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. : DREFCC1808-0257
2. Client / Applicant
   - Name : LG Electronics USA, Inc.
   - Address : 1000 Sylvan Ave. Englewood Cliffs NJ 07632 United States
3. Use of Report : Grant of Certification
4. Product Name / Model Name : Mobile Phone / LM-Q850FA
5. Test Standard : ANSI C 63.4 : 2014
   FCC Part 15 Subpart B
   (Class B personal computers and peripherals)
6. Date of Test : Aug. 11. 2018
7. Testing Environment : Temperature (21 ~ 23) °C , Humidity (54 ~ 56) % 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. 16. 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 NJ 07632 United States
Manufacturer	LG Electronics USA, Inc. 1000 Sylvan Ave. Englewood Cliffs NJ 07632 United States
Factory	LG Electronics USA, Inc. 1000 Sylvan Ave. Englewood Cliffs NJ 07632 United States
Product Name	Mobile Phone
Model Name	LM-Q850FA
Add Model Name	LMQ850FA, Q850FA, LM-Q850FM, LMQ850FM, Q850FM, LM-Q850EA, LMQ850EA, Q850EA, LM-Q850EM, LMQ850EM, Q850EM, LM-Q850EAW, LMQ850EAW, Q850EAW, LM-Q850EMW, LMQ850EMW, Q850EMW
FCC ID	ZNFQ850FA
Rated Power	DC 3.85 V
Remarks	Earphone1 1. Manufacturer : CRESYN 2. S/N : EAB63728251 Earphone2 1. Manufacturer : BUJEON 2. S/N : EAB63728252 USB Cable1 1. Manufacturer : NINGBO 2. S/N : EAD64746101 USB Cable2 1. Manufacturer : LUXSHARE 2. S/N : EAD64746102

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 (Earphone : EAB63728251, USB Cable: EAD64746101)	The EUT is reading, writing, and erasing internal storage
2	PC LINK (Earphone : EAB63728252, USB Cable: EAD64746102)	The EUT is reading, writing, and erasing internal storage

4.3 Test Configuration Mode

No.	Mode	Description
1	PC LINK (Earphone : EAB63728251, USB Cable: EAD64746101)	EUT was connected PC by USB cable and continuously operated
2	PC LINK (Earphone : EAB63728252, USB Cable: EAD64746102)	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	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	
STEREO IN/OUT	I/O	2.0	Non Shield	Plastic	
USB	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	I/O	1.0	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]
0.77358	N	35.92	CAV	46.00	10.08

-Radiated Disturbance

Frequency [MHz]	Pol.	Result [dBµV/m]	Detector	Limit [dBµV/m]	Margin [dB]
749.665	H	42.51	QP	40.00	3.49

6. Test Environment

Test Items	Test date (YYYY-MM-DD)	Temp. (℃)	Humidity (% R.H.)	Pressure (kPa)
Conducted Disturbance	2018-08-11	23	54	-
Radiated Disturbance	2018-08-11 2018-08-11	21 21	56 55	

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, 2**
	EUT Operation mode	**1, 2**

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

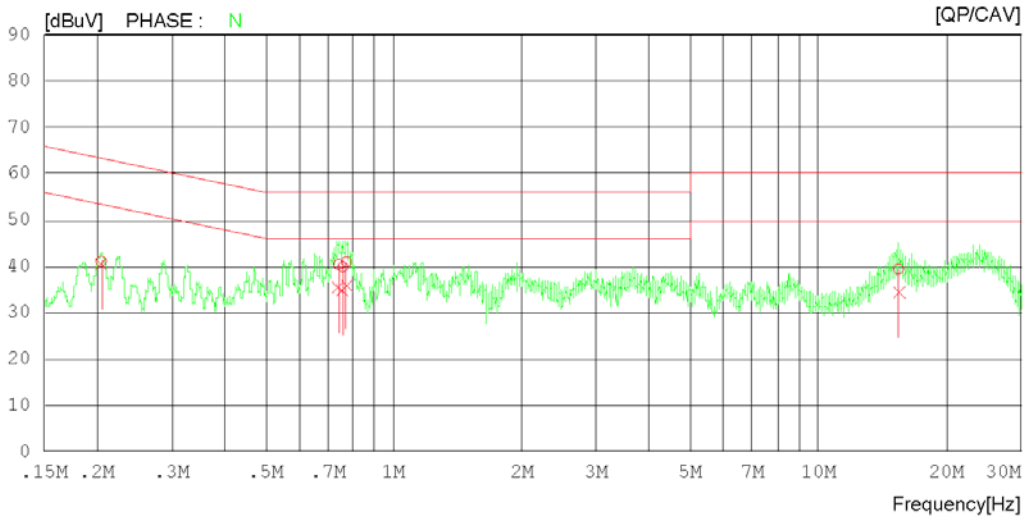
Mains terminal disturbance voltage _Measurement data			
Test configuration mode	**1**	**EUT Operation mode**	**1**
Test voltage (V)	**120**	**Test Frequency (Hz)**	**60**

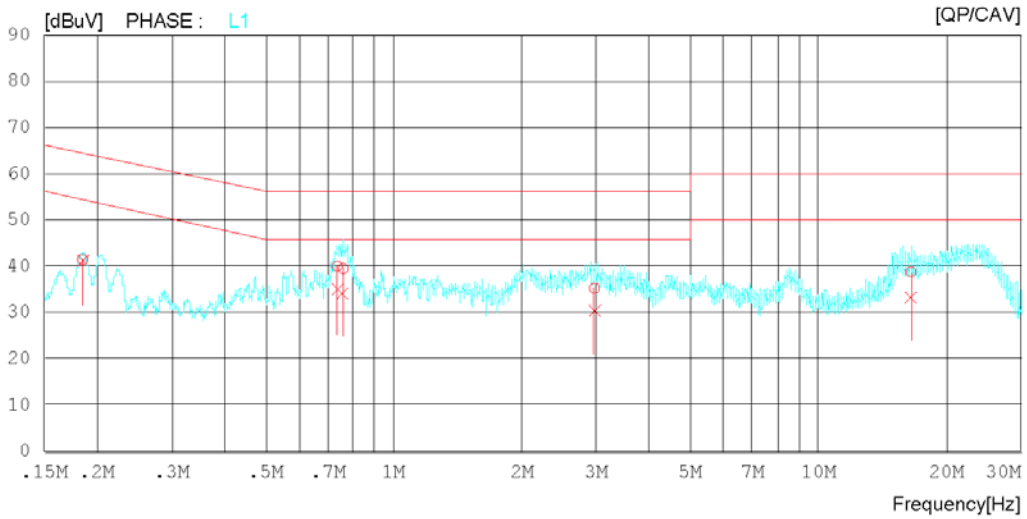
Results of Conducted Emission

DT&C
Date 2018-08-11

Order No. DTNC1807-05832
Power Supply 120 VAC 60 Hz
Temp/Humi/Atm 23 'C 54 %.R.H.
Test Condition PC Link
S/N Earphone : EAB63728251, USB Cable: EAD64746101

LIMIT : CISPR32_B QP
CISPR32_B AV





Results of Conducted Emission

DT&C
Date 2018-08-11

Order No.	DTNC1807-05832
Power Supply	120 VAC 60 Hz
Temp/Humi/Atm	23 'C 54 %.R.H.
Test Condition	PC Link
S/N	Earphone : EAB63728251, USB Cable: EAD64746101

LIMIT : CISPR32_B QP
CISPR32_B AV

NO	FREQ [MHz]	READING QP [dBuV]	READING CAV [dBuV]	C.FACTOR [dB]	RESULT QP [dBuV]	RESULT CAV [dBuV]	LIMIT QP [dBuV]	LIMIT CAV [dBuV]	MARGIN QP [dBuV]	MARGIN CAV [dBuV]	PHASE
1	0.20438	21.07	20.48	20.02	41.09	40.50	63.43	53.43	22.34	12.93	N
2	0.74150	20.29	15.19	20.11	40.40	35.30	56.00	46.00	15.60	10.70	N
3	0.75903	19.82	14.60	20.09	39.91	34.69	56.00	46.00	16.09	11.31	N
4	0.77358	20.86	15.84	20.08	40.94	35.92	56.00	46.00	15.06	10.08	N
5	15.46066	18.27	13.11	21.17	39.44	34.28	60.00	50.00	20.56	15.72	N
6	0.18497	21.45	21.03	20.04	41.49	41.07	64.26	54.26	22.77	13.19	L1
7	0.73592	19.80	14.87	20.21	40.01	35.08	56.00	46.00	15.99	10.92	L1
8	0.75950	19.30	14.04	20.19	39.49	34.23	56.00	46.00	16.51	11.77	L1
9	2.97122	15.06	10.41	20.18	35.24	30.59	56.00	46.00	20.76	15.41	L1
10	16.54386	17.58	12.10	21.16	38.74	33.26	60.00	50.00	21.26	16.74	L1

