

FCC 47 CFR PART 15 SUBPART C

Product Type : Navii RF Remote Control - 17
Applicant : J-MEX, Inc.
Address : B2, 3F, No. 1, Li-Hsin 1st Road, SBIP, HsinChu, Taiwan, R.O.C.
Trade Name : Navii
Model Number : NKS-1003
Test Specification : FCC 47 CFR PART 15 SUBPART C: Oct., 2013
ANSI C63.4:2009
Receive Date : Jun. 05, 2014
Test Period : Jun. 12, 2014
Issue Date : Jun. 30, 2014

Issue by

A Test Lab Techno Corp.
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Taiwan Accreditation Foundation accreditation number: 1330

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Revision History

Rev.	Issue Date	Revisions	Revised By
00	Jun. 30, 2014	Initial Issue	

Verification of Compliance

Issued Date: 06/30/2014

Product Type : Navii RF Remote Control - 17
Applicant : J-MEX, Inc.
Address : B2, 3F, No. 1, Li-Hsin 1st Road, SBIP, HsinChu, Taiwan, R.O.C.
Trade Name : Navii
Model Number : NKS-1003
FCC ID : XXANKS-1003
EUT Rated Voltage : DC 3.0V
Test Voltage : DC 3.0V
Applicable Standard : FCC 47 CFR PART 15 SUBPART C: Oct., 2013
ANSI C63.4:2009
Test Result : Complied
Application Purpose : Original
Performing Lab. : A Test Lab Techno Corp.

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Taiwan Accreditation Foundation accreditation number: 1330
<http://www.atl-lab.com.tw/e-index.htm>

The above equipment was tested by A Test Lab Techno Corp. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4: 2009 and the energy emitted by the sample tested as described in this report is in compliance with the requirements of FCC Rules Part 15.207, 15.209, 15.247 .

The test results of this report relate only to the tested sample identified in this report.

Approved By : Fly Lu Reviewed By : Eric Ou Yang
(Manager) (Fly Lu) (Testing Engineer) (Eric Ou Yang)

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1 General Information

1.1. Summary of Test Result

Standard		Item	Result	Remark
15.249	RSS-GEN			
15.207	7.2.2	AC Power Conducted Emission	N/A	Not applicable, this device power by DC source.
Standard		Item	Result	Remark
15.249	RSS-210			
15.249(a)	A2.9 (a)	Transmitter Radiated Emissions	PASS	-----
15.249(d)	A2.9 (b)	Band Edge Measurement	PASS	-----
15.203	-	Antenna Requirement	PASS	-----

The test results of this report relate only to the tested sample(s) identified in this report. Manufacturer or whom it may concern should recognize the pass or fail of the test result.

1.2. Measurement Uncertainty

Test Item	Frequency Range		Uncertainty (dB)
Conducted Emission	9kHz ~ 30MHz		± 2.02
Radiated Emission	30MHz ~ 1000MHz	Horizontal	± 3.98
		Vertical	± 3.62
	1000MHz ~ 18000MHz	Horizontal	± 3.11
		Vertical	± 3.07
	18000MHz ~ 40000MHz	Horizontal	± 3.66
		Vertical	± 3.54

2 EUT Description

Product	Navii RF Remote Control - 17
Trade Name	Navii
Model Number	NKS-1003
Applicant	J-MEX, Inc. B2, 3F, No. 1, Li-Hsin 1st Road, SBIP, HsinChu, Taiwan, R.O.C.
Manufacturer	KING WINS TECHNOLOGY CO., LTD 2F., No.1, Jian 1st Rd., Zhonghe Dist., New Taipei CITY 235, Taiwan.
FCC ID	XXANKS-1003
Frequency Range	2404 ~ 2480 MHz
Modulation Type	GFSK
Number of Channel	65 CH
Antenna Type	PCB Antenna
Antenna Gain	-3 dBi
Field Strength	92.96 dBuV/m

Frequency Hopping Table							
CH	MHz	CH	MHz	CH	MHz	CH	MHz
1	2404	18	2424	35	2444	52	2467
2	2405	19	2425	36	2445	53	2468
3	2406	20	2426	37	2446	54	2469
4	2407	21	2427	38	2450	55	2470
5	2408	22	2428	39	2451	56	2471
6	2409	23	2429	40	2452	57	2472
7	2410	24	2430	41	2453	58	2473
8	2411	25	2434	42	2454	59	2474
9	2412	26	2435	43	2455	60	2475
10	2413	27	2436	44	2456	61	2476
11	2414	28	2437	45	2457	62	2477
12	2418	29	2438	46	2458	63	2478
13	2419	30	2439	47	2459	64	2479
14	2420	31	2440	48	2460	65	2480
15	2421	32	2441	49	2461		
16	2422	33	2442	50	2462		
17	2423	34	2443	51	2466		

3 Test Methodology

3.1. Mode of Operation

Decision of Test ATL has verified the construction and function in typical operation. All the test modes were carried out with the EUT in normal operation, which was shown in this test report and defined as:

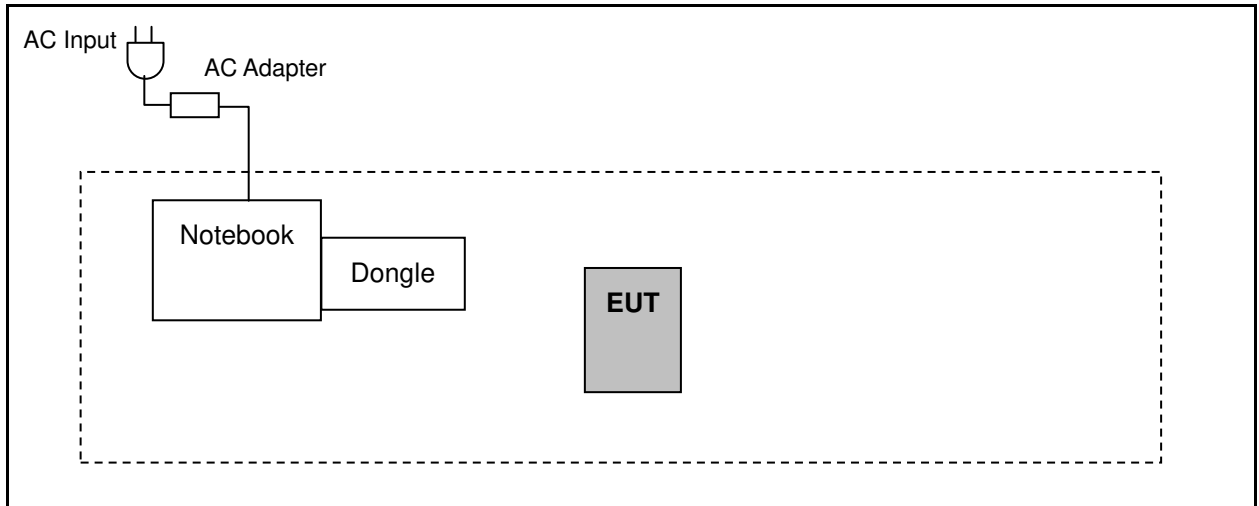
Test Mode
Mode 1: Normal Operation Mode
Mode 2: Transmission Mode

By preliminary testing and verifying three axis (X, Y and Z) position of EUT transmitted status, it was found that "X axis" position was the worst, then the final test was executed the worst condition and test data were recorded in this report.

