

No. I15Z41455-EMC01

for

TCL Communication Ltd

HSUPA/HSDPA/UMTS Tri band/GSM Quad band mobile phone

Model Name: 4014E

FCC ID: 2ACCJH022

with

Hardware Version: PIO

Software Version: v5B60

Issued Date: 2015-06-25

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

Test Laboratory:

FCC 2.948 Listed: No. 525429

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REPORT HISTORY

| Report Number | Revision | Description | Issue Date |
|-----------------|----------|-------------|------------|
| I15Z41455-EMC01 | Rev.0 | 1st edition | 2015-06-25 |



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1. Test Laboratory

1.1. Testing Location

Location 1: CTTL(huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing,

P. R. China 100191

1.2. <u>Testing Environment</u>

Normal Temperature: $15-35^{\circ}$ C Relative Humidity: 20-75%

1.3. Project data

Testing Start Date: 2014-11-26
Testing End Date: 2014-12-10

1.4. Signature

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Zhang Ying

(Prepared this test report)

照鹏 E

Qu Pengfei

(Reviewed this test report)

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(Approved this test report)



2. Client Information

2.1. Applicant Information

Company Name: TCL Communication Ltd

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Pudong Area Shanghai, P.R. China.

City: Shanghai Postal Code: 201203 Country: China

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2.2. Manufacturer Information

Company Name: TCL Communication Ltd

Address /Post: 5F, C building, No. 232, Liang Jing Road ZhangJiang High-Tech Park,

Pudong Area Shanghai, P.R. China.

City: Shanghai Postal Code: 201203 Country: China

Telephone: 0086-21-51798260 Fax: 0086-21-61460602



3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description HSUPA/HSDPA/UMTS Tri band/GSM Quad band mobile phone

Model Name 4014E

FCC ID 2ACCJH022

Extreme vol. Limits 3.5VDC to 4.2VDC (nominal: 3.8VDC)

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of Telecommunication Metrology Center of MIIT of People's Republic of China.

3.2. Internal Identification of EUT used during the test

EUT ID* SN or IMEI HW Version SW Version EUT1 / PIO v5B60

3.3. Internal Identification of AE used during the test

| AE ID* | Description | SN | Remarks |
|--------|----------------|----|---------------|
| AE2 | Battery | / | / |
| AE3 | Battery | / | 14TCT-BA-0092 |
| AE4 | Battery | / | 14TCT-BA-0231 |
| AE5 | Battery | / | 14TCT-BA-0123 |
| AE6 | Battery | / | 14TCT-BA-0097 |
| AE7 | Battery | / | 14TCT-BA-0113 |
| AE8 | Travel charger | / | 14TCT-CH-1231 |
| AE10 | Travel charger | / | 14TCT-CH-2119 |
| AE11 | Travel charger | / | 14TCT-CH-2208 |
| AE12 | Travel charger | / | 14TCT-CH-2186 |
| AE13 | USB cable | / | 14TCT-DC-0619 |
| AE14 | USB cable | / | 14TCT-DC-0316 |
| AE16 | USB cable | / | 1 |
| AE17 | USB cable | / | 1 |

AE2

Model CAB1300015C2

Manufacturer SCUD
Capacitance 1300mAh
Nominal voltage 3.7V

AE3, AE4, AE5, AE6, AE7

Model CAB31P0000C1

Manufacturer BYD
Capacitance 1300mAh
Nominal voltage 3.7V

^{*}EUT ID: is used to identify the test sample in the lab internally.



AE8

Model CBA3002AG0C3

Manufacturer Yingju Length of cable 122cm

AE10

Model CBA3002AG0C1

Manufacturer BYD
Length of cable 117cm

AE11

Model CBA3008AG0C2

Manufacturer Tenpao

Length of cable /

AE12

Model CBA3008AG0C3

Manufacturer Yingju
Length of cable /

AE13

Model CDA3122002C1

Manufacturer JUWEI Length of cable 101cm

AE14

Model CDA3122002C2

Manufacturer Shenghua

Length of cable 101cm

AE16

Model CDA3122005C1

Manufacturer Juwei Length of cable /

AE17

Model CDA3122005C2 Manufacturer Shenghua

Length of cable /

3.4. EUT set-ups

| EUT set-up No. Combination of EUT and AE | Remarks |
|--|---------|
| Set.1 EUT1+ AE2/AE3 + AE8 | Charger |
| Set.3 EUT1+ AE2/AE3 + AE10 | Charger |
| Set.4 EUT1+ AE2/AE3 + AE11 +AE13/AE14 | Charger |
| Set.5 EUT1+ AE2/AE3 + AE12 + AE13/AE14 | Charger |
| Set.6 EUT1+ AE2/AE3 + AE13/AE14 | USB |

^{*}AE ID: is used to identify the test sample in the lab internally.



Note:

HSUPA/HSDPA/UMTS Tri band/GSM Quad band mobile phone 4014E manufactured by TCL Communication Ltd is a variant model based on 4013M for conformance test. According to the declaration of changes, the results are inherited from the initial model. The report number of initial model is I14Z48855-EMC01.



