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. : DREFCC1808-0247
2. Client / Applicant
   - Name : LG Electronics USA, Inc.
   - Address : 1000 Sylvan Ave. Englewood Cliffs, New Jersey, United States 07632
3. Use of Report : Grant of Certification
4. Product Name / Model Name : Mobile phone / LET
5. Test Standard : ANSI C 63.4 : 2014
   FCC Part 15 Subpart B
   (Class B personal computers and peripherals)
6. Date of Test : Jul. 25. 2018 ~ Jul. 26. 2018
7. Testing Environment : Temperature (22 ~ 25) °C , Humidity (47 ~ 57) % R.H.
8. Test Result : Refer to the attached Test Result

Affirmation	Tested by	Reviewed by
	Name : YongKi Kim (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.
This test report shall not be reproduced except in full, without the written approval of DT&C Co., Ltd.

Aug. 07. 2018

DT&C Co., Ltd.

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

CONTENTS

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
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 17 11 89112 005	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 Ave. Englewood Cliffs, New Jersey, United States 07632
Manufacturer	LG Electronics USA, Inc. 1000 Sylvan Ave. Englewood Cliffs, New Jersey, United States 07632
Factory	LG Electronics USA, Inc. 1000 Sylvan Ave. Englewood Cliffs, New Jersey, United States 07632
Product Name	Mobile phone
Model Name	LET
Add Model Name	None
FCC ID	ZNFLET
Rated Power	DC 3.85 V
Remarks	None

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

4.3 Test Configuration Mode

No.	Mode	Description
1	'READ' & 'WRITE' & 'DELETE'	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	DOC
AE	MOUSE	LG	SM-9023	DOC
AE	LCD MONITOR	DELL	UP2414Qt	DOC
AE	PC	DELL	DCNE	DOC
AE	SSD 3.0	SAMSUNG	MU-PT250B	DOC
AE	PRINTER	Bixolon	SRP-770	DOC
AE	Headset	SAMSUNG	SHS-150V/M	DOC

*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 OUT	I/O	1.7	Shield	Plastic	KEYBOARD
USB OUT	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 IN	I/O	1.7	Shield	Plastic	
USB IN	I/O	1.7	Shield	Plastic	
USB IN	I/O	1.0	Shield	Plastic	
STEREO IN/OUT	I/O	2.0	Non Shield	Plastic	
USB OUT	I/O	1.0	Shield	Plastic	SSD 3.0
POWER IN	DC	1.8	Non Shield	Plastic	PRINTER
PARALLEL OUT	I/O	2.0	Shield	Plastic	
SERIAL OUT	I/O	1.9	Shield	Plastic	
STEREO IN/OUT	I/O	2.0	Non Shield	Plastic	Headset
AUX	I/O	1.8	Non Shield	Plastic	EUT
USB IN	DC	1.6	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 [dBµV]	Detector	Limit [dBµV]	Margin [dB]
0.46950	N	34.79	CAV	46.52	11.73

-Radiated Disturbance

Frequency [MHz]	Pol.	Result [dBµV/m]	Detector	Limit [dBµV/m]	Margin [dB]
749.346	H	42.84	QP	46.00	3.16

6. Test Environment

Test Items	Test date (YYYY-MM-DD)	Temp. (℃)	Humidity (% R.H.)	Pressure (kPa)
Conducted Disturbance	2018-07-26	22	47	-
Radiated Disturbance	2018-07-25 2018-07-25	25 25	56 57	

7. Test Results : Emission

7.1 Conducted Disturbance

ANSI C63.4	Mains terminal disturbance voltage	Result
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.		**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)	2.36 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	2017.11.16	2018.11.16
TWO-LINE V-NETWORK	ENV216	ROHDE& SCHWARZ	101979	2017.12.18	2018.12.18
LISN	LISN1600	TTI	197204	2018.06.07	2019.06.07
TRANSIENT LIMITER	TL-B0930A	EMCIS	11002	2017.09.07	2018.09.07
50 OHM TERMINATOR	CT-01	TME	N/A	2017.12.26	2018.12.26

