

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. : DREFCC1805-0169
2. Client / Applicant
 - Name : BLUEBIRD INC.
 - Address : (Dogok-dong, SEI Tower 13,14) 39, Eonjuro30-gil, Gangnam-gu, Seoul, South Korea
3. Use of Report : Grant of Certification
4. Product Name / Model Name : Tablet / RT101
5. Test Standard : ANSI C 63.4 : 2014
FCC Part 15 Subpart B
(Class B personal computers and peripherals)
6. Date of Test : Mar. 29. 2018 ~ Apr. 02. 2018
7. Testing Environment : Temperature (19 ~ 22) °C , Humidity 43 % R.H.
8. Test Result : Refer to the attached Test Result

| | | |
|-------------|---------------------------------|----------------------------------|
| Affirmation | Tested by | Reviewed by |
| | Name : JaeSeok Choi (Signature) | Name : MyungJin Song (Signature) |

The test results presented in this test report are limited only to the sample supplied by applicant and the use of this test report is inhibited other than its purpose.

This test report shall not be reproduced except in full, without the written approval of DT&C Co., Ltd.

May. 31. 2018

DT&C Co., Ltd.

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 | 5 |
| 4.5 EUT In/Output Port | 6 |
| 4.6 Test Voltage and Frequency | 6 |
| 5. Test Summary | 7 |
| 6. Test Environment..... | 7 |
| 7. Test Results : Emission..... | 8 |
| 7.1 Conducted Disturbance | 8 |
| 7.2 Radiated Disturbance | 13 |
| 8. Revision History..... | 55 |

1. General Remarks

This report contains the result of tests performed by :

DT&C Co., Ltd.

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

<http://www.dtnc.net>

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

2. Test Laboratory

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

| Certificate | Nation | Agency | Code | Remark |
|---------------|--------------|--------|---|----------------------------|
| Accreditation | Korea | KOLAS | 393 | ISO/IEC 17025 |
| | South Africa | SABS | 0006 | ISO/IEC 17025 |
| Site Filing | USA | FCC | KR0034 101842 678747, 596748, 804488, 165783 | Accredited 2.948 Listed |
| | Canada | IC | 5740A-3 5740A-4 | Registered |
| | Japan | VCCI | C-1427 R-1364, R-3385, R-4076, R-4180, T-1442, G-10338, G-754, G-10815 | Registered |
| Certification | Korea | KC | KR0034 | Designation |
| | Germany | TUV | CARAT 17 11 89112 005 | ISO/IEC 17025 |

Quality control in the testing laboratory is implemented as per ISO/IEC 17025 which is the "General requirements for the competent of calibration and testing laboratory".

3. General Information of EUT

| | |
|----------------|--|
| Applicant | BLUEBIRD INC. (Dogok-dong, SEI Tower 13,14) 39, Eonjuro30-gil, Gangnam-gu, Seoul, South Korea |
| Manufacturer | BLUEBIRD INC. (Dogok-dong, SEI Tower 13,14) 39, Eonjuro30-gil, Gangnam-gu, Seoul, South Korea |
| Factory | BLUEBIRD INC. (Dogok-dong, SEI Tower 13,14) 39, Eonjuro30-gil, Gangnam-gu, Seoul, South Korea |
| Product Name | Tablet |
| Model Name | RT101 |
| Add Model Name | None |
| RF Module Name | None |
| FCC ID | SS4RT101 |
| Rated Power | DC 3.8 V |
| Remarks | None |

Related Submittal(s) / Grant(s)
Original submittal only

4. EUT Operations and Test Configurations

4.1 Principle of Configuration Selection

Emission :

The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use. For each testing mode different configurations were used, Refer to the individual tests.

4.2 EUT Operation Mode

| No. | Mode | Description |
|-----|---------------------------------|---------------------------------|
| 1 | Data transfer (Notebook -> EUT) | Connected Notebook at USB Cable |
| 2 | Charging + Rear camera | Connected AC Adapter |
| 3 | MP3 | Portable Equipment |
| 4 | MP4 | Portable Equipment |

4.3 Test Configuration Mode

| No. | Mode | Description |
|-----|---------------------------------|---|
| 1 | Data transfer (Notebook -> EUT) | Continue data communication with Notebook. The data loss rate is confirmed to be 0%. The following modes were also operated and tested simultaneously. continuous preview operation status. And a distortion phenomenon was confirmed |
| 2 | Charging + Rear camera | Continuous check of LED lamp (charging lamp on). continuous preview operation status. And a distortion phenomenon was confirmed. |
| 3 | MP3 | The status of playing the audio file of the mp3 file Using the Audio Analyzer(UPS/R&S) equipment, Confirm -5dB change in reference |
| 4 | MP4 | The status of playing the audio file of the mp4 file Using the Audio Analyzer(UPS/R&S) equipment, Confirm -5dB change in reference |

4.4 Supported Equipment

| Used* | Product Type | Manufacturer | Model | Remarks |
|---|--------------------------|---------------------------------------|----------------|-----------------|
| AE | AC Adapter #1 | Ten Pao Electronics (Huizhou) Co.,Ltd | S008ACM0500200 | N/A |
| AE | Battery | GSP Limited | BAT-RT100 | 24566GSQIQ00044 |
| AE | Notebook | HP | HSTNN-Q95C | N/A |
| AE | AC Adapter #1 (Notebook) | CHICONY POWER | HSTNN-CA40 | N/A |
| *Abbreviations: AE - Auxiliary/Associated Equipment, or SIM - Simulator | | | | |

4.5 EUT In/Output Port

| Name | Type* | Cable Max. >3m | Cable Shielded | Cable Back shell | Remarks |
|--|--------|----------------|----------------|------------------|---------|
| USB | Type C | 1.0 | - | 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 Hz | Single | None |

5. Test Summary

| Test Items | Applied Standards | Results |
|---|-------------------|---------|
| Conducted Disturbance | ANSI C63.4 : 2014 | C |
| Radiated Disturbance | ANSI C63.4 : 2014 | C |
| C=Comply N/C=Not Comply N/T=Not Tested N/A=Not Applicable | | |

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

-Conducted Disturbance

| Frequency [MHz] | Phase | Result [dB μ V] | Detector | Limit [dB μ V] | Margin [dB] |
|-----------------|-------|---------------------|----------|--------------------|-------------|
| 0.16814 | N | 61.48 | QP | 65.05 | 3.57 |

-Radiated Disturbance

| Frequency [MHz] | Pol. | Result [dB μ V/m] | Detector | Limit [dB μ V/m] | Margin [dB] |
|-----------------|----------|-----------------------|----------|----------------------|-------------|
| 600.002 | Vertical | 40.19 | QP | 46.00 | 5.81 |

6. Test Environment

| Test Items | Test date (YYYY-MM-DD) | Temp. (°C) | Humidity (% R.H.) | Pressure (kPa) |
|-----------------------|------------------------|------------|-------------------|----------------|
| Conducted Disturbance | 2018-04-02 | 19 | 43 | 100.9 |
| Radiated Disturbance | 2018-03-29 | 22 | 43 | - |

7. Test Results : Emission

7.1 Conducted Disturbance

| ANSI C63.4 | Mains terminal disturbance voltage | | Result |
|--|--------------------------------------|-------------------|---------------|
| <p>Method: The AMN placed 0,8 m from the boundary of the unit under test and bonded to a ground reference plane. This distance was between the closest points of the AMN and the EUT. All other units of the EUT and associated equipment were at least 0,8 m from the AMN. All power was connected to the system through Artificial Mains Network (AMN). Conducted voltage measurements on mains lines were made at the output of the AMN. The measuring port of the LISN for EUT was connected to spectrum analyzer. Using conducted emission test software, the emissions were scanned with peak detector mode. After scanning over the frequency range, suspected emissions were selected to perform final measurement. When performing final measurement, the receiver was used which has Quasi-Peak detector and CISPR Average detector. For (0.15 ~ 30) MHz frequency range, Quasi-Peak detector with 10 kHz RBW and 30 kHz VBW was used. By varying the configuration of the test sample and the cable routing it was attempted to maximize the emission.</p> | | | Comply |
| Fully configured sample scanned over the following frequency range | Frequency range on each side of line | Measurement Point | |
| | 150 kHz to 30 MHz | Mains | |
| EUT mode (Refer to clauses 4) | Test configuration mode | 1, 2, 3, 4 | |
| | EUT Operation mode | 1, 2, 3, 4 | |
| 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 uncertainty | |
|--|---------|
| Expended uncertainty U (95 %, Confidence level, $k = 2$) | 2.36 dB |

| Measurement Instrument | | | | | |
|------------------------|----------------------|----------------|-------------|------------|------------|
| Description | Model | Manufacturer | Identifier | Cal. Date | Cal. Due |
| MEASUREMENT SOFTWARE | EMI-C VER. 2.00.0171 | TSJ | N/A | N/A | N/A |
| EMI TEST RECEIVER | ESU8 | ROHDE& SCHWARZ | 100299 | 2018.03.13 | 2019.03.13 |
| LISN | NSLK 8128 RC | SCHWARZBECK | 8128 RC-387 | 2017.11.10 | 2018.11.10 |
| LISN | NSLK 8128 RC | SCHWARZBECK | 8128 RC-388 | 2017.11.10 | 2018.11.10 |
| PULSE LIMITER | ESH3-Z2 | ROHDE& SCHWARZ | 102491 | 2017.08.08 | 2018.08.08 |
| 50 OHM TERMINATOR | CT-01 | TME | N/A | 2017.12.26 | 2018.12.26 |

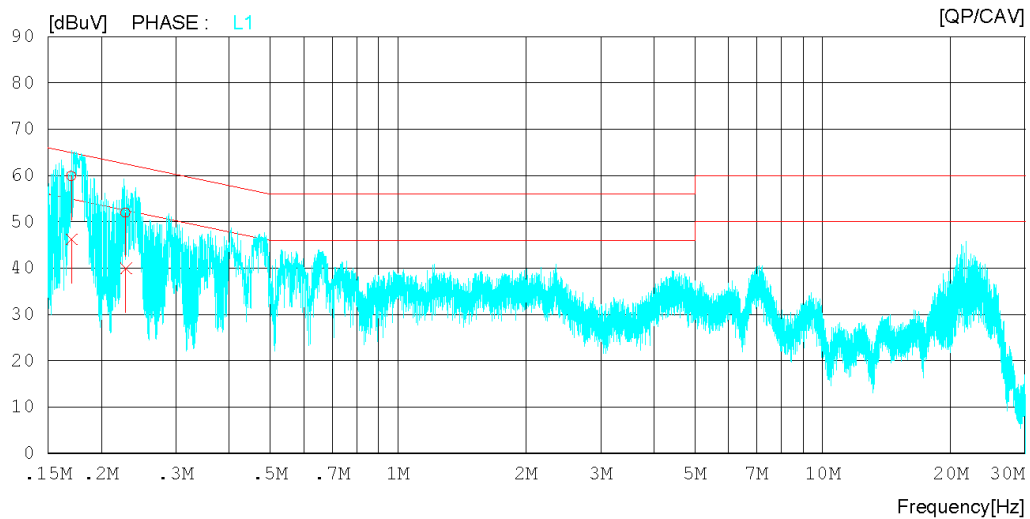
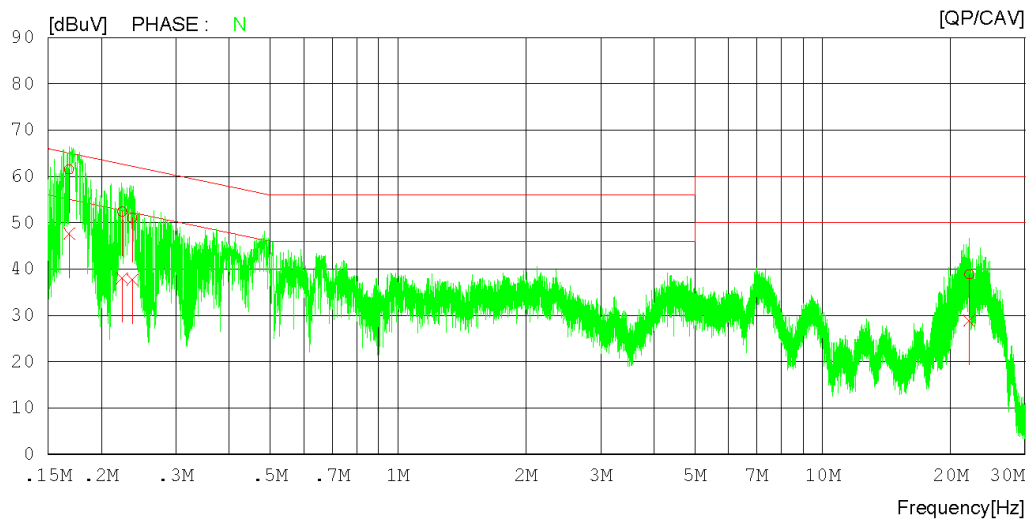
| Mains terminal disturbance voltage _ Measurement data | | | |
|---|-----|---------------------|----|
| Test configuration mode | 1 | EUT Operation mode | 1 |
| Test voltage (V) | 120 | Test Frequency (Hz) | 60 |

Results of Conducted Emission

DT&C
Date 2018-04-02

Order No. DTNC1802-01423
 Power Supply 120 V 60 Hz
 Temp/Humi/Atm 19 °C 43 % R.H. 100.9 kPa
 Test Condition Data trans + Front camera

LIMIT : CISPR32_B QP
 CISPR32_B AV



Results of Conducted Emission

DT&C
Date 2018-04-02

| | |
|----------------|---------------------------|
| Order No. | DTNC1802-01423 |
| Power Supply | 120 V 60 Hz |
| Temp/Humi/Atm | 19 °C 43 % R.H. 100.9 kPa |
| Test Condition | Data trans + Front camera |

