

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. : DREFCC2007-0180
2. Client / Applicant
 - Name : Bluebird Inc.
 - Address : 3F, 115, Irwon-ro, Gangnam-gu, Seoul, Republic of Korea
3. Use of Report : Grant of Certification
4. Product Name / Model Name : Enterprise-Value Full Touch Handheld Computer / VF550
(FCC ID / IC : SS4VF550X / 22515-VF550)
5. Test Standard : ANSI C63.4 : 2014
FCC Part 15 Subpart B
(Other Class B digital devices & peripherals)
ICES-003 : 2016
CAN/CSA CISPR 22-10
6. Date of Test : Jun. 19. 2020 ~ Jun. 23. 2020
7. Location of Test : Permanent Testing Lab On Site Testing
8. Testing Environment : Temperature (22 ~ 23) °C , Humidity (46 ~ 55) % 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 

Jun. 23. 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	6
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	16
8. Revision History.....	102

1. General Remarks

This report contains the result of tests performed by :

DT&C Co., Ltd.

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

<http://www.dtnc.net>

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

2. Test Laboratory

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

Certificate	Nation	Agency	Code	Remark
Accreditation	Korea	KOLAS	393	ISO/IEC 17025
	South Africa	SABS	0006	ISO/IEC 17025
	Ghana	NCA	NCA agreement 23rd,Oct,2018	-
Site Filing	USA	FCC	KR0034 101842 678747, 596748, 804488, 165783	Accredited 2.948 Listed
	Canada	IC	5740A-3 5740A-4	Registered
	Japan	VCCI	C-1427, R-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	Bluebird Inc. 3F, 115, Irwon-ro, Gangnam-gu, Seoul, Republic of Korea
Manufacturer	Bluebird Inc. 3F, 115, Irwon-ro, Gangnam-gu, Seoul, Republic of Korea
Factory 1	Bluebird Inc. (SSang-young IT Twin tower-B 7~8F), 531, Dunchon-daero, Jungwon-gu, Seongnam-si, Gyeonggi-do, Korea
Factory 2	TOP INTERCUBE ELECTRONICS VINA CO., LTD (TEV) Lot C1, Ba thien II Industrial park, Thien Ke Ward, Binh Xuyen District, Vinh Phuc Province, Vietnam
Product Name	Enterprise-Value Full Touch Handheld Computer
Model Name	VF550
Add Model Name	None
Add Model Difference	None
Maximum Internal Frequency	1,800 MHz
Rated Power	DC 3.85 V
FCC ID	SS4VF550X
IC	22515-VF550
Remarks	Wireless Frequency - WCDMA 2 : 1852.4 ~ 1907.6 MHz - WCDMA 4 : 1712.4 ~ 1752.6 MHz - WCDMA 5 : 826.4 ~ 846.6 MHz - LTE Band 2 : 1850.7 ~ 1909.3 MHz - LTE Band 4 : 1710.7 ~ 1799.3 MHz - LTE Band 5 : 824.7 ~ 848.3 MHz - LTE Band 12 : 779.5 ~ 784.5 MHz - LTE Band 13 : 699.7 ~ 715.3 MHz - LTE Band 71 : 665.5 ~ 695.5 MHz - WIFI 2.4 G : 2412 ~ 2462 MHz - WIFI 5 G : 5150 ~ 5850 MHz

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	MP4	EUT is in the state of playing MP4 files continuously.
2	Rear Camera	The EUT activates the mounted camera to record images continuously.
3	Barcode	The EUT uses an internal application and uses barcodes continuously.
4	Charging	EUT receives DC 5 V from Adapter(EUT) and observes the state of charge and proceeds the test
5	Cradle Charging	EUT receives DC 4.36 V from Cradle and observes the state of charge and proceeds the test
6	PC Link	EUT monitors the state of data transmission by connecting with a laptop and proceeds with the test

4.3 Test Configuration Mode

No.	Mode	Description
1	MP4	EUT connects to Earphones EUT connects to Micro SD Card
2	Rear Camera	EUT connects to Earphones EUT connects to Micro SD Card
3	Barcode	EUT connects to Earphones EUT connects to Micro SD Card
4	Charging	EUT connects to Earphones EUT connects to Micro SD Card EUT connects to Adapter(EUT) Adapter(EUT) connects to AC Main
5	Cradle Charging	EUT connects to Micro SD Card EUT connects to Cradle Cradle connects to Cradle Adapter Cradle Adapter connects to AC Main Note: Cradle Charging test is conducted after removing the AUX port of the EUT toward the charging side, so it is impossible to connect earphones.
6	PC Link	EUT connects to Earphones EUT connects to Micro SD Card EUT connects to Laptop Laptop connects to Laptop Adapter Laptop Adapter connects to AC Main

4.4 Supported Equipment

Used*	Product Type	Manufacturer	Model	Remarks
EUT	AC/DC ADAPTER	Kuantech (Cambodia) Corporation Limited	KSA29B0500200D5	None
AE	Laptop	Dell	P60F	21366174134
AE	Laptop Adapter	Lite-on Technology Co.,Ltd	LA65NM130	CN-0G4X7T-LOC00-92M-15B3-A05
AE	Micro SD Card	RIDATA	2GB	Y02GA53M8D3129028TW
AE	Earphones	N/A	N/A	SONY
AE	Cradle	Bluebird Inc.	SHARECRD-1S01	N/A
AE	Cradle Adapter	Shenzhen kuanten Limited	KT36W090300B3	N/A

*Abbreviations:
 AE - Auxiliary/Associated Equipment, or
 SIM - Simulator

4.5 EUT In/Output Port

(MODE 1,2,3)

Name	Type*	Cable Max. >3 m	Cable Shielded	Cable Back shell	Remarks
Micro SD Card Slot	I/O	-	-	-	None
AUX	I/O	1.9	Non shield	Plastic	None

*Abbreviations:
 AC = AC Power Port DC = DC Power Port N/E = Non-Electrical
 I/O = Signal Input or Output Port
 TP = Telecommunication Ports

(MODE 4)

Name	Type*	Cable Max. >3 m	Cable Shielded	Cable Back shell	Remarks
Micro SD Card Slot	I/O	-	-	-	None
AUX	I/O	1.9	Non shield	Plastic	None
USB C	DC	1.5	Shield	Plastic	None
USB A	AC	-	-	-	Adapter(EUT)

*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
Micro SD Card Slot	I/O	-	-	-	None
PIN	DC	-	-	-	None
*Abbreviations: AC = AC Power Port DC = DC Power Port N/E = Non-Electrical I/O = Signal Input or Output Port TP = Telecommunication Ports					

(MODE 6)

Name	Type*	Cable Max. >3 m	Cable Shielded	Cable Back shell	Remarks
Micro SD Card Slot	I/O	-	-	-	None
AUX	I/O	1.9	Non shield	Plastic	None
USB C	DC	1.5	Shield	Plastic	None
*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 3.85	-	-	Battery

5. Test Summary

Test Items	Applied Standards	Results
Conducted Disturbance	CAN/CSA CISPR 22-10 ANSI C63.4:2014	C
Radiated Disturbance	CAN/CSA CISPR 22-10 ANSI C63.4:2014	C
C=Comply N/C=Not Comply N/T=Not Tested N/A=Not Applicable		
Note)		

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

- Conducted Disturbance

Frequency [MHz]	Pol.	Result [dB μ V/m]	Detector	Limit [dB μ V/m]	Margin [dB]
0.51059	L1	34.77	Cispr - Average	46.00	11.23

-Radiated Disturbance

Frequency [MHz]	Pol.	Result [dB μ V/m]	Detector	Limit [dB μ V/m]	Margin [dB]
39989.200	H	46.61	Cispr - Average	54.00	7.39

6. Test Environment

Test Items	Test date (YYYY-MM-DD)	Temp. (°C)	Humidity (% R.H.)	Pressure (kPa)
Conducted Disturbance	2020-06-19	23	55	100.3
Radiated Disturbance	2020-06-22	22	52	-
	2020-06-23	22	46	

7. Test Results : Emission

7.1 Conducted Disturbance

ANSI C63.4, CAN/CSA-CISPR 22	Mains terminal disturbance voltage	Result
<p>Method: The AMN placed 0,8 m from the boundary of the unit under test and bonded to a ground reference plane. This distance was between the closest points of the AMN and the EUT. All other units of the EUT and associated equipment were at least 0,8 m from the AMN. All power was connected to the system through Artificial Mains Network (AMN). Conducted voltage measurements on mains lines were made at the output of the AMN. The measuring port of the LISN for EUT was connected to spectrum analyzer. Using conducted emission test software, the emissions were scanned with peak detector mode. After scanning over the frequency range, suspected emissions were selected to perform final measurement. When performing final measurement, the receiver was used which has Quasi-Peak detector and CISPR Average detector. For (0.15 ~ 30) MHz frequency range, Quasi-Peak detector with 10 kHz RBW and 30 kHz VBW was used. By varying the configuration of the test sample and the cable routing it was attempted to maximize the emission.</p>		Comply
Fully configured sample scanned over the following frequency range	Frequency range on each side of line	Measurement Point
	150 kHz to 30 MHz	Mains
EUT mode (Refer to clauses 4)	Test configuration mode	4, 5, 6
	EUT Operation mode	4, 5, 6
Limits – Class A		
Frequency (MHz)	Limit dB μ V	
	Quasi-Peak	Average
0.15 to 0.50	79	66
0.50 to 30	73	60
Limits – Class B		
Frequency (MHz)	Limit dB μ V	
	Quasi-Peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50

Measurement Instrument					
Description	Model	Manufacturer	Identifier	Cal. Date	Cal. Due
MEASUREMENT SOFTWARE	EMI-C VER. 2.00.0171	TSJ	N/A	N/A	N/A
EMI TEST RECEIVER	ESCI	ROHDE&SCHWARZ	100364	2020.02.25	2021.02.25
TWO-LINE V-NETWORK	ENV216	ROHDE&SCHWARZ	101979	2019.12.06	2020.12.06
TRANSIENT LIMITER	TL-B0930A	EMCIS	11002	2019.08.30	2020.08.30

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

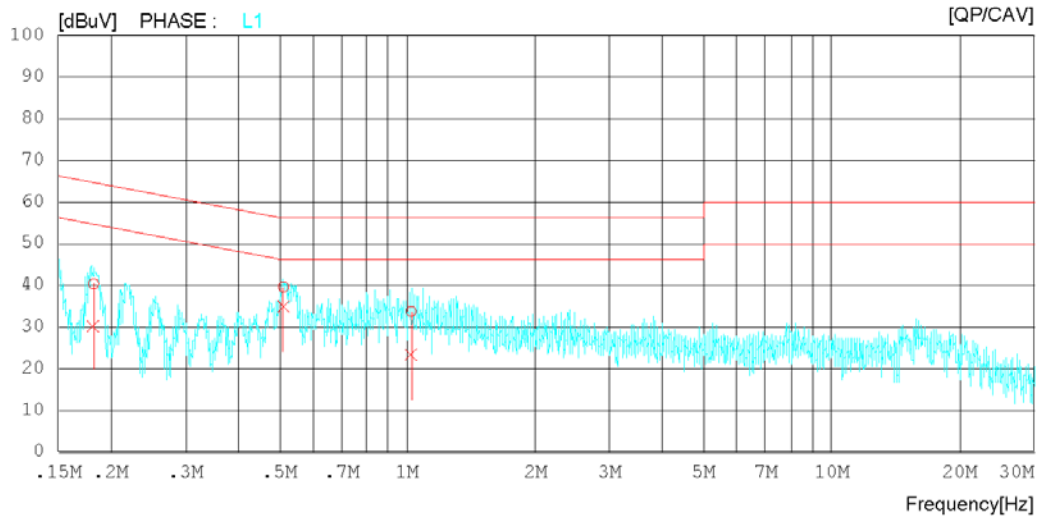
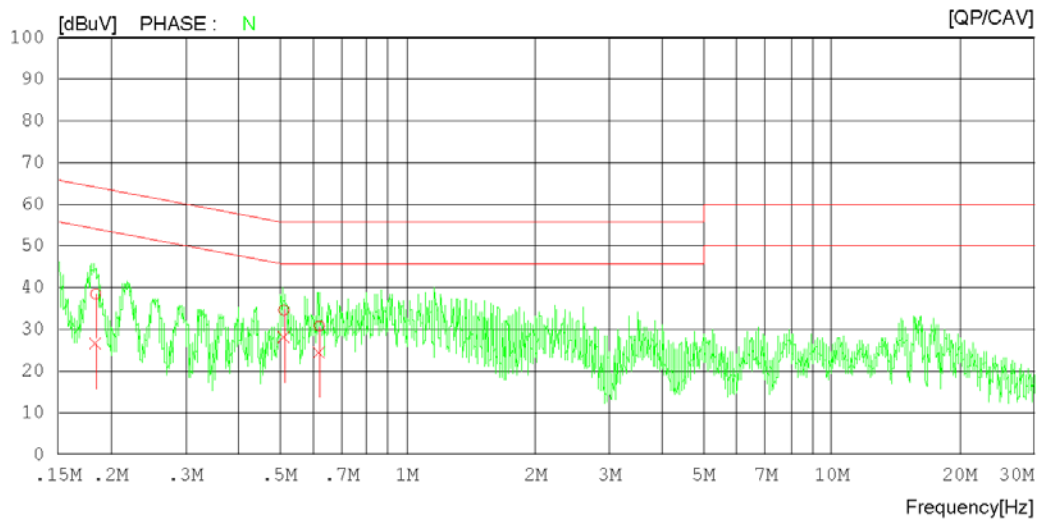
Results of Conducted Emission

DT&C
Date 2020-06-19

Order No. DTNC2004-03684,DTNC2006-04883
Power Supply 120 VAC 60 Hz
Temp/Humi/Atm 23 °C 55 % R.H. 100.3 kPa
Test Condition Charging Mode

Memo

LIMIT : CISPR32_B QP
CISPR32_B AV



Results of Conducted Emission

DT&C
Date 2020-06-19

Order No. DTNC2004-03684,DTNC2006-04883
Power Supply 120 VAC 60 Hz
Temp/Humi/Atm 23 °C 55 % R.H. 100.3 kPa
Test Condition Charging Mode

Memo

LIMIT : CISPR32_B QP
CISPR32_B AV

NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	CAV [dBuV]		QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]	
1	0.18433	18.44	6.44	20.10	38.54	26.54	64.29	54.29	25.75	27.75	N
2	0.51145	14.42	7.78	20.24	34.66	28.02	56.00	46.00	21.34	17.98	N
3	0.62050	10.58	4.13	20.22	30.80	24.35	56.00	46.00	25.20	21.65	N
4	0.18227	20.11	10.06	20.12	40.23	30.18	64.38	54.38	24.15	24.20	L1
5	0.51059	19.23	14.53	20.24	39.47	34.77	56.00	46.00	16.53	11.23	L1
6	1.02040	13.51	2.90	20.13	33.64	23.03	56.00	46.00	22.36	22.97	L1