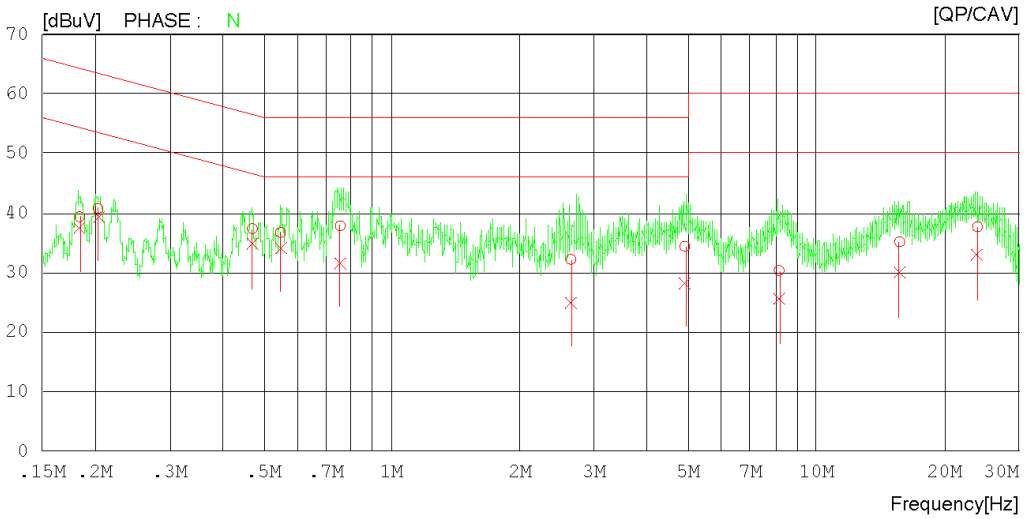
Mains terminal disturbance voltage _Measurement data			
Test configuration mode	**1**	**EUT Operation mode**	**1**
Test voltage (V)	**120**	**Test Frequency (Hz)**	**60**

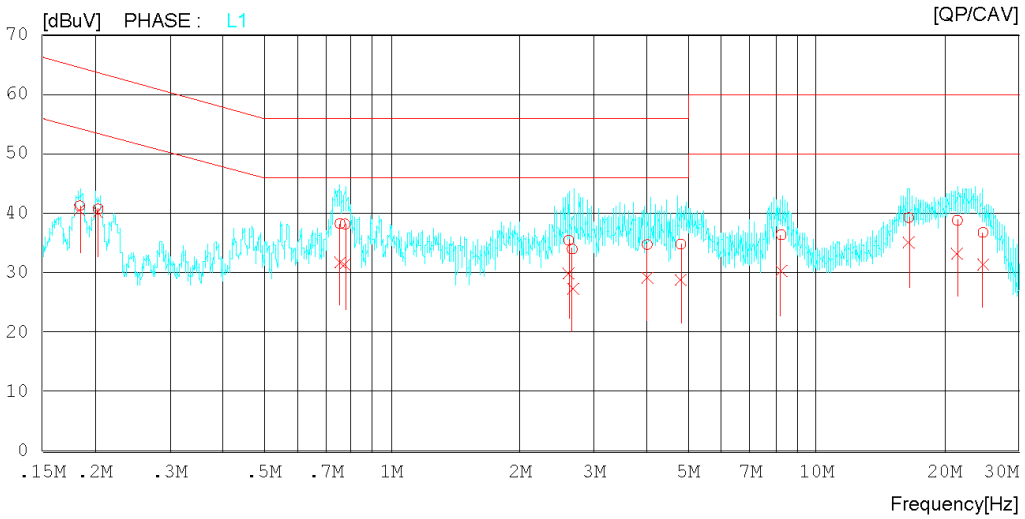
Results of Conducted Emission

DT&C Date 2018-07-26

Order No. DTNC1807-05406
Power Supply 120 VAC 60 Hz
Temp/Humi/Atm 22 'C 47 % R.H.
Test Condition

LIMIT : CISPR22_B QP
CISPR22_B AV





Results of Conducted Emission

DT&C Date 2018-07-26

Order No. DTNC1807-05406
Power Supply 120 VAC 60 Hz
Temp/Humi/Atm 22 'C 47 % R.H.
Test Condition

