APPLICATION FOR CERTIFICATION

On Behalf of

Proximiant, Inc.

NFC Dongle

Model No. : PX136U01

Brand : Proximiant

FCC ID : 2AAJH-PX136U01

Prepared for

Proximiant, Inc.
800 West EI Camino Real, Ste 180 Mountain View, CA94094

Prepared by

Audix Technology (Wujiang) Co., Ltd. EMC Dept.
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Report Number : ACWE-F1306009
Date of Test : Jun.15~Jul.30, 2013
Date of Report : Jul.30, 2013

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TEST REPORT CERTIFICATION

Applicant	:	Proximiant, Inc.
Manufacturer	:	Shanghai HANK Connection Co., Ltd.
Factory	:	Shanghai HANK Connection Co., Ltd.
EUT Description	:	NFC Dongle
FCC ID	:	2AAJH-PX136U01
(A) Model No.	:	PX136U01
(B) Brand	:	Proximiant
(C) Power Supply	:	DC 5V/ 230mA
(D) Test Voltage	:	AC 120V, 60Hz

Applicable Standards:

FCC RULES AND REGULATIONS PART 15 SUBPART C, Oct. 2012
(FCC CFR 47 Part 15C, §15.207, §15.209, §15.215 and §15.225)
ANSI C63.4-2009

The device described above was tested by Audix Technology (Wujiang) Co., Ltd. EMC Dept. to determine the maximum emission levels emanating from the device. The maximum emission levels were compared to the FCC Part 15 subpart C section 15.207, 15.209, 15.215&15.225 limits.

The measurement results are contained in this test report and Audix Technology (Wujiang) Co., Ltd. EMC Dept. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC limits.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Wujiang) Co., Ltd. EMC Dept.

Date of Test: Jun.15~Jul.30, 2013 Date of Report: Jul.30, 2013

Prepared by : Tina Zhang
(Tina Zhang/Assistant)

Reviewer : Jingo Lin
(Jingo Lin/Section Manager)

Approved & Authorized Signer : Allen Wang
(Allen Wang/ Deputy General Manager)

1. SUMMARY OF MEASUREMENTS AND RESULTS

The EUT has been tested according to the applicable standards and test results are referred as below.

Description of Test Item	FCC Part Section	Results
Powerline Conducted Emission 150kHz-30MHz	15.207	PASS
In-Band Emission	15.225(a)(b)(c)	PASS
Out-of-Band Emission	15.225(d) 15.209	PASS
20 dB Bandwidth	15.215	PASS
Frequency Stability Tolerance	15.225(e)	PASS

2. GENERAL INFORMATION

2.1. Description of Device (EUT)

Description	:	NFC Dongle
Model No.	:	PX136U01
FCC ID	:	2AAJH-PX136U01
Brand	:	Proximiant
Applicant	:	Proximiant, Inc. 800 West EI Camino Real, Ste 180 Mountain View, CA94094
Manufacturer	:	Shanghai HANK Connection Co., Ltd. No.9655 TingWei RD, Tinglin Town, JinShan Zone, Shanghai City, China
Factory	:	Shanghai HANK Connection Co., Ltd. No.9655 TingWei RD, Tinglin Town, JinShan Zone, Shanghai City, China
Radio Technology	:	NFC
Fundamental Range	:	13.56 MHz
Tested Frequency	:	13.56 MHz
Modulation Type	:	ASK
Date of Receipt of Sample	:	Jun.15, 2013
Date of Test	:	Jun.15~Jul.30, 2013

2.2. Operating Condition of EUT

2.2.1. Set up the EUT as showed in respective block diagram of test setup.

2.2.2. Turn on the power of all equipment.

2.2.3. Connect the EUT to notebook computer, then the notebook computer drives test software "Proximiant FCC Tool. Version for 2.0.4882.33064".

2.2.4. The other peripheral devices were driven and operated in turn during all testing.

2.3. Tested Supporting System Details

2.3.1. Printer

Manufacturer	:	HP
Model Number	:	DESKJET3918
Serial Number	:	CN64S1N0T6
USB Cable	:	Shielded, Detachable, 2.0m
AC Adapter	:	HP/090-4397 I/P:100-240V, 50-60Hz, 500mA, O/P: +32Vdc, 500mA max +15Vdc, 530mA max BSMI No.: R33160 AC Cord: Unshielded, Detachable, 1.8m DC Cord: Shielded, Undetectable, 1.8m, bonded 1 ferrite core

2.3.2. USB HDD

Manufacturer	:	BUFFALO
Model Number	:	HD-PCU2
Serial Number	:	75293916858283
Data Cable	:	Shielded, Undetectable, 1.5m, bonded 1 ferrite core

2.3.3. Notebook Computer

Manufacturer	:	MEDION
Model Number	:	M10B1
AC Adapter	:	KSAFK1900474T1M2 I/P:100-240V, 50/60Hz, 1.2A, O/P: +19Vdc, 4.74A AC Cord: Unshielded, Detachable, 1.8m DC Cord: Shielded, Undetectable, 1.8m, bonded 1 ferrite core

2.4. Description of Test Facility

Name of Firm	:	**Audix Technology (Wujiang) Co., Ltd. EMC Dept.**
Site Location	:	No. 1289 Jiangxing East Road, the Eastern Part of Wujiang Economic Development Zone Jiangsu China 215200
Test Facilities	:	**No.1 10m semi-anechoic chamber** **No.1 Conducted Shielding Enclosure** **RF Fully Chamber**
NVLAP Lab Code	:	200786-0 (NVLAP is a NATA accredited body under Mutual Recognition Agreement) Valid until on Sep.30, 2013

2.5. Measurement Uncertainty

Test Item	Range Frequency	Uncertainty
Conducted Disturbance Measurement	0.15MHz ~ 30MHz	± 2.36dB
Radiated Disturbance Measurement (At 10m Chamber)	30MHz ~ 1000MHz	± 3.06dB (Horizontal)
		± 3.10dB (Vertical)

