FCC Part 15C
Measurement and Test Report

For

ShenZhen Foscam Intelligent Technology Co., Limited

Room A, 9/F, Block F5, TCL International E City, No. 1001

Zhongshanyuan Road, Xili

FCC ID: ZDE-FI9800P

FCC Rule(s):	FCC Part 15C
Product Description:	Outdoor HD IP Camera
Tested Model:	FI9800P
Report No.:	STRD1707018I
Tested Date:	2017-07-03 to 2017-07-10
Issued Date:	2017-07-10
Tested By:	Mike.shi / 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:	ShenZhen Foscam Intelligent Technology Co., Limited
Address of applicant:	Room A, 9/F, Block F5, TCL International E City, No. 1001 Zhongshanyuan Road, Xili
Manufacturer:	ShenZhen Foscam Intelligent Technology Co., Limited
Address of manufacturer:	Room A, 9/F, Block F5, TCL International E City, No. 1001 Zhongshanyuan Road, Xili

General Description of EUT	
Product Name:	Outdoor HD IP Camera
Trade Name:	FOSCAM
Model No.:	FI9800P
Adding Model(s):	FI9900P, FC5415P, FI9900EP, FI9903P, FI9803P, FC5410P, FI9803EP, FI9805E, FI9805W, FI9804W
Rated Voltage:	DC 12V
Power Adapter Model:	/
Software Version:	/
Hardware Version:	/
Note: The test data is gathered from a production sample provided by the manufacturer. The appearance of others models listed in the report is different from main-test model FI9800P, but the circuit and the electronic construction do not change, declared by the manufacturer.	

Technical Characteristics of EUT	
Support Standards:	802.11b, 802.11g, 802.11n-HT20/40
Frequency Range:	2412-2462MHz
RF Output Power:	12.60 dBm (Conducted)
Type of Modulation:	CCK, OFDM, QPSK, BPSK, 16QAM, 64QAM
Data Rate:	1-11Mbps, 6-54Mbps, up to 150Mbps
Quantity of Channels:	11
Channel Separation:	5MHz
Type of Antenna:	Reverse Threads External Antenna
Antenna Gain:	2.0 dBi
Lowest Internal Frequency	32.768 KHz

1.2 Test Standards

The following report is prepared on behalf of the ShenZhen Foscam Intelligent Technology Co., Limited 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 v04 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
Note: All test modes (different data rate and different modulation) are performed, but only the worst case is recorded in this report.		

Accessories Equipment List and Details			
Description	**Manufacturer**	**Model No.**	**Serial Number**
wireless router	TP-LINK	TL-WR842N	2253243030553
Adapter	MTN	MTN Sm@rt L840	/
Accessories Cable List and Details			
Cable Description	**Length (m)**	**Shielded/Unshielded**	**With Core/Without Core**
RJ45 Cable	5	Unshielded	Without Core
DC Cable	1	Unshielded	Without Core
EUT Cable List and Details			
Cable Description	**Length (m)**	**Shielded/Unshielded**	**With Core/Without Core**
RJ45 Cable	1.5	Unshielded	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	2017-06-12	2018-06-11
SEMT-1031	Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2017-06-12	2018-06-11
SEMT-1007	EMI Test Receiver	Rohde & Schwarz	ESVB	825471/005	2017-06-12	2018-06-11
SEMT-1008	Amplifier	Agilent	8447F	3113A06717	2017-06-12	2018-06-11
SEMT-1043	Amplifier	C&D	PAP-1G18	2002	2017-06-12	2018-06-11
SEMT-1011	Broadband Antenna	Schwarz beck	VULB9163	9163-333	2017-06-12	2018-06-11
SEMT-1042	Horn Antenna	ETS	3117	00086197	2017-06-12	2018-06-11
SEMT-1121	Horn Antenna	Schwarzbeck	BBHA 9170	BBHA9170582	2017-06-12	2018-06-11
SEMT-1069	Loop Antenna	Schwarz beck	FMZB 1516	9773	2017-06-12	2018-06-11
SEMT-1001	EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2017-06-12	2018-06-11
SEMT-1003	L.I.S.N	Schwarz beck	NSLK8126	8126-224	2017-06-12	2018-06-11
SEMT-1002	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2017-06-12	2018-06-11

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 a reverse threads external 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 v04, 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

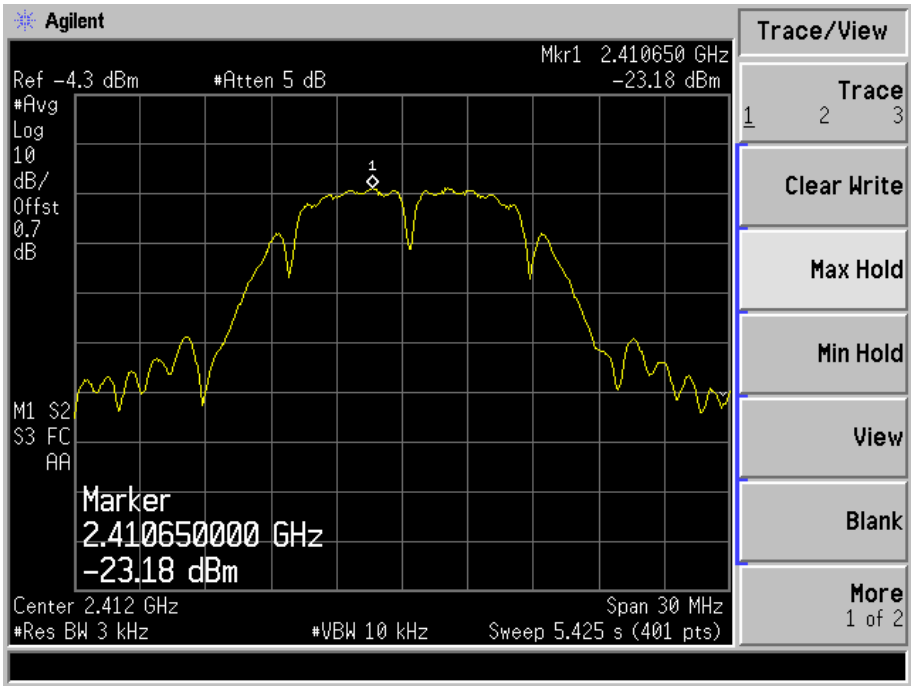
Temperature:	26° C
Relative Humidity:	54%
ATM Pressure:	1011 mbar

5.4 Summary of Test Results/Plots

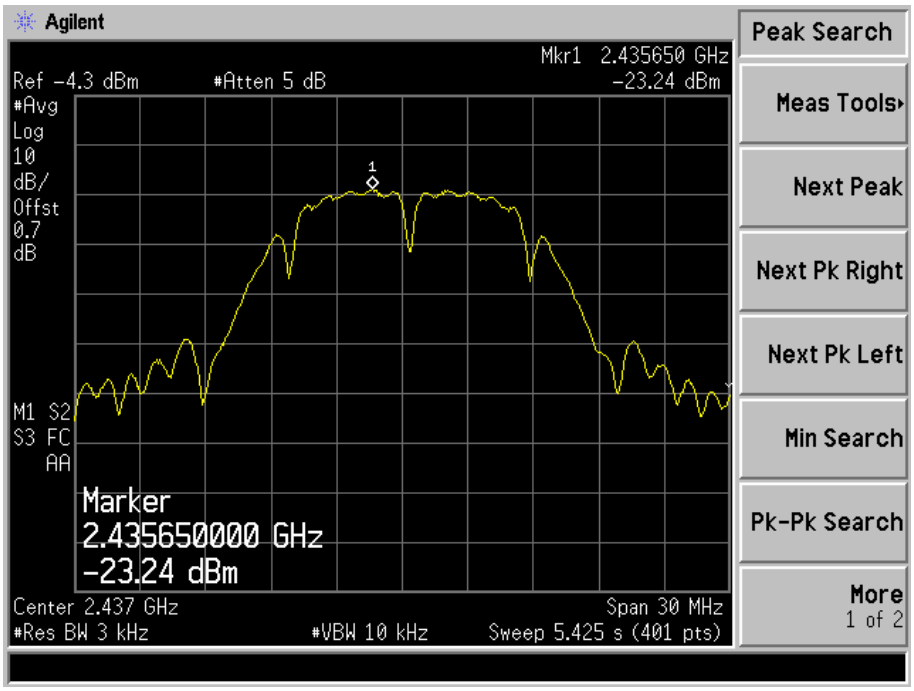
Test Mode	Test Channel MHz	Power Spectral Density dBm/3kHz	Limit dBm/3kHz
802.11b	2412	-23.18	8
	2437	-23.24	8
	2462	-23.89	8
802.11g	2412	-23.94	8
	2437	-24.16	8
	2462	-24.87	8
802.11n HT20	2412	-24.08	8
	2437	-24.47	8
	2462	-25.16	8
802.11n HT40	2422	-27.19	8
	2437	-27.61	8
	2452	-27.77	8

Please refer to the following test plots:

