

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. : DREFCC1904-0117
2. Client / Applicant
 - Name : LG Electronics USA, Inc.
 - Address : 1000 Sylvan Avenue Englewood Cliffs, New Jersey, United States 07632
3. Use of Report : Grant of Certification
4. Product Name / Model Name : Mobile Phone / LM-V500EM
5. Test Standard : ANSI C 63.4 : 2014
FCC Part 15 Subpart B
(Class B personal computers and peripherals)
6. Date of Test : Mar. 13. 2019 ~ Mar. 14. 2019
7. Testing Environment : Temperature (19 ~ 20) °C , Humidity (39 ~ 42) % R.H.
8. Test Result : Refer to the attached Test Result

Affirmation	Tested by	Reviewed by
	Name : YongKi Kim  (Signature)	Name : DaeHwa Eun  (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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Apr. 03. 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.dtnc.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, New Jersey, United States 07632
Manufacturer	LG Electronics USA, Inc. 1000 Sylvan Avenue Englewood Cliffs, New Jersey, United States 07632
Factory	LG Electronics USA, Inc. 1000 Sylvan Avenue Englewood Cliffs, New Jersey, United States 07632
Product Name	Mobile Phone
Model Name	LM-V500EM
Add Model Name	LMV500EM, V500EM
FCC ID	ZNFV500EM
Rated Power	DC 4 V
Remarks	Earphone 1. Manufacturer : CRESYN 2. P/N : EAB63728251 USB Cable 1. Manufacturer : NINGBO 2. P/N : EAD64746101 Battery 1. Manufacturer : Donghwa ES 2. P/N : EAC64438201

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	PC Link	The EUT is reading, writing, and erasing internal storage. Transmitting screen to Dual Display Cover

4.3 Test Configuration Mode

No.	Mode	Description
1	PC Link	EUT was connected PC by USB cable and continuously operated. Dual Display Cover put on.

4.4 Supported Equipment

Used*	Product Type	Manufacturer	Model	Remarks
AE	KEYBOARD	Microsoft	1406	20076223340
AE	MOUSE	LG	SM-9023	58Q02801
AE	LCD MONITOR	DELL	UP2414Qt	CN-OJJRX2-74261-67B-4P4U-A00
AE	Dual Display Cover	LG	LM-V505N	N/A
AE	PC	DELL	DCNE	N/A
AE	SSD 3.0	SAMSUNG	MU-PT250B	S2WKNAAH32059X
AE	PRINTER	Bixolon	SRP-770	N/A
AE	Headset	SAMSUNG	SHS-150V/M	N/A
*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	AC	1.8	Non-Shield	Plastic	LCD MONITOR
DSUB OUT	I/O	1.8	Shield	Plastic	
POWER IN	AC	1.8	Non-Shield	Plastic	PC
DSUB IN	I/O	1.8	Shield	Plastic	
PARALLEL IN	I/O	2.0	Shield	Plastic	
SERIAL IN	I/O	1.9	Shield	Plastic	
USB	I/O	1.7	Shield	Plastic	
USB	I/O	1.7	Shield	Plastic	
USB	I/O	1.0	Shield	Plastic	
USB	I/O	1.0	Shield	Plastic	
STEREO IN/OUT	I/O	2.0	Non-Shield	Plastic	
USB	I/O	1.0	Shield	Plastic	SSD 3.0
PARALLEL OUT	I/O	2.0	Shield	Plastic	PRINTER
SERIAL OUT	I/O	1.9	Shield	Plastic	
Dual Display Signal Pin	I/O	-	-	-	Dual Display Cover
STEREO IN/OUT	I/O	2.0	Non-Shield	Plastic	Headset
AUX	I/O	1.8	Non-Shield	Plastic	EUT
Dual Display Signal Pin	I/O	-	-	-	
USB	I/O	1.0	Non-Shield	Plastic	
*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	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]
0.19915	L1	47.61	CAV	53.65	6.04

-Radiated Disturbance

Frequency [MHz]	Pol.	Result [dB μ V/m]	Detector	Limit [dB μ V/m]	Margin [dB]
600.004	V	41.27	QP	46.00	4.73

6. Test Environment

Test Items	Test date (YYYY-MM-DD)	Temp. (°C)	Humidity (% R.H.)	Pressure (kPa)
Conducted Disturbance	2019-03-14	19	42	100.6
Radiated Disturbance	2019-03-13	20	39	-

7. Test Results : Emission

7.1 Conducted Disturbance

ANSI C63.4	Mains terminal disturbance voltage	Result
<p>Method: 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.</p>		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 dB μ V	
	Quasi-Peak	Average
0.15 to 0.50	79	66
0.50 to 30	73	60
Limits – Class B		
Frequency (MHz)	Limit dB μ V	
	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

