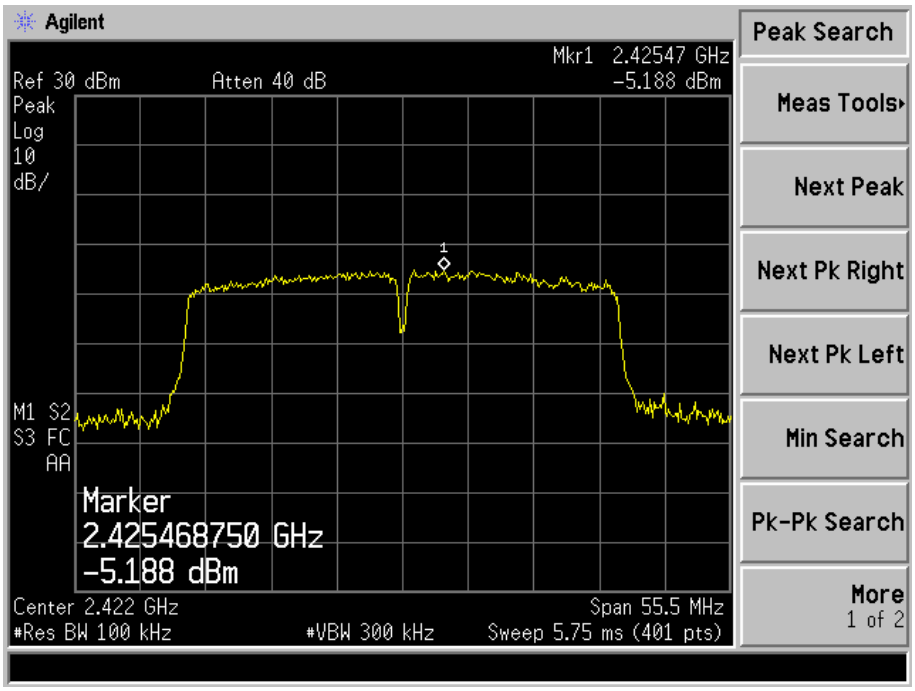
802.11n-HT20-Middle Channel



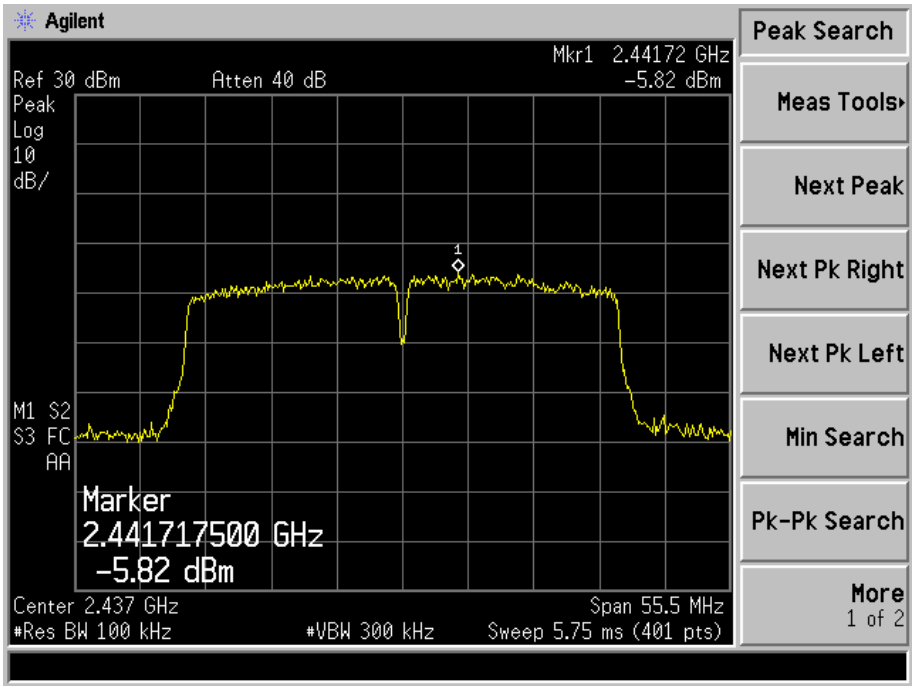
802.11n-HT20-High Channel



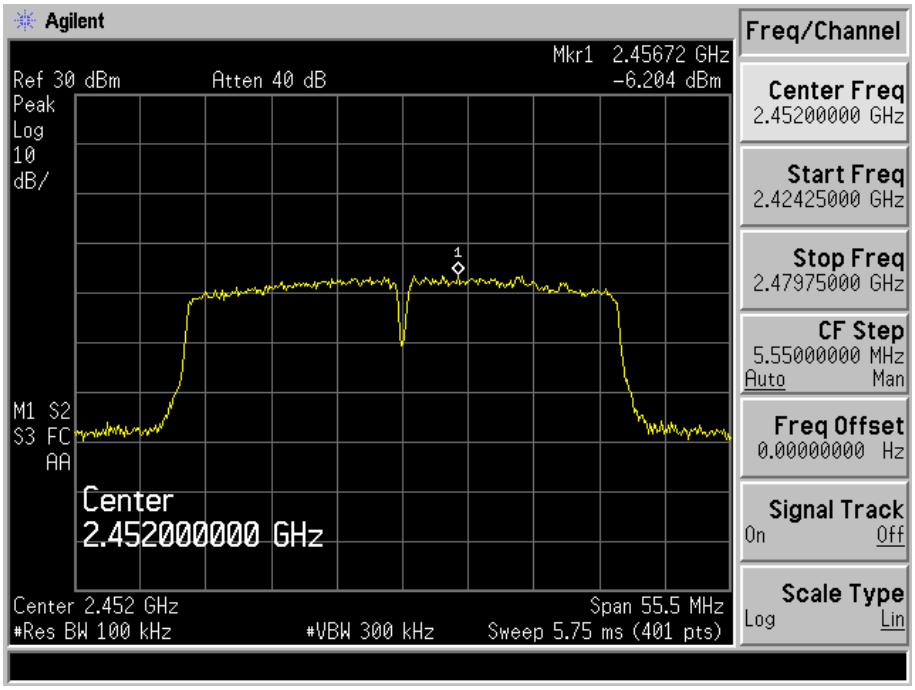
802.11n-HT40-Low Channel



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 Procedure

a) Set RBW = 100 kHz.
b) Set the video bandwidth (VBW) ≥ 3 × RBW.
c) Detector = Peak.
d) Trace mode = max hold.
e) Sweep = auto couple.
f) Allow the trace to stabilize.
g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

6.3 Environmental Conditions

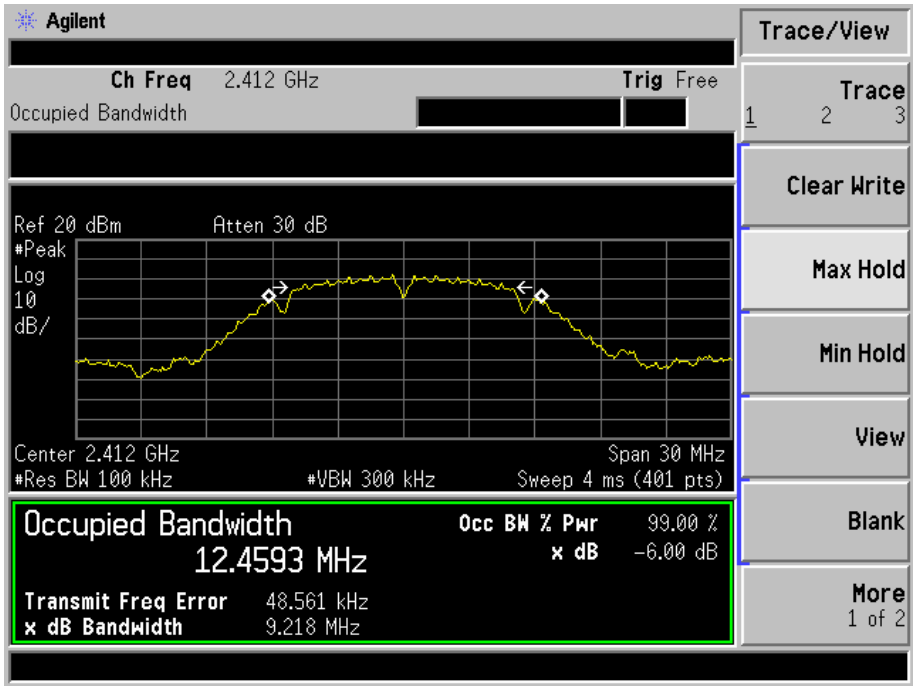
Temperature:	25° C
Relative Humidity:	53%
ATM Pressure:	1018 mbar

6.4 Summary of Test Results/Plots

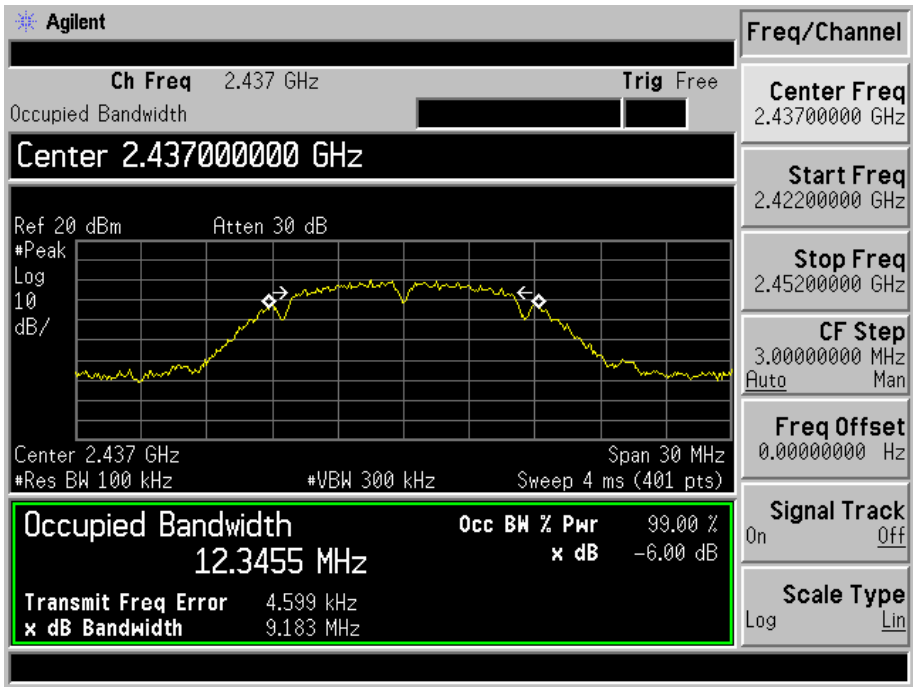
Test Mode	Test Channel MHz	6 dB Bandwidth MHz	99% Bandwidth MHz	Limit kHz
802.11b	2412	9.218	12.4593	≥500
	2437	9.183	12.3455	≥500
	2462	9.123	12.3377	≥500
802.11g	2412	15.076	16.2558	≥500
	2437	15.923	16.2128	≥500
	2462	15.254	16.4624	≥500
802.11n-HT20	2412	17.637	17.5292	≥500
	2437	17.613	17.5222	≥500
	2462	17.624	17.5314	≥500
802.11n-HT40	2422	35.869	35.7921	≥500
	2437	36.325	35.7854	≥500
	2452	36.305	35.8152	≥500

Please refer to the following test plots:

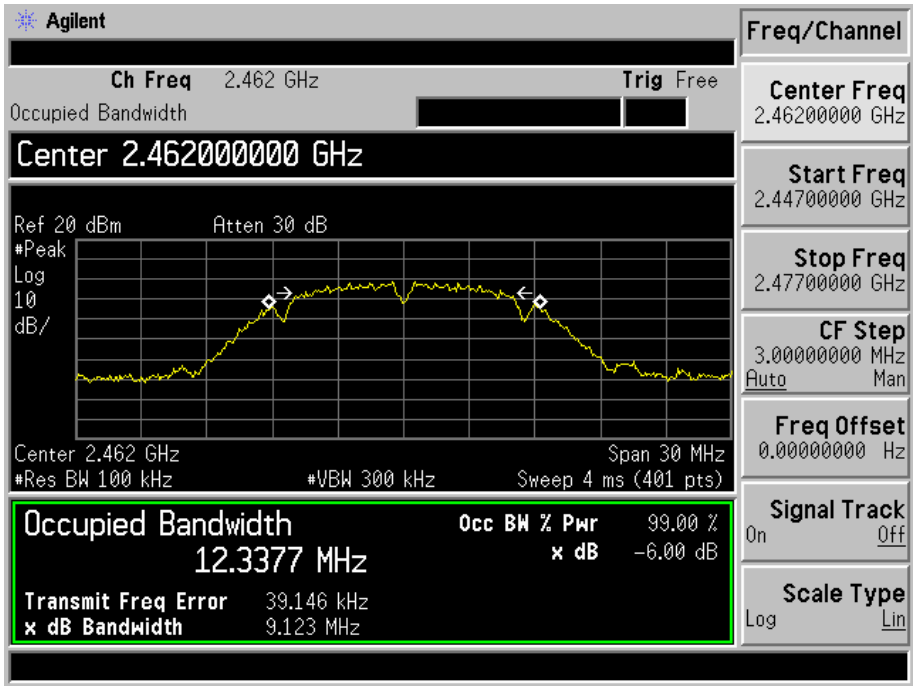
802.11b-Low Channel



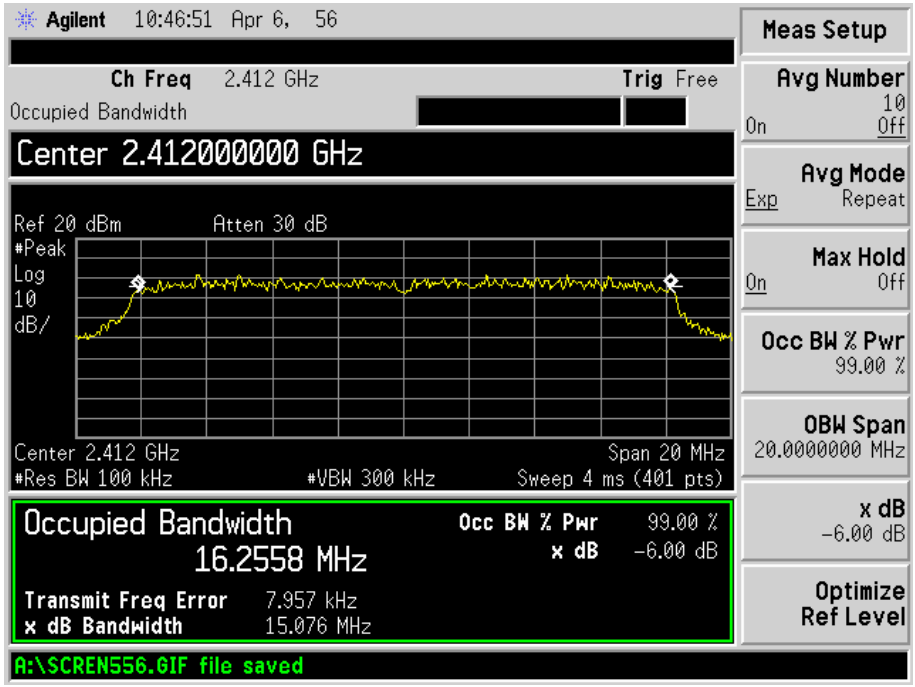
802.11b-Middle Channel



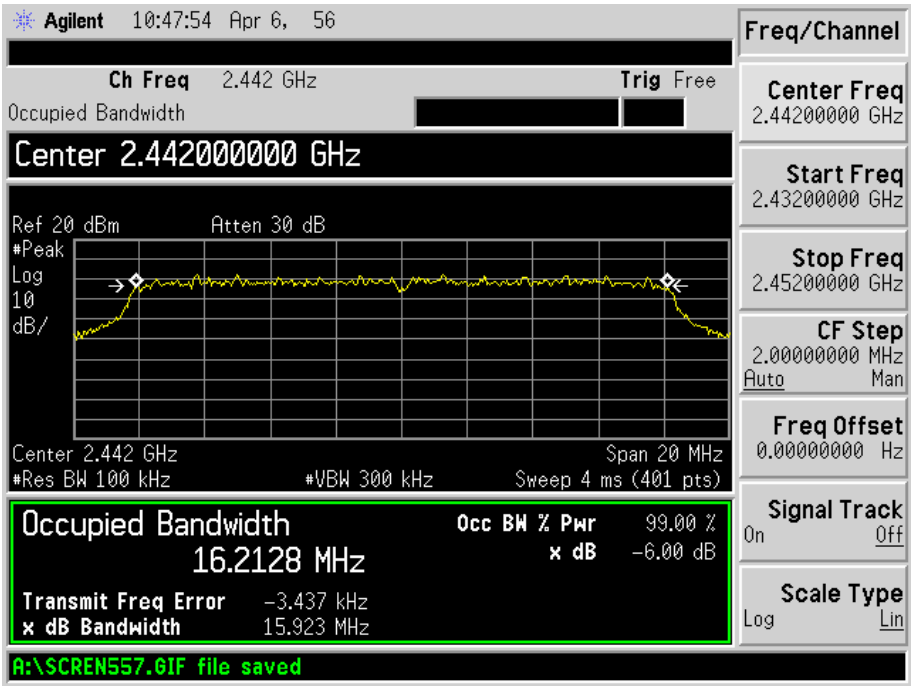
802.11b-High Channel



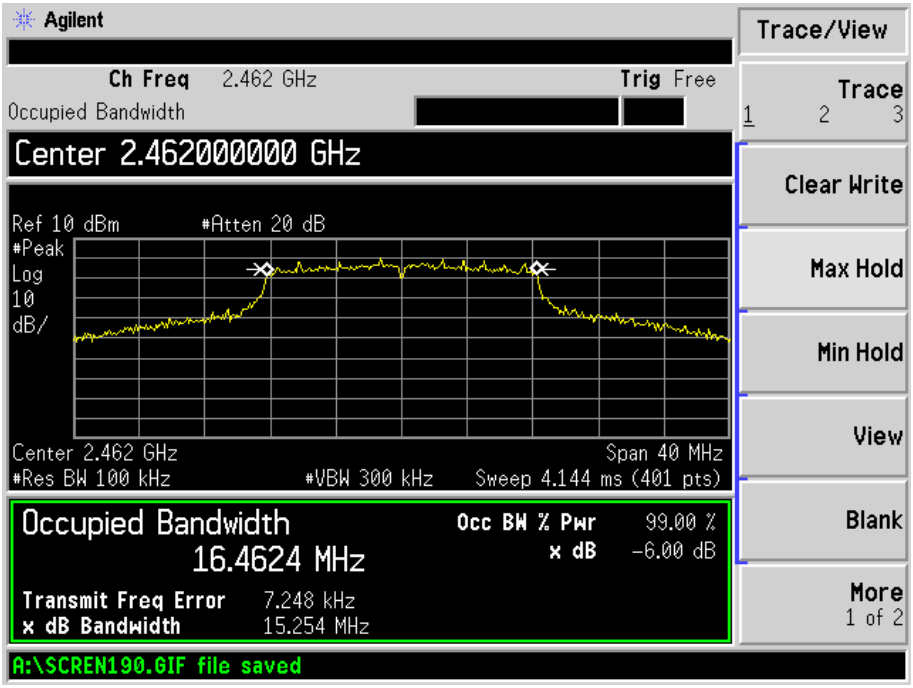
802.11g-Low Channel



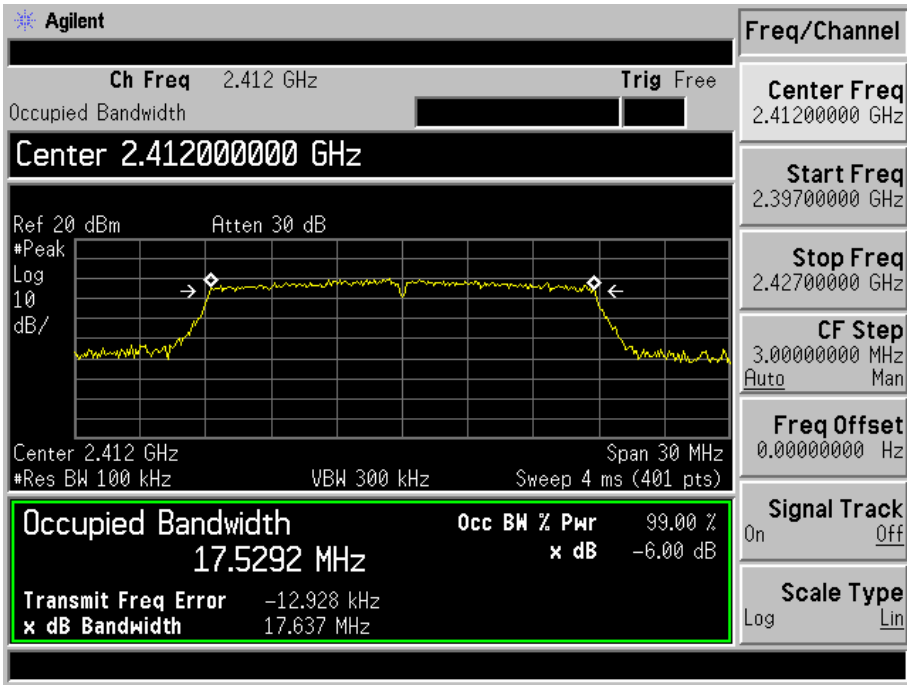
802.11g-Middle Channel



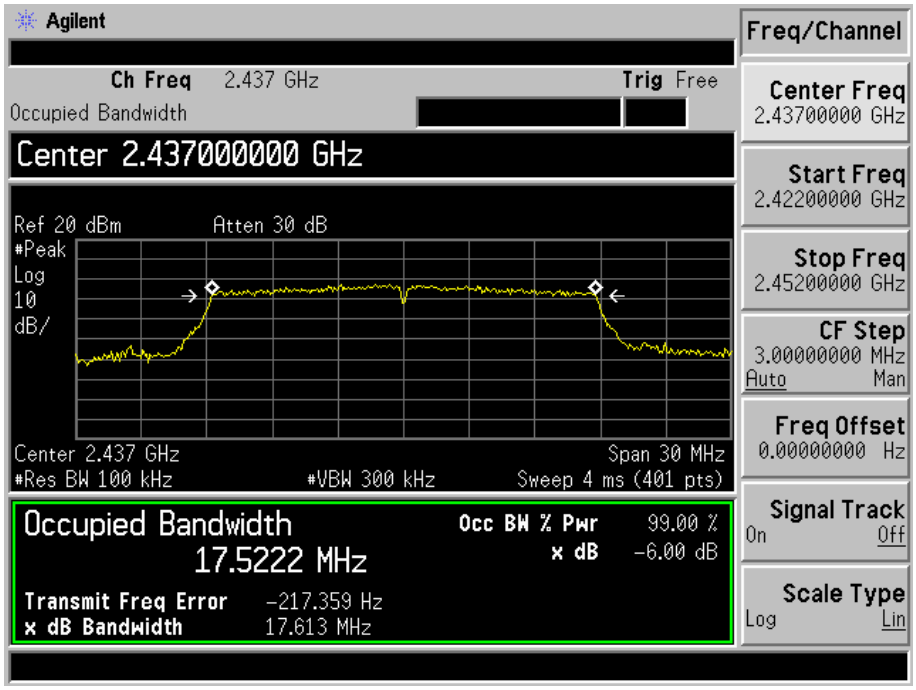
802.11g-High Channel



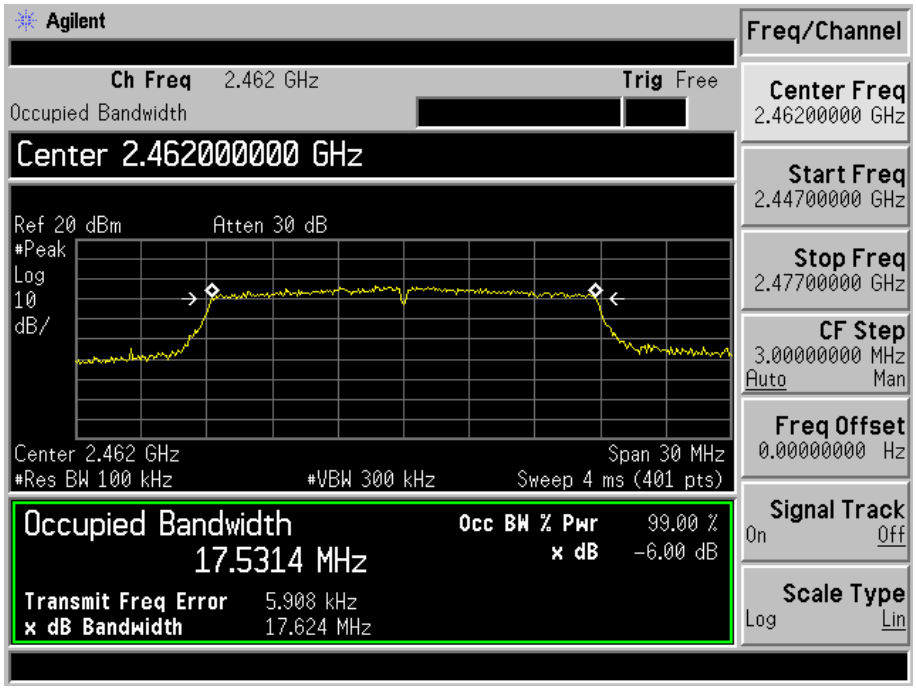
802.11n-HT20-Low Channel



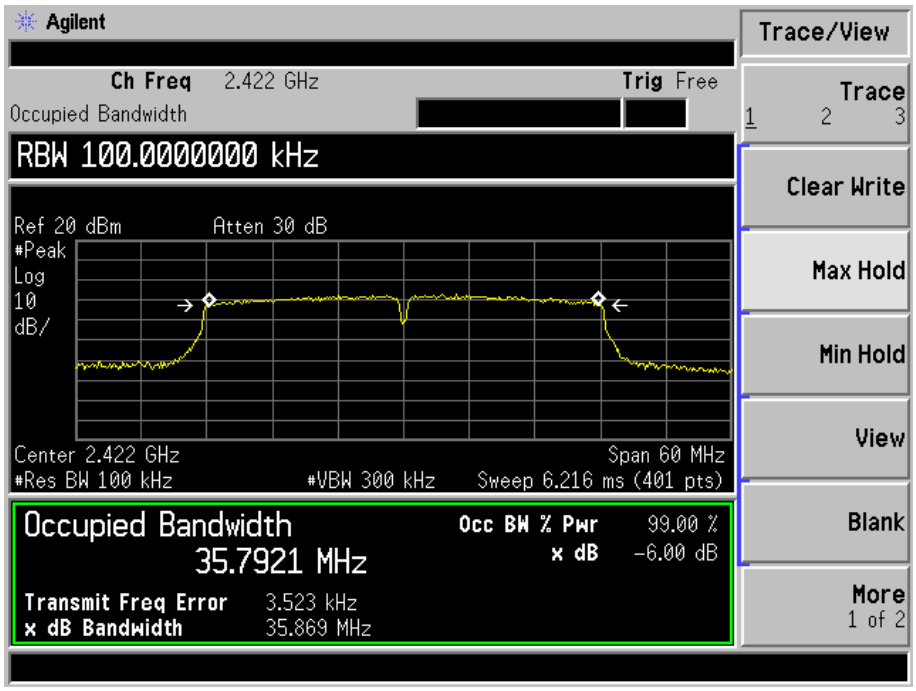
802.11n-HT20-Middle Channel



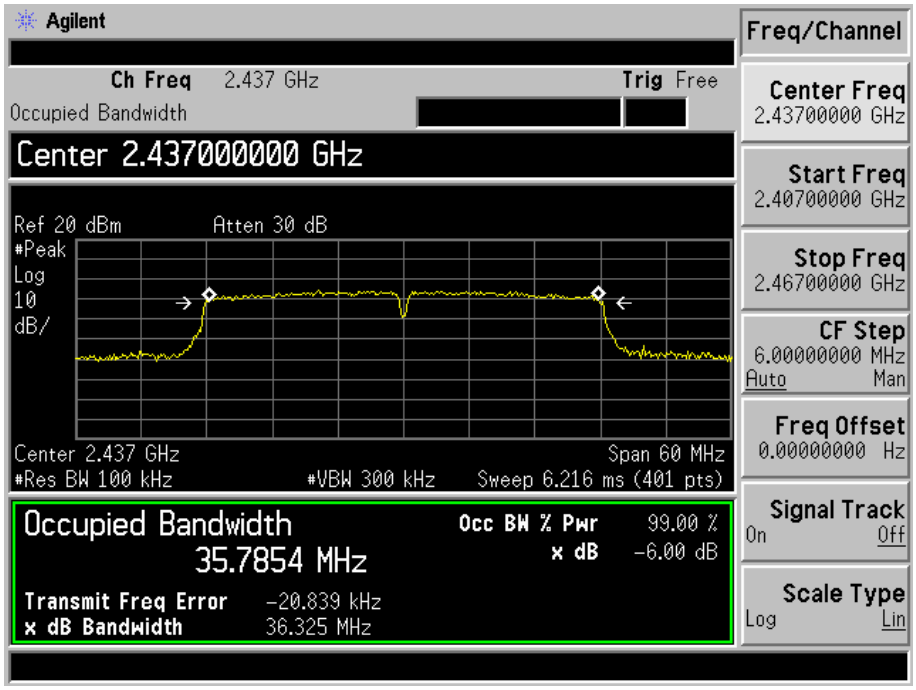
802.11n-HT20-High Channel



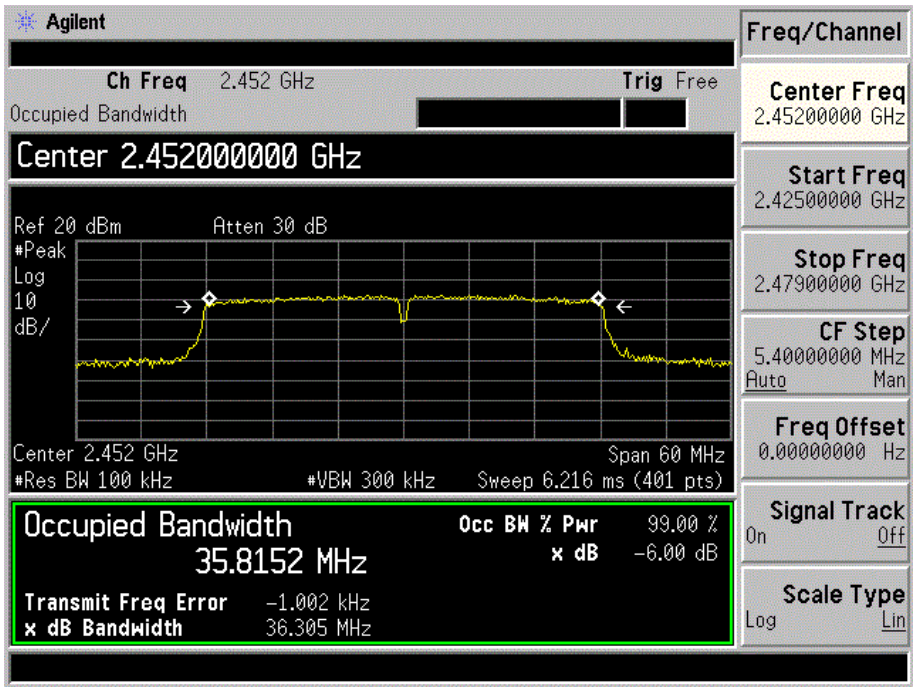
802.11n-HT40-Low Channel



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 Procedure

According to the KDB-558074 D01 v03r05, 9.2.2.2, when this option is exercised, the measured power is to be referenced to the OBW rather than the DTS bandwidth

