

TEST REPORT



DT&C Co., Ltd.

42, Yurim-ro, 154beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea 17042
Tel : 031-321-2664, Fax : 031-321-1664

1. Report No. : DREFCC1901-0007(1)
2. Client / Applicant
 - Name : LG Electronics USA, Inc.
 - Address : 1000 Sylvan Avenue, Englewood Cliffs NJ 07632 United States
3. Use of Report : FCC Certification of Conformity Marking
4. Product Name / Model Name : Mobile Phone / LM-X420EM
5. Test Standard : ANSI C 63.4 : 2014
FCC Part 15 Subpart B
(Class B personal computers and peripherals)
6. Date of Test : Dec. 22. 2018
7. Testing Environment : Temperature (19 ~ 22) °C , Humidity (45 ~ 49) % R.H.
8. Test Result : Refer to the attached Test Result

Affirmation	Tested by	Reviewed by
	Name : ChanGeun Lee (Signature)	Name : HyungJun Kim (Signature)

The test results presented in this test report are limited only to the sample supplied by applicant and the use of this test report is inhibited other than its purpose.

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Feb. 11. 2019

DT&C Co., Ltd.

If this report is required to confirmation of authenticity, please contact to report@dtnc.net

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1. General Remarks

This report contains the result of tests performed by :

DT&C Co., Ltd.

42, Yurim-ro, 154beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea 17042

<http://www.dtnet.net>

Tel: +82-31-321-2664 Fax: +82-31-321-1664

2. Test Laboratory

DT&C Co., Ltd. has been accredited / filed / authorized by the agencies listed in the following table;

Certificate	Nation	Agency	Code	Remark
Accreditation	Korea	KOLAS	393	ISO/IEC 17025
	South Africa	SABS	0006	ISO/IEC 17025
	Ghana	NCA	NCA agreement 23rd,Oct,2018	-
Site Filing	USA	FCC	KR0034 101842 678747, 596748, 804488, 165783	Accredited 2.948 Listed
	Canada	IC	5740A-3 5740A-4	Registered
	Japan	VCCI	C-1427 R-1364, R-3385, R-4076, R-4180, R-4496, T-1442, G-10338, G-754, G-10815	Registered
Certification	Korea	KC	KR0034	Designation
	Germany	TUV	CARAT 089112 0006 Rev.00	ISO/IEC 17025
	Russia	RMRS	17.10189.296	ISO/IEC 17025

Quality control in the testing laboratory is implemented as per ISO/IEC 17025 which is the "General requirements for the competent of calibration and testing laboratory".

3. General Information of EUT

Applicant	LG Electronics USA, Inc. 1000 Sylvan Avenue, Englewood Cliffs NJ 07632 United States
Manufacturer	LG Electronics USA, Inc. 1000 Sylvan Avenue, Englewood Cliffs NJ 07632 United States
Factory	LG Electronics USA, Inc. 1000 Sylvan Avenue, Englewood Cliffs NJ 07632 United States
Product Name	Mobile Phone
Model Name	LM-X420EM
Add Model Name	None
FCC ID	ZNFX420EM
Rated Power	DC 3.85 V
Remarks	Earphone 1. Manufacturer : CRESYN 2. S/N : EAB64468444 USB Cable 1. Manufacturer : NINGBO 2. S/N : EAD62377927

Related Submittal(s) / Grant(s)
Original submittal only

4. EUT Operations and Test Configurations

4.1 Principle of Configuration Selection

Emission :

The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use. For each testing mode different configurations were used, Refer to the individual tests.

4.2 EUT Operation Mode

No.	Mode	Description
1	'READ' & 'WRITE' & 'DELETE'	The EUT is reading, writing, and erasing internal storage

4.3 Test Configuration Mode

No.	Mode	Description
1	PC LINK	EUT was connected PC by USB cable and continuously operated

4.4 Supported Equipment

Used*	Product Type	Manufacturer	Model	Remarks
AE	KEYBOARD	DELL	KB212-B	SDOC
AE	MOUSE	LG	SM-9023	SDOC
AE	LCD MONITOR	DELL	UP2414Qt	SDOC
AE	PC	DELL	DCNE	SDOC
AE	SSD 3.0	SAMSUNG	MU-PT250B	SDOC
AE	PRINTER	Bixolon	SRP-770	SDOC
AE	Headset	SAMSUNG	SHS-150V/M	SDOC

*Abbreviations:

AE - Auxiliary/Associated Equipment, or
SIM - Simulator

4.5 EUT In/Output Port

Name	Type*	Cable Max. >3 m	Cable Shielded	Cable Back shell	Remarks
USB	I/O	1.7	Shield	Plastic	KEYBOARD
USB	I/O	1.7	Shield	Plastic	MOUSE
POWER IN DSUB OUT	AC I/O	1.8 1.8	Non-Shield Shield	Plastic Plastic	LCD MONITOR
POWER IN DSUB IN PARALLEL IN SERIAL IN USB USB USB STEREO IN/OUT	AC I/O I/O I/O I/O I/O I/O I/O	1.8 1.8 2.0 1.9 1.7 1.7 1.0 2.0	Non-Shield Shield Shield Shield Shield Shield Shield Non-Shield	Plastic Plastic Plastic Plastic Plastic Plastic Plastic Plastic	PC
USB	I/O	1.0	Shield	Plastic Plastic	SSD 3.0
POWER IN PARALLEL OUT SERIAL OUT	DC I/O I/O	1.8 2.0 1.9	Non-Shield Shield Shield	Plastic Plastic Plastic	PRINTER
STEREO IN/OUT	I/O	2.0	Non-Shield	Plastic	Headset
AUX	I/O	1.8	Non-Shield	Plastic	EUT
USB	I/O	1.0	Non-Shield	Plastic	EUT
*Abbreviations: AC = AC Power Port DC = DC Power Port N/E = Non-Electrical I/O = Signal Input or Output Port TP = Telecommunication Ports					

4.6 Test Voltage and Frequency

Case	Voltage (V)	Frequency (Hz)	Phases	Remarks
1	AC 120	60 Hz	Single	None

5. Test Summary

Test Items	Applied Standards	Results
Conducted Disturbance	ANSI C63.4 : 2014	C
Radiated Disturbance	ANSI C63.4 : 2014	C
C=Comply N/C=Not Comply N/T=Not Tested N/A=Not Applicable		

The data in this test report are traceable to the national or international standards.