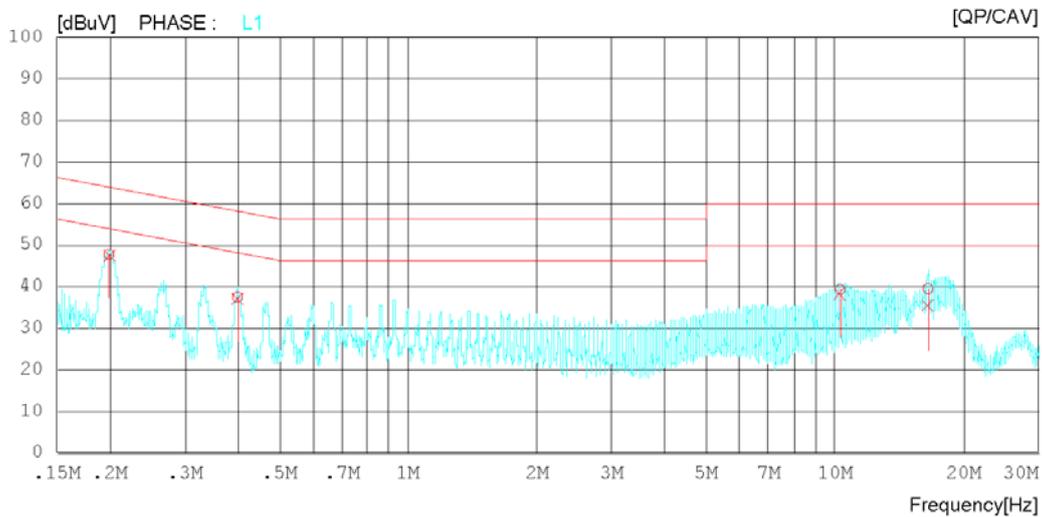
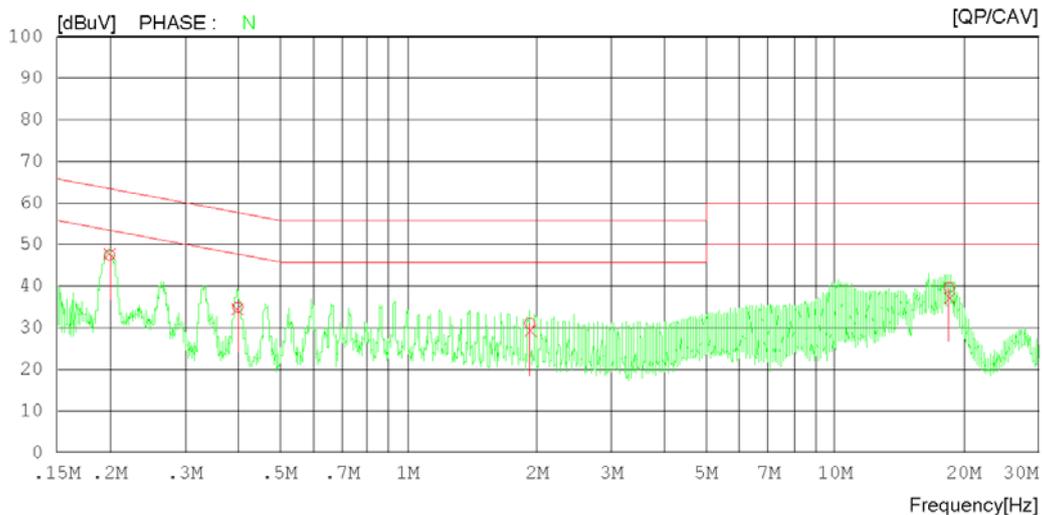
Measurement Instrument					
Description	Model	Manufacturer	Identifier	Cal. Date	Cal. Due
MEASUREMENT SOFTWARE	EMI-C VER. 2.00.0171	TSJ	N/A	N/A	N/A
EMI TEST RECEIVER	ESR7	ROHDE & SCHWARZ	101109	2018.10.29	2019.10.29
LISN	ENV216	ROHDE & SCHWARZ	101979	2018.12.06	2019.12.06
LISN	LISN1600	TTI	197204	2018.06.07	2019.06.07
TRANSIENT LIMITER	TL-B0930A	EMCIS	11002	2018.09.05	2019.09.05
50 OHM TERMINATOR	CT-01	TME	N/A	2018.12.19	2019.12.19