4. Reference Documents

4.1. Reference Documents for testing

The following documents listed in this section are referred for testing.

GHz

| Reference | Title | Version |
|------------------------|---|---------|
| FCC Part 15, Subpart B | Radio frequency devices - Unintentional Radiators | 10-1-14 |
| | | Edition |
| ANSI C63.4 | Methods of Measurement of Radio-Noise | 2009 |
| | Emissions from Low - Voltage Electrical and | |
| | Electronic Equipment in the Range of 9 kHz to 40 | |



5. LABORATORY ENVIRONMENT

Semi-anechoic chamber SAC-1 (23 meters \times 17meters \times 10meters) did not exceed following limits along the EMC testing:

| e e | |
|---|--|
| Temperature | Min. = 15 $^{\circ}$ C, Max. = 35 $^{\circ}$ C |
| Relative humidity Min. = 15 %, Max. = 75 % | |
| Shielding effectiveness | 0.014MHz-1MHz, >60dB; |
| | 1MHz - 1000MHz, >90dB. |
| Electrical insulation | > 2 MΩ |
| Ground system resistance | < 4 Ω |
| Normalised site attenuation (NSA) | < ±4 dB, 10 m distance |
| Site voltage standing-wave ratio (S _{VSWR}) | Between 0 and 6 dB, from 1GHz to 6GHz |
| Uniformity of field strength | Between 0 and 6 dB, from 80 to 3000 MHz |

Shielded room did not exceed following limits along the EMC testing:

| | <u> </u> |
|--------------------------|----------------------------|
| Temperature | Min. = 15 °C, Max. = 35 °C |
| Relative humidity | Min. = 20 %, Max. = 75 % |
| Shielding effectiveness | 0.014MHz-1MHz, >60dB; |
| | 1MHz-1000MHz, >90dB. |
| Electrical insulation | > 2 MΩ |
| Ground system resistance | < 4 Ω |



6. SUMMARY OF TEST RESULTS

| Abbreviations used in this clause: | | |
|------------------------------------|---------|---|
| | Р | Pass |
| Verdict Column | NA | Not applicable |
| | F | Fail |
| Location Column | 1/2/3/4 | The test is performed in test location 1, 2, 3 or 4 which |
| Location Column | 1/2/3/4 | are described in section 1.1 of this report |

| Clause | List | Clause in FCC rules | Verdict | Location |
|--------|--------------------|---------------------|---------|----------|
| 1 | Radiated Emission | 15.109(a) | Р | 1 |
| 2 | Conducted Emission | 15.107(a) | Р | 1 |



7. Test Equipments Utilized

| NO. | NAME | TYPE | SERIES NUMBER | PRODUCER | CAL. DUE DATE | CAL. INTERVAL |
|-----|---|-----------------|----------------------------------|--------------|------------------|------------------|
| 1. | Test Receiver | ESCI | 100344 | R&S | 2016-03-03 | 1 year |
| 2. | Test Receiver | ESCI 7 | 100948 | R&S | 2015-07-16 | 1 year |
| 3. | Universal Radio Communication Tester | CMU200 | 109914 | R&S | 2016-03-26 | 1 Year |
| 4. | Test Receiver | FSV | 101047 | R&S | 2015-07-03 | 1 Year |
| 5. | LISN | ESH2-Z5 | 829991/012 | R&S | 2016-04-12 | 1 year |
| 6. | EMI Antenna | VULB 9163 | 9163-234 | Schwarzbeck | 2016-09-16 | 3 years |
| 7. | EMI Antenna | 3115 | 6914 | ETS-Lindgren | 2017-12-15 | 3 years |
| 8. | PC | OPTIPLEX 380 | 2X1YV2X | DELL | / | / |
| 9. | Monitor | E1709Wc | CN-OJ672H-6 4180-9BF-1CR L | DELL | / | / |
| 10. | Printer | P1606dn | VNC3L52122 | HP | / | / |
| 11. | Keyboard | L100 | CN-ORH656-6 5890-03S-041 Y | DELL | / | / |
| 12. | Mouse | M-UAR | LZ013HC1YLV | DELL | / | / |



ANNEX A: MEASUREMENT RESULTS

A.1 Radiated Emission (§15.109(a))

A.1.1 Method of measurement

The field strength of radiated emissions from the unintentional radiator (USB mode of MS and charging mode of MS) at distances of 10 meters(for 30MHz-1GHz) and 3 meters (for above 1GHz) is tested. Tested in accordance with the procedures of ANSI C63.4 - 2009, section 8.3.

The EUT was placed on a non-conductive table. The measurement antenna was placed at a

distance of 3/10 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

A.1.2 EUT Operating Mode:

The MS is operating in the USB mode and charging mode. During the test MS is connected to a PC via a USB cable in the case of USB mode and is connected to a charger in the case of charging mode. The model of the PC is DELL OPTIPLEX 380, and the serial number of the PC is 2X1YV2X. The software is used to let the PC keep on copying data to MS, reading and erasing the data after copy action was finished.

