



EMI TEST REPORT

Test Report No. : 10567166H

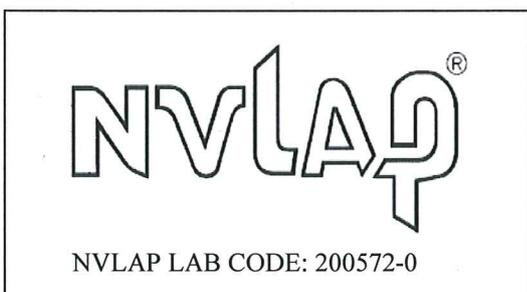
Applicant : Sharp Corporation, Communication Systems Division.
Type of Equipment : Mini Tablet
Model No. : EB-L76G-B
FCC ID : APYHRO00216
Test standard : FCC Part 15 Subpart B 2014 Class B
Test Result : Complied

1. This test report shall not be reproduced in full or partial, without the written approval of UL Japan, Inc.
2. The results in this report apply only to the sample tested.
3. This sample tested is in compliance with the above regulation.
4. The test results in this report are traceable to the national or international standards.
5. This test report must not be used by the customer product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.
6. This test report covers EMC technical requirements. It does not cover administrative issues such as Manual or non-EMC test related Requirements. (if applicable)

Date of test: November 25, 2014

Representative test engineer: 
Ken Fujita
Engineer
Consumer Technology Division

Approved by : 
Takahiro Hatakeda
Leader
Consumer Technology Division



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SECTION 1: Customer information

Company Name : Sharp Corporation, Communication Systems Division.
Address : 2-13-1 Iida Hachihonmatsu HigashiHiroshima-City, Hiroshima, 739-0192,
Japan.
Telephone Number : +81-82-420-1552
Facsimile Number : +81-82-420-1555
Contact Person : Hachiro Hidaka

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

2.1 Identification of E.U.T.

Type of Equipment : Mini Tablet
Model No. : EB-L76G-B
Serial No. : Refer to Section 4, Clause 4.2
Receipt Date of Sample : November 21, 2014
Country of Mass-production : Japan
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

2.2 Product description

Feature of EUT : EB-L76G-B is Quad-band LTE(FDD-1/3/19/21) and Tri-band W-CDMA
(FDD-1/6/19) Dual mode Mini Tablet.
The EUT has the function that Bluetooth, ANT+ wireless technology interface
and wireless LAN technical interface for establishing contact and transmitting
data with certain device.
Clock frequencies in the system : CPU: 2,260MHz (max)
Source oscillation: 19.2MHz (CPU), 27.0MHz (I2C), 26.0MHz (NFC),
48.0MHz (WLAN/BT)

UL Japan, Inc.

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SECTION 3: Test specification, procedures & results

3.1 Test specification

Test specification : FCC Part 15 Subpart B: 2014, final revised on August 15, 2014 and effective October 14, 2014

Title : FCC 47CFR Part15 Radio Frequency Device
Subpart B Unintentional Radiators

3.2 Procedures and results

Item	Test Procedure	Limits	Deviation	Worst margin	Result
Conducted emission	ANSI C63.4: 2009 7. AC powerline conducted emission measurements	Class B	N/A	[QP] 5.1dB 0.17162MHz, L [AV] 7.0dB 0.17162MHz, L	Complied
Radiated emission	ANSI C63.4: 2009 8. Radiated emission measurements	Class B	N/A	5.7dB 798.012MHz, Horizontal, QP	Complied

*Note: UL Japan, Inc's EMI Work Procedure 13-EM-W0420.

3.3 Addition to standard

No addition, exclusion nor deviation has been made from the standard.

3.4 Uncertainty

EMI

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

Test room (semi-anechoic chamber)	Conducted emission (+dB)
	150kHz-30MHz
No.1	3.5dB
No.2	3.5dB
No.3	3.6dB
No.4	3.5dB

Test room (semi-anechoic chamber)	Radiated emission						
	(3m*)(+dB)				(1m*)(+dB)		(0.5m*)(+dB)
	9kHz -30MHz	30MHz -300MHz	300MHz -1GHz	1GHz -10GHz	10GHz -18GHz	18GHz -26.5GHz	26.5GHz -40GHz
No.1	4.0dB	5.1dB	5.0dB	5.1dB	6.0dB	4.9dB	4.3dB
No.2	3.9dB	5.2dB	5.0dB	4.9dB	5.9dB	4.7dB	4.2dB
No.3	4.3dB	5.1dB	5.2dB	5.2dB	6.0dB	4.8dB	4.2dB
No.4	4.6dB	5.2dB	5.0dB	5.2dB	6.0dB	5.7dB	4.2dB