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 2019-03-14

Order No.	DTNC1902-01522
Power Supply	120 V 60 Hz
Temp/Humi/Atm	19 °C 42 % R.H. 100.6 kPa
Test Condition	PC Link

 LIMIT : CISPR32_B QP
 CISPR32_B AV


Results of Conducted Emission

DT&C
Date 2019-03-14

Order No. DTNC1902-01522
 Power Supply 120 V 60 Hz
 Temp/Humi/Atm 19 °C 42 % R.H. 100.6 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	0.19941	27.54	27.51	20.03	47.57	47.54	63.63	53.63	16.06	6.09	N
2	0.39886	14.96	14.62	20.03	34.99	34.65	57.88	47.88	22.89	13.23	N
3	1.92797	11.18	9.23	19.92	31.10	29.15	56.00	46.00	24.90	16.85	N
4	18.54940	18.78	16.34	20.95	39.73	37.29	60.00	50.00	20.27	12.71	N
5	0.19915	27.61	27.58	20.03	47.64	47.61	63.65	53.65	16.01	6.04	L1
6	0.39832	17.29	16.95	20.03	37.32	36.98	57.89	47.89	20.57	10.91	L1
7	10.29258	18.45	17.52	20.68	39.13	38.20	60.00	50.00	20.87	11.80	L1
8	16.53402	18.33	14.24	21.03	39.36	35.27	60.00	50.00	20.64	14.73	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 dB μ V/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 dB μ V/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 dB μ V/m		Average limit dB μ V/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 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	2019.02.18	2020.02.18
PRE AMPLIFIER	8449B	H.P	3008A00887	2018.08.31	2019.08.31
HORN ANTENNA	3117	ETS-LINDGREN	00152093	2018.03.26	2020.03.26
HORN ANTENNA WITH PREAMPLIFIER	EM-6969	ELECTRO-METRICS	156	2019.02.13	2021.02.13
	MLA-0618-B03-34	TSJ	1785642	2019.01.02	2020.01.02
HORN ANTENNA WITH PREAMPLIFIER	JS44-18004000-35-8P	L3 NARDA-MITEQ	2046884	2018.11.09	2019.11.09
	3116C	ETS-LINDGREN	00213177	2017.12.05	2019.12.05