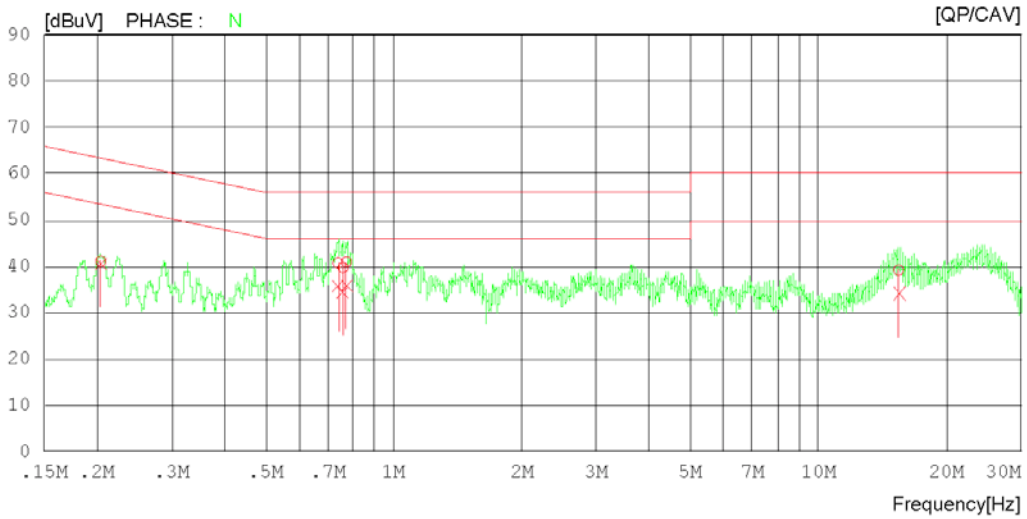
Mains terminal disturbance voltage _Measurement data			
Test configuration mode	**2**	**EUT Operation mode**	**2**
Test voltage (V)	**120**	**Test Frequency (Hz)**	**60**

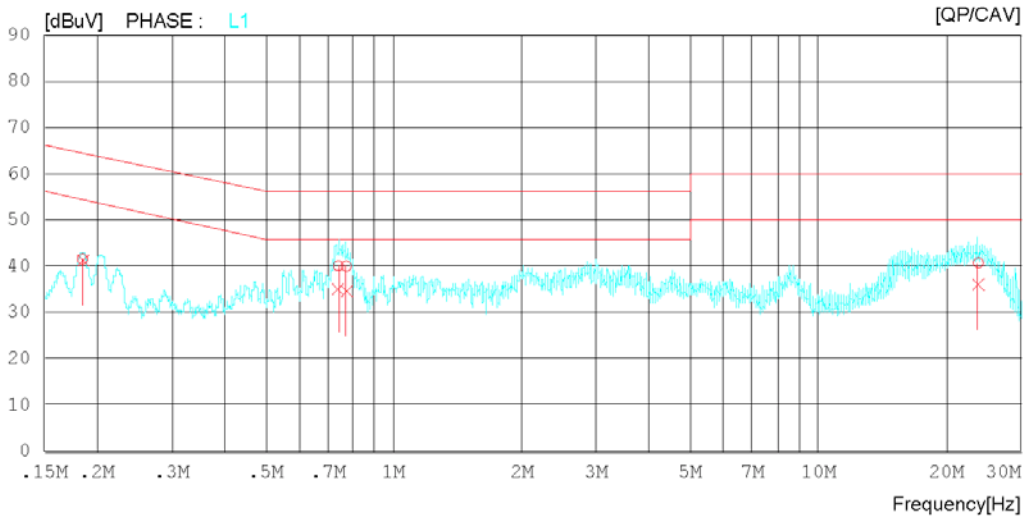
Results of Conducted Emission

DT&C
Date 2018-08-11

Order No.	DTNC1807-05832
Power Supply	120 VAC 60 Hz
Temp/Humi/Atm	23 'C 54 %.R.H.
Test Condition	PC Link
S/N	Earphone : EAB63728252, USB Cable: EAD64746102

LIMIT : CISPR32_B QP
CISPR32_B AV





Results of Conducted Emission

DT&C
Date 2018-08-11

Order No.	DTNC1807-05832
Power Supply	120 VAC 60 Hz
Temp/Humi/Atm	23 'C 54 %.R.H.
Test Condition	PC Link
S/N	Earphone : EAB63728252, USB Cable: EAD64746102

LIMIT : CISPR32_B QP
CISPR32_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	0.20420	21.08	20.53	20.02	41.10	40.55	63.44	53.44	22.34	12.89	N
2	0.73906	20.62	15.58	20.11	40.73	35.69	56.00	46.00	15.27	10.31	N
3	0.76014	19.63	14.39	20.09	39.72	34.48	56.00	46.00	16.28	11.52	N
4	0.77347	20.89	15.83	20.08	40.97	35.91	56.00	46.00	15.03	10.09	N
5	15.46041	18.02	12.98	21.17	39.19	34.15	60.00	50.00	20.81	15.85	N
6	0.18487	21.51	21.10	20.04	41.55	41.14	64.26	54.26	22.71	13.12	L1
7	0.73978	19.84	14.91	20.21	40.05	35.12	56.00	46.00	15.95	10.88	L1
8	0.77337	19.83	14.44	20.18	40.01	34.62	56.00	46.00	15.99	11.38	L1
9	23.82976	19.91	15.24	20.78	40.69	36.02	60.00	50.00	19.31	13.98	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 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, 2**
	EUT Operation mode	**1, 2**

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	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
BILOG ANTENNA	VULB 9160	SCHWARZBECK	3359	2017.09.14	2019.09.14
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
HORN ANTENNA WITH PREAMPLIFIER	3116C / JS44-18004000-35-8P	ETS-LINDGREN / L3 NARDA-MITEQ	00213177 / 2046884	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**