Remark: Uncertainty = $ku_c(y)$

Test Item	Uncertainty
20 dB Bandwidth	± 3.1×10^{-6} MHz
Frequency Stability	

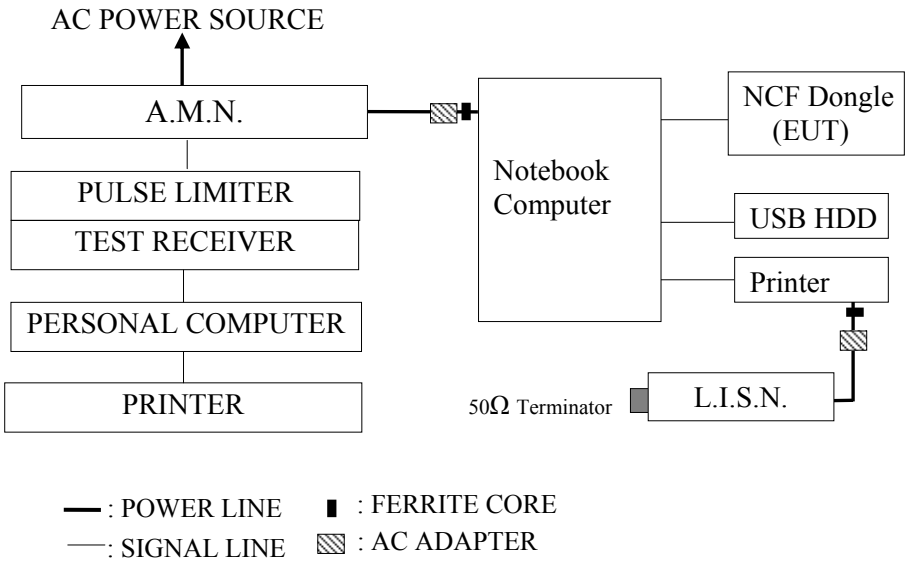
Remark: Uncertainty = $ku_c(y)$

3. CONDUCTED EMISSION MEASUREMET

3.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R & S	ESCI	100839	2013-01-05	2014-01-04
2.	A.M.N.	R & S	ESH2-Z5	100153	2013-05-17	2014-05-16
3.	L.I.S.N	Kyoritsu	KNW-407	8-1793-3	2012-08-06	2013-08-05
4.	Pulse Limiter	R & S	ESH3-Z2	100605	2013-01-05	2014-01-04
5.	50Ω Terminator	Tektronis	MS4630B	001-con	2013-01-05	2014-01-04
6.	RF Cable	Harbour Industries	RG400	003	2013-03-24	2014-03-23

3.2. Block Diagram of Test Setup



3.3. Power line Conducted Emission Limit

3.3.1. Power line Conducted Emission Limit (FCC Part 15, Section 15.207, Class B)

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level	Average Level
150kHz ~ 500kHz	66 ~ 56 dBμV	56 ~ 46 dBμV
500kHz ~ 5MHz	56 dBμV	46 dBμV
5MHz ~ 30MHz	60 dBμV	50 dBμV

Remark1: If the average limit is met when using a Quasi-Peak detector, the EUT shall be deemed to meet both limits and measurement with the average detector is unnecessary.

2: The lower limit applies at the band edges.

3.4. Test Procedure

The measuring process is according to ANSI C63.4 and laboratory internal procedure TKC-301-015. (For FCC Part15 Subpart C)

In the conducted emission measurement, the EUT and all peripheral devices were set up on a non-metallic table which was 0.8 meters height above the ground plane, and 0.4 meters far away from the vertical plane. The EUT (installed in PC system) was powered by AC mains through Artificial Mains Network (A.M.N), other peripheral devices were powered by AC mains through the second Line Impedance Stabilization Network (L.I.S.N). For the measurement, the A.M.N measuring port was terminated by a 50Ω measuring equipment and the second L.I.S.N measuring port was terminated by a 50Ω resistive load. All measurements were done on the phase and neutral line of the EUT's power cord. All cables or wires placement were verified to find out the maximum emission.

The bandwidth of measuring receiver was set at 9 kHz.

The required frequency band (0.15 MHz ~ 30 MHz) was pre-scanned with peak detector, the final measurement was measured with quasi-peak detector and average detector. (If the average limit is met when using a quasi-peak detector, the average detector is necessary).

The emission level is calculated automatically by the test system which uses the following equation:

Emission level (dBμV) = Meter-Reading (dBμV) + A.M.N factor (dB) + Cable loss (dB).

(Cable loss include pulse limiter loss)

3.5. Conducted Emission Measurement Results

3.5.1. Conducted Emission Measurement Results (For FCC Part15 Subpart C)

PASSED.

(All the emissions not reported below are too low against the prescribed limits.)

EUT was performed during this section testing and all the test results are attached in next pages.

Test Date：Jun.16, 2013 Temperature：20.2℃ Humidity：35%

Mode	Test Condition	Reference Test Data No.	
		Neutral	Line
1	Operating	# 1	# 2

NOTE 1- '※'means the worst test mode**.**

NOTE 2- The worst emission is detected at 13.56 MHz with emission level of 44.44 dB (μV) and with AV detector (Limit is 50.00 dB (μV)), when the Line of the EUT is connected to AMN.

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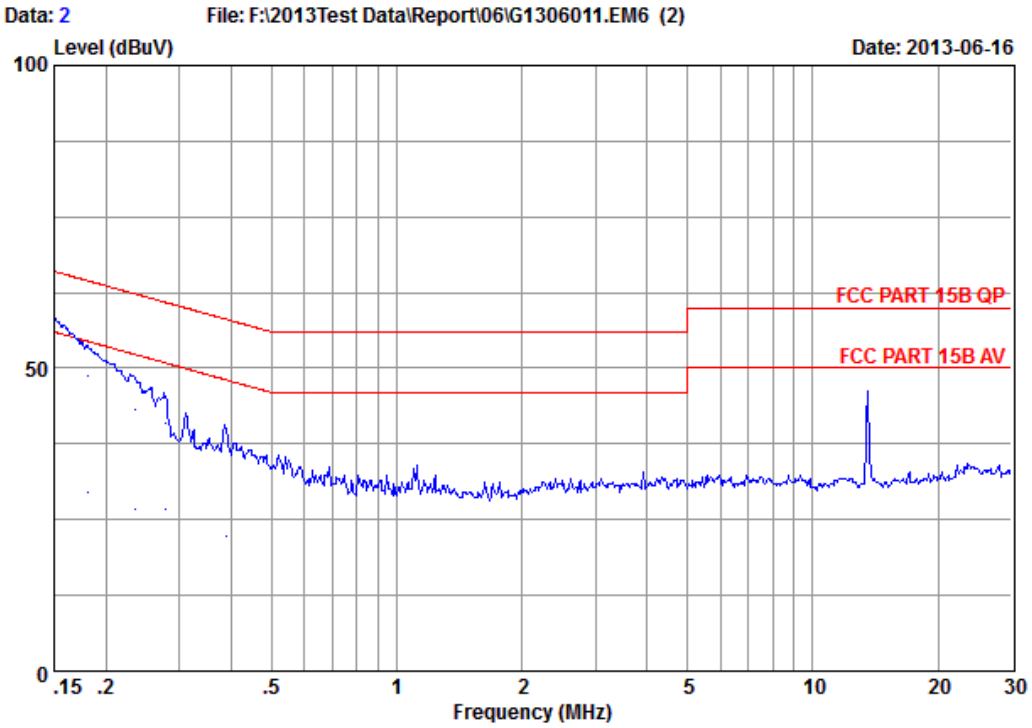