LIMIT : CISPR32_B QP
CISPR32_B AV

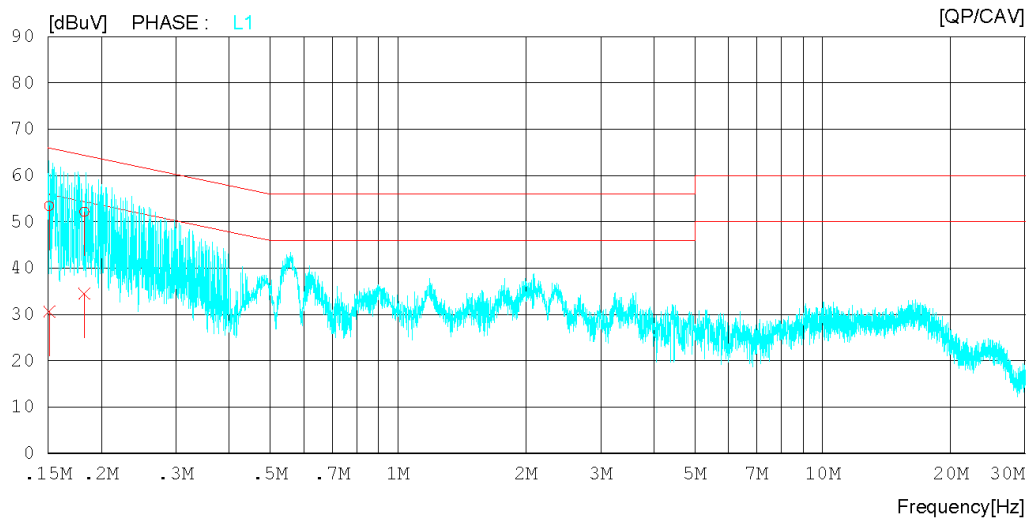
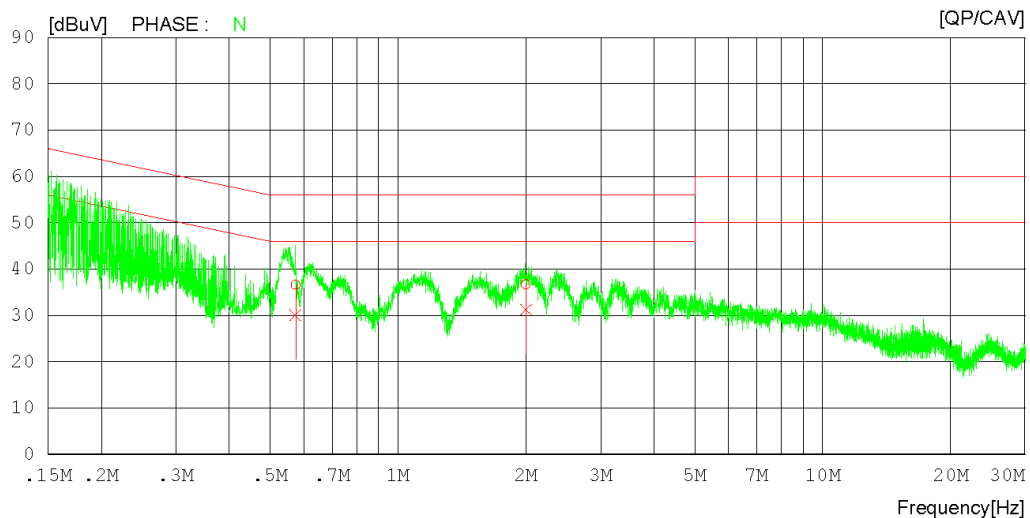
| NO | FREQ [MHz] | READING | | C. FACTOR [dB] | RESULT | | LIMIT | | MARGIN | | PHASE |
|----|---------------|--------------|---------------|-------------------|--------------|---------------|--------------|---------------|--------------|---------------|-------|
| | | QP [dBuV] | CAV [dBuV] | | QP [dBuV] | CAV [dBuV] | QP [dBuV] | CAV [dBuV] | QP [dBuV] | CAV [dBuV] | |
| 1 | 0.16814 | 51.53 | 37.71 | 9.95 | 61.48 | 47.66 | 65.05 | 55.05 | 3.57 | 7.39 | N |
| 2 | 0.22415 | 42.48 | 28.09 | 9.94 | 52.42 | 38.03 | 62.66 | 52.66 | 10.24 | 14.63 | N |
| 3 | 0.23710 | 41.14 | 27.72 | 9.94 | 51.08 | 37.66 | 62.20 | 52.20 | 11.12 | 14.54 | N |
| 4 | 22.14835 | 28.61 | 18.66 | 10.28 | 38.89 | 28.94 | 60.00 | 50.00 | 21.11 | 21.06 | N |
| 5 | 0.17019 | 49.97 | 36.31 | 9.90 | 59.87 | 46.21 | 64.95 | 54.95 | 5.08 | 8.74 | L1 |
| 6 | 0.22839 | 41.95 | 30.00 | 9.94 | 51.89 | 39.94 | 62.51 | 52.51 | 10.62 | 12.57 | L1 |

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

Results of Conducted Emission

 DT&C
 Date 2018-04-02

| | |
|----------------|---------------------------|
| Order No. | DTNC1802-01423 |
| Power Supply | 120 V 60 Hz |
| Temp/Humi/Atm | 19 °C 43 % R.H. 100.9 kPa |
| Test Condition | Charging + Rear camera |

 LIMIT : CISPR32_B QP
 CISPR32_B AV


Results of Conducted Emission

DT&C
Date 2018-04-02

Order No. DTNC1802-01423
 Power Supply 120 V 60 Hz
 Temp/Humi/Atm 19 °C 43 % R.H. 100.9 kPa
 Test Condition Charging + Rear camera

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 | 0.57403 | 26.61 | 20.09 | 10.00 | 36.61 | 30.09 | 56.00 | 46.00 | 19.39 | 15.91 | N |
| 2 | 2.00214 | 26.60 | 21.21 | 10.05 | 36.65 | 31.26 | 56.00 | 46.00 | 19.35 | 14.74 | N |
| 3 | 0.15095 | 43.43 | 20.62 | 9.94 | 53.37 | 30.56 | 65.95 | 55.95 | 12.58 | 25.39 | L1 |
| 4 | 0.18257 | 42.24 | 24.54 | 9.94 | 52.18 | 34.48 | 64.37 | 54.37 | 12.19 | 19.89 | L1 |

Calculation

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

7.2 Radiated Disturbance

| ANSI C63.4 | Radiated disturbance 30 MHz –18 GHz | | | Result |
|---|-------------------------------------|---------|---|---------|
| Method: Preliminary (peak) measurements were performed at an antenna to EUT separation distance of 10 meter below 1GHz and 3 meter above 1GHz. The EUT was rotated 360° about its azimuth with the receive antenna located at various heights in horizontal and vertical polarities. Final measurements were then performed by rotating the EUT 360° and adjusting the receive antenna height from 1 to 4 m. All frequencies were investigated in both horizontal and vertical antenna polarity, where applicable. For final measurement below 1 GHz frequency range, Quasi-Peak detector with (RBW = 120 kHz Bandwidth) was used. For final measurement above 1 GHz frequency range, Peak detector with (RBW = 1 MHz Bandwidth) and CISPR Average detector with (RBW = 1 MHz Bandwidth) were used. | | | | Comply |
| EUT mode (Refer to clauses 4) | Test configuration mode | | 1, 2, 3, 4 | |
| | EUT Operation mode | | 1, 2, 3, 4 | |
| Radiated Disturbance below 1 000 MHz | | | | |
| Frequency range (MHz) | Quasi-peak limit dB μ V/m | | | |
| | Class A (10 m distance) | | Class B (3 m distance) | |
| 30 to 88 | 39.1 | | 40 | |
| 88 to 216 | 43.5 | | 43.5 | |
| 216 to 960 | 46.4 | | 46 | |
| 960 to 1 000 | 49.5 | | 54 | |
| According to 15.109(g), as an alternative to the radiated emission limit shown above, digital devices may be shown to comply with the standards(CISPR), Pub. 22 shown as below. | | | | |
| Frequency range (MHz) | Quasi-peak limit dB μ V/m | | | |
| | Class A (10 m distance) | | Class B (10 m distance) | |
| 30 to 230 | 40 | | 30 | |
| 230 to 1 000 | 47 | | 37 | |
| Radiated Disturbance for above 1 000 MHz at a measurement distance of 3 m | | | | |
| Frequency range (GHz) | Peak limit dB μ V/m | | Average limit dB μ V/m | |
| | Class A | Class B | Class A | Class B |
| 1 to 40 | 80 | 74 | 60 | 54 |
| The test frequency range of Radiated Disturbance measurements are listed below. | | | | |
| Highest frequency generated or used in the device or on which the device operates or tunes (MHz) | | | Upper frequency of measurement range (MHz) | |
| Below 108 | | | 1 000 | |
| 108 – 500 | | | 2 000 | |
| 500 – 1 000 | | | 5 000 | |
| Above 1 000 | | | 5 th harmonic of the highest frequency or 40 GHz, whichever is lower | |
| Measurement uncertainty | | | | |
| Expended uncertainty U (95 %, Confidence level, $k = 2$) | | | 4.16 dB, (30 ~ 1 000) MHz 3.74 dB, (1 ~ 6) GHz | |

| Measurement Instrument | | | | | |
|---------------------------|----------------------|-----------------|------------|------------|------------|
| Description | Model | Manufacturer | Identifier | Cal. Date | Cal. Due |
| MEASUREMENT SOFTWARE | EMI-R VER. 2.00.0177 | TSJ | N/A | N/A | N/A |
| EMI TEST RECEIVER | ESU | ROHDE & SCHWARZ | 100469 | 2017.07.06 | 2018.07.06 |
| TRILOG BROAD BAND ANTENNA | VULB9160 | SCHWARZBECK | 9160-3339 | 2017.04.21 | 2019.04.21 |
| LOW NOISE PRE AMPLIFIER | MLA-100K01-B01-26 | TSJ | 1252741 | 2018.02.19 | 2019.02.19 |
| PRE AMPLIFIER | 8449B | H.P | 3008A00887 | 2017.09.06 | 2018.09.06 |
| BROAD-BAND HORN ANTENNA | BBHA 9120D | SCHWARZBECK | 9120D-1014 | 2016.08.05 | 2018.08.05 |
| HORN ANTENNA | EM-6969 | ELECTRO-METRICS | 156 | 2018.01.02 | 2019.01.02 |
| PREAMPLIFIER | MLA-0618-B03-34 | TSJ | 1785642 | 2017.03.02 | 2019.03.02 |

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

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

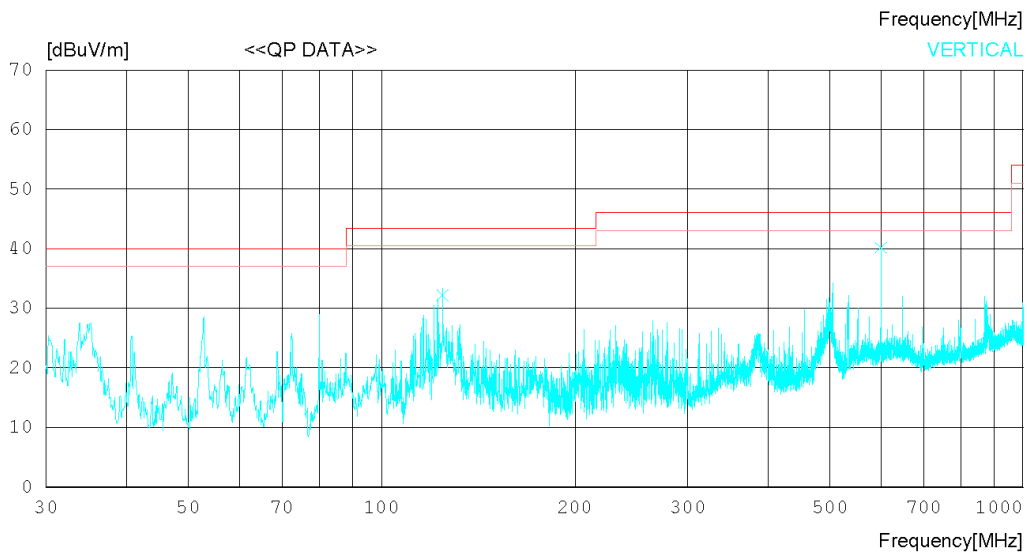
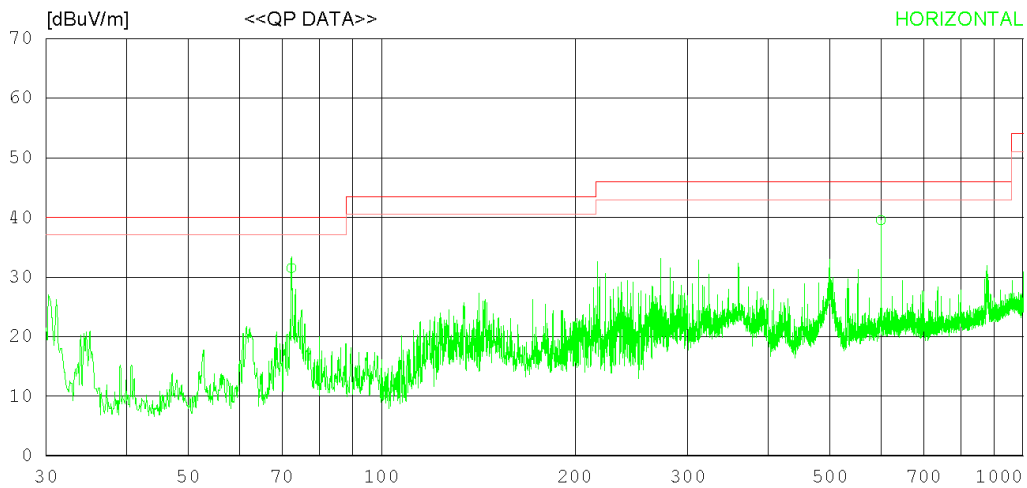
RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply 120 V 60 Hz
 Temp/Humi 22 'C 43 % R.H.
 Test Condition Data trans + Front camera

Memo

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



RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply 120 V 60 Hz
 Temp/Humi 22 °C 43 % R.H.
 Test Condition Data trans + Front camera

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 | 72.437 | 45.90 | 9.66 | 1.41 | 25.53 | 31.44 | 40.00 | 8.56 | 300 | 1 |
| 2 | 600.002 | 40.10 | 20.30 | 4.33 | 25.24 | 39.49 | 46.00 | 6.51 | 100 | 135 |
| ----- Vertical ----- | | | | | | | | | | |
| 3 | 124.452 | 44.20 | 11.78 | 1.80 | 25.56 | 32.22 | 43.50 | 11.28 | 100 | 1 |
| 4 | 600.002 | 40.80 | 20.30 | 4.33 | 25.24 | 40.19 | 46.00 | 5.81 | 100 | 358 |