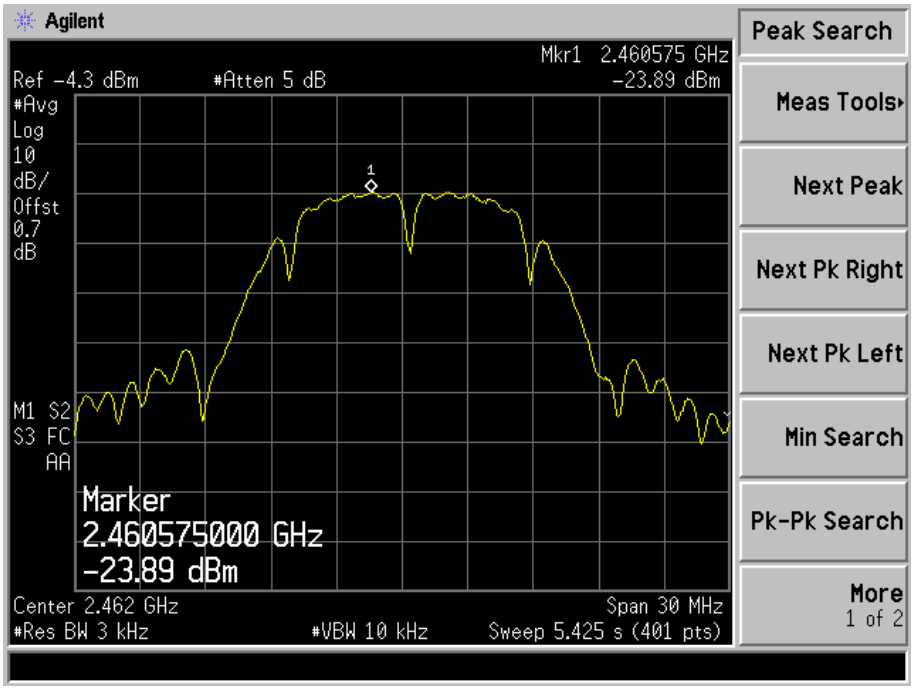
802.11b-Low Channel



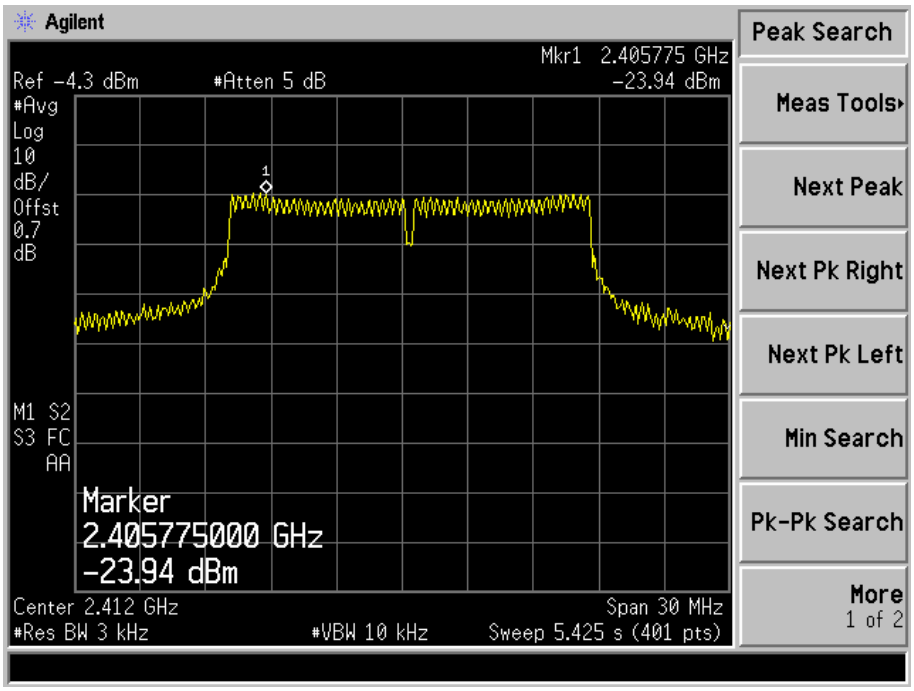
802.11b-Middle Channel



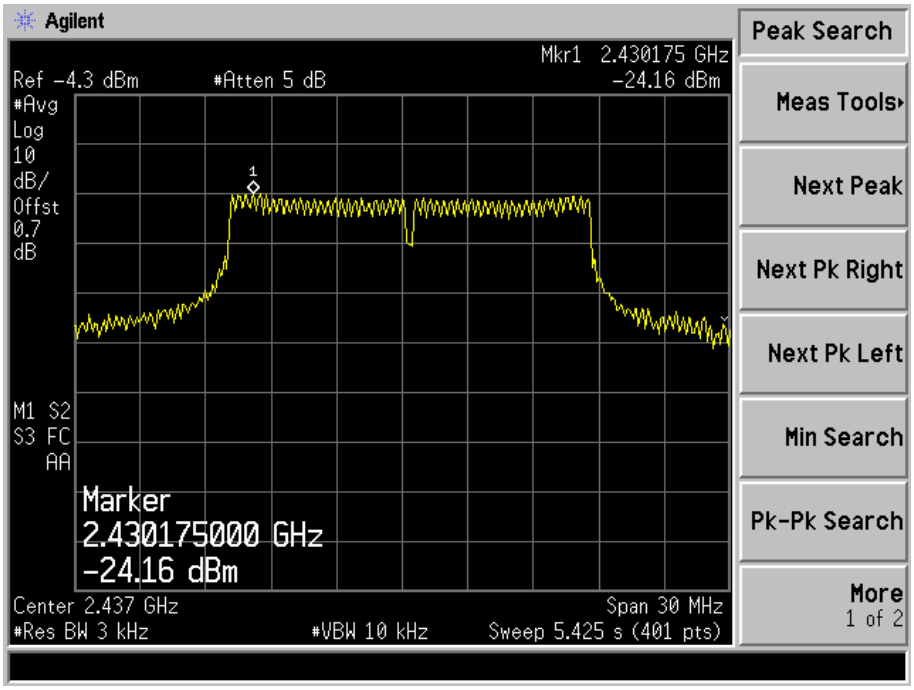
802.11b-High Channel



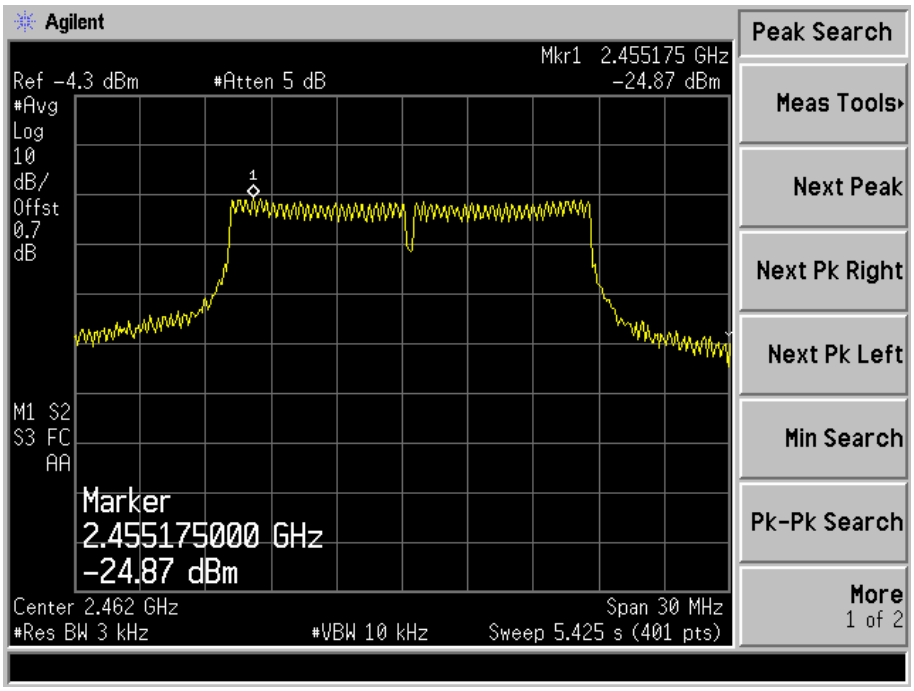
802.11g-Low Channel



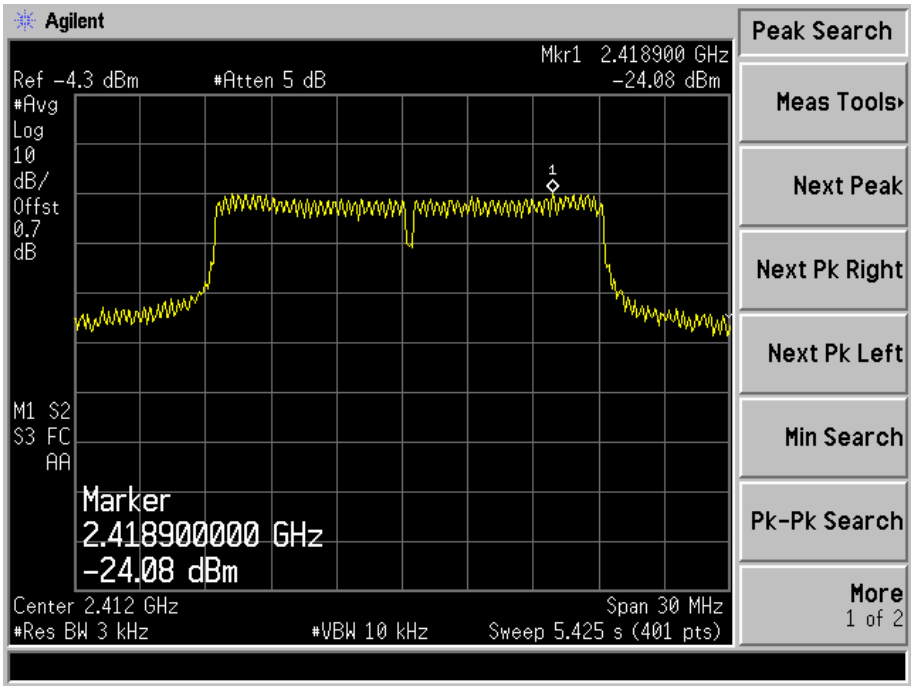
802.11g-Middle Channel



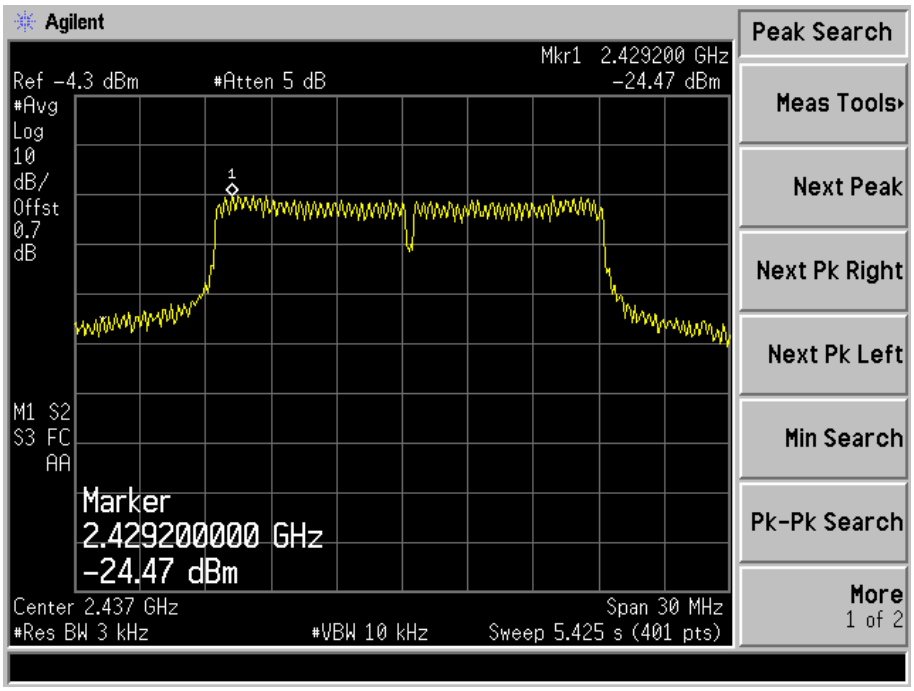
802.11g-High Channel



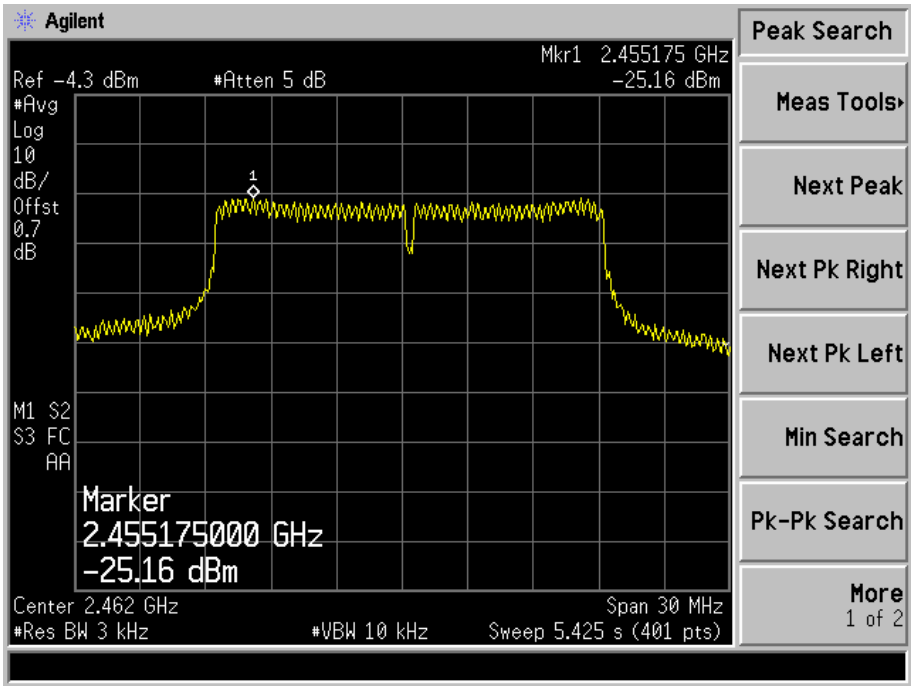
802.11n-HT20-Low Channel



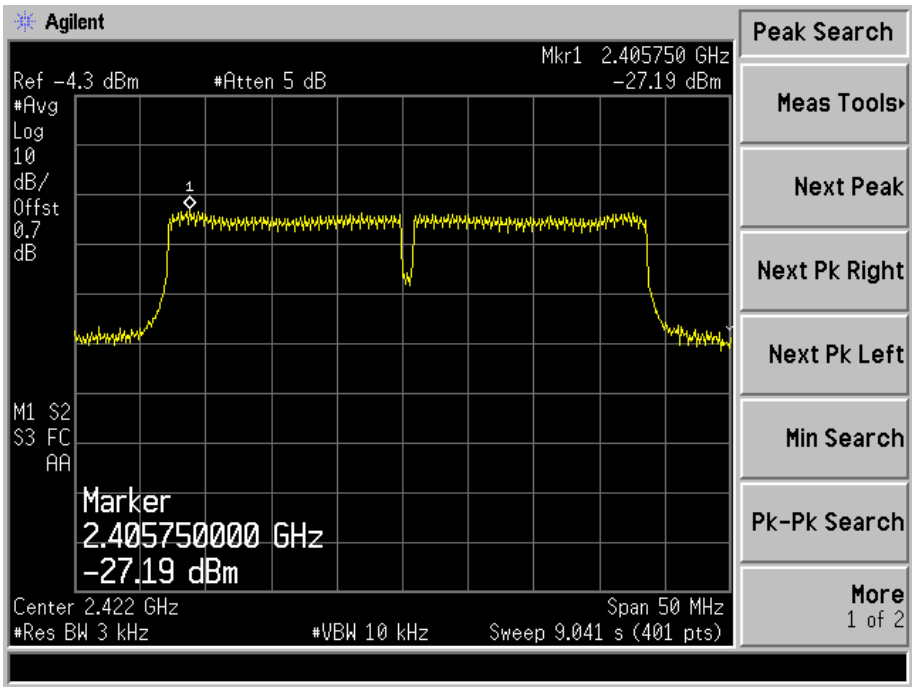
802.11n-HT20-Middle Channel



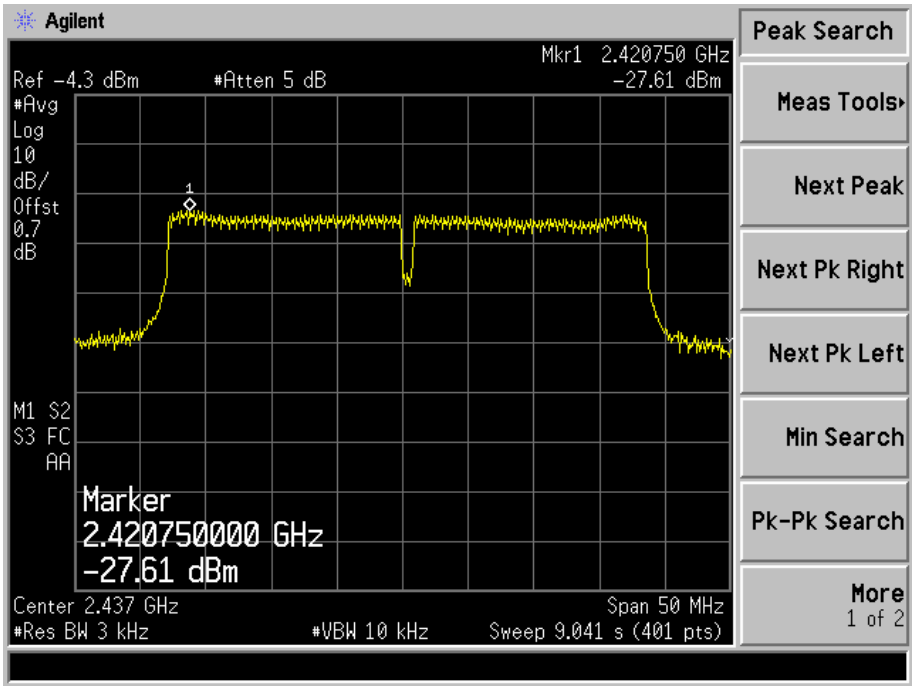
802.11n-HT20-High Channel



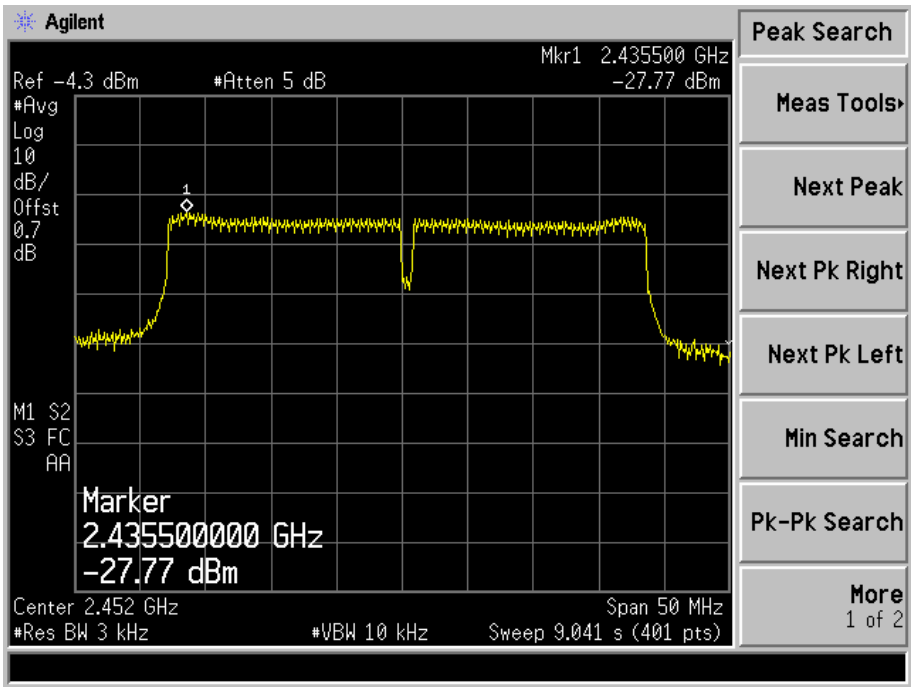
802.11n-HT40-Low Channel



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

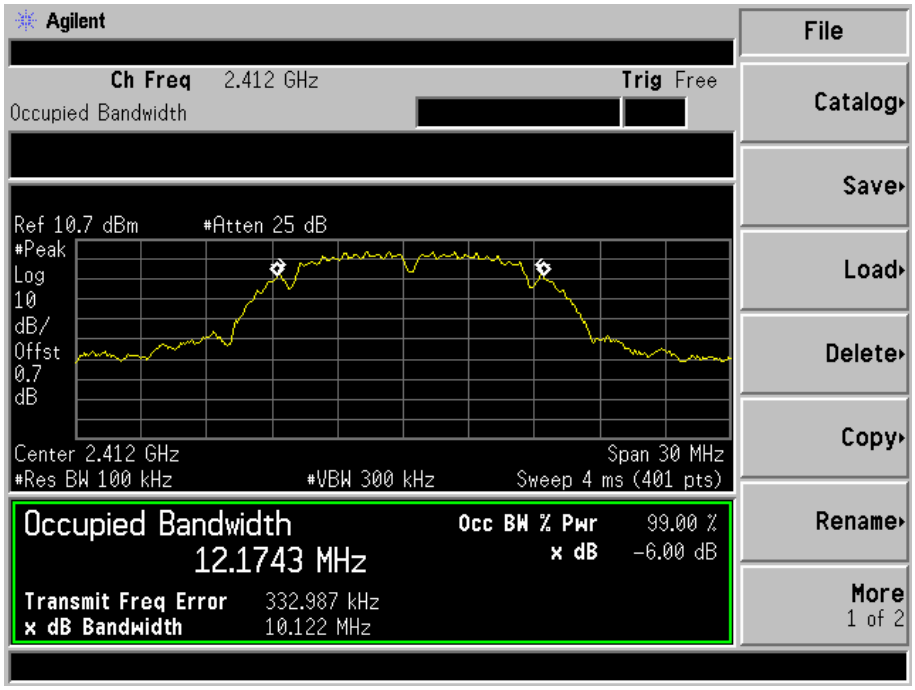
Temperature:	25° C
Relative Humidity:	53%
ATM Pressure:	1018 mbar

6.4 Summary of Test Results/Plots

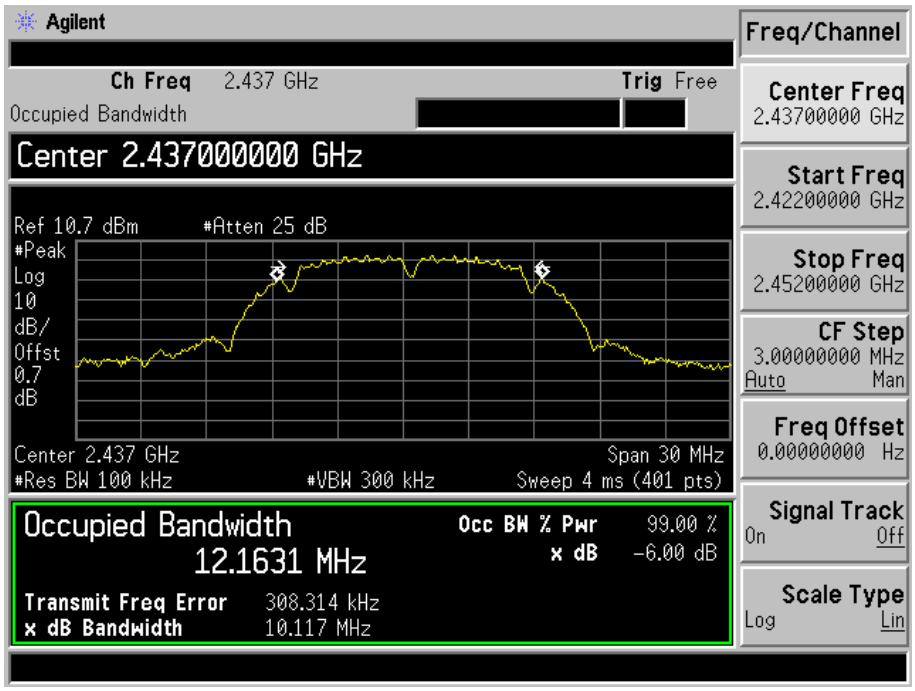
Test Mode	Test Channel MHz	6 dB Bandwidth MHz	99% Bandwidth MHz	Limit kHz
802.11b	2412	10.122	12.1743	≥500
	2437	10.117	12.1631	≥500
	2462	10.035	12.1401	≥500
802.11g	2412	16.630	16.4843	≥500
	2437	16.608	16.4956	≥500
	2462	16.603	16.4755	≥500
802.11n-HT20	2412	17.767	17.5786	≥500
	2437	17.741	17.5888	≥500
	2462	17.734	17.5843	≥500
802.11n-HT40	2422	36.562	36.1050	≥500
	2437	36.527	36.1347	≥500
	2452	36.492	36.1204	≥500

Please refer to the following test plots:

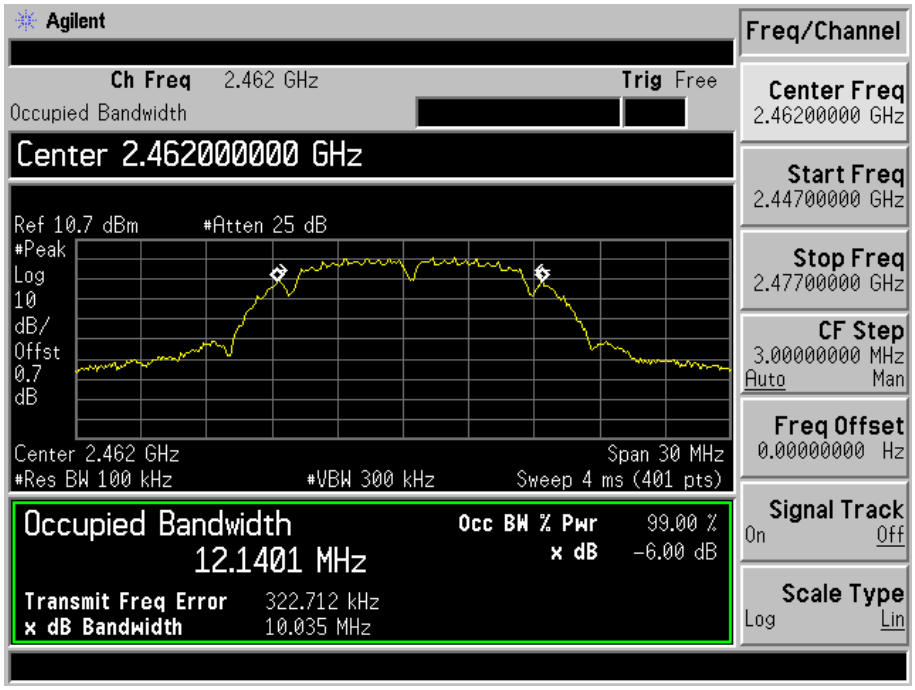
802.11b-Low Channel



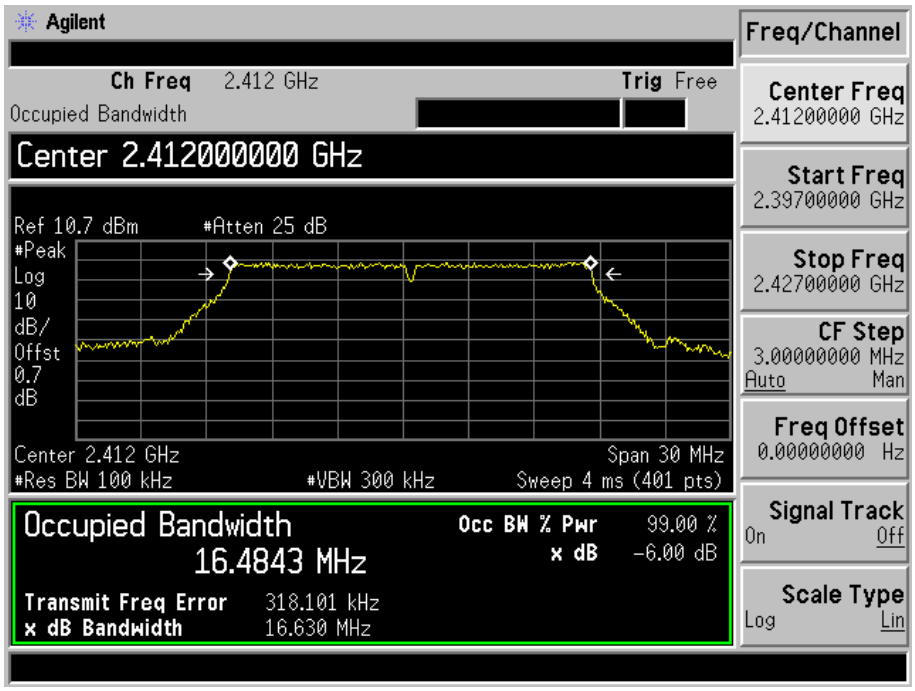
802.11b-Middle Channel



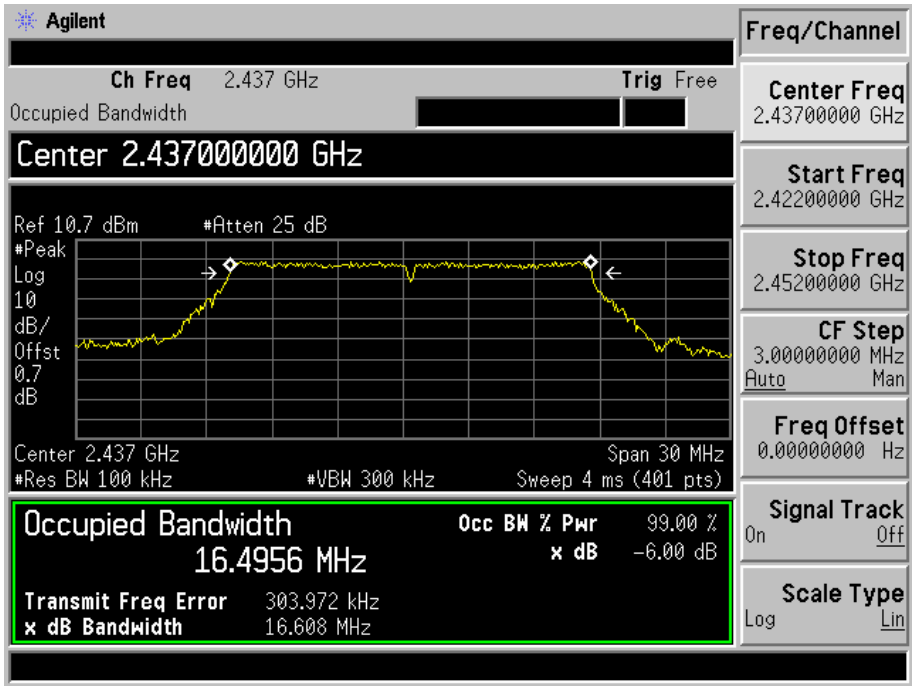
802.11b-High Channel



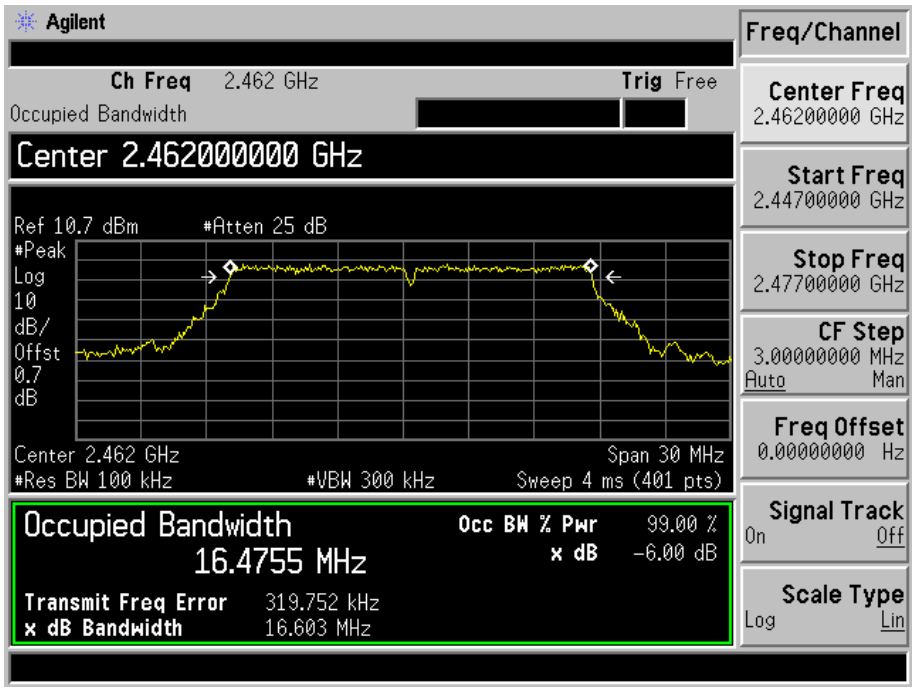
802.11g-Low Channel



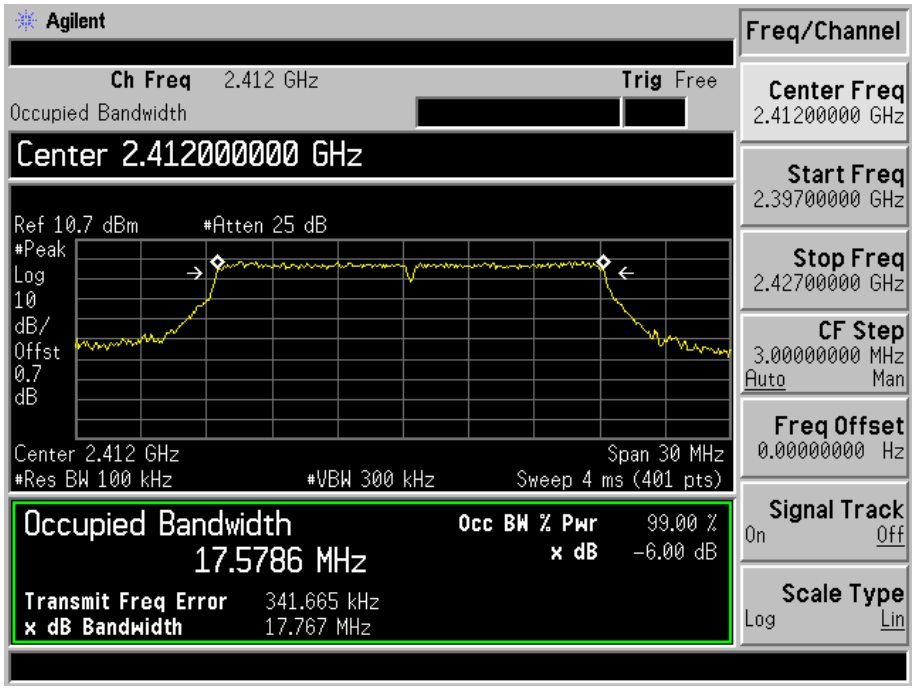
802.11g-Middle Channel



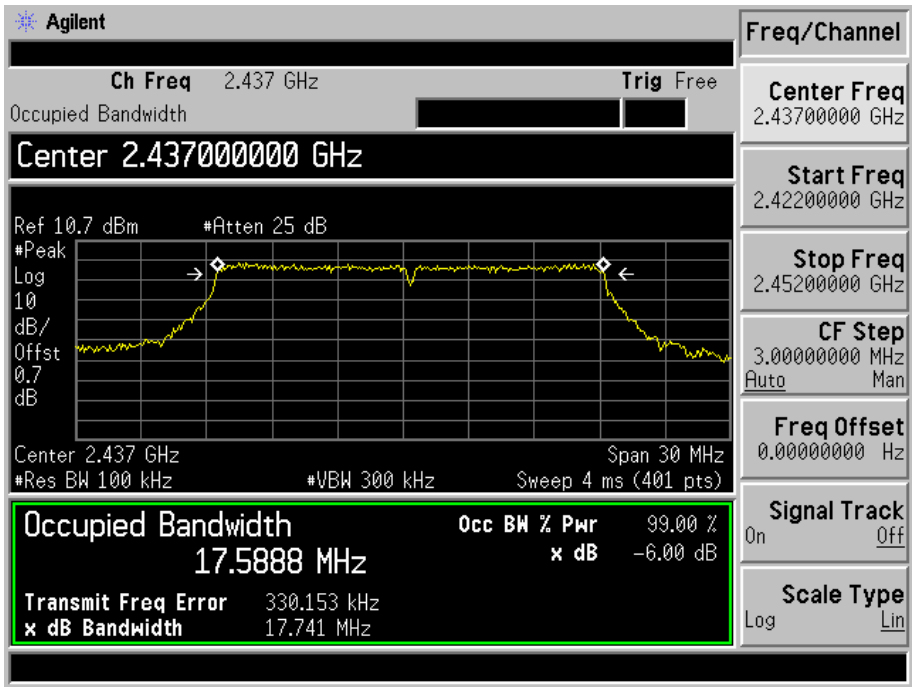
802.11g-High Channel



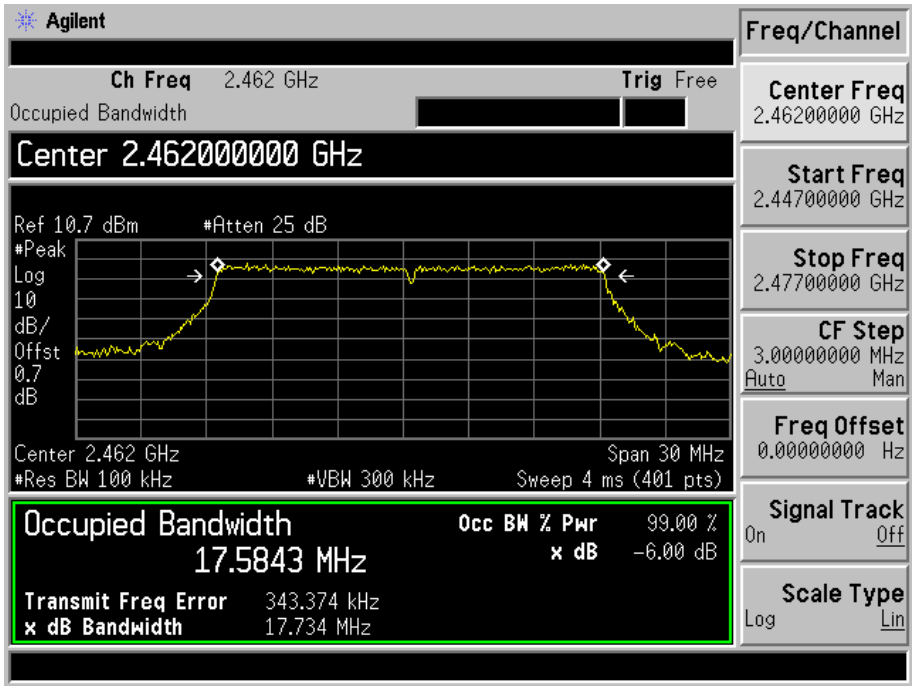
802.11n-HT20-Low Channel



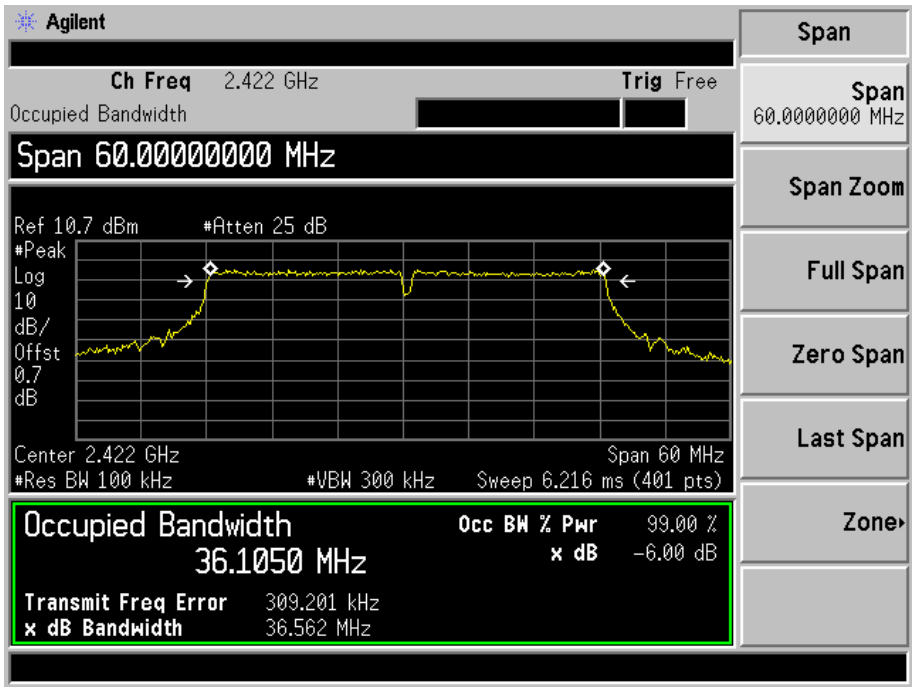
802.11n-HT20-Middle Channel



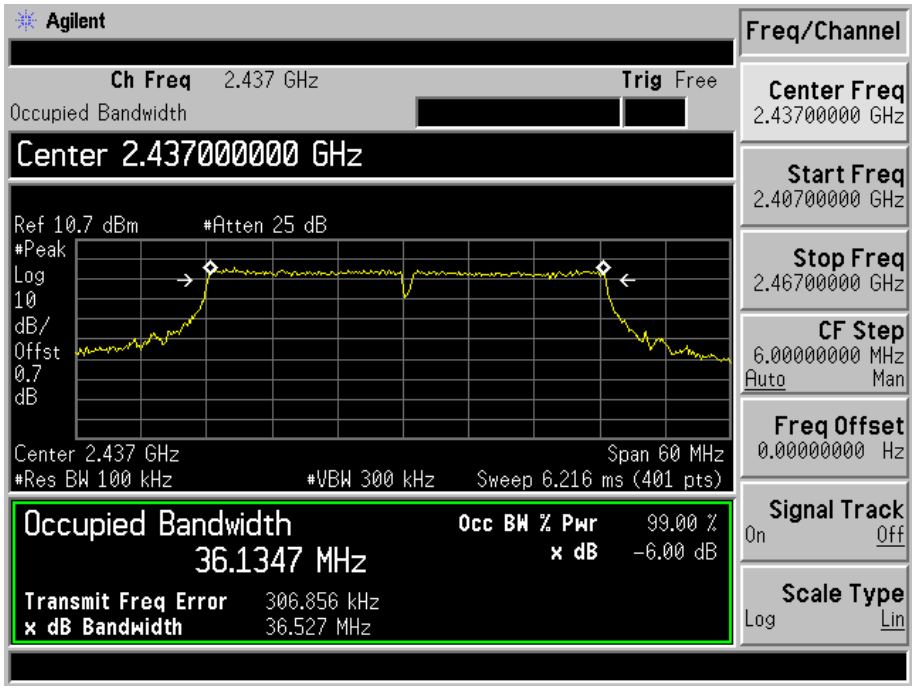
802.11n-HT20-High Channel



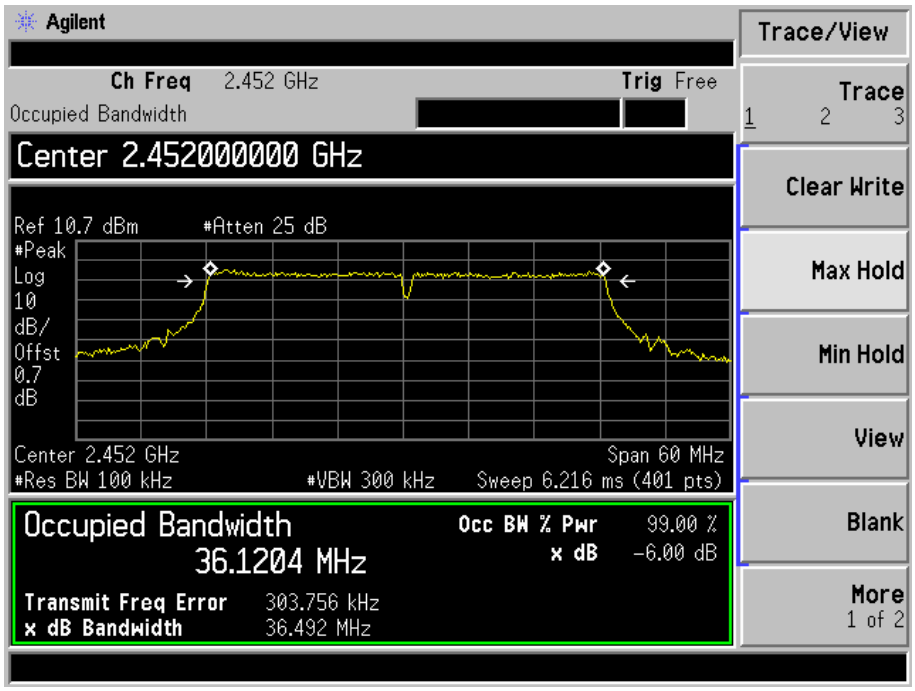
802.11n-HT40-Low Channel



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 v04, 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