Site no. : No.1 Conducted shielding Enclosure
AMN/LISN : ESH2-Z5-1205
Limit : FCC PART 15B QP
Env. / Ins. : 20.2*C&35%/ESCI
EUT : NFC Dongle
M/N : PX136U01
Power Rating : 120Vac/60Hz
Test mode : Operating
Memo :

Data no. : 2
Phase : NEUTRAL
Engineer : KM Tong

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15	0.17	9.86	42.81	52.84	66.00	13.16	QP
2	0.15	0.17	9.86	23.91	33.94	56.00	22.06	Average
3	0.18	0.17	9.87	19.60	29.64	54.44	24.80	Average
4	0.18	0.17	9.87	38.60	48.64	64.44	15.80	QP
5	0.23	0.17	9.87	33.20	43.24	62.31	19.07	QP
6	0.23	0.17	9.87	16.60	26.64	52.31	25.67	Average
7	0.28	0.18	9.86	30.90	40.94	60.91	19.97	QP
8	0.28	0.18	9.86	16.60	26.64	50.91	24.27	Average
9	0.39	0.18	9.87	12.10	22.15	48.11	25.96	Average
10	0.39	0.18	9.87	29.20	39.25	58.11	18.86	QP
11	13.56	0.58	10.04	33.10	43.72	50.00	6.28	Average
12	13.56	0.58	10.04	34.10	44.72	60.00	15.28	QP

1.Emission Level= AMN Factor + Cable Loss + Reading.
2.If the average limit is met when useing a quasi-peak detector,the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

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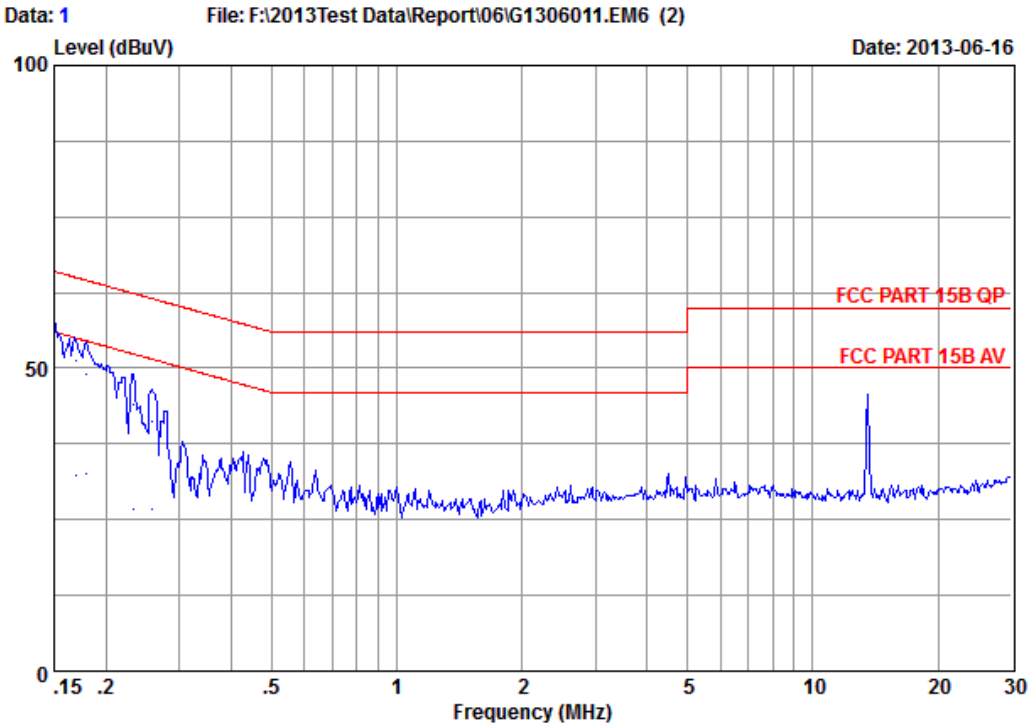


Site no. : No.1 Conducted shielding Enclosure
AMN/LISN : ESH2-Z5-1205
Limit : FCC PART 15B QP
Env. / Ins. : 20.2*C&35%/ESCI
EUT : NFC Dongle
M/N : PX136U01
Power Rating : 120Vac/60Hz
Test mode : Operating
Memo :

Data no. : 1
Phase : LINE
Engineer : KM Tong

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15	0.23	9.86	43.30	53.39	66.00	12.61	QP
2	0.15	0.23	9.86	25.20	35.29	56.00	20.71	Average
3	0.17	0.23	9.87	22.10	32.20	55.01	22.81	Average
4	0.17	0.23	9.87	41.10	51.20	65.01	13.81	QP
5	0.18	0.24	9.87	38.89	49.00	64.53	15.53	QP
6	0.18	0.24	9.87	22.59	32.70	54.53	21.83	Average
7	0.23	0.25	9.87	33.90	44.02	62.34	18.32	QP
8	0.23	0.25	9.87	16.60	26.72	52.34	25.62	Average
9	0.26	0.26	9.86	16.60	26.72	51.50	24.78	Average
10	0.26	0.26	9.86	31.20	41.32	61.50	20.18	QP
11	13.56	0.70	10.04	33.60	44.34	60.00	15.66	QP
12	13.56	0.70	10.04	33.70	44.44	50.00	5.56	Average

1.Emission Level= AMN Factor + Cable Loss + Reading.
2.If the average limit is met when useing a quasi-peak detector,the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