A.1.3 Measurement Limit

| Frequency range | Field strength limit (µV/m) | | |
|-----------------|-----------------------------|---------|------|
| (MHz) | Quasi-peak | Average | Peak |
| 30-88 | 100 | | |
| 88-216 | 150 | | |
| 216-960 | 200 | | |
| 960-1000 | 500 | | |
| >1000 | | 500 | 5000 |

Note: the above limit is for 3 meters test distance. 10 meters' limit is got by converting.

A.1.4 Test Condition

| Frequency range (MHz) | RBW/VBW | Sweep Time (s) | Detector |
|-----------------------|-----------------------|----------------|-----------------|
| 30-1000 | 120kHz (IF Bandwidth) | 5 | Peak/Quasi-peak |
| Above 1000 | 1MHz/1MHz | 15 | Peak, Average |



A.1.5 Measurement Results

A "reference path loss" is established and the A_{Rpl} is the attenuation of "reference path loss". It includes the antenna factor of receive antenna and the path loss.

The measurement results are obtained as described below:

Result = $P_{Mea} + A_{Rpl} = P_{Mea} + G_A + G_{PL}$

Where

G_A: Antenna factor of receive antenna

G_{PL}: Path Loss

P_{Mea}: Measurement result on receiver.

Measurement uncertainty (worst case): U = 4.3 dB, k=2.

Measurement results for Set.1:

Charging Mode/Average detector

| Frequency(MHz) | Result(dBμV/m) | G _{PL} (dB) | G _A (dB/m) | $P_{Mea}(dB\mu V)$ | Polarity |
|----------------|----------------|----------------------|-----------------------|--------------------|----------|
| 5261.875 | 30.4 | -24.2 | 38.0 | 34.700 | Н |
| 5263.125 | 30.4 | -24.2 | 38.0 | 34.500 | V |
| 5259.688 | 30.4 | -24.9 | 38.0 | 35.100 | Н |
| 5254.375 | 30.3 | -24.2 | 38.0 | 34.200 | V |
| 5270.625 | 30.3 | -24.2 | 38.0 | 34.100 | Н |
| 5267.500 | 30.3 | -24.2 | 38.0 | 34.000 | V |

Charging Mode/Peak detector

| Frequency(MHz) | Result(dBμV/m) | G _{PL} (dB) | G _A (dB/m) | $P_{Mea}(dB\mu V)$ | Polarity | |
|----------------|----------------|----------------------|-----------------------|--------------------|----------|--|
| 5289.375 | 42.9 | -34.4 | 34.6 | 42.700 | Н | |
| 5261.875 | 42.7 | -34.5 | 34.6 | 42.600 | V | |
| 5679.063 | 42.6 | -34.2 | 35.1 | 41.700 | Н | |
| 5279.063 | 42.4 | -34.4 | 34.6 | 42.200 | V | |
| 5519.375 | 42.3 | -34.0 | 35.1 | 41.200 | Н | |
| 5806.563 | 42.2 | -33.8 | 35.1 | 40.900 | V | |



Measurement results for Set.3:

Charging Mode/Average detector

| Frequency(MHz) | Result(dBμV/m) | G _{PL} (dB) | G _A (dB/m) | $P_{Mea}(dB\mu V)$ | Polarity |
|----------------|----------------|----------------------|-----------------------|--------------------|----------|
| 5259.063 | 30.3 | -24.2 | 38.0 | 34.700 | V |
| 5260.000 | 30.3 | -24.2 | 38.0 | 34.500 | Н |
| 5265.000 | 30.2 | -24.9 | 38.0 | 35.100 | V |
| 5258.125 | 30.2 | -24.2 | 38.0 | 34.200 | V |
| 5262.188 | 30.2 | -24.2 | 38.0 | 34.100 | Н |
| 5260.938 | 30.2 | -24.2 | 38.0 | 34.000 | V |

Charging Mode/Peak detector

| Frequency(MHz) | Result(dBμV/m) | G _{PL} (dB) | G _A (dB/m) | P _{Mea} (dBµV) | Polarity |
|----------------|----------------|----------------------|-----------------------|-------------------------|----------|
| 5240.000 | 42.5 | -34.5 | 34.6 | 42.400 | V |
| 5750.938 | 42.2 | -33.8 | 35.1 | 40.900 | Н |
| 5235.313 | 42.1 | -34.5 | 34.6 | 42.000 | V |
| 5012.188 | 42.0 | -34.6 | 34.6 | 42.000 | V |
| 5264.688 | 41.9 | -34.5 | 34.6 | 41.800 | Н |
| 5254.375 | 41.9 | -34.5 | 34.6 | 41.800 | V |

Measurement results for Set.4:

Charging Mode/Average detector

| Frequency(MHz) | Result(dBμV/m) | G _{PL} (dB) | G _A (dB/m) | $P_{Mea}(dB\mu V)$ | Polarity |
|----------------|----------------|----------------------|-----------------------|--------------------|----------|
| 5261.250 | 30.4 | -34.5 | 34.6 | 30.300 | Н |
| 5259.063 | 30.4 | -34.5 | 34.6 | 30.300 | V |
| 5263.438 | 30.4 | -34.5 | 34.6 | 30.300 | V |
| 5257.813 | 30.3 | -34.5 | 34.6 | 30.200 | V |
| 5261.875 | 30.3 | -34.5 | 34.6 | 30.200 | Н |
| 5267.813 | 30.3 | -34.5 | 34.6 | 30.200 | Н |

Charging Mode/Peak detector

| Frequency(MHz) | Result(dBμV/m) | G _{PL} (dB) | G _A (dB/m) | $P_{Mea}(dB\mu V)$ | Polarity |
|----------------|----------------|----------------------|-----------------------|--------------------|----------|
| 5439.688 | 42.3 | -24.2 | 38.0 | 34.700 | Н |
| 5277.500 | 42.3 | -24.2 | 38.0 | 34.500 | V |
| 5525.313 | 42.2 | -24.9 | 38.0 | 35.100 | V |
| 5313.438 | 42.2 | -24.2 | 38.0 | 34.200 | V |
| 5803.750 | 42.1 | -24.2 | 38.0 | 34.100 | Н |
| 5323.438 | 42.1 | -24.2 | 38.0 | 34.000 | Н |



Measurement results for Set.5:

Charging Mode/Average detector

| Frequency(MHz) | Result(dB _μ V/m) | G _{PL} (dB) | G _A (dB/m) | $P_{Mea}(dB\mu V)$ | Polarity |
|----------------|-----------------------------|----------------------|-----------------------|--------------------|----------|
| 5267.188 | 30.4 | -34.5 | 34.6 | 30.300 | V |
| 5260.000 | 30.3 | -34.5 | 34.6 | 30.200 | Н |
| 5258.750 | 30.3 | -34.5 | 34.6 | 30.200 | Н |
| 5259.063 | 30.3 | -34.5 | 34.6 | 30.200 | V |
| 5265.313 | 30.2 | -34.5 | 34.6 | 30.100 | V |
| 5264.063 | 30.1 | -34.5 | 34.6 | 30.000 | Н |

Charging Mode/Peak detector

| Frequency(MHz) | Result(dBμV/m) | G _{PL} (dB) | G _A (dB/m) | P _{Mea} (dBµV) | Polarity |
|----------------|----------------|----------------------|-----------------------|-------------------------|----------|
| 5756.250 | 42.6 | -33.8 | 35.1 | 41.300 | V |
| 5290.000 | 42.4 | -34.4 | 34.6 | 42.200 | Н |
| 5265.313 | 42.2 | -34.5 | 34.6 | 42.100 | Н |
| 5280.000 | 42.2 | -34.4 | 34.6 | 42.000 | V |
| 5302.188 | 42.2 | -34.4 | 34.6 | 42.000 | V |
| 5299.688 | 42.1 | -34.4 | 34.6 | 41.900 | Н |

Measurement results for Set.6:

USB Mode/Average detector

| Frequency(MHz) | Result(dBμV/m) | G _{PL} (dB) | G _A (dB/m) | $P_{Mea}(dB\mu V)$ | Polarity |
|----------------|----------------|----------------------|-----------------------|--------------------|----------|
| 2398.125 | 34.4 | -38.8 | 27.7 | 45.500 | V |
| 2397.813 | 34.2 | -38.8 | 27.7 | 45.300 | Н |
| 1248.750 | 34.1 | -41.1 | 24.1 | 51.100 | V |
| 2397.188 | 34.0 | -38.8 | 27.7 | 45.100 | V |
| 1254.688 | 33.9 | -41.1 | 24.1 | 50.900 | V |
| 1241.875 | 33.9 | -41.0 | 24.1 | 50.800 | Н |

USB Mode/Peak detector

| Frequency(MHz) | Result(dBμV/m) | G _{PL} (dB) | G _A (dB/m) | $P_{Mea}(dB\mu V)$ | Polarity |
|----------------|----------------|----------------------|-----------------------|--------------------|----------|
| 2398.125 | 50.2 | -38.8 | 27.7 | 61.300 | V |
| 2397.188 | 50.2 | -38.8 | 27.7 | 61.300 | Н |
| 2398.438 | 50.0 | -38.8 | 27.7 | 61.100 | V |
| 2395.938 | 49.8 | -38.8 | 27.7 | 60.900 | V |
| 2396.250 | 49.8 | -38.8 | 27.7 | 60.900 | V |
| 2397.500 | 49.7 | -38.8 | 27.7 | 60.800 | Н |

Note: The measurement results of Set.1, Set.3, Set.4, Set.5 and Set.6 showed here are worst cases of the combinations of different batteries and USB cables.