a) Set span to at least 1.5 times the OBW.
b) Set RBW = 1-5% of the OBW, not to exceed 1 MHz.
c) Set VBW ≥ 3 x RBW.
d) Number of points in sweep ≥ 2 × span / RBW. (This gives bin-to-bin spacing ≤ RBW/2, so that narrowband signals are not lost between frequency bins.)
e) Sweep time = auto.
f) Detector = RMS (i.e., power averaging), if available. Otherwise, use sample detector mode.
g) If transmit duty cycle < 98 %, use a sweep trigger with the level set to enable triggering only on full power pulses. The transmitter shall operate at maximum power control level for the entire duration of every sweep. If the EUT transmits continuously (i.e., with no off intervals) or at duty cycle ≥ 98 %, and if each transmission is entirely at the maximum power control level, then the trigger shall be set to "free run".
h) Trace average at least 100 traces in power averaging (i.e., RMS) mode.
i) Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function, with band limits set equal to the OBW band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

7.3 Environmental Conditions

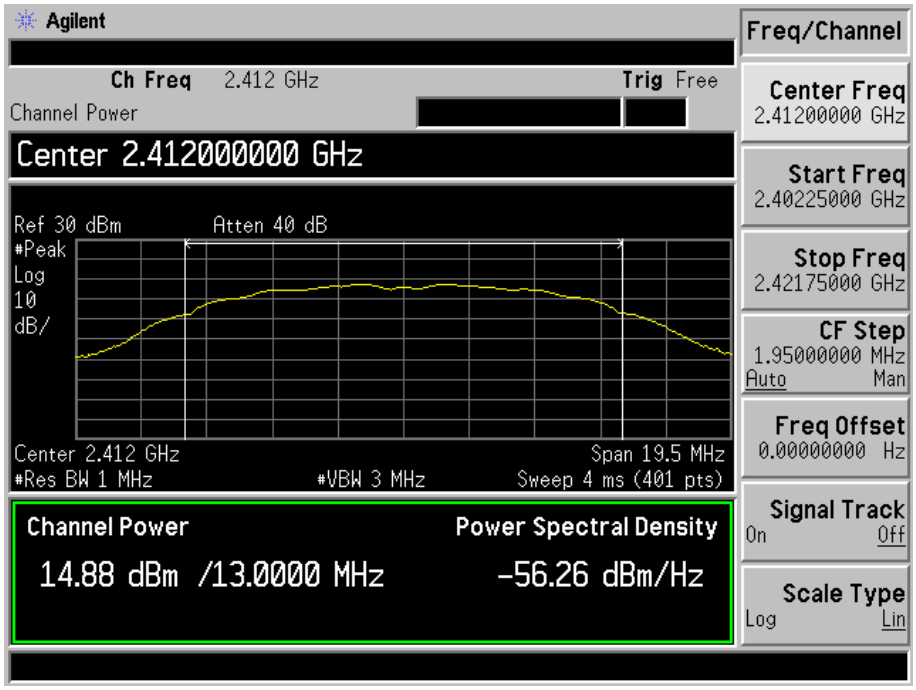
Temperature:	26° C
Relative Humidity:	57%
ATM Pressure:	1011 mbar

7.4 Summary of Test Results/Plots

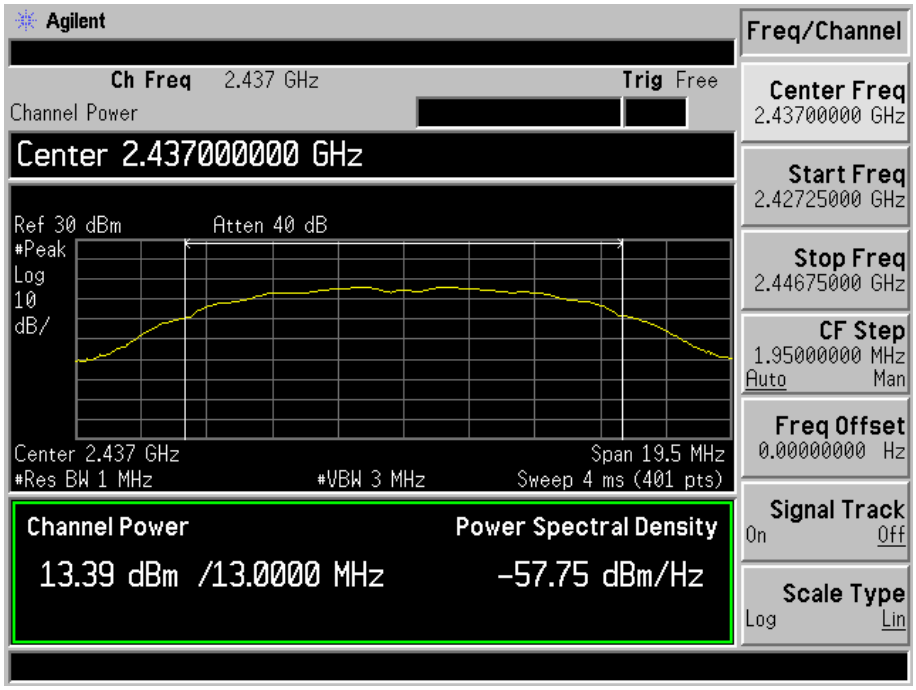
Test Mode	Frequency MHz	Reading dBm	Output Power mW	Limit mW
802.11b _ 11Mbps	2412	14.88	30.76	1000
	2437	13.39	21.83	1000
	2462	11.84	15.28	1000
802.11g_54Mbps	2412	13.30	21.38	1000
	2437	14.03	25.29	1000
	2462	12.97	19.82	1000
802.11n HT20_MCS7	2412	14.76	37.67	1000
	2437	14.4	27.54	1000
	2462	13.13	20.56	1000
802.11n HT40_MCS7	2422	14.64	29.11	1000
	2437	14.23	26.49	1000
	2452	13.37	21.73	1000

Please refer to the following test plots:

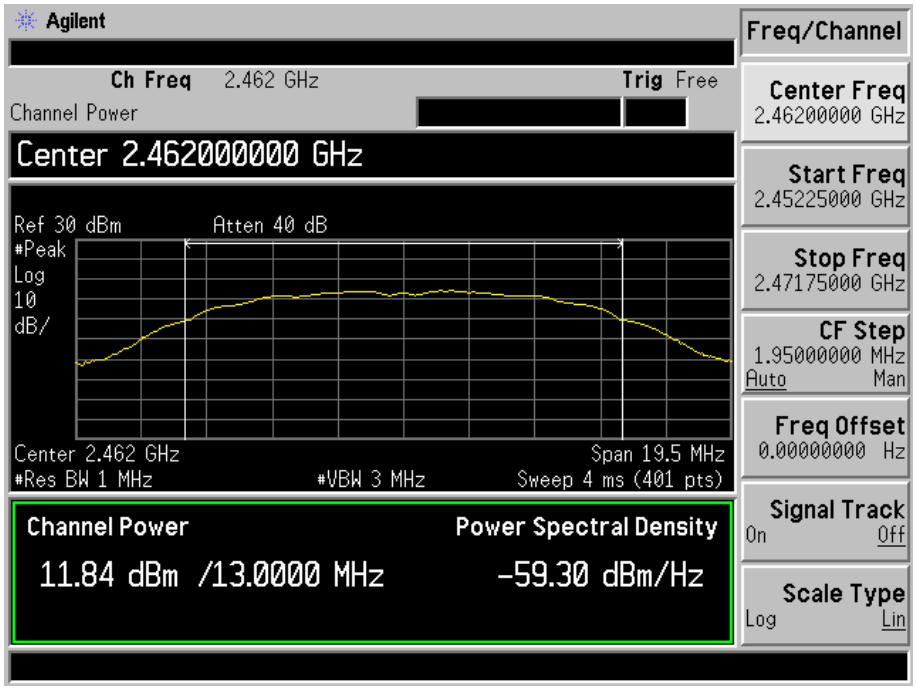
802.11b-11Mbps-Low Channel



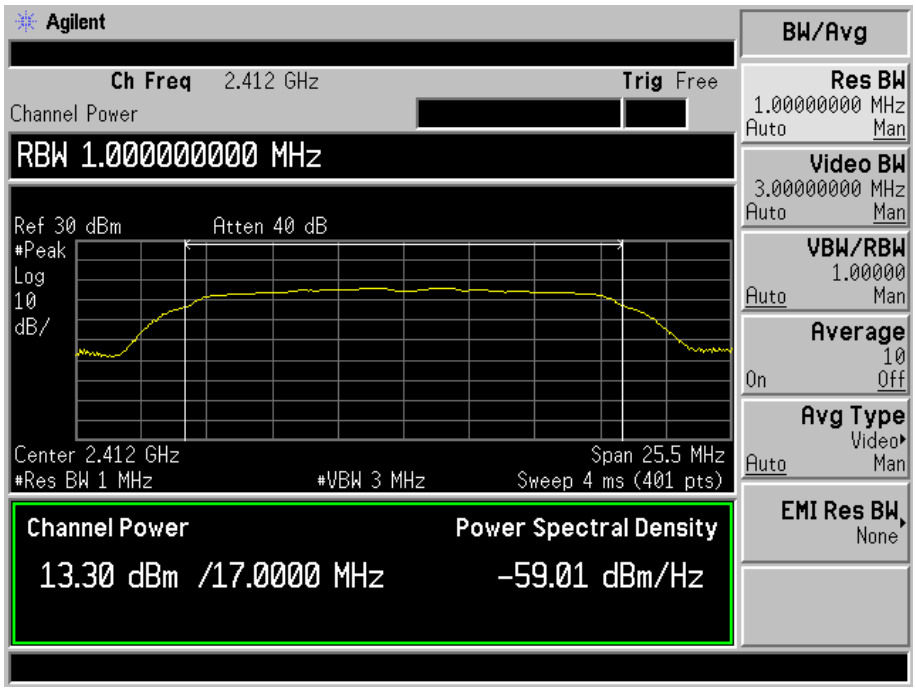
802.11b -11Mbps-Middle Channel



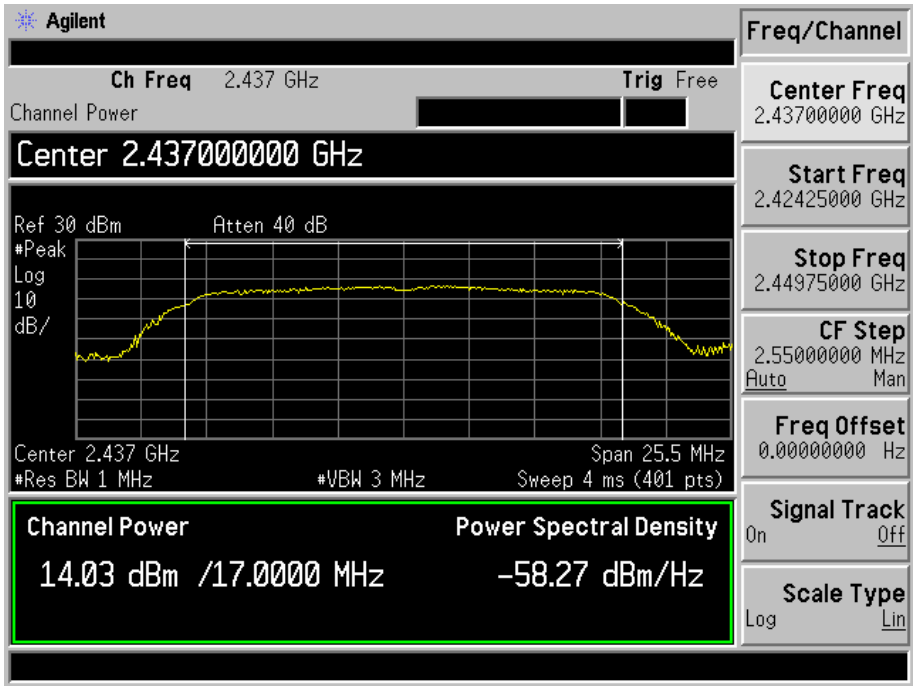
802.11b -11Mpbs-High Channel



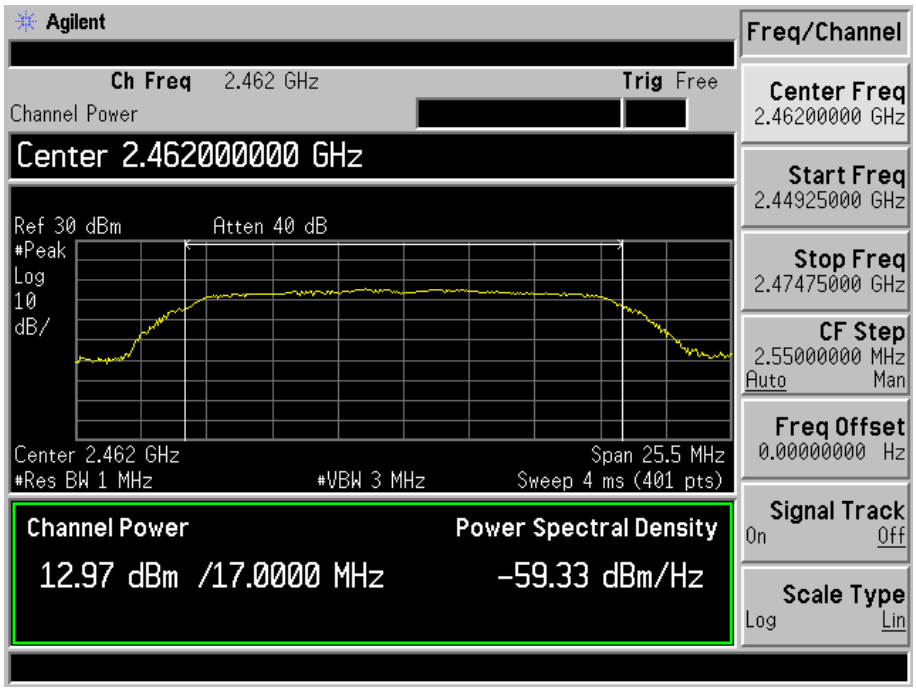
802.11g-54Mbps-Low Channel



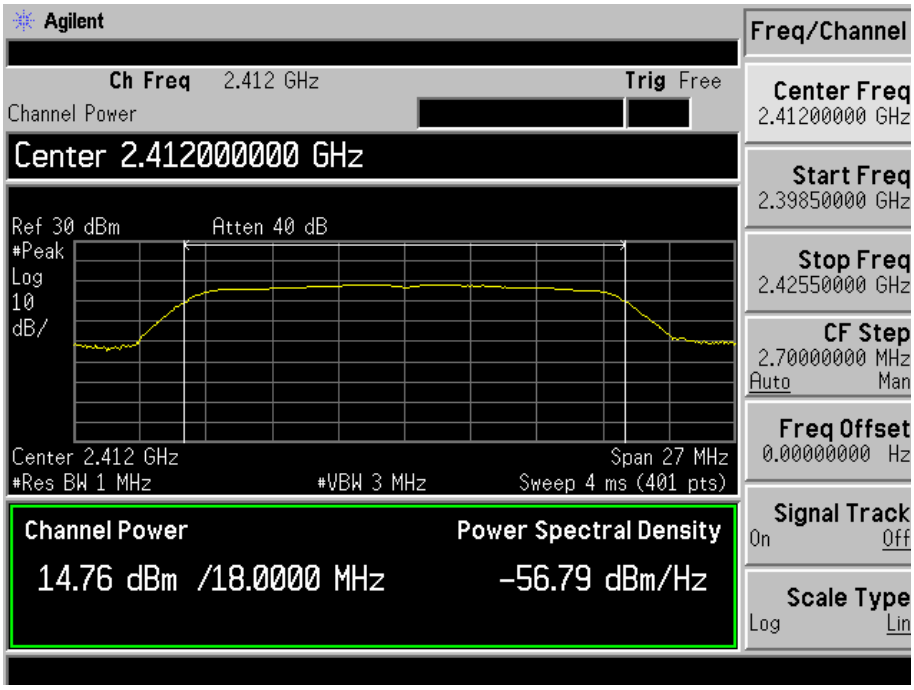
802.11g-54Mbps-Middle Channel



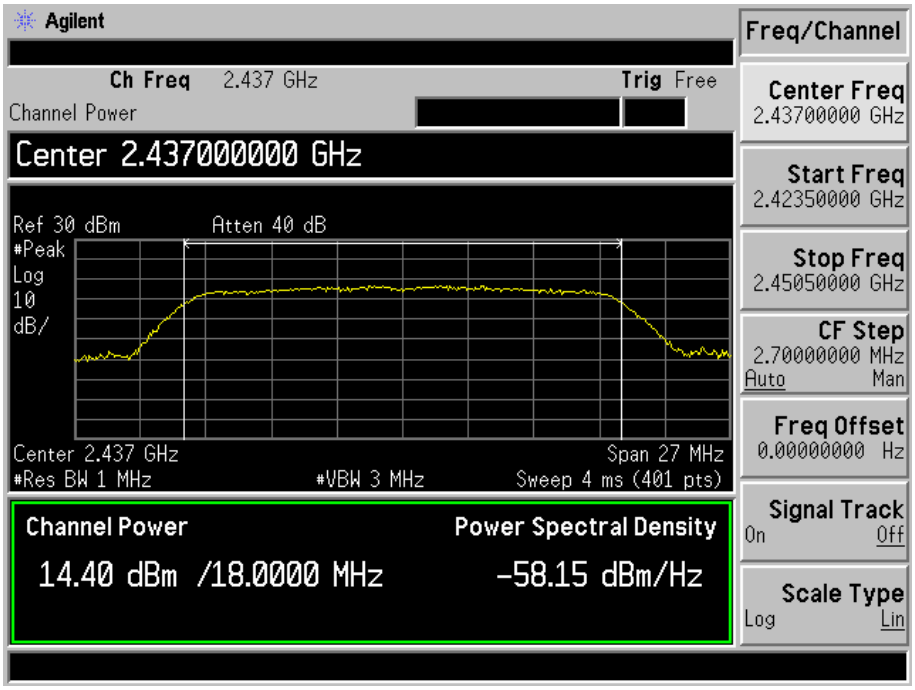
802.11g-54Mpbs-High Channel



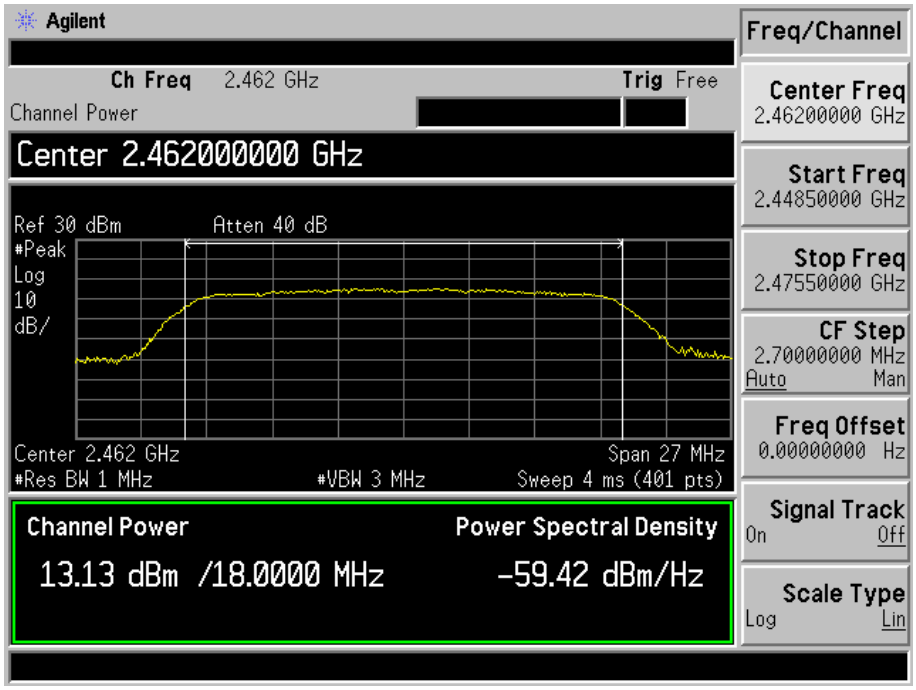
802.11n-HT20-MCS7-Low Channel



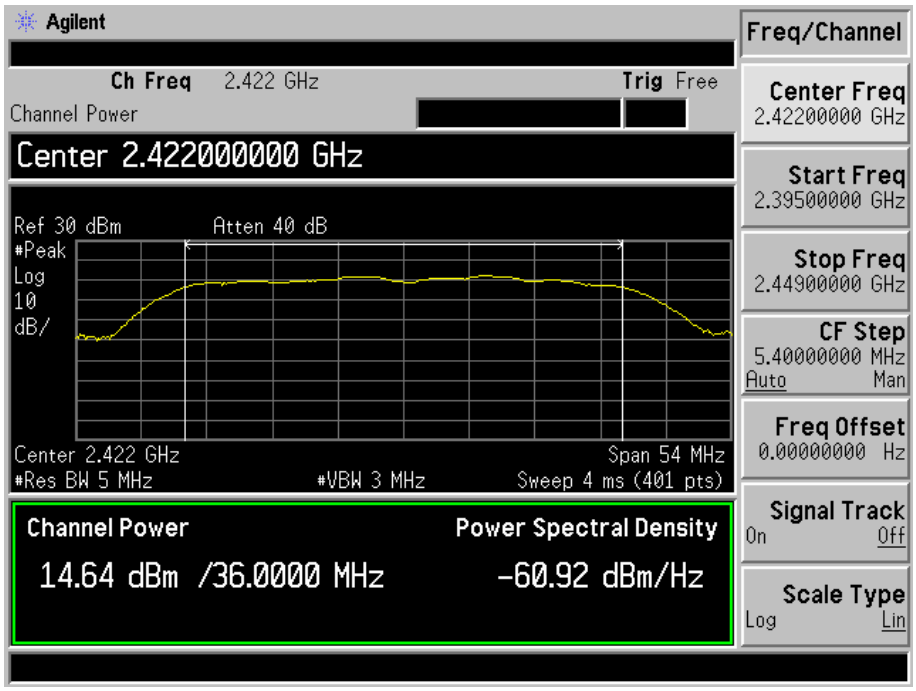
802.11n-HT20-MCS7-Middle Channel



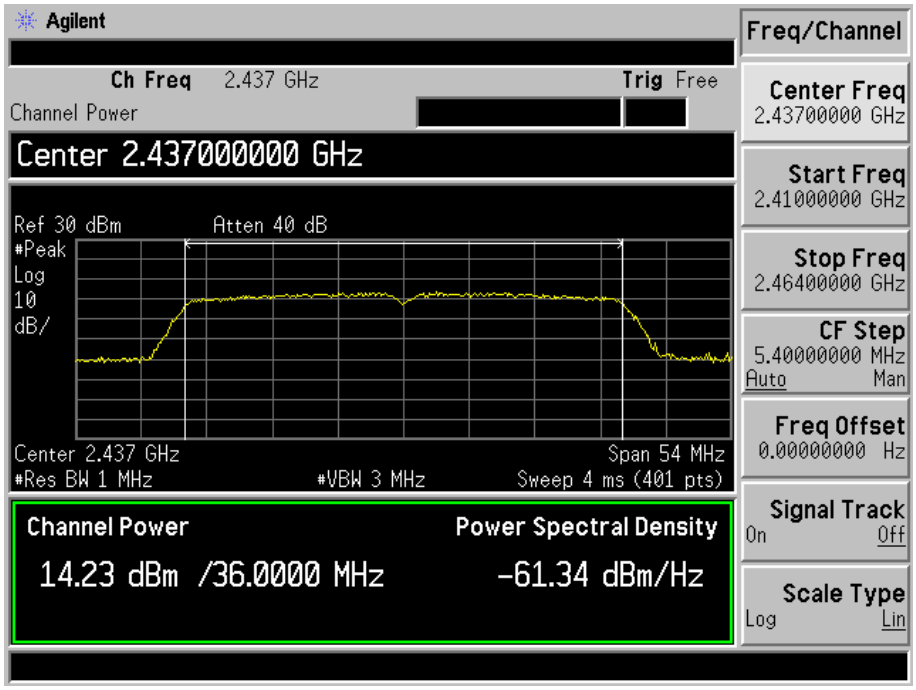
802.11n-HT20-MCS7-High Channel



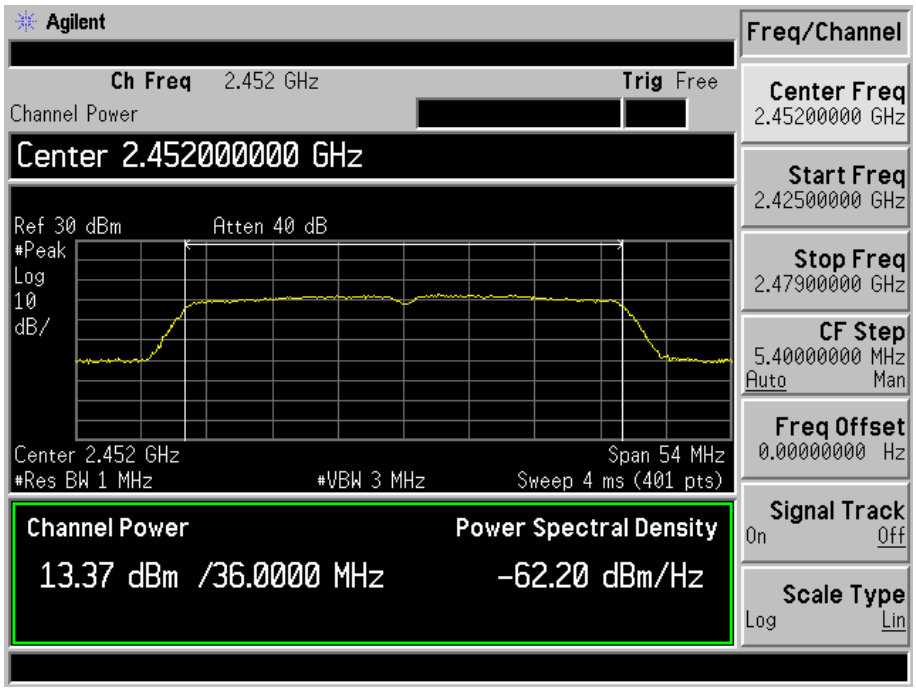
802.11n-HT40-MCS7-Low Channel



802.11n-HT40-MCS7-Middle Channel



802.11n-HT40-MCS7-High Channel



8. Field Strength of Spurious Emissions

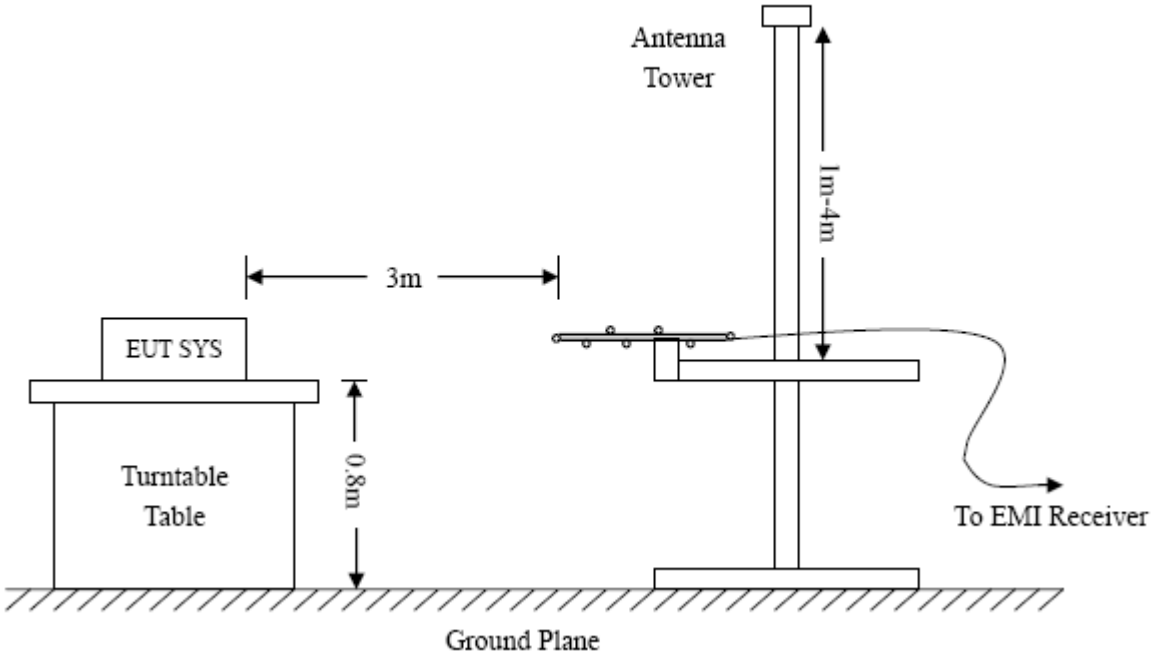
8.1 Standard Applicable

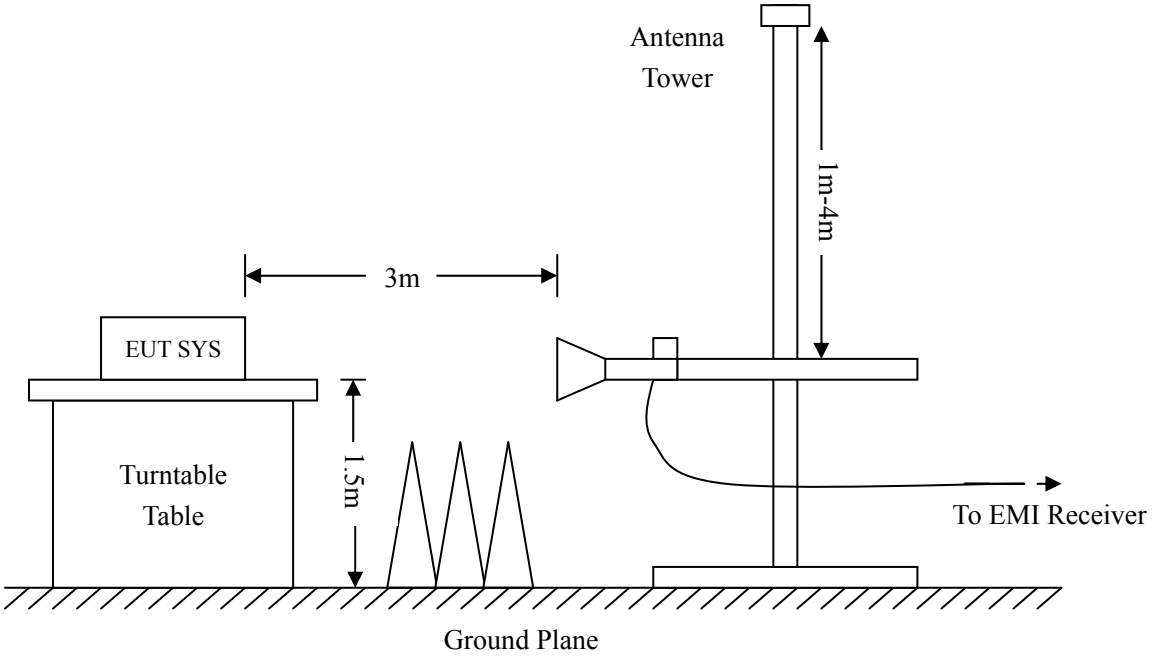
According to §15.247(d), in any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within 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.

8.2 Test Procedure

The setup of EUT is according with per ANSI C63.10-2013 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.





Frequency :9kHz-30MHz	Frequency :30MHz-1GHz	Frequency :Above 1GHz
RBW=10KHz,	RBW=120KHz,	RBW=1MHz,
VBW =30KHz	VBW=300KHz	VBW=3MHz(Peak), 10Hz(AV)
Sweep time= Auto	Sweep time= Auto	Sweep time= Auto
Trace = max hold	Trace = max hold	Trace = max hold
Detector function = peak	Detector function = peak, QP	Detector function = peak, AV

8.3 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. The equation for margin calculation is as follows:

Margin = Corr. Ampl. – FCC Part 15 Limit

8.4 Environmental Conditions

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

8.5 Summary of Test Results/Plots

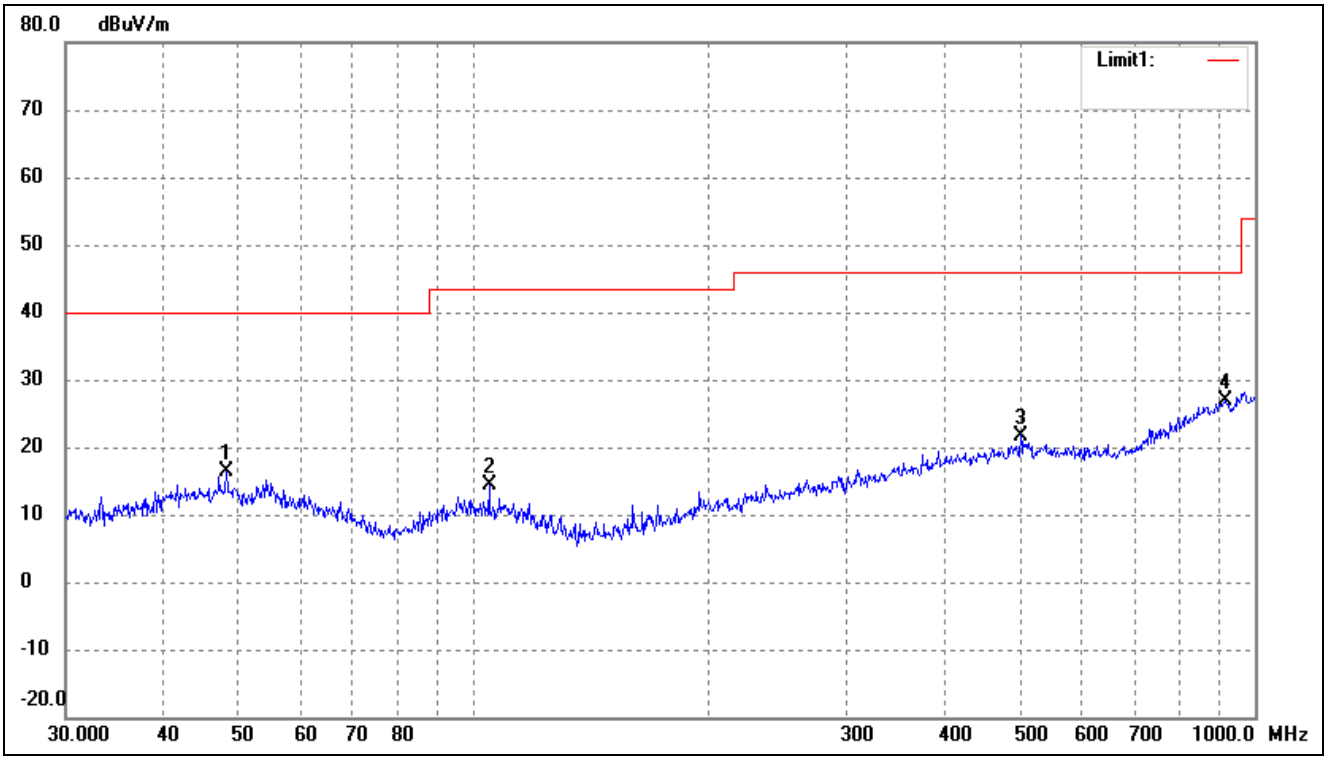
According to the data below, the FCC Part 15.205, 15.209 and 15.247 standards, and had the worst cases:

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)

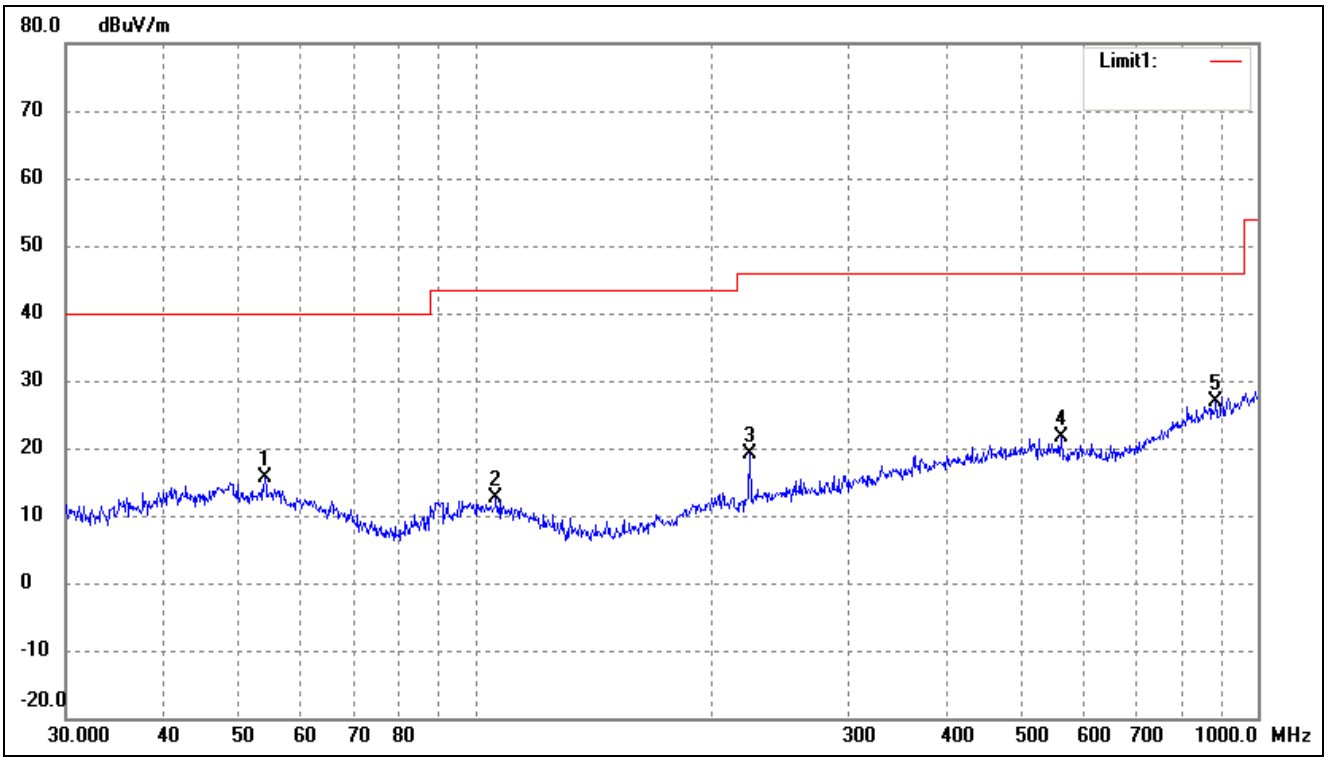
EUT: *Mobile phone*
Tested Model: *E5*
Operating Condition: *802.11b Transmitting Low Channel-2412MHz*
Comment: *DC 3.7V Battery*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	48.1626	23.79	-7.46	16.33	40.00	-23.67	22	100	peak
2	104.5361	23.99	-9.58	14.41	43.50	-29.09	14	100	peak
3	501.1790	22.85	-1.10	21.75	46.00	-24.25	51	100	peak
4*	916.0687	21.21	5.55	26.76	46.00	-19.24	331	100	peak

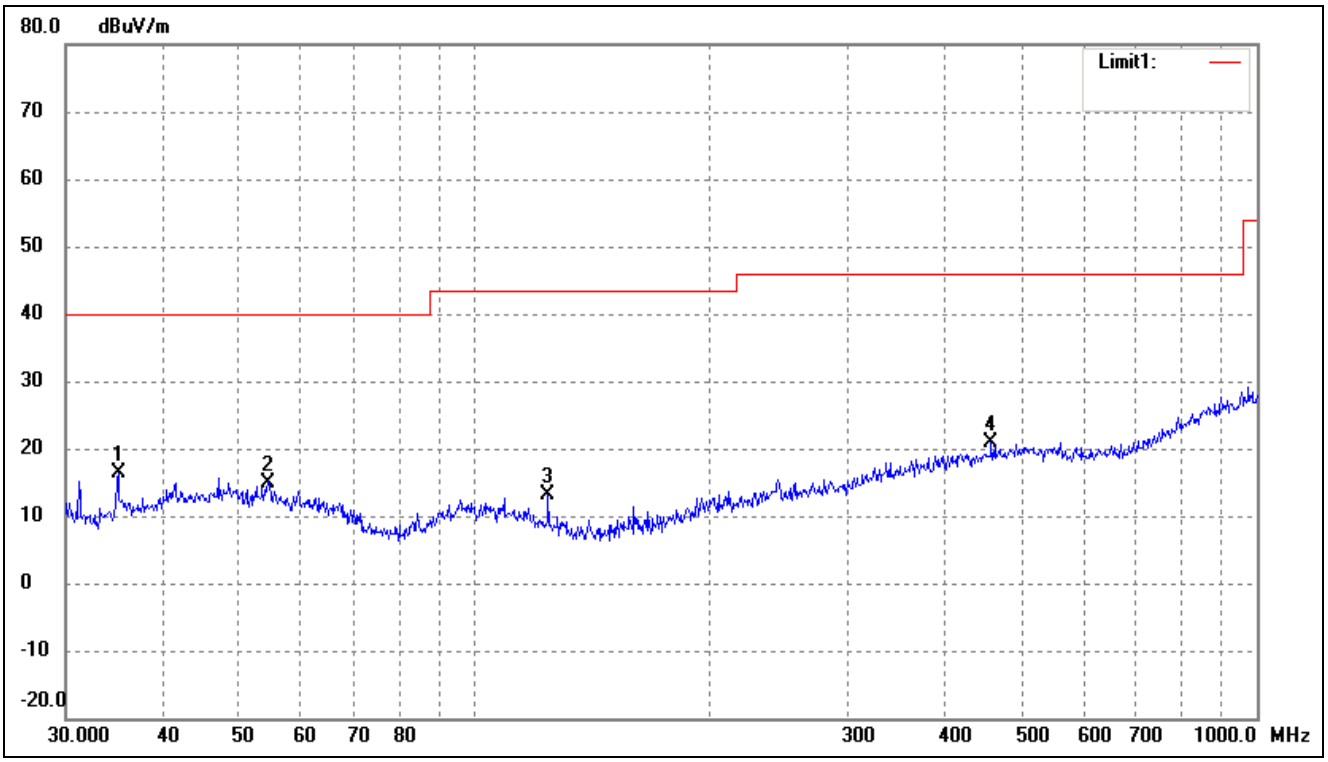
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	53.8817	23.40	-7.83	15.57	40.00	-24.43	42	100	peak
2	106.3850	22.23	-9.59	12.64	43.50	-30.86	145	100	peak
3	224.5192	27.85	-8.65	19.20	46.00	-26.80	255	100	peak
4	560.6928	23.20	-1.46	21.74	46.00	-24.26	314	100	peak
5*	884.5028	21.94	4.92	26.86	46.00	-19.14	155	100	peak

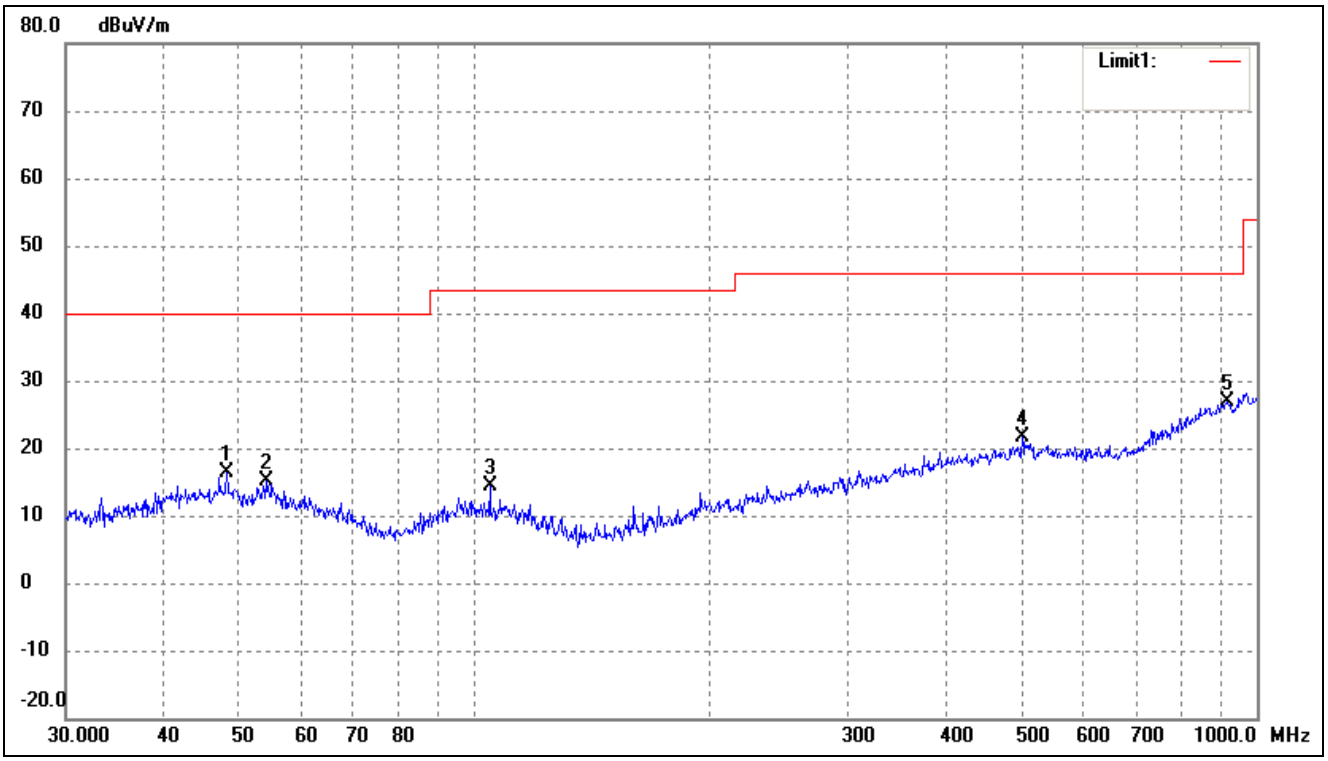
Operating Condition: *802.11b Transmitting Middle Channel-2437MHz*
Comment: *DC 3.7V Battery*

Test Specification: *Horizontal*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1*	35.0048	26.42	-10.05	16.37	40.00	-23.63	41	100	peak
2	54.4516	22.90	-7.90	15.00	40.00	-25.00	131	100	peak
3	124.1330	25.07	-11.88	13.19	43.50	-30.31	212	100	peak
4	457.5073	23.03	-2.08	20.95	46.00	-25.05	311	100	peak

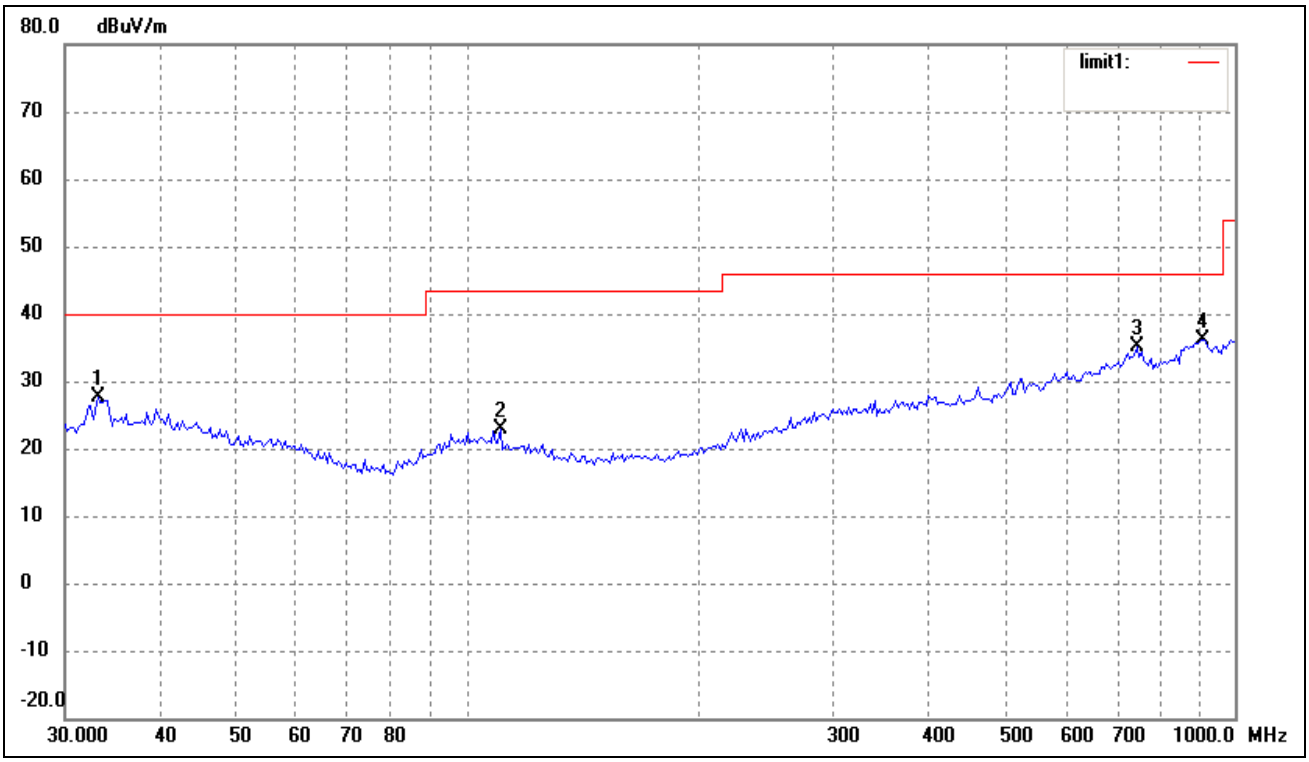
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	48.1626	23.79	-7.46	16.33	40.00	-23.67	43	100	peak
2	54.0711	22.96	-7.85	15.11	40.00	-24.89	313	100	peak
3	104.5361	23.99	-9.58	14.41	43.50	-29.09	122	100	peak
4	501.1790	22.85	-1.10	21.75	46.00	-24.25	211	100	peak
5*	916.0687	21.20	5.56	26.76	46.00	-19.24	23	100	peak

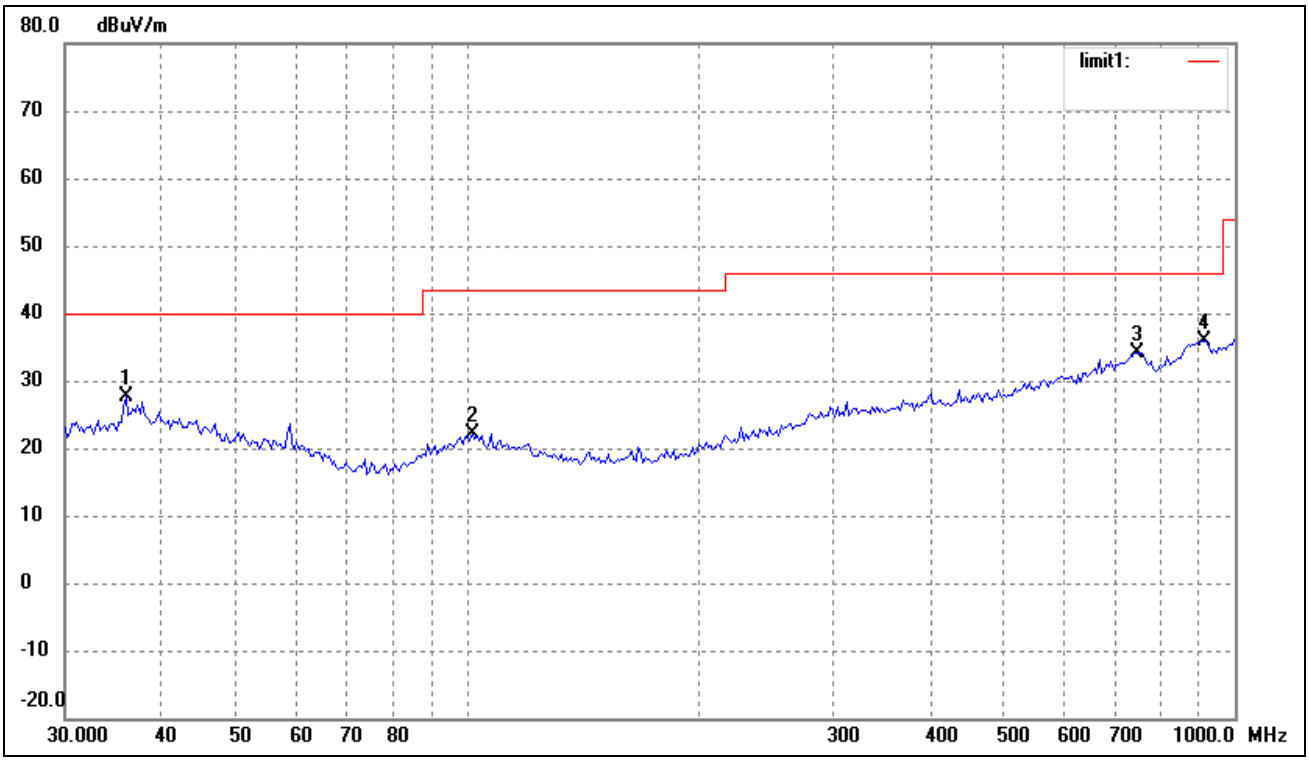
Operating Condition: *802.11b Transmitting High Channel-2462MHz*
Comment: *DC 3.7V Battery*