4. RADIATED SPURIOUS EMISSION MEASUREMENT (IN-BAND)

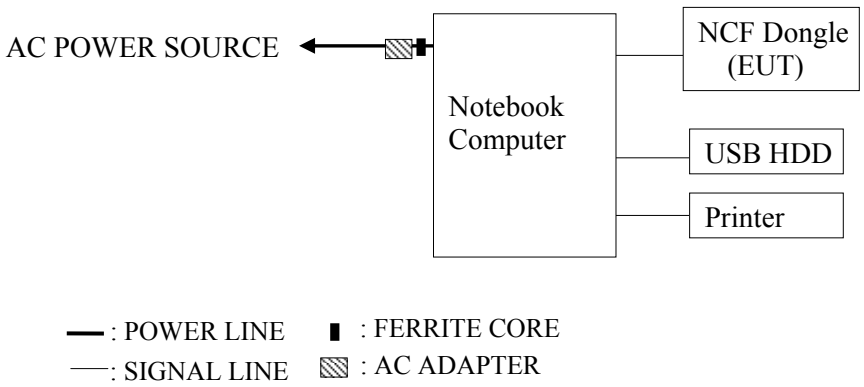
4.1. Test Equipment

The following test equipment was used during the radiated emission measurement:
At 10m Semi-Anechoic Chamber

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E7405A	MY45107030	2013-01-05	2014-01-04
2.	Loop Antenna	CHASE	HLA6120	1193	2013-05-03	2014-05-02

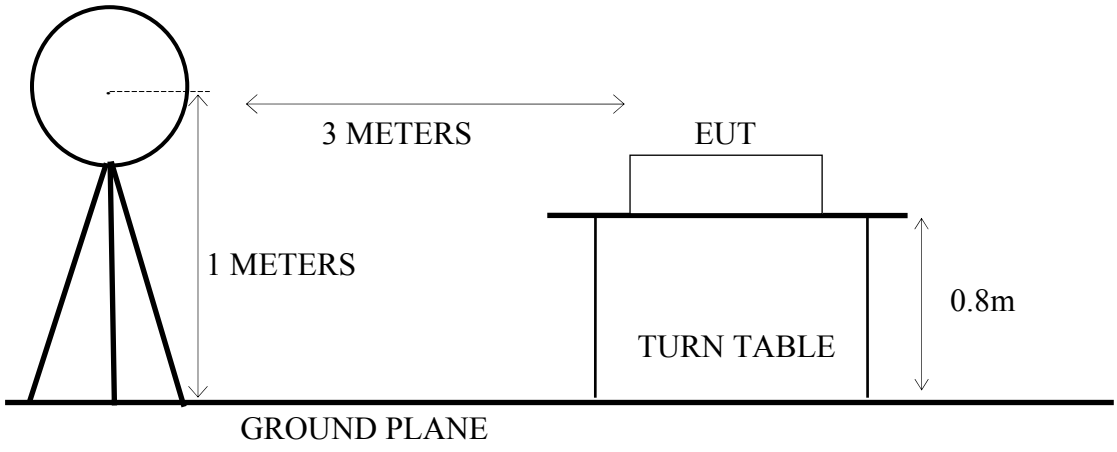
4.2. Block Diagram of Test Setup

4.2.1. Block Diagram of Test Setup between EUT and simulators



4.2.2. No. 1 10m Semi-Anechoic Chamber Setup Diagram (Test distance: 3m) for 9kHz-30MHz

ANTENNA TOWER



4.3. In-Band Radiated Spurious Emission Limits

FCC Part15 C, section 15.225(a)(b)(c)

Fundamental Frequency (MHz)	Distance Meters(m)	Limit	
		μV/m	dBμV/m
13.553-13.567	30	15848	84
	3	1584890	124
13.410-13.553 and 13.567-13.710	30	334	50.50
	3	33381	90.50
13.110-13.410 and 13.710-14.010	30	106	40.5
	3	10592	80.5

Remark： (1) Emission level (dBμV/m) = 20 log Emission level (μV/m)

(2) 15848μV/m=84dBμV/m=84+40log(30m/3m)=124dBμV/m
334μV/m=50.5dBμV/m=50.5+40log(30m/3m)=90.5dBμV/m
106μV/m=40.5dBμV/m=40.5+40log(30m/3m)=80.5dBμV/m

4.4. Test Procedure

The EUT and its simulators were placed on a turn table which was 0.8 meter above the ground. The turn table rotated 360 degrees to determine the position of the maximum emission level. EUT was set 3 meters away from the receiving antenna which was mou7nted on an antenna tower. The antenna fixed to 2 meters to find out the maximum emission level. Loop antenna was used as a receiving antenna. In order to find the maximum emission, all of the interface cables were manipulated according ti FCC ANSI C63.4-2009 regulation.

The bandwidth of the R&S Test Receiver ESCS30 was set at 9kHz.

The frequency range from 30MHz to 1000MHz checked with Peak detector and all final readings of measurement were with Quasi-Peak detector at open area test site.

4.5. Measurement Results

PASSED

(All the emissions not reported below are too low against the prescribed limits.)

Test Date：Jun.15, 2013 Temperature：22.9℃ Humidity：47%

Test Mode: Horizontal

Frequency (MHz)	Antenna Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m) (3m)	Limit (dBuV/m) (3m)	Margin (dB)	Detector
13.26	24.57	0.47	21.88	46.92	80.50	33.58	QP
13.55	24.56	0.48	24.10	49.14	90.50	41.36	QP
13.56	24.56	0.48	29.53	54.57	90.50	35.93	QP
13.58	24.56	0.48	23.53	48.57	90.50	41.93	QP
13.81	24.55	0.48	22.38	47.41	80.50	33.09	QP

Test Mode: Vertical

Frequency (MHz)	Antenna Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m) (3m)	Limit (dBuV/m) (3m)	Margin (dB)	Detector
13.26	24.57	0.47	22.67	47.41	80.50	33.09	QP
13.55	24.56	0.48	31.08	56.12	90.50	34.38	QP
13.56	24.56	0.48	40.34	65.38	90.50	25.12	QP
13.58	24.56	0.48	26.90	51.94	90.50	38.56	QP
13.81	24.55	0.48	22.61	47.64	80.50	32.86	QP

5. RADIATED SPURIOUS EMISSION MEASUREMENT (OUT-BAND)

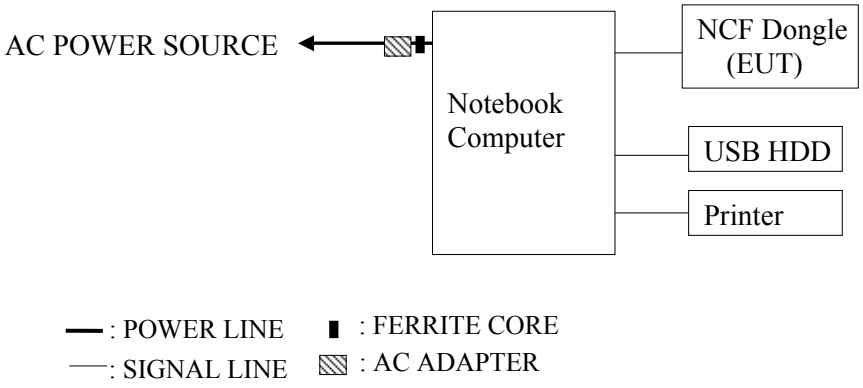
5.1. Test Equipment

The following test equipment was used during the radiated emission measurement:
At 10m Semi-Anechoic Chamber

