

TEST REPORT

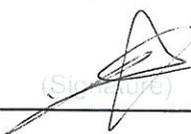


DT&C Co., Ltd.

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

1. Report No. : DREFCC2009-0228(1)
2. Client / Applicant
 - Name : LG Electronics USA, Inc.
 - Address : 111 Sylvan Avenue, North Building Englewood Cliffs, NJ 07632
3. Use of Report : Grant of Certification
4. Product Name / Model Name : Mobile Phone / OA2007
(FCC ID : ZNFOA2007)
5. Test Standard : ANSI C 63.4 : 2014
FCC Part 15 Subpart B
(Other Class B digital devices & peripherals)
6. Date of Test : Sep. 01. 2020 ~ Sep. 06. 2020
7. Location of Test : Permanent Testing Lab On Site Testing
8. Testing Environment : Temperature (21 ~ 23) °C , Humidity (40 ~ 45) % R.H.
9. Test Result : Refer to the attached Test Result

The results shown in this test report refer only to the sample(s) tested unless otherwise stated.

Affirmation	Tested by	Reviewed by
	Name : ChanGeun Lee 	Name : KyoungHwan Bae 

Sep. 25. 2020

DT&C Co., Ltd.

Not abided by KS Q ISO / IEC 17025 and KOLAS accreditation.

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

CONTENTS

1. General Remarks	3
2. Test Laboratory.....	3
3. General Information of EUT.....	4
4. EUT Operations and Test Configurations	5
4.1 Principle of Configuration Selection	5
4.2 EUT Operation Mode.....	5
4.3 Test Configuration Mode.....	5
4.4 Supported Equipment	6
4.5 EUT In/Output Port	7
4.6 Test Voltage and Frequency.....	7
5. Test Summary	8
6. Test Environment.....	8
7. Test Results : Emission.....	9
7.1 Conducted Disturbance	9
7.2 Radiated Disturbance	19
8. Revision History.....	91

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 23 rd , 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-3385, R-14076, R-4180, R-4496, T-1442, G-10338, G-10754, G-10815, G-20051	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. 111 Sylvan Avenue, North Building Englewood Cliffs, NJ 07632
Manufacturer	LG Electronics USA, Inc. 111 Sylvan Avenue, North Building Englewood Cliffs, NJ 07632
Product Name	Mobile Phone
Model Name	OA2007
Add Model Name	None
Rated Power	DC 3.87 V
FCC ID	ZNFOA2007
Remarks	None

* Accessory

Equipment	No.	Manufacturer	Model Name	Product Number
Earphone	1	CRESYN	EMB-LGE53	EAB63728251
Cable	1	Luxshare	DC15WX-G	EAD64746102
Dual Screen	1	LG	LM-G905N	N/A

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, internal storage
2	PC LINK(DS)	The EUT is reading, writing, internal storage (As a result of measuring the angle of the dual screen at 0 ' , 90 ' , 180 ' , and 360 ' , 180 ' is the worst condition.)
3	Wireless Charging	The EUT on the wireless charging pad
4	Wireless Charging(DS)	The EUT on the wireless charging pad (As a result of measuring the angle of the dual screen at 0 ' , 90 ' , 180 ' , 180 ' is the worst condition.)
5	DISPLAY	EUT Was with H letter output connected to monitor

4.3 Test Configuration Mode

No.	Mode	Description
1	PC LINK	EUT was connected PC by USB cable C type and continuously operated
2	PC LINK (DS)	EUT was connected DualScreen, and PC by USB cable C type and continuously operated
3	Wireless Charging	EUT was at high speed on the wireless charger
4	Wireless Charging (DS)	EUT was connected DualScreen, at high speed on the wireless charger
5	DISPLAY	EUT was connected Monitor by USB cable C type to HDMI and continuously operated.

4.4 Supported Equipment

Used*	Product Type	Manufacturer	Model	Remarks
AE	PC	DELL INC	DCN3	J51ZBBX
AE	PRINTER	Bixelon	SRP-770	N/A
AE	SSD	SAMSUNG	MU-PT250B	S2WKNAAH32059X
AE	KEYBOARD	SNJ	SKG-3000UB	N/A
AE	MOUSE	Logitech	M-U0026	N/A
AE	LED MONITOR	DELL	P2417Hb	N/A
AE	Headset	DONGGUANENMEY	SHS-150V/W	N/A
AE	wireless charger	belkin	F7U050	26S10EH4840924
AE	wireless charger adaptor	belkin	ADS-26FSG12	N/A
AE	USIM CARD	N/A	N/A	N/A
AE	MICRO SD CARD	SANDISK	N/A	N/A
*Abbreviations: AE - Auxiliary/Associated Equipment, or SIM - Simulator				

4.5 EUT In/Output Port

(MODE 1,2)

Name	Type*	Cable Max. >3 m	Cable Shielded	Cable Back shell	Remarks
USB	I/O	1.0	Shield	Plastic	EUT
USB(EUT)	I/O	1.0	shield	Plastic	PC
USB(MOUSE)	I/O	1.8	Non shield	Plastic	
USB(KEYBOARD)	I/O	1.8	Non shield	Plastic	
USB(SSD)	I/O	1.0	Non shield	Plastic	
DSUB(MONITOR)	I/O	1.8	shield	Plastic	
AUX(EAR MIC)	I/O	1.8	Non shield	Plastic	
POWER(PC)	AC	1.8	Non shield	Plastic	
POWER(MONITOR)	AC	1.8	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					

(MODE 3,4)

Name	Type*	Cable Max. >3 m	Cable Shielded	Cable Back shell	Remarks
DC IN	DC	1.5	Non shield	Plastic	WIRELESS CHARGING PAD
DC OUT	DC	1.5	Non shield	Plastic	WIRELESS CHARGER ADAPTOR
POEWEAR	AC	-	-	-	
*Abbreviations: AC = AC Power Port DC = DC Power Port N/E = Non-Electrical I/O = Signal Input or Output Port TP = Telecommunication Ports					

(MODE 5)

Name	Type*	Cable Max. >3 m	Cable Shielded	Cable Back shell	Remarks
USB	I/O	1.8	Shield	Plastic	-
HDMI	I/O	1.8	Shield	Plastic	LCD Monitor
POWER	AC	1.8	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
2	DC 3.87	-	-	Battery

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		

-Conducted Disturbance

Frequency [MHz]	Phase	Result [dB μ V]	Detector	Limit [dB μ V]	Margin [dB]
3.70408	N	35.98	Cispr - Average	46.00	10.02

-Radiated Disturbance

Frequency [MHz]	Pol.	Result [dB μ V/m]	Detector	Limit [dB μ V/m]	Margin [dB]
38911.45	V	47.33	Cispr - Average	54.00	6.67

6. Test Environment

Test Items	Test date (YYYY-MM-DD)	Temp. (°C)	Humidity (% R.H.)	Pressure (kPa)
Conducted Disturbance	2020-09-01	23	44	-
	2020-09-06	23	45	
Radiated Disturbance	2020-09-01	23	45	-
	2020-09-05	21	40	

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
<p>Fully configured sample scanned over the following frequency range</p>	<p>Frequency range on each side of line</p> <p style="text-align: center;">150 kHz to 30 MHz</p>	
<p>EUT mode (Refer to clauses 4)</p>	<p>Test configuration mode</p>	<p>1, 2, 3, 4</p>
	<p>EUT Operation mode</p>	<p>1, 2, 3, 4</p>
Limits – Class A		
<p>Frequency (MHz)</p>	<p>Limit dBμV</p>	
	<p>Quasi-Peak</p>	<p>Average</p>
<p>0.15 to 0.50</p>	<p>79</p>	<p>66</p>
<p>0.50 to 30</p>	<p>73</p>	<p>60</p>
Limits – Class B		
<p>Frequency (MHz)</p>	<p>Limit dBμV</p>	
	<p>Quasi-Peak</p>	<p>Average</p>
<p>0.15 to 0.50</p>	<p>66 to 56</p>	<p>56 to 46</p>
<p>0.50 to 5</p>	<p>56</p>	<p>46</p>
<p>5 to 30</p>	<p>60</p>	<p>50</p>
Measurement uncertainty		
<p>Expended uncertainty U (95 %, Confidence level, $k = 2$)</p>		<p>3.6 dB</p>
<p>The measurement uncertainties were calculated in accordance with requirements of ANSI C 63.4-2014.</p>		

Measurement Instrument					
Description	Model	Manufacturer	Identifier	Cal. Date	Cal. Due
MEASUREMENT SOFTWARE	EMI-C VER. 2.00.0170	TSJ	N/A	N/A	N/A
EMI TEST RECEIVER	ESU	ROHDE&SCHWARZ	100538	2020.01.20	2021.01.20
PULSE LIMITER	ESH3-Z2	ROHDE&SCHWARZ	101333	2019.09.17	2020.09.17
LISN	NSLK 8128 RC	SCHWARZBECK	8128 RC-387	2019.11.04	2020.11.04
LISN	KNW-407	KYORITSU	8-317-8	2019.12.22	2020.12.22

Calculation

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

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

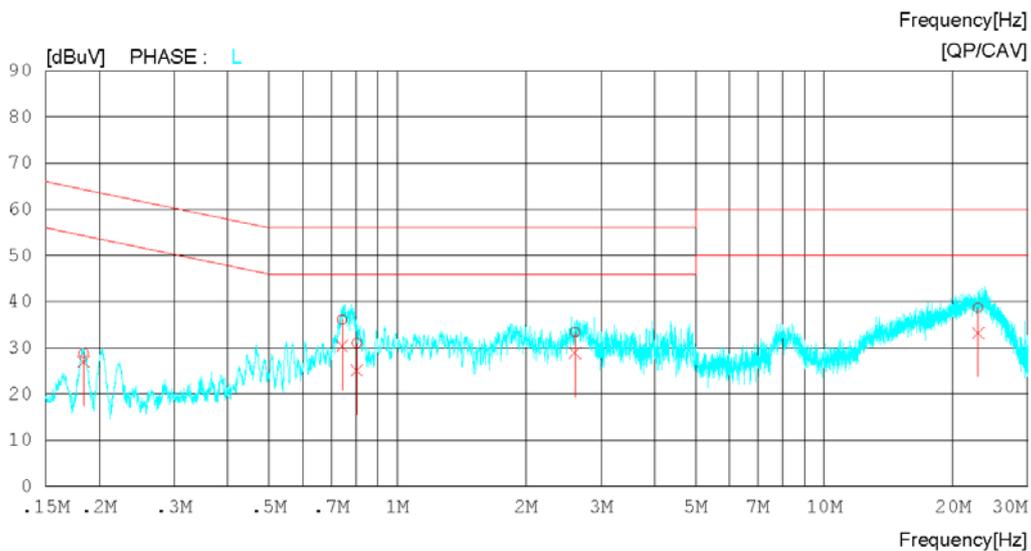
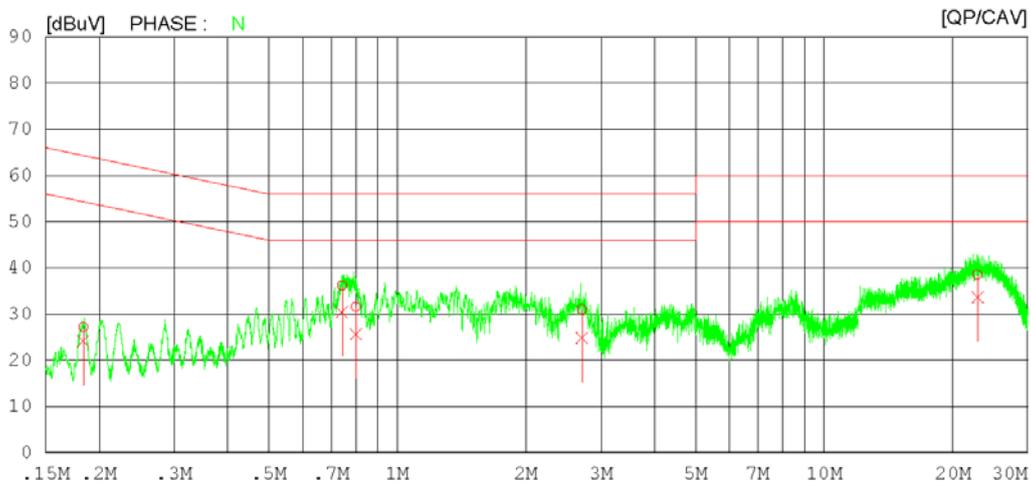
Results of Conducted Emission

DTNC

Date 2020-09-06

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 23 'C 45 % R.H.
 Test Condition PC LINK

LIMIT : FCC Part15 Subpart.B Class B.QP
 FCC Part15 Subpart.B Class B.AV



Results of Conducted Emission

DTNC

Date 2020-09-06

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 23 'C 45 % R.H.
 Test Condition PC LINK

LIMIT : FCC Part15 Subpart.B Class B.QP
 FCC Part15 Subpart.B Class 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	0.18365	17.19	14.14	10.00	27.19	24.14	64.32	54.32	37.13	30.18	N
2	0.74203	26.12	20.34	10.03	36.15	30.37	56.00	46.00	19.85	15.63	N
3	0.80045	21.60	15.60	10.03	31.63	25.63	56.00	46.00	24.37	20.37	N
4	2.70480	20.98	14.71	10.08	31.06	24.79	56.00	46.00	24.94	21.21	N
5	22.89568	27.89	23.03	10.62	38.51	33.65	60.00	50.00	21.49	16.35	N
6	0.18404	18.80	16.92	10.00	28.80	26.92	64.30	54.30	35.50	27.38	L
7	0.74277	26.04	20.28	10.03	36.07	30.31	56.00	46.00	19.93	15.69	L
8	0.80332	20.96	15.10	10.03	30.99	25.13	56.00	46.00	25.01	20.87	L
9	2.60576	23.35	18.79	10.08	33.43	28.87	56.00	46.00	22.57	17.13	L
10	22.95594	28.09	22.63	10.52	38.61	33.15	60.00	50.00	21.39	16.85	L

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

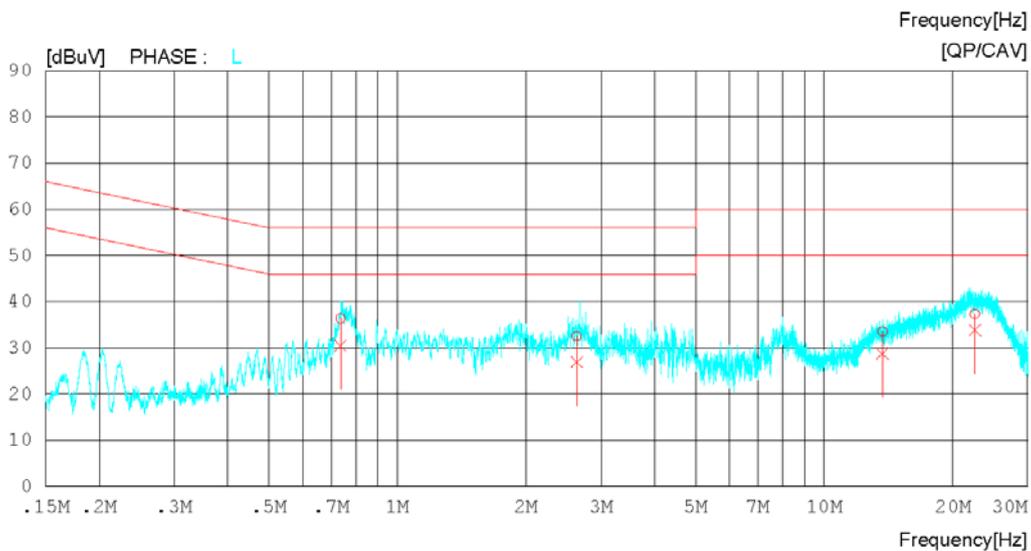
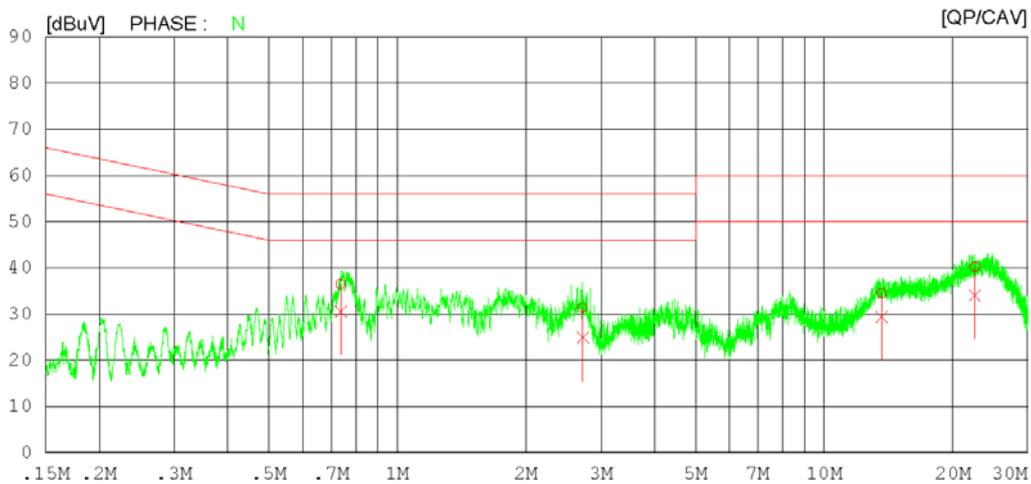
Results of Conducted Emission

DTNC

Date 2020-09-06

Order No.	DTNC2007-06231
Power Supply	120 V 60 Hz
Temp/Humi	23 'C 45 % R.H.
Test Condition	PC LINK(DS)

LIMIT : FCC Part15 Subpart.B Class B.QP
 FCC Part15 Subpart.B Class B.AV



Results of Conducted Emission

DTNC

Date 2020-09-06

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 23 °C 45 % R.H.
 Test Condition PC LINK(DS)

LIMIT : FCC Part15 Subpart.B Class B.QP
 FCC Part15 Subpart.B Class 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	0.73693	26.47	20.63	10.03	36.50	30.66	56.00	46.00	19.50	15.34	N
2	2.71719	21.27	14.87	10.08	31.35	24.95	56.00	46.00	24.65	21.05	N
3	13.63494	24.14	18.98	10.46	34.60	29.44	60.00	50.00	25.40	20.56	N
4	22.55118	29.66	23.47	10.62	40.28	34.09	60.00	50.00	19.72	15.91	N
5	0.73614	26.28	20.45	10.03	36.31	30.48	56.00	46.00	19.69	15.52	L
6	2.63290	22.38	16.80	10.08	32.46	26.88	56.00	46.00	23.54	19.12	L
7	13.70128	23.03	18.25	10.46	33.49	28.71	60.00	50.00	26.51	21.29	L
8	22.56272	26.69	23.40	10.52	37.21	33.92	60.00	50.00	22.79	16.08	L

Mains terminal disturbance voltage _ Measurement data			
Test configuration mode	3	EUT Operation mode	3
Test voltage (V)	120	Test Frequency (Hz)	60

Results of Conducted Emission

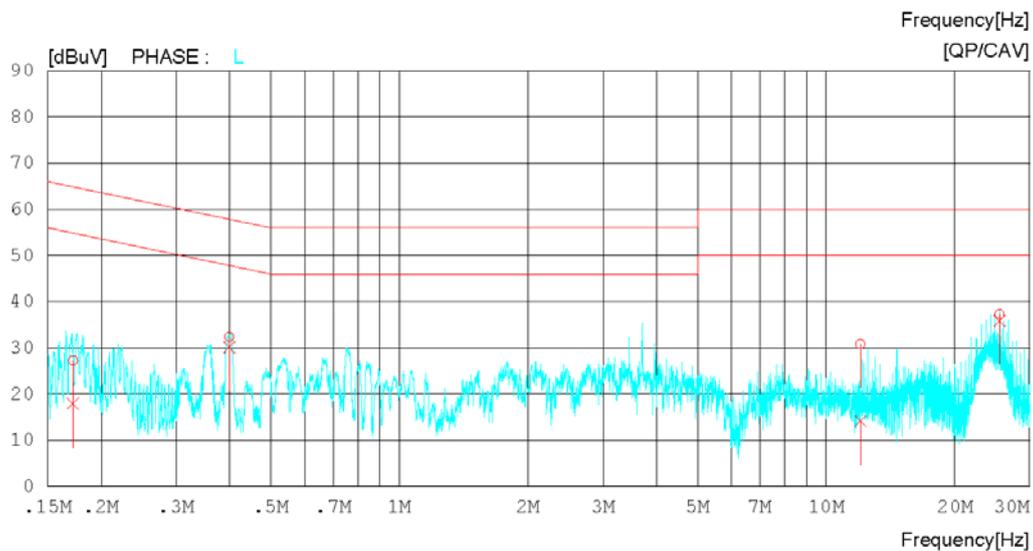
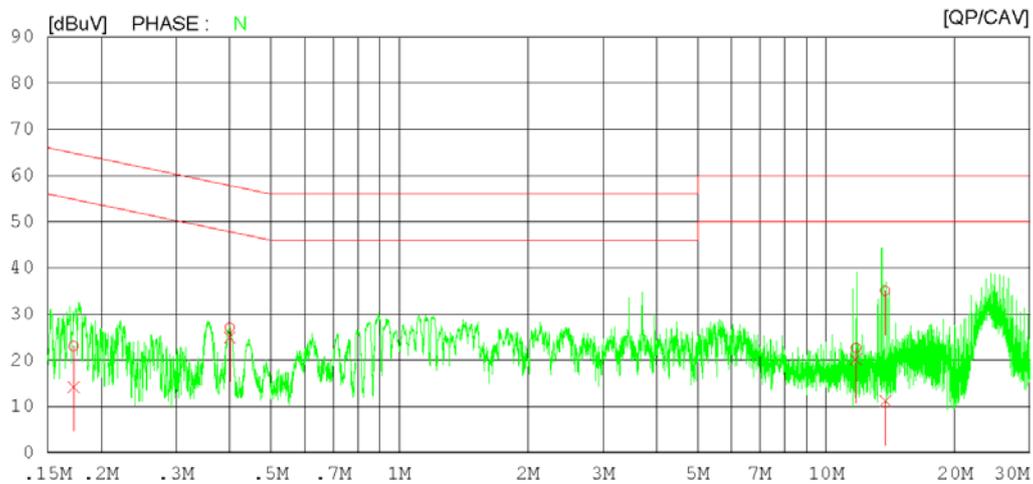
DTNC

Date 2020-09-01

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 23 'C 44 % R.H.

Test Condition Wireless Charging

LIMIT : FCC Part15 Subpart.B Class B.QP
 FCC Part15 Subpart.B Class B.AV



Results of Conducted Emission

DTNC

Date 2020-09-01

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 23 'C 44 % R.H.