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	33.0950	19.05	8.56	27.61	40.00	-12.39	176	100	peak
2	110.5687	16.99	5.80	22.79	43.50	-20.71	255	100	peak
3	744.8661	17.06	17.95	35.01	46.00	-10.99	360	100	peak
4	906.4824	16.94	19.15	36.09	46.00	-9.91	178	100	peak

Test Specification: *Vertical*

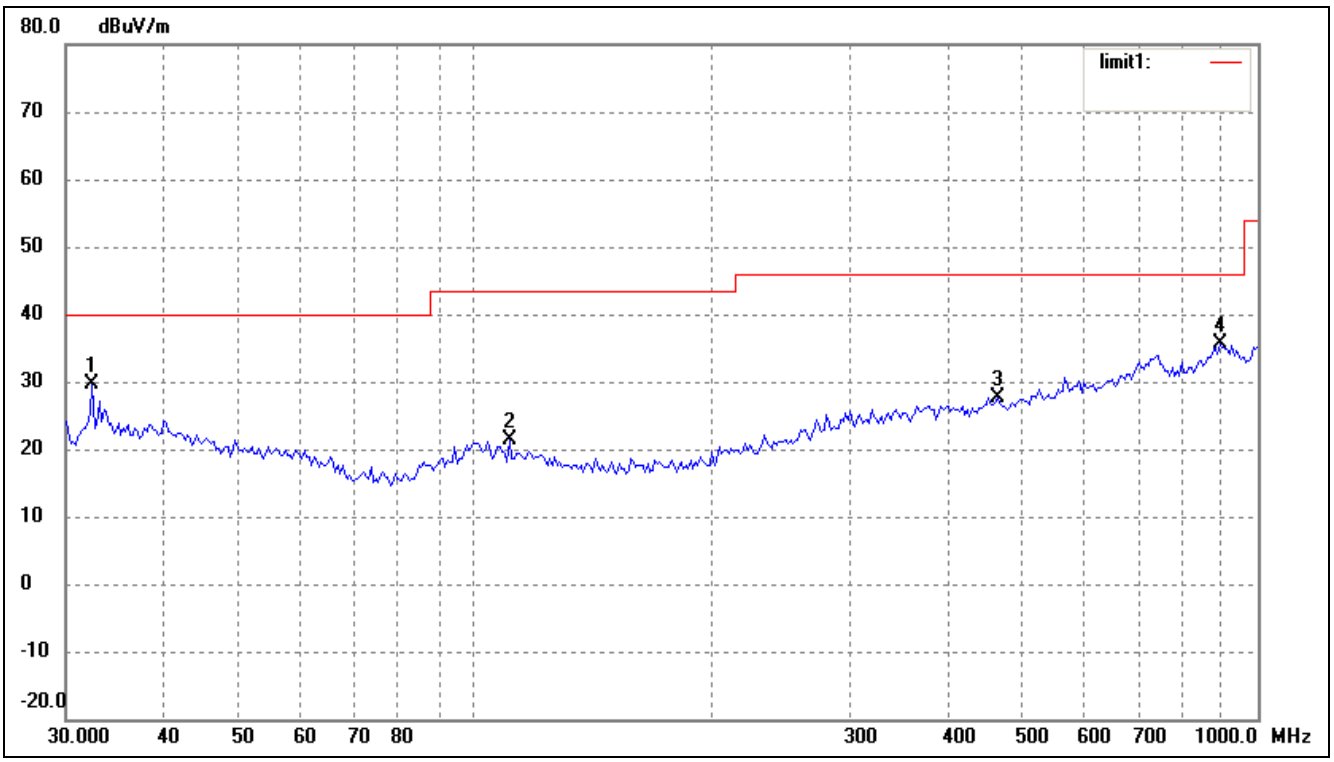


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	36.0007	18.59	9.04	27.63	40.00	-12.37	360	100	peak
2	101.6443	15.50	6.67	22.17	43.50	-21.33	225	100	peak
3	744.8661	16.16	17.95	34.11	46.00	-11.89	160	100	peak
4	912.8620	16.92	18.93	35.85	46.00	-10.15	310	100	peak

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

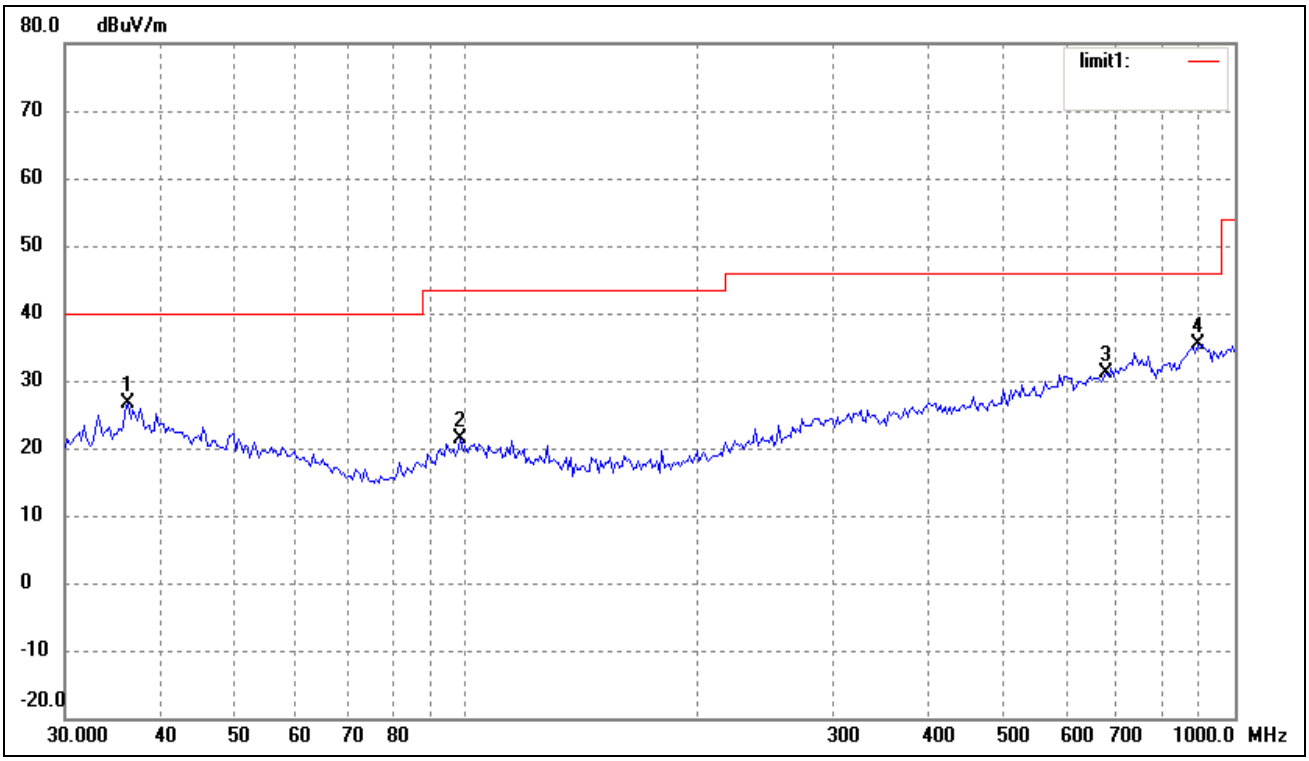
EUT: *Mobile phone*
Tested Model: *E5*
Operating Condition: *802.11g Transmitting Low Channel-2412MHz*
Comment: *DC 3.7V battery*

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	32.4059	21.23	8.44	29.67	40.00	-10.33	174	100	peak
2	110.5687	15.56	5.80	21.36	43.50	-22.14	160	100	peak
3	465.5994	16.02	11.69	27.71	46.00	-18.29	320	100	peak
4	893.8567	16.34	19.27	35.61	46.00	-10.39	360	100	peak

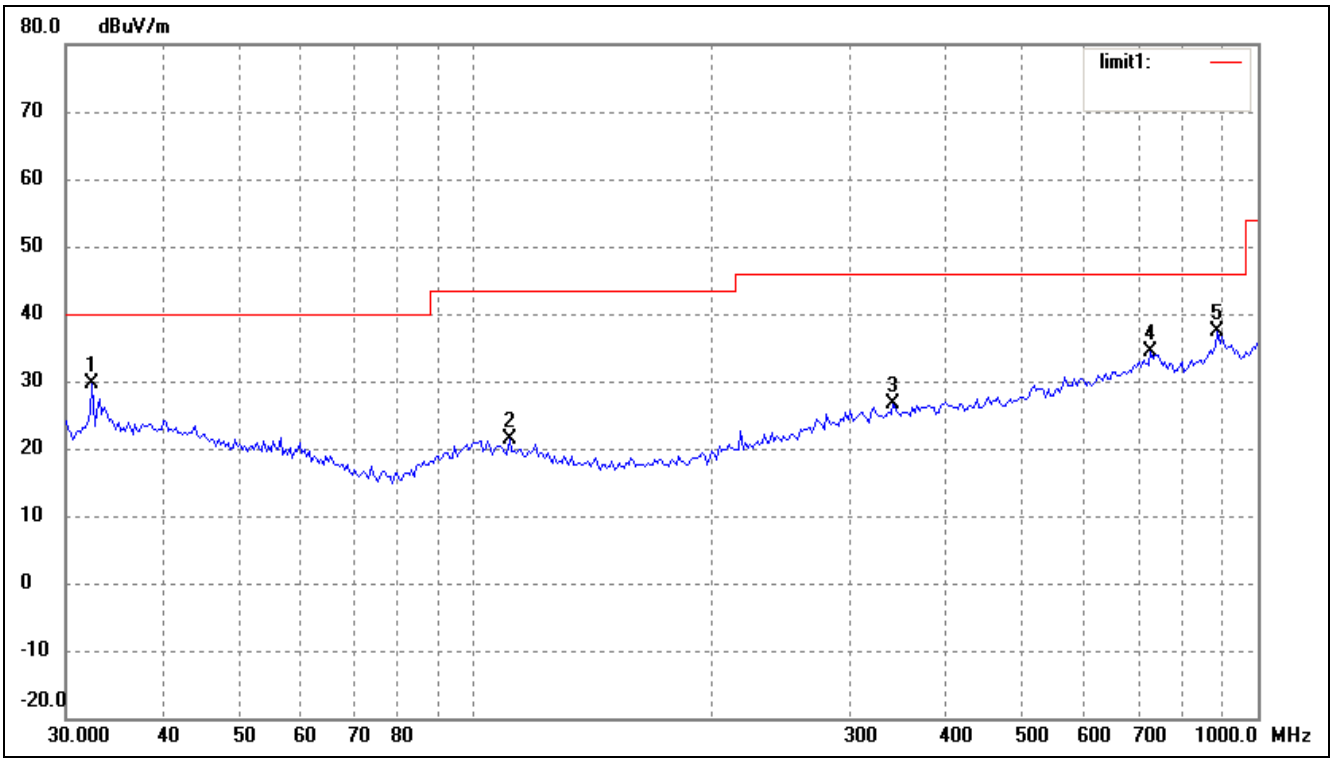
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	36.2541	17.45	9.09	26.54	40.00	-13.46	177	100	peak
2	98.1419	14.98	6.39	21.37	43.50	-22.13	90	100	peak
3	679.9600	15.48	15.55	31.03	46.00	-14.97	336	100	peak
4	893.8567	16.13	19.27	35.40	46.00	-10.60	360	100	peak

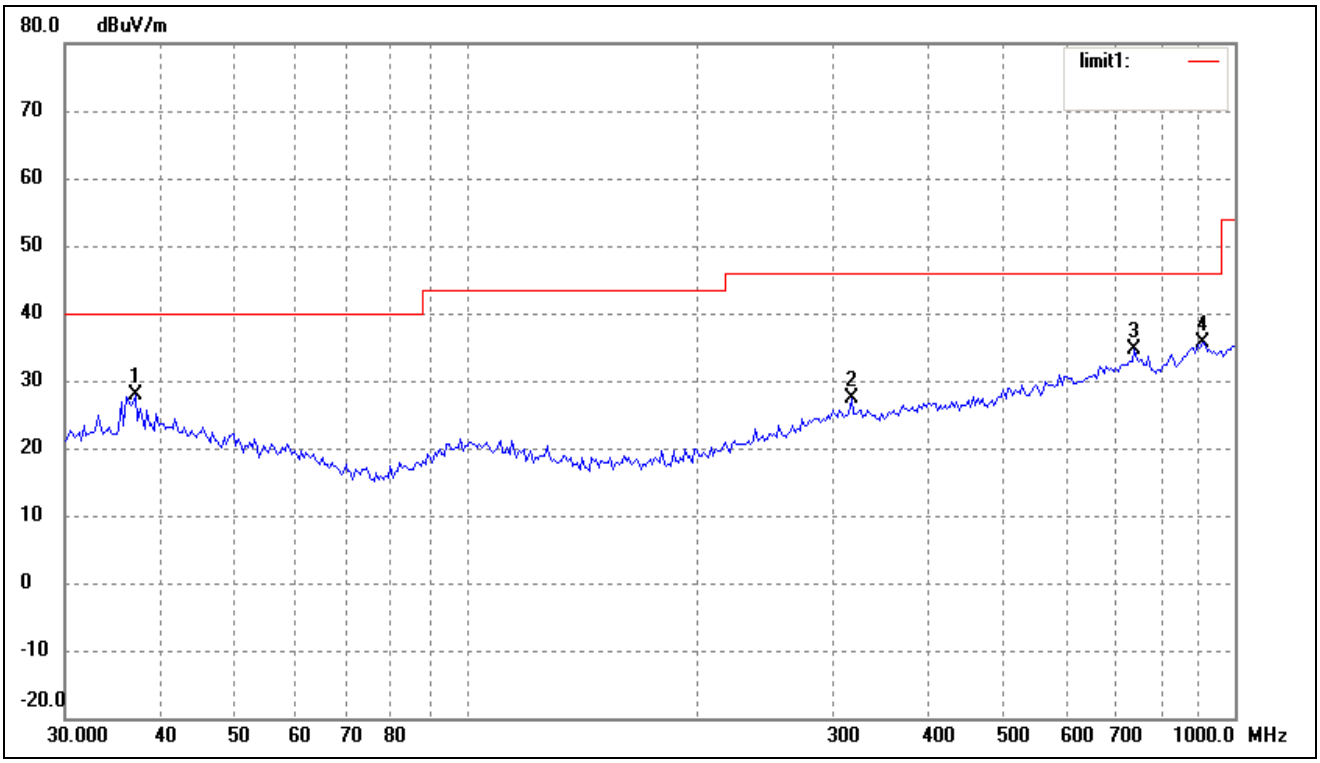
Operating Condition: *802.11g Transmitting Middle Channel-2437MHz*
Comment: *DC 3.7V Battery*

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	32.4059	21.23	8.44	29.67	40.00	-10.33	270	100	peak
2	110.5687	15.56	5.80	21.36	43.50	-22.14	164	100	peak
3	341.9787	16.40	10.16	26.56	46.00	-19.44	228	200	peak
4	729.3583	17.11	17.31	34.42	46.00	-11.58	130	200	peak
5	887.6099	18.21	19.15	37.36	46.00	-8.64	360	100	peak

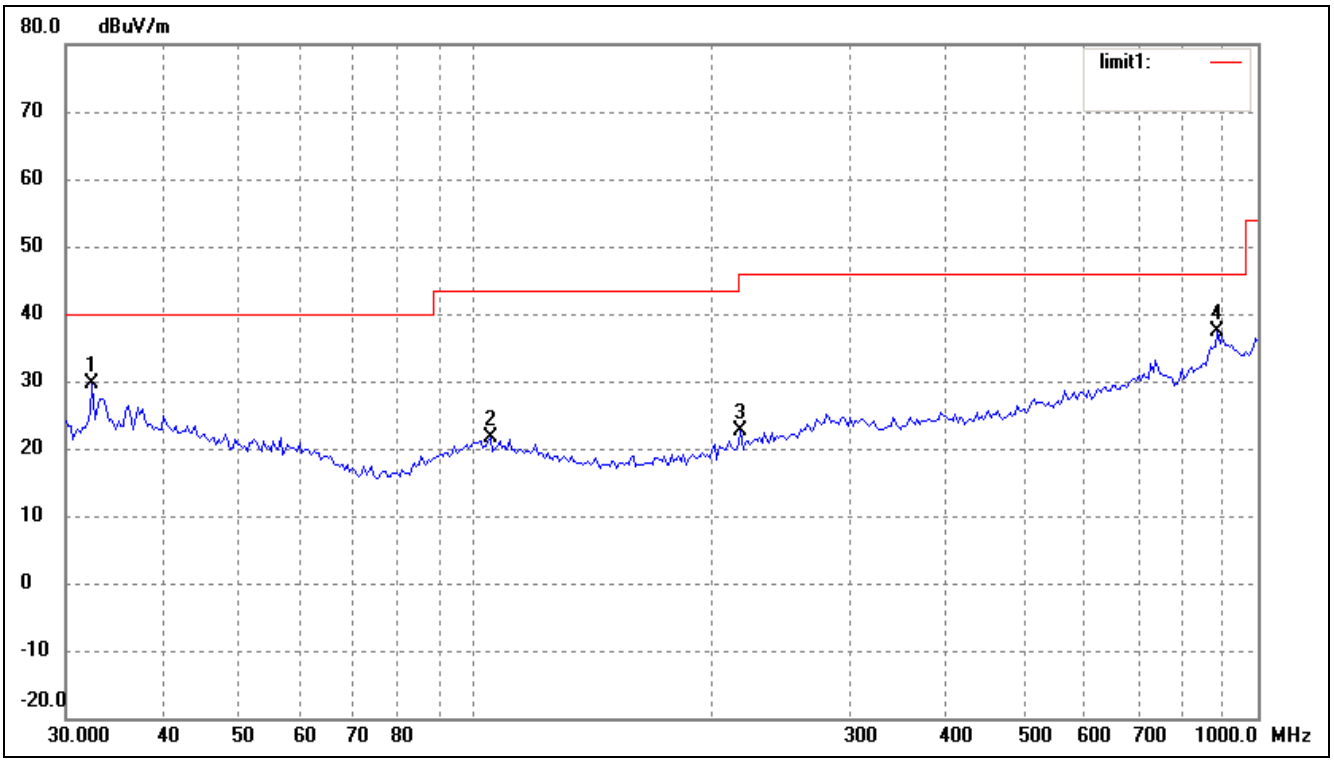
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	37.0249	18.59	9.21	27.80	40.00	-12.20	360	100	peak
2	316.5890	16.84	10.44	27.28	46.00	-18.72	255	100	peak
3	739.6605	16.54	18.07	34.61	46.00	-11.39	270	100	peak
4	906.4824	16.47	19.15	35.62	46.00	-10.38	180	100	peak

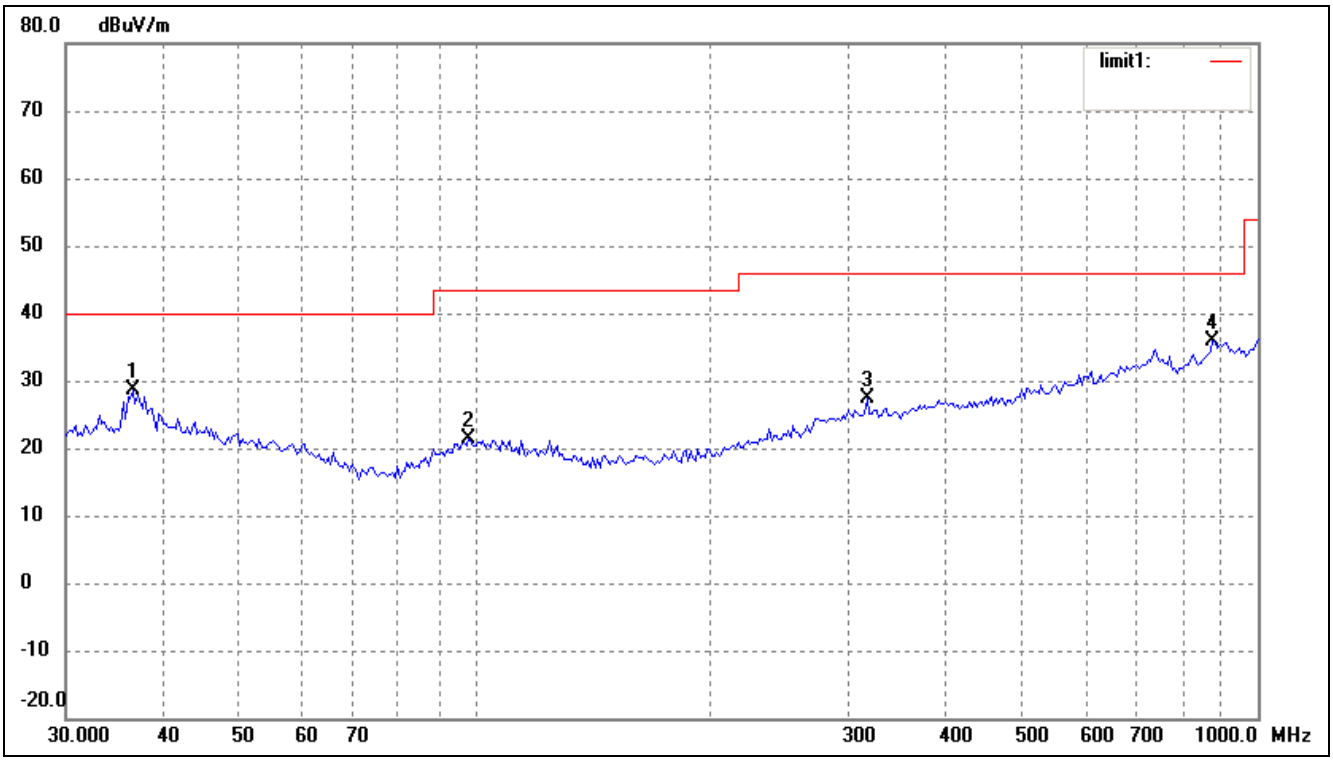
Operating Condition: *802.11g Transmitting High Channel-2462MHz*
Comment: *DC 3.7V Battery*

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	32.4059	21.23	8.44	29.67	40.00	-10.33	270	100	peak
2	104.5361	15.27	6.39	21.66	43.50	-21.84	51	200	peak
3	218.3085	16.82	5.81	22.63	46.00	-23.37	360	200	peak
4	887.6099	18.21	19.15	37.36	46.00	-8.64	360	100	peak

Test Specification: *Vertical*

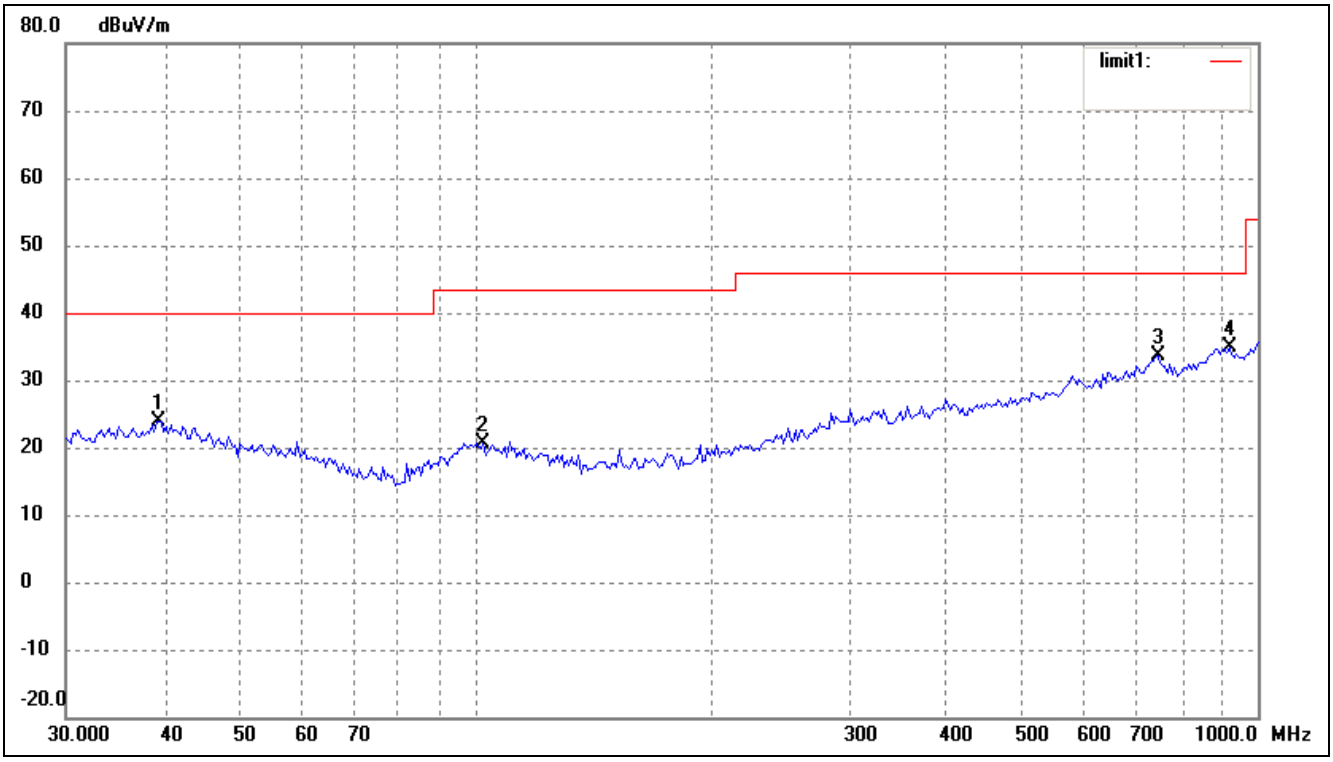


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	36.5092	19.47	9.13	28.60	40.00	-11.40	360	100	peak
2	98.1419	14.98	6.39	21.37	43.50	-22.13	180	100	peak
3	316.5890	16.84	10.44	27.28	46.00	-18.72	225	100	peak
4	875.2470	17.15	18.80	35.95	46.00	-10.05	67	100	peak