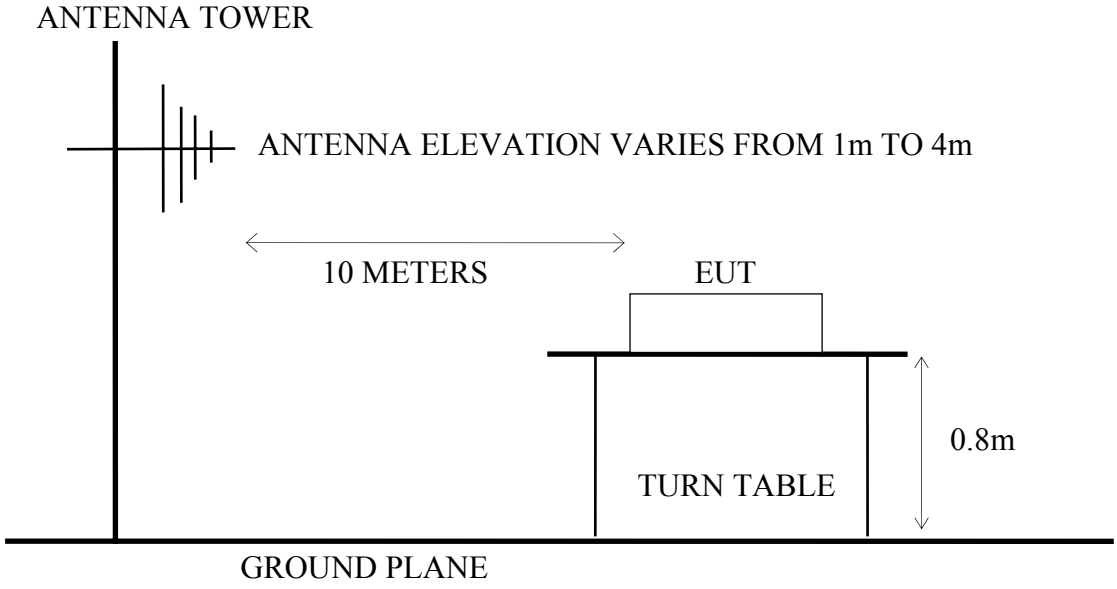
Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E7405A	MY45107028	2013-01-05	2014-01-04
2.	Spectrum Analyzer	Agilent	E7405A	MY45107030	2013-01-05	2014-01-04
3.	Pre-Amplifier	Agilent	8447D	2944A10923	2012-08-14	2013-08-13
4.	Pre-Amplifier	Agilent	8447D	2944A10922	2012-08-14	2013-08-13
5.	Bi-log Antenna (Horizontal)	Schaffner	CBL6112D	22251	2013-04-27	2014-04-26
6.	Bi-log Antenna (Vertical)	Schaffner	CBL6112D	22252	2012-10-18	2013-10-17
7.	Test Receiver	R&S	ESCI	100351	2013-01-05	2014-01-04
8.	50Ω Coaxial Switch # 1	ANRITSU	MP59B	6200547935	2013-03-24	2014-03-23
9.	50Ω Coaxial Switch # 2	ANRITSU	MP59B	6200547937	2013-03-24	2014-03-23
10.	50Ω Coaxial Switch # 3	ANRITSU	MP59B	6200547934	2013-03-24	2014-03-23
11.	RF Cable	Yuhang	CSYH	001	2012-08-14	2013-08-13
12.	RF Cable	Yuhang	CSYH	002	2012-08-14	2013-08-13
13.	RF Cable	Yuhang	CSYH	003	2012-08-14	2013-08-13
14.	RF Cable	Yuhang	CSYH	004	2012-08-14	2013-08-13
15.	RF Cable	Yuhang	CSYH	005	2013-03-24	2014-03-23
16.	RF Cable	Yuhang	CSYH	006	2013-03-24	2014-03-23
17.	RF Cable	Yuhang	CSYH	008	2013-03-24	2014-03-23
18.	RF Cable	Yuhang	CSYH	009	2013-03-24	2014-03-23

5.2. Block Diagram of Test Setup

5.2.1. Block Diagram of Test Setup between EUT and simulators



5.2.2. No. 1 10m Semi-Anechoic Chamber Setup Diagram (Test distance:10m) for 30-1000MHz



5.3. Radiated Emission Limits

5.3.1. Radiated Emission Limits (FCC Part15 C, section 15.209, CISPR22)

Frequency MHz	Distance Meters	Field Strengths Limits dBμV/m
30 ~ 230	10	30.0
230 ~ 1000	10	37.0
Above 1000	3	74.0 dBμV/m (Peak) 54.0 dBμV/m (Average)

Remark： (1) Emission level (dBμV/m) = 20 log Emission level (μV/m)
(2)The tighter limit applies at the edge between two frequency bands.

5.4. Test Procedure

The measuring process is according to ANSI C63.4 and laboratory internal procedure TKC-301-024. (For FCC Part15 Subpart C)

In the radiated disturbance measurement, the EUT and all simulators were set up on a non-metallic turn table which was 0.8 meters above the ground plane. Measurement distance between EUT and receiving antennas was set at 10 meters at 30MHz~1000MHz and 3 meters at above 1GHz. The specified distance is the distance between the antennas and the closest periphery of EUT. During the radiated measurement, the EUT was rotated 360° and receiving antennas were moved from 1 ~ 4 meters for finding maximum emission. Two receiving antennas were used for both horizontal and vertical polarization detection for 30MHz~1GHz, One receiving antennas was used for both horizontal and vertical polarization detection for above 1GHz (the absorbing material was added when testing of above 1GHz was done). All cables or wires placement were verified to find out the maximum emission.

The bandwidth of measuring receiver (or spectrum analyzer) was set to:

RBW (120 kHz), VBW (300 kHz) for QP detector below 1GHz
RBW (1 MHz), VBW (1MHz) for Peak detector above 1GHz
RBW (1 MHz), VBW (10 Hz) for Peak detector above 1GHz

The required frequency band (30 MHz ~ 12000 MHz) was pre-scanned with peak detector; all final measurements were measured with quasi-peak detector below 1GHz, measured with average detector and peak detector above 1GHz.

