TEST REPORT

of

FCC Part 15 Subpart E §15.407

FCC ID: A3LGTN7100

Equipment Under Test	: Mobile Phone
Model Name	: GT-N7100
Serial No.	: N/A
Applicant	: SAMSUNG ELECTRONICS CO., LTD.
Manufacturer	: SAMSUNG ELECTRONICS CO., LTD.
Date of Test(s)	: 2012. 08. 10 ~ 2012. 08. 23
Date of Issue	: 2012. 08. 23

In the configuration tested, the EUT complied with the standards specified above.

Tested By: Alvin Kim **Date** 2012. 09. 12

Approved By: Feel Jeong **Date** 2012. 09. 12

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1. General information

1.1 Testing laboratory

SGS Korea Co., Ltd.(Gunpo Laboratory)
-705, Dongchun-Dong Sooji-Gu, Yongin-Shi, Kyungki-Do, South Korea.
-Wireless Div. 3FL, 18-34, Sanbon-dong, Gunpo-si, Gyeonggi-do, Korea 435-040
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Phone No. : +82 31 428 5700
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1.2 Details of applicant

Applicant : SAMSUNG ELECTRONICS CO., LTD.
Address : 94-1, Imsoo-dong, Gumi, Gyeongbuk, Korea
Contact Person : Lee, Jae-Dong
Phone No. : +82 10 9318 1837

1.3. Description of EUT

Kind of Product	Mobile Phone
Model Name	GT-N7100
Serial Number	N/A
Power Supply	DC 3.8 V
Frequency Range	2 412 ㎒ ~ 2 462 ㎒ (11b/g/n_HT20), 5 745 ㎒ ~ 5 825 ㎒ (11a/n_HT20), 5 755 ㎒ ~ 5 795 ㎒ (11n_HT40), 5 180 ㎒ ~ 5 240 ㎒ (11a/n_ HT20 – Non DFS), 5 190 ㎒ ~ 5 230 ㎒ (11n_ HT40 – Non DFS), 5 260 ㎒ ~ 5 320 ㎒ (11a/n_ HT20 – DFS), 5 270 ㎒ ~ 5 310 ㎒ (11n_ HT40 – DFS), 5 500 ㎒ ~ 5 700 ㎒ (11a/n_ HT20 – DFS), 5 510 ㎒ ~ 5 670 ㎒ (11n_ HT40 – DFS)
Modulation Technique	DSSS, OFDM
Number of Channels	11 channel (11b/g/n_HT20), 5 channel (11a/n_HT20), 2 channel (11n_HT40), 4 channel (11a/n_HT20–Non DFS), 2 channel (11n_HT40 – Non DFS), 15 channel (11a/n_HT20 - DFS), 7 channel (11n_HT40 - DFS)
Antenna Type	Internal type (SISO)
Antenna Gain	2 412 ㎒ ~ 2 462 ㎒: -1.18 ㏈i 5 180 ㎒ ~ 5 320 ㎒: -1.37 ㏈i 5 500 ㎒ ~ 5 700 ㎒: -2.10 ㏈i 5 745 ㎒ ~ 5 805 ㎒: -1.57 ㏈i

1.4. Declaration by the manufacturer

- EUT is SLAVE without DFS and TPC.
- Duty Cycle ≥ 98 percent.

1.5. Test equipment list

Equipment	Manufacturer	Model	S/N	Cal Date	Cal Interval	Cal Due.
Signal Generator	R&S	SMBV100A	255834	Jul. 02, 2012	Annual	Jul. 02, 2013
Signal Generator	R&S	SMR40	100540	Jan. 05, 2012	Annual	Jan. 05, 2013
Spectrum Analyzer	R&S	FSV30	100768	Mar. 29, 2012	Annual	Mar. 29, 2013
Spectrum Analyzer	Agilent	N9030A	US51350132	Oct. 28, 2011	Annual	Oct. 28, 2012
Power Divider	Wainschel	1575	1537	Jul. 12, 2012	Annual	Jul. 12, 2013
Attenuator	Agilent	8490D	50748	Jan. 15, 2012	Annual	Jan. 15, 2013
High Pass Filter	Wainwright	WHK3.0/18G-10SS	344	Jul. 12, 2012	Annual	Jul. 12, 2013
High Pass Filter	Wainwright	WHK7.5/26.5G-6SS	11	Jul. 12, 2012	Annual	Jul. 12, 2013
Power Sensor	R&S	NRP-Z81	100669	Apr. 03, 2012	Annual	Apr. 03, 2013
DC power Supply	Agilent	U8002A	MY49030063	Jan. 03, 2012	Annual	Jan. 03, 2013
Preamplifier	Agilent	8447F	2944A03909	Jul. 03, 2012	Annual	Jul. 03, 2013
Preamplifier	R & S	SCU 18	10117	Jan. 02, 2012	Annual	Jan. 02, 2013
Preamplifier	MITEQ Inc.	JS44-18004000-35-8P	1546891	Jul. 12, 2012	Annual	Jul. 12, 2013
Test Receiver	R & S	ESU26	100109	Feb. 21, 2012	Annual	Feb. 21, 2013
Bilog Antenna	SCHWARZBECK	VULB9163	396	May 12, 2011	Biennial	May 12, 2013
Horn Antenna	SCHWARZBECK	BBHA9170	BBHA9170431	May 15, 2012	Biennial	May 15, 2014
Horn Antenna	R & S	HF 906	100326	Nov. 23, 2011	Biennial	Nov. 23, 2013
Antenna Master	INN-CO	MM4000	N/A	N/A	N/A	N.C.R.
Turn Table	INN-CO	DS 1200 S	N/A	N/A	N/A	N.C.R.
Test Receiver	R & S	ESHS10	863365/018	Jun. 04, 2012	Annual	Jun. 04, 2013
Two-Line V-Network	R & S	ENV216	100190	Jan. 09, 2012	Annual	Jan. 09, 2013
Anechoic Chamber	SY Corporation	L × W × H (6.5 m × 3.5 m × 3.5 m)	N/A	N/A	N/A	N.C.R.
Anechoic Chamber	SY Corporation	L × W × H (9.6 m × 6.4 m × 6.6 m)	N/A	N/A	N/A	N.C.R.

▶ Support equipment

Description	Manufacturer	Model	Serial Number / FCC ID
N/A	-	-	-

1.6. Summary of test result

The EUT has been tested according to the following specifications:

APPLIED STANDARD:FCC Part15 subpart E §15.407		
Section in FCC 15	**Test Item**	**Result**
15.205(a) 15.209(a) 15.407(b)(1) 15.407(b)(2) 15.407(b)(3)	Transmitter radiated spurious emissions and Conducted spurious emission	Complied
15.407(a)(1) 15.407(a)(2)	Output power	Complied
15.407(a)(1) 15.407(a)(2)	Peak power spectral density	Complied
15.407(a)(6)	Peak excursion	Complied
15.207	Transmitter AC power line Conducted emission	Complied

1.7. Test Procedure(s)

The measurement procedures described in the American National Standard for Methods of Measurement of Radio-Noise Emission from Low-Voltage Electrical and Electronic Equipment in the Range of 9 ㎑ to 40 ㎓ (ANSI C63.4-2003) and the guidance provided in KDB 789033 were used in the measurement of the DUT.