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

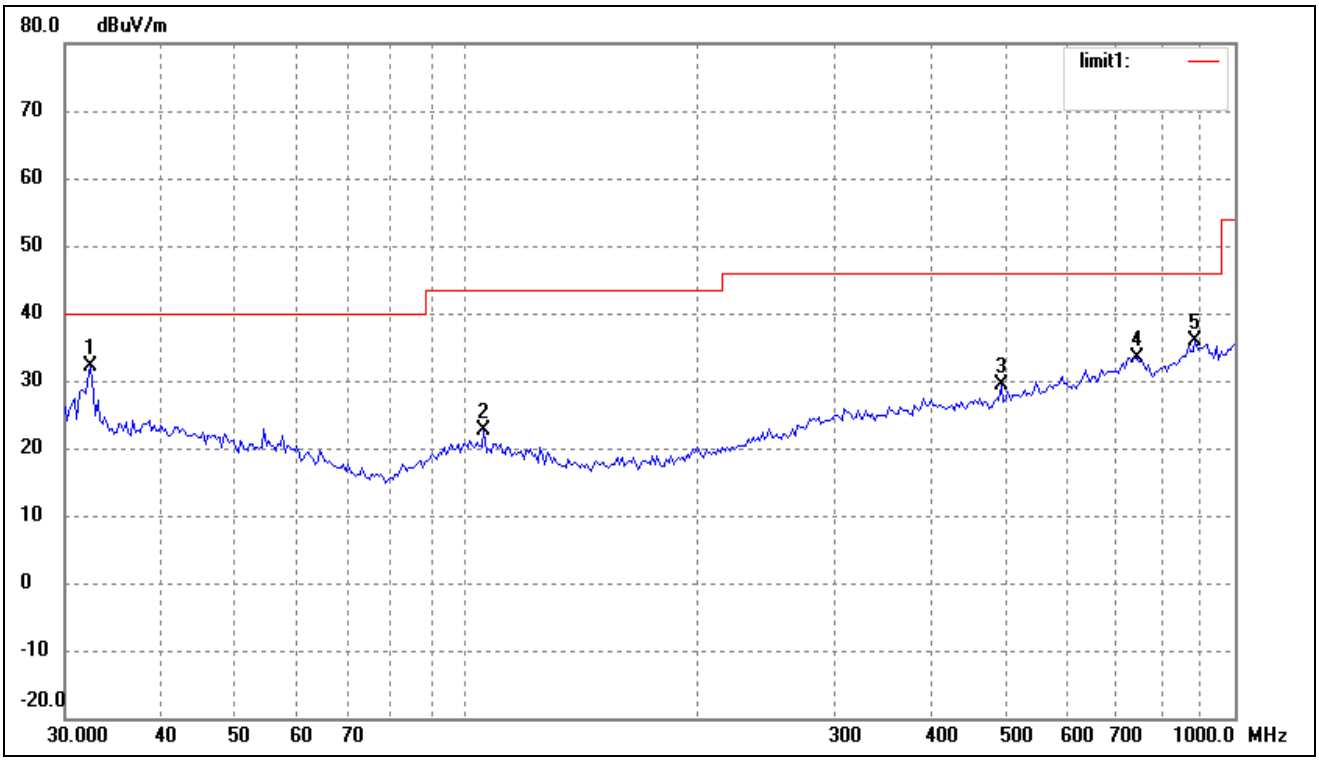
EUT: *Mobile phone*
Tested Model: *E5*
Operating Condition: *802.11n-HT20 Transmitting Low Channel-2412MHz*
Comment: *DC 3.7V Battery*

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	39.4372	14.37	9.60	23.97	40.00	-16.03	260	100	peak
2	102.3597	14.14	6.61	20.75	43.50	-22.75	131	200	peak
3	744.8661	15.61	17.95	33.56	46.00	-12.44	285	200	peak
4	919.2866	16.27	18.70	34.97	46.00	-11.03	224	100	peak

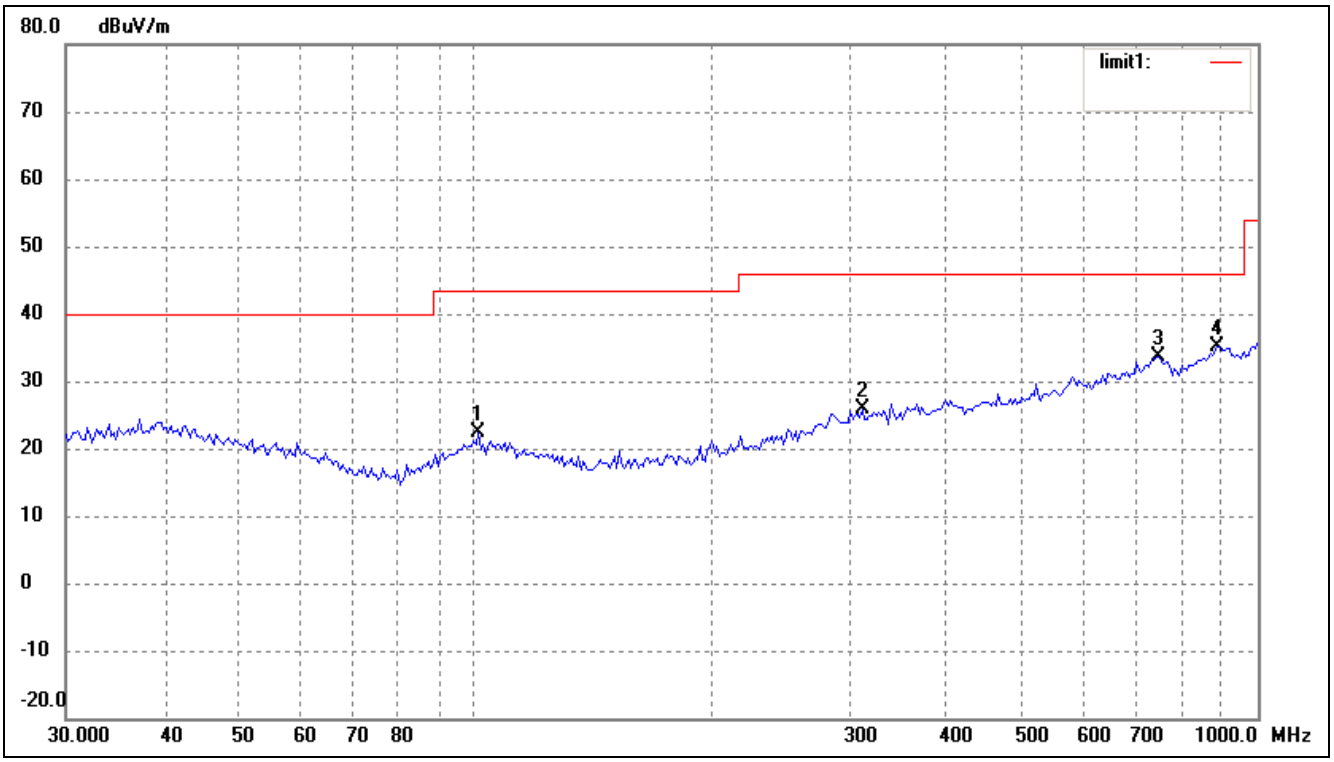
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	32.4059	23.69	8.44	32.13	40.00	-7.87	155	100	peak
2	105.2718	16.25	6.32	22.57	43.50	-20.93	197	100	peak
3	495.9344	17.25	12.04	29.29	46.00	-16.71	310	100	peak
4	744.8661	15.46	17.95	33.41	46.00	-12.59	229	100	peak
5	887.6099	16.71	19.15	35.86	46.00	-10.14	130	100	peak

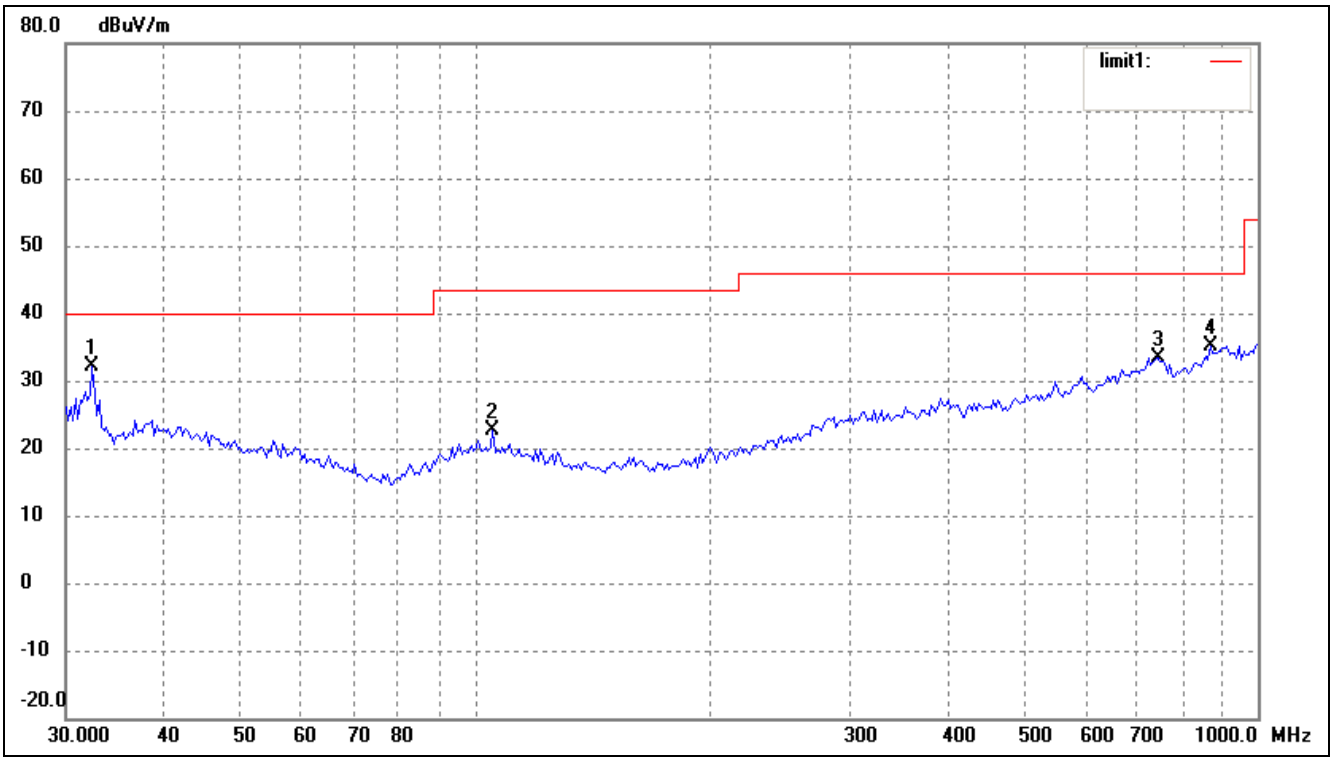
Operating Condition: *802.11n-HT20 Transmitting Middle Channel-2437MHz*
Comment: *DC 3.7V Battery*

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	100.9340	15.68	6.75	22.43	43.50	-21.07	274	100	peak
2	312.1794	15.59	10.36	25.95	46.00	-20.05	116	100	peak
3	744.8661	15.61	17.95	33.56	46.00	-12.44	82	100	peak
4	887.6099	15.93	19.15	35.08	46.00	-10.92	134	100	peak

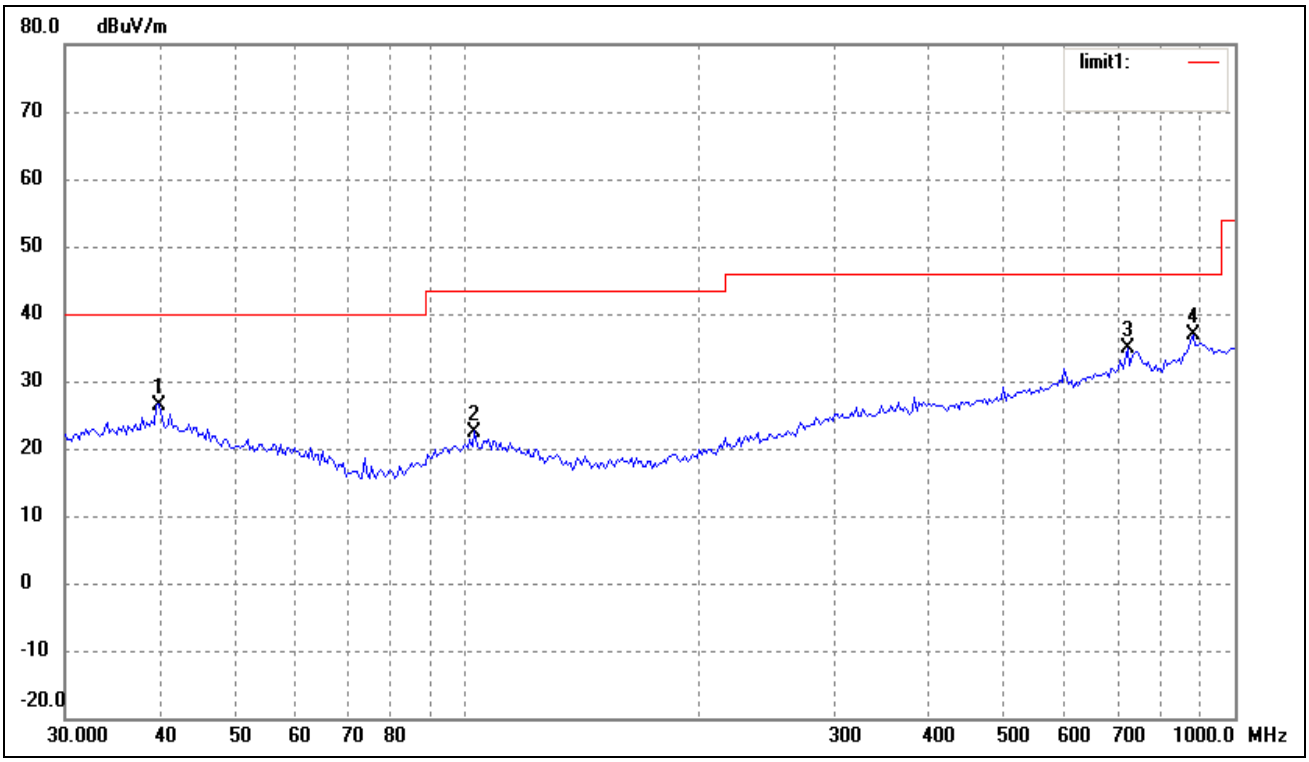
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	32.4059	23.69	8.44	32.13	40.00	-7.87	264	100	peak
2	105.2718	16.25	6.32	22.57	43.50	-20.93	110	100	peak
3	744.8661	15.46	17.95	33.41	46.00	-12.59	136	100	peak
4	869.1302	16.70	18.54	35.24	46.00	-10.76	90	100	peak

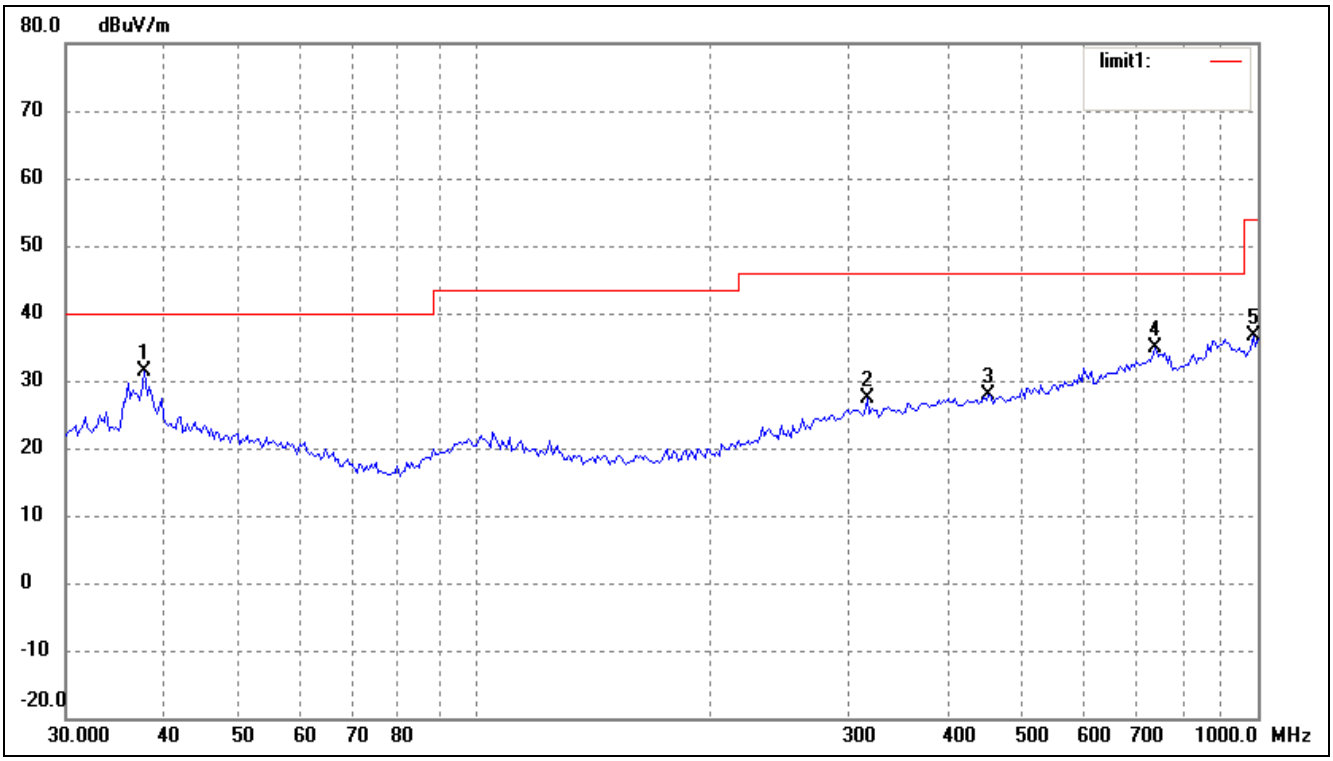
Operating Condition: *802.11n-HT20 Transmitting High Channel-2462MHz*
Comment: *DC 3.7V Battery*

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	39.7147	16.86	9.64	26.50	40.00	-13.50	360	100	peak
2	102.3597	15.89	6.61	22.50	43.50	-21.00	112	100	peak
3	724.2611	18.01	16.93	34.94	46.00	-11.06	180	200	peak
4	881.4067	17.84	19.03	36.87	46.00	-9.13	270	200	peak

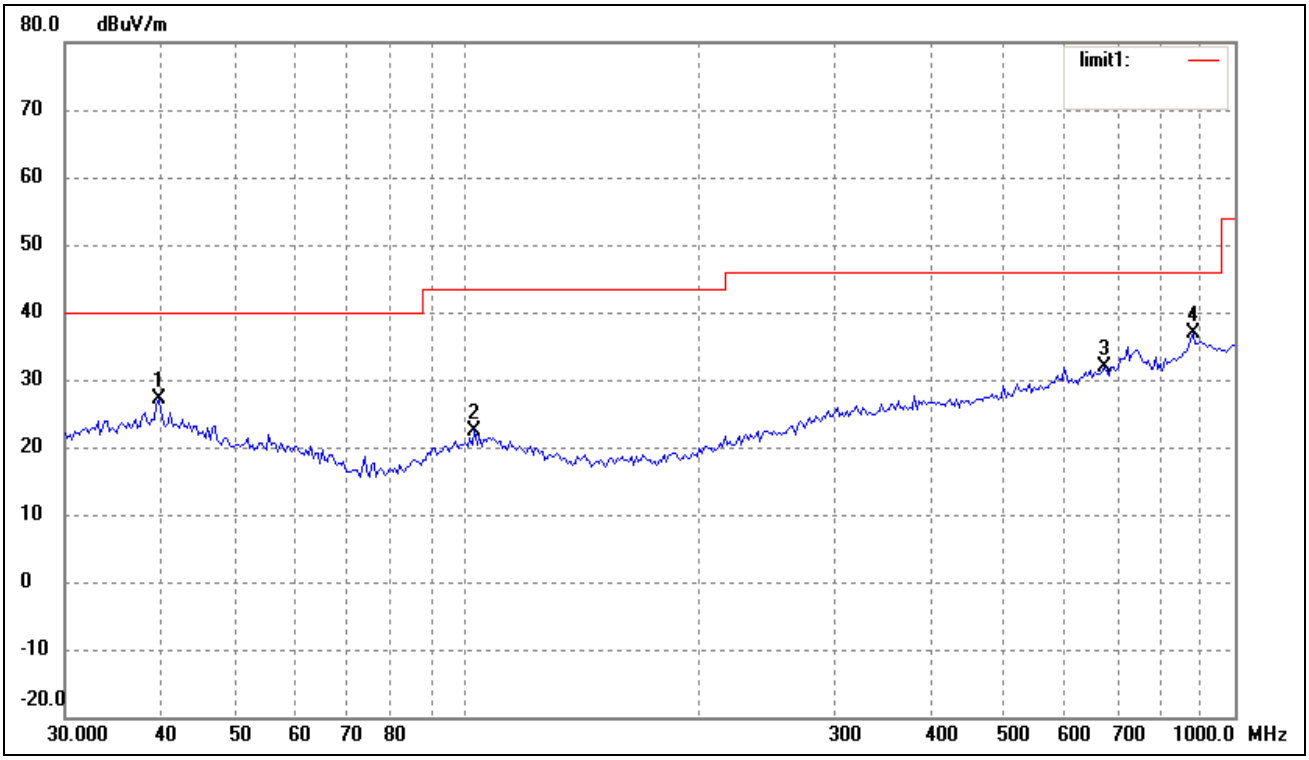
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	37.8121	21.98	9.33	31.31	40.00	-8.69	267	100	peak
2	316.5890	16.84	10.44	27.28	46.00	-18.72	116	100	peak
3	452.7197	16.27	11.58	27.85	46.00	-18.15	360	100	peak
4	739.6605	16.81	18.07	34.88	46.00	-11.12	228	100	peak
5	986.0717	17.36	19.17	36.53	54.00	-17.47	270	100	peak

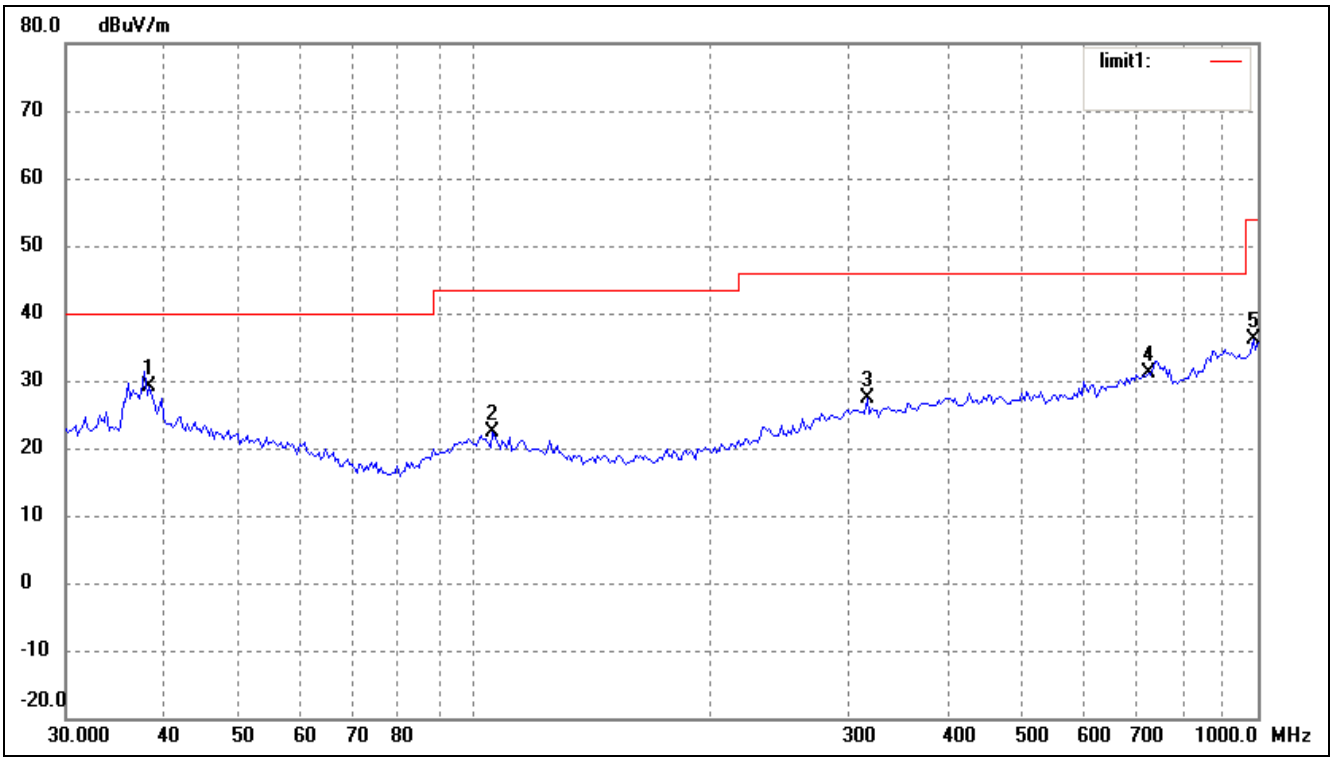
EUT: *Mobile phone*
Tested Model: *E5*
Operating Condition: *802.11n-HT40 Transmitting Low Channel-2422MHz*
Comment: *DC 3.7V battery*

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	39.7147	17.39	9.64	27.03	40.00	-12.97	267	100	peak
2	102.3597	15.89	6.61	22.50	43.50	-21.00	114	200	peak
3	675.2080	16.60	15.36	31.96	46.00	-14.04	35	200	peak
4	881.4067	17.84	19.03	36.87	46.00	-9.13	81	100	peak

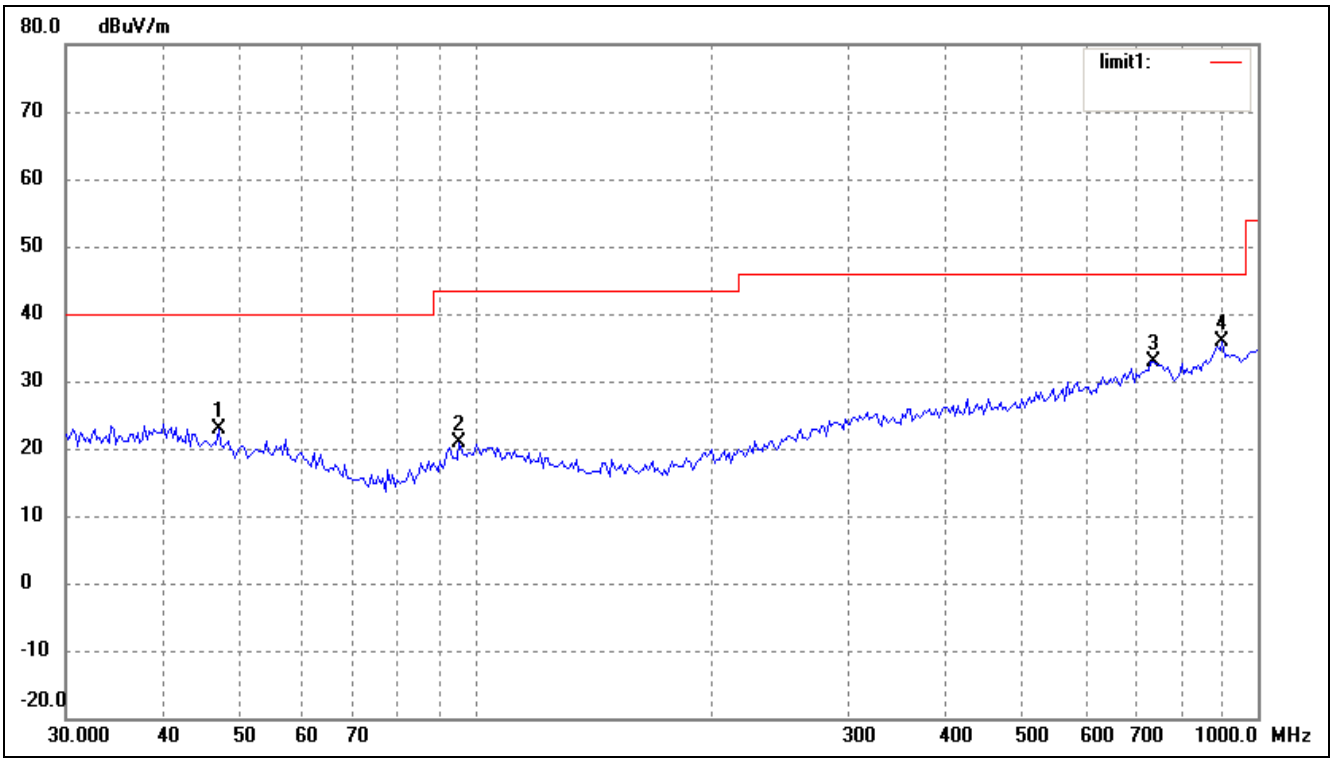
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	38.3462	19.59	9.42	29.01	40.00	-10.99	360	100	peak
2	105.2718	15.98	6.32	22.30	43.50	-21.20	258	100	peak
3	316.5890	16.84	10.44	27.28	46.00	-18.72	347	100	peak
4	724.2611	14.21	16.93	31.14	46.00	-14.86	270	100	peak
5	986.0717	16.86	19.17	36.03	54.00	-17.97	90	100	peak