(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

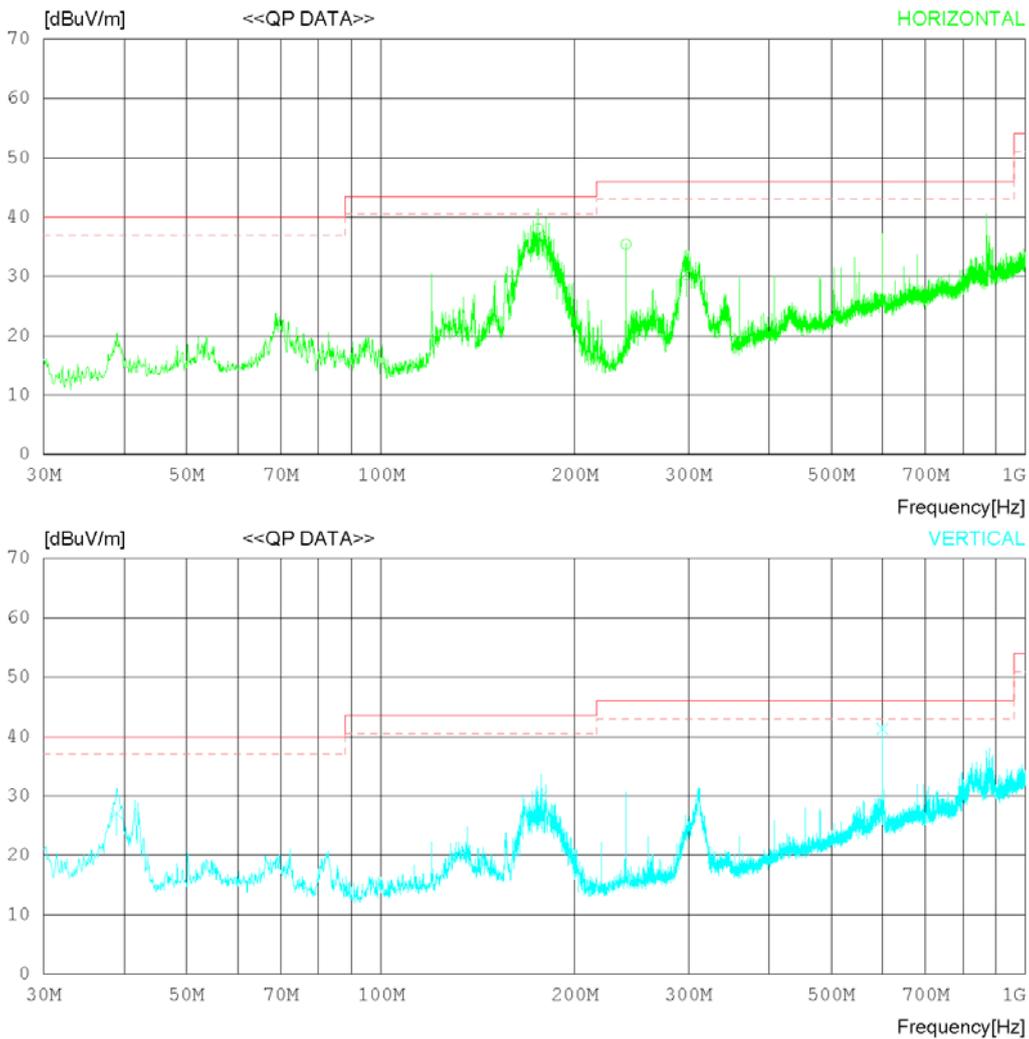
RADIATED EMISSION

Date 2019-03-13

Order No. DTNC1902-01522
 Power Supply 120 V 60 Hz
 Temp/Humi 20 °C 39 % R.H.
 Test Condition PC Link

Memo

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



RADIATED EMISSION

Date 2019-03-13

Order No. DTNC1902-01522
 Power Supply 120 V 60 Hz
 Temp/Humi 20 °C 39 % 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	175.375	43.04	17.51	3.11	25.63	38.03	43.50	5.47	116	309
2	239.997	39.53	18.10	3.49	25.71	35.41	46.00	10.59	208	0
3	297.790	32.74	19.50	3.93	25.84	30.33	46.00	15.67	100	132
----- Vertical -----										
4	38.970	34.18	16.79	1.96	25.81	27.12	40.00	12.88	101	239
5	177.205	35.07	17.31	3.11	25.63	29.86	43.50	13.64	104	215
6	600.004	35.58	25.90	5.28	25.49	41.27	46.00	4.73	109	65

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

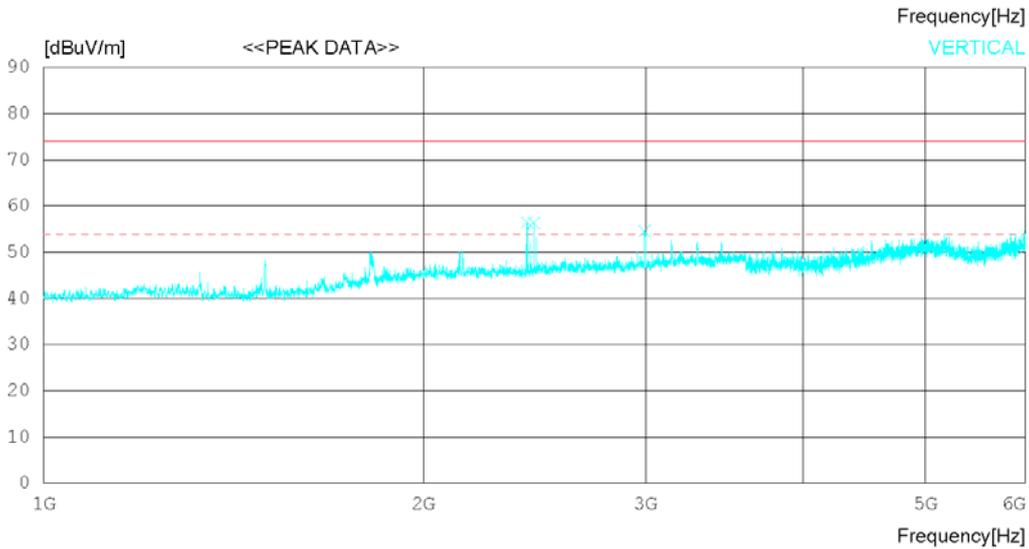
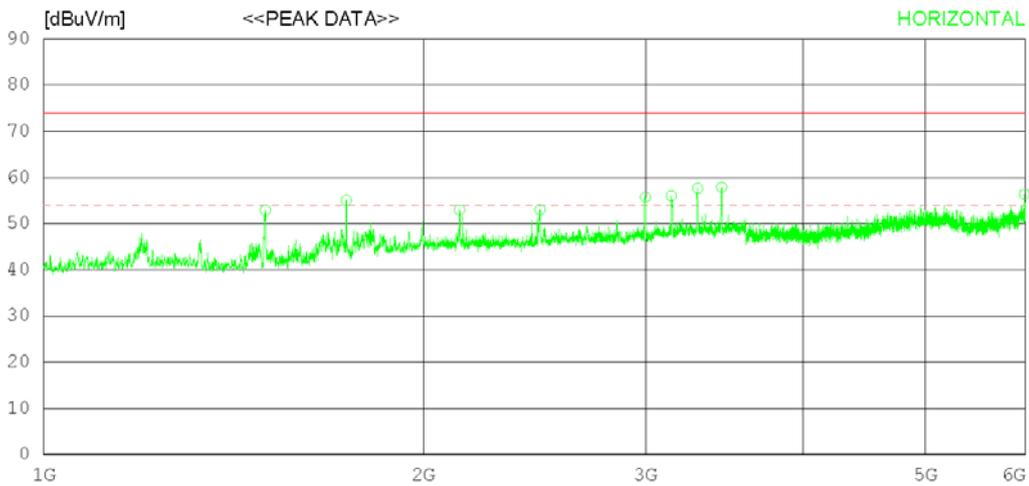
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Date 2019-03-13