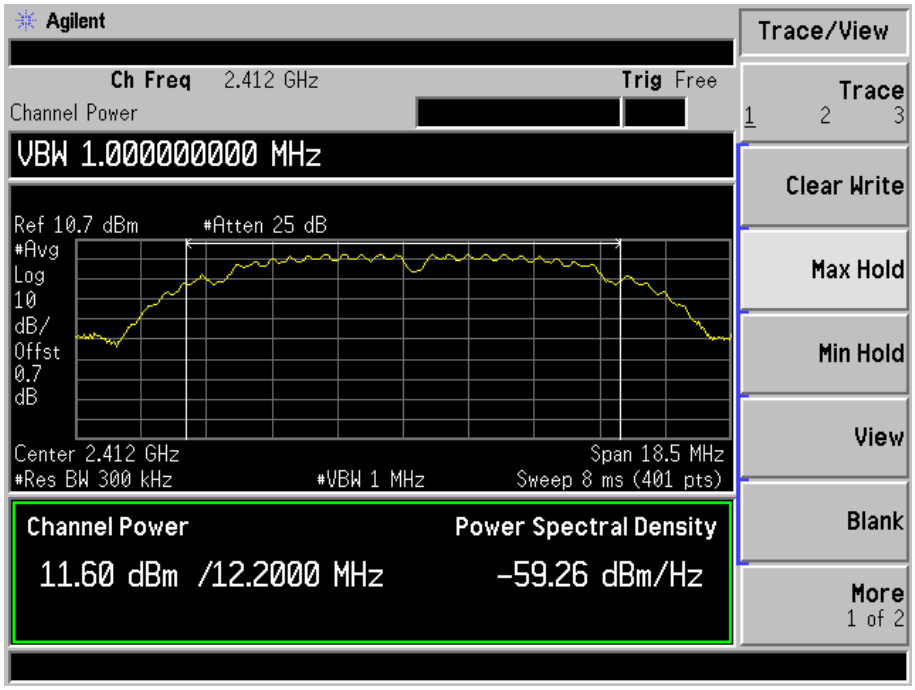
Temperature:	26° C
Relative Humidity:	57%
ATM Pressure:	1011 mbar

7.4 Summary of Test Results/Plots

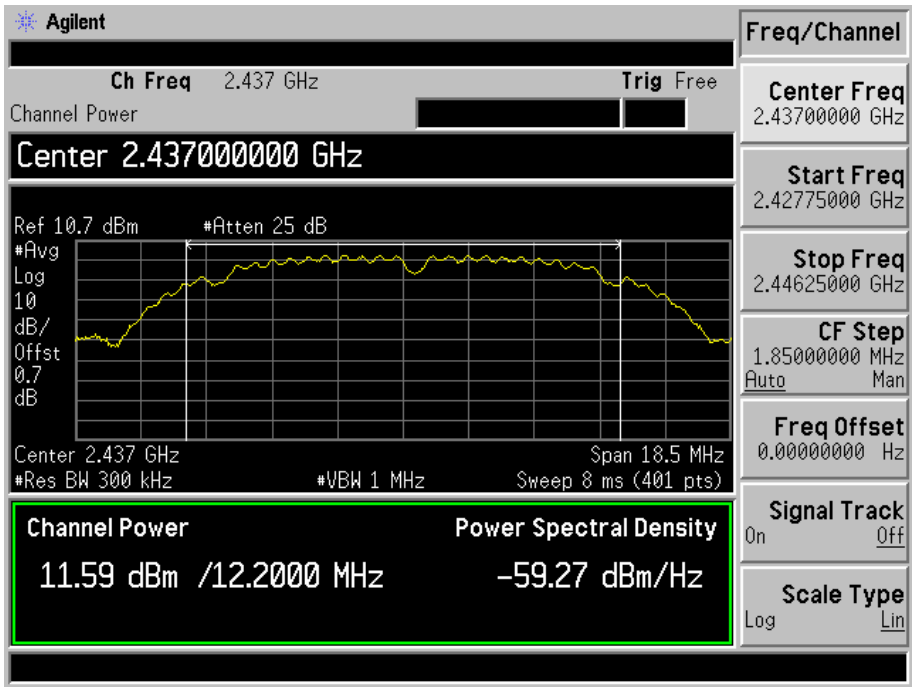
Test Mode	Frequency MHz	Reading dBm	Output Power mW	Limit mW
802.11b _ 11Mbps	2412	11.60	14.45	1000
	2437	11.59	14.42	1000
	2462	11.56	14.32	1000
802.11g_54Mbps	2412	12.12	16.29	1000
	2437	12.60	18.20	1000
	2462	12.24	16.75	1000
802.11n HT20_MCS7	2412	12.18	16.52	1000
	2437	12.25	16.79	1000
	2462	11.80	15.14	1000
802.11n HT40_MCS7	2422	11.56	14.32	1000
	2437	11.14	13.00	1000
	2452	11.69	14.76	1000

Please refer to the following test plots:

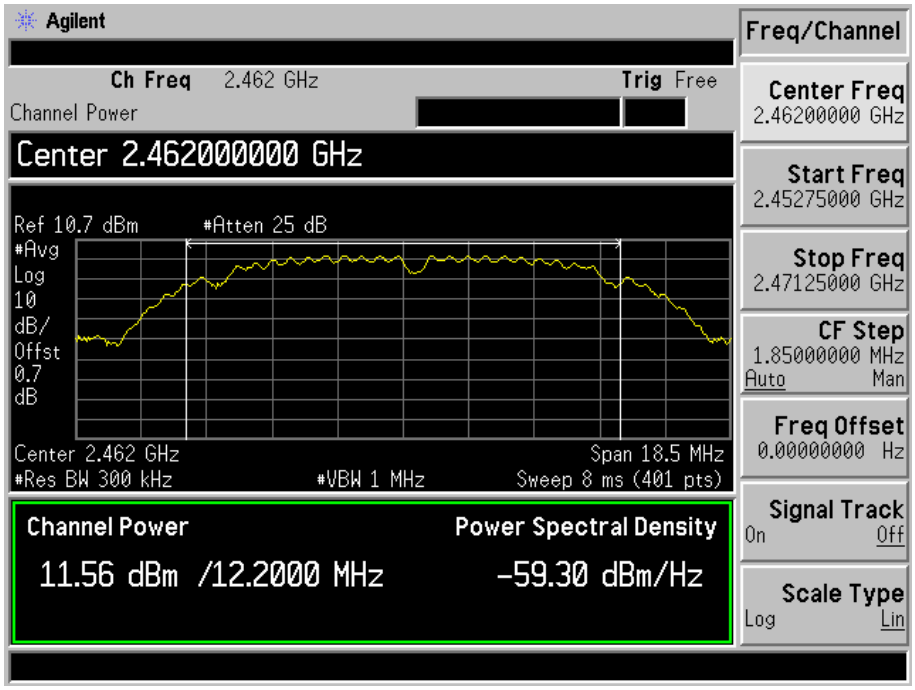
802.11b-11Mbps-Low Channel



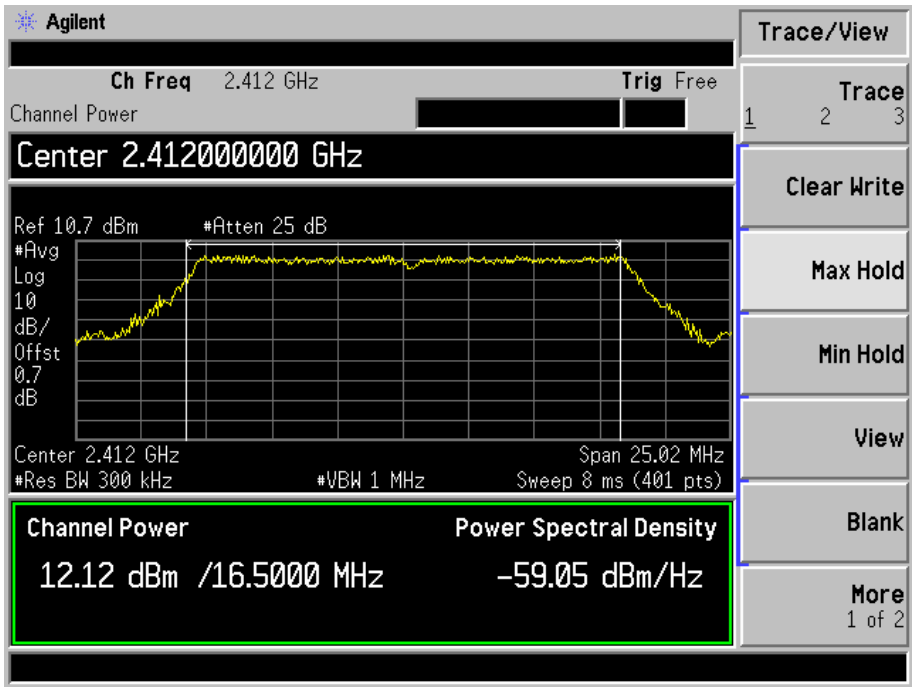
802.11b -11Mbps-Middle Channel



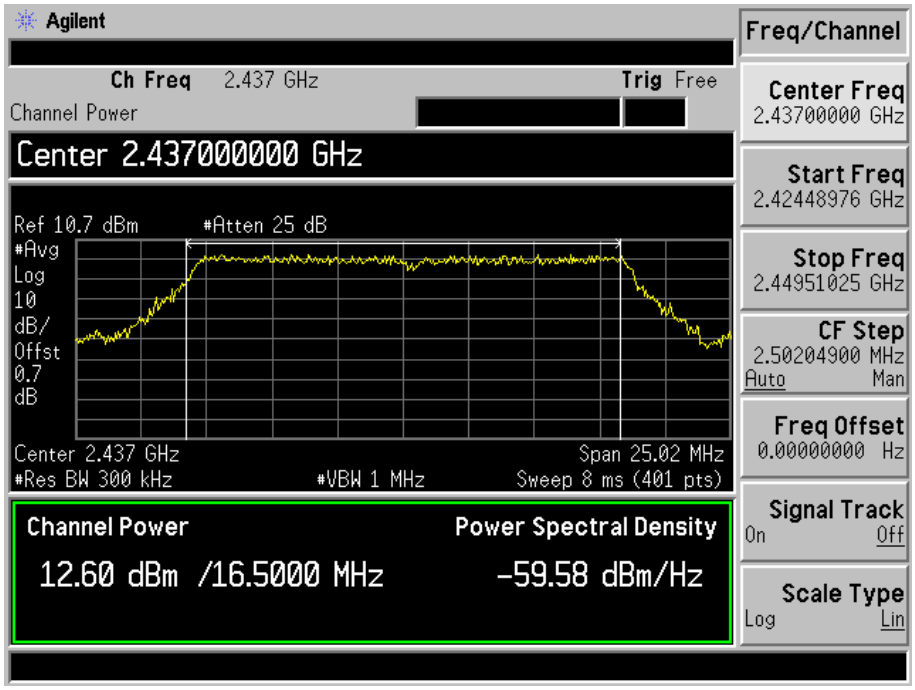
802.11b -11Mpbs-High Channel



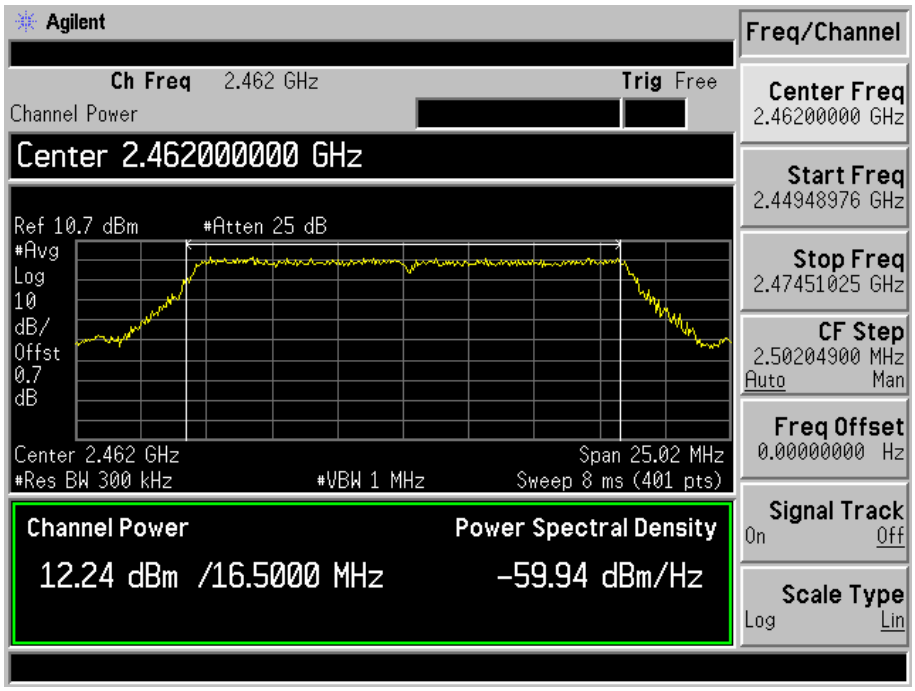
802.11g-54Mbps-Low Channel



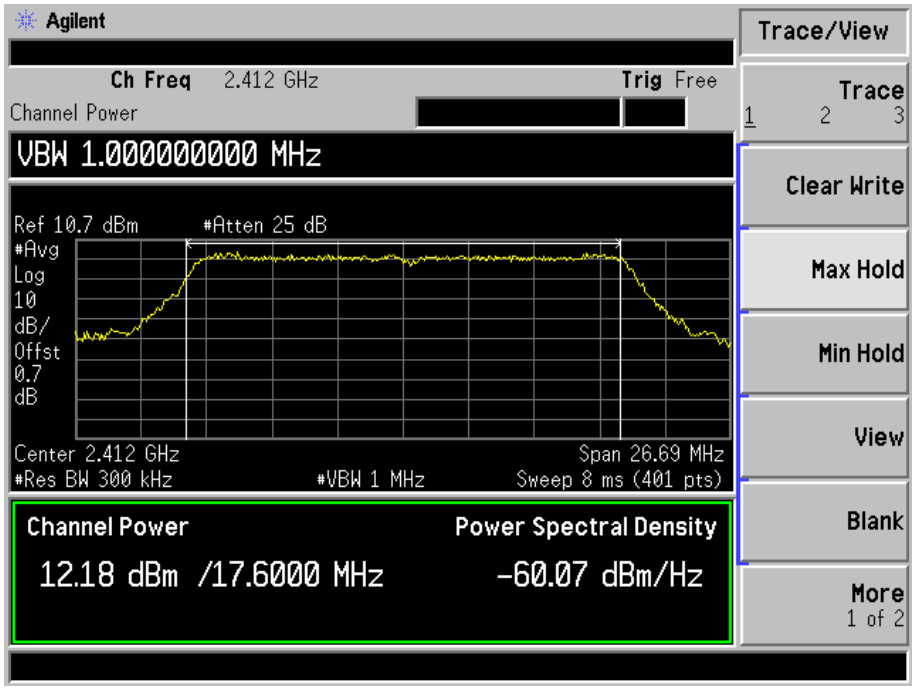
802.11g-54Mbps-Middle Channel



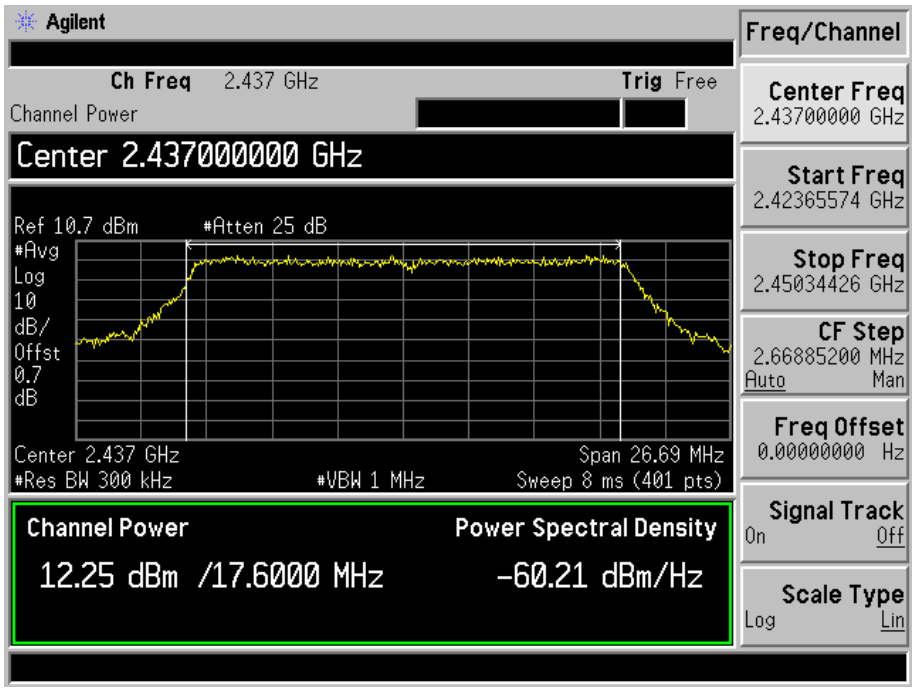
802.11g-54Mpbs-High Channel



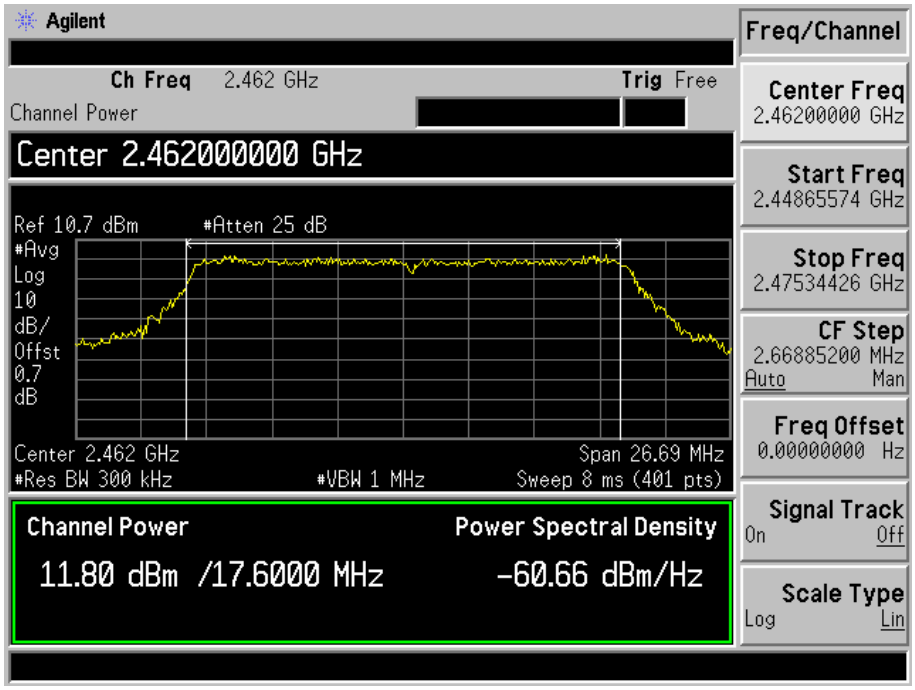
802.11n-HT20-MCS7-Low Channel



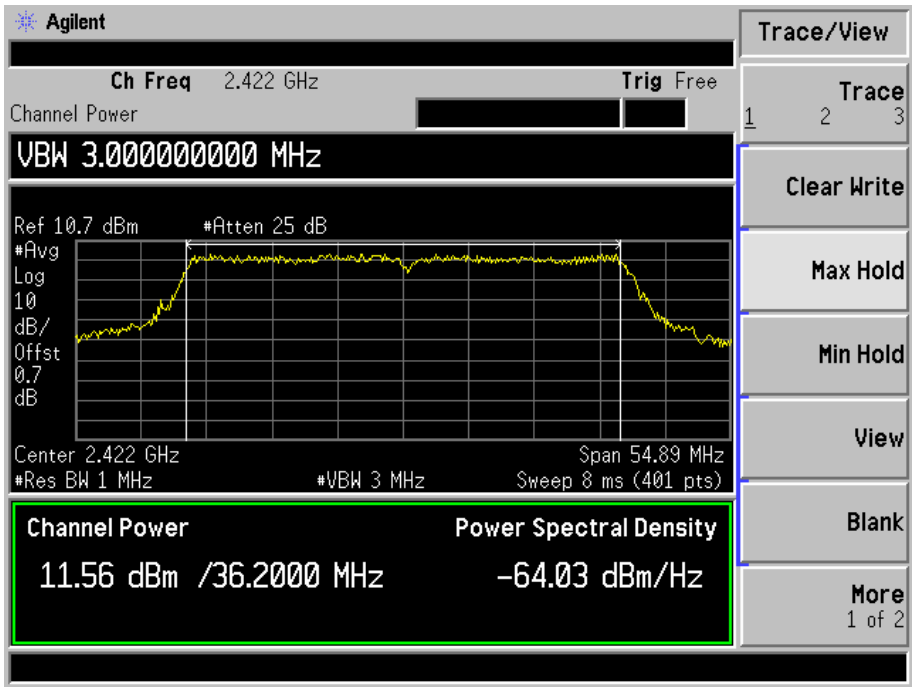
802.11n-HT20-MCS7-Middle Channel



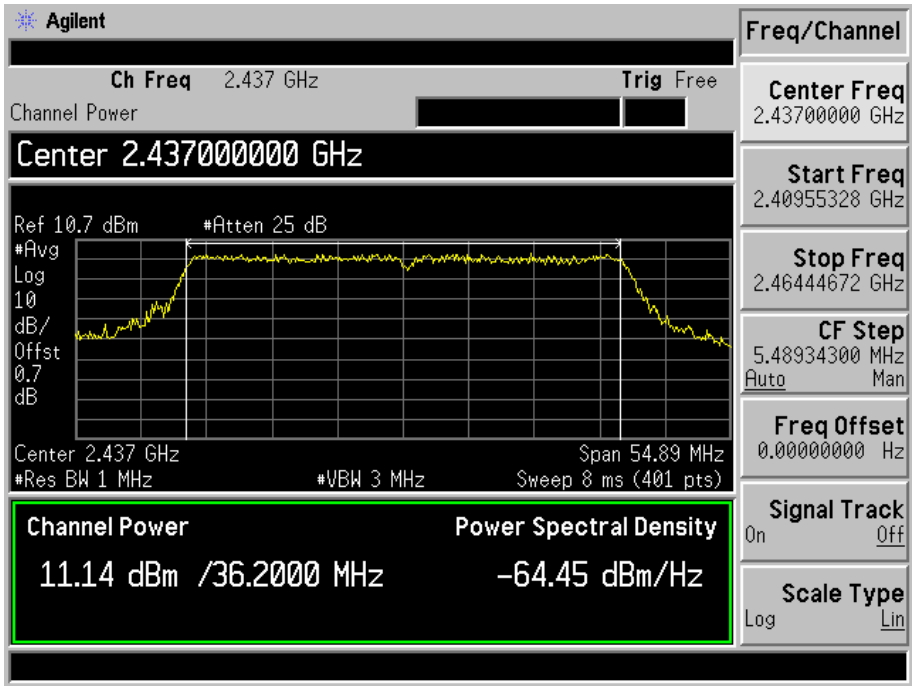
802.11n-HT20-MCS7-High Channel



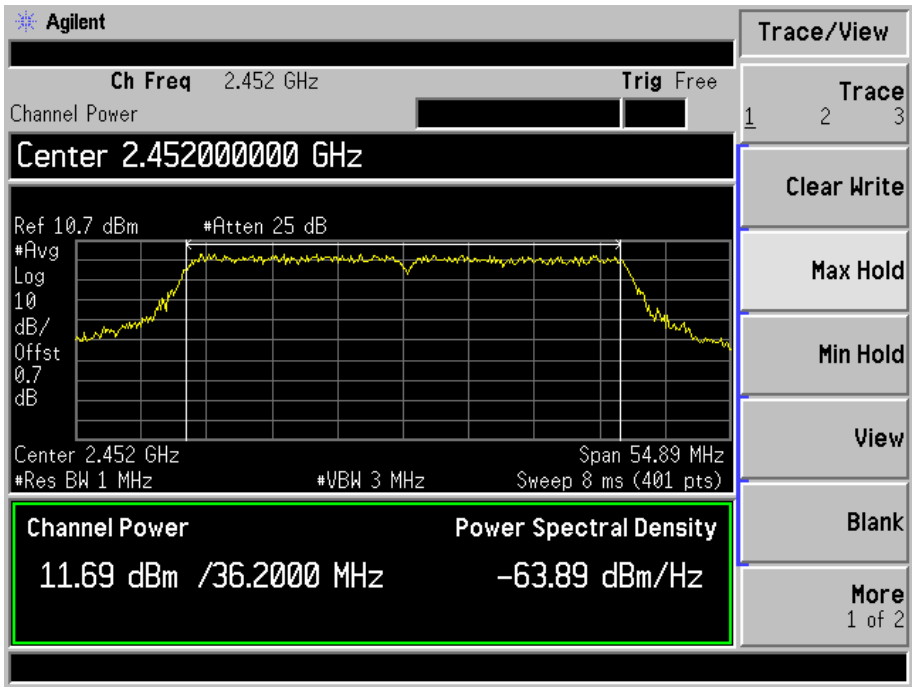
802.11n-HT40-MCS7-Low Channel



802.11n-HT40-MCS7-Middle Channel



802.11n-HT40-MCS7-High Channel



8. Field Strength of Spurious Emissions

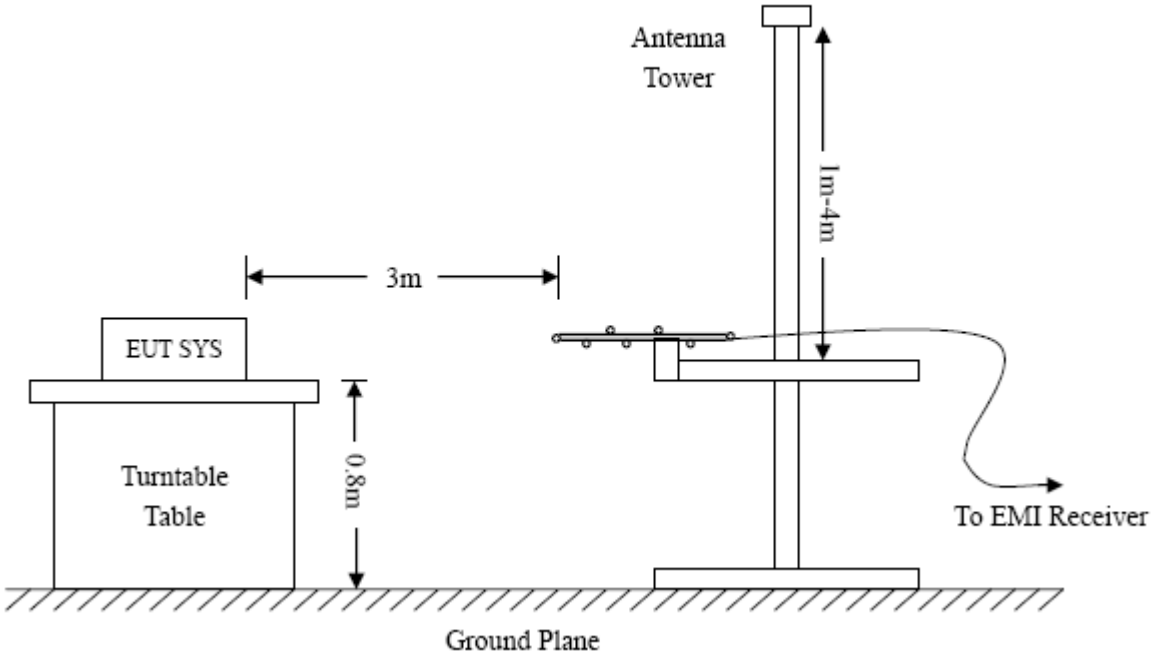
8.1 Standard Applicable

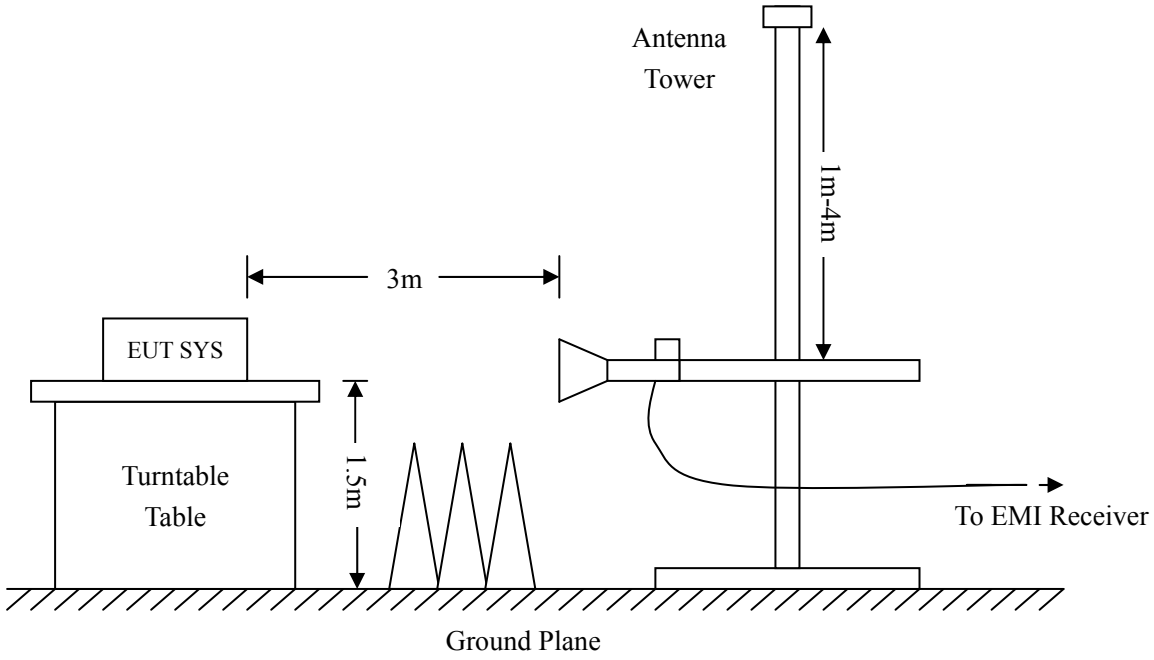
According to §15.247(d), in any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within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

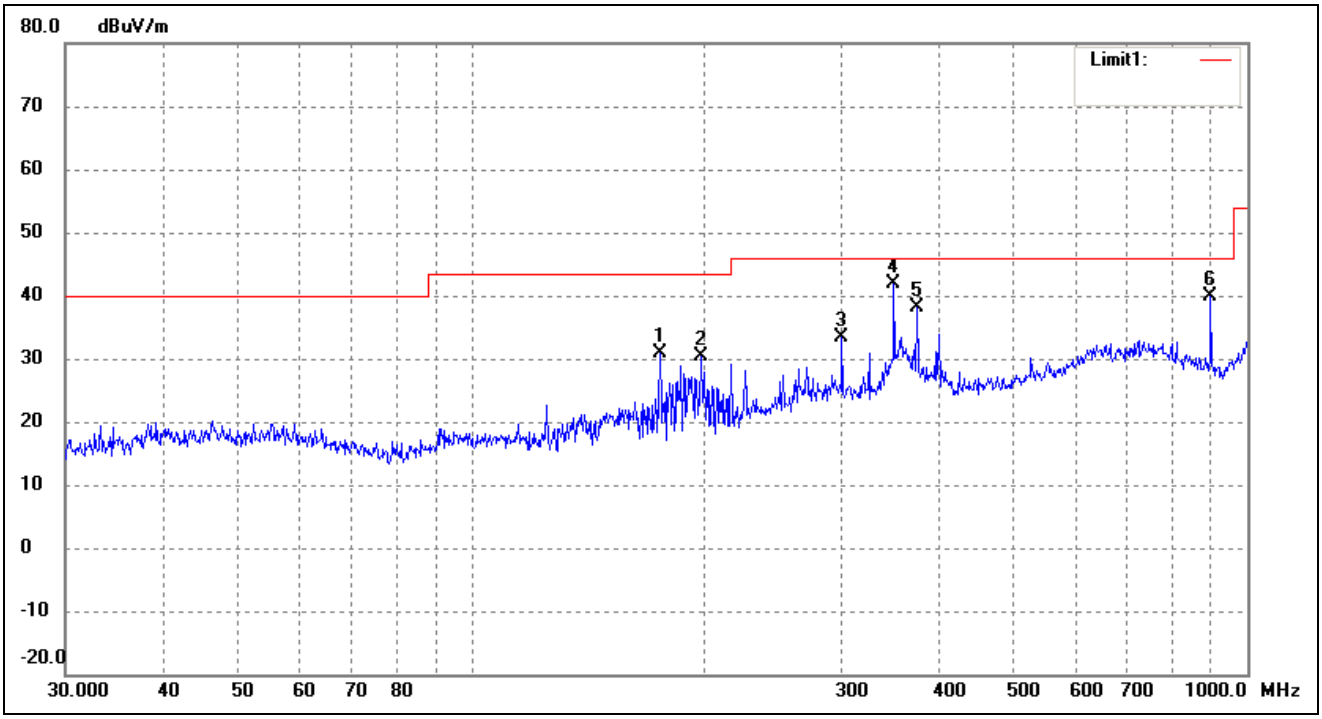
According to the data below, the FCC Part 15.205, 15.209 and 15.247 standards, and had the worst cases:

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)

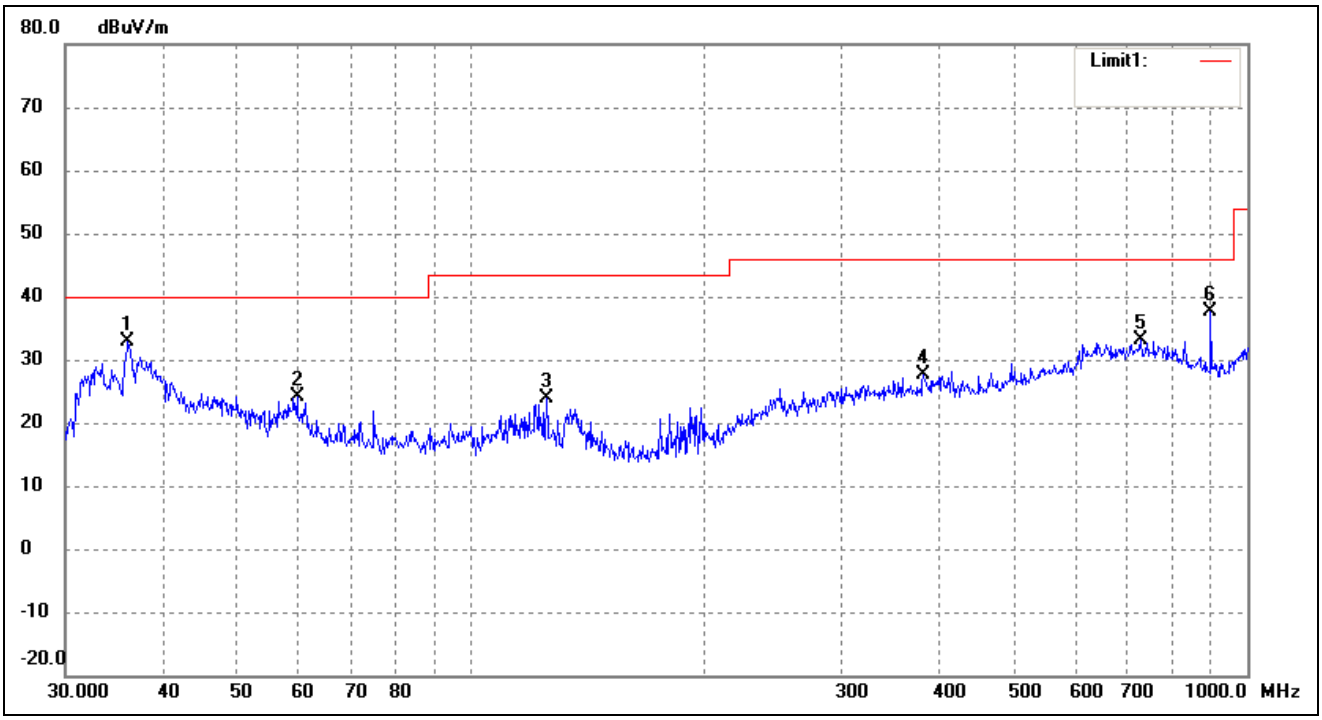
EUT: *Outdoor HD IP Camera*
Tested Model: *FI9800P*
Operating Condition: *802.11b Transmitting*
Comment: *DC 12V*

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	175.0368	28.43	2.45	30.88	43.50	-12.62	248	100	ERP
2	197.8928	27.11	3.26	30.37	43.50	-13.13	98	100	ERP
3	300.3673	21.39	11.95	33.34	46.00	-12.66	230	100	ERP
4	350.4768	30.12	11.65	41.77	46.00	-4.23	108	100	ERP
5	375.9385	26.21	11.81	38.02	46.00	-7.98	205	100	ERP
6	896.9965	24.45	15.39	39.84	46.00	-6.16	165	100	ERP

Test Specification: *Vertical*

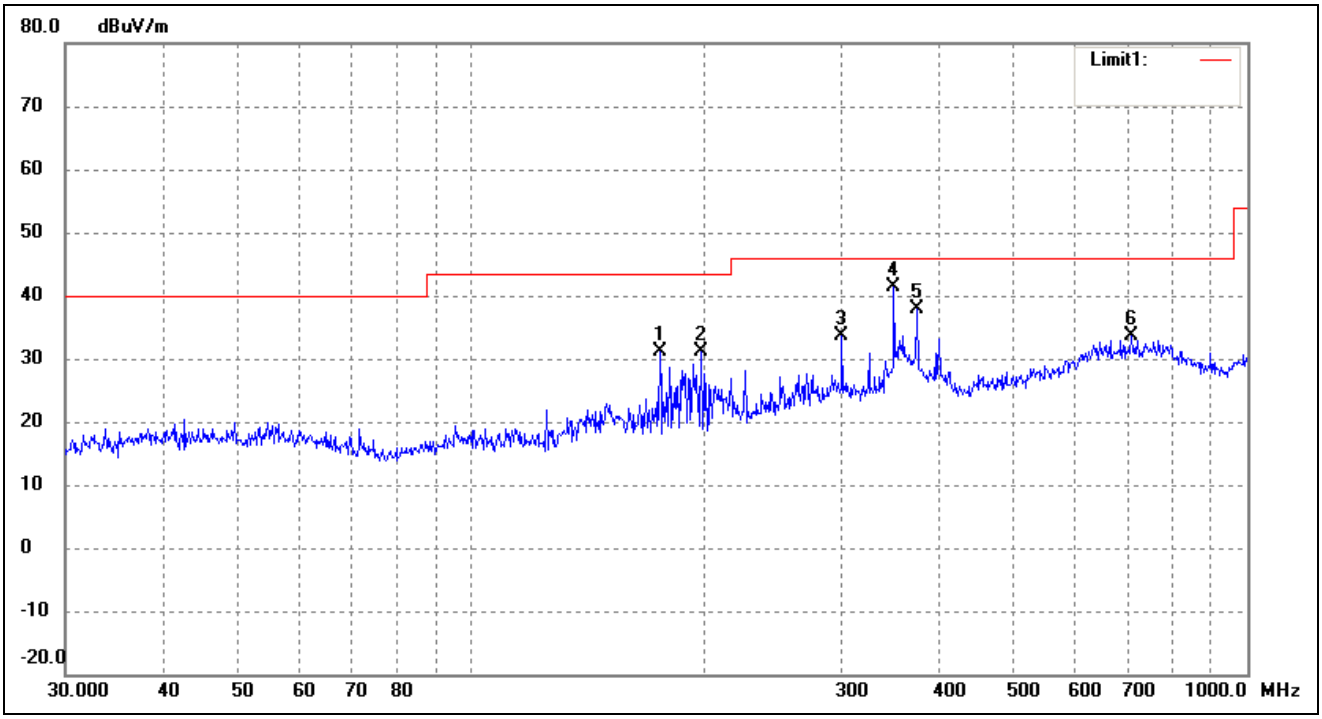


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	36.1272	28.43	4.35	32.78	40.00	-7.22	321	100	ERP
2	59.6493	19.01	5.03	24.04	40.00	-15.96	316	100	ERP
3	125.0066	19.57	4.40	23.97	43.50	-19.53	74	100	ERP
4	382.5879	15.64	11.91	27.55	46.00	-18.45	213	100	ERP
5	729.3583	14.84	18.38	33.22	46.00	-12.78	349	100	ERP
6	896.9965	22.27	15.39	37.66	46.00	-8.34	145	100	ERP

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

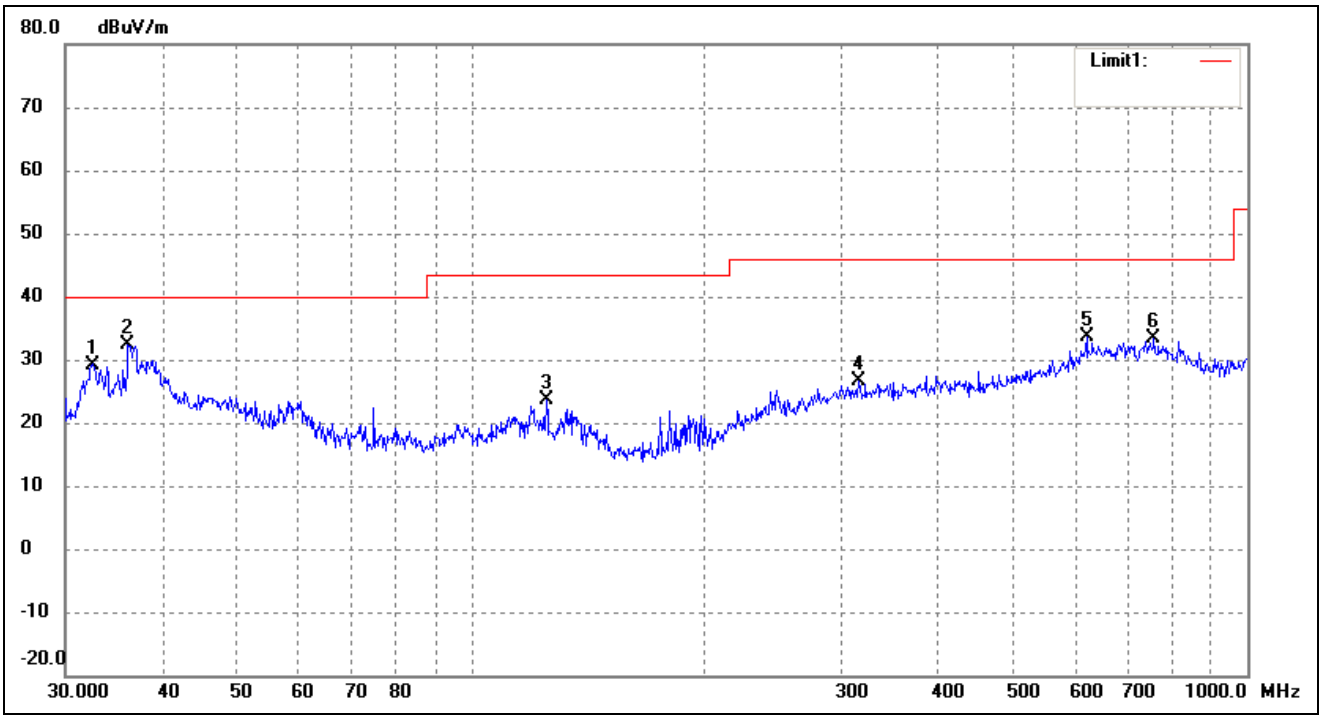
EUT: *Outdoor HD IP Camera*
Tested Model: *FI9800P*
Operating Condition: *802.11g Transmitting*
Comment: *DC 12V*

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	175.0368	28.76	2.45	31.21	43.50	-12.29	161	100	ERP
2	197.8928	27.89	3.26	31.15	43.50	-12.35	111	100	ERP
3	300.3673	21.73	11.95	33.68	46.00	-12.32	84	100	ERP
4	350.4768	29.64	11.65	41.29	46.00	-4.71	95	100	ERP
5	375.9385	26.18	11.81	37.99	46.00	-8.01	222	100	ERP
6	709.1823	16.20	17.48	33.68	46.00	-12.32	253	100	ERP

Test Specification: *Vertical*

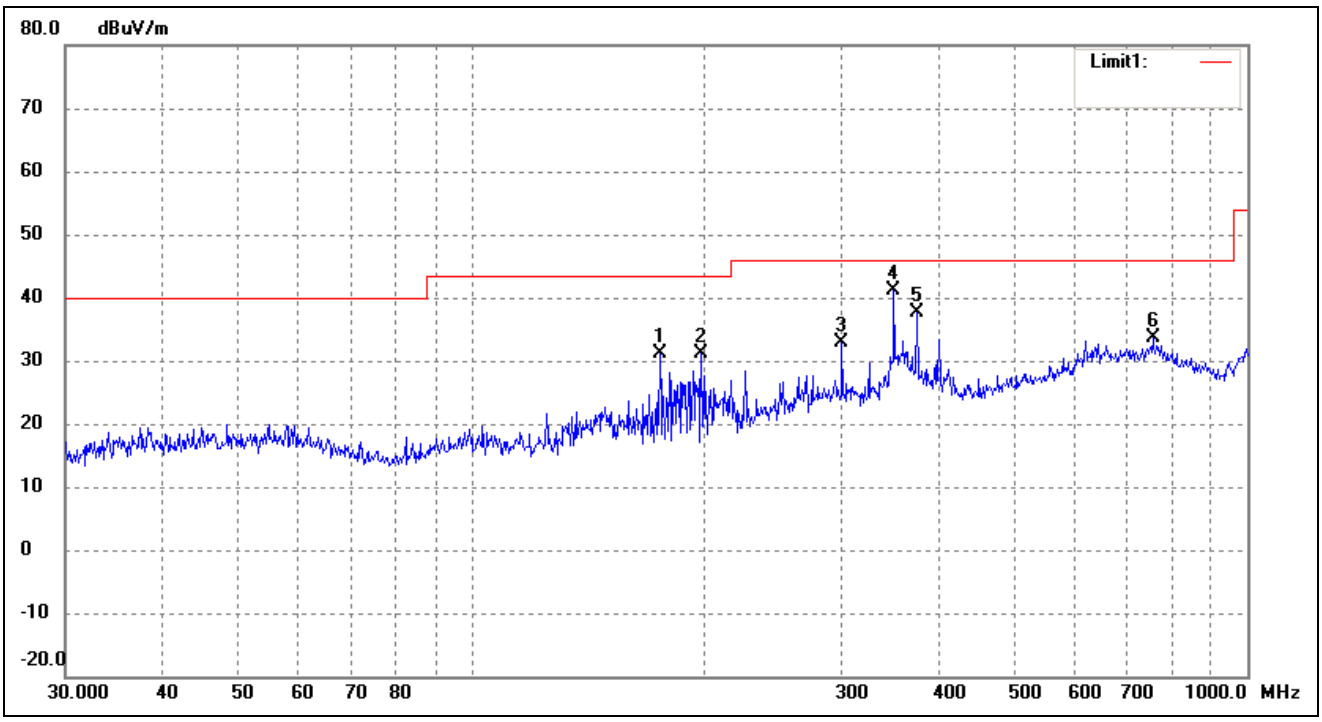


No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	32.5198	25.46	3.79	29.25	40.00	-10.75	65	100	ERP
2	36.1272	27.93	4.35	32.28	40.00	-7.72	159	100	ERP
3	125.0066	19.24	4.40	23.64	43.50	-19.86	68	100	ERP
4	315.4808	14.59	11.95	26.54	46.00	-19.46	144	100	ERP
5	620.7096	16.17	17.38	33.55	46.00	-12.45	152	100	ERP
6	758.0408	15.19	18.23	33.42	46.00	-12.58	290	100	ERP

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

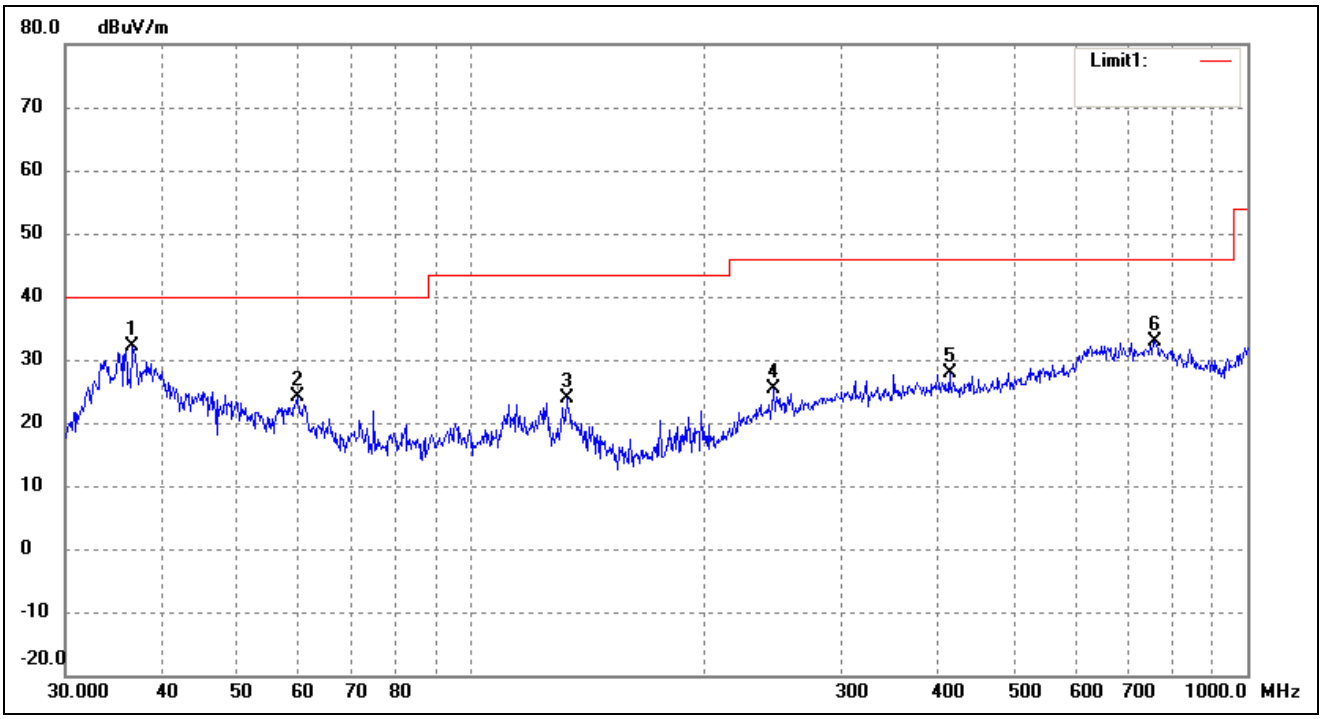
EUT: *Outdoor HD IP Camera*
Tested Model: *FI9800P*
Operating Condition: *802.11n-HT20 Transmitting*
Comment: *DC 12V*