3.2. EUT Exercise Software

1	Setup the EUT as shown on 3.3.
2	Turn on the power of EUT.

3.3. Configuration of Test System Details



3.4. Test Site Environment

Items	Required (IEC 60068-1)	Actual
Temperature (°C)	15-35	26
Humidity (%RH)	25-75	60
Barometric pressure (mbar)	860-1060	950

4 Conducted Emission Measurement

4.1. Limit

Frequency (MHz)	Quasi-peak	Average
0.15 - 0.5	66 to 56	56 to 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

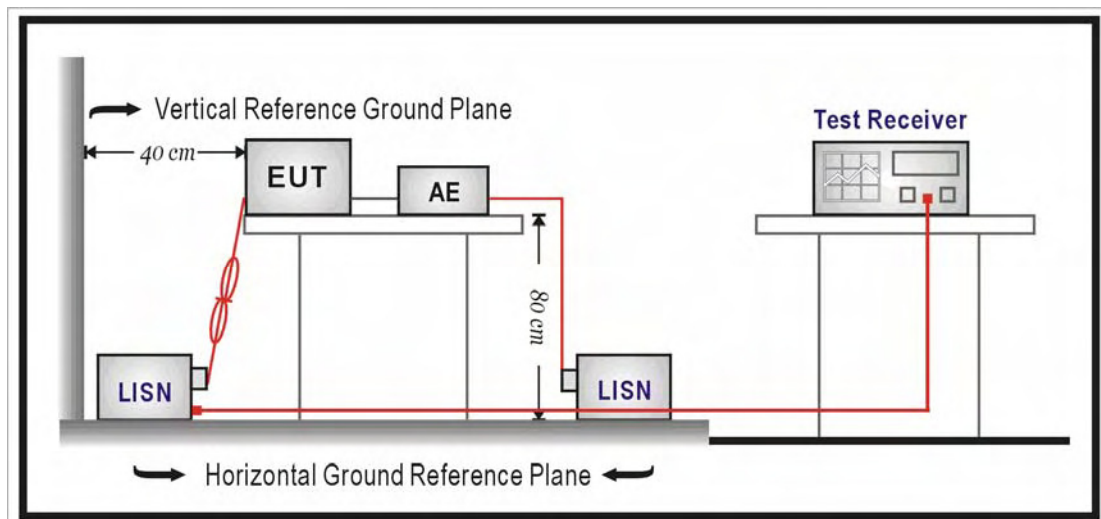
4.2. Test Instruments

Describe	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
Test Receiver	R&S	ESCI	100367	06/06/2014	(1)
LISN	R&S	ENV216	101040	03/07/2014	(1)
LISN	R&S	ENV216	101041	03/07/2014	(1)
Test Site	ATL	TE02	TE02	N.C.R.	-----

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years. (3) Calibration period 3 years.

Note: N.C.R. = No Calibration Request.

4.3. Test Setup



4.4. Test Procedure

The power line conducted emission measurements were performed in a shielded enclosure. The EUT was assembled on a wooden table which is 80 centimeters high, was placed 40 centimeters from the back wall and at least 1 meter from the sidewall.

Power was fed to the EUT from the public utility power grid through a line filter and EMCO Model 3162/2 SH Line Impedance Stabilization Networks (LISN). The LISN housing, measuring instrumentation case, ground plane, etc., were electrically bonded together at the same RF potential. The Spectrum analyzer was connected to the AC line through an isolation transformer. The 50-ohm output of the LISN was connected to the spectrum analyzer directly. Conducted emission levels were in the CISPR quasi-peak detection mode. The analyzer's 6 dB bandwidth was set to 9 KHz. No post-detector video filter was used.

The spectrum was scanned from 150 KHz to 30 MHz. The physical arrangement of the test system and associated cabling was varied (within the scope of arrangements likely to be encountered in actual use) to determine the effect on the unit's emanations in amplitude and frequency. All spurious emission frequencies were observed. The highest emission amplitudes relative to the appropriate limit were measured and have been recorded in paragraph 4.1.

4.5. Test Result

Note: Not applicable, this device power by DC source.

5 Radiated Interference Measurement

5.1. Limit

Frequency (MHz)	Field Strength ($\mu\text{V/m}$ at meter)	Measurement Distance (meter)
0.009 – 0.490	2400 / F (kHz)	300
0.490 – 1.705	24000 / F (kHz)	30
1.705 – 30.0	30	30
30 - 88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Harmonic emissions limits comply with below 54 dBuV/m at 3m. Other emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or comply with the radiated emissions limits specified in section 15.209(a) limit in the table below has to be followed.

Note: (1) The tighter limit applies at the band edges.
(2) Emission level (dBuV/m)=20log Emission level ($\mu\text{V/m}$).

Limits of Radiated Emission Measurement (FCC 15.209)

Frequency (MHz)	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
	Peak	AVG	Peak	AVG
0.009 – 0.490	80	60	74	54

Notes: (1) The limit for radiated test was performed according to FCC PART 15C.
(2) The tighter limit applies at the band edges.
(3) Emission level (dBuV/m)=20log Emission level ($\mu\text{V/m}$).

Limits of Radiated Emission Measurement (FCC Part 15.249)

Frequency Range (MHz)	Limit
2400-2483.5	Field strength of fundamental 50000 $\mu\text{V/m}$ (94 dB $\mu\text{V/m}$) @ 3 m
Above 2483.5	Field strength of harmonics 500 $\mu\text{V/m}$ (54 dB $\mu\text{V/m}$) @ 3 m

5.2. Test Instruments

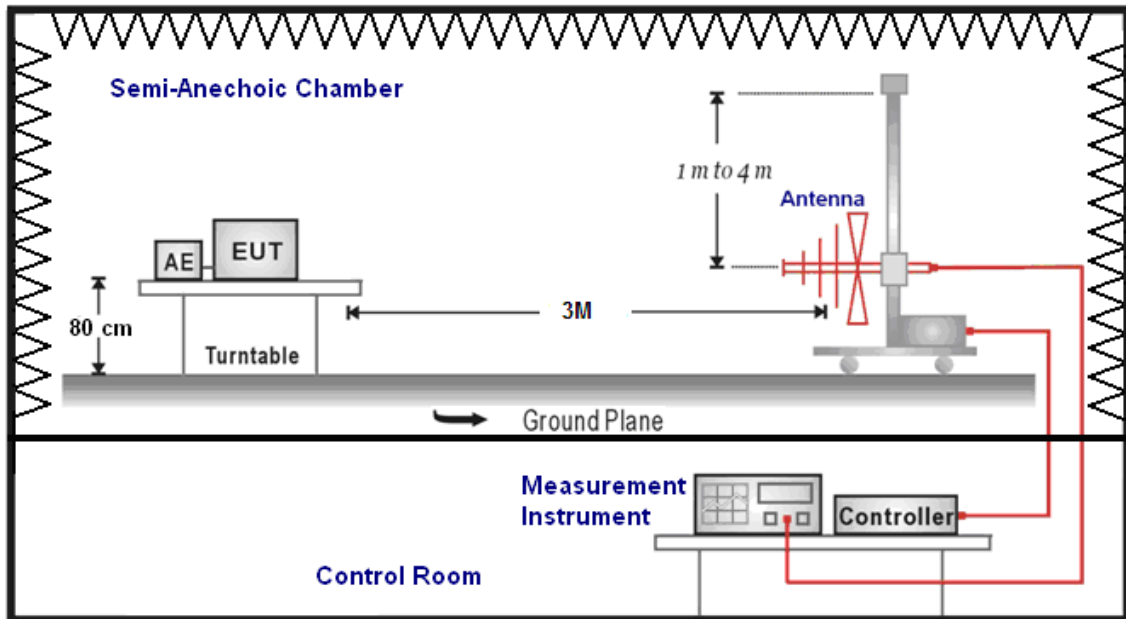
3 Meter Chamber					
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
RF Pre-selector	Agilent	N9039A	MY46520256	01/21/2013	(2)
Spectrum Analyzer	Agilent	E4446A	MY46180578	01/10/2014	(1)
Pre Amplifier	Agilent	8449B	3008A02237	02/21/2014	(1)
Pre Amplifier	Agilent	8447D	2944A10961	02/21/2014	(1)
Broadband Antenna (30MHz~1GHz)	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	9163-270	07/01/2013	(1)
Horn Antenna (1~18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	06/12/2014	(1)
Horn Antenna (18~40GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	06/13/2013	(1)
Loop Antenna	COM-POWER CORPORATION	AL-130	121014	01/28/2014	(1)
Test Site	ATL	TE01	888001	08/28/2013	(1)

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years. (3) Calibration period 3 years.