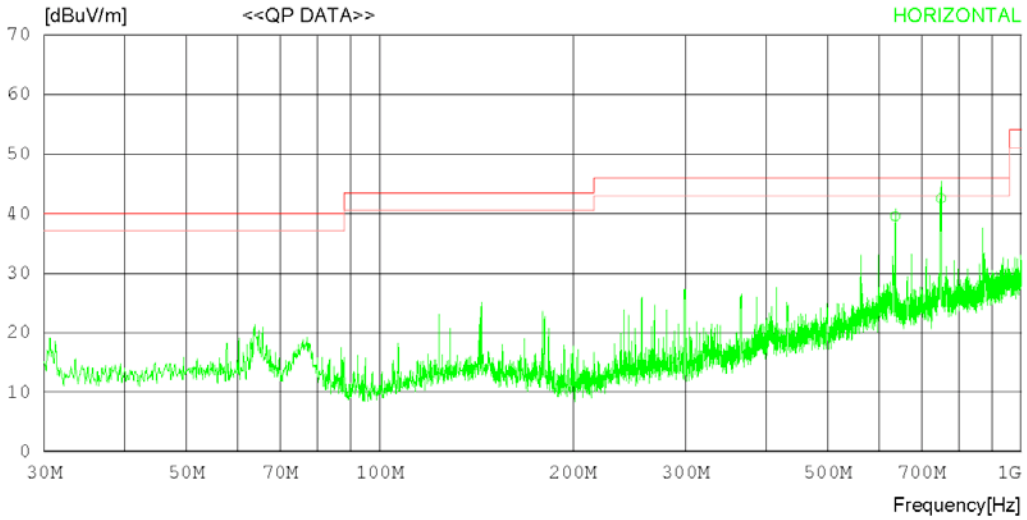
RADIATED EMISSION

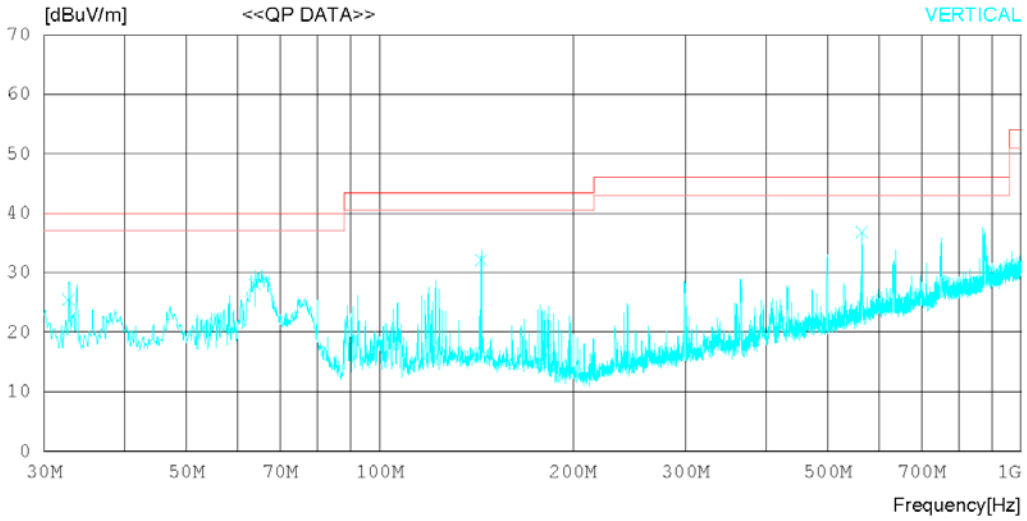
Date 2018-08-11

Order No. DTNC-1807-05832
Power Supply 120 VAC 60 Hz
Temp/Humi 21 'C 56 %.R.H.
Test Condition PC Link

S/N Earphone : EAB63728251, USB Cable : EAD64746101

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





RADIATED EMISSION

Date 2018-08-11

Order No.	DTNC-1807-05832
Power Supply	120 VAC 60 Hz
Temp/Humi	21 'C 56 %.R.H.
Test Condition	PC Link

S/N Earphone : EAB63728251, USB Cable : EAD64746101

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	636.874	33.94	26.40	4.44	25.24	39.54	46.00	6.46	100	348
2	749.665	34.77	28.19	4.90	25.35	42.51	46.00	3.49	100	293
----- Vertical ------										
3	32.781	32.20	17.91	0.87	25.48	25.50	40.00	14.50	100	234
4	63.940	35.10	17.15	1.27	25.52	28.00	40.00	12.00	177	250
5	143.913	36.50	19.36	1.94	25.58	32.22	43.50	11.28	100	87
6	564.154	32.70	25.17	4.22	25.30	36.79	46.00	9.21	100	327

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**

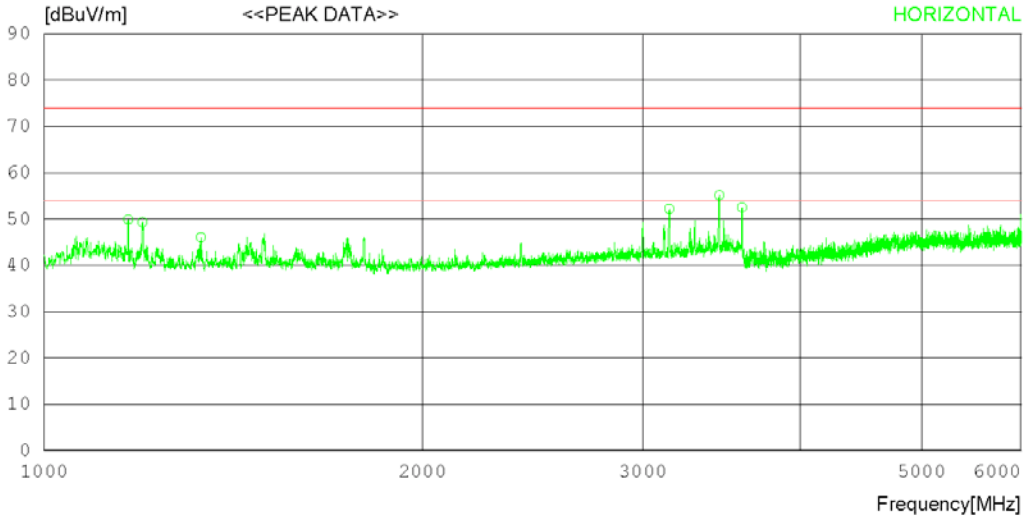
RADIATED EMISSION

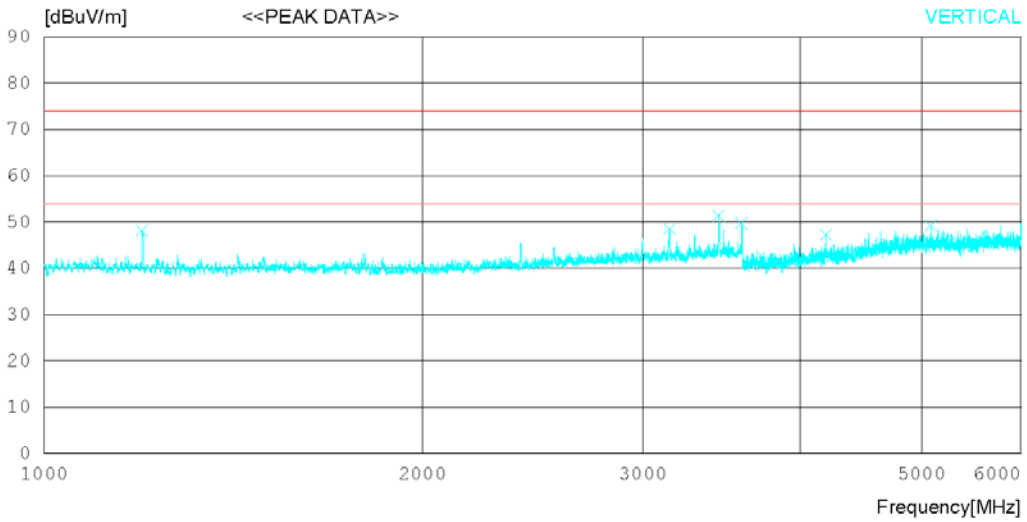
Date 2018-08-11

Order No. DTNC1807-05832
Power Supply 120 VAC 60 Hz
Temp/Humi 21 'C 55 %.R.H.
Test Condition PC Link

S/N Earphone : EAB63728251, USB Cable: EAD64746101

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





RADIATED EMISSION

Date 2018-08-11

Order No.	DTNC1807-05832
Power Supply	120 VAC 60 Hz
Temp/Humi	21 'C 55 %.R.H.
Test Condition	PC Link
S/N	Earphone : EAB63728251, USB Cable: EAD64746101

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	1166.875	53.10	25.32	3.64	32.17	49.89	74.0	24.11	100	178
2	1197.500	52.40	25.35	3.71	32.18	49.28	74.0	24.72	100	308
3	1333.125	48.90	25.49	3.88	32.24	46.03	74.0	27.97	188	1
4	3148.125	51.00	28.11	5.67	32.59	52.19	74.0	21.81	100	1
5	3448.750	53.30	28.42	6.09	32.62	55.19	74.0	18.81	385	1
6	3595.000	50.40	28.61	6.14	32.63	52.52	74.0	21.48	312	27
----- Vertical ------										
7	1196.875	51.20	25.35	3.71	32.18	48.08	74.0	25.92	220	358
8	3148.750	47.30	28.11	5.67	32.59	48.49	74.0	25.51	100	358
9	3444.375	49.40	28.41	6.09	32.62	51.28	74.0	22.72	100	358
10	3591.875	47.60	28.60	6.14	32.63	49.71	74.0	24.29	100	151
11	4193.750	43.60	29.58	6.66	32.58	47.26	74.0	26.74	100	358
12	5084.375	42.90	31.34	7.29	32.29	49.24	74.0	24.76	100	358

