



RADIO TEST REPORT

Test Report No.: 10334251S-C-R1

Applicant : NINTENDO CO., LTD.
Type of Equipment : Portable Game Machine with Wireless LAN
Model No. : RED-001
FCC ID : BKERED001
Test regulation : FCC Part15 Subpart C: 2014
Test result : Complied

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6. The opinions and the interpretations to the result of the description in this report are outside scopes where UL Japan has been accredited.
7. This report is a revised version of 10334251S-C. 10334251S-C is replaced with this report.

Date of test: June 19 to July 1, 2014

Tested by: *A. Hayashi*

Akio Hayashi
Engineer
Consumer Technology Division

Approved by : *T. Imamura*

Toyokazu Imamura
Leader
Consumer Technology Division



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Shonan EMC Lab.

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13-EM-F0429

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SECTION 1: Customer information

Company Name : NINTENDO CO., LTD.
Brand name : Nintendo
Address : 11-1 Hokotate-cho, Kamitoba, Minami-ku, Kyoto 601-8501, Japan
Telephone Number : +81-075-662-9600
Facsimile Number : +81-075-662-9624
Contact Person : Kazuya Kuramoto

SECTION 2: Equipment under test (E.U.T.)

2.1 Identification of E.U.T.

Type of Equipment : Portable Game Machine with Wireless LAN
Model No. : RED-001
Serial No. : Refer to 4.2 in this report.
Rating : AC 100V – 240V(AC Adaptor)
Country of Mass-production : China
Condition of EUT : Production prototype
(Not for Sale: This sample is equivalent to mass-produced items.)
Modification of EUT : No modification by the test lab.
Receipt Date of Sample : May 12, 2014

2.2 Product description

Model: RED-001 (referred to as the EUT in this report) is a Portable Game Machine with Wireless LAN.

Clock frequency(ies) in the system : 804.33MHz

Radio specification [W-LAN (IEEE802.11b/g)] (Refer to test report 10334251S-A)

Equipment type : Transceiver
Frequency of operation : 2412-2472MHz for IEEE802.11b,
2412-2462MHz for IEEE802.11g
Bandwidth & channel spacing : 20MHz & 5MHz
Type of modulation : DSSS, OFDM
Antenna type : PIFA Antenna(Model name: ANT/WIFI/MIT-RED)
Antenna gain : -0.01dBi
Antenna connector type : 20270_001E_01
Operation temperature range : 5 to +35 deg.C.

[Radio specification [NFC]]

Radio Type : Transceiver
Frequency of Operation : 13.56MHz
Modulation : ASK 100% (type A), ASK 10% (type B, F)
Antenna type : Print pattern antenna
ITU code : A1D
Operating Temperature : 5 to +35 deg C.

FCC 15.31 (e)

The stable voltage (DC3.3V, DC 1.8V and DC 1.2V)is provided constantly to RF part via regulator. Therefore, the EUT complies with the requirement.

FCC 15.203

It is impossible for end users to replace the antenna, because the antenna is mounted inside of the EUT. Therefore the EUT complies with the requirement.

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SECTION 3: Test specification, procedures & results

3.1 Test specification

Test specification : FCC Part 15 Subpart C: 2014,
final revised on May 1, 2014 and effective June 2, 2014
Title : FCC 47CFR Part15 Radio Frequency Device Subpart C Intentional Radiators
Section 15.207 Conducted limits
Section 15.209 Radiated emission limits, general requirements
Section 15.215 Additional provisions to the general radiated emission limitations
Section 15.225 Operation within the band 13.110-14.010MHz

3.2 Procedures & Results

Item	Test Procedure	Specification	Remarks	Deviation	Worst Margin	Results
Conducted emission	ANSI C63.4:2009 7. AC powerline conducted emission measurements	FCC 15.207	-	N/A	7.0dB Detector: Quasi-Peak Phase: N Freq.: 0.97019MHz Nichicon's AC adaptor, X'tal A Freq.: 0.96831MHz Nichicon's AC adaptor, X'tal B	Complied
Electric field strength of Fundamental emission	ANSI C63.4:2009 13. Measurement of intentional radiators	FCC 15.225 (a)	Radiated	N/A	64.9dB Polarization: Vertical Tabuchi's AC adaptor, X'tal B	Complied
Electric field strength of Spurious emission (within the 13.110-14.010MHz band)	ANSI C63.4:2009 13. Measurement of intentional radiators	FCC 15.225 (b)(c)	Radiated	N/A	45.0dB Freq.: 13.553MHz Polarization: Vertical Tabuchi's AC adaptor X'tal B	Complied
Electric field strength of Spurious emission (outside of the 13.110-14.010MHz band)	ANSI C63.4:2009 13. Measurement of intentional radiators	FCC 15.209 FCC 15.225 (d)	Radiated	N/A	9.6dB Freq.: 52.37MHz Polarization: Vertical	Complied
20dB bandwidth	ANSI C63.4:2009 13. Measurement of intentional radiators	FCC 15.215 (c)	Radiated	N/A	-	-
Frequency tolerance	ANSI C63.4:2009 13. Measurement of intentional radiators	FCC 15.225 (e)	Radiated	N/A	-	Complied

Note: UL Japan's Work Procedures No. 13-EM-W0420 and 13-EM-W0422

3.3 Addition to standard

Item	Test Procedure	Specification	Remarks	Worst Margin	Results
Occupied Bandwidth (99%)	ANSI C63.4:2009 13. Measurement of intentional radiators, RSS-Gen 4.6.1	RSS-Gen 4.6.1	Radiated	-	-

Note: UL Japan's Work Procedures No. 13-EM-W0420 and 13-EM-W0422

* Other than above, no addition, exclusion nor deviation has been made from the standard.

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3.4 Uncertainty

The following uncertainties have been calculated to provide a confidence level of 95% using a coverage factor k=2.

Item	Frequency range	No.1 SAC ^{*1} /SR ^{*2} (±)	No.2 SAC/SR (±)	No.3 SAC/SR (±)
Conducted emission (AC Mains) AMN/LISN	150kHz-30MHz	3.6 dB	3.6 dB	3.5 dB
Radiated emission (Measurement distance: 3m)	9kHz-30MHz	3.7 dB	3.7 dB	3.6 dB
	30MHz-300MHz	4.9 dB	5.1 dB	4.9 dB
	300MHz-1GHz	5.0 dB	5.2 dB	4.9 dB

*1: SAC=Semi-Anechoic Chamber

*2: SR= Shielded Room is applied besides radiated emission

Conducted emission test

The data listed in this test report has enough margin, more than site margin.

Radiated emission test

The data listed in this test report has enough margin, more than site margin.

Frequency tolerance

Frequency (Normal condition) Measurement uncertainty for this test was: (±) 7.9×10^{-8} .

Frequency (Extreme condition) Measurement uncertainty for this test was: (±) 7.9×10^{-8} .

Other tests

Bandwidth Measurement uncertainty for this test was: (±) 5.4%

3.5 Test location

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JAB Accreditation No. : RTL02610

	IC Registration No.	Width x Depth x Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Maximum measuremen t distance
<input checked="" type="checkbox"/> No.1 Semi-anechoic chamber	2973D-1	20.6 x 11.3 x 7.65	20.6 x 11.3	10m
<input type="checkbox"/> No.2 Semi-anechoic chamber	2973D-2	20.6 x 11.3 x 7.65	20.6 x 11.3	10m
<input checked="" type="checkbox"/> No.3 Semi-anechoic chamber	2973D-3	12.7 x 7.7 x 5.35	12.7 x 7.7	5m
<input type="checkbox"/> No.4 Semi-anechoic chamber	-	8.1 x 5.1 x 3.55	8.1 x 5.1	-
<input type="checkbox"/> No.1 shielded room	-	6.8 x 4.1 x 2.7	6.8 x 4.1	-
<input type="checkbox"/> No.2 shielded room	-	6.8 x 4.1 x 2.7	6.8 x 4.1	-
<input checked="" type="checkbox"/> No.3 shielded room	-	6.3 x 4.7 x 2.7	6.3 x 4.7	-
<input type="checkbox"/> No.4 shielded room	-	4.4 x 4.7 x 2.7	4.4 x 4.7	-
<input checked="" type="checkbox"/> No.5 shielded room	-	7.8 x 6.4 x 2.7	7.8 x 6.4	-
<input type="checkbox"/> No.6 shielded room	-	7.8 x 6.4 x 2.7	7.8 x 6.4	-
<input type="checkbox"/> No.1 Measurement room	-	2.55 x 4.1 x 2.5	-	-

3.6 Test setup, Data of test & Test instruments

Refer to APPENDIX 1 to 3.

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SECTION 4: Operation of E.U.T. during testing

4.1 Operating mode

The EUT exercise program used during testing was designed to exercise the various system components in a manner similar to typical use.

Test item	Operating mode	Tested frequency
All items except for Frequency tolerances	NFC (Type A/B/F) Transmitting, NFC (Type A/B/F) Communication *1)	13.56MHz
Frequency tolerances	Transmitting Unmodulated	13.56MHz

*1) The carrier level and noise levels were confirmed with and without IC Tag (type A, B or F), and the test was made with the mode as follows.

Combinations of the worst case

Test item	Conducted emission	Radiated emission*1) (Carrier)	Radiated emission*1) (Below 30MHz)	Radiated emission*1) (Above 30MHz)
Tag type	NFC Type A Transmitting (Without IC Tag)	NFC Type B Communication (With IC Tag)	NFC Type B Communication (With IC Tag)	NFC Type B Communication (With IC Tag)

*1) In addition to the above, the Type A data is attached.

This test was performed with X'tal A and Mitsumi AC Adaptor as a representative.

Software: Regulation_140604

Justification: The system was configured in typical fashion (as customer would normally use it) for testing.

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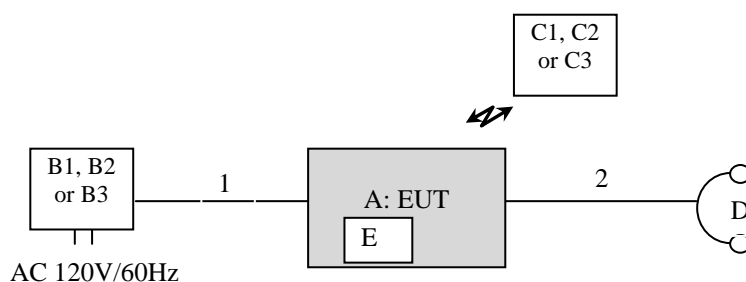
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4.2 Configuration and peripherals



*Cabling and setup were taken into consideration and test data was taken under worse case conditions.

Description of EUT and support equipment

No.	Item	Model number	Serial number	Manufacturer	Remark
A	Portable Game Machine with Wireless LAN	RED-001	*1)	NINTENDO	EUT
B1	AC Adaptor	WAP-002 (USA)	1	Mitsumi	-
B2	AC Adaptor	WAP-002 (USA)	1	Nichicon	-
B3	AC Adaptor	WAP-002 (USA)	1	Tabuchi	-
C1	IC Tag	-	37	NINTENDO	Type A
C2	IC Tag	-	31	NINTENDO	Type B
C3	IC Tag	-	11	NINTENDO	Type F
D	Headphones	-	-	-	-
E	CTR Card	CTR-005	-	NINTENDO	E203344

*1) Conducted emission test (Only for 13.56MHz with terminated antenna port): QW09500113 8(X'tal A), QW09500351 3(X'tal B), Other tests: QW09500113 5(X'tal A), QW09500351 1(X'tal B)

Accessory and model differences

The difference between mode A (X'tal A) and mode B (X'tal B) is that the mode A has crystal part number 340000LA0B, 213000AA0G and Mode B has crystal part number CX3225SB40000C4CEFZ1, CX3225SB13000G0FEFZ1.

The two crystals are compatible and are electrically identical having same radio parameters.

List of cable used

No.	Item	Length (m)	Shield	Remark
1	DC	1.9	Shielded	-
2	Headphones	0.8	Unshielded	-

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SECTION 5: Conducted emission

5.1 Operating environment

The test was carried out in a semi-anechoic chamber.

Temperature : Refer to APPENDIX 1.
Humidity : Refer to APPENDIX 1.

5.2 Test configuration

The EUT was placed on a platform of nominal size, 1.0m by 1.5m, raised 0.8m above the conducting ground plane. The rear of tabletop was located 40cm to the vertical conducting plane. The rear of EUT, including peripherals was aligned and was flushed with rear of tabletop. All other surfaces of tabletop were at least 80cm from any other grounded conducting surface.

The EUT was located 0.8m from Line Impedance Stabilization Network (LISN) and excess AC Cable was bundled in center. I/O cables that were connected to the peripherals were bundled in center. They were folded back and forth forming a bundle 0.3m to 0.4m long. Each EUT current-carrying power lead, except the ground (safety) lead, was individually connected through an LISN to the input power source. All unused 50ohm connectors of the LISN were resistively terminated in 50ohm when not connected to the measuring equipment. Photographs of the set up are shown in Appendix 3.

5.3 Test conditions

Frequency range : 0.15 - 30MHz
EUT position : Table top

5.4 Test procedure

The AC Mains Terminal Continuous disturbance Voltage had been measured with the EUT via AC adaptor within a semi-anechoic chamber. The EUT via AC adaptor was connected to a Line Impedance Stabilization Network (LISN). An overview sweep with peak detection has been performed.

The measurements had been performed with a quasi-peak detector and if required, a CISPR average detector. The conducted emission measurements were made with the following detection of the test receiver.

Detection Type : Quasi-Peak/ CISPR-Average
IF Bandwidth : 9kHz

5.5 Results

Summary of the test results : Pass

Refer to APPENDIX 1.

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SECTION 6: Radiated emission (Fundamental and Spurious emission)

6.1 Operating environment

The test was carried out in a semi-anechoic chamber.

Temperature : Refer to APPENDIX 1.

Humidity : Refer to APPENDIX 1.

6.2 Test configuration

EUT was placed on a platform of nominal size, 0.5m by 0.5m, raised 0.8m above the conducting ground plane. EUT was set up typical spacing for the other equipment. Photographs of the set up are shown in Appendix 3.

6.3 Test conditions

Frequency range : 9kHz - 1GHz

Test distance : 3m

EUT position : Table top

6.4 Test procedure

The Radiated Electric Field Strength intensity has been measured with a ground plane and at a distance of 3m

Frequency: From 9kHz to 30MHz at distance 3m

The EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity.

The measurements were performed for vertical polarization (antenna angle: 0deg.to 360deg.) and horizontal polarization. Drawing of the antenna direction is shown in Figure 1.

Frequency: From 30MHz to 1GHz at distance 3m (Refer to Figure 2).

The measuring antenna height was varied between 1 and 4m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field intensity.

The measurements were performed for both vertical and horizontal antenna polarization.

Measurements were performed with QP, PK, and AV detector.

The radiated emission measurements were made with the following detector function of the test receiver.

	9kHz to 90kHz & 110kHz to 150kHz	90kHz to 110kHz	150kHz to 490kHz	490kHz to 30MHz	30MHz to 1GHz
Detector Type	PK/AV	QP	PK/AV	QP	QP
IF Bandwidth	200Hz	200Hz	9kHz	9kHz	120kHz
Measuring antenna	Loop antenna				Biconical (30-299.99MHz) Logperiodic (300MHz-1GHz)

* FCC 15.31 (f)(2) (9kHz-30MHz)

9kHz – 490kHz [Limit at 3m]= [Limit at 300m]-40log (3[m]/300[m])

490kHz – 30MHz [Limit at 3m]= [Limit at 30m]-40log (3[m]/30[m])

Combinations of the worst case

	Frequency Antenna polarization	Carrier *2)	Spurious		Tag
			Below 30MHz	30MHz-1GHz	
EUT	Horizontal	X	X	X	With
	Vertical	Z	Z	X	With

*2) with spurious emissions near carrier frequency.

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6.5 Results

Summary of the test results : Pass

Refer to APPENDIX 1.

Figure 1. Direction of the Loop Antenna

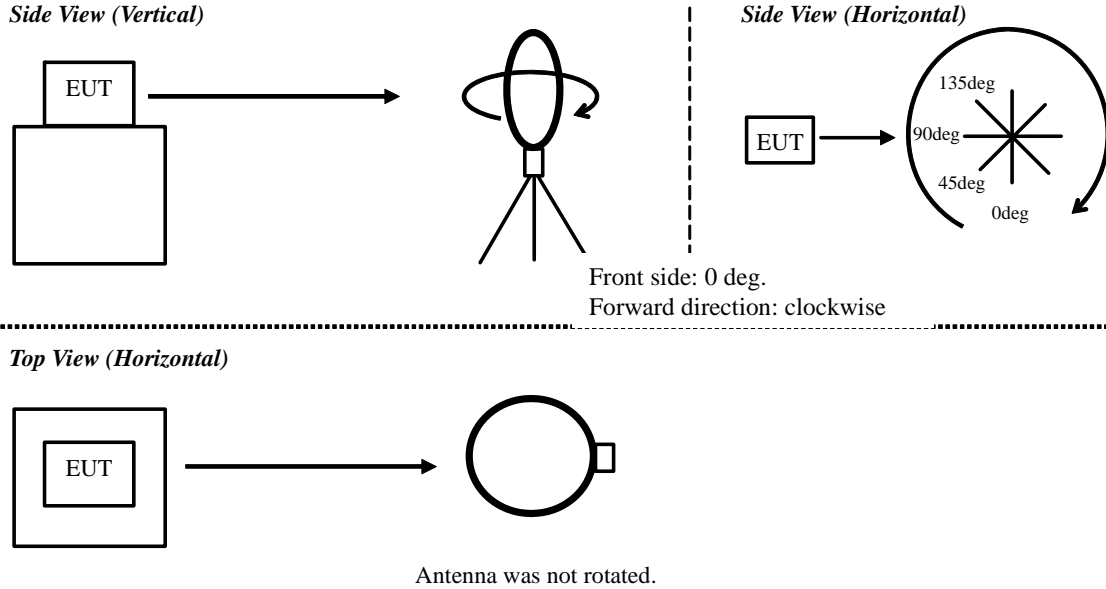
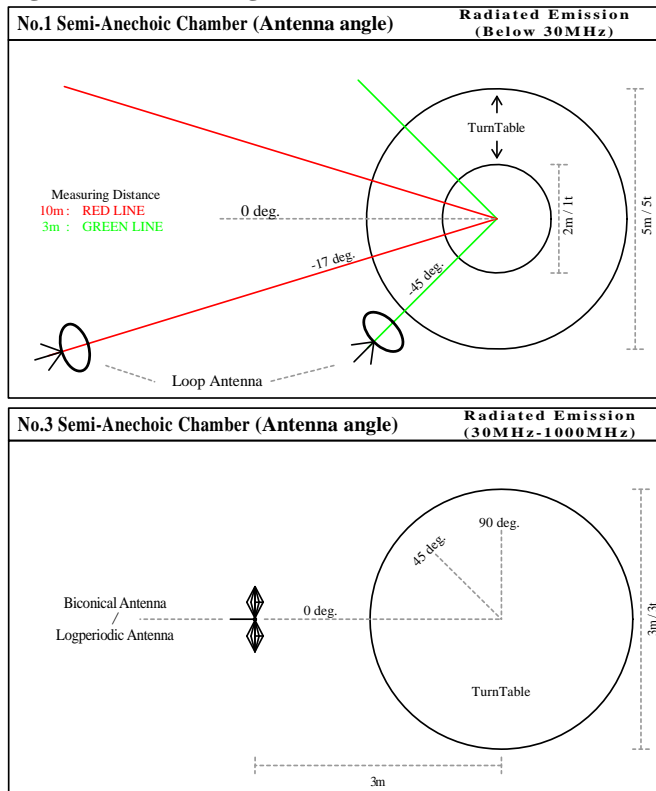


Figure 2. Antenna angle



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SECTION 7: 20dB bandwidth & Occupied bandwidth (99%)

Test procedure

The test was measured with a spectrum analyzer using a test fixture.

