FCC Test Report

APPLICANT	:	**Lenovo(Shanghai) Electronics Technology Co., Ltd.**
EQUIPMENT	:	**Notebook Computer**
BRAND NAME	:	**Lenovo**
MODEL NAME	:	**Lenovo YB-J912F**
FCC ID	:	**O57YBJ912F**
STANDARD	:	**FCC 47 CFR FCC Part 15 Subpart B**
CLASSIFICATION	:	**Certification**

The product was received on May 21, 2018 and testing was completed on May 31, 2018. We, Sporton International (Kunshan) Inc., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI C63.4-2014 and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (Kunshan) Inc., the test report shall not be reproduced except in full.

James Huang

NVLAP®
TESTING
NVLAP LAB CODE 600155-0

Approved by: James Huang / Manager

Sporton International (Kunshan) Inc.
No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335
China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FC7D2101-02	Rev. 01	Initial issue of report	Jun. 28, 2018

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.1	15.107	AC Conducted Emission	< 15.107 limits	PASS	Under limit 5.87 dB at 2.309 MHz
3.2	15.109	Radiated Emission	< 15.109 limits	PASS	Under limit 6.88 dB at 68.800 MHz for Quasi-Peak

1. General Description

1.1. Applicant

Lenovo(Shanghai) Electronics Technology Co., Ltd.
NO.68 BUILDING, 199 FENJU RD, Pilot Free Trade Zone, 200131, China

1.2. Manufacturer

Lenovo PC HK Limited
23/F, Lincoln House, Taikoo Place 979 King's Road, Quarry Bay, Hong Kong

1.3. Product Feature of Equipment Under Test

Product Feature	
Equipment	Notebook Computer
Brand Name	Lenovo
Model Name	Lenovo YB-J912F
FCC ID	O57YBJ912F
EUT supports Radios application	WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth v3.0+EDR/ Bluetooth v4.0 LE/ Bluetooth v4.1 LE/ Bluetooth v4.2 LE
HW Version	Lenovo YB-J912F
SW Version	Windows 10
EUT Stage	Identical Prototype

Remark:

1. The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.
2. This is a variant report for Lenovo YB-J912F. The product equality declaration could be referred to Appendix B. Based on the similarity between current and previous project, only the worst cases from original test report (Sporton Report Number FC7D2101) were verified for the differences.

1.4. Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	802.11b/g/n: 2412 MHz ~ 2472 MHz 802.11a/n/ac: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz; 5500MHz ~ 5720 MHz ; 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz
Rx Frequency	802.11b/g/n: 2412 MHz ~ 2472 MHz 802.11a/n/ac: 5180 MHz ~ 5240 MHz; 5260 MHz ~ 5320 MHz; 5500MHz ~ 5720 MHz ; 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz
Antenna Type	WLAN: PIFA Antenna Bluetooth: PIFA Antenna
Type of Modulation	802.11b : DSSS (DBPSK / DQPSK / CCK) 802.11a/g/n : OFDM (BPSK / QPSK / 16QAM / 64QAM) 802.11ac: OFDM (BPSK / QPSK / 16QAM / 64QAM /256QAM) Bluetooth LE : GFSK Bluetooth (1Mbps) : GFSK Bluetooth (2Mbps) : π /4-DQPSK Bluetooth (3Mbps) : 8-DPSK

1.5. Modification of EUT

No modifications are made to the EUT during all test items.

1.6. Test Location

Sporton International (Kunshan) Inc. is accredited to ISO 17025 by National Voluntary Laboratory Accreditation Program (NVLAP code: 600155-0) and the FCC designation No. is CN5013.

<table>
<tr><td>Test Site</td><td colspan="3">Sporton International (Kunshan) Inc.</td></tr>
<tr><td>Test Site Location</td><td colspan="3">No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335 China
TEL : +86-512-57900158
FAX : +86-512-57900958</td></tr>
<tr><td rowspan="2">Test Site No.</td><td colspan="2">Sporton Site No.</td><td>FCC Test Firm Registration No.</td></tr>
<tr><td>CO01-KS</td><td>03CH02-KS</td><td>630927</td></tr>
</table>

Note: The test site complies with ANSI C63.4 2014 requirement.

1.7. Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC 47 CFR FCC Part 15 Subpart B
- ANSI C63.4-2014

Remark: All test items were verified and recorded according to the standards and without any deviation during the test.

2. Test Configuration of Equipment Under Test

2.1. Test Mode

The EUT has been associated with peripherals pursuant to ANSI C63.4-2014 and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

