

# 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

CTTL, Telecommunication Technology Labs, Academy of Telecommunication Research, MIIT

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# **REPORT HISTORY**

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



# **CONTENTS**

1.	TEST LABORATORY	4
1.1.	TESTING LOCATION	4
1.2.	TESTING ENVIRONMENT	4
1.3.	PROJECT DATA	4
1.4.	SIGNATURE	4
2.	CLIENT INFORMATION	5
2.1.	APPLICANT INFORMATION	5
2.2.	MANUFACTURER INFORMATION	5
3.	EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE)	6
3.1.	ABOUT EUT	6
3.2.	INTERNAL IDENTIFICATION OF EUT USED DURING THE TEST	6
3.3.	INTERNAL IDENTIFICATION OF AE USED DURING THE TEST	6
3.4.	EUT SET-UPS	7
4.	REFERENCE DOCUMENTS	9
4.1.	REFERENCE DOCUMENTS FOR TESTING	9
5.	LABORATORY ENVIRONMENT	10
6.	SUMMARY OF TEST RESULTS	11
7.	TEST EQUIPMENTS UTILIZED	12
A NIR	NEV A. MEASIDEMENT DESILITS	12



# 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

张 颖

**Zhang Ying** 

(Prepared this test report)

**照鹏** E

Qu Pengfei

(Reviewed this test report)

Liu Baodian

(Approved this test report)



# 2. Client Information

#### 2.1. Applicant Information

Company Name: TCL Communication Ltd

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

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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

<sup>\*</sup>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

<sup>\*</sup>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 <sub>VSWR</sub> )	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<sub>A</sub>: Antenna factor of receive antenna

G<sub>PL</sub>: Path Loss

P<sub>Mea</sub>: 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 <sub>PL</sub> (dB)	G <sub>A</sub> (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 <sub>PL</sub> (dB)	G <sub>A</sub> (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 <sub>PL</sub> (dB)	G <sub>A</sub> (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 <sub>PL</sub> (dB)	G <sub>A</sub> (dB/m)	P <sub>Mea</sub> (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(dB <sub>μ</sub> V/m)	G <sub>PL</sub> (dB)	G <sub>A</sub> (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 <sub>PL</sub> (dB)	G <sub>A</sub> (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 <sub>μ</sub> V/m)	G <sub>PL</sub> (dB)	G <sub>A</sub> (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 <sub>PL</sub> (dB)	G <sub>A</sub> (dB/m)	P <sub>Mea</sub> (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 <sub>PL</sub> (dB)	G <sub>A</sub> (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 <sub>PL</sub> (dB)	G <sub>A</sub> (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.





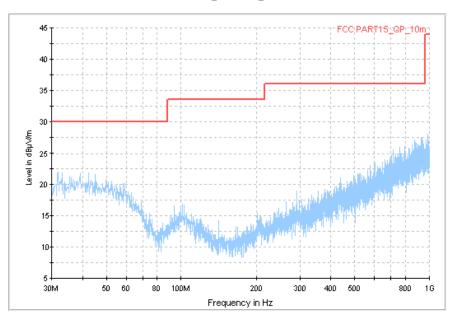
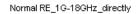


Fig.1 Radiated Emission from 30MHz to 1GHz



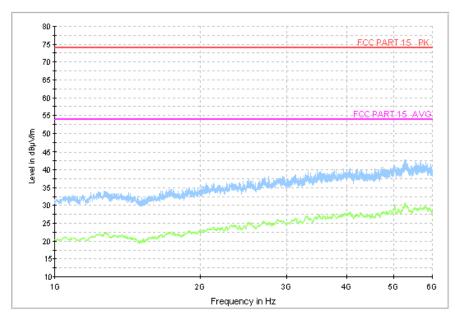
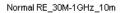