Mains terminal disturbance voltage _ Measurement data			
Test configuration mode	5	EUT Operation mode	5
Test voltage (V)	120	Test Frequency (Hz)	60

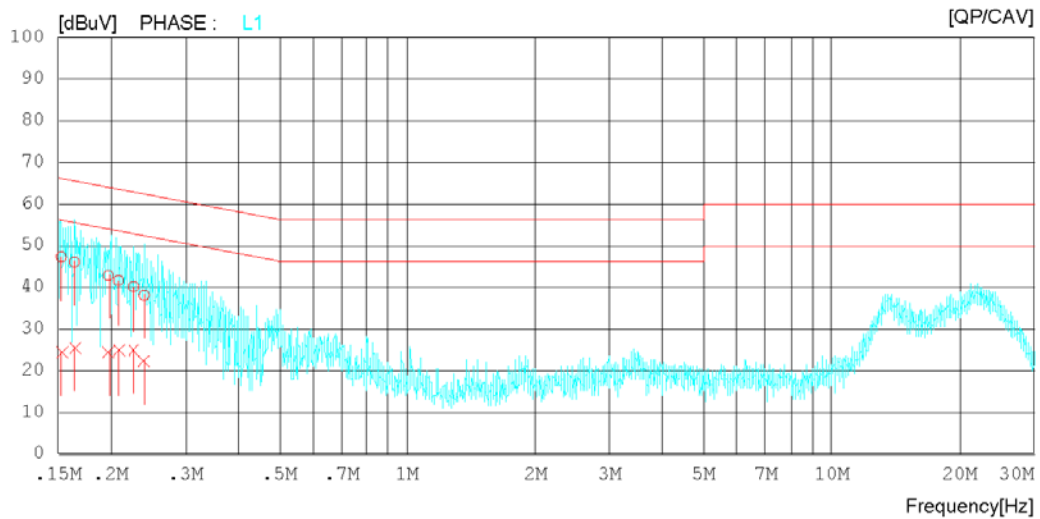
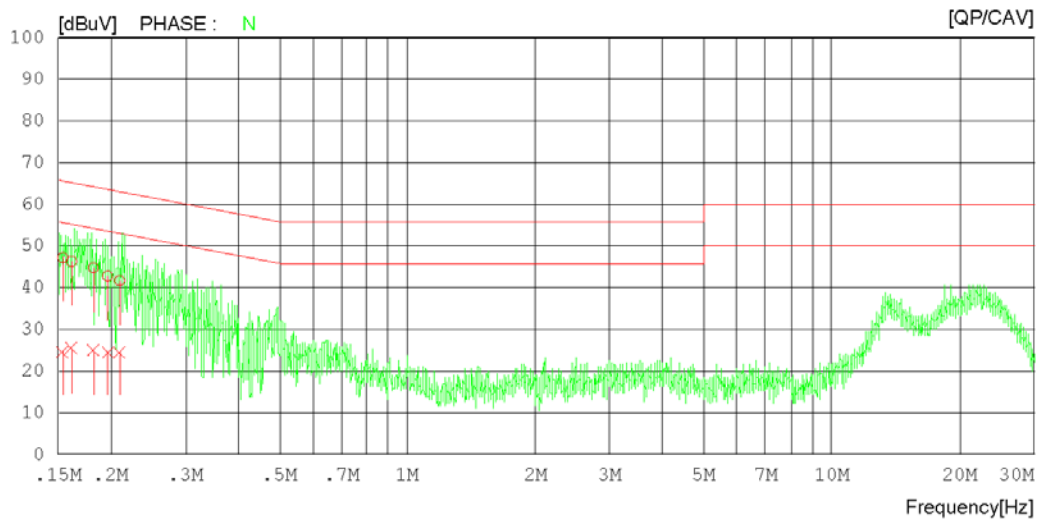
Results of Conducted Emission

DT&C
Date 2020-06-19

Order No. DTNC2004-03684,DTNC2006-04883
Power Supply 120 VAC 60 Hz
Temp/Humi/Atm 23 °C 55 % R.H. 100.3 kPa
Test Condition Cradle Charging Mode

Memo

LIMIT : CISPR32_B QP
CISPR32_B AV



Results of Conducted Emission

DT&C
Date 2020-06-19

Order No. DTNC2004-03684,DTNC2006-04883
Power Supply 120 VAC 60 Hz
Temp/Humi/Atm 23 °C 55 % R.H. 100.3 kPa
Test Condition Cradle Charging Mode

Memo

LIMIT : CISPR32_B QP
CISPR32_B AV

NO	FREQ [MHz]	READING		C. FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	CAV [dBuV]		QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]	
1	0.15419	27.28	4.63	19.97	47.25	24.60	65.77	55.77	18.52	31.17	N
2	0.16150	26.28	5.26	20.08	46.36	25.34	65.39	55.39	19.03	30.05	N
3	0.18198	24.72	4.90	20.12	44.84	25.02	64.40	54.40	19.56	29.38	N
4	0.19645	22.80	4.75	20.02	42.82	24.77	63.76	53.76	20.94	28.99	N
5	0.20968	21.81	4.61	19.96	41.77	24.57	63.22	53.22	21.45	28.65	N
6	0.15292	27.24	4.50	19.95	47.19	24.45	65.84	55.84	18.65	31.39	L1
7	0.16412	25.76	5.25	20.12	45.88	25.37	65.25	55.25	19.37	29.88	L1
8	0.19720	22.69	4.36	20.02	42.71	24.38	63.73	53.73	21.02	29.35	L1
9	0.20850	21.54	4.63	19.97	41.51	24.60	63.26	53.26	21.75	28.66	L1
10	0.22613	20.16	4.90	19.90	40.06	24.80	62.59	52.59	22.53	27.79	L1
11	0.23948	18.13	2.33	19.85	37.98	22.18	62.11	52.11	24.13	29.93	L1

Mains terminal disturbance voltage _ Measurement data			
Test configuration mode	6	EUT Operation mode	6
Test voltage (V)	120	Test Frequency (Hz)	60

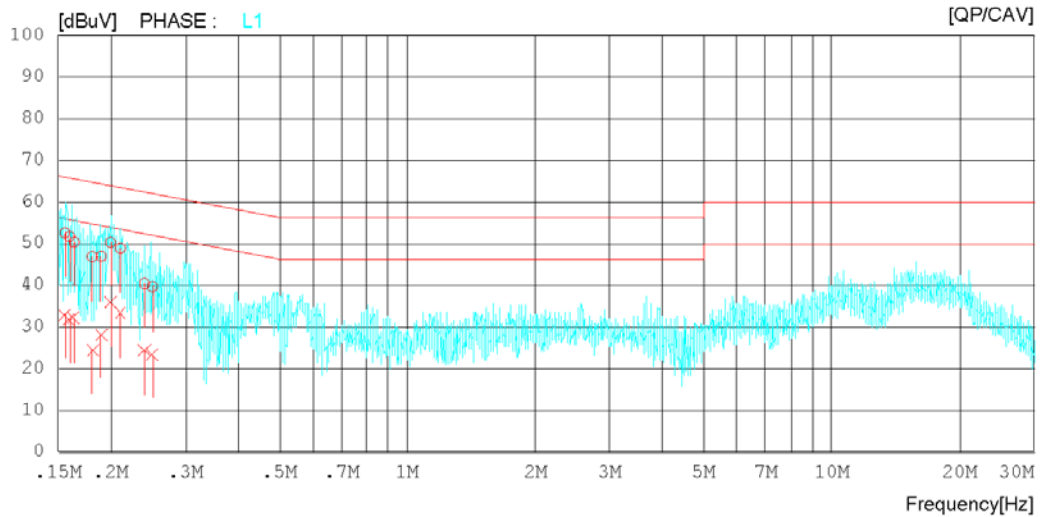
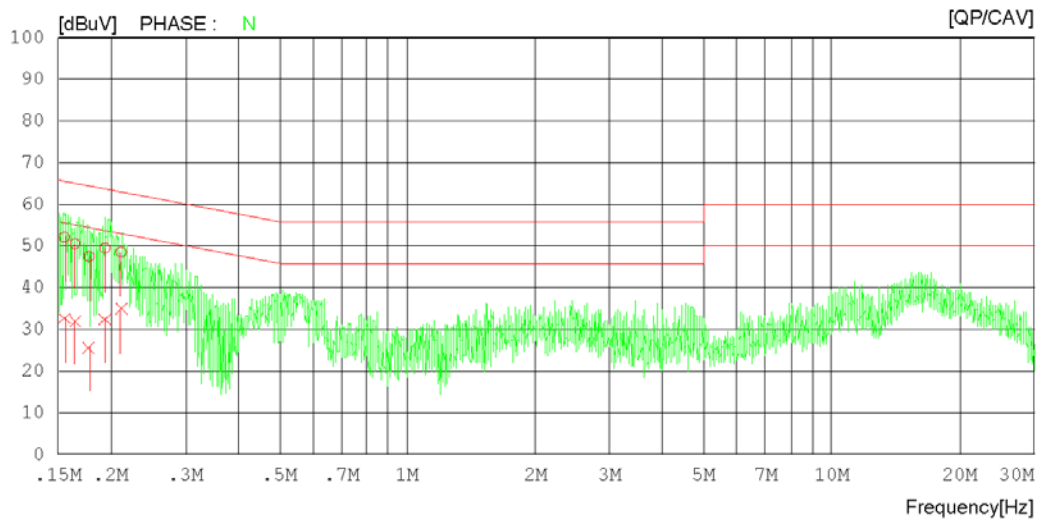
Results of Conducted Emission

DT&C
Date 2020-06-19

Order No. DTNC2004-03684,DTNC2006-04883
Power Supply 120 VAC 60 Hz
Temp/Humi/Atm 23 °C 55 % R.H. 100.3 kPa
Test Condition PC Link Mode

Memo

LIMIT : CISPR32_B QP
CISPR32_B AV



Results of Conducted Emission

DT&C
Date 2020-06-19

Order No. DTNC2004-03684,DTNC2006-04883
 Power Supply 120 VAC 60 Hz
 Temp/Humi/Atm 23 °C 55 % R.H. 100.3 kPa
 Test Condition PC Link Mode

Memo

LIMIT : CISPR32_B QP
 CISPR32_B AV

NO	FREQ [MHz]	READING		C.FACTOR [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dBuV]	CAV [dBuV]		QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]	QP [dBuV]	CAV [dBuV]	
1	0.15552	32.20	12.70	19.99	52.19	32.69	65.70	55.70	13.51	23.01	N
2	0.16468	30.43	12.01	20.13	50.56	32.14	65.22	55.22	14.67	23.08	N
3	0.17784	27.37	5.59	20.15	47.52	25.74	64.59	54.59	17.07	28.85	N
4	0.19377	29.51	12.42	20.04	49.55	32.46	63.87	53.87	14.32	21.41	N
5	0.21168	28.61	15.11	19.95	48.56	35.06	63.14	53.14	14.58	18.08	N
6	0.15590	32.41	12.93	20.00	52.41	32.93	65.68	55.68	13.27	22.75	L1
7	0.15973	31.52	11.75	20.06	51.58	31.81	65.48	55.48	13.90	23.67	L1
8	0.16385	30.07	12.03	20.12	50.19	32.15	65.27	55.27	15.08	23.12	L1
9	0.18057	26.59	4.16	20.13	46.72	24.29	64.46	54.46	17.74	30.17	L1
10	0.18994	26.71	8.12	20.07	46.78	28.19	64.04	54.04	17.26	25.85	L1
11	0.19956	30.15	15.61	20.00	50.15	35.61	63.63	53.63	13.48	18.02	L1
12	0.21053	28.80	13.17	19.96	48.76	33.13	63.18	53.18	14.42	20.05	L1
13	0.23996	20.48	4.22	19.85	40.33	24.07	62.10	52.10	21.77	28.03	L1
14	0.25044	19.72	3.41	19.81	39.53	23.22	61.74	51.74	22.21	28.52	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, CAN/CSA-CISPR 22	Radiated disturbance 30 MHz –30 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, 6	
	EUT Operation mode		1, 2, 3, 4, 5, 6	
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 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 BROAD BAND ANTENNA	VULB9160	SCHWARZBECK	9160-3339	2018.10.22	2020.10.22
6DB ATTENUATOR	8491B	HP	18403	2018.10.22	2020.10.22
LOW NOISE PRE AMPLIFIER	MLA-100K01-B01-26	TSJ	1252741	2020.02.13	2021.02.13
HORN ANTENNA	3117	ETS-LINDGREN	00152093	2020.03.26	2021.03.26
PRE AMPLIFIER	8449B	H.P	3008A00887	2019.08.26	2020.08.26
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	3116C	ETS-LINDGREN	00213177	2019.12.12	2020.12.12
	JS44-18004000-35-8P	L3 NARDA-MITEQ	2046884	2019.11.04	2020.11.04

(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)	Battery	Test Frequency (Hz)	-

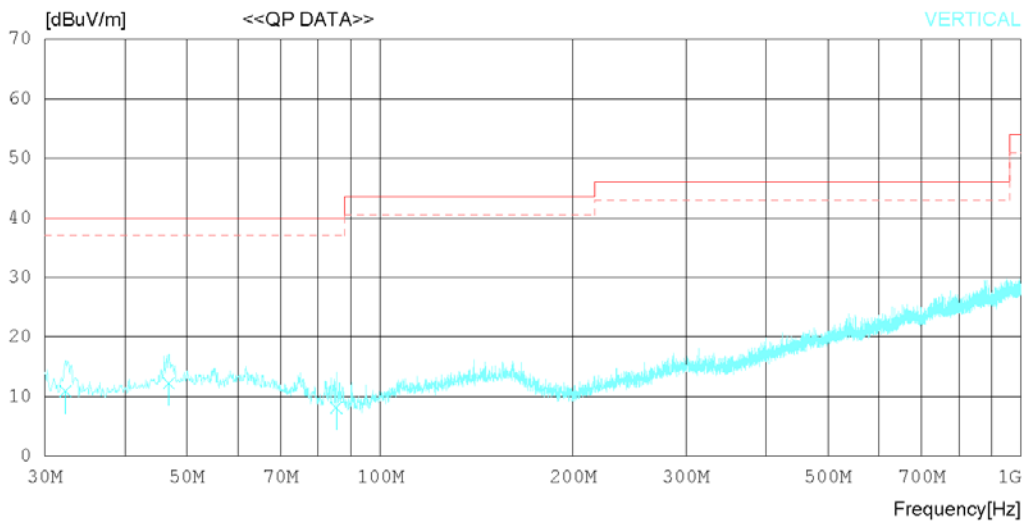
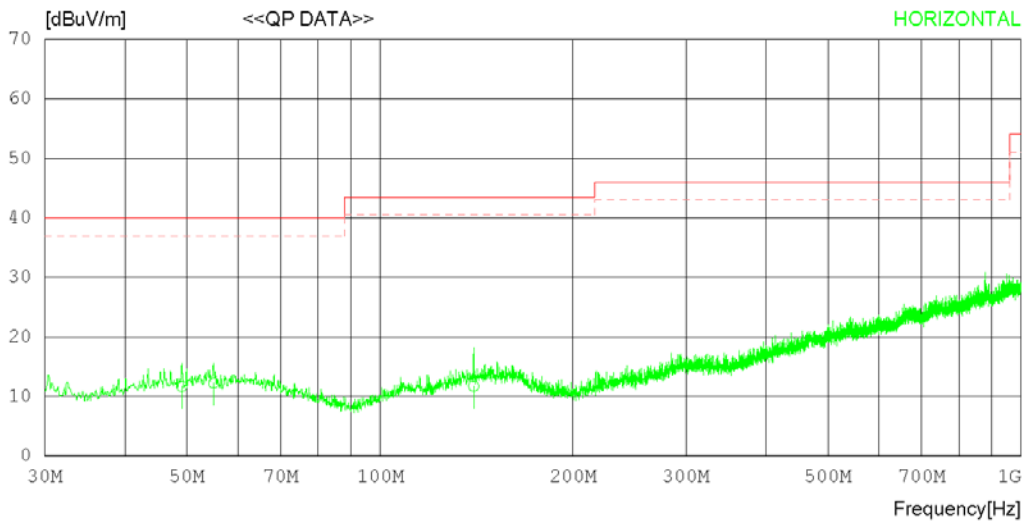
RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 'C 52 %R.H.
 Test Condition MP4 Mode