-Conducted Disturbance

Frequency [MHz]	Phase	Result [dB μ V]	Detector	Limit [dB μ V]	Margin [dB]
0.20317	N	38.38	CAV	53.48	15.10

-Radiated Disturbance

Frequency [MHz]	Pol.	Result [dB μ V/m]	Detector	Limit [dB μ V/m]	Margin [dB]
149.914	H	38.24	QP	43.50	5.26

6. Test Environment

Test Items	Test date (YYYY-MM-DD)	Temp. (°C)	Humidity (% R.H.)	Pressure (kPa)
Conducted Disturbance	2018-12-22	22	45	100.1
Radiated Disturbance	2018-12-22	19	48	-
	2018-12-22	19	49	

7. Test Results : Emission

7.1 Conducted Disturbance

ANSI C63.4	Mains terminal disturbance voltage		Result
<u>Method:</u> The AMN placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane. This distance was between the closest points of the AMN and the EUT. All other units of the EUT and associated equipment were at least 0,8 m from the AMN. All power was connected to the system through Artificial Mains Network (AMN). Conducted voltage measurements on mains lines were made at the output of the AMN. The measuring port of the LISN for EUT was connected to spectrum analyzer. Using conducted emission test software, the emissions were scanned with peak detector mode. After scanning over the frequency range, suspected emissions were selected to perform final measurement. When performing final measurement, the receiver was used which has Quasi-Peak detector and CISPR Average detector. For (0.15 ~ 30) MHz frequency range, Quasi-Peak detector with 10 kHz RBW and 30 kHz VBW was used. By varying the configuration of the test sample and the cable routing it was attempted to maximize the emission.			Comply
Fully configured sample scanned over the following frequency range	Frequency range on each side of line	Measurement Point	
	150 kHz to 30 MHz	Mains	
EUT mode (Refer to clauses 4)	Test configuration mode	1	
	EUT Operation mode	1	
Limits – Class A			
Frequency (MHz)	Limit dBµV		
	Quasi-Peak	Average	
0.15 to 0.50	79	66	
0.50 to 30	73	60	
Limits – Class B			
Frequency (MHz)	Limit dBµV		
	Quasi-Peak	Average	
0.15 to 0.50	66 to 56	56 to 46	
0.50 to 5	56	46	
5 to 30	60	50	

Measurement uncertainty	
Expended uncertainty U (95 %, Confidence level, $k = 2$)	2.61 dB

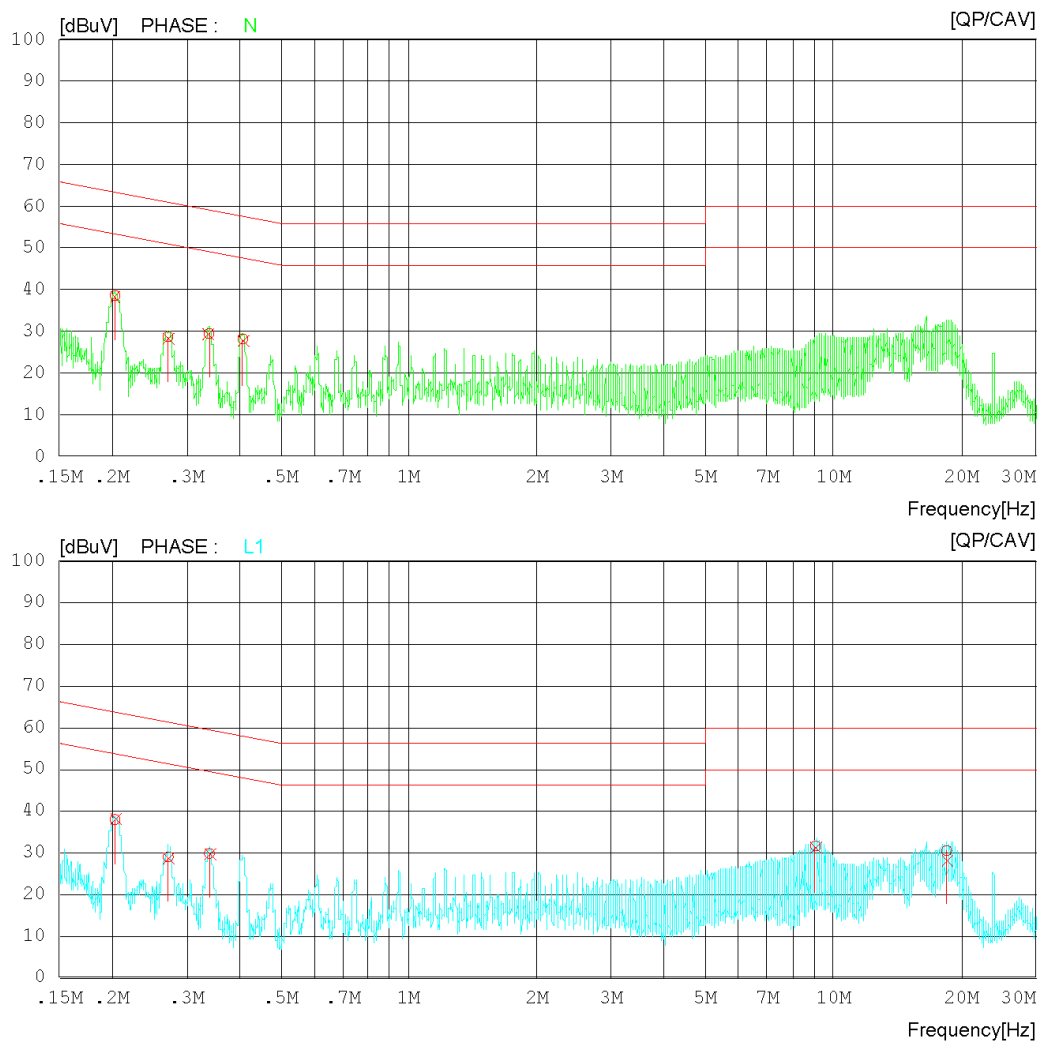
Measurement Instrument					
Description	Model	Manufacturer	Identifier	Cal. Date	Cal. Due
MEASUREMENT SOFTWARE	EMI-C VER. 2.00.0171	TSJ	N/A	N/A	N/A
EMI TEST RECEIVER	ESR7	ROHDE & SCHWARZ	101109	2018.10.29	2019.10.29
LISN	ENV216	ROHDE & SCHWARZ	101979	2018.12.06	2019.12.06
LISN	LISN1600	TTI	197204	2018.06.07	2019.06.07
TRANSIENT LIMITER	TL-B0930A	EMCIS	11002	2018.09.05	2019.09.05
50 OHM TERMINATOR	CT-01	TME	N/A	2017.12.26	2018.12.26