LIMIT : CISPR22_B QP
CISPR22_B AV

NO	FREQ	READING QP	READING CAV	C.FACTOR	RESULT QP	RESULT CAV	LIMIT QP	LIMIT CAV	MARGIN QP	MARGIN CAV	PHASE
	[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	
1	0.18400	19.40	17.52	19.99	39.39	37.51	64.30	54.30	24.91	16.79	N
2	0.20339	20.80	19.27	20.03	40.83	39.30	63.47	53.47	22.64	14.17	N
3	0.46950	17.28	14.67	20.12	37.40	34.79	56.52	46.52	19.12	11.73	N
4	0.54724	16.59	14.13	20.14	36.73	34.27	56.00	46.00	19.27	11.73	N
5	0.75650	17.81	11.49	20.09	37.90	31.58	56.00	46.00	18.10	14.42	N
6	2.64359	12.20	4.87	20.04	32.24	24.91	56.00	46.00	23.76	21.09	N
7	4.90240	14.24	8.13	20.21	34.45	28.34	56.00	46.00	21.55	17.66	N
8	8.17373	9.76	4.88	20.59	30.35	25.47	60.00	50.00	29.65	24.53	N
9	15.72592	14.01	8.83	21.17	35.18	30.00	60.00	50.00	24.82	20.00	N
10	23.96438	16.93	12.19	20.77	37.70	32.96	60.00	50.00	22.30	17.04	N
11	0.18385	21.15	20.59	20.04	41.19	40.63	64.31	54.31	23.12	13.68	L1
12	0.20320	20.62	20.08	20.03	40.65	40.11	63.48	53.48	22.83	13.37	L1
13	0.75489	18.03	11.64	20.20	38.23	31.84	56.00	46.00	17.77	14.16	L1
14	0.77650	17.99	11.19	20.17	38.16	31.36	56.00	46.00	17.84	14.64	L1
15	2.61482	15.28	9.69	20.14	35.42	29.83	56.00	46.00	20.58	16.17	L1
16	2.66326	13.80	7.17	20.15	33.95	27.32	56.00	46.00	22.05	18.68	L1
17	3.99759	14.45	8.95	20.25	34.70	29.20	56.00	46.00	21.30	16.80	L1
18	4.79480	14.47	8.48	20.30	34.77	28.78	56.00	46.00	21.23	17.22	L1
19	8.27803	15.66	9.43	20.70	36.36	30.13	60.00	50.00	23.64	19.87	L1
20	16.50376	18.08	13.72	21.16	39.24	34.88	60.00	50.00	20.76	15.12	L1
21	21.51542	17.79	12.34	20.98	38.77	33.32	60.00	50.00	21.23	16.68	L1
22	24.71238	16.02	10.80	20.71	36.73	31.51	60.00	50.00	23.27	18.49	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 –18 GHz	Result
Method: Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 10 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(CISPR), Pub. 22 shown as below.

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	5th harmonic of the highest frequency or 40 GHz, whichever is lower

Measurement uncertainty	
Expended uncertainty *U* (95 %, Confidence level, *k* = 2)	4.16 dB, (30 ~ 1 000) MHz 3.74 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	100538	2018.01.29	2019.01.29
TRILOG BROADBAND TEST-ANTENNA	VULB9160	SCHWARZBECK	9160-3339	2017.04.21	2019.04.21
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/ MLA-0618-B03-34	ELECTRO-METRICS/ TSJ	156/ 1785642	2017.02.10	2019.02.10
PREAMPLIFIER	8449B	AGILENT TECHNOLOGIES	3008A01590	2018.02.20	2019.02.20
(NOTE : THE MEASUREMENT ANTENNAS WERE CALIBRATED IN ACCORDANCE TO THE REQUIREMENTS OF C63.5-2006.)					