Memo

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



RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 52 % R.H.
 Test Condition MP4 Mode

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	49.036	19.40	18.20	0.72	26.62	11.70	40.00	28.30	400	44
2	54.978	19.10	18.99	0.79	26.64	12.24	40.00	27.76	202	351
3	139.972	18.60	18.70	1.24	26.78	11.76	43.50	31.74	196	285
----- Vertical -----										
4	32.304	21.40	15.43	0.64	26.53	10.94	40.00	29.06	100	166
5	46.854	20.20	17.90	0.70	26.60	12.20	40.00	27.80	101	352
6	85.532	20.10	13.55	1.27	26.78	8.14	40.00	31.86	105	86

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

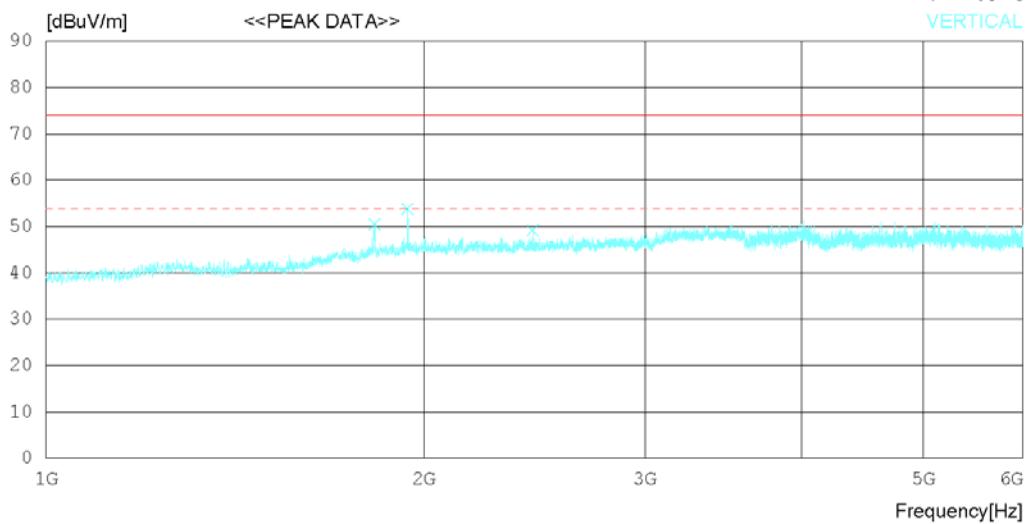
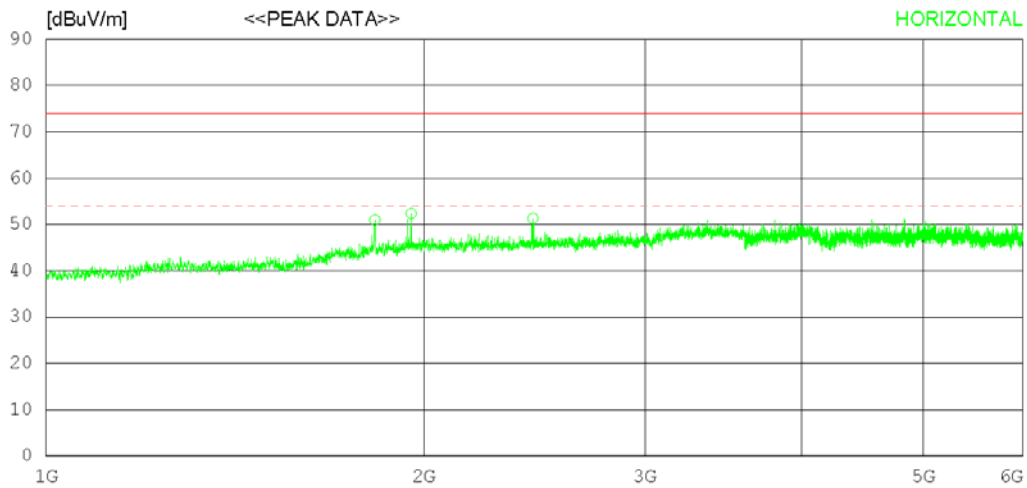
RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684,DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 'C 52 %R.H.
 Test Condition MP4 Mode

Memo

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



RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684,DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 52 % R.H.
 Test Condition MP4 Mode

Memo

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

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	1828.125	47.90	30.65	7.01	34.58	50.98	74.0	23.02	111	358
2	1953.750	48.30	31.70	6.76	34.41	52.35	74.0	21.65	209	122
3	2441.875	46.60	32.20	7.13	34.60	51.33	74.0	22.67	207	358
----- Vertical -----										
4	1827.500	47.40	30.64	7.01	34.58	50.47	74.0	23.53	102	140
5	1941.250	49.80	31.65	6.79	34.42	53.82	74.0	20.18	101	1
6	2441.875	44.40	32.20	7.13	34.60	49.13	74.0	24.87	106	1

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

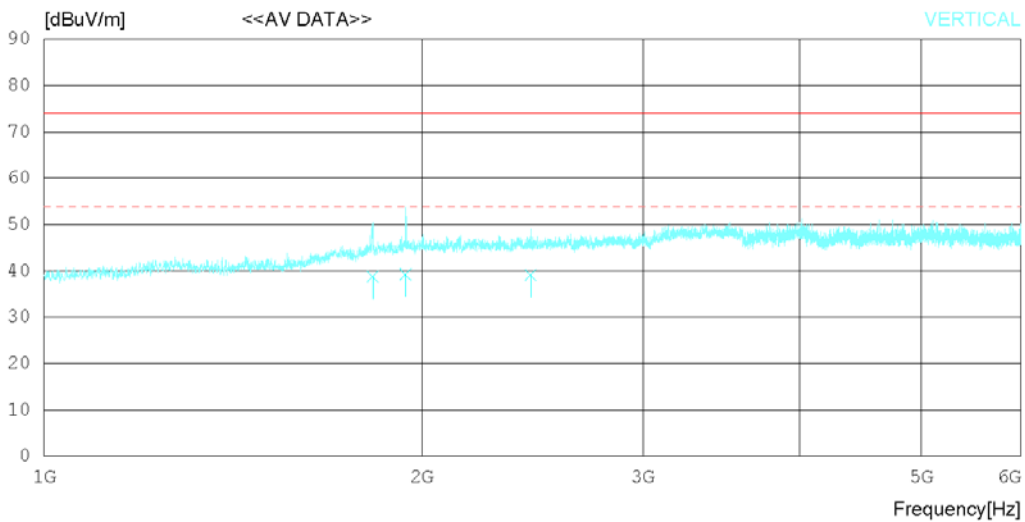
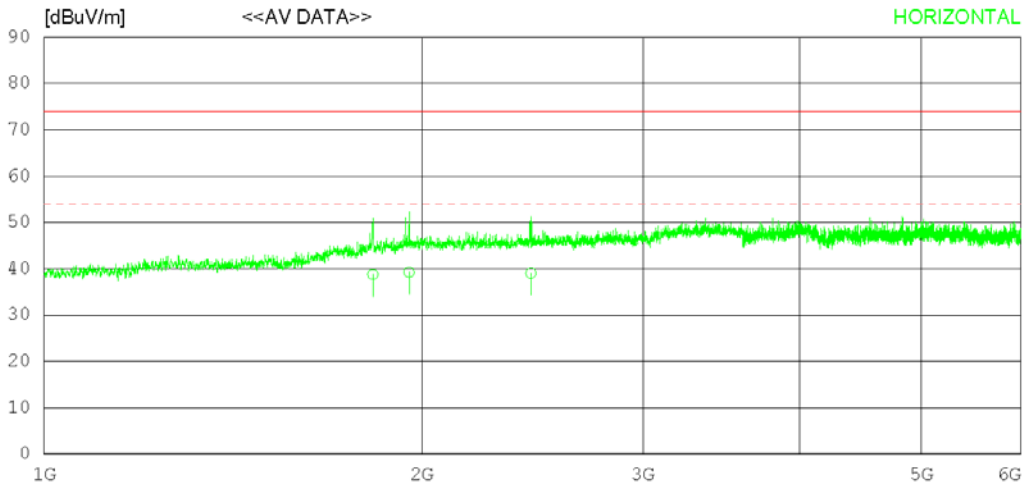
RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684,DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 'C 52 % R.H.
 Test Condition MP4 Mode

Memo

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



RADIATED EMISSION

Date 2020-06-22

Order No.	DTNC2004-03684,DTNC2006-04883
Power Supply	Battery
Temp/Humi	22 °C 52 % R.H.
Test Condition	MP4 Mode

Memo

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

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	1828.275	35.70	30.65	7.01	34.58	38.78	54.00	15.22	109	355
2	1953.630	35.20	31.70	6.76	34.41	39.25	54.00	14.75	211	136
3	2441.895	34.30	32.20	7.13	34.60	39.03	54.00	14.97	208	351
----- Vertical -----										
4	1827.432	35.70	30.64	7.01	34.58	38.77	54.00	15.23	100	156
5	1941.177	35.20	31.65	6.79	34.42	39.22	54.00	14.78	101	0
6	2441.835	34.30	32.20	7.13	34.60	39.03	54.00	14.97	105	0

Radiated disturbance at (6 ~ 18) GHz _ Peak Measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	Battery	Test Frequency (Hz)	-

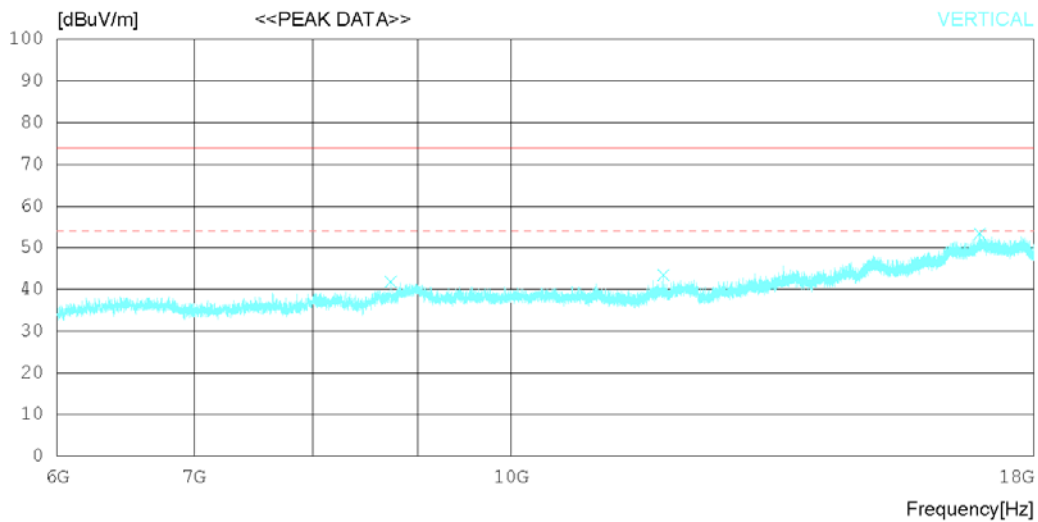
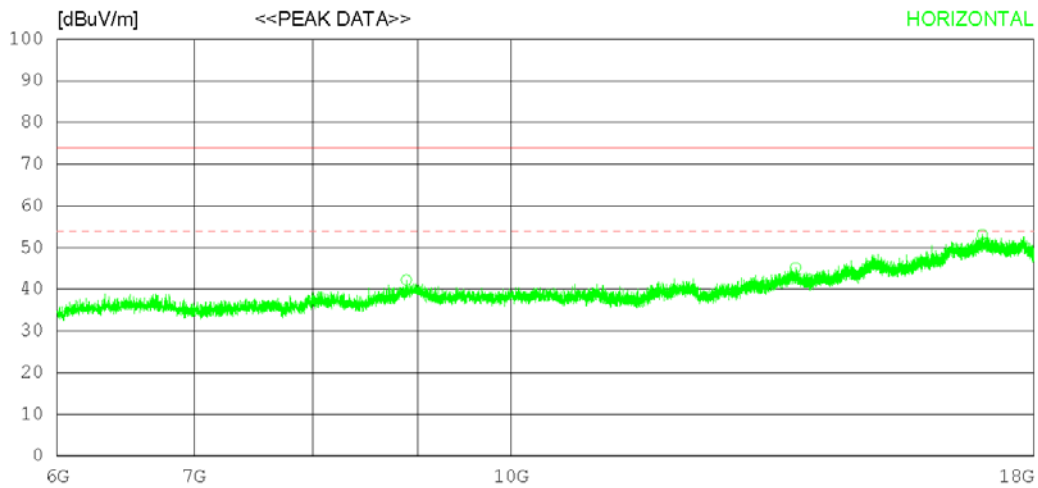
RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 'C 52 % R.H.
 Test Condition MP4 Mode

Memo

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



RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 52 % R.H.
 Test Condition MP4 Mode

Memo

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

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	8886.000	32.50	32.01	15.13	37.43	42.21	74.0	31.79	109	358
2	13768.500	29.60	33.83	19.23	37.45	45.21	74.0	28.79	102	1
3	16985.250	28.30	37.53	23.69	36.39	53.13	74.0	20.87	206	1
----- Vertical -----										
4	8734.500	32.40	31.89	14.88	37.34	41.83	74.0	32.17	105	234
5	11868.000	32.20	33.32	15.80	37.88	43.44	74.0	30.56	102	168
6	16940.250	28.90	37.48	23.30	36.36	53.32	74.0	20.68	106	1

Radiated disturbance at (6 ~ 18) GHz _ Average Measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	Battery	Test Frequency (Hz)	-