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	175.0368	28.57	2.45	31.02	43.50	-12.48	80	100	ERP
2	197.8928	27.91	3.26	31.17	43.50	-12.33	101	100	ERP
3	300.3673	20.94	11.95	32.89	46.00	-13.11	99	100	ERP
4	350.4768	29.58	11.65	41.23	46.00	-4.77	349	100	ERP
5	375.9385	25.78	11.81	37.59	46.00	-8.41	108	100	ERP
6	755.3873	15.19	18.35	33.54	46.00	-12.46	339	100	ERP

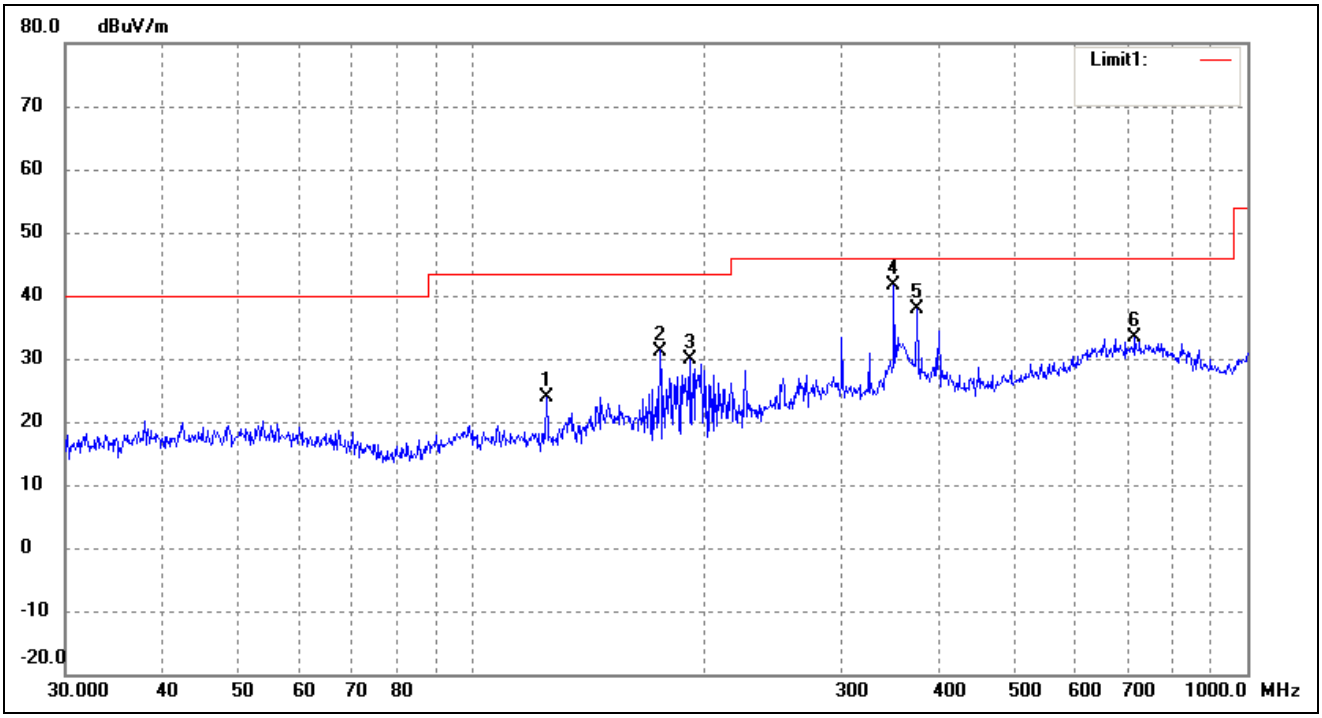
Test Specification: *Vertical*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Degree	Height	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	( )	(cm)	
1	36.6375	27.65	4.44	32.09	40.00	-7.91	217	100	ERP
2	59.8588	19.11	5.03	24.14	40.00	-15.86	94	100	ERP
3	132.6850	20.17	3.76	23.93	43.50	-19.57	144	100	ERP
4	245.0900	16.26	9.13	25.39	46.00	-20.61	117	100	ERP
5	413.2706	15.75	12.15	27.90	46.00	-18.10	149	100	ERP
6	760.7036	14.87	18.10	32.97	46.00	-13.03	212	100	ERP

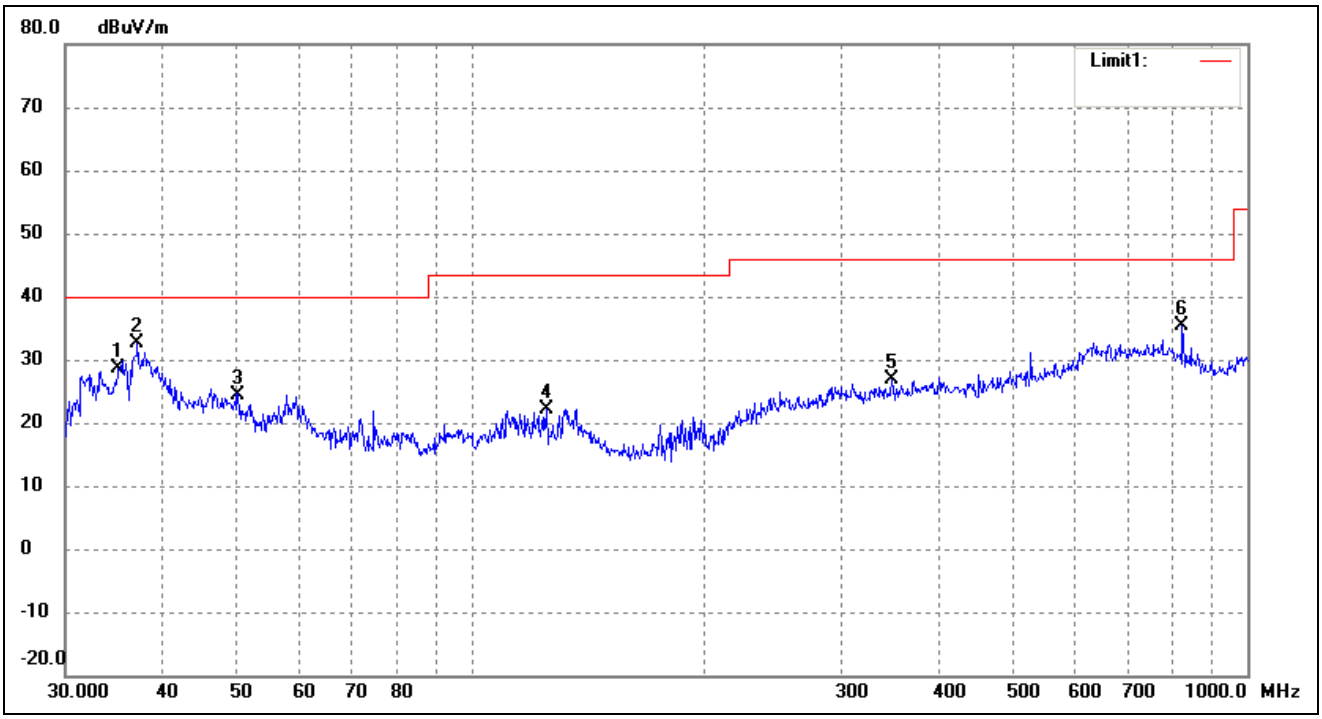
EUT: *Outdoor HD IP Camera*
Tested Model: *FI9800P*
Operating Condition: *802.11n-HT40 Transmitting*
Comment: *DC 12V*

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	125.0066	19.45	4.40	23.85	43.50	-19.65	312	100	ERP
2	175.0368	28.80	2.45	31.25	43.50	-12.25	217	100	ERP
3	191.7450	26.95	2.97	29.92	43.50	-13.58	63	100	ERP
4	350.4768	30.01	11.65	41.66	46.00	-4.34	337	100	ERP
5	375.9385	26.05	11.81	37.86	46.00	-8.14	155	100	ERP
6	716.6820	15.67	17.70	33.37	46.00	-12.63	312	100	ERP

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	35.1278	24.45	4.20	28.65	40.00	-11.35	287	100	ERP
2	37.1550	28.18	4.51	32.69	40.00	-7.31	99	100	ERP
3	50.0566	19.52	4.98	24.50	40.00	-15.50	319	100	ERP
4	125.0066	17.79	4.40	22.19	43.50	-21.31	100	100	ERP
5	348.0274	15.41	11.59	27.00	46.00	-19.00	99	100	ERP
6	824.5968	19.61	15.76	35.37	46.00	-10.63	321	100	ERP

Spurious Emissions Above 1GHz

Test Mode: 802.11b

Frequency	Reading	Correct	Result	Limit	Margin	Polar	Detector
(MHz)	(dBuV/m)	dB	(dBuV/m)	(dBuV/m)	(dB)	H/V	
Low Channel-2412MHz							
4824.000	66.16	-3.87	62.29	74	-11.71	H	PK
4824.000	50.81	-3.87	46.94	54	-7.06	H	AV
7236.000	67.40	1.14	68.54	74	-5.46	H	PK
7236.000	45.33	1.19	46.52	54	-7.48	H	AV
4824.000	68.03	-3.86	64.17	74	-9.83	V	PK
4824.000	52.93	-3.86	49.07	54	-4.93	V	AV
7236.000	67.73	1.10	68.83	74	-5.17	V	PK
7236.000	45.51	1.10	46.61	54	-7.39	V	AV
Middle Channel-2437MHz							
4874.000	65.71	-3.74	61.97	74	-12.03	H	PK
4874.000	54.11	-3.74	50.37	54	-3.63	H	AV
7311.000	65.41	1.47	66.88	74	-7.12	H	PK
7311.000	47.52	1.47	48.99	54	-5.01	H	AV
4874.000	66.12	-3.74	62.38	74	-11.62	V	PK
4874.000	53.70	-3.74	49.96	54	-4.04	V	AV
7311.000	65.82	1.47	67.29	74	-6.71	V	PK
7311.000	49.10	1.47	50.57	54	-3.43	V	AV
High Channel-2462MHz							
4924.000	65.20	-3.59	61.61	74	-12.39	H	PK
4924.000	48.92	-3.59	45.33	54	-8.67	H	AV
7386.000	65.92	1.79	67.71	74	-6.29	H	PK
7386.000	47.15	1.79	48.94	54	-5.06	H	AV
4924.000	65.37	-3.59	61.78	74	-12.22	V	PK
4924.000	47.93	-3.59	44.34	54	-9.66	V	AV
7386.000	66.59	1.79	68.38	74	-5.62	V	PK
7386.000	47.24	1.79	49.03	54	-4.97	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 v04, 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 v04, 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.

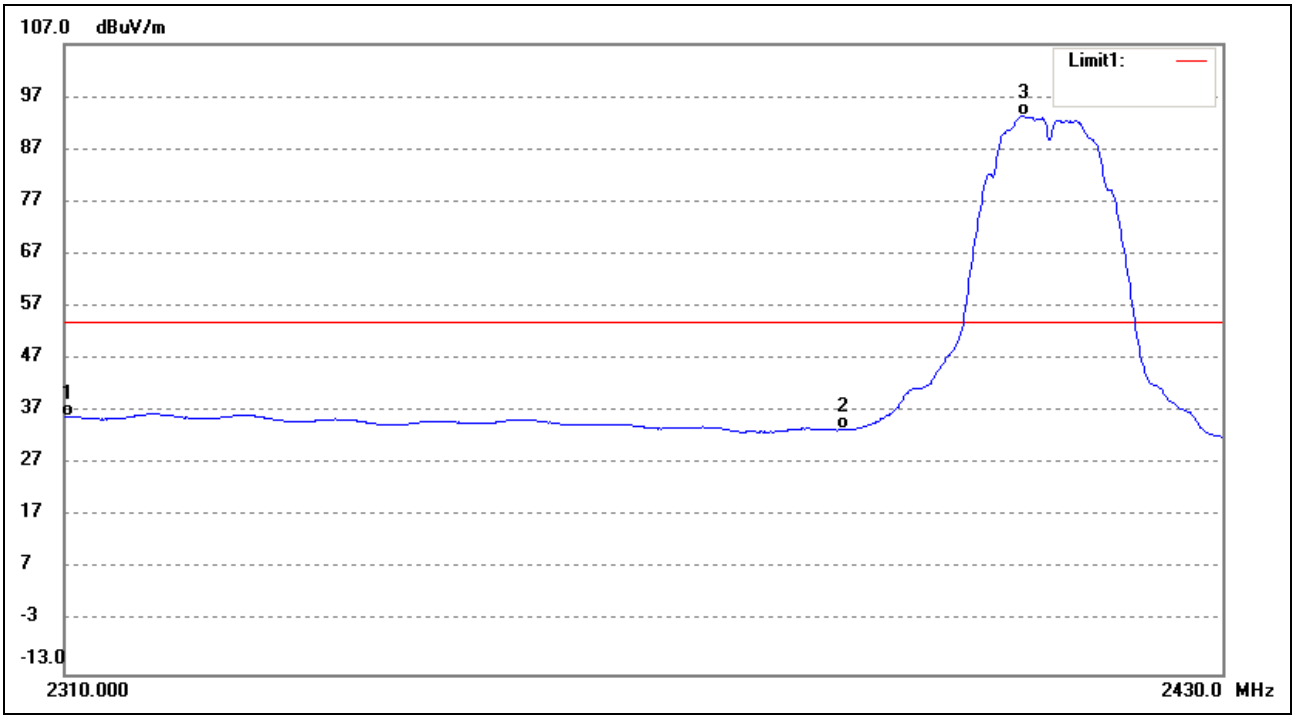
9.3 Environmental Conditions

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

9.4 Summary of Test Results/Plots

802.11b-Lowest Bandedge

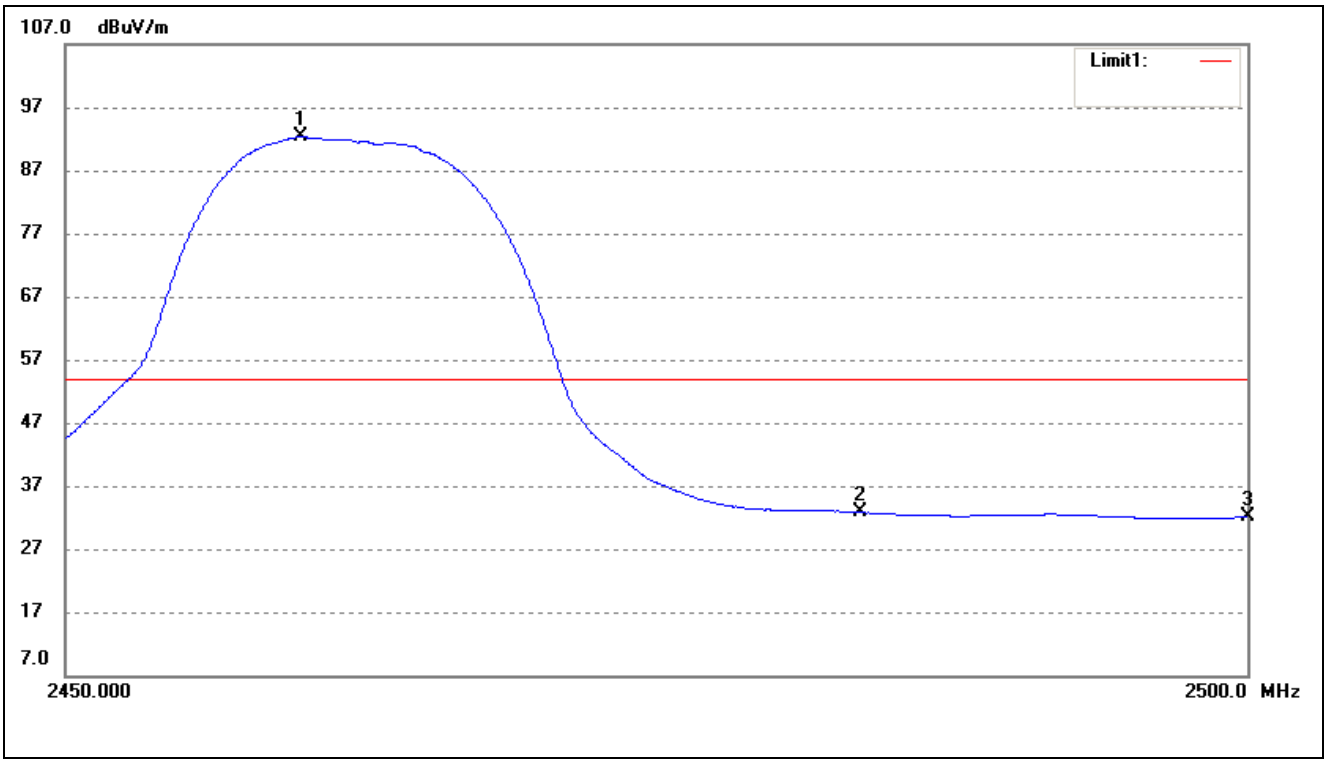
Vertical (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	36.48	-0.35	36.13	54.00	-17.87	Average Detector
	2310.000	50.21	-0.35	49.86	74.00	-24.14	Peak Detector
2	2390.000	34.83	-1.29	33.54	54.00	-17.87	Average Detector
	2390.000	47.41	-1.29	46.12	74.00	-27.88	Peak Detector
3	2408.925	94.93	-1.44	93.48	/	/	Average Detector
	2408.925	100.30	-1.44	98.86	/	/	Peak Detector

802.11b-Highest Bandedge

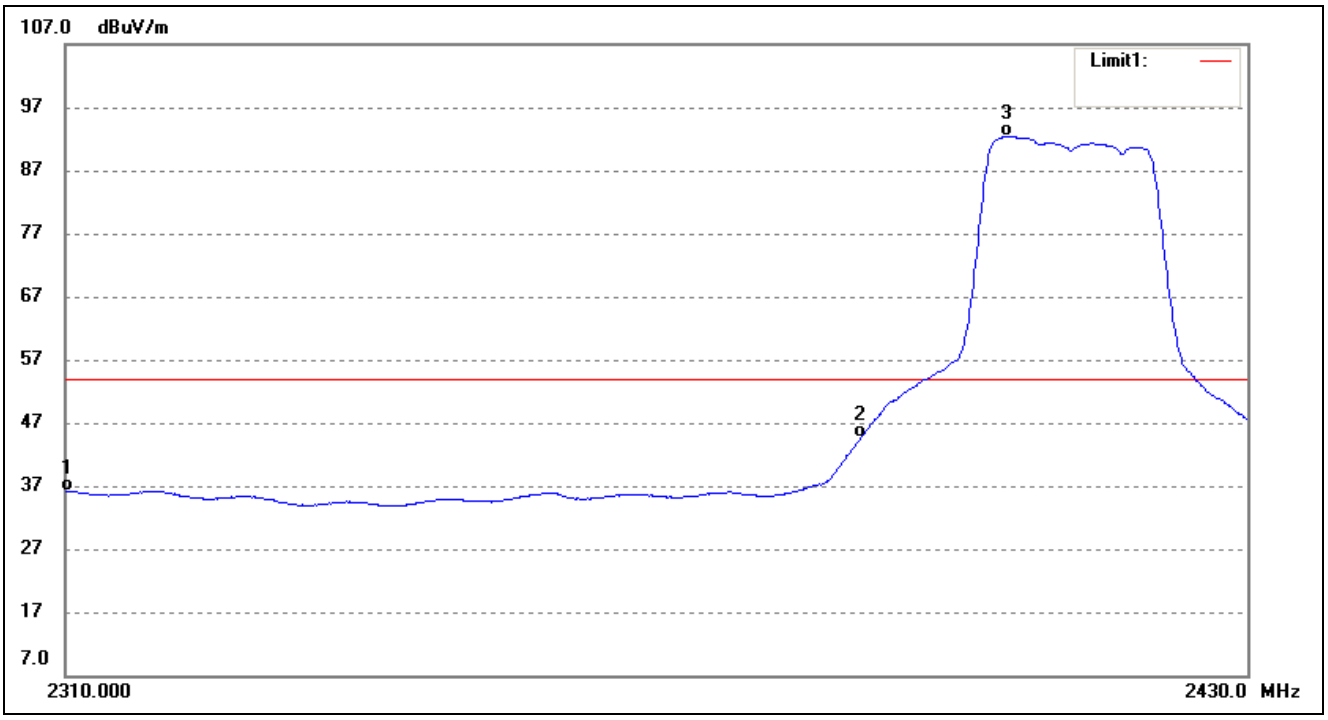
Vertical (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	Factor(dB)	(dBuV/m)	(dBuV/m)	(dB)	
1	2459.870	93.72	-1.38	92.34	/	/	Average Detector
	2459.870	101.96	-1.38	100.58	/	/	Peak Detector
2	2483.500	34.16	-1.36	32.80	54.00	-21.20	Average Detector
	2483.500	47.20	-1.36	45.84	74.00	-28.16	Peak Detector
3	2500.000	33.40	-1.34	32.06	54.00	-21.94	Average Detector
	2500.000	46.80	-1.34	45.46	74.00	-28.54	Peak Detector

802.11g-Lowest Bandedge

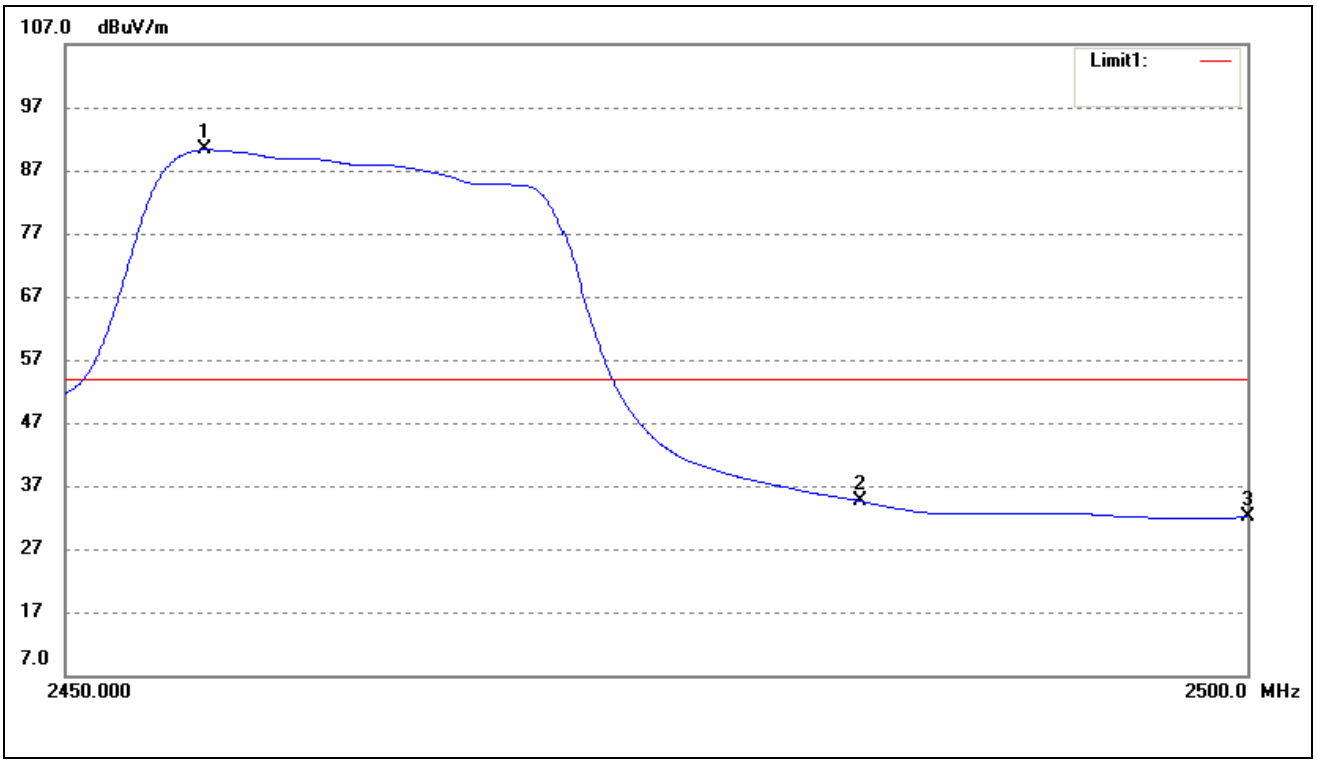
Vertical (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	36.60	-0.35	36.25	54.00	-17.75	Average Detector
	2310.000	49.35	-0.35	49.00	74.00	-25.00	Peak Detector
2	2390.000	45.98	-1.29	44.69	54.00	-9.31	Average Detector
	2390.000	66.67	-1.29	65.38	74.00	-8.62	Peak Detector
3	2405.024	93.84	-1.44	92.39	/	/	Average Detector
	2405.024	105.32	-1.44	103.88	/	/	Peak Detector

802.11g-Highest Bandedge

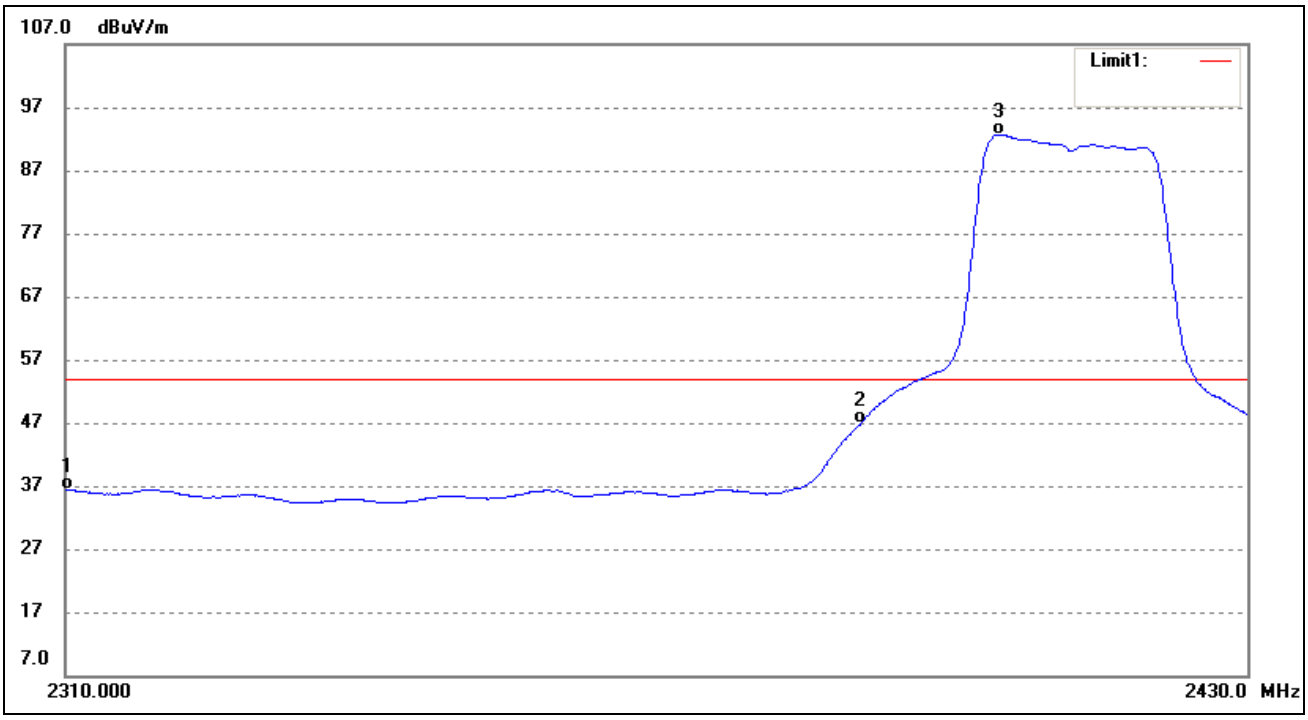
Vertical (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2455.848	91.68	-1.38	90.29	/	/	Average Detector
	2455.848	104.43	-1.38	103.04	/	/	Peak Detector
2	2483.500	35.95	-1.36	34.59	54.00	-19.41	Average Detector
	2483.500	51.53	-1.36	50.17	74.00	-23.83	Peak Detector
3	2500.000	33.40	-1.34	32.06	54.00	-21.94	Average Detector
	2500.000	45.67	-1.34	44.33	74.00	-29.67	Peak Detector