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

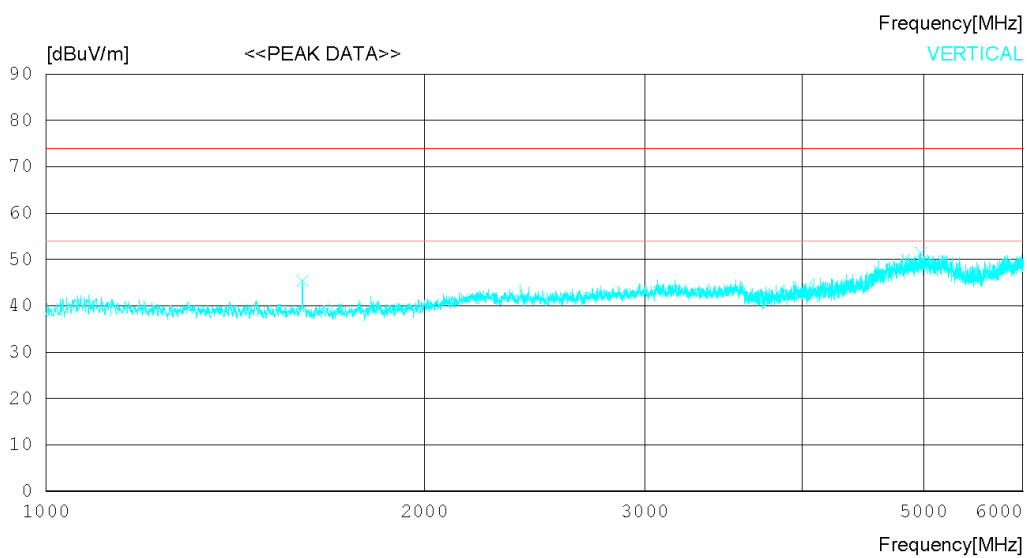
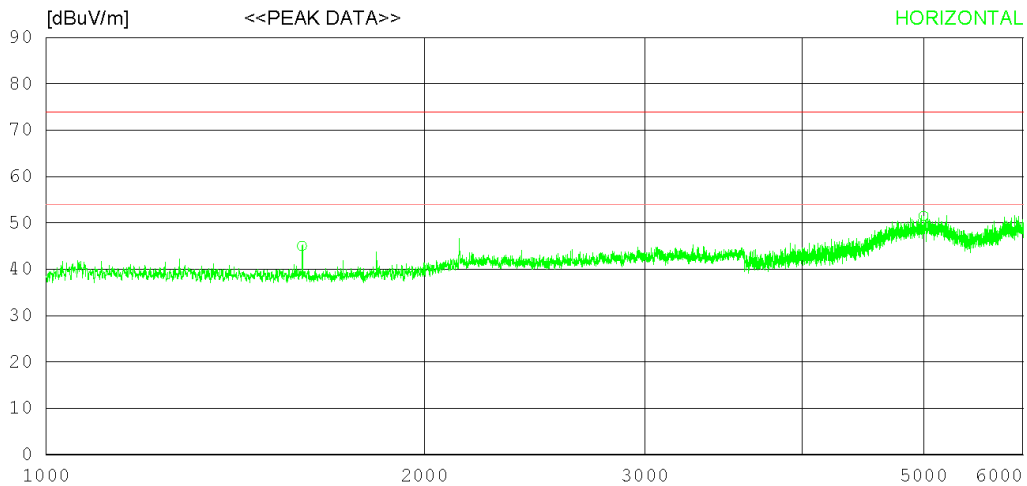
RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply 120 V 60 Hz
 Temp/Humi 22 °C 43 % R.H.
 Test Condition Data trans + Front camera

Memo

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



RADIATED EMISSION

Date 2018-03-29

| | |
|----------------|---------------------------|
| Order No. | DTNC1802-01423 |
| Power Supply | 120 V 60 Hz |
| Temp/Humi | 22 °C 43 % R.H. |
| Test Condition | Data trans + Front camera |

Memo

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

| No. | FREQ [MHz] | READING PEAK [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|------------------------|---------------|---------------------------|-----------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- | | | | | | | | | | |
| 1 | 1599.375 | 48.30 | 24.86 | 4.20 | 32.35 | 45.01 | 74.0 | 28.99 | 100 | 124 |
| 2 | 4996.875 | 42.10 | 31.55 | 10.07 | 32.23 | 51.49 | 74.0 | 22.51 | 100 | 359 |
| ----- Vertical ----- | | | | | | | | | | |
| 3 | 1599.375 | 48.70 | 24.86 | 4.20 | 32.35 | 45.41 | 74.0 | 28.59 | 100 | 358 |
| 4 | 4971.875 | 42.10 | 31.51 | 10.05 | 32.24 | 51.42 | 74.0 | 22.58 | 100 | 176 |

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

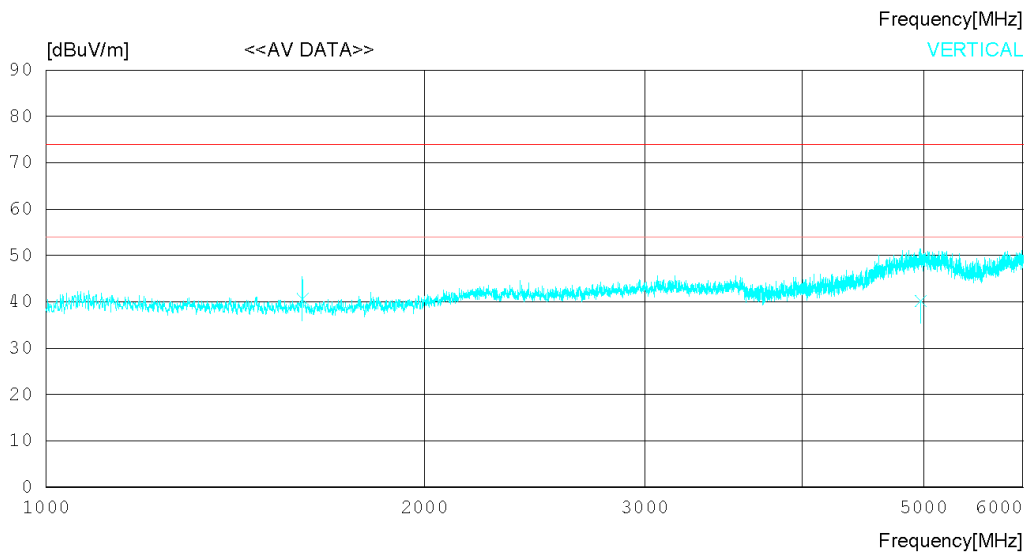
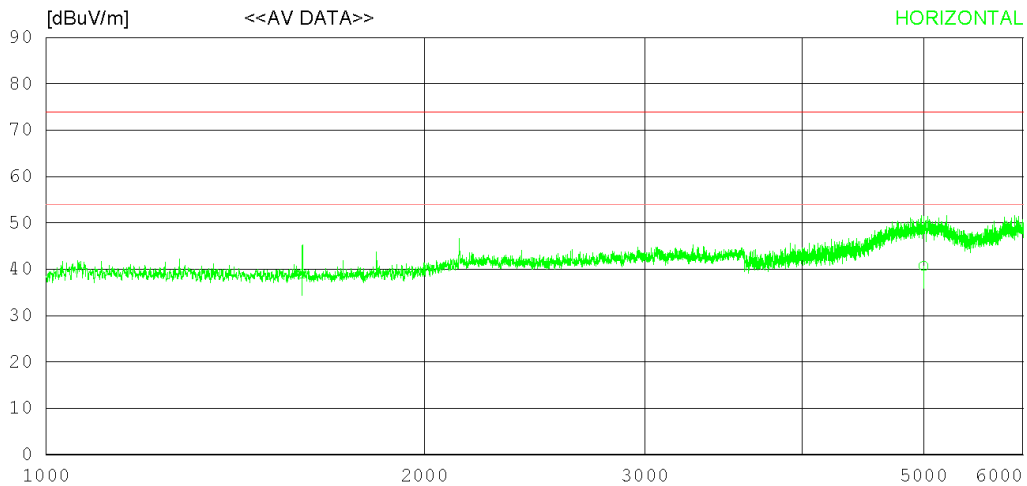
RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply 120 V 60 Hz
 Temp/Humi 22 °C 43 % R.H.
 Test Condition Data trans + Front camera

Memo

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



RADIATED EMISSION

Date 2018-03-29

| | |
|----------------|---------------------------|
| Order No. | DTNC1802-01423 |
| Power Supply | 120 V 60 Hz |
| Temp/Humi | 22 °C 43 % R.H. |
| Test Condition | Data trans + Front camera |

Memo

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

| No. | FREQ [MHz] | READING CAV [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|------------------------|---------------|--------------------------|-----------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- | | | | | | | | | | |
| 1 | 1599.375 | 42.30 | 24.86 | 4.20 | 32.35 | 39.01 | 54.00 | 14.99 | 100 | 124 |
| 2 | 4996.875 | 31.30 | 31.55 | 10.07 | 32.23 | 40.69 | 54.00 | 13.31 | 100 | 359 |
| ----- Vertical ----- | | | | | | | | | | |
| 3 | 1599.375 | 43.90 | 24.86 | 4.20 | 32.35 | 40.61 | 54.00 | 13.39 | 100 | 358 |
| 4 | 4971.875 | 30.80 | 31.51 | 10.05 | 32.24 | 40.12 | 54.00 | 13.88 | 100 | 176 |

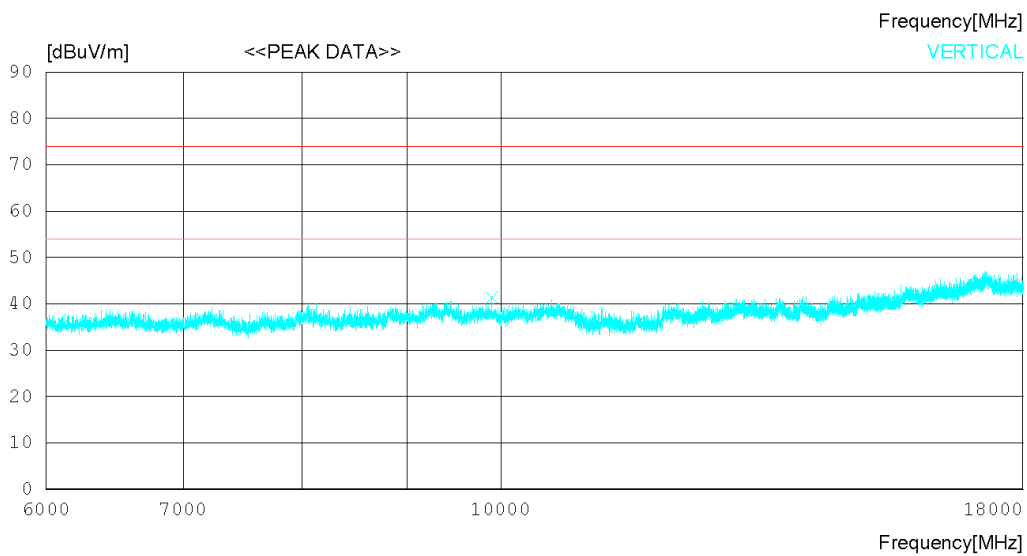
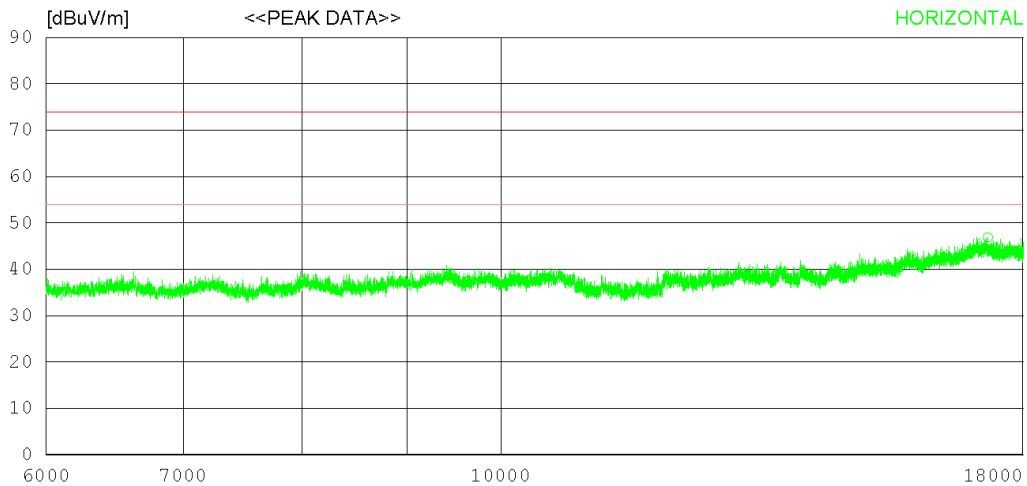
| Radiated disturbance at (6 ~ 18) GHz _Peak measurement data | | | |
|---|-----|---------------------|----|
| Test configuration mode | 1 | EUT Operation mode | 1 |
| Test voltage (V) | 120 | Test Frequency (Hz) | 60 |

RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply 120 V 60 Hz
 Temp/Humi 22 °C 43 % R.H.
 Test Condition Data trans + Front camera

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



* The measurement is performed above 18 GHz up to 30 GHz and not found emissions above 18 GHz.

RADIATED EMISSION

Date 2018-03-29

| | |
|----------------|---------------------------|
| Order No. | DTNC1802-01423 |
| Power Supply | 120 V 60 Hz |
| Temp/Humi | 22 °C 43 % R.H. |
| Test Condition | Data trans + Front camera |

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

| No. | FREQ [MHz] | READING PEAK [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|------------------------|---------------|---------------------------|-----------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- | | | | | | | | | | |
| 1 | 17295.000 | 32.20 | 37.78 | 13.40 | 36.55 | 46.83 | 74.0 | 27.17 | 100 | 1 |
| ----- Vertical ----- | | | | | | | | | | |
| 2 | 9904.500 | 36.10 | 32.25 | 11.14 | 38.08 | 41.41 | 74.0 | 32.59 | 100 | 175 |
| 3 | 17263.500 | 29.80 | 37.74 | 13.39 | 36.50 | 44.43 | 74.0 | 29.57 | 100 | 1 |