Results

Summary of the test results: Pass
Refer to APPENDIX 1.

SECTION 8: Frequency tolerances

Test procedure

The test was measured with a spectrum analyzer using a test fixture.
The temperature test was started after the temperature stabilization time of 30 minutes.
The test was begun from 50 deg.C and the temperature was lowered each 10 deg.C.

Results

Summary of the test results: Pass
Refer to APPENDIX 1.

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Contents of APPENDIXES

APPENDIX 1: Data of Radio tests

Conducted emission
Radiated emission
Frequency tolerance
Bandwidth

APPENDIX 2: Test instruments

Test instruments

APPENDIX 3: Photographs of test setup

Conducted emission
Radiated emission

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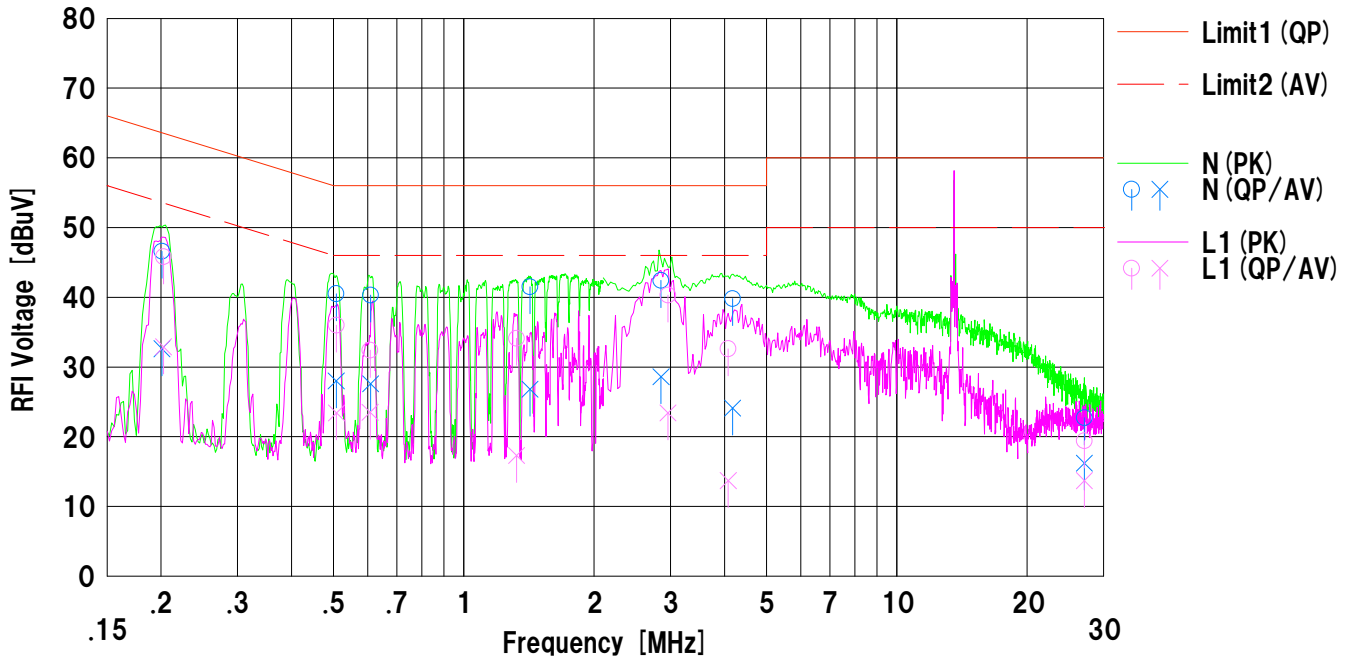
DATA OF CONDUCTED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.3 Shielded Room
Date : 2014/06/19

Company	: NINTENDO CO., LTD	Mode	: NFC type A transmitting
Kind of EUT	: Refer to section 2.2	Order No.	: 10334251S
Model No.	: RED-001	Power	: AC 120V / 60Hz
Serial No.	: QW09500113 5	Temp./Humi.	: 23deg.C / 57%RH
Remarks	: (Mitsumi's AC adaptor No.1) , X'tal Type A , Tag A , Transmitting		

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Shinichi Takano



No.	Freq. [MHz]	Reading		C.Fac [dB]	Results		Limit		Margin		Phase	Comment
		<QP> [dBuV]	<AV> [dBuV]		<QP> [dBuV]	<AV> [dBuV]	<QP> [dBuV]	<AV> [dBuV]	<QP> [dB]	<AV> [dB]		
1	0.20101	33.8	19.8	12.8	46.6	32.6	63.5	53.5	16.9	20.9	N	
2	0.50763	27.7	15.2	12.8	40.5	28.0	56.0	46.0	15.5	18.0	N	
3	0.60935	27.5	14.8	12.8	40.3	27.6	56.0	46.0	15.7	18.4	N	
4	1.42125	28.6	13.9	12.9	41.5	26.8	56.0	46.0	14.5	19.2	N	
5	2.85403	29.3	15.5	13.1	42.4	28.6	56.0	46.0	13.6	17.4	N	
6	4.17742	26.6	10.9	13.2	39.8	24.1	56.0	46.0	16.2	21.9	N	
7	27.12000	7.2	0.7	15.5	22.7	16.2	60.0	50.0	37.3	33.8	N	
8	0.20260	33.0	20.1	12.8	45.8	32.9	63.5	53.5	17.7	20.6	L1	
9	0.50820	23.2	10.6	12.8	36.0	23.4	56.0	46.0	20.0	22.6	L1	
10	0.60814	19.6	10.7	12.8	32.4	23.5	56.0	46.0	23.6	22.5	L1	
11	1.32400	21.2	4.4	12.9	34.1	17.3	56.0	46.0	21.9	28.7	L1	
12	2.96200	27.2	10.3	13.1	40.3	23.4	56.0	46.0	15.7	22.6	L1	
13	4.08150	19.4	0.5	13.2	32.6	13.7	56.0	46.0	23.4	32.3	L1	
14	27.12000	3.9	-1.8	15.5	19.4	13.7	60.0	50.0	40.6	36.3	L1	

Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN+Cable+ATT) [dB]
LISN: SLS-02-E

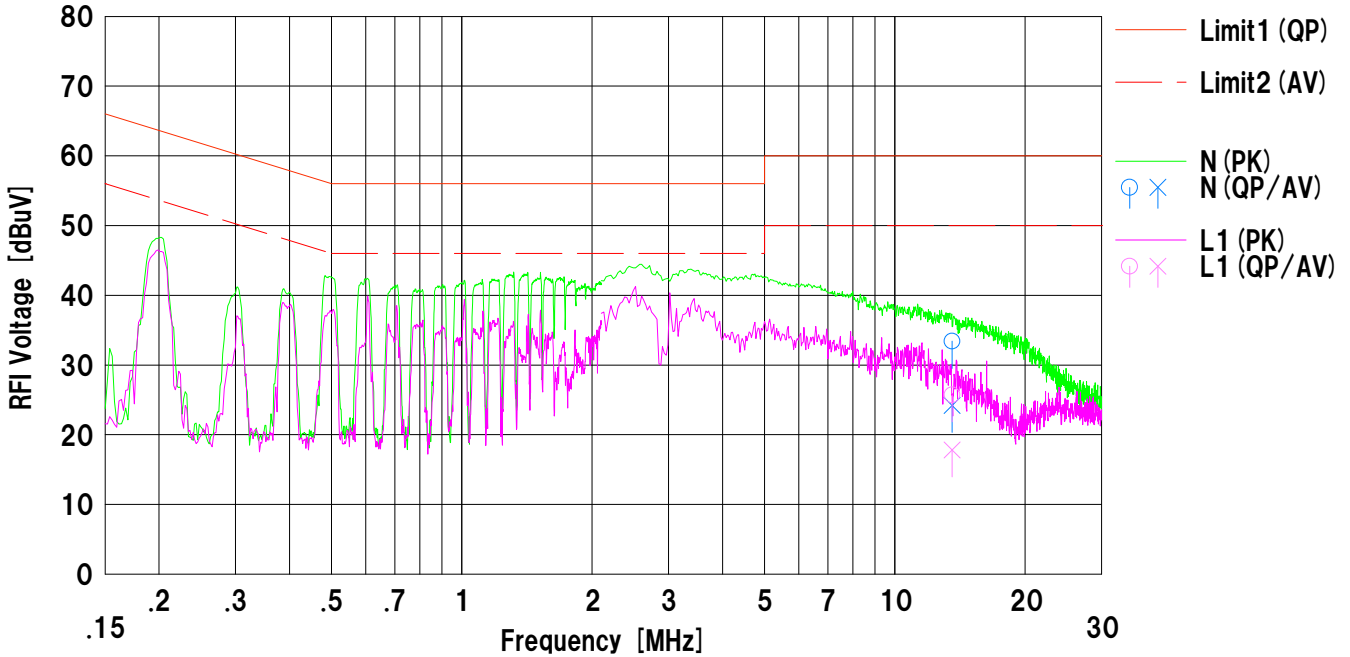
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Shonan EMC Lab. No.3 Shielded Room
Date : 2014/06/19

Company : NINTENDO CO., LTD	Mode : NFC type A transmitting
Kind of EUT : Refer to section 2.2	Order No. : 10334251S
Model No. : RED-001	Power : AC 120V / 60Hz
Serial No. : QW09500113 8	Temp./Humi. : 23deg.C / 57%RH
Remarks : (Mitsumi's AC adaptor No.1), X'tal Type A, Tag A, Transmitting (antenna terminated)	

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Shinichi Takano



No.	Freq. [MHz]	Reading		C.Fac [dB]	Results		Limit		Margin		Phase	Comment
		<QP> [dBuV]	<AV> [dBuV]		<QP> [dBuV]	<AV> [dBuV]	<QP> [dBuV]	<AV> [dBuV]	<QP> [dB]	<AV> [dB]		
1	13.56000	18.9	9.7	14.5	33.4	24.2	60.0	50.0	26.6	25.8	N	
2	13.56000	11.2	3.3	14.5	25.7	17.8	60.0	50.0	34.3	32.2	L1	

Calculation: Result [dBuV] = Reading [dBuV] + C.Fac (LISN+Cable+ATT) [dB]
LISN: SLS-02-E

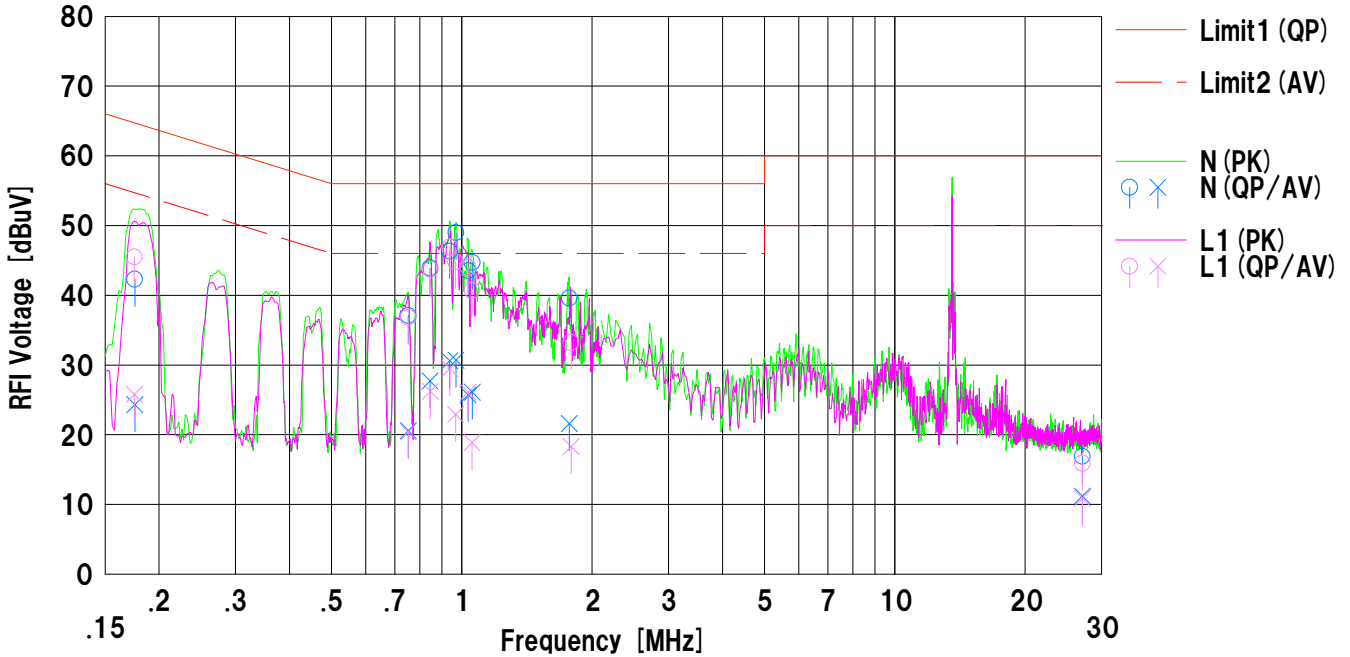
DATA OF CONDUCTED EMISSION TEST

UL Japan,Inc. Shonan EMC Lab. No.3 Shielded Room
Date : 2014/06/19

Company : NINTENDO CO., LTD	Mode : NFC type A transmitting
Kind of EUT : Refer to section 2.2	Order No. : 10334251S
Model No. : RED-001	Power : AC 120V / 60Hz
Serial No. : QW09500113 5	Temp./Humi. : 23deg.C / 57%RH
Remarks : (Nichicon's AC adaptor No.1), X'tal Type A , Tag A , Transmitting	

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Shinichi Takano



No.	Freq. [MHz]	Reading		C.Fac [dB]	Results		Limit		Margin		Phase	Comment
		<QP>	<AV>		<QP>	<AV>	<QP>	<AV>	<QP>	<AV>		
		[dBuV]	[dBuV]		[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
1	0.17574	29.5	11.5	12.8	42.3	24.3	64.6	54.6	22.3	30.3	N	
2	0.75256	24.3	7.8	12.8	37.1	20.6	56.0	46.0	18.9	25.4	N	
3	0.84470	31.1	14.9	12.8	43.9	27.7	56.0	46.0	12.1	18.3	N	
4	0.93768	33.5	17.8	12.8	46.3	30.6	56.0	46.0	9.7	15.4	N	
5	0.97019	36.1	17.8	12.9	49.0	30.7	56.0	46.0	7.0	15.3	N	
6	1.03456	30.6	12.8	12.9	43.5	25.7	56.0	46.0	12.5	20.3	N	
7	1.05726	31.8	13.2	12.9	44.7	26.1	56.0	46.0	11.3	19.9	N	
8	1.77074	26.6	8.6	13.0	39.6	21.6	56.0	46.0	16.4	24.4	N	
9	27.12000	1.4	-4.3	15.5	16.9	11.2	60.0	50.0	43.1	38.8	N	
10	0.17543	32.7	13.0	12.8	45.5	25.8	64.6	54.6	19.1	28.8	L1	
11	0.75251	24.0	7.6	12.8	36.8	20.4	56.0	46.0	19.2	25.6	L1	
12	0.84633	30.9	13.4	12.8	43.7	26.2	56.0	46.0	12.3	19.8	L1	
13	0.93927	34.1	16.7	12.8	46.9	29.5	56.0	46.0	9.1	16.5	L1	
14	0.96880	31.9	10.0	12.9	44.8	22.9	56.0	46.0	11.2	23.1	L1	
15	1.03424	31.1	13.2	12.9	44.0	26.1	56.0	46.0	12.0	19.9	L1	
16	1.05585	27.8	6.0	12.9	40.7	18.9	56.0	46.0	15.3	27.1	L1	
17	1.78788	20.2	5.3	13.0	33.2	18.3	56.0	46.0	22.8	27.7	L1	
18	27.12000	0.4	-4.6	15.5	15.9	10.9	60.0	50.0	44.1	39.1	L1	

Calculation:Result [dBuV] =Reading [dBuV] +C.Fac (LISN+Cable+ATT) [dB]
LISN: SLS-02-E

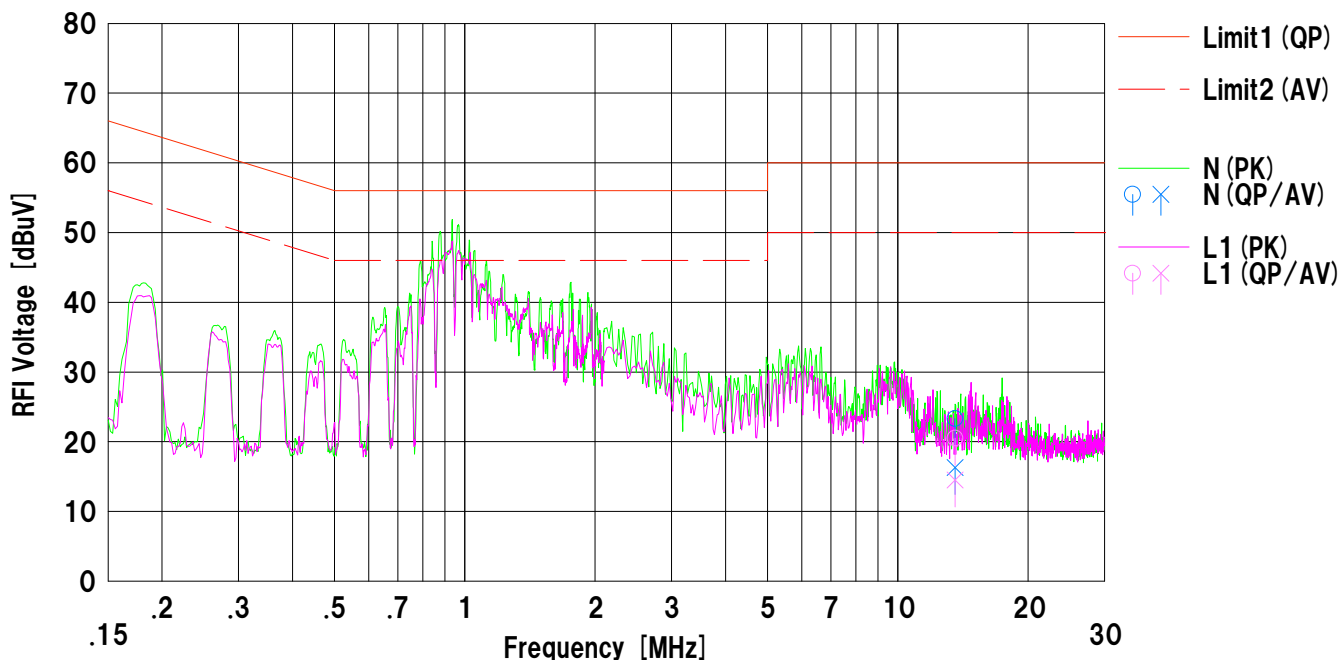
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Shonan EMC Lab. No.3 Shielded Room
Date : 2014/06/19