802.11n-HT20-Lowest Bandedge

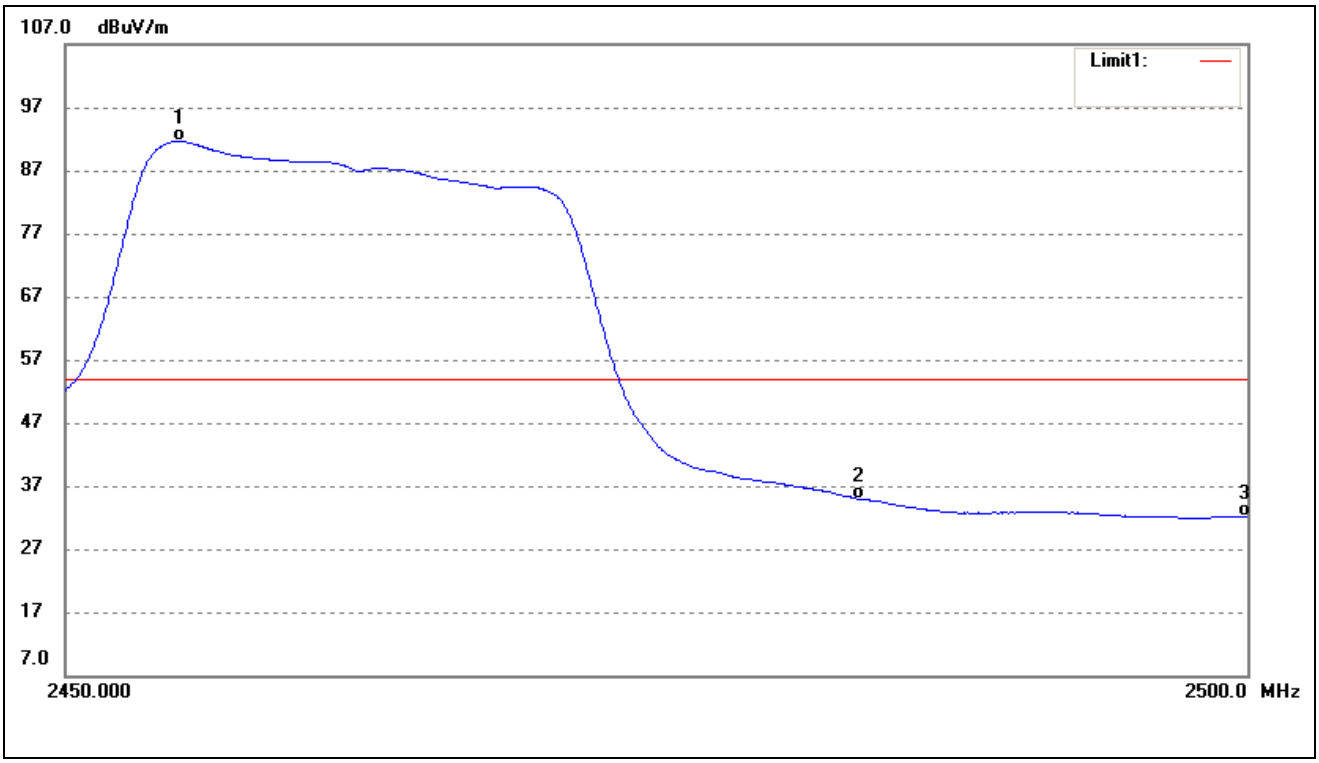
Vertical (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	36.77	-0.35	36.42	54.00	-17.58	Average Detector
	2310.000	49.42	-0.35	49.07	74.00	-24.93	Peak Detector
2	2390.000	48.23	-1.29	46.94	54.00	-7.06	Average Detector
	2390.000	69.85	-1.29	68.56	74.00	-5.44	Peak Detector
3	2404.293	94.18	-1.44	92.74	/	/	Average Detector
	2404.293	104.98	-1.44	103.53	/	/	Peak Detector

802.11n-HT20-Highest Bandedge

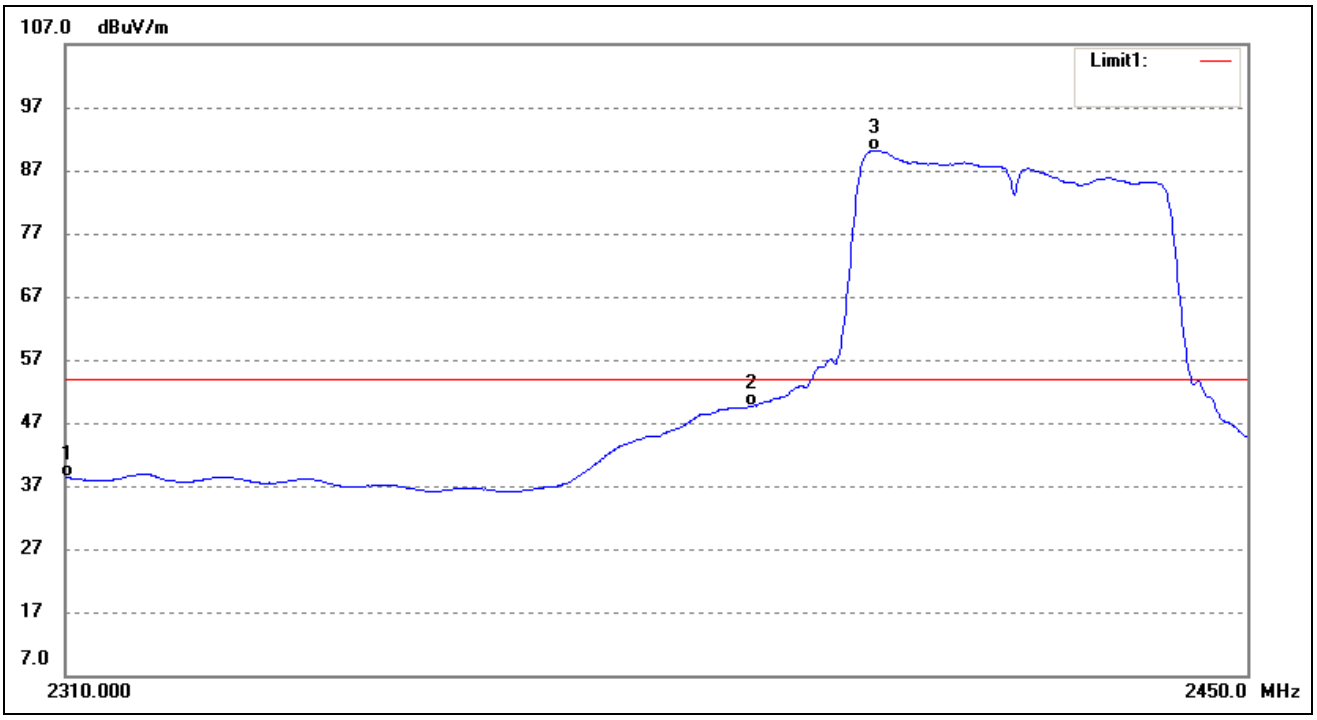
Vertical (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2454.707	93.04	-1.38	91.65	/	/	Average Detector
	2454.856	103.83	-1.38	102.44	/	/	Peak Detector
2	2483.500	36.28	-1.36	34.92	54.00	-19.08	Average Detector
	2483.500	53.70	-1.36	52.34	74.00	-21.66	Peak Detector
3	2500.000	33.49	-1.34	32.15	54.00	-21.85	Average Detector
	2500.000	44.91	-1.34	43.57	74.00	-30.43	Peak Detector

802.11n-HT40-Lowest Bandedge

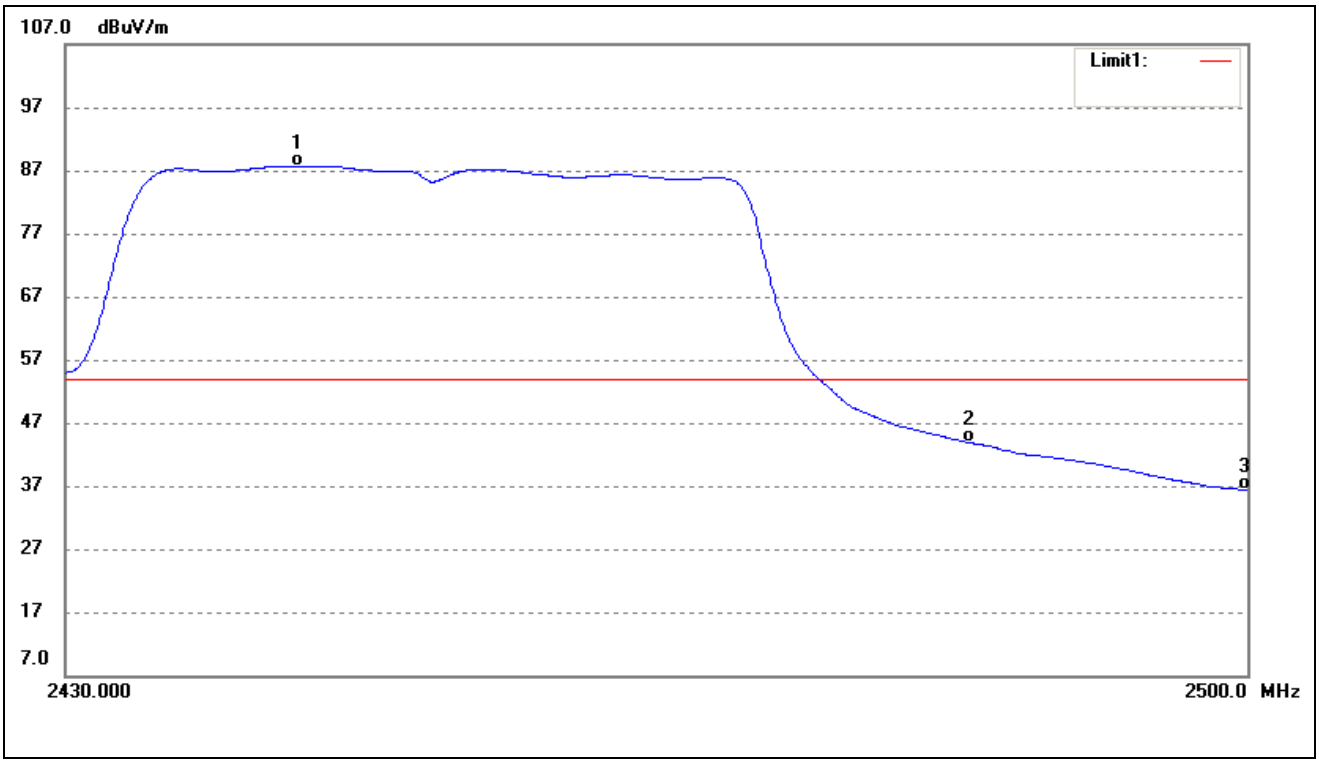
Vertical (Worst case)



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2310.000	38.61	-0.35	38.26	54.00	-15.74	Average Detector
	2310.000	51.20	-0.35	50.85	74.00	-23.15	Peak Detector
2	2390.000	50.83	-1.29	49.54	54.00	-4.46	Average Detector
	2390.000	65.56	-1.29	64.27	74.00	-9.73	Peak Detector
3	2405.008	91.55	-1.44	90.10	/	/	Average Detector
	2405.291	103.45	-1.44	102.00	/	/	Peak Detector

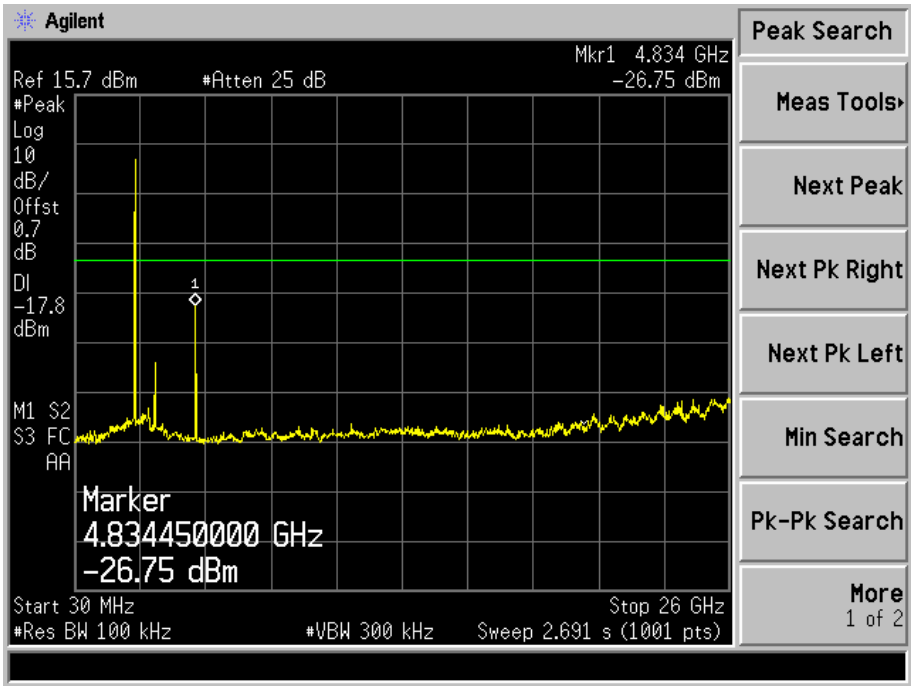
802.11n-HT40-Highest Bandedge

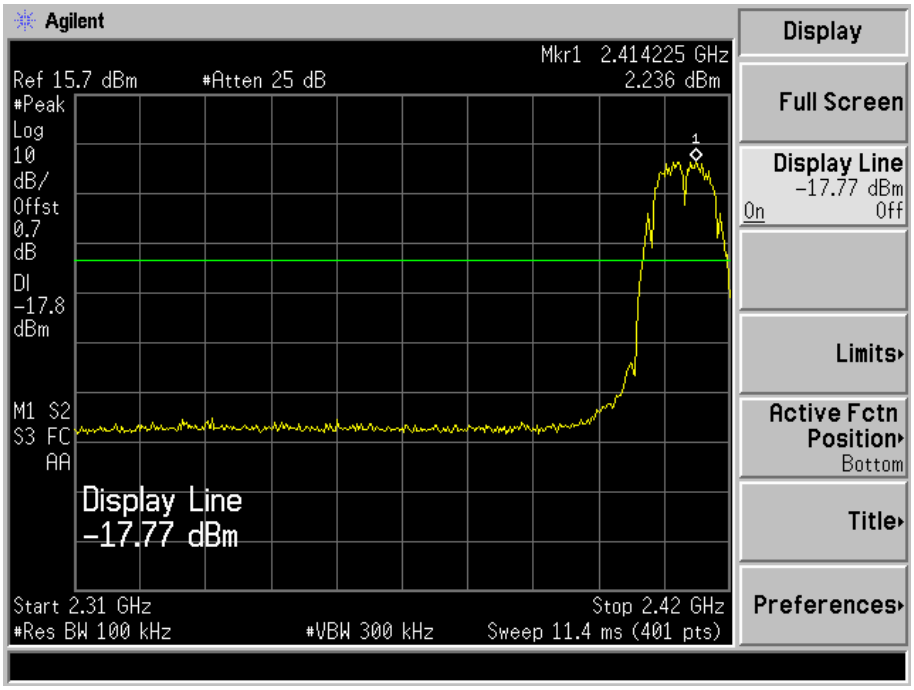
Vertical (Worst case)



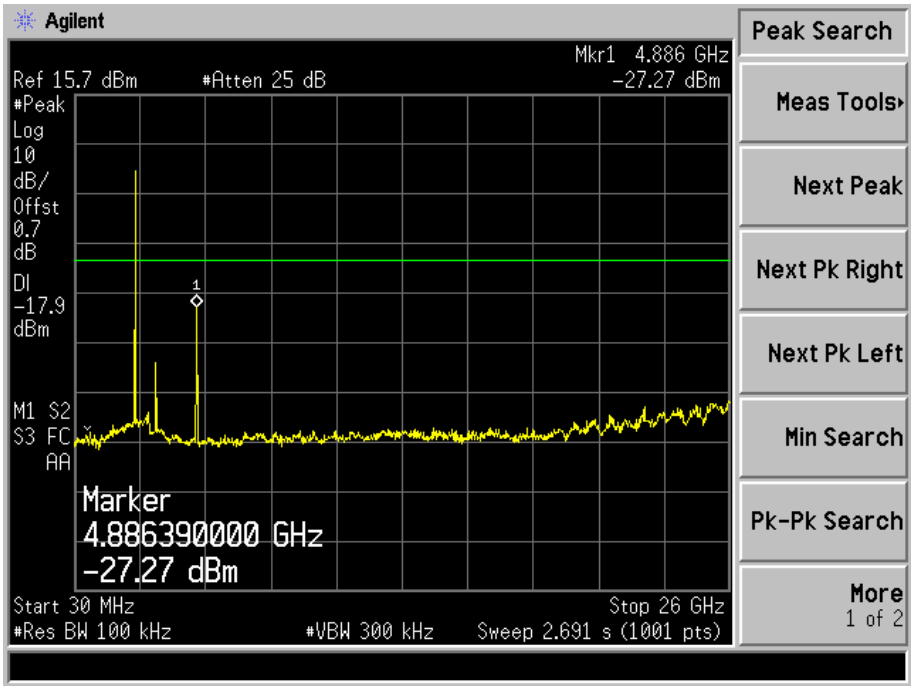
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuV/m)	dB/m	(dBuV/m)	(dBuV/m)	(dB)	
1	2443.633	89.12	-1.38	87.71	/	/	Average Detector
	2435.666	98.06	-1.38	96.64	/	/	Peak Detector
2	2483.500	45.17	-1.36	43.81	54.00	-10.19	Average Detector
	2483.500	50.31	-1.36	48.95	74.00	-25.05	Peak Detector
3	2500.000	37.67	-1.34	36.33	54.00	-17.67	Average Detector
	2500.000	44.60	-1.34	43.26	74.00	-30.74	Peak Detector

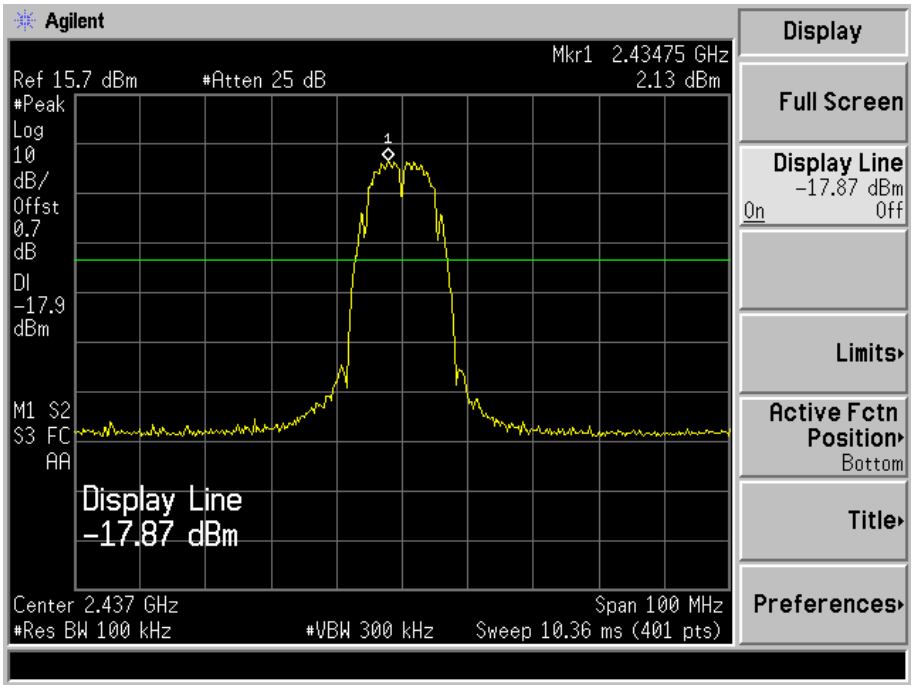
Spurious (Conducted)
802.11b-Lowest
Lowest



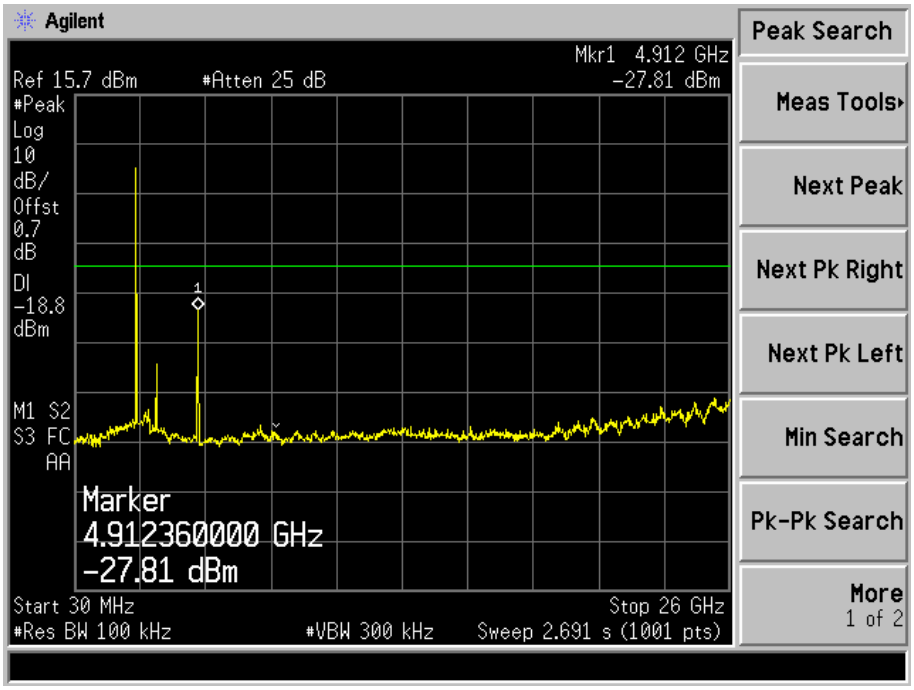


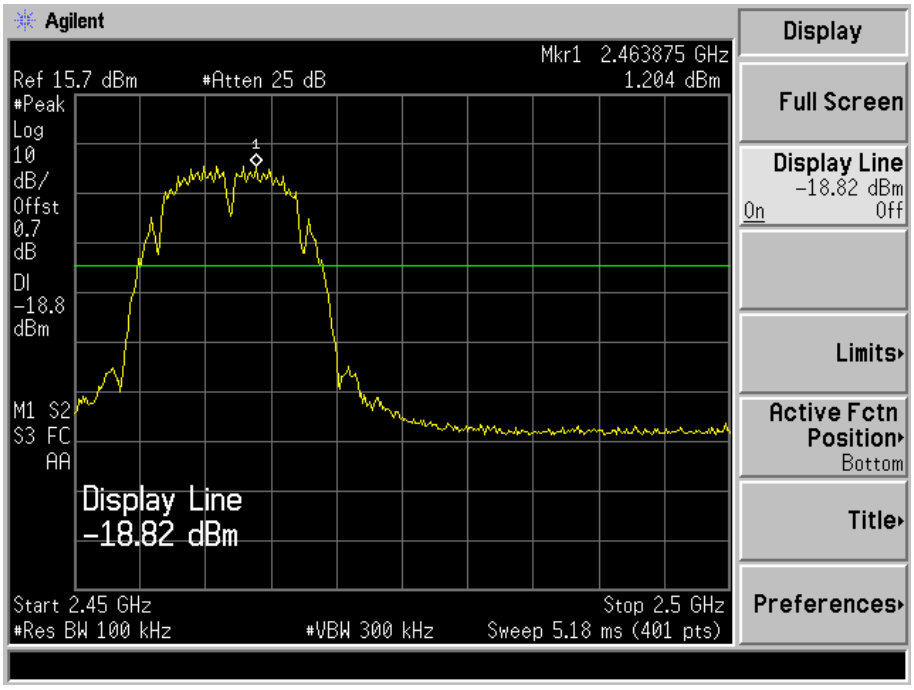
Middle


Agilent
Mkr1 4.886 GHz
Ref 15.7 dBm
#Atten 25 dB
-27.27 dBm
#Peak
Log
10
dB/
Offst
0.7
dB
Dl
-17.9
dBm
M1 S2
S3 FC
AA
Marker
4.886390000 GHz
-27.27 dBm
Start 30 MHz
Stop 26 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.691 s (1001 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