1.8. Sample calculation

Where relevant, the following sample calculation is provided:

1.8.1. Conducted test

offset value (dB) = Power Divider (dB) + Attenuator (dB) + Cable loss (dB)

1.8.2. Radiation test

Field strength level (dBμV/m) = Measured level (dBμV) + Antenna factor (dB) + Cable loss (dB) - amplifier (dB)

1.9. Test report revision

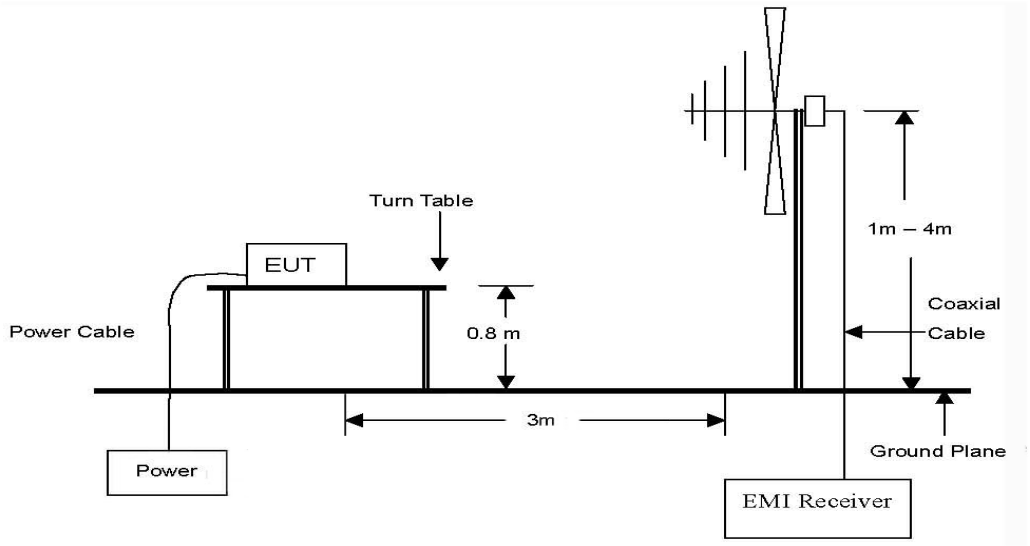
Revision	Report number	Description
0	F690501/RF-RTL005730	Initial
1	F690501/RF-RTL005730-1	Add worst case of frequency band in AC power line

2. Transmitter radiated spurious emissions and conducted spurious emission

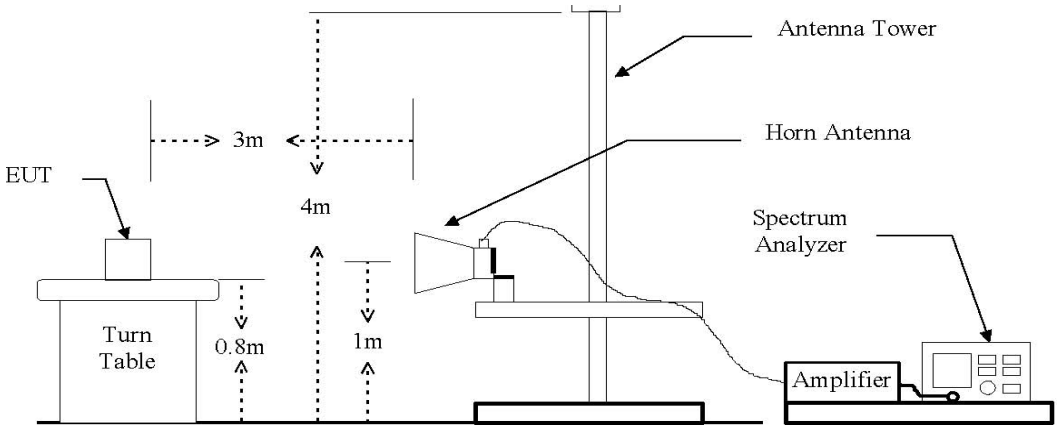
2.1. Test setup

2.1.1. Transmitter radiated spurious emissions

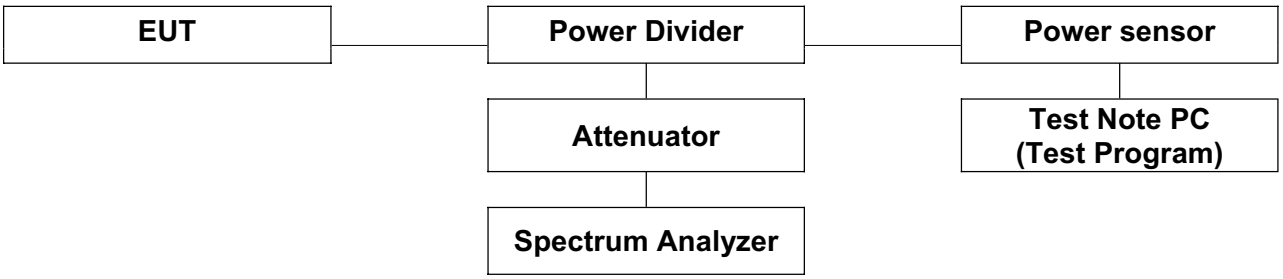
The diagram below shows the test setup that is utilized to make the measurements for emission from 30 ㎒ to 1 ㎓ Emissions.



The diagram below shows the test setup that is utilized to make the measurements for emission .The spurious emissions were investigated form 1 ㎓ to the 10th harmonic of the highest fundamental frequency or 40 ㎓, whichever is lower.



2.1.2. Conducted spurious emissions



2.2. Limit

For transmitters operating in the 5.15 ~ 5.25 ㎓ band: all emissions outside of the 5.15 ~ 5.35 ㎓ band shall not exceed an EIRP of -27 m/㎒.

For transmitters operating in the 5.25 ~ 5.35 ㎓ band: all emissions outside of the 5.15 ~ 5.35 ㎓ band shall not exceed an EIRP of -27 ㏈m/㎒. Devices operating in the 5.25 ~ 5.35 ㎓ band that generate emissions in the 5.15 ~ 5.25 ㎓ band must meet all applicable technical requirements for operation in the 5.15 ~ 5.25 ㎓ band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 ㏈ m/㎒ in the 5.15 ~ 5.25 ㎓ band.

