

# TEST REPORT No. I16Z42374-EMC01

for

**TCL Communication Ltd.** 

LTE / UMTS / GSM mobile phone

Model Name: 5085B

FCC ID: 2ACCJH061

with

**Hardware Version: PIO** 

**Software Version: 1AA4** 

Issued Date: 2017-01-13

#### 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	
I16Z42374-EMC01	Rev.0	1 <sup>st</sup> edition	2017-01-13	



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# 1. Test Laboratory

### 1.1. Testing Location

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: 2016-12-08
Testing End Date: 2016-12-15

1.4. Signature

**Wang Junqing** 

(Prepared this test report)

Qu Pengfei

(Reviewed this test report)

Liu Baodian

**Deputy Director of the laboratory** 

(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. 201203

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 0086-21-31363544

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 0086-21-61460602

### 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. 201203

Contact Person: Gong Zhizhou

Contact Email zhizhou.gong@tcl.com
Telephone: 0086-21-31363544
Fax: 0086-21-61460602



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

### 3.1. About EUT

Description LTE / UMTS / GSM mobile phone

Model Name 5085B

FCC ID 2ACCJH061

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

### 3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	<b>HW Version</b>	<b>SW Version</b>
EUT1	/	PIO	1AA4

<sup>\*</sup>EUT ID: is used to identify the test sample in the lab internally.

### 3.3. Internal Identification of AE used during the test

AE ID*	Description	SN	
AE1	Battery	/	inbuilt
AE2	Battery	/	inbuilt
AE3	Battery	/	inbuilt
AE4	Charger	/	16TCT-CH-1489
AE5	Charger	/	16TCT-CH-1565
AE6	Charger	/	16TCT-CH-0860
AE7	USB Cable	/	16TCT-DC-0493
AE8	USB Cable	/	16TCT-DC-0501
AE9	USB Cable	/	/
AE10	USB Cable	/	/
AE11	Headset	/	16TCT-HS-1704
AE12	Headset	/	16TCT-HS-1602

#### AE1

Model	CAC2710008CJ
Manufacturer	COSLIGHT
Capacitance	2710 mAh
A	1.7

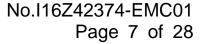
Nominal voltage

AE2

Model CAC2710004C1

Manufacturer BYD Capacitance 2710 mAh

Nominal voltage V





AE3

Model CAC2710005CC

Manufacturer Jinneng
Capacitance 2710 mAh

Nominal voltage V

AE4

Model CBA0058AGAC2

Manufacturer TEPAO

Length of cable /

AE5

Model CBA0058AGAC4

Manufacturer Aohai Length of cable /

AE6

Model CBA0058AGAC3

Manufacturer YINGJU

Length of cable /

AE7

Model CDA3122005C2

Manufacturer Shenhua Length of cable 100cm

AE8

Model CDA3122005C1

Manufacturer Juwei Length of cable 100cm

AE9

Model CDA3122002C2

Manufacturer Shenhua Length of cable 100cm

AE10

Model CDA3122002C1

Manufacturer Juwei Length of cable 100cm

AE11

Model CCB0049A10C1

Manufacturer Juwei Length of cable 120cm

AE12

Model CCB0049A10C4

Manufacturer Meihao Length of cable 124cm



\*AE ID: is used to identify the test sample in the lab internally.

Note: The USB cables are shielded.

### 3.4. EUT set-ups

EUT set-up No.	Combination of EUT and AE	Remarks
Set.1	EUT1+ AE1/AE2/AE3+ AE4+ AE7/AE8	Charger
Set.2	EUT1+ AE1/AE2/AE3+ AE5+ AE7/AE8	Charger
Set.3	EUT1+ AE1/AE2/AE3+ AE6+ AE7/AE8	Charger
Set.4	EUT1+ AE1/AE2/AE3+ AE4+ AE7/AE8+ AE11/AE12	Charger +Headset
Set.5	EUT1+ AE1/AE2/AE3+ AE7/AE8	USB mode

The LTE / UMTS / GSM mobile phone 5085B manufactured by TCL Communication Ltd. is a variant model based on 5085A for conformance test. According to the declaration of changes, the results are inherited from the initial model. The report number of initial model is I16Z42266-EMC01.