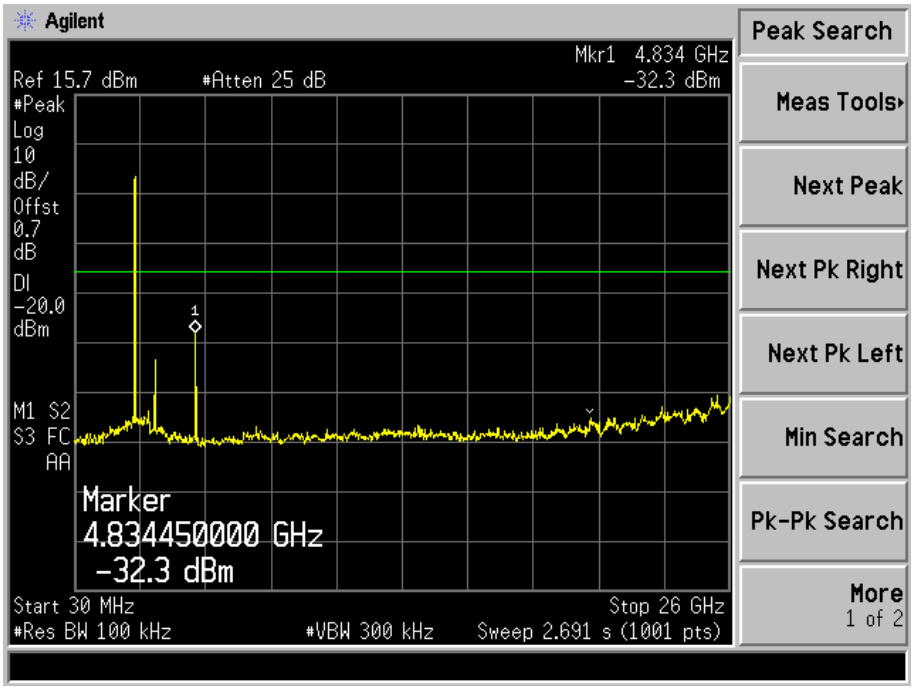

Agilent
Mkr1 2.43475 GHz
Ref 15.7 dBm
#Atten 25 dB
2.13 dBm
#Peak
Log
10
dB/
Offst
0.7
dB
Dl
-17.9
dBm
M1 S2
S3 FC
AA
Display Line
-17.87 dBm
Center 2.437 GHz
Span 100 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 10.36 ms (401 pts)
Display
Full Screen
Display Line
-17.87 dBm
On
Off
Limits
Active Fctn
Position
Bottom
Title
Preferences

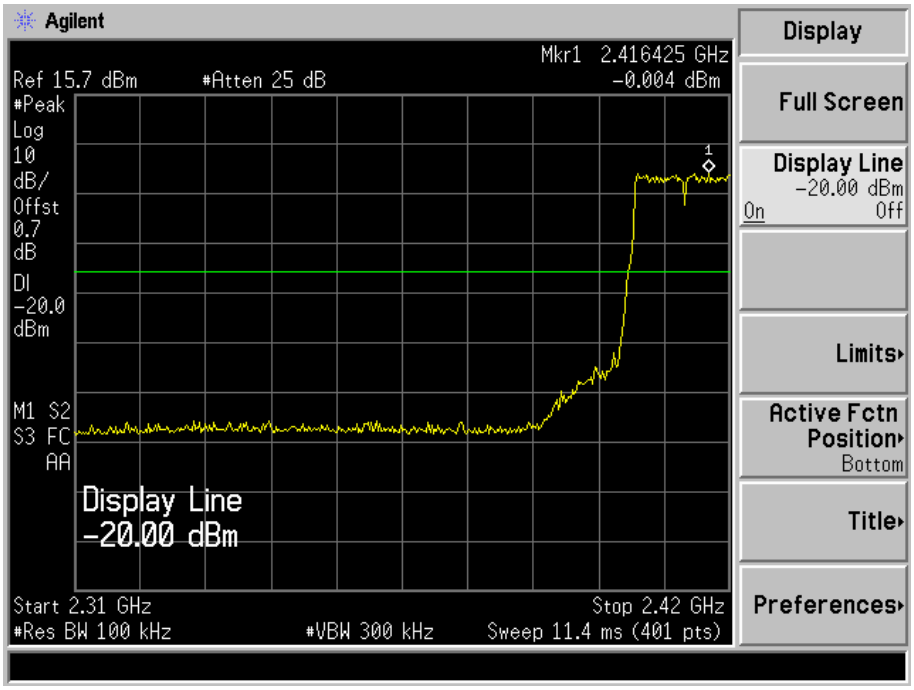
Highest


Agilent
Mkr1 4.912 GHz
Ref 15.7 dBm
#Atten 25 dB
-27.81 dBm
#Peak
Log
10
dB/
Offst
0.7
dB
Dl
-18.8
dBm
M1 S2
S3 FC
AA
Marker
4.912360000 GHz
-27.81 dBm
Start 30 MHz
Stop 26 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.691 s (1001 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

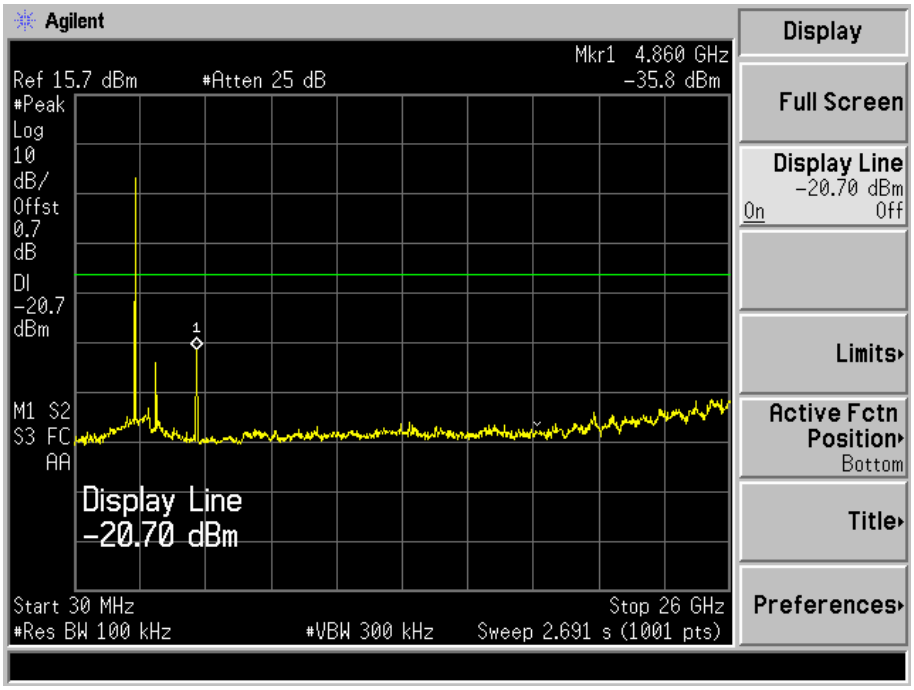

Agilent
Mkr1 2.463875 GHz
Ref 15.7 dBm
#Atten 25 dB
1.204 dBm
#Peak
Log
10
dB/
Offst
0.7
dB
Dl
-18.8
dBm
M1 S2
S3 FC
AA
Display Line
-18.82 dBm
Start 2.45 GHz
Stop 2.5 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 5.18 ms (401 pts)
Display
Full Screen
Display Line
-18.82 dBm
On
Off
Limits
Active Fctn
Position
Bottom
Title
Preferences

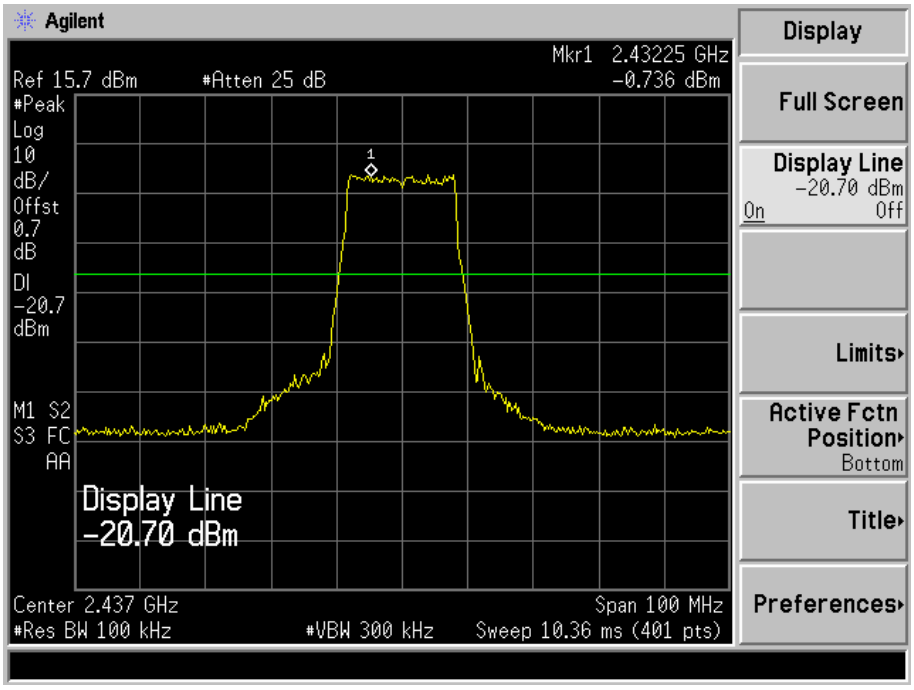
Spurious (Conducted)
802.11g-Lowest
Lowest



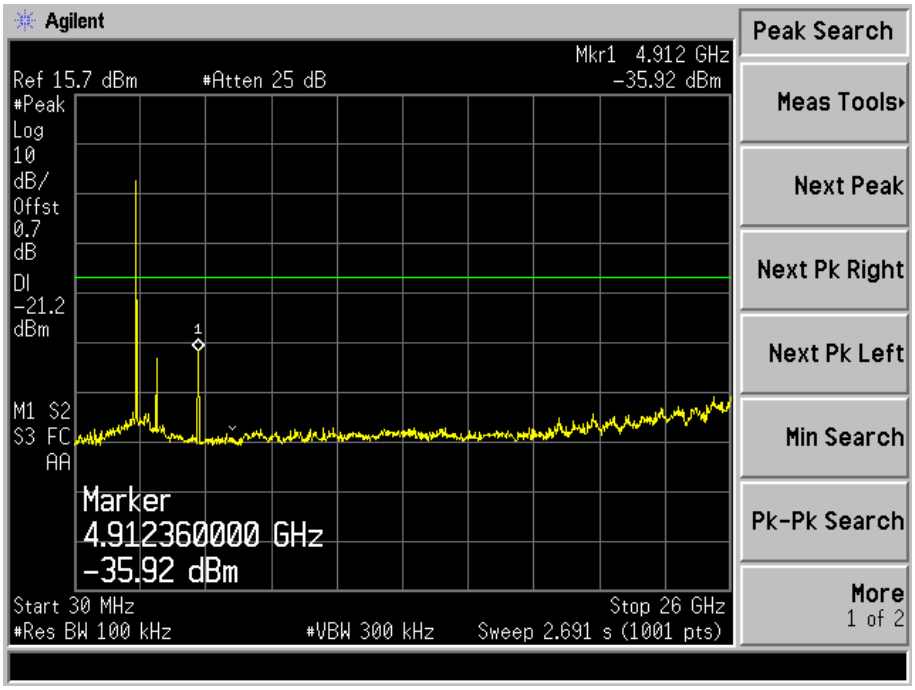


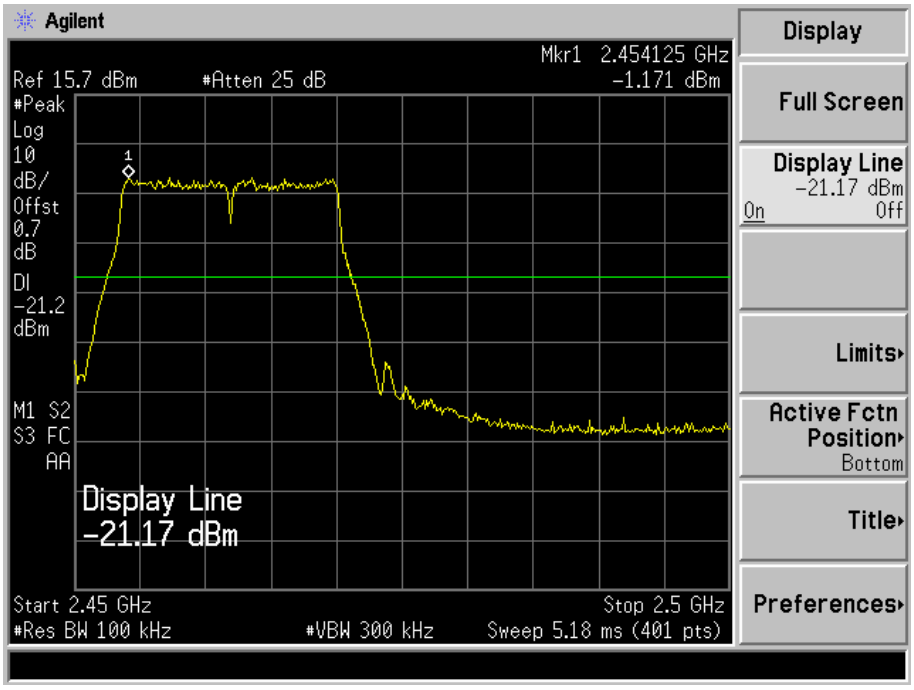
Middle


Agilent
Mkr1 4.860 GHz
Ref 15.7 dBm
#Atten 25 dB
-35.8 dBm
#Peak
Log
10
dB/
Offst
0.7
dB
Dl
-20.7
dBm
M1 S2
S3 FC
AA
Display Line
-20.70 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26 GHz
Sweep 2.691 s (1001 pts)
Display
Full Screen
Display Line
-20.70 dBm
On
Off
Limits
Active Fctn
Position
Bottom
Title
Preferences

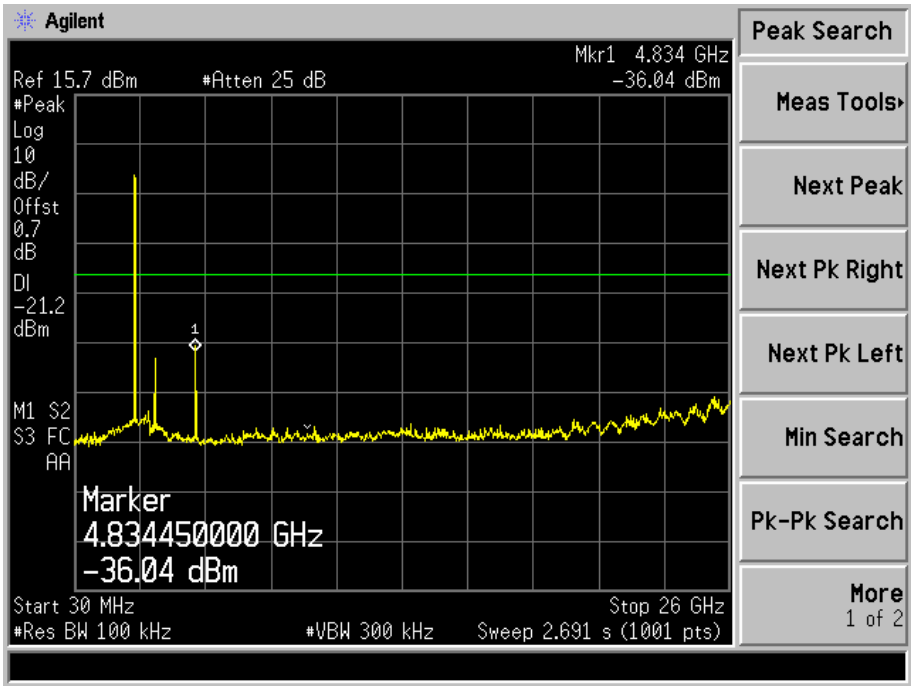

Agilent
Mkr1 2.43225 GHz
Ref 15.7 dBm
#Atten 25 dB
-0.736 dBm
#Peak
Log
10
dB/
Offst
0.7
dB
Dl
-20.7
dBm
M1 S2
S3 FC
AA
Display Line
-20.70 dBm
Center 2.437 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 100 MHz
Sweep 10.36 ms (401 pts)
Display
Full Screen
Display Line
-20.70 dBm
On
Off
Limits
Active Fctn
Position
Bottom
Title
Preferences

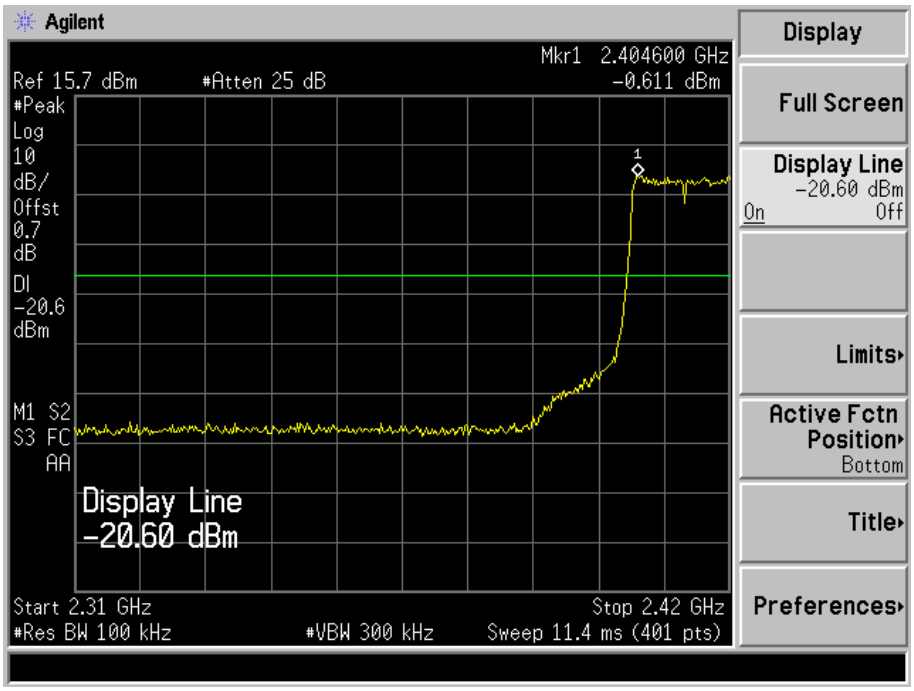
Highest


Agilent
Mkr1 4.912 GHz
Ref 15.7 dBm
#Atten 25 dB
-35.92 dBm
#Peak
Log
10
dB/
Offst
0.7
dB
Dl
-21.2
dBm
M1 S2
S3 FC
AA
Marker
4.912360000 GHz
-35.92 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26 GHz
Sweep 2.691 s (1001 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

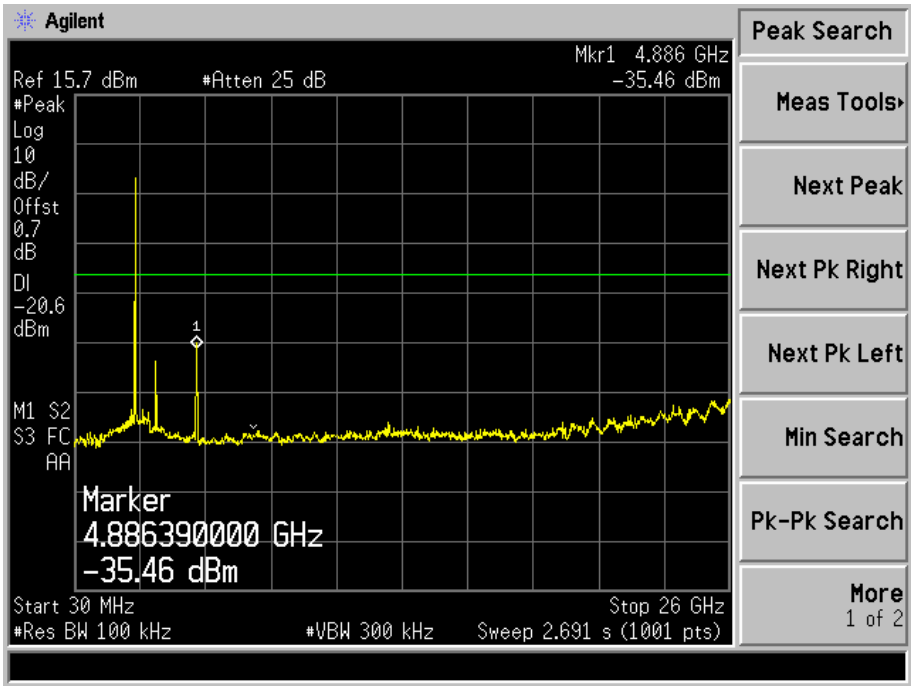

Agilent
Mkr1 2.454125 GHz
Ref 15.7 dBm
#Atten 25 dB
-1.171 dBm
#Peak
Log
10
dB/
Offst
0.7
dB
Dl
-21.2
dBm
M1 S2
S3 FC
AA
Display Line
-21.17 dBm
Start 2.45 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.5 GHz
Sweep 5.18 ms (401 pts)
Display
Full Screen
Display Line
-21.17 dBm
On
Off
Limits
Active Fctn
Position
Bottom
Title
Preferences

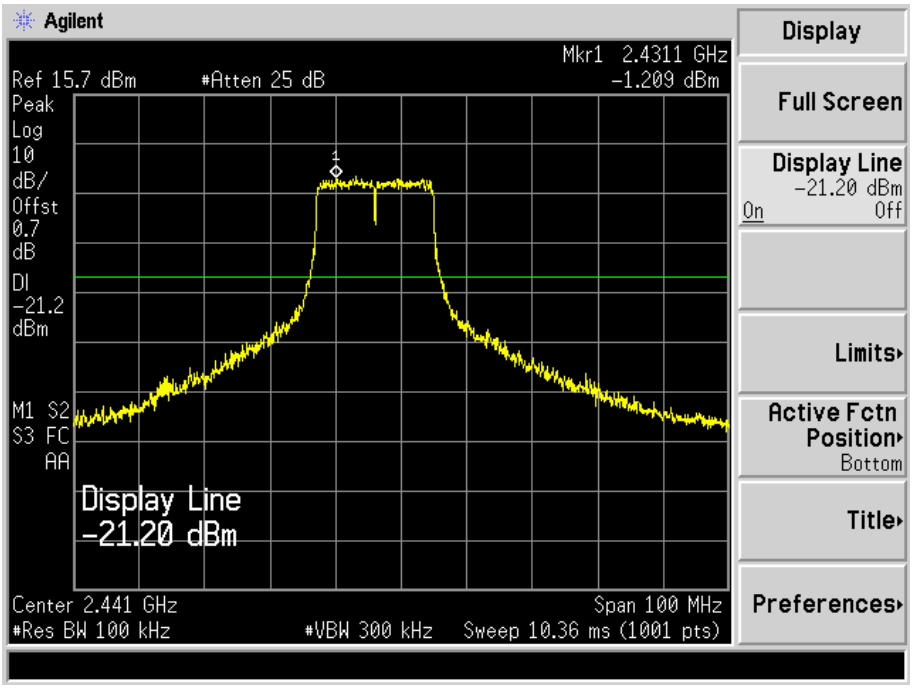
Spurious (Conducted)
802.11n-HT20-Lowest
Lowest



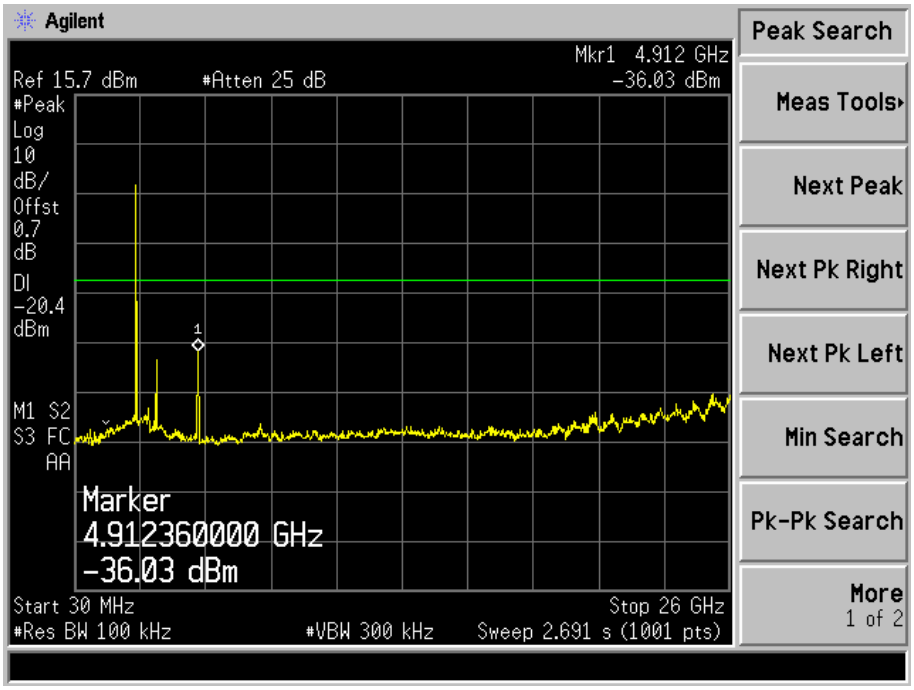


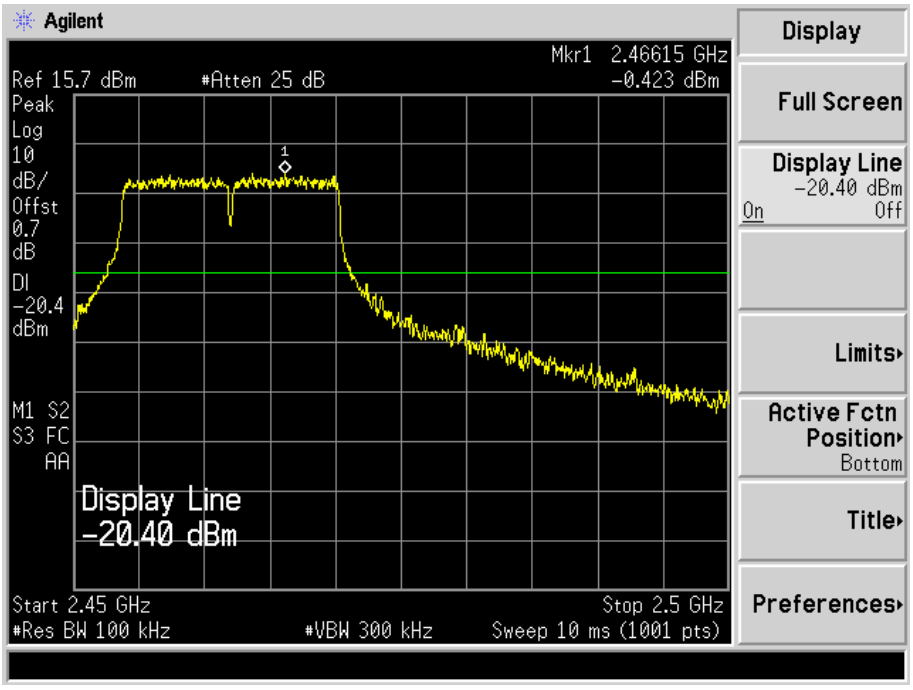
Middle


Agilent
Mkr1 4.886 GHz
Ref 15.7 dBm
#Atten 25 dB
-35.46 dBm
#Peak
Log
10
dB/
Offst
0.7
dB
Dl
-20.6
dBm
M1 S2
S3 FC
AA
Marker
4.886390000 GHz
-35.46 dBm
Start 30 MHz
Stop 26 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.691 s (1001 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