For transmitters operating in the 5.47 ~ 5.725 ㎓ band: all emissions outside of the 5.47 ~ 5.725 ㎓ band shall not exceed an EIRP of −27 ㏈ m/㎒.

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

Frequency (㎒)	Distance (Meters)	Field Strength (㏈㎶/m)	Field Strength (㎶/m)
30 - 88	3	40.0	100
88 – 216	3	43.5	150
216 – 960	3	46.0	200
Above 960	3	54.0	500

2.3. Test procedures

Conducted and Radiated emissions from the EUT were measured according to the dictates in section G of KDB 789033.

All data rates and modes were investigated for conducted spurious emissions. The emissions of the configuration that produced the worst case emissions are reported in this section.

2.3.1. Test procedures for radiated spurious emissions

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

NOTE;

1. The measurements for below 1 ㎓
   Compliance shall be demonstrated using CISPR quasi-peak detection; however, peak detection is permitted as an alternative to quasi-peak detection.
2. The measurements for above 1 ㎓
   1) Peak emission levels are measured by setting the analyzer as follows:
   Set to RBW = 1 ㎒, VBW ≥ 3 ㎒, Detector = Peak, Sweep time = auto, Trace mode= Max hold.
   2) Average emission levels are measured by setting the analyzer as follows:
   Set to RBW = 1 ㎒, Detector = Peak, Sweep time = auto, Trace mode= Max hold.
   - If duty cycle ≥ 98 percent: VBW < RBW/100 (i.e., 10 ㎑) but not less than 10 ㎐.
   - If duty cycle < 98 percent: VBW ≥ 1/T.
3. To get a maximum emission level from the EUT, the EUT is manipulated through three orthogonal planes.

3.3.2. Test procedures for conducted spurious emissions

1. The transmitter output was connected to the spectrum analyzer through an attenuator.
2. Peak emission levels are measured by setting the analyzer as follows: RBW = 1 ㎒, VBW ≥ 3 ㎒, Detector = Peak, Sweep time = auto, Trace hold = max hold.

2.4. Test result

Ambient temperature : (24 ± 2) ℃
Relative humidity : 49 % R.H.

2.4.1. Spurious radiated emission (Worst case configuration_11a mode, 6 Mbps)

The frequency spectrum from 30 ㎒ to 1 000 ㎒ was investigated. Emission levels are not reported much lower than the limits by over 30 ㏈. All reading values are peak values.

Radiated emissions			Ant	Correction factors		Total	Limit	
Frequency (㎒)	Reading (㏈㎶)	Detect Mode	Pol.	AF (㏈/m)	Amp gain+CL (㏈)	Actual (㏈ uV/m)	Limit (㏈ uV/m)	Margin (㏈)
269.59	32.80	Peak	H	12.60	-24.30	21.10	46.00	24.90
473.53	33.30	Peak	H	15.40	-24.80	23.90	46.00	22.10
738.50	33.10	Peak	H	20.00	-24.20	28.90	46.00	17.10
Above 800.00	Not detected	-	-	-	-	-	-	-

▣ *Remark:*

1. All spurious emission at channels are almost the same below 1 ㎓, So that the Middle channel was chose at representative in final test.
2. Actual = Reading + AF + AMP + CL

2.4.2. Spurious radiated emission for above 1 ㎓

802.11a (Non-DFS) _6 Mbps

A. Low Channel (5 180 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
*5 150.00	11.35	Peak	H	33.43	9.06	53.84	74.00	20.16
*5 150.00	2.98	Average	H	33.43	9.06	45.47	54.00	8.53
Frequency (㎒)	**Reading (dB uV)**	**Detect Mode**	**Pol.**	**AF (dB/m)**	**Amp Gain+CL (dB)**	**Actual (dB uV/m)**	**Limit (dB uV/m)**	**Margin (dB)**
10 362.13	34.30	Peak	H	37.58	-28.40	43.48	68.23	24.75
Above 10 400.00	Not Detected.	-	-	-	-	-	-	-

B. Middle Channel (5 220 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	Amp Gain+CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
10 439.10	35.70	Peak	H	37.67	-28.56	44.81	68.23	23.42
Above 10 500.00	Not Detected.	-	-	-	-	-	-	-

C. High Channel (5 240 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	Amp Gain+CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
10 478.65	35.25	Peak	H	37.61	-28.61	44.25	68.23	23.98
Above 10 500.00	Not Detected.	-	-	-	-	-	-	-

802.11a (DFS) _6 Mbps

A. Low Channel (5 260 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	Amp Gain+CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
10 520.14	34.07	Peak	H	37.52	-28.56	43.03	68.23	25.20
Above 10 600.00	Not Detected.	-	-	-	-	-	-	-

B. Middle Channel (5 300 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	Amp Gain+CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
*10 601.54	34.10	Peak	H	37.64	-28.17	43.57	74.00	30.43
Above 10 700.00	Not Detected.	-	-	-	-	-	-	-

C. High Channel (5 320 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
*5 350.00	12.39	Peak	H	33.75	9.31	55.45	74.00	18.55
*5 350.00	2.05	Average	H	33.75	9.31	45.11	54.00	8.89
Frequency (㎒)	**Reading (dB uV)**	**Detect Mode**	**Pol.**	**AF (dB/m)**	**Amp Gain+CL (dB)**	**Actual (dB uV/m)**	**Limit (dB uV/m)**	**Margin (dB)**
*10 640.93	34.12	Peak	H	37.67	-28.21	43.58	74.00	30.42
Above 10 700.00	Not Detected.	-	-	-	-	-	-	-

802.11a (DFS) _6 Mbps

A. Low Channel (5 500 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
*5 460.00	13.21	Peak	H	34.29	9.30	56.80	74.00	17.20
*5 460.00	2.16	Average	H	34.29	9.30	45.75	54.00	8.25
Frequency (㎒)	**Reading (dB uV)**	**Detect Mode**	**Pol.**	**AF (dB/m)**	**Amp Gain+CL (dB)**	**Actual (dB uV/m)**	**Limit (dB uV/m)**	**Margin (dB)**
*10 987.65	34.38	Peak	H	38.14	-27.74	44.78	74.00	29.22
Above 11 000.00	Not Detected.	-	-	-	-	-	-	-

B. Middle Channel (5 580 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	Amp Gain+CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
*11 158.77	34.35	Peak	H	37.94	-27.82	44.47	74.00	29.53
Above 11 200.00	Not Detected.	-	-	-	-	-	-	-

C. High Channel (5 700 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	Amp Gain+CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
*11 401.11	34.11	Peak	H	37.93	-27.36	44.68	74.00	29.32
Above 11 500.00	Not Detected.	-	-	-	-	-	-	-