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**

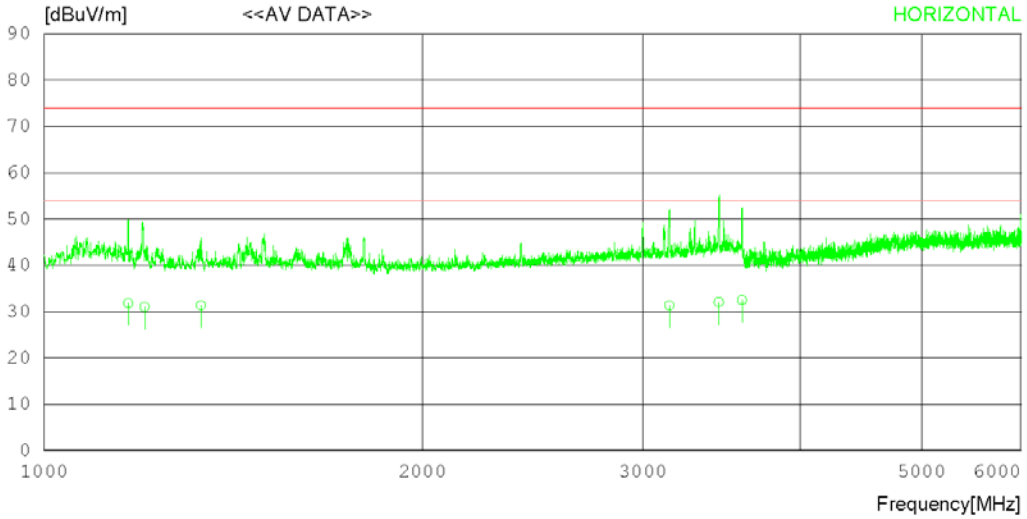
RADIATED EMISSION

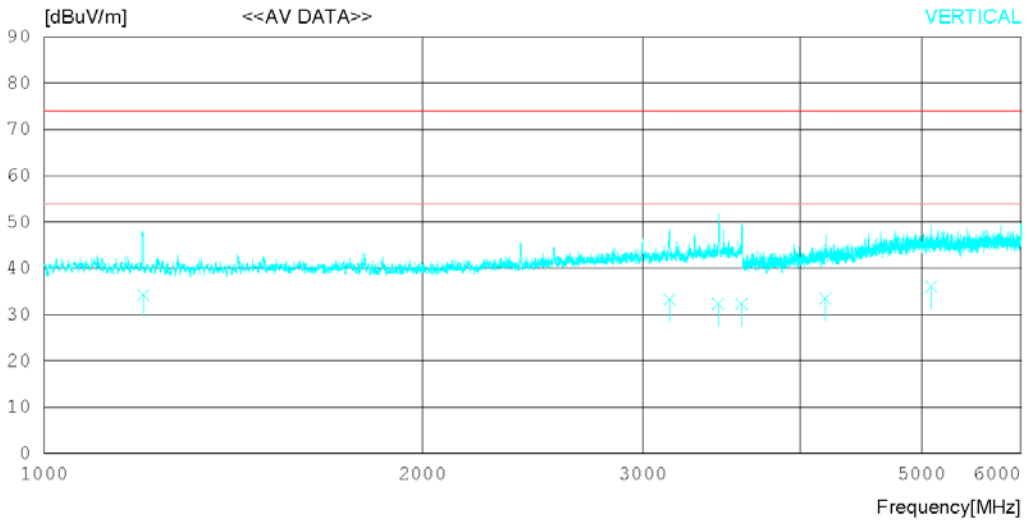
Date 2018-08-11

Order No. DTNC1807-05832
Power Supply 120 VAC 60 Hz
Temp/Humi 21 'C 55 %.R.H.
Test Condition PC Link

S/N Earphone : EAB63728251, USB Cable: EAD64746101

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





RADIATED EMISSION

Date 2018-08-11

Order No.	DTNC1807-05832
Power Supply	120 VAC 60 Hz
Temp/Humi	21 'C 55 %.R.H.
Test Condition	PC Link
S/N	Earphone : EAB63728251, USB Cable: EAD64746101

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	1166.687	35.10	25.32	3.64	32.17	31.89	54.00	22.11	100	220
2	1202.391	34.10	25.36	3.71	32.19	30.98	54.00	23.02	100	110
3	1333.340	34.20	25.49	3.88	32.24	31.33	54.00	22.67	188	170
4	3147.743	30.20	28.11	5.67	32.59	31.39	54.00	22.61	100	90
5	3445.905	30.20	28.41	6.09	32.62	32.08	54.00	21.92	385	80
6	3596.110	30.40	28.61	6.14	32.63	32.52	54.00	21.48	312	140
----- Vertical ------										
7	1199.765	37.30	25.36	3.71	32.18	34.19	54.00	19.81	220	120
8	3147.236	32.10	28.11	5.67	32.59	33.29	54.00	20.71	100	84
9	3441.452	30.40	28.41	6.09	32.62	32.28	54.00	21.72	100	280
10	3590.802	30.20	28.60	6.14	32.63	32.31	54.00	21.69	100	180
11	4190.338	29.80	29.57	6.66	32.59	33.44	54.00	20.56	100	210
12	5088.103	29.70	31.34	7.30	32.29	36.05	54.00	17.95	100	340

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**

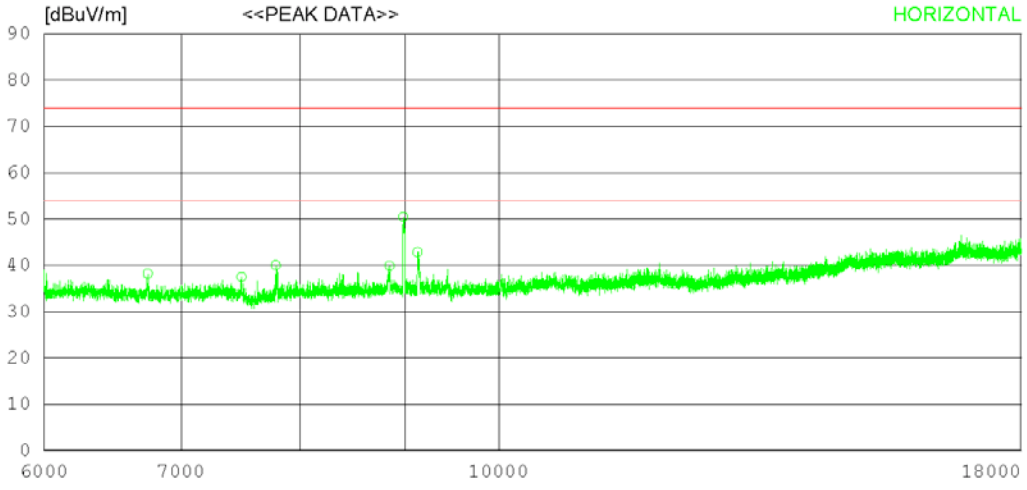
RADIATED EMISSION

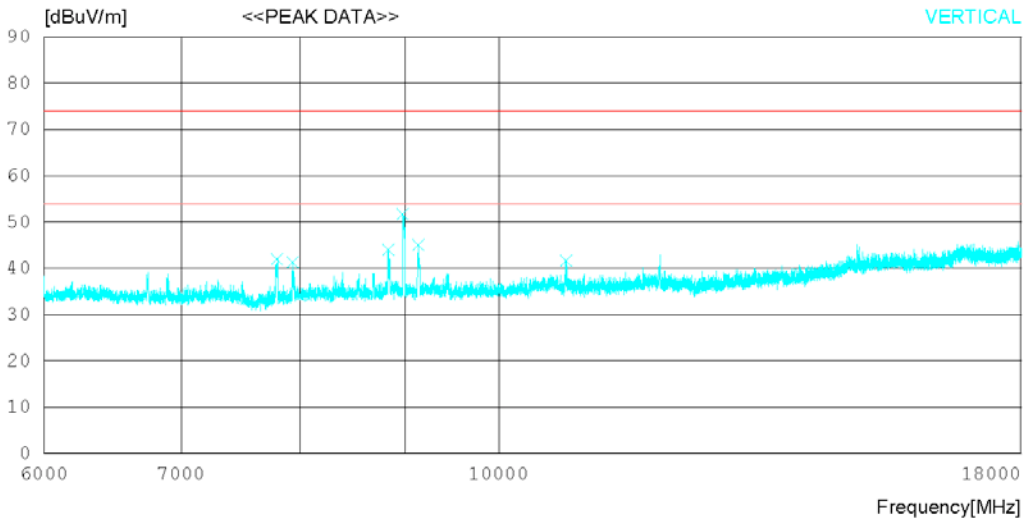
Date 2018-08-11

Order No. DTNC1807-05832
Power Supply 120 VAC 60 Hz
Temp/Humi 21 'C 55 %.R.H.
Test Condition PC Link