Mains terminal disturbance voltage _Measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	120	Test Frequency (Hz)	60

Results of Conducted Emission

DT&C
Date 2018-12-22

Order No. DTNC1812-09563
Power Supply 120 VAC 60 Hz
Temp/Humi/Atm 22 'C 45 % R.H. 100.1 kPa
Test Condition PC Link

LIMIT : CISPR32_B QP
CISPR32_B AV


Results of Conducted Emission

DT&C
Date 2018-12-22

Order No. DTNC1812-09563
Power Supply 120 VAC 60 Hz
Temp/Humi/Atm 22 'C 45 %.R.H. 100.1 kPa
Test Condition PC Link

LIMIT : CISPR32_B QP
CISPR32_B AV

NO	FREQ [MHz]	READING		C.FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	CAV [dBuV]		QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]	
1	0.20317	28.33	28.15	10.23	38.56	38.38	63.48	53.48	24.92	15.10	N
2	0.27094	18.52	18.24	10.16	28.68	28.40	61.09	51.09	32.41	22.69	N
3	0.33862	19.31	19.19	10.13	29.44	29.32	59.24	49.24	29.80	19.92	N
4	0.40646	18.03	17.32	10.13	28.16	27.45	57.72	47.72	29.56	20.27	N
5	0.20335	27.62	27.47	10.23	37.85	37.70	63.47	53.47	25.62	15.77	L1
6	0.27112	18.69	18.49	10.16	28.85	28.65	61.08	51.08	32.23	22.43	L1
7	0.33900	19.58	19.51	10.13	29.71	29.64	59.23	49.23	29.52	19.59	L1
8	9.08728	20.39	19.96	11.09	31.48	31.05	60.00	50.00	28.52	18.95	L1
9	18.51218	18.88	16.50	11.48	30.36	27.98	60.00	50.00	29.64	22.02	L1

Calculation

N : Neutral phase, L1 : Live phase
C.FACTOR(dB) : Pulse Limiter(dB) + Cable loss(dB) + Insertion loss of LISN(dB)
Result(dBμV) : Reading Value(dBμV) + C.FACTOR(dB)
Margin(dB) : Limit(dBμV) - Result(dBμV)

7.2 Radiated Disturbance

ANSI C63.4	Radiated disturbance 30 MHz – 40 GHz			Result
Method: Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 10 or 3 meter below 1GHz and 3 meter above 1GHz. The EUT was rotated 360° about its azimuth with the receive antenna located at various heights in horizontal and vertical polarities. Final measurements were then performed by rotating the EUT 360° and adjusting the receive antenna height from 1 to 4 m. All frequencies were investigated in both horizontal and vertical antenna polarity, where applicable. For final measurement below 1 GHz frequency range, Quasi-Peak detector with (RBW = 120 kHz Bandwidth) was used. For final measurement above 1 GHz frequency range, Peak detector with (RBW = 1 MHz Bandwidth) and CISPR Average detector with (RBW = 1 MHz Bandwidth) were used.				Comply
EUT mode (Refer to clauses 4)	Test configuration mode		1	
	EUT Operation mode		1	
Radiated Disturbance below 1 000 MHz				
Frequency range (MHz)	Quasi-peak limit dBµV/m			
	Class A (10 m distance)		Class B (3 m distance)	
30 to 88	39.1		40	
88 to 216	43.5		43.5	
216 to 960	46.4		46	
960 to 1 000	49.5		54	
According to 15.109(g), as an alternative to the radiated emission limit shown above, digital devices may be shown to comply with the standards contained in Third Edition of the International Special Committee on Radio Interference (CISPR), Pub. 22 shown.				
Frequency range (MHz)	Quasi-peak limit dBµV/m			
	Class A (10 m distance)		Class B (10 m distance)	
30 to 230	40		30	
230 to 1 000	47		37	
Radiated Disturbance for above 1 000 MHz at a measurement distance of 3 m				
Frequency range (GHz)	Peak limit dBµV/m		Average limit dBµV/m	
	Class A	Class B	Class A	Class B
1 to 40	80	74	60	54
The test frequency range of Radiated Disturbance measurements are listed below.				
Highest frequency generated or used in the device or on which the device operates or tunes (MHz)			Upper frequency of measurement range (MHz)	
Below 108			1 000	
108 – 500			2 000	
500 – 1 000			5 000	
Above 1 000			5 th harmonic of the highest frequency or 40 GHz, whichever is lower	
Measurement uncertainty				
Expended uncertainty <i>U</i> (95 %, Confidence level, <i>k</i> = 2)			2.89 dB, (30 ~ 1 000) MHz 4.16 dB, (1 ~ 6) GHz	