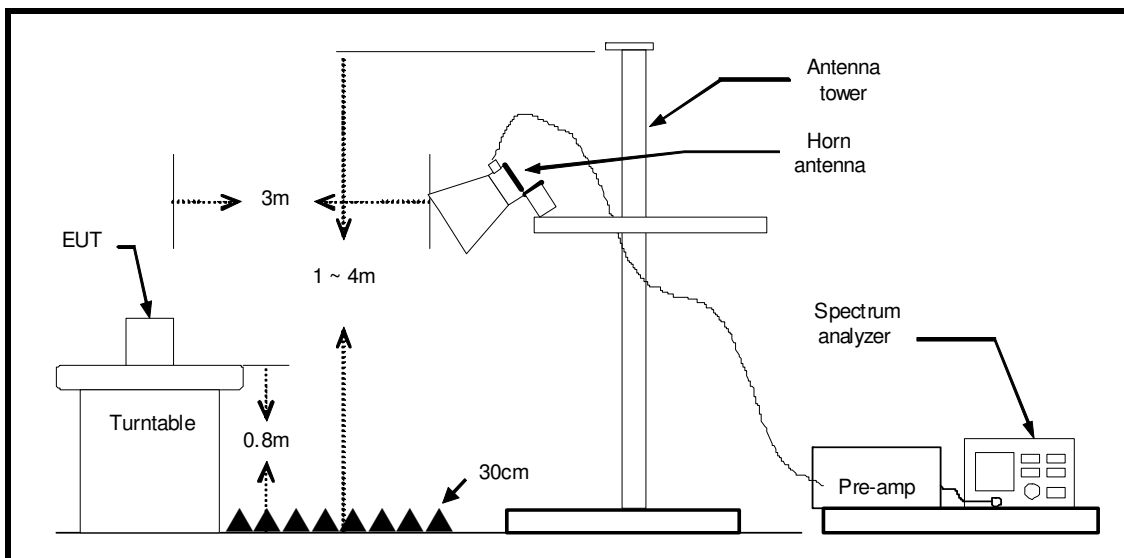
Note: N.C.R. = No Calibration Request.

5.3. Setup

Below 1GHz



Above 1GHz



5.4. Test Procedure

Final radiation measurements were made on a three-meter, Semi Anechoic Chamber. The EUT system was placed on a nonconductive turntable which is 0.8 meters height, top surface 1.0 x 1.5 meter. The spectrum was examined from 250 MHz to 2.5 GHz in order to cover the whole spectrum below 10th harmonic which could generate from the EUT. During the test, EUT was set to transmit continuously & Measurements spectrum range from 30 MHz to 26.5 GHz is investigated.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

A nonconductive material surrounded the EUT to supporting the EUT for standing on three orthogonal planes. At each condition, the EUT was rotated 360 degrees, and the antenna was raised and lowered from one to four meters to find the maximum emission levels. Measurements were taken using both horizontal and vertical antenna polarization.

SCHWARZBECK MESS-ELEKTRONIK Biconilog Antenna (model VULB9163) at 3 Meter and the SCHWARZBECK Double Ridged Guide Antenna (model BBHA9120D&9170) was used in frequencies 1 – 26.5 GHz at a distance of 1 meter. All test results were extrapolated to equivalent signal at 3 meters utilizing an inverse linear distance extrapolation Factor (20dB/decade).

For testing above 1GHz, the emission level of the EUT in peak mode was 20dB lower than average limit (that means the emission level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.

Appropriate preamplifiers were used for improving sensitivity and precautions were taken to avoid overloading or desensitizing the spectrum analyzer. No post – detector video filters were used in the test.

The spectrum analyzer's 6 dB bandwidth was set to 1 MHz, and the analyzer was operated in the peak detection mode, for frequencies both below and up 1 GHz. The average levels were obtained by subtracting the duty cycle correction factor from the peak readings.

The following procedures were used to convert the emission levels measured in decibels referenced to 1 microvolt (dBuV) into field intensity in micro volts per meter (uV/m).

The actual field intensity in decibels referenced to 1 microvolt in to field intensity in micro volts per meter (dBuV/m).

The actual field intensity in referenced to 1 microvolt per meter (dBuV/m) is determined by algebraically adding the measured reading in dBuV, the antenna factor (dB), and cable loss (dB) and Subtracting the gain of preamplifier (dB) is auto calculate in spectrum analyzer.

(1) $\text{Amplitude (dBuV/m)} = \text{FI (dBuV)} + \text{AF (dBuV)} + \text{CL (dBuV)} - \text{Gain (dB)}$

FI= Reading of the field intensity.

AF= Antenna factor.

CL= Cable loss.

P.S Amplitude is auto calculate in spectrum analyzer.

(2) $\text{Actual Amplitude (dBuV/m)} = \text{Amplitude (dBuV)} - \text{Dis(dB)}$

The FCC specified emission limits were calculated according the EUT operating frequency and by following linear interpolation equations:

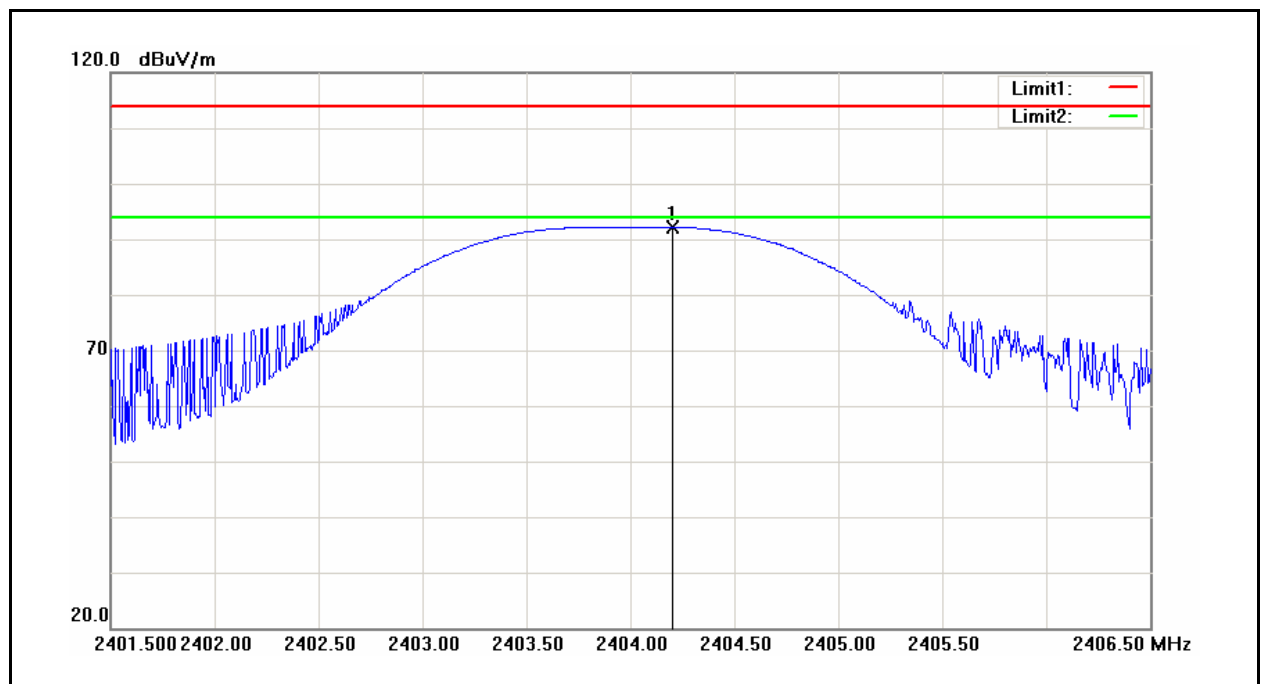
(a) For fundamental frequency : Transmitter Output < +30dBm