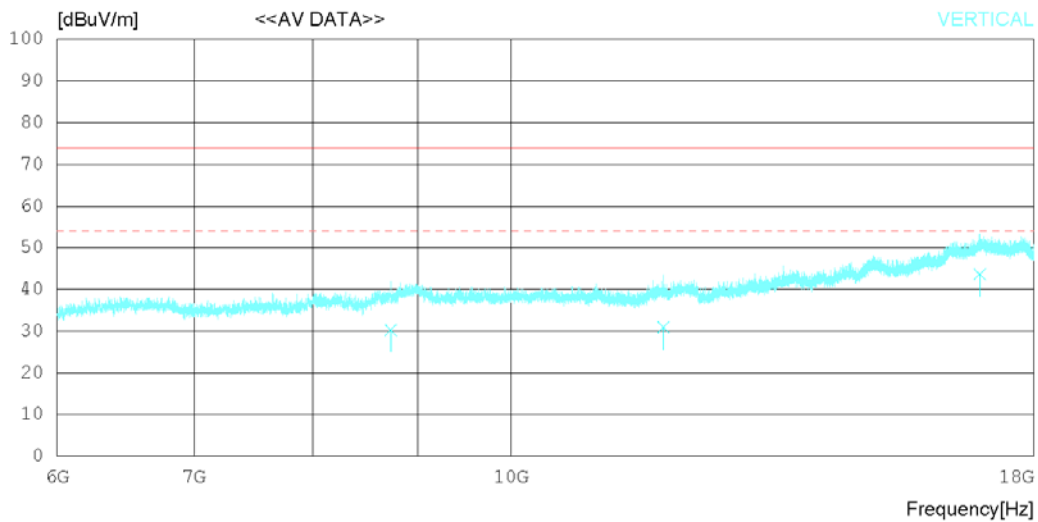
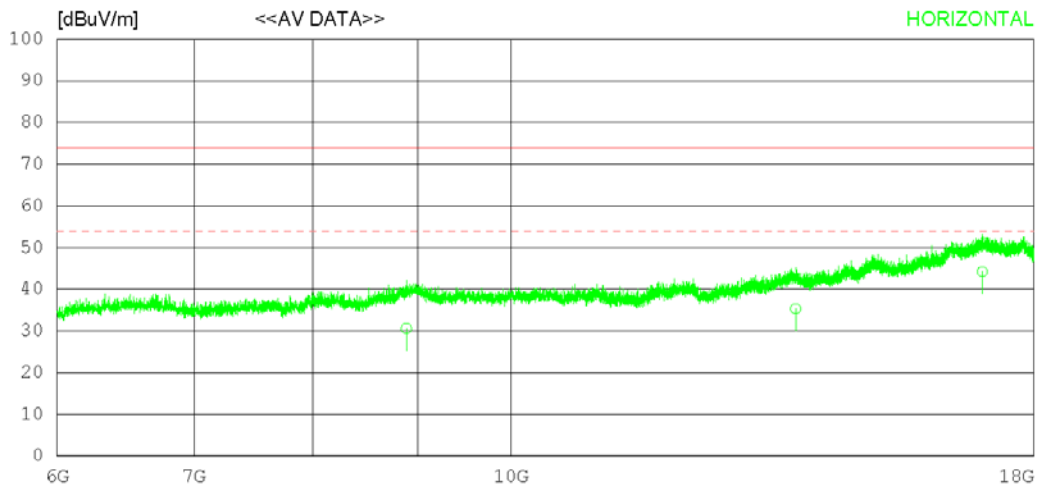
RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 'C 52 % R.H.
 Test Condition MP4 Mode

Memo

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



RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 52 % R.H.
 Test Condition MP4 Mode

Memo

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

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	8886.186	20.90	32.01	15.13	37.43	30.61	54.00	23.39	109	352
2	13768.440	19.70	33.83	19.23	37.45	35.31	54.00	18.69	101	0
3	16985.130	19.40	37.53	23.69	36.39	44.23	54.00	9.77	205	0
----- Vertical -----										
4	8734.460	20.80	31.89	14.88	37.34	30.23	54.00	23.77	104	146
5	11868.050	19.70	33.32	15.80	37.88	30.94	54.00	23.06	101	171
6	16940.240	19.20	37.48	23.30	36.36	43.62	54.00	10.38	105	0

Radiated disturbance at (18 ~ 40) GHz _ Peak Measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	Battery	Test Frequency (Hz)	-

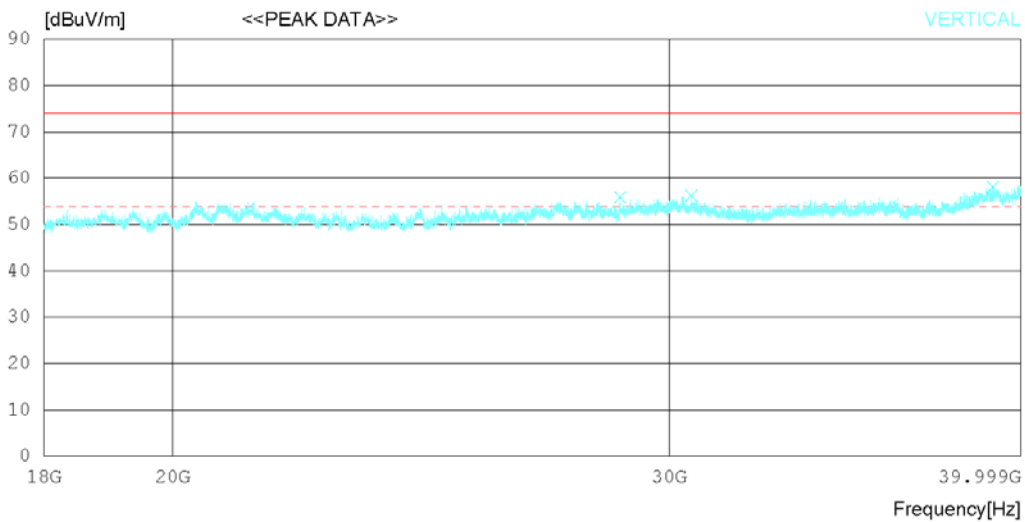
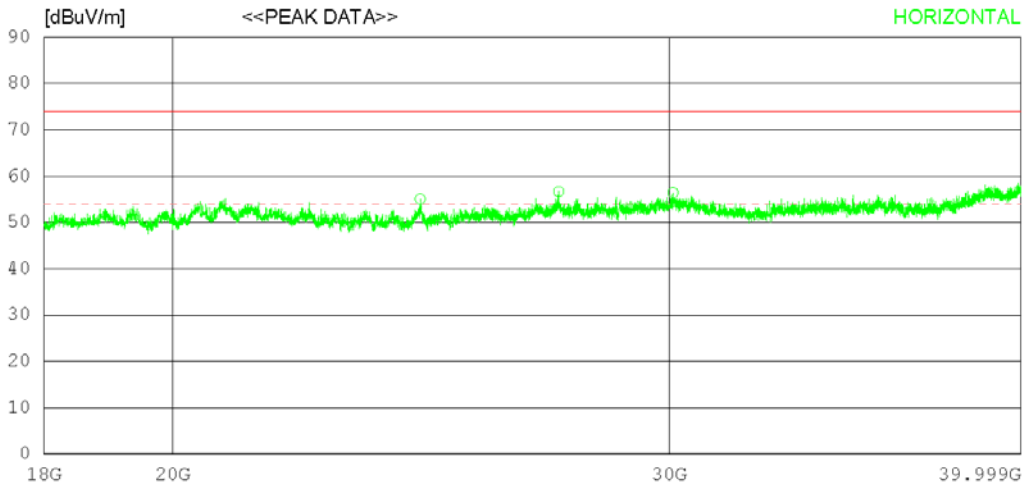
RADIATED EMISSION

Date 2020-06-23

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 'C 46 % R.H.
 Test Condition MP4 Mode

Memo

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



RADIATED EMISSION

Date 2020-06-23

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 46 % R.H.
 Test Condition MP4 Mode

Memo

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

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	24479.000	42.90	45.50	20.62	53.96	55.06	74.0	18.94	208	169
2	27413.250	42.50	46.00	21.19	53.04	56.65	74.0	17.35	203	1
3	30102.750	39.20	47.50	21.93	52.21	56.42	74.0	17.58	202	358
----- Vertical -----										
4	28829.500	40.00	46.73	21.74	52.58	55.89	74.0	18.11	106	55
5	30556.500	38.90	47.40	22.20	52.23	56.27	74.0	17.73	102	9
6	39092.500	37.00	47.69	25.64	52.25	58.08	74.0	15.92	103	358

Radiated disturbance at (18 ~ 40) GHz _ Average Measurement data			
Test configuration mode	1	EUT Operation mode	1
Test voltage (V)	Battery	Test Frequency (Hz)	-

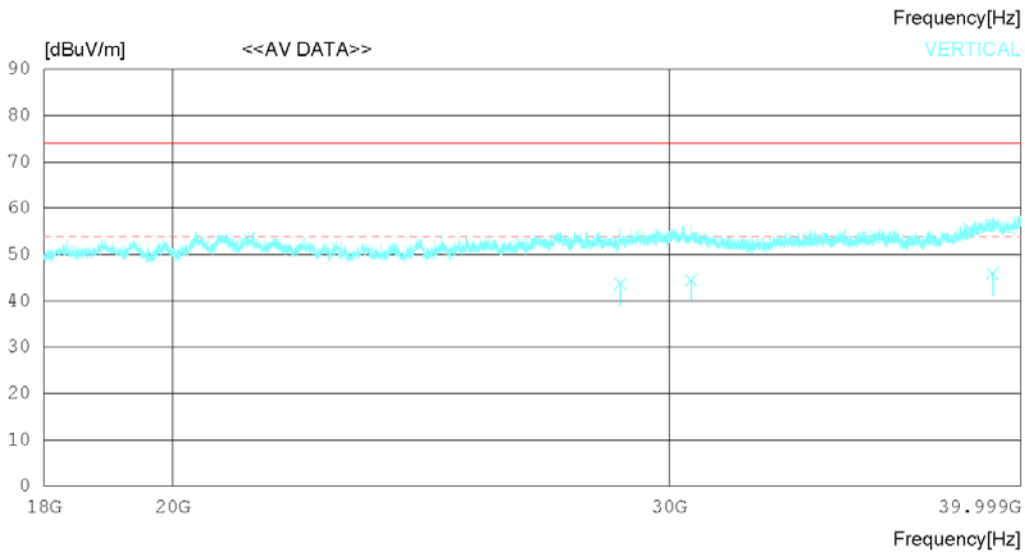
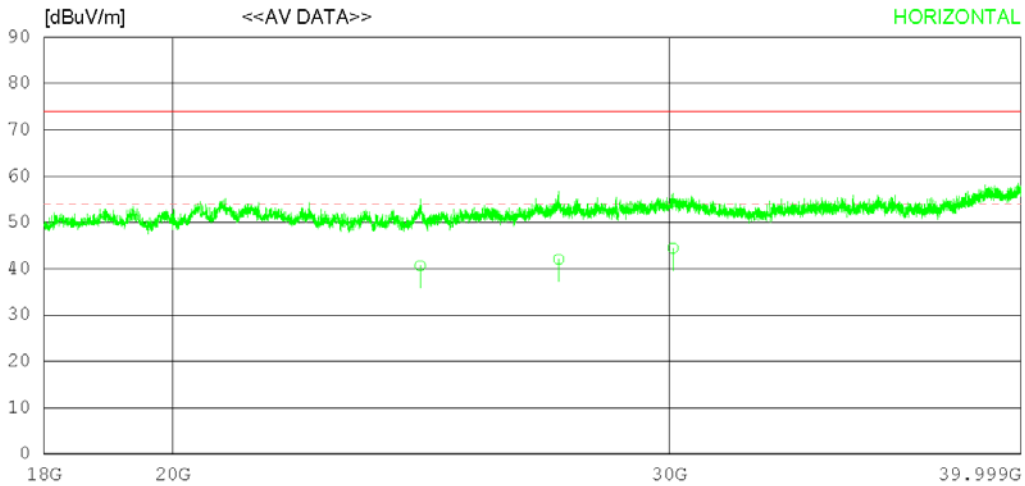
RADIATED EMISSION

Date 2020-06-23

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 'C 46 % R.H.
 Test Condition MP4 Mode

Memo

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



RADIATED EMISSION

Date 2020-06-23

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 46 % R.H.
 Test Condition MP4 Mode

Memo

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

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	24479.180	28.50	45.50	20.62	53.96	40.66	54.00	13.34	206	177
2	27413.390	27.90	46.00	21.19	53.04	42.05	54.00	11.95	201	0
3	30102.710	27.20	47.50	21.93	52.21	44.42	54.00	9.58	204	351
----- Vertical -----										
4	28829.690	27.80	46.73	21.74	52.58	43.69	54.00	10.31	105	66
5	30556.430	27.10	47.40	22.20	52.23	44.47	54.00	9.53	101	0
6	39092.380	24.80	47.69	25.65	52.25	45.89	54.00	8.11	102	351

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

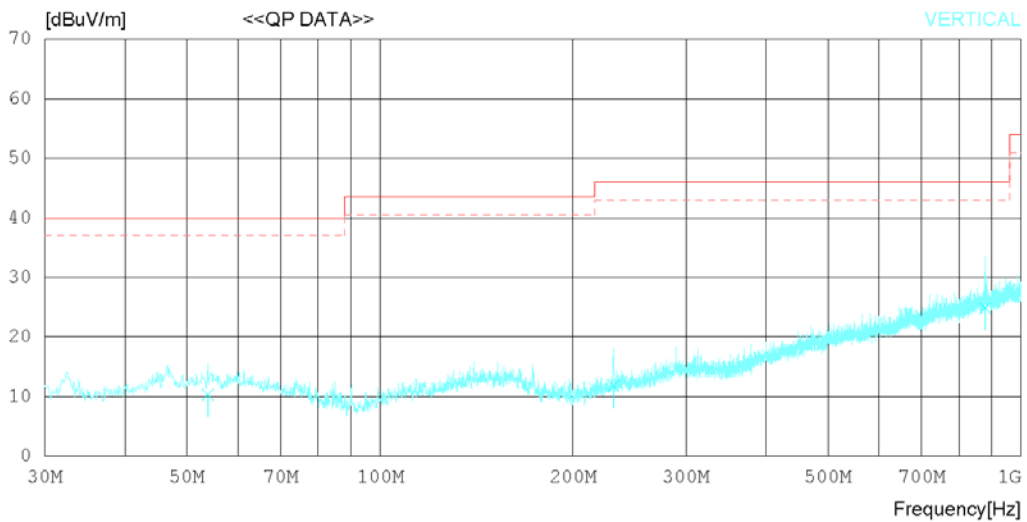
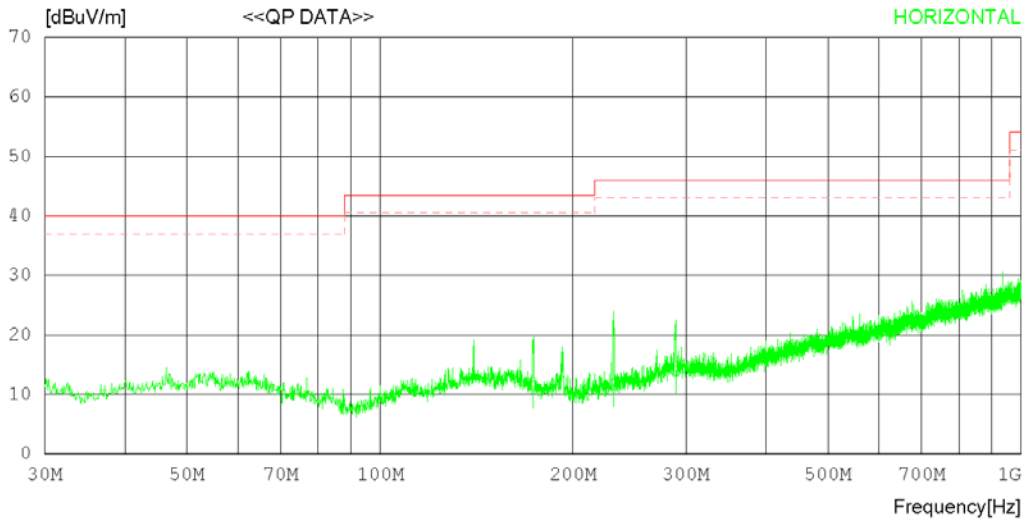
RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 52 %R.H.
 Test Condition Rear Camera Mode