Company : NINTENDO CO., LTD	Mode : NFC type A transmitting
Kind of EUT : Refer to section 2.2	Order No. : 10334251S
Model No. : RED-001	Power : AC 120V / 60Hz
Serial No. : QW09500113 8	Temp./Humi. : 23deg.C / 57%RH
Remarks : (Nichicon's AC adaptor No.1), X'tal Type A, Tag A, Transmitting (antenna terminated)	

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Shinichi Takano



No.	Freq. [MHz]	Reading		C.Fac [dB]	Results		Limit		Margin		Phase	Comment
		<QP> [dBuV]	<AV> [dBuV]		<QP> [dBuV]	<AV> [dBuV]	<QP> [dBuV]	<AV> [dBuV]	<QP> [dB]	<AV> [dB]		
1	13.56000	8.8	1.8	14.5	23.3	16.3	60.0	50.0	36.7	33.7	N	
2	13.56000	6.0	0.0	14.5	20.5	14.5	60.0	50.0	39.5	35.5	L1	

Calculation: Result [dBuV] = Reading [dBuV] + C.Fac (LISN+Cable+ATT) [dB]
LISN: SLS-02-E

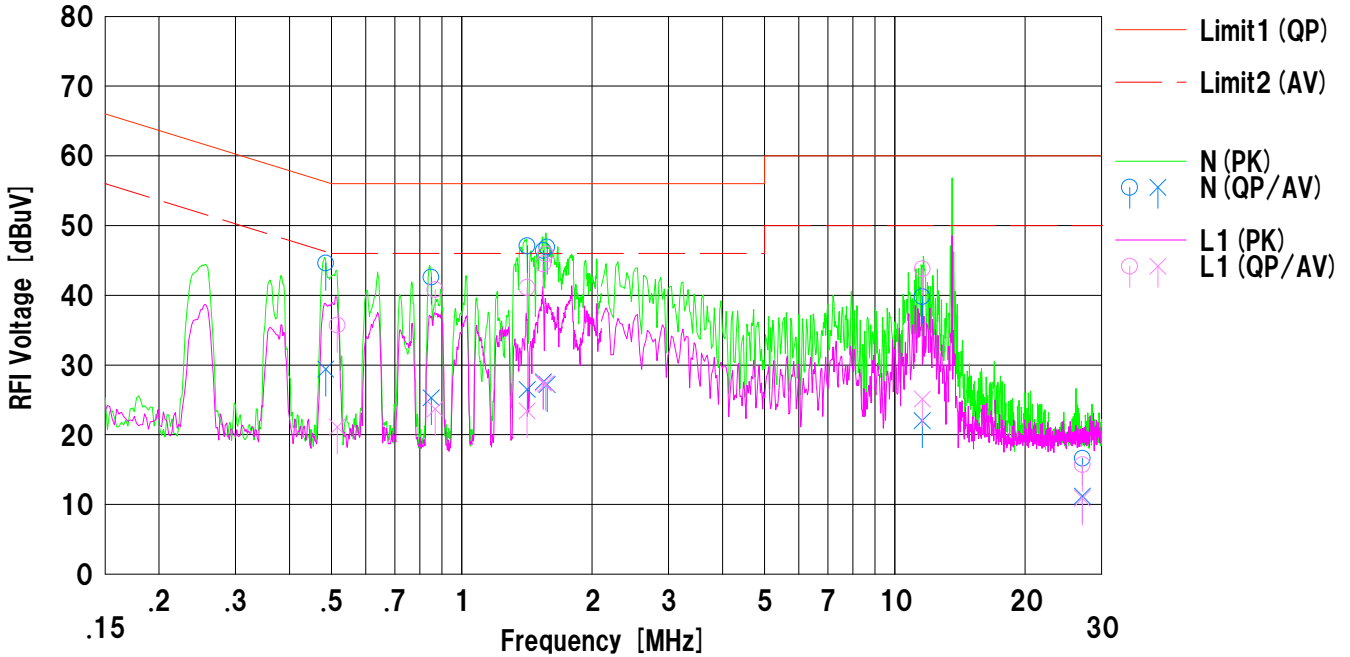
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Shonan EMC Lab. No.3 Shielded Room
Date : 2014/06/19

Company : NINTENDO CO., LTD	Mode : NFC type A transmitting
Kind of EUT : Refer to section 2.2	Order No. : 10334251S
Model No. : RED-001	Power : AC 120V / 60Hz
Serial No. : QW09500113 5	Temp./Humi. : 23deg.C / 57%RH
Remarks : (Tabuchi's AC adaptor No.1) , X'tal Type A , Tag A , Transmitting	

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Shinichi Takano



No.	Freq. [MHz]	Reading		C.Fac [dB]	Results		Limit		Margin		Phase	Comment
		<QP>	<AV>		<QP>	<AV>	<QP>	<AV>	<QP>	<AV>		
		[dBuV]	[dBuV]		[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
1	0.48491	31.8	16.6	12.8	44.6	29.4	56.2	46.2	11.6	16.8	N	
2	0.84980	29.8	12.5	12.8	42.6	25.3	56.0	46.0	13.4	20.7	N	
3	1.41642	34.2	13.6	12.9	47.1	26.5	56.0	46.0	8.9	19.5	N	
4	1.54361	33.4	14.6	13.0	46.4	27.6	56.0	46.0	9.6	18.4	N	
5	1.57363	33.9	14.2	13.0	46.9	27.2	56.0	46.0	9.1	18.8	N	
6	11.56499	25.6	7.8	14.2	39.8	22.0	60.0	50.0	20.2	28.0	N	
7	27.12000	1.1	-4.3	15.5	16.6	11.2	60.0	50.0	43.4	38.8	N	
8	0.51606	22.9	8.3	12.8	35.7	21.1	56.0	46.0	20.3	24.9	L1	
9	0.86789	28.0	10.9	12.8	40.8	23.7	56.0	46.0	15.2	22.3	L1	
10	1.41420	28.2	10.5	12.9	41.1	23.4	56.0	46.0	14.9	22.6	L1	
11	1.54123	31.5	14.4	13.0	44.5	27.4	56.0	46.0	11.5	18.6	L1	
12	1.56246	32.9	14.3	13.0	45.9	27.3	56.0	46.0	10.1	18.7	L1	
13	11.57427	29.6	10.9	14.2	43.8	25.1	60.0	50.0	16.2	24.9	L1	
14	27.12000	0.2	-4.6	15.5	15.7	10.9	60.0	50.0	44.3	39.1	L1	

Calculation: Result [dBuV] = Reading [dBuV] + C.Fac (LISN+Cable+ATT) [dB]
LISN: SLS-02-E

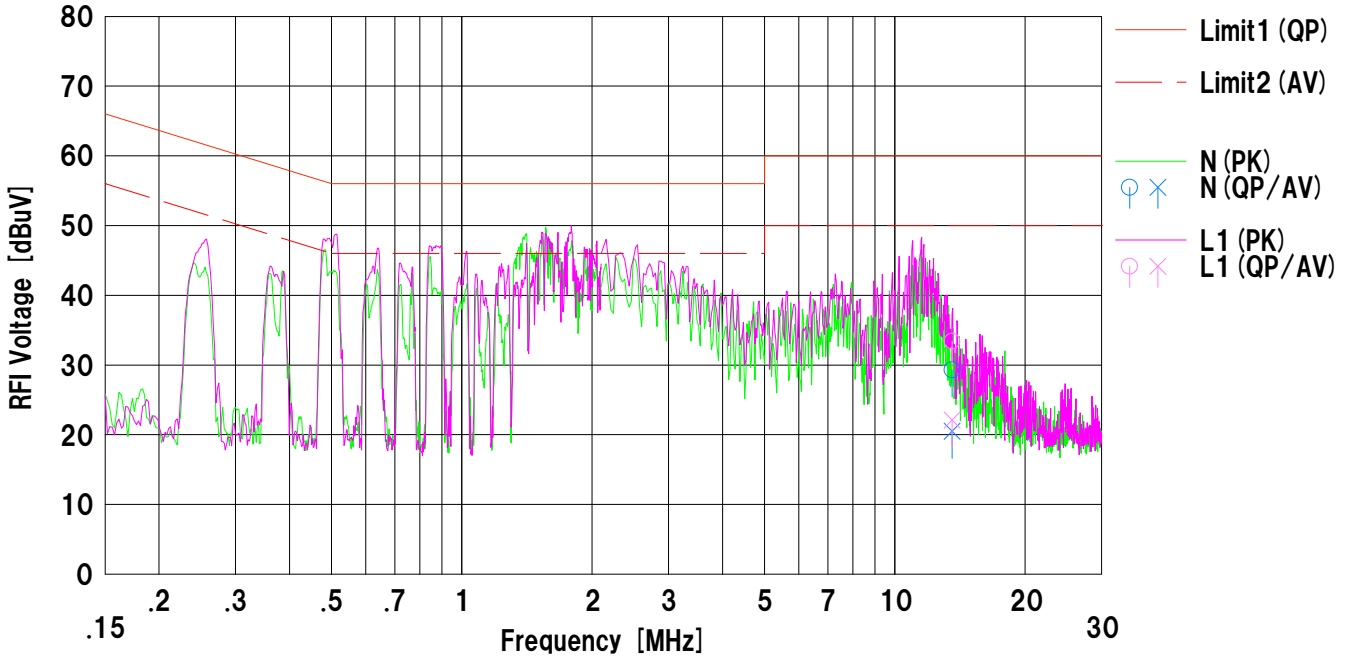
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Shonan EMC Lab. No.3 Shielded Room
Date : 2014/06/19

Company : NINTENDO CO., LTD	Mode : NFC type A transmitting
Kind of EUT : Refer to section 2.2	Order No. : 10334251S
Model No. : RED-001	Power : AC 120V / 60Hz
Serial No. : QW09500113 8	Temp./Humi. : 23deg.C / 57%RH
Remarks : (Tabuchi's AC adaptor No.1) , X'tal Type A , Tag A , Transmitting (antenna terminated)	

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Shinichi Takano



No.	Freq. [MHz]	Reading		C.Fac [dB]	Results		Limit		Margin		Phase	Comment
		<QP>	<AV>		<QP>	<AV>	<QP>	<AV>	<QP>	<AV>		
		[dBuV]	[dBuV]		[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
1	13.56000	14.8	6.0	14.5	29.3	20.5	60.0	50.0	30.7	29.5	N	
2	13.56000	18.9	7.6	14.5	33.4	22.1	60.0	50.0	26.6	27.9	L1	

Calculation: Result [dBuV] = Reading [dBuV] + C.Fac (LISN+Cable+ATT) [dB]
LISN: SLS-02-E

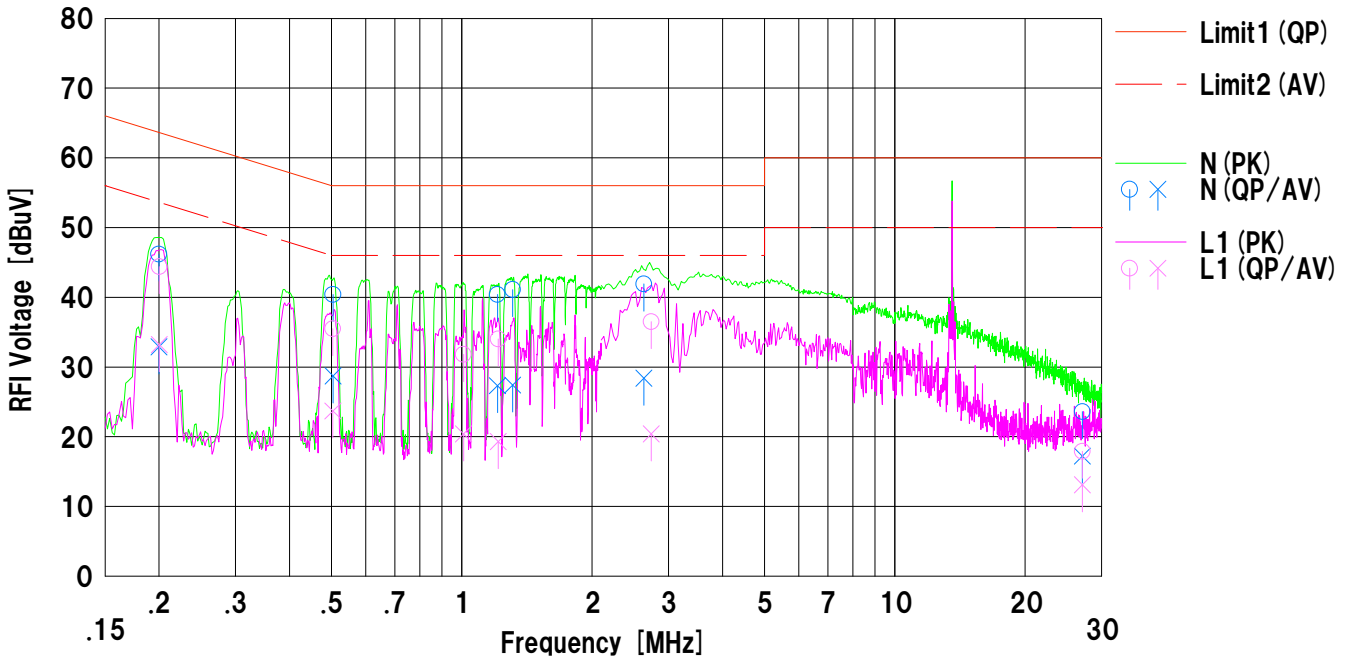
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Shonan EMC Lab. No.3 Shielded Room
Date : 2014/06/19

Company : NINTENDO CO., LTD	Mode : NFC type A transmitting
Kind of EUT : Refer to section 2.2	Order No. : 10334251S
Model No. : RED-001	Power : AC 120V / 60Hz
Serial No. : QW09500351 1	Temp./Humi. : 23deg.C / 57%RH
Remarks : (Nichicon's AC adaptor No.1), X'tal Type B, Tag A, Transmitting	

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Shinichi Takano



No.	Freq. [MHz]	Reading		C.Fac [dB]	Results		Limit		Margin		Phase	Comment
		<QP>	<AV>		<QP>	<AV>	<QP>	<AV>	<QP>	<AV>		
		[dBuV]	[dBuV]		[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
1	0.19993	33.4	20.1	12.8	46.2	32.9	63.6	53.6	17.4	20.7	N	
2	0.50422	27.6	15.9	12.8	40.4	28.7	56.0	46.0	15.6	17.3	N	
3	1.20915	27.5	14.4	12.9	40.4	27.3	56.0	46.0	15.6	18.7	N	
4	1.31140	28.2	14.5	12.9	41.1	27.4	56.0	46.0	14.9	18.6	N	
5	2.63194	28.9	15.4	13.0	41.9	28.4	56.0	46.0	14.1	17.6	N	
6	27.12000	8.1	1.7	15.5	23.6	17.2	60.0	50.0	36.4	32.8	N	
7	0.20018	31.6	20.4	12.8	44.4	33.2	63.6	53.6	19.2	20.4	L1	
8	0.50396	22.7	10.9	12.8	35.5	23.7	56.0	46.0	20.5	22.3	L1	
9	1.00925	18.9	7.5	12.9	31.8	20.4	56.0	46.0	24.2	25.6	L1	
10	1.21450	21.1	6.4	12.9	34.0	19.3	56.0	46.0	22.0	26.7	L1	
11	2.73761	23.5	7.4	13.0	36.5	20.4	56.0	46.0	19.5	25.6	L1	
12	27.12000	2.4	-2.4	15.5	17.9	13.1	60.0	50.0	42.1	36.9	L1	

Calculation: Result [dBuV] = Reading [dBuV] + C.Fac (LISN+Cable+ATT) [dB]
LISN: SLS-02-E

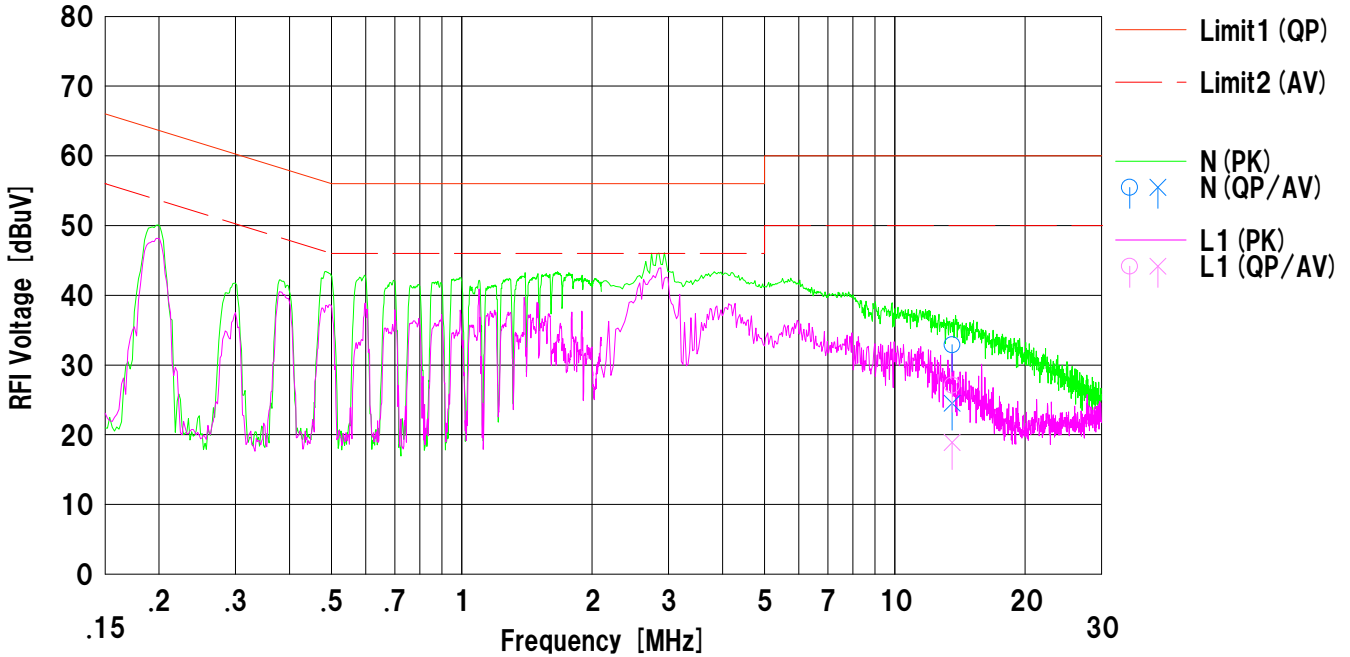
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Shonan EMC Lab. No.3 Shielded Room
Date : 2014/06/19

