



Product Service

## FCC&IC - TEST REPORT

Report Number : **68.950.13.039.01** Date of Issue: May 2, 2013

Model : **341041, 339917**

Product Type : MP7FSv1 Module

Applicant : ICON Health & Fitness Inc.

Address : 1500 South 1000 West, Logan, UT 84321, USA

Production Facility : Wanlida Group Co., Ltd.

Address : Wanlida Industry Zone, Nanjing, Fujian, China 363601

Test Result : ☒ **Positive** ☐ **Negative**

Total pages including Appendices : 33

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## 2 Details about the Test Laboratory

### Details about the Test Laboratory

Test site1:

Company name: Jiangsu TÜV Product Service Ltd. Shenzhen Branch  
6th Floor, H Hall,  
Century Craftwork Culture Square,  
No. 4001, Fuqiang Road,  
Futian District 518048,  
Shenzhen,P.R.C.

Telephone: 86 755 8828 6998

Fax: 86 755 8828 5299

Test site2:

Company name: WALTEK SERVICES(SHENZHEN) CO.,LTD.  
1/F,Fukangkai Building, West Baima Rd, Songgang Street, Baoan District,  
Shenzhen, Guangdong, P. R. China

Telephone: 86-755-83551033

Fax: 86-755-83552400

### 3 Description of the Equipment Under Test

#### Description of the Equipment Under Test

Product: MP7FSv1 Module

Model no.: 341041

Options and accessories: NIL

Rating: DC 12V  
Powered by external power supply:  
Adaptor Input: 100-240VAC, 50/60Hz  
Adaptor Output: 12VDC, 3.3A

Antenna: Unique Antenna, NOT accessible by end user  
Max. Gain: 1dBi

RF Transmission Frequency: 2412-2462MHz

Description of the EUT: NIL

Auxiliary Equipment Used during Test:

DESCRIPTION	MANUFACTURER	MODEL NO.(SHIELD)	S/N(LENGTH)
Notebook	Lenovo	T400	----

#### 4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart C, Intentional Radiators, 10-1-12 Edition	PART 15 – RADIO FREQUENCY DEVICES Subpart C – Intentional Radiators
RSS-210, Issue 8	RSS-210 — Licence-exempt Radio Apparatus (All Frequency Bands): Category I Equipment
RSS-Gen, Issue 3	General Requirements and Information for the Certification of Radio Apparatus

## 5 Summary of Test Results

Technical Requirements					
FCC Part 15 Subpart C 10-1-12 Edition, RSS-210 Issue 8, RSS-Gen Issue 3					
Test Condition	Pages	Test Result			Test Location
		Pass	Fail	N/A	
15.207 & RSSGEN 7.2.4 Conducted Emission AC Power Port	8	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test Site2
15.247 (b) (1) & RSS-210 A8.4 Conducted peak output power	11	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Test Site2
15.247(d) & RSS-210 A8.5 Band edge compliance of RF emissions	---	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Test Site2
15.247(d) & RSS-210 A8.5 Spurious RF conducted emissions	---	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Test Site2
15.247(d) & 15.209 & RSS-210 2.5 & RSSGEN 7.2.5 & RSSGEN 6.1 Spurious radiated emissions for transmitter and receiver	---	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Test Site2
15.247(a)(2) & RSS-210 A8.2(a) 6dB bandwidth	---	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Test Site2
RSSGEN 4.6.1 99% Occupied Bandwidth	---	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Test Site2
15.247(e) & RSS-210 A8.2(b) Power spectral density	---	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Test Site2

## 6 General Remarks

### Remarks

This submittal(s) (test report) is intended for the Class 2 permissive change of FCC ID: OMC339918 and IC ID: 3673A-339918 comply with Section 15.207, 15.209, 15.247 of the FCC Part 15, Subpart C Rules, and RSS-210, RSS-GEN.

339917 and 339918 have the same technical construction, and 341041 is the same as 339918, except LAN function is added on model 341041, so test was applied on 341041. It is deemed to fulfill the relevant requirement without further testing.

And only model 341041 needs the Class 2 permissive change procedure for approval.

### SUMMARY:

All tests according to the regulations cited on page 5 were

☒ - Performed

☐ - **Not** Performed

The Equipment Under Test

☒ - **Fulfills** the general approval requirements.

☐ - **Does not** fulfill the general approval requirements.

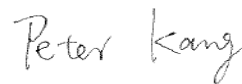
Sample Received Date: 14 April 2013

Testing Start Date: 16 April 2013

Testing End Date: 23 April 2013

- Jiangsu TÜV Product Service Ltd. Shenzhen Branch -

Prepared By 2013-05-02 Peter Kang  
EMC Project Engineer Date Name Signature



Approved by 2013-05-02 Ken Li  
EMC Project Manager Date Name Signature



## 7 Technical Requirement

### 7.1 Conducted Emission

#### Test Method

- 1 The EUT was placed on a table, which is 0.8m above ground plane
- 2 The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.).
- 3 Maximum procedure was performed to ensure EUT compliance
- 4 A EMI test receiver is used to test the emissions from both sides of AC line

#### Limit

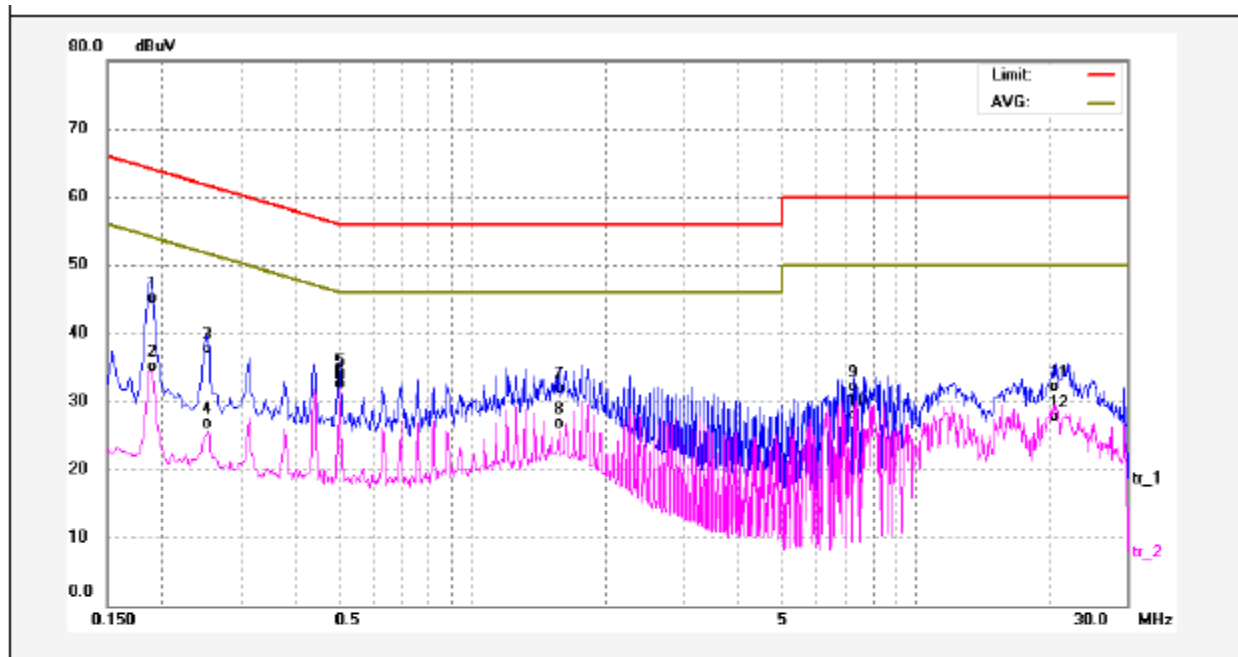
Frequency MHz	QP Limit dB $\mu$ V	AV Limit dB $\mu$ V
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

“\*” Decreasing linearly with logarithm of the frequency



## Conducted Emission

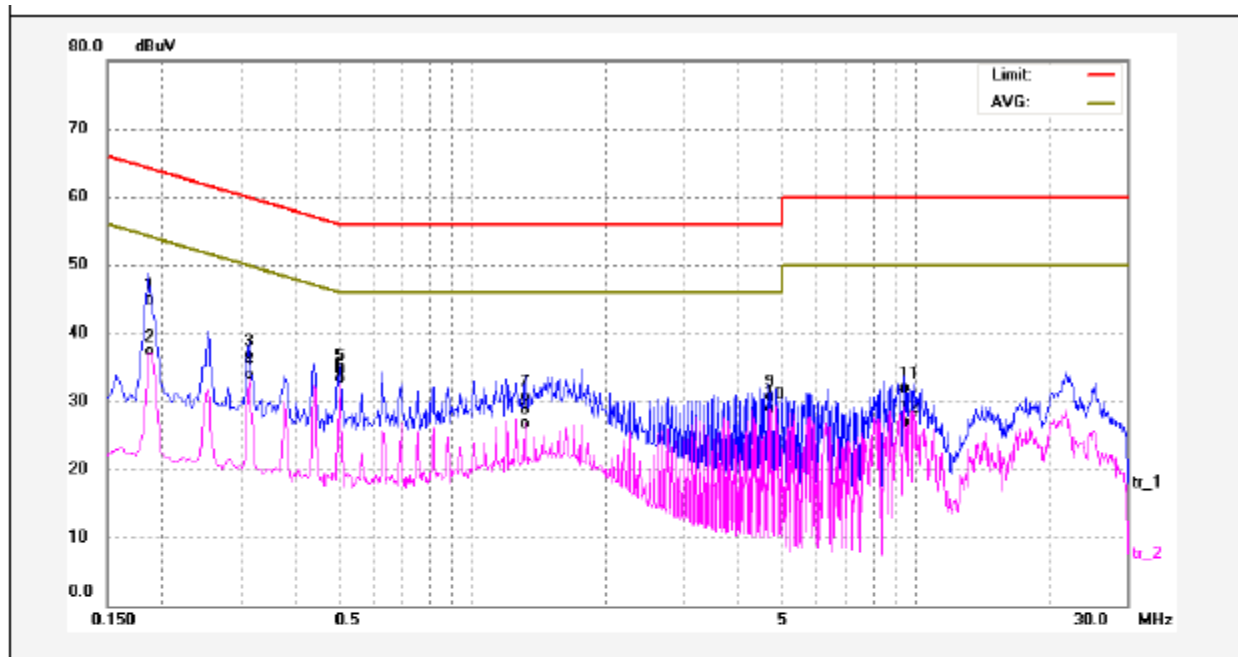
EUT: 341041  
Op Cond: Wifi On and LAN communication  
Test Spec: L  
Comment: 120V AC/60Hz