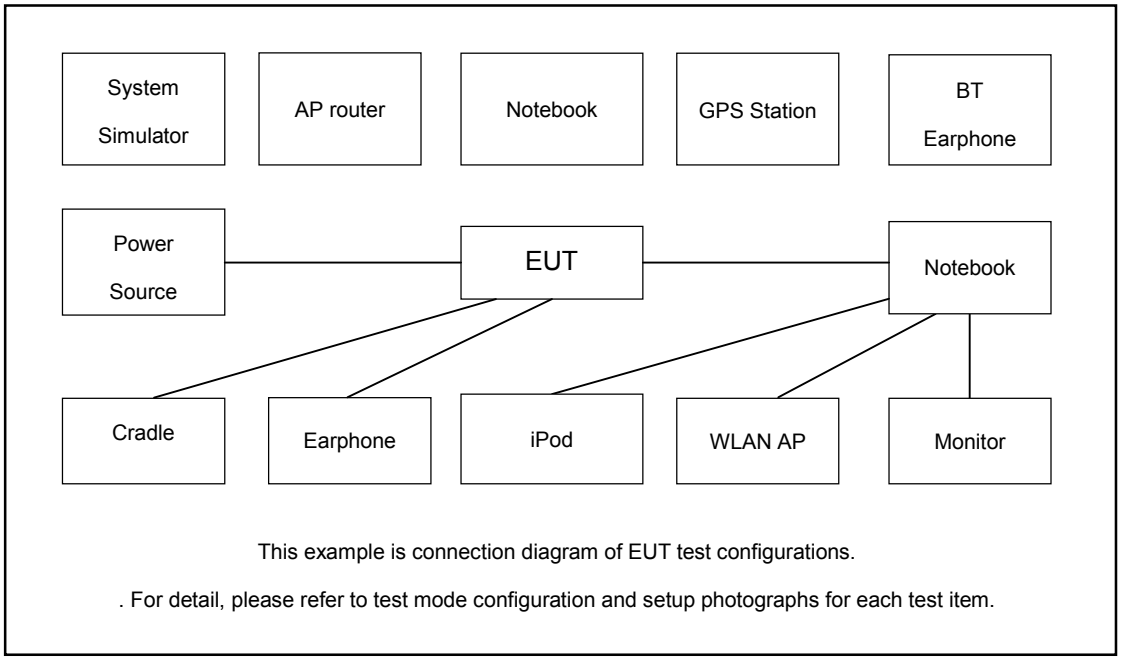
Frequency range investigated: conduction (150 kHz to 30 MHz), radiation (30MHz to the 5th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower).

Test Items	Function Type
AC Conducted Emission	Mode 1 : Bluetooth Idle + WLAN (2.4G) Idle + Camera + Video with Type C 2 + Play H Pattern + Adapter 1 With Type C Cable 1 In Type C 1
Radiated Emissions	Mode 1 : Bluetooth Idle + WLAN (2.4G) Idle + Camera + USB Link with Type C 2 + Play H Pattern + Adapter 1 With Type C Cable 1 In Type C 1

Remark:

1. USB Link with Type C1/2 means data application transferred mode between EUT and U disk via OTG cable.
2. Type C 1/2 is charging / data transfer port.
3. Type C cable 1/2 is USB cable1/2.
4. Video with Type C1/2 means media application transferred between EUT and Monitor via HDMI/DP cable.

2.2. Connection Diagram of Test System



This example is connection diagram of EUT test configurations.

. For detail, please refer to test mode configuration and setup photographs for each test item.

2.3. Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model Name	FCC ID	Data Cable	Power Cord
1.	WLAN AP	TP-LINK	TL-WDR5600	N/A	N/A	Unshielded,1.8m
2.	WLAN AP	D-link	DIR-855	KA2DIR855A2	N/A	Unshielded,1.8m
3.	Bluetooth Earphone	Lenovo	LBH308	N/A	N/A	N/A
4.	Monitor	Dell	IN1940MWb	Fcc DoC	N/A	Unshielded,1.8m
5.	U Disk	Kingston	DTSE9 G2 16GB	N/A	N/A	N/A
6.	SD Card	SanDisk	Uitra	N/A	N/A	N/A
7.	SD Card	Kingston	8GB	N/A	N/A	N/A
8.	Type C to HDMI/DP Cable	Dell	N/A	N/A	Unshielded,0.1m	N/A
9.	Type C to USB(OTG)	UNITEK	N/A	N/A	Unshielded,0.1m	N/A
10.	DP Cable	Dell	N/A	N/A	shielded,1.2m	N/A
11.	HDMI Cable	Dell	N/A	N/A	shielded,1.4m	N/A

2.4. EUT Operation Test Setup

The EUT was attached to the Bluetooth earphone or WLAN AP, and the following programs installed in the EUT were programmed during the test.

1. Data application is transferred between USB Disk and EUT via OTG cable.
2. Turn on camera to capture images.
3. Execute “H Pattern” to show H Pattern.
4. Connect with Monitor via Type C to HDMI Cable/DP Cable.

3. Test Result

3.1. Test of AC Conducted Emission Measurement

3.1.1 Limits of AC Conducted Emission

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits in the following table.

Frequency of emission (MHz)	Conducted limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

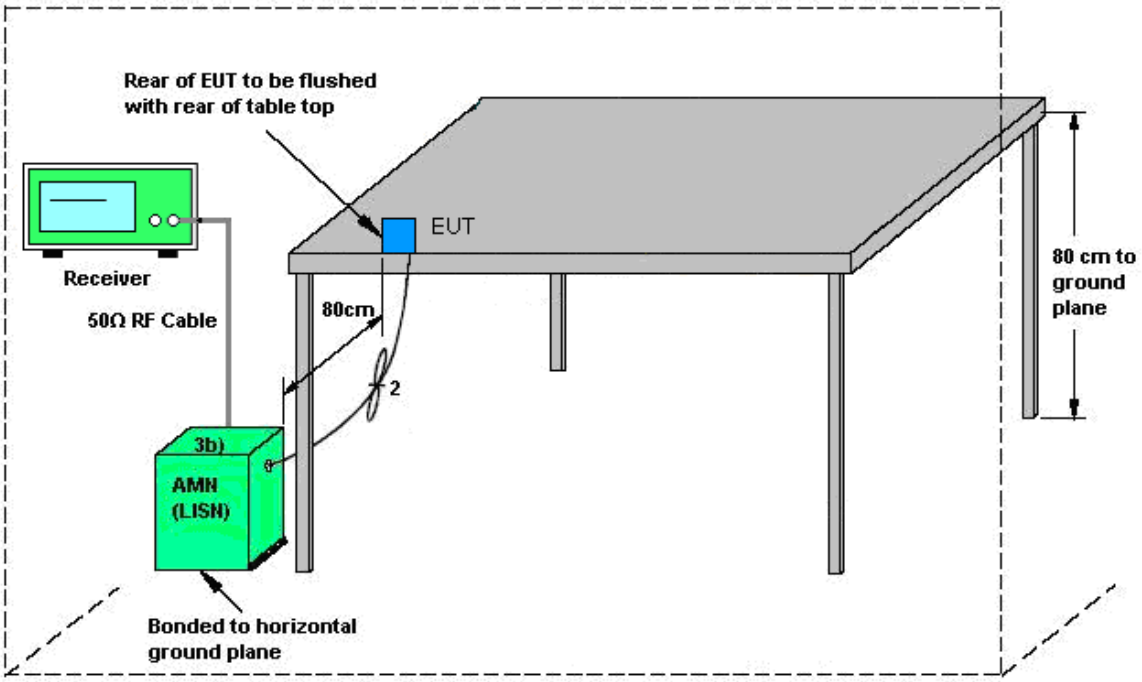
3.1.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