Test Condition Wireless Charging

LIMIT : FCC Part15 Subpart.B Class B.QP
 FCC Part15 Subpart.B Class 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	0.17268	13.00	4.05	10.07	23.07	14.12	64.83	54.83	41.76	40.71	N
2	0.40057	16.98	14.80	10.11	27.09	24.91	57.84	47.84	30.75	22.93	N
3	11.74856	12.18	9.72	10.41	22.59	20.13	60.00	50.00	37.41	29.87	N
4	13.76801	24.56	0.73	10.47	35.03	11.20	60.00	50.00	24.97	38.80	N
5	0.17189	17.15	7.89	10.07	27.22	17.96	64.87	54.87	37.65	36.91	L
6	0.39950	22.22	20.05	10.11	32.33	30.16	57.86	47.86	25.53	17.70	L
7	12.02660	20.33	3.75	10.42	30.75	14.17	60.00	50.00	29.25	35.83	L
8	25.47383	26.67	25.33	10.54	37.21	35.87	60.00	50.00	22.79	14.13	L

Mains terminal disturbance voltage _ Measurement data			
Test configuration mode	4	EUT Operation mode	4
Test voltage (V)	120	Test Frequency (Hz)	60

Results of Conducted Emission

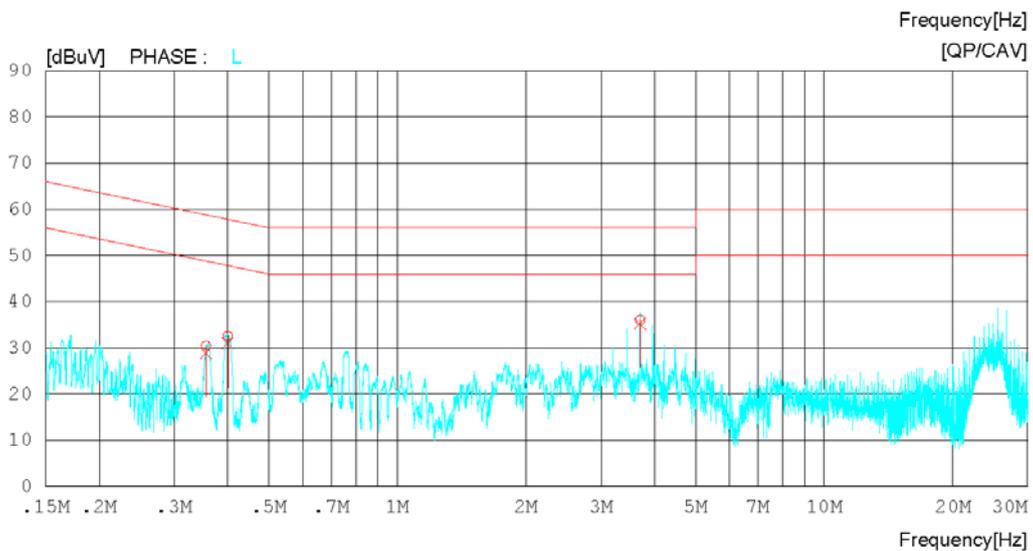
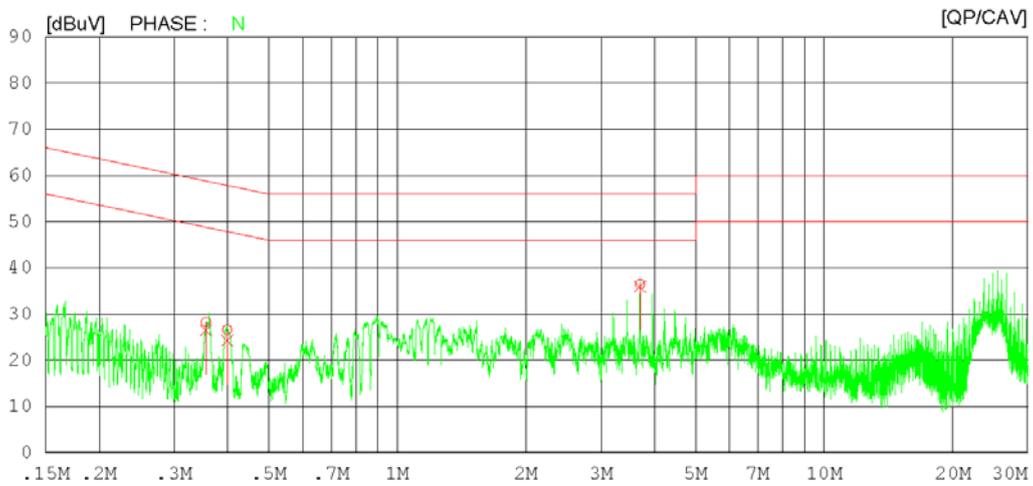
DTNC

Date 2020-09-01

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 23 'C 44 % R.H.

Test Condition Wireless Charging(DS)

LIMIT : FCC Part15 Subpart.B Class B.QP
 FCC Part15 Subpart.B Class B.AV



Results of Conducted Emission

DTNC

Date 2020-09-01

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 23'C 44 % R.H.

Test Condition Wireless Charging(DS)

LIMIT : FCC Part15 Subpart.B Class B.QP
 FCC Part15 Subpart.B Class 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	0.35618	18.16	16.38	10.10	28.26	26.48	58.82	48.82	30.56	22.34	N
2	0.39984	16.46	14.12	10.11	26.57	24.23	57.86	47.86	31.29	23.63	N
3	3.70408	26.28	25.80	10.18	36.46	35.98	56.00	46.00	19.54	10.02	N
4	0.35618	20.32	18.73	10.10	30.42	28.83	58.82	48.82	28.40	19.99	L
5	0.40017	22.43	20.85	10.11	32.54	30.96	57.85	47.85	25.31	16.89	L
6	3.70151	25.75	25.08	10.18	35.93	35.26	56.00	46.00	20.07	10.74	L

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, 2, 3, 4, 5	
	EUT Operation mode		1, 2, 3, 4, 5	
Radiated Disturbance below 1 000 MHz				
Frequency range (MHz)	Quasi-peak limit dBμV/m			
	Class A		Class B	
	3 m distance	10 m distance	3 m distance	
30 to 88	49.1	39.1	40	
88 to 216	53.5	43.5	43.5	
216 to 960	56.4	46.4	46	
960 to 1 000	59.5	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)			6.88 dB, (30 ~ 1 000) MHz 6.52 dB, (1 GHz Above)	
The measurement uncertainties were calculated in accordance with requirements of ANSI C 63.4-2014.				

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	ESU40	ROHDE&SCHWARZ	100525	2019.12.20	2020.12.20
TRILOG BROADBAND TEST-ANTENNA WITH 6DB ATT	VULB9160	SCHWARZBECK	9160-3339	2018.10.22	2020.10.22
	8491B	HP	18403	2018.10.22	2020.10.22
LOW NOISE PRE AMPLIFIER	MLA-100K01-B01-26	TSJ	1252741	2020.02.13	2021.02.13
HORN ANTENNA	3117	ETS-LINDGREN	00152093	2020.03.26	2021.03.26
PRE AMPLIFIER	8449B	H.P	3008A00887	2020.08.31	2021.08.31
HORN ANTENNA WITH PREAMPLIFIER	EM-6969	ELECTRO-METRICS	156	2019.02.13	2021.02.13
	MLA-0618-B03-34	TSJ	1785642	2019.12.31	2020.12.31
HORN ANTENNA WITH PREAMPLIFIER	JS44-18004000-35-8P	L3 NARDA-MITEQ	2046884	2019.12.12	2020.12.12
	3116C	ETS-LINDGREN	00213177	2019.11.04	2020.11.04

(NOTE : THE MEASUREMENT ANTENNAS WERE CALIBRATED IN ACCORDANCE TO THE REQUIREMENTS OF C63.5-2017.)

Calculation

Result(dBuV/m) : Reading Value(dBuV) + Cable loss(dB) - Pre amplifier gain(dB) + Ant. Factor(dB)
Margin : Limit(dBuV/m) - Result(dBuV/m)

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

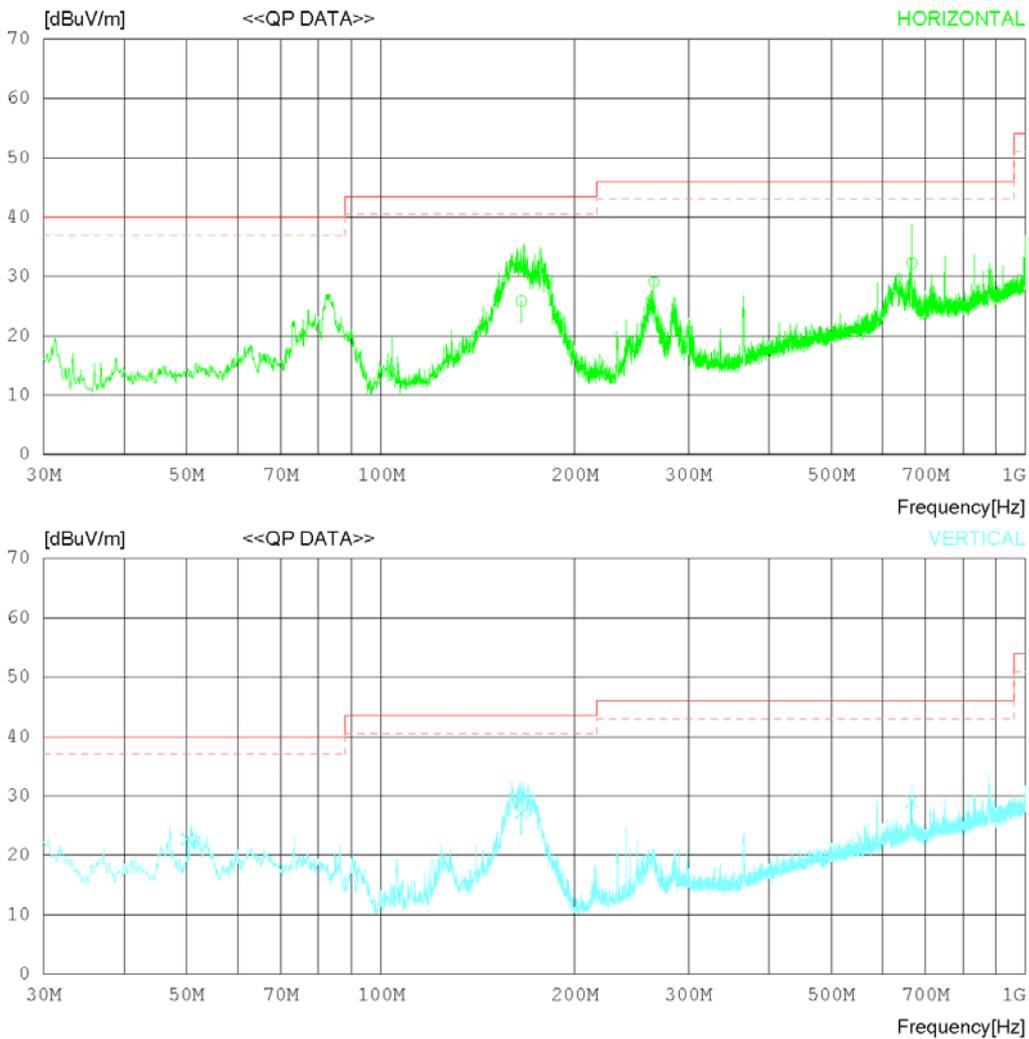
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 % R.H.
 Test Condition PC LINK

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No.	DTNC2007-06231
Power Supply	120 V 60 Hz
Temp/Humi	21 °C 40 % 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	165.191	32.75	18.48	1.35	26.72	25.86	43.50	17.64	231	263
2	265.340	35.20	18.42	2.06	26.58	29.10	46.00	16.90	112	122
3	666.705	28.22	27.37	2.85	26.22	32.22	46.00	13.78	154	358
----- Vertical -----										
4	50.128	30.25	18.30	0.73	26.62	22.66	40.00	17.34	123	78
5	165.191	34.11	18.48	1.35	26.72	27.22	43.50	16.28	330	112
6	666.705	25.11	27.37	2.85	26.22	29.11	46.00	16.89	245	19

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

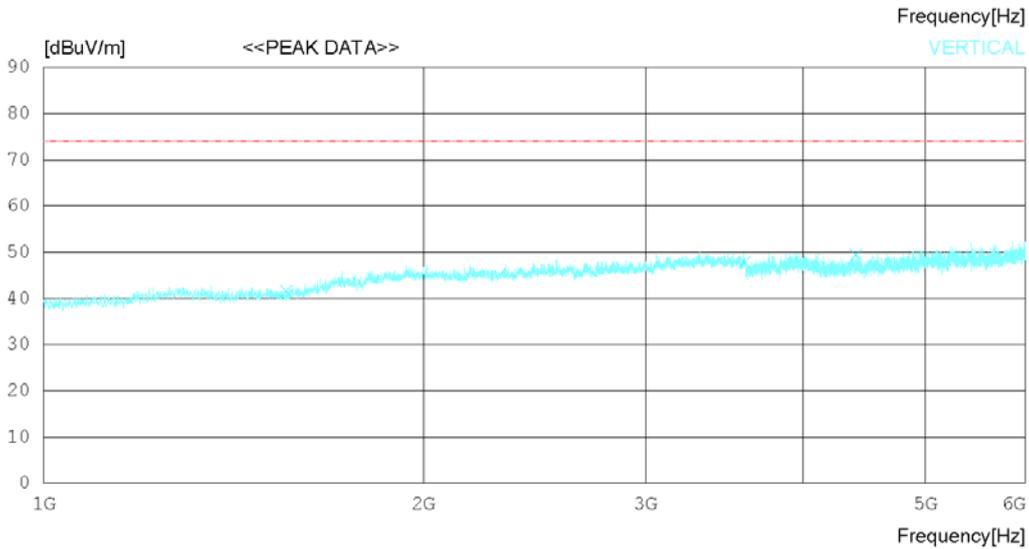
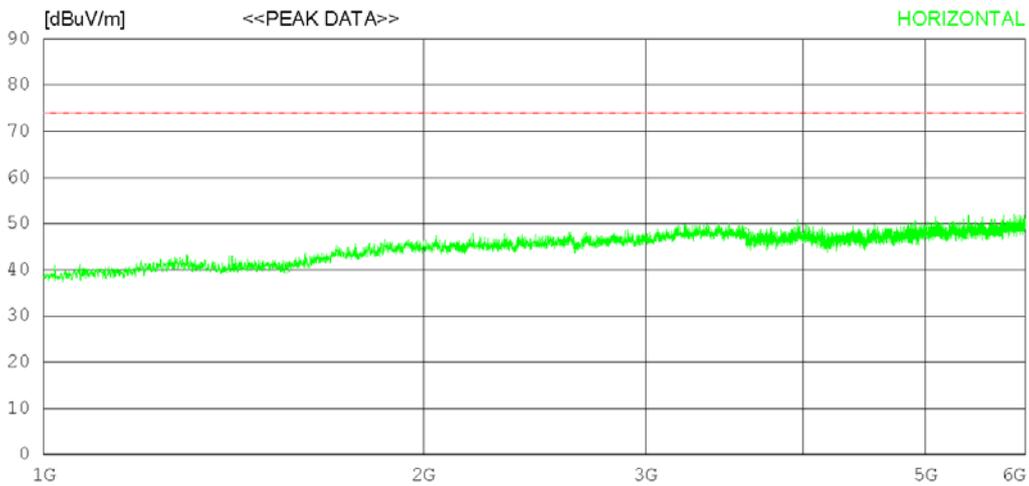
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 %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(Peak)



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 %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(Peak)

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	1556.875	41.8	27.61	6.72	35.59	0	40.54	74	33.46	Hori	206	358
2	3593.125	41.2	33.4	8.25	34.9	0	47.95	74	26.05	Hori	112	343
3	4405.625	38.9	33.6	9.33	34.86	0	46.97	74	27.03	Hori	113	74
4	1556.875	42.8	27.61	6.72	35.59	0	41.54	74	32.46	Vert	243	217
5	3593.125	41	33.4	8.25	34.9	0	47.75	74	26.25	Vert	334	222
6	4405.625	41.4	33.6	9.33	34.86	0	49.47	74	24.53	Vert	352	33

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

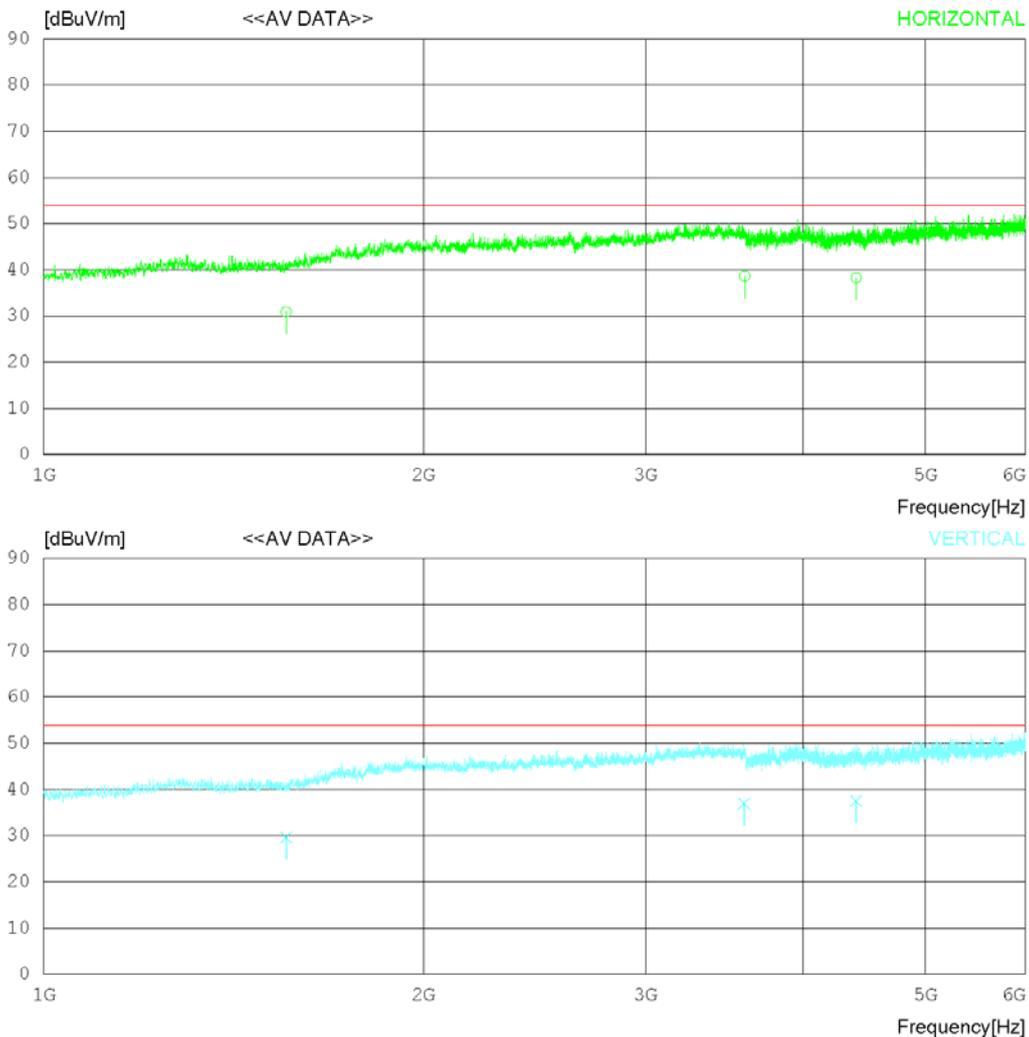
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 %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(Average)



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 %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(Average)

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	1556.421	32.15	27.61	6.72	35.59	0	30.89	54	23.11	Hori	325	358
2	1556.244	30.9	27.61	6.72	35.59	0	29.64	54	24.36	Vert	322	217
3	3593.657	31.87	33.4	8.25	34.9	0	38.62	54	15.38	Hori	124	343
4	3593.116	30.2	33.4	8.25	34.9	0	36.95	54	17.05	Vert	113	222
5	4405.157	30.22	33.6	9.33	34.86	0	38.29	54	15.71	Hori	344	74
6	4405.105	29.4	33.6	9.33	34.86	0	37.47	54	16.53	Vert	244	33

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

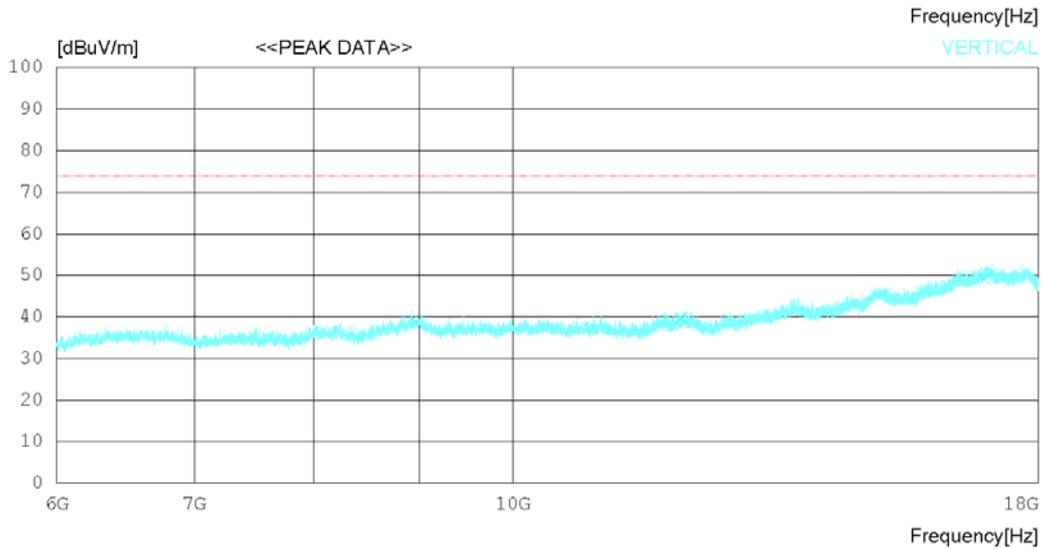
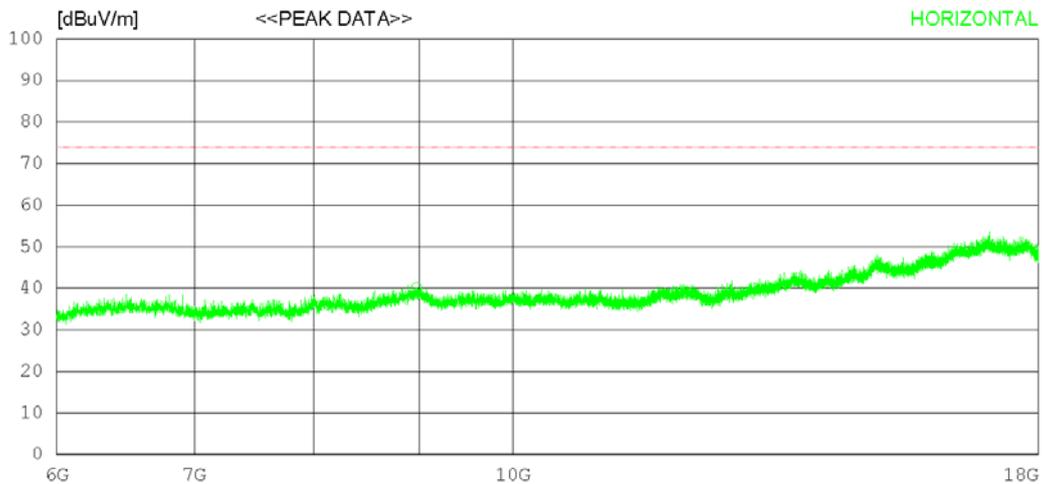
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 % 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(Peak)