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1900	34.14	10.22	44.36	64.03	-19.67	QP	
2	0.1900	24.05	10.22	34.27	54.03	-19.76	AVG	
3	0.2500	26.83	10.15	36.98	61.75	-24.77	QP	
4	0.2500	15.70	10.15	25.85	51.75	-25.90	AVG	
5	0.5020	22.98	10.00	32.98	56.00	-23.02	QP	
6	0.5020	21.75	10.00	31.75	46.00	-14.25	AVG	
7	1.5700	21.31	9.84	31.15	56.00	-24.85	QP	
8	1.5700	15.98	9.84	25.82	46.00	-20.18	AVG	
9	7.2260	21.52	9.70	31.22	60.00	-28.78	QP	
10	7.2260	17.41	9.70	27.11	50.00	-22.89	AVG	
11	20.7939	21.40	9.82	31.22	60.00	-28.78	QP	
12	20.7939	17.16	9.82	26.98	50.00	-23.02	AVG	

## Conducted Emission

EUT: 341041  
Op Cond: Wifi On and LAN communication  
Test Spec: N  
Comment: 120V AC/60Hz



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.1860	33.94	10.23	44.17	64.21	-20.04	QP	
2	0.1860	26.25	10.23	36.48	54.21	-17.73	AVG	
3	0.3140	25.78	10.09	35.87	59.86	-23.99	QP	
4	0.3140	22.98	10.09	33.07	49.86	-16.79	AVG	
5	0.5020	23.68	10.00	33.68	56.00	-22.32	QP	
6	0.5020	22.49	10.00	32.49	46.00	-13.51	AVG	
7	1.3220	19.99	9.87	29.86	56.00	-26.14	QP	
8	1.3220	15.99	9.87	25.86	46.00	-20.14	AVG	
9	4.6500	20.11	9.72	29.83	56.00	-26.17	QP	
10	4.6500	18.48	9.72	28.20	46.00	-17.80	AVG	
11	9.4860	21.33	9.70	31.03	60.00	-28.97	QP	
12	9.4860	16.44	9.70	26.14	50.00	-23.86	AVG	

## 7.2 Conducted peak output power

### Test Method

The transmitter output is connected to the Spectrum analyzer. The Spectrum analyzer is set to the peak power detection.

### Limits for conducted peak output power measurements

Frequency Range MHz	Limit W	Limit dBm
2400-2483.5	≤1	≤30

## Conducted peak output power

### WIFI Mode IEEE 802.11b modulation (1Mbps) Test Result

Frequency MHz	Conducted Peak Output Power dBm	Result
CH1 2412MHz	14.72	Pass
CH6 2437MHz	14.65	Pass
CH11 2462MHz	14.91	Pass

### WIFI Mode IEEE 802.11g modulation (6Mbps) Test Result

Frequency MHz	Conducted Peak Output Power dBm	Result
CH1 2412MHz	18.38	Pass
CH6 2437MHz	19.21	Pass
CH11 2462MHz	19.32	Pass

### WIFI Mode IEEE 802.11n HT20 modulation (6.5Mbps) Test Result

Frequency MHz	Conducted Peak Output Power dBm	Result
CH1 2412MHz	18.71	Pass
CH6 2437MHz	18.82	Pass
CH11 2462MHz	18.35	Pass

### 7.3 Spurious radiated emissions for transmitter and receiver

#### Test Method

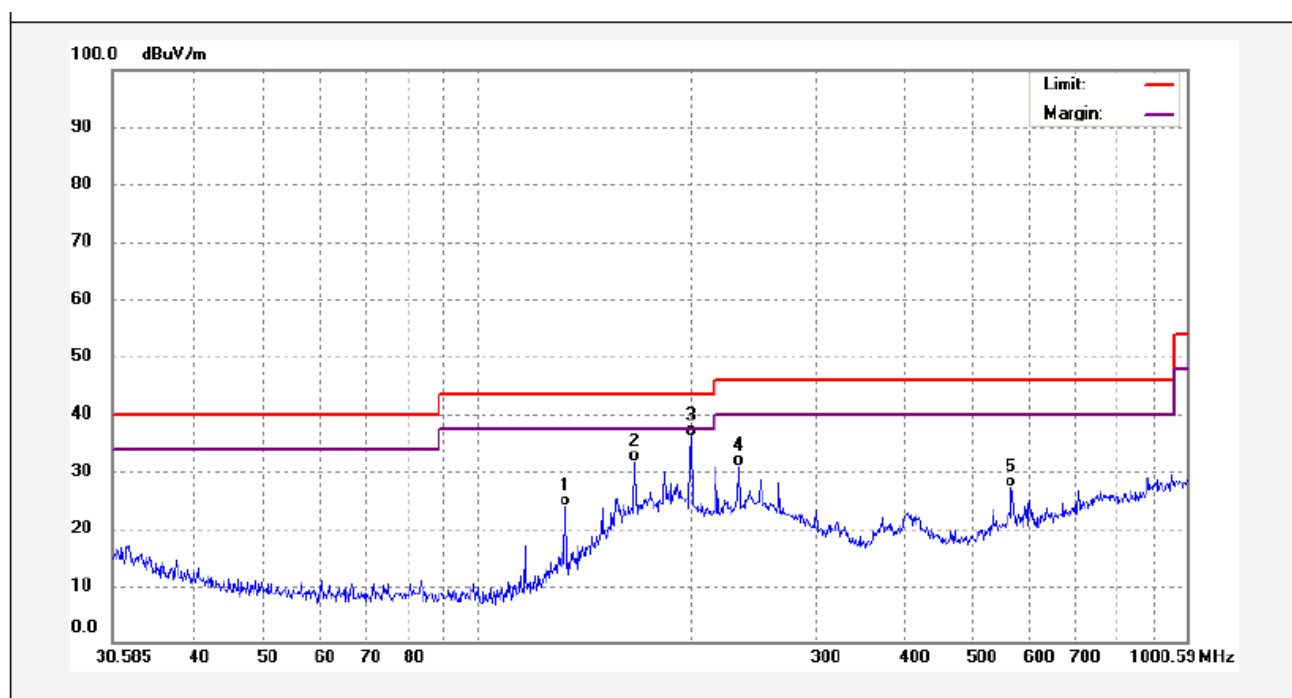
- 1 The EUT is placed on a turntable, which is 0.8m above ground plane.
- 2 The turntable shall be rotated for 360 degrees to determine the position of maximum emission level
- 3 EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
- 4 Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 5 Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

#### Limit

Frequency MHz	Field Strength uV/m	Field Strength dBμV/m	Detector
30-88	100	40	QP
88-216	150	43.5	QP
216-960	200	46	QP
960-1000	500	54	QP
Above 1000	500	54	AV
Above 1000	5000	74	PK

## Transmitter Spurious radiated emissions

EUT: 341041  
Op Cond: 802.11b Low Channel  
Test Spec: Horizontal  
Comment: 120V AC/60Hz

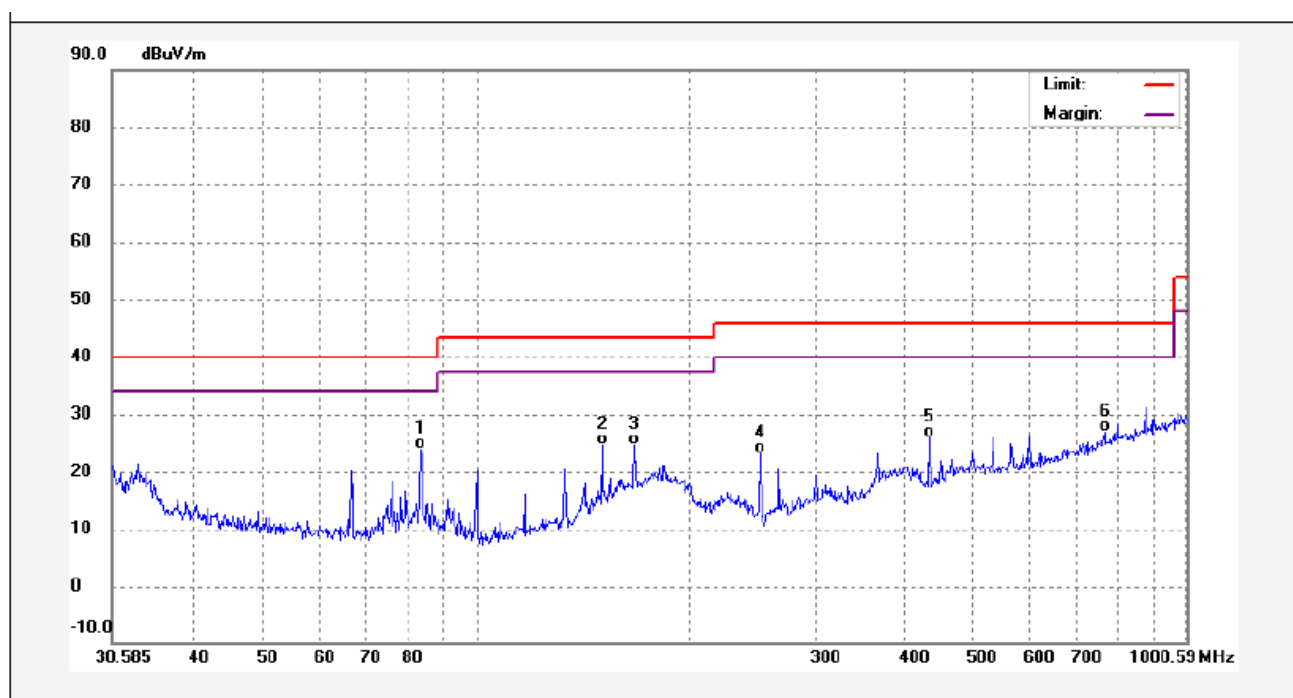


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	133.2699	45.86	-21.86	24.00	43.50	-19.50	QP	
2	166.6002	52.70	-21.05	31.65	43.50	-11.85	QP	
3	200.4274	59.95	-23.80	36.15	43.50	-7.35	QP	
4	233.6715	53.08	-22.27	30.81	46.00	-15.19	QP	
5	566.6967	39.67	-12.54	27.13	46.00	-18.87	QP	

Remark: Factor = Antenna factor + cable loss – preamplifier gain

## Transmitter Spurious radiated emissions

EUT: 341041  
Op Cond: 802.11b Low Channel  
Test Spec: Vertical  
Comment: 120V AC/60Hz