Measurement Instrument					
Description	Model	Manufacturer	Identifier	Cal. Date	Cal. Due
MEASUREMENT SOFTWARE	EMI-R VER. 2.00.0177	TSJ	N/A	N/A	N/A
EMI TEST RECEIVER	ESU	ROHDE & SCHWARZ	100469	2018.06.28	2019.06.28
TRILOG BROADBAND TEST-ANTENNA	VULB9160	SCHWARZBECK	9160-3339	2018.10.22	2020.10.22
6DB ATTENUATOR	8491B	HP	18403	2018.10.22	2020.10.22
LOW NOISE PRE AMPLIFIER	MLA-100K01-B01-26	TSJ	1252741	2018.02.19	2019.02.19
HORN ANTENNA	3117	ETS-LINDGREN	00152093	2018.03.26	2020.03.26
HORN ANTENNA WITH PREAMPLIFIER	EM-6969	ELECTRO-METRICS	156	2017.02.10	2019.02.10
	MLA-0618-B03-34	TSJ	1785642	2018.01.02	2019.01.02
PREAMPLIFIER	8449B	AGILENT TECHNOLOGIES	3008A01590	2018.02.20	2019.02.20
HORN ANTENNA WITH PREAMPLIFIER	3116C	ETS-LINDGREN	00213177	2017.12.05	2019.12.05
	JS44-18004000-35-8P	L3 NARDA-MITEQ	2046884	2018.11.09	2019.11.09
(NOTE : THE MEASUREMENT ANTENNAS WERE CALIBRATED IN ACCORDANCE TO THE REQUIREMENTS OF C63.5-2017.)					

Radiated disturbance at (30 ~ 1000) MHz _Measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	120	Test Frequency (Hz)	60

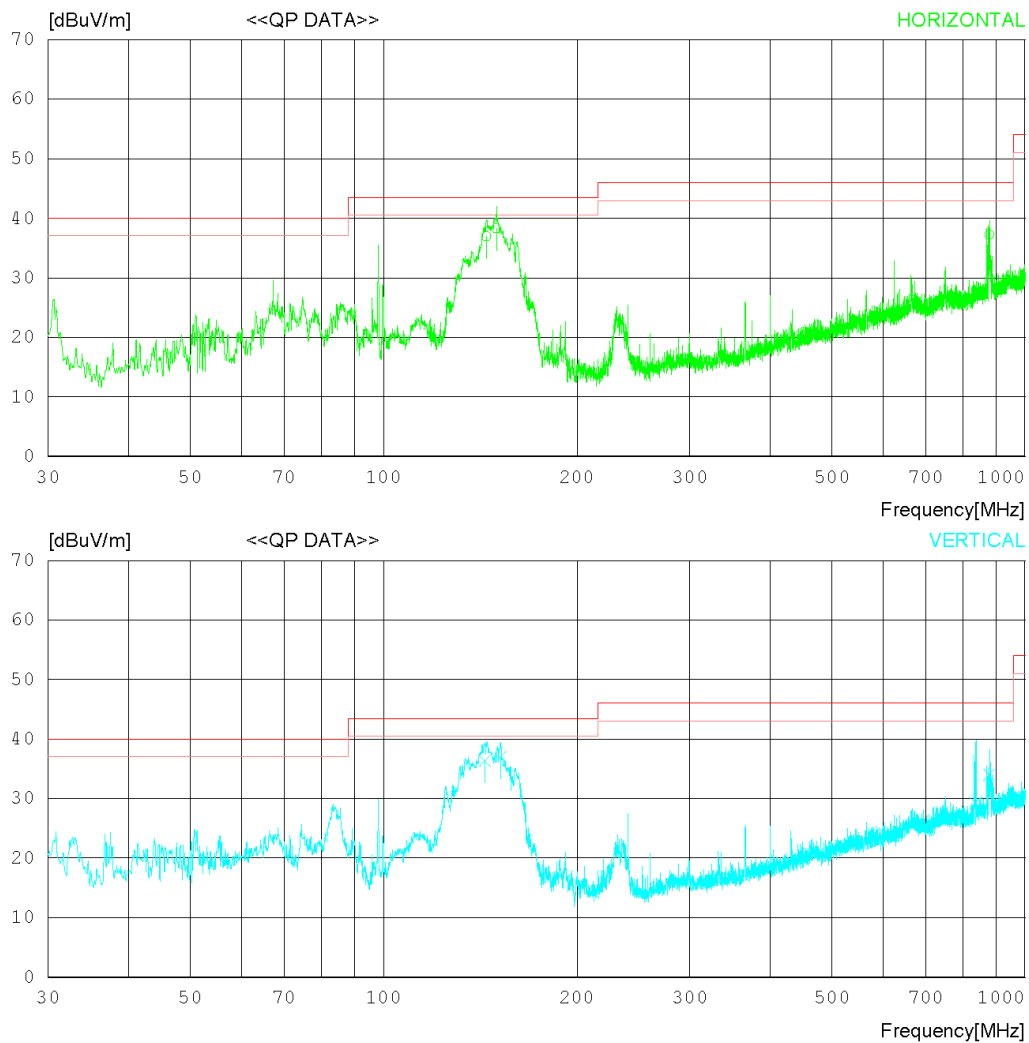
RADIATED EMISSION

Date 2018-12-22

Order No. DTNC1812-09563
Power Supply 120 VAC 60 Hz
Temp/Humi 19 'C 48 % R.H.
Test Condition PC Link