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 % 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(Peak)

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	8974.5	30.1	32.08	15.45	37.48	0	40.15	74	33.85	Hori	122	2
2	12070.5	28	33.47	15.08	37.8	0	38.75	74	35.25	Hori	223	338
3	16948.5	26.1	37.49	23.37	36.37	0	50.59	74	23.41	Hori	322	358
4	8974.5	28.7	32.08	15.45	37.48	0	38.75	74	35.25	Vert	302	1
5	12070.5	29	33.47	15.08	37.8	0	39.75	74	34.25	Vert	123	1
6	16948.5	24.6	37.49	23.37	36.37	0	49.09	74	24.91	Vert	277	17

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

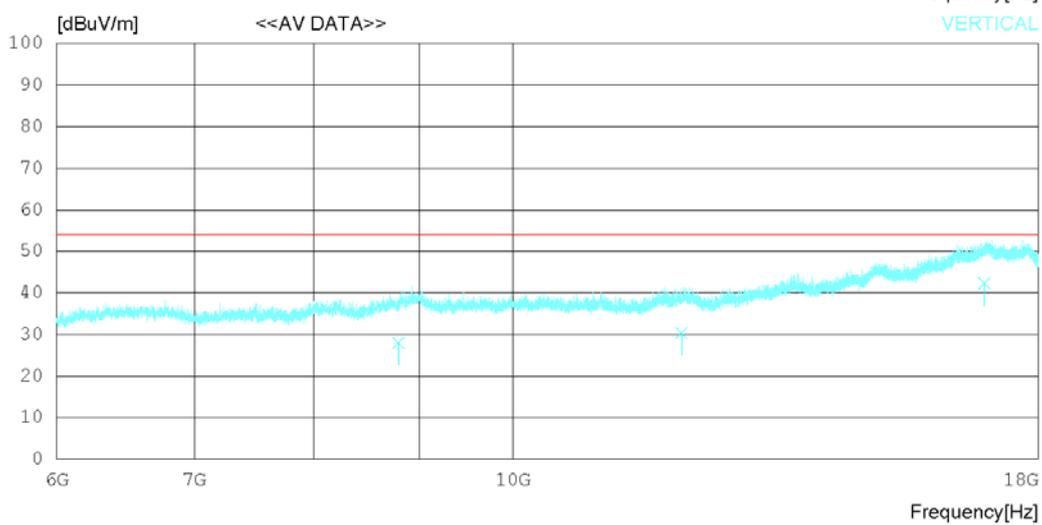
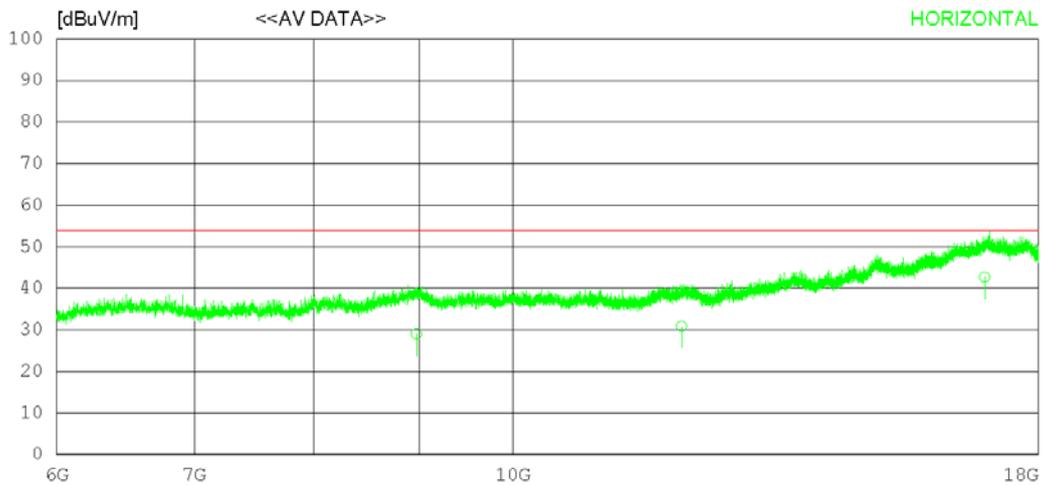
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 % 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(Average)



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 % 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(Average)

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	8974.421	18.95	32.08	15.45	37.48	0	29	54	25	Hori	322	77
2	8794.769	18.62	31.94	14.82	37.38	0	28	54	26	Vert	322	78
3	12071.25	20.12	33.47	15.08	37.8	0	30.87	54	23.13	Hori	122	45
4	12071.92	19.6	33.47	15.08	37.8	0	30.35	54	23.65	Vert	124	110
5	16947.56	18.24	37.49	23.36	36.37	0	42.72	54	11.28	Hori	112	232
6	16943.54	17.9	37.49	23.33	36.37	0	42.35	54	11.65	Vert	212	332

Radiated disturbance at (18 ~ 40) GHz _Peak measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	120	Test Frequency (Hz)	60

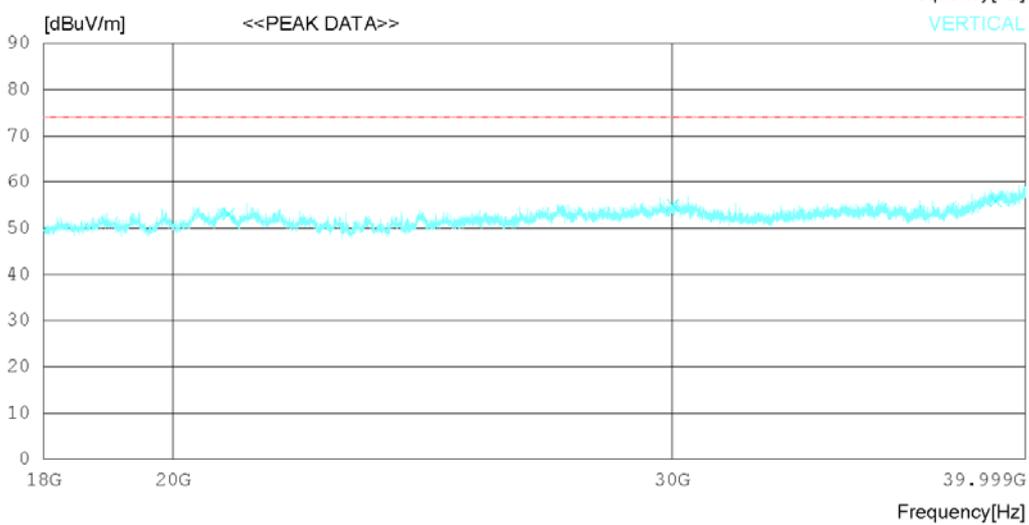
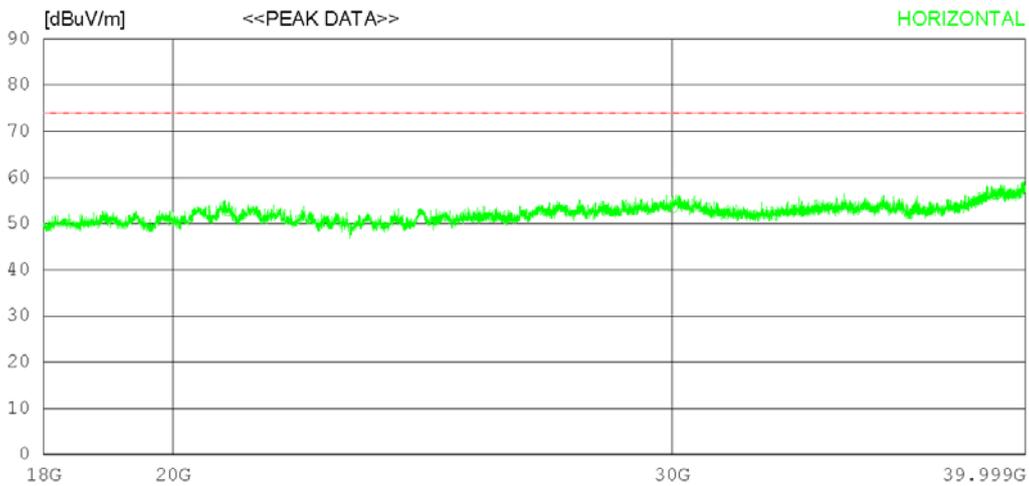
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 %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(Peak)



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 %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(Peak)

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	20923.25	39.9	45.6	20.7	53.42	0	52.78	74	21.22	Hori	123	1
2	30023	35.8	47.5	22.33	52.2	0	53.43	74	20.57	Hori	235	1
3	39051.25	34.9	47.65	26.02	52.25	0	56.32	74	17.68	Hori	122	110
4	20923.25	40.2	45.6	20.7	53.42	0	53.08	74	20.92	Vert	335	358
5	30023	37.4	47.5	22.33	52.2	0	55.03	74	18.97	Vert	223	78
6	39051.25	34.5	47.65	26.02	52.25	0	55.92	74	18.08	Vert	322	322

Radiated disturbance at (18 ~ 40) GHz _Average measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	120	Test Frequency (Hz)	60

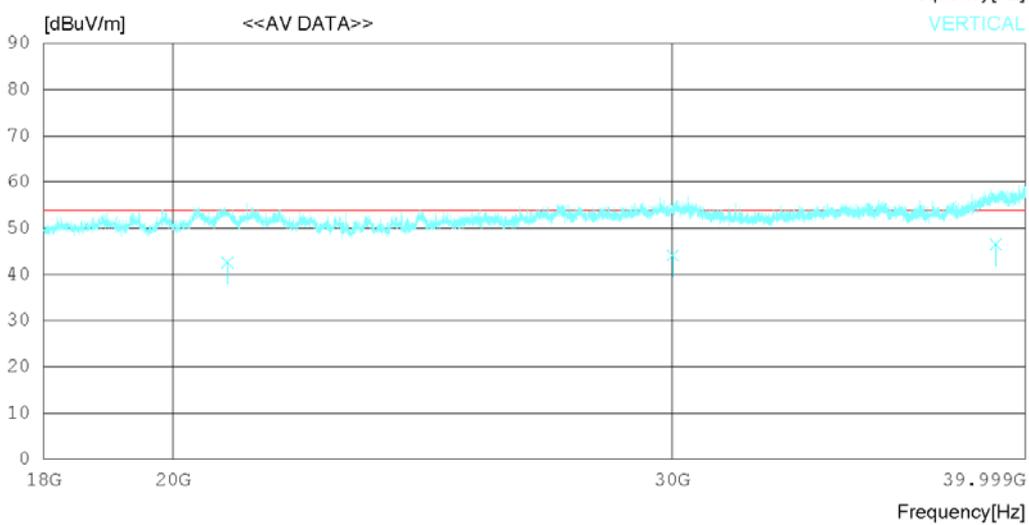
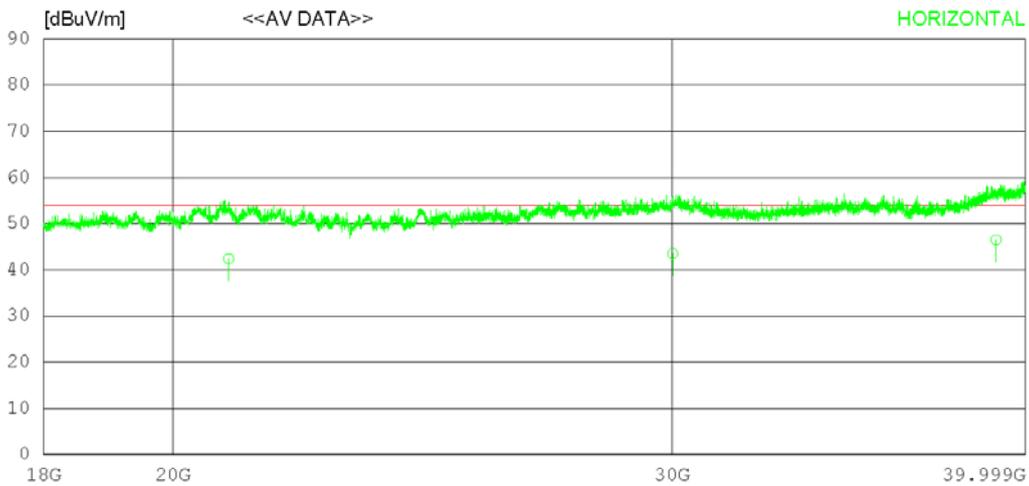
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 %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(Average)



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 %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(Average)

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	20923.21	29.52	45.6	20.7	53.42	0	42.4	54	11.6	Hori	231	78
2	20900.38	29.7	45.6	20.67	53.41	0	42.56	54	11.44	Vert	123	123
3	30022.98	25.87	47.5	22.33	52.2	0	43.5	54	10.5	Hori	112	308
4	30022.98	26.5	47.5	22.33	52.2	0	44.13	54	9.87	Vert	232	110
5	39051.41	25.07	47.65	26.02	52.25	0	46.49	54	7.51	Hori	203	144
6	39050.04	25.1	47.65	26.02	52.25	0	46.52	54	7.48	Vert	244	322

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

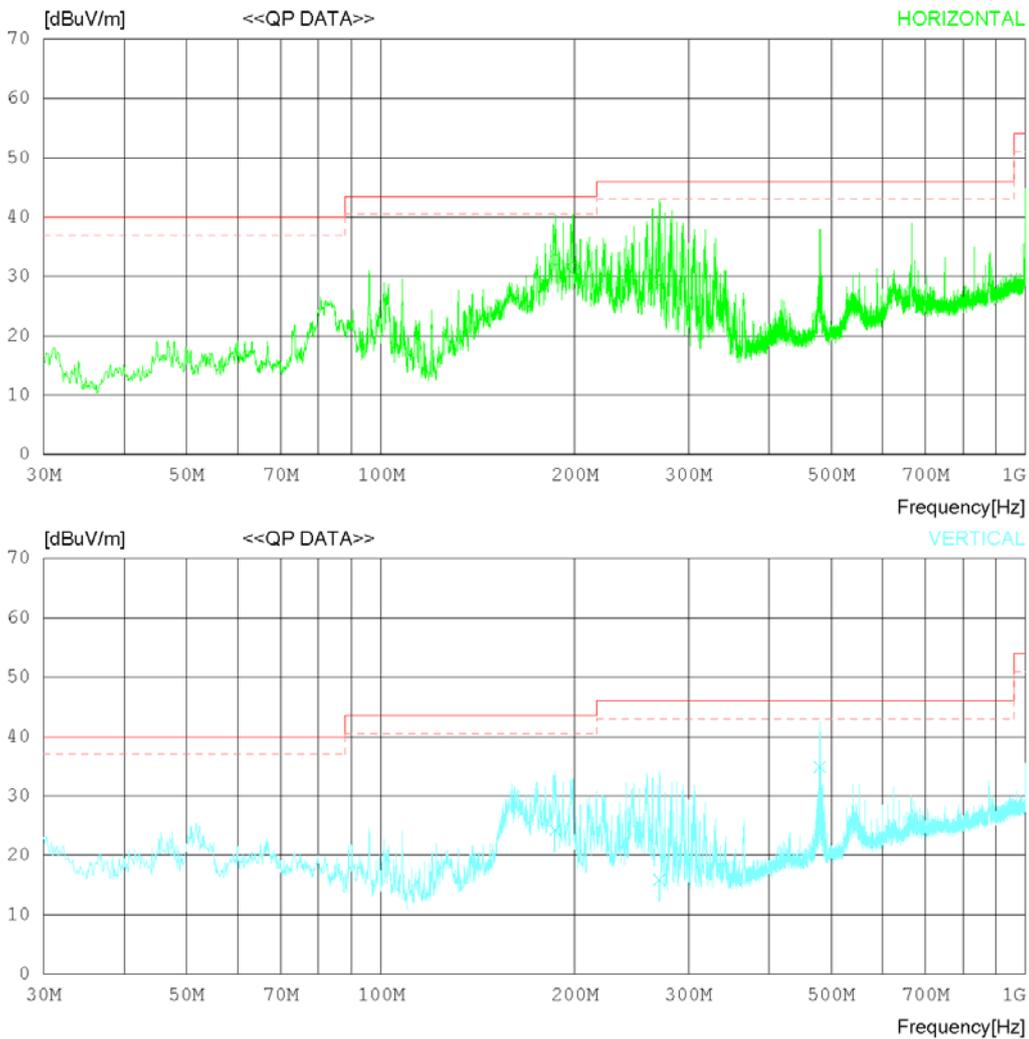
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 % R.H.
 Test Condition PC LINK(DS)

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No.	DTNC2007-06231
Power Supply	120 V 60 Hz
Temp/Humi	21 °C 40 % R.H.
Test Condition	PC LINK(DS)

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	186.651	41.25	16.73	1.48	26.67	32.79	43.50	10.71	113	254
2	198.776	40.62	16.07	1.46	26.64	31.51	43.50	11.99	305	47
3	270.796	35.12	18.74	2.13	26.58	29.41	46.00	16.59	246	1
----- Vertical -----										
4	186.288	32.70	16.75	1.47	26.67	24.25	43.50	19.25	123	193
5	270.343	21.60	18.72	2.13	26.58	15.87	46.00	30.13	112	177
6	479.946	35.10	23.40	2.71	26.32	34.89	46.00	11.11	213	358

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

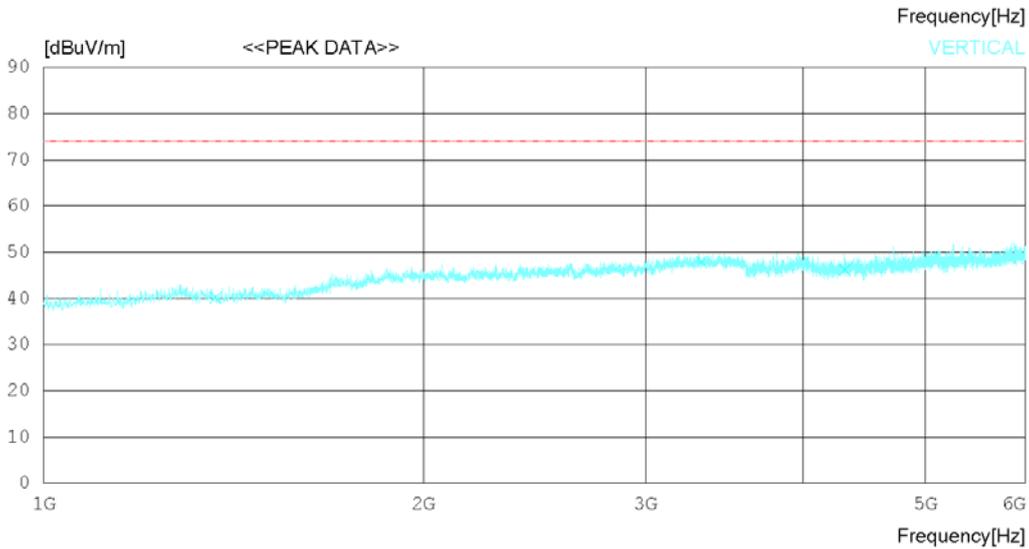
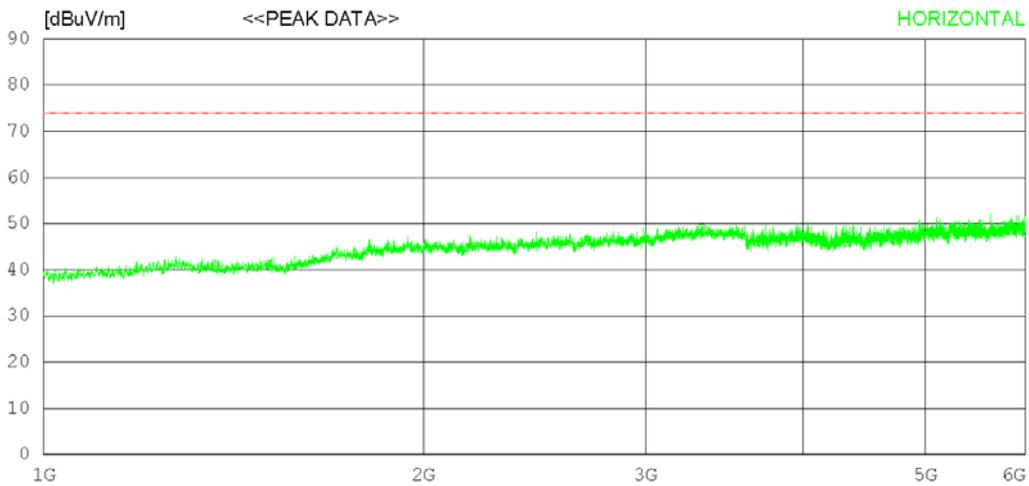
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 %R.H.
 Test Condition PC LINK(DS)

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 %R.H.
Test Condition PC LINK(DS)

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	1368.75	42.9	28.45	5.4	35.79	0	40.96	74	33.04	Hori	231	229
2	3323.125	42	33.29	8.55	35.04	0	48.8	74	25.2	Hori	325	1
3	4317.5	38.2	33.6	9.21	34.83	0	46.18	74	27.82	Hori	224	9
4	1368.75	42.1	28.45	5.4	35.79	0	40.16	74	33.84	Vert	223	1
5	3323.125	41.1	33.29	8.55	35.04	0	47.9	74	26.1	Vert	325	358
6	4317.5	38.2	33.6	9.21	34.83	0	46.18	74	27.82	Vert	302	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