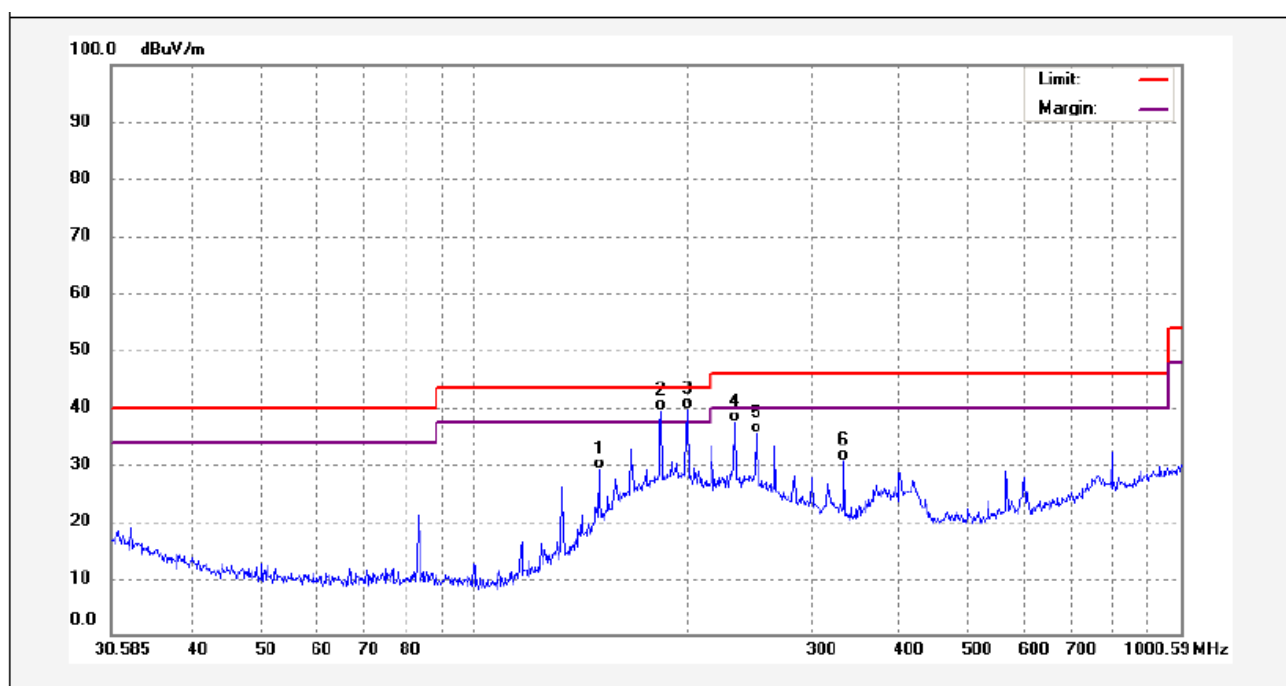


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	83.2226	47.67	-23.86	23.81	40.00	-16.19	QP	
2	150.0491	45.27	-20.73	24.54	43.50	-18.96	QP	
3	166.6002	46.33	-21.76	24.57	43.50	-18.93	QP	
4	250.5536	44.74	-21.62	23.12	46.00	-22.88	QP	
5	433.2269	41.83	-15.91	25.92	46.00	-20.08	QP	
6	767.5974	34.86	-8.08	26.78	46.00	-19.22	QP	

Remark: Factor = Antenna factor + cable loss – preamplifier gain

## Transmitter Spurious radiated emissions

EUT: 341041  
Op Cond: 802.11b Middle Channel  
Test Spec: Horizontal  
Comment: 120V AC/60Hz

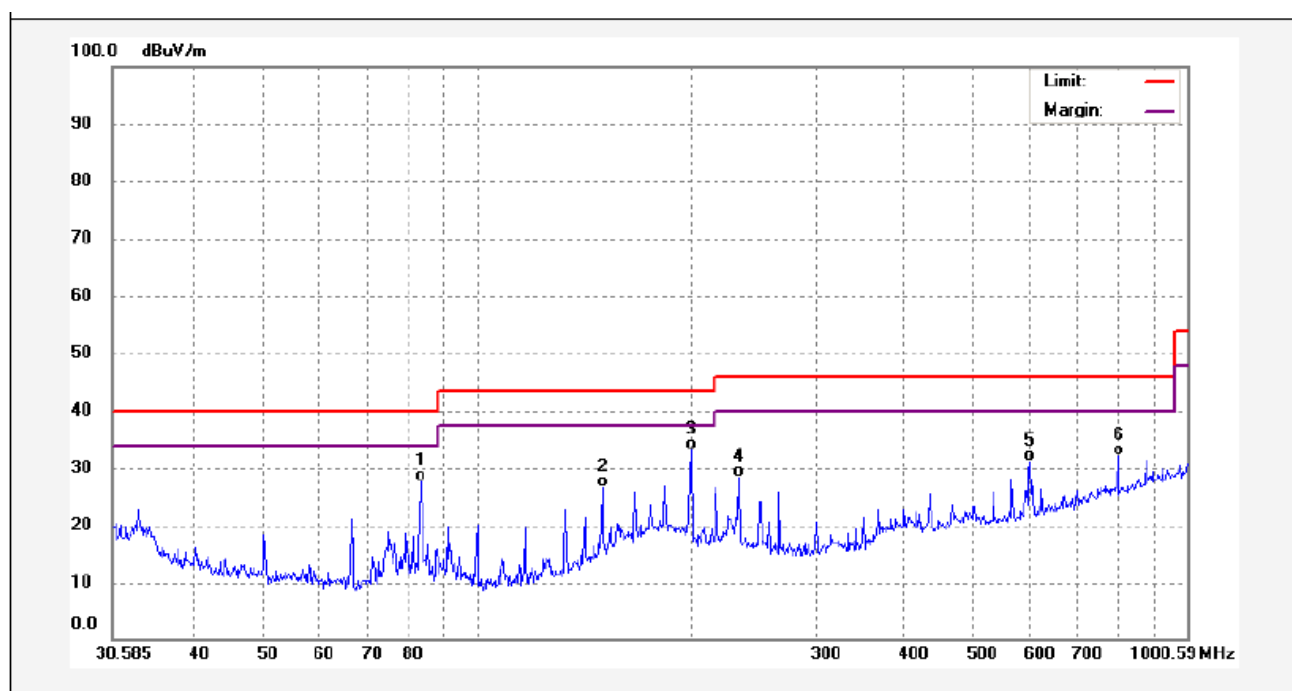


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	150.0491	49.77	-20.73	29.04	43.50	-14.46	QP	
2	183.6912	61.93	-22.49	39.44	43.50	-4.06	QP	
3	200.4274	63.50	-23.80	39.70	43.50	-3.80	QP	
4	233.6715	59.61	-22.27	37.34	46.00	-8.66	QP	
5	250.5536	56.80	-21.53	35.27	46.00	-10.73	QP	
6	333.5106	49.36	-18.63	30.73	46.00	-15.27	QP	

Remark: Factor = Antenna factor + cable loss – preamplifier gain

## Transmitter Spurious radiated emissions

EUT: 341041  
Op Cond: 802.11b Middle Channel  
Test Spec: Vertical  
Comment: 120V AC/60Hz



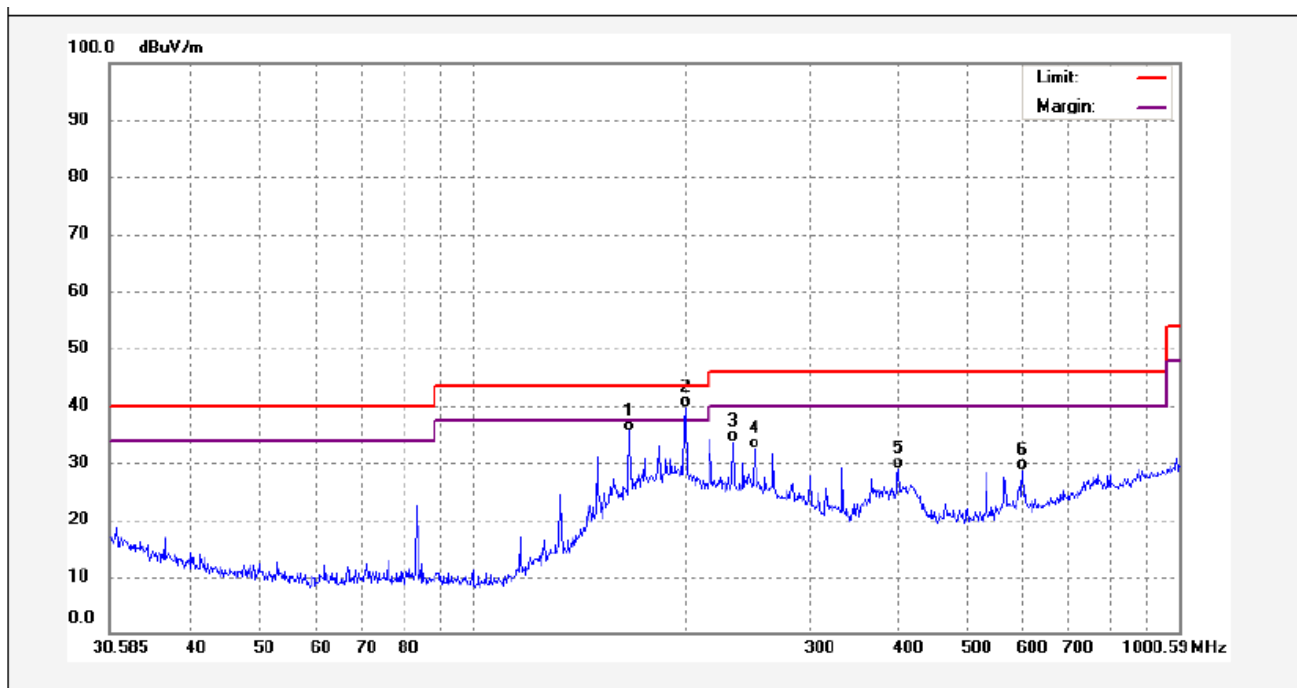
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	83.2226	51.60	-23.86	27.74	40.00	-12.26	QP	
2	150.0491	47.28	-20.73	26.55	43.50	-16.95	QP	
3	200.4274	56.93	-23.79	33.14	43.50	-10.36	QP	
4	233.6715	50.79	-22.35	28.44	46.00	-17.56	QP	
5	601.3141	42.53	-11.42	31.11	46.00	-14.89	QP	
6	800.4061	39.36	-7.31	32.05	46.00	-13.95	QP	

Remark: Factor = Antenna factor + cable loss – preamplifier gain



## Transmitter Spurious radiated emissions

EUT: 341041  
Op Cond: 802.11b High Channel  
Test Spec: Horizontal  
Comment: 120V AC/60Hz