# 4. Reference Documents

## 4.1. Reference Documents for testing

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

Reference	Title	Version
FCC Part 15, Subpart B	Radio frequency devices - Unintentional Radiators	10-1-15
		Edition
ANSI C63.4	American National Standard for	2014
	Methods of Measurement of Radio-	
	Noise Emissions from Low-Voltage	
	Electrical and Electronic Equipment	
	in the Range of 9 kHz to 40 GHz	

Note: The test methods have no deviation with standards.



# 5. LABORATORY ENVIRONMENT

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

o o			
Temperature	Min. = 15 °C, Max. = 35 °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:

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

Items	Test Name	Clause in FCC rules	Section in this report	Verdict	Test Location
1	Radiated Emission	15.109(a)	B.1	Р	CTTL(huayuan North Road)
2	Conducted Emission	15.107(a)	B.2	Р	CTTL(huayuan North Road)



# 7. Test Equipments Utilized

NO.	Description	TYPE	SERIES NUMBER	MANUFACTURE	CAL DUE DATE	CALIBRATI ON INTERVAL
1	Test Receiver	ESU26	100235	R&S	2017-03-02	1 year
2	Test Receiver	ESCI 7	100344	R&S	2017-07-05	1 year
3	Universal Radio Communication Tester	CMW500	143008	R&S	2017-12-01	1 year
4	Universal Radio Communication Tester	CMW500	155415	R&S	2017-01-11	1 year
5	LISN	ENV216	101200	R&S	2017-07-10	1 year
6	EMI Antenna	VULB 9163	9163-301	Schwarzbeck	2017-12-16	3 years
7	EMI Antenna	3115	6914	ETS-Lindgren	2017-12-15	3 years
8	PC	OPTIPLEX 380	2X1YV2X	DELL	N/A	N/A
9	Printer	P1606dn	VNC3L52122	HP	N/A	N/A
10	Keyboard	L100	CN0RH6596589 07ATOI40	DELL	N/A	N/A
11	Mouse	M-UAE119	LZ935220ZRC	Lenovo	N/A	N/A

Test Item	Test Software and Version	Software Vendor	
Radiated Continuous Emission	EMC32 V9.01	R&S	
Conducted Emission	EMC32 V8.52.0	R&S	



### **ANNEX A: MEASUREMENT RESULTS**

#### A.1 Radiated Emission

Reference

FCC: CFR Part 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 – 2014, 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.

Note: I/O information: Printer - USB, Mouse - PS/2, Keyboard - USB.

#### 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 <sub>Mea</sub> (dBµV)	Polarity
17952.400	49.1	-17.7	45.6	21.200	V
17985.550	49.0	-17.7	45.6	21.100	Н
17961.750	48.9	-17.7	45.6	21.000	Н
17875.050	48.9	-18.5	45.6	21.800	V
17947.300	48.9	-17.7	45.6	21.000	V
17928.600	48.8	-17.7	45.6	20.900	Н

#### **Charging Mode/Peak detector**

	ggg					
Frequency(MHz)	Result(dBμV/m)	G <sub>PL</sub> (dB)	G <sub>A</sub> (dB/m)	P <sub>Mea</sub> (dBµV)	Polarity	
17949.000	59.1	-17.7	45.6	31.200	V	
17989.800	59.0	-17.7	45.6	31.100	Н	
17868.250	58.9	-18.5	45.6	31.800	Н	
17990.650	58.9	-17.7	45.6	31.000	V	
17856.350	58.9	-18.5	45.6	31.800	Н	
17885.250	58.8	-18.5	45.6	31.700	Н	

Sample calculation: Peak detector, 17949.000MHz

Result = $P_{Mea}$  (31.200dB $\mu$ V)+  $G_A$  (45.6dB/m)+  $G_{PL}$ (-17.7 dB) =59.1dB $\mu$ V/m



#### Measurement results for Set.2:

### **Charging Mode/Average detector**

Frequency(MHz)	Result(dBμV/m)	G <sub>PL</sub> (dB)	G <sub>A</sub> (dB/m)	P <sub>Mea</sub> (dBµV)	Polarity
17883.550	49.6	-18.5	45.6	22.500	V
17974.500	49.6	-17.7	45.6	21.700	Н
17919.250	49.5	-17.7	45.6	21.600	Н
17907.350	49.1	-18.5	45.6	22.000	V
17885.250	49.1	-18.5	45.6	22.000	V
17903.100	49.1	-18.5	45.6	22.000	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
17911.600	54.7	-17.7	45.6	26.800	Н
17885.250	54.4	-17.7	45.6	26.500	V
17916.700	54.1	-18.5	45.6	27.000	V
17991.500	54.1	-17.7	45.6	26.200	V
17967.700	54.0	-17.7	45.6	26.100	Н
17989.800	53.8	-17.7	45.6	25.900	Н