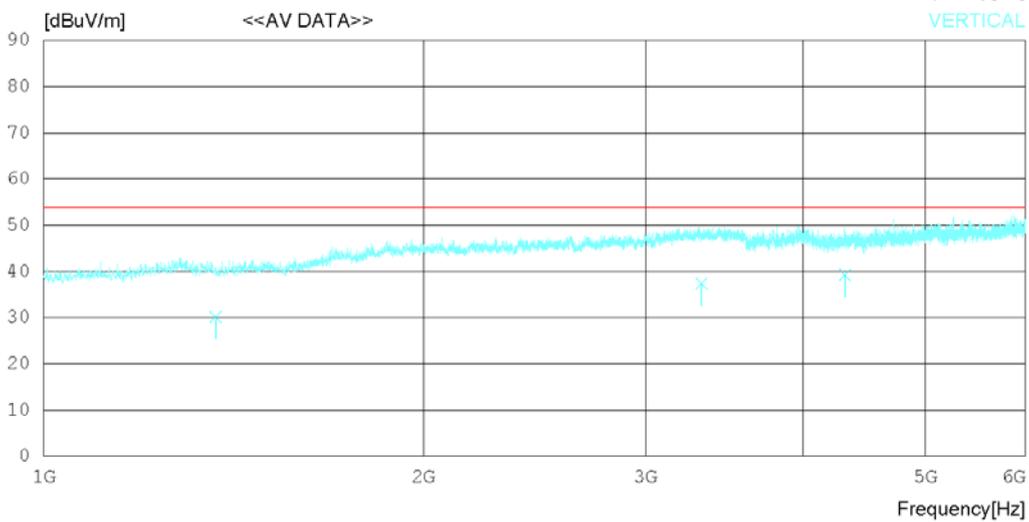
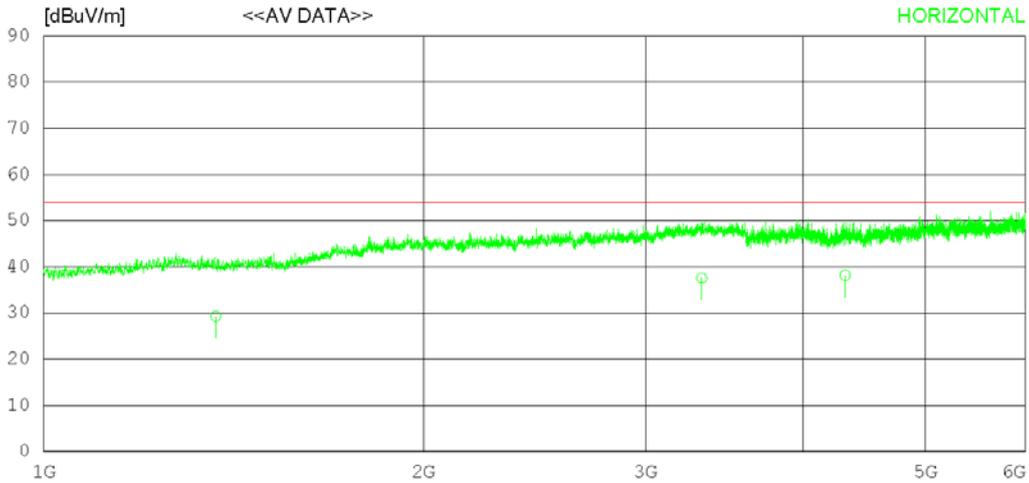
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 %R.H.
 Test Condition PC LINK(DS)

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 %R.H.
Test Condition PC LINK(DS)

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	1368.711	31.25	28.45	5.4	35.79	0	29.31	54	24.69	Hori	235	78
2	1368.421	32.12	28.45	5.4	35.79	0	30.18	54	23.82	Vert	120	78
3	3323.165	30.77	33.29	8.55	35.04	0	37.57	54	16.43	Hori	113	110
4	3323.132	30.58	33.29	8.55	35.04	0	37.38	54	16.62	Vert	223	110
5	4317.542	30.17	33.6	9.21	34.83	0	38.15	54	15.85	Hori	302	332
6	4317.566	31.25	33.6	9.21	34.83	0	39.23	54	14.77	Vert	121	305

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

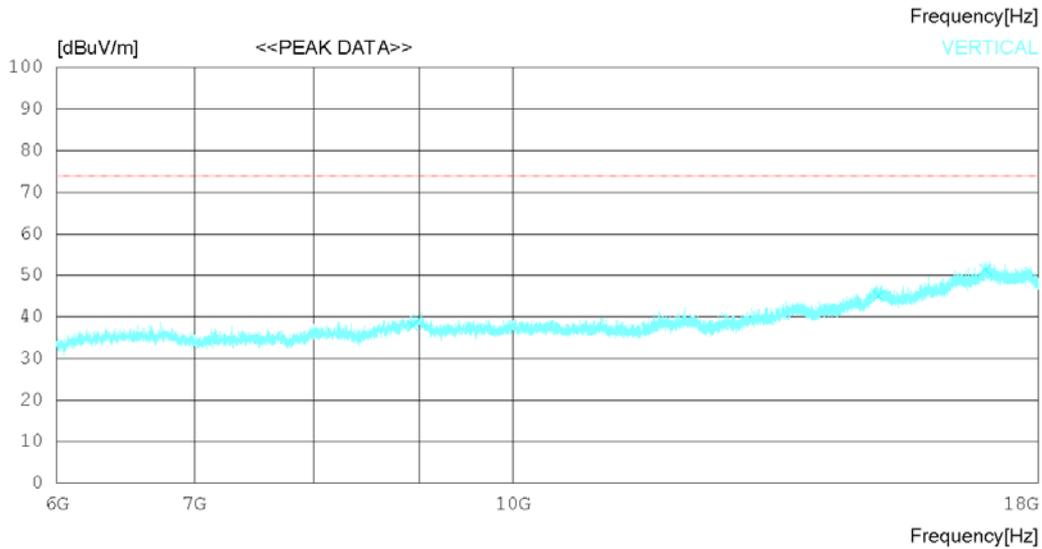
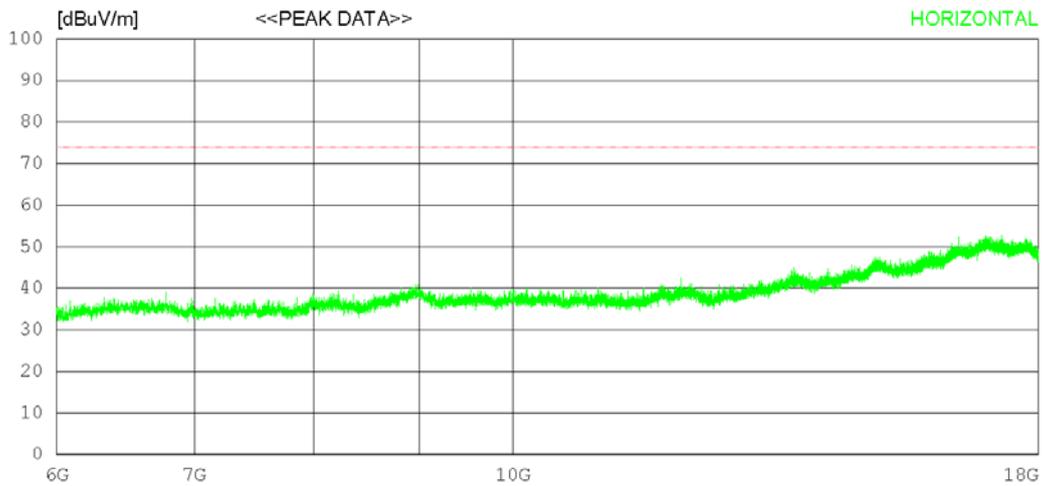
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 % R.H.
 Test Condition PC LINK(DS)

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 % R.H.
Test Condition PC LINK(DS)

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	8943.75	28.9	32.06	15.34	37.47	0	38.83	74	35.17	Hori	322	23
2	15057	26.3	35.51	20.58	36.95	0	45.44	74	28.56	Hori	131	1
3	16966.5	26	37.51	23.53	36.38	0	50.66	74	23.34	Hori	116	1
4	8943.75	28	32.06	15.34	37.47	0	37.93	74	36.07	Vert	242	1
5	15057	25.9	35.51	20.58	36.95	0	45.04	74	28.96	Vert	100	1
6	16966.5	26.7	37.51	23.53	36.38	0	51.36	74	22.64	Vert	236	269

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

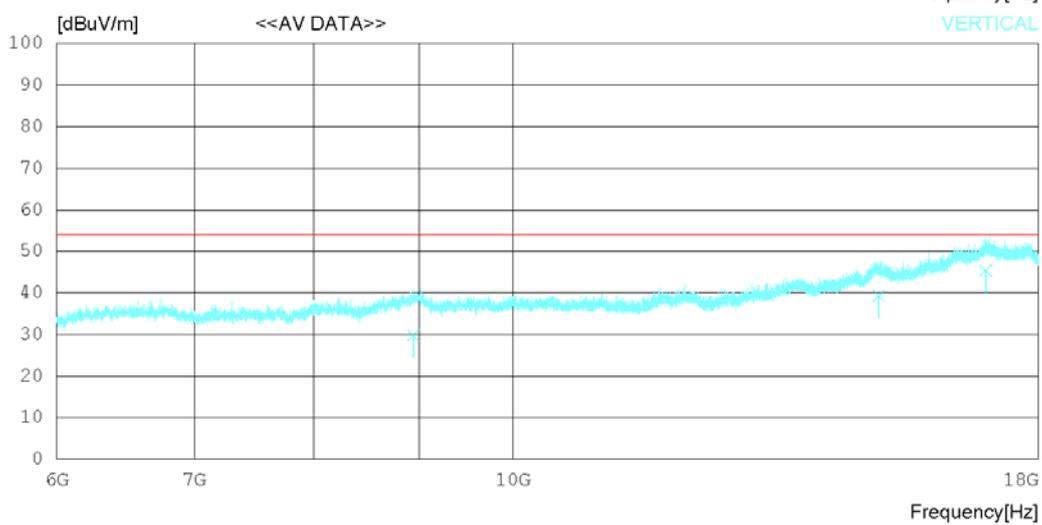
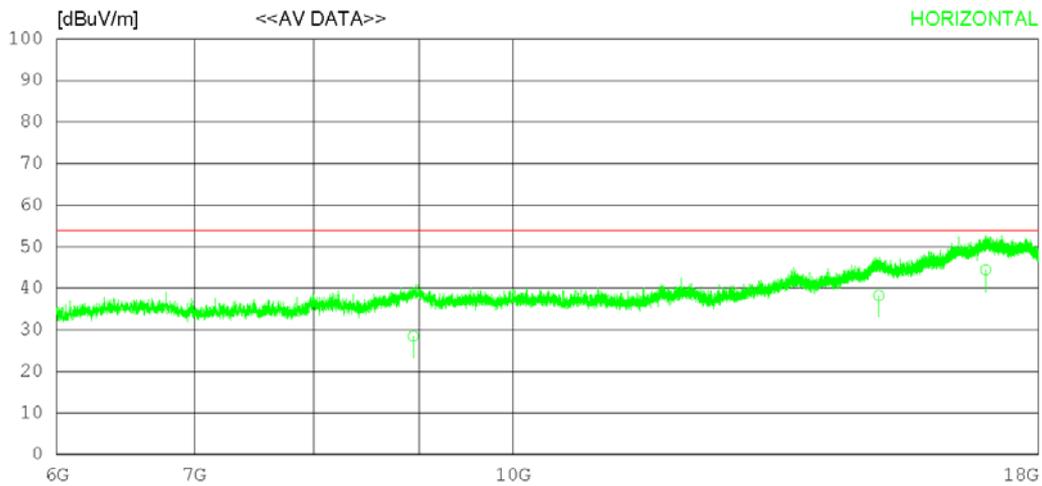
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 % R.H.
 Test Condition PC LINK(DS)

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 % R.H.
Test Condition PC LINK(DS)

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	8943.711	18.56	32.05	15.34	37.47	0	28.48	54	25.52	Hori	322	47
2	8943.441	19.85	32.05	15.34	37.47	0	29.77	54	24.23	Vert	233	354
3	15057.07	19.11	35.51	20.58	36.95	0	38.25	54	15.75	Hori	122	236
4	15057.66	20.11	35.51	20.57	36.95	0	39.24	54	14.76	Vert	113	110
5	16966.46	19.75	37.51	23.53	36.38	0	44.41	54	9.59	Hori	314	221
6	16966.54	20.7	37.51	23.53	36.38	0	45.36	54	8.64	Vert	242	223

Radiated disturbance at (18 ~ 40) GHz _Peak measurement data			
Test configuration mode	2	EUT Operation mode	2
Test voltage (V)	120	Test Frequency (Hz)	60

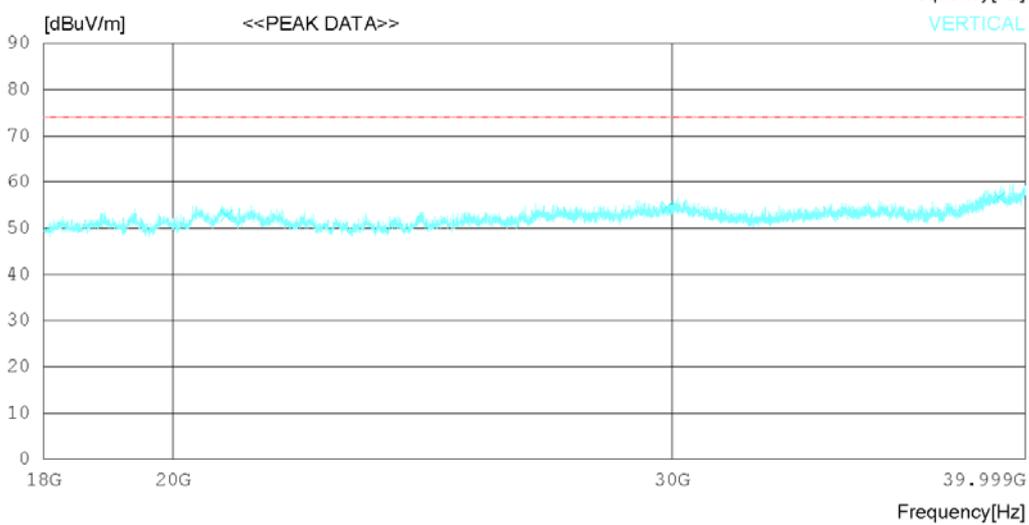
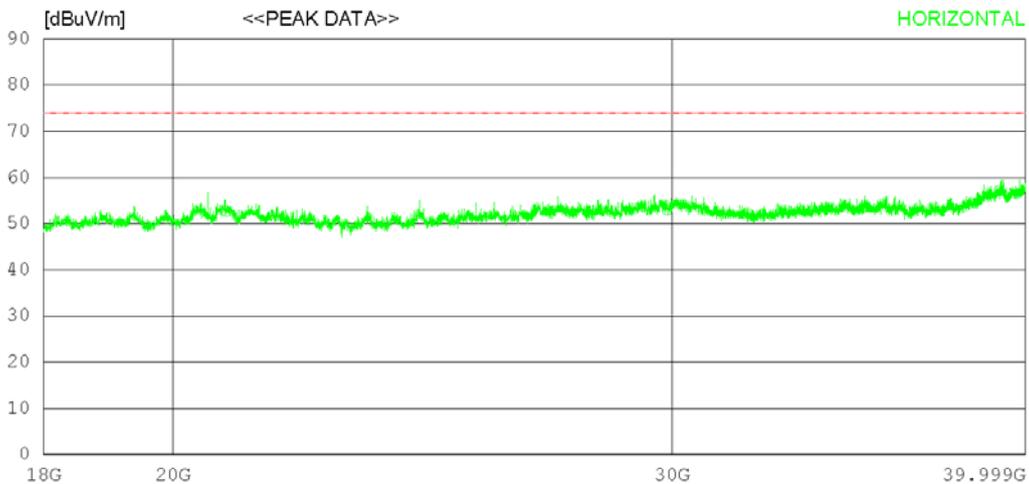
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 %R.H.
 Test Condition PC LINK(DS)

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No.	DTNC2007-06231
Power Supply	120 V 60 Hz
Temp/Humi	21 °C 40 %R.H.
Test Condition	PC LINK(DS)

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	20887.5	39.8	45.6	20.64	53.4	0	52.64	74	21.36	Hori	233	133
2	29888.25	35.4	47.51	22.34	52.24	0	53.01	74	20.99	Hori	278	320
3	39158.5	35.7	47.82	25.89	52.24	0	57.17	74	16.83	Hori	236	320
4	20887.5	39.9	45.6	20.64	53.4	0	52.74	74	21.26	Vert	124	236
5	29888.25	36.9	47.51	22.34	52.24	0	54.51	74	19.49	Vert	248	14
6	39158.5	35.2	47.82	25.89	52.24	0	56.67	74	17.33	Vert	352	2

Radiated disturbance at (18 ~ 40) GHz _Average measurement data			
Test configuration mode	2	EUT Operation mode	2
Test voltage (V)	120	Test Frequency (Hz)	60

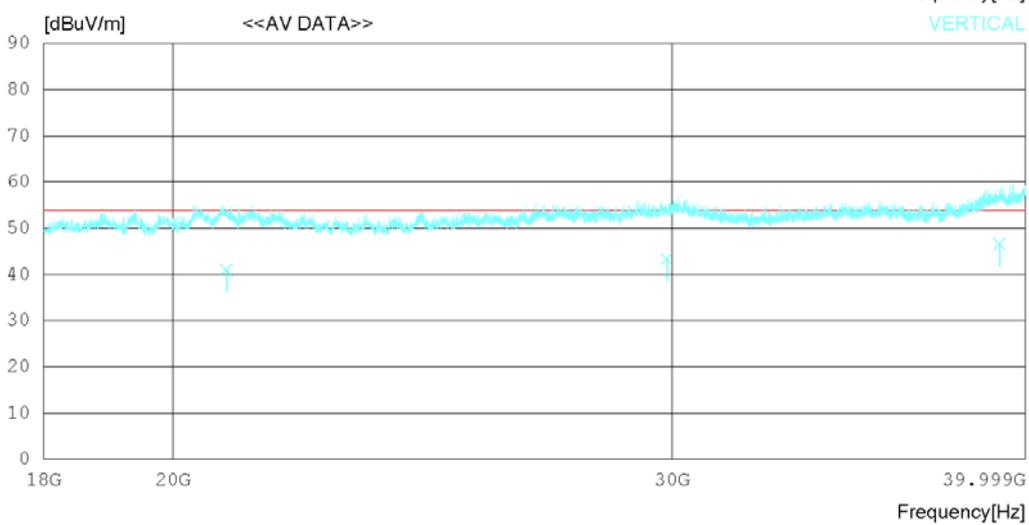
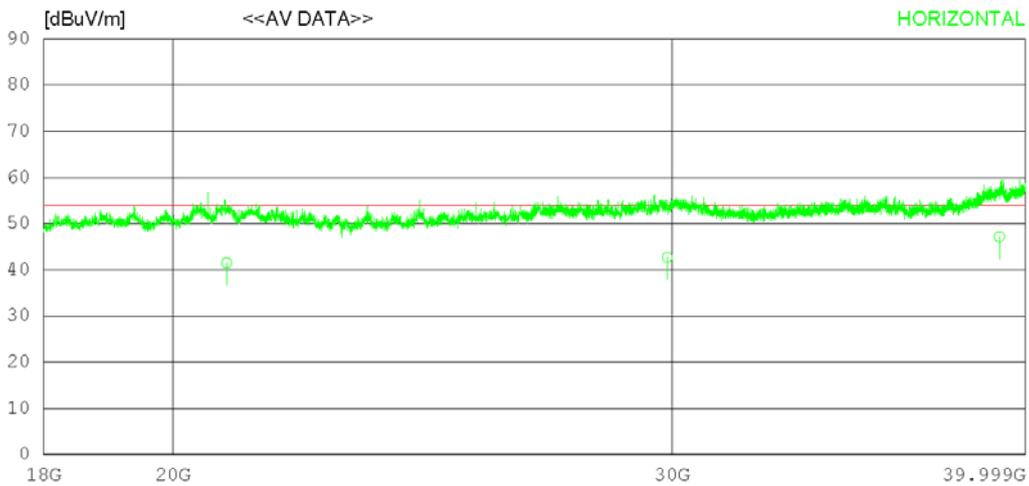
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 %R.H.
 Test Condition PC LINK(DS)

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 %R.H.
Test Condition PC LINK(DS)

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	20887.11	28.66	45.6	20.64	53.4	0	41.5	54	12.5	Hori	322	224
2	20887.14	28.11	45.6	20.64	53.4	0	40.95	54	13.05	Vert	323	78
3	29888.25	25.12	47.51	22.34	52.24	0	42.73	54	11.27	Hori	121	142
4	29888.45	25.76	47.51	22.34	52.24	0	43.37	54	10.63	Vert	112	110
5	39158.66	25.72	47.82	25.89	52.24	0	47.19	54	6.81	Hori	233	302
6	39158.57	25.11	47.82	25.89	52.24	0	46.58	54	7.42	Vert	246	305

Radiated disturbance at (30 ~ 1000) MHz _ Measurement data			
Test configuration mode	3	EUT Operation mode	3
Test voltage (V)	120	Test Frequency (Hz)	60