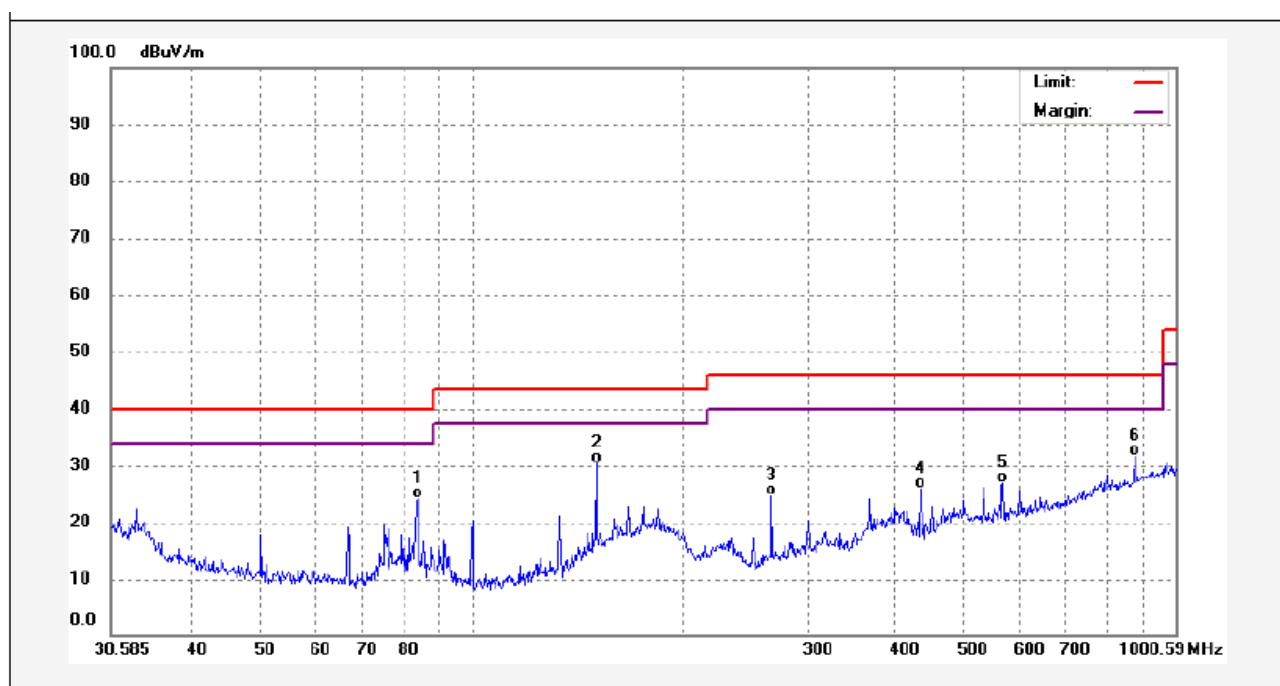


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	166.6002	56.55	-21.05	35.50	43.50	-8.00	QP	
2	200.4274	63.52	-23.80	39.72	43.50	-3.78	QP	
3	233.6715	56.02	-22.27	33.75	46.00	-12.25	QP	
4	250.5536	53.82	-21.53	32.29	46.00	-13.71	QP	
5	401.2279	45.49	-16.70	28.79	46.00	-17.21	QP	
6	601.3141	39.97	-11.42	28.55	46.00	-17.45	QP	

Remark: Factor = Antenna factor + cable loss – preamplifier gain

## Transmitter Spurious radiated emissions

EUT: 341041  
Op Cond: 802.11b High Channel  
Test Spec: Vertical  
Comment: 120V AC/60Hz

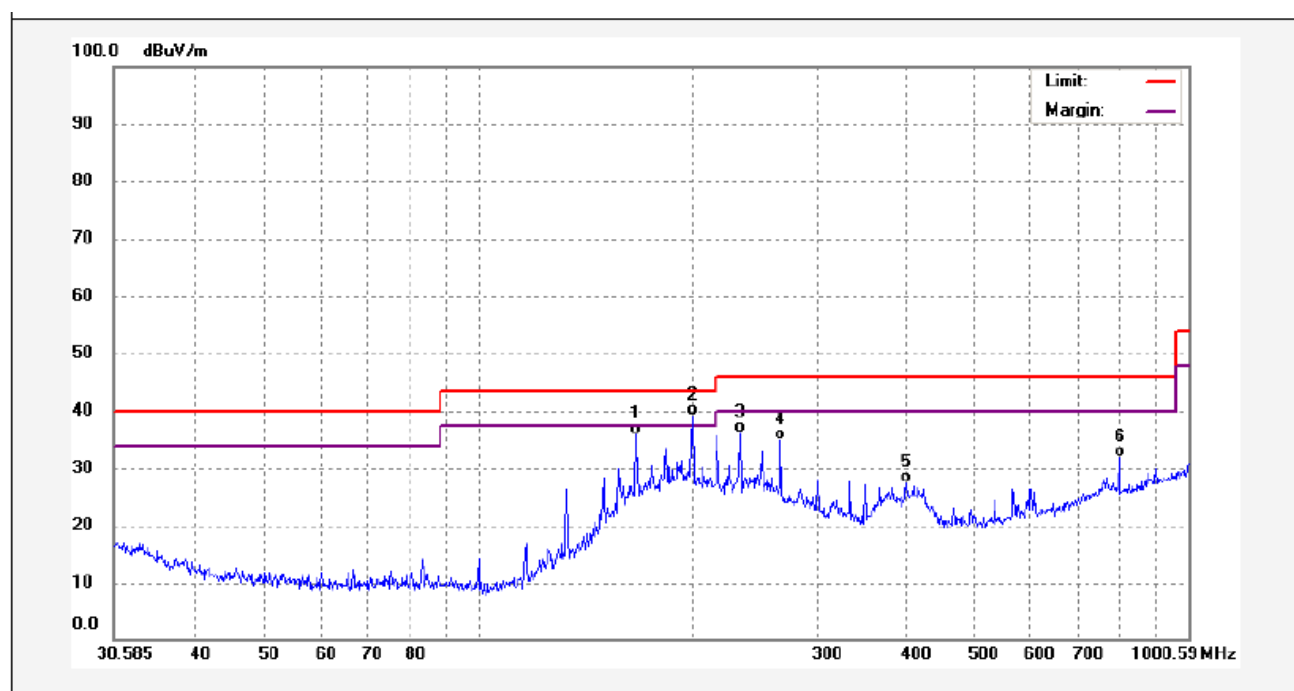


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	83.5134	47.95	-23.88	24.07	40.00	-15.93	QP	
2	150.0491	51.15	-20.73	30.42	43.50	-13.08	QP	
3	266.7878	45.49	-20.94	24.55	46.00	-21.45	QP	
4	434.7406	41.82	-15.87	25.95	46.00	-20.05	QP	
5	568.6768	39.14	-12.35	26.79	46.00	-19.21	QP	
6	876.3826	37.57	-6.04	31.53	46.00	-14.47	QP	

Remark: Factor = Antenna factor + cable loss – preamplifier gain

## Transmitter Spurious radiated emissions

EUT: 341041  
Op Cond: 802.11g Low Channel  
Test Spec: Horizontal  
Comment: 120V AC/60Hz

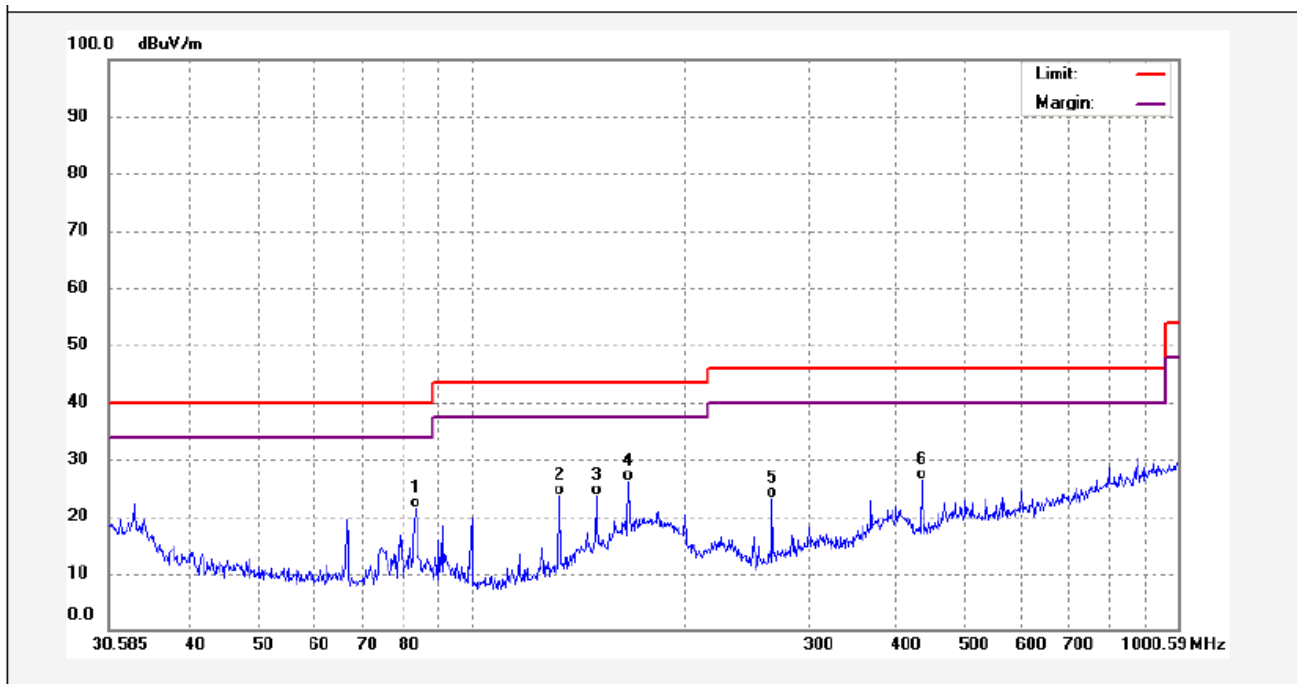


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	166.6002	57.02	-21.05	35.97	43.50	-7.53	QP	
2	200.4274	62.83	-23.80	39.03	43.50	-4.47	QP	
3	233.6715	58.49	-22.27	36.22	46.00	-9.78	QP	
4	266.7878	55.74	-20.89	34.85	46.00	-11.15	QP	
5	401.2279	44.11	-16.70	27.41	46.00	-18.59	QP	
6	800.4061	39.15	-7.31	31.84	46.00	-14.16	QP	

Remark: Factor = Antenna factor + cable loss – preamplifier gain

## Transmitter Spurious radiated emissions

EUT: 341041  
Op Cond: 802.11g Low Channel  
Test Spec: Vertical  
Comment: 120V AC/60Hz