*3m/1m/0.5m = Measurement distance

Conducted Emission test

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

Radiated emission test(3m)

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

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3.5 Test Location

UL Japan, Inc. Ise EMC Lab. *NVLAP Lab. code: 200572-0
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN
Telephone : +81 596 24 8999 Facsimile : +81 596 24 8124

	IC Registration Number	Width x Depth x Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Other rooms
No.1 semi-anechoic chamber	2973C-1	19.2 x 11.2 x 7.7m	7.0 x 6.0m	No.1 Power source room
No.2 semi-anechoic chamber	2973C-2	7.5 x 5.8 x 5.2m	4.0 x 4.0m	-
No.3 semi-anechoic chamber	2973C-3	12.0 x 8.5 x 5.9m	6.8 x 5.75m	No.3 Preparation room
No.3 shielded room	-	4.0 x 6.0 x 2.7m	N/A	-
No.4 semi-anechoic chamber	2973C-4	12.0 x 8.5 x 5.9m	6.8 x 5.75m	No.4 Preparation room
No.4 shielded room	-	4.0 x 6.0 x 2.7m	N/A	-
No.5 semi-anechoic chamber	-	6.0 x 6.0 x 3.9m	6.0 x 6.0m	-
No.6 shielded room	-	4.0 x 4.5 x 2.7m	4.0 x 4.5 m	-
No.6 measurement room	-	4.75 x 5.4 x 3.0m	4.75 x 4.15 m	-
No.7 shielded room	-	4.7 x 7.5 x 2.7m	4.7 x 7.5m	-
No.8 measurement room	-	3.1 x 5.0 x 2.7m	N/A	-
No.9 measurement room	-	8.8 x 4.6 x 2.8m	2.4 x 2.4m	-
No.11 measurement room	-	6.2 x 4.7 x 3.0m	4.8 x 4.6m	-

* Size of vertical conducting plane (for Conducted Emission test) : 2.0 x 2.0m for No.1, No.2, No.3, and No.4 semi-anechoic chambers and No.3 and No.4 shielded rooms.

3.6 Data of EMI, Test instruments, and Test set up

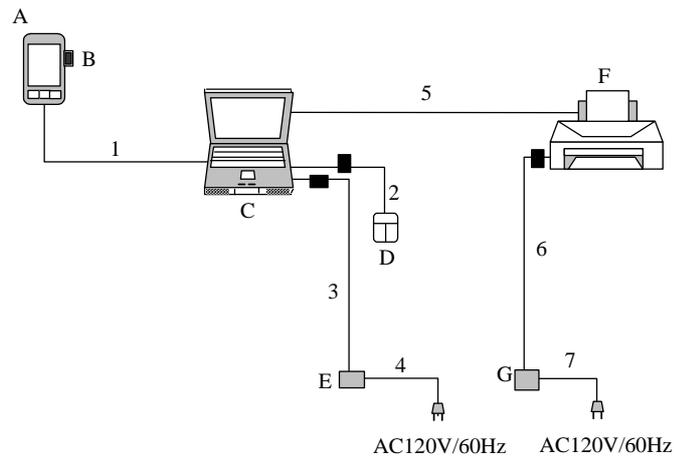
Refer to APPENDIX.

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

4.1 Operating modes

The mode(s) : 1) USB Data Com Mode
The USB data is communicated between EUT and Personal computer (Pair of EUT).
2) Standby Mode
Standby state for USB communication.

4.2 Configuration and peripherals



■ : Ferrite core which has been standard on support equipment.