Memo

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



RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 52 %R.H.
 Test Condition Rear Camera Mode

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	173.557	19.20	17.71	1.25	26.70	11.46	43.50	32.04	400	0
2	231.634	19.10	17.51	1.70	26.61	11.70	46.00	34.30	394	102
3	289.347	18.70	19.48	2.38	26.57	13.99	46.00	32.01	396	11
----- Vertical -----										
4	53.886	17.60	18.59	0.78	26.64	10.33	40.00	29.67	109	278
5	231.513	19.20	17.51	1.70	26.61	11.80	46.00	34.20	101	286
6	879.424	18.60	29.11	3.61	26.44	24.88	46.00	21.12	102	0

Radiated disturbance at (1 ~ 6) GHz _ Peak Measurement data			
Test configuration mode	2	EUT Operation mode	2
Test voltage (V)	Battery	Test Frequency (Hz)	-

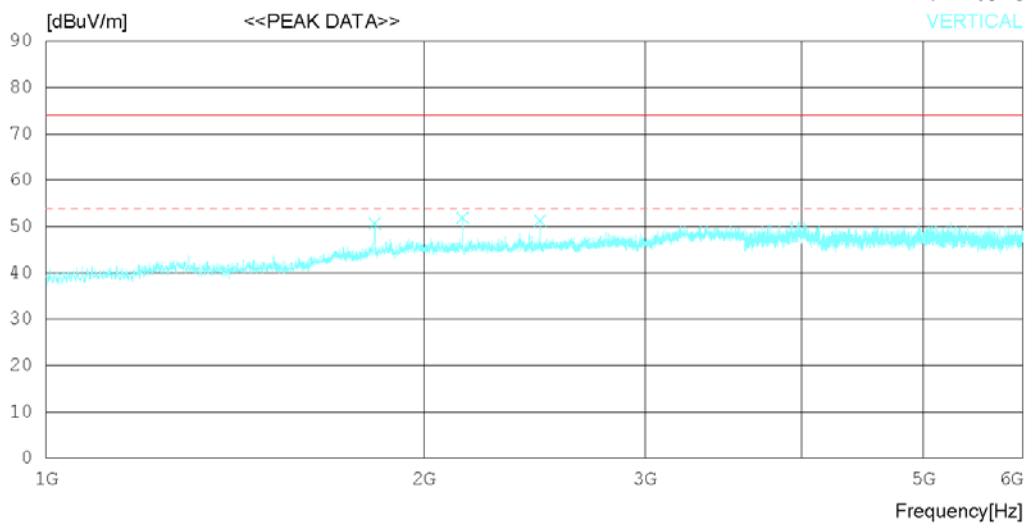
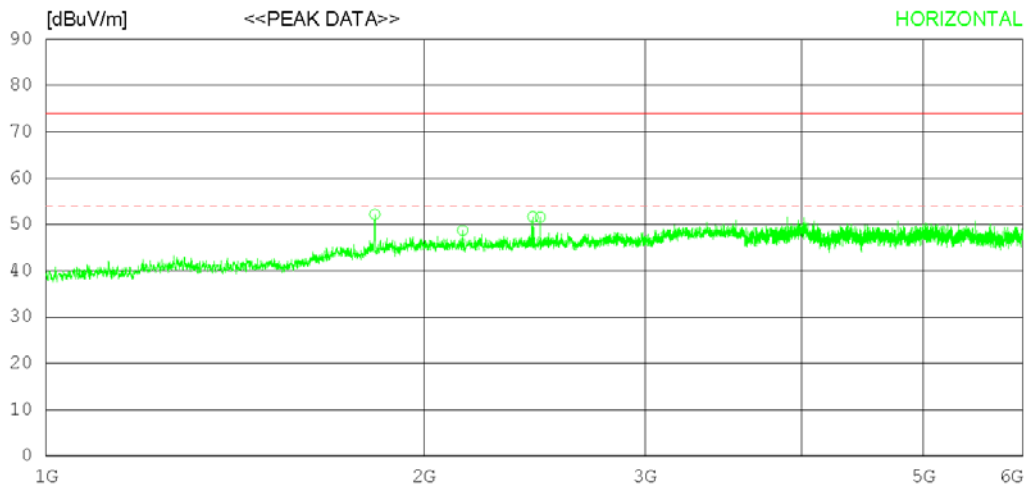
RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684,DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 'C 52 %.R.H.
 Test Condition Rear Camera Mode

Memo

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



RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684,DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 52 % R.H.
 Test Condition Rear Camera Mode

Memo

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

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	1827.500	49.10	30.64	7.01	34.58	52.17	74.0	21.83	202	238
2	2146.875	44.60	31.71	6.82	34.43	48.70	74.0	25.3	104	358
3	2441.875	46.90	32.20	7.13	34.60	51.63	74.0	22.37	206	102
4	2475.625	46.80	32.20	7.19	34.62	51.57	74.0	22.43	204	84
----- Vertical -----										
5	1828.125	47.60	30.65	7.01	34.58	50.68	74.0	23.32	108	1
6	2147.500	47.80	31.71	6.82	34.43	51.90	74.0	22.1	103	90
7	2475.625	46.50	32.20	7.19	34.62	51.27	74.0	22.73	104	127

Radiated disturbance at (1 ~ 6) GHz _ Average Measurement data			
Test configuration mode	2	EUT Operation mode	2
Test voltage (V)	Battery	Test Frequency (Hz)	-

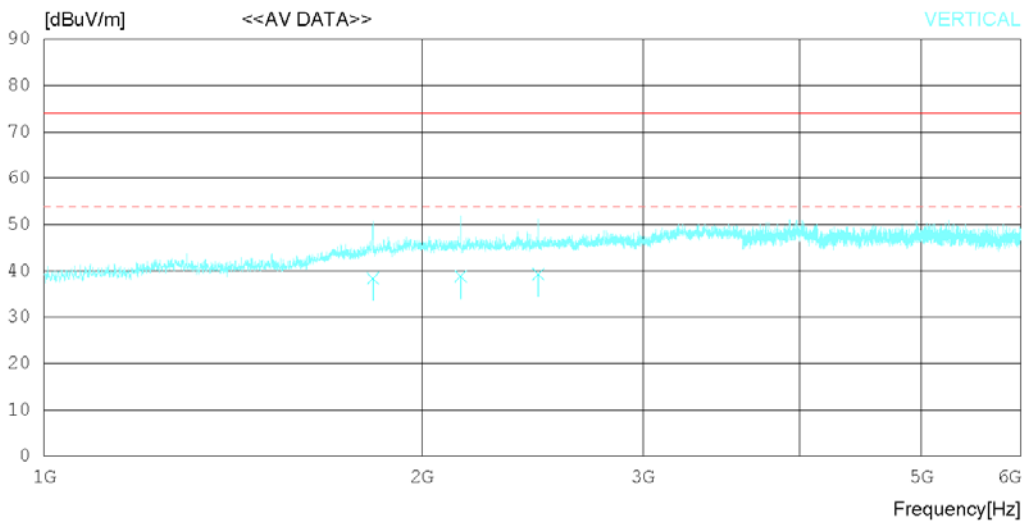
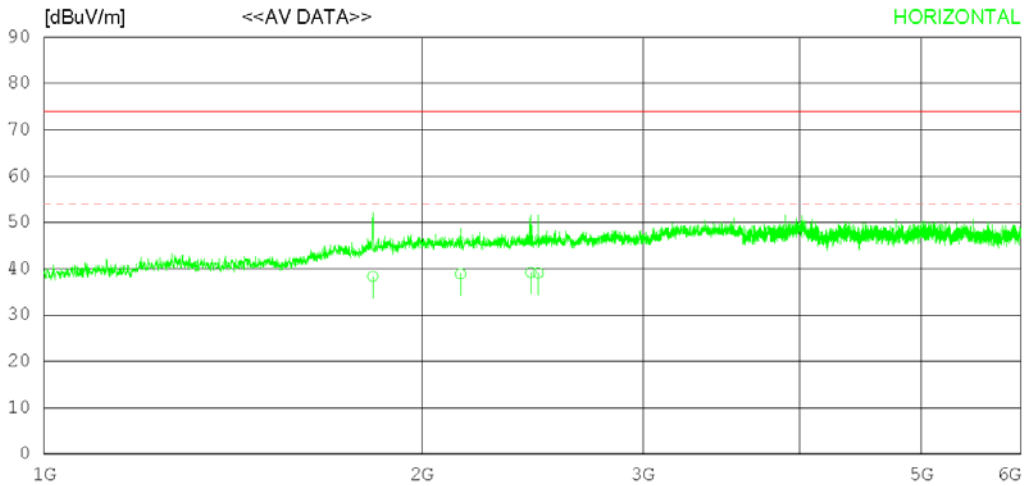
RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684,DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 'C 52 %R.H.
 Test Condition Rear Camera Mode

Memo

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



RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684,DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 52 %R.H.
 Test Condition Rear Camera Mode

Memo

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

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	1827.462	35.30	30.64	7.01	34.58	38.37	54.00	15.63	201	241
2	2146.895	34.80	31.71	6.82	34.43	38.90	54.00	15.10	103	352
3	2441.815	34.50	32.20	7.13	34.60	39.23	54.00	14.77	204	115
4	2475.535	34.30	32.20	7.19	34.62	39.07	54.00	14.93	205	91
----- Vertical -----										
5	1828.114	35.30	30.65	7.01	34.58	38.38	54.00	15.62	107	0
6	2147.580	34.70	31.70	6.82	34.43	38.79	54.00	15.21	101	90
7	2475.635	34.50	32.20	7.19	34.62	39.27	54.00	14.73	105	127

Radiated disturbance at (6 ~ 18) GHz _ Peak Measurement data			
Test configuration mode	2	EUT Operation mode	2
Test voltage (V)	Battery	Test Frequency (Hz)	-

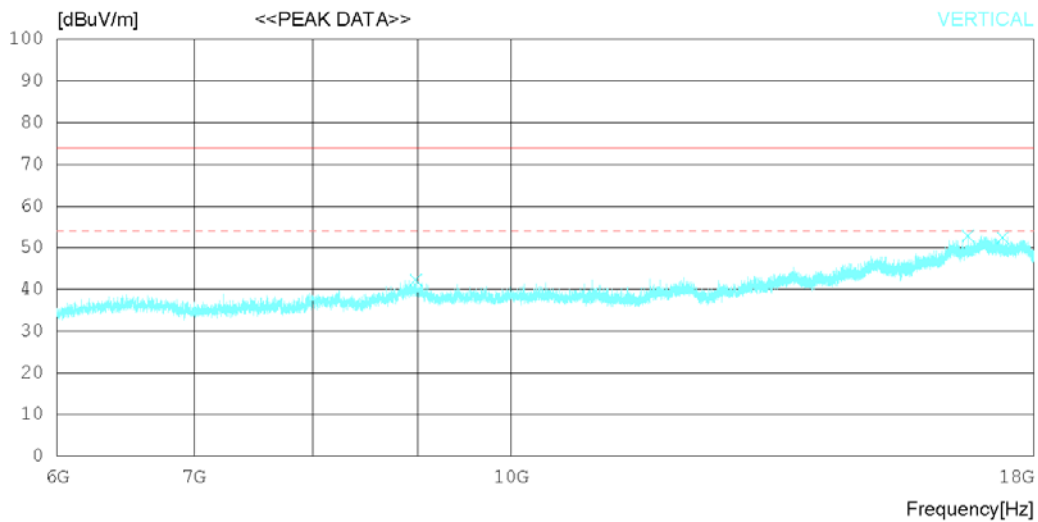
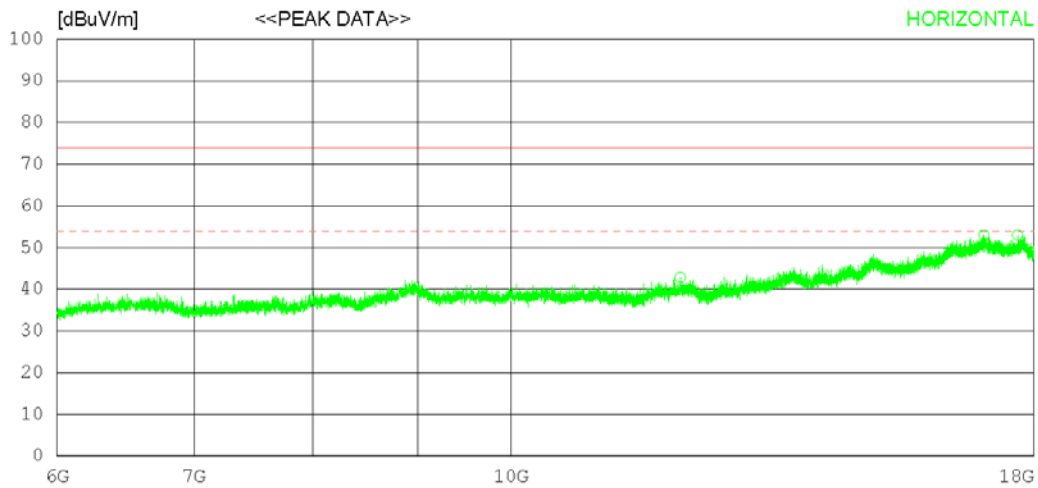
RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 'C 52 % R.H.
 Test Condition Rear Camera Mode

Memo

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



RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 52 % R.H.
 Test Condition Rear Camera Mode