802.11n-HT20 (Non-DFS)_MCS0

A. Low Channel (5 180 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
*5 150.00	12.90	Peak	H	33.43	9.06	55.39	74.00	18.61
*5 150.00	2.95	Average	H	33.43	9.06	45.44	54.00	8.56
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	Amp Gain+CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
10 365.98	33.75	Peak	H	37.57	-28.40	42.92	68.23	25.31
Above 10 400.00	Not Detected.	-	-	-	-	-	-	-

B. Middle Channel (5 220 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	Amp Gain+CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
10 436.34	33.97	Peak	H	37.66	-28.55	43.08	68.23	25.15
Above 10 500.00	Not Detected.	-	-	-	-	-	-	-

C. High Channel (5 240 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	Amp Gain+CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
10 476.36	34.13	Peak	H	37.61	-28.61	43.13	68.23	25.10
Above 10 500.00	Not Detected.	-	-	-	-	-	-	-

802.11n_HT20 (DFS)_MCS0

A. Low Channel (5 260 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	Amp Gain+CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
10 516.63	34.51	Peak	H	37.53	-28.57	43.47	68.23	24.76
Above 10 600.00	Not Detected.	-	-	-	-	-	-	-

B. Middle Channel (5 300 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	Amp Gain+CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
10 600.71	33.53	Peak	H	37.63	-28.17	42.99	74.00	31.01
Above 10 700.00	Not Detected.	-	-	-	-	-	-	-

C. High Channel (5 320 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
*5 350.00	10.41	Peak	H	33.75	9.31	53.47	74.00	20.53
*5 350.00	2.00	Average	H	33.75	9.31	45.06	54.00	8.94
Frequency (㎒)	**Reading (dB uV)**	**Detect Mode**	**Pol.**	**AF (dB/m)**	**Amp Gain+CL (dB)**	**Actual (dB uV/m)**	**Limit (dB uV/m)**	**Margin (dB)**
*10 638.80	34.21	Peak	H	37.67	-28.21	43.67	74.00	30.33
Above 10 700.00	Not Detected.	-	-	-	-	-	-	-

802.11n_HT20 (DFS)_MCS0

A. Low Channel (5 500 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
*5 460.00	10.90	Peak	H	34.29	9.30	54.49	74.00	19.51
*5 460.00	2.23	Average	H	34.29	9.30	45.82	54.00	8.18
Frequency (㎒)	**Reading (dB uV)**	**Detect Mode**	**Pol.**	**AF (dB/m)**	**Amp Gain+CL (dB)**	**Actual (dB uV/m)**	**Limit (dB uV/m)**	**Margin (dB)**
*11 003.62	34.62	Peak	H	38.10	-27.71	45.01	74.00	28.99
Above 11 100.00	Not Detected.	-	-	-	-	-	-	-

B. Middle Channel (5 580 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	Amp Gain+CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
*11 157.75	35.57	Peak	H	37.94	-27.82	45.69	74.00	28.31
Above 11 200.00	Not Detected.	-	-	-	-	-	-	-

C. High Channel (5 700 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	Amp Gain+CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
*11 399.19	33.73	Peak	H	37.92	-27.37	44.28	74.00	29.72
Above 11 400.00	Not Detected.	-	-	-	-	-	-	-

802.11n-HT40 (Non-DFS) _MCS0

A. Low Channel (5 190 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
*5 150.00	18.03	Peak	H	33.43	9.06	60.52	74.00	13.48
*5 150.00	5.60	Average	H	33.43	9.06	48.09	54.00	5.91
Frequency (㎒)	**Reading (dB uV)**	**Detect Mode**	**Pol.**	**AF (dB/m)**	**Amp Gain+CL (dB)**	**Actual (dB uV/m)**	**Limit (dB uV/m)**	**Margin (dB)**
10 384.47	34.37	Peak	H	37.56	-28.45	43.48	68.23	24.75
Above 10 400.00	Not Detected.	-	-	-	-	-	-	-

B. High Channel (5 230 ㎒)

Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	Amp Gain+CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
10 460.59	33.55	Peak	H	37.62	-28.58	42.59	68.23	25.64
Above 10 500.00	Not Detected.	-	-	-	-	-	-	-

802. 11n-HT40 (DFS)_MCS0

A. Low Channel (5 270 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	Amp Gain+CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
10 543.25	34.13	Peak	H	37.54	-28.45	43.22	68.23	25.01
Above 10 600.00	Not Detected.	-	-	-	-	-	-	-

B. High Channel (5 310 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
*5 350.00	19.95	Peak	H	33.75	9.31	63.01	74.00	10.99
*5 350.00	3.76	Average	H	33.75	9.31	46.82	54.00	7.18
Frequency (㎒)	**Reading (dB uV)**	**Detect Mode**	**Pol.**	**AF (dB/m)**	**Amp Gain+CL (dB)**	**Actual (dB uV/m)**	**Limit (dB uV/m)**	**Margin (dB)**
*10 617.70	33.61	Peak	H	37.70	-28.19	43.12	74.00	30.88
Above 10 700.00	Not Detected.	-	-	-	-	-	-	-

802. 11n-HT40 (DFS)_MCS0

A. Low Channel (5 510 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
*5 460.00	12.43	Peak	H	34.29	9.30	56.02	74.00	17.98
*5 460.00	2.49	Average	H	34.29	9.30	46.08	54.00	7.92
Frequency (㎒)	**Reading (dB uV)**	**Detect Mode**	**Pol.**	**AF (dB/m)**	**Amp Gain+CL (dB)**	**Actual (dB uV/m)**	**Limit (dB uV/m)**	**Margin (dB)**
*11 023.64	33.75	Peak	H	38.12	-27.66	44.21	74.00	29.79
Above 11 100.00	Not Detected.	-	-	-	-	-	-	-

B. Middle Channel (5 550 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	Amp Gain+CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
*11 100.81	33.38	Peak	H	38.01	-27.47	43.92	74.00	30.08
Above 11 200.00	Not Detected.	-	-	-	-	-	-	-

C. High Channel (5 670 ㎒)

Radiated Emissions			Ant	Correction Factors		Total	Limit	
Frequency (㎒)	Reading (dB uV)	Detect Mode	Pol.	AF (dB/m)	Amp Gain+CL (dB)	Actual (dB uV/m)	Limit (dB uV/m)	Margin (dB)
*11 338.19	34.35	Peak	H	38.11	-27.67	44.79	74.00	29.21
Above 11 400.00	Not Detected.	-	-	-	-	-	-	-

▣ *Remarks*

1. "*" means the restricted band.
2. Radiated emissions measured in frequency above 1 000 ㎒ were made with an instrument using Peak / average detector mode if frequency was in restricted band. Otherwise the frequency was in outside of restricted band, only peak detector should be used.
3. Average test would be performed if the peak result was greater than the average limit and frequency was in the restricted band.