Sample calculation: Peak detector, 17911.600MHz

Result = $P_{Mea}$  (26.800dB $\mu$ V)+  $G_A$  (45.6dB/m)+  $G_{PL}$ (-17.7 dB) =54.7dB $\mu$ V/m

#### 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 <sub>Mea</sub> (dBµV)	Polarity
17966.850	49.5	-17.7	45.6	21.600	V
17877.600	49.3	-18.5	45.6	22.200	Н
17930.300	49.0	-17.7	45.6	21.100	Н
17919.250	49.0	-17.7	45.6	21.100	Н
17951.550	48.9	-17.7	45.6	21.000	Н
17910.750	48.8	-18.5	45.6	21.700	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
17934.550	59.5	-17.7	45.6	31.600	Н
17866.550	59.4	-18.5	45.6	32.300	V
17976.200	59.2	-17.7	45.6	31.300	Н
17950.700	59.2	-17.7	45.6	31.300	V
17915.850	58.9	-17.7	45.6	31.000	V
17913.300	58.9	-18.5	45.6	31.800	Н

Sample calculation: Peak detector, 17934.550MHz

Result = $P_{Mea}$  (31.600dB $\mu$ V)+  $G_A$  (45.6dB/m)+  $G_{PL}$ (-17.7 dB) =59.5dB $\mu$ V/m



### Measurement results for Set.4:

### Charging Mode with headset/Average detector

Frequency(MHz)	Result(dBμV/m)	G <sub>PL</sub> (dB)	G <sub>A</sub> (dB/m)	P <sub>Mea</sub> (dBµV)	Polarity
17915.000	49.4	-17.7	45.6	21.500	Н
17922.650	49.4	-17.7	45.6	21.500	Н
17923.500	49.1	-17.7	45.6	21.200	V
17930.300	49.0	-17.7	45.6	21.100	Н
17943.050	48.9	-17.7	45.6	21.000	Н
17920.950	48.9	-17.7	45.6	21.000	V

### Charging Mode with headset /Peak detector

Frequency(MHz)	Result(dBμV/m)	G <sub>PL</sub> (dB)	G <sub>A</sub> (dB/m)	P <sub>Mea</sub> (dBµV)	Polarity
17995.750	59.5	-17.7	45.6	31.600	Н
17955.800	59.1	-17.7	45.6	31.200	Н
17978.750	59.0	-17.7	45.6	31.100	V
17943.050	59.0	-17.7	45.6	31.100	Н
17996.600	58.9	-17.7	45.6	31.000	Н
17705.050	58.7	-18.9	45.6	32.000	V

Sample calculation: Peak detector, 17995.750MHz

Result = $P_{Mea}$  (31.600dB $\mu$ V) +  $G_A$  (45.6dB/m) + $G_{PL}$  (-17.7 dB) =59.5dB $\mu$ V/m



### **Measurement results for Set.5**:

### **USB Mode/Average detector**

Frequency(MHz)	Result(dBµV/m)	G <sub>PL</sub> (dB)	G <sub>A</sub> (dB/m)	P <sub>mea</sub> (dBµV)	Polarity
17954.100	49.3	-17.7	45.6	21.400	V
17924.350	49.3	-17.7	45.6	21.400	Н
17953.250	49.2	-17.7	45.6	21.300	V
17972.800	49.1	-17.7	45.6	21.200	V
17879.300	49.1	-18.5	45.6	22.000	Н
17969.400	48.9	-17.7	45.6	21.000	Н

#### **USB 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
17994.900	59.8	-17.7	45.6	31.900	V
17911.600	59.7	-18.5	45.6	32.600	Н
17864.000	59.7	-18.5	45.6	32.600	V
17971.950	59.5	-17.7	45.6	31.600	Н
17882.700	59.4	-18.5	45.6	32.300	V
17896.300	59.4	-18.5	45.6	32.300	Н

Sample calculation: Peak detector, 17994.900MHz

Result = $P_{Mea}$  (31.900dB $\mu$ V) +  $G_A$  (45.6dB/m) +  $G_{PL}$  (-17.7 dB) =59.8dB $\mu$ V/m