Memo

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

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	12094.500	32.00	33.47	15.22	37.83	42.86	74.0	31.14	206	1
2	17015.250	28.20	37.56	23.69	36.42	53.03	74.0	20.97	109	125
3	17670.000	29.60	38.07	22.59	37.27	52.99	74.0	21.01	106	60
----- Vertical -----										
4	8982.750	32.20	32.09	15.48	37.49	42.28	74.0	31.72	108	357
5	16711.500	29.90	37.22	21.95	36.23	52.84	74.0	21.16	100	101
6	17385.000	29.40	37.85	22.03	36.86	52.42	74.0	21.58	106	139

Radiated disturbance at (6 ~ 18) GHz _ Average Measurement data			
Test configuration mode	2	EUT Operation mode	2
Test voltage (V)	Battery	Test Frequency (Hz)	-

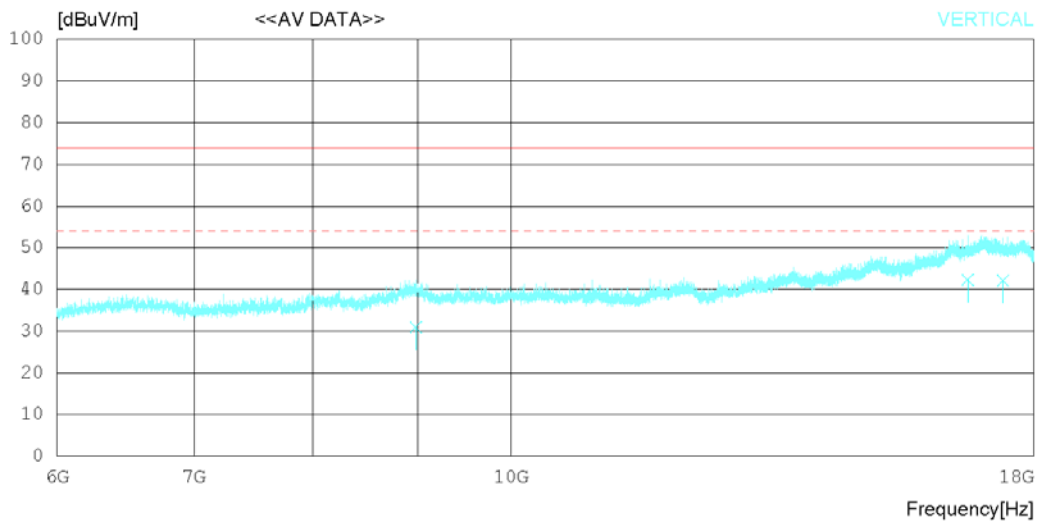
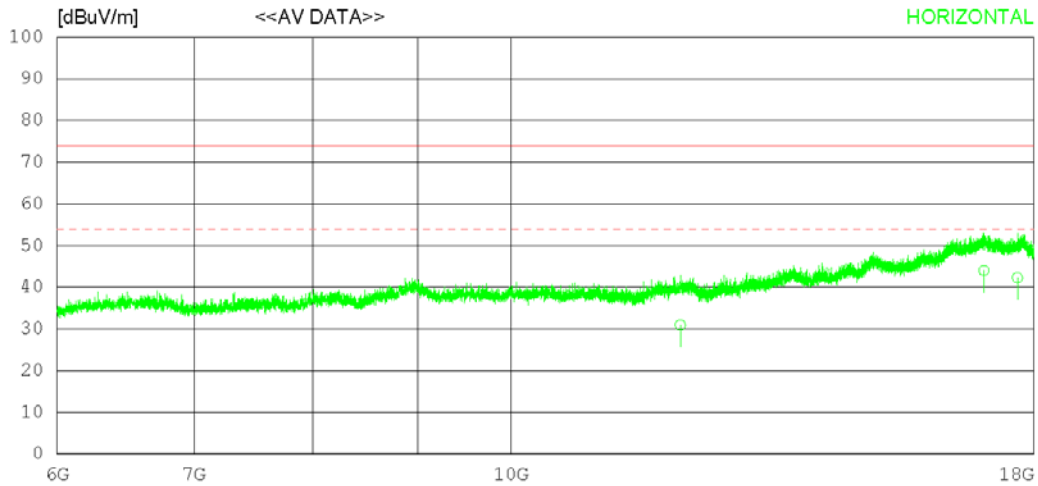
RADIATED EMISSION

Date 2020-06-22

Order No.	DTNC2004-03684, DTNC2006-04883
Power Supply	Battery
Temp/Humi	22 'C 52 % R.H.
Test Condition	Rear Camera Mode

Memo

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



RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 52 % R.H.
 Test Condition Rear Camera Mode

Memo

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

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	12094.160	20.10	33.47	15.22	37.83	30.96	54.00	23.04	205	0
2	17015.860	19.20	37.56	23.68	36.42	44.02	54.00	9.98	111	136
3	17670.170	18.90	38.07	22.59	37.27	42.29	54.00	11.71	105	75
----- Vertical -----										
4	8982.254	20.90	32.09	15.48	37.49	30.98	54.00	23.02	107	351
5	16711.440	19.40	37.22	21.95	36.23	42.34	54.00	11.66	101	108
6	17385.120	19.10	37.85	22.03	36.86	42.12	54.00	11.88	105	145

Radiated disturbance at (18 ~ 40) GHz _ Peak Measurement data			
Test configuration mode	2	EUT Operation mode	2
Test voltage (V)	Battery	Test Frequency (Hz)	-

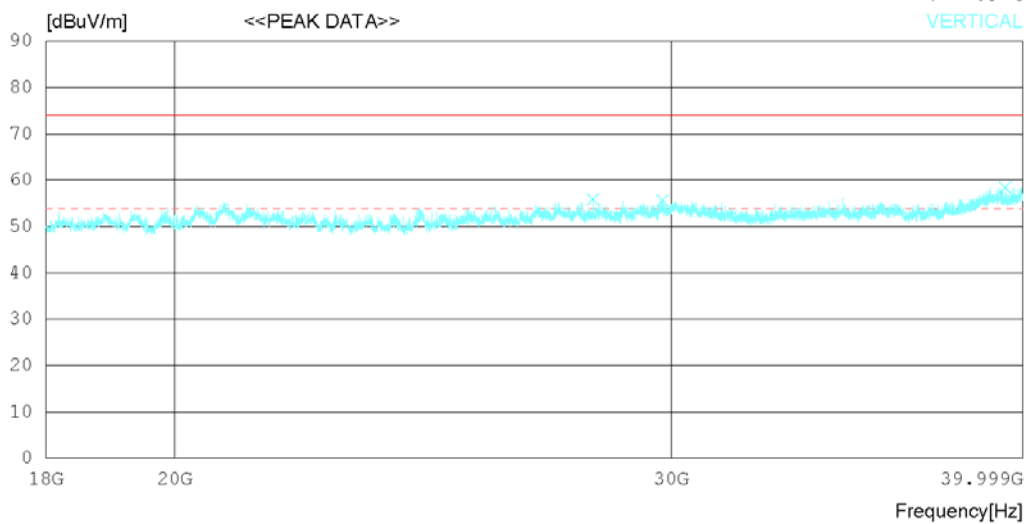
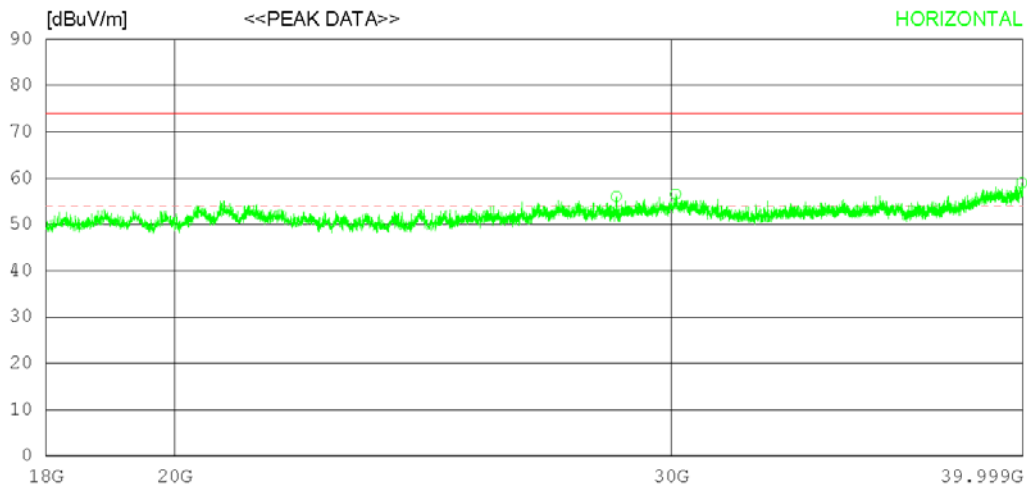
RADIATED EMISSION

Date 2020-06-23

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 46 % R.H.
 Test Condition Rear Camera Mode

Memo

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



RADIATED EMISSION

Date 2020-06-23

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 46 % R.H.
 Test Condition Rear Camera Mode

Memo

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

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	28689.250	40.40	46.60	21.67	52.63	56.04	74.0	17.96	202	52
2	30113.750	39.30	47.50	21.94	52.21	56.53	74.0	17.47	206	1
3	39964.250	37.60	49.23	24.36	52.20	58.99	74.0	15.01	108	159
----- Vertical -----										
4	28142.000	41.00	46.34	21.36	52.80	55.90	74.0	18.1	113	358
5	29800.250	38.40	47.60	21.87	52.26	55.61	74.0	18.39	108	358
6	39428.000	37.40	48.16	25.15	52.23	58.48	74.0	15.52	103	217

Radiated disturbance at (18 ~ 40) GHz _ Average Measurement data			
Test configuration mode	2	EUT Operation mode	2
Test voltage (V)	Battery	Test Frequency (Hz)	-

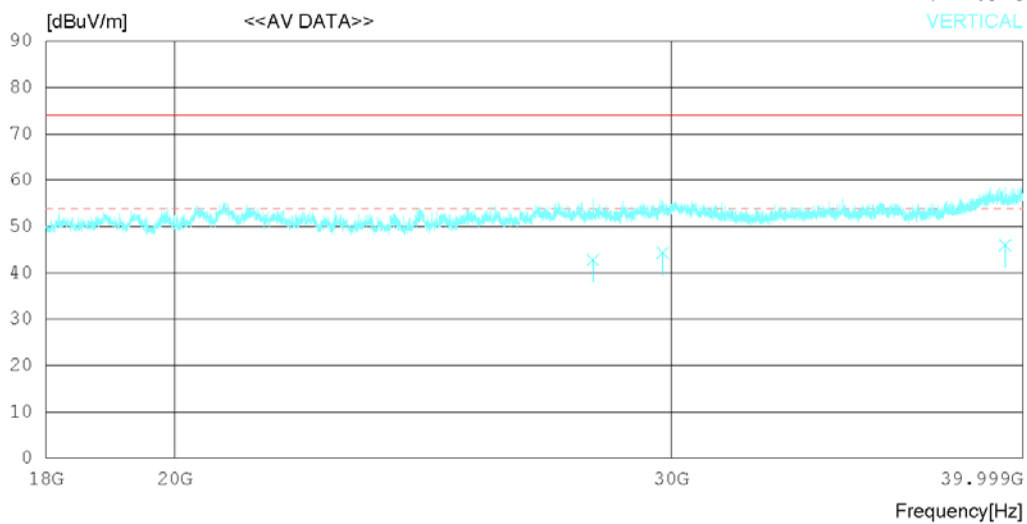
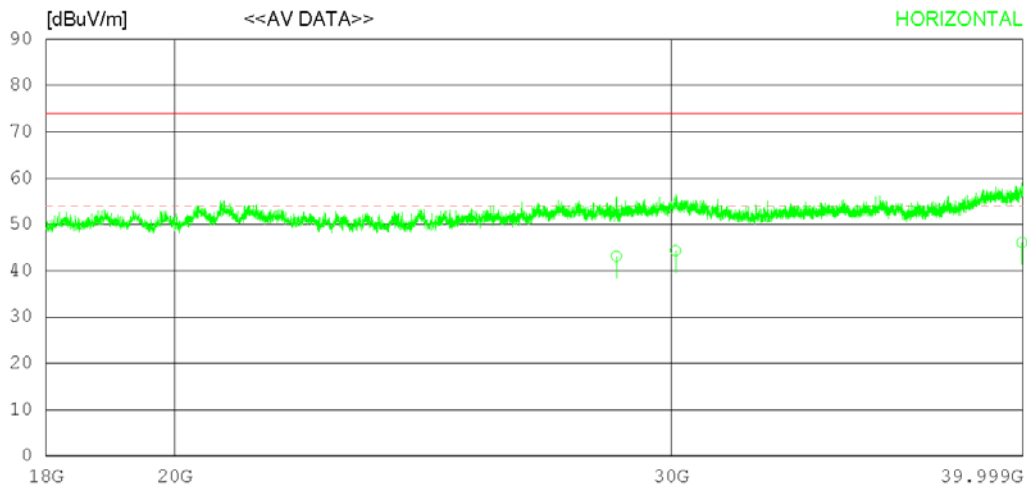
RADIATED EMISSION

Date 2020-06-23

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 46 % R.H.
 Test Condition Rear Camera Mode

Memo

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



RADIATED EMISSION

Date 2020-06-23

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 46 % R.H.
 Test Condition Rear Camera Mode

Memo

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

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	28689.470	27.50	46.60	21.67	52.63	43.14	54.00	10.86	201	69
2	30113.680	27.10	47.50	21.94	52.21	44.33	54.00	9.67	205	0
3	39964.360	24.70	49.23	24.36	52.20	46.09	54.00	7.91	107	166
----- Vertical -----										
4	28142.430	27.90	46.34	21.36	52.80	42.80	54.00	11.20	112	354
5	29800.170	27.20	47.60	21.87	52.26	44.41	54.00	9.59	107	351
6	39428.590	24.90	48.16	25.15	52.23	45.98	54.00	8.02	102	225