S/N Earphone : EAB63728251, USB Cable: EAD64746101

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 2018-08-11

Order No.	DTNC1807-05832
Power Supply	120 VAC 60 Hz
Temp/Humi	21 'C 55 %.R.H.
Test Condition	PC Link
S/N	Earphone : EAB63728251, USB Cable: EAD64746101

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	6744.000	37.70	31.40	7.88	38.77	38.21	74.0	35.79	100	358
2	7491.750	36.60	31.37	8.36	38.79	37.54	74.0	36.46	150	176
3	7785.750	38.30	31.36	8.66	38.32	40.00	74.0	34	222	24
4	8847.750	36.20	31.75	9.69	37.70	39.94	74.0	34.06	100	358
5	8988.000	46.90	31.81	9.44	37.64	50.51	74.0	23.49	390	29
6	9132.750	39.10	31.88	9.54	37.72	42.80	74.0	31.2	312	97
----- Vertical ------										
7	7798.500	40.20	31.36	8.68	38.27	41.97	74.0	32.03	190	136
8	7933.500	39.20	31.35	8.71	37.96	41.30	74.0	32.7	100	359
9	8836.500	40.30	31.74	9.70	37.70	44.04	74.0	29.96	100	204
10	8979.750	48.10	31.81	9.45	37.65	51.71	74.0	22.29	100	204
11	9137.250	41.30	31.88	9.54	37.72	45.00	74.0	29	100	209
12	10789.500	35.30	32.57	11.53	37.76	41.64	74.0	32.36	100	1

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**

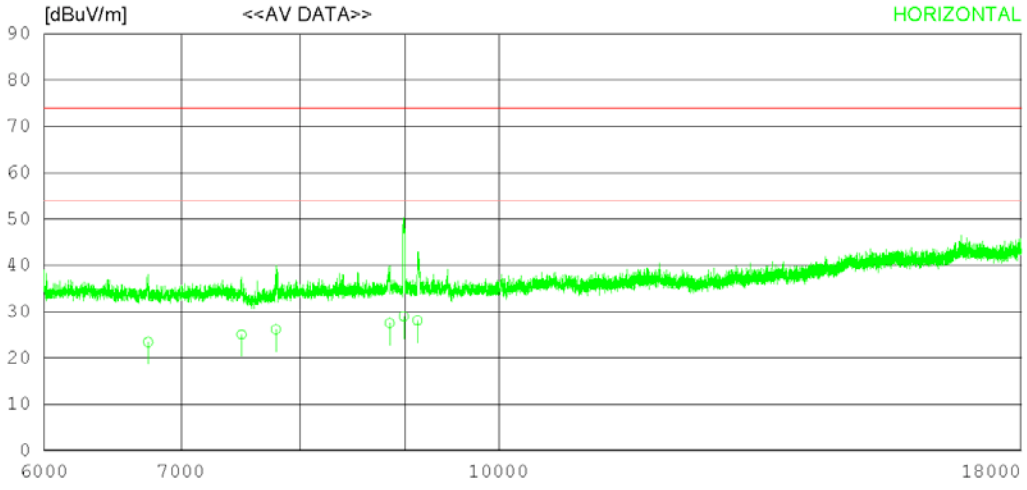
RADIATED EMISSION

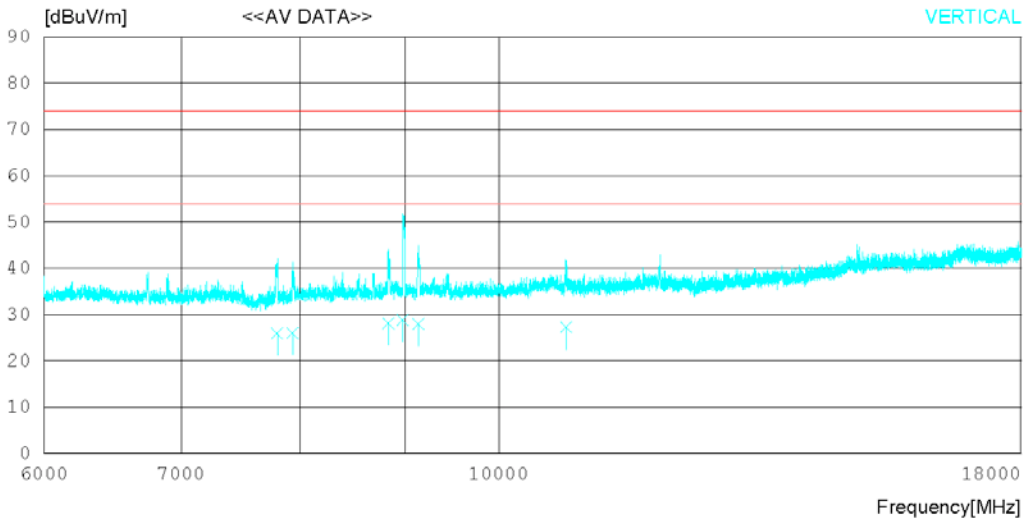
Date 2018-08-11

Order No. DTNC1807-05832
Power Supply 120 VAC 60 Hz
Temp/Humi 21 'C 55 %.R.H.
Test Condition PC Link

S/N Earphone : EAB63728251, USB Cable: EAD64746101

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 2018-08-11

Order No.	DTNC1807-05832
Power Supply	120 VAC 60 Hz
Temp/Humi	21 'C 55 %.R.H.
Test Condition	PC Link
S/N	Earphone : EAB63728251, USB Cable: EAD64746101

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	6745.210	22.90	31.40	7.88	38.77	23.41	54.00	30.59	100	320
2	7490.450	24.11	31.37	8.36	38.79	25.05	54.00	28.95	150	240
3	7785.350	24.40	31.36	8.66	38.32	26.10	54.00	27.90	222	230
4	8848.450	23.80	31.75	9.68	37.70	27.53	54.00	26.47	100	330
5	8990.110	25.40	31.82	9.42	37.64	29.00	54.00	25.00	390	70
6	9132.950	24.31	31.88	9.54	37.72	28.01	54.00	25.99	312	110
----- Vertical ------										
7	7798.884	24.10	31.36	8.68	38.26	25.88	54.00	28.12	190	178
8	7934.345	23.90	31.35	8.71	37.96	26.00	54.00	28.00	100	310
9	8837.221	24.32	31.74	9.70	37.70	28.06	54.00	25.94	100	240
10	8980.250	25.31	31.81	9.45	37.65	28.92	54.00	25.08	100	264
11	9138.150	24.24	31.88	9.54	37.72	27.94	54.00	26.06	100	190
12	10790.300	20.90	32.57	11.53	37.76	27.24	54.00	26.76	100	30

Radiated disturbance at (30 ~ 1000) MHz _Measurement data			
Test configuration mode	**2**	**EUT Operation mode**	**2**
Test voltage (V)	**120**	**Test Frequency (Hz)**	**60**