*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	Remarks
A	Mini Tablet	EB-L76G-B	004401/11/530274/3	Sharp Corporation	EUT
B	microSD Memory Card	SD-C02G	None	TOSHIBA	-
C	Personal Computer	PP11L	CN-0D4571-48643-58P-1053	Dell	-
D	Mouse	M-UAG120	LZ733B70EUV	TOSHIBA	-
E	AC Adapter (PC)	LA65NS1-00	CN-0YD637-71615-64Q-2243	Dell	-
F	Printer	895Cxi	SG8BA1W18J	Hewlett Packard	-
G	AC Adapter (Printer)	C4557-60004	C8L01B	Hewlett Packard	-

List of cables used

No.	Name	Length (m)	Shield		Remarks
			Cable	Connector	
1	USB Data Cable	1.20	Shielded	Shielded	-
2	Mouse Cable	0.72	Unshielded	Unshielded	-
3	AC Adaptor Cable (PC)	1.76	Unshielded	Unshielded	-
4	AC Power Cable (PC)	1.20	Unshielded	Unshielded	-
5	Parallel Cable	1.65	Shielded	Shielded	-
6	AC Adapter Cable (printer)	2.00	Unshielded	Unshielded	-
7	AC Power Cable (printer)	1.75	Unshielded	Unshielded	-

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SECTION 5: Conducted Emission

5.1 Operating environment

Test place : No. 4 semi anechoic chamber
Temperature : See data
Humidity : See data

5.2 Test configuration

EUT was placed on a urethane 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 and its peripherals was aligned and flushed with rear of tabletop. All other surfaces of tabletop were at least 80cm from any other grounded conducting surface. EUT was located 80cm from the LISN/AMN. I/O cables that were connected to the other peripherals were bundled in center. They were folded back and forth forming a bundle 30cm to 40cm long and were hung at a 40cm height to the ground plane. Each EUT current-carrying power lead, except the ground (safety) lead, was individually connected through a LISN/AMN to the input power source. All unused 50 ohm connectors of the LISN/AMN were resistivity terminated in 50 ohm when not connected to the measuring equipment.

Photographs of the set up are shown in Appendix 3.

Frequency range : 0.15 MHz-30MHz
EUT position : Table top
EUT operation mode : See Clause 4.1

5.3 Test procedure

The AC Mains Terminal Continuous disturbance Voltage has been measured with the EUT within a semi anechoic chamber. The EUT was connected to a Line Impedance Stabilization Network (LISN)/ Artificial Mains network (AMN). An overview sweep with peak detection has been performed. The measurements have been performed with a quasi-peak detector and if required, with an average detector.

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

Detector Type : Quasi-Peak and CISPR AV
IF Bandwidth : 9 kHz

5.4 Test result

Summary of the test results: Pass

Date: November 25, 2014 Test engineer: Ken Fujita

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SECTION 6: Radiated Emission

6.1 Operating environment

Test place : No. 4 semi anechoic chamber
Temperature : See data
Humidity : See data

6.2 Test configuration

EUT was placed on a urethane platform of nominal size, 1.0m by 1.5m, raised 0.8m above the conducting ground plane.

The EUT was set on the edge of the tabletop.

Test was made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna was varied in height above the conducting ground plane to obtain the maximum signal strength.

Photographs of the set up are shown in Appendix 3.

6.3 Test conditions

Frequency range : 30MHz-300MHz (Biconical antenna) / 300MHz-1000MHz (Logperiodic antenna)
1000MHz -13000MHz (Horn antenna)
Test distance : 3m
EUT position : Table top
EUT operation mode : See Clause 4.1

6.4 Test procedure

The height of the measuring antenna 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 with the Test Receiver, or the Spectrum Analyzer.

The radiated emission measurements were made with the following detector function of the Test Receiver and the Spectrum Analyzer.

Frequency	Below 1GHz	Above 1GHz
Instrument used	Test Receiver	Spectrum Analyzer
IF Bandwidth	QP: BW 120kHz	PK: RBW:1MHz/VBW: 3MHz AV *1): RBW:1MHz/VBW:10Hz

*1) When using Spectrum analyzer, the test was made with adjusting span to zero by using peak hold.

- The carrier level and noise levels were confirmed at each position of X, Y and Z axes of EUT to see the position of maximum noise, and the test was made at the position that has the maximum noise.

6.5 Test result

Summary of the test results: Pass

Date: November 25, 2014 Test engineer: Ken Fujita

UL Japan, Inc.