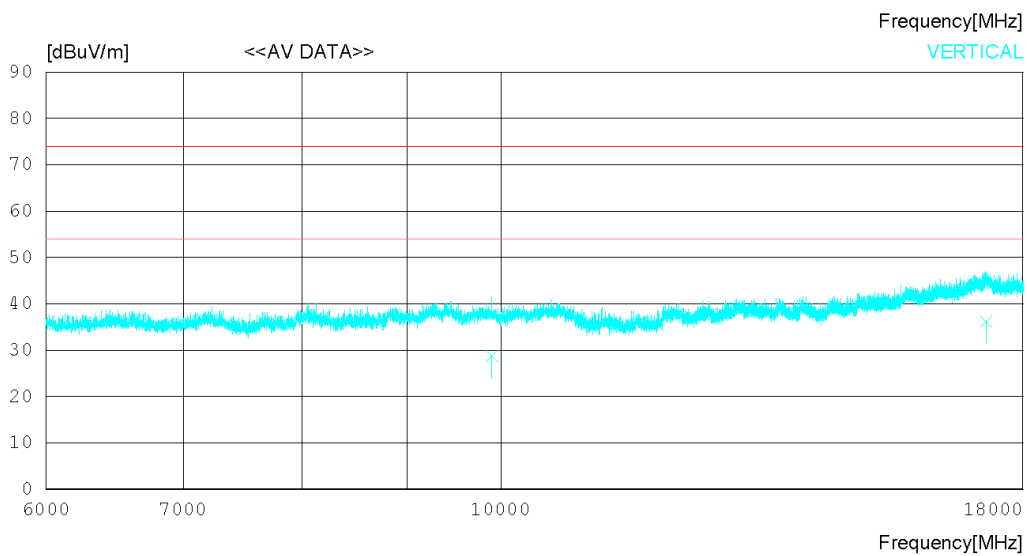
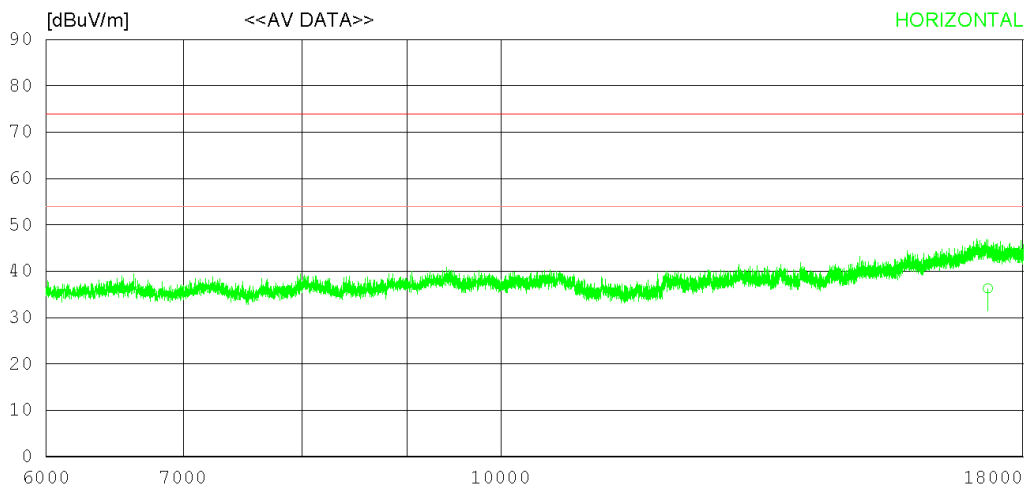
| Radiated disturbance at (6 ~ 18) GHz _ Average measurement data | | | |
|---|-----|---------------------|----|
| Test configuration mode | 1 | EUT Operation mode | 1 |
| Test voltage (V) | 120 | Test Frequency (Hz) | 60 |

RADIATED EMISSION

Date 2018-03-29

| | |
|----------------|---------------------------|
| Order No. | DTNC1802-01423 |
| Power Supply | 120 V 60 Hz |
| Temp/Humi | 22 °C 43 % R.H. |
| Test Condition | Data trans + Front camera |

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



* The measurement is performed above 18 GHz up to 30 GHz and not found emissions above 18 GHz.

RADIATED EMISSION

Date 2018-03-29

| | |
|----------------|---------------------------|
| Order No. | DTNC1802-01423 |
| Power Supply | 120 V 60 Hz |
| Temp/Humi | 22 °C 43 % R.H. |
| Test Condition | Data trans + Front camera |

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

| No. | FREQ [MHz] | READING CAV [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|------------------------|---------------|--------------------------|-----------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- | | | | | | | | | | |
| 1 | 17295.000 | 21.60 | 37.78 | 13.40 | 36.55 | 36.23 | 54.00 | 17.77 | 100 | 1 |
| ----- Vertical ----- | | | | | | | | | | |
| 2 | 9904.500 | 23.40 | 32.25 | 11.14 | 38.08 | 28.71 | 54.00 | 25.29 | 100 | 175 |
| 3 | 17263.500 | 21.50 | 37.74 | 13.39 | 36.50 | 36.13 | 54.00 | 17.87 | 100 | 1 |

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

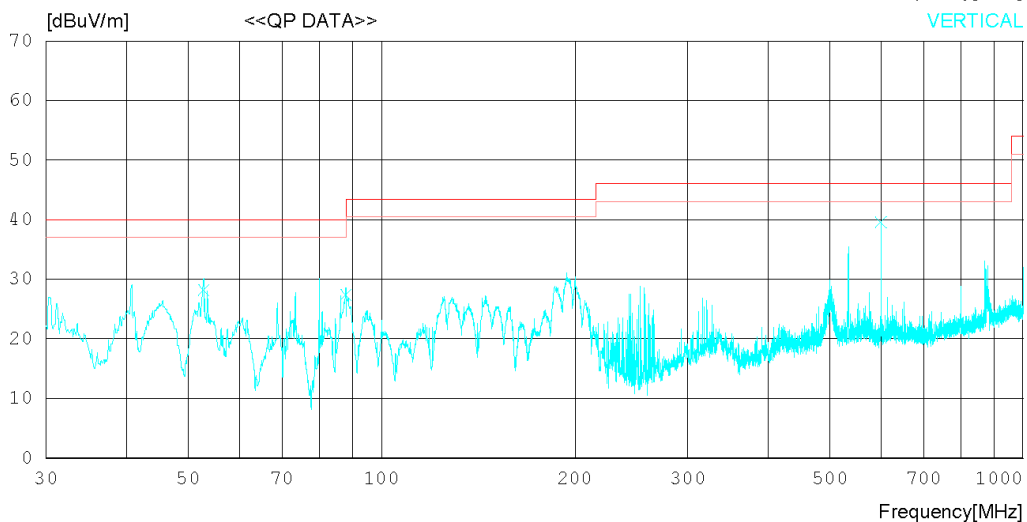
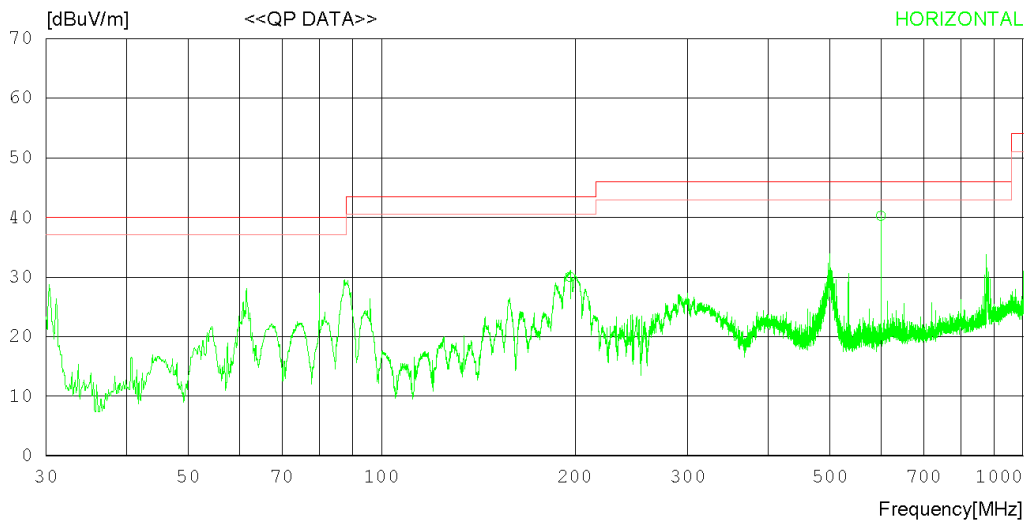
RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply 120 V 60 Hz
 Temp/Humi 22 'C 43 % R.H.
 Test Condition Charging + Rear camera

Memo

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



RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply 120 V 60 Hz
 Temp/Humi 22 °C 43 % R.H.
 Test Condition Charging + Rear camera

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 | 196.715 | 43.30 | 9.93 | 2.29 | 25.52 | 30.00 | 43.50 | 13.50 | 200 | 1 |
| 2 | 600.002 | 40.80 | 20.30 | 4.33 | 25.24 | 40.19 | 46.00 | 5.81 | 200 | 359 |
| ----- Vertical ----- | | | | | | | | | | |
| 3 | 52.795 | 40.60 | 11.96 | 1.13 | 25.51 | 28.18 | 40.00 | 11.82 | 200 | 302 |
| 4 | 87.957 | 44.20 | 7.32 | 1.41 | 25.54 | 27.39 | 40.00 | 12.61 | 300 | 0 |
| 5 | 600.002 | 40.20 | 20.30 | 4.33 | 25.24 | 39.59 | 46.00 | 6.41 | 100 | 297 |

| Radiated disturbance at (1 ~ 6) GHz _ Peak measurement data | | | |
|---|-----|---------------------|----|
| Test configuration mode | 2 | EUT Operation mode | 2 |
| Test voltage (V) | 120 | Test Frequency (Hz) | 60 |

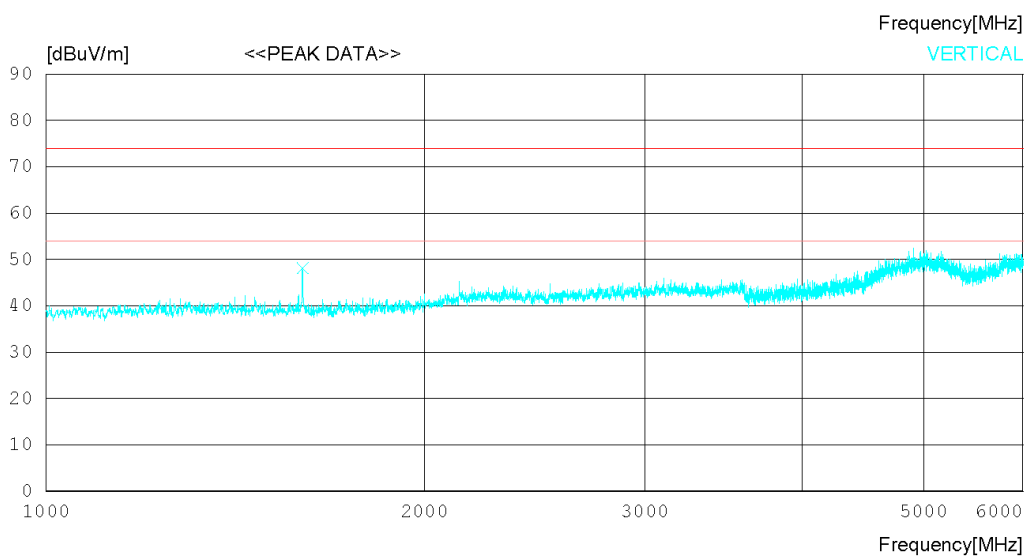
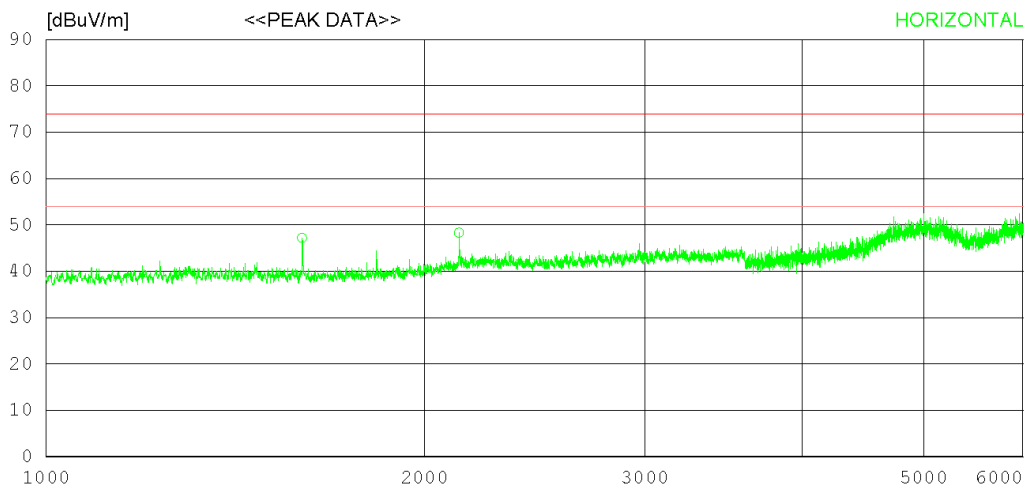
RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply 120 V 60 Hz
 Temp/Humi 22 °C 43 % R.H.
 Test Condition Charging + Rear camera

Memo

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



RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply 120 V 60 Hz
 Temp/Humi 22 °C 43 % R.H.
 Test Condition Charging + Rear camera

Memo

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

| No. | FREQ [MHz] | READING PEAK [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|------------------------|---------------|---------------------------|-----------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- | | | | | | | | | | |
| 1 | 1599.375 | 50.50 | 24.86 | 4.20 | 32.35 | 47.21 | 74.0 | 26.79 | 100 | 1 |
| 2 | 2133.125 | 48.60 | 27.37 | 4.83 | 32.53 | 48.27 | 74.0 | 25.73 | 100 | 210 |
| ----- Vertical ----- | | | | | | | | | | |
| 3 | 1599.375 | 51.40 | 24.86 | 4.20 | 32.35 | 48.11 | 74.0 | 25.89 | 100 | 358 |

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

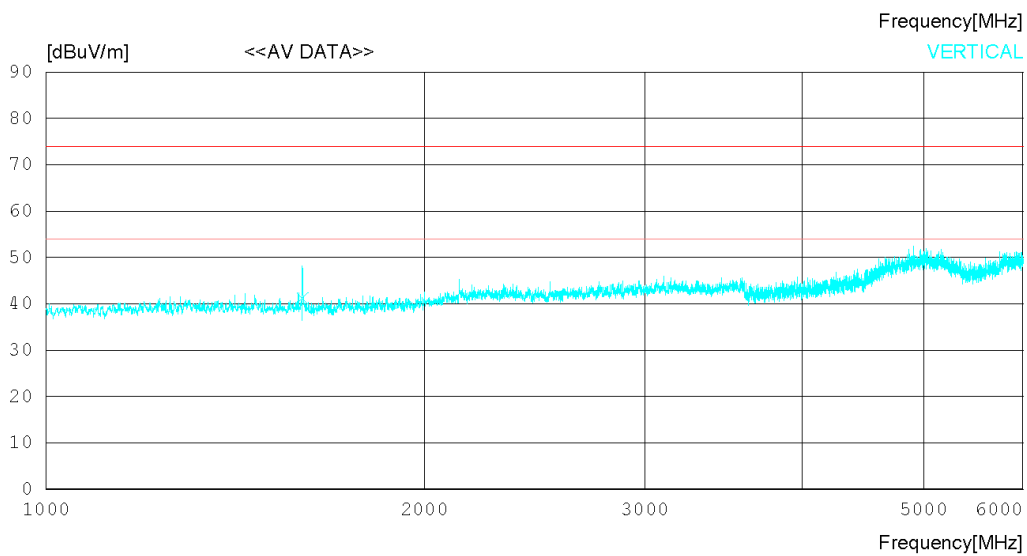
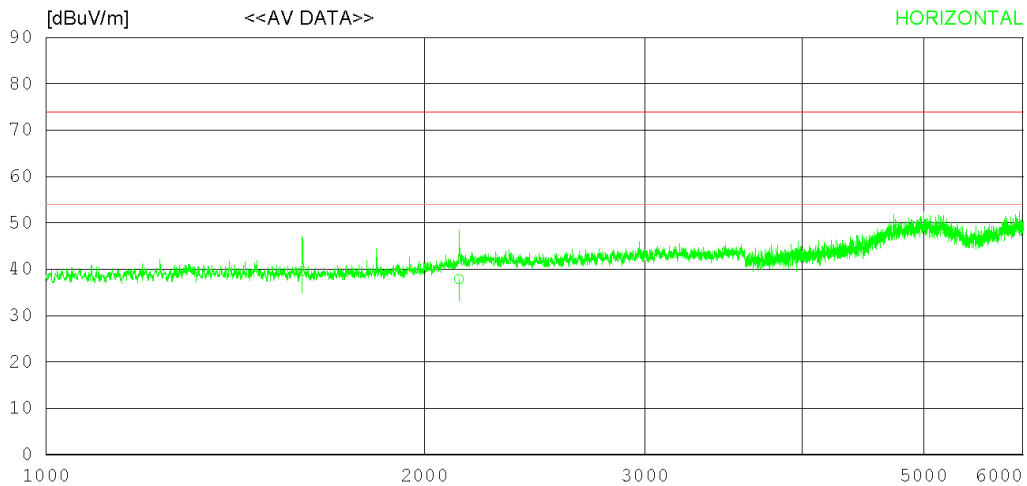
RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply 120 V 60 Hz
 Temp/Humi 22 °C 43 % R.H.
 Test Condition Charging + Rear camera