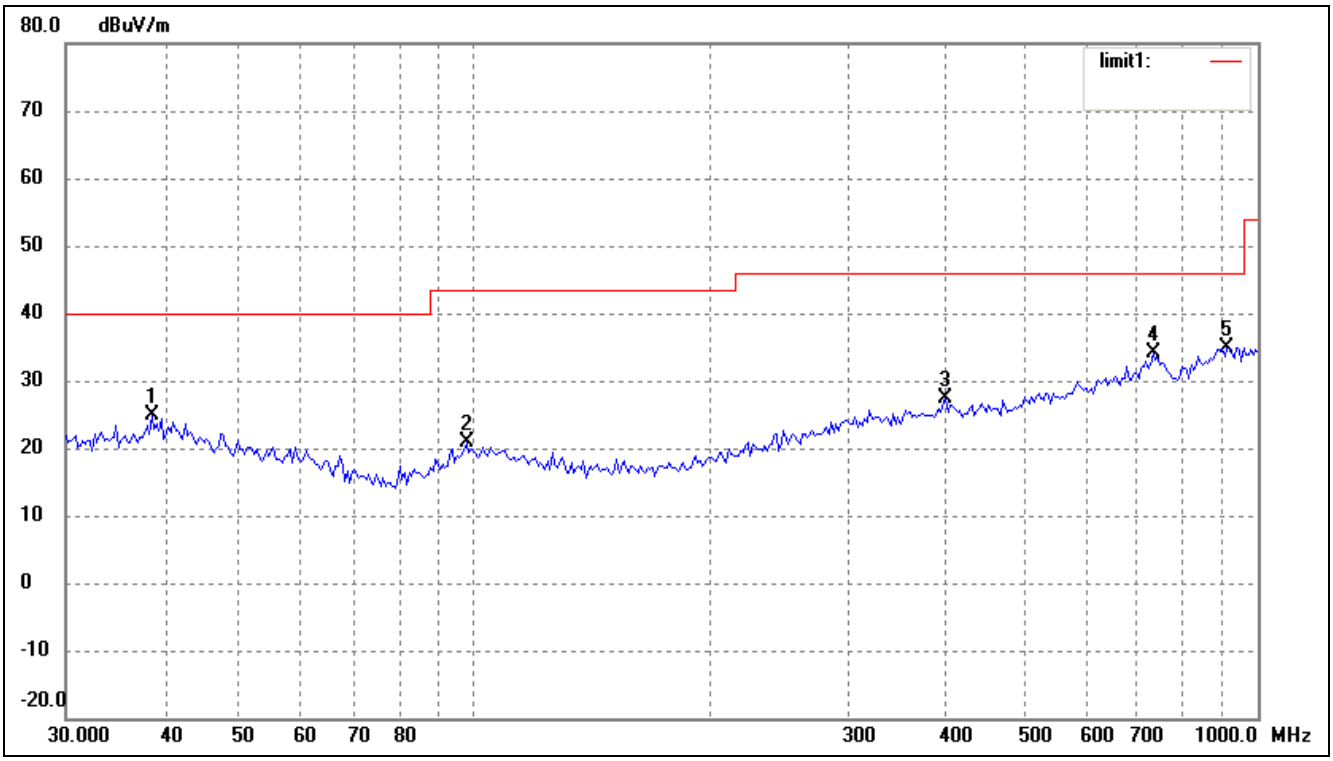
Operating Condition: *802.11n-HT40 Transmitting Middle Channel-2437MHz*
Comment: *DC 3.7V battery*

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	46.9948	15.43	7.54	22.97	40.00	-17.03	251	100	peak
2	95.4270	15.15	5.71	20.86	43.50	-22.64	167	100	peak
3	734.4913	15.18	17.68	32.86	46.00	-13.14	44	100	peak
4	900.1474	16.39	19.38	35.77	46.00	-10.23	130	100	peak

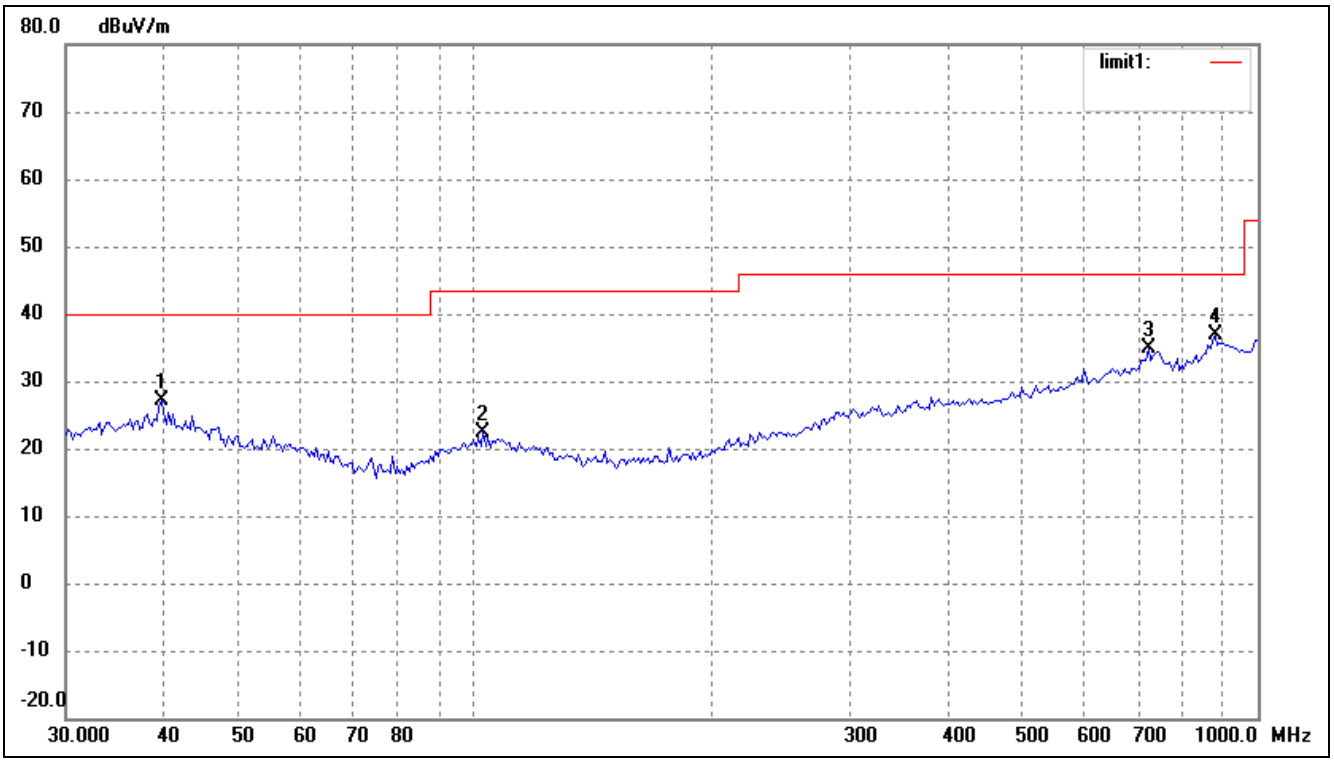
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	(•)	(cm)	
1	38.6161	15.30	9.46	24.76	40.00	-15.24	47	100	peak
2	97.4560	14.68	6.21	20.89	43.50	-22.61	264	100	peak
3	399.0302	15.85	11.50	27.35	46.00	-18.65	225	100	peak
4	734.4913	16.36	17.68	34.04	46.00	-11.96	180	100	peak
5	912.8620	15.86	18.93	34.79	46.00	-11.21	315	100	peak

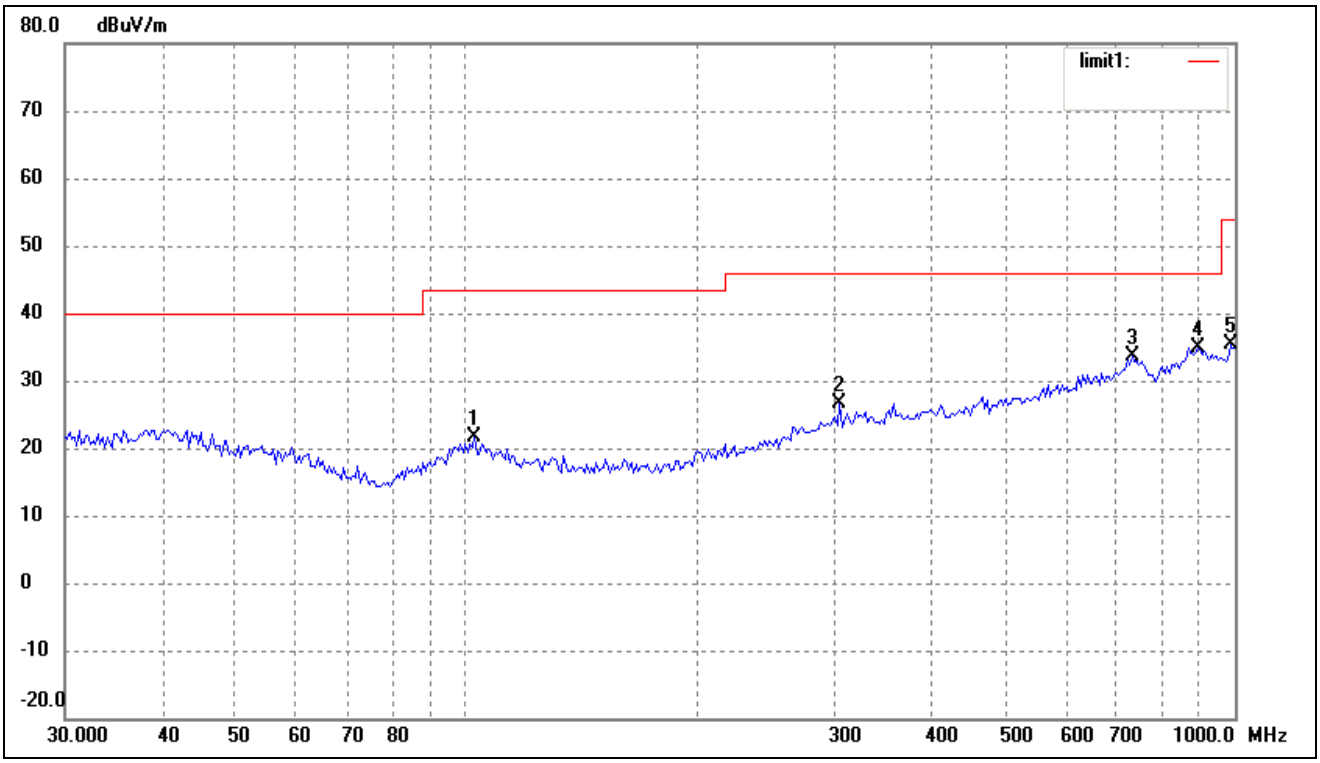
Operating Condition: *802.11n-HT40 Transmitting High Channel-2452MHz*
Comment: *DC 3.7V battery*

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	39.7147	17.39	9.64	27.03	40.00	-12.97	360	100	peak
2	102.3597	15.89	6.61	22.50	43.50	-21.00	287	100	peak
3	724.2611	18.01	16.93	34.94	46.00	-11.06	168	100	peak
4	881.4067	17.84	19.03	36.87	46.00	-9.13	122	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	102.3597	15.01	6.61	21.62	43.50	-21.88	78	100	peak
2	305.6800	16.44	10.27	26.71	46.00	-19.29	136	100	peak
3	734.4913	15.93	17.68	33.61	46.00	-12.39	284	100	peak
4	893.8567	15.69	19.27	34.96	46.00	-11.04	60	100	peak
5	986.0717	16.20	19.17	35.37	54.00	-18.63	330	100	peak

Spurious Emissions Above 1GHz

Test Mode: 802.11b

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2412MHz							
4824	60.00	-3.86	56.14	74	-17.86	H	PK
4824	47.27	-3.86	43.41	54	-10.59	H	AV
7236	55.45	1.1	56.55	74	-17.45	H	PK
7236	49.09	1.1	50.19	54	-3.81	H	AV
4824	55.45	-3.86	51.59	74	-22.41	V	PK
4824	45.45	-3.86	41.59	54	-12.41	V	AV
7236	59.09	1.1	60.19	74	-13.81	V	PK
7236	46.36	1.1	47.46	54	-6.54	V	AV
Middle Channel-2437MHz							
4874	59.09	-3.74	55.35	74	-18.65	H	PK
4874	42.73	-3.74	38.99	54	-15.01	H	AV
7311	57.27	1.47	58.74	74	-15.26	H	PK
7311	40.91	1.47	42.38	54	-11.62	H	AV
4874	52.73	-3.74	48.99	74	-25.01	V	PK
4874	41.82	-3.74	38.08	54	-15.92	V	AV
7311	57.27	1.47	58.74	74	-15.26	V	PK
7311	40.91	1.47	42.38	54	-11.62	V	AV
High Channel-2462MHz							
4924	54.55	-3.63	50.92	74	-23.08	H	PK
4924	40.00	-3.63	36.37	54	-17.63	H	AV
7386	53.64	1.62	55.26	74	-18.74	H	PK
7386	47.27	1.62	48.89	54	-5.11	H	AV
4924	54.55	-3.63	50.92	74	-23.08	V	PK
4924	49.09	-3.63	45.46	54	-8.54	V	AV
7386	59.09	1.62	60.71	74	-13.29	V	PK
7386	46.36	1.62	47.98	54	-6.02	V	AV

Test Mode: 802.11g

Frequency (MHz)	Reading (dBuV)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel-2412MHz							
4824	53.64	-3.86	49.78	74	-24.22	H	PK
4824	47.27	-3.86	43.41	54	-10.59	H	AV
7236	54.55	1.1	55.65	74	-18.35	H	PK
7236	42.73	1.1	43.83	54	-10.17	H	AV
4824	55.45	-3.86	51.59	74	-22.41	V	PK
4824	42.73	-3.86	38.87	54	-15.13	V	AV
7236	56.36	1.1	57.46	74	-16.54	V	PK
7236	45.45	1.1	46.55	54	-7.45	V	AV
Middle Channel-2437MHz							
4874	53.64	-3.74	49.90	74	-24.10	H	PK
4874	44.55	-3.74	40.81	54	-13.19	H	AV
7311	60.00	1.47	61.47	74	-12.53	H	PK
7311	42.73	1.47	44.20	54	-9.80	H	AV
4874	59.09	-3.74	55.35	74	-18.65	V	PK
4874	44.55	-3.74	40.81	54	-13.19	V	AV
7311	58.18	1.47	59.65	74	-14.35	V	PK
7311	42.73	1.47	44.20	54	-9.80	V	AV
High Channel-2462MHz							
4924	60.00	-3.63	56.37	74	-17.63	H	PK
4924	43.64	-3.63	40.01	54	-13.99	H	AV
7386	55.45	1.62	57.07	74	-16.93	H	PK
7386	40.91	1.62	42.53	54	-11.47	H	AV
4924	53.64	-3.63	50.01	74	-23.99	V	PK
4924	50.00	-3.63	46.37	54	-7.63	V	AV
7386	60.00	1.62	61.62	74	-12.38	V	PK
7386	44.55	1.62	46.17	54	-7.83	V	AV

Test Mode: 802.11n-HT20

Frequency (MHz)	Reading (dBuV)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Polar H/V	Detector
Low Channel-2412MHz							
4824	56.36	-3.86	52.50	74	-21.50	H	PK
4824	47.27	-3.86	43.41	54	-10.59	H	AV
7236	59.09	1.1	60.19	74	-13.81	H	PK
7236	42.73	1.1	43.83	54	-10.17	H	AV
4824	58.18	-3.86	54.32	74	-19.68	V	PK
4824	49.09	-3.86	45.23	54	-8.77	V	AV
7236	55.45	1.1	56.55	74	-17.45	V	PK
7236	44.55	1.1	45.65	54	-8.35	V	AV
Middle Channel-2437MHz							
4874	57.27	-3.74	53.53	74	-20.47	H	PK
4874	48.18	-3.74	44.44	54	-9.56	H	AV
7311	52.73	1.47	54.20	74	-19.80	H	PK
7311	42.73	1.47	44.20	54	-9.80	H	AV
4874	55.45	-3.74	51.71	74	-22.29	V	PK
4874	42.73	-3.74	38.99	54	-15.01	V	AV
7311	57.27	1.47	58.74	74	-15.26	V	PK
7311	50.00	1.47	51.47	54	-2.53	V	AV
High Channel-2462MHz							
4924	53.64	-3.63	50.01	74	-23.99	H	PK
4924	48.18	-3.63	44.55	54	-9.45	H	AV
7386	60.00	1.62	61.62	74	-12.38	H	PK
7386	45.45	1.62	47.07	54	-6.93	H	AV
4924	52.73	-3.63	49.10	74	-24.90	V	PK
4924	45.45	-3.63	41.82	54	-12.18	V	AV
7386	54.55	1.62	56.17	74	-17.83	V	PK
7386	45.45	1.62	47.07	54	-6.93	V	AV

Test Mode: 802.11n-HT40

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2422MHz							
4844	54.55	-3.86	50.69	74	-23.31	H	PK
4844	46.36	-3.86	42.50	54	-11.50	H	AV
7266	59.09	1.1	60.19	74	-13.81	H	PK
7266	49.09	1.1	50.19	54	-3.81	H	AV
4844	54.55	-3.86	50.69	74	-23.31	V	PK
4844	43.64	-3.86	39.78	54	-14.22	V	AV
7266	59.09	1.1	60.19	74	-13.81	V	PK
7266	43.64	1.1	44.74	54	-9.26	V	AV
Middle Channel-2437MHz							
4874	60.00	-3.74	56.26	74	-17.74	H	PK
4874	40.91	-3.74	37.17	54	-16.83	H	AV
7311	56.36	1.47	57.83	74	-16.17	H	PK
7311	46.36	1.47	47.83	54	-6.17	H	AV
4874	56.36	-3.74	52.62	74	-21.38	V	PK
4874	40.00	-3.74	36.26	54	-17.74	V	AV
7311	54.55	1.47	56.02	74	-17.98	V	PK
7311	43.64	1.47	45.11	54	-8.89	V	AV
High Channel-2452MHz							
4904	56.36	-3.63	52.73	74	-21.27	H	PK
4904	50.00	-3.63	46.37	54	-7.63	H	AV
7356	58.18	1.62	59.80	74	-14.20	H	PK
7356	40.00	1.62	41.62	54	-12.38	H	AV
4904	58.18	-3.63	54.55	74	-19.45	V	PK
4904	45.45	-3.63	41.82	54	-12.18	V	AV
7356	53.64	1.62	55.26	74	-18.74	V	PK
7356	43.64	1.62	45.26	54	-8.74	V	AV

Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, other than listed in the table above are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

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 Procedure

According to the KDB 558074D01 v03r05, 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 product 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.

According to the KDB 558074 D01 v03r05, the conducted spurious emissions test method as follows:
1. Set start frequency to DTS channel edge frequency.
2. Set stop frequency so as to encompass the spectrum to be examined.
3. Set RBW = 100 kHz.
4. Set VBW ≥ 300 kHz.
5. Detector = peak.
6. Trace Mode = max hold.
7. Sweep = auto couple.
8. Allow the trace to stabilize (this may take some time, depending on the extent of the span).
9. Use peak marker function to determine maximum amplitude of all unwanted emissions within any 100 kHz bandwidth.

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) are attenuated by at least the minimum requirements specified in section 8.1. Report the three highest emissions relative to the limit.

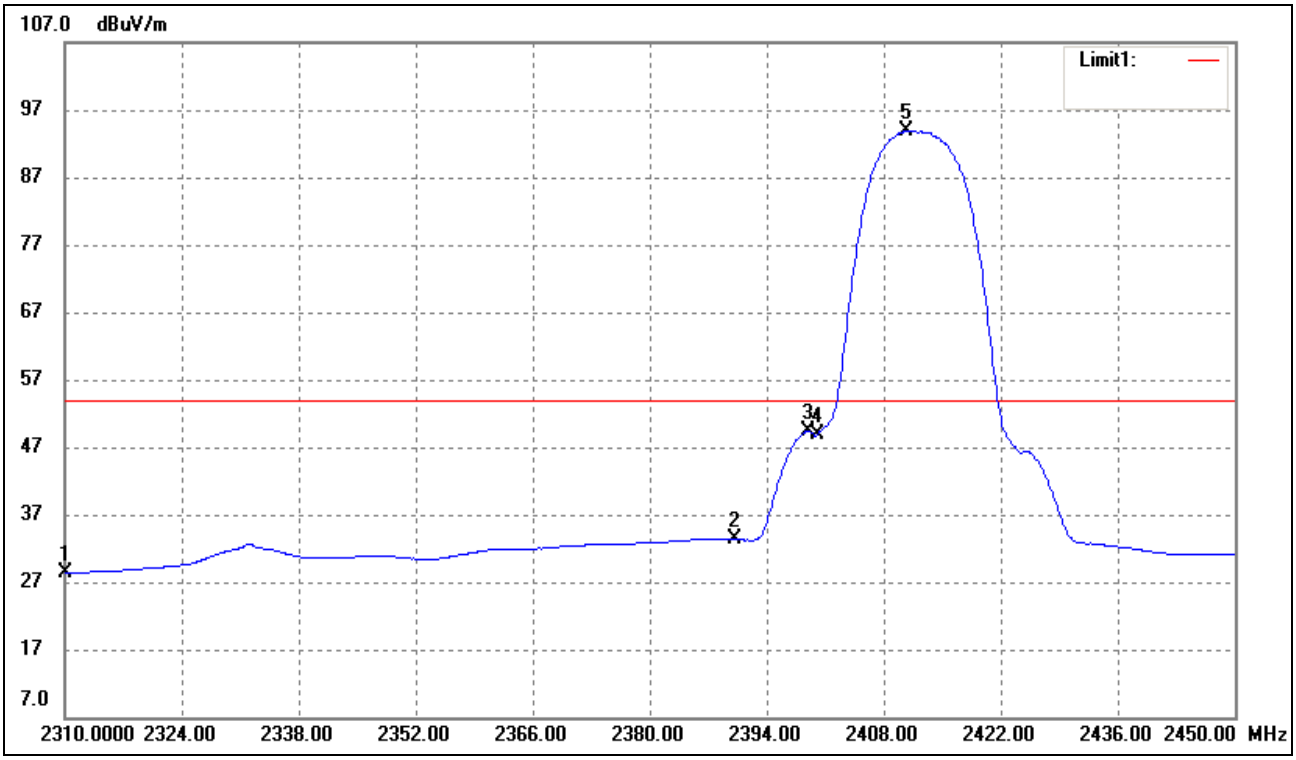
9.3 Environmental Conditions

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

9.4 Summary of Test Results/Plots

802.11b-Lowest Bandedge

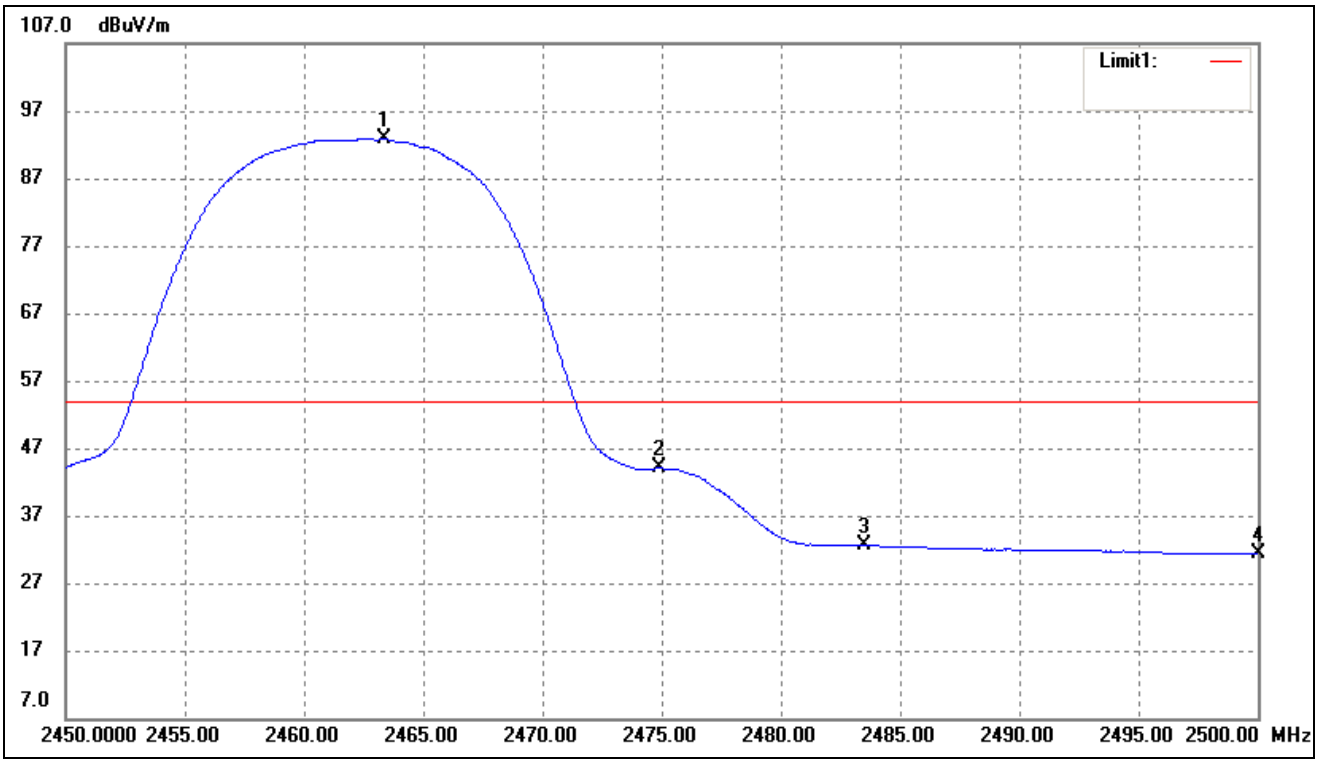
Vertical (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	32.14	-3.71	28.43	54.00	-25.57	Average Detector
	2310.000	44.14	-3.71	40.43	74.00	-33.57	Peak Detector
2	2390.000	36.96	-3.54	33.42	54.00	-20.58	Average Detector
	2390.000	48.65	-3.54	45.11	74.00	-28.89	Peak Detector
3	2398.900	52.90	-3.51	49.39	54.00	-4.61	Average Detector
	2398.900	62.95	-3.51	59.44	74.00	-14.56	Peak Detector
4	2400.000	51.67	-3.51	48.16	Delta =45.33dBc		Average Detector
5	2410.660	96.97	-3.48	93.49			Average Detector