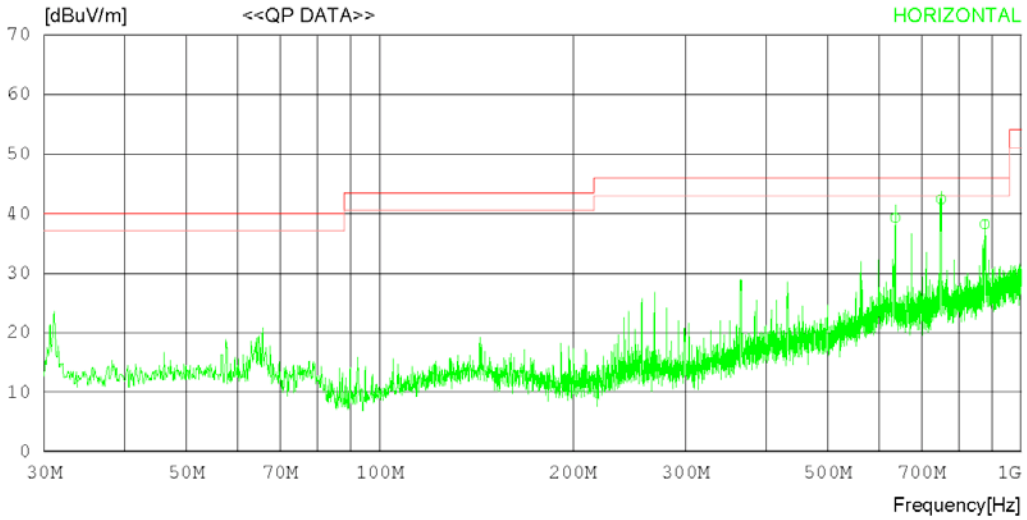
RADIATED EMISSION

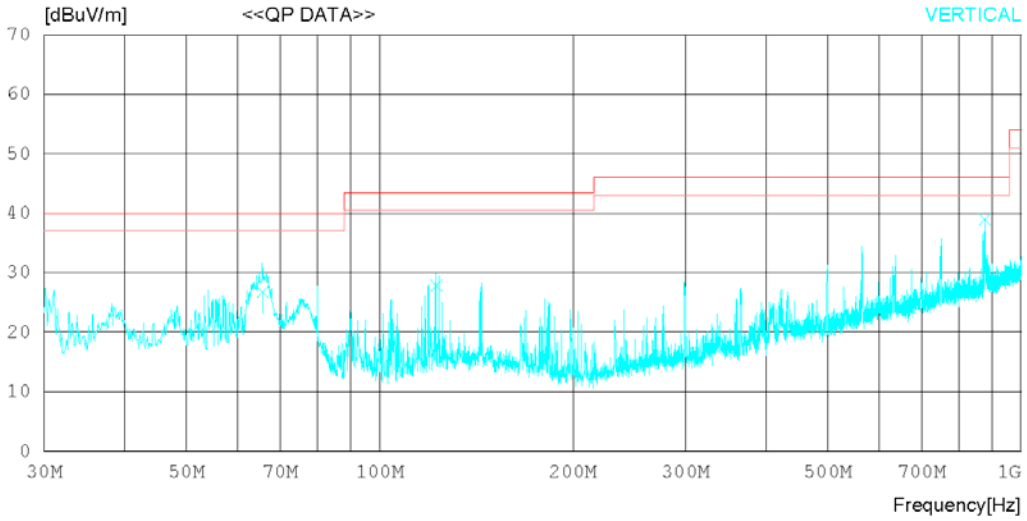
Date 2018-08-11

Order No. DTNC-1807-05832
Power Supply 120 VAC 60 Hz
Temp/Humi 21 'C 56 %.R.H.
Test Condition PC Link

S/N Earphone : EAB63728252, USB Cable : EAD64746102

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





RADIATED EMISSION

Date 2018-08-11

Order No. DTNC-1807-05832
Power Supply 120 VAC 60 Hz
Temp/Humi 21 'C 56 %.R.H.
Test Condition PC Link

S/N Earphone : EAB63728252, USB Cable : EAD64746102

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	637.102	33.70	26.40	4.44	25.24	39.30	46.00	6.70	110	341
2	749.515	34.60	28.19	4.90	25.35	42.34	46.00	3.66	100	300
3	877.826	29.10	29.38	5.30	25.59	38.19	46.00	7.81	100	36
----- Vertical ------										
4	65.771	34.10	16.88	1.30	25.52	26.76	40.00	13.24	100	121
5	122.491	33.50	18.15	1.80	25.56	27.89	43.50	15.61	187	35
6	877.705	29.90	29.38	5.30	25.59	38.99	46.00	7.01	100	106

Radiated disturbance at (1 ~ 6) GHz _Peak measurement data			
Test configuration mode	**2**	**EUT Operation mode**	**2**
Test voltage (V)	**120**	**Test Frequency (Hz)**	**60**

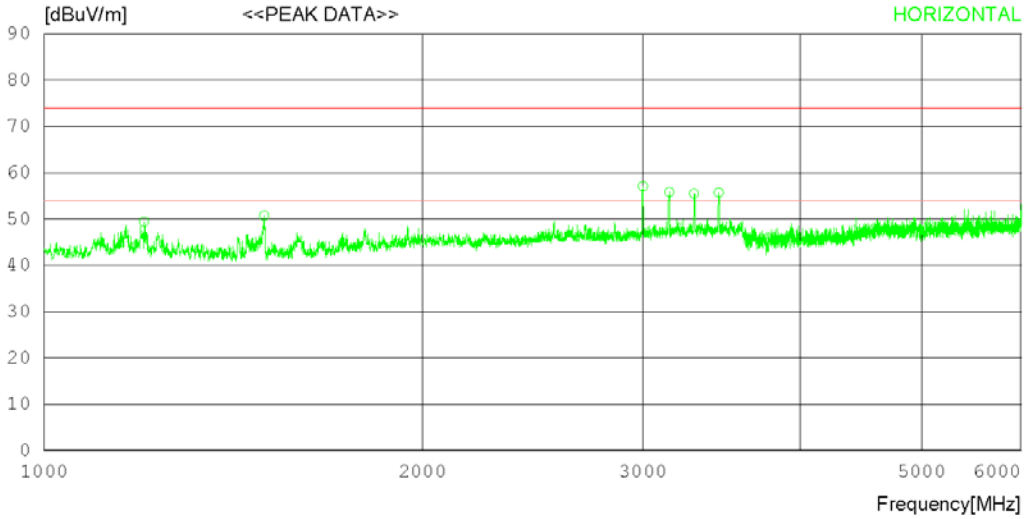
RADIATED EMISSION

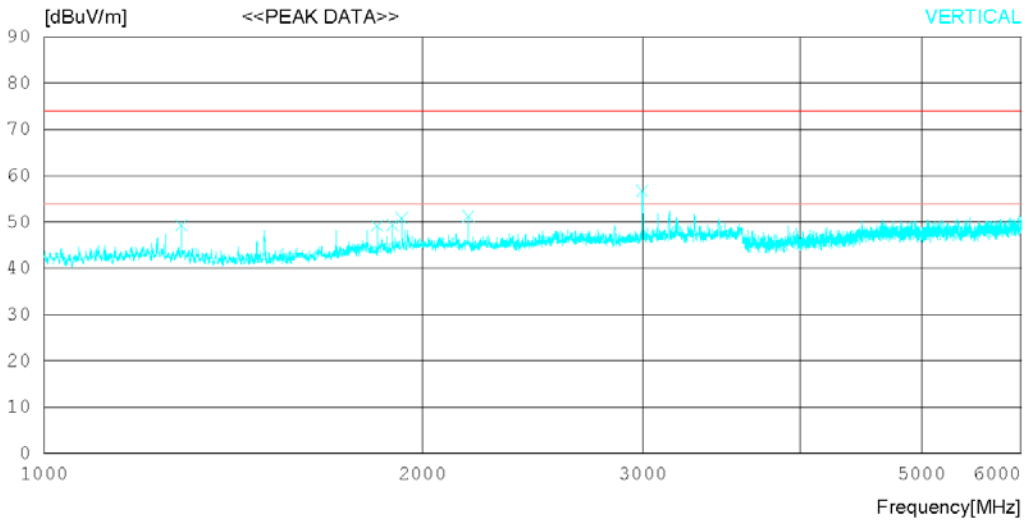
Date 2018-08-11

Order No. DTNC1807-05832
Power Supply 120 VAC 60 Hz
Temp/Humi 21 'C 55 %.R.H.
Test Condition PC Link

S/N Earphone : EAB63728252, USB Cable: EAD64746102

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





RADIATED EMISSION

Date 2018-08-11

Order No.	DTNC1807-05832
Power Supply	120 VAC 60 Hz
Temp/Humi	21 'C 55 %.R.H.
Test Condition	PC Link
S/N	Earphone : EAB63728252, USB Cable: EAD64746102

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	1201.875	49.10	28.80	3.76	32.18	49.48	74.0	24.52	100	266
2	1497.500	50.90	27.90	4.18	32.31	50.67	74.0	23.33	120	144
3	2999.375	51.30	32.50	5.84	32.58	57.06	74.0	16.94	220	0
4	3146.875	49.60	32.99	5.79	32.59	55.79	74.0	18.21	100	0
5	3291.875	49.20	32.92	5.92	32.61	55.43	74.0	18.57	400	194
6	3446.250	49.40	32.80	6.16	32.62	55.74	74.0	18.26	312	0
----- Vertical ------										
7	1285.625	48.90	28.77	3.85	32.22	49.30	74.0	24.7	156	248
8	1841.250	46.60	30.57	4.45	32.45	49.17	74.0	24.83	100	358
9	1894.375	46.20	31.04	4.55	32.48	49.31	74.0	24.69	100	285
10	1927.500	47.40	31.32	4.61	32.49	50.84	74.0	23.16	100	358
11	2176.875	47.20	31.70	4.85	32.53	51.22	74.0	22.78	100	358
12	2994.375	51.00	32.49	5.83	32.58	56.74	74.0	17.26	100	358