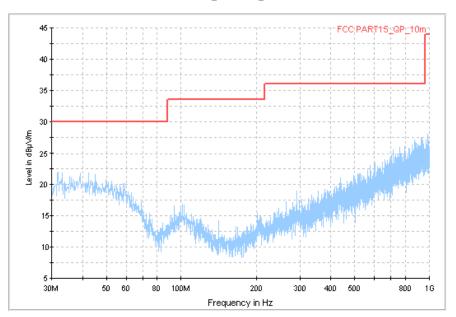
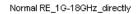


Fig.1 Radiated Emission from 30MHz to 1GHz



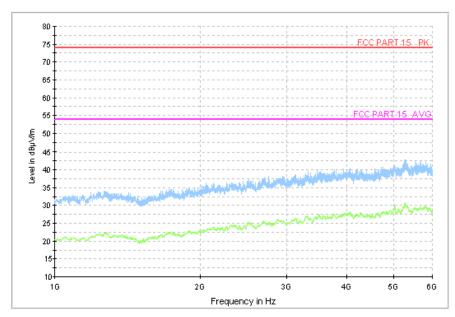
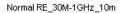


Fig.2 Radiated Emission from 1GHz to 6GHz





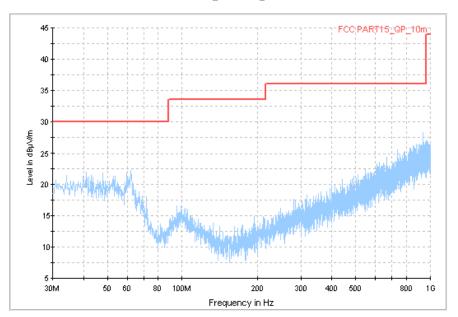


Fig.3 Radiated Emission from 30MHz to 1GHz

Normal RE_1G-18GHz_directly

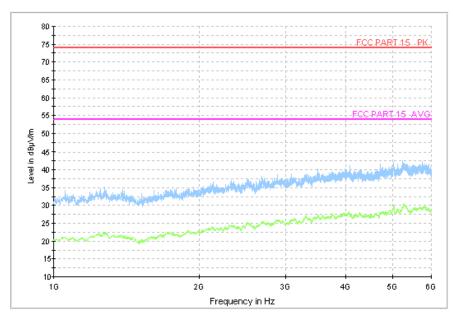
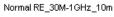


Fig.4 Radiated Emission from 1GHz to 6GHz





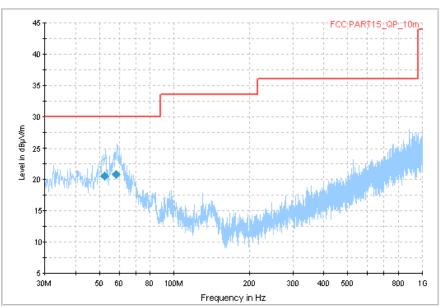


Fig.5 Radiated Emission from 30MHz to 1GHz

Final Result

| Frequency | QuasiPeak | Limit | Margin | Azimuth | Polarization |
|-----------|-------------|-------------|--------|---------|--------------|
| MHz | $dB\mu V/m$ | $dB\mu V/m$ | dB | Deg | H/V |
| 52.437500 | 20.6 | 30.0 | 9.4 | -31.0 | V |
| 58.196250 | 20.9 | 30.0 | 9.1 | -31.0 | V |

Normal RE_1G-18GHz_directly

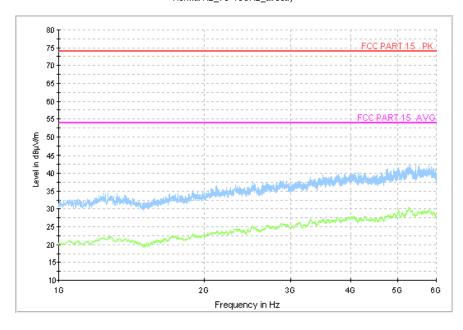


Fig.6 Radiated Emission from 1GHz to 6GHz





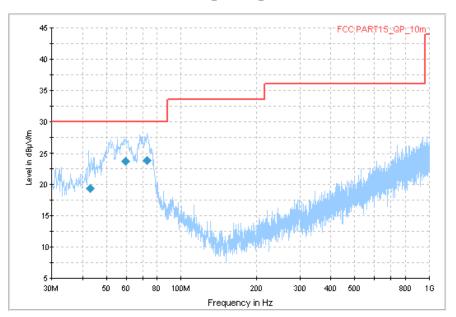


Fig.7 Radiated Emission from 30MHz to 1GHz

Final Result

| Frequency | QuasiPeak | Limit | Margin | Azimuth | Polarization |
|-----------|-------------|-------------|--------|---------|--------------|
| MHz | $dB\mu V/m$ | $dB\mu V/m$ | dB | Deg | H/V |
| 42.968750 | 19.3 | 30.0 | 10.7 | -30.0 | V |
| 59.578750 | 23.8 | 30.0 | 6.2 | -30.0 | V |
| 72.920000 | 23.8 | 30.0 | 6.2 | -29.0 | V |