802.11b-Highest Bandedge

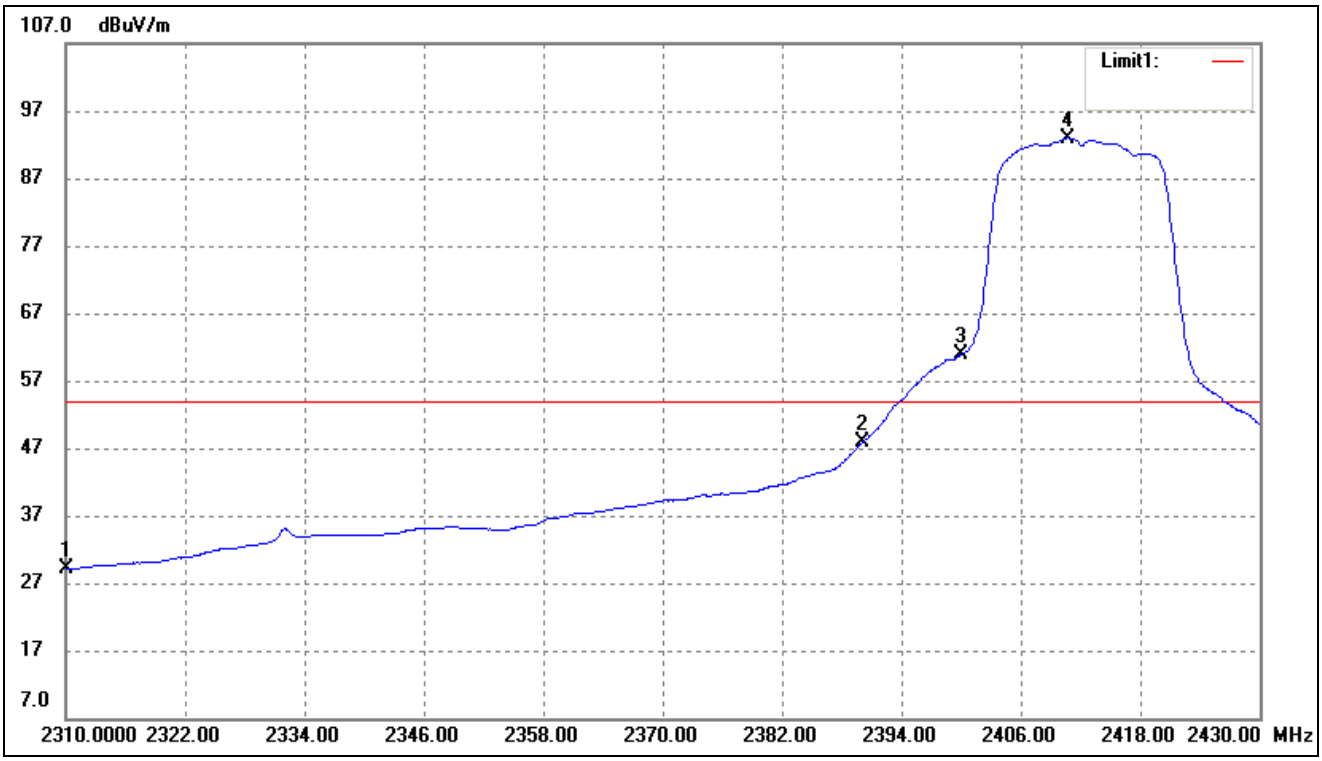
Vertical (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2463.350	96.35	-3.36	92.99	/	/	Average Detector
	2463.300	104.41	-3.36	101.05	/	/	Peak Detector
2	2474.900	47.45	-3.33	44.12	54.00	-9.88	Average Detector
	2474.800	58.64	-3.33	55.31	74.00	-18.69	Peak Detector
3	2483.500	35.55	-3.33	32.22	54.00	-21.78	Average Detector
	2483.500	47.64	-3.33	44.31	74.00	-29.69	Peak Detector
4	2500.000	34.43	-3.28	31.15	54.00	-42.85	Average Detector
	2500.000	46.51	-3.28	43.23	74.00	-10.77	Peak Detector

802.11g-Lowest Bandedge

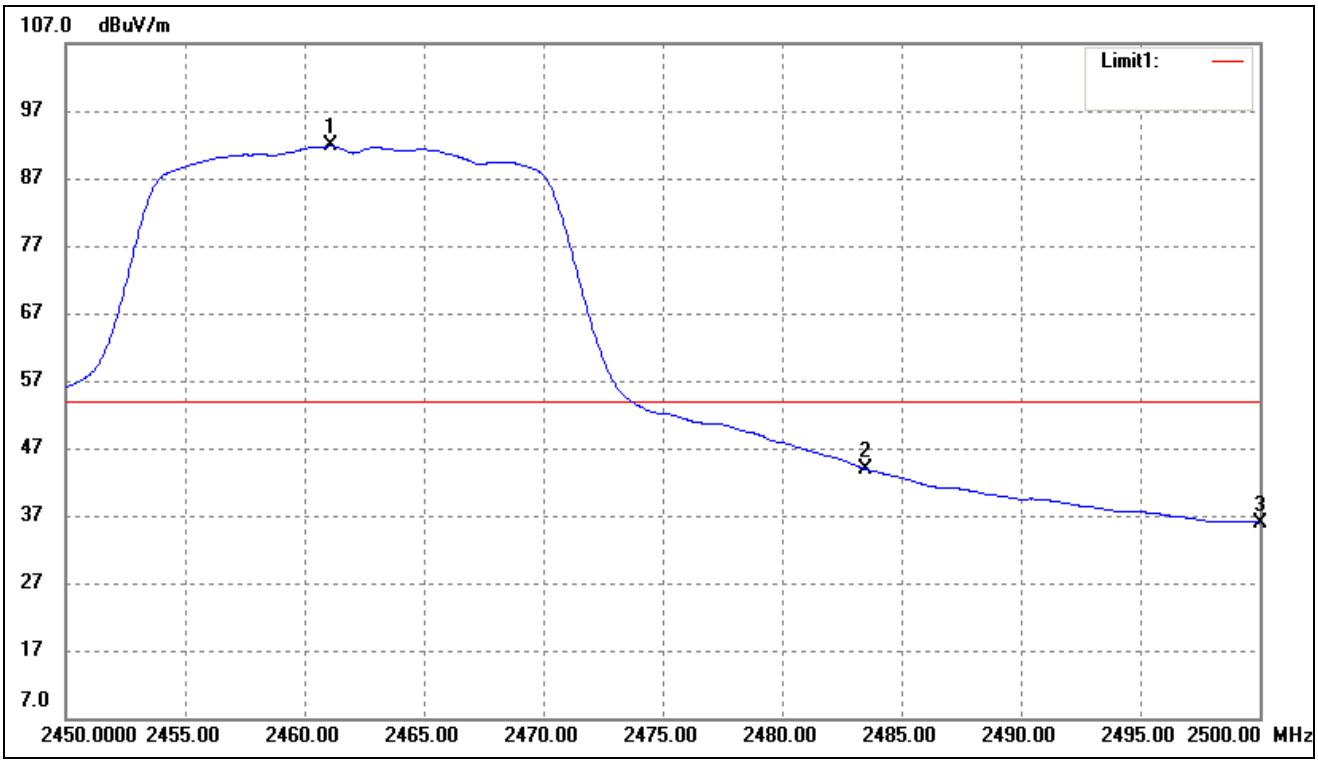
Vertical (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	32.65	-3.71	28.94	54.00	-25.06	Average Detector
	2310.000	45.85	-3.71	42.14	74.00	-31.86	Peak Detector
2	2390.000	51.66	-3.54	48.12	54.00	-5.88	Average Detector
	2390.000	68.85	-3.54	65.31	74.00	-8.69	Peak Detector
3	2400.000	63.93	-3.51	60.42	Delta =34.12dBc		Average Detector
4	2410.680	98.02	-3.48	94.54			Average Detector

802.11g-Highest Bandedge

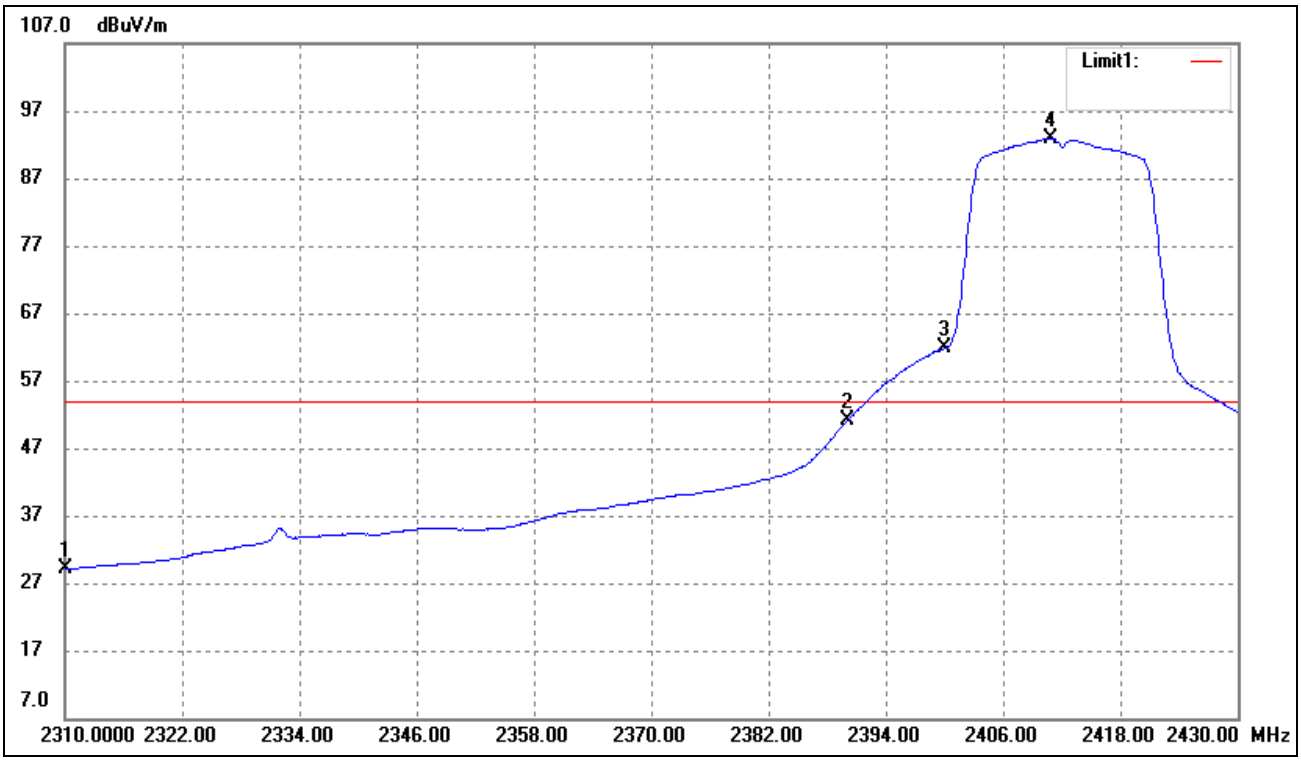
Vertical (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2461.100	94.83	-3.37	91.46	/	/	Average Detector
	2463.750	104.36	-3.36	101	/	/	Peak Detector
2	2483.500	46.56	-3.33	43.23	54	-10.77	Average Detector
	2483.500	67.57	-3.33	64.24	74	-9.76	Peak Detector
3	2500.000	38.60	-3.28	35.32	54	-18.68	Average Detector
	2500.000	53.40	-3.28	50.12	74	-23.88	Peak Detector

802.11n-HT20-Lowest Bandedge

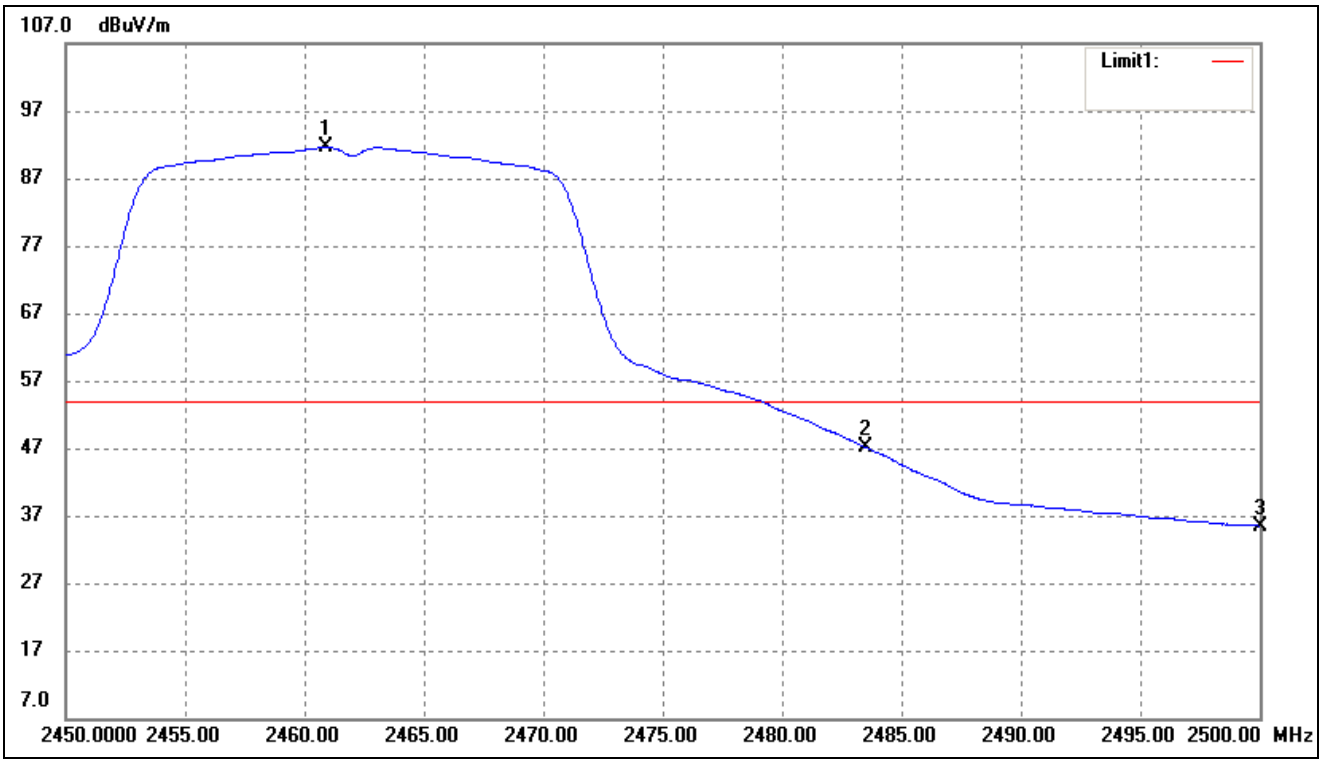
Vertical (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	32.55	-3.71	28.84	54.00	-25.16	Average Detector
	2310.000	45.58	-3.71	41.87	74.00	-32.13	Peak Detector
2	2390.000	54.26	-3.54	50.72	54.00	-3.28	Average Detector
	2390.000	72.97	-3.54	69.43	74.00	-4.57	Peak Detector
3	2400.000	64.82	-3.51	61.31	Delta =31.03dBc		Average Detector
4	2410.800	95.82	-3.48	92.34			Average Detector

802.11n-HT20-Highest Bandedge

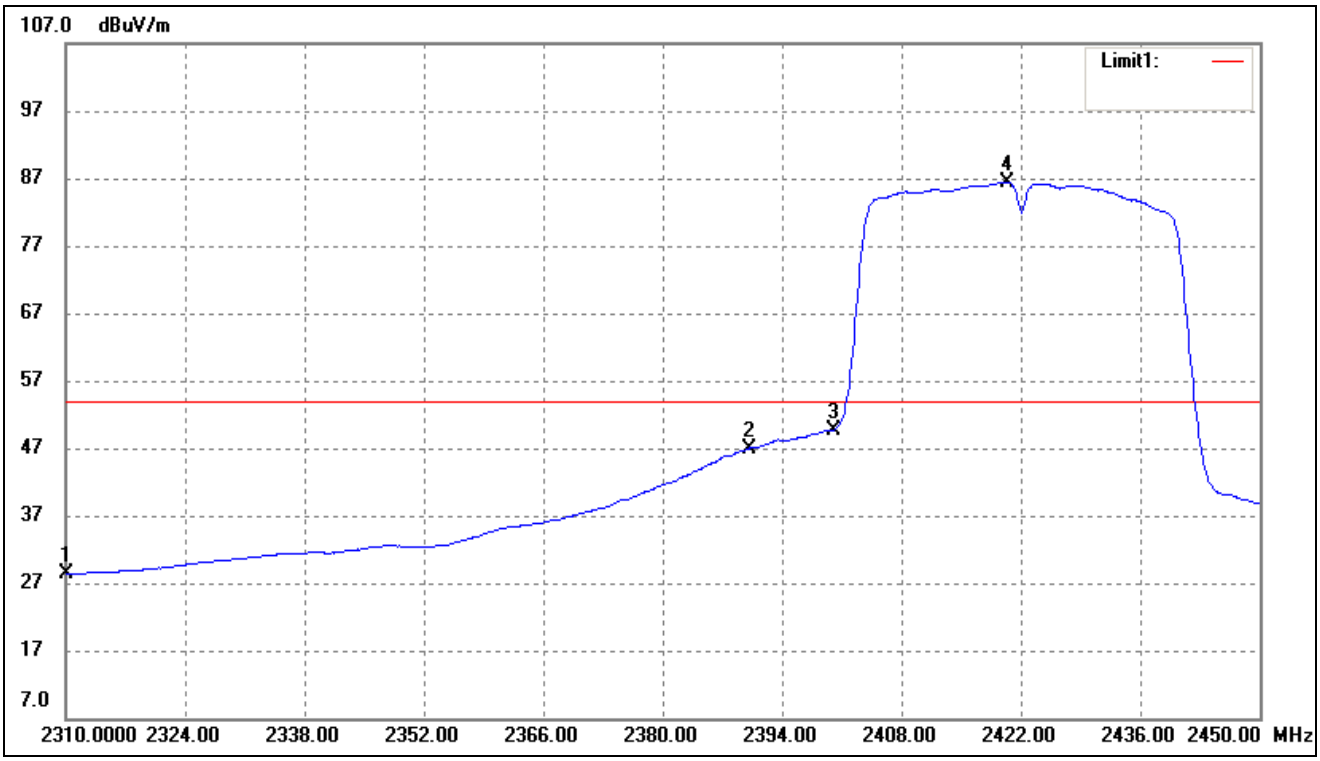
Vertical (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2460.900	94.49	-3.37	91.12	/	/	Average Detector
	2461.400	103.60	-3.37	100.23	/	/	Peak Detector
2	2483.500	50.64	-3.33	47.31	54	-6.69	Average Detector
	2483.500	68.55	-3.33	65.22	74	-8.78	Peak Detector
3	2500.000	38.70	-3.28	35.42	54	-18.58	Average Detector
	2500.000	51.59	-3.28	48.31	74	-25.69	Peak Detector

802.11n-HT40-Lowest Bandedge

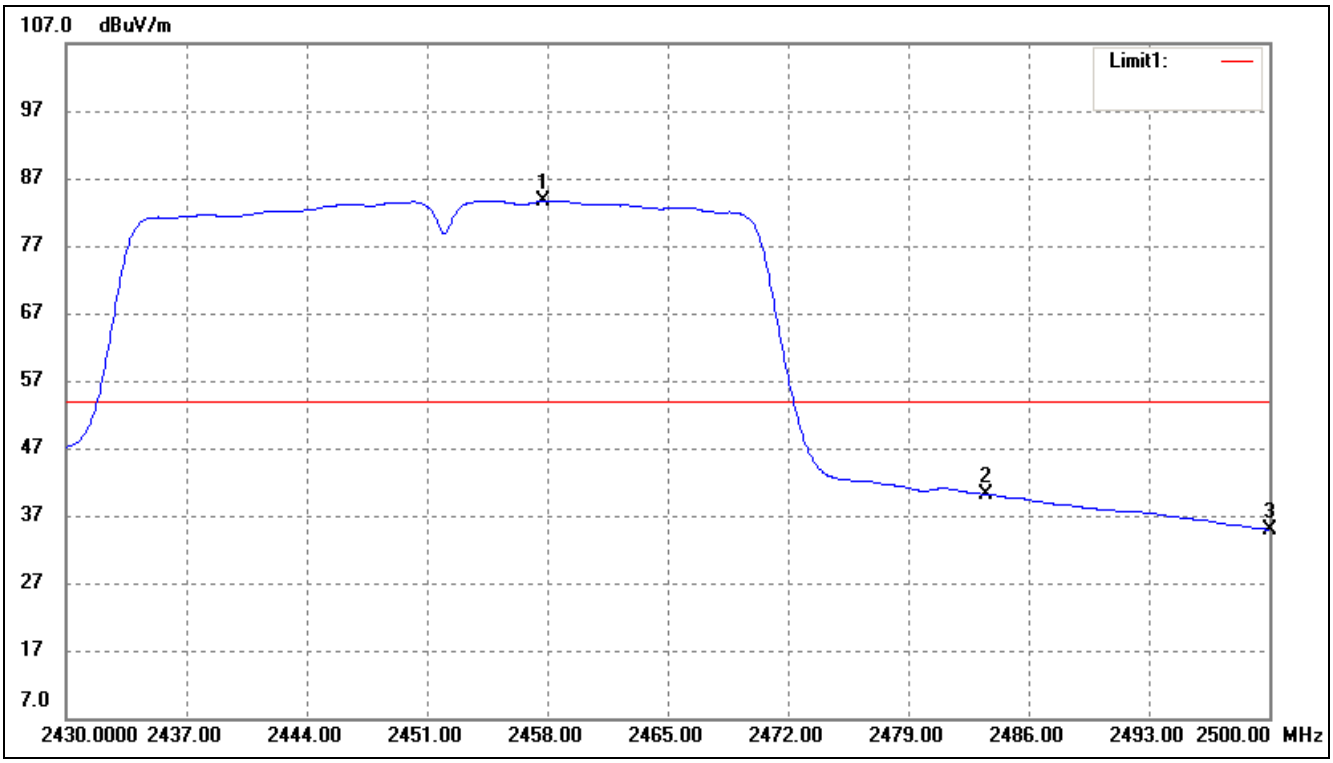
Vertical (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	32.02	-3.71	28.31	54.00	-25.69	Average Detector
	2310.000	45.02	-3.71	41.31	74.00	-32.69	Peak Detector
2	2390.000	49.87	-3.54	46.33	54.00	-7.67	Average Detector
	2390.000	64.97	-3.54	61.43	74.00	-12.57	Peak Detector
3	2400.000	52.82	-3.51	49.31	Delta =36.74dBc		Average Detector
4	2420.320	89.77	-3.46	86.31			Average Detector

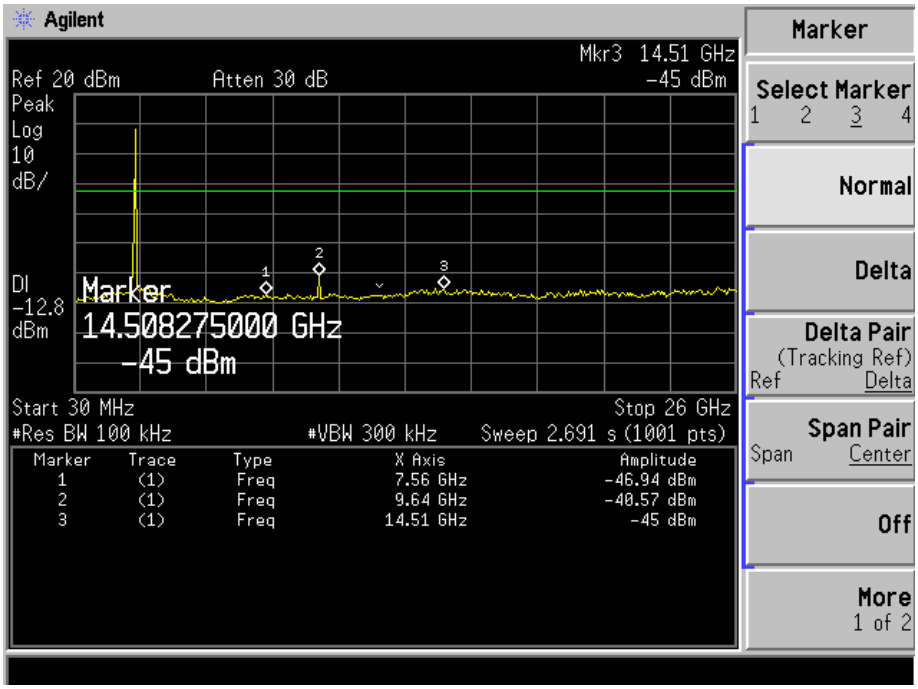
802.11n-HT40-Highest Bandedge

Vertical (Worst case)

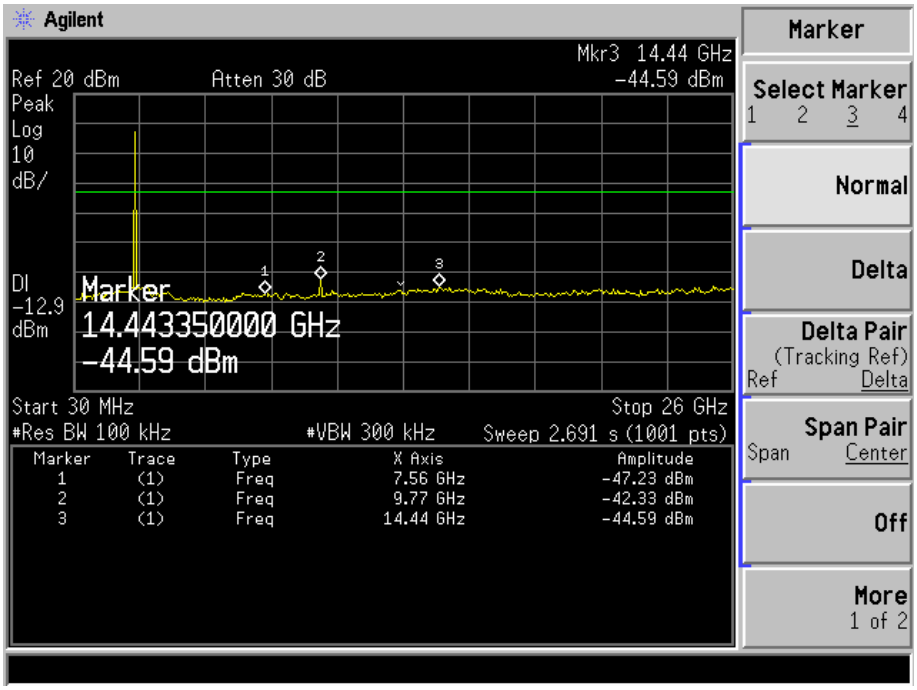


No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2457.790	86.82	-3.38	83.44	/	/	Average Detector
	2454.990	99.00	-3.38	95.62	/	/	Peak Detector
2	2483.500	43.44	-3.33	40.11	54	-13.89	Average Detector
	2483.500	61.65	-3.33	58.32	74	-15.68	Peak Detector
3	2500.000	37.53	-3.28	34.25	54	-19.75	Average Detector
	2500.000	53.41	-3.28	50.13	74	-23.87	Peak Detector

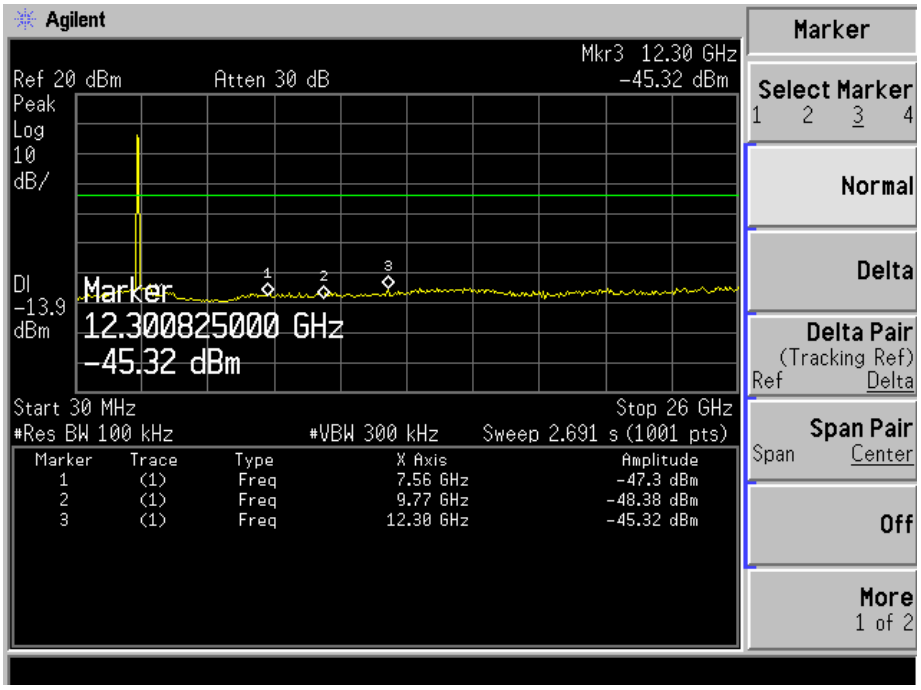
Spurious Emission (Conducted)
802.11b
Low Channel