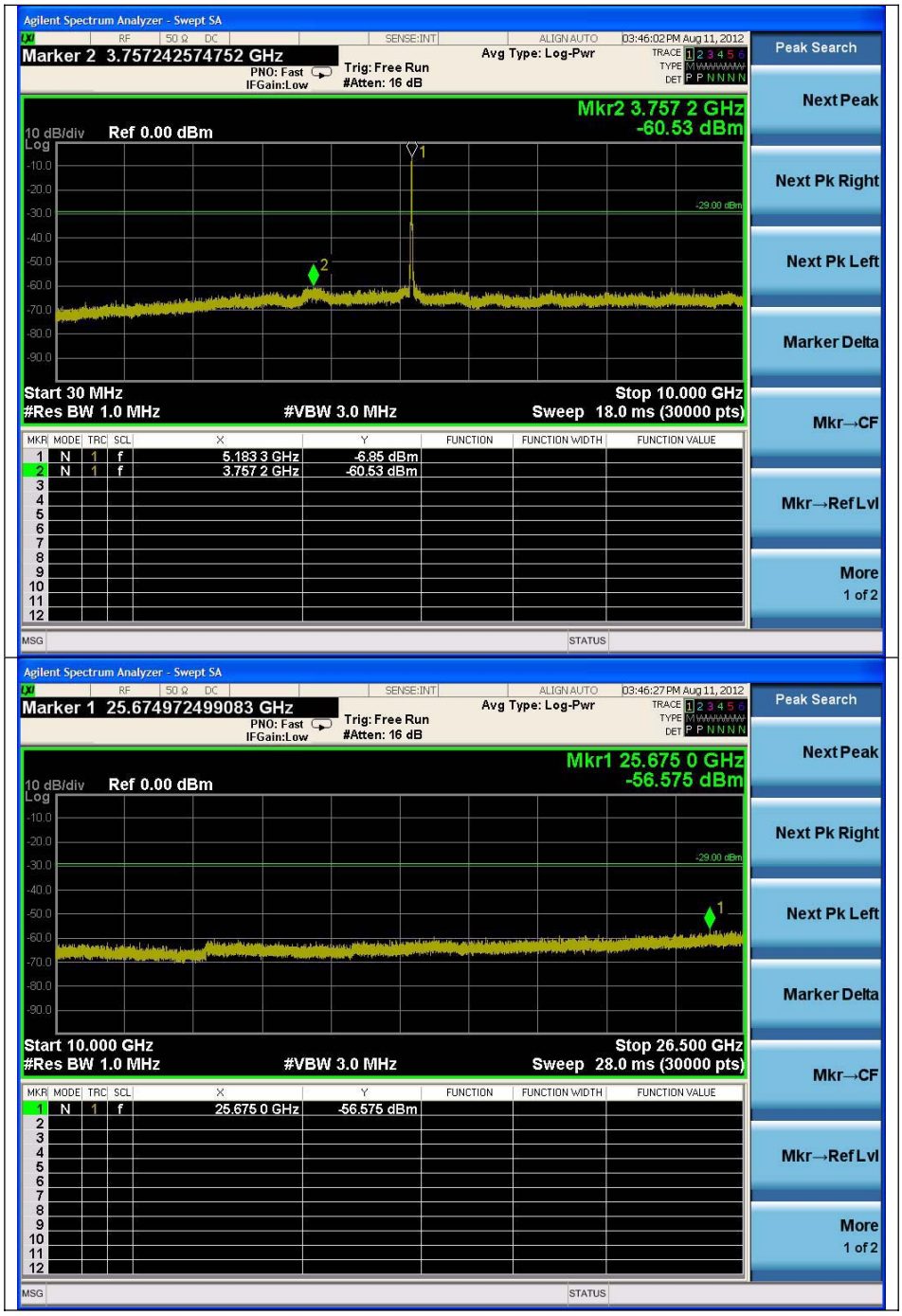
4 If frequency was outside of restricted band, the calculation method for peak limit is same as below:
68.23 ㏈㎶/m = EIRP – 20 log(d) + 104.77 = -27 – 20 log (3) + 104.77
*distance: 3 m, *EIRP: -27 ㏈ m/㎒

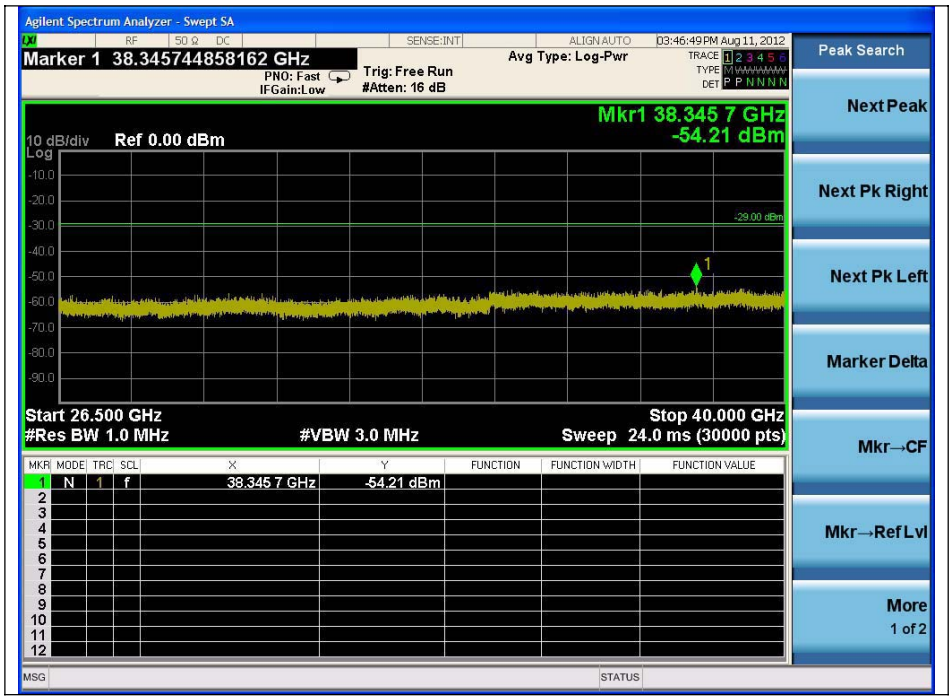
2.4.3. Spurious RF Conducted Emissions: Plot of Spurious RF Conducted Emission