(b) For spurious frequency : Spurious emission limits = fundamental emission limit /10

5.5. Test Result

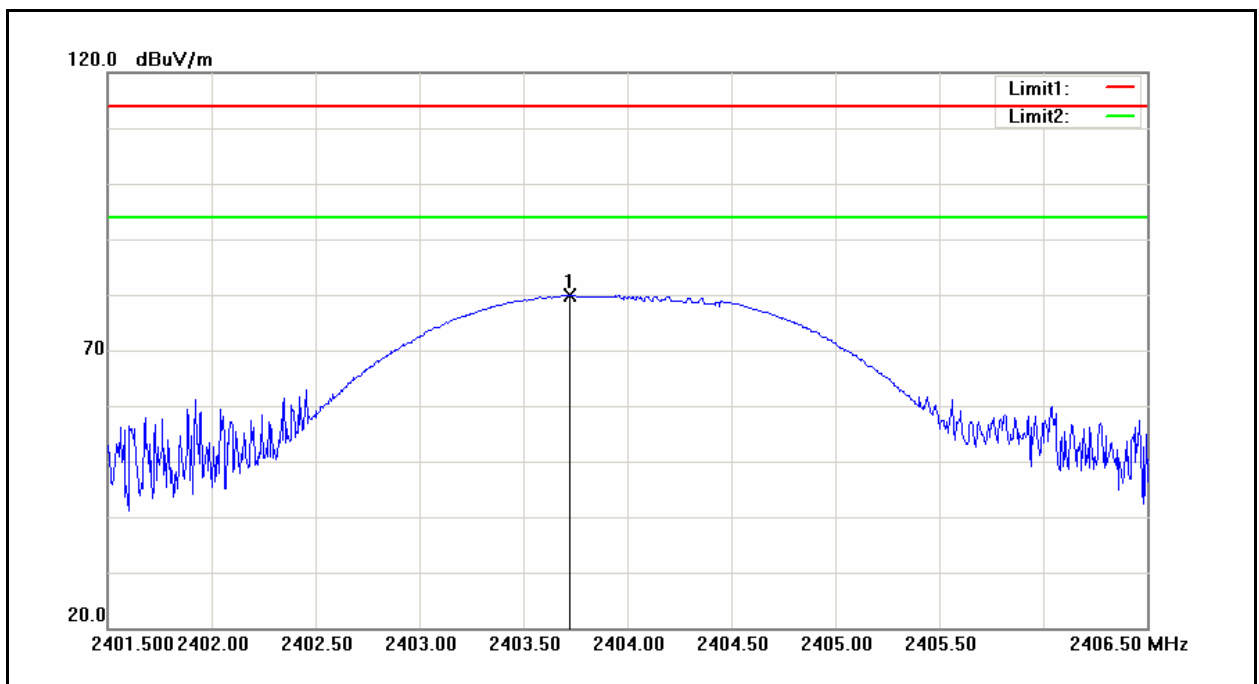
Fundamental Test Result:

Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.0V
Model Number:	NKS-1003	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Test Mode:	2	Date:	06/12/2014
Frequency:	2404 MHz	Test By:	Eric Ou Yang
Ant.Polar.:	Horizontal		



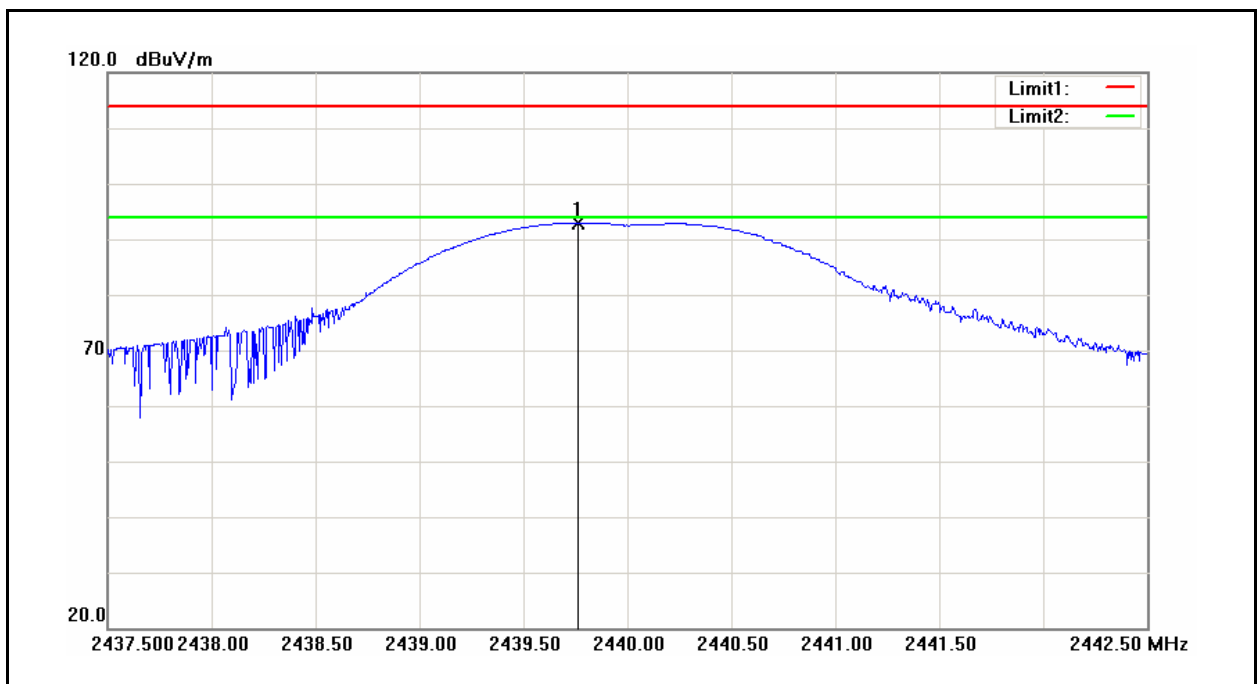
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2404.200	89.66	2.51	92.17	114.00	-21.83	Peak

Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.0V
Model Number:	NKS-1003	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Test Mode:	2	Date:	06/12/2014
Frequency:	2404 MHz	Test By:	Eric Ou Yang
Ant.Polar.:	Vertical		