Normal RE_1G-18GHz_directly

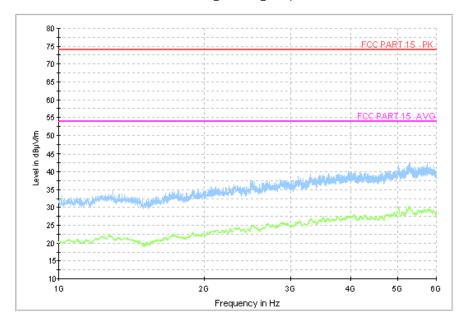


Fig.8 Radiated Emission from 1GHz to 6GHz



USB Mode, Set.6

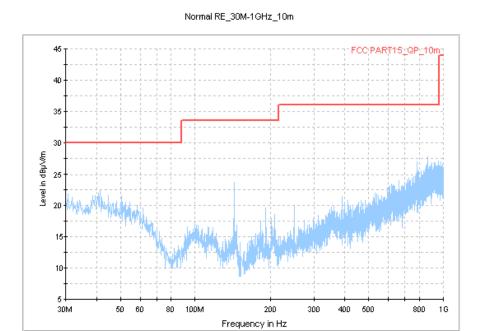


Fig.9 Radiated Emission from 30MHz to 1GHz

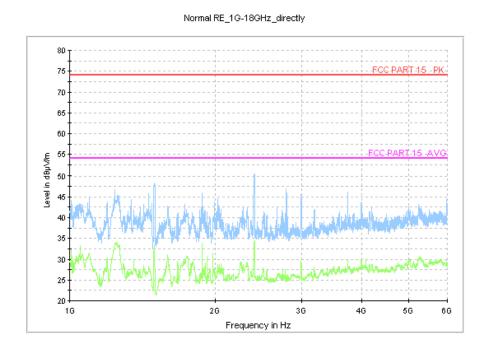


Fig.10 Radiated Emission from 1GHz to 6GHz



A.2 Conducted Emission (§15.107(a))

A.2.1 Method of measurement

For equipment that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits. Tested in accordance with the procedures of ANSI C63.4 - 2009, section 7.2.

A.2.2 EUT Operating Mode

The MS is operating in the USB mode and charging mode. During the test MS is connected to a PC via a USB cable in the case of USB mode and is connected to a charger in the case of charging mode. The model of the PC is DELL OPTIPLEX 380, and the serial number of the PC is 2X1YV2X. The software is used to let the PC keep on copying data to MS, reading and erasing the data after copy action was finished.

A.2.3 Measurement Limit

| Frequency of emission (MHz) | Conducted limit (dBμV) | | | | | |
|--|------------------------|-----------|--|--|--|--|
| | Quasi-peak | Average | | | | |
| 0.15-0.5 | 66 to 56* | 56 to 46* | | | | |
| 0.5-5 | 56 | 46 | | | | |
| 5-30 60 50 | | | | | | |
| *Decreases with the logarithm of the frequency | | | | | | |

A.2.4 Test Condition in charging mode

| Voltage (V) | Frequency (Hz) |
|-------------|----------------|
| 120 | 60 |

| RBW/IF bandwidth | Sweep Time(s) |
|------------------|---------------|
| 9kHz | 1 |



A.2.5 Measurement Results

Measurement uncertainty: U= 2.9 dB, k=2.

Charging Mode, Set.1

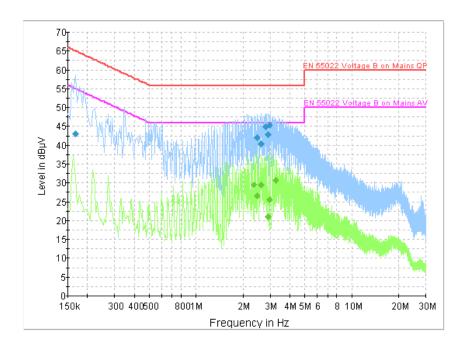


Fig.11 Conducted Emission

Final Result 1

| Frequency | QuasiPeak | DE | Line | Corr. | Margin | Limit |
|-----------|-----------|-----|------|-------|--------|--------|
| (MHz) | (dBµV) | PE | Line | (dB) | (dB) | (dBµV) |
| 0.168000 | 43.1 | GND | N | 19.9 | 22.0 | 65.1 |
| 2.458500 | 42.1 | GND | L1 | 19.7 | 13.9 | 56.0 |
| 2.620500 | 40.4 | GND | L1 | 19.7 | 15.6 | 56.0 |
| 2.787000 | 44.9 | GND | L1 | 19.7 | 11.1 | 56.0 |
| 2.908500 | 42.9 | GND | L1 | 19.7 | 13.1 | 56.0 |
| 2.949000 | 45.5 | GND | L1 | 19.7 | 10.5 | 56.0 |