Company : NINTENDO CO., LTD	Mode : NFC type A transmitting
Kind of EUT : Refer to section 2.2	Order No. : 10334251S
Model No. : RED-001	Power : AC 120V / 60Hz
Serial No. : QW09500351 3	Temp./Humi. : 23deg.C / 57%RH
Remarks : (Mitsumi's AC adaptor No.1) , X'tal Type B, Tag A , Transmitting (antenna terminated)	

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Shinichi Takano



No.	Freq. [MHz]	Reading		C.Fac [dB]	Results		Limit		Margin		Phase	Comment
		<QP> [dBuV]	<AV> [dBuV]		<QP> [dBuV]	<AV> [dBuV]	<QP> [dBuV]	<AV> [dBuV]	<QP> [dB]	<AV> [dB]		
1	13.56000	18.4	10.0	14.5	32.9	24.5	60.0	50.0	27.1	25.5	N	
2	13.56000	12.6	4.4	14.5	27.1	18.9	60.0	50.0	32.9	31.1	L1	

Calculation: Result [dBuV] = Reading [dBuV] + C.Fac (LISN+Cable+ATT) [dB]
LISN: SLS-02-E

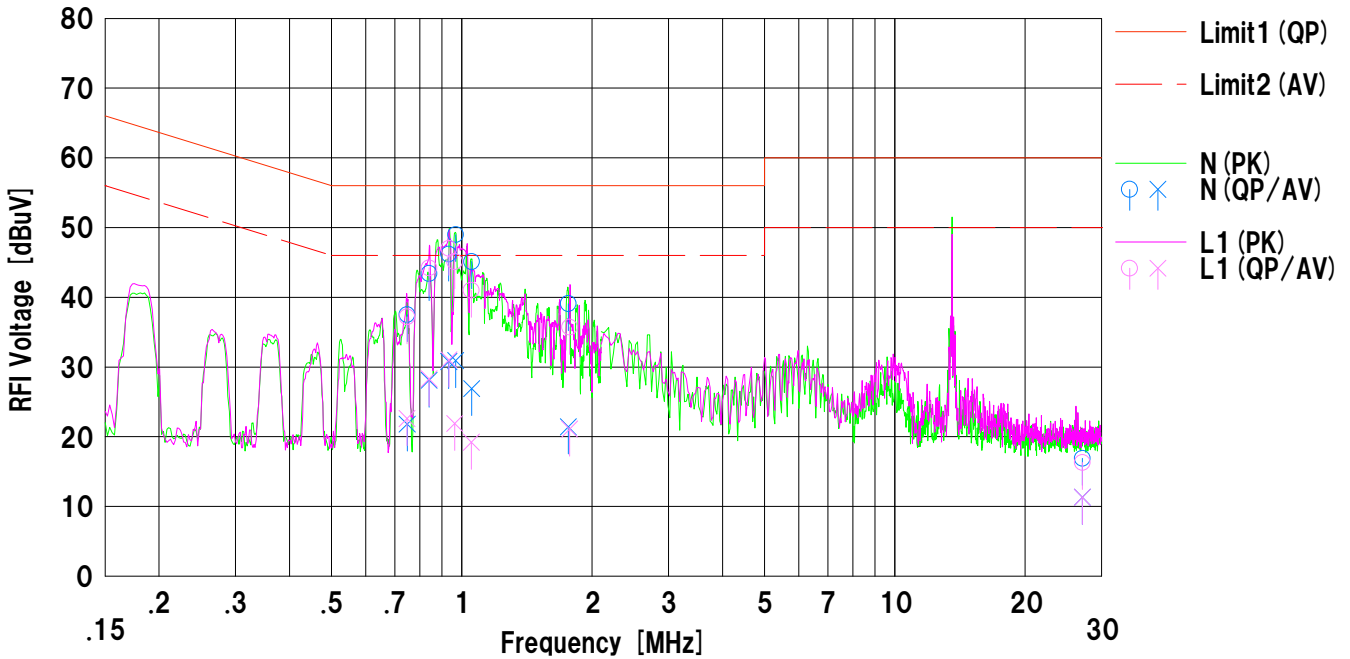
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Shonan EMC Lab. No.3 Shielded Room
Date : 2014/06/19

Company : NINTENDO CO., LTD	Mode : NFC type A transmitting
Kind of EUT : Refer to section 2.2	Order No. : 10334251S
Model No. : RED-001	Power : AC 120V / 60Hz
Serial No. : QW09500351 1	Temp./Humi. : 23deg.C / 57%RH
Remarks : (Nichicon's AC adaptor No.1), X'tal Type B, Tag A, Transmitting	

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Shinichi Takano



No.	Freq. [MHz]	Reading		C.Fac [dB]	Results		Limit		Margin		Phase	Comment
		<QP>	<AV>		<QP>	<AV>	<QP>	<AV>	<QP>	<AV>		
		[dBuV]	[dBuV]		[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
1	0.74810	24.7	9.0	12.8	37.5	21.8	56.0	46.0	18.5	24.2	N	
2	0.84036	30.6	15.3	12.8	43.4	28.1	56.0	46.0	12.6	17.9	N	
3	0.93333	33.4	18.0	12.8	46.2	30.8	56.0	46.0	9.8	15.2	N	
4	0.96831	36.1	18.0	12.9	49.0	30.9	56.0	46.0	7.0	15.1	N	
5	1.05438	32.2	14.0	12.9	45.1	26.9	56.0	46.0	10.9	19.1	N	
6	1.76354	26.1	8.4	13.0	39.1	21.4	56.0	46.0	16.9	24.6	N	
7	27.12000	1.4	-4.2	15.5	16.9	11.3	60.0	50.0	43.1	38.7	N	
8	0.74738	24.4	9.8	12.8	37.2	22.6	56.0	46.0	18.8	23.4	L1	
9	0.84099	31.4	15.5	12.8	44.2	28.3	56.0	46.0	11.8	17.7	L1	
10	0.93407	34.2	18.2	12.8	47.0	31.0	56.0	46.0	9.0	15.0	L1	
11	0.96290	32.2	9.0	12.9	45.1	21.9	56.0	46.0	10.9	24.1	L1	
12	1.05189	28.1	6.3	12.9	41.0	19.2	56.0	46.0	15.0	26.8	L1	
13	1.77439	22.7	8.1	13.0	35.7	21.1	56.0	46.0	20.3	24.9	L1	
14	27.12000	0.8	-4.2	15.5	16.3	11.3	60.0	50.0	43.7	38.7	L1	

Calculation: Result [dBuV] = Reading [dBuV] + C.Fac (LISN+Cable+ATT) [dB]
LISN: SLS-02-E

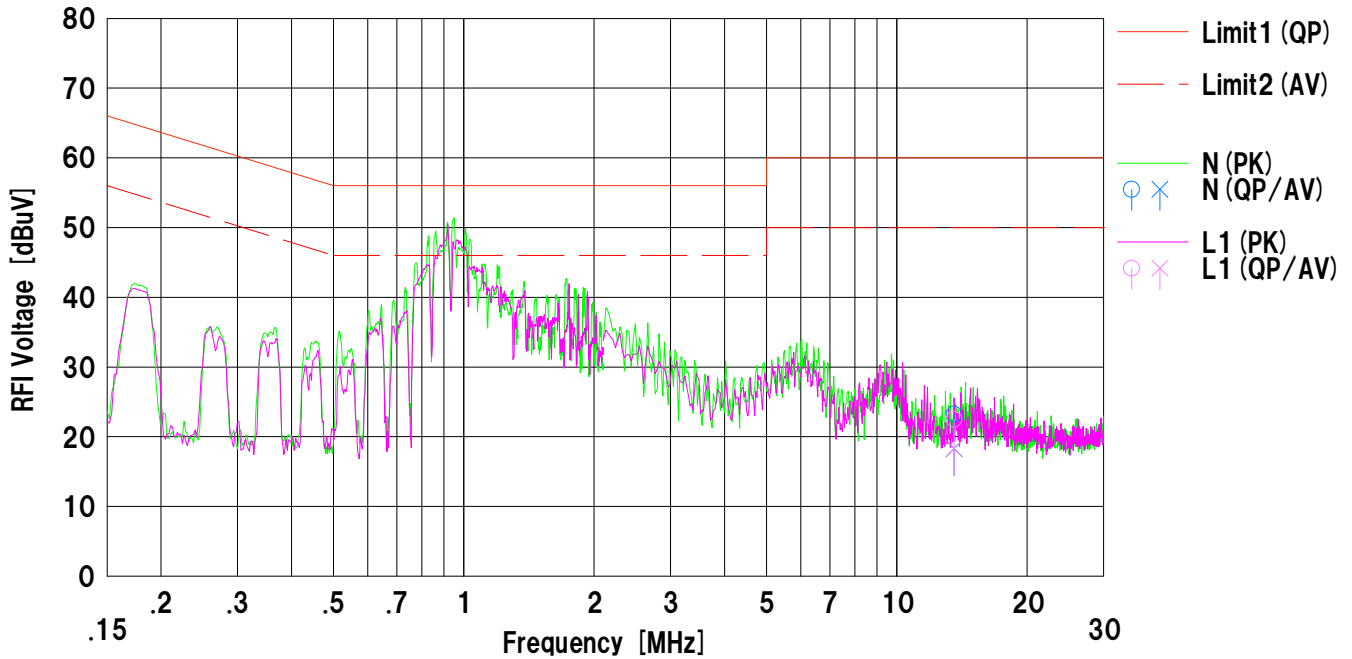
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Shonan EMC Lab. No.3 Shielded Room
Date : 2014/06/19

Company : NINTENDO CO., LTD	Mode : NFC type A transmitting
Kind of EUT : Refer to section 2.2	Order No. : 10334251S
Model No. : RED-001	Power : AC 120V / 60Hz
Serial No. : QW09500351 3	Temp./Humi. : 23deg.C / 57%RH
Remarks : (Nichicon's AC adaptor No.1) , X'tal Type B , Tag A , Transmitting (antenna terminated)	

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Shinichi Takano



No.	Freq. [MHz]	Reading		C.Fac [dB]	Results		Limit		Margin		Phase	Comment
		<QP> [dBuV]	<AV> [dBuV]		<QP> [dBuV]	<AV> [dBuV]	<QP> [dB]	<AV> [dB]				
1	13.56000	8.7	3.8	14.5	23.2	18.3	60.0	50.0	36.8	31.7	N	
2	13.56000	8.0	3.8	14.5	22.5	18.3	60.0	50.0	37.5	31.7	L1	

Calculation: Result [dBuV] = Reading [dBuV] + C.Fac (LISN+Cable+ATT) [dB]
LISN: SLS-02-E

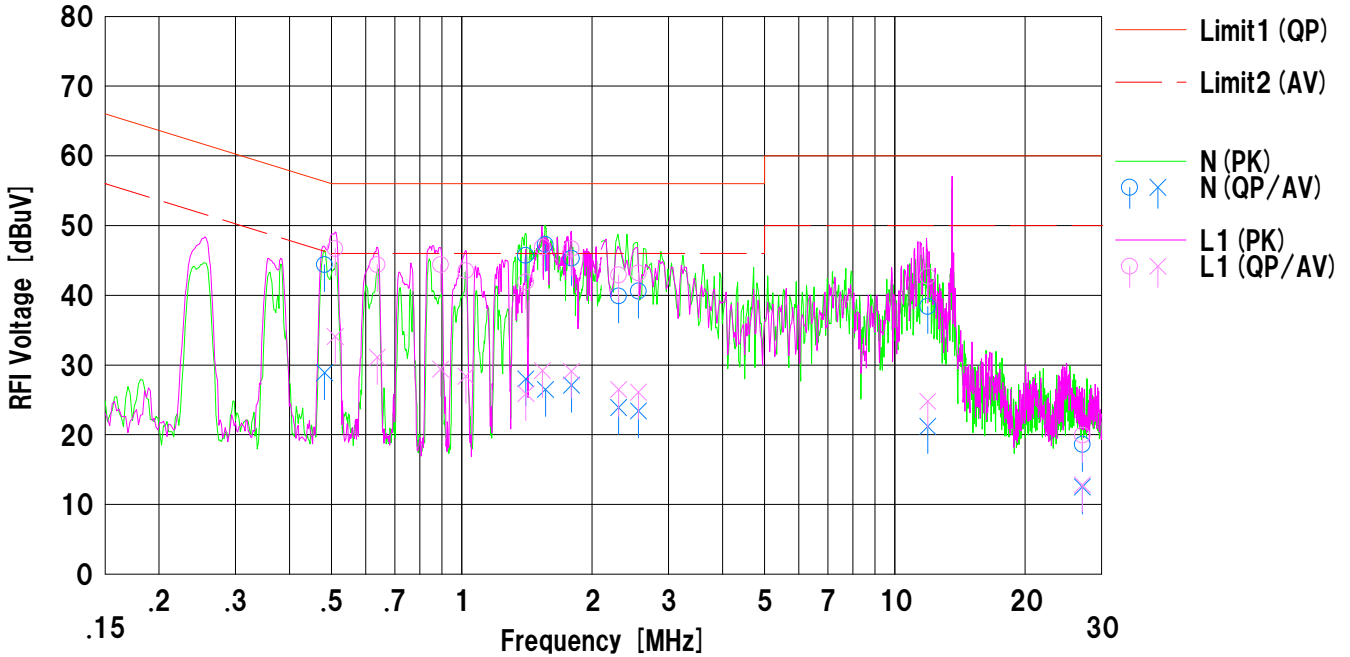
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Shonan EMC Lab. No.3 Shielded Room
Date : 2014/06/19

Company : NINTENDO CO., LTD	Mode : NFC type A transmitting
Kind of EUT : Refer to section 2.2	Order No. : 10334251S
Model No. : RED-001	Power : AC 120V / 60Hz
Serial No. : QW09500351 1	Temp./Humi. : 23deg.C / 57%RH
Remarks : (Tabuchi's AC adaptor No.1), X'tal Type B, Tag A, Transmitting	

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Shinichi Takano



No.	Freq. [MHz]	Reading		C.Fac [dB]	Results		Limit		Margin		Phase	Comment
		<QP> [dBuV]	<AV> [dBuV]		<QP> [dBuV]	<AV> [dBuV]	<QP> [dBuV]	<AV> [dBuV]	<QP> [dB]	<AV> [dB]		
1	0.48206	31.6	16.1	12.8	44.4	28.9	56.3	46.3	11.9	17.4	N	
2	1.40495	32.8	15.1	12.9	45.7	28.0	56.0	46.0	10.3	18.0	N	
3	1.56106	34.3	13.5	13.0	47.3	26.5	56.0	46.0	8.7	19.5	N	
4	1.79171	32.3	14.1	13.0	45.3	27.1	56.0	46.0	10.7	18.9	N	
5	2.30319	26.9	10.9	13.0	39.9	23.9	56.0	46.0	16.1	22.1	N	
6	2.55766	27.6	10.4	13.0	40.6	23.4	56.0	46.0	15.4	22.6	N	
7	11.91013	24.2	7.0	14.2	38.4	21.2	60.0	50.0	21.6	28.8	N	
8	27.12000	3.1	-3.0	15.5	18.6	12.5	60.0	50.0	41.4	37.5	N	
9	0.51031	33.9	21.3	12.8	46.7	34.1	56.0	46.0	9.3	11.9	L1	
10	0.63790	31.6	18.3	12.8	44.4	31.1	56.0	46.0	11.6	14.9	L1	
11	0.89432	31.6	16.6	12.8	44.4	29.4	56.0	46.0	11.6	16.6	L1	
12	1.02167	30.6	15.5	12.9	43.5	28.4	56.0	46.0	12.5	17.6	L1	
13	1.40590	29.0	13.0	12.9	41.9	25.9	56.0	46.0	14.1	20.1	L1	
14	1.53528	33.9	16.2	13.0	46.9	29.2	56.0	46.0	9.1	16.8	L1	
15	1.79062	33.7	16.1	13.0	46.7	29.1	56.0	46.0	9.3	16.9	L1	
16	2.30346	29.9	13.5	13.0	42.9	26.5	56.0	46.0	13.1	19.5	L1	
17	2.55714	30.2	13.1	13.0	43.2	26.1	56.0	46.0	12.8	19.9	L1	
18	11.90921	28.5	10.6	14.2	42.7	24.8	60.0	50.0	17.3	25.2	L1	
19	27.12000	4.4	-2.7	15.5	19.9	12.8	60.0	50.0	40.1	37.2	L1	

Calculation: Result [dBuV] = Reading [dBuV] + C.Fac (LISN+Cable+ATT) [dB]
LISN: SLS-02-E

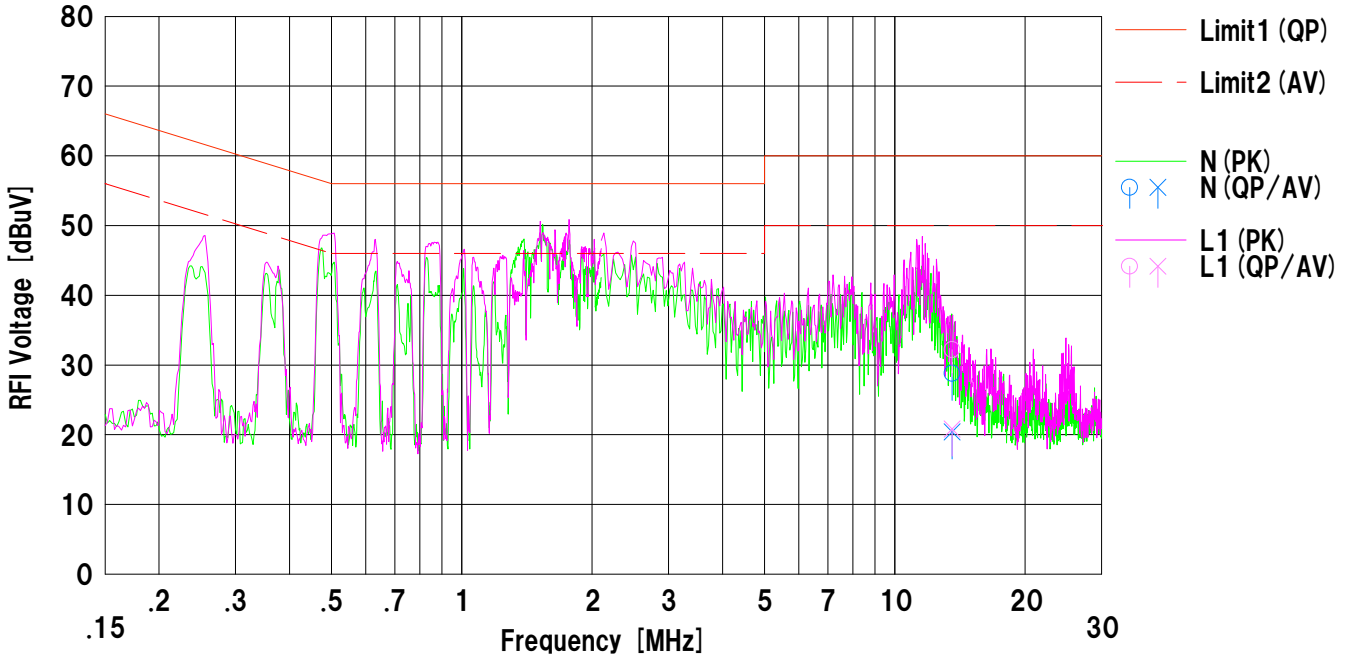
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Shonan EMC Lab. No.3 Shielded Room
Date : 2014/06/19