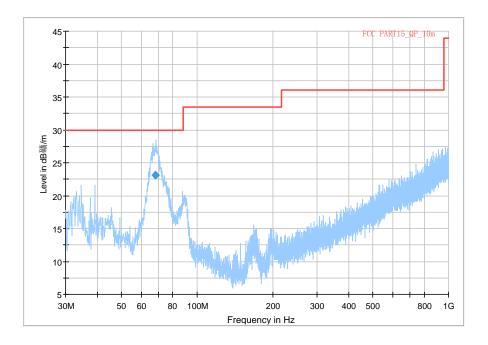


Figure A.1 Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	QuasiPeak (dBuV/m)	Limit (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
68.149000	23.06	30.00	102.0	٧	-16.0	-14.7

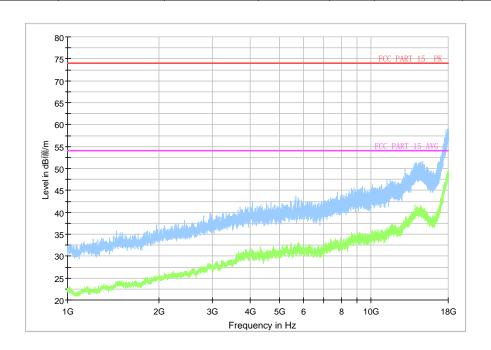


Figure A.2 Radiated Emission from 1GHz to 18GHz



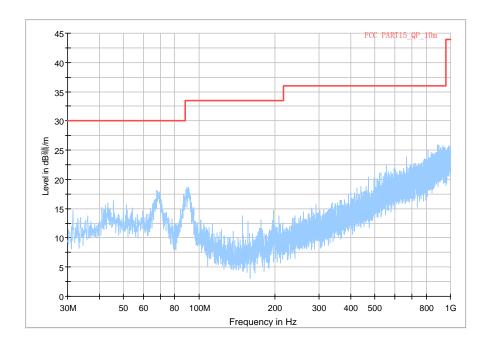


Figure A.3 Radiated Emission from 30MHz to 1GHz

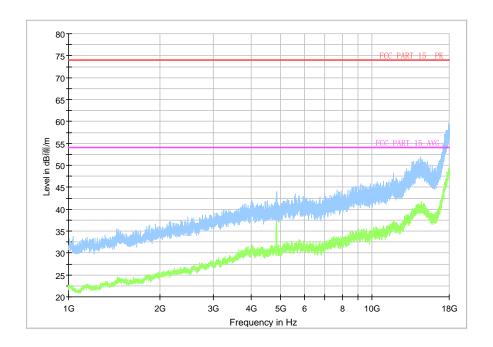


Figure A.4 Radiated Emission from 1GHz to 18GHz



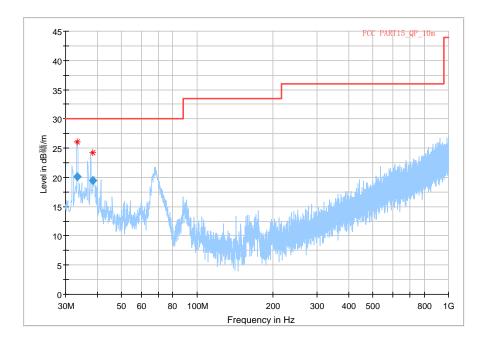


Figure A.3 Radiated Emission from 30MHz to 1GHz

Frequency	QuasiPeak	Height	Polarization	Azimuth	Corr.	Margin	Limit
(MHz)	(dBµV/m)	(cm)	Polarization	(deg)	(dB)	(dB)	(dBµV/m)
33.321000	20.13	101.0	v	154.0	-13.5	9.87	30.0
38.360000	19.50	178.0	V	178.0	-12.4	10.50	30.0