For 5.15 – 5.25 ㎓, the antenna gain is -1.37 ㏈i, So the EIRP limit is -29 ㏈m/㎒

802.11a (Non-DFS)_6 Mbps

5 180 ㎒

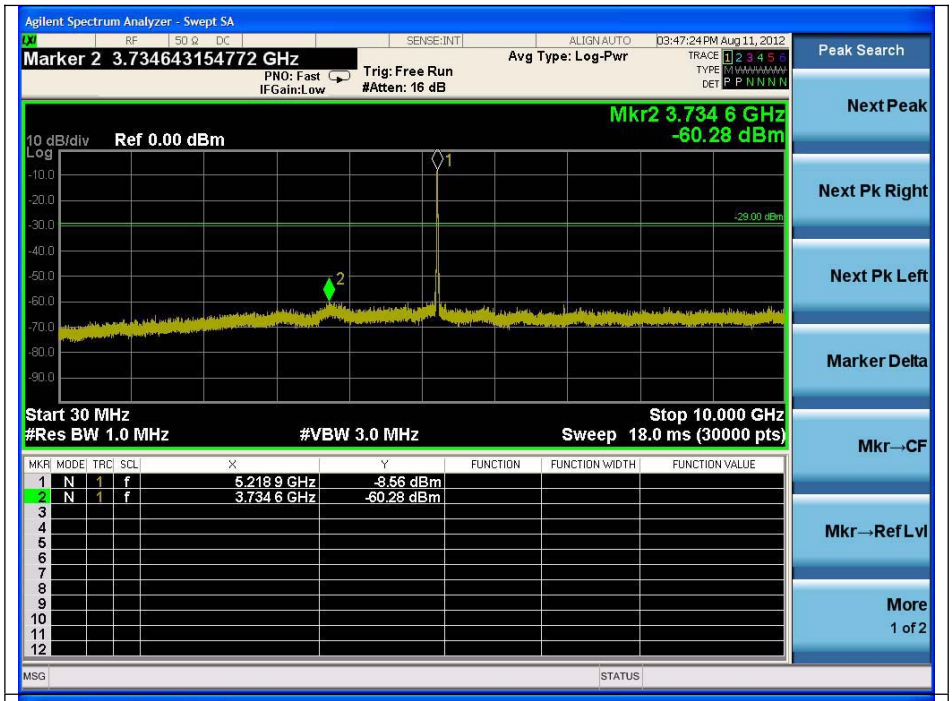


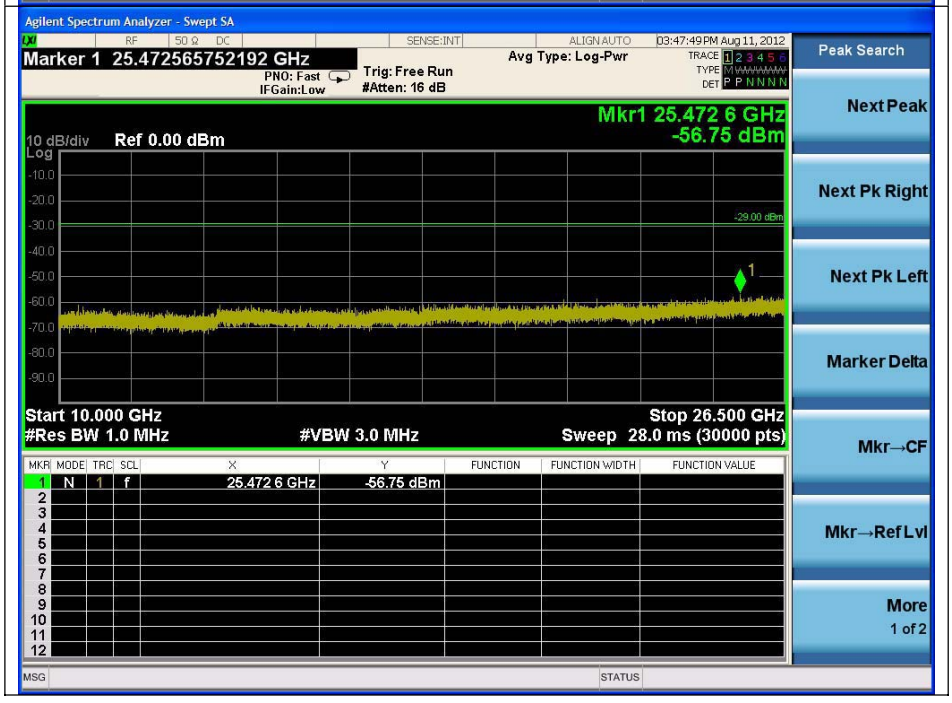


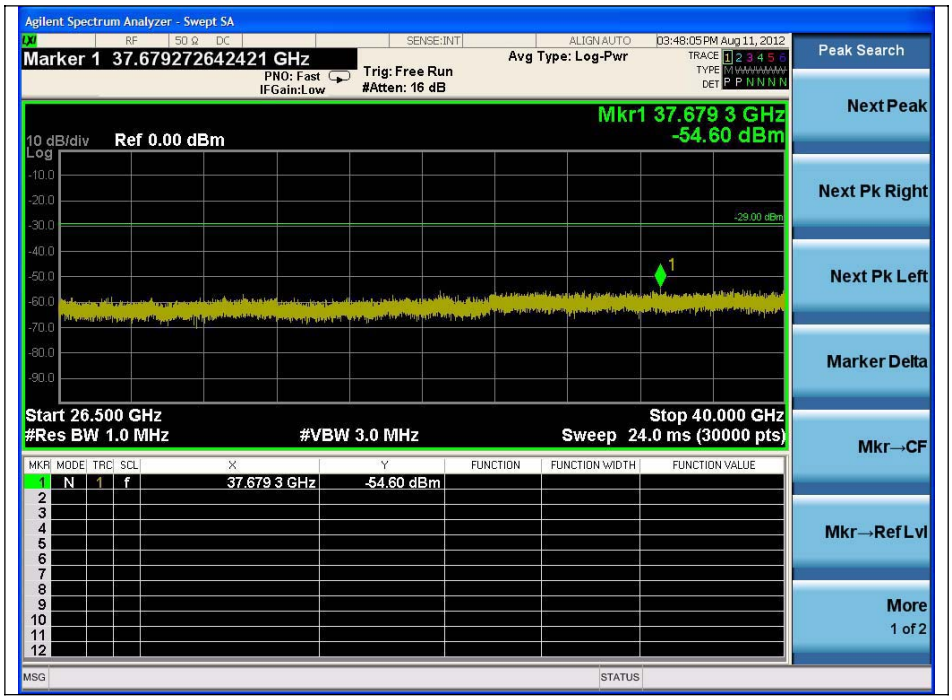
Note:
Offset (dB) = Power Divider (dB) + Attenuator (dB) + Cable loss (dB)
Result (dB m) = Spurious offset (dB) + Reading values (dB m)

Frequency (MHz)	offset (dB)	Reading values (dB m)	Result (dB m)
3 757.2	Noise Level	-	-
25 675.0	Noise Level	-	-
38 345.7	Noise Level	-	-