3.1.3 Test Procedure

1. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connecting to the other LISN.
4. The LISN provides 50 ohm coupling impedance for the measuring instrument.
5. The FCC states that a 50 ohm, 50 microhenry LISN should be used.
6. Both sides of AC line were checked for maximum conducted interference.
7. The frequency range from 150 kHz to 30 MHz was searched.
8. Set the test-receiver system to Peak Detect Function and specified bandwidth (IF Bandwidth = 9kHz) with Maximum Hold Mode. Then measurement is also conducted by Average Detector and Quasi-Peak Detector Function respectively.

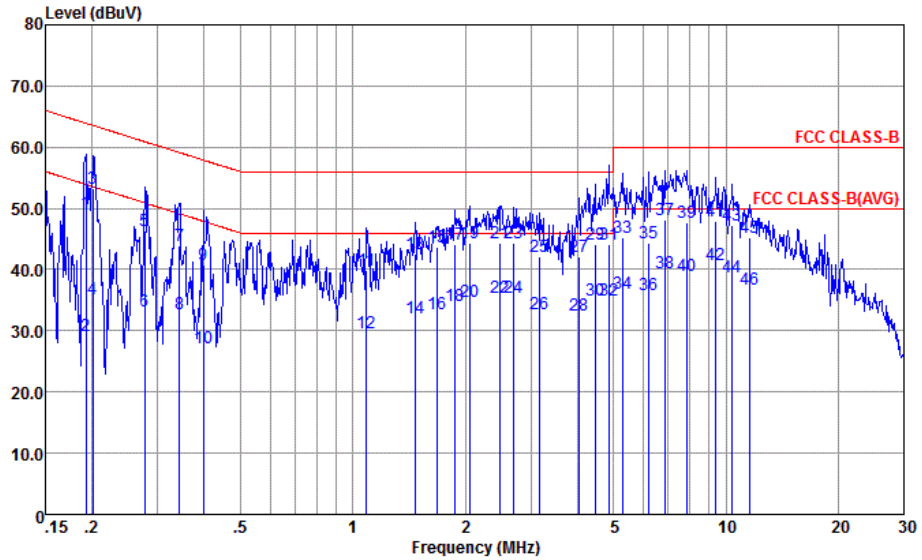
3.1.4 Test Setup



AMN = Artificial mains network (LISN)
AE = Associated equipment
EUT = Equipment under test
ISN = Impedance stabilization network

3.1.5 Test Result of AC Conducted Emission

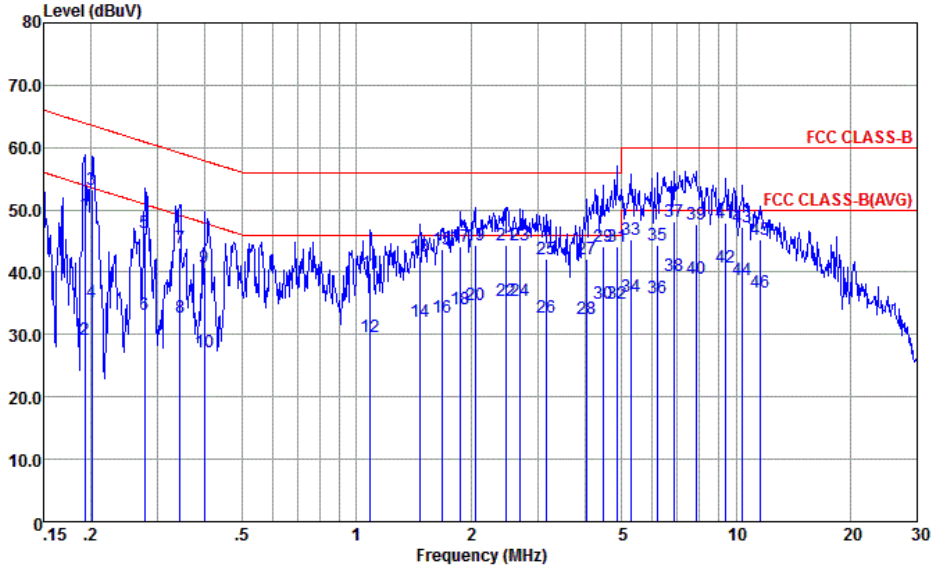
Test Mode :	Mode 1	**Temperature :**	24~25℃
Test Engineer :	Amos Zhang	**Relative Humidity :**	42~44%
Test Voltage :	120Vac / 60Hz	**Phase :**	Line
Function Type :	Bluetooth Idle + WLAN (2.4G) Idle + Camera + Video with Type C 2 + Play H Pattern + Adapter 1 With Type C Cable 1 In Type C 1		



Site : CO01-KS
Condition : FCC CLASS-B LISN-L-171013-060103 LINE
Project : (FC) 7D2101-02
mode : Mode 1