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APPENDIX 1: Data of EMI test

Conducted Emission

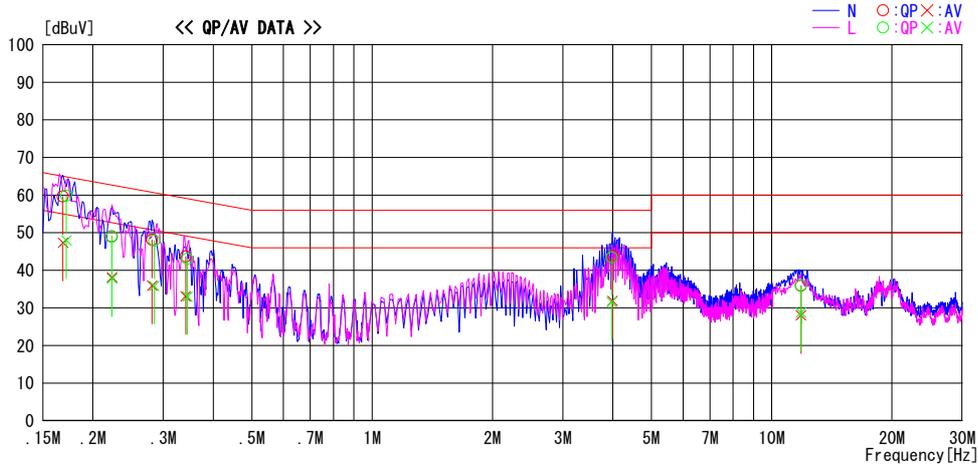
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Ise EMC Lab. No.4 Semi Anechoic Chamber
Date : 2014/11/25

Report No. : 10567166H
Temp./Humi. : 22deg. C / 47% RH
Engineer : Ken Fujita

Mode / Remarks : USB Data Com Mode

LIMIT : FCC15.107(a) QP ClassB
FCC15.107(a) AV ClassB



Frequency [MHz]	Reading Level		Corr. Factor [dB]	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.16830	46.3	34.0	13.3	59.6	47.3	65.0	55.0	5.4	7.7	N	
0.22319	35.7	24.8	13.3	49.0	38.1	62.7	52.7	13.7	14.6	N	
0.28140	34.8	22.6	13.3	48.1	35.9	60.8	50.8	12.7	14.9	N	
0.34134	30.3	19.8	13.3	43.6	33.1	59.2	49.2	15.6	16.1	N	
3.99727	30.1	18.2	13.7	43.8	31.9	56.0	46.0	12.2	14.1	N	
11.83847	21.8	13.9	14.1	35.9	28.0	60.0	50.0	24.1	22.0	N	
0.17162	46.5	34.6	13.3	59.8	47.9	64.9	54.9	5.1	7.0	L	
0.22319	35.6	24.5	13.3	48.9	37.8	62.7	52.7	13.8	14.9	L	
0.28473	34.6	22.5	13.3	47.9	35.8	60.7	50.7	12.8	14.9	L	
0.34467	29.7	19.7	13.3	43.0	33.0	59.1	49.1	16.1	16.1	L	
3.97909	29.7	17.8	13.7	43.4	31.5	56.0	46.0	12.6	14.5	L	
11.83847	21.9	14.6	14.1	36.0	28.7	60.0	50.0	24.0	21.3	L	

CHART : WITH FACTOR, Peak hold data. CALCULATION : RESULT[dBuV] = READING[dBuV] + C.F[dB] (ISN + CABLE)
Except for the above table : adequate margin data below the limits.

*The limit is rounded down to one decimal place.

*The test result is rounded off to one or two decimal places, so some differences might be observed.

Conducted Emission

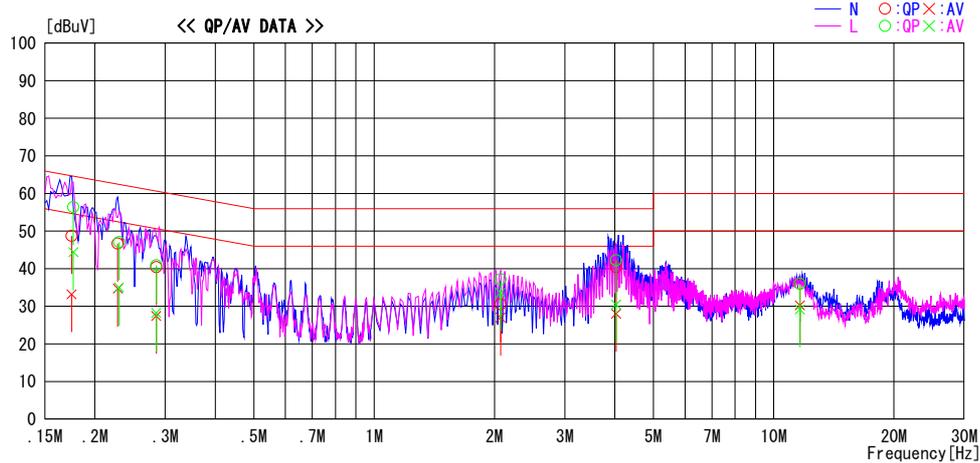
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Ise EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2014/11/25