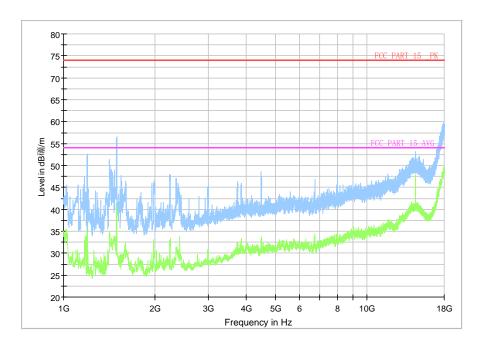


Figure A.4 Radiated Emission from 1GHz to 18GHz



### Charging Mode with headset, Set.4

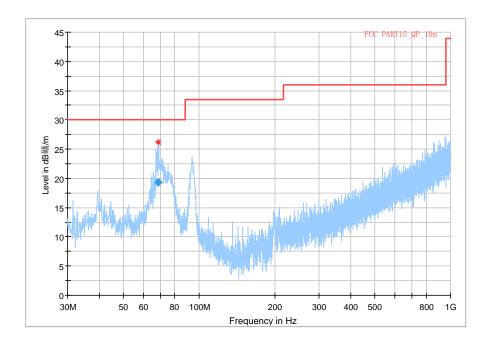


Figure A.5 Radiated Emission from 30MHz to 1GHz

Frequency	QuasiPeak	Limit	Height	Pol	Azimuth	Corr.
(MHz)	(dBuV/m)	(dBuV/m)	(cm)		(deg)	(dB)
68.874000	19.35	30.00	193.0	٧	191.0	-14.9

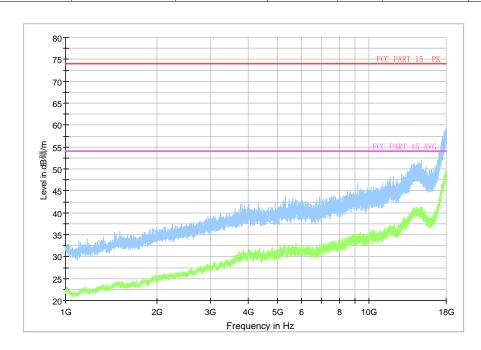


Figure A.6 Radiated Emission from 1GHz to 18GHz



### **USB Mode, Set.5**

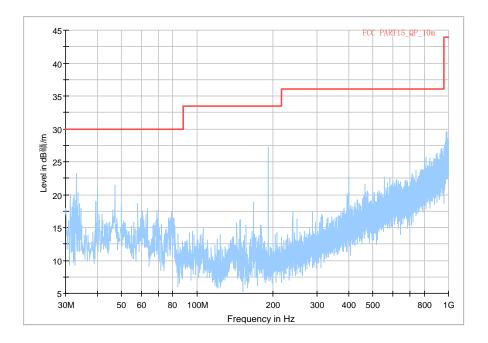


Figure A.7 Radiated Emission from 30MHz to 1GHz

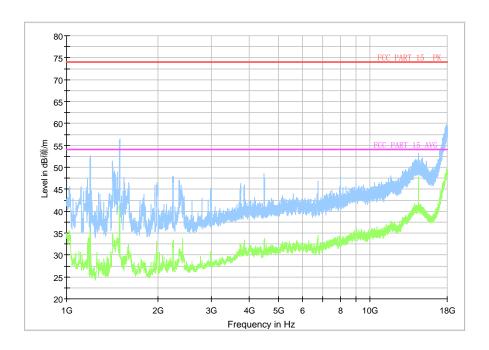


Figure A.8 Radiated Emission from 1GHz to 18GHz



# A.2 Conducted Emission

#### Reference

FCC: CFR Part 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 – 2014, section 7.3.

#### 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.

Note: I/O information: Printer – USB, Mouse – PS/2, Keyboard – USB.