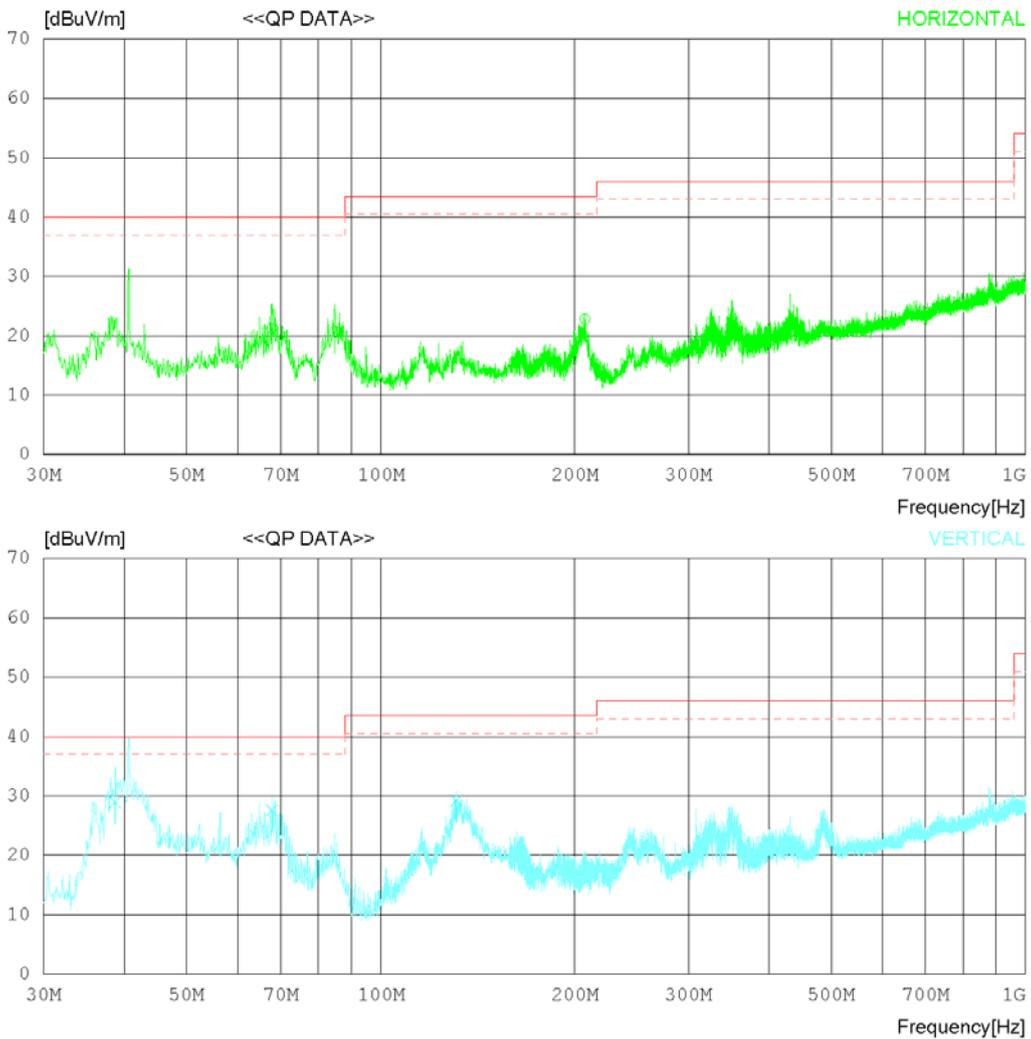
RADIATED EMISSION

Date 2020-09-01

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 23 °C 45 % R.H.
 Test Condition Wireless Charging

Memo

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



RADIATED EMISSION

Date 2020-09-01

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 23 °C 45 % R.H.
 Test Condition Wireless Charging

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	67.709	30.25	16.89	0.88	26.70	21.32	40.00	18.68	120	78
2	84.804	32.55	13.62	1.29	26.77	20.69	40.00	19.31	223	11
3	207.385	31.57	16.37	1.49	26.63	22.80	43.50	20.70	113	30
----- Vertical -----										
4	38.730	38.20	16.69	0.66	26.56	28.99	40.00	11.01	123	78
5	67.830	36.52	16.85	0.88	26.70	27.55	40.00	12.45	222	110
6	130.999	36.55	18.07	1.38	26.79	29.21	43.50	14.29	353	305

Radiated disturbance at (1 ~ 6) GHz _ Peak measurement data			
Test configuration mode	3	EUT Operation mode	3
Test voltage (V)	120	Test Frequency (Hz)	60

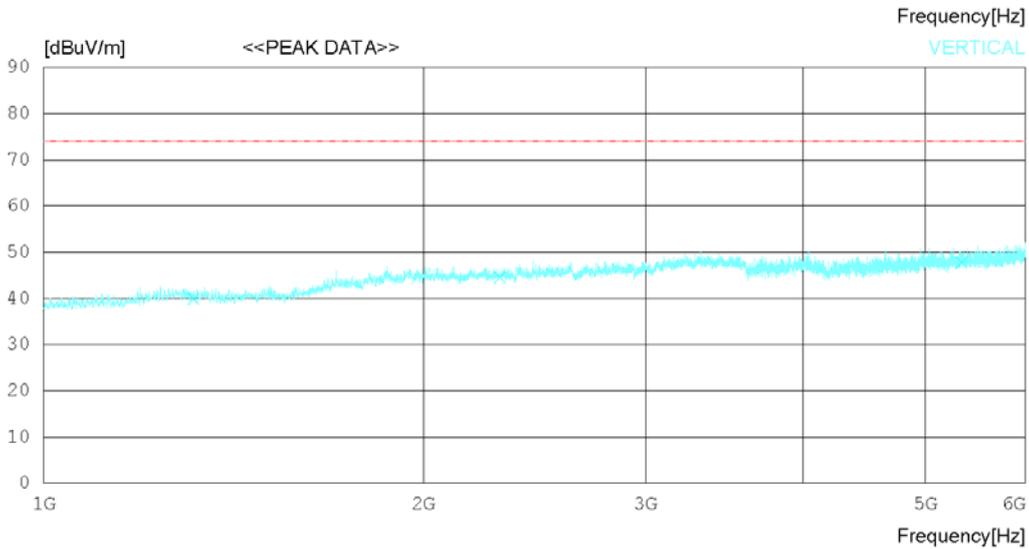
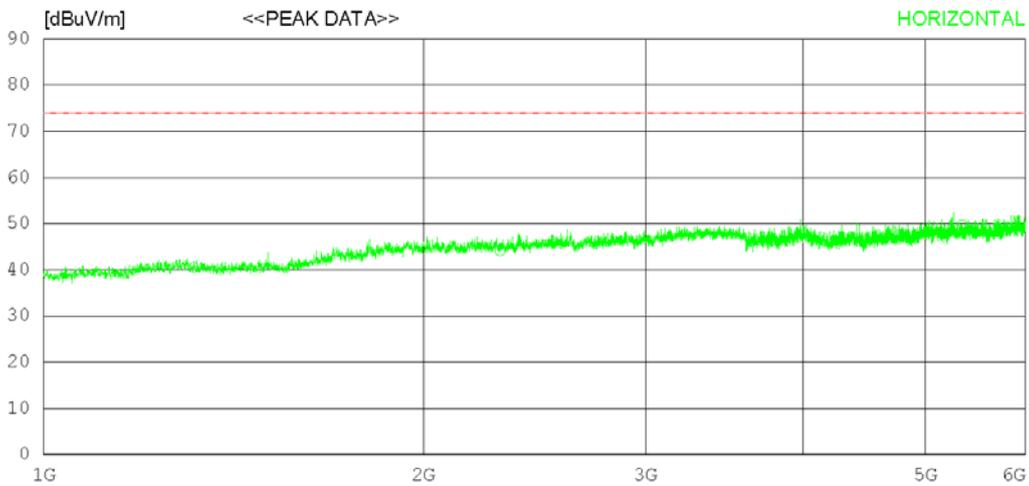
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 %R.H.
 Test Condition Wireless Charging

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No.	DTNC2007-06231
Power Supply	120 V 60 Hz
Temp/Humi	21 °C 40 %R.H.
Test Condition	Wireless Charging

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	1315	42.1	29.09	5.2	35.85	0	40.54	74	33.46	Hori	325	337
2	2300	40.6	31.7	6.97	35.13	0	44.14	74	29.86	Hori	366	2
3	5343.125	40	34.4	10.46	35.13	0	49.73	74	24.27	Hori	243	2
4	1315	41.5	29.09	5.2	35.85	0	39.94	74	34.06	Vert	387	353
5	2300	41	31.7	6.97	35.13	0	44.54	74	29.46	Vert	123	358
6	5343.125	38.1	34.4	10.46	35.13	0	47.83	74	26.17	Vert	225	358

Radiated disturbance at (1 ~ 6) GHz _Average measurement data			
Test configuration mode	3	EUT Operation mode	3
Test voltage (V)	120	Test Frequency (Hz)	60

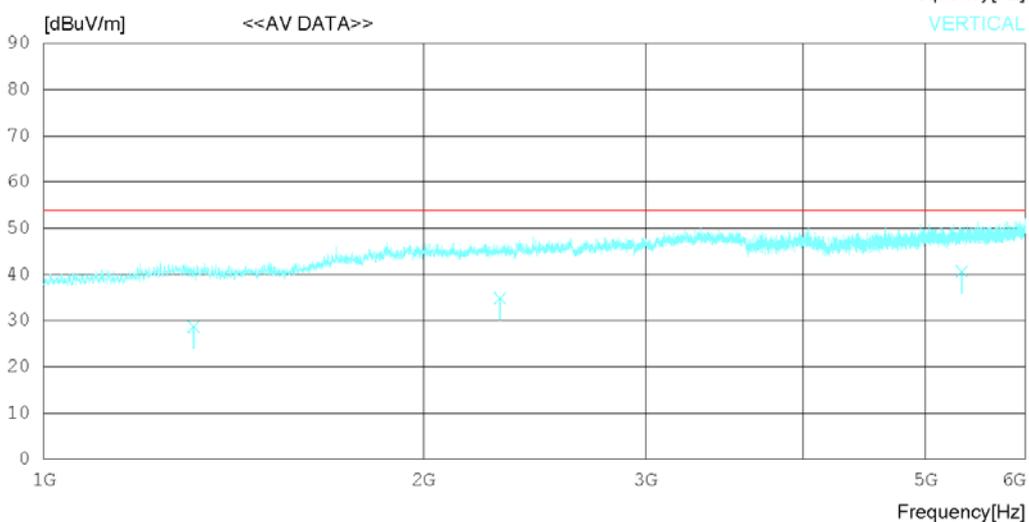
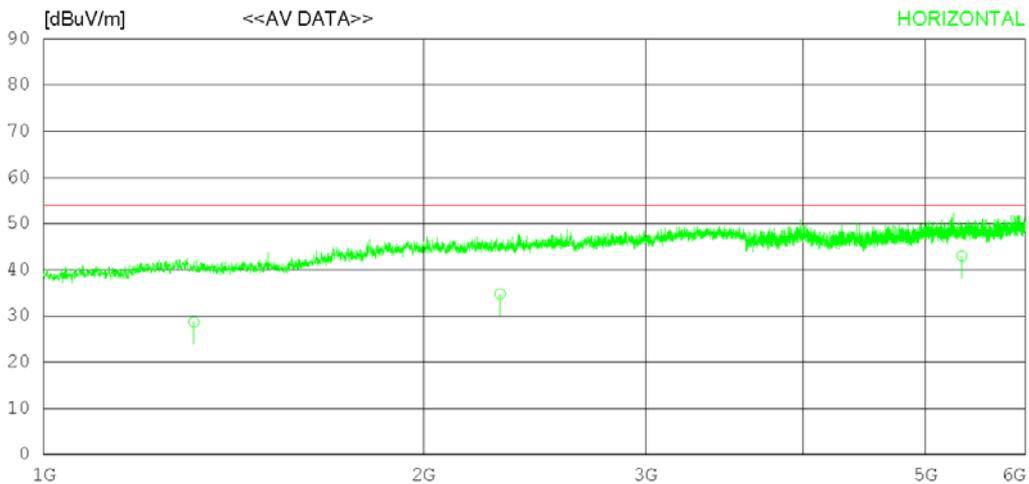
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 %R.H.
 Test Condition Wireless Charging

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 %R.H.
Test Condition Wireless Charging

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	1315.21	30.25	29.09	5.2	35.85	0	28.69	54	25.31	Hori	123	78
2	1315.241	30.25	29.09	5.2	35.85	0	28.69	54	25.31	Vert	213	236
3	2300.415	31.25	31.7	6.97	35.13	0	34.79	54	19.21	Hori	332	110
4	2300.069	31.25	31.7	6.97	35.13	0	34.79	54	19.21	Vert	308	68
5	5343.362	33.25	34.4	10.46	35.13	0	42.98	54	11.02	Hori	121	305
6	5343.171	30.87	34.4	10.46	35.13	0	40.6	54	13.4	Vert	224	67

Radiated disturbance at (6 ~ 18) GHz _Peak measurement data			
Test configuration mode	3	EUT Operation mode	3
Test voltage (V)	120	Test Frequency (Hz)	60

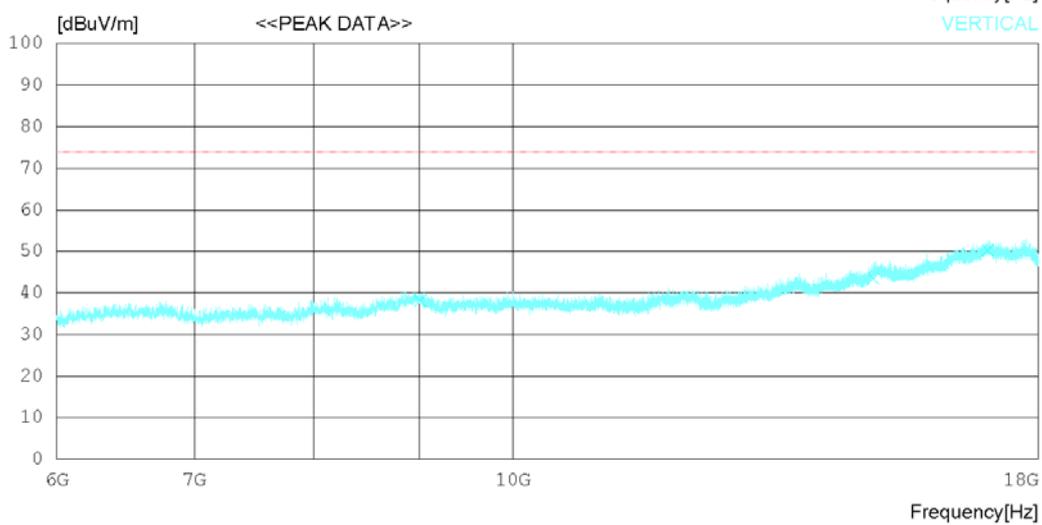
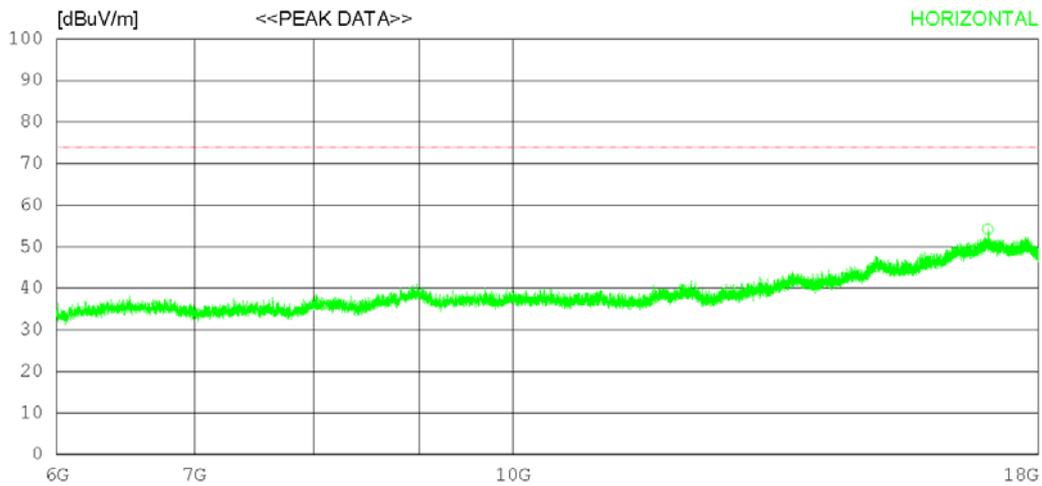
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 % R.H.
 Test Condition Wireless Charging

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No.	DTNC2007-06231
Power Supply	120 V 60 Hz
Temp/Humi	21 °C 40 % R.H.
Test Condition	Wireless Charging

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	9016.5	28.6	32.11	15.34	37.51	0	38.54	74	35.46	Hori	333	358
2	14961.75	26.2	35.39	20.4	37.05	0	44.94	74	29.06	Hori	234	1
3	17007.75	29.3	37.56	23.75	36.41	0	54.2	74	19.8	Hori	131	110
4	9016.5	28.2	32.11	15.34	37.51	0	38.14	74	35.86	Vert	305	180
5	14961.75	24.7	35.39	20.4	37.05	0	43.44	74	30.56	Vert	232	78
6	17007.75	25.4	37.56	23.75	36.41	0	50.3	74	23.7	Vert	272	305

Radiated disturbance at (6 ~ 18) GHz _ Average measurement data			
Test configuration mode	3	EUT Operation mode	3
Test voltage (V)	120	Test Frequency (Hz)	60

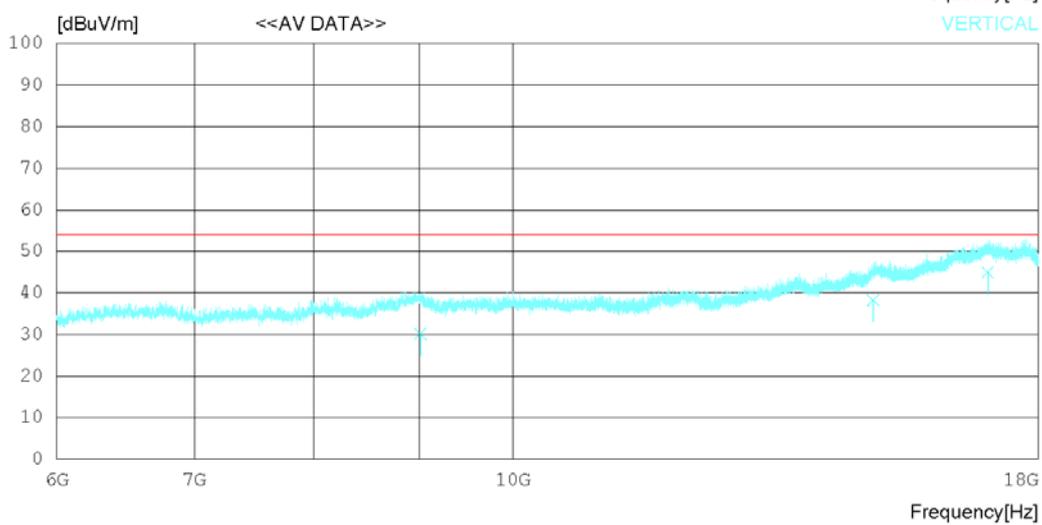
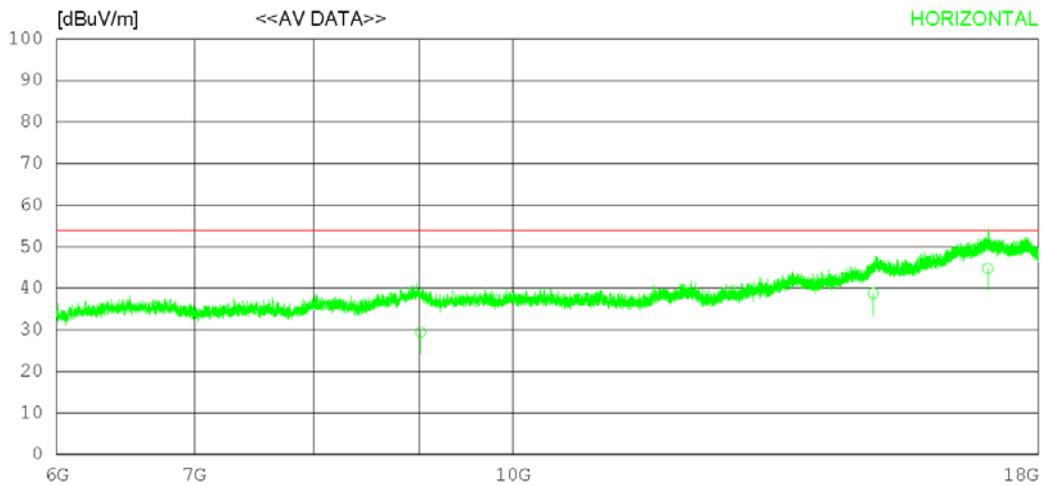
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 % R.H.
 Test Condition Wireless Charging

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 % R.H.
Test Condition Wireless Charging

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	9016.423	19.52	32.11	15.35	37.51	0	29.47	54	24.53	Hori	110	32
2	9016.542	20.21	32.11	15.34	37.51	0	30.15	54	23.85	Vert	232	78
3	14962.23	20.11	35.39	20.4	37.05	0	38.85	54	15.15	Hori	223	78
4	14961.11	19.55	35.39	20.39	37.05	0	38.28	54	15.72	Vert	112	110
5	17007.44	19.85	37.56	23.75	36.41	0	44.75	54	9.25	Hori	124	110
6	17007.77	20.11	37.56	23.75	36.41	0	45.01	54	8.99	Vert	133	231

Radiated disturbance at (18 ~ 40) GHz _Peak measurement data			
Test configuration mode	3	EUT Operation mode	3
Test voltage (V)	120	Test Frequency (Hz)	60

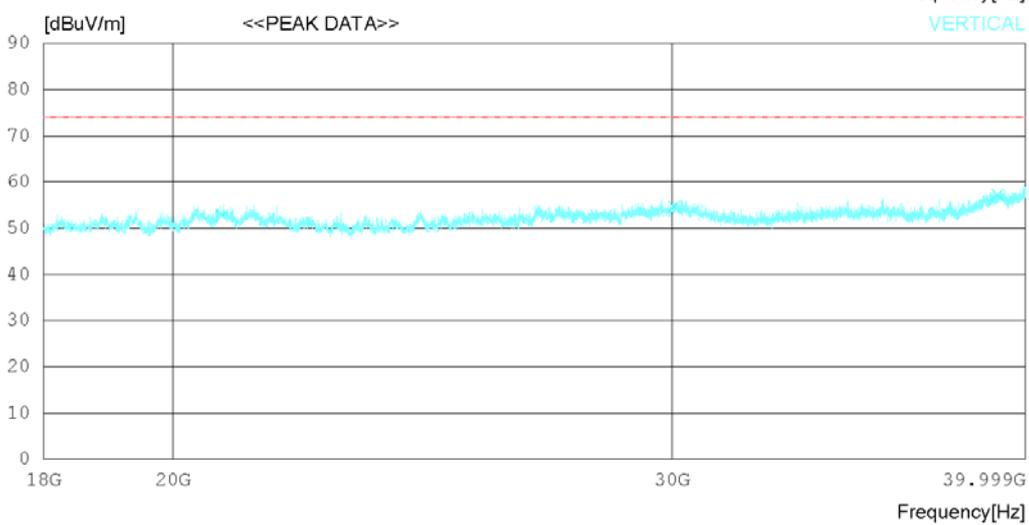
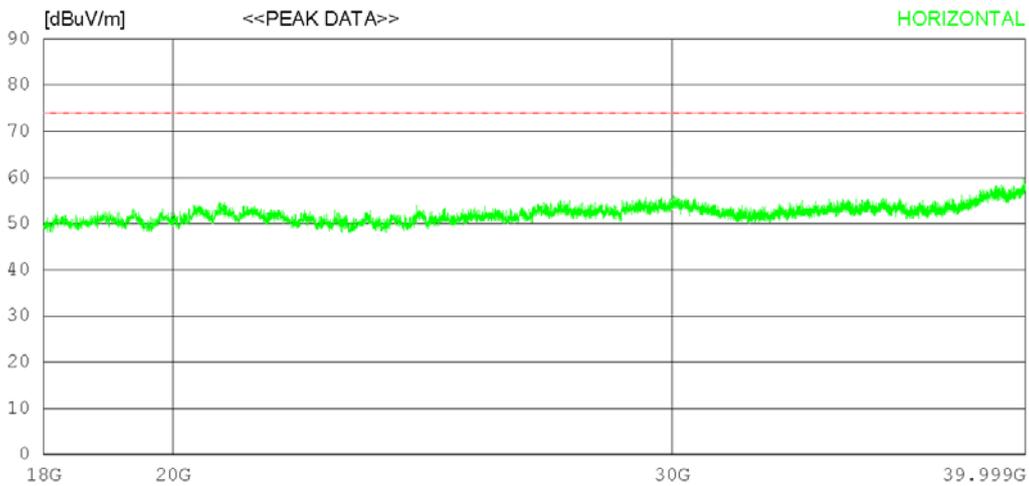
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 %R.H.
 Test Condition Wireless Charging