Report No. : 10567166H
Temp./Humi. : 22deg. C / 47% RH
Engineer : Ken Fujita

Mode / Remarks : Standby Mode

LIMIT : FCC15.107(a) QP ClassB
FCC15.107(a) AV ClassB



Frequency [MHz]	Reading Level		Corr. Factor [dB]	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.17495	35.4	19.9	13.3	48.7	33.2	64.7	54.7	16.0	21.5	N	
0.22818	33.4	21.4	13.3	46.7	34.7	62.5	52.5	15.8	17.8	N	
0.28473	27.1	14.2	13.3	40.4	27.5	60.7	50.7	20.3	23.2	N	
2.07058	17.0	13.5	13.5	30.5	27.0	56.0	46.0	25.5	19.0	N	
4.03362	26.7	14.4	13.7	40.4	28.1	56.0	46.0	15.6	17.9	N	
11.63757	21.9	16.2	14.1	36.0	30.3	60.0	50.0	24.0	19.7	N	
0.17661	43.1	31.1	13.3	56.4	44.4	64.6	54.6	8.2	10.2	L	
0.22984	33.8	21.7	13.3	47.1	35.0	62.5	52.5	15.4	17.5	L	
0.28473	27.6	14.9	13.3	40.9	28.2	60.7	50.7	19.8	22.5	L	
2.07058	23.7	20.1	13.5	37.2	33.6	56.0	46.0	18.8	12.4	L	
4.03362	28.5	16.8	13.7	42.2	30.5	56.0	46.0	13.8	15.5	L	
11.63757	21.9	15.1	14.1	36.0	29.2	60.0	50.0	24.0	20.8	L	

CHART : WITH FACTOR. Peak hold data. CALCULATION : RESULT[dBuV] = READING[dBuV] + C.F.[dB] (ISN + CABLE)
Except for the above table : adequate margin data below the limits.

*The limit is rounded down to one decimal place.
*The test result is rounded off to one or two decimal places, so some differences might be observed.

Radiated Emission
(Below 1GHz)

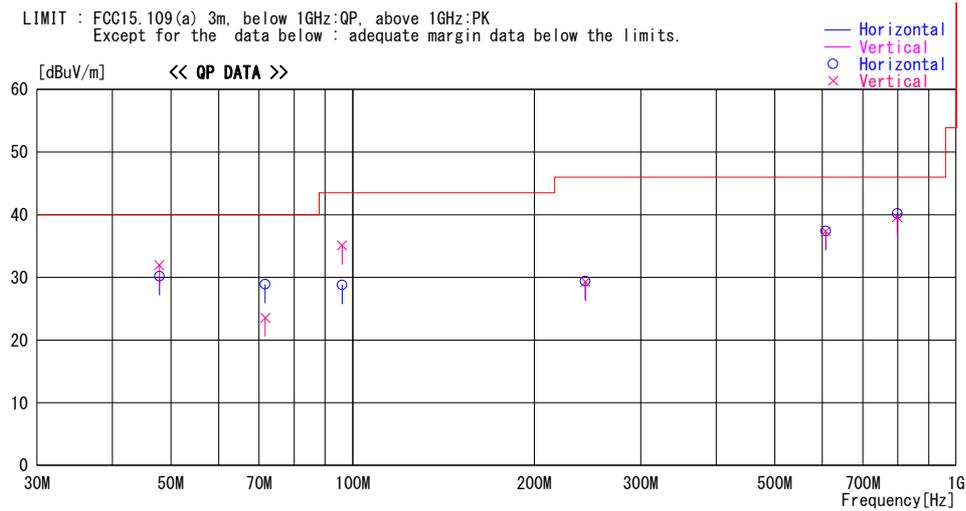
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Ise EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2014/11/25