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

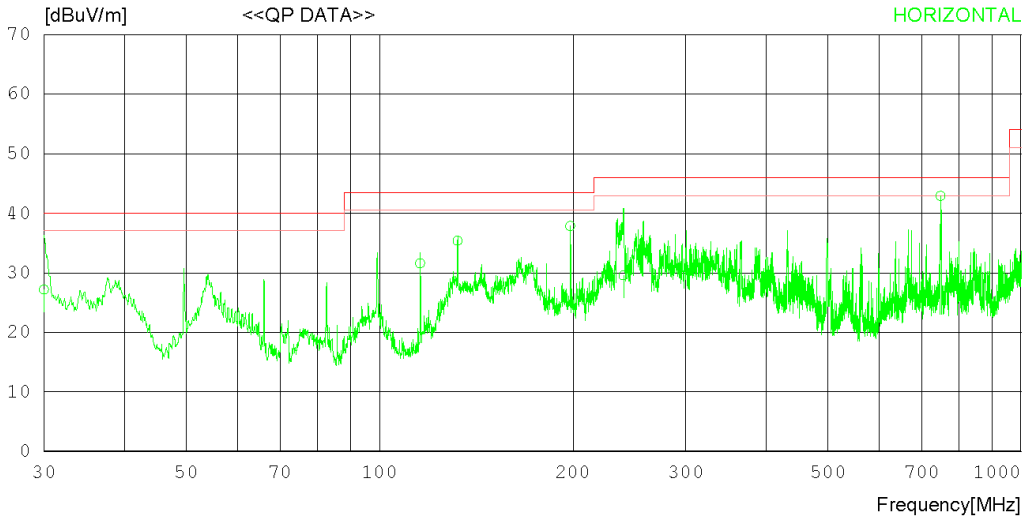
RADIATED EMISSION

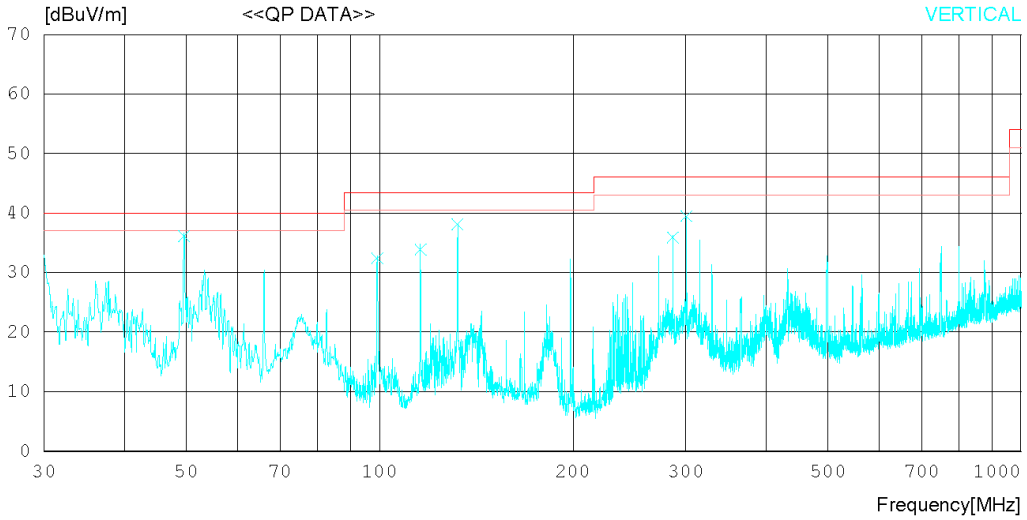
Date 2018-07-25

Order No. DTNC1807-05406
Power Supply 120 VAC 60 Hz
Temp/Humi 25 'C 56 % R.H.
Test Condition PC Link

Memo

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





RADIATED EMISSION

Date 2018-07-25

Order No. DTNC1807-05406
Power Supply 120 VAC 60 Hz
Temp/Humi 25 'C 56 % 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	30.000	42.40	9.36	0.84	25.47	27.13	40.00	12.87	400	309
2	115.734	44.20	11.26	1.70	25.56	31.60	43.50	11.90	400	352
3	132.263	46.80	12.28	1.86	25.57	35.37	43.50	8.13	300	112
4	198.405	51.20	9.86	2.33	25.52	37.87	43.50	5.63	100	79
5	239.998	40.80	11.60	2.68	25.56	29.52	46.00	16.48	100	133
6	749.346	41.20	22.09	4.90	25.35	42.84	46.00	3.16	200	40
----- Vertical ------										
7	49.587	48.70	11.86	1.10	25.51	36.15	40.00	3.85	200	274
8	99.206	47.60	8.96	1.39	25.55	32.40	43.50	11.10	100	144
9	115.732	46.50	11.26	1.70	25.56	33.90	43.50	9.60	300	167
10	132.264	49.50	12.28	1.86	25.57	38.07	43.50	5.43	200	170
11	286.366	45.50	13.09	2.82	25.50	35.91	46.00	10.09	100	332
12	300.680	48.70	13.41	2.84	25.48	39.47	46.00	6.53	100	348