Company : NINTENDO CO., LTD	Mode : NFC type A transmitting
Kind of EUT : Refer to section 2.2	Order No. : 10334251S
Model No. : RED-001	Power : AC 120V / 60Hz
Serial No. : QW09500351 3	Temp./Humi. : 23deg.C / 57%RH
Remarks : (Tabuchi's AC adaptor No.1), X'tal Type B, Tag A, Transmitting (antenna terminated)	

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Shinichi Takano



No.	Freq. [MHz]	Reading		C.Fac [dB]	Results		Limit		Margin		Phase	Comment
		<QP> [dBuV]	<AV> [dBuV]		<QP> [dBuV]	<AV> [dBuV]	<QP> [dBuV]	<AV> [dBuV]	<QP> [dB]	<AV> [dB]		
1	13.56000	14.3	5.9	14.5	28.8	20.4	60.0	50.0	31.2	29.6	N	
2	13.56000	17.7	6.3	14.5	32.2	20.8	60.0	50.0	27.8	29.2	L1	

Calculation: Result [dBuV] = Reading [dBuV] + C.Fac (LISN+Cable+ATT) [dB]
LISN: SLS-02-E

Data of Electric field strength of Fundamental emission and Spurious emission within the band: FCC15.225(a)(b)(c)

UL Japan, Inc.
Shonan EMC Lab., No.1 Semi-Anechoic Chamber

Company: NINTENDO CO., LTD.	Regulation: FCC Part15 Subpart C 15.225
Equipment: Refer to section 2.2	Test Distance: 3m
Model: RED-001	Date: June 25, 2014
Sample No.: QW09500113 5	Temperature: 24 deg.C
Power: AC 120V / 60Hz	Humidity: 61 %RH
Mode: Transmitting 13.56MHz	ENGINEER: Kenichi Adachi

Remarks: : NFC type B, with tag (Axis:Hor_X / Ver_Z) , Vertical polarization (antenna angle) of the worst case: 0deg
X'tal A, Mitsumi's AC adaptor

Fundamental emission

No.	FREQ [MHz]	Test Receiver Reading		Antenna Factor [dB/m]	LOSS [dB]	AMP GAIN [dB]	Distance factor [dB]	RESULT		LIMIT (30m) [dBuV/m]	MARGIN	
		Hor [dBuV]	Ver [dBuV]					Hor [dBuV/m]	Ver [dBuV/m]		Hor [dB]	Ver [dB]
1	13.560	51.7	63.3	19.0	6.5	31.8	-40.0	5.4	17.0	83.9	78.5	66.9

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+Distance factor[dB]

Distance factor: $40 \times \log(3m/30m) = -40$ dB

Limits (30m)

•13.553MHz to 13.567MHz : 83.9dBuV/m (FCC 15.225(a))

Spurious emission within the band

No.	FREQ [MHz]	Test Receiver Reading		Antenna Factor [dB/m]	LOSS [dB]	AMP GAIN [dB]	Distance factor [dB]	RESULT		LIMIT (30m) [dBuV/m]	MARGIN	
		Hor [dBuV]	Ver [dBuV]					Hor [dBuV/m]	Ver [dBuV/m]		Hor [dB]	Ver [dB]
1	13.110	30.3	30.3	19.0	6.4	31.8	-40.0	-16.1	-16.1	29.5	45.6	45.6
2	13.410	30.3	30.5	19.0	6.5	31.8	-40.0	-16.0	-15.8	40.5	56.5	56.3
3	13.553	38.1	49.2	19.0	6.5	31.8	-40.0	-8.2	2.9	50.4	58.6	47.5
4	13.567	38.0	49.0	19.0	6.5	31.8	-40.0	-8.3	2.7	50.4	58.7	47.7
5	13.710	30.3	30.4	19.0	6.5	31.8	-40.0	-16.0	-15.9	40.5	56.5	56.4
6	14.010	30.3	30.5	19.0	6.5	31.8	-40.0	-16.0	-15.8	29.5	45.5	45.3

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+Distance factor[dB]

Outside filed strength frequencies

•Fc±7kHz:13.553MHz to 13.567MHz

•Fc±150kHz:13.410MHz to 13.710MHz

•Fc±450kHz:13.110MHz to 14.010MHz

Fc = 13.56MHz

Limits (30m)

•13.410MHz to 13.553MHz and 13.567MHz to 13.710MHz : 50.4dBuV/m (FCC 15.225(b))

•13.110MHz to 13.410MHz and 13.710MHz to 14.010MHz : 40.5dBuV/m (FCC 15.225(c))

•Below 13.110MHz and Above 14.010MHz : 29.5dBuV/m (FCC 15.225(d)and FCC 15.209)

UL Japan, Inc.

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Data of Electric field strength of Fundamental emission and Spurious emission within the band: FCC15.225(a)(b)(c)

UL Japan, Inc.
Shonan EMC Lab., No.1 Semi-Anechoic Chamber

Company: NINTENDO CO., LTD.	Regulation: FCC Part15 Subpart C 15.225
Equipment: Refer to section 2.2	Test Distance: 3m
Model: RED-001	Date: June 25, 2014
Sample No.: QW09500113 5	Temperature: 24 deg.C
Power: AC 120V / 60Hz	Humidity: 61 %RH
Mode: Transmitting 13.56MHz	ENGINEER: Kenichi Adachi

Remarks: : NFC type B, with tag (Axis:Hor_X / Ver_Z) , Vertical polarization (antenna angle) of the worst case: 0deg
X'tal A, Tabuchi's AC adaptor

Fundamental emission

No.	FREQ [MHz]	Test Receiver Reading		Antenna Factor [dB/m]	LOSS [dB]	AMP GAIN [dB]	Distance factor [dB]	RESULT		LIMIT (30m) [dBuV/m]	MARGIN	
		Hor [dBuV]	Ver [dBuV]					Hor [dBuV/m]	Ver [dBuV/m]		Hor [dB]	Ver [dB]
1	13.560	52.7	63.2	19.0	6.5	31.8	-40.0	6.4	16.9	83.9	77.5	67.0

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+Distance factor[dB]

Distance factor: $40 \times \log(3m/30m) = -40 \text{ dB}$

Limits (30m)

•13.553MHz to 13.567MHz : 83.9dBuV/m (FCC 15.225(a))

Spurious emission within the band

No.	FREQ [MHz]	Test Receiver Reading		Antenna Factor [dB/m]	LOSS [dB]	AMP GAIN [dB]	Distance factor [dB]	RESULT		LIMIT (30m) [dBuV/m]	MARGIN	
		Hor [dBuV]	Ver [dBuV]					Hor [dBuV/m]	Ver [dBuV/m]		Hor [dB]	Ver [dB]
1	13.110	30.4	30.4	19.0	6.4	31.8	-40.0	-16.0	-16.0	29.5	45.5	45.5
2	13.410	30.5	30.5	19.0	6.5	31.8	-40.0	-15.8	-15.8	40.5	56.3	56.3
3	13.553	39.2	49.1	19.0	6.5	31.8	-40.0	-7.1	2.8	50.4	57.5	47.6
4	13.567	38.9	49.0	19.0	6.5	31.8	-40.0	-7.4	2.7	50.4	57.8	47.7
5	13.710	30.4	30.5	19.0	6.5	31.8	-40.0	-15.9	-15.8	40.5	56.4	56.3
6	14.010	30.5	30.5	19.0	6.5	31.8	-40.0	-15.8	-15.8	40.5	56.3	56.3

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+Distance factor[dB]

Outside filed strength frequencies

•Fc±7kHz:13.553MHz to 13.567MHz

•Fc±150kHz:13.410MHz to 13.710MHz

•Fc±450kHz:13.110MHz to 14.010MHz

Fc = 13.56MHz

Limits (30m)

•13.410MHz to 13.553MHz and 13.567MHz to 13.710MHz : 50.4dBuV/m (FCC 15.225(b))

•13.110MHz to 13.410MHz and 13.710MHz to 14.010MHz : 40.5dBuV/m (FCC 15.225(c))

•Below 13.110MHz and Above 14.010MHz : 29.5dBuV/m (FCC 15.225(d)and FCC 15.209)

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Data of Electric field strength of Fundamental emission and Spurious emission within the band: FCC15.225(a)(b)(c)

UL Japan, Inc.
Shonan EMC Lab., No.1 Semi-Anechoic Chamber

Company: NINTENDO CO., LTD.	Regulation: FCC Part15 Subpart C 15.225
Equipment: Refer to section 2.2	Test Distance: 3m
Model: RED-001	Date: June 25, 2014
Sample No.: QW09500113 5	Temperature: 24 deg.C
Power: AC 120V / 60Hz	Humidity: 61 %RH
Mode: Transmitting 13.56MHz	ENGINEER: Kenichi Adachi

Remarks: : NFC type B, with tag (Axis:Hor_X / Ver_Z) , Vertical polarization (antenna angle) of the worst case: 0deg
X'tal A, Nichicon's AC adaptor

Fundamental emission

No.	FREQ [MHz]	Test Receiver Reading		Antenna Factor [dB/m]	LOSS [dB]	AMP GAIN [dB]	Distance factor [dB]	RESULT		LIMIT (30m) [dBuV/m]	MARGIN	
		Hor [dBuV]	Ver [dBuV]					Hor [dBuV/m]	Ver [dBuV/m]		Hor [dB]	Ver [dB]
1	13.560	52.2	63.1	19.0	6.5	31.8	-40.0	5.9	16.8	83.9	78.0	67.1

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+Distance factor[dB]

Distance factor: $40 \times \log(3m/30m) = -40 \text{ dB}$

Limits (30m)

•13.553MHz to 13.567MHz : 83.9dBuV/m (FCC 15.225(a))

Spurious emission within the band

No.	FREQ [MHz]	Test Receiver Reading		Antenna Factor [dB/m]	LOSS [dB]	AMP GAIN [dB]	Distance factor [dB]	RESULT		LIMIT (30m) [dBuV/m]	MARGIN	
		Hor [dBuV]	Ver [dBuV]					Hor [dBuV/m]	Ver [dBuV/m]		Hor [dB]	Ver [dB]
1	13.110	30.4	30.4	19.0	6.4	31.8	-40.0	-16.0	-16.0	29.5	45.5	45.5
2	13.410	30.4	30.4	19.0	6.5	31.8	-40.0	-15.9	-15.9	40.5	56.4	56.4
3	13.553	38.7	48.9	19.0	6.5	31.8	-40.0	-7.6	2.6	50.4	58.0	47.8
4	13.567	38.5	48.7	19.0	6.5	31.8	-40.0	-7.8	2.4	50.4	58.2	48.0
5	13.710	30.5	30.5	19.0	6.5	31.8	-40.0	-15.8	-15.8	40.5	56.3	56.3
6	14.010	30.5	30.5	19.0	6.5	31.8	-40.0	-15.8	-15.8	40.5	56.3	56.3

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+Distance factor[dB]

Outside filed strength frequencies

•Fc±7kHz:13.553MHz to 13.567MHz

•Fc±150kHz:13.410MHz to 13.710MHz

•Fc±450kHz:13.110MHz to 14.010MHz

Fc = 13.56MHz

Limits (30m)

•13.410MHz to 13.553MHz and 13.567MHz to 13.710MHz : 50.4dBuV/m (FCC 15.225(b))

•13.110MHz to 13.410MHz and 13.710MHz to 14.010MHz : 40.5dBuV/m (FCC 15.225(c))

•Below 13.110MHz and Above 14.010MHz : 29.5dBuV/m (FCC 15.225(d)and FCC 15.209)

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Data of Electric field strength of Fundamental emission and Spurious emission within the band: FCC15.225(a)(b)(c)

UL Japan, Inc.
Shonan EMC Lab., No.1 Semi-Anechoic Chamber

Company: NINTENDO CO., LTD.	Regulation: FCC Part15 Subpart C 15.225
Equipment: Refer to section 2.2	Test Distance: 3m
Model: RED-001	Date: June 25, 2014
Sample No.: QW09500351 1	Temperature: 24 deg.C
Power: AC 120V / 60Hz	Humidity: 61 %RH
Mode: Transmitting 13.56MHz	ENGINEER: Kenichi Adachi

Remarks: : NFC type B, with tag (Axis:Hor_X / Ver_Z) , Vertical polarization (antenna angle) of the worst case: 0deg
X'tal B, Mitsumi's AC adaptor

Fundamental emission

No.	FREQ [MHz]	Test Receiver Reading		Antenna Factor [dB/m]	LOSS [dB]	AMP GAIN [dB]	Distance factor [dB]	RESULT		LIMIT (30m) [dBuV/m]	MARGIN	
		Hor [dBuV]	Ver [dBuV]					Hor [dBuV/m]	Ver [dBuV/m]		Hor [dB]	Ver [dB]
1	13.560	51.3	64.6	19.0	6.5	31.8	-40.0	5.0	18.3	83.9	78.9	65.6

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+Distance factor[dB]

Distance factor: 40 x log (3m/30m) = -40 dB

Limits (30m)

•13.553MHz to 13.567MHz : 83.9dBuV/m (FCC 15.225(a))

Spurious emission within the band

No.	FREQ [MHz]	Test Receiver Reading		Antenna Factor [dB/m]	LOSS [dB]	AMP GAIN [dB]	Distance factor [dB]	RESULT		LIMIT (30m) [dBuV/m]	MARGIN	
		Hor [dBuV]	Ver [dBuV]					Hor [dBuV/m]	Ver [dBuV/m]		Hor [dB]	Ver [dB]
1	13.110	30.4	30.4	19.0	6.4	31.8	-40.0	-16.0	-16.0	40.5	56.5	56.5
2	13.410	30.4	30.4	19.0	6.5	31.8	-40.0	-15.9	-15.9	40.5	56.4	56.4
3	13.553	38.3	50.4	19.0	6.5	31.8	-40.0	-8.0	4.1	50.4	58.4	46.3
4	13.567	38.0	49.6	19.0	6.5	31.8	-40.0	-8.3	3.3	50.4	58.7	47.1
5	13.710	30.4	30.4	19.0	6.5	31.8	-40.0	-15.9	-15.9	40.5	56.4	56.4
6	14.010	30.4	30.4	19.0	6.5	31.8	-40.0	-15.9	-15.9	40.5	56.4	56.4

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+Distance factor[dB]

Outside filed strength frequencies

•Fc±7kHz:13.553MHz to 13.567MHz

•Fc±150kHz:13.410MHz to 13.710MHz

•Fc±450kHz:13.110MHz to 14.010MHz

Fc = 13.56MHz

Limits (30m)

•13.410MHz to 13.553MHz and 13.567MHz to 13.710MHz : 50.4dBuV/m (FCC 15.225(b))

•13.110MHz to 13.410MHz and 13.710MHz to 14.010MHz : 40.5dBuV/m (FCC 15.225(c))

•Below 13.110MHz and Above 14.010MHz : 29.5dBuV/m (FCC 15.225(d)and FCC 15.209)

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Data of Electric field strength of Fundamental emission and Spurious emission within the band: FCC15.225(a)(b)(c)

UL Japan, Inc.
Shonan EMC Lab., No.1 Semi-Anechoic Chamber

Company: NINTENDO CO., LTD.	Regulation: FCC Part15 Subpart C 15.225
Equipment: Refer to section 2.2	Test Distance: 3m
Model: RED-001	Date: June 25, 2014
Sample No.: QW09500351 1	Temperature: 24 deg.C
Power: AC 120V / 60Hz	Humidity: 61 %RH
Mode: Transmitting 13.56MHz	ENGINEER: Kenichi Adachi

Remarks: : NFC type B, with tag (Axis:Hor_X / Ver_Z) , Vertical polarization (antenna angle) of the worst case: 0deg
X'tal B, Tabuchi's AC adaptor

Fundamental emission

No.	FREQ [MHz]	Test Receiver Reading		Antenna Factor [dB/m]	LOSS [dB]	AMP GAIN [dB]	Distance factor [dB]	RESULT		LIMIT (30m) [dBuV/m]	MARGIN	
		Hor [dBuV]	Ver [dBuV]					Hor [dBuV/m]	Ver [dBuV/m]		Hor [dB]	Ver [dB]
1	13.560	50.9	65.3	19.0	6.5	31.8	-40.0	4.6	19.0	83.9	79.3	64.9

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+Distance factor[dB]

Distance factor: 40 x log (3m/30m) = -40 dB

Limits (30m)

•13.553MHz to 13.567MHz : 83.9dBuV/m (FCC 15.225(a))

Spurious emission within the band

No.	FREQ [MHz]	Test Receiver Reading		Antenna Factor [dB/m]	LOSS [dB]	AMP GAIN [dB]	Distance factor [dB]	RESULT		LIMIT (30m) [dBuV/m]	MARGIN	
		Hor [dBuV]	Ver [dBuV]					Hor [dBuV/m]	Ver [dBuV/m]		Hor [dB]	Ver [dB]
1	13.110	30.4	30.4	19.0	6.4	31.8	-40.0	-16.0	-16.0	40.5	56.5	56.5
2	13.410	30.4	30.4	19.0	6.5	31.8	-40.0	-15.9	-15.9	40.5	56.4	56.4
3	13.553	37.9	51.7	19.0	6.5	31.8	-40.0	-8.4	5.4	50.4	58.8	45.0
4	13.567	37.7	50.4	19.0	6.5	31.8	-40.0	-8.6	4.1	50.4	59.0	46.3
5	13.710	30.4	30.4	19.0	6.5	31.8	-40.0	-15.9	-15.9	40.5	56.4	56.4
6	14.010	30.4	30.4	19.0	6.5	31.8	-40.0	-15.9	-15.9	40.5	56.4	56.4

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+Distance factor[dB]

Outside filed strength frequencies

•Fc±7kHz:13.553MHz to 13.567MHz

•Fc±150kHz:13.410MHz to 13.710MHz

•Fc±450kHz:13.110MHz to 14.010MHz

Fc = 13.56MHz

Limits (30m)

•13.410MHz to 13.553MHz and 13.567MHz to 13.710MHz : 50.4dBuV/m (FCC 15.225(b))

•13.110MHz to 13.410MHz and 13.710MHz to 14.010MHz : 40.5dBuV/m (FCC 15.225(c))