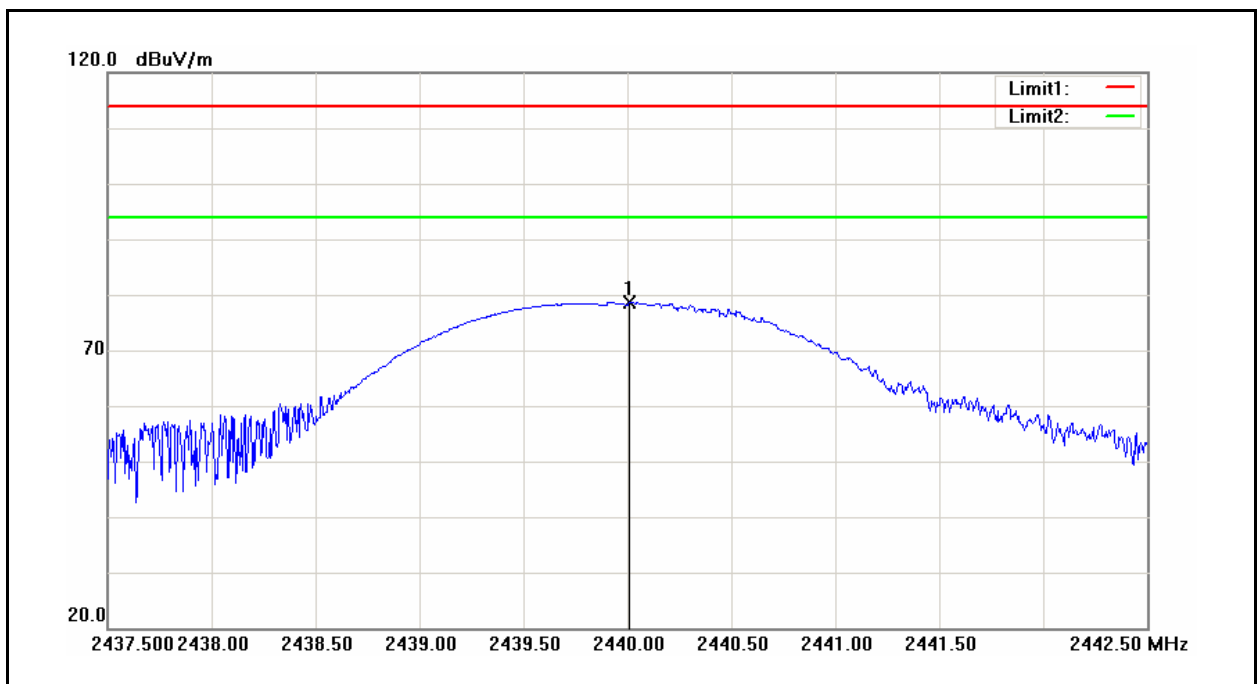
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2403.720	77.38	2.51	79.89	114.00	-34.11	Peak

Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.0V
Model Number:	NKS-1003	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Test Mode:	2	Date:	06/12/2014
Frequency:	2440 MHz	Test By:	Eric Ou Yang
Ant.Polar.:	Horizontal		



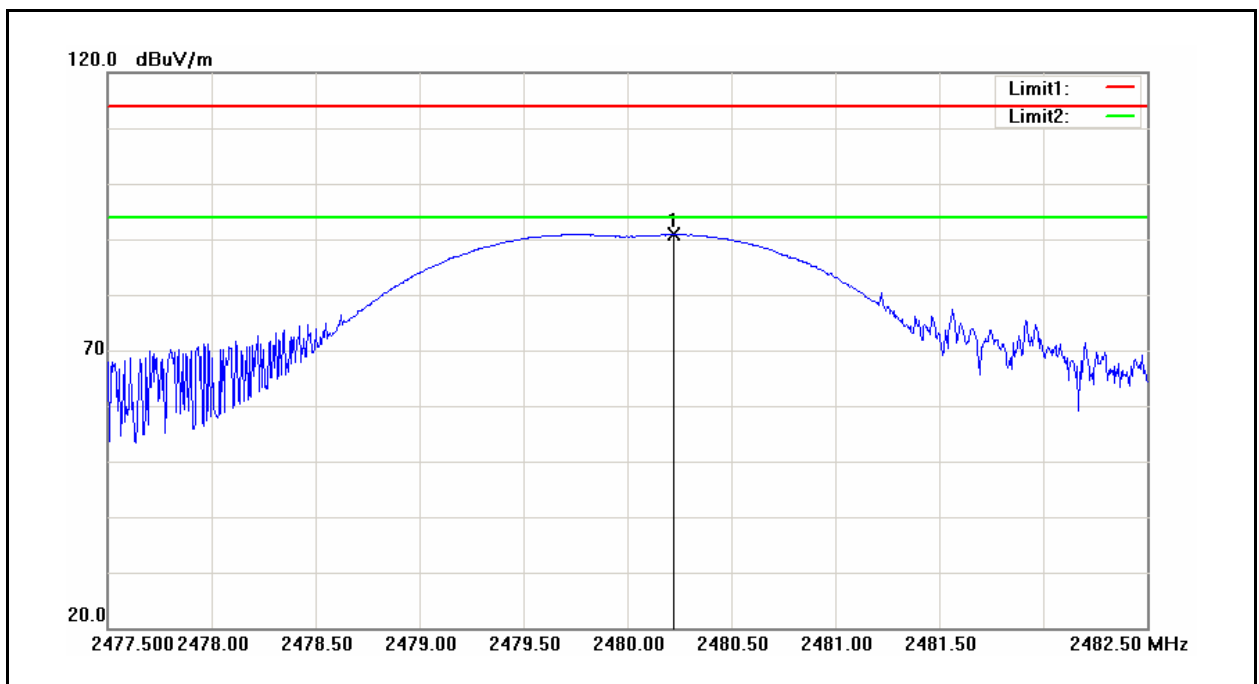
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2439.765	90.35	2.61	92.96	114.00	-21.04	Peak

Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.0V
Model Number:	NKS-1003	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Test Mode:	2	Date:	06/12/2014
Frequency:	2440 MHz	Test By:	Eric Ou Yang
Ant.Polar.:	Vertical		



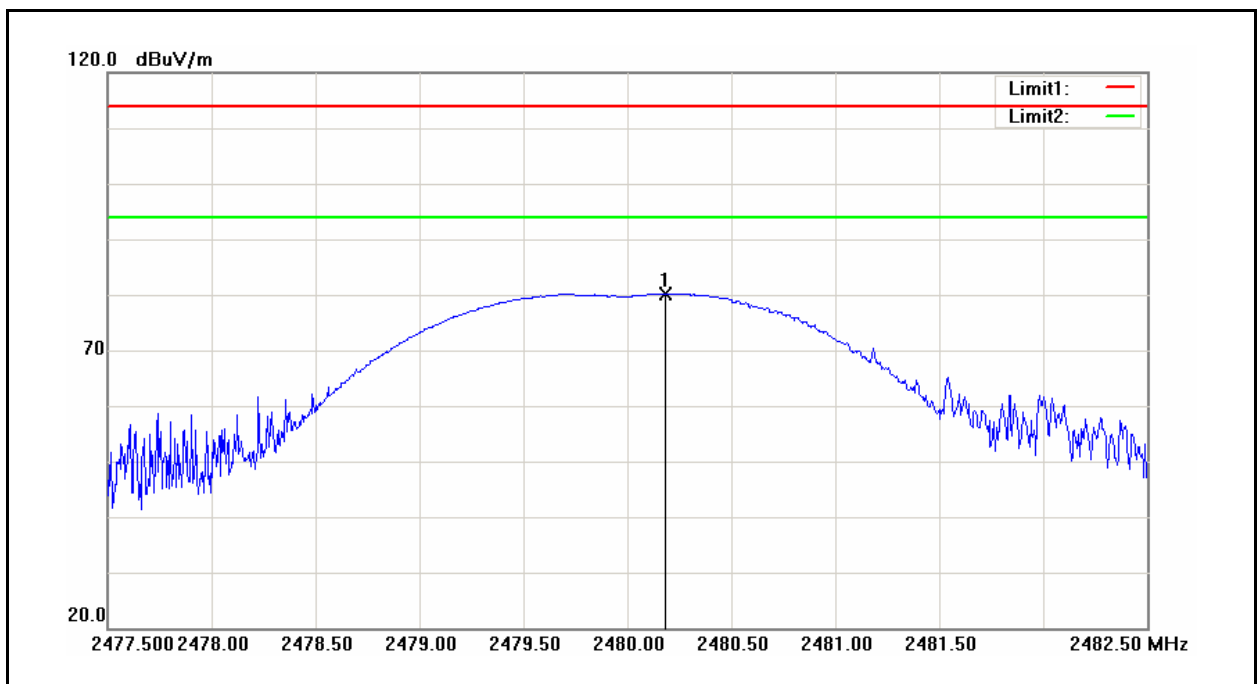
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2440.010	76.06	2.61	78.67	114.00	-35.33	Peak

Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.0V
Model Number:	NKS-1003	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Test Mode:	2	Date:	06/12/2014
Frequency:	2480 MHz	Test By:	Eric Ou Yang
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2480.220	88.15	2.71	90.86	114.00	-23.14	Peak

Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.0V
Model Number:	NKS-1003	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Test Mode:	2	Date:	06/12/2014
Frequency:	2480 MHz	Test By:	Eric Ou Yang
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2480.180	77.47	2.71	80.18	114.00	-33.82	Peak

Below 1GHz

Standard:		FCC Part 15C		Test Distance:		3m	
Test item:		Radiated Emission		Power:		DC 3.0V	
Model Number:		NKS-1003		Temp.(°C)/Hum.(%RH):		26(°C)/60%RH	
Mode:		1		Date:		06/12/2014	
				Test By:		Eric Ou Yang	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Ant.Pola H / V
215.0000	45.34	-13.81	31.53	43.50	-11.97	QP	H
319.0000	46.68	-9.93	36.75	46.00	-9.25	QP	H
399.0000	41.95	-8.22	33.73	46.00	-12.27	QP	H
558.5000	34.29	-5.25	29.04	46.00	-16.96	QP	H
637.0000	39.05	-3.43	35.62	46.00	-10.38	QP	H
799.5000	34.16	-0.25	33.91	46.00	-12.09	QP	H
215.0000	40.05	-13.81	26.24	43.50	-17.26	QP	V
360.0000	37.30	-9.13	28.17	46.00	-17.83	QP	V
444.0000	40.65	-7.17	33.48	46.00	-12.52	QP	V
558.5000	40.15	-5.25	34.90	46.00	-11.10	QP	V
639.5000	38.72	-3.39	35.33	46.00	-10.67	QP	V
799.5000	36.57	-0.25	36.32	46.00	-9.68	QP	V

Note: No emission found between lowest internal used/generated frequency to 30MHz (9kHz~30MHz).

Above 1GHz

Standard:		FCC Part 15C		Test Distance:		3m	
Test item:		Radiated Emission		Power:		DC 3.0V	
Model Number:		NKS-1003		Temp.(°C)/Hum.(%RH):		26(°C)/60%RH	
Mode:		2		Date:		06/12/2014	
Frequency:		2404MHz		Test By:		Eric Ou Yang	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remar	Ant. Polar. H / V
3002.000	38.86	4.00	42.86	74.00	-31.14	peak	H
4808.000	48.17	7.30	55.47	74.00	-18.53	peak	H
4808.000	38.06	7.30	45.36	54.00	-8.64	AVG	H
6691.000	34.03	10.44	44.47	74.00	-29.53	peak	H
2939.000	37.44	3.84	41.28	74.00	-32.72	peak	V
4808.000	53.63	7.30	60.93	74.00	-13.07	peak	V
4808.000	40.85	7.30	48.15	54.00	-5.85	AVG	V
6726.000	35.71	10.49	46.20	74.00	-27.80	peak	V

Standard:		FCC Part 15C		Test Distance:		3m	
Test item:		Radiated Emission		Power:		DC 3.0V	
Model Number:		NKS-1003		Temp.(°C)/Hum.(%RH):		26(°C)/60%RH	
Mode:		2		Date:		06/12/2014	
Frequency:		2440MHz		Test By:		Eric Ou Yang	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remar	Ant. Polar. H / V
3051.000	37.54	4.11	41.65	74.00	-32.35	peak	H
4880.000	49.08	7.40	56.48	74.00	-17.52	peak	H
4880.000	39.13	7.40	46.53	54.00	-7.47	AVG	H
6698.000	34.88	10.45	45.33	74.00	-28.67	peak	H
2995.000	38.59	3.98	42.57	74.00	-31.43	peak	V
4880.000	53.81	7.40	61.21	74.00	-12.79	peak	V
4880.000	41.20	7.40	48.60	54.00	-5.40	AVG	V
6705.000	34.53	10.46	44.99	74.00	-29.01	peak	V

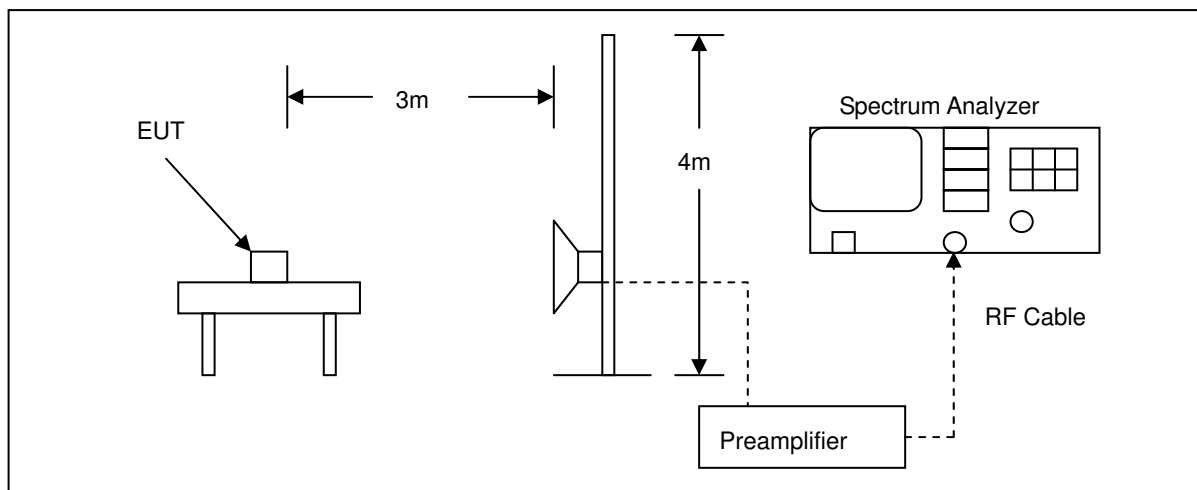
Standard:		FCC Part 15C		Test Distance:		3m	
Test item:		Radiated Emission		Power:		DC 3.0V	
Model Number:		NKS-1003		Temp.(℃)/Hum.(%RH):		26(℃)/60%RH	
Mode:		2		Date:		06/12/2014	
Frequency:		2480MHz		Test By:		Eric Ou Yang	
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remar	Ant. Polar. H / V
3002.000	38.20	4.00	42.20	74.00	-31.80	peak	H
4960.000	52.23	7.52	59.75	74.00	-14.25	peak	H
4960.000	40.82	7.52	48.34	54.00	-5.66	AVG	H
6719.000	33.42	10.48	43.90	74.00	-30.10	peak	H
3030.000	36.34	4.07	40.41	74.00	-33.59	peak	V
4960.000	55.74	7.52	63.26	74.00	-10.74	peak	V
4960.000	42.34	7.52	49.86	54.00	-4.14	AVG	V
6691.000	33.75	10.44	44.19	74.00	-29.81	peak	V