Fig.2 Radiated Emission from 1GHz to 6GHz





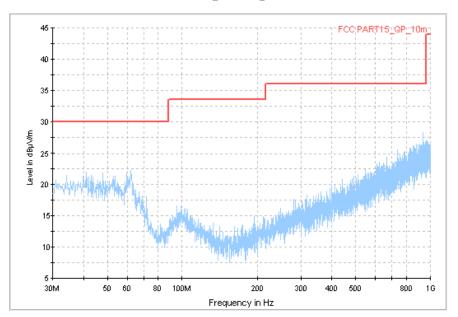


Fig.3 Radiated Emission from 30MHz to 1GHz

#### Normal RE\_1G-18GHz\_directly

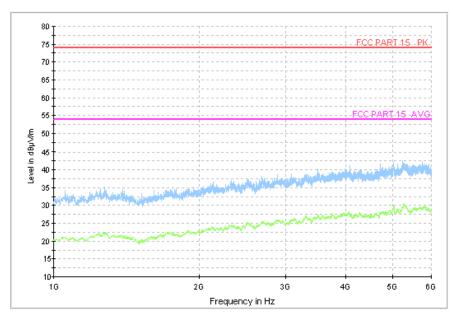
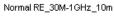


Fig.4 Radiated Emission from 1GHz to 6GHz





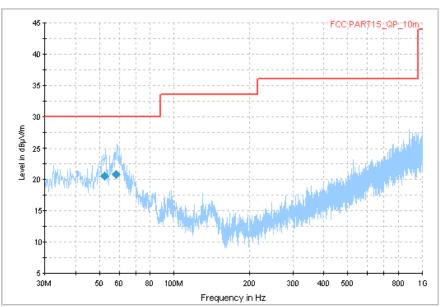


Fig.5 Radiated Emission from 30MHz to 1GHz

#### **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

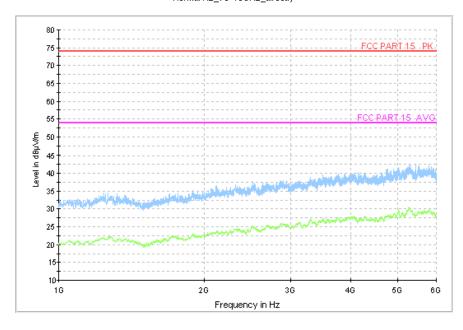


Fig.6 Radiated Emission from 1GHz to 6GHz





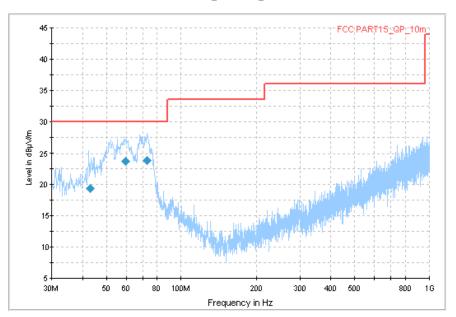


Fig.7 Radiated Emission from 30MHz to 1GHz

#### **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

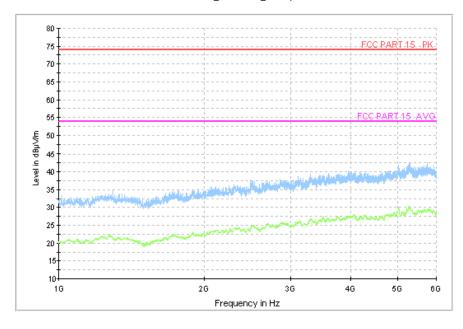


Fig.8 Radiated Emission from 1GHz to 6GHz



#### **USB Mode, Set.6**

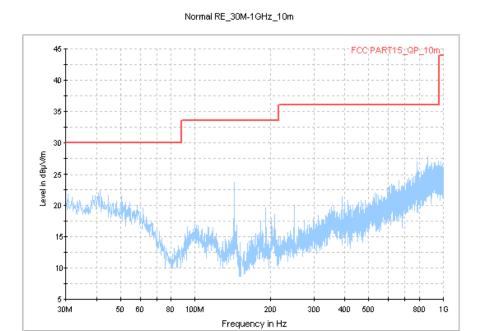


Fig.9 Radiated Emission from 30MHz to 1GHz