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

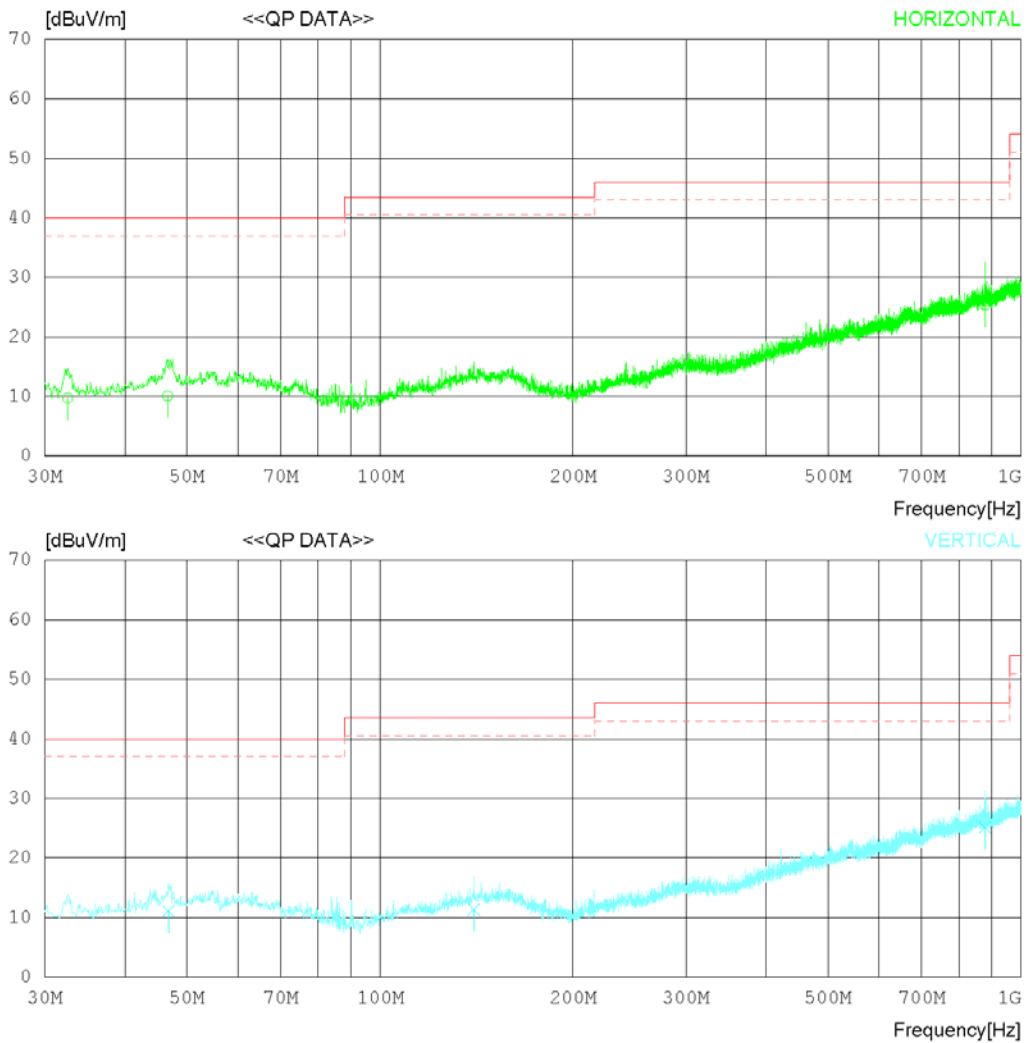
RADIATED EMISSION

Date 2020-06-22

Order No.	DTNC2004-03684, DTNC2006-04883
Power Supply	Battery
Temp/Humi	22 °C 52 %R.H.
Test Condition	Barcode Mode

Memo

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



RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 52 % R.H.
 Test Condition Barcode Mode

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	32.546	20.20	15.45	0.63	26.53	9.75	40.00	30.25	108	351
2	46.611	18.10	17.90	0.71	26.60	10.11	40.00	29.89	102	356
3	879.545	19.10	29.10	3.61	26.44	25.37	46.00	20.63	211	355
----- Vertical -----										
4	46.733	19.10	17.90	0.71	26.60	11.11	40.00	28.89	100	0
5	139.972	18.20	18.70	1.24	26.78	11.36	43.50	32.14	104	84
6	879.545	18.90	29.10	3.61	26.44	25.17	46.00	20.83	102	205

Radiated disturbance at (1 ~ 6) GHz _ Peak Measurement data			
Test configuration mode	3	EUT Operation mode	3
Test voltage (V)	Battery	Test Frequency (Hz)	-

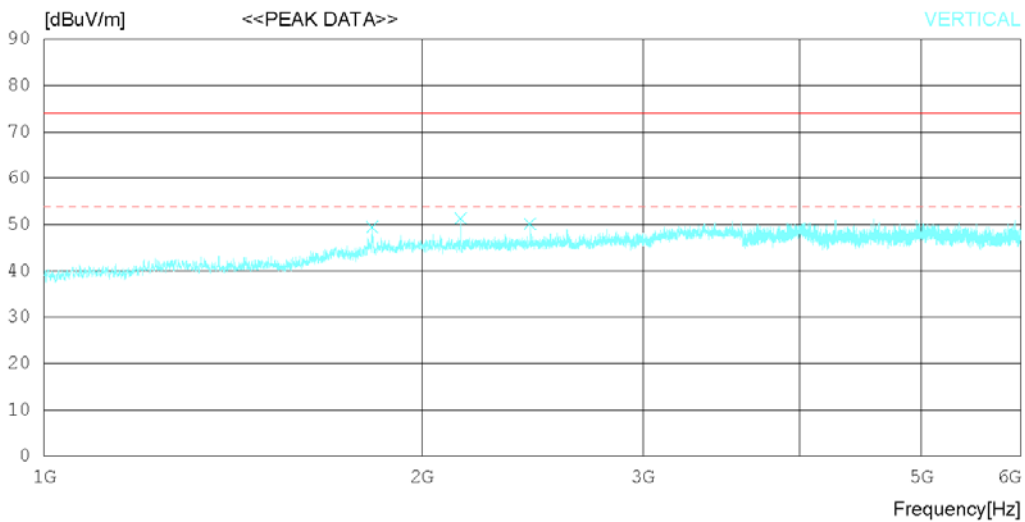
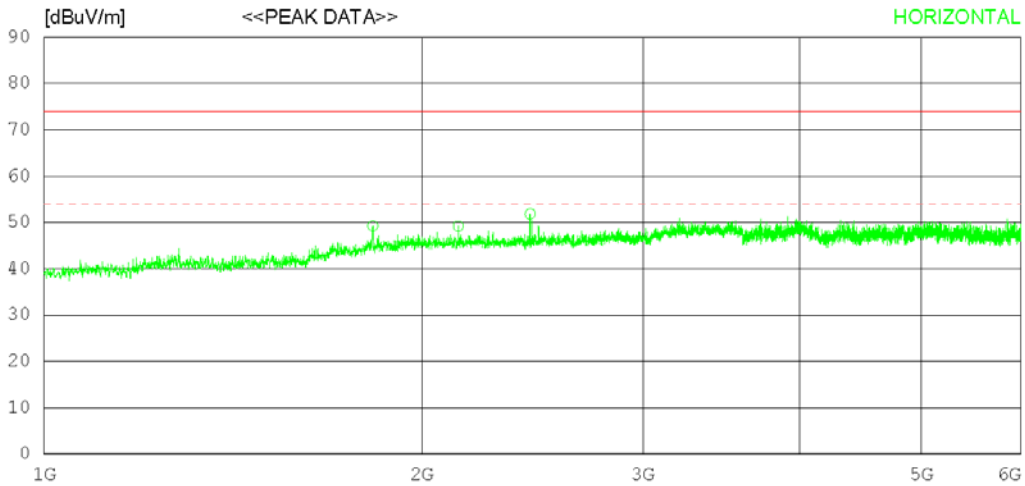
RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684,DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 'C 52 %.R.H.
 Test Condition Barcode Mode

Memo

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



RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684,DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 52 % R.H.
 Test Condition Barcode Mode

Memo

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

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	1827.500	46.20	30.64	7.01	34.58	49.27	74.0	24.73	204	358
2	2138.125	45.10	31.72	6.82	34.42	49.22	74.0	24.78	206	250
3	2438.750	47.10	32.20	7.12	34.60	51.82	74.0	22.18	199	358
----- Vertical -----										
4	1825.000	46.40	30.60	7.02	34.59	49.43	74.0	24.57	104	299
5	2147.500	47.20	31.71	6.82	34.43	51.30	74.0	22.7	103	119
6	2438.750	45.50	32.20	7.12	34.60	50.22	74.0	23.78	106	1

Radiated disturbance at (1 ~ 6) GHz _ Average Measurement data			
Test configuration mode	3	EUT Operation mode	3
Test voltage (V)	Battery	Test Frequency (Hz)	-

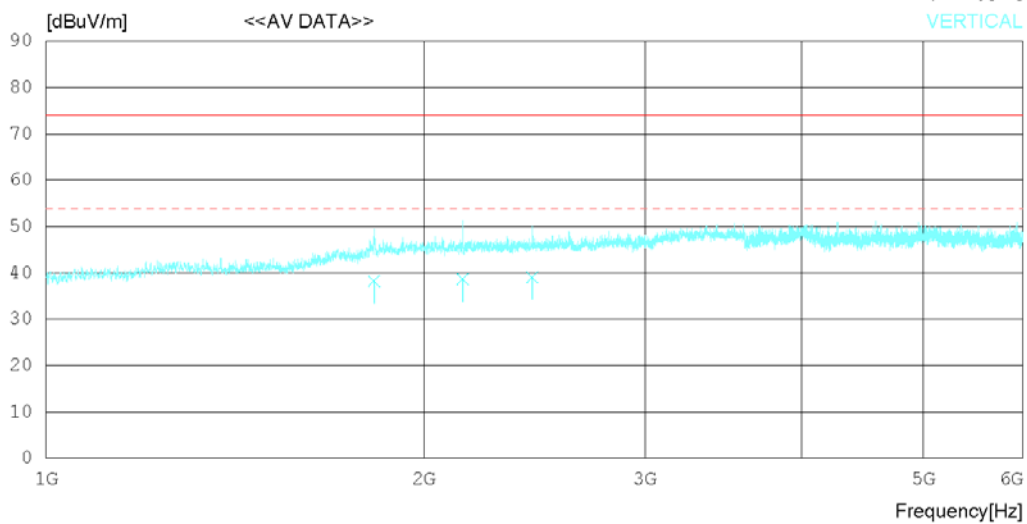
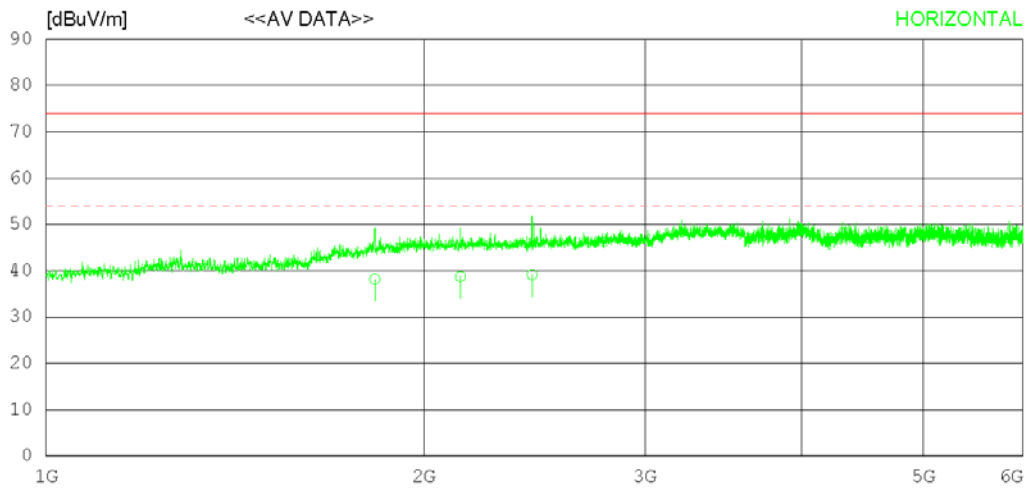
RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684,DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 'C 52 %.R.H.
 Test Condition Barcode Mode

Memo

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



RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684,DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 52 % R.H.
 Test Condition Barcode Mode

Memo

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

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	1827.490	35.10	30.64	7.01	34.58	38.17	54.00	15.83	205	356
2	2138.295	34.60	31.72	6.82	34.42	38.72	54.00	15.28	204	244
3	2438.730	34.40	32.20	7.12	34.60	39.12	54.00	14.88	196	352
----- Vertical -----										
4	1825.110	35.20	30.60	7.02	34.59	38.23	54.00	15.77	102	306
5	2147.496	34.50	31.71	6.82	34.43	38.60	54.00	15.40	101	201
6	2438.655	34.30	32.20	7.12	34.60	39.02	54.00	14.98	105	0

Radiated disturbance at (6 ~ 18) GHz _ Peak Measurement data			
Test configuration mode	3	EUT Operation mode	3
Test voltage (V)	Battery	Test Frequency (Hz)	-

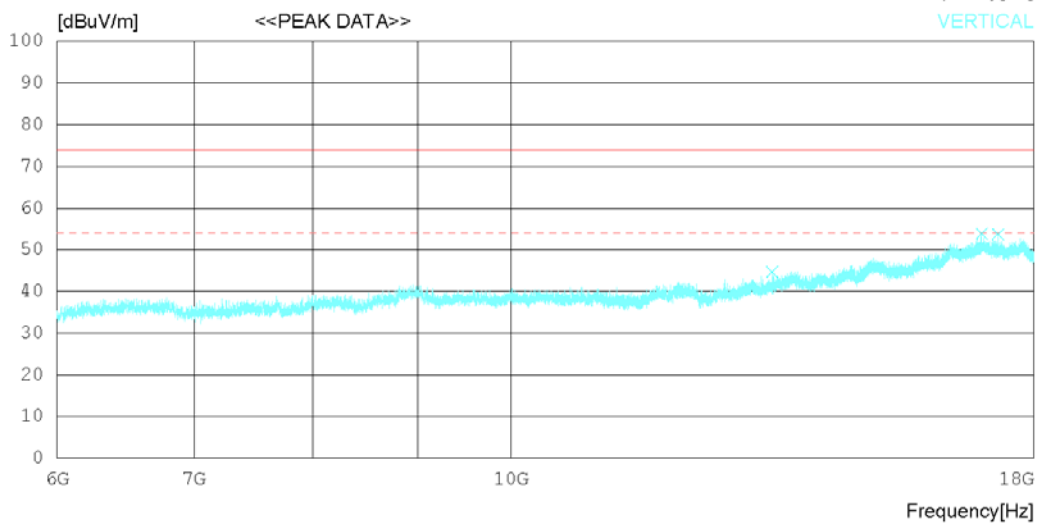
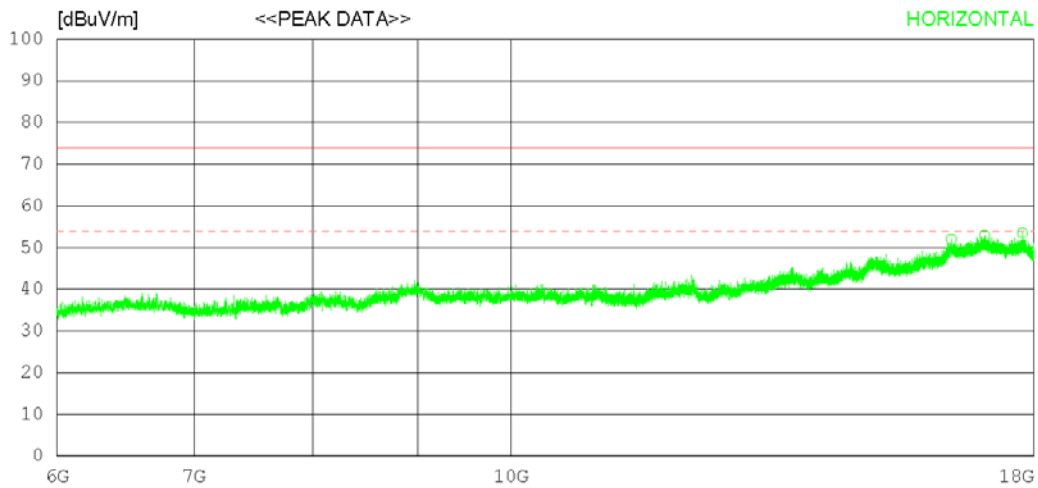
RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684,DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 'C 52 % R.H.
 Test Condition Barcode Mode