6 Band Edges Measurement

6.1. Limit

In any 100 kHz bandwidth outside the frequency band, the radio frequency power is at least 50dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

6.2. Test Setup



6.3. Test Instruments

3 Meter Chamber					
Equipment	Manufacturer	Model Number	Serial Number	Cal. Date	Remark
RF Pre-selector	Agilent	N9039A	MY46520256	01/21/2013	(2)
Spectrum Analyzer	Agilent	E4446A	MY46180578	01/10/2014	(1)
Pre Amplifier	Agilent	8449B	3008A02237	02/21/2014	(1)
Pre Amplifier	Agilent	8447D	2944A10961	02/21/2014	(1)
Horn Antenna (1~18GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9120D	9120D-550	06/12/2014	(1)
Horn Antenna (18~40GHz)	SCHWARZBECK MESS-ELEKTRONIK	BBHA9170	9170-320	06/13/2013	(1)
Loop Antenna	COM-POWER CORPORATION	AL-130	121014	08/14/2012	(3)
Test Site	ATL	TE01	888001	08/28/2013	(1)

Remark: (1) Calibration period 1 year. (2) Calibration period 2 years. (3) Calibration period 3 years.

Note: N.C.R. = No Calibration Request.

6.4. Test Procedure

The emissions on the harmonics frequencies, the limits, and the margin of compliance are presented. These tests were made when the transmitter was in full radiated power. The additional test was performed to show compliance with the requirement at the band-edge frequency 2483.5 MHz and up to 2500 MHz and at 2390.0 MHz.

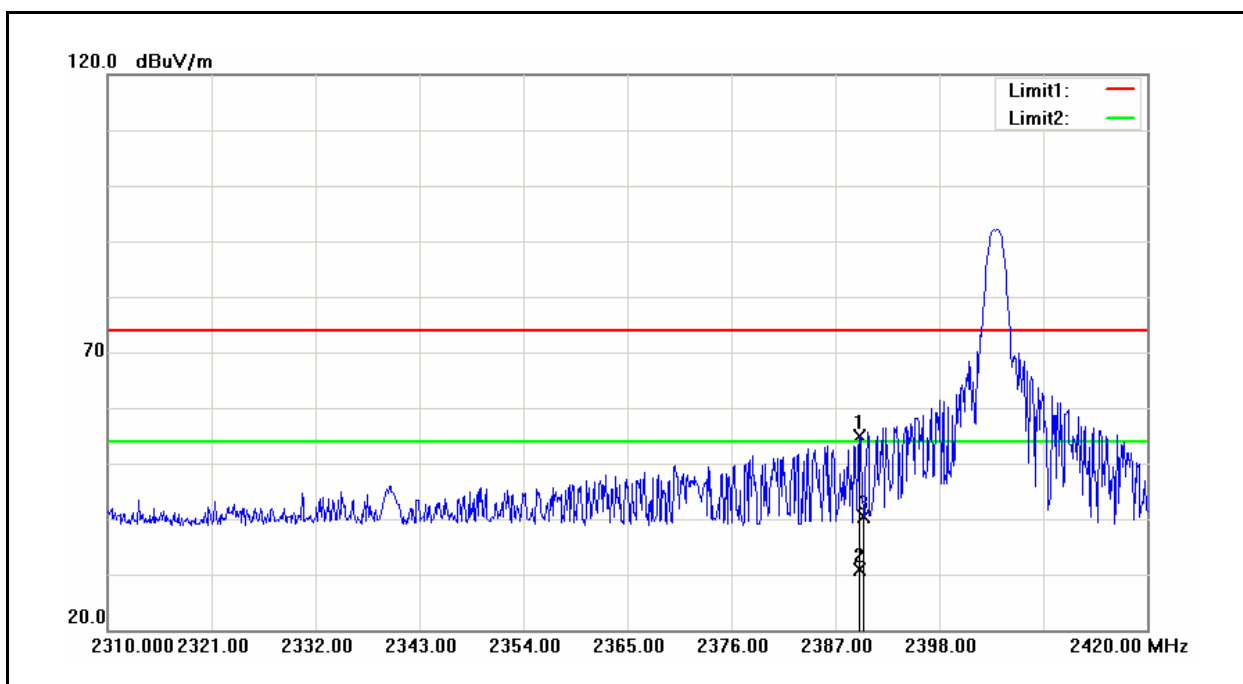
The transmitter was configured with the worst case antenna and setup to transmit at the highest channel. Then the field strength was measured at 2483.5 MHz.

The transmitter was then configured with the worst case antenna and setup to transmit at the lowest channel. Then the field strength was measured at 2390.0 MHz. These tests were performed at 4 different bit rates.

For measurements the resolution bandwidth is set to 1 MHz, and then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

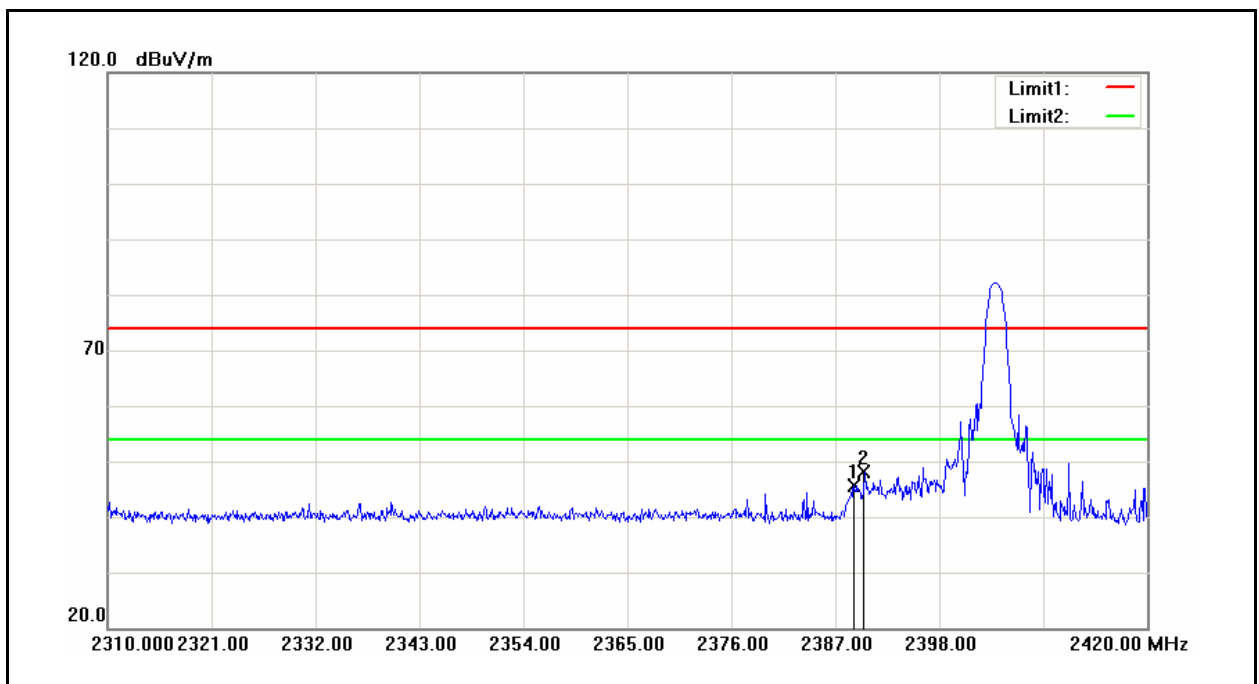
6.5. Test Result

Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.0V
Model Number:	NKS-1003	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Test Mode:	2	Date:	06/12/2014
Frequency:	2404 MHz	Test By:	Eric Ou Yang
Ant.Polar.:	Horizontal		