Memo

LIMIT : FCC Part15 Subpart.B Class B (3m)
MARGIN: 3 dB



RADIATED EMISSION

Date 2018-12-22

Order No. DTNC1812-09563
Power Supply 120 VAC 60 Hz
Temp/Humi 19 °C 48 %R.H.
Test Condition PC Link

Memo

LIMIT : FCC Part15 Subpart.B Class B (3m)
MARGIN: 3 dB

No.	FREQ [MHz]	READING QP [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	144.700	41.80	18.79	1.95	25.58	36.96	43.50	6.54	310	280
2	149.914	42.90	18.90	2.02	25.58	38.24	43.50	5.26	400	164
3	878.939	28.40	29.11	5.32	25.60	37.23	46.00	8.77	400	290
----- Vertical -----										
4	143.851	41.20	18.78	1.94	25.58	36.34	43.50	7.16	100	350
5	152.096	41.60	18.90	2.01	25.58	36.93	43.50	6.57	100	170
6	836.128	20.90	28.95	4.95	25.47	29.33	46.00	16.67	100	247
7	878.939	25.20	29.11	5.32	25.60	34.03	46.00	11.97	100	0

Radiated disturbance at (1 ~ 6) GHz _Peak measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	120	Test Frequency (Hz)	60

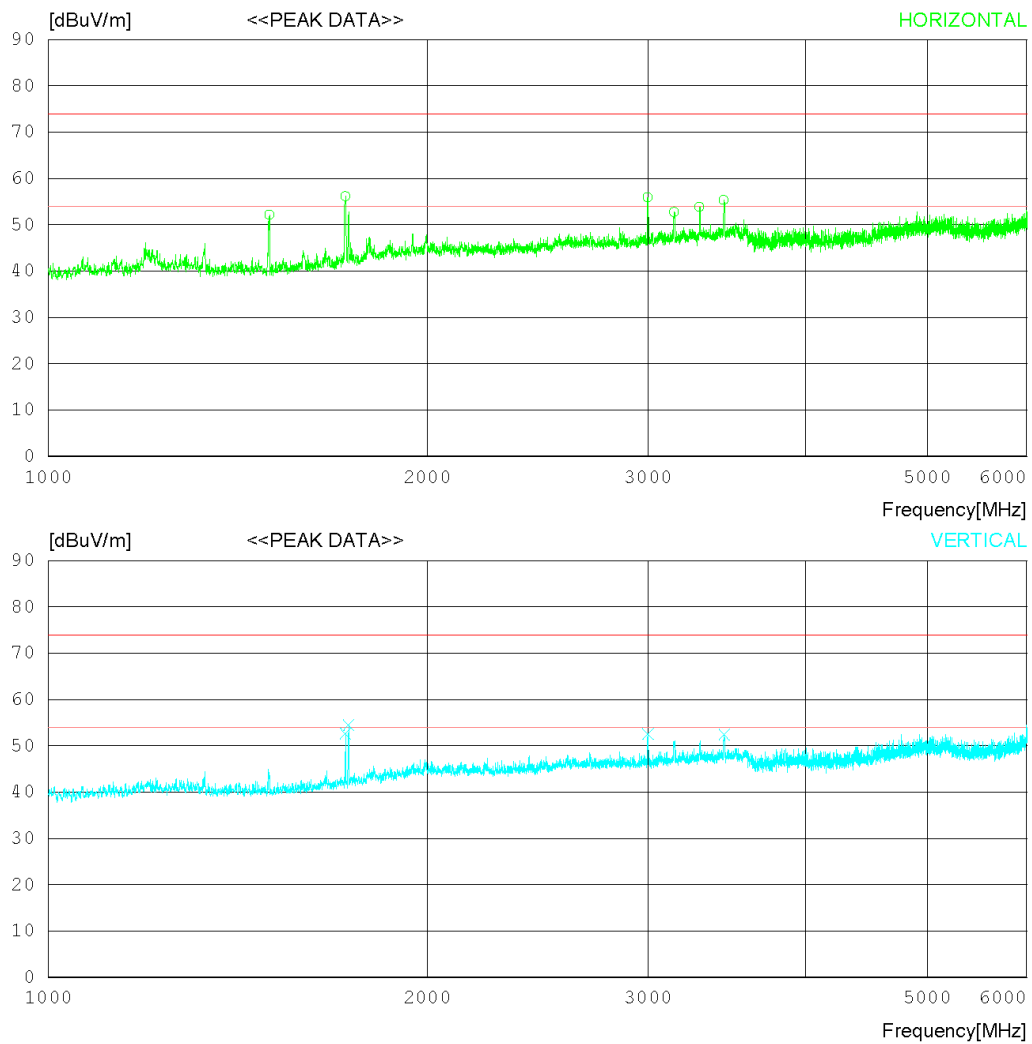
RADIATED EMISSION

Date 2018-12-22

Order No. DTNC1812-09563
Power Supply 120 VAC 60 Hz
Temp/Humi 19 °C 49 % R.H.
Test Condition PC Link

Memo

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Peak)
FCC Part15 Subpart.B Class B (3m) - 18G(Avg)



RADIATED EMISSION

Date 2018-12-22

Order No. DTNC1812-09563
Power Supply 120 VAC 60 Hz
Temp/Humi 19 °C 49 % R.H.
Test Condition PC Link

Memo

LIMIT : FCC Part15 Subpart B Class B (3m) - 18G(Peak)
FCC Part15 Subpart B Class B (3m) - 18G(Avg)

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	1498.125	54.40	27.90	5.27	35.34	52.23	74.0	21.77	100	1
2	1723.125	56.50	29.28	5.51	35.11	56.18	74.0	17.82	200	1
3	2996.875	51.20	32.49	7.07	34.84	55.92	74.0	18.08	100	208
4	3145.625	47.40	32.99	7.10	34.77	52.72	74.0	21.28	100	208
5	3293.750	48.20	32.91	7.43	34.69	53.85	74.0	20.15	300	103
6	3443.125	49.40	32.80	7.79	34.62	55.37	74.0	18.63	100	1
----- Vertical -----										
7	1722.500	53.00	29.27	5.51	35.11	52.67	74.0	21.33	100	359
8	1732.500	54.60	29.39	5.53	35.10	54.42	74.0	19.58	300	278
9	2996.875	47.80	32.49	7.07	34.84	52.52	74.0	21.48	100	319
10	3446.875	46.40	32.80	7.79	34.62	52.37	74.0	21.63	200	359