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.192	49.27	-14.66	63.93	38.59	0.20	10.48	QP
2	0.192	29.17	-24.76	53.93	18.49	0.20	10.48	Average
3	0.201	53.26	-10.32	63.58	42.61	0.20	10.45	QP
4	0.201	35.16	-18.42	53.58	24.51	0.20	10.45	Average
5	0.277	46.45	-14.45	60.90	35.80	0.22	10.43	QP
6	0.277	33.25	-17.65	50.90	22.60	0.22	10.43	Average
7	0.343	43.85	-15.28	59.13	33.19	0.24	10.42	QP
8	0.343	32.75	-16.38	49.13	22.09	0.24	10.42	Average
9	0.398	40.85	-17.05	57.90	30.19	0.25	10.41	QP
10	0.398	27.25	-20.65	47.90	16.59	0.25	10.41	Average
11	1.088	39.98	-16.02	56.00	29.60	0.26	10.12	QP
12	1.088	29.58	-16.42	46.00	19.20	0.26	10.12	Average
13	1.472	42.64	-13.36	56.00	32.20	0.27	10.17	QP
14	1.472	32.04	-13.96	46.00	21.60	0.27	10.17	Average
15	1.680	43.66	-12.34	56.00	33.19	0.28	10.19	QP
16	1.680	32.76	-13.24	46.00	22.29	0.28	10.19	Average
17	1.878	44.08	-11.92	56.00	33.60	0.28	10.20	QP
18	1.878	34.08	-11.92	46.00	23.60	0.28	10.20	Average
19	2.055	44.39	-11.61	56.00	33.90	0.28	10.21	QP
20	2.055	34.69	-11.31	46.00	24.20	0.28	10.21	Average

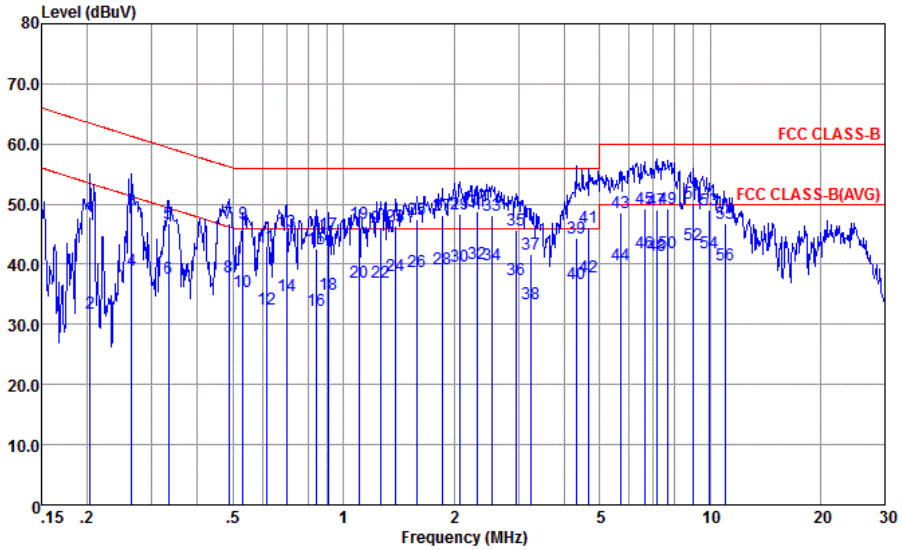
Test Mode :	Mode 1	Temperature :	24~25℃
Test Engineer :	Amos Zhang	Relative Humidity :	42~44%
Test Voltage :	120Vac / 60Hz	Phase :	Line
Function Type :	Bluetooth Idle + WLAN (2.4G) Idle + Camera + Video with Type C 2 + Play H Pattern + Adapter 1 With Type C Cable 1 In Type C 1		



Site : CO01-KS
Condition : FCC CLASS-B LISN-L-171013-060103 LINE
Project : (FC) 7D2101-02
mode : Mode 1

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
21	2.487	44.40	-11.60	56.00	33.90	0.30	10.20	QP
22	2.487	35.40	-10.60	46.00	24.90	0.30	10.20	Average
23	2.707	44.40	-11.60	56.00	33.90	0.31	10.19	QP
24	2.707	35.40	-10.60	46.00	24.90	0.31	10.19	Average
25	3.156	42.01	-13.99	56.00	31.51	0.32	10.18	QP
26	3.156	32.71	-13.29	46.00	22.21	0.32	10.18	Average
27	4.049	42.12	-13.88	56.00	31.60	0.35	10.17	QP
28	4.049	32.62	-13.38	46.00	22.10	0.35	10.17	Average
29	4.454	44.06	-11.94	56.00	33.50	0.36	10.20	QP
30	4.454	35.06	-10.94	46.00	24.50	0.36	10.20	Average
31	4.848	44.19	-11.81	56.00	33.60	0.37	10.22	QP
32	4.848	35.09	-10.91	46.00	24.50	0.37	10.22	Average
33	5.277	45.23	-14.77	60.00	34.60	0.37	10.26	QP
34	5.277	36.13	-13.87	50.00	25.50	0.37	10.26	Average
35	6.219	44.29	-15.71	60.00	33.60	0.36	10.33	QP
36	6.219	35.89	-14.11	50.00	25.20	0.36	10.33	Average
37	6.841	48.19	-11.81	60.00	37.51	0.35	10.33	QP
38	6.841	39.49	-10.51	50.00	28.81	0.35	10.33	Average
39	7.852	47.58	-12.42	60.00	36.90	0.35	10.33	QP
40	7.852	38.98	-11.02	50.00	28.30	0.35	10.33	Average
41	9.401	47.98	-12.02	60.00	37.30	0.35	10.33	QP
42 *	9.401	40.88	-9.12	50.00	30.20	0.35	10.33	Average
43	10.397	47.28	-12.72	60.00	36.60	0.34	10.34	QP
44	10.397	38.88	-11.12	50.00	28.20	0.34	10.34	Average
45	11.621	45.18	-14.82	60.00	34.50	0.32	10.36	QP
46	11.621	36.88	-13.12	50.00	26.20	0.32	10.36	Average