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 Power Supply 120 V 60 Hz
 Temp/Humi 20 °C 39 % R.H.
 Test Condition PC Link

Memo

LIMIT : FCC Part15 Subpart.B Class B (3m) - GHz(Peak)
 FCC Part15 Subpart.B Class B (3m) - GHz(Average)



RADIATED EMISSION

Date 2019-03-13

Order No. DTNC1902-01522
 Power Supply 120 V 60 Hz
 Temp/Humi 20°C 39% R.H.
 Test Condition PC Link

Memo

LIMIT : FCC Part15 Subpart.B Class B (3m) - GHz(Peak)
 FCC Part15 Subpart.B Class B (3m) - GHz(Average)

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	1498.750	54.50	27.90	5.86	35.34	52.92	74.0	21.08	398	358
2	1736.875	54.50	29.44	6.19	35.09	55.04	74.0	18.96	400	202
3	2136.875	49.20	31.70	6.91	34.82	52.99	74.0	21.01	200	358
4	2473.750	48.40	32.20	7.26	34.83	53.03	74.0	20.97	378	358
5	2998.750	50.00	32.50	8.08	34.84	55.74	74.0	18.26	314	358
6	3143.750	49.50	32.99	8.28	34.77	56.00	74.0	18	299	358
7	3299.375	51.00	32.90	8.45	34.69	57.66	74.0	16.34	370	108
8	3446.250	51.10	32.80	8.59	34.62	57.87	74.0	16.13	331	85
9	5988.125	44.20	35.10	11.83	34.76	56.37	74.0	17.63	283	358
----- Vertical -----										
10	2416.875	52.20	31.90	7.21	34.83	56.48	74.0	17.52	101	4
11	2446.875	51.90	32.08	7.23	34.83	56.38	74.0	17.62	112	201
12	2995.625	48.90	32.49	8.07	34.84	54.62	74.0	19.38	109	0