Radiated disturbance at (1 ~ 6) GHz _Average measurement data			
Test configuration mode	**2**	**EUT Operation mode**	**2**
Test voltage (V)	**120**	**Test Frequency (Hz)**	**60**

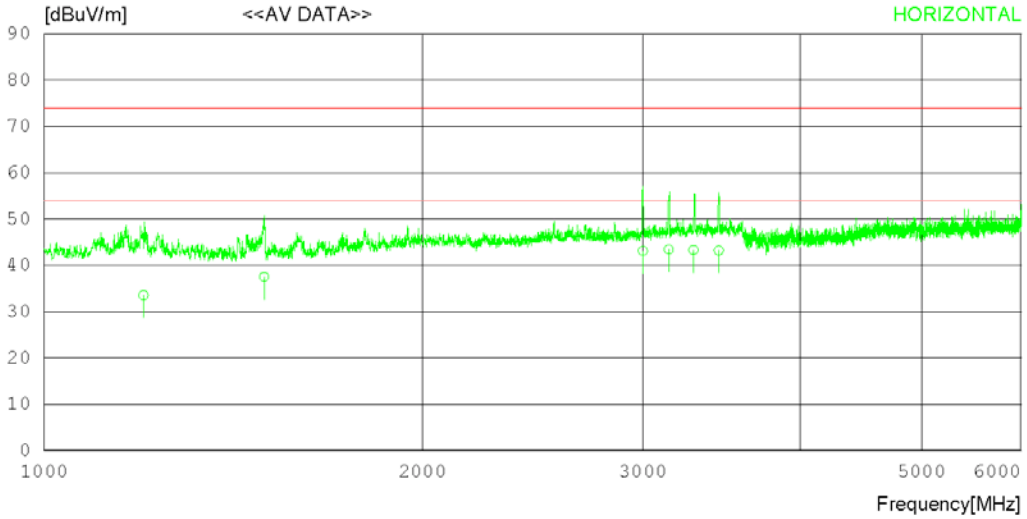
RADIATED EMISSION

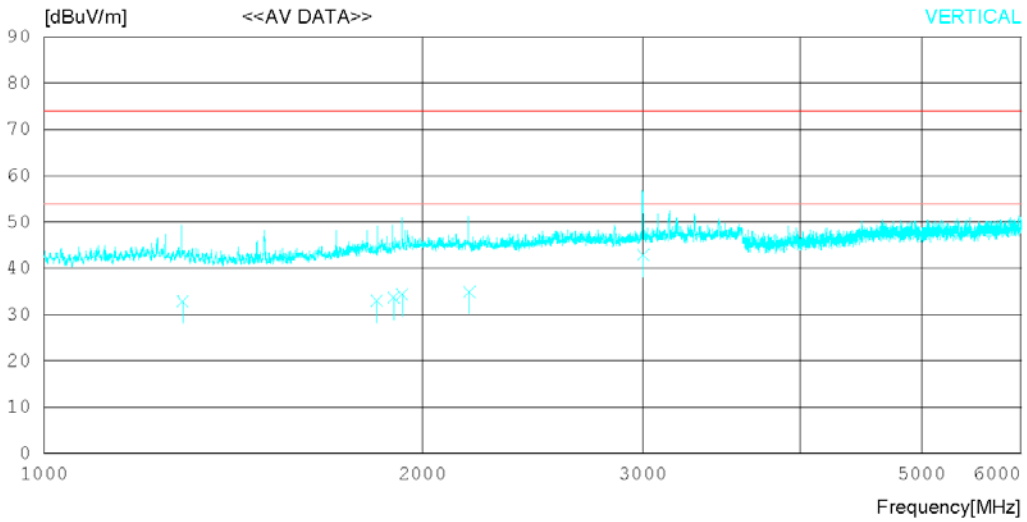
Date 2018-08-11

Order No. DTNC1807-05832
Power Supply 120 VAC 60 Hz
Temp/Humi 21 'C 55 %.R.H.
Test Condition PC Link

S/N Earphone : EAB63728252, USB Cable: EAD64746102

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





RADIATED EMISSION

Date 2018-08-11

Order No.	DTNC1807-05832
Power Supply	120 VAC 60 Hz
Temp/Humi	21 'C 55 %.R.H.
Test Condition	PC Link
S/N	Earphone : EAB63728252, USB Cable: EAD64746102

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	1200.301	33.10	28.80	3.76	32.18	33.48	54.00	20.52	100	240
2	1496.626	37.70	27.90	4.18	32.31	37.47	54.00	16.53	120	160
3	2999.405	37.30	32.50	5.84	32.58	43.06	54.00	10.94	220	210
4	3145.894	37.21	32.99	5.79	32.59	43.40	54.00	10.60	100	90
5	3291.021	37.10	32.92	5.92	32.61	43.33	54.00	10.67	400	110
6	3445.754	36.90	32.80	6.16	32.62	43.24	54.00	10.76	312	80
----- Vertical ------										
7	1289.058	32.40	28.78	3.86	32.22	32.82	54.00	21.18	156	310
8	1839.761	30.40	30.56	4.44	32.45	32.95	54.00	21.05	110	210
9	1898.336	30.50	31.08	4.55	32.48	33.65	54.00	20.35	100	240
10	1928.237	30.90	31.33	4.61	32.49	34.35	54.00	19.65	100	170
11	2180.330	30.90	31.70	4.85	32.53	34.92	54.00	19.08	100	310
12	2999.250	37.10	32.50	5.84	32.58	42.86	54.00	11.14	100	110

Radiated disturbance at (6 ~ 18) GHz _Peak measurement data			
Test configuration mode	**2**	**EUT Operation mode**	**2**
Test voltage (V)	**120**	**Test Frequency (Hz)**	**60**