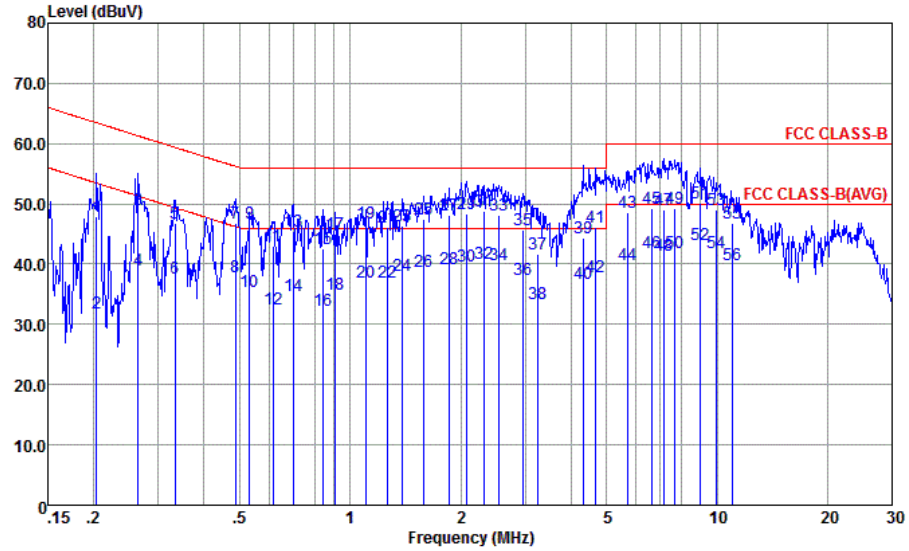
Test Mode :	Mode 1	Temperature :	24~25℃
Test Engineer :	Amos Zhang	Relative Humidity :	42~44%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	Bluetooth Idle + WLAN (2.4G) Idle + Camera + Video with Type C 2 + Play H Pattern + Adapter 1 With Type C Cable 1 In Type C 1		



Site : CO01-KS
Condition : FCC CLASS-B LISN-N-171013-060103 NEUTRAL
Project : (FC) 7D2101-02
mode : Mode 1

	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB	
1	0.204	47.93	-15.52	63.45	37.20	0.28	10.45	QP
2	0.204	31.93	-21.52	53.45	21.20	0.28	10.45	Average
3	0.264	48.92	-12.37	61.29	38.20	0.28	10.44	QP
4	0.264	39.02	-12.27	51.29	28.30	0.28	10.44	Average
5	0.334	46.91	-12.44	59.35	36.20	0.29	10.42	QP
6	0.334	37.61	-11.74	49.35	26.90	0.29	10.42	Average
7	0.486	46.81	-9.42	56.23	36.20	0.29	10.32	QP
8	0.486	37.81	-8.42	46.23	27.20	0.29	10.32	Average
9	0.532	46.87	-9.13	56.00	36.30	0.29	10.28	QP
10	0.532	35.47	-10.53	46.00	24.90	0.29	10.28	Average
11	0.617	43.11	-12.89	56.00	32.59	0.30	10.22	QP
12	0.617	32.61	-13.39	46.00	22.09	0.30	10.22	Average
13	0.701	45.36	-10.64	56.00	34.90	0.30	10.16	QP
14	0.701	34.76	-11.24	46.00	24.30	0.30	10.16	Average
15	0.844	42.61	-13.39	56.00	32.20	0.31	10.10	QP
16	0.844	32.31	-13.69	46.00	21.90	0.31	10.10	Average
17	0.914	45.01	-10.99	56.00	34.59	0.31	10.11	QP
18	0.914	34.91	-11.09	46.00	24.49	0.31	10.11	Average
19	1.100	46.73	-9.27	56.00	36.30	0.31	10.12	QP
20	1.100	37.03	-8.97	46.00	26.60	0.31	10.12	Average
21	1.262	46.06	-9.94	56.00	35.61	0.31	10.14	QP
22	1.262	37.06	-8.94	46.00	26.61	0.31	10.14	Average
23	1.388	46.37	-9.63	56.00	35.90	0.31	10.16	QP
24	1.388	38.07	-7.93	46.00	27.60	0.31	10.16	Average
25	1.585	47.39	-8.61	56.00	36.89	0.32	10.18	QP
26	1.585	38.69	-7.31	46.00	28.19	0.32	10.18	Average
27	1.858	48.12	-7.88	56.00	37.60	0.32	10.20	QP
28	1.858	39.12	-6.88	46.00	28.60	0.32	10.20	Average

Test Mode :	Mode 1	Temperature :	24~25℃
Test Engineer :	Amos Zhang	Relative Humidity :	42~44%
Test Voltage :	120Vac / 60Hz	Phase :	Neutral
Function Type :	Bluetooth Idle + WLAN (2.4G) Idle + Camera + Video with Type C 2 + Play H Pattern + Adapter 1 With Type C Cable 1 In Type C 1		



Site : CO01-KS
Condition : FCC CLASS-B LISN-N-171013-060103 NEUTRAL
Project : (FC) 7D2101-02
mode : Mode 1

		Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark
		MHz	dBuV	dB	dBuV	dBuV	dB	dB	
29		2.077	48.43	-7.57	56.00	37.90	0.32	10.21	QP
30		2.077	39.73	-6.27	46.00	29.20	0.32	10.21	Average
31		2.309	48.73	-7.27	56.00	38.21	0.32	10.20	QP
32	*	2.309	40.13	-5.87	46.00	29.61	0.32	10.20	Average
33		2.540	48.12	-7.88	56.00	37.59	0.33	10.20	QP
34		2.540	39.82	-6.18	46.00	29.29	0.33	10.20	Average
35		2.962	45.71	-10.29	56.00	35.19	0.33	10.19	QP
36		2.962	37.41	-8.59	46.00	26.89	0.33	10.19	Average
37		3.258	41.71	-14.29	56.00	31.20	0.33	10.18	QP
38		3.258	33.41	-12.59	46.00	22.90	0.33	10.18	Average
39		4.315	44.42	-11.58	56.00	33.89	0.34	10.19	QP
40		4.315	36.72	-9.28	46.00	26.19	0.34	10.19	Average
41		4.672	46.05	-9.95	56.00	35.50	0.34	10.21	QP
42		4.672	37.85	-8.15	46.00	27.30	0.34	10.21	Average
43		5.713	48.54	-11.46	60.00	37.90	0.33	10.31	QP
44		5.713	39.94	-10.06	50.00	29.30	0.33	10.31	Average
45		6.627	49.26	-10.74	60.00	38.61	0.32	10.33	QP
46		6.627	41.86	-8.14	50.00	31.21	0.32	10.33	Average
47		7.175	48.95	-11.05	60.00	38.30	0.32	10.33	QP
48		7.175	41.55	-8.45	50.00	30.90	0.32	10.33	Average
49		7.687	49.25	-10.75	60.00	38.61	0.31	10.33	QP
50		7.687	41.95	-8.05	50.00	31.31	0.31	10.33	Average
51		9.011	50.24	-9.76	60.00	39.60	0.31	10.33	QP
52		9.011	43.24	-6.76	50.00	32.60	0.31	10.33	Average
53		9.913	48.93	-11.07	60.00	38.30	0.30	10.33	QP
54		9.913	41.93	-8.07	50.00	31.30	0.30	10.33	Average
55		11.021	46.83	-13.17	60.00	36.20	0.28	10.35	QP
56		11.021	39.93	-10.07	50.00	29.30	0.28	10.35	Average

3.2. Test of Radiated Emission Measurement

3.2.1. Limit of Radiated Emission

The emissions from an unintentional radiator shall not exceed the field strength levels specified in the following table:

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

3.2.2. Measuring Instruments

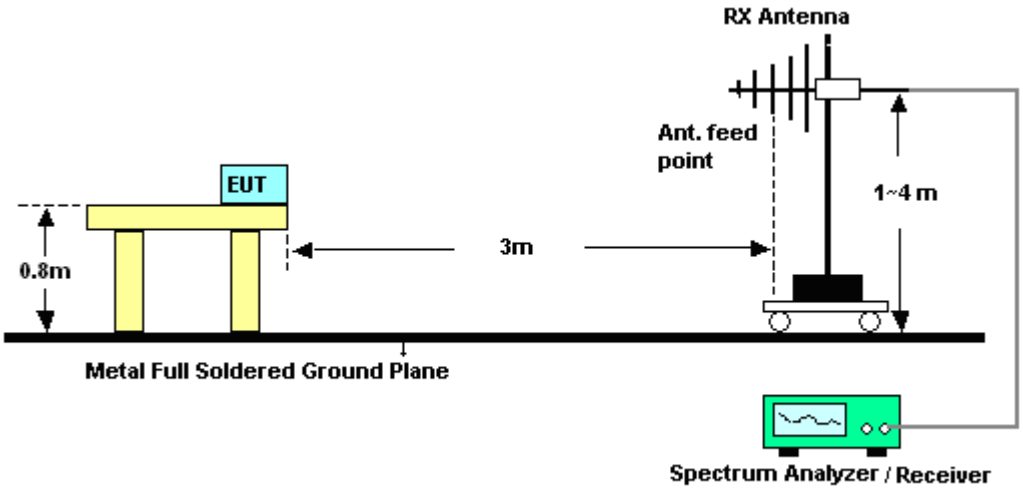
The measuring equipment is listed in the section 4 of this test report.

3.2.3. Test Procedures

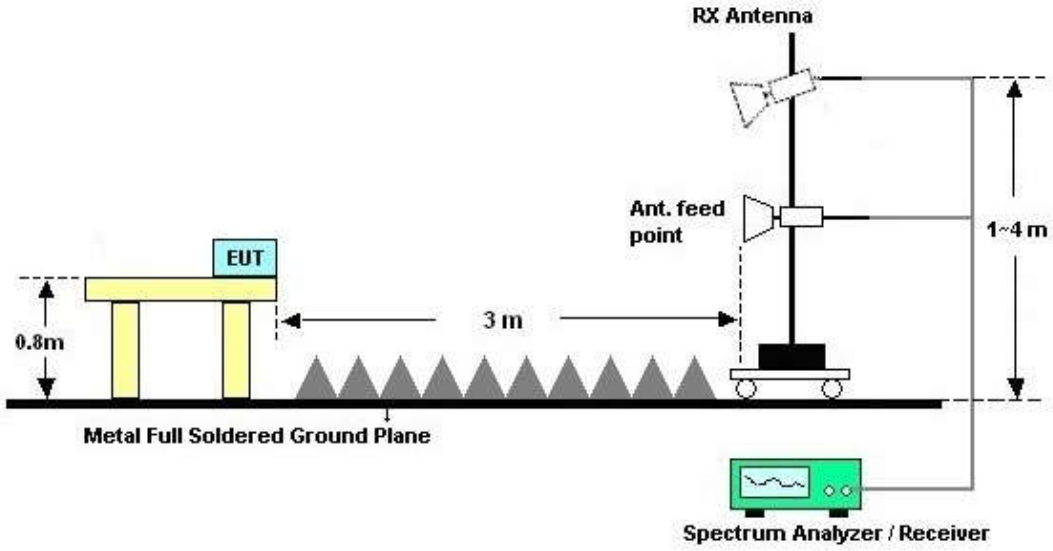
1. The EUT was placed on a turntable with 0.8 meter above ground.
2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest radiation.
4. The antenna is a Bi-Log antenna and its height is adjusted between one to four meters above ground to find the maximum value of the field strength for both horizontal polarization and vertical polarization of the antenna.
5. For each suspected emission, the EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading.
6. Set the test-receiver system to Peak Detect Function and specified bandwidth with Maximum Hold Mode (RBW=120kHz/VBW=300kHz for frequency below 1GHz; RBW=1MHz VBW=3MHz (Peak), RBW=1MHz/VBW=10Hz (Average) for frequency above 1GHz).
7. If the emission level of the EUT in peak mode was 3 dB lower than the limit specified, peak values of EUT will be reported. Otherwise, the emission will be repeated by using the quasi-peak method and reported.
8. Emission level (dBμV/m) = 20 log Emission level (μV/m)
9. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level