Memo

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



RADIATED EMISSION

Date 2018-03-29

| | |
|----------------|------------------------|
| Order No. | DTNC1802-01423 |
| Power Supply | 120 V 60 Hz |
| Temp/Humi | 22 °C 43 % R.H. |
| Test Condition | Charging + Rear camera |

Memo

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

| No. | FREQ [MHz] | READING CAV [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|------------------------|---------------|--------------------------|-----------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- | | | | | | | | | | |
| 1 | 1599.375 | 42.90 | 24.86 | 4.20 | 32.35 | 39.61 | 54.00 | 14.39 | 100 | 1 |
| 2 | 2133.125 | 38.20 | 27.37 | 4.83 | 32.53 | 37.87 | 54.00 | 16.13 | 100 | 210 |
| ----- Vertical ----- | | | | | | | | | | |
| 3 | 1599.375 | 44.40 | 24.86 | 4.20 | 32.35 | 41.11 | 54.00 | 12.89 | 100 | 358 |

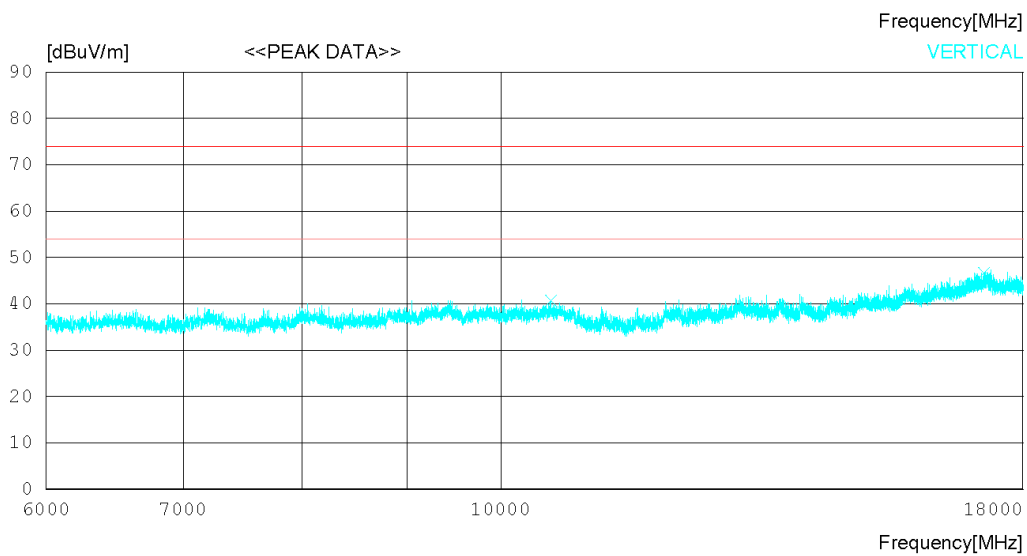
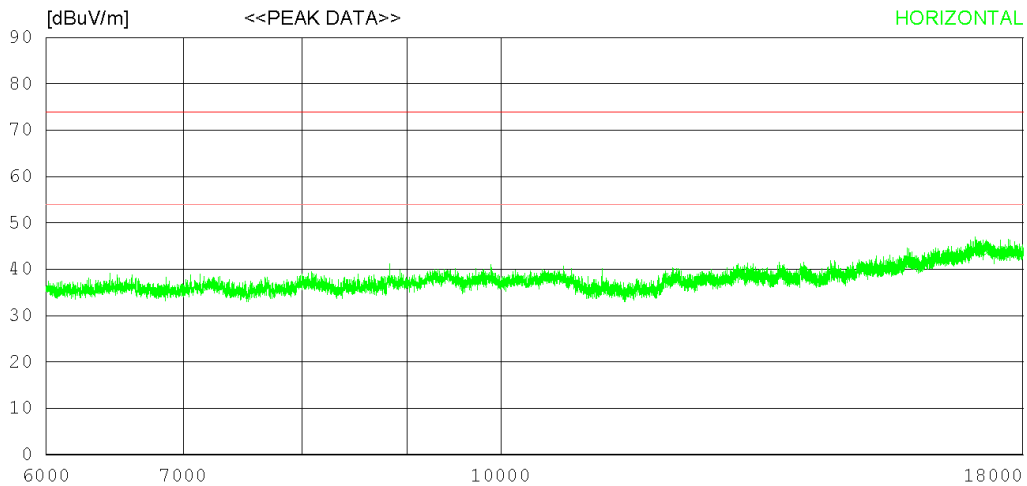
| Radiated disturbance at (6 ~ 18) GHz _Peak measurement data | | | |
|---|-----|---------------------|----|
| Test configuration mode | 2 | EUT Operation mode | 2 |
| Test voltage (V) | 120 | Test Frequency (Hz) | 60 |

RADIATED EMISSION

Date 2018-03-29

| | |
|----------------|------------------------|
| Order No. | DTNC1802-01423 |
| Power Supply | 120 V 60 Hz |
| Temp/Humi | 22 °C 43 % R.H. |
| Test Condition | Charging + Rear camera |

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



* The measurement is performed above 18 GHz up to 30 GHz and not found emissions above 18 GHz.

RADIATED EMISSION

Date 2018-03-29

| | |
|----------------|------------------------|
| Order No. | DTNC1802-01423 |
| Power Supply | 120 V 60 Hz |
| Temp/Humi | 22 °C 43 % R.H. |
| Test Condition | Charging + Rear camera |

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

| No. | FREQ [MHz] | READING PEAK [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|------------------------|---------------|---------------------------|-----------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- | | | | | | | | | | |
| 1 | 17207.250 | 29.50 | 37.67 | 13.35 | 36.42 | 44.10 | 74.0 | 29.9 | 100 | 1 |
| ----- Vertical ----- | | | | | | | | | | |
| 2 | 10583.250 | 4.50 | 32.49 | 11.40 | 37.70 | 40.69 | 74.0 | 33.31 | 100 | 358 |
| 3 | 17226.750 | 2.00 | 37.70 | 13.37 | 36.44 | 46.63 | 74.0 | 27.37 | 100 | 1 |

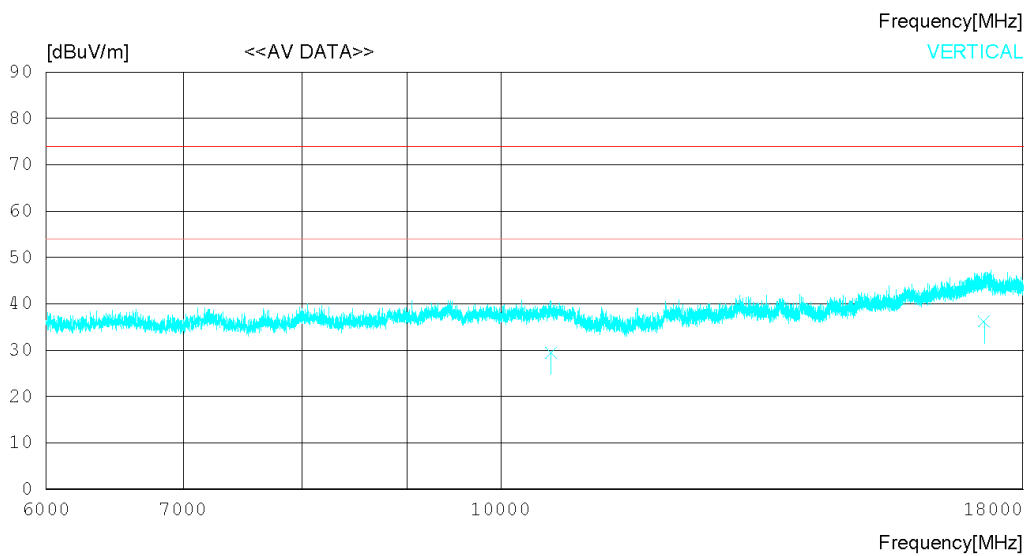
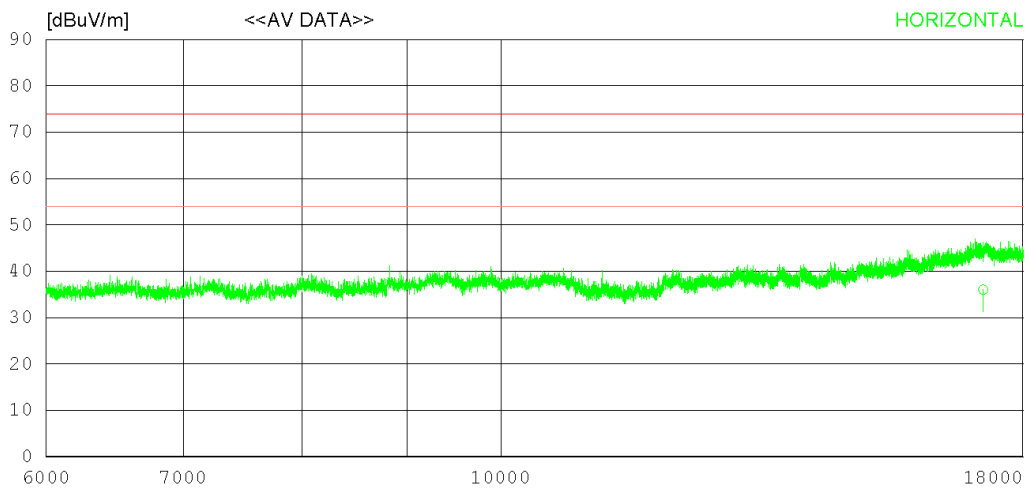
| Radiated disturbance at (6 ~ 18) GHz _ Average measurement data | | | |
|---|-----|---------------------|----|
| Test configuration mode | 2 | EUT Operation mode | 2 |
| Test voltage (V) | 120 | Test Frequency (Hz) | 60 |

RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply 120 V 60 Hz
 Temp/Humi 22 °C 43 % R.H.
 Test Condition Charging + Rear camera

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



* The measurement is performed above 18 GHz up to 30 GHz and not found emissions above 18 GHz.

RADIATED EMISSION

Date 2018-03-29

| | |
|----------------|------------------------|
| Order No. | DTNC1802-01423 |
| Power Supply | 120 V 60 Hz |
| Temp/Humi | 22 °C 43 % R.H. |
| Test Condition | Charging + Rear camera |

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

| No. | FREQ [MHz] | READING CAV [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|------------------------|---------------|--------------------------|-----------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- | | | | | | | | | | |
| 1 | 17207.250 | 1.40 | 37.67 | 13.35 | 36.42 | 36.00 | 54.00 | 18.00 | 100 | 1 |
| ----- Vertical ----- | | | | | | | | | | |
| 2 | 10583.250 | 3.30 | 32.49 | 11.40 | 37.70 | 29.49 | 54.00 | 24.51 | 100 | 358 |
| 3 | 17226.750 | 1.50 | 37.70 | 13.37 | 36.44 | 36.13 | 54.00 | 17.87 | 100 | 1 |

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

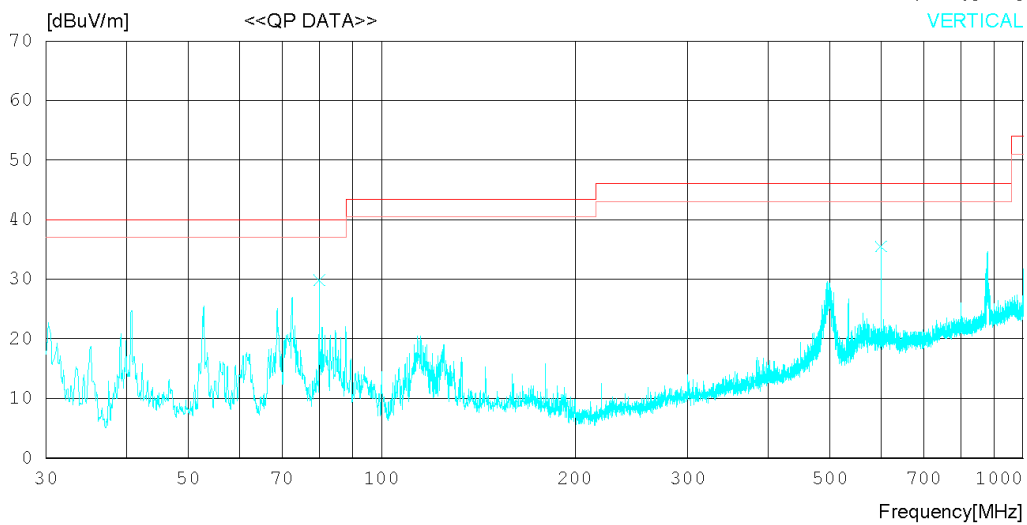
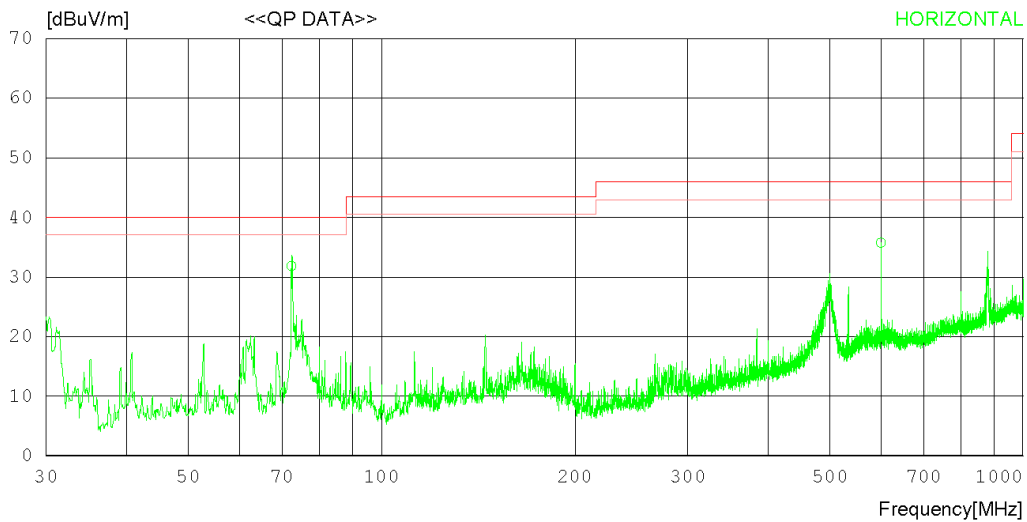
RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply Battery
 Temp/Humi 22 °C 43 % R.H.
 Test Condition MP3