Report No. : 10567166H
Temp./Humi. : 22deg. C / 47% RH
Engineer : Ken Fujita

Mode / Remarks : USB Data Com Mode Worst Axis Hori:X Ver:X

LIMIT : FCC15.109(a) 3m, below 1GHz:QP, above 1GHz:PK
Except for the data below : adequate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss& Gain [dB]							
47.856	43.3	QP	11.6	-24.7	30.2	150	400	Hori.	40.0	9.8	
47.856	45.1	QP	11.6	-24.7	32.0	261	100	Vert.	40.0	8.0	
71.663	46.7	QP	6.5	-24.3	28.9	221	400	Hori.	40.0	11.1	
71.663	41.4	QP	6.5	-24.3	23.6	242	100	Vert.	40.0	16.4	
96.012	43.3	QP	9.5	-24.0	28.8	121	400	Hori.	43.5	14.7	
96.012	49.6	QP	9.5	-24.0	35.1	78	100	Vert.	43.5	8.4	
242.939	34.6	QP	17.2	-22.4	29.4	23	400	Hori.	46.0	16.6	
243.021	34.5	QP	17.2	-22.4	29.3	312	100	Vert.	46.0	16.7	
607.216	37.6	QP	20.2	-20.4	37.4	156	129	Hori.	46.0	8.6	
607.216	37.6	QP	20.2	-20.4	37.4	221	100	Vert.	46.0	8.6	
798.001	35.8	QP	23.3	-18.9	40.2	342	241	Hori.	46.0	5.8	
798.001	35.2	QP	23.3	-18.9	39.6	51	177	Vert.	46.0	6.4	

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-:HORN
CALCULATION : RESULT = READING + ANT FACTOR + LOSS & GAIN(CABLE + ATTEN - GAIN(AMP))

*The limit is rounded down to one decimal place.
*The test result is rounded off to one or two decimal places, so some differences might be observed.

Radiated Emission
(Below 1GHz)

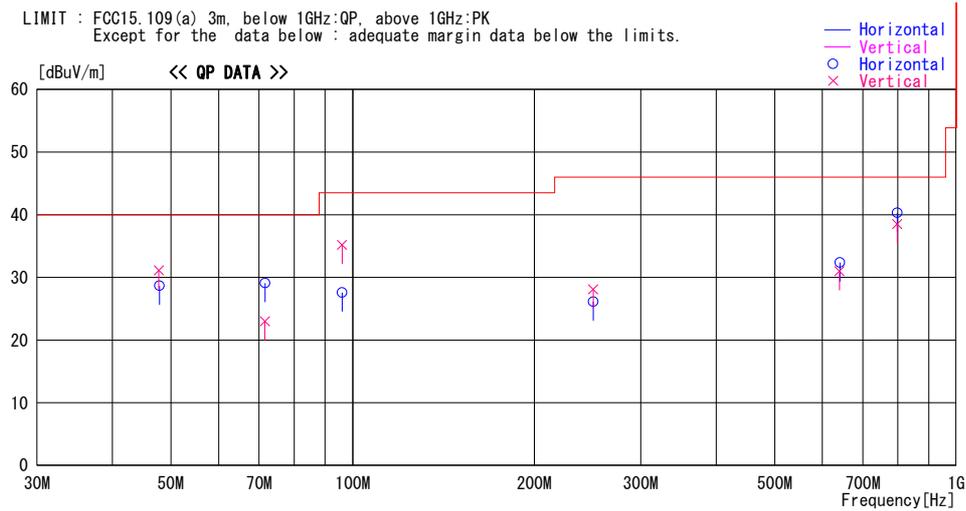
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Date : 2014/11/25

Report No. : 10567166H
Temp./Humi. : 22deg. C / 47% RH
Engineer : Ken Fujita

Mode / Remarks : Standby Mode Worst Axis Hori:X Ver:X

LIMIT : FCC15.109(a) 3m, below 1GHz:QP, above 1GHz:PK
Except for the data below : adequate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss& Gain [dB]							
47.856	41.8	QP	11.6	-24.7	28.7	135	400	Hori.	40.0	11.3	
47.734	44.2	QP	11.6	-24.7	31.1	218	100	Vert.	40.0	8.9	
71.663	46.9	QP	6.5	-24.3	29.1	247	400	Hori.	40.0	10.9	
71.523	40.8	QP	6.5	-24.3	23.0	233	100	Vert.	40.0	17.0	
96.012	42.1	QP	9.5	-24.0	27.6	141	400	Hori.	43.5	15.9	
96.001	49.7	QP	9.5	-24.0	35.2	87	100	Vert.	43.5	8.3	
250.227	31.2	QP	17.3	-22.4	26.1	32	400	Hori.	46.0	19.9	
250.277	33.2	QP	17.3	-22.4	28.1	331	100	Vert.	46.0	17.9	
641.112	31.6	QP	21.0	-20.2	32.4	157	139	Hori.	46.0	13.6	
640.079	30.2	QP	21.0	-20.2	31.0	231	112	Vert.	46.0	15.0	
798.012	35.9	QP	23.3	-18.9	40.3	345	221	Hori.	46.0	5.7	
797.978	34.1	QP	23.3	-18.9	38.5	43	186	Vert.	46.0	7.5	