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 %R.H.
Test Condition Wireless Charging

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	20810.5	40.4	45.6	20.5	53.36	0	53.14	74	20.86	Hori	169	358
2	30058.75	36.9	47.5	22.33	52.2	0	54.53	74	19.47	Hori	100	358
3	39106.25	34.7	47.71	25.96	52.24	0	56.13	74	17.87	Hori	113	100
4	20810.5	40	45.6	20.5	53.36	0	52.74	74	21.26	Vert	231	2
5	30058.75	37.1	47.5	22.33	52.2	0	54.73	74	19.27	Vert	234	78
6	39106.25	35.8	47.71	25.96	52.24	0	57.23	74	16.77	Vert	223	328

Radiated disturbance at (18 ~ 40) GHz _Average measurement data			
Test configuration mode	3	EUT Operation mode	3
Test voltage (V)	120	Test Frequency (Hz)	60

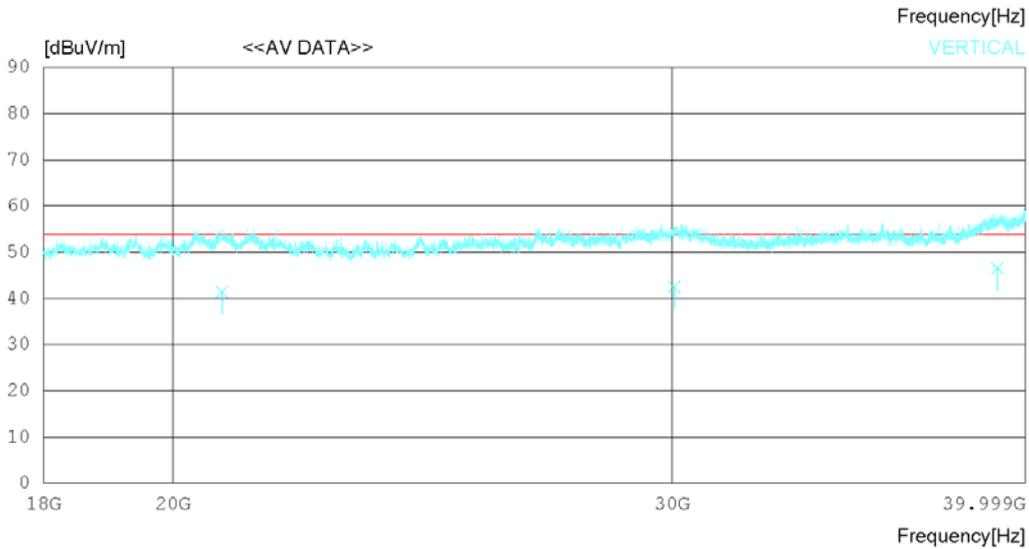
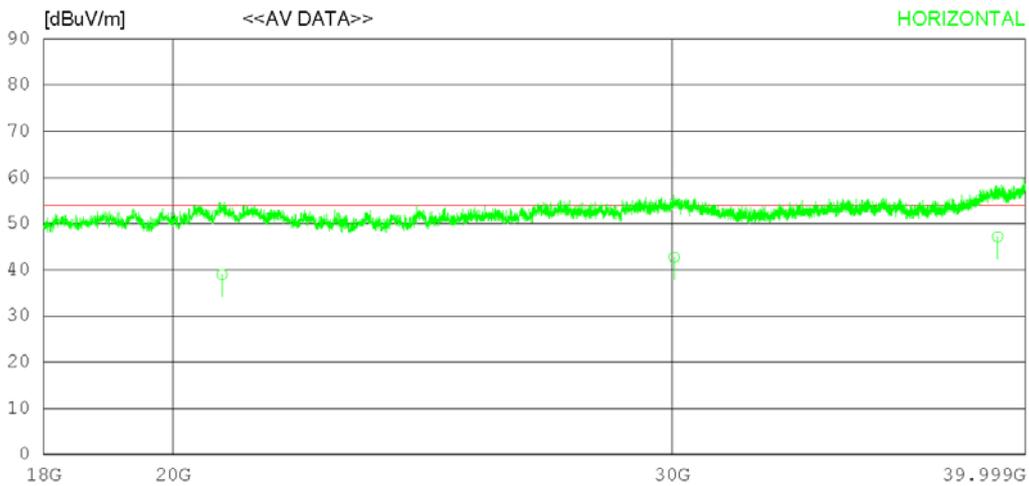
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 %R.H.
 Test Condition Wireless Charging

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No.	DTNC2007-06231
Power Supply	120 V 60 Hz
Temp/Humi	21 °C 40 %R.H.
Test Condition	Wireless Charging

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	20810.11	26.25	45.6	20.5	53.36	0	38.99	54	15.01	Hori	321	78
2	20810.42	28.63	45.6	20.5	53.36	0	41.37	54	12.63	Vert	102	78
3	30057.98	25.11	47.5	22.33	52.2	0	42.74	54	11.26	Hori	112	110
4	30058.77	24.89	47.5	22.33	52.2	0	42.52	54	11.48	Vert	223	325
5	39106.24	25.74	47.71	25.96	52.24	0	47.17	54	6.83	Hori	214	303
6	39105.88	25.11	47.71	25.96	52.24	0	46.54	54	7.46	Vert	121	32

Radiated disturbance at (30 ~ 1000) MHz _ Measurement data			
Test configuration mode	4	EUT Operation mode	4
Test voltage (V)	120	Test Frequency (Hz)	60

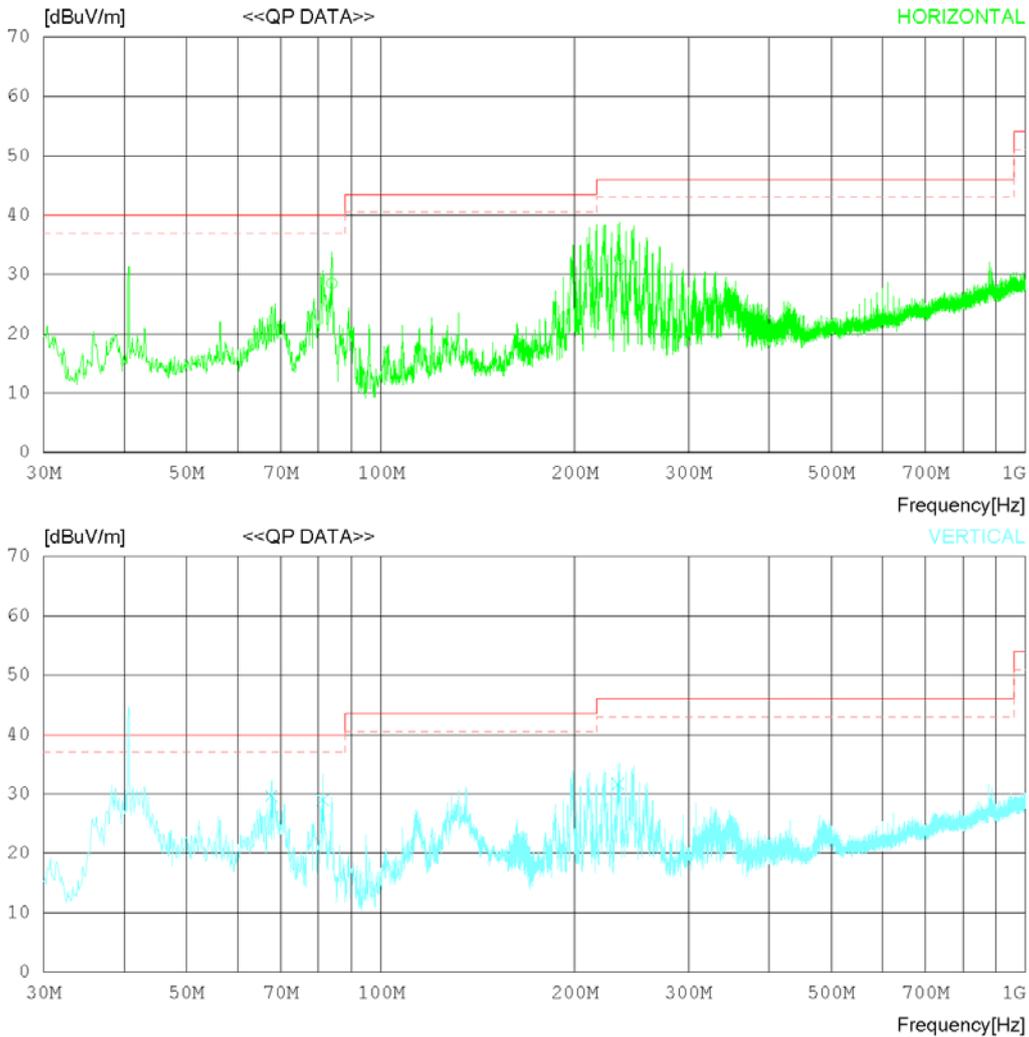
RADIATED EMISSION

Date 2020-09-01

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 23 °C 45 % R.H.
 Test Condition Wireless Charging(DS)

Memo

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



RADIATED EMISSION

Date 2020-09-01

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 23 °C 45 % R.H.
 Test Condition Wireless Charging(DS)

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	83.956	40.25	13.71	1.32	26.77	28.51	40.00	11.49	120	78
2	210.658	40.34	16.53	1.51	26.63	31.75	43.50	11.75	223	339
3	234.665	39.69	17.73	1.73	26.61	32.54	46.00	13.47	133	112
----- Vertical -----										
4	67.709	38.60	16.89	0.88	26.70	29.67	40.00	10.33	123	78
5	81.288	40.21	14.14	1.40	26.76	28.99	40.00	11.01	332	106
6	233.210	38.96	17.62	1.71	26.61	31.68	46.00	14.33	255	110

Radiated disturbance at (1 ~ 6) GHz _ Peak measurement data			
Test configuration mode	4	EUT Operation mode	4
Test voltage (V)	120	Test Frequency (Hz)	60

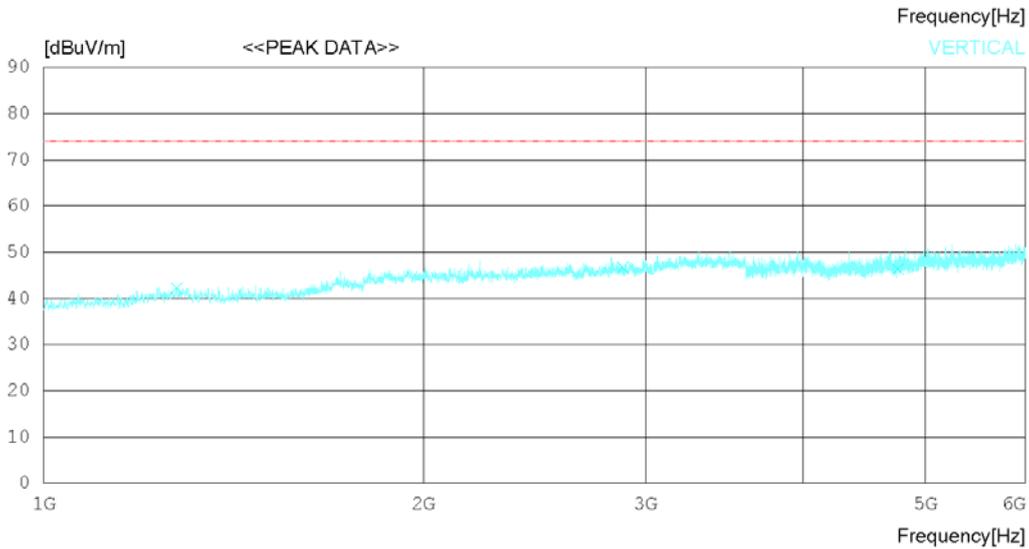
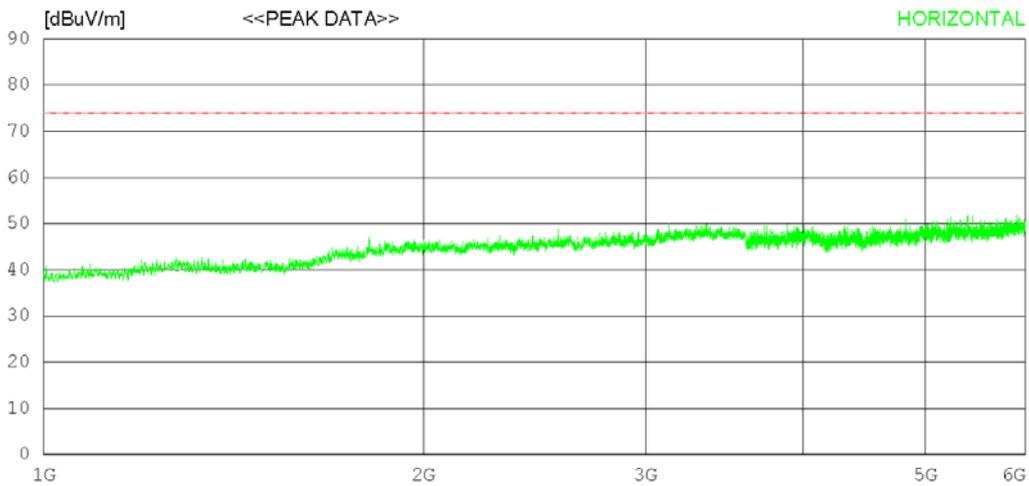
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 %R.H.
 Test Condition Wireless Charging(DS)

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 %R.H.
Test Condition Wireless Charging(DS)

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	1275	42.4	29.35	5.05	35.9	0	40.9	74	33.1	Hori	213	345
2	2878.75	41.2	32.69	7.55	35.19	0	46.25	74	27.75	Hori	322	1
3	4758.75	37.8	33.92	9.62	35	0	46.34	74	27.66	Hori	131	1
4	1275	43.7	29.35	5.05	35.9	0	42.2	74	31.8	Vert	158	358
5	2878.75	41.6	32.69	7.55	35.19	0	46.65	74	27.35	Vert	322	358
6	4758.75	37.8	33.92	9.62	35	0	46.34	74	27.66	Vert	242	136

Radiated disturbance at (1 ~ 6) GHz _Average measurement data			
Test configuration mode	4	EUT Operation mode	4
Test voltage (V)	120	Test Frequency (Hz)	60

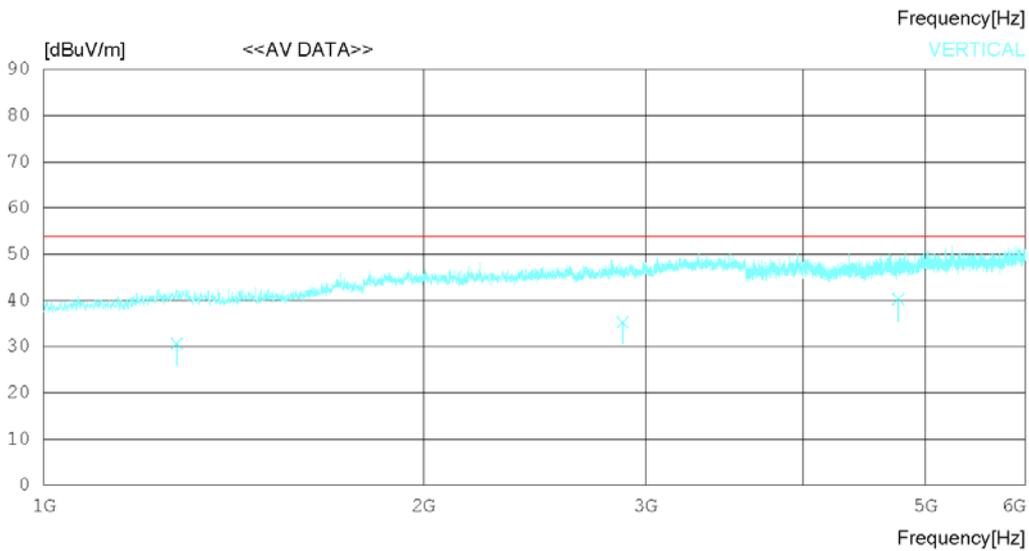
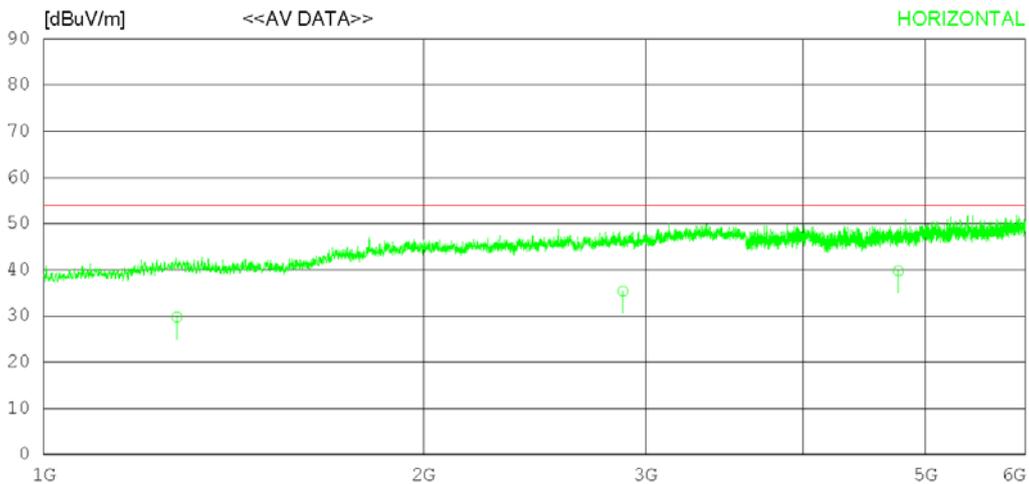
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 %R.H.
 Test Condition Wireless Charging(DS)

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 %R.H.
Test Condition Wireless Charging(DS)

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	1275.421	31.25	29.35	5.05	35.9	0	29.75	54	24.25	Hori	242	101
2	1275.421	32.15	29.35	5.05	35.9	0	30.65	54	23.35	Vert	121	78
3	2878.655	30.28	32.69	7.55	35.19	0	35.33	54	18.67	Hori	113	222
4	2878.157	30.25	32.69	7.55	35.19	0	35.3	54	18.7	Vert	242	110
5	4758.123	31.22	33.92	9.62	35	0	39.76	54	14.24	Hori	352	112
6	4758.655	31.78	33.92	9.62	35	0	40.32	54	13.68	Vert	113	30

Radiated disturbance at (6 ~ 18) GHz _Peak measurement data			
Test configuration mode	4	EUT Operation mode	4
Test voltage (V)	120	Test Frequency (Hz)	60

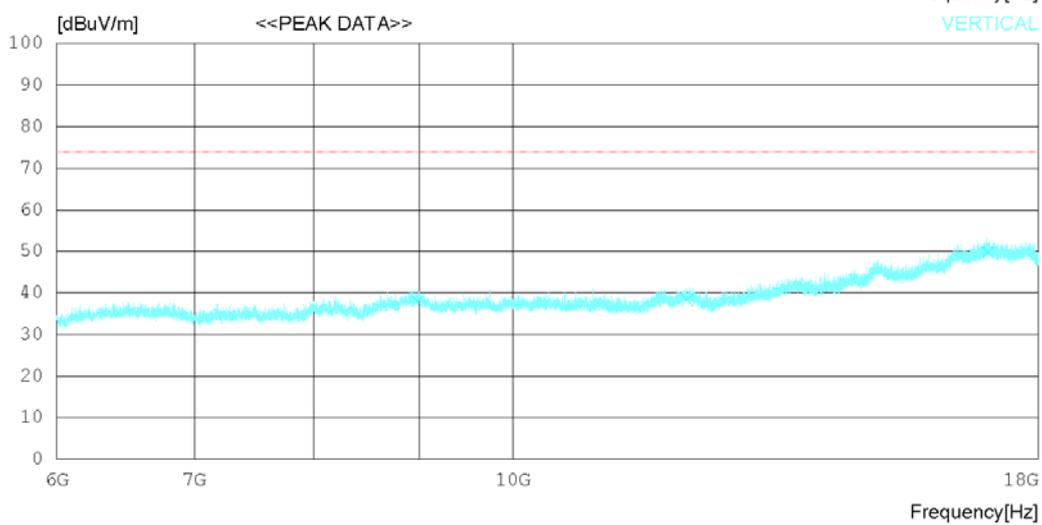
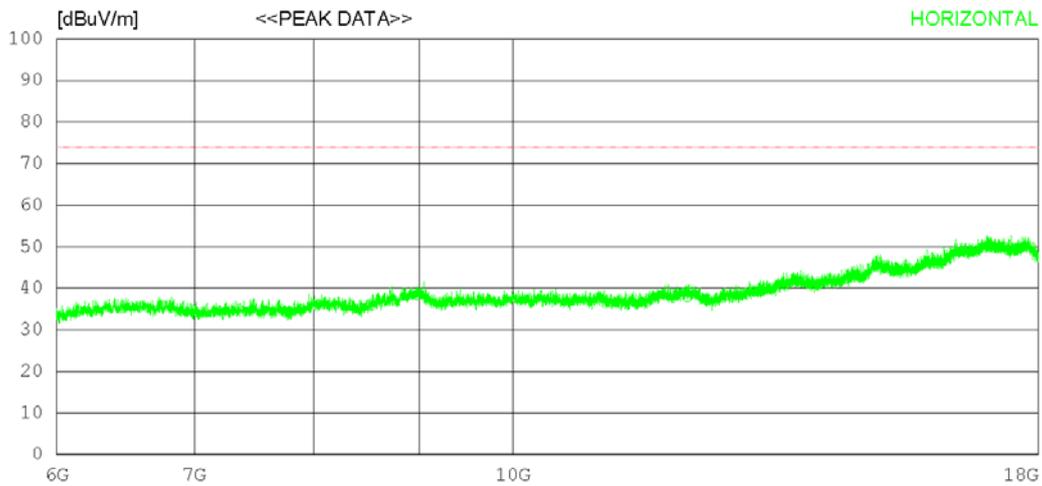
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 % R.H.
 Test Condition Wireless Charging(DS)