Radiated disturbance at (1 ~ 6) GHz _Average measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	120	Test Frequency (Hz)	60

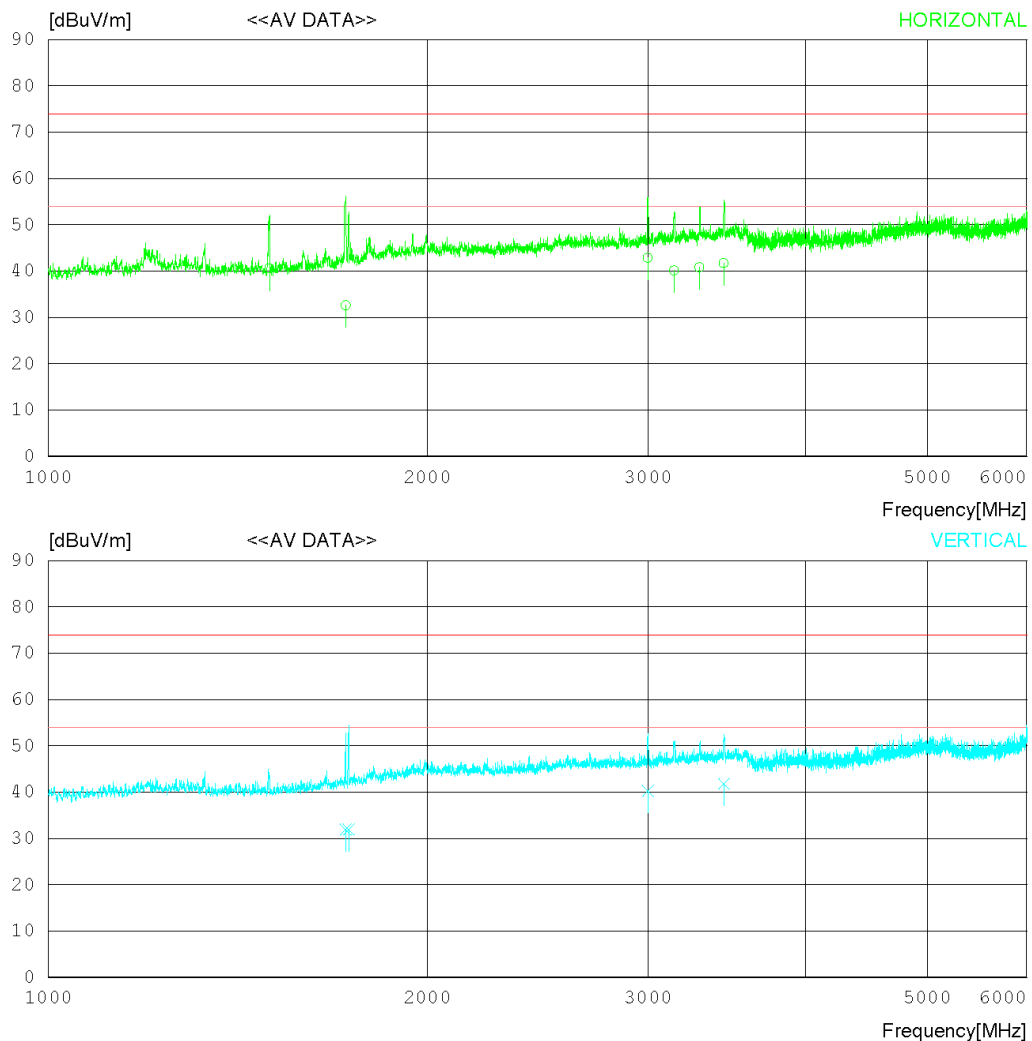
RADIATED EMISSION

Date 2018-12-22

Order No. DTNC1812-09563
Power Supply 120 VAC 60 Hz
Temp/Humi 19 'C 49 % R.H.
Test Condition PC Link

Memo

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Avg)
FCC Part15 Subpart.B Class B (3m) - 18G(Peak)



RADIATED EMISSION

Date 2018-12-22

Order No. DTNC1812-09563
Power Supply 120 VAC 60 Hz
Temp/Humi 19 °C 49 % R.H.
Test Condition PC Link

Memo

LIMIT : FCC Part15 Subpart B Class B (3m) - 18G(Avg)
FCC Part15 Subpart B Class B (3m) - 18G(Peak)

No.	FREQ	READING	ANT	LOSS	GAIN	RESULT	LIMIT	MARGIN	ANTENNA	TABLE
	[MHz]	CAV [dBuV]	FACTOR [dB]	[dB]	[dB]	[dBuV/m]	[dBuV/m]	[dB]	[cm]	[DEG]
----- Horizontal -----										
1	1498.805	42.70	27.90	5.27	35.34	40.53	54.00	13.47	100	350
2	1724.385	32.90	29.29	5.51	35.10	32.60	54.00	21.40	190	290
3	2996.935	38.10	32.49	7.07	34.84	42.82	54.00	11.18	100	190
4	3143.495	34.80	32.99	7.10	34.77	40.12	54.00	13.88	100	210
5	3294.950	35.20	32.91	7.44	34.69	40.86	54.00	13.14	280	110
6	3444.565	35.70	32.80	7.79	34.62	41.67	54.00	12.33	100	10
----- Vertical -----										
7	1722.934	32.30	29.28	5.51	35.11	31.98	54.00	22.02	100	290
8	1732.840	32.10	29.39	5.53	35.10	31.92	54.00	22.08	270	280
9	2997.285	35.50	32.49	7.07	34.84	40.22	54.00	13.78	100	320
10	3445.115	35.80	32.80	7.79	34.62	41.77	54.00	12.23	220	354