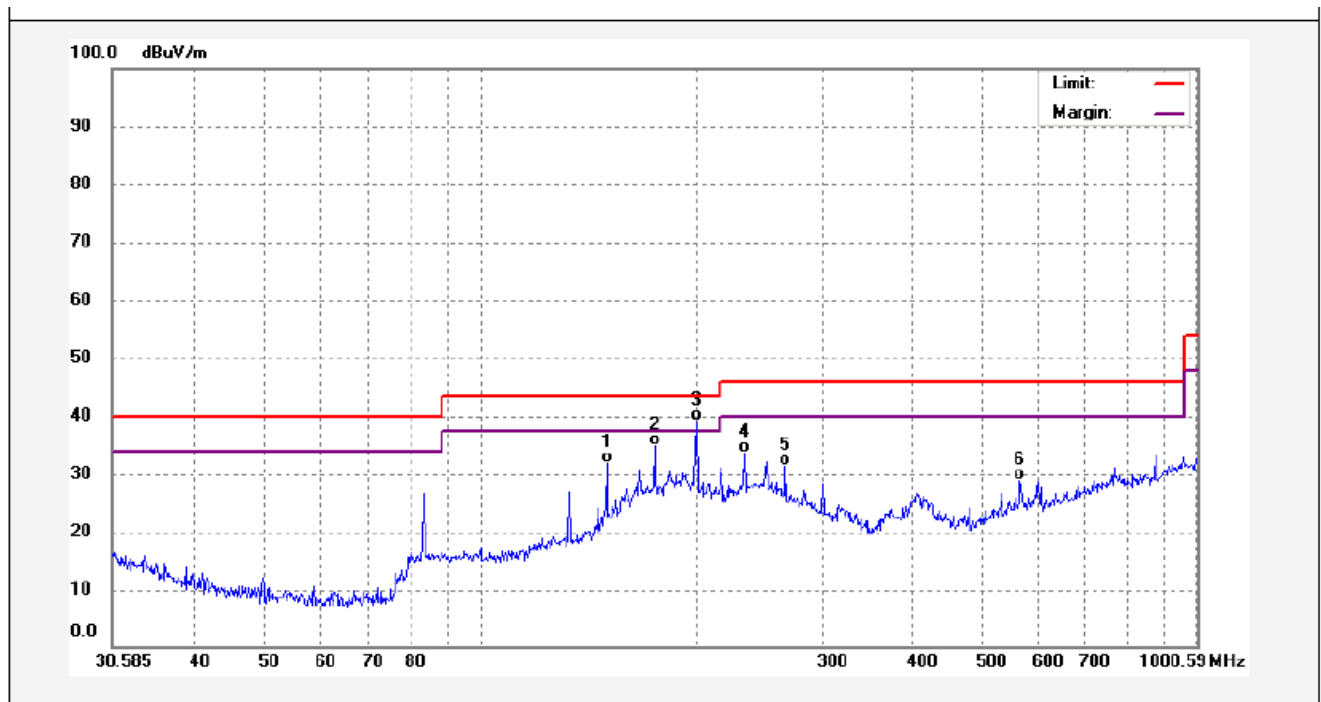


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	83.2226	45.34	-23.86	21.48	40.00	-18.52	QP	
2	133.2699	45.72	-22.05	23.67	43.50	-19.83	QP	
3	150.0491	44.25	-20.73	23.52	43.50	-19.98	QP	
4	166.6002	47.93	-21.76	26.17	43.50	-17.33	QP	
5	266.7878	44.18	-20.94	23.24	46.00	-22.76	QP	
6	433.2269	42.38	-15.91	26.47	46.00	-19.53	QP	

Remark: Factor = Antenna factor + cable loss – preamplifier gain

## Transmitter Spurious radiated emissions

EUT: 341041  
Op Cond: 802.11g Middle Channel  
Test Spec: Horizontal  
Comment: 120V AC/60Hz

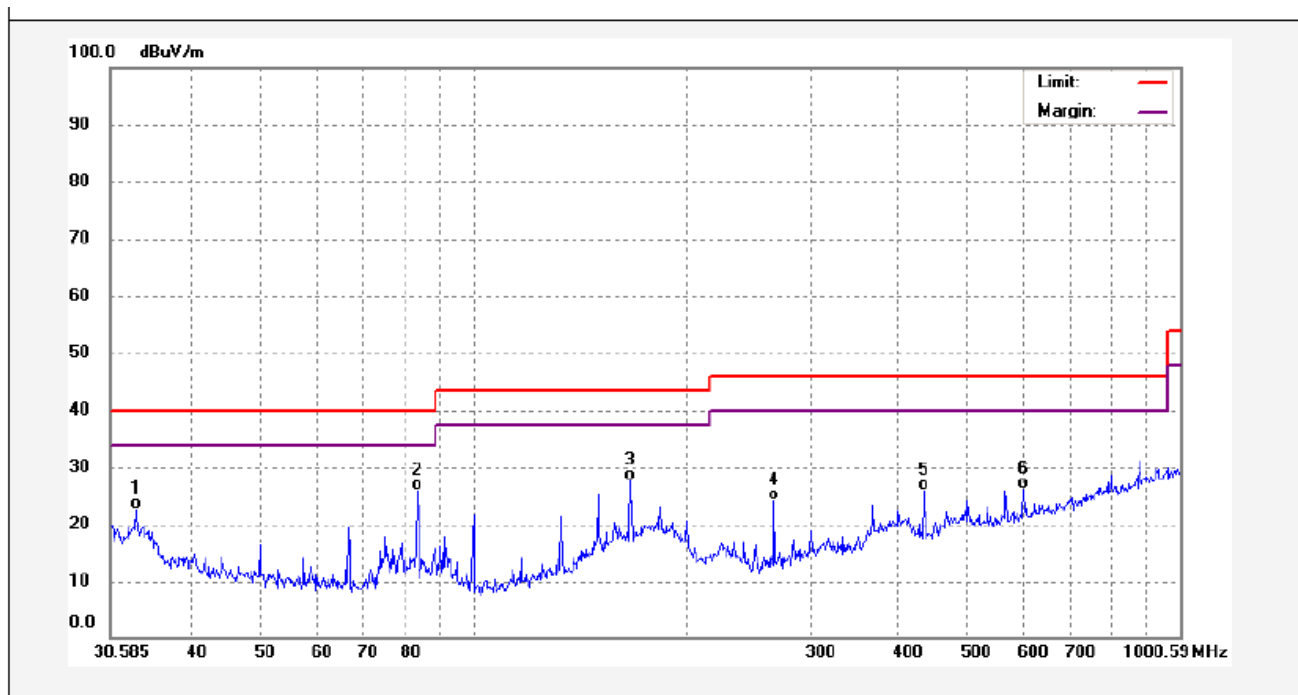


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	150.0491	52.64	-20.73	31.91	43.50	-11.59	QP	
2	174.9371	56.49	-21.63	34.86	43.50	-8.64	QP	
3	200.4274	62.93	-23.80	39.13	43.50	-4.37	QP	
4	233.6715	55.80	-22.27	33.53	46.00	-12.47	QP	
5	266.7878	52.38	-20.89	31.49	46.00	-14.51	QP	
6	566.6967	41.38	-12.54	28.84	46.00	-17.16	QP	

Remark: Factor = Antenna factor + cable loss – preamplifier gain

## Transmitter Spurious radiated emissions

EUT: 341041  
Op Cond: 802.11g Middle Channel  
Test Spec: Vertical  
Comment: 120V AC/60Hz

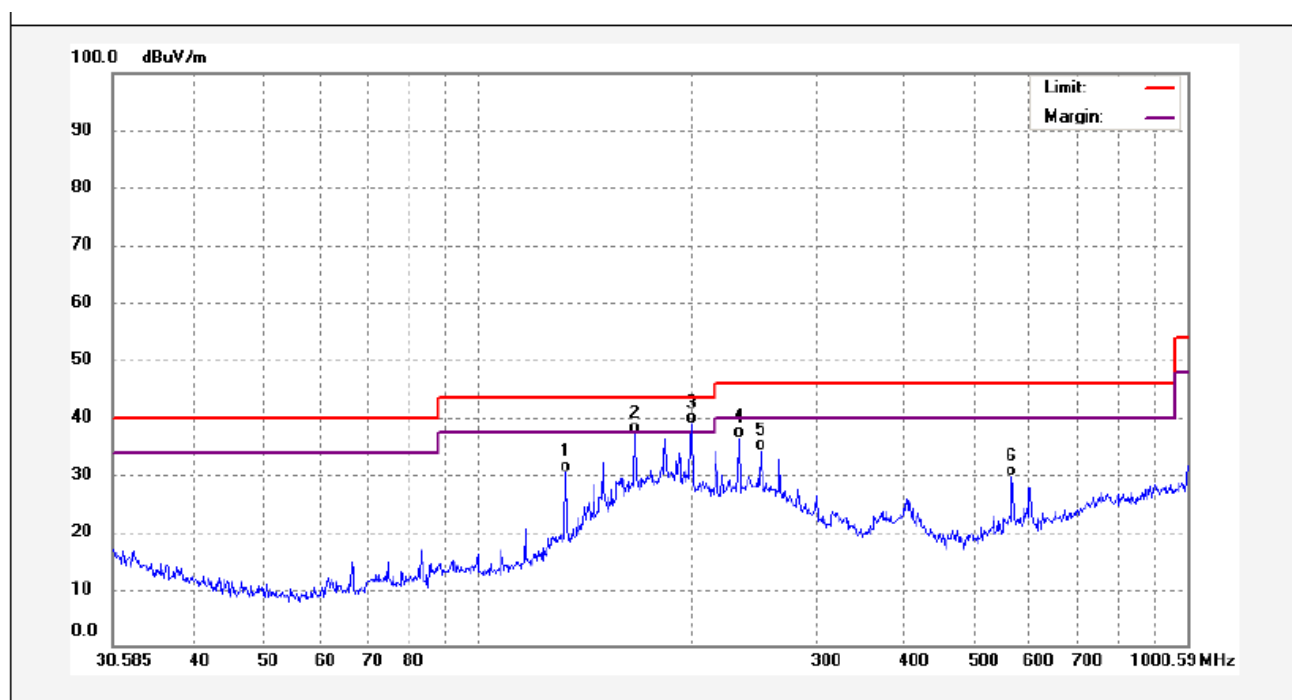


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	33.2555	42.53	-19.96	22.57	40.00	-17.43	QP	
2	83.2226	49.84	-23.86	25.98	40.00	-14.02	QP	
3	166.6002	49.27	-21.76	27.51	43.50	-15.99	QP	
4	266.7878	45.02	-20.94	24.08	46.00	-21.92	QP	
5	434.7406	41.73	-15.87	25.86	46.00	-20.14	QP	
6	601.3141	37.61	-11.42	26.19	46.00	-19.81	QP	

Remark: Factor = Antenna factor + cable loss – preamplifier gain

## Transmitter Spurious radiated emissions

EUT: 341041  
Op Cond: 802.11g High Channel  
Test Spec: Horizontal  
Comment: 120V AC/60Hz