#### 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

	<u> </u>
Voltage (V)	Frequency (Hz)
120	60

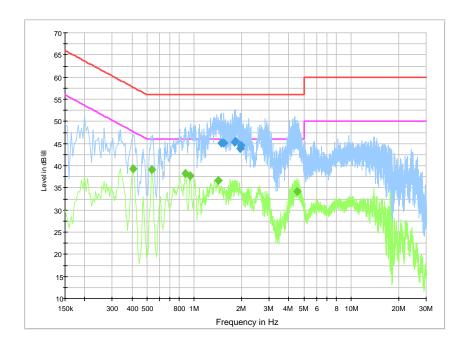
RBW/IF bandwidth	Sweep Time(s)
9kHz	1



### A.2.5 Measurement Results

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

### Charging Mode, Set.1



**Figure A.9 Conducted Emission** 

### **Final Result 1**

QuasiPeak	PE	Line	Corr.	Margin	Limit
(dBµV)			(dB)	(dB)	(dBµV)
45.1	GND	L1	10.3	10.9	56.0
45.1	GND	L1	10.3	10.9	56.0
45.4	GND	L1	10.4	10.6	56.0
45.4	GND	L1	10.4	10.6	56.0
43.8	GND	L1	10.4	12.2	56.0
44.5	GND	L1	10.4	11.5	56.0
	(dBµV) 45.1 45.1 45.4 45.4 43.8	(dBμV) 45.1 GND 45.1 GND 45.4 GND 45.4 GND 45.4 GND 43.8 GND	(dBµV)  45.1 GND L1  45.1 GND L1  45.4 GND L1  45.4 GND L1  45.4 GND L1  45.8 GND L1	(dBμV) (dB) 45.1 GND L1 10.3 45.1 GND L1 10.3 45.4 GND L1 10.4 45.4 GND L1 10.4 45.8 GND L1 10.4	(dBμV)     (dB)     (dB)       45.1     GND     L1     10.3     10.9       45.1     GND     L1     10.3     10.9       45.4     GND     L1     10.4     10.6       45.4     GND     L1     10.4     10.6       43.8     GND     L1     10.4     12.2

Frequency	Average	PE	Line	Corr.	Margin	Limit
(MHz)	(dBµV)			(dB)	(dB)	(dBµV)
0.406500	39.3	GND	N	10.4	8.5	47.7
0.537000	39.1	GND	N	10.4	6.9	46.0
0.874500	38.2	GND	N	10.4	7.8	46.0
0.942000	37.7	GND	N	10.4	8.3	46.0
1.414500	36.6	GND	N	10.4	9.4	46.0
4.510500	34.3	GND	L1	10.5	11.7	46.0



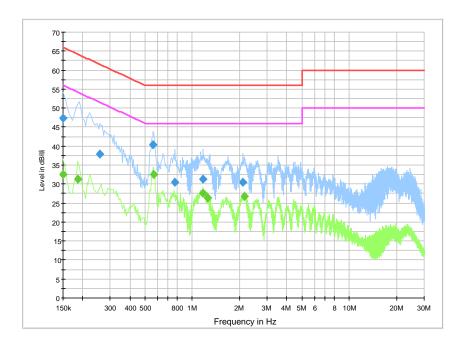


Figure A.10 Conducted Emission

# **Final Result 1**

Frequency	QuasiPeak	PE	Line	Corr.	Margin	Limit
(MHz)	(dBµV)			(dB)	(dB)	(dBµV)
0.150000	47.3	GND	L1	10.3	18.7	66.0
0.258000	37.8	GND	L1	10.3	23.7	61.5
0.564000	40.5	GND	L1	10.3	15.5	56.0
0.775500	30.4	GND	N	10.4	25.6	56.0
1.167000	31.3	GND	N	10.4	24.7	56.0
2.107500	30.4	GND	N	10.5	25.6	56.0

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)
0.150000	32.5	GND	L1	10.3	23.5	56.0
0.186000	31.3	GND	L1	10.3	22.9	54.2
0.568500	32.5	GND	L1	10.3	13.5	46.0
1.167000	27.6	GND	L1	10.3	18.4	46.0
1.252500	26.3	GND	L1	10.3	19.7	46.0
2.148000	26.8	GND	L1	10.4	19.2	46.0



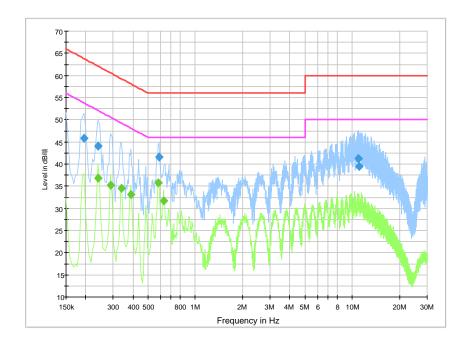


Figure A.10 Conducted Emission

# **Final Result 1**

Frequency	QuasiPeak	PE	Line	Corr.	Margin	Limit
(MHz)	(dBµV)			(dB)	(dB)	(dBµV)
0.195000	45.8	GND	L1	10.3	18.0	63.8
0.240000	44.0	GND	L1	10.3	18.1	62.1
0.586500	41.6	GND	L1	10.3	14.4	56.0
10.923000	41.2	GND	L1	10.7	18.8	60.0
10.941000	41.3	GND	L1	10.7	18.7	60.0
11.008500	39.5	GND	L1	10.7	20.5	60.0