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

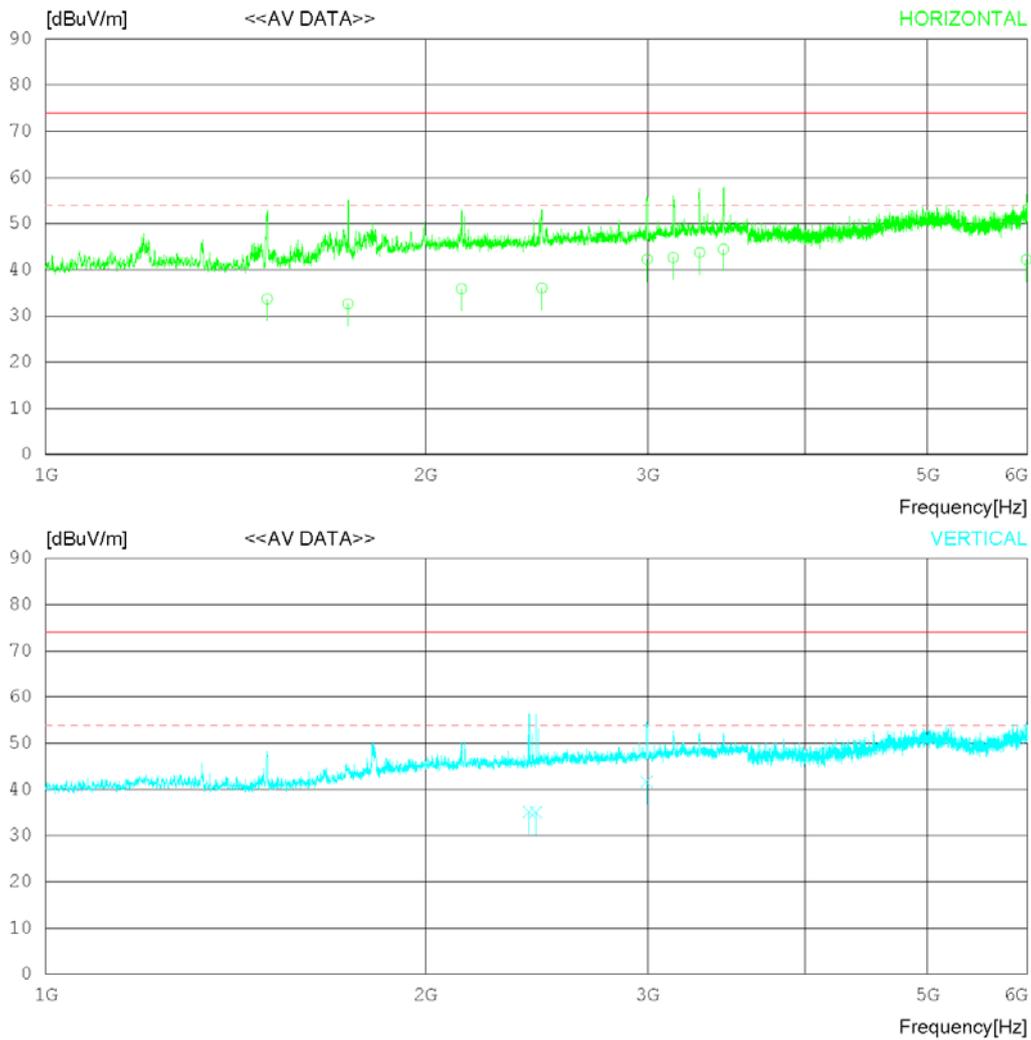
RADIATED EMISSION

Date 2019-03-13

Order No.	DTNC1902-01522
Power Supply	120 V 60 Hz
Temp/Humi	20 °C 39 % R.H.
Test Condition	PC Link

Memo

LIMIT : FCC Part15 Subpart.B Class B (3m) - GHz(Average)
 FCC Part15 Subpart.B Class B (3m) - GHz(Peak)



RADIATED EMISSION

Date 2019-03-13

Order No. DTNC1902-01522
 Power Supply 120 V 60 Hz
 Temp/Humi 20 °C 39 % R.H.
 Test Condition PC Link

Memo

LIMIT : FCC Part15 Subpart.B Class B (3m) - GHz(Average)
 FCC Part15 Subpart.B Class B (3m) - GHz(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	1498.178	35.28	27.90	5.86	35.34	33.70	54.00	20.30	394	0
2	1736.008	32.13	29.43	6.19	35.09	32.66	54.00	21.34	391	132
3	2135.909	32.09	31.70	6.92	34.82	35.89	54.00	18.11	269	349
4	2473.028	31.45	32.19	7.26	34.83	36.07	54.00	17.93	380	0
5	2998.049	36.51	32.50	8.08	34.84	42.25	54.00	11.75	307	109
6	3143.008	36.16	32.99	8.28	34.77	42.66	54.00	11.34	275	126
7	3299.409	37.09	32.90	8.45	34.69	43.75	54.00	10.25	376	102
8	3446.087	37.71	32.80	8.59	34.62	44.48	54.00	9.52	340	110
9	5988.029	30.07	35.10	11.83	34.76	42.24	54.00	11.76	289	0
----- Vertical -----										
10	2416.024	30.89	31.90	7.21	34.83	35.17	54.00	18.83	108	171
11	2446.002	30.54	32.08	7.23	34.83	35.02	54.00	18.98	124	229
12	2995.429	35.93	32.49	8.07	34.84	41.65	54.00	12.35	111	360