•Below 13.110MHz and Above 14.010MHz : 29.5dBuV/m (FCC 15.225(d)and FCC 15.209)

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Data of Electric field strength of Fundamental emission and Spurious emission within the band: FCC15.225(a)(b)(c)

UL Japan, Inc.
Shonan EMC Lab., No.1 Semi-Anechoic Chamber

Company: NINTENDO CO., LTD.	Regulation: FCC Part15 Subpart C 15.225
Equipment: Refer to section 2.2	Test Distance: 3m
Model: RED-001	Date: June 25, 2014
Sample No.: QW09500351 1	Temperature: 24 deg.C
Power: AC 120V / 60Hz	Humidity: 61 %RH
Mode: Transmitting 13.56MHz	ENGINEER: Kenichi Adachi

Remarks: : NFC type B, with tag (Axis:Hor_X / Ver_Z) , Vertical polarization (antenna angle) of the worst case: 0deg
X'tal B, Nichicon's AC adaptor

Fundamental emission

No.	FREQ [MHz]	Test Receiver Reading		Antenna Factor [dB/m]	LOSS [dB]	AMP GAIN [dB]	Distance factor [dB]	RESULT		LIMIT (30m) [dBuV/m]	MARGIN	
		Hor [dBuV]	Ver [dBuV]					Hor [dBuV/m]	Ver [dBuV/m]		Hor [dB]	Ver [dB]
1	13.560	51.0	64.7	19.0	6.5	31.8	-40.0	4.7	18.4	83.9	79.2	65.5

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+Distance factor[dB]

Distance factor: 40 x log (3m/30m) = -40 dB

Limits (30m)

•13.553MHz to 13.567MHz : 83.9dBuV/m (FCC 15.225(a))

Spurious emission within the band

No.	FREQ [MHz]	Test Receiver Reading		Antenna Factor [dB/m]	LOSS [dB]	AMP GAIN [dB]	Distance factor [dB]	RESULT		LIMIT (30m) [dBuV/m]	MARGIN	
		Hor [dBuV]	Ver [dBuV]					Hor [dBuV/m]	Ver [dBuV/m]		Hor [dB]	Ver [dB]
1	13.110	30.4	30.4	19.0	6.4	31.8	-40.0	-16.0	-16.0	40.5	56.5	56.5
2	13.410	30.4	30.4	19.0	6.5	31.8	-40.0	-15.9	-15.9	40.5	56.4	56.4
3	13.553	38.1	50.9	19.0	6.5	31.8	-40.0	-8.2	4.6	50.4	58.6	45.8
4	13.567	37.3	49.8	19.0	6.5	31.8	-40.0	-9.0	3.5	50.4	59.4	46.9
5	13.710	30.4	30.5	19.0	6.5	31.8	-40.0	-15.9	-15.8	40.5	56.4	56.3
6	14.010	30.5	30.5	19.0	6.5	31.8	-40.0	-15.8	-15.8	40.5	56.3	56.3

Calculation:Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+Distance factor[dB]

Outside filed strength frequencies

•Fc±7kHz:13.553MHz to 13.567MHz

•Fc±150kHz:13.410MHz to 13.710MHz

•Fc±450kHz:13.110MHz to 14.010MHz

Fc = 13.56MHz

Limits (30m)

•13.410MHz to 13.553MHz and 13.567MHz to 13.710MHz : 50.4dBuV/m (FCC 15.225(b))

•13.110MHz to 13.410MHz and 13.710MHz to 14.010MHz : 40.5dBuV/m (FCC 15.225(c))

•Below 13.110MHz and Above 14.010MHz : 29.5dBuV/m (FCC 15.225(d)and FCC 15.209)

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Data of Electric field strength of Fundamental emission and Spurious emission within the band: FCC15.225(a)(b)(c)

(Reference data)

UL Japan, Inc.
Shonan EMC Lab., No.1 Semi-Anechoic Chamber

Company: NINTENDO CO., LTD.	Regulation: FCC Part15 Subpart C 15.225
Equipment: Refer to section 2.2	Test Distance: 3m
Model: RED-001	Date: June 25, 2014
Sample No.: QW09500113 5	Temperature: 24 deg.C
Power: AC 120V / 60Hz	Humidity: 61 %RH
Mode: Transmitting 13.56MHz	ENGINEER: Kenichi Adachi

Remarks: : NFC type A, with tag (Axis:Hor_X / Ver_Z) , Vertical polarization (antenna angle) of the worst case: 0deg
X'tal A, Mitsumi's AC adaptor

Fundamental emission

No.	FREQ [MHz]	Test Receiver Reading		Antenna Factor [dB/m]	LOSS [dB]	AMP GAIN [dB]	Distance factor [dB]	RESULT		LIMIT (30m) [dBuV/m]	MARGIN	
		Hor [dBuV]	Ver [dBuV]					Hor [dBuV/m]	Ver [dBuV/m]		Hor [dB]	Ver [dB]
1	13.560	51.8	63.2	19.0	6.5	31.8	-40.0	5.5	16.9	83.9	78.4	67.0

Calculation: Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+Distance factor[dB]

Distance factor: $40 \times \log(3\text{m}/30\text{m}) = -40 \text{ dB}$

Limits (30m)

• 13.553MHz to 13.567MHz : 83.9dBuV/m (FCC 15.225(a))

Spurious emission within the band

No.	FREQ [MHz]	Test Receiver Reading		Antenna Factor [dB/m]	LOSS [dB]	AMP GAIN [dB]	Distance factor [dB]	RESULT		LIMIT (30m) [dBuV/m]	MARGIN	
		Hor [dBuV]	Ver [dBuV]					Hor [dBuV/m]	Ver [dBuV/m]		Hor [dB]	Ver [dB]
1	13.110	30.2	30.3	19.0	6.4	31.8	-40.0	-16.2	-16.1	29.5	45.7	45.6
2	13.348	31.9	40.7	19.0	6.5	31.8	-40.0	-14.4	-5.6	40.5	54.9	46.1
3	13.410	30.2	31.6	19.0	6.5	31.8	-40.0	-16.1	-14.7	40.5	56.6	55.2
4	13.453	33.7	43.7	19.0	6.5	31.8	-40.0	-12.6	-2.6	50.4	63.0	53.0
5	13.553	38.3	48.5	19.0	6.5	31.8	-40.0	-8.0	2.2	50.4	58.4	48.2
6	13.567	38.1	48.3	19.0	6.5	31.8	-40.0	-8.2	2.0	50.4	58.6	48.4
7	13.667	33.5	42.9	19.0	6.5	31.8	-40.0	-12.8	-3.4	50.4	63.2	53.8
8	13.710	30.3	31.0	19.0	6.5	31.8	-40.0	-16.0	-15.3	40.5	56.5	55.8
9	13.772	31.6	39.7	19.0	6.5	31.8	-40.0	-14.7	-6.6	40.5	55.2	47.1
10	14.010	30.3	30.3	19.0	6.5	31.8	-40.0	-16.0	-16	29.5	45.5	45.5

Calculation: Result[dBuV/m]=Reading[dBuV]+Ant.Fac[dB/m]+Loss(Cable+ATT)[dB]-Gain(AMP)[dB]+Distance factor[dB]

Outside filed strength frequencies

• $F_c \pm 7\text{kHz}$: 13.553MHz to 13.567MHz

• $F_c \pm 150\text{kHz}$: 13.410MHz to 13.710MHz

• $F_c \pm 450\text{kHz}$: 13.110MHz to 14.010MHz

$F_c = 13.56\text{MHz}$

Limits (30m)

• 13.410MHz to 13.553MHz and 13.567MHz to 13.710MHz : 50.4dBuV/m (FCC 15.225(b))

• 13.110MHz to 13.410MHz and 13.710MHz to 14.010MHz : 40.5dBuV/m (FCC 15.225(c))

• Below 13.110MHz and Above 14.010MHz : 29.5dBuV/m (FCC 15.225(d)and FCC 15.209)

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Radiated Emission

UL Japan, Inc.

Shonan EMC Lab. No.1&3 Semi Anechoic Chamber

Company: NINTENDO CO., LTD.
 Equipment: Refer to section 2.2
 Model: RED-001
 Sample No.: QW09500113 5
 Power: AC 120V / 60Hz
 Mode: Transmitting 13.56MHz
 EUT axis: Below 30MHz(Horizontal X-axis, Vertical Z-axis), NFC type B, with Tag
 Above 30MHz(Horizontal: X-axis, Vertical: X-axis), NFC type B, with Tag
 Remarks: X'tal A, Mitsumi's AC adaptor

Regulation: FCC Part15 Subpart C 15.225

Test Distance 3m

Date: June 25, 2014 , June 28, 2014

Temperature: 24 deg.C , 25 deg.C

Humidity: 61 %RH , 55 %RH

ENGINEER: Kenichi Adachi , Akio Hayashi

(below 30MHz) (above 30MHz)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	12.71	QP	30.6	19.0	6.4	31.8	-40.0	-15.8	29.5	45.3	-	198	* Limit: 30m
Hori.	14.41	QP	30.5	19.0	6.5	31.8	-40.0	-15.8	29.5	45.3	-	198	* Limit: 30m
Hori.	27.12	QP	29.4	19.8	6.8	31.8	-40.0	-15.8	29.5	45.3	-	0	* Limit: 30m
Hori.	111.27	QP	40.0	11.7	7.2	32.1		26.8	43.5	16.7	288	74	
Hori.	248.73	QP	39.1	17.0	8.1	32.0		32.2	46.0	13.8	138	28	
Hori.	274.92	QP	39.2	17.9	8.3	32.0		33.4	46.0	12.6	124	178	
Hori.	393.24	QP	36.4	16.2	8.8	32.0		29.4	46.0	16.6	100	138	
Hori.	670.29	QP	34.4	19.4	9.8	31.9		31.7	46.0	14.3	137	168	
Hori.	938.40	QP	30.4	21.9	10.8	30.7		32.4	46.0	13.6	100	192	
Vert.	12.71	QP	37.4	19.0	6.4	31.8	-40.0	-9.0	29.5	38.5	-	321	* Limit: 30m
Vert.	14.41	QP	33.8	19.0	6.5	31.8	-40.0	-12.5	29.5	42.0	-	321	* Limit: 30m
Vert.	27.12	QP	29.3	19.8	6.8	31.8	-40.0	-15.9	29.5	45.4	-	0	* Limit: 30m
Vert.	50.27	QP	39.9	10.7	6.8	32.2		25.2	40.0	14.8	103	249	
Vert.	52.36	QP	45.6	10.1	6.7	32.2		30.2	40.0	9.8	100	167	
Vert.	58.91	QP	40.6	8.4	6.5	32.2		23.3	40.0	16.7	100	183	
Vert.	111.27	QP	41.3	11.7	7.2	32.1		28.1	43.5	15.4	100	278	

Result = Reading + Ant Factor + Loss (Cable+ATT+ΔAF(above 30MHz)) - Gain(Amplifier) + Distance factor(below 30MHz)

* Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

* Carrier level (Result at 3m): Hor= 45.4dBuV/m, Ver= 57 dBuV/m

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Radiated Emission

UL Japan, Inc.

Shonan EMC Lab. No.1&3 Semi Anechoic Chamber

Company: NINTENDO CO., LTD.
 Equipment: Refer to section 2.2
 Model: RED-001
 Sample No.: QW09500113 5
 Power: AC 120V / 60Hz
 Mode: Transmitting 13.56MHz
 EUT axis: Below 30MHz(Horizontal X-axis, Vertical Z-axis), NFC type B, with Tag
 Above 30MHz(Horizontal: X-axis, Vertical: X-axis), NFC type B, with Tag
 Remarks: X'tal A, Tabuchi's AC adaptor

Regulation: FCC Part15 Subpart C 15.225

Test Distance 3m

Date: June 25, 2014 , June 28, 2014

Temperature: 24 deg.C , 25 deg.C

Humidity: 61 %RH , 55 %RH

ENGINEER: Kenichi Adachi , Akio Hayashi

(below 30MHz) (above 30MHz)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	12.71	QP	30.4	19.0	6.4	31.8	-40.0	-16.0	29.5	45.5	-	216	* Limit: 30m
Hori.	14.41	QP	30.5	19.0	6.5	31.8	-40.0	-15.8	29.5	45.3	-	216	* Limit: 30m
Hori.	27.12	QP	29.4	19.8	6.8	31.8	-40.0	-15.8	29.5	45.3	-	0	* Limit: 30m
Hori.	104.73	QP	43.2	10.7	7.2	32.1		29.0	43.5	14.5	171	109	
Hori.	111.27	QP	41.6	11.7	7.2	32.1		28.4	43.5	15.1	313	105	
Hori.	248.74	QP	40.0	17.0	8.1	32.0		33.1	46.0	12.9	130	15	
Hori.	274.92	QP	38.6	17.9	8.3	32.0		32.8	46.0	13.2	126	183	
Hori.	670.29	QP	33.8	19.4	9.8	31.9		31.1	46.0	14.9	141	135	
Hori.	938.40	QP	29.9	21.9	10.8	30.7		31.9	46.0	14.1	150	77	
Vert.	12.71	QP	37.5	19.0	6.4	31.8	-40.0	-8.9	29.5	38.4	-	307	* Limit: 30m
Vert.	14.41	QP	35.8	19.0	6.5	31.8	-40.0	-10.5	29.5	40.0	-	307	* Limit: 30m
Vert.	27.12	QP	29.4	19.8	6.8	31.8	-40.0	-15.8	29.5	45.3	-	0	* Limit: 30m
Vert.	52.37	QP	44.9	10.1	6.7	32.2		29.5	40.0	10.5	100	187	
Vert.	94.92	QP	42.2	9.1	7.4	32.1		26.6	43.5	16.9	100	357	

Result = Reading + Ant Factor + Loss (Cable+ATT+ΔAF(above 30MHz)) - Gain(Amplifier) + Distance factor(below 30MHz)

* Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

* Carrier level (Result at 3m): Hor= 46.4dBuV/m, Ver= 56.9 dBuV/m

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Radiated Emission

UL Japan, Inc.

Shonan EMC Lab. No.1&3 Semi Anechoic Chamber

Company: NINTENDO CO., LTD.
 Equipment: Refer to section 2.2
 Model: RED-001
 Sample No.: QW09500113 5
 Power: AC 120V / 60Hz
 Mode: Transmitting 13.56MHz
 EUT axis: Below 30MHz(Horizontal X-axis, Vertical Z-axis), NFC type B, with Tag
 Above 30MHz(Horizontal: X-axis, Vertical: X-axis), NFC type B, with Tag
 Remarks: X'tal A, Nichicon's AC adaptor

Regulation: FCC Part15 Subpart C 15.225

Test Distance 3m

Date: June 25, 2014 , June 28, 2014

Temperature: 24 deg.C , 25 deg.C

Humidity: 61 %RH , 55 %RH

ENGINEER: Kenichi Adachi , Akio Hayashi

(below 30MHz) (above 30MHz)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	12.71	QP	30.5	19.0	6.4	31.8	-40.0	-15.9	29.5	45.4	-	213	* Limit: 30m
Hori.	14.41	QP	30.5	19.0	6.5	31.8	-40.0	-15.8	29.5	45.3	-	213	* Limit: 30m
Hori.	27.12	QP	29.4	19.8	6.8	31.8	-40.0	-15.8	29.5	45.3	-	0	* Limit: 30m
Hori.	94.92	QP	44.0	9.1	7.4	32.1		28.4	43.5	15.1	183	99	
Hori.	111.28	QP	41.6	11.7	7.2	32.1		28.4	43.5	15.1	344	123	
Hori.	248.72	QP	39.4	17.0	8.1	32.0		32.5	46.0	13.5	135	178	
Hori.	255.29	QP	37.0	17.2	8.2	32.0		30.4	46.0	15.6	135	181	
Hori.	670.29	QP	33.2	19.4	9.8	31.9		30.5	46.0	15.5	124	157	
Hori.	938.40	QP	29.0	21.9	10.8	30.7		31.0	46.0	15.0	161	197	
Vert.	12.71	QP	37.4	19.0	6.4	31.8	-40.0	-9.0	29.5	38.5	-	320	* Limit: 30m
Vert.	14.41	QP	33.6	19.0	6.5	31.8	-40.0	-12.7	29.5	42.2	-	320	* Limit: 30m
Vert.	27.12	QP	29.4	19.8	6.8	31.8	-40.0	-15.8	29.5	45.3	-	0	* Limit: 30m
Vert.	50.27	QP	40.7	10.7	6.8	32.2		26.0	40.0	14.0	100	191	
Vert.	52.37	QP	45.8	10.1	6.7	32.2		30.4	40.0	9.6	100	189	
Vert.	94.92	QP	40.5	9.1	7.4	32.1		24.9	43.5	18.6	100	356	
Vert.	111.28	QP	42.5	11.7	7.2	32.1		29.3	43.5	14.2	100	290	

Result = Reading + Ant Factor + Loss (Cable+ATT+ΔAF(above 30MHz)) - Gain(Amplifier) + Distance factor(below 30MHz)

* Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

* Carrier level (Result at 3m): Hor= 45.9dBuV/m, Ver= 56.8 dBuV/m

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Radiated Emission

UL Japan, Inc.

Shonan EMC Lab. No.1&3 Semi Anechoic Chamber

Company: NINTENDO CO., LTD.
 Equipment: Refer to section 2.2
 Model: RED-001
 Sample No.: QW09500351 1
 Power: AC 120V / 60Hz
 Mode: Transmitting 13.56MHz
 EUT axis: Below 30MHz(Horizontal X-axis, Vertical Z-axis), NFC type B, with Tag
 Above 30MHz(Horizontal: X-axis, Vertical: X-axis), NFC type B, with Tag
 Remarks: X'tal B, Mitsumi's AC adaptor

Regulation: FCC Part15 Subpart C 15.225

Test Distance 3m

Date: June 25, 2014 , June 28, 2014

Temperature: 24 deg.C , 25 deg.C

Humidity: 61 %RH , 55 %RH

ENGINEER: Kenichi Adachi , Akio Hayashi

(below 30MHz) (above 30MHz)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	12.71	QP	30.5	19.0	6.4	31.8	-40.0	-15.9	29.5	45.4	-	208	* Limit: 30m
Hori.	14.41	QP	30.5	19.0	6.5	31.8	-40.0	-15.8	29.5	45.3	-	208	* Limit: 30m
Hori.	27.12	QP	29.5	19.8	6.8	31.8	-40.0	-15.7	29.5	45.2	-	0	* Limit: 30m
Hori.	94.92	QP	43.6	9.1	7.4	32.1		28.0	43.5	15.5	198	97	
Hori.	104.73	QP	40.2	10.7	7.2	32.1		26.0	43.5	17.5	160	89	
Hori.	203.40	QP	33.7	16.5	7.9	32.1		26.0	43.5	17.5	156	37	
Hori.	268.11	QP	35.6	17.7	8.2	32.0		29.5	46.0	16.5	126	359	
Hori.	393.23	QP	37.8	16.2	8.8	32.0		30.8	46.0	15.2	100	143	
Vert.	12.71	QP	38.3	19.0	6.4	31.8	-40.0	-8.1	29.5	37.6	-	310	* Limit: 30m
Vert.	14.41	QP	35.4	19.0	6.5	31.8	-40.0	-10.9	29.5	40.4	-	310	* Limit: 30m
Vert.	27.12	QP	29.4	19.8	6.8	31.8	-40.0	-15.8	29.5	45.3	-	0	* Limit: 30m
Vert.	40.68	QP	41.3	14.2	6.6	32.2		29.9	40.0	10.1	100	110	
Vert.	104.71	QP	36.8	10.7	7.2	32.1		22.6	43.5	20.9	100	302	

Result = Reading + Ant Factor + Loss (Cable+ATT+ΔAF(above 30MHz)) - Gain(Amplifier) + Distance factor(below 30MHz)

* Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

* Carrier level (Result at 3m): Hor= 45dBuV/m, Ver= 58.3 dBuV/m

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Radiated Emission

UL Japan, Inc.