Memo

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



RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684,DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 52 % R.H.
 Test Condition Barcode Mode

Memo

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

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	16404.000	29.30	36.88	21.98	36.16	52.00	74.0	22	104	1
2	17030.250	28.20	37.57	23.57	36.44	52.90	74.0	21.1	101	349
3	17770.500	30.00	38.14	22.76	37.43	53.47	74.0	20.53	103	322
----- Vertical -----										
4	13413.750	30.90	33.70	17.59	37.49	44.70	74.0	29.3	109	312
5	16976.250	29.20	37.52	23.60	36.39	53.93	74.0	20.07	102	1
6	17295.000	30.60	37.78	22.12	36.75	53.75	74.0	20.25	106	190

Radiated disturbance at (6 ~ 18) GHz _ Average Measurement data			
Test configuration mode	3	EUT Operation mode	3
Test voltage (V)	Battery	Test Frequency (Hz)	-

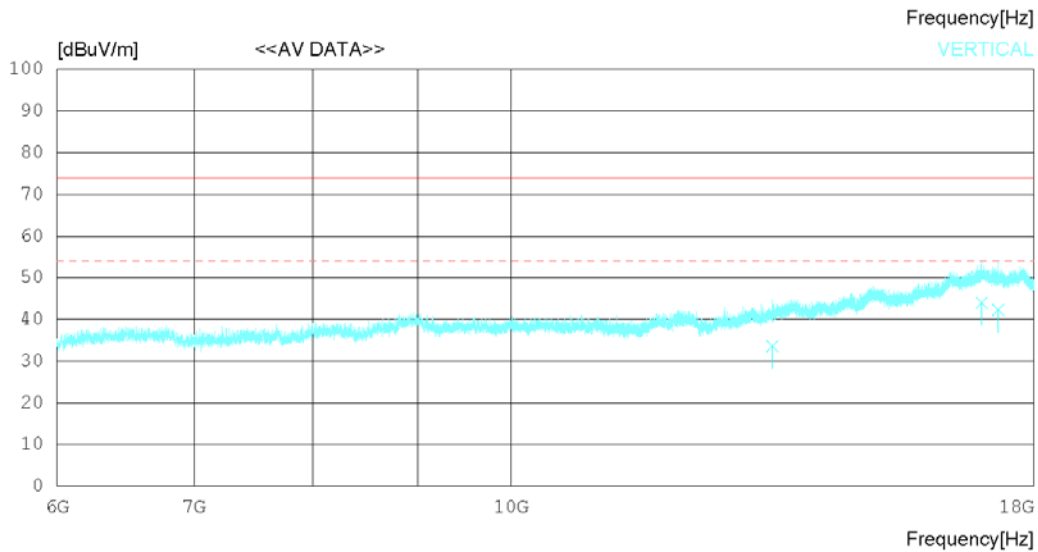
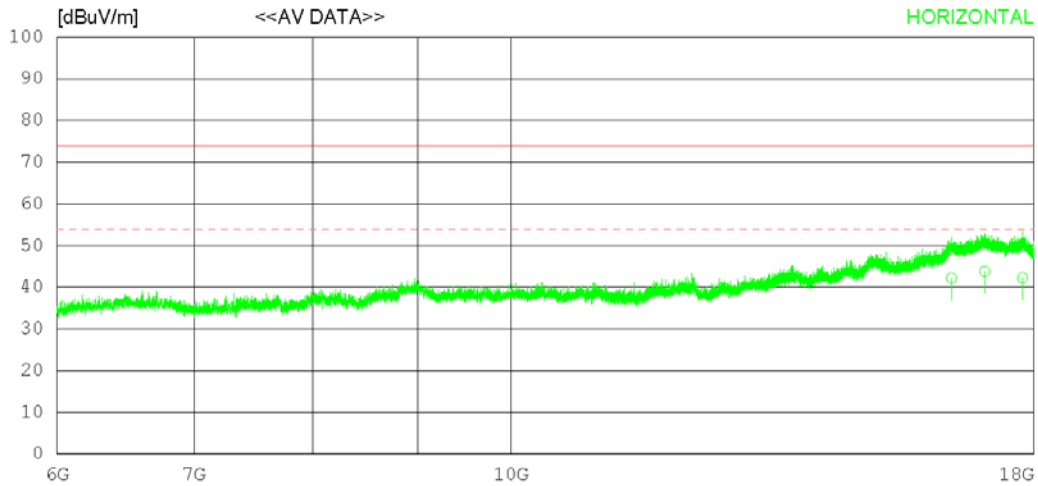
RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684,DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 'C 52 % R.H.
 Test Condition Barcode Mode

Memo

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



RADIATED EMISSION

Date 2020-06-22

Order No. DTNC2004-03684,DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 52 % R.H.
 Test Condition Barcode Mode

Memo

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

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	16404.150	19.50	36.88	21.98	36.16	42.20	54.00	11.80	100	0
2	17030.200	19.20	37.57	23.57	36.44	43.90	54.00	10.10	100	351
3	17770.280	18.80	38.14	22.76	37.43	42.27	54.00	11.73	100	307
----- Vertical -----										
4	13413.630	19.80	33.70	17.59	37.49	33.60	54.00	20.40	107	328
5	16976.280	19.30	37.52	23.60	36.39	44.03	54.00	9.97	101	0
6	17295.120	19.10	37.78	22.12	36.75	42.25	54.00	11.75	105	192

Radiated disturbance at (18 ~ 40) GHz _ Peak Measurement data			
Test configuration mode	3	EUT Operation mode	3
Test voltage (V)	Battery	Test Frequency (Hz)	-

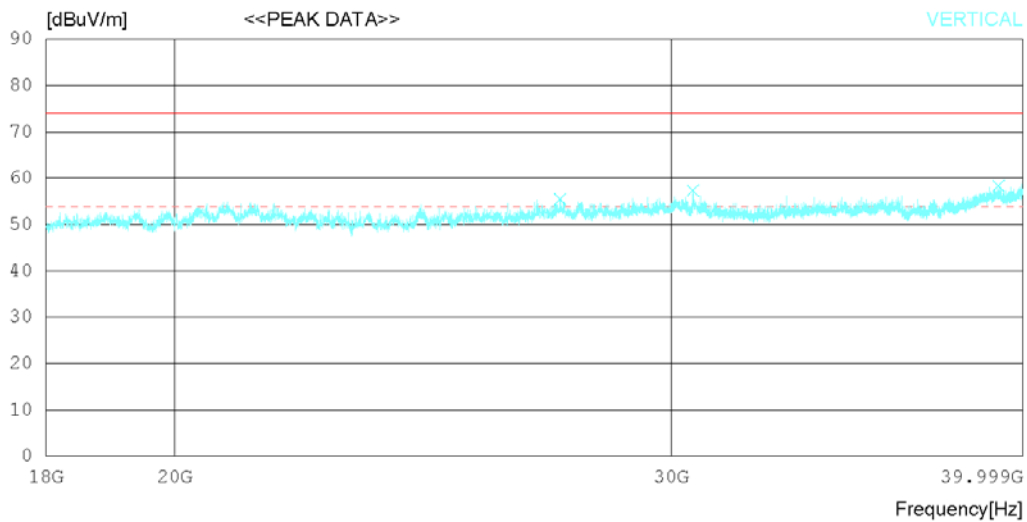
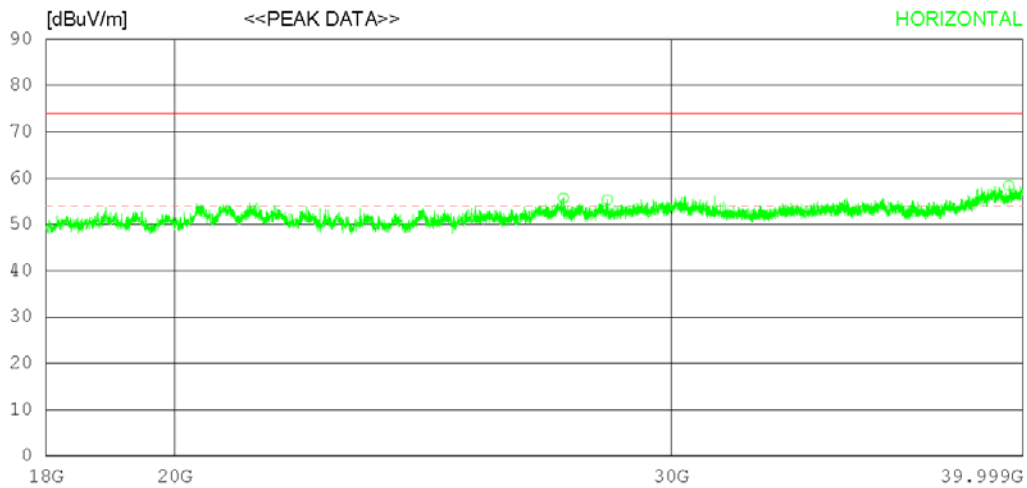
RADIATED EMISSION

Date 2020-06-23

Order No.	DTNC2004-03684, DTNC2006-04883
Power Supply	Battery
Temp/Humi	22 'C 46 % R.H.
Test Condition	Barcode Mode

Memo

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



RADIATED EMISSION

Date 2020-06-23

Order No.	DTNC2004-03684, DTNC2006-04883
Power Supply	Battery
Temp/Humi	22 °C 46 % R.H.
Test Condition	Barcode Mode

Memo

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

No.	FREQ [MHz]	READING PEAK [dBuV]	ANT FACTOR [dB]	LOSS [dB]	GAIN [dB]	RESULT [dBuV/m]	LIMIT [dBuV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	27476.500	41.50	46.00	21.19	53.02	55.67	74.0	18.33	206	86
2	28480.250	40.00	46.50	21.54	52.69	55.35	74.0	18.65	205	136
3	39543.500	37.20	48.39	24.98	52.22	58.35	74.0	15.65	111	1
----- Vertical -----										
4	27405.000	41.30	46.00	21.18	53.04	55.44	74.0	18.56	106	358
5	30545.500	40.00	47.40	22.19	52.23	57.36	74.0	16.64	102	358
6	39219.000	37.20	47.92	25.46	52.24	58.34	74.0	15.66	103	74

Radiated disturbance at (18 ~ 40) GHz _ Average Measurement data			
Test configuration mode	3	EUT Operation mode	3
Test voltage (V)	Battery	Test Frequency (Hz)	-

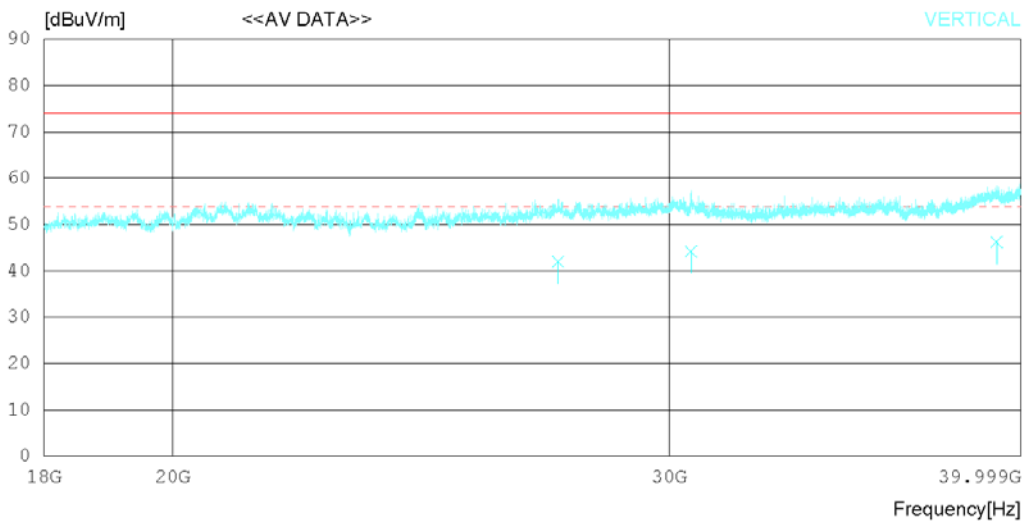
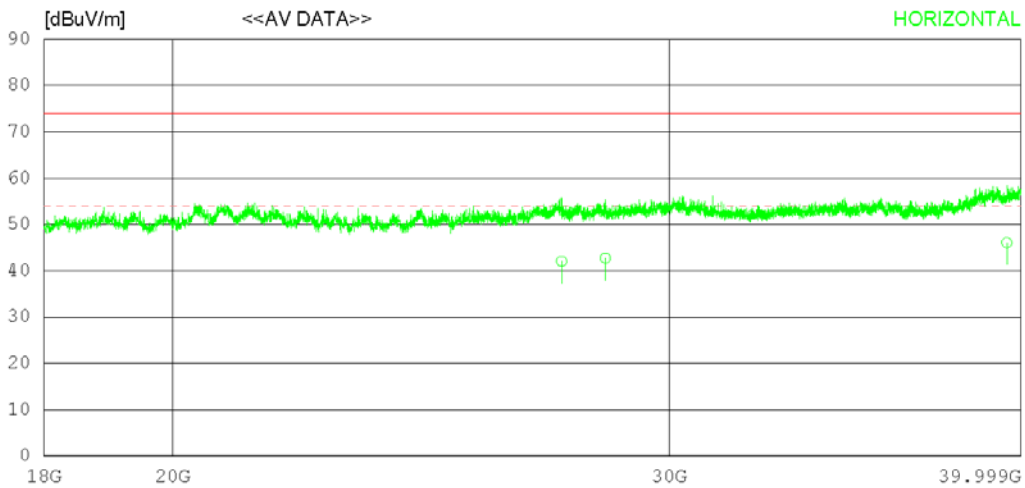
RADIATED EMISSION

Date 2020-06-23

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 46 % R.H.
 Test Condition Barcode Mode

Memo

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



RADIATED EMISSION

Date 2020-06-23

Order No. DTNC2004-03684, DTNC2006-04883
 Power Supply Battery
 Temp/Humi 22 °C 46 % R.H.
 Test Condition Barcode Mode

Memo

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

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	27476.740	27.90	46.00	21.19	53.02	42.07	54.00	11.93	202	95
2	28480.390	27.40	46.50	21.54	52.69	42.75	54.00	11.25	201	144
3	39543.410	24.90	48.39	24.98	52.22	46.05	54.00	7.95	109	0
----- Vertical -----										
4	27405.150	27.80	46.00	21.18	53.04	41.94	54.00	12.06	105	345
5	30545.390	26.90	47.40	22.19	52.23	44.26	54.00	9.74	101	351
6	39219.290	25.10	47.92	25.46	52.24	46.24	54.00	7.76	104	88