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 % R.H.
Test Condition Wireless Charging(DS)

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	8985	28.3	32.09	15.49	37.49	0	38.39	74	35.61	Hori	123	78
2	12151.5	26.9	33.47	15.55	37.91	0	38.01	74	35.99	Hori	242	305
3	17019.75	25.4	37.57	23.65	36.42	0	50.2	74	23.8	Hori	112	1
4	8985	27.9	32.09	15.49	37.49	0	37.99	74	36.01	Vert	322	110
5	12151.5	27.2	33.47	15.55	37.91	0	38.31	74	35.69	Vert	100	72
6	17019.75	25	37.57	23.65	36.42	0	49.8	74	24.2	Vert	223	1

Radiated disturbance at (6 ~ 18) GHz _ Average measurement data			
Test configuration mode	4	EUT Operation mode	4
Test voltage (V)	120	Test Frequency (Hz)	60

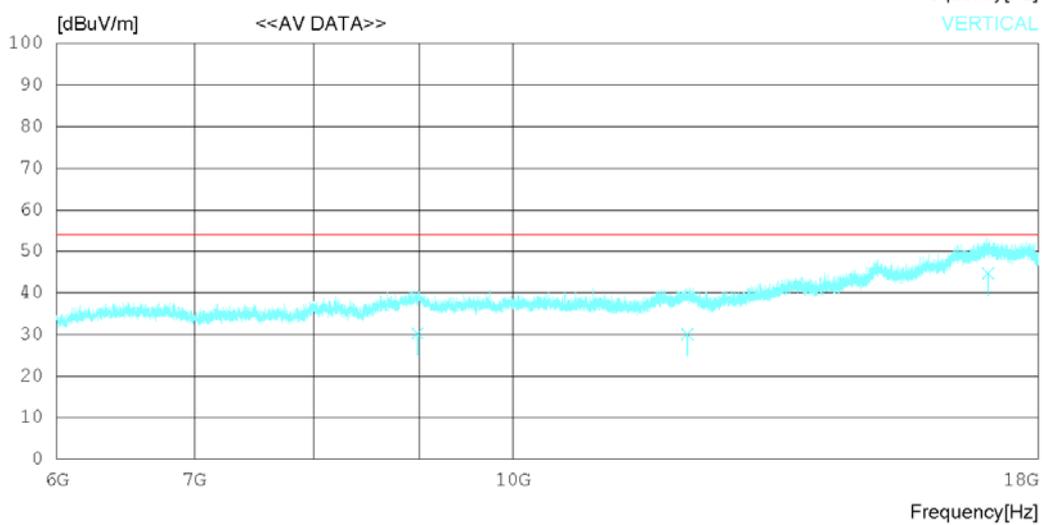
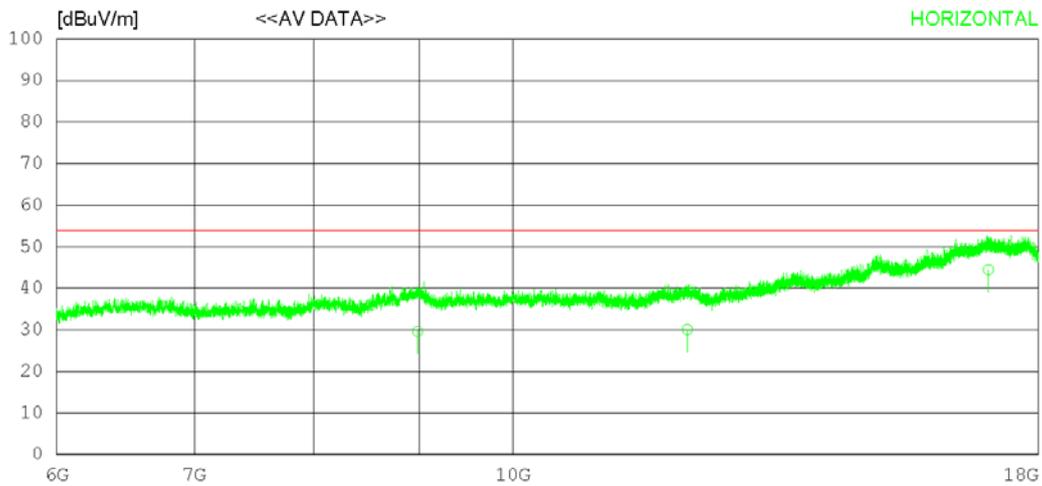
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 % R.H.
 Test Condition Wireless Charging(DS)

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 % R.H.
Test Condition Wireless Charging(DS)

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	8985.411	19.56	32.09	15.49	37.49	0	29.65	54	24.35	Hori	232	78
2	8985.421	20.18	32.09	15.49	37.49	0	30.27	54	23.73	Vert	232	78
3	12151.51	18.96	33.47	15.55	37.91	0	30.07	54	23.93	Hori	113	110
4	12150.14	18.95	33.47	15.55	37.91	0	30.06	54	23.94	Vert	146	110
5	17019.65	19.66	37.57	23.65	36.42	0	44.46	54	9.54	Hori	242	305
6	17019.42	19.92	37.56	23.66	36.42	0	44.72	54	9.28	Vert	256	305

Radiated disturbance at (18 ~ 40) GHz _Peak measurement data			
Test configuration mode	4	EUT Operation mode	4
Test voltage (V)	120	Test Frequency (Hz)	60

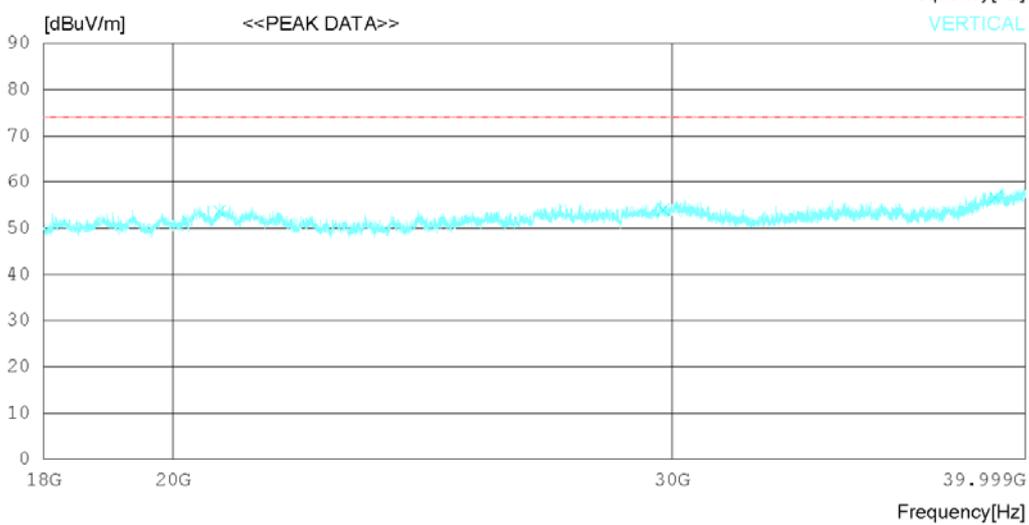
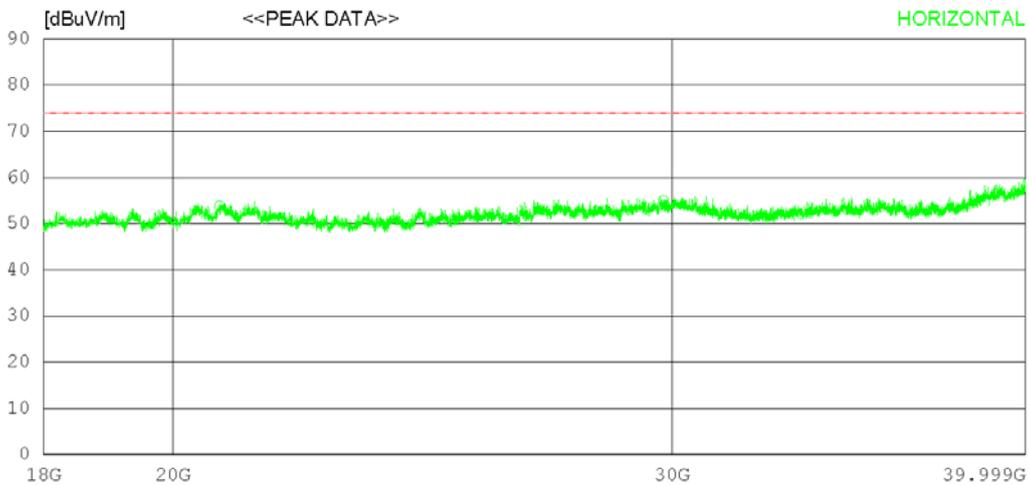
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 %R.H.
 Test Condition Wireless Charging(DS)

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 %R.H.
Test Condition Wireless Charging(DS)

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	20769.25	41.2	45.57	20.42	53.35	0	53.84	74	20.16	Hori	231	358
2	29792	37.3	47.59	22.34	52.27	0	54.96	74	19.04	Hori	353	165
3	39034.75	35	47.63	26.04	52.25	0	56.42	74	17.58	Hori	213	28
4	20769.25	41.1	45.57	20.42	53.35	0	53.74	74	20.26	Vert	112	2
5	29792	36.4	47.59	22.34	52.27	0	54.06	74	19.94	Vert	127	230
6	39034.75	35.2	47.63	26.04	52.25	0	56.62	74	17.38	Vert	198	2

Radiated disturbance at (18 ~ 40) GHz _Average measurement data			
Test configuration mode	4	EUT Operation mode	4
Test voltage (V)	120	Test Frequency (Hz)	60

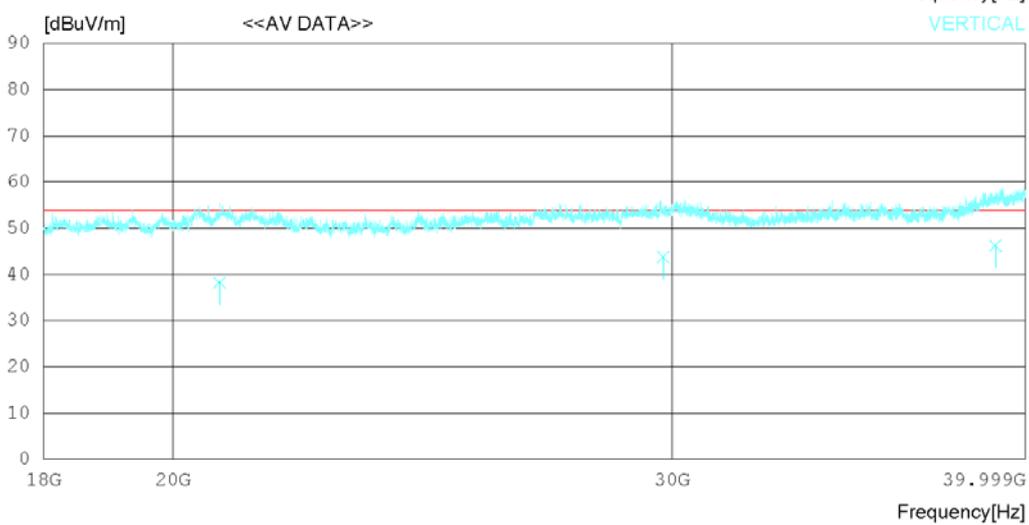
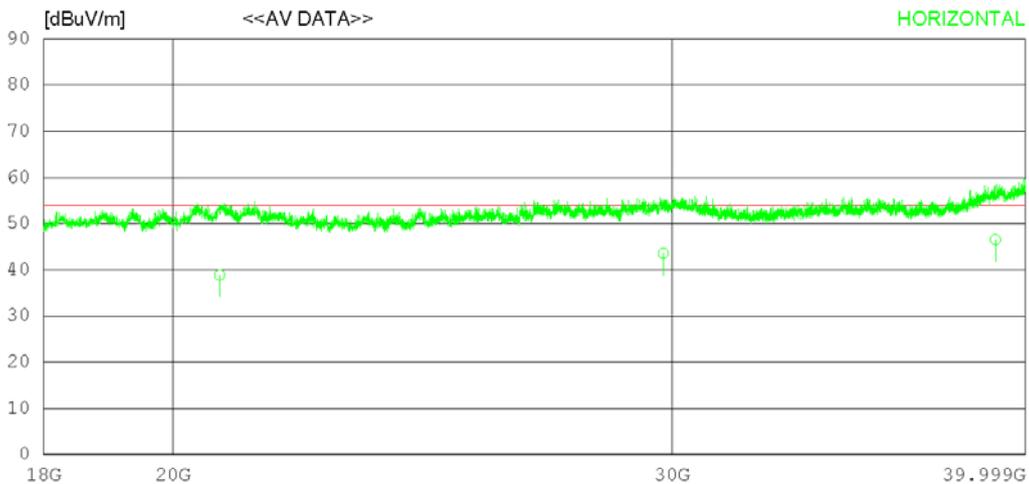
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply 120 V 60 Hz
 Temp/Humi 21 °C 40 %R.H.
 Test Condition Wireless Charging(DS)

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply 120 V 60 Hz
Temp/Humi 21 °C 40 %R.H.
Test Condition Wireless Charging(DS)

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	20769.49	26.21	45.57	20.43	53.35	0	38.86	54	15.14	Hori	230	78
2	20768.99	25.62	45.57	20.42	53.35	0	38.26	54	15.74	Vert	232	126
3	29792.65	25.87	47.59	22.34	52.27	0	43.53	54	10.47	Hori	133	65
4	29792.42	26.11	47.59	22.34	52.27	0	43.77	54	10.23	Vert	112	110
5	39034.71	25.11	47.63	26.04	52.25	0	46.53	54	7.47	Hori	305	300
6	39034.26	24.89	47.63	26.04	52.25	0	46.31	54	7.69	Vert	233	22

Radiated disturbance at (30 ~ 1000) MHz _ Measurement data			
Test configuration mode	5	EUT Operation mode	5
Test voltage (V)	Battery	Test Frequency (Hz)	-

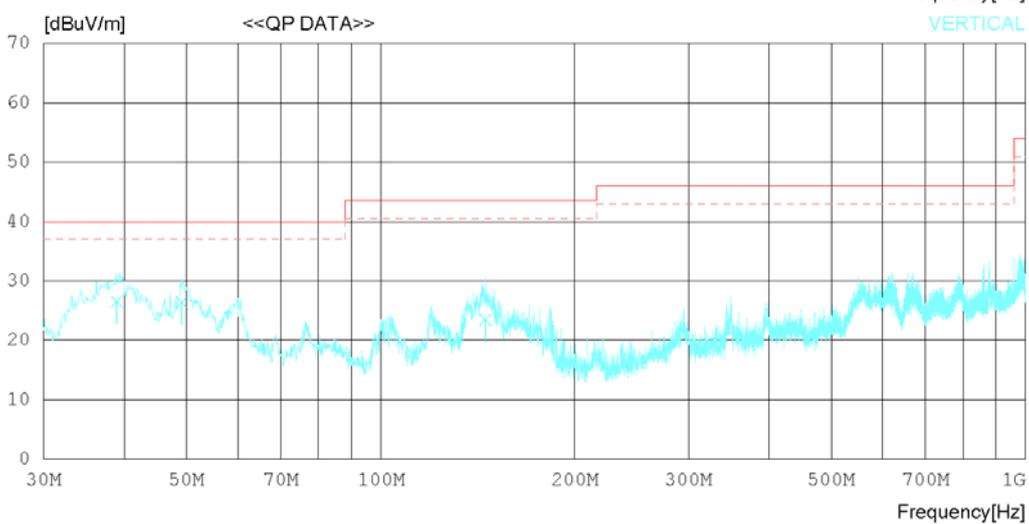
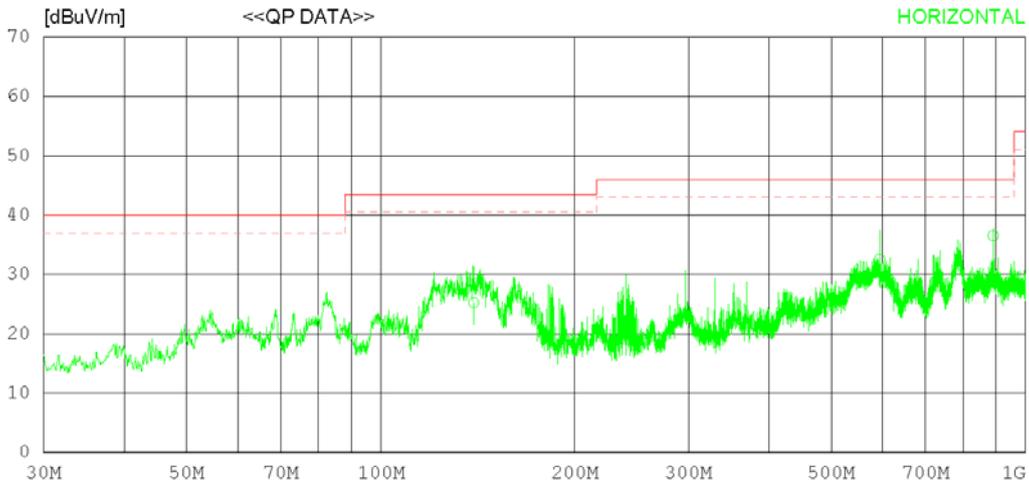
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply Battery
 Temp/Humi 21 'C 40 % R.H.
 Test Condition DISPLAY

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No.	DTNC2007-06231
Power Supply	Battery
Temp/Humi	21 °C 40 % R.H.
Test Condition	DISPLAY

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	139.365	32.11	18.66	1.25	26.78	25.24	43.50	18.26	332	110
2	594.060	30.25	25.78	2.86	26.31	32.58	46.00	13.42	122	223
3	891.067	30.11	29.30	3.61	26.50	36.52	46.00	9.48	100	131
----- Vertical -----										
4	38.973	35.66	16.79	0.67	26.56	26.56	40.00	13.44	232	78
5	49.158	34.12	18.22	0.72	26.62	26.44	40.00	13.56	112	101
6	145.428	30.22	18.81	1.21	26.77	23.47	43.50	20.03	132	92

Radiated disturbance at (1 ~ 6) GHz _ Peak measurement data			
Test configuration mode	5	EUT Operation mode	5
Test voltage (V)	Battery	Test Frequency (Hz)	-

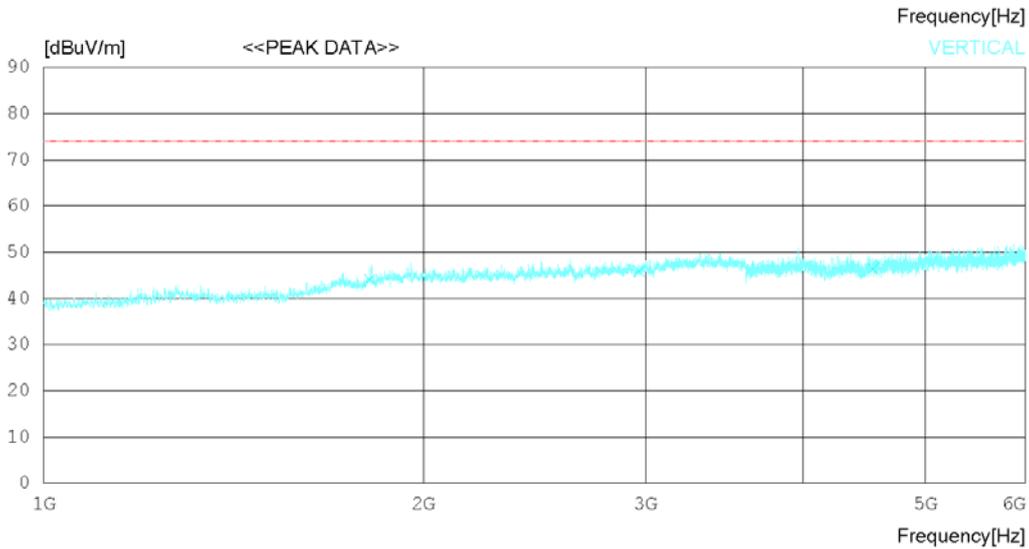
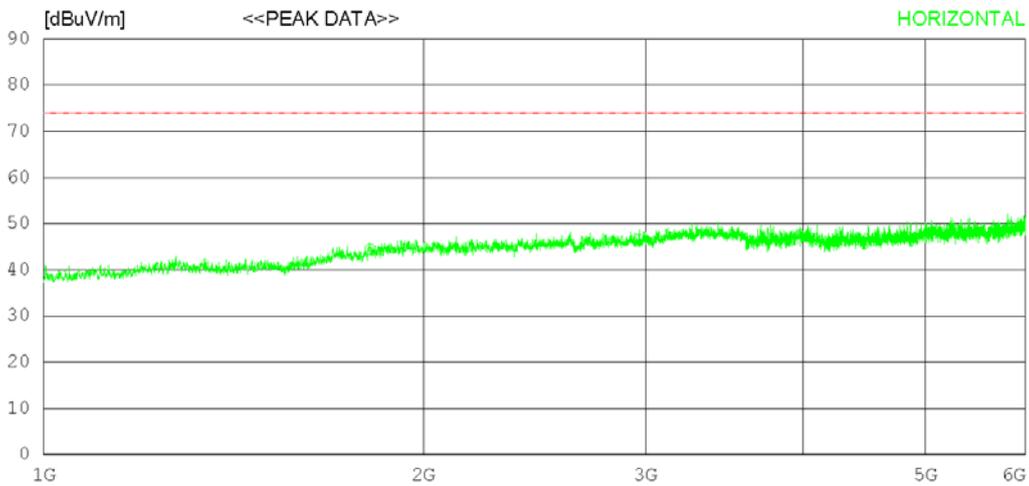
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply Battery
 Temp/Humi 21 °C 40 %R.H.
 Test Condition DISPLAY

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply Battery
Temp/Humi 21 °C 40 %R.H.
Test Condition DISPLAY

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	1814.375	42.3	30.43	7.04	35.3	0	44.47	74	29.53	Hori	231	21
2	2963.75	41.6	32.78	7.43	35.2	0	46.61	74	27.39	Hori	344	2
3	4545.625	37.7	33.9	9.63	34.92	0	46.31	74	27.69	Hori	112	189
4	1814.375	41.9	30.43	7.04	35.3	0	44.07	74	29.93	Vert	112	358
5	2963.75	40.9	32.78	7.43	35.2	0	45.91	74	28.09	Vert	231	197
6	4545.625	37.8	33.9	9.63	34.92	0	46.41	74	27.59	Vert	271	192