The emission level is calculated automatically by the test system which uses the following equation：

1. For 30-1000MHz measurement:
   Emission Level (dBμV/m) = Meter-Reading (dBμV)+Antenna Factor (dB/m)+Cable Loss (dB)
2. For Above 1GHz measurement:
   Emission Level (dBμV/m) = Meter-Reading (dBμV)+Antenna Factor (dB/m)+Cable Loss(dB) -Pre-amplifier factor (dB)

5.5. Measurement Results

PASSED
(All the emissions not reported below are too low against the prescribed limits.)

Test Date：Jun.15, 2013 Temperature：22.9℃ Humidity：47%

Mode	Test Condition	Reference Test Data No.	
		Neutral	Line
1	Operating	# 3	# 4

NOTE 1 - 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

NOTE 2 - The worst emission at horizontal polarization was detected at 482.99 MHz with emission level of 22.98 dBμV/m (limit is 37.00 dBμV/m), when the antenna was 2.1 m height and the turntable was at 175°. The worst emission at vertical polarization was detected at 31.94 MHz with emission level of 16.04 dBμV/m (limit is 30.00 dBμV/m), when the antenna was 1.0m height and the turntable was at 180°.

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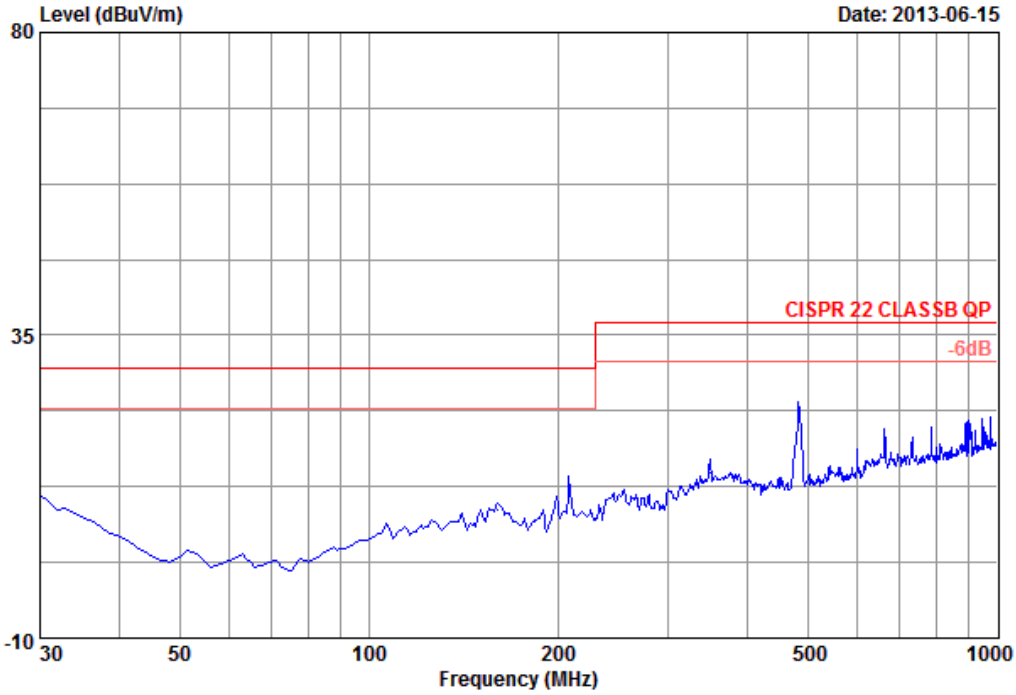
Data: 3 File: G:\TEST DATA\2013\Report\6\G1306011.EM6 (4)



Site No. : NO.1 10m Semi-Anechoic Chamber
Dis./Ant. : 10m . 6112D(51)-1304-H-10M
Env./Ins. : 22.9*C 47%/ESCI
EUT. : NFC Dongle
M/N : PX136U01
Power Rating: 120Vac/60Hz
Test Mode : Operating
Memo :

Data NO. : 3
Ant.pol : HORIZONTAL
Engineer : Kevin

	Freq. (MHz)	Ant. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	159.98	10.00	2.15	-2.98	9.17	30.00	20.83	QP
2	208.48	9.50	2.49	0.01	12.00	30.00	18.00	QP
3	349.13	14.42	3.30	-3.11	14.61	37.00	22.39	QP
4	482.99	17.26	3.90	1.82	22.98	37.00	14.02	QP
5	662.44	19.63	4.66	-4.25	20.04	37.00	16.96	QP
6	785.63	19.99	5.16	-5.88	19.27	37.00	17.73	QP

Remarks: 1.Emission Level= Antenna factor + Cable loss + Reading
2.The emission level that are 20dB below the offical limit are not reported

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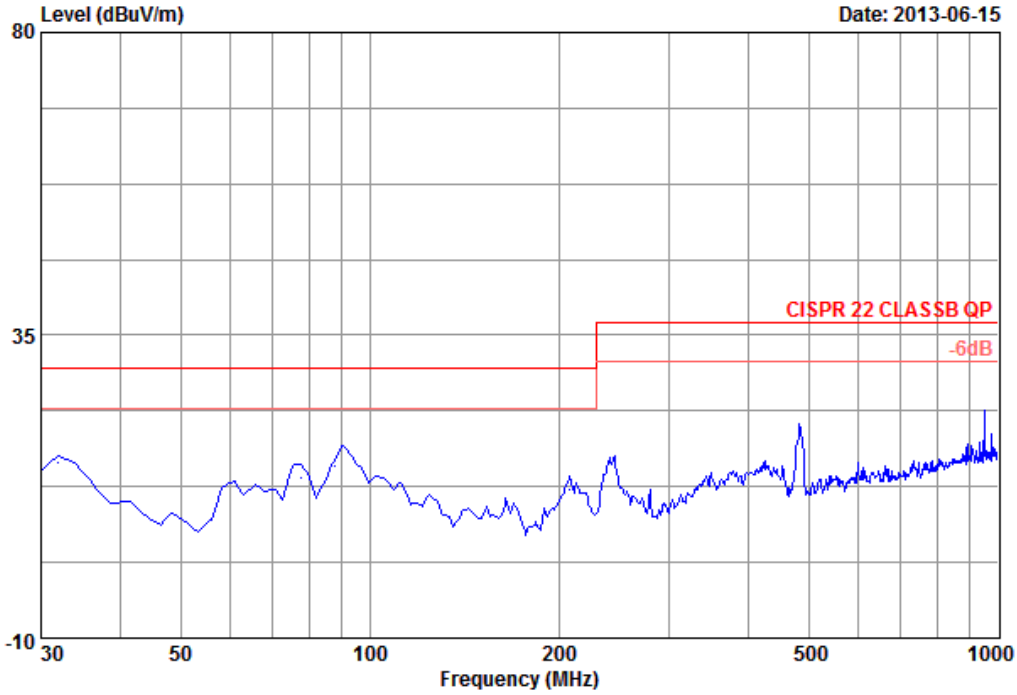
Data: 4 File: G:\TEST DATA\2013\Report\6\G1306011.EM6 (4)