Final Result 2

| Frequency | CAverage | PE | DE | Line | Corr. | Margin | Limit |
|-----------|----------|-----|---------|------|-------|--------|-------|
| (MHz) | (dBµV) | PE | re Line | (dB) | (dB) | (dBµV) | |
| 2.346000 | 29.5 | GND | L1 | 19.7 | 16.5 | 46.0 | |
| 2.458500 | 26.6 | GND | L1 | 19.7 | 19.4 | 46.0 | |
| 2.620500 | 29.6 | GND | L1 | 19.7 | 16.4 | 46.0 | |
| 2.908500 | 21.0 | GND | L1 | 19.7 | 25.0 | 46.0 | |
| 2.958000 | 25.7 | GND | L1 | 19.7 | 20.3 | 46.0 | |
| 3.232500 | 30.8 | GND | L1 | 19.7 | 15.2 | 46.0 | |



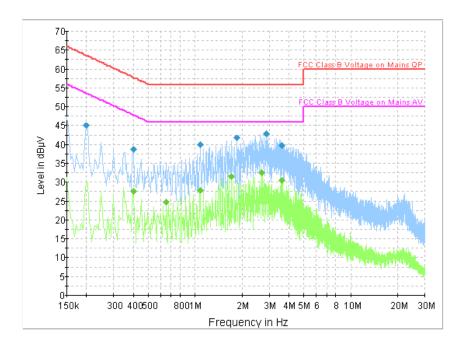


Fig.12 Conducted Emission

Final Result 1

| Frequency | QuasiPeak | PE | Line | Corr. | Margin | Limit |
|-----------|-----------|-----|---------|-------|--------|--------|
| (MHz) | (dBµV) | PE | PE Line | (dB) | (dB) | (dBµV) |
| 0.199500 | 45.1 | GND | L1 | 19.8 | 18.5 | 63.6 |
| 0.402000 | 38.7 | GND | L1 | 19.9 | 19.1 | 57.8 |
| 1.086000 | 39.9 | GND | L1 | 19.8 | 16.1 | 56.0 |
| 1.846500 | 41.7 | GND | L1 | 19.7 | 14.3 | 56.0 |
| 2.886000 | 42.9 | GND | L1 | 19.7 | 13.1 | 56.0 |
| 3.606000 | 39.7 | GND | L1 | 19.7 | 16.3 | 56.0 |

Final Result 2

| Frequency | CAverage | DE | Lina | Corr. | Margin | Limit |
|-----------|----------|-----|------|-------|--------|--------|
| (MHz) | (dBµV) | PE | Line | (dB) | (dB) | (dBµV) |
| 0.402000 | 27.6 | GND | L1 | 19.9 | 20.2 | 47.8 |
| 0.645000 | 24.7 | GND | L1 | 19.9 | 21.3 | 46.0 |
| 1.086000 | 27.9 | GND | L1 | 19.8 | 18.1 | 46.0 |
| 1.698000 | 31.6 | GND | L1 | 19.7 | 14.4 | 46.0 |
| 2.665500 | 32.5 | GND | L1 | 19.7 | 13.5 | 46.0 |
| 3.606000 | 30.6 | GND | L1 | 19.7 | 15.4 | 46.0 |



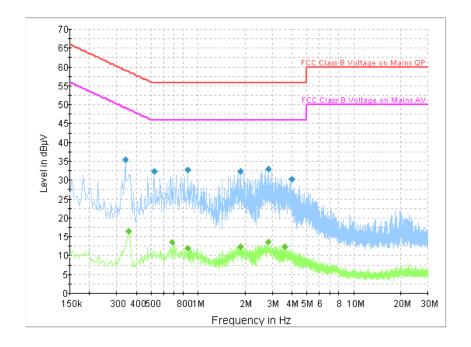


Fig.13 Conducted Emission

Final Result 1

| · ····ai· · · · · · | | | | | | |
|---------------------|-----------|-----|------|-------|--------|--------|
| Frequency | QuasiPeak | PE | Line | Corr. | Margin | Limit |
| (MHz) | (dBµV) | PE | Line | (dB) | (dB) | (dBµV) |
| 0.339000 | 35.6 | GND | L1 | 19.8 | 23.7 | 59.2 |
| 0.523500 | 32.4 | GND | L1 | 20.0 | 23.6 | 56.0 |
| 0.861000 | 32.6 | GND | L1 | 19.8 | 23.4 | 56.0 |
| 1.860000 | 32.4 | GND | L1 | 19.7 | 23.6 | 56.0 |
| 2.809500 | 33.1 | GND | L1 | 19.7 | 22.9 | 56.0 |
| 3.988500 | 30.3 | GND | L1 | 19.7 | 25.7 | 56.0 |

Final Result 2

| Frequency | CAverage | DE | Lima | Corr. | Margin | Limit |
|-----------|----------|-----|------|-------|--------|--------|
| (MHz) | (dBµV) | PE | Line | (dB) | (dB) | (dBµV) |
| 0.357000 | 16.5 | GND | L1 | 19.9 | 32.2 | 48.8 |
| 0.681000 | 13.6 | GND | L1 | 19.9 | 32.4 | 46.0 |
| 0.861000 | 12.1 | GND | L1 | 19.8 | 33.9 | 46.0 |
| 1.878000 | 12.4 | GND | L1 | 19.7 | 33.6 | 46.0 |
| 2.809500 | 13.7 | GND | L1 | 19.7 | 32.3 | 46.0 |
| 3.628500 | 12.4 | GND | L1 | 19.7 | 33.6 | 46.0 |