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**

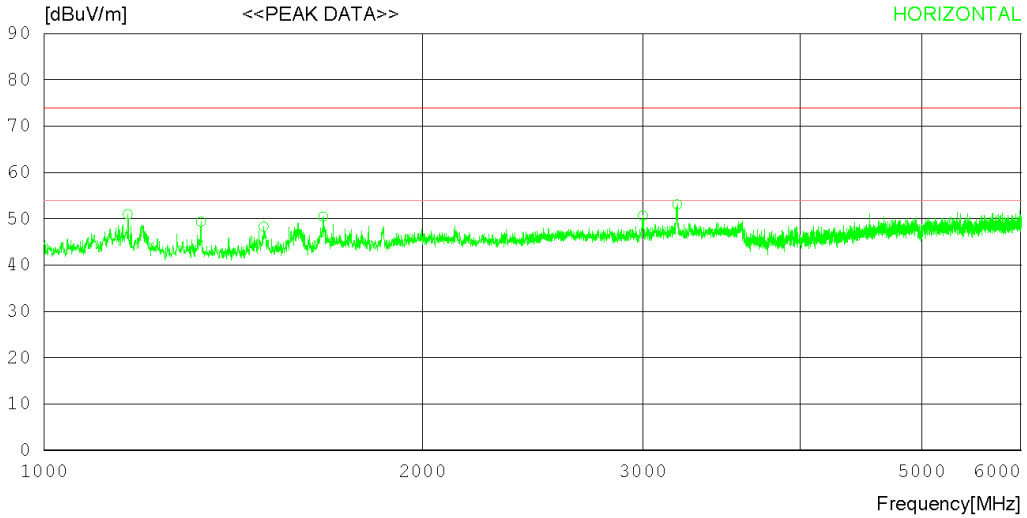
RADIATED EMISSION

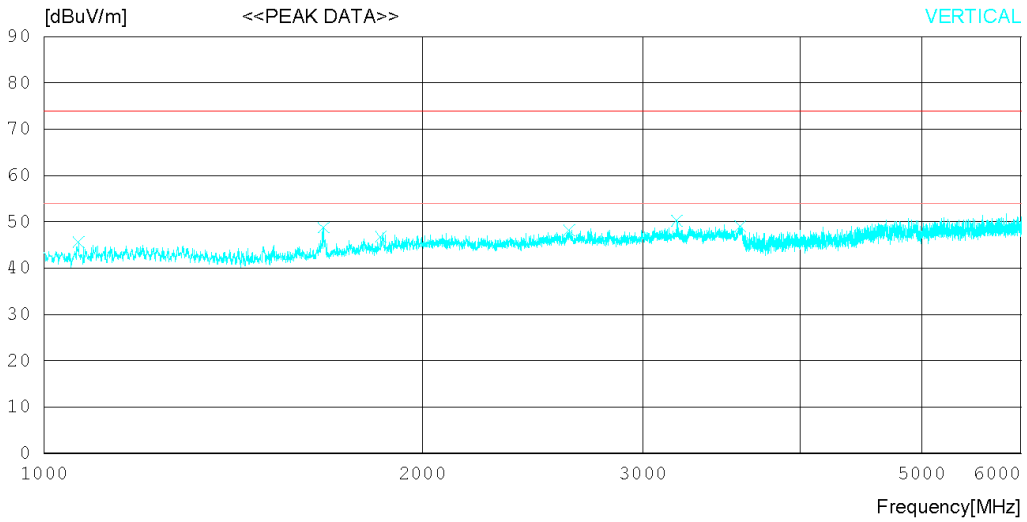
Date 2018-07-25

Order No. DTNC1807-05406
Power Supply 120 V 60 Hz
Temp/Humi 25 'C 56 % R.H.
Test Condition

Memo

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





RADIATED EMISSION

Date 2018-07-25

Order No. DTNC1807-05406
Power Supply 120 V 60 Hz
Temp/Humi 25 'C 56 % R.H.
Test Condition

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	1166.250	51.00	28.33	3.72	32.17	50.88	74.0	23.12	100	355
2	1333.125	49.40	28.27	3.91	32.24	49.34	74.0	24.66	400	358
3	1495.625	48.50	27.90	4.18	32.31	48.27	74.0	25.73	100	38
4	1668.125	49.50	28.94	4.37	32.38	50.43	74.0	23.57	100	355
5	3000.000	44.90	32.50	5.84	32.58	50.66	74.0	23.34	100	319
6	3191.875	46.80	33.17	5.76	32.60	53.13	74.0	20.87	100	357
----- Vertical ------										
7	1065.625	46.50	27.59	3.58	32.13	45.54	74.0	28.46	100	1
8	1670.000	47.80	28.94	4.37	32.38	48.73	74.0	25.27	100	1
9	1853.750	44.10	30.64	4.48	32.46	46.76	74.0	27.24	100	304
10	2619.375	42.90	32.64	5.25	32.56	48.23	74.0	25.77	300	196
11	3190.000	43.90	33.16	5.77	32.60	50.23	74.0	23.77	100	130
12	3585.000	42.00	33.32	6.30	32.63	48.99	74.0	25.01	100	1