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

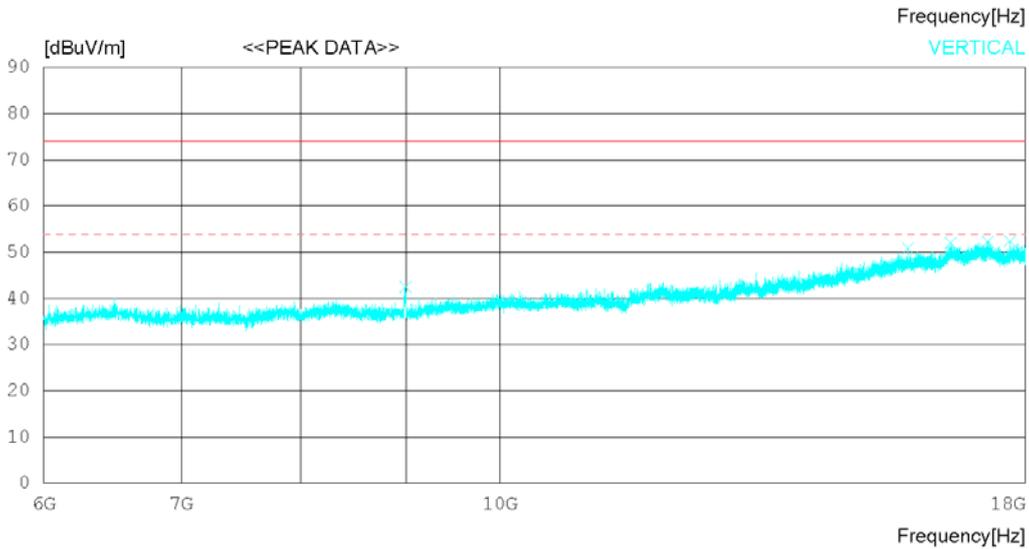
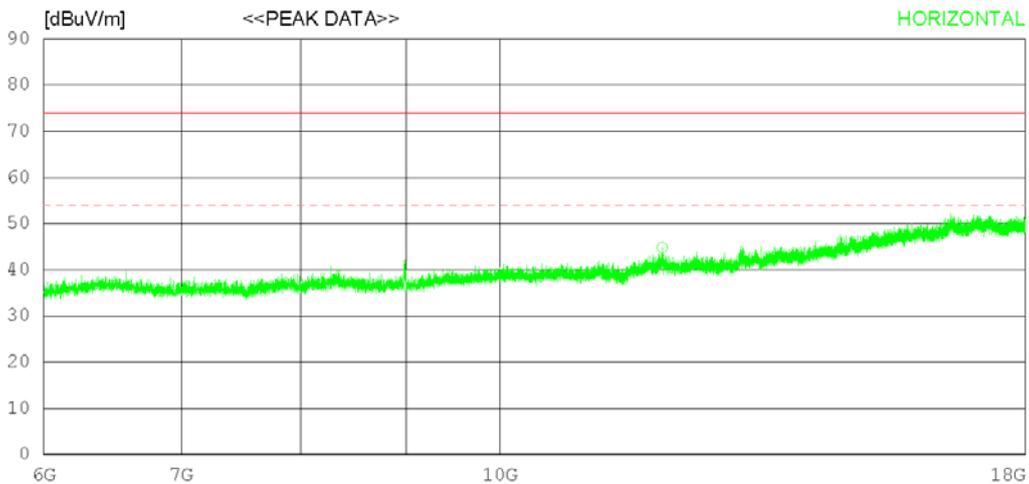
RADIATED EMISSION

Date 2019-03-13

Order No. DTNC1902-01522
 Power Supply 120 V 60 Hz
 Temp/Humi 20 °C 39 % R.H.
 Test Condition PC Link

Memo

LIMIT : FCC Part15 Subpart.B Class B (3m) - GHz(Peak)
 FCC Part15 Subpart.B Class B (3m) - GHz(Average)



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

RADIATED EMISSION

Date 2019-03-13

Order No. DTNC1902-01522
 Power Supply 120 V 60 Hz
 Temp/Humi 20 °C 39 % R.H.
 Test Condition PC Link

Memo

LIMIT : FCC Part15 Subpart.B Class B (3m) - GHz(Peak)
 FCC Part15 Subpart.B Class B (3m) - GHz(Average)

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	11988.000	33.40	33.45	15.66	37.68	44.83	74.0	29.17	351	173
----- Vertical -----										
2	8997.000	35.90	32.10	13.40	38.92	42.48	74.0	31.52	108	143
3	15785.250	32.80	36.21	18.64	36.81	50.84	74.0	23.16	112	92
4	16552.500	32.00	37.04	19.87	36.86	52.05	74.0	21.95	203	254
5	17259.000	32.70	37.75	19.36	37.48	52.33	74.0	21.67	199	54
6	17699.250	32.60	38.09	19.73	37.95	52.47	74.0	21.53	101	92