Memo

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



RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply Battery
 Temp/Humi 22 °C 43 % R.H.
 Test Condition MP3

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 | 72.437 | 46.30 | 9.66 | 1.41 | 25.53 | 31.84 | 40.00 | 8.16 | 300 | 105 |
| 2 | 600.002 | 36.30 | 20.30 | 4.33 | 25.24 | 35.69 | 46.00 | 10.31 | 100 | 237 |
| ----- Vertical ----- | | | | | | | | | | |
| 3 | 79.955 | 46.10 | 7.81 | 1.51 | 25.53 | 29.89 | 40.00 | 10.11 | 400 | 245 |
| 4 | 600.002 | 36.10 | 20.30 | 4.33 | 25.24 | 35.49 | 46.00 | 10.51 | 100 | 1 |

| 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 |

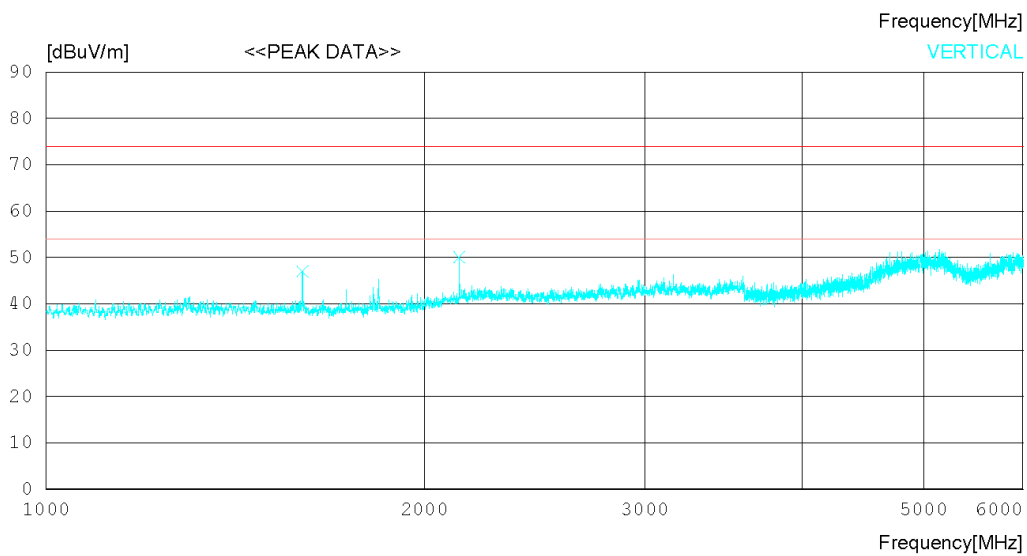
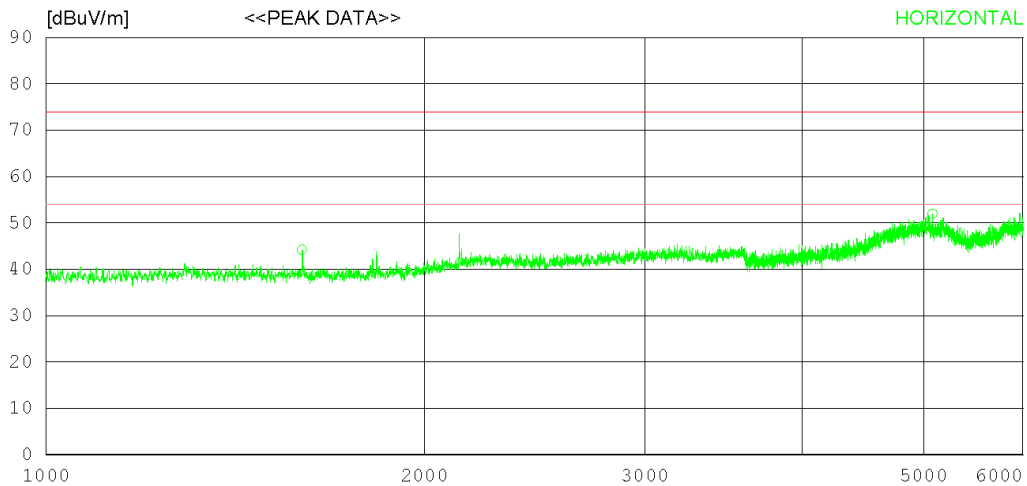
RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply Battery
 Temp/Humi 22 °C 43 % R.H.
 Test Condition MP3

Memo

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



RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply Battery
 Temp/Humi 22 °C 43 % R.H.
 Test Condition MP3

Memo

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

| No. | FREQ [MHz] | READING PEAK [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|------------------------|---------------|---------------------------|-----------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- | | | | | | | | | | |
| 1 | 1599.375 | 47.50 | 24.86 | 4.20 | 32.35 | 44.21 | 74.0 | 29.79 | 100 | 358 |
| 2 | 5080.625 | 42.80 | 31.60 | 9.88 | 32.29 | 51.99 | 74.0 | 22.01 | 100 | 296 |
| ----- Vertical ----- | | | | | | | | | | |
| 3 | 1599.375 | 50.20 | 24.86 | 4.20 | 32.35 | 46.91 | 74.0 | 27.09 | 100 | 1 |
| 4 | 2132.500 | 50.40 | 27.36 | 4.83 | 32.53 | 50.06 | 74.0 | 23.94 | 100 | 1 |

| 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 |

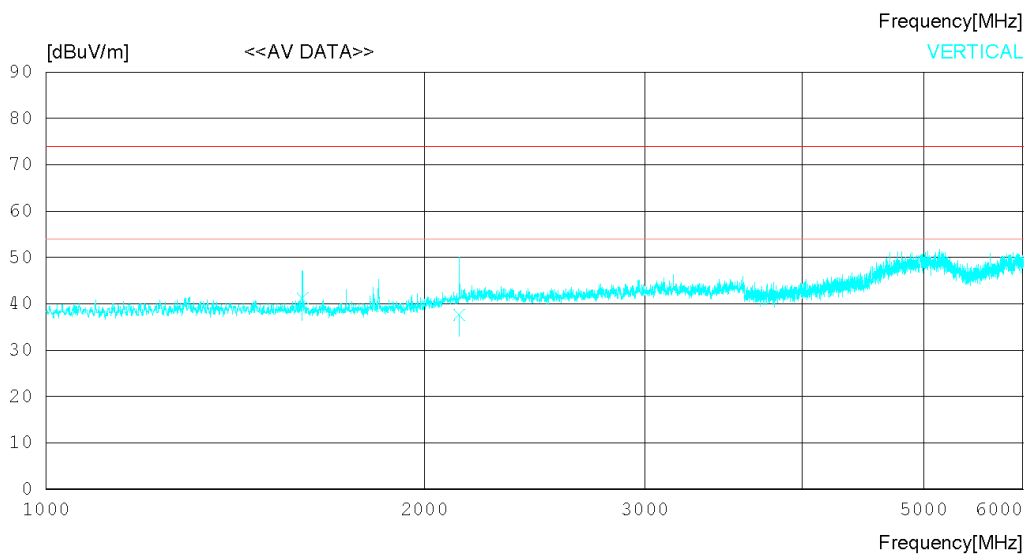
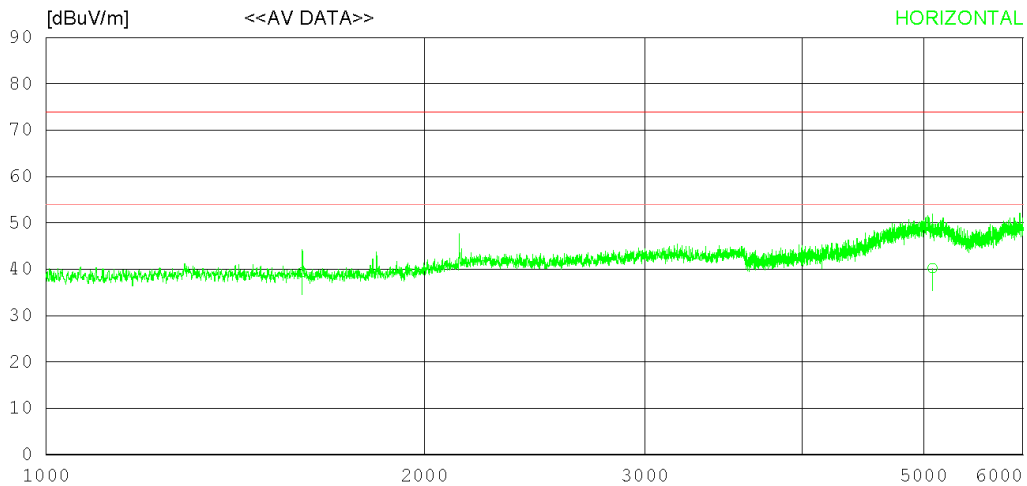
RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply Battery
 Temp/Humi 22 °C 43 % R.H.
 Test Condition MP3

Memo

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



RADIATED EMISSION

Date 2018-03-29

| | |
|----------------|-----------------|
| Order No. | DTNC1802-01423 |
| Power Supply | Battery |
| Temp/Humi | 22 °C 43 % R.H. |
| Test Condition | MP3 |

Memo

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

| No. | FREQ [MHz] | READING CAV [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|------------------------|---------------|--------------------------|-----------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- | | | | | | | | | | |
| 1 | 1599.375 | 42.60 | 24.86 | 4.20 | 32.35 | 39.31 | 54.00 | 14.69 | 100 | 358 |
| 2 | 5080.625 | 31.00 | 31.60 | 9.88 | 32.29 | 40.19 | 54.00 | 13.81 | 100 | 296 |
| ----- Vertical ----- | | | | | | | | | | |
| 3 | 1599.375 | 44.40 | 24.86 | 4.20 | 32.35 | 41.11 | 54.00 | 12.89 | 100 | 1 |
| 4 | 2132.500 | 38.00 | 27.36 | 4.83 | 32.53 | 37.66 | 54.00 | 16.34 | 100 | 1 |

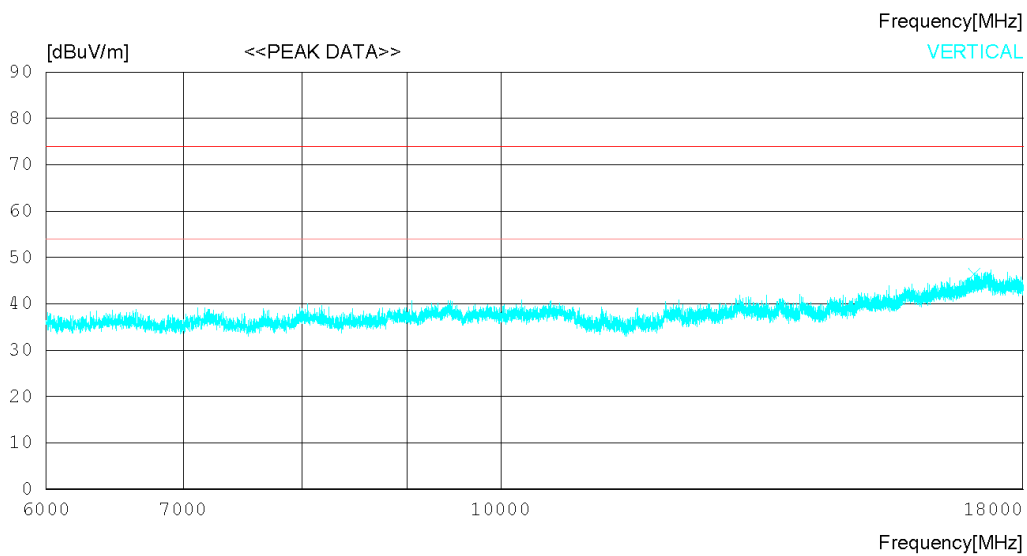
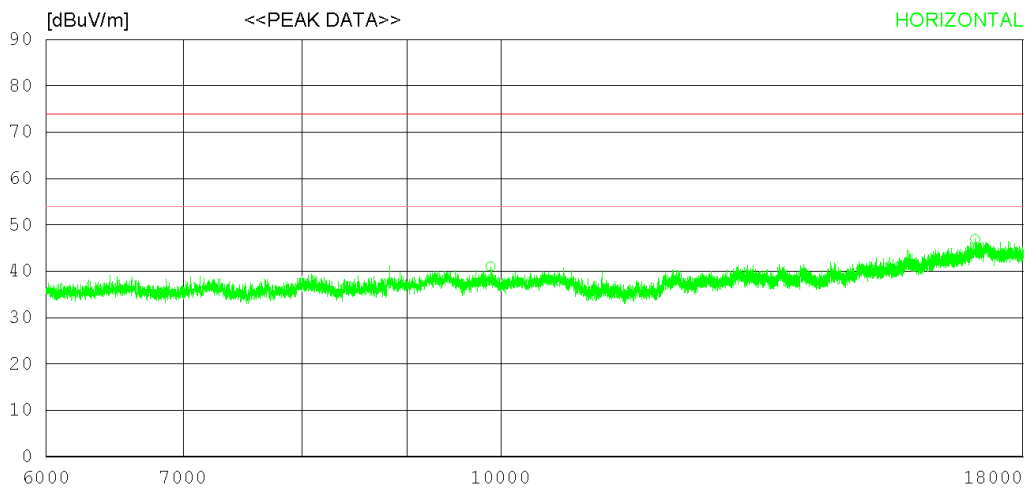
| Radiated disturbance at (6 ~ 18) GHz _Peak measurement data | | | |
|---|-----|---------------------|----|
| Test configuration mode | 3 | EUT Operation mode | 3 |
| Test voltage (V) | 120 | Test Frequency (Hz) | 60 |

RADIATED EMISSION

Date 2018-03-29

| | |
|----------------|----------------|
| Order No. | DTNC1802-01423 |
| Power Supply | Battery |
| Temp/Humi | 22 °C 43 % R.H |
| Test Condition | MP3 |

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



* The measurement is performed above 18 GHz up to 30 GHz and not found emissions above 18 GHz.