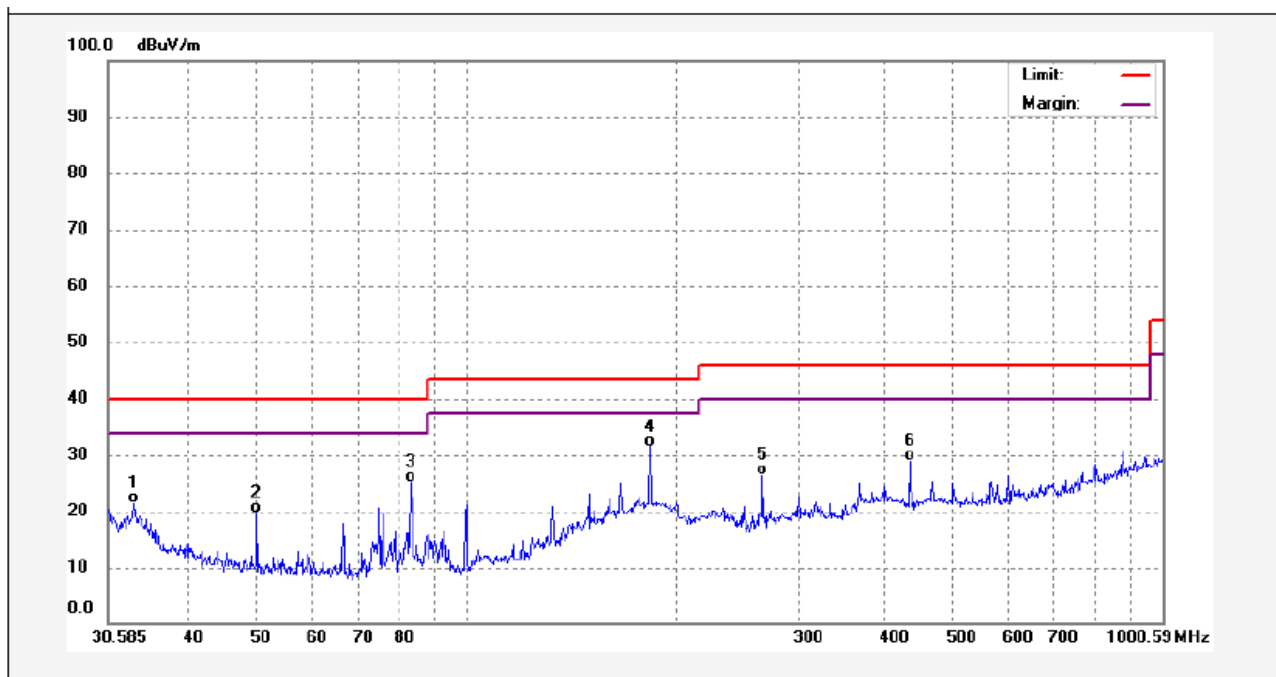


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	133.2699	52.23	-21.86	30.37	43.50	-13.13	QP	
2	166.6002	58.28	-21.05	37.23	43.50	-6.27	QP	
3	200.4274	62.76	-23.80	38.96	43.50	-4.54	QP	
4	233.6715	58.56	-22.27	36.29	46.00	-9.71	QP	
5	250.5536	55.66	-21.53	34.13	46.00	-11.87	QP	
6	566.6967	42.09	-12.54	29.55	46.00	-16.45	QP	

Remark: Factor = Antenna factor + cable loss – preamplifier gain

## Transmitter Spurious radiated emissions

EUT: 341041  
Op Cond: 802.11g High Channel  
Test Spec: Vertical  
Comment: 120V AC/60Hz



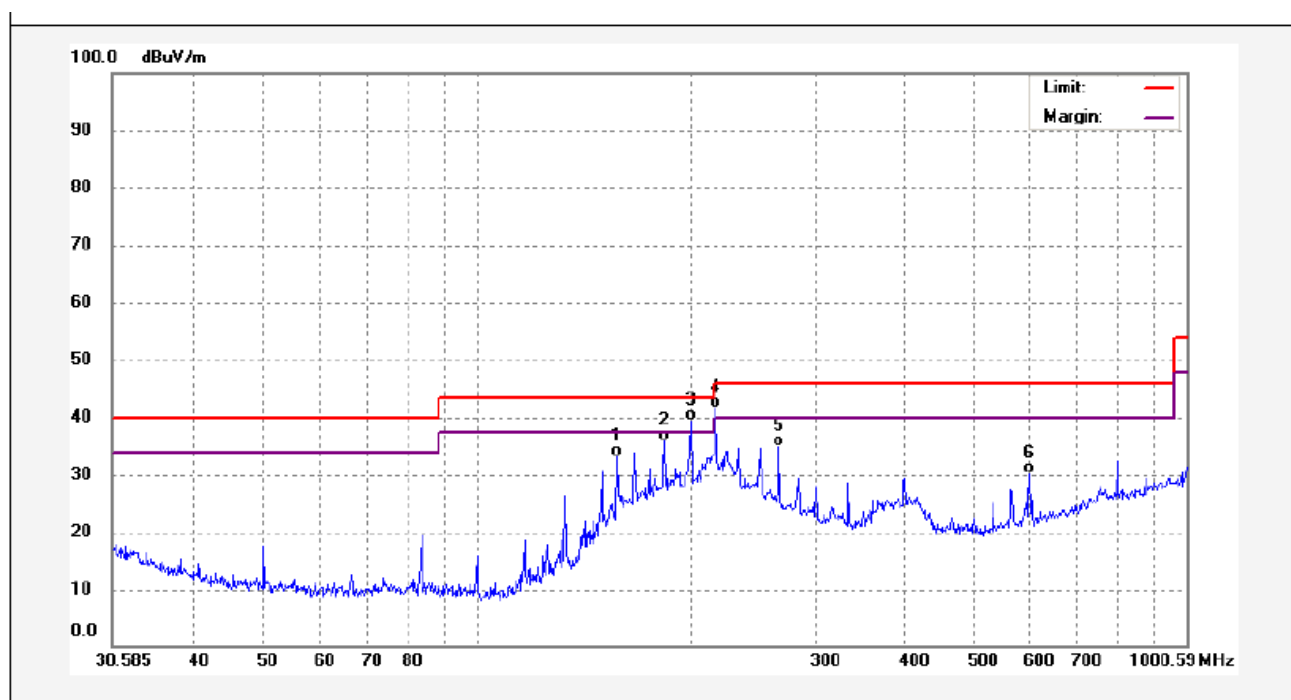
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	33.2555	41.40	-19.96	21.44	40.00	-18.56	QP	
2	50.0137	42.79	-23.10	19.69	40.00	-20.31	QP	
3	83.2226	49.02	-23.86	25.16	40.00	-14.84	QP	
4	183.6912	54.31	-22.81	31.50	43.50	-12.00	QP	
5	266.7878	47.40	-20.94	26.46	46.00	-19.54	QP	
6	433.2269	44.85	-15.91	28.94	46.00	-17.06	QP	

Remark: Factor = Antenna factor + cable loss – preamplifier gain



## Transmitter Spurious radiated emissions

EUT: 341041  
Op Cond: 802.11n HT20 Low Channel  
Test Spec: Horizontal  
Comment: 120V AC/60Hz

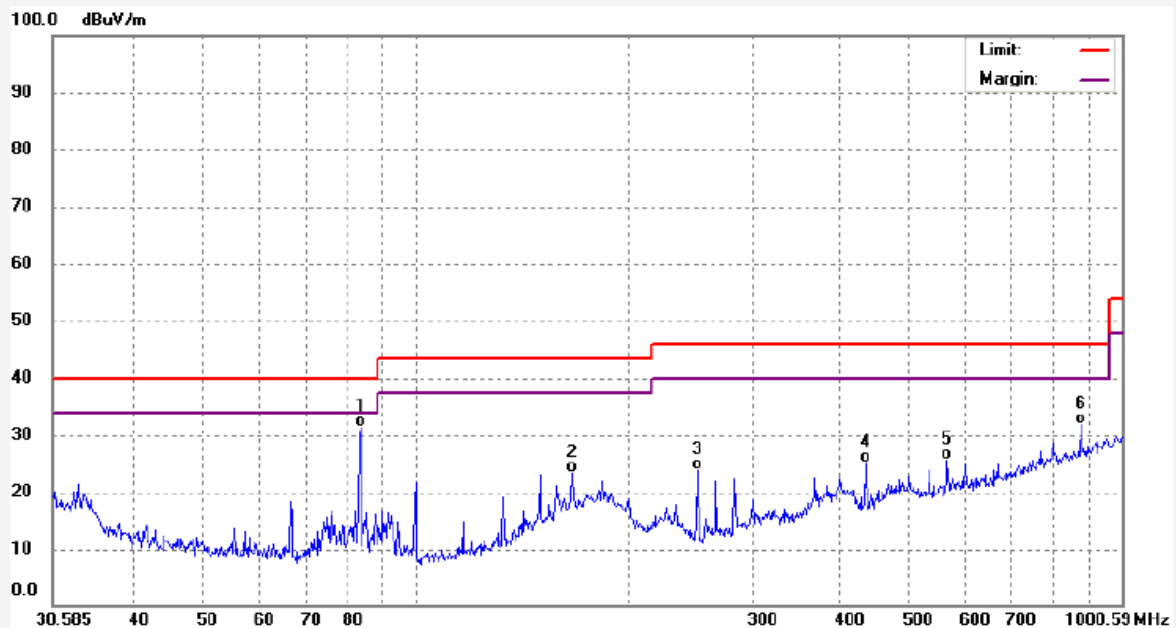


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	157.5577	53.79	-20.71	33.08	43.50	-10.42	QP	
2	183.6912	58.30	-22.49	35.81	43.50	-7.69	QP	
3	200.4274	63.16	-23.80	39.36	43.50	-4.14	QP	
4	217.1682	64.97	-23.23	41.74	46.00	-4.26	QP	
5	266.7878	55.85	-20.89	34.96	46.00	-11.04	QP	
6	601.3141	41.50	-11.42	30.08	46.00	-15.92	QP	

Remark: Factor = Antenna factor + cable loss – preamplifier gain

## Transmitter Spurious radiated emissions

EUT: 341041  
Op Cond: 802.11n HT20 Low Channel  
Test Spec: Vertical  
Comment: 120V AC/60Hz