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

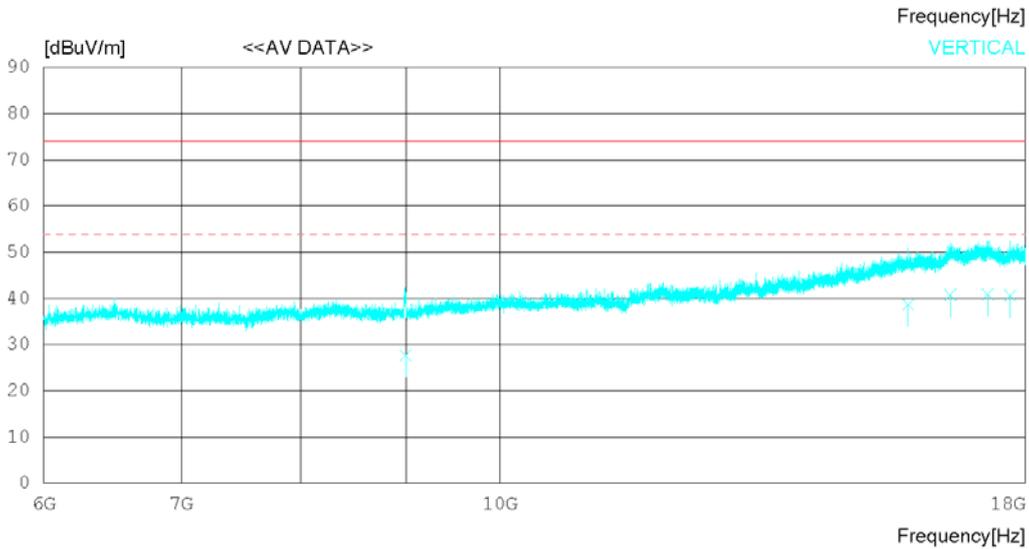
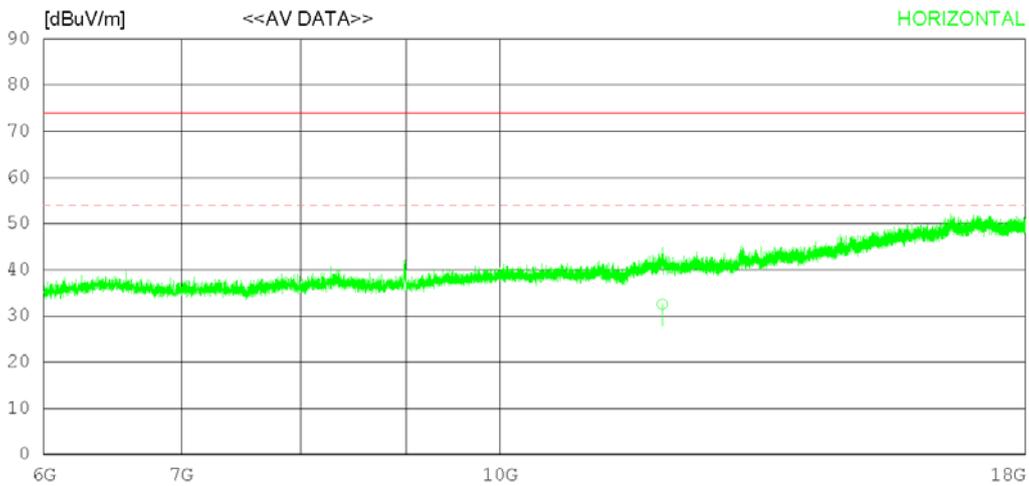
RADIATED EMISSION

Date 2019-03-13

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 Power Supply 120 V 60 Hz
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Memo

LIMIT : FCC Part15 Subpart.B Class B (3m) - GHz(Average)
 FCC Part15 Subpart.B Class B (3m) - GHz(Peak)



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

RADIATED EMISSION

Date 2019-03-13

Order No.	DTNC1902-01522
Power Supply	120 V 60 Hz
Temp/Humi	20 °C 39 % R.H.
Test Condition	PC Link

Memo

 LIMIT : FCC Part15 Subpart.B Class B (3m) - GHz(Average)
 FCC Part15 Subpart.B Class B (3m) - GHz(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	11988.060	21.13	33.45	15.66	37.68	32.56	54.00	21.44	369	173
----- Vertical -----										
2	8997.150	21.15	32.10	13.40	38.92	27.73	54.00	26.27	117	151
3	15785.430	20.64	36.21	18.64	36.81	38.68	54.00	15.32	123	80
4	16552.030	20.75	37.04	19.86	36.86	40.79	54.00	13.21	191	342
5	17258.910	21.31	37.75	19.36	37.48	40.94	54.00	13.06	214	67
6	17699.070	20.73	38.09	19.73	37.95	40.60	54.00	13.40	109	100

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
Apr. 03. 2019	Initial report	YongKi Kim	DaeHwa Eun

-End of test report-