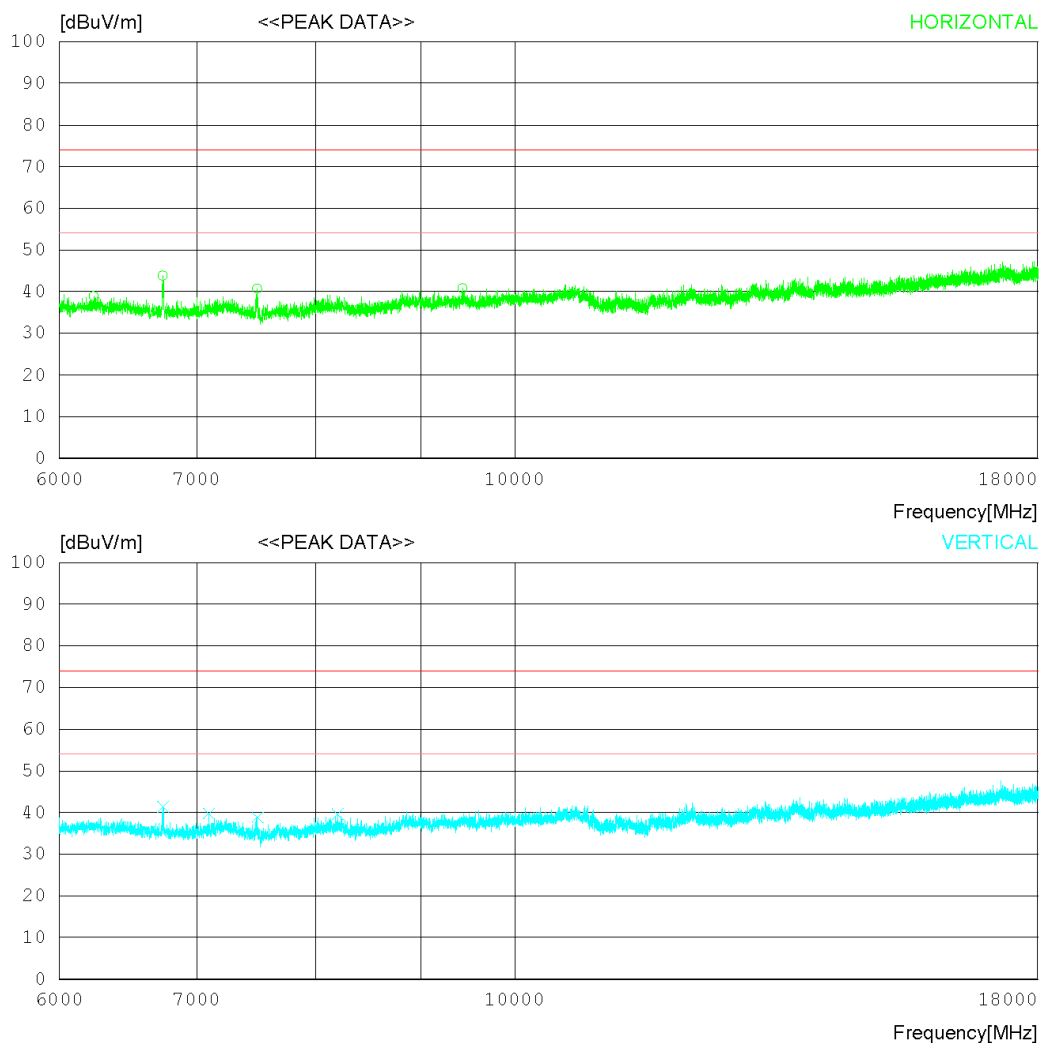
Radiated disturbance at (6 ~ 18) GHz _Peak measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	120	Test Frequency (Hz)	60

RADIATED EMISSION

Date 2018-12-22

Order No. DTNC1812-09563
Power Supply 120 VAC 60 Hz
Temp/Humi 19 °C 49 % R.H.
Test Condition PC LINK

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Peak)
FCC Part15 Subpart.B Class B (3m) - 18G(Avg)



* The measurement is performed above 18 GHz up to 40 GHz and not found emissions above 18 GHz.

RADIATED EMISSION

Date 2018-12-22

Order No. DTNC1812-09563
Power Supply 120 VAC 60 Hz
Temp/Humi 19 °C 49 % R.H.
Test Condition PC LINK

LIMIT : FCC Part15 Subpart B Class B (3m) - 18G(Peak)
FCC Part15 Subpart B Class B (3m) - 18G(Avg)

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	6234.750	39.74	31.43	6.55	38.86	38.86	74.0	35.14	200	267
2	6740.250	42.43	31.40	8.76	38.77	43.82	74.0	30.18	100	358
3	7493.250	38.27	31.37	9.79	38.80	40.63	74.0	33.37	300	174
4	9434.250	35.82	32.02	10.80	37.89	40.75	74.0	33.25	100	358
----- Vertical -----										
5	6739.500	41.94	31.40	6.85	38.77	41.42	74.0	32.58	200	295
6	7095.000	40.10	31.38	6.82	38.55	39.75	74.0	34.25	100	355
7	7493.250	39.05	31.37	7.21	38.80	38.83	74.0	35.17	100	183
8	8201.250	38.54	31.44	7.48	37.82	39.64	74.0	34.36	200	143