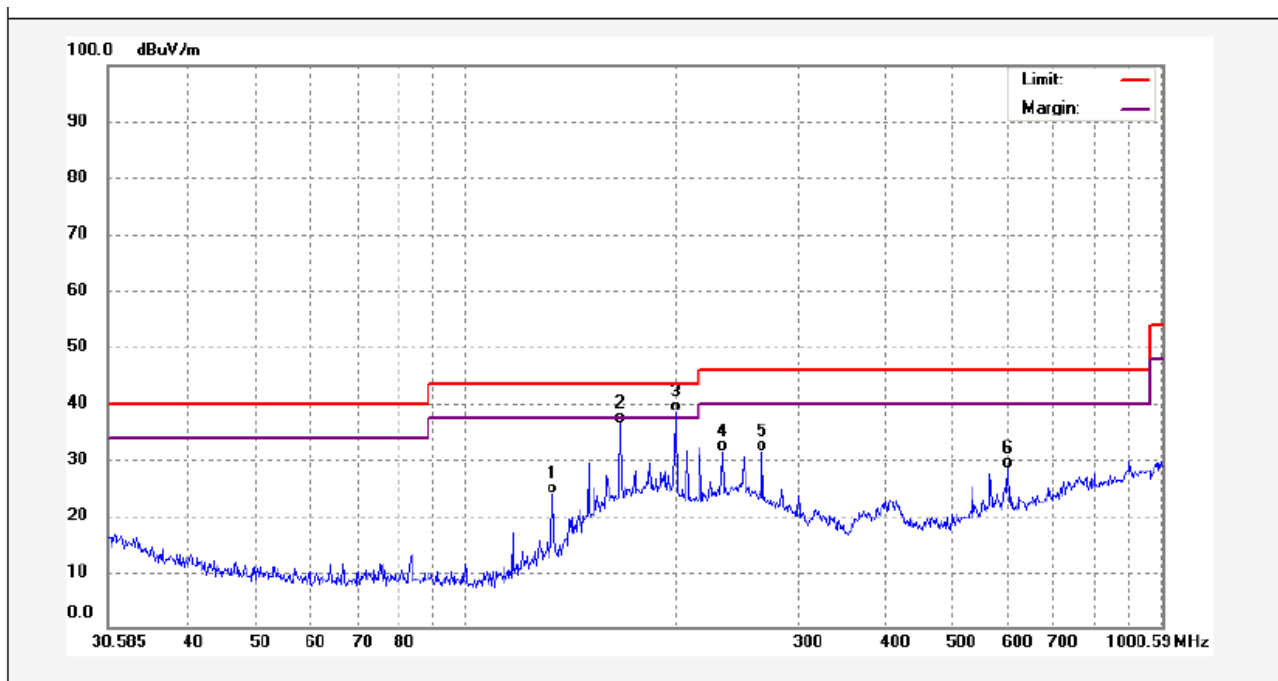


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	83.5134	55.18	-23.88	31.30	40.00	-8.70	QP	
2	166.6002	45.12	-21.76	23.36	43.50	-20.14	QP	
3	250.5536	45.60	-21.62	23.98	46.00	-22.02	QP	
4	433.2269	41.00	-15.91	25.09	46.00	-20.91	QP	
5	566.6967	38.06	-12.42	25.64	46.00	-20.36	QP	
6	876.3826	37.81	-6.04	31.77	46.00	-14.23	QP	

Remark: Factor = Antenna factor + cable loss – preamplifier gain

## Transmitter Spurious radiated emissions

EUT: 341041  
Op Cond: 802.11n HT20 Middle Channel  
Test Spec: Horizontal  
Comment: 120V AC/60Hz

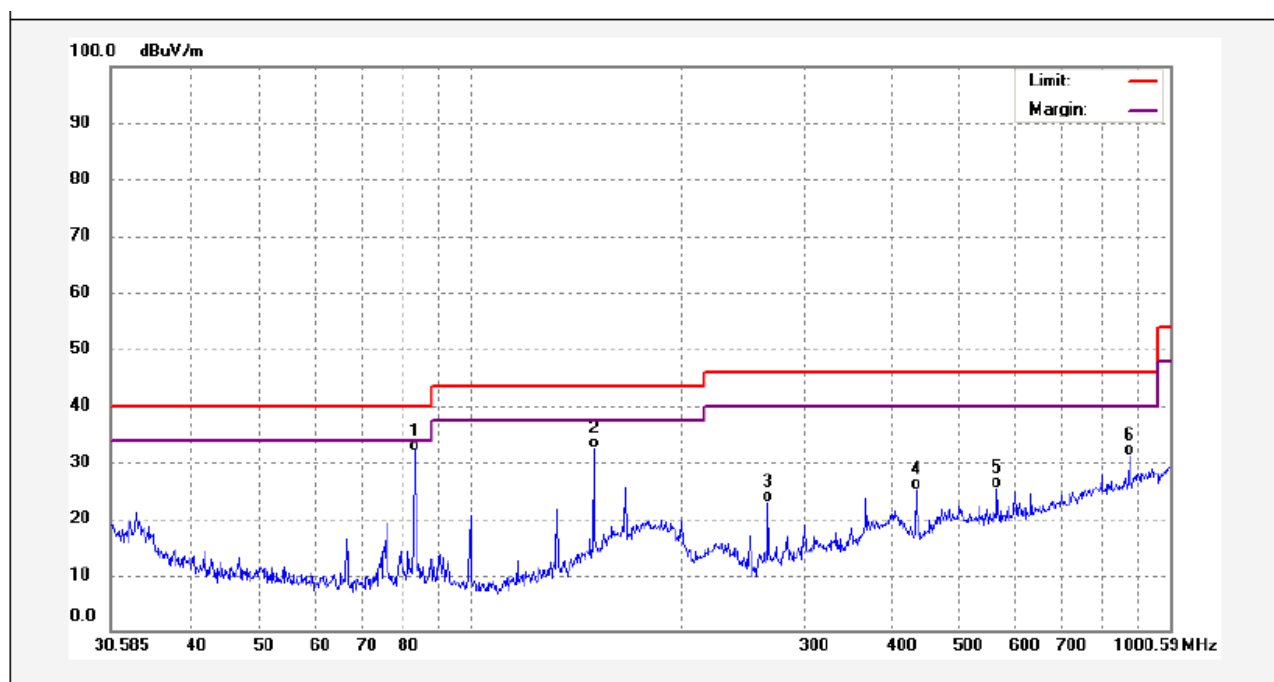


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	133.2699	45.70	-21.86	23.84	43.50	-19.66	QP	
2	166.6002	57.55	-21.05	36.50	43.50	-7.00	QP	
3	200.4274	62.08	-23.80	38.28	43.50	-5.22	QP	
4	233.6715	53.63	-22.27	31.36	46.00	-14.64	QP	
5	266.7878	52.28	-20.89	31.39	46.00	-14.61	QP	
6	601.3141	39.92	-11.42	28.50	46.00	-17.50	QP	

Remark: Factor = Antenna factor + cable loss – preamplifier gain

## Transmitter Spurious radiated emissions

EUT: 341041  
Op Cond: 802.11n HT20 Middle Channel  
Test Spec: Vertical  
Comment: 120V AC/60Hz

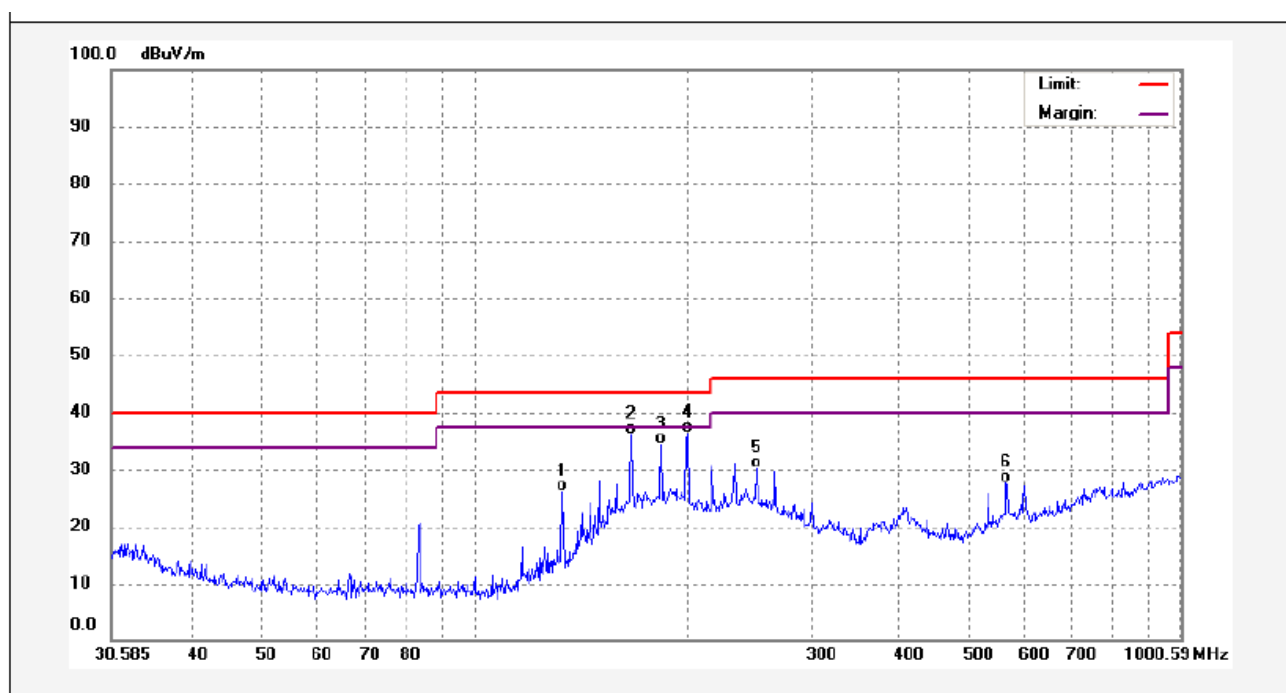


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	83.2226	55.86	-23.86	32.00	40.00	-8.00	QP	
2	150.0491	53.07	-20.73	32.34	43.50	-11.16	QP	
3	266.7878	43.74	-20.94	22.80	46.00	-23.20	QP	
4	433.2269	40.96	-15.91	25.05	46.00	-20.95	QP	
5	566.6967	37.76	-12.42	25.34	46.00	-20.66	QP	
6	876.3826	37.22	-6.04	31.18	46.00	-14.82	QP	

Remark: Factor = Antenna factor + cable loss – preamplifier gain

## Transmitter Spurious radiated emissions

EUT: 341041  
Op Cond: 802.11n HT20 High Channel  
Test Spec: Horizontal  
Comment: 120V AC/60Hz

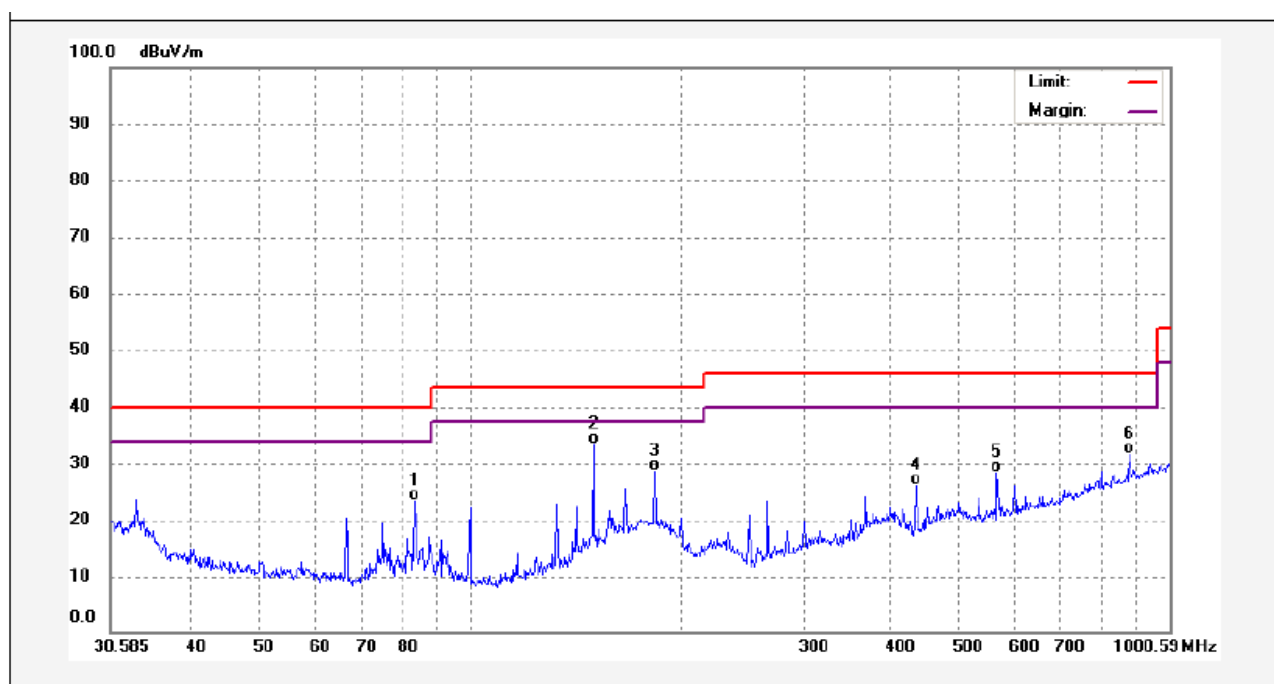


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	133.2699	47.92	-21.86	26.06	43.50	-17.44	QP	
2	166.6002	57.27	-21.05	36.22	43.50	-7.28	QP	
3	183.6912	56.79	-22.49	34.30	43.50	-9.20	QP	
4	200.4274	60.19	-23.80	36.39	43.50	-7.11	QP	
5	250.5536	51.77	-21.53	30.24	46.00	-15.76	QP	
6	566.6967	40.16	-12.54	27.62	46.00	-18.38	QP	