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**

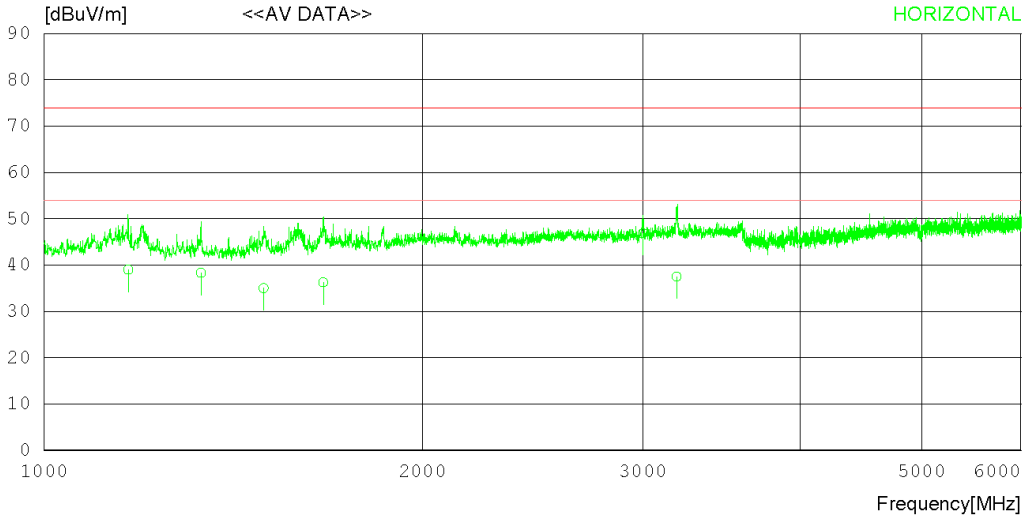
RADIATED EMISSION

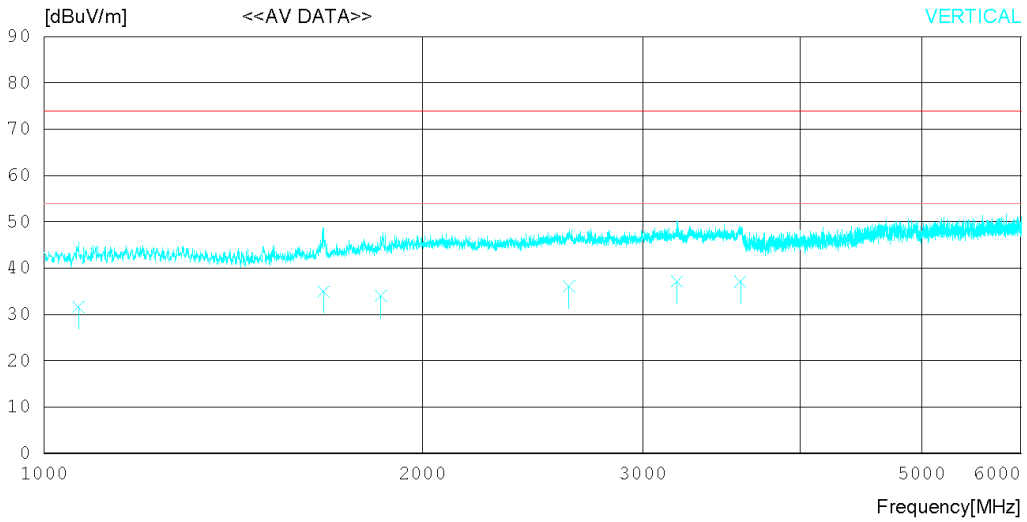
Date 2018-07-25

Order No. DTNC1807-05406
Power Supply 120 V 60 Hz
Temp/Humi 25 'C 56 % R.H.
Test Condition

Memo

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





RADIATED EMISSION

Date 2018-07-25

Order No. DTNC1807-05406
Power Supply 120 V 60 Hz
Temp/Humi 25 'C 56 % R.H.
Test Condition

Memo

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	1166.667	39.10	28.33	3.71	32.17	38.97	54.00	15.03	100	310
2	1333.328	38.30	28.27	3.91	32.24	38.24	54.00	15.76	300	358
3	1496.370	35.20	27.90	4.18	32.31	34.97	54.00	19.03	100	140
4	1668.925	35.30	28.94	4.37	32.38	36.23	54.00	17.77	100	10
5	2999.986	41.10	32.50	5.84	32.58	46.86	54.00	7.14	100	340
6	3191.535	31.20	33.17	5.76	32.60	37.53	54.00	16.47	200	145
----- Vertical ------										
7	1065.539	32.60	27.59	3.58	32.13	31.64	54.00	22.36	100	110
8	1669.669	34.00	28.94	4.37	32.38	34.93	54.00	19.07	100	146
9	1854.575	31.30	30.65	4.48	32.46	33.97	54.00	20.03	200	81
10	2618.447	30.70	32.64	5.25	32.56	36.03	54.00	17.97	100	119
11	3190.876	30.80	33.16	5.76	32.60	37.12	54.00	16.88	100	155
12	3585.183	30.10	33.32	6.30	32.63	37.09	54.00	16.91	100	135