Shonan EMC Lab. No.1&3 Semi Anechoic Chamber

Company: NINTENDO CO., LTD.
 Equipment: Refer to section 2.2
 Model: RED-001
 Sample No.: QW09500351 1
 Power: AC 120V / 60Hz
 Mode: Transmitting 13.56MHz
 EUT axis: Below 30MHz(Horizontal X-axis, Vertical Z-axis), NFC type B, with Tag
 Above 30MHz(Horizontal: X-axis, Vertical: X-axis), NFC type B, with Tag
 Remarks: X'tal B, Tabuchi's AC adaptor

Regulation: FCC Part15 Subpart C 15.225

Test Distance 3m

Date: June 25, 2014 , June 28, 2014

Temperature: 24 deg.C , 25 deg.C

Humidity: 61 %RH , 55 %RH

ENGINEER: Kenichi Adachi , Akio Hayashi

(below 30MHz) (above 30MHz)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	12.71	QP	30.5	19.0	6.4	31.8	-40.0	-15.9	29.5	45.4	-	205	* Limit: 30m
Hori.	14.41	QP	30.5	19.0	6.5	31.8	-40.0	-15.8	29.5	45.3	-	205	* Limit: 30m
Hori.	27.12	QP	29.5	19.8	6.8	31.8	-40.0	-15.7	29.5	45.2	-	0	* Limit: 30m
Hori.	94.92	QP	43.2	9.1	7.4	32.1		27.6	43.5	15.9	209	88	
Hori.	104.73	QP	34.8	10.7	7.2	32.1		20.6	43.5	22.9	164	101	
Hori.	203.40	QP	33.3	16.5	7.9	32.1		25.6	43.5	17.9	100	37	
Hori.	268.11	QP	35.6	17.7	8.2	32.0		29.5	46.0	16.5	125	359	
Hori.	393.24	QP	38.4	16.2	8.8	32.0		31.4	46.0	14.6	100	139	
Hori.	670.27	QP	33.8	19.4	9.8	31.9		31.1	46.0	14.9	133	148	
Vert.	12.71	QP	39.3	19.0	6.4	31.8	-40.0	-7.1	29.5	36.6	-	322	* Limit: 30m
Vert.	14.41	QP	37.3	19.0	6.5	31.8	-40.0	-9.0	29.5	38.5	-	312	* Limit: 30m
Vert.	27.12	QP	29.4	19.8	6.8	31.8	-40.0	-15.8	29.5	45.3	-	0	* Limit: 30m
Vert.	40.68	QP	40.1	14.2	6.6	32.2		28.7	40.0	11.3	100	146	
Vert.	94.92	QP	42.5	9.1	7.4	32.1		26.9	43.5	16.6	100	359	
Vert.	104.73	QP	38.9	10.7	7.2	32.1		24.7	43.5	18.8	100	135	

Result = Reading + Ant Factor + Loss (Cable+ATT+ΔAF(above 30MHz)) - Gain(Amplifier) + Distance factor(below 30MHz)

* Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

* Carrier level (Result at 3m): Hor= 44.6dBuV/m, Ver= 59 dBuV/m

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Radiated Emission

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Company: NINTENDO CO., LTD.
 Equipment: Refer to section 2.2
 Model: RED-001
 Sample No.: QW09500351 1
 Power: AC 120V / 60Hz
 Mode: Transmitting 13.56MHz
 EUT axis: Below 30MHz(Horizontal X-axis, Vertical Z-axis), NFC type B, with Tag
 Above 30MHz(Horizontal: X-axis, Vertical: X-axis), NFC type B, with Tag
 Remarks: X'tal B, Nichicon's AC adaptor

Regulation: FCC Part15 Subpart C 15.225

Test Distance 3m

Date: June 25, 2014 , June 28, 2014

Temperature: 24 deg.C , 25 deg.C

Humidity: 61 %RH , 55 %RH

ENGINEER: Kenichi Adachi , Akio Hayashi

(below 30MHz) (above 30MHz)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	12.71	QP	30.5	19.0	6.4	31.8	-40.0	-15.9	29.5	45.4	-	213	* Limit: 30m
Hori.	14.41	QP	30.5	19.0	6.5	31.8	-40.0	-15.8	29.5	45.3	-	213	* Limit: 30m
Hori.	27.12	QP	29.4	19.8	6.8	31.8	-40.0	-15.8	29.5	45.3	-	0	* Limit: 30m
Hori.	94.92	QP	44.4	9.1	7.4	32.1		28.8	43.5	14.7	181	102	
Hori.	104.73	QP	40.5	10.7	7.2	32.1		26.3	43.5	17.2	154	102	
Hori.	203.40	QP	34.1	16.5	7.9	32.1		26.4	43.5	17.1	100	38	
Hori.	268.11	QP	35.8	17.7	8.2	32.0		29.7	46.0	16.3	126	0	
Hori.	393.24	QP	37.9	16.2	8.8	32.0		30.9	46.0	15.1	100	124	
Vert.	12.71	QP	38.4	19.0	6.4	31.8	-40.0	-8.0	29.5	37.5	-	309	* Limit: 30m
Vert.	14.41	QP	35.4	19.0	6.5	31.8	-40.0	-10.9	29.5	40.4	-	309	* Limit: 30m
Vert.	27.12	QP	29.0	19.8	6.8	31.8	-40.0	-16.2	29.5	45.7	-	0	* Limit: 30m
Vert.	40.68	QP	40.9	14.2	6.6	32.2		29.5	40.0	10.5	100	85	
Vert.	52.36	QP	34.0	10.1	6.7	32.2		18.6	40.0	21.4	100	240	
Vert.	94.92	QP	40.1	9.1	7.4	32.1		24.5	43.5	19.0	100	348	

Result = Reading + Ant Factor + Loss (Cable+ATT+ΔAF(above 30MHz)) - Gain(Amplifier) + Distance factor(below 30MHz)

* Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

* Carrier level (Result at 3m): Hor= 44.7dBuV/m, Ver= 58.4 dBuV/m

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Radiated Emission

UL Japan, Inc.

Shonan EMC Lab. No.1&3 Semi Anechoic Chamber

Company: NINTENDO CO., LTD.
 Equipment: Refer to section 2.2
 Model: RED-001
 Sample No.: QW09500113 5
 Power: AC 120V / 60Hz
 Mode: Transmitting 13.56MHz
 EUT axis: Below 30MHz(Horizontal X-axis, Vertical Z-axis), NFC type A, with Tag
 Above 30MHz(Horizontal: X-axis, Vertical: X-axis), NFC type A, with Tag
 Remarks: X'tal A, Mitsumi's AC adaptor

Regulation: FCC Part15 Subpart C 15.225

Test Distance 3m

Date: June 25, 2014 , June 28, 2014

Temperature: 24 deg.C , 25 deg.C

Humidity: 61 %RH , 55 %RH

ENGINEER: Kenichi Adachi , Akio Hayashi

(below 30MHz) (above 30MHz)

Polarity	Frequency [MHz]	Detector	Reading [dBuV]	Ant.Fac. [dB/m]	Loss [dB]	Gain [dB]	Distance Factor [dB]	Result [dBuV/m]	Limit [dBuV/m]	Margin [dB]	Height [cm]	Angle [deg.]	Remark
Hori.	27.12	QP	29.4	19.0	6.4	31.8	-40.0	-17.0	29.5	46.5	-	143	* Limit: 30m
Hori.	111.28	QP	40.2	11.7	7.2	32.1		27.0	43.5	16.5	295	84	
Hori.	117.83	QP	38.4	12.7	7.1	32.1		26.1	43.5	17.4	150	234	
Hori.	242.19	QP	36.4	16.9	8.1	32.0		29.4	46.0	16.6	146	53	
Hori.	248.74	QP	36.3	17.0	8.1	32.0		29.4	46.0	16.6	127	181	
Vert.	27.12	QP	29.4	19.0	6.4	31.8	-40.0	-17.0	29.5	46.5	-	211	* Limit: 30m
Vert.	52.37	QP	44.8	10.1	6.7	32.2		29.4	40.0	10.6	100	264	
Vert.	111.28	QP	41.1	11.7	7.2	32.1		27.9	43.5	15.6	100	244	
Vert.	117.30	QP	39.7	12.7	7.1	32.1		27.4	43.5	16.1	100	269	

Result = Reading + Ant Factor + Loss (Cable+ATT+ΔAF(above 30MHz)) - Gain(Amplifier) + Distance factor(below 30MHz)

* Other frequency noises omitted in this report were not seen or have enough margin (more than 20dB).

* Carrier level (Result at 3m): Hor= 45.5dBuV/m, Ver= 56.9 dBuV/m

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Data of Frequency Tolerance

UL Japan, Inc.

Shonan EMC Lab. No.5 Shielded room

Company NINTENDO CO., LTD.
 Equipment Refer to section 2.2
 Model RED-001
 Serial No. QW09500113 5
 Power DC 3.7V
 Mode Transmitting 13.56 MHz
 Remarks X'tal A

Regulation FCC Part15 Subpart C 15.225 (e)
 Date June 30, 2014
 Temperature 25deg.C
 Humidity 53%RH
 ENGINEER Shinichi Takano

Temperature Variation: -20deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.559982	-0.000018	-0.00013	0.010
after 2minutes	13.56	13.560030	0.000030	0.00022	0.010
after 5minutes	13.56	13.560039	0.000039	0.00029	0.010
after 10minutes	13.56	13.560044	0.000044	0.00032	0.010

Temperature Variation: -10deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.560014	0.000014	0.00010	0.010
after 2minutes	13.56	13.560046	0.000046	0.00034	0.010
after 5minutes	13.56	13.560048	0.000048	0.00035	0.010
after 10minutes	13.56	13.560047	0.000047	0.00035	0.010

Temperature Variation: 0deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.560040	0.000040	0.00029	0.010
after 2minutes	13.56	13.560046	0.000046	0.00034	0.010
after 5minutes	13.56	13.560041	0.000041	0.00030	0.010
after 10minutes	13.56	13.560037	0.000037	0.00027	0.010

Temperature Variation: 10deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.560043	0.000043	0.00032	0.010
after 2minutes	13.56	13.560032	0.000032	0.00024	0.010
after 5minutes	13.56	13.560026	0.000026	0.00019	0.010
after 10minutes	13.56	13.560019	0.000019	0.00014	0.010

Temperature Variation: 20deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.560032	0.000032	0.00024	0.010
after 2minutes	13.56	13.560015	0.000015	0.00011	0.010
after 5minutes	13.56	13.560009	0.000009	0.00007	0.010
after 10minutes	13.56	13.560004	0.000004	0.00003	0.010

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Data of Frequency Tolerance

Temperature Variation: 30deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.560014	0.000014	0.00010	0.010
after 2minutes	13.56	13.559999	-0.000001	-0.00001	0.010
after 5minutes	13.56	13.559995	-0.000005	-0.00004	0.010
after 10minutes	13.56	13.559993	-0.000007	-0.00005	0.010

Temperature Variation: 40deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.559997	-0.000003	-0.00002	0.010
after 2minutes	13.56	13.559993	-0.000007	-0.00005	0.010
after 5minutes	13.56	13.559995	-0.000005	-0.00004	0.010
after 10minutes	13.56	13.559996	-0.000004	-0.00003	0.010

Temperature Variation: 50deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.559990	-0.000010	-0.00007	0.010
after 2minutes	13.56	13.559998	-0.000002	-0.00001	0.010
after 5minutes	13.56	13.560007	0.000007	0.00005	0.010
after 10minutes	13.56	13.560009	0.000009	0.00007	0.010

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Data of Frequency Tolerance (Reference data)

UL Japan, Inc.

Shonan EMC Lab. No.5 Shielded room

Company NINTENDO CO., LTD.
 Equipment Refer to section 2.2
 Model RED-001
 Serial No. QW09500113 5
 Power DC 3.7V
 Mode Transmitting 13.56 MHz
 Remarks X'tal A

Regulation FCC Part15 Subpart C 15.225 (e)
 Date June 30, 2014
 Temperature 25deg.C
 Humidity 53%RH
 ENGINEER Shinichi Takano

Voltage Variation: DC 3.145 V

Temperature Variation: 20deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.560009	0.000009	0.00007	0.010
after 2minutes	13.56	13.560002	0.000002	0.00001	0.010
after 5minutes	13.56	13.559998	-0.000002	-0.00001	0.010
after 10minutes	13.56	13.559996	-0.000004	-0.00003	0.010

Voltage Variation: DC 4.255 V

Temperature Variation: 20deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.560008	0.000008	0.00006	0.010
after 2minutes	13.56	13.559999	-0.000001	-0.00001	0.010
after 5minutes	13.56	13.559996	-0.000004	-0.00003	0.010
after 10minutes	13.56	13.559995	-0.000005	-0.00004	0.010

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Data of Frequency Tolerance

UL Japan, Inc.

Shonan EMC Lab. No.5 Shielded room

Company NINTENDO CO., LTD.
 Equipment Refer to section 2.2
 Model RED-001
 Serial No. QW09500351 1
 Power DC 3.7V
 Mode Transmitting 13.56 MHz
 Remarks X'tal B

Regulation FCC Part15 Subpart C 15.225 (e)
 Date July 1, 2014
 Temperature 25deg.C
 Humidity 52%RH
 ENGINEER Shinichi Takano

Temperature Variation: -20deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.559887	-0.000113	-0.00083	0.010
after 2minutes	13.56	13.559921	-0.000079	-0.00058	0.010
after 5minutes	13.56	13.559934	-0.000066	-0.00049	0.010
after 10minutes	13.56	13.559940	-0.000060	-0.00044	0.010

Temperature Variation: -10deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.559922	-0.000078	-0.00058	0.010
after 2minutes	13.56	13.559946	-0.000054	-0.00040	0.010
after 5minutes	13.56	13.559949	-0.000051	-0.00038	0.010
after 10minutes	13.56	13.559950	-0.000050	-0.00037	0.010

Temperature Variation: 0deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.559946	-0.000054	-0.00040	0.010
after 2minutes	13.56	13.559948	-0.000052	-0.00038	0.010
after 5minutes	13.56	13.559944	-0.000056	-0.00041	0.010
after 10minutes	13.56	13.559939	-0.000061	-0.00045	0.010

Temperature Variation: 10deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.559948	-0.000052	-0.00038	0.010
after 2minutes	13.56	13.559932	-0.000068	-0.00050	0.010
after 5minutes	13.56	13.559924	-0.000076	-0.00056	0.010
after 10minutes	13.56	13.559917	-0.000083	-0.00061	0.010

Temperature Variation: 20deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.559928	-0.000072	-0.00053	0.010
after 2minutes	13.56	13.559907	-0.000093	-0.00069	0.010
after 5minutes	13.56	13.559900	-0.000100	-0.00074	0.010
after 10minutes	13.56	13.559894	-0.000106	-0.00078	0.010

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Data of Frequency Tolerance

Temperature Variation: 30deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.559900	-0.000100	-0.00074	0.010
after 2minutes	13.56	13.559887	-0.000113	-0.00083	0.010
after 5minutes	13.56	13.559883	-0.000117	-0.00086	0.010
after 10minutes	13.56	13.559879	-0.000121	-0.00089	0.010

Temperature Variation: 40deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.559884	-0.000116	-0.00086	0.010
after 2minutes	13.56	13.559875	-0.000125	-0.00092	0.010
after 5minutes	13.56	13.559875	-0.000125	-0.00092	0.010
after 10minutes	13.56	13.559876	-0.000124	-0.00091	0.010

Temperature Variation: 50deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.559875	-0.000125	-0.00092	0.010
after 2minutes	13.56	13.559878	-0.000122	-0.00090	0.010
after 5minutes	13.56	13.559883	-0.000117	-0.00086	0.010
after 10minutes	13.56	13.559890	-0.000110	-0.00081	0.010

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Data of Frequency Tolerance (Reference data)

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Shonan EMC Lab. No.5 Shielded room

Company NINTENDO CO., LTD.
 Equipment Refer to section 2.2
 Model RED-001
 Serial No. QW09500351 1
 Power DC 3.7V
 Mode Transmitting 13.56 MHz
 Remarks X'tal B

Regulation FCC Part15 Subpart C 15.225 (e)
 Date July 1, 2014
 Temperature 25deg.C
 Humidity 52%RH
 ENGINEER Shinichi Takano

Voltage Variation: DC 3.145 V

Temperature Variation: 20deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.559898	-0.000102	-0.00075	0.010
after 2minutes	13.56	13.559898	-0.000102	-0.00075	0.010
after 5minutes	13.56	13.559887	-0.000113	-0.00083	0.010
after 10minutes	13.56	13.559886	-0.000114	-0.00084	0.010

Voltage Variation: DC 4.255 V

Temperature Variation: 20deg.C

Test Conditions	Original Frequency (MHz)	Measure Frequency (MHz)	Frequency Error (MHz)	Frequency tolerance (%)	Limit (%)
startup	13.56	13.559913	-0.000087	-0.00064	0.010
after 2minutes	13.56	13.559896	-0.000104	-0.00077	0.010
after 5minutes	13.56	13.559891	-0.000109	-0.00080	0.010
after 10minutes	13.56	13.559886	-0.000114	-0.00084	0.010

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Shonan EMC Lab.