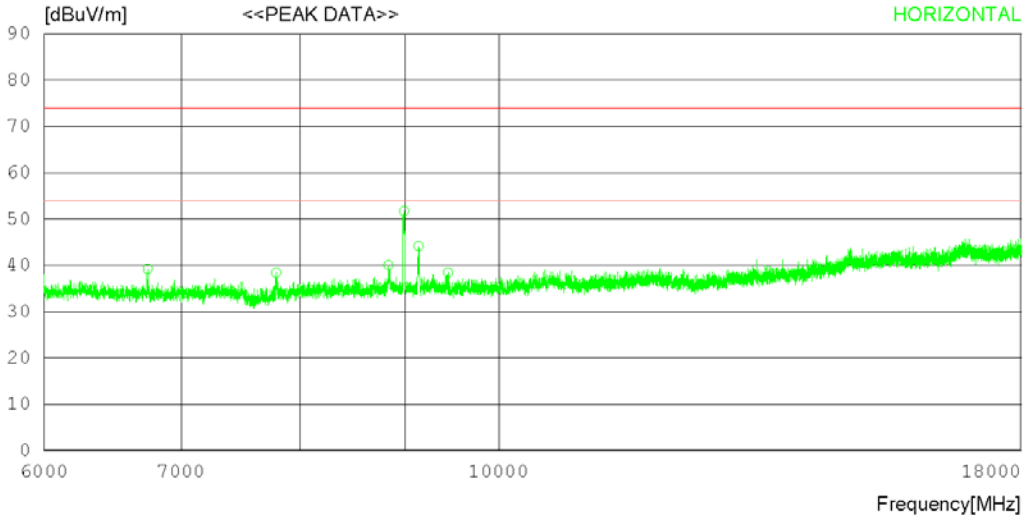
RADIATED EMISSION

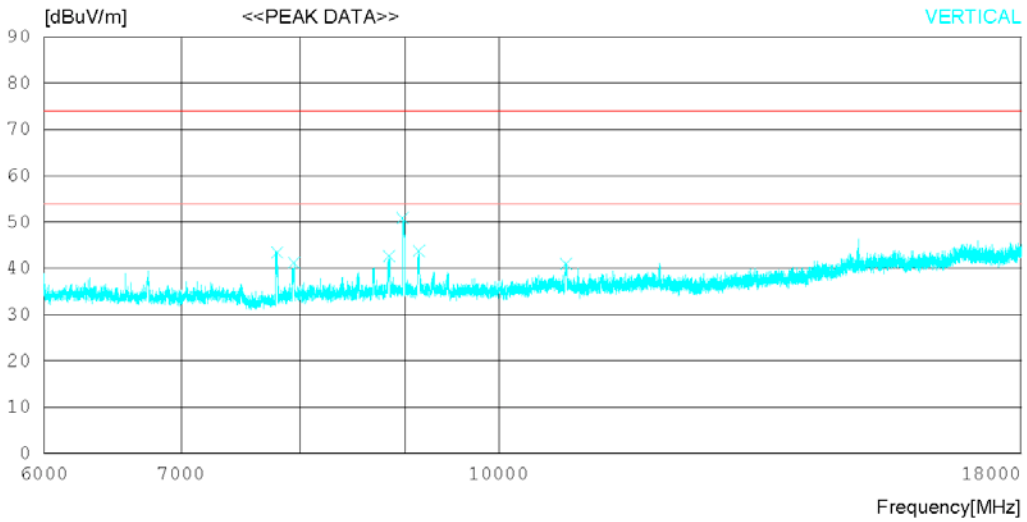
Date 2018-08-11

Order No. DTNC1807-05832
Power Supply 120 VAC 60 Hz
Temp/Humi 21 'C 55 %.R.H.
Test Condition PC Link

S/N Earphone : EAB63728252, USB Cable: EAD64746102

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 2018-08-11

Order No.	DTNC1807-05832
Power Supply	120 VAC 60 Hz
Temp/Humi	21 'C 55 %.R.H.
Test Condition	PC Link
S/N	Earphone : EAB63728252, USB Cable: EAD64746102

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	6744.000	38.70	31.40	7.88	38.77	39.21	74.0	34.79	140	62
2	7791.000	36.70	31.36	8.67	38.30	38.43	74.0	35.57	100	84
3	8835.750	36.30	31.74	9.70	37.70	40.04	74.0	33.96	215	40
4	8997.750	48.10	31.82	9.41	37.64	51.69	74.0	22.31	100	40
5	9142.500	40.40	31.89	9.54	37.72	44.11	74.0	29.89	310	73
6	9447.750	34.70	32.03	9.64	37.90	38.47	74.0	35.53	240	358
----- Vertical ------										
7	7796.250	41.70	31.36	8.68	38.28	43.46	74.0	30.54	188	25
8	7947.750	39.00	31.35	8.71	37.93	41.13	74.0	32.87	100	358
9	8847.000	38.90	31.75	9.69	37.70	42.64	74.0	31.36	100	142
10	8979.000	47.20	31.81	9.45	37.65	50.81	74.0	23.19	100	142
11	9144.000	40.10	31.89	9.55	37.72	43.82	74.0	30.18	100	25
12	10786.500	34.60	32.57	11.53	37.76	40.94	74.0	33.06	100	358

Radiated disturbance at (6 ~ 18) GHz _Average measurement data			
Test configuration mode	**2**	**EUT Operation mode**	**2**
Test voltage (V)	**120**	**Test Frequency (Hz)**	**60**

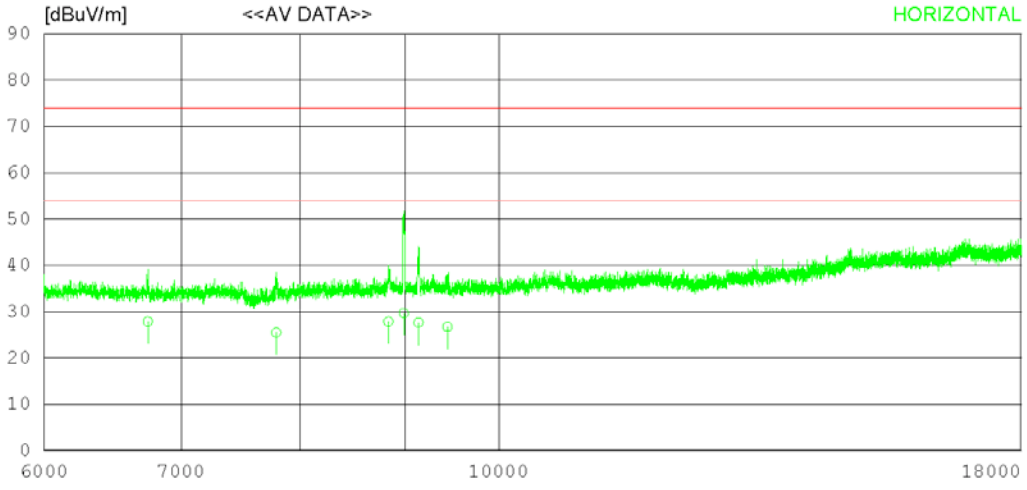
RADIATED EMISSION

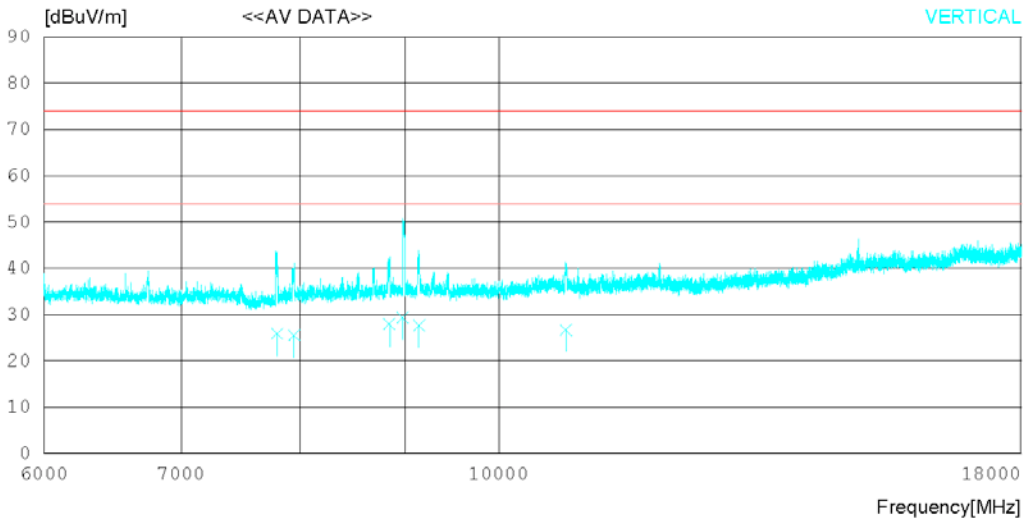
Date 2018-08-11

Order No. DTNC1807-05832
Power Supply 120 VAC 60 Hz
Temp/Humi 21 'C 55 %.R.H.
Test Condition PC Link

S/N Earphone : EAB63728252, USB Cable: EAD64746102

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 2018-08-11

Order No.	DTNC1807-05832
Power Supply	120 VAC 60 Hz
Temp/Humi	21 'C 55 %.R.H.
Test Condition	PC Link
S/N	Earphone : EAB63728252, USB Cable: EAD64746102

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	6743.270	27.40	31.40	7.88	38.77	27.91	54.00	26.09	140	90
2	7791.331	23.78	31.36	8.67	38.30	25.51	54.00	28.49	100	110
3	8836.250	24.11	31.74	9.70	37.70	27.85	54.00	26.15	215	90
4	8993.450	26.10	31.82	9.42	37.64	29.70	54.00	24.30	100	154
5	9143.400	23.90	31.89	9.54	37.72	27.61	54.00	26.39	310	234
6	9446.150	22.90	32.03	9.63	37.90	26.66	54.00	27.34	240	311
----- Vertical ------										
7	7797.140	24.10	31.36	8.68	38.27	25.87	54.00	28.13	188	75
8	7946.551	23.40	31.35	8.71	37.93	25.53	54.00	28.47	100	311
9	8848.224	24.20	31.75	9.68	37.70	27.93	54.00	26.07	100	160
10	8980.100	25.70	31.81	9.45	37.65	29.31	54.00	24.69	100	195
11	9144.110	23.90	31.89	9.55	37.72	27.62	54.00	26.38	100	135
12	10788.340	20.40	32.57	11.53	37.76	26.74	54.00	27.26	100	270

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. 16. 2018	Initial report	YongKi Kim	HyungJun Kim

-End of test report-