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP. 30-300MHz:BICONICAL. 300MHz-1000MHz:LOGPERIODIC. 1000MHz-:HORN
CALCULATION : RESULT = READING + ANT FACTOR + LOSS & GAIN(CABLE + ATTEN - GAIN(AMP))

*The limit is rounded down to one decimal place.
*The test result is rounded off to one or two decimal places, so some differences might be observed.

Radiated Emission
(Above 1GHz)

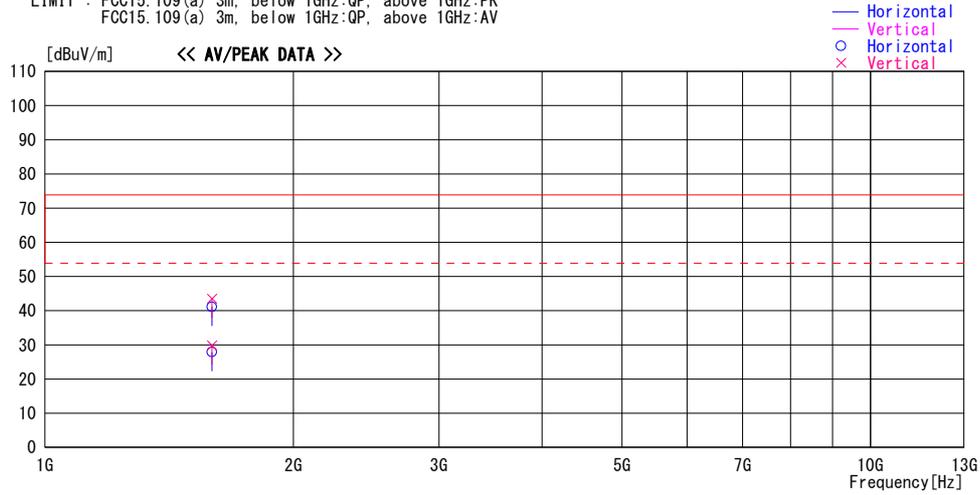
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Ise EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2014/11/25

Report No. : 10567166H
Temp./Humi. : 22deg. C / 47% RH
Engineer : Ken Fujita

Mode / Remarks : USB Data Com Mode Mode Worst Axis Hori:X Ver:X

LIMIT : FCC15.109(a) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.109(a) 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
1593.330	46.7	PK	26.0	-31.6	41.1	225	100	Hori.	73.9	32.8	
1593.330	49.1	PK	26.0	-31.6	43.5	121	100	Vert.	73.9	30.4	
1593.330	35.4	AV	26.0	-31.6	29.8	121	100	Vert.	53.9	24.1	
1593.330	33.5	AV	26.0	-31.6	27.9	225	100	Hori.	53.9	26.0	

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-:HORN
CALCULATION : RESULT = READING + ANT FACTOR + LOSS & GAIN(CABLE - GAIN(AMP))

*The limit is rounded down to one decimal place.
*The test result is rounded off to one or two decimal places, so some differences might be observed.

Radiated Emission
(Above 1GHz)