Site No. : NO.1 10m Semi-Anechoic Chamber
Dis./Ant. : 10m . 6112D(52)-1210-V-10M
Env./Ins. : 22.9*C 47%/ESCI
EUT. : NFC Dongle
M/N : PX136U01
Power Rating: 120Vac/60Hz
Test Mode : Operating
Memo :

Data NO. : 4
Ant.pol : VERTICAL
Engineer : Kevin

	Freq. (MHz)	Ant. Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	31.94	18.50	0.76	-3.22	16.04	30.00	13.96	QP
2	77.53	6.80	1.18	5.94	13.92	30.00	16.08	QP
3	88.02	8.90	1.30	5.40	15.60	30.00	14.40	QP
4	208.48	9.00	2.07	1.08	12.15	30.00	17.85	QP
5	245.34	12.00	2.27	1.79	16.06	37.00	20.94	QP
6	482.99	17.47	3.36	-0.05	20.78	37.00	16.22	QP

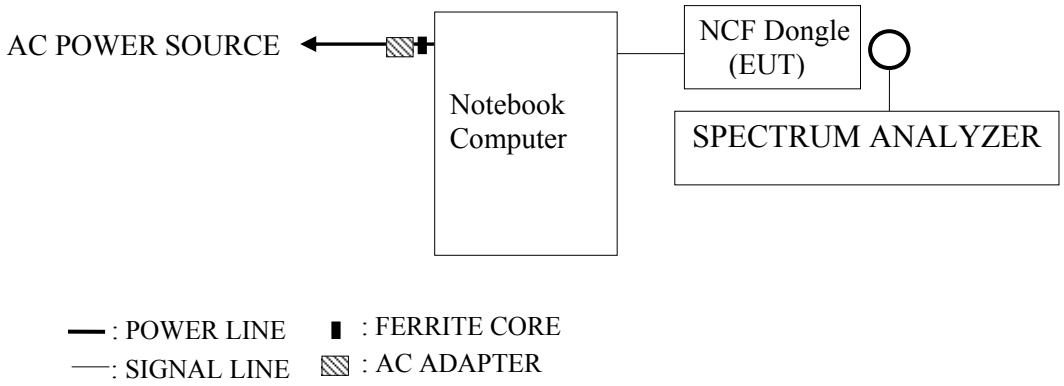
Remarks: 1.Emission Level= Antenna factor + Cable loss + Reading
2.The emission level that are 20dB below the offical limit are not reported

6. 20 dB BANDWIDTH MEASUREMENT

6.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4447A	MY45300136	2013-01-05	2014-01-04

6.2. Block Diagram of Test Setup



6.3. Specification Limits (§15.215(c))

The 20dB bandwidth shall be specified in operating frequency band.

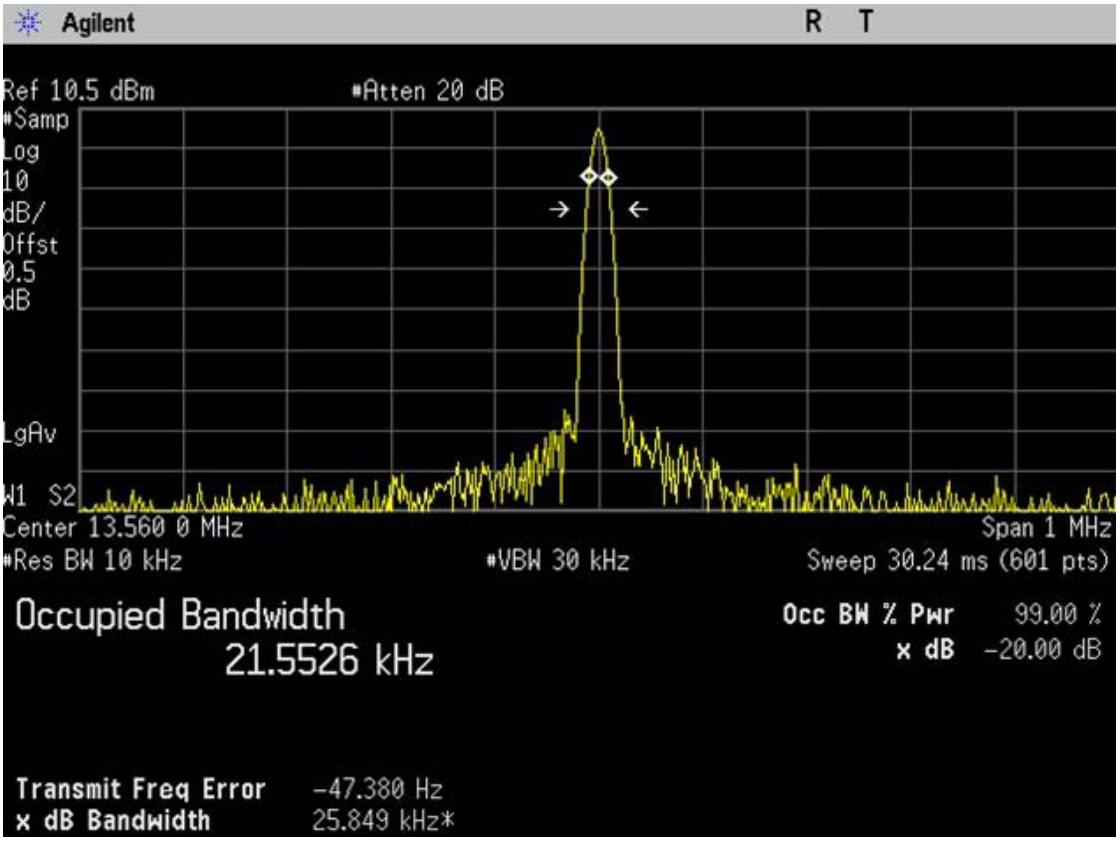
6.4. Test Procedure

The 20dB bandwidth is measured with a spectrum analyzer connected via receiver antenna placed near the EUT while the EUT is operating in transmission mode.