Remark: Factor = Antenna factor + cable loss – preamplifier gain

## Transmitter Spurious radiated emissions

EUT: 341041  
Op Cond: 802.11n HT20 High Channel  
Test Spec: Vertical  
Comment: 120V AC/60Hz



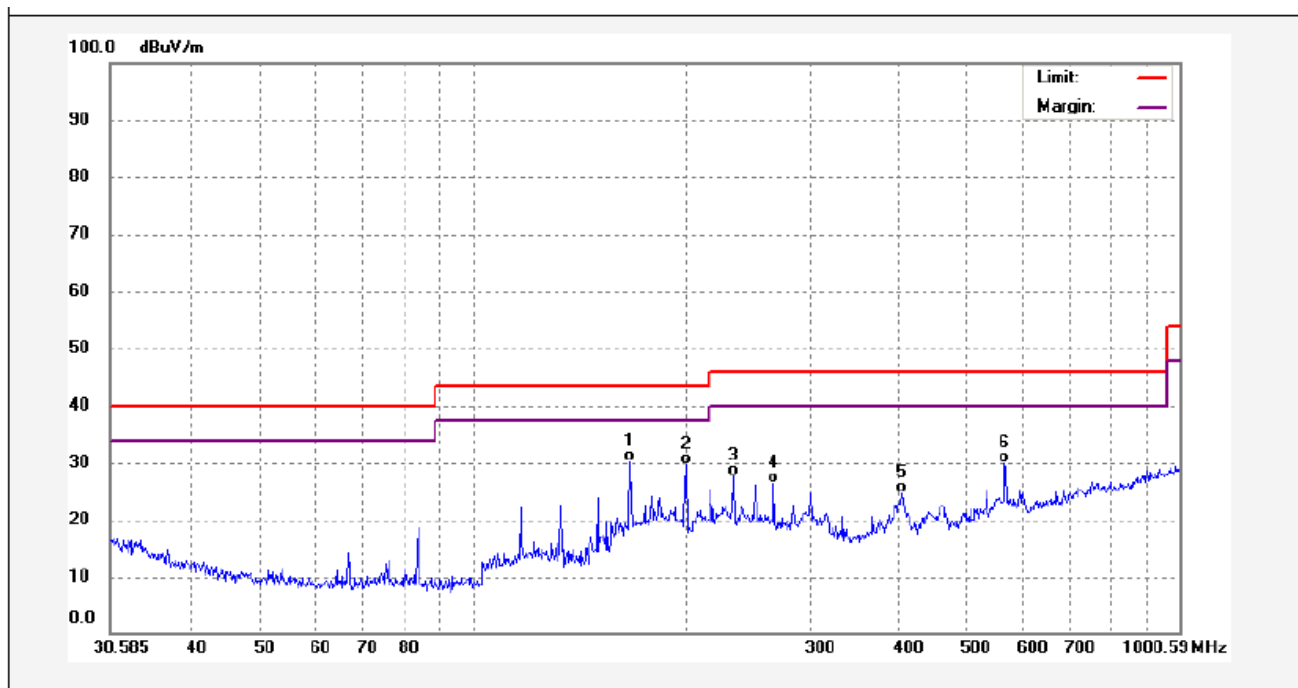
No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	83.2226	47.22	-23.86	23.36	40.00	-16.64	QP	
2	150.0491	54.21	-20.73	33.48	43.50	-10.02	QP	
3	183.6912	51.39	-22.81	28.58	43.50	-14.92	QP	
4	433.2269	42.11	-15.91	26.20	46.00	-19.80	QP	
5	566.6967	40.85	-12.42	28.43	46.00	-17.57	QP	
6	876.3826	37.64	-6.04	31.60	46.00	-14.40	QP	

Remark1: Factor = Antenna factor + cable loss – preamplifier gain

Remark2: There is no emission detected above 1GHz, so no data or plot listed.

## Receiver Spurious radiated emissions

EUT: 341041  
Op Cond: Rx  
Test Spec: Horizontal  
Comment: 120V AC/60Hz

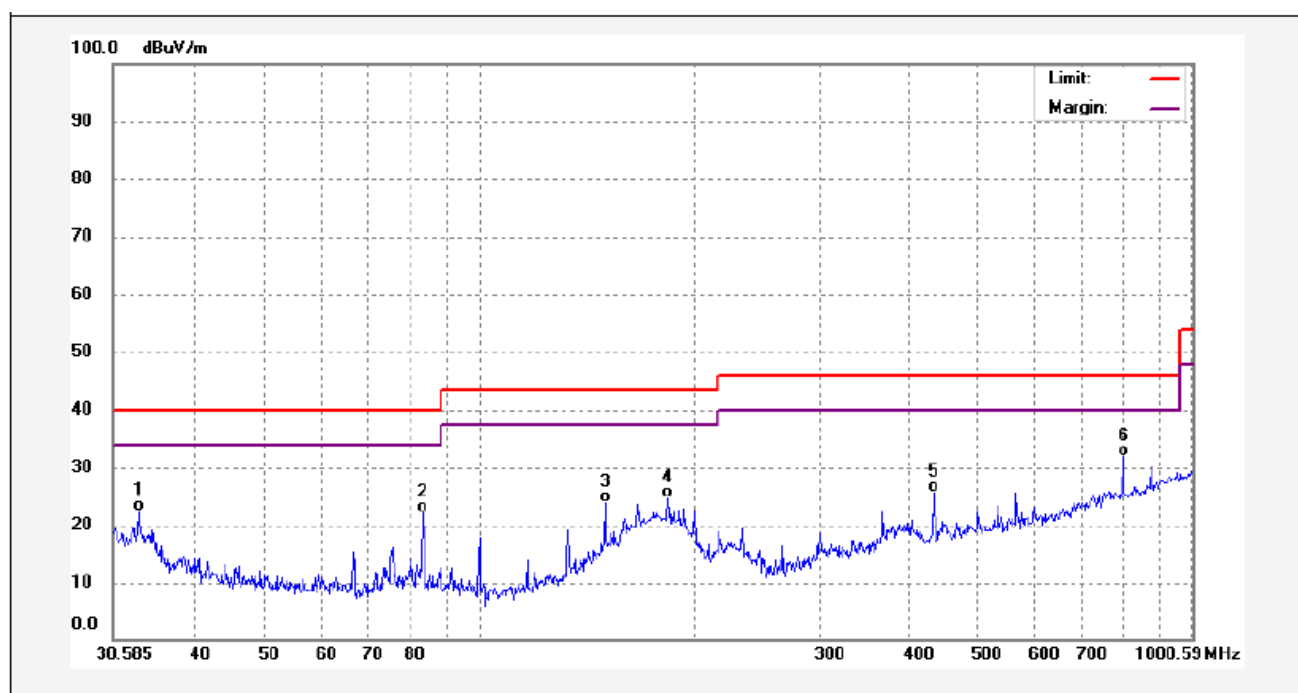


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	166.6002	51.30	-21.05	30.25	43.50	-13.25	QP	
2	200.4274	53.45	-23.80	29.65	43.50	-13.85	QP	
3	233.6715	49.94	-22.27	27.67	46.00	-18.33	QP	
4	266.7878	47.23	-20.89	26.34	46.00	-19.66	QP	
5	405.4481	41.24	-16.58	24.66	46.00	-21.34	QP	
6	566.6967	42.53	-12.54	29.99	46.00	-16.01	QP	

Remark: Factor = Antenna factor + cable loss – preamplifier gain

## Receiver Spurious radiated emissions

EUT: 341041  
Op Cond: Rx  
Test Spec: Vertical  
Comment: 120V AC/60Hz



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	33.2555	42.43	-19.96	22.47	40.00	-17.53	QP	
2	83.2226	45.90	-23.86	22.04	40.00	-17.96	QP	
3	150.0491	44.52	-20.73	23.79	43.50	-19.71	QP	
4	183.6912	47.55	-22.81	24.74	43.50	-18.76	QP	
5	434.7406	41.62	-15.87	25.75	46.00	-20.25	QP	
6	800.4061	39.14	-7.31	31.83	46.00	-14.17	QP	

Remark1: Factor = Antenna factor + cable loss – preamplifier gain

Remark2: There is no emission detected above 1GHz, so no data or plot listed.



## 8 Test Equipment

TEST ITEM	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL.DUE.DAT E
CE	EMI Test Receiver	Rohde & Schwarz	ESCI	100947	Aug-2013
	Two-Line V-Network	Rohde & Schwarz	ENV216	100115	Aug-2013
	Absorbing Clamp	Rohde & Schwarz	MDS-21	100205	Aug-2013
Peak Power	Test Receiver	ROHDE&SCHWARZ	ESCI	100947	Aug-2013
RSE	EMC Analyzer	Agilent	E7405A	MY45114943	Aug-2013
	Trilog Broadband Antenne 30-3000 MHz	SCHWARZBECK MESS-ELEKTROM	VULB9163	336	Aug-2013
	Broad-band Horn Antenna 1-18 GHz	SCHWARZBECK MESS-ELEKTROM	BBHA 9120 D	667	Aug-2013
	Broadband Preamplifier 0.5-18 GHz	SCHWARZBECK MESS-ELEKTROM	BBV 9718	9718-148	Aug-2013

## 9 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

### System Measurement Uncertainty

Items		Extended Uncertainty
RE	Field strength (dB $\mu$ V/m)	U=4.38dB (30MHz-25GHz)
CE	Disturbance Voltage (dB $\mu$ V)	U=3.60dB(150KHz-30MHz)