Radiated disturbance at (1 ~ 6) GHz _Average measurement data			
Test configuration mode	5	EUT Operation mode	5
Test voltage (V)	Battery	Test Frequency (Hz)	-

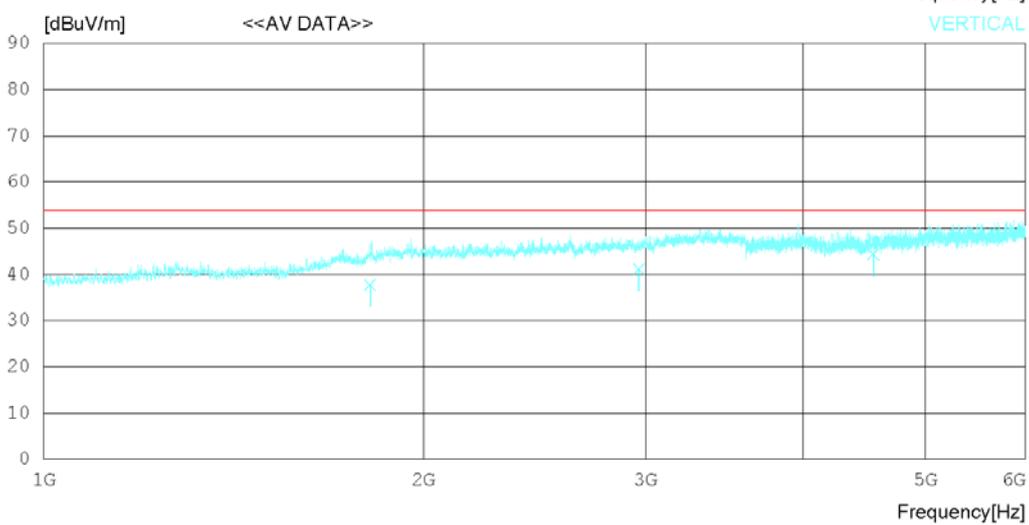
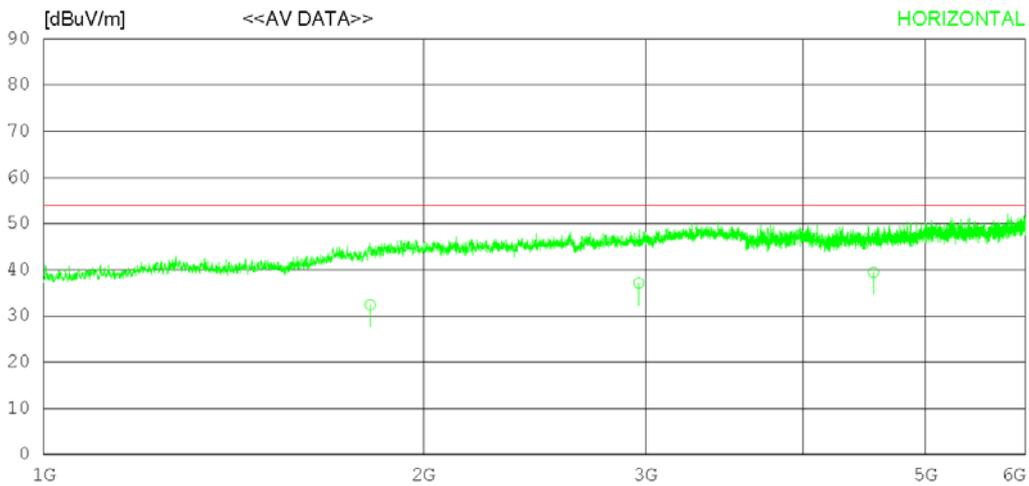
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply Battery
 Temp/Humi 21 °C 40 %R.H.
 Test Condition DISPLAY

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply Battery
Temp/Humi 21 °C 40 %R.H.
Test Condition DISPLAY

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	1814.363	30.25	30.43	7.04	35.3	0	32.42	54	21.58	Hori	121	7
2	1814.311	35.63	30.43	7.04	35.3	0	37.8	54	16.2	Vert	233	78
3	2963.112	32.12	32.78	7.43	35.2	0	37.13	54	16.87	Hori	224	2
4	2963.765	36.12	32.78	7.43	35.2	0	41.13	54	12.87	Vert	112	110
5	4545.614	30.87	33.9	9.63	34.92	0	39.48	54	14.52	Hori	131	189
6	4545.412	35.78	33.9	9.63	34.92	0	44.39	54	9.61	Vert	302	223

Radiated disturbance at (6 ~ 18) GHz _Peak measurement data			
Test configuration mode	5	EUT Operation mode	5
Test voltage (V)	Battery	Test Frequency (Hz)	-

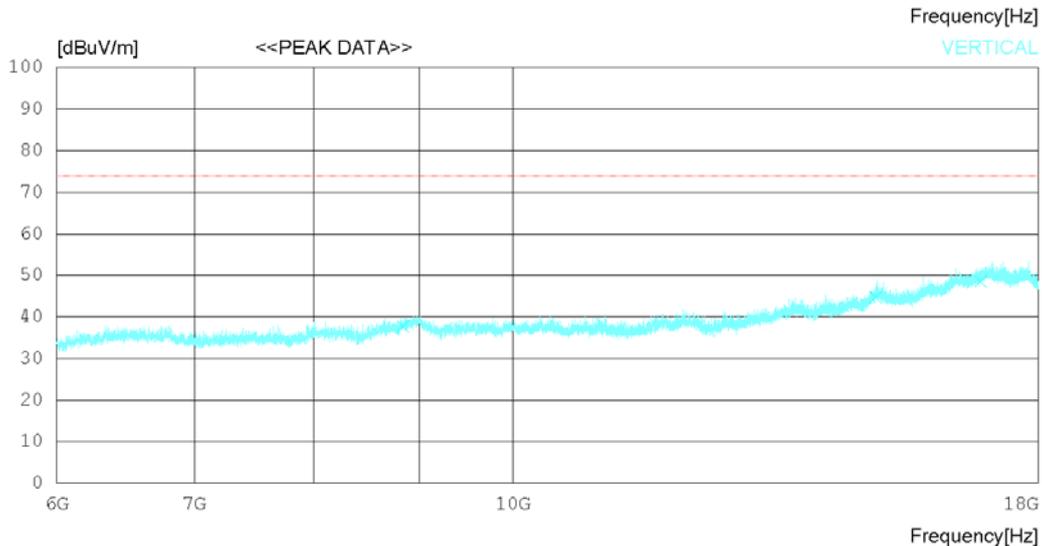
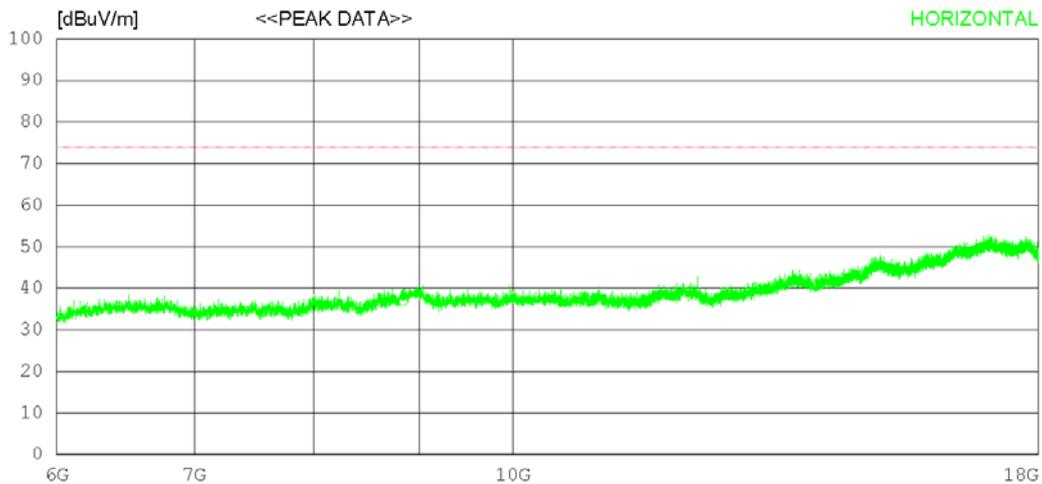
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply Battery
 Temp/Humi 21 °C 40 % R.H.
 Test Condition DISPLAY

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply Battery
Temp/Humi 21 °C 40 % R.H.
Test Condition DISPLAY

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	8841.75	27.6	31.97	14.97	37.41	0	37.13	74	36.87	Hori	322	57
2	15001.5	26.2	35.45	20.72	37	0	45.37	74	28.63	Hori	248	1
3	16872.75	25.9	37.41	22.73	36.32	0	49.72	74	24.28	Hori	124	146
4	8841.75	28.2	31.97	14.97	37.41	0	37.73	74	36.27	Vert	121	202
5	15001.5	25.6	35.45	20.72	37	0	44.77	74	29.23	Vert	231	1
6	16872.75	24.7	37.41	22.73	36.32	0	48.52	74	25.48	Vert	335	1

Radiated disturbance at (6 ~ 18) GHz _ Average measurement data			
Test configuration mode	5	EUT Operation mode	5
Test voltage (V)	Battery	Test Frequency (Hz)	-

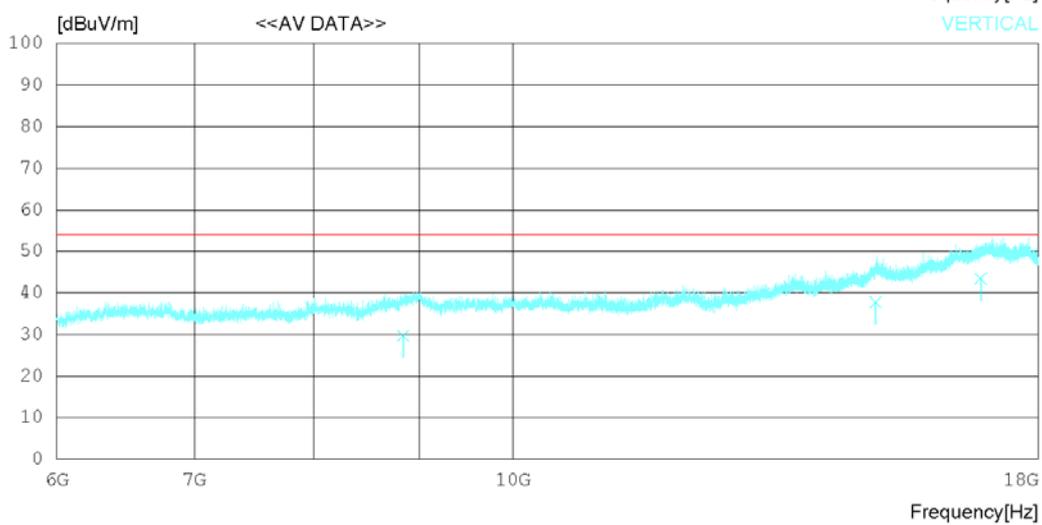
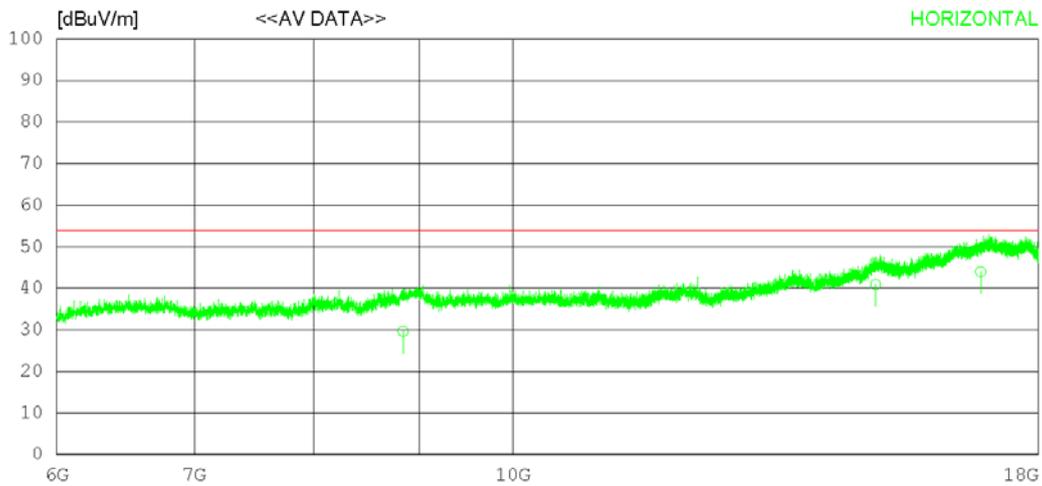
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply Battery
 Temp/Humi 21 °C 40 % R.H.
 Test Condition DISPLAY

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply Battery
Temp/Humi 21 °C 40 % R.H.
Test Condition DISPLAY

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	8841.154	20.11	31.97	14.97	37.4	0	29.65	54	24.35	Hori	223	78
2	15001.57	21.72	35.45	20.72	37	0	40.89	54	13.11	Hori	131	110
3	16872.74	20.16	37.41	22.73	36.32	0	43.98	54	10.02	Hori	305	123
4	8841.411	20.16	31.97	14.97	37.4	0	29.7	54	24.3	Vert	112	78
5	15001.65	18.62	35.45	20.72	37	0	37.79	54	16.21	Vert	322	110
6	16872.71	19.55	37.41	22.73	36.32	0	43.37	54	10.63	Vert	242	305

Radiated disturbance at (18 ~ 40) GHz _Peak measurement data			
Test configuration mode	5	EUT Operation mode	5
Test voltage (V)	Battery	Test Frequency (Hz)	-

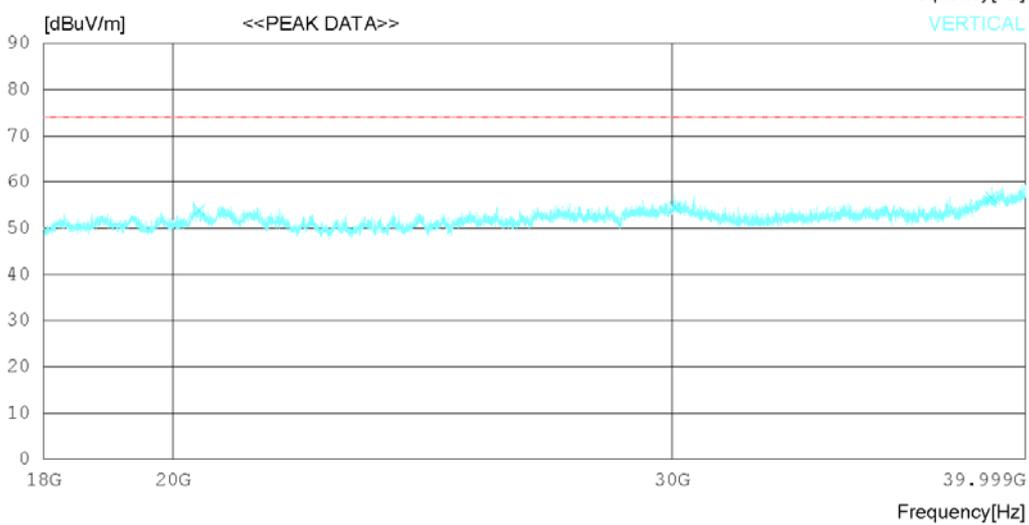
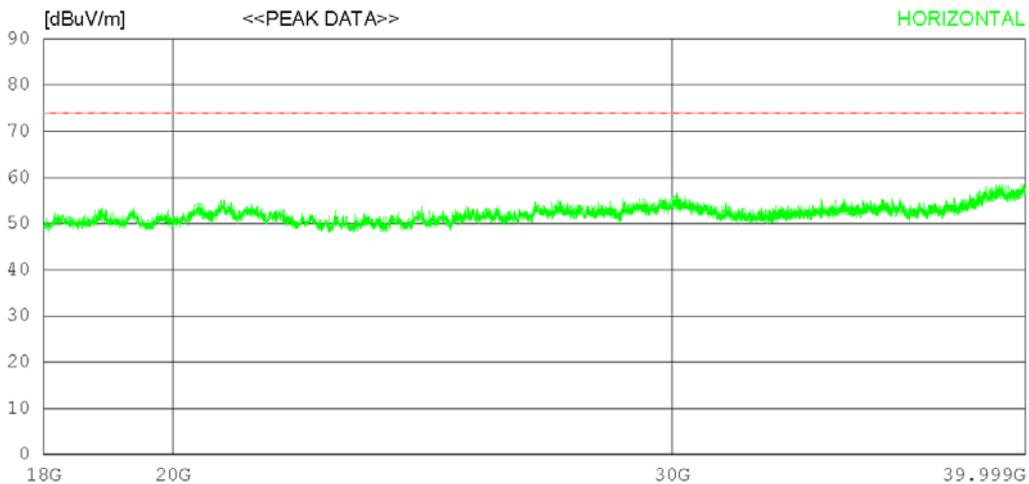
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply Battery
 Temp/Humi 21 °C 40 %R.H.
 Test Condition DISPLAY

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply Battery
Temp/Humi 21 °C 40 %R.H.
Test Condition DISPLAY

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	20425.5	41.2	45.4	19.82	53.19	0	53.23	74	20.77	Hori	223	123
2	30089	37.1	47.5	22.35	52.2	0	54.75	74	19.25	Hori	124	246
3	38911	34.7	47.51	25.95	52.25	0	55.91	74	18.09	Hori	230	36
4	20425.5	41.9	45.4	19.82	53.19	0	53.93	74	20.07	Vert	311	150
5	30089	36.8	47.5	22.35	52.2	0	54.45	74	19.55	Vert	274	1
6	38911	35.5	47.51	25.95	52.25	0	56.71	74	17.29	Vert	244	174

Radiated disturbance at (18 ~ 40) GHz _Average measurement data			
Test configuration mode	5	EUT Operation mode	5
Test voltage (V)	Battery	Test Frequency (Hz)	-

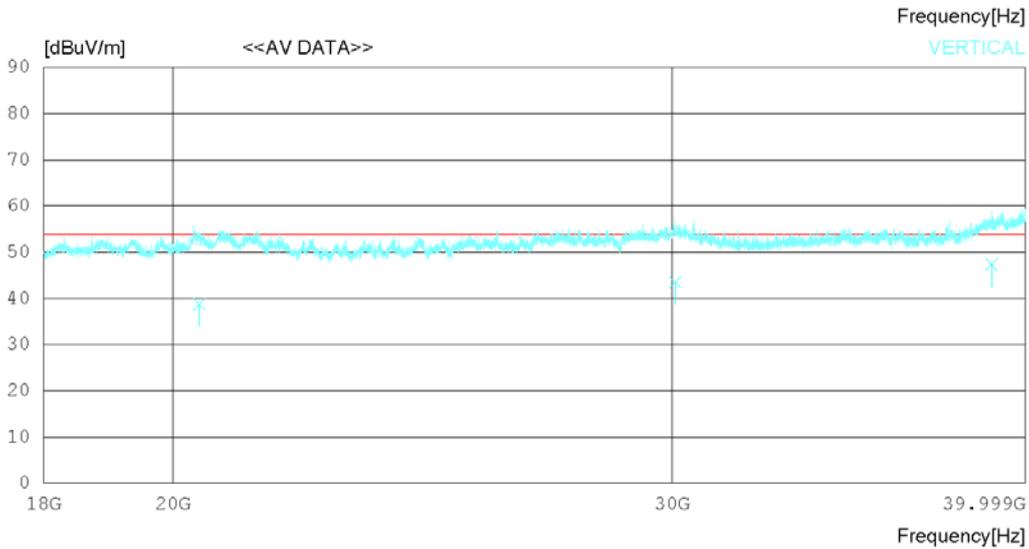
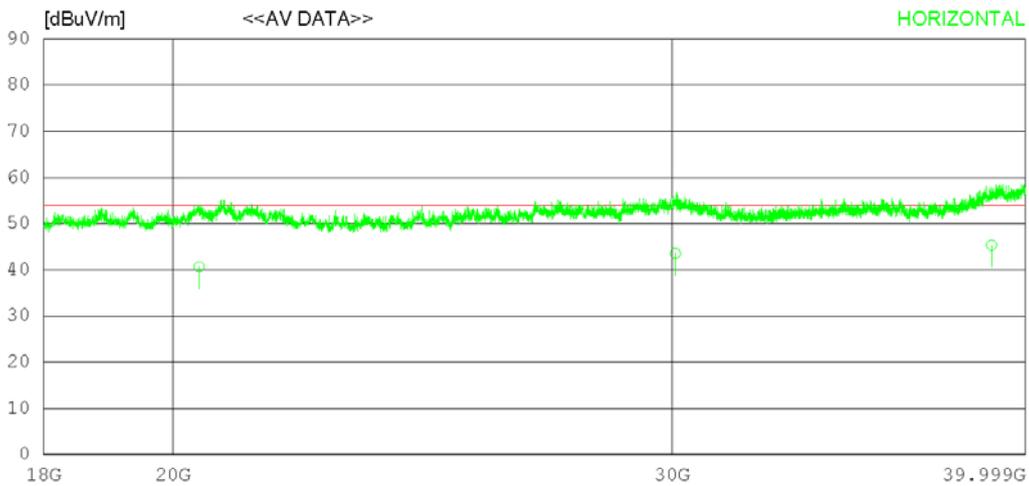
RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
 Power Supply Battery
 Temp/Humi 21 °C 40 %R.H.
 Test Condition DISPLAY

Memo

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



RADIATED EMISSION

Date 2020-09-05

Order No. DTNC2007-06231
Power Supply Battery
Temp/Humi 21 °C 40 %R.H.
Test Condition DISPLAY

Memo

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

No	Freq	Reading	Ant.Fac	Loss	Gain	Site.Fac	Result	Limit	Margin	Pola	Height	Angle
1	20425.42	28.62	45.4	19.82	53.19	0	40.65	54	13.35	Hori	225	78
2	20425.42	26.75	45.4	19.82	53.19	0	38.78	54	15.22	Vert	232	150
3	30089.77	25.87	47.5	22.35	52.2	0	43.52	54	10.48	Hori	223	110
4	30089.74	25.87	47.5	22.35	52.2	0	43.52	54	10.48	Vert	112	202
5	38911.66	24.15	47.51	25.95	52.25	0	45.36	54	8.64	Hori	321	305
6	38911.45	26.12	47.51	25.95	52.25	0	47.33	54	6.67	Vert	236	174

8. Revision History

Date	Description	Revised By	Reviewed By
Sep. 16. 2020	Initial report	JunSeo Park	KyoungHwan Bae
Sep. 25. 2020	Modify the location of calculation	ChanGeun Lee	KyoungHwan Bae

-End of test report-