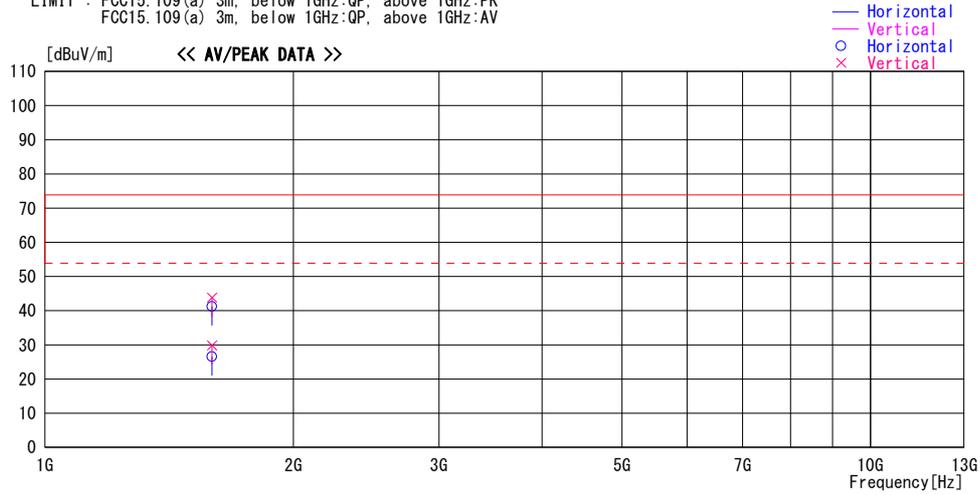
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Ise EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2014/11/25

Report No. : 10567166H
Temp./Humi. : 22deg. C / 47% RH
Engineer : Ken Fujita

Mode / Remarks : Standby Mode Worst Axis Hori:X Ver:X

LIMIT : FCC15.109(a) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.109(a) 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]							
1593.330	46.8	PK	26.0	-31.6	41.2	12	100	Hori.	73.9	32.7	
1593.330	49.4	PK	26.0	-31.6	43.8	232	100	Vert.	73.9	30.1	
1593.330	35.4	AV	26.0	-31.6	29.8	232	100	Vert.	53.9	24.1	
1593.330	32.2	AV	26.0	-31.6	26.6	12	100	Hori.	53.9	27.3	

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-:HORN
CALCULATION : RESULT = READING + ANT FACTOR + LOSS & GAIN(CABLE - GAIN(AMP))

*The limit is rounded down to one decimal place.
*The test result is rounded off to one or two decimal places, so some differences might be observed.

APPENDIX 2: Test instruments

EMI Test Instruments

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MAEC-04	Semi Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	RE/CE	2014/02/28 * 12
MOS-15	Thermo-Hygrometer	Custom	CTH-180	1501	RE/CE	2014/02/20 * 12
MJM-22	Measure	ASKUL	-	-	RE/CE	-
COTS-MEMI	EMI measurement program	TSJ	TEPTO-DV	-	RE/CE	-
MTR-01	Test Receiver	Rohde & Schwarz	ESI40	100084	RE/CE	2014/11/10 * 12
MSA-03	Spectrum Analyzer	Agilent	E4448A	MY44020357	RE	2014/04/08 * 12
MBA-05	Biconical Antenna	Schwarzbeck	BBA9106	1302	RE	2013/11/24 * 12
MLA-08	Logperiodic Antenna	Schwarzbeck	UKLP9140-A	N/A	RE	2013/11/24 * 12
MCC-50	Coaxial Cable	UL Japan	-	-	RE	2014/06/02 * 12
MAT-68	Attenuator	Anritsu	MP721B	6200961025	RE	2014/11/11 * 12
MPA-14	Pre Amplifier	SONOMA INSTRUMENT	310	260833	RE	2014/03/14 * 12
MHA-21	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	9120D-557	RE	2014/08/12 * 12
MCC-141	Microwave Cable	Junkosha	MWX221	1305S002R(1m) / 1405S146(5m)	RE	2014/06/11 * 12
MPA-12	MicroWave System Amplifier	Agilent	83017A	MY39500780	RE	2014/03/11 * 12
MLS-23	LISN(AMN)	Schwarzbeck	NSLK8127	8127-729	CE(EUT)	2014/07/10 * 12
MLS-24	LISN(AMN)	Schwarzbeck	NSLK8127	8127-730	CE	2014/07/10 * 12
MTA-30	Terminator	TME	CT-01	-	CE	2014/01/20 * 12
MAT-67	Attenuator	JFW Industries, Inc.	50FP-013H2 N	-	CE	2014/01/29 * 12
MCC-113	Coaxial cable	Fujikura/Suhner/TSJ	5D-2W(10m)/ SFM141(5m) /421-010(1m)/ sucoform141-PE(1m)/ RFM-E121(Switcher)	-/04178	CE	2014/07/15 * 12

The expiration date of the calibration is the end of the expired month.

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

As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.

Test Item:

CE: Conducted Emissions

RE: Radiated Emissions

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