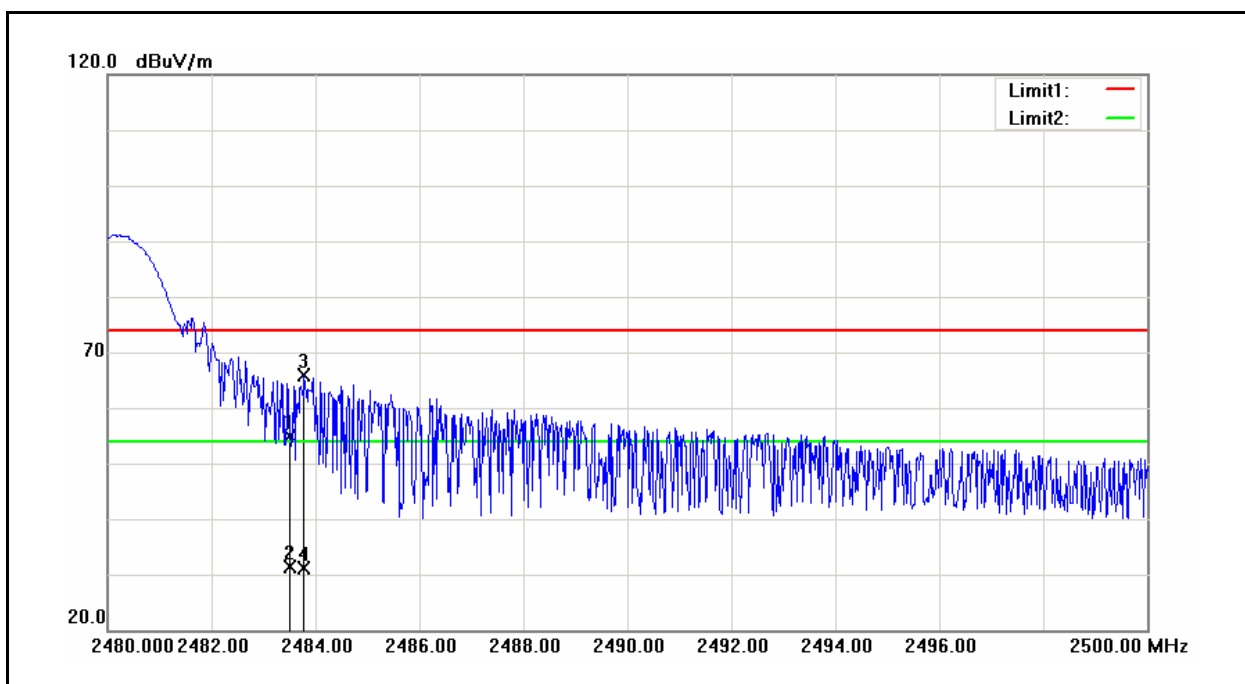
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2389.530	52.46	2.48	54.94	74.00	-19.06	peak
2	2389.530	28.29	2.48	30.77	54.00	-23.23	AVG
3	2390.000	37.88	2.48	40.36	74.00	-33.64	peak

Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.0V
Model Number:	NKS-1003	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Test Mode:	2	Date:	06/12/2014
Frequency:	2404 MHz	Test By:	Eric Ou Yang
Ant.Polar.:	Vertical		



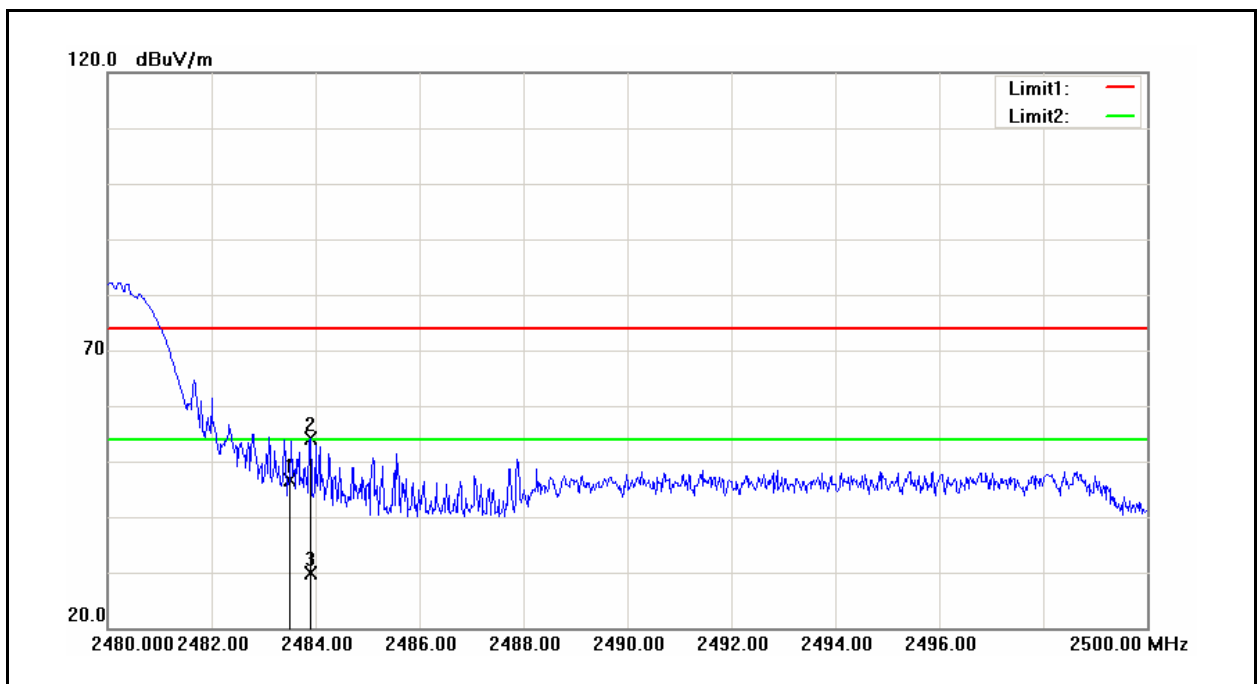
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2388.980	43.22	2.46	45.68	74.00	-28.32	peak
2	2390.000	45.69	2.48	48.17	74.00	-25.83	peak

Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.0V
Model Number:	NKS-1003	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Test Mode:	2	Date:	06/12/2014
Frequency:	2480 MHz	Test By:	Eric Ou Yang
Ant.Polar.:	Horizontal		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	52.11	2.72	54.83	74.00	-19.17	peak
2	2483.500	28.56	2.72	31.28	54.00	-22.72	AVG
3	2483.780	63.09	2.72	65.81	74.00	-8.19	peak
4	2483.780	28.49	2.72	31.21	54.00	-22.79	AVG

Standard:	FCC Part 15C	Test Distance:	3m
Test item:	Radiated Emission	Power:	DC 3.0V
Model Number:	NKS-1003	Temp.(°C)/Hum.(%RH):	26(°C)/60%RH
Test Mode:	2	Date:	06/12/2014
Frequency:	2480 MHz	Test By:	Eric Ou Yang
Ant.Polar.:	Vertical		



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	2483.500	43.80	2.72	46.52	74.00	-27.48	peak
2	2483.900	51.31	2.72	54.03	74.00	-19.97	peak
3	2483.900	27.06	2.72	29.78	54.00	-24.22	AVG

7 Antenna Measurement

7.1. Limit

For intentional device, according to 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.

And According to 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

7.2. Antenna Connector Construction

The antenna used in this product is PCB antenna. And the maximum Gain of this antenna is only -3 dBi.