6.5. Test Results

PASSED. All the test results are attached in next pages.

Test Frequency	6dB Bandwidth
13.56MHz	25.849 kHz


Agilent
R T
Ref 10.5 dBm
#Atten 20 dB
#Samp
Log
10
dB/
Offst
0.5
dB
LgAv
W1 S2
Center 13.560 0 MHz
Span 1 MHz
#Res BW 10 kHz
#VBW 30 kHz
Sweep 30.24 ms (601 pts)
Occupied Bandwidth
21.5526 kHz
Occ BW % Pwr 99.00 %
x dB -20.00 dB
Transmit Freq Error -47.380 Hz
x dB Bandwidth 25.849 kHz*

7. DUTY CYCLE MEASUREMENT

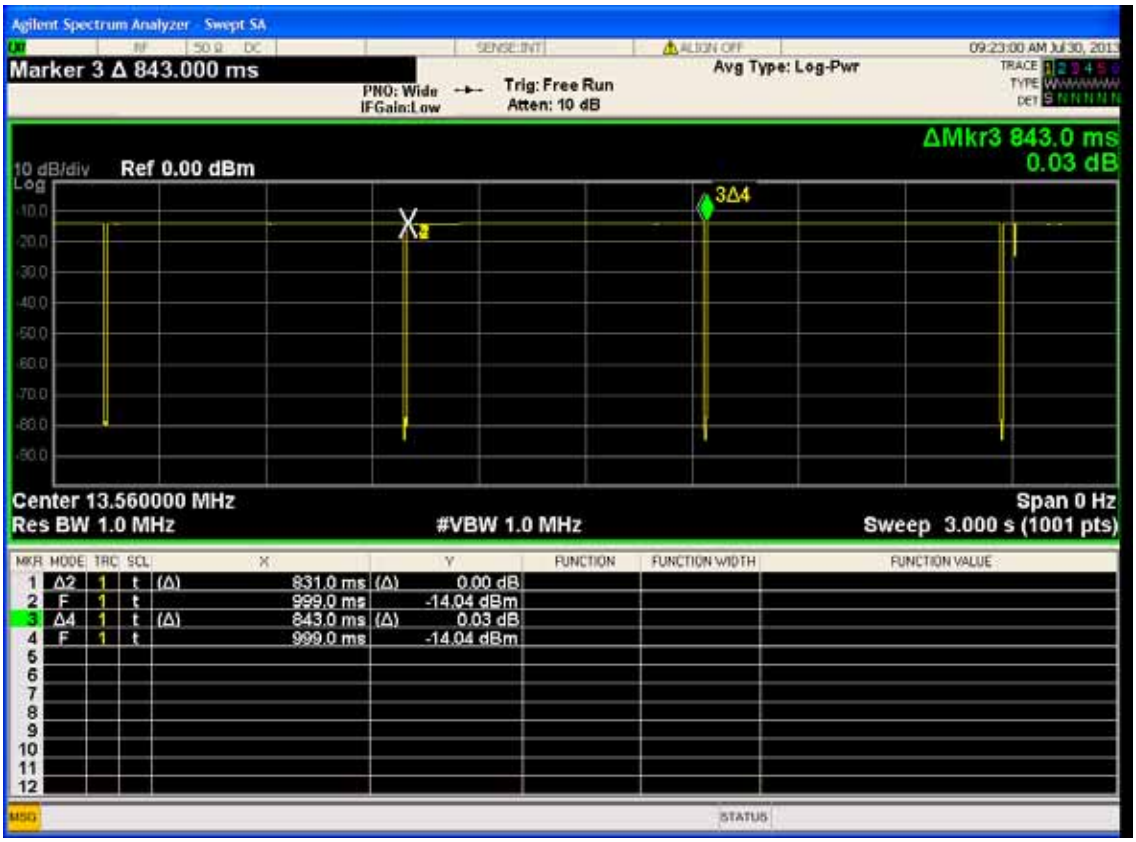
7.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	N9030A	MY53120367	2013-06-24	2014-06-23

7.2. Block Diagram of Test Setup

Same as section 6.2.

7.3. Test Results



Ton / (Ton+Toff) = 98.58%

8. FREQUENCY STABILITY MEASUREMENT

8.1. Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Spectrum Analyzer	Agilent	E4447A	MY45300136	2013-01-05	2014-01-04
2.	HP Series	Titech	MHQ-120 CLUB	A60614	2012-08-06	2013-08-05

8.2. Block Diagram of Test Setup

Same as section 6.2.

8.3. Specification Limits (§15.225(c))

The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency over a temperature variation of -20degrees to 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

8.4. Test Procedure

The device operating in the 13.553-13.567MHz shall maintain the carrier frequency within 0.01% of the operating frequency over the temperature variation of -20 degrees to+50degrees C at normal supply voltage.

8.5. Test Results

PASSED. All the test results are attached in next pages.

Test Mode: 2 Minute

Temperature (℃)	-20	-10	0	10	20	30	40	50
Voltage	AC 102V	AC 102V	AC 102V	AC 102V	AC 102V	AC 102V	AC 102V	AC 102V
Frequency (MHz)	13.5603	13.5602	13.5602	13.5600	13.5600	13.5601	13.5600	13.5600
Error(%)	0.00221	0.00147	0.00147	0	0	0.00073	0	0

Test Mode: 5 Minute

Temperature (℃)	-20	-10	0	10	20	30	40	50
Voltage	AC 120V	AC 120V	AC 120V	AC 120V	AC 120V	AC 120V	AC 120V	AC 120V
Frequency (MHz)	13.5601	13.5602	13.5601	13.5600	13.5599	13.5600	13.5601	13.5600
Error(%)	0.00073	0.00147	0.00073	0	-0.0007	0	0.00073	0

Test Mode: 10 Minute

Temperature (℃)	-20	-10	0	10	20	30	40	50
Voltage	AC 138V	AC 138V	AC 138V	AC 138V	AC 138V	AC 138V	AC 138V	AC 138V
Frequency(MHz)	13.5601	13.5601	13.5602	13.5600	13.5601	13.5600	13.5600	13.5600
Error(%)	0.00073	0.00073	0.00147	0	0.00073	0	0	0

9. DEVIATION TO TEST SPECIFICATIONS

【NONE】