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**

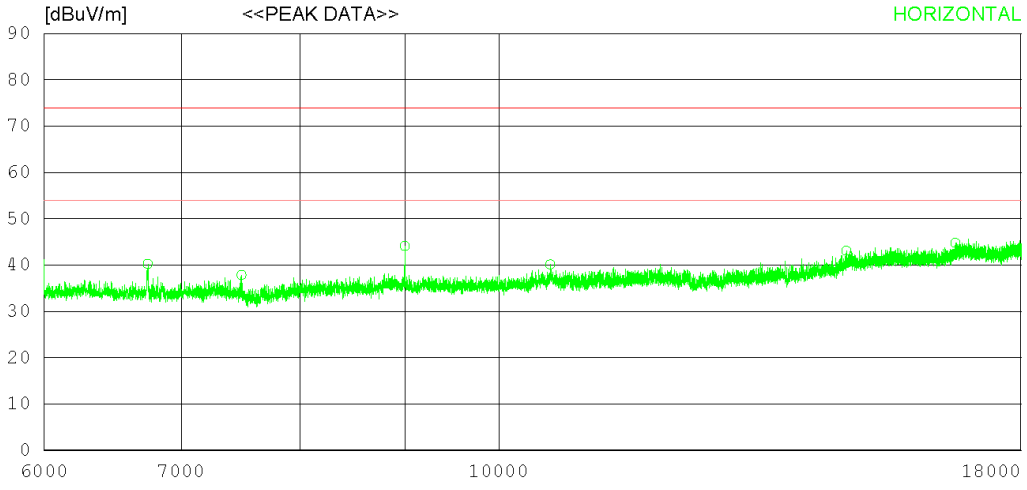
RADIATED EMISSION

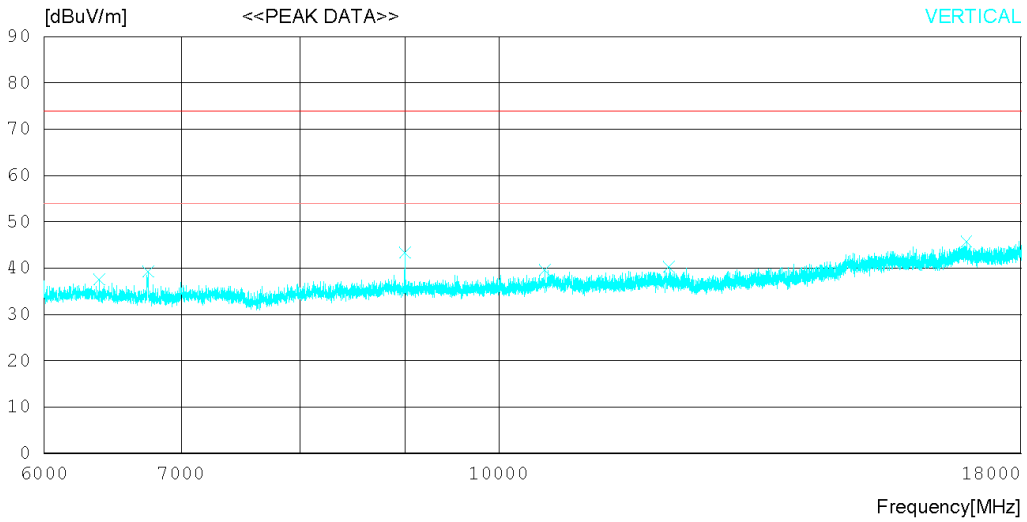
Date 2018-07-25

Order No. DTNC1807-05406
Power Supply 120 VAC 60 Hz
Temp/Humi 25 'C 57 % R.H.
Test Condition

Model Name

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 30 GHz and not found emissions above 18 GHz.

RADIATED EMISSION

Date 2018-07-25

Order No. DTNC1807-05406
Power Supply 120 VAC 60 Hz
Temp/Humi 25 'C 57 % R.H.
Test Condition

Model Name

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	6743.250	39.70	31.40	7.88	38.77	40.21	74.0	33.79	100	8
2	7493.250	36.90	31.37	8.37	38.80	37.84	74.0	36.16	100	1
3	9000.000	40.50	31.82	9.41	37.64	44.09	74.0	29.91	100	1
4	10601.250	34.00	32.50	11.33	37.70	40.13	74.0	33.87	100	1
5	14788.500	31.00	35.05	14.25	37.17	43.13	74.0	30.87	100	217
6	16716.750	29.10	37.12	14.79	36.24	44.77	74.0	29.23	100	358
----- Vertical ------										
7	6384.000	37.50	31.42	7.56	38.93	37.55	74.0	36.45	100	345
8	6744.750	38.70	31.40	7.88	38.77	39.21	74.0	34.79	100	27
9	8999.250	39.70	31.82	9.41	37.64	43.29	74.0	30.71	100	68
10	10536.000	33.60	32.48	11.16	37.68	39.56	74.0	34.44	100	0
11	12117.000	33.90	33.29	11.42	38.36	40.25	74.0	33.75	100	111
12	16925.250	29.80	37.35	14.73	36.14	45.74	74.0	28.26	100	164