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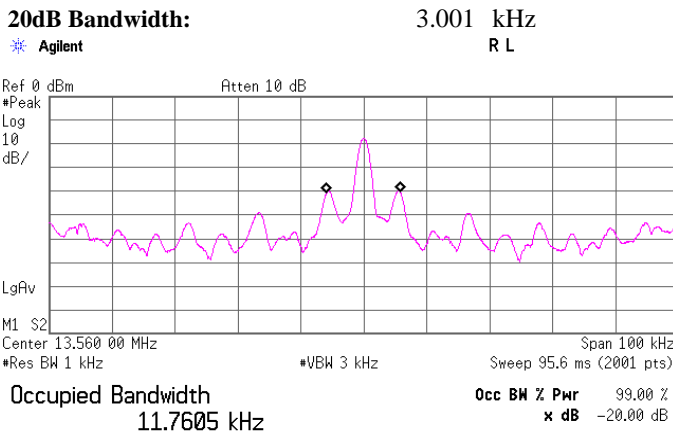
Facsimile : +81 463 50 6401

20dB bandwidth & 99% Occupied bandwidth: FCC 15.215 / RSS-Gen

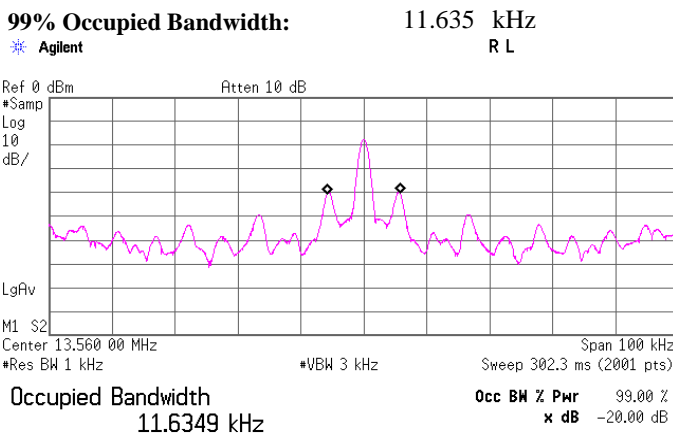
UL Japan, Inc.
 Shonan EMC Lab. No.5 Shielded Room

Company: NINTENDO CO., LTD.
 Equipment: Refer to section 2.2
 Model: RED-001
 Sample No.: QW09500113 5
 Power: AC 120V / 60Hz
 Mode: Transmitting 13.56MHz
 Remarks: NFC type A with Tag, X'tal A

Regulation: FCC Part15 Subpart C 15.215
 Date: June 30, 2014
 Temperature: 25deg.C
 Humidity: 53%RH
 ENGINEER: Shinichi Takano



Transmit Freq Error -45.760 Hz
x dB Bandwidth 3.001 kHz



Transmit Freq Error -6.661 Hz
x dB Bandwidth 2.640 kHz*

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20dB bandwidth & 99% Occupied bandwidth: FCC 15.215 / RSS-Gen

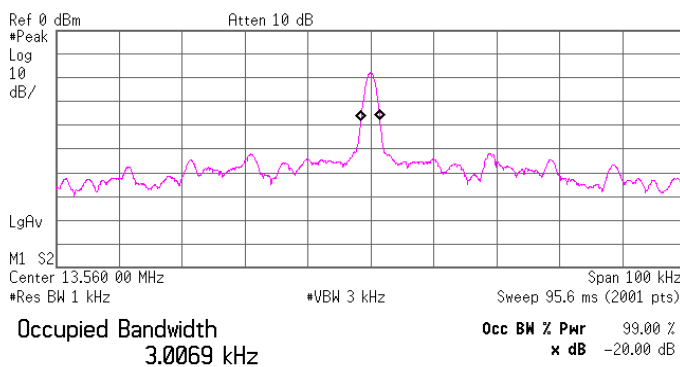
UL Japan, Inc.
Shonan EMC Lab. No.5 Shielded Room

Company: NINTENDO CO., LTD.
Equipment: Refer to section 2.2
Model: RED-001
Sample No.: QW09500113 5
Power: AC 120V / 60Hz
Mode: Transmitting 13.56MHz
Remarks: NFC type B with Tag, X'tal A

Regulation: FCC Part15 Subpart C 15.215

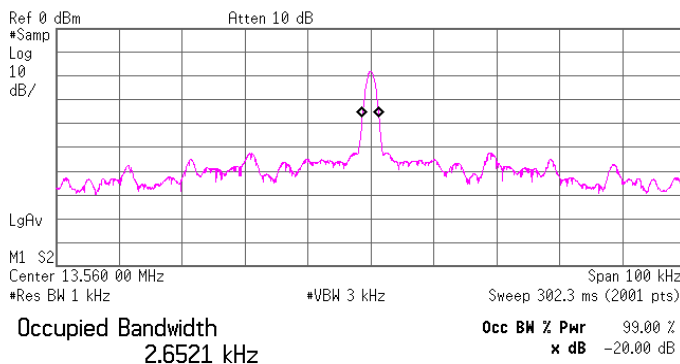
Date: June 30, 2014
Temperature: 25deg.C
Humidity: 53%RH
ENGINEER: Shinichi Takano

20dB Bandwidth: 3.015 kHz
* Agilent R L



Transmit Freq Error -42.633 Hz
x dB Bandwidth 3.015 kHz

99% Occupied Bandwidth: 2.652 kHz
* Agilent R L



Transmit Freq Error -15.506 Hz
x dB Bandwidth 2.700 kHz*

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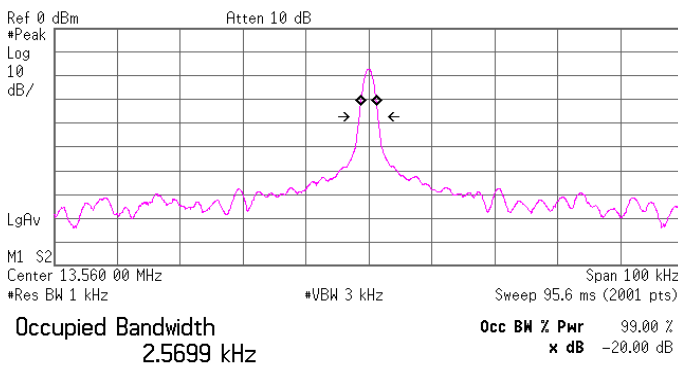
20dB bandwidth & 99% Occupied bandwidth: FCC 15.215 / RSS-Gen

UL Japan, Inc.
 Shonan EMC Lab. No.5 Shielded Room

Company: NINTENDO CO., LTD.
 Equipment: Refer to section 2.2
 Model: RED-001
 Sample No.: QW09500113 5
 Power: AC 120V / 60Hz
 Mode: Transmitting 13.56MHz
 Remarks: NFC type F with Tag, X'tal A

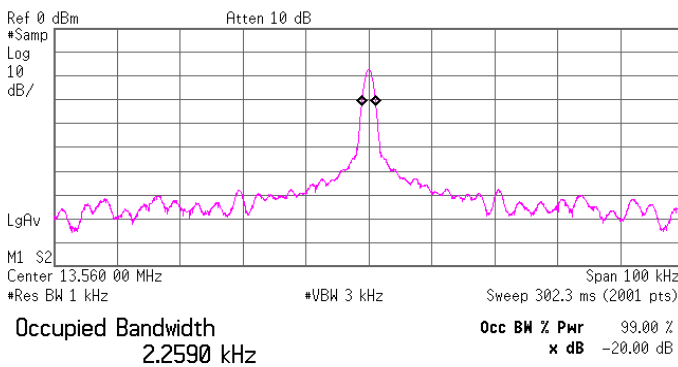
Regulation: FCC Part15 Subpart C 15.215
 Date: June 30, 2014
 Temperature: 25deg.C
 Humidity: 53%RH
 ENGINEER: Shinichi Takano

20dB Bandwidth: 2.966 kHz
 * Agilent R L



Transmit Freq Error -28.751 Hz
x dB Bandwidth 2.966 kHz

99% Occupied Bandwidth: 2.259 kHz
 * Agilent R L



Transmit Freq Error -11.061 Hz
x dB Bandwidth 2.625 kHz*

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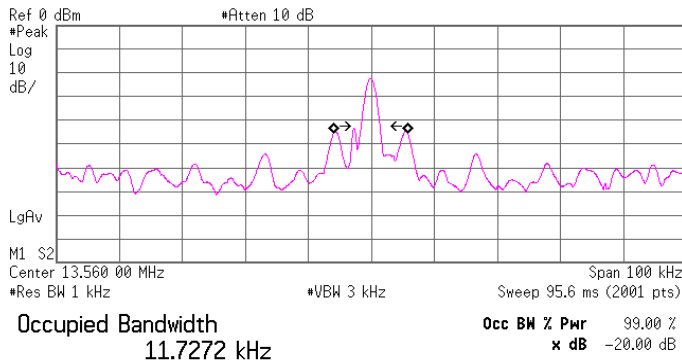
20dB bandwidth & 99% Occupied bandwidth: FCC 15.215 / RSS-Gen

UL Japan, Inc.
Shonan EMC Lab. No.5 Shielded Room

Company: NINTENDO CO., LTD.
Equipment: Refer to section 2.2
Model: RED-001
Sample No.: QW09500351 1
Power: AC 120V / 60Hz
Mode: Transmitting 13.56MHz
Remarks: NFC type A with Tag, X'tal B

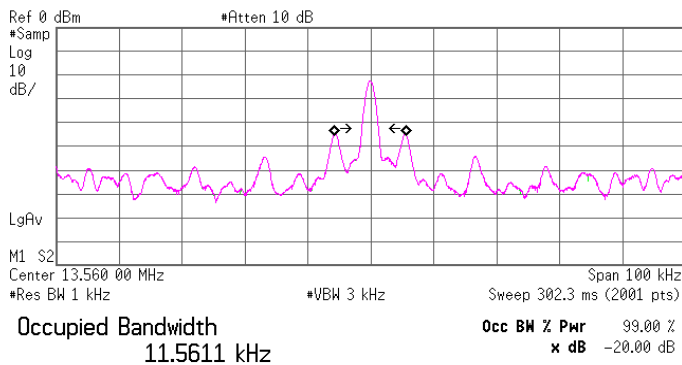
Regulation: FCC Part15 Subpart C 15.215
Date: July 1, 2014
Temperature: 25deg.C
Humidity: 52%RH
ENGINEER: Shinichi Takano

20dB Bandwidth: 2.988 kHz
* Agilent R L



Transmit Freq Error -119.050 Hz
x dB Bandwidth 2.988 kHz

99% Occupied Bandwidth: 11.561 kHz
* Agilent R L



Transmit Freq Error -100.564 Hz
x dB Bandwidth 2.642 kHz*

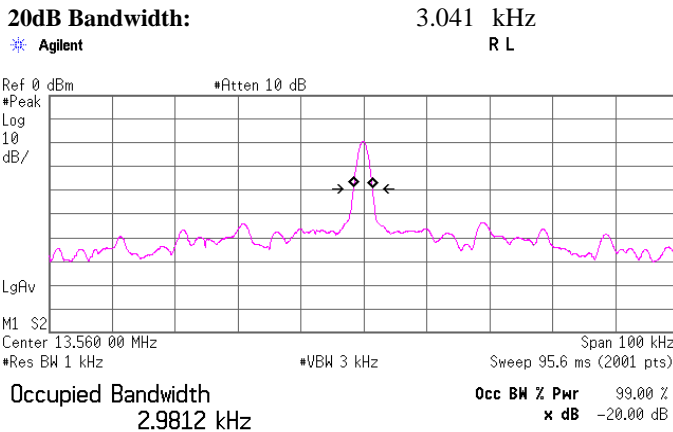
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20dB bandwidth & 99% Occupied bandwidth: FCC 15.215 / RSS-Gen

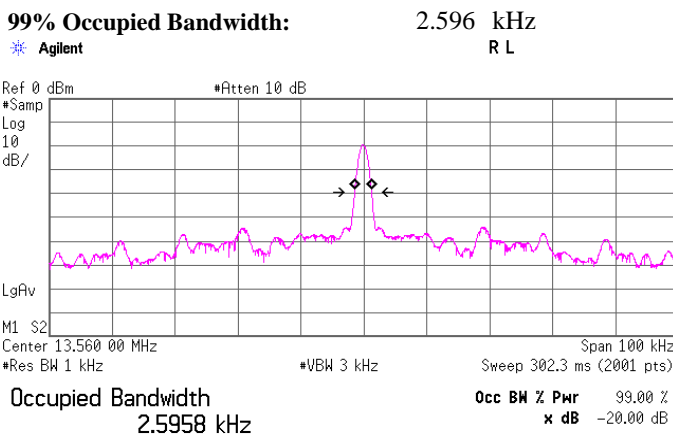
UL Japan, Inc.
 Shonan EMC Lab. No.5 Shielded Room

Company: NINTENDO CO., LTD.
 Equipment: Refer to section 2.2
 Model: RED-001
 Sample No.: QW09500351 1
 Power: AC 120V / 60Hz
 Mode: Transmitting 13.56MHz
 Remarks: NFC type B with Tag, X'tal B

Regulation: FCC Part15 Subpart C 15.215
 Date: July 1, 2014
 Temperature: 25deg.C
 Humidity: 52%RH
 ENGINEER: Shinichi Takano



Transmit Freq Error -119.793 Hz
 x dB Bandwidth 3.041 kHz



Transmit Freq Error -97.820 Hz
 x dB Bandwidth 2.694 kHz*

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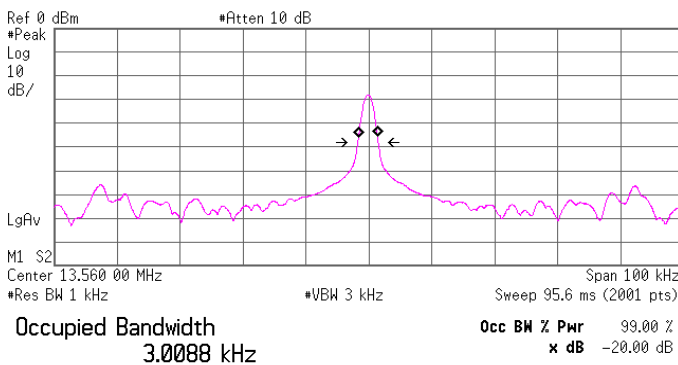
20dB bandwidth & 99% Occupied bandwidth: FCC 15.215 / RSS-Gen

UL Japan, Inc.
Shonan EMC Lab. No.5 Shielded Room

Company: NINTENDO CO., LTD.
Equipment: Refer to section 2.2
Model: RED-001
Sample No.: QW09500351 1
Power: AC 120V / 60Hz
Mode: Transmitting 13.56MHz
Remarks: NFC type F with Tag, X'tal B

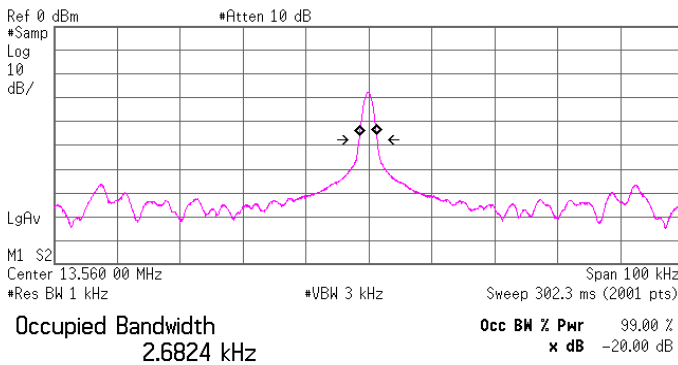
Regulation: FCC Part15 Subpart C 15.215
Date: July 1, 2014
Temperature: 25deg.C
Humidity: 52%RH
ENGINEER: Shinichi Takano

20dB Bandwidth: 3.249 kHz
* Agilent R L



Transmit Freq Error -122.727 Hz
x dB Bandwidth 3.249 kHz

99% Occupied Bandwidth: 2.682 kHz
* Agilent R L



Transmit Freq Error -105.027 Hz
x dB Bandwidth 2.872 kHz*

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APPENDIX 2 Test Instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
SCC-C9/C10/SRSE-03	Coaxial Cable&RF Selector	Suhner/Suhner/TOYO	RG223U/141PE/NS4906	-/0901-271 (RF Selector)	CE	2014/04/25 * 12
SLS-02	LISN	Rohde & Schwarz	ENV216	100512	CE	2014/03/05 * 12
SAT3-06	Attenuator	JFW	50HF-003N	-	CE	2014/02/17 * 12
SOS-06	Humidity Indicator	A&D	AD-5681	4062118	CE	2014/03/07 * 12
STR-06	Test Receiver	Rohde & Schwarz	ESCI	101259	CE, RE	2014/03/04 * 12
SJM-15	Measure	ASKUL	-	-	CE, RE	-
COTS-SEMI-1	EMI Software	TSJ	TEPTO-DV(RE,CE, RFLMF)	-	CE, RE	-
SLP-02	Loop Antenna	Rohde & Schwarz	HFH2-Z2	100218	RE	2013/11/08 * 12
SAT6-07	Attenuator	JFW	50HF-006N	-	RE	2014/02/17 * 12
SCC-A2/A4/A6/A7/A8/A13/SRSE-01	Coaxial Cable&RF Selector	Fujikura/Fujikura/Suhner/Suhner/Suhner/TOYO	8D2W/12DSFA/141PE/141PE/141PE/141PE/NS4906	-/0901-269 (RF Selector)	RE	2014/04/25 * 12
SAF-01	Pre Amplifier	SONOMA	310N	290211	RE	2014/02/17 * 12
STR-01	Test Receiver	Rohde & Schwarz	ESU40	100093	RE	2013/11/20 * 12
SOS-01	Humidity Indicator	A&D	AD-5681	4062555	RE	2014/02/21 * 12
SJM-13	Measure	ASKUL	-	-	RE	-
SAEC-01(NSA)	Semi-Anechoic Chamber	TDK	SAEC-01(NSA)	1	RE	2013/07/03 * 12
SAF-03	Pre Amplifier	SONOMA	310N	290213	RE	2014/02/14 * 12
SAT6-06	Attenuator	JFW	50HF-006N	-	RE	2014/02/17 * 12
SBA-03	Biconical Antenna	Schwarzbeck	BBA9106	91032666	RE	2013/10/26 * 12
SCC-C1/C2/C3/C4/C5/C10/SRSE-03	Coaxial Cable&RF Selector	Fujikura/Fujikura/Suhner/Suhner/Suhner/TOYO	8D2W/12DSFA/141PE/141PE/141PE/141PE/NS4906	-/0901-271 (RF Selector)	RE	2014/04/25 * 12
SLA-03	Logperiodic Antenna	Schwarzbeck	UHALP9108A	UHALP 9108-A 0901	RE	2013/10/26 * 12
SOS-05	Humidity Indicator	A&D	AD-5681	4062518	RE	2014/02/21 * 12
SAEC-03(NSA)	Semi-Anechoic Chamber	TDK	SAEC-03(NSA)	3	RE	2013/07/09 * 12
SSA-03	Spectrum Analyzer	Agilent	E4448A	MY48250152	TF	2014/02/03 * 12
SSCA-01	Search coil	LANGER	RF-R 400-1	02-0634	TF	Pre Check
SCH-01	Temperature and Humidity Chamber	Espec	PL-1KT	14020837	TF	2014/04/15 * 12
SOS-09	Humidity Indicator	A&D	AD-5681	4061484	TF	2014/03/07 * 12
SFC-01	Microwave Counter	Agilent	53151A	US40511493	TF	2014/04/01 * 12

The expiration date of the calibration is the end of the expired month .
As for some calibrations performed after the tested dates , those test equipment have been controlled by means of an unbroken chains of calibrations .

All equipment is calibrated with valid calibrations . Each measurement data is traceable to the national or international standards .

Test Item :

CE: Conducted emission ,
RE: Radiated emission ,
TF: Test Fixture tests ,