5 220 ㎒



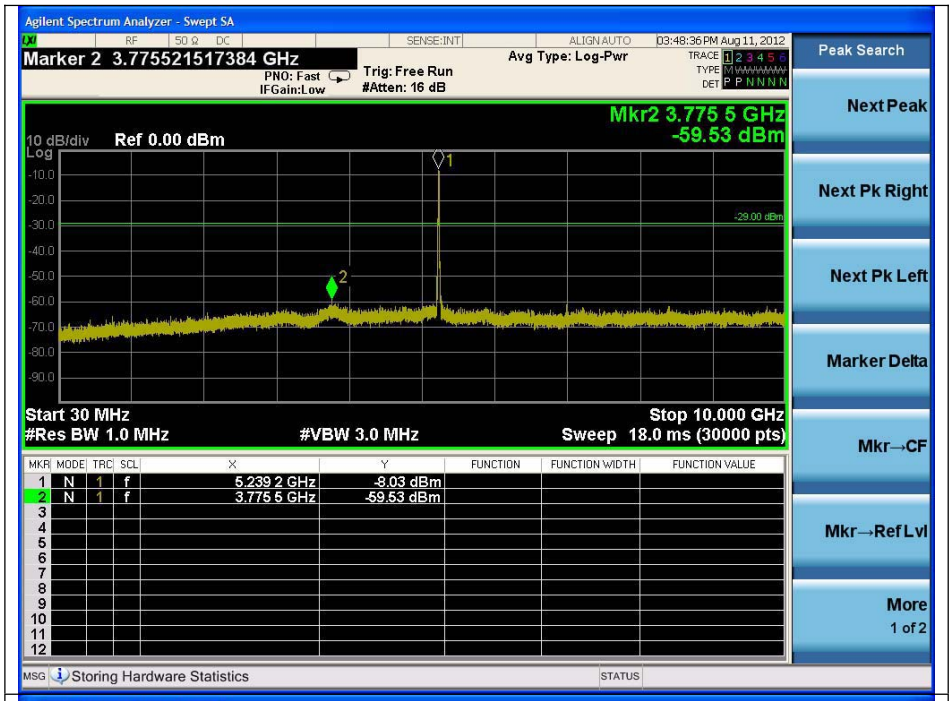


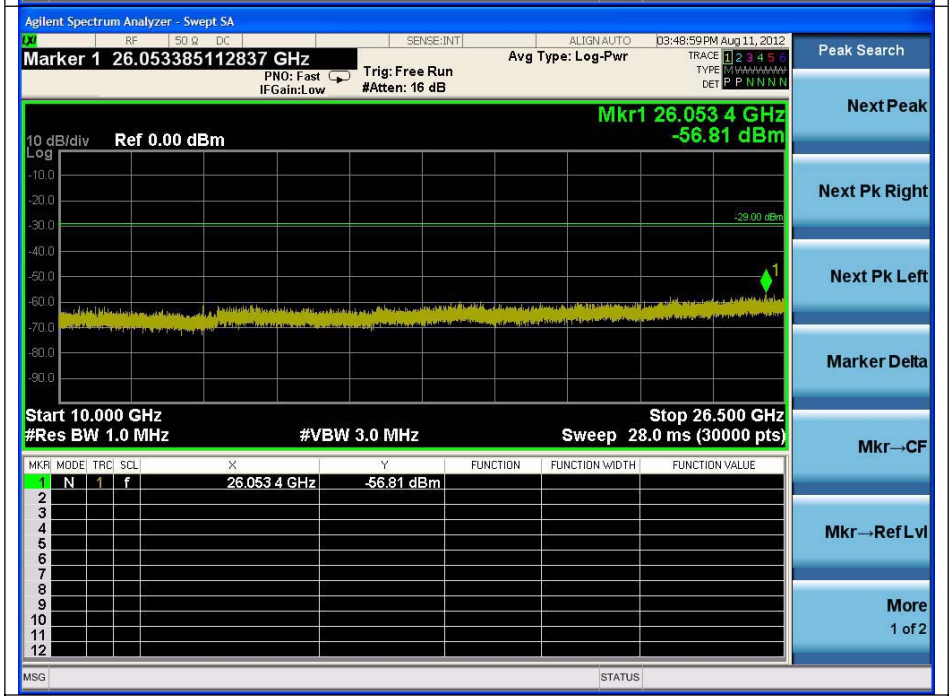


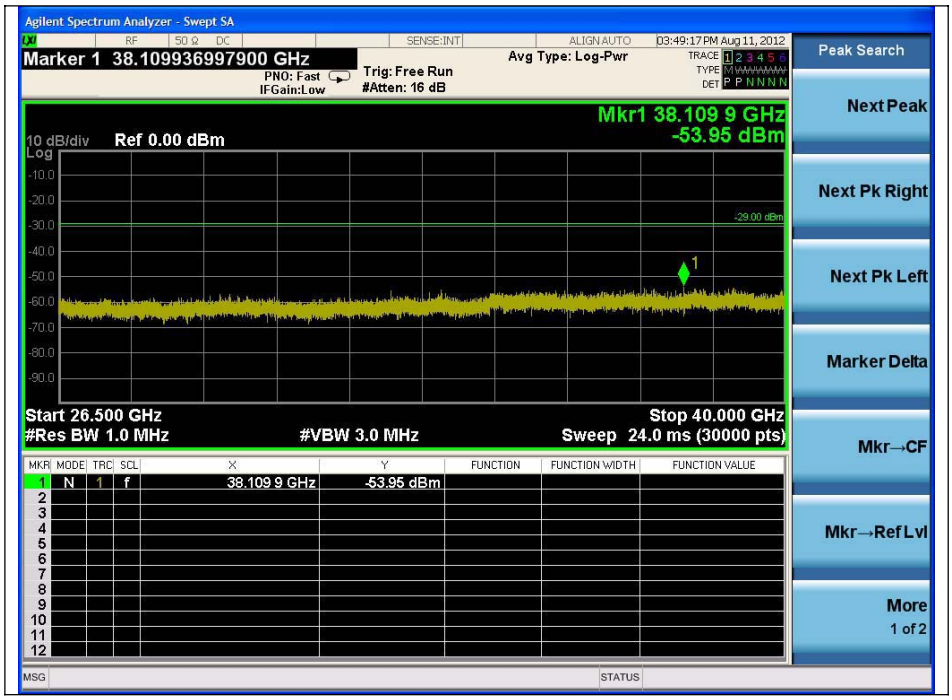
Note:
Offset (dB) = Power Divider (dB) + Attenuator (dB) + Cable loss (dB)
Result (dB m) = Spurious offset (dB) + Reading values (dB m)

Frequency (㎒)	offset (dB)	Reading values (dB m)	Result (dB m)
3 734.6	Noise Level	-	-
25 472.6	Noise Level	-	-
37 679.3	Noise Level	-	-