RADIATED EMISSION

Date 2018-03-29

| | |
|----------------|----------------|
| Order No. | DTNC1802-01423 |
| Power Supply | Battery |
| Temp/Humi | 22 °C 43 % R.H |
| Test Condition | MP3 |

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

| No. | FREQ [MHz] | READING PEAK [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|------------------------|---------------|---------------------------|-----------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- | | | | | | | | | | |
| 1 | 9890.250 | 35.70 | 32.24 | 11.17 | 38.07 | 41.04 | 74.0 | 32.96 | 100 | 356 |
| 2 | 17050.500 | 32.20 | 37.49 | 13.42 | 36.18 | 46.93 | 74.0 | 27.07 | 100 | 239 |
| ----- Vertical ----- | | | | | | | | | | |
| 3 | 17034.000 | 31.60 | 37.47 | 13.43 | 36.15 | 46.35 | 74.0 | 27.65 | 100 | 166 |

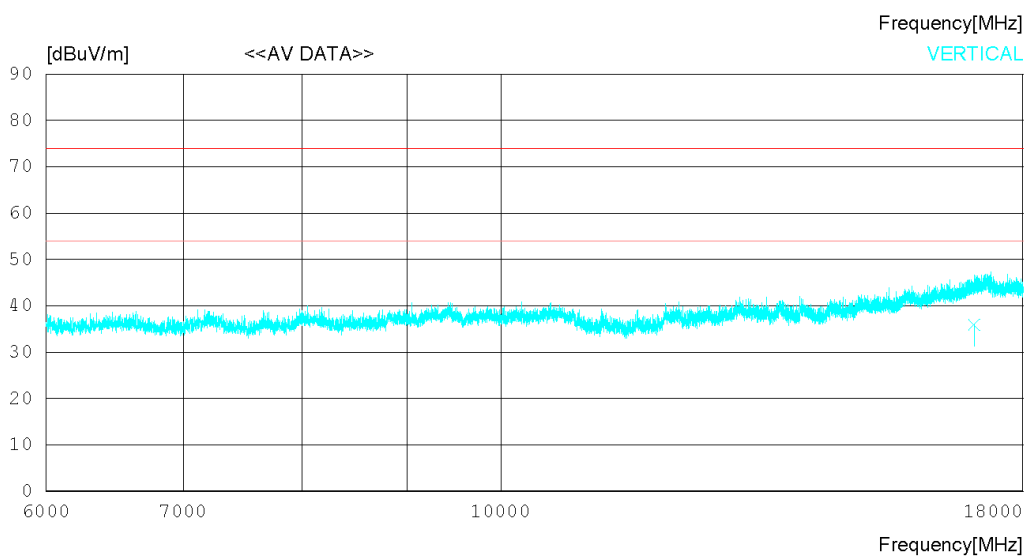
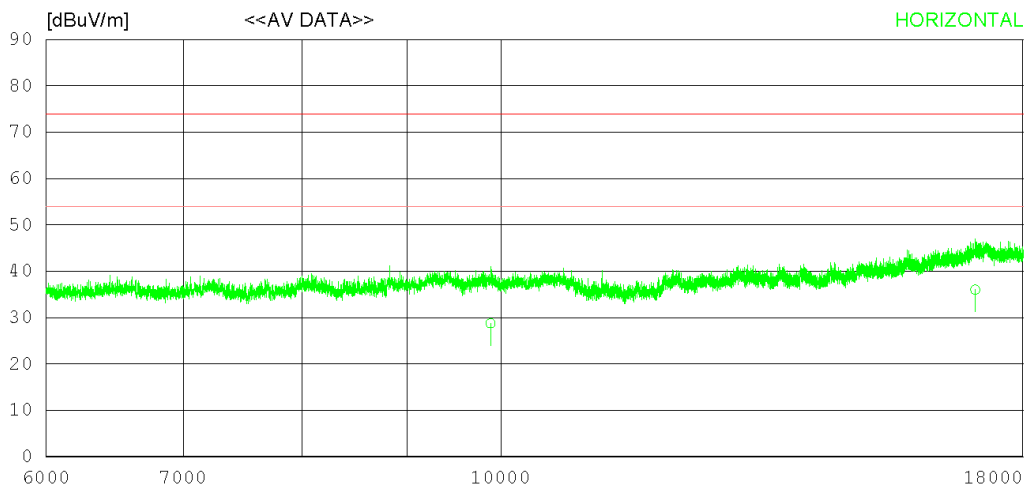
| Radiated disturbance at (6 ~ 18) GHz _ Average measurement data | | | |
|---|-----|---------------------|----|
| Test configuration mode | 3 | EUT Operation mode | 3 |
| Test voltage (V) | 120 | Test Frequency (Hz) | 60 |

RADIATED EMISSION

Date 2018-03-29

| | |
|----------------|----------------|
| Order No. | DTNC1802-01423 |
| Power Supply | Battery |
| Temp/Humi | 22 °C 43 % R.H |
| Test Condition | MP3 |

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



* The measurement is performed above 18 GHz up to 30 GHz and not found emissions above 18 GHz.

RADIATED EMISSION

Date 2018-03-29

| | |
|----------------|----------------|
| Order No. | DTNC1802-01423 |
| Power Supply | Battery |
| Temp/Humi | 22 °C 43 % R.H |
| Test Condition | MP3 |

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

| No. | FREQ [MHz] | READING CAV [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|------------------------|---------------|--------------------------|-----------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- | | | | | | | | | | |
| 1 | 9890.250 | 23.40 | 32.24 | 11.17 | 38.07 | 28.74 | 54.00 | 25.26 | 100 | 356 |
| 2 | 17050.500 | 21.30 | 37.49 | 13.42 | 36.18 | 36.03 | 54.00 | 17.97 | 100 | 239 |
| ----- Vertical ----- | | | | | | | | | | |
| 3 | 17034.000 | 21.20 | 37.47 | 13.43 | 36.15 | 35.95 | 54.00 | 18.05 | 100 | 166 |

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

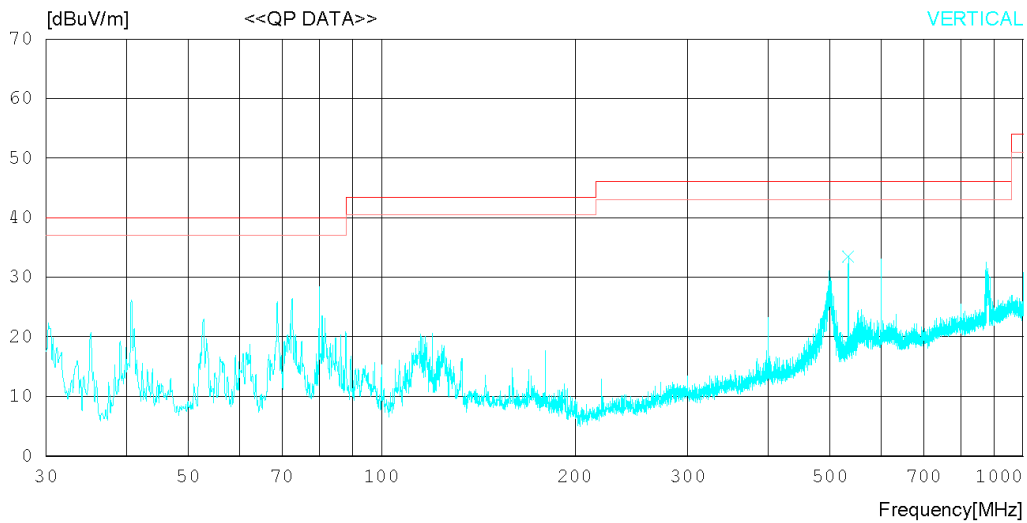
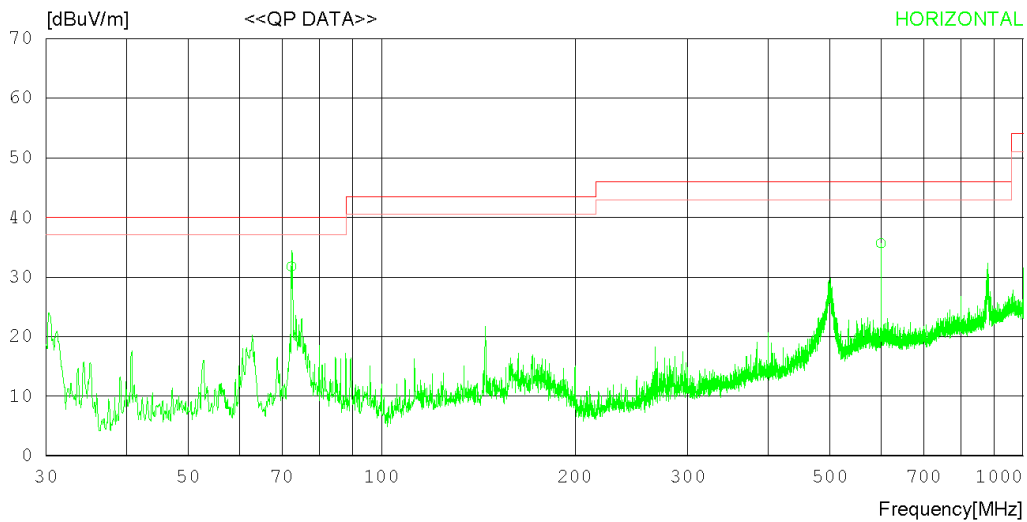
RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply Battery
 Temp/Humi 22 °C 43 % R.H.
 Test Condition MP4

Memo

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



RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply Battery
 Temp/Humi 22 °C 43 % R.H.
 Test Condition MP4

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 | 72.437 | 46.20 | 9.66 | 1.41 | 25.53 | 31.74 | 40.00 | 8.26 | 300 | 115 |
| 2 | 600.002 | 36.20 | 20.30 | 4.33 | 25.24 | 35.59 | 46.00 | 10.41 | 300 | 352 |
| ----- Vertical ----- | | | | | | | | | | |
| 3 | 533.300 | 36.40 | 18.37 | 4.07 | 25.35 | 33.49 | 46.00 | 12.51 | 100 | 193 |

| 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 |

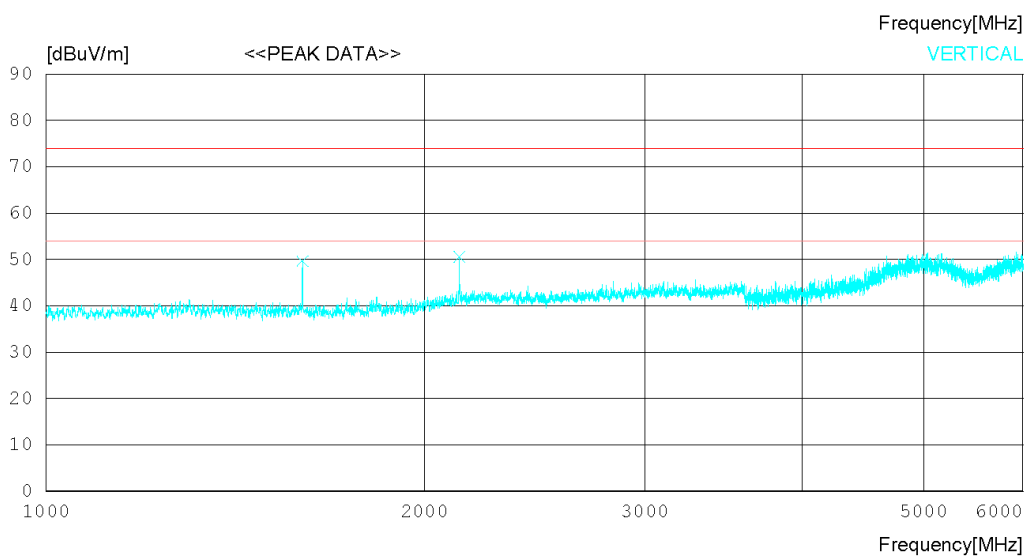
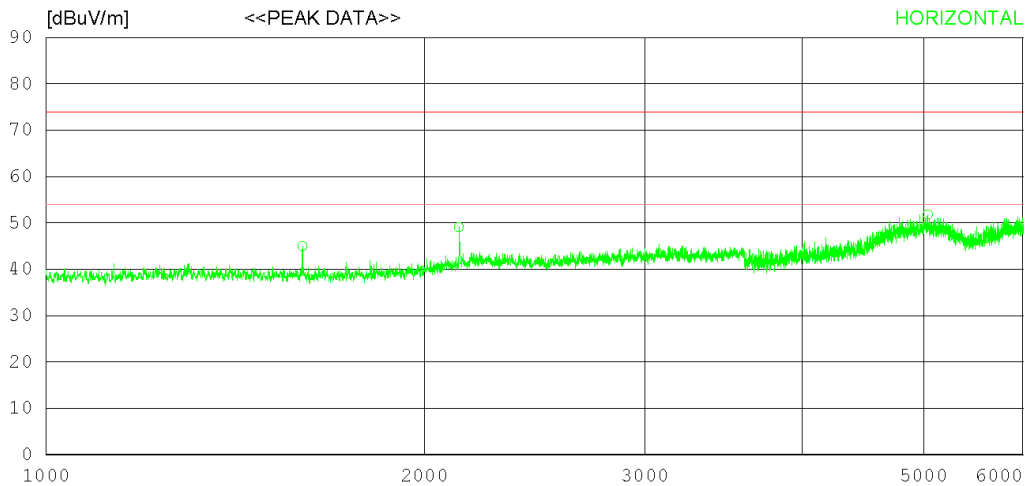
RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply Battery
 Temp/Humi 22 °C 43 % R.H.
 Test Condition MP4

Memo

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



RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply Battery
 Temp/Humi 22 °C 43 % R.H.
 Test Condition MP4