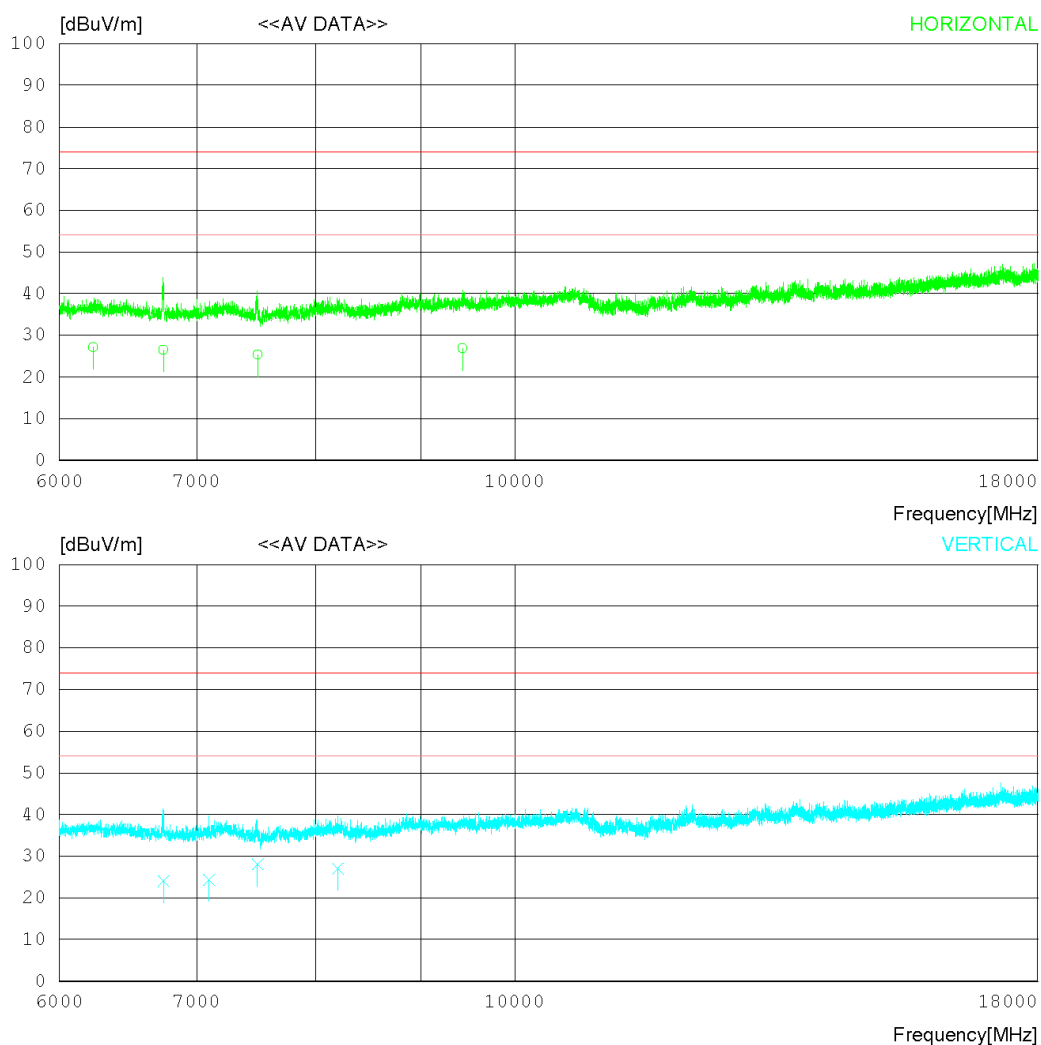
Radiated disturbance at (6 ~ 18) GHz _Average measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	120	Test Frequency (Hz)	60

RADIATED EMISSION

Date 2018-12-22

Order No. DTNC1812-09563
Power Supply 120 VAC 60 Hz
Temp/Humi 19 °C 49 % R.H.
Test Condition PC LINK

LIMIT : FCC Part15 Subpart.B Class B (3m) - 18G(Avg)
FCC Part15 Subpart.B Class B (3m) - 18G(Peak)



* The measurement is performed above 18 GHz up to 40 GHz and not found emissions above 18 GHz.

RADIATED EMISSION

Date 2018-12-22

Order No. DTNC1812-09563
Power Supply 120 VAC 60 Hz
Temp/Humi 19 °C 49 % R.H.
Test Condition PC LINK

LIMIT : FCC Part15 Subpart B Class B (3m) - 18G(Avg)
FCC Part15 Subpart B Class B (3m) - 18G(Peak)

No.	FREQ [MHz]	READING CAV [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	6741.250	27.10	31.40	6.85	38.77	26.58	54.00	27.42	230	340
2	7494.440	25.60	31.37	7.21	38.80	25.38	54.00	28.62	100	182
3	9435.700	24.80	32.02	7.95	37.89	26.88	54.00	27.12	270	350
4	6233.250	28.10	31.43	6.55	38.86	27.22	54.00	26.78	100	280
----- Vertical -----										
5	6742.600	24.50	31.40	6.86	38.77	23.99	54.00	30.01	190	301
6	7096.170	24.70	31.38	6.82	38.55	24.35	54.00	29.65	100	344
7	7493.800	25.70	31.37	9.79	38.80	28.06	54.00	25.94	100	190
8	8202.250	25.90	31.45	7.48	37.82	27.01	54.00	26.99	210	150

Calculation

N : Neutral phase, L1 : Live phase
C.FACTOR(dB) : Pulse Limiter(dB) + Cable loss(dB) + Insertion loss of LISN(dB)
Result(dBμV) : Reading Value(dBμV) + C.FACTOR(dB)
Margin(dB) : Limit(dBμV) - Result(dBμV)

8. Revision History

Date	Description	Revised By	Reviewed By
Jan. 08. 2019	Initial report	ChanGeun Lee	HyungJun Kim
Feb. 11. 2019	Report issued date typing error. Issued date has revised in the report page 1. (Jan. 08. 2018 -> Feb. 11. 2019)	ChanGeun Lee	HyungJun Kim

-End of test report-