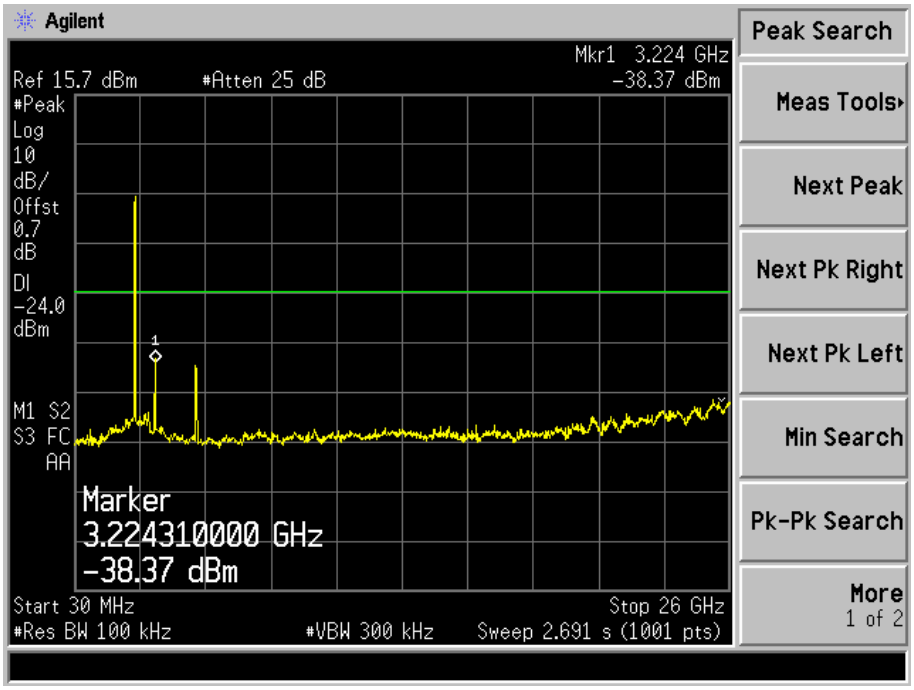

Agilent
Mkr1 2.4311 GHz
Ref 15.7 dBm
#Atten 25 dB
-1.209 dBm
Peak
Log
10
dB/
Offst
0.7
dB
Dl
-21.2
dBm
M1 S2
S3 FC
AA
Display Line
-21.20 dBm
Center 2.441 GHz
Span 100 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 10.36 ms (1001 pts)
Display
Full Screen
Display Line
-21.20 dBm
On
Off
Limits
Active Fctn
Position
Bottom
Title
Preferences

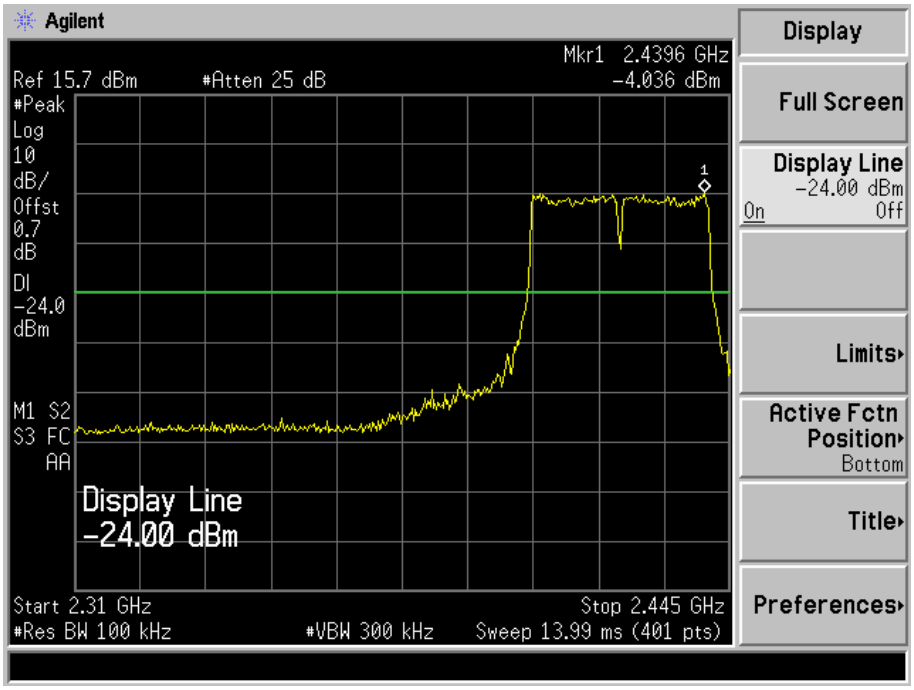
Highest


Agilent
Mkr1 4.912 GHz
Ref 15.7 dBm
#Atten 25 dB
-36.03 dBm
#Peak
Log
10
dB/
Offst
0.7
dB
Dl
-20.4
dBm
M1 S2
S3 FC
AA
Marker
4.912360000 GHz
-36.03 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26 GHz
Sweep 2.691 s (1001 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

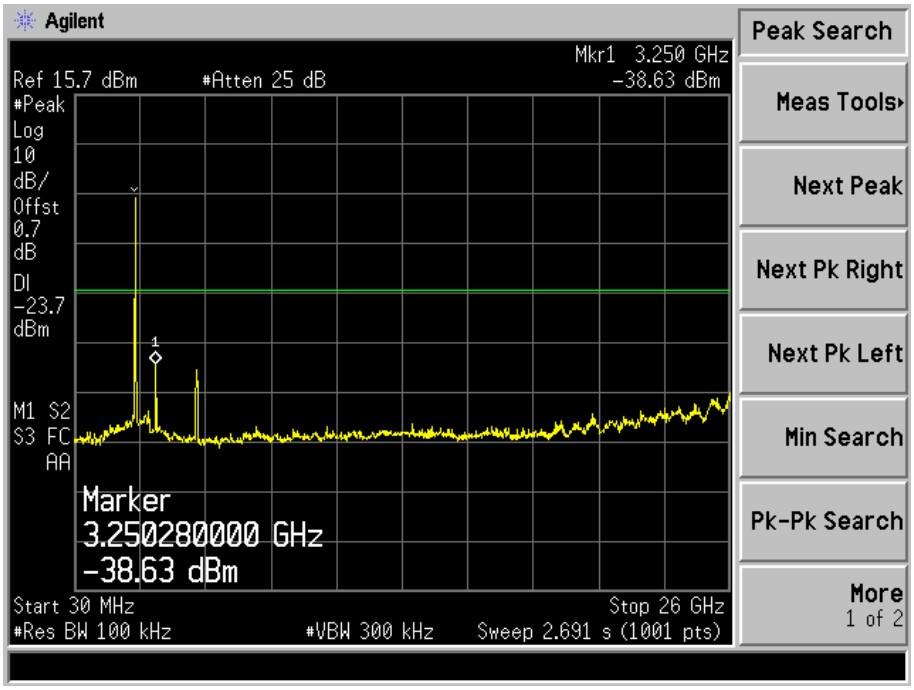

Agilent
Mkr1 2.46615 GHz
Ref 15.7 dBm
#Atten 25 dB
-0.423 dBm
Peak
Log
10
dB/
Offst
0.7
dB
Dl
-20.4
dBm
M1 S2
S3 FC
AA
Display Line
-20.40 dBm
Start 2.45 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.5 GHz
Sweep 10 ms (1001 pts)
Display
Full Screen
Display Line
-20.40 dBm
On
Off
Limits
Active Fctn
Position
Bottom
Title
Preferences

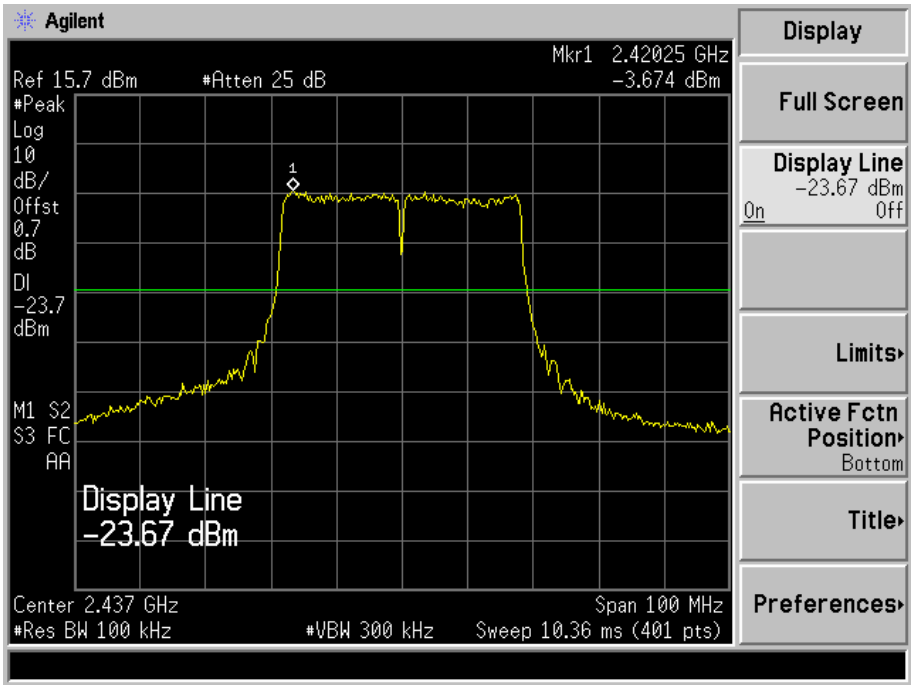
Spurious (Conducted)
802.11n-HT40-Lowest
Lowest



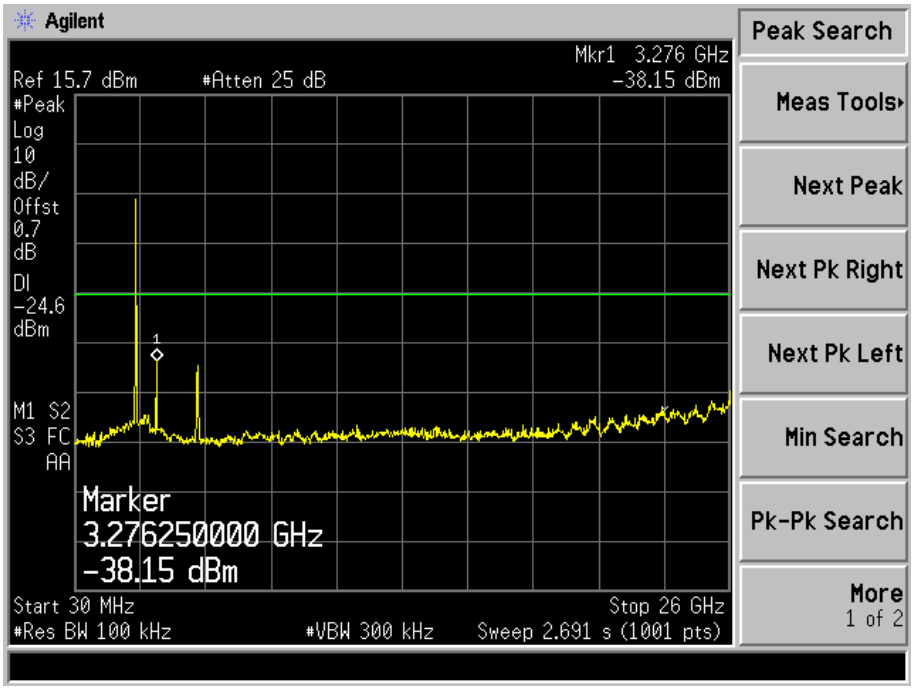


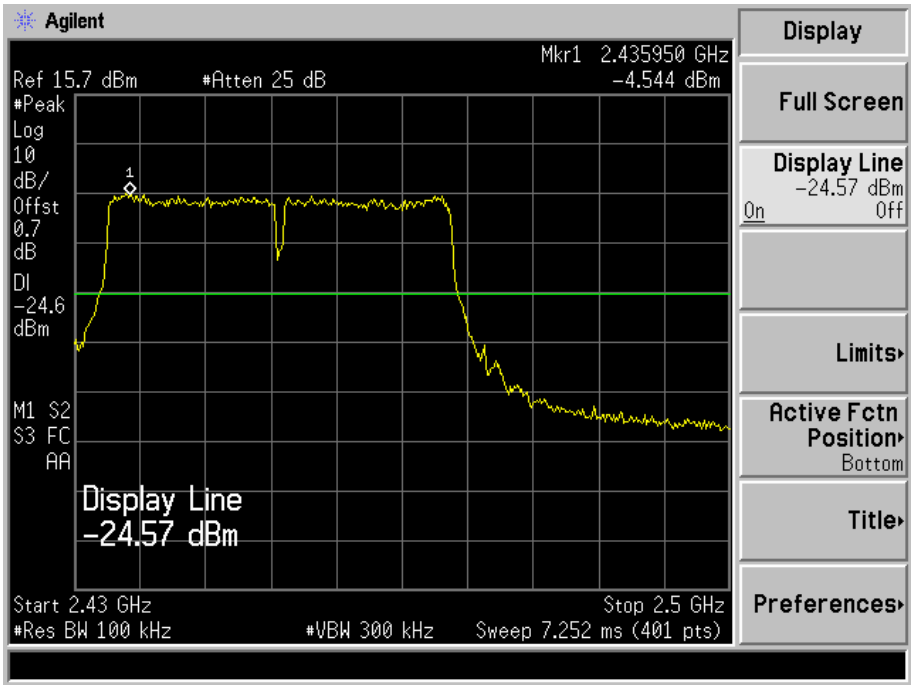
Middle


Agilent
Mkr1 3.250 GHz
Ref 15.7 dBm
#Atten 25 dB
-38.63 dBm
#Peak
Log
10
dB/
Offst
0.7
dB
Dl
-23.7
dBm
M1 S2
S3 FC
AA
Marker
3.250280000 GHz
-38.63 dBm
Start 30 MHz
Stop 26 GHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 2.691 s (1001 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2


Agilent
Mkr1 2.42025 GHz
Ref 15.7 dBm
#Atten 25 dB
-3.674 dBm
#Peak
Log
10
dB/
Offst
0.7
dB
Dl
-23.7
dBm
M1 S2
S3 FC
AA
Display Line
-23.67 dBm
Center 2.437 GHz
Span 100 MHz
#Res BW 100 kHz
#VBW 300 kHz
Sweep 10.36 ms (401 pts)
Display
Full Screen
Display Line
-23.67 dBm
On
Off
Limits
Active Fctn
Position
Bottom
Title
Preferences

Highest


Agilent
Mkr1 3.276 GHz
Ref 15.7 dBm
#Atten 25 dB
-38.15 dBm
#Peak
Log
10
dB/
Offst
0.7
dB
Dl
-24.6
dBm
M1 S2
S3 FC
AA
Marker
3.276250000 GHz
-38.15 dBm
Start 30 MHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 26 GHz
Sweep 2.691 s (1001 pts)
Peak Search
Meas Tools
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
More
1 of 2

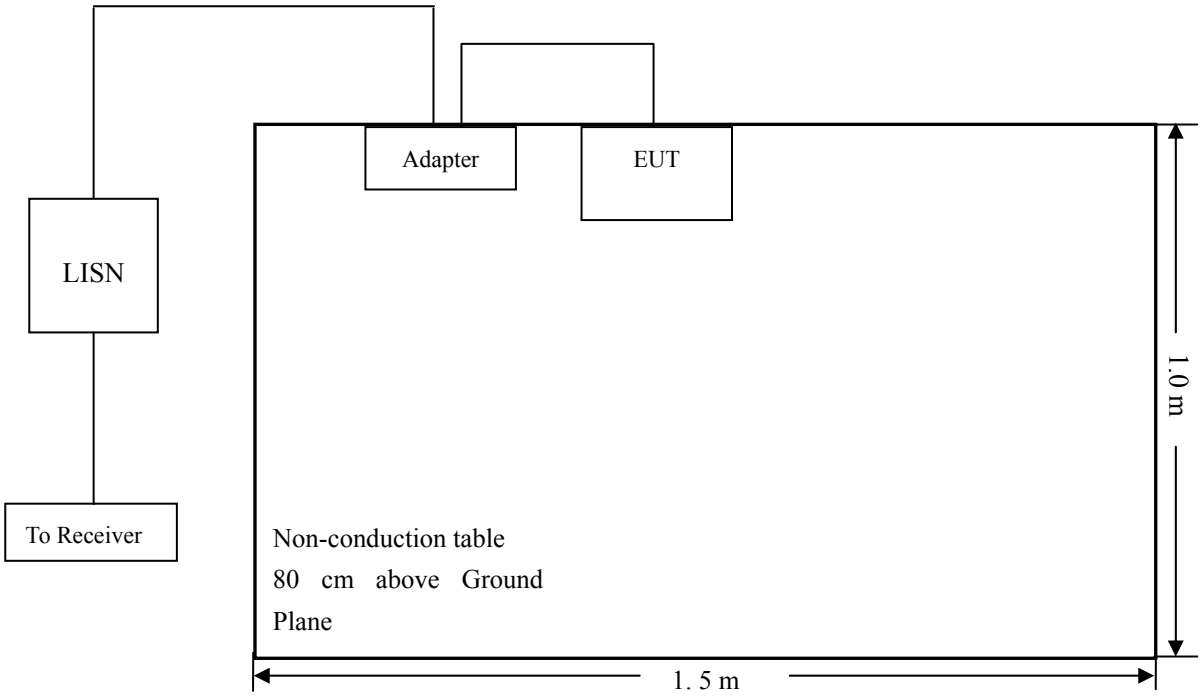

Agilent
Mkr1 2.435950 GHz
Ref 15.7 dBm
#Atten 25 dB
-4.544 dBm
#Peak
Log
10
dB/
Offst
0.7
dB
Dl
-24.6
dBm
M1 S2
S3 FC
AA
Display Line
-24.57 dBm
Start 2.43 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.5 GHz
Sweep 7.252 ms (401 pts)
Display
Full Screen
Display Line
-24.57 dBm
On
Off
Limits
Active Fctn
Position
Bottom
Title
Preferences

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:

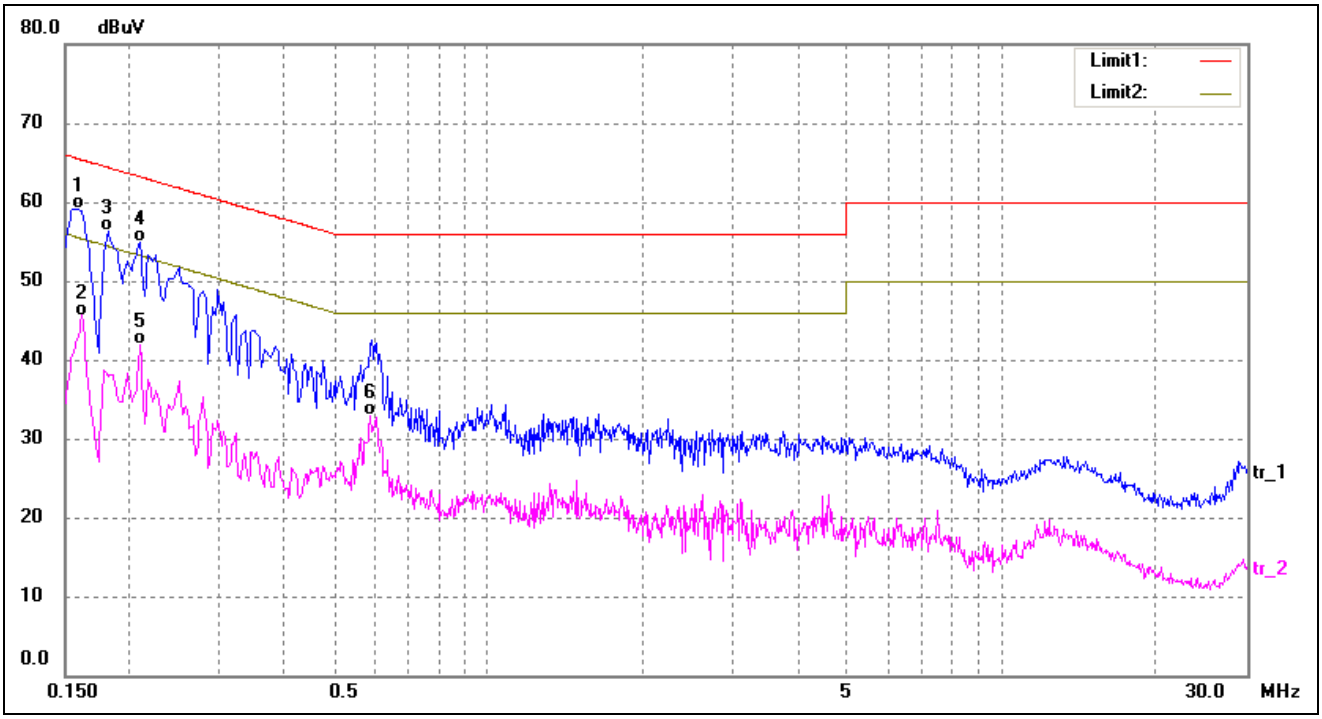
-6.41 dB at 0.1580 MHz in the **Neutral** mode**, QP** detector, **0.15-30MHz**

10.6 Conducted Emissions Test Data

Plot of Conducted Emissions Test Data

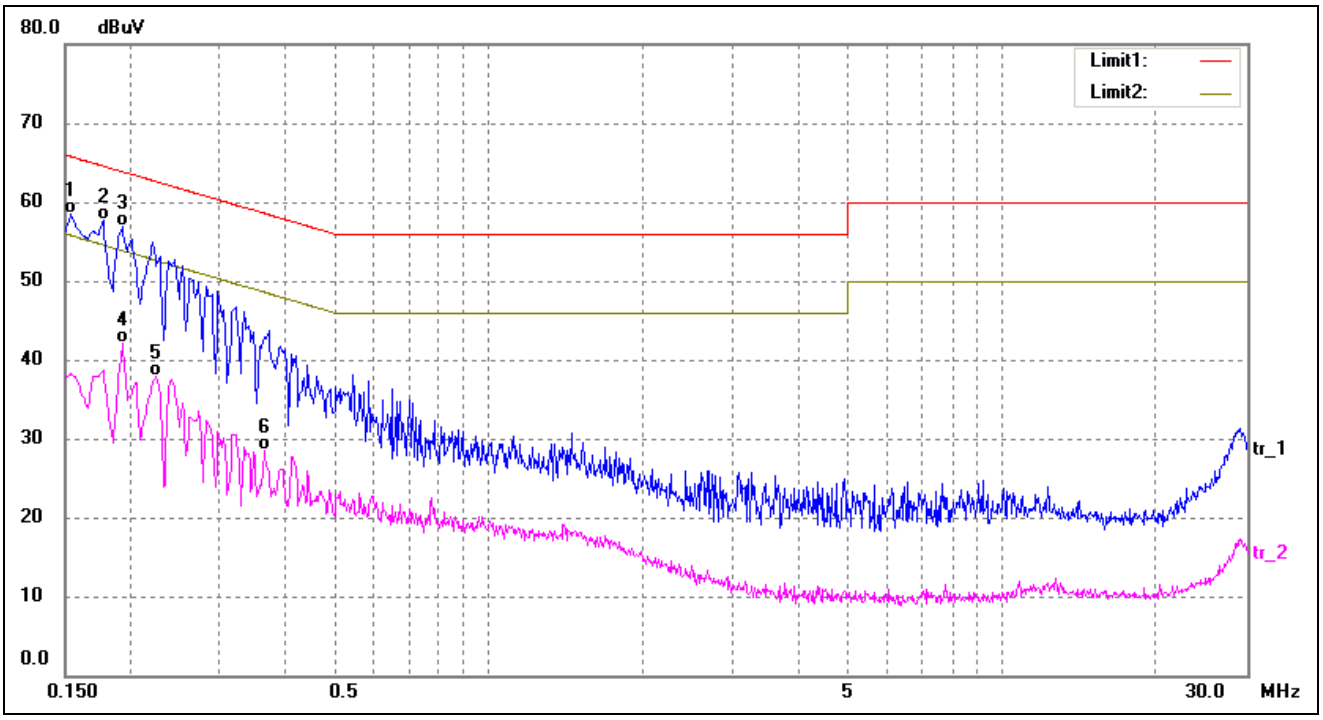
EUT: *Outdoor HD IP Camera*
Tested Model: *FI9800P*
Operating Condition: *Transmitting(Wi-Fi)*
Comment: *DC 12V*

Test Specification: *Neutral*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1*	0.1580	49.31	9.84	59.15	65.56	-6.41	QP
2	0.1620	35.76	9.84	45.60	55.36	-9.76	AVG
3	0.1820	46.48	9.82	56.30	64.39	-8.09	QP
4	0.2100	45.18	9.80	54.98	63.20	-8.22	QP
5	0.2100	32.10	9.80	41.90	53.20	-11.30	AVG
6	0.5900	23.05	9.79	32.84	46.00	-13.16	AVG

Test Specification: *Live*



No.	Frequency	Reading	Correct	Result	Limit	Margin	Detector
	(MHz)	(dBuV)	(dB/m)	(dBuV)	(dBuV)	(dB)	
1	0.1540	48.74	9.85	58.59	65.78	-7.19	QP
2*	0.1780	47.86	9.82	57.68	64.58	-6.90	QP
3	0.1940	47.04	9.81	56.85	63.86	-7.01	QP
4	0.1940	32.37	9.81	42.18	53.86	-11.68	AVG
5	0.2260	28.17	9.80	37.97	52.60	-14.63	AVG
6	0.3660	18.75	9.80	28.55	48.59	-20.04	AVG

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