Memo

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

| No. | FREQ [MHz] | READING PEAK [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|------------------------|---------------|---------------------------|-----------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- | | | | | | | | | | |
| 1 | 1600.000 | 48.30 | 24.86 | 4.20 | 32.35 | 45.01 | 74.0 | 28.99 | 100 | 353 |
| 2 | 2133.125 | 49.40 | 27.37 | 4.83 | 32.53 | 49.07 | 74.0 | 24.93 | 100 | 358 |
| 3 | 5037.500 | 42.50 | 31.57 | 9.99 | 32.26 | 51.80 | 74.0 | 22.2 | 100 | 325 |
| ----- Vertical ----- | | | | | | | | | | |
| 4 | 1600.000 | 52.90 | 24.86 | 4.20 | 32.35 | 49.61 | 74.0 | 24.39 | 100 | 183 |
| 5 | 2133.125 | 50.90 | 27.37 | 4.83 | 32.53 | 50.57 | 74.0 | 23.43 | 100 | 230 |

| 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 |

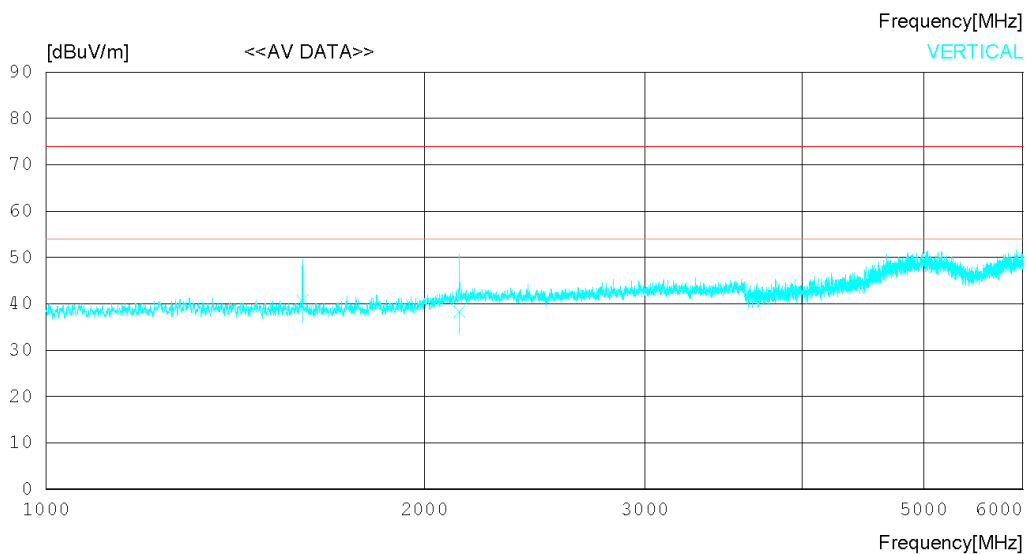
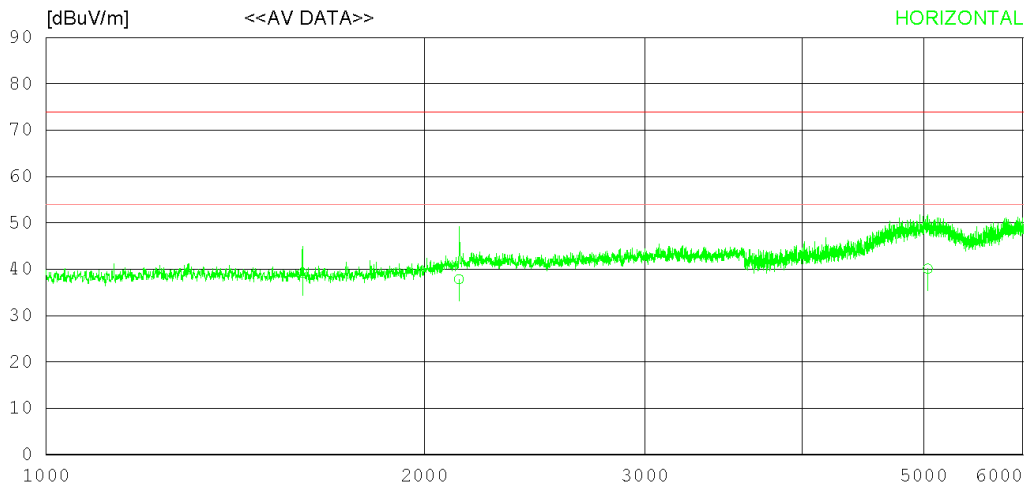
RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply Battery
 Temp/Humi 22 °C 43 % R.H.
 Test Condition MP4

Memo

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



RADIATED EMISSION

Date 2018-03-29

Order No. DTNC1802-01423
 Power Supply Battery
 Temp/Humi 22 °C 43 % R.H.
 Test Condition MP4

Memo

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

| No. | FREQ [MHz] | READING CAV [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|------------------------|---------------|--------------------------|-----------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- | | | | | | | | | | |
| 1 | 1600.000 | 42.50 | 24.86 | 4.20 | 32.35 | 39.21 | 54.00 | 14.79 | 100 | 353 |
| 2 | 2133.125 | 38.20 | 27.37 | 4.83 | 32.53 | 37.87 | 54.00 | 16.13 | 100 | 358 |
| 3 | 5037.500 | 30.80 | 31.57 | 9.99 | 32.26 | 40.10 | 54.00 | 13.90 | 100 | 325 |
| ----- Vertical ----- | | | | | | | | | | |
| 4 | 1600.000 | 44.00 | 24.86 | 4.20 | 32.35 | 40.71 | 54.00 | 13.29 | 100 | 183 |
| 5 | 2133.125 | 38.60 | 27.37 | 4.83 | 32.53 | 38.27 | 54.00 | 15.73 | 100 | 230 |

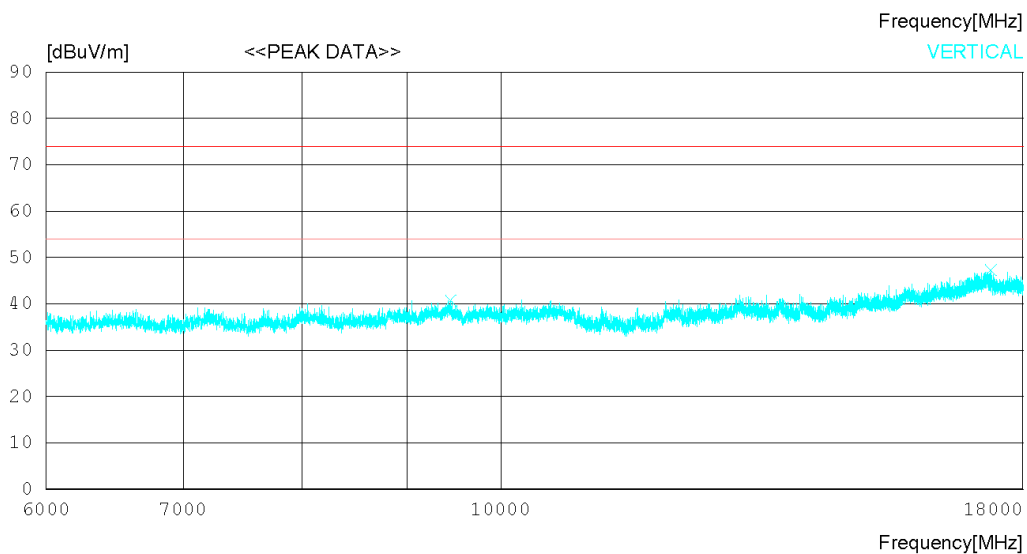
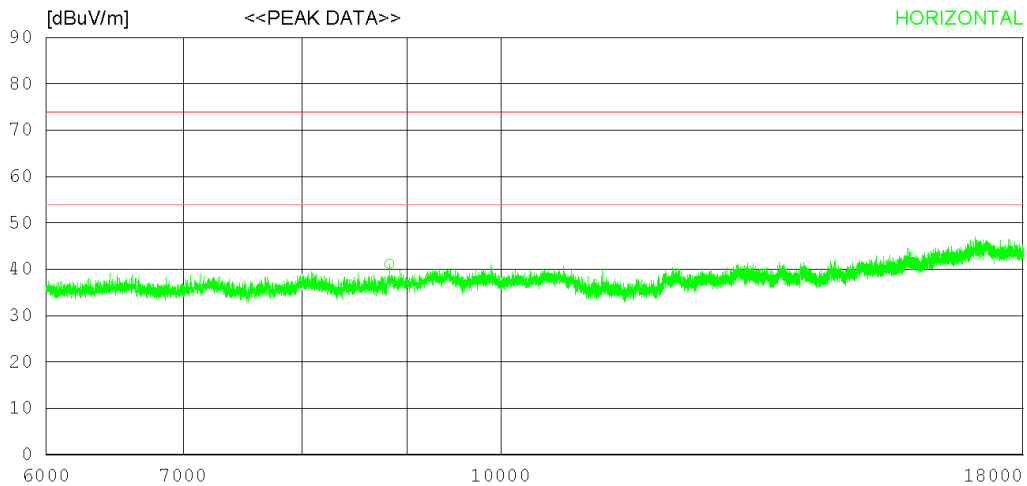
| Radiated disturbance at (6 ~ 18) GHz _Peak measurement data | | | |
|---|-----|---------------------|----|
| Test configuration mode | 4 | EUT Operation mode | 4 |
| Test voltage (V) | 120 | Test Frequency (Hz) | 60 |

RADIATED EMISSION

Date 2018-03-29

| | |
|----------------|----------------|
| Order No. | DTNC1802-01423 |
| Power Supply | Battery |
| Temp/Humi | 22 °C 43 % R.H |
| Test Condition | MP4 |

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



* The measurement is performed above 18 GHz up to 30 GHz and not found emissions above 18 GHz.

RADIATED EMISSION

Date 2018-03-29

| | |
|----------------|----------------|
| Order No. | DTNC1802-01423 |
| Power Supply | Battery |
| Temp/Humi | 22 °C 43 % R.H |
| Test Condition | MP4 |

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

| No. | FREQ [MHz] | READING PEAK [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|------------------------|---------------|---------------------------|-----------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- | | | | | | | | | | |
| 1 | 8826.750 | 36.40 | 31.74 | 10.75 | 37.71 | 41.18 | 74.0 | 32.82 | 100 | 358 |
| 2 | 17106.750 | 28.50 | 37.55 | 13.40 | 36.26 | 43.19 | 74.0 | 30.81 | 100 | 1 |
| ----- Vertical ----- | | | | | | | | | | |
| 3 | 9455.250 | 35.80 | 32.03 | 10.77 | 37.90 | 40.70 | 74.0 | 33.3 | 100 | 358 |
| 4 | 17352.750 | 27.70 | 37.84 | 13.43 | 36.64 | 47.33 | 74.0 | 26.67 | 100 | 223 |

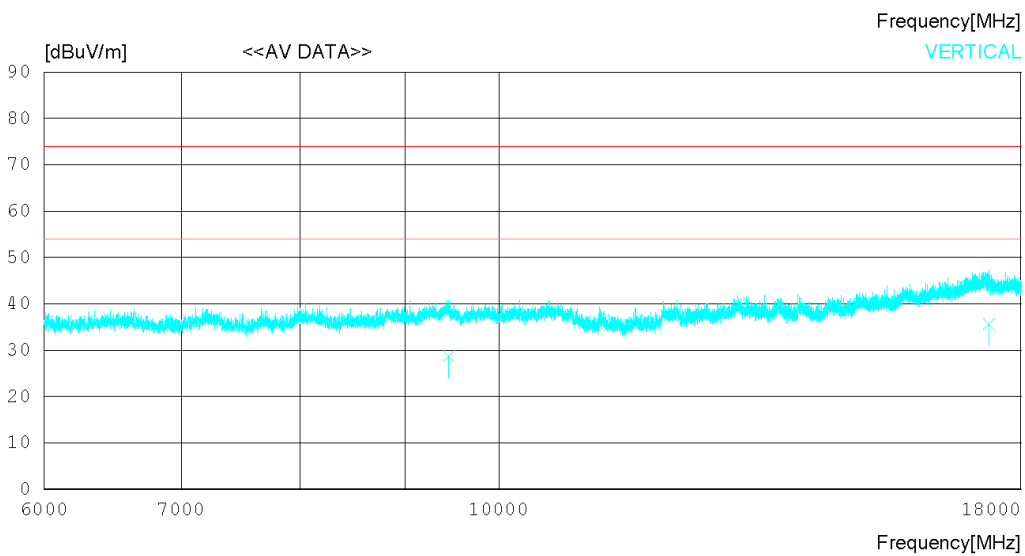
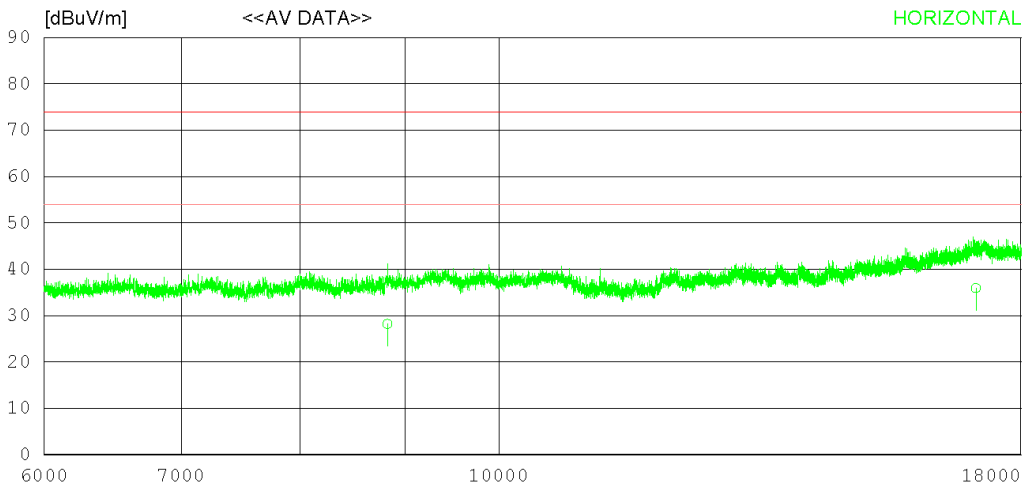
| Radiated disturbance at (6 ~ 18) GHz _ Average measurement data | | | |
|---|-----|---------------------|----|
| Test configuration mode | 4 | EUT Operation mode | 4 |
| Test voltage (V) | 120 | Test Frequency (Hz) | 60 |

RADIATED EMISSION

Date 2018-03-29

| | |
|----------------|----------------|
| Order No. | DTNC1802-01423 |
| Power Supply | Battery |
| Temp/Humi | 22 °C 43 % R.H |
| Test Condition | MP4 |

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



* The measurement is performed above 18 GHz up to 30 GHz and not found emissions above 18 GHz.

RADIATED EMISSION

Date 2018-03-29

| | |
|----------------|----------------|
| Order No. | DTNC1802-01423 |
| Power Supply | Battery |
| Temp/Humi | 22 °C 43 % R.H |
| Test Condition | MP4 |

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

| No. | FREQ [MHz] | READING CAV [dBuV] | ANT FACTOR [dB] | LOSS [dB] | GAIN [dB] | RESULT [dBuV/m] | LIMIT [dBuV/m] | MARGIN [dB] | ANTENNA [cm] | TABLE [DEG] |
|------------------------|---------------|--------------------------|-----------------------|--------------|--------------|--------------------|-------------------|----------------|-----------------|----------------|
| ----- Horizontal ----- | | | | | | | | | | |
| 1 | 8826.750 | 23.40 | 31.74 | 10.75 | 37.71 | 28.18 | 54.00 | 25.82 | 100 | 358 |
| 2 | 17106.750 | 21.20 | 37.55 | 13.40 | 36.26 | 35.89 | 54.00 | 18.11 | 100 | 1 |
| ----- Vertical ----- | | | | | | | | | | |
| 3 | 9455.250 | 23.80 | 32.03 | 10.77 | 37.90 | 28.70 | 54.00 | 25.30 | 100 | 358 |
| 4 | 17352.750 | 21.00 | 37.84 | 13.43 | 36.64 | 35.63 | 54.00 | 18.37 | 100 | 223 |

Calculation

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

8. Revision History

| Date | Description | Revised By | Reviewed By |
|-------------|----------------|--------------|---------------|
| May.31.2018 | Initial report | JaeSeok Choi | MyungJin Song |
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-End of test report-