3.2.4. Test Setup of Radiated Emission

For radiated emissions from 30MHz to 1GHz

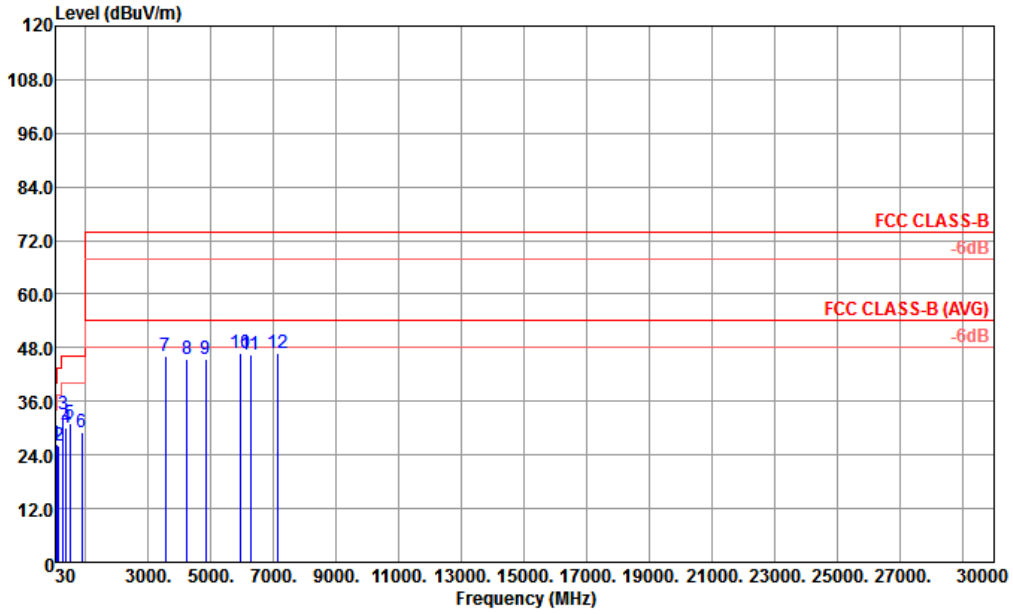


For radiated emissions above 1GHz



3.2.5. Test Result of Radiated Emission

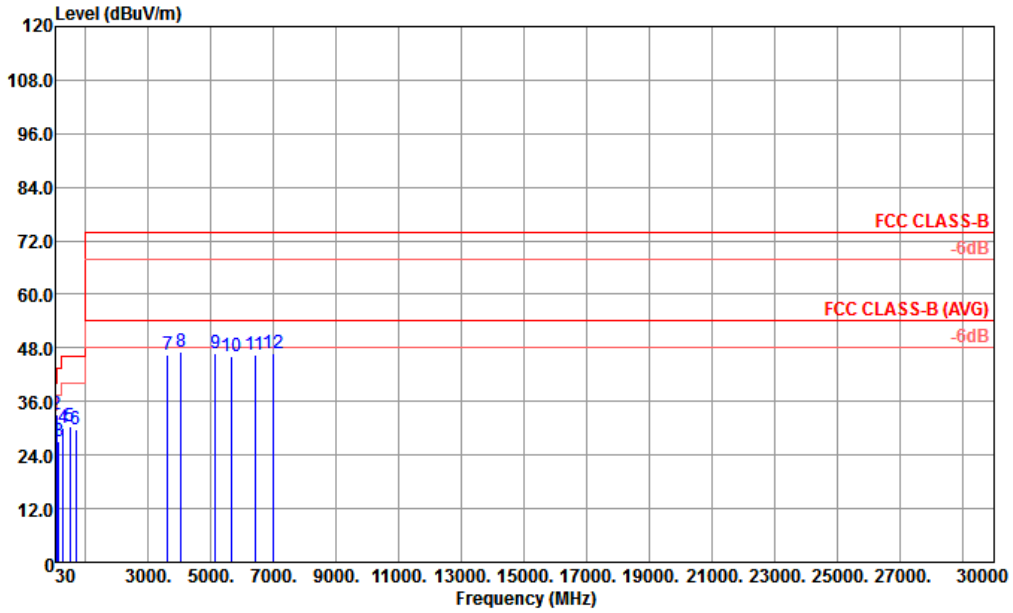
Test Mode :	Mode 1	Temperature :	21~22°C
Test Engineer :	Carl Ni	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Horizontal
Function Type :	Bluetooth Idle + WLAN (2.4G) Idle + Camera + USB Link with Type C 2 + Play H Pattern + Adapter 1 With Type C Cable 1 In Type C 1		