5 240 ㎒





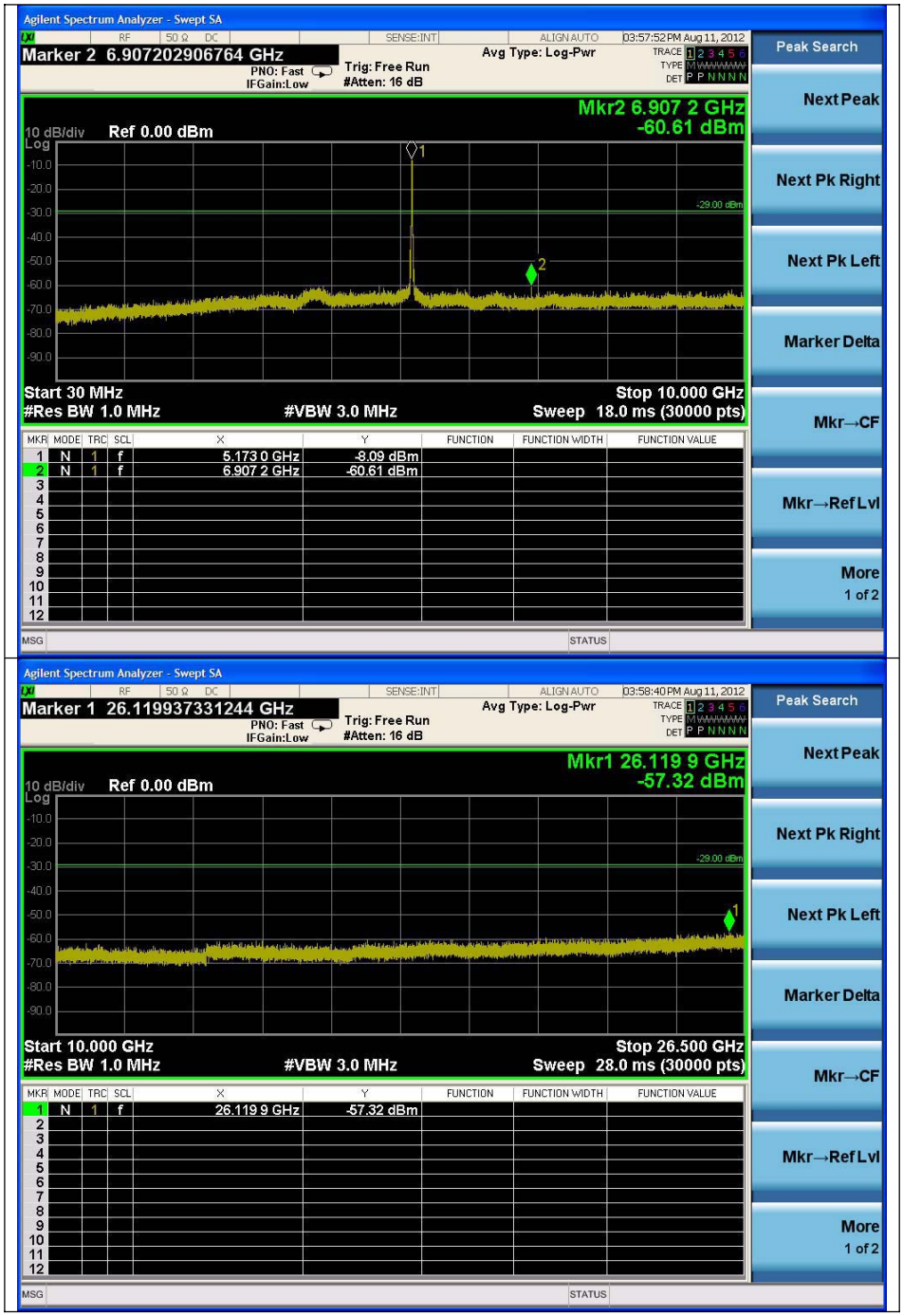


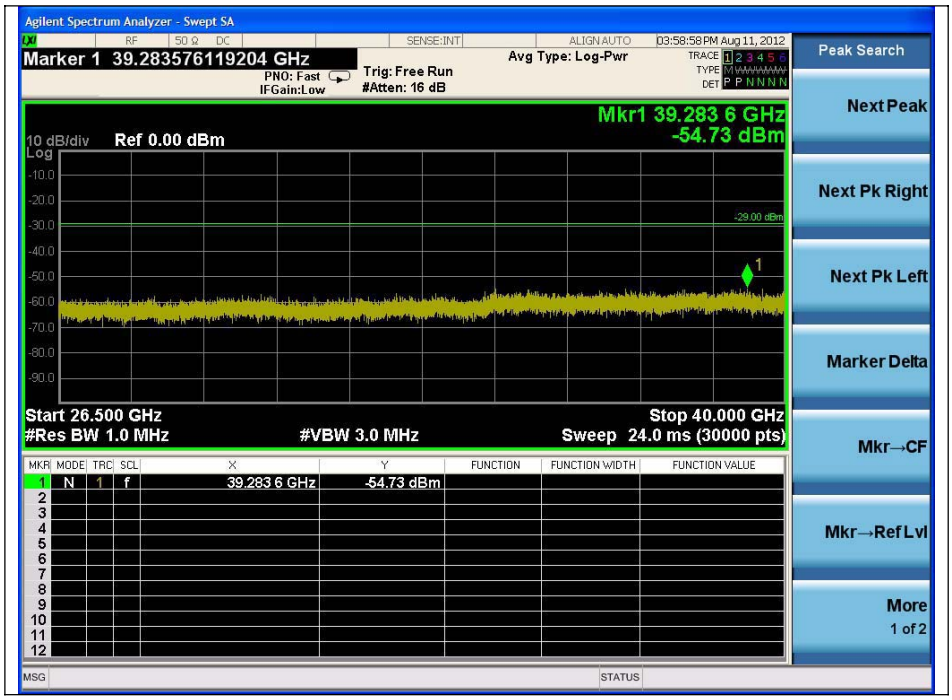
Note:
Offset (dB) = Power Divider (dB) + Attenuator (dB) + Cable loss (dB)
Result (dB m) = Spurious offset (dB) + Reading values (dB m)

Frequency (MHz)	offset (dB)	Reading values (dB m)	Result (dB m)
3 775.5	Noise Level	-	-
26 053.4	Noise Level	-	-
38 109.9	Noise Level	-	-

802.11n-HT20 (Non-DFS)_MCS0

5 180 ㎒





Note:
Offset (dB) = Power Divider (dB) + Attenuator (dB) + Cable loss (dB)
Result (dB m) = Spurious offset (dB) + Reading values (dB m)

Frequency (MHz)	offset (dB)	Reading values (dB m)	Result (dB m)
6 907.2	18.00	-60.61	-42.61
26 119.9	Noise Level	-	-
39 283.6	Noise Level	-	-