Frequency	Average	PE	Line	Corr.	Margin	Limit
(MHz)	(dBµV)			(dB)	(dB)	(dBµV)
0.240000	36.7	GND	L1	10.3	15.4	52.1
0.289500	35.2	GND	L1	10.3	15.3	50.5
0.339000	34.5	GND	L1	10.3	14.7	49.2
0.388500	33.2	GND	L1	10.3	14.9	48.1
0.577500	35.7	GND	L1	10.3	10.3	46.0
0.627000	31.7	GND	L1	10.3	14.3	46.0



### Charging Mode with headset, Set.4

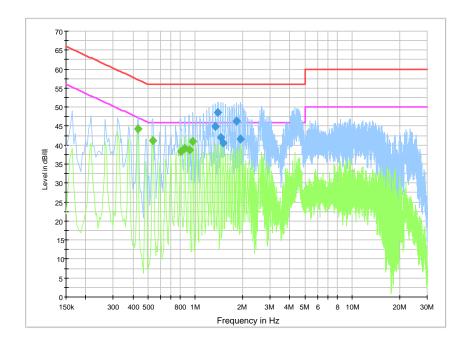


Figure A.11 Conducted Emission

# **Final Result 1**

Frequency	QuasiPeak	PE	Line	Corr.	Margin	Limit
(MHz)	(dBµV)			(dB)	(dB)	(dBµV)
1.342500	44.9	GND	L1	10.3	11.1	56.0
1.392000	48.5	GND	L1	10.3	7.5	56.0
1.450500	42.0	GND	L1	10.3	14.0	56.0
1.504500	40.5	GND	L1	10.3	15.5	56.0
1.824000	46.4	GND	L1	10.4	9.6	56.0
1.932000	41.5	GND	L1	10.4	14.5	56.0

Frequency	Average	PE	Line	Corr.	Margin	Limit
(MHz)	(dBµV)			(dB)	(dB)	(dBµV)
0.429000	44.3	GND	N	10.4	2.9	47.3
0.537000	41.3	GND	N	10.4	4.7	46.0
0.807000	38.2	GND	N	10.4	7.8	46.0
0.861000	39.1	GND	N	10.4	6.9	46.0
0.915000	38.6	GND	N	10.4	7.4	46.0
0.964500	40.9	GND	N	10.4	5.1	46.0



### **USB Mode, Set.5**

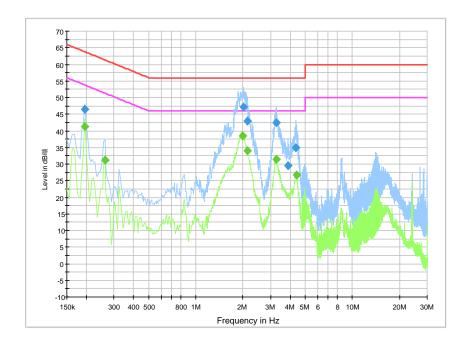


Figure A.12 Conducted Emission

# **Final Result 1**

Frequency	QuasiPeak	PE	Line	Corr.	Margin	Limit
(MHz)	(dBµV)			(dB)	(dB)	(dBµV)
0.195000	46.4	GND	L1	10.3	17.4	63.8
2.022000	47.1	GND	L1	10.4	8.9	56.0
2.134500	43.0	GND	N	10.5	13.0	56.0
3.246000	42.5	GND	L1	10.4	13.5	56.0
3.871500	29.5	GND	N	10.5	26.5	56.0
4.348500	35.0	GND	L1	10.5	21.0	56.0

# Final Result 2

Frequency	Average	PE	Line	Corr.	Margin	Limit
(MHz)	(dBµV)			(dB)	(dB)	(dBµV)
0.195000	41.4	GND	L1	10.3	12.4	53.8
0.262500	31.2	GND	L1	10.3	20.1	51.4
1.999500	38.4	GND	N	10.5	7.6	46.0
2.125500	34.1	GND	L1	10.4	11.9	46.0
3.246000	31.4	GND	L1	10.4	14.6	46.0
4.389000	26.7	GND	L1	10.5	19.3	46.0

\*\*\*END OF REPORT\*\*\*