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**

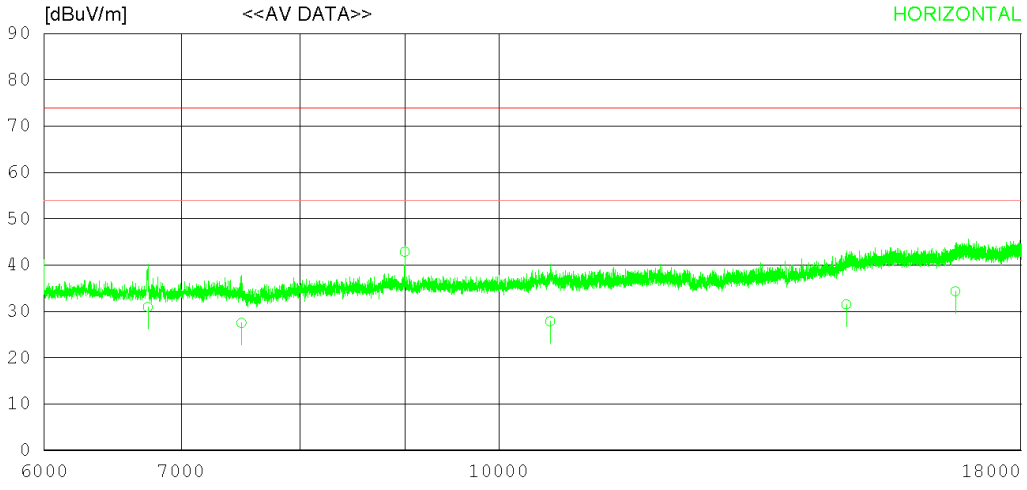
RADIATED EMISSION

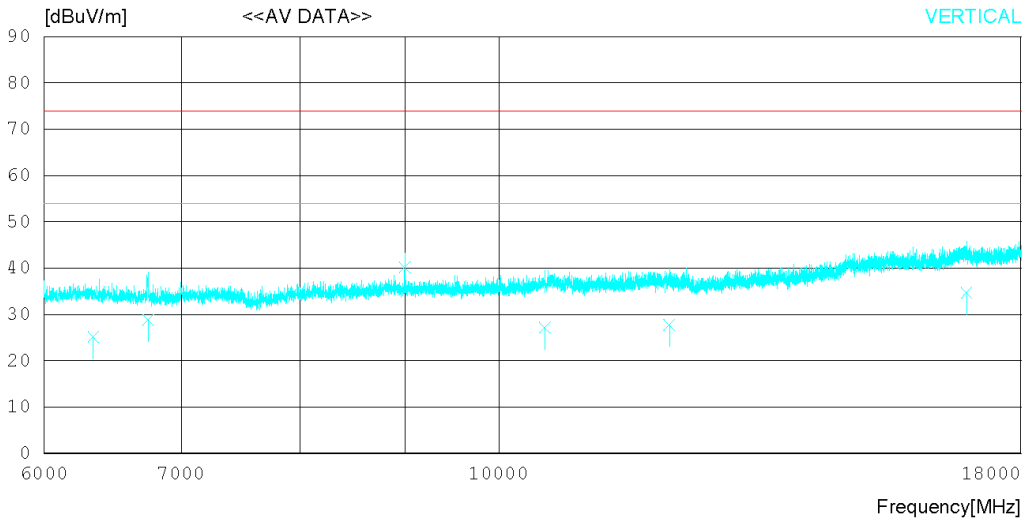
Date 2018-07-25

Order No. DTNC1807-05406
Power Supply 120 VAC 60 Hz
Temp/Humi 25 'C 57 % R.H.
Test Condition

Model Name

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 30 GHz and not found emissions above 18 GHz.

RADIATED EMISSION

Date 2018-07-25

Order No. DTNC1807-05406
Power Supply 120 VAC 60 Hz
Temp/Humi 25 'C 57 % R.H.
Test Condition

Model Name

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	6743.580	30.40	31.40	7.88	38.77	30.91	54.00	23.09	100	8
2	7493.250	26.50	31.37	8.37	38.80	27.44	54.00	26.56	200	18
3	9000.000	39.20	31.82	9.41	37.64	42.79	54.00	11.21	100	358
4	10601.250	21.70	32.50	11.33	37.70	27.83	54.00	26.17	300	210
5	14789.500	19.30	35.05	14.25	37.17	31.43	54.00	22.57	100	178
6	16715.750	18.70	37.12	14.78	36.24	34.36	54.00	19.64	100	358
----- Vertical ------										
7	6339.656	25.10	31.42	7.54	38.91	25.15	54.00	28.85	100	345
8	6744.809	28.30	31.40	7.88	38.77	28.81	54.00	25.19	200	27
9	8999.250	36.50	31.82	9.41	37.64	40.09	54.00	13.91	100	68
10	10536.240	21.20	32.48	11.16	37.68	27.16	54.00	26.84	100	0
11	12116.000	21.40	33.29	11.43	38.36	27.76	54.00	26.24	300	111
12	16925.840	18.70	37.35	14.73	36.14	34.64	54.00	19.36	100	164

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
Aug. 07. 2018	Initial report	YongKi Kim	HyungJun Kim

-End of test report-