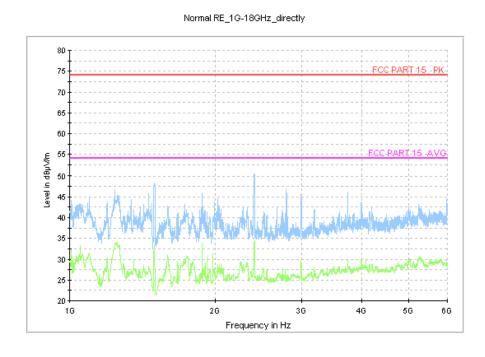


Fig.10 Radiated Emission from 1GHz to 6GHz



#### 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**

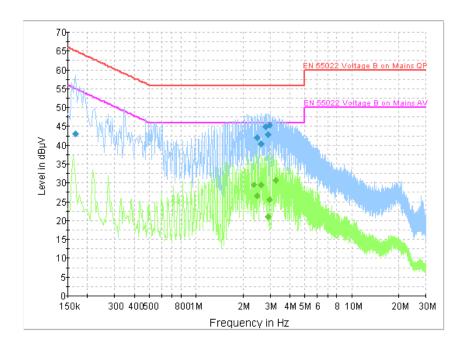


Fig.11 Conducted Emission

#### **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	



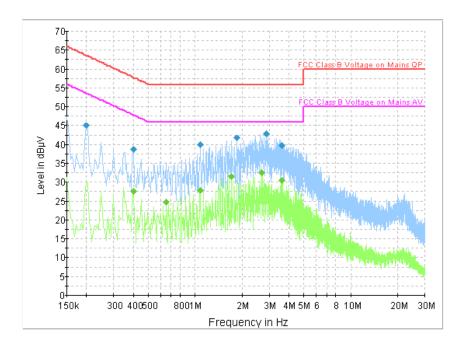


Fig.12 Conducted Emission

#### **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



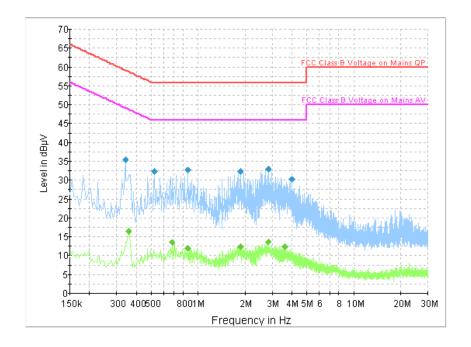


Fig.13 Conducted Emission

#### **Final Result 1**

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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



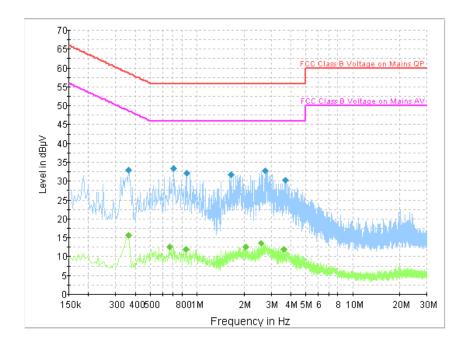


Fig.14 Conducted Emission

#### **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**

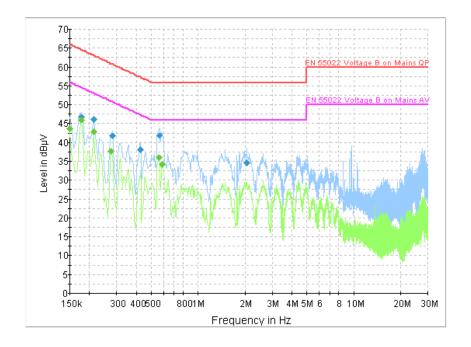


Fig.15 Conducted Emission

#### **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\*\*\*