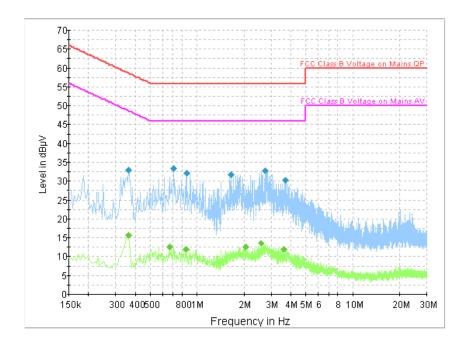


Fig.14 Conducted Emission

Final Result 1

| Frequency | QuasiPeak | PE | Line | Corr. | Margin | Limit |
|-----------|-----------|-----|------|-------|--------|--------|
| (MHz) | (dBµV) | PE | Line | (dB) | (dB) | (dBµV) |
| 0.361500 | 33.1 | GND | N | 19.9 | 25.6 | 58.7 |
| 0.703500 | 33.4 | GND | L1 | 19.9 | 22.6 | 56.0 |
| 0.861000 | 32.2 | GND | L1 | 19.8 | 23.8 | 56.0 |
| 1.657500 | 31.6 | GND | L1 | 19.7 | 24.4 | 56.0 |
| 2.742000 | 32.8 | GND | L1 | 19.7 | 23.2 | 56.0 |
| 3.700500 | 30.2 | GND | L1 | 19.7 | 25.8 | 56.0 |

Final Result 2

| Frequency | CAverage | DE | Lima | Corr. | Margin | Limit |
|-----------|----------|-----|------|-------|--------|--------|
| (MHz) | (dBµV) | PE | Line | (dB) | (dB) | (dBµV) |
| 0.361500 | 15.7 | GND | L1 | 19.9 | 33.0 | 48.7 |
| 0.663000 | 12.6 | GND | L1 | 19.9 | 33.4 | 46.0 |
| 0.843000 | 12.1 | GND | L1 | 19.9 | 33.9 | 46.0 |
| 2.058000 | 12.6 | GND | L1 | 19.7 | 33.4 | 46.0 |
| 2.580000 | 13.6 | GND | L1 | 19.7 | 32.4 | 46.0 |
| 3.619500 | 12.1 | GND | L1 | 19.7 | 33.9 | 46.0 |



USB Mode, Set.6

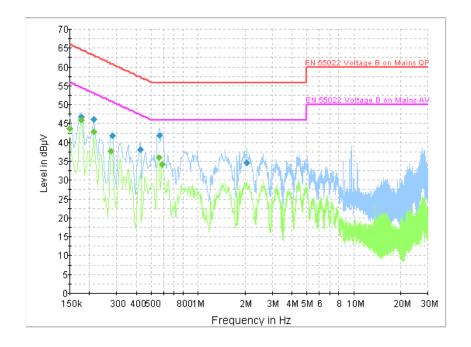


Fig.15 Conducted Emission

Final Result 1

| Frequency | QuasiPeak | PE | Line | Corr. | Margin | Limit |
|-----------|-----------|-----|------|-------|--------|--------|
| (MHz) | (dBµV) | PE | Line | (dB) | (dB) | (dBµV) |
| 0.177000 | 46.7 | GND | N | 19.9 | 17.9 | 64.6 |
| 0.213000 | 46.2 | GND | N | 19.9 | 16.8 | 63.1 |
| 0.280500 | 41.8 | GND | N | 19.8 | 19.0 | 60.8 |
| 0.424500 | 38.2 | GND | N | 20.0 | 19.1 | 57.4 |
| 0.564000 | 42.0 | GND | L1 | 20.0 | 14.0 | 56.0 |
| 2.053500 | 34.6 | GND | L1 | 19.7 | 21.4 | 56.0 |

Final Result 2

| Frequency | CAverage | PE | Line | Corr. | Margin | Limit |
|-----------|----------|-----|------|-------|--------|--------|
| (MHz) | (dBµV) | | | (dB) | (dB) | (dBµV) |
| 0.150000 | 43.7 | GND | N | 19.8 | 12.3 | 56.0 |
| 0.177000 | 46.1 | GND | N | 19.9 | 8.5 | 54.6 |
| 0.213000 | 42.9 | GND | N | 19.9 | 10.1 | 53.1 |
| 0.276000 | 37.7 | GND | N | 19.9 | 13.2 | 50.9 |
| 0.559500 | 36.0 | GND | L1 | 20.0 | 10.0 | 46.0 |
| 0.586500 | 34.2 | GND | L1 | 20.0 | 11.8 | 46.0 |

Note: The measurement results showed here are worst cases of the combinations of different batteries and USB cables.

END OF REPORT