Site : 03CH02-KS
Condition : FCC CLASS-B 3m LF 47610 HORIZONTAL
Project : (FC)7D2101-02
Mode : 1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	69.77	26.51	-13.49	40.00	45.38	12.30	0.85	32.02	---	---	Peak
2	142.52	26.09	-17.41	43.50	39.57	17.15	1.22	31.85	---	---	Peak
3	288.02	32.96	-13.04	46.00	43.32	18.98	1.88	31.22	100	0	Peak
4	383.08	30.08	-15.92	46.00	37.60	21.23	2.02	30.77	---	---	Peak
5	500.45	31.10	-14.90	46.00	35.53	23.50	2.38	30.31	---	---	Peak
6	872.93	28.92	-17.08	46.00	27.14	26.44	3.07	27.73	---	---	Peak
7	3552.00	45.98	-28.02	74.00	41.78	34.20	6.41	36.41	---	---	Peak
8	4224.00	45.54	-28.46	74.00	39.98	35.12	7.29	36.85	---	---	Peak
9	4832.00	45.61	-28.39	74.00	39.69	34.95	7.73	36.76	---	---	Peak
10	5952.00	46.66	-27.34	74.00	39.57	35.72	8.34	36.97	---	---	Peak
11	6248.00	46.55	-27.45	74.00	38.70	35.79	8.86	36.80	---	---	Peak
12	7144.00	46.68	-27.32	74.00	38.34	36.01	9.19	36.86	---	---	Peak

Test Mode :	Mode 1	Temperature :	21~22°C
Test Engineer :	Carl Ni	Relative Humidity :	41~42%
Test Distance :	3m	Polarization :	Vertical
Function Type :	Bluetooth Idle + WLAN (2.4G) Idle + Camera + USB Link with Type C 2 + Play H Pattern + Adapter 1 With Type C Cable 1 In Type C 1		



Site : 03CH02-KS
Condition : FCC CLASS-B 3m LF 47610 VERTICAL
Project : (FC)7D2101-02
Mode : 1

	Freq	Level	Over Limit	Limit Line	Read Level	Antenna Factor	Cable Loss	Preamp Factor	A/Pos	T/Pos	Remark
	MHz	dBuV/m	dB	dBuV/m	dBuV	dB/m	dB	dB	cm	deg	
1	32.91	27.36	-12.64	40.00	35.47	23.32	0.61	32.04	---	---	Peak
2	68.80	33.12	-6.88	40.00	51.99	12.31	0.85	32.03	178	360	QP
3	143.49	27.09	-16.41	43.50	40.64	17.07	1.23	31.85	---	---	Peak
4	287.05	30.15	-15.85	46.00	40.54	18.97	1.87	31.23	---	---	Peak
5	500.45	30.36	-15.64	46.00	34.79	23.50	2.38	30.31	---	---	Peak
6	686.69	29.85	-16.15	46.00	31.11	25.00	2.74	29.00	---	---	Peak
7	3608.00	46.55	-27.45	74.00	42.20	34.30	6.47	36.42	---	---	Peak
8	4056.00	47.04	-26.96	74.00	41.87	35.06	6.86	36.75	---	---	Peak
9	5144.00	46.91	-27.09	74.00	40.68	35.16	7.77	36.70	---	---	Peak
10	5632.00	45.97	-28.03	74.00	39.25	35.39	8.01	36.68	---	---	Peak
11	6392.00	46.37	-27.63	74.00	38.55	35.83	8.72	36.73	---	---	Peak
12	6968.00	46.69	-27.31	74.00	38.04	36.17	9.25	36.77	---	---	Peak

4. List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
EMI Receiver	R&S	ESCI7	100768	9kHz~7GHz;	Apr. 19, 2018	May 31, 2018	Apr. 18, 2019	Conduction (CO01-KS)
AC LISN	MessTec	AN3016	060103	9kHz~30MHz	Oct. 13, 2017	May 31, 2018	Oct. 12, 2018	Conduction (CO01-KS)
AC LISN (for auxiliary equipment)	MessTec	AN3016	060105	9kHz~30MHz	Oct. 13, 2017	May 31, 2018	Oct. 12, 2018	Conduction (CO01-KS)
AC Power Source	Chroma	61602	ABP000000811	AC 0V~300V, 45Hz~1000Hz	Oct. 12, 2017	May 31, 2018	Oct. 11, 2018	Conduction (CO01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz;Max 30dBm	Aug. 08, 2017	May 30, 2018	Aug. 07, 2018	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150208	10Hz-44G,MAX 30dB	Apr. 17, 2018	May 30, 2018	Apr. 16, 2019	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	23182	30MHz-2GHz	Jan. 29, 2018	May 30, 2018	Jan. 28, 2019	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Oct. 21, 2017	May 30, 2018	Oct. 20, 2018	Radiation (03CH02-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz~40GHz	Feb. 07, 2018	May 30, 2018	Feb. 06, 2019	Radiation (03CH02-KS)
Amplifier	MITEQ	TTA1840-35-HG	1887435	18~40GHz	Oct. 12, 2017	May 30, 2018	Oct. 11, 2018	Radiation (03CH02-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Aug. 07, 2017	May 30, 2018	Aug. 06, 2018	Radiation (03CH02-KS)
Amplifier	Agilent	8449B	3008A02384	1-26.5GHz Gain 30dB	Oct. 12, 2017	May 30, 2018	Oct. 11, 2018	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	May 30, 2018	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	May 30, 2018	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	May 30, 2018	NCR	Radiation (03CH02-KS)

NCR: No Calibration Required

5. Uncertainty of Evaluation

Uncertainty of Conducted Emission Measurement (150 kHz ~ 30 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	2.9dB

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.2dB

Uncertainty of Radiated Emission Measurement (1GHz ~ 18GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.0dB

Uncertainty of Radiated Emission Measurement (18GHz ~ 40GHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.7dB

Appendix B. Product Equality Declaration