Middle Channel

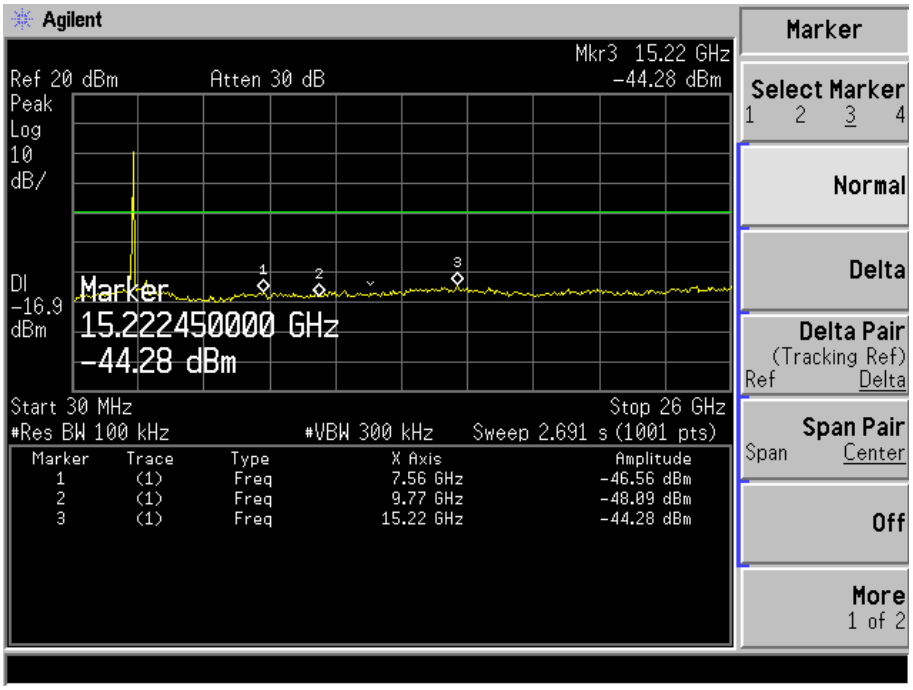


High Channel

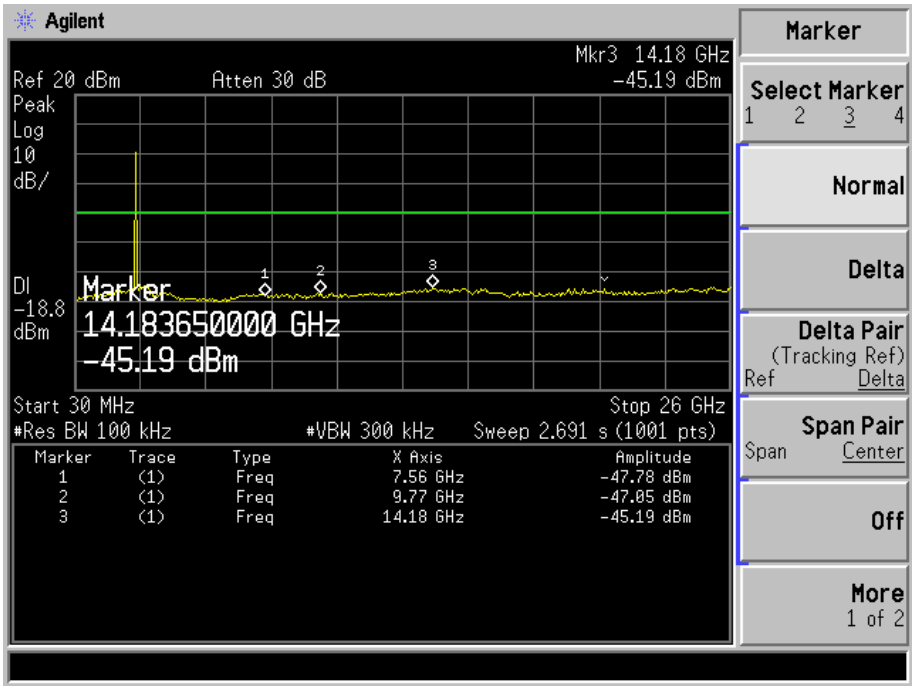


802.11g

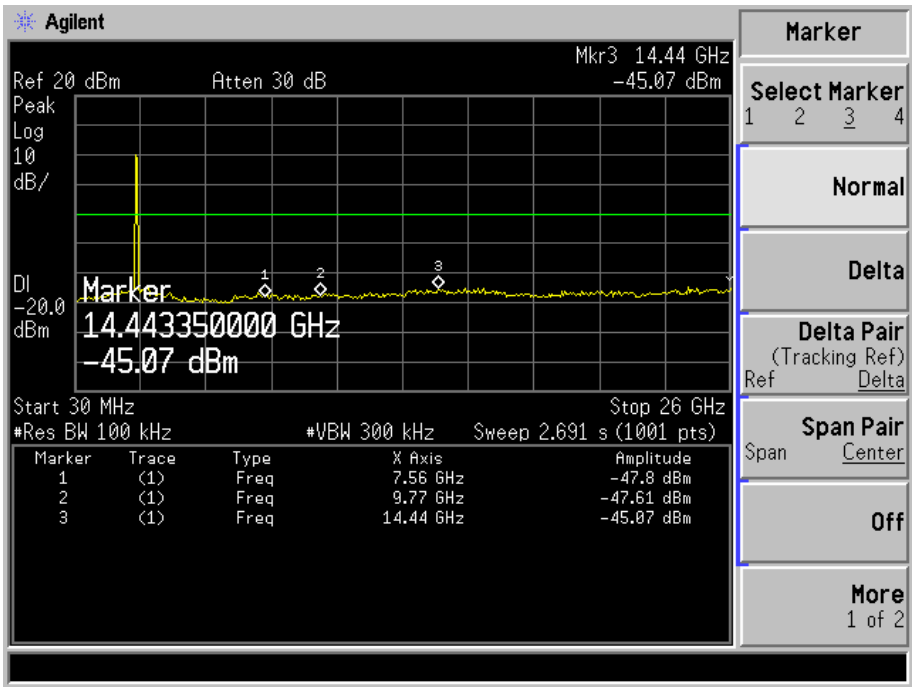
Low Channel



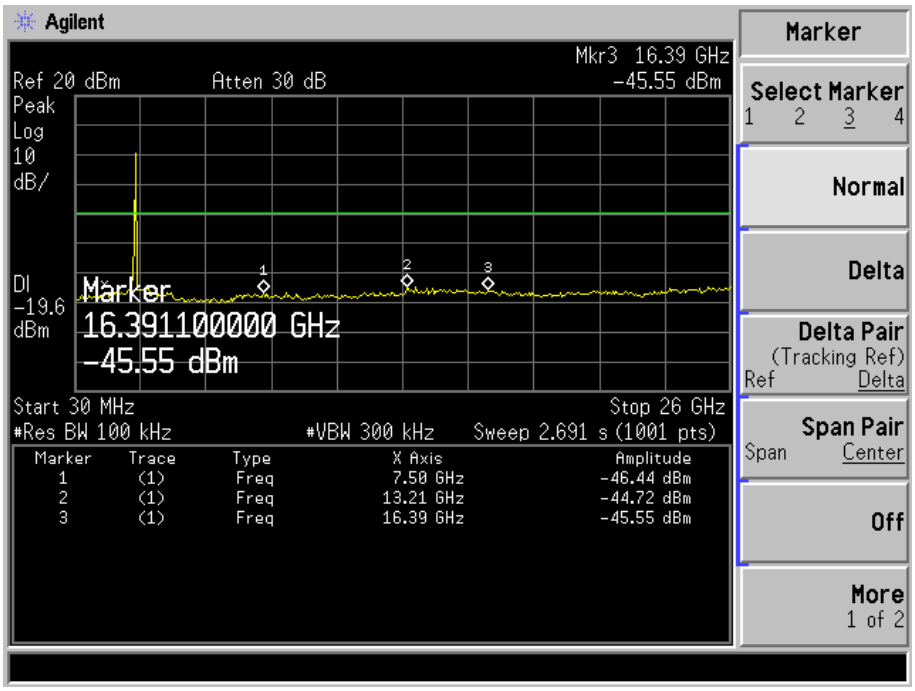
Middle Channel



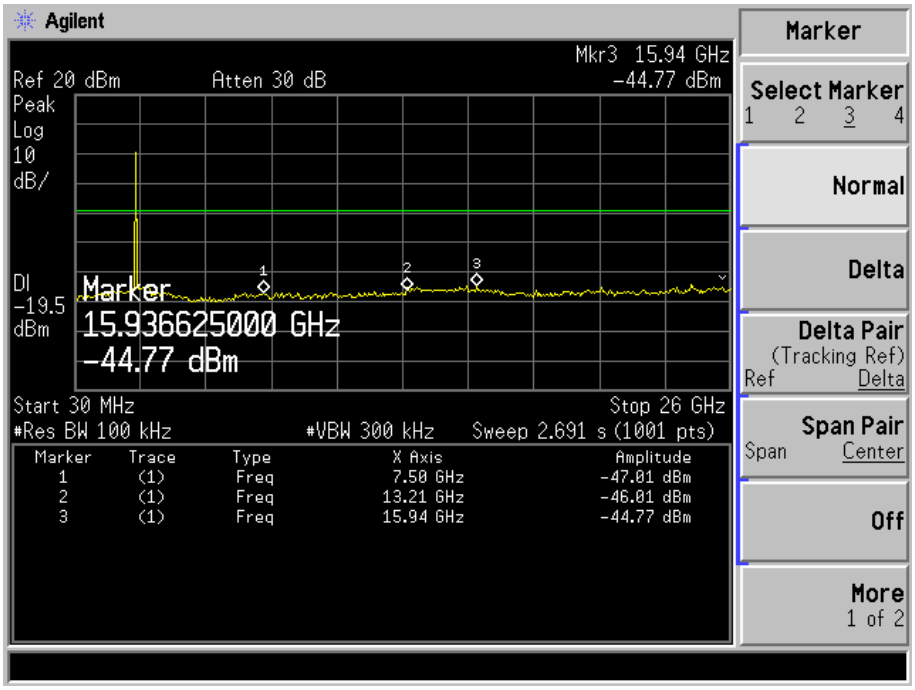
High Channel



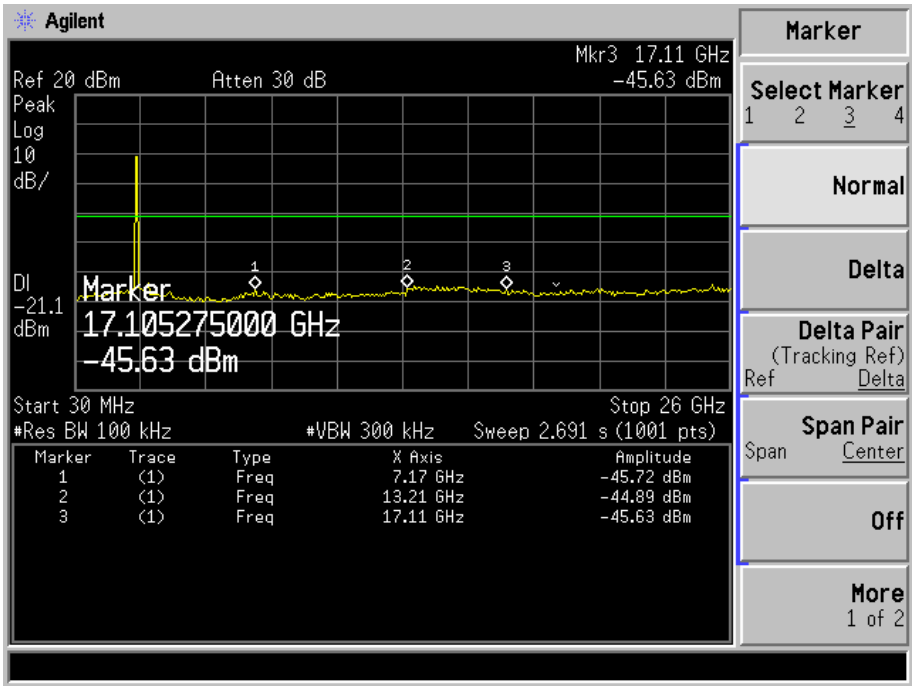
802.11n-HT20
Low Channel



Middle Channel

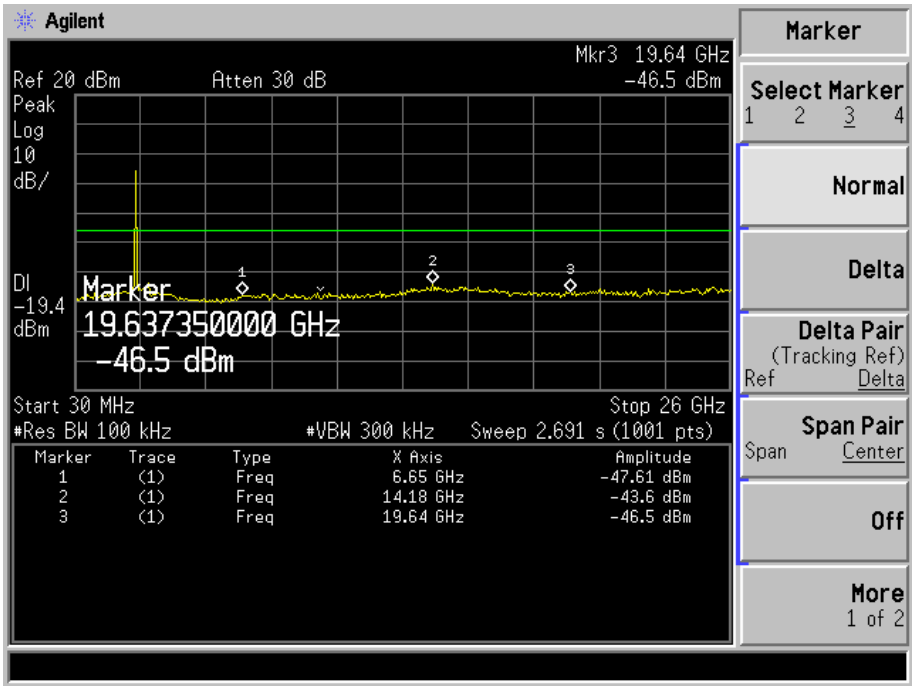


High Channel

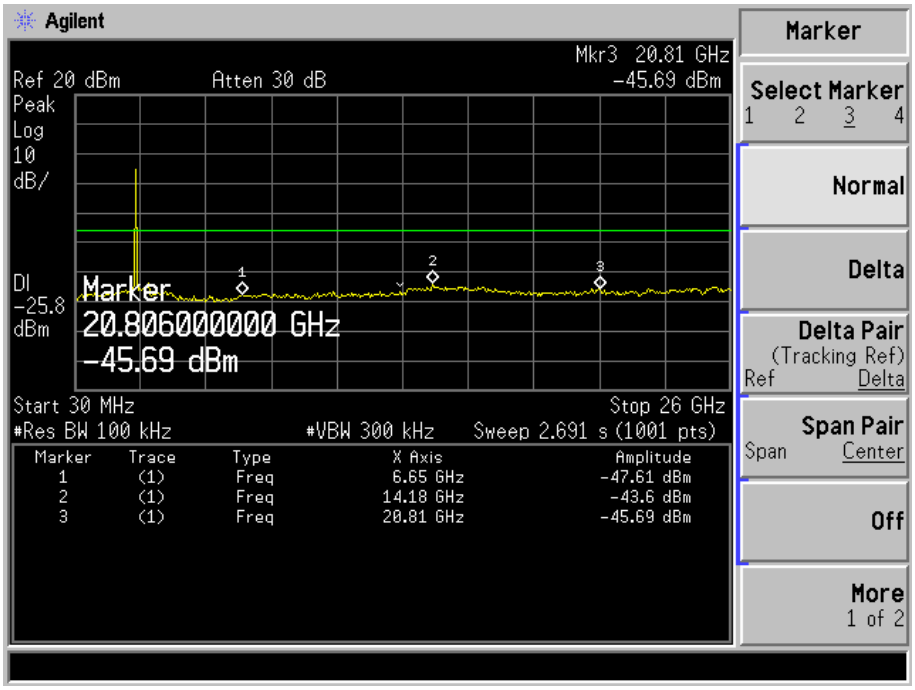


802.11n-HT40

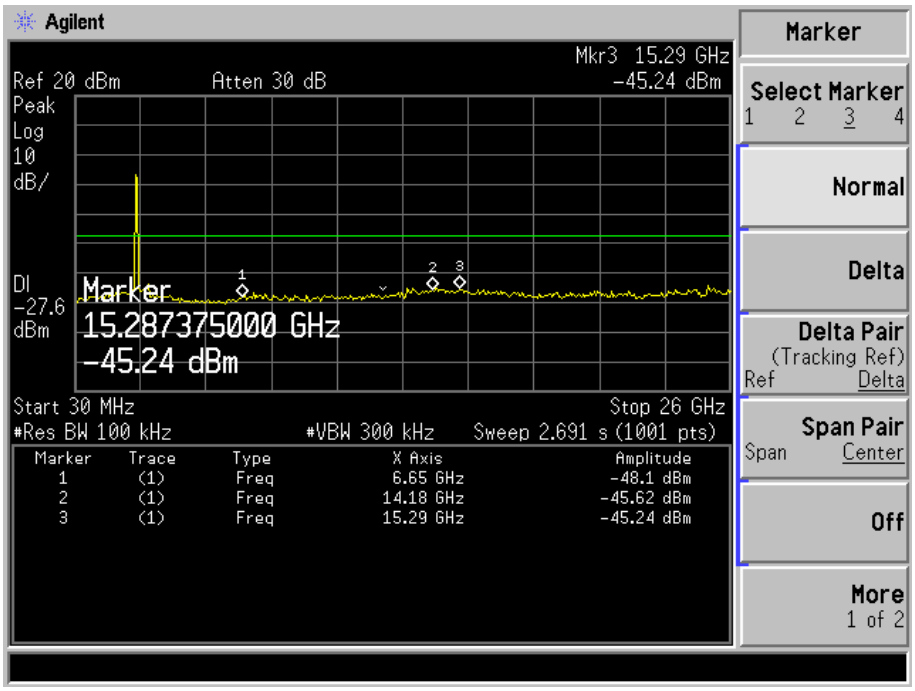
Low Channel



Middle Channel



High Channel

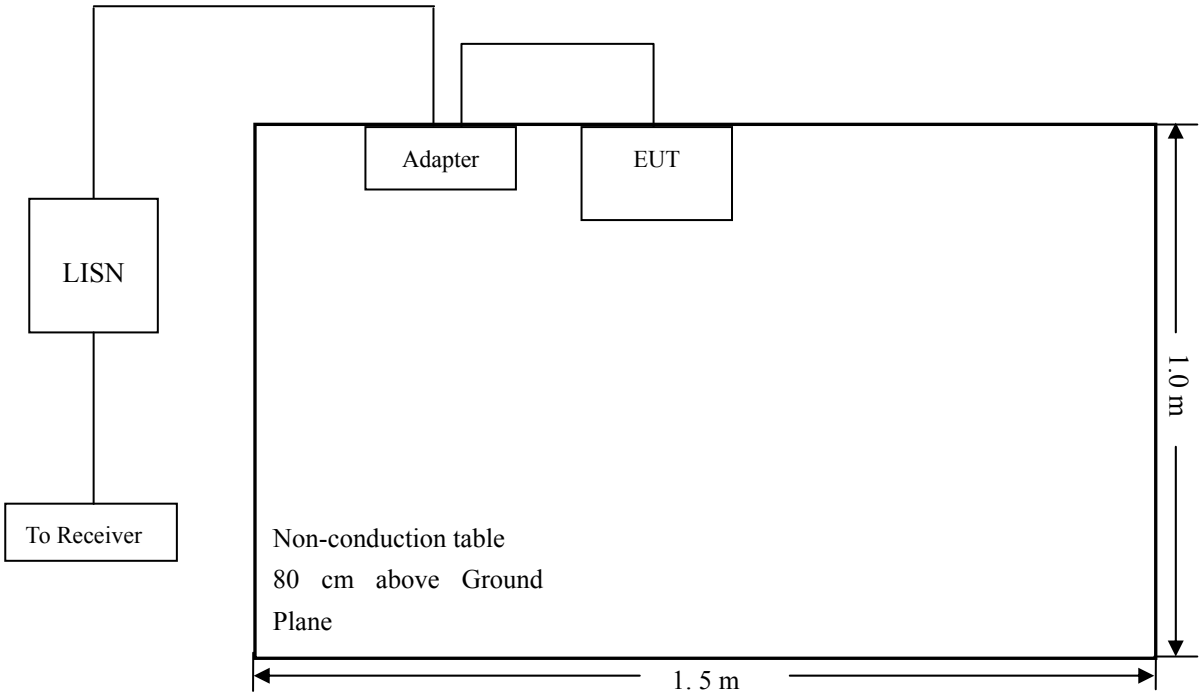


10. Conducted Emissions

10.1 Test Procedure

The setup of EUT is according with per ANSI C63.4-2014 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.

10.2 Basic Test Setup Block Diagram



10.3 Environmental Conditions

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

10.4 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

10.5 Summary of Test Results/Plots

According to the data in section 10.6, the EUT complied with the FCC Part 15.207 Conducted margin for this device, with the *worst* margin reading of:

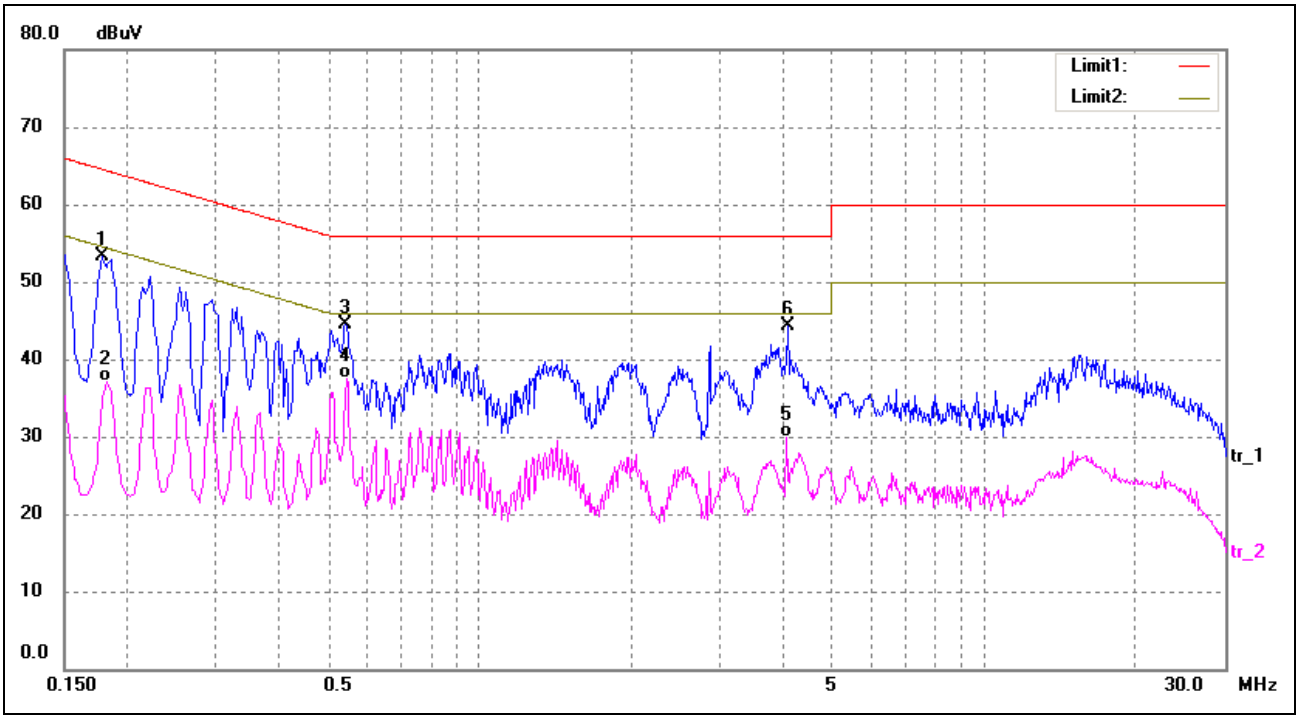
-5.94 dB at 0.1860 MHz in the **Line** mode**, Peak** detector, **0.15-30MHz**

10.6 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

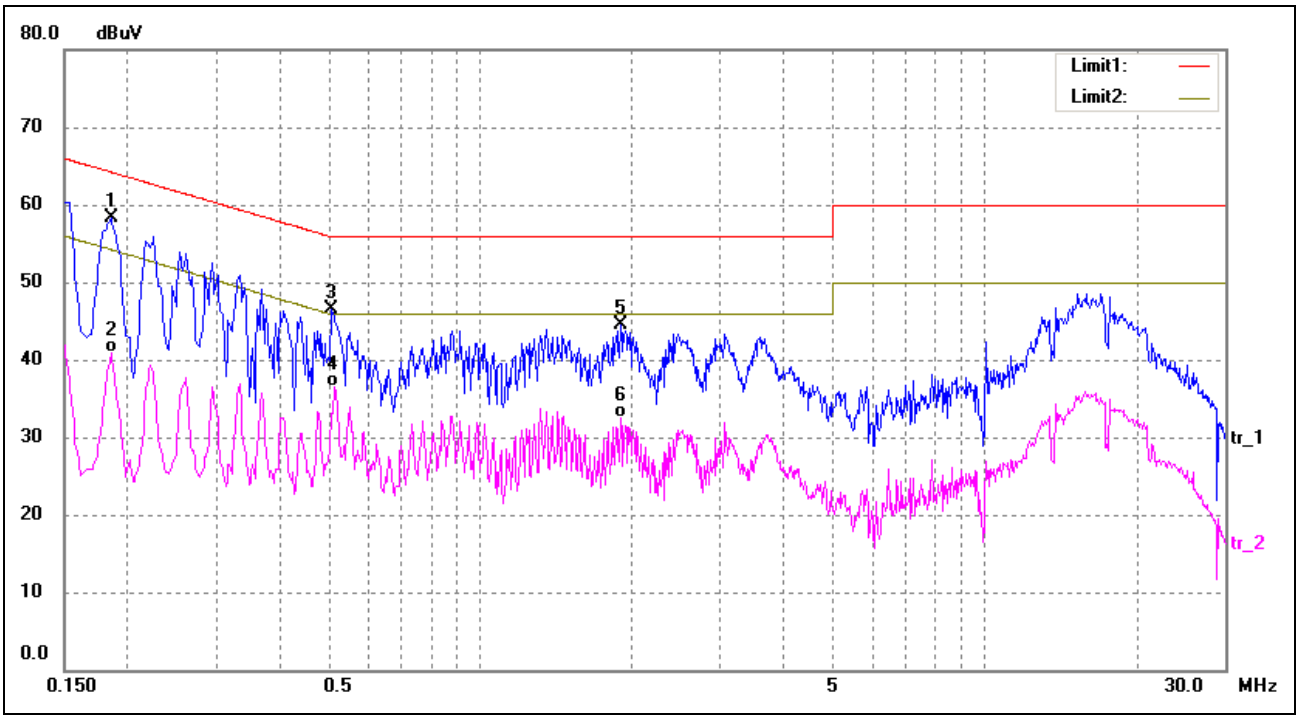
EUT: *Mobile phone*
Tested Model: *E5*
Operating Condition: *Transmitting(Wi-Fi)*
Comment: *AC 120V/60Hz; Adapter DC 5V*

Test Specification: *Neutral*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.1780	43.72	9.50	53.22	64.58	-11.36	peak
2	0.1820	27.59	9.50	37.09	54.39	-17.30	AVG
3	0.5420	35.03	9.54	44.57	56.00	-11.43	peak
4	0.5460	27.93	9.55	37.48	46.00	-8.52	AVG
5	4.0700	19.86	10.00	29.86	46.00	-16.14	AVG
6	4.0820	34.28	10.00	44.28	56.00	-11.72	peak

Test Specification: *Line*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.1860	48.77	9.50	58.27	64.21	-5.94	peak
2	0.1860	31.37	9.50	40.87	54.21	-13.34	AVG
3	0.5100	37.06	9.51	46.57	56.00	-9.43	peak
4	0.5140	27.03	9.51	36.54	46.00	-9.46	AVG
5	1.9060	34.56	10.00	44.56	56.00	-11.44	peak
6	1.9060	22.57	10.00	32.57	46.00	-13.43	AVG

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