TEST REPORT

No. 2011TAR069

for

ZTE Corporation

WCDMA/GSM（GPRS） Dual-Mode Digital Mobile Phone

Model Name: ZTE-U V880

FCC ID : Q78-V880

with

Hardware Version: w5uA

Software Version: P729USV1.0.0B01

Issued Date: 2011-03-14

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 TMC Beijing.

Test Laboratory:

DAR accreditation (DIN EN ISO/IEC 17025): No. DGA-PL-114/01-02

FCC 2.948 Listed: No.733176

IC O.A.T.S listed: No.6629A-1

TMC Beijing, Telecommunication Metrology Center of Ministry of Industry and Information Technology

No. 52, Huayuan Bei Road, Haidian District, Beijing, P. R. China 100191

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CONTENTS

1. Test Laboratory

1.1. Testing Location

Company Name:	TMC Beijing, Telecommunication Metrology Center of MIIT
Address:	No 52, Huayuan beilu, Haidian District, Beijing, P. R. China
Postal Code:	100191
Telephone:	00861062304633
Fax:	00861062304633

1.2. Testing Environment

Normal Temperature:	15-35℃
Relative Humidity:	20-75%

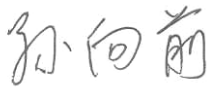
1.3. Project data

Testing Start Date:	Feb 25, 2011
Testing End Date:	Feb 28, 2011

1.4. Signature

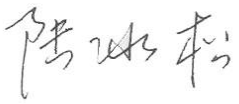
Qu Pengfei

(Prepared this test report)



Sun Xiangqian

(Reviewed this test report)



Lu Bingsong

Deputy Director of the laboratory

(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name:	ZTE Corporation
Address /Post:	#68 Zijin Hua Road, Nanjing, Jiangsu Province, P. R. China
City:	Nan Jing
Postal Code:	210012
Country:	China
Telephone:	+86-25-52878232
Fax:	+86-25-68897541

2.2. Manufacturer Information

Company Name:	ZTE Corporation
Address /Post:	#68 Zijin Hua Road, Nanjing, Jiangsu Province, P. R. China
City:	Nan Jing
Postal Code:	210012
Country:	China
Telephone:	+86-25-52878232
Fax:	+86-25-68897541

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

3.1. About EUT

Description	WCDMA/GSM（GPRS） Dual-Mode Digital Mobile Phone
Model Name	ZTE-U V880
FCC ID	Q78-V880
Extreme vol. Limits	3.5VDC to 4.2VDC (nominal: 3.7VDC)

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	864589000024551	w5uA	P729USV1.0.0B01

*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	30031004140008093
AE2	Travel Adapter	/
AE3	USB Cable	/

AE1

Model	Li3712T42P3h444865
Manufacturer	ZTE
Capacitance	1250mAh
Nominal Voltage	3.7V

AE2

Model	STC-A22O50I700M5-C
Manufacturer	RUIDE
Length of DC line	183cm

AE3

Model	/
Manufacturer	ZTE
Length of DC line	120cm

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

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	July 10, 2008 Edition
ANSI C63.4	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2003

5. LABORATORY ENVIRONMENT

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

Temperature	Min. = 15 ℃, Max. = 30 ℃
Relative humidity	Min. = 30 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω
Normalised site attenuation (NSA)	< ±3.2 dB, 10 m distance, from 30 to 1000 MHz
Uniformity of field strength	Between 0 and 6 dB, from 80 to 2000 MHz

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

Temperature	Min. = 15 ℃, Max. = 35 ℃
Relative humidity	Min. =30 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω

Conducted chamber did not exceed following limits along the EMC testing:

Temperature	Min. = 15 ℃, Max. = 30 ℃
Relative humidity	Min. = 30 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω

Fully-anechoic chamber (6.8 meters×3.08 meters×3.53 meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 ℃, Max. = 30 ℃
Relative humidity	Min. = 30 %, Max. = 60 %
Shielding effectiveness	> 110 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω
Uniformity of field strength	Between 0 and 6 dB, from 80 to 2000 MHz

6. SUMMARY OF TEST RESULTS

Abbreviations used in this clause:	
P	Pass
NA	Not applicable
F	Fail

Clause	List	Clause in FCC rules	Verdict
1	Radiated Emission	15.109(a)	P
2	Conducted Emission	15.107(a)	P

7. Test Equipments Utilized

NO.	Description	TYPE	SERIES NUMBER	MANUFACTURE	CAL DUE DATE
1	Test Receiver	ESCI	100344	R&S	2012-03-12
2	Test Receiver	ESCI	100766	R&S	2011-12-06
3	Test Receiver	ESI40	831564/002	R&S	2012-02-11
4	BiLog Antenna	VUL9163	9163-302	Schwarzbeck	2012-02-10
5	Signal Generator	SMB100A	102063	R&S	2012-03-05
6	LISN	ESH2-Z5	829991/012	R&S	2011-04-20
7	Universal Radio Communication Tester	CMU200	100680	R&S	2011-09-05
8	Dual-Ridge Waveguide Horn Antenna	3115	6914	EMCO	2012-2-18

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 a distance of 3 meters is tested. Tested in accordance with the procedures of ANSI C63.4 - 2003, section 8.3.

A.1.2 EUT Operating Mode:

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 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.
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 755, and the serial number of the PC is 3908243625. 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 of emission (MHz)	Field strength (microvolts/meter)
30-88	100
88-216	150
216-960	200
Above 960	500

A.1.4 Test Condition

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	100KHz/300KHz	5
1000-4000	1MHz/1MHz	15

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.

Charging Mode

Frequency(MHz)	Result(dBuV/m)	G_{PL} (dB)	G_A (dB/m)	P_{Mea}(dBuV)	Polarity
3981.964	50.78	-19.3	33.4	36.68	VERTICAL
3799.599	50.59	-19.7	33.4	36.89	VERTICAL
3537.074	50.55	-19.4	33.4	36.55	VERTICAL
3591.182	50.45	-19.6	33.4	36.65	VERTICAL
3691.383	50.43	-19.5	33.4	36.53	VERTICAL
3448.898	50.39	-19.6	31.2	38.79	VERTICAL

USB Mode

Frequency(MHz)	Result(dBuV/m)	G_{PL} (dB)	G_A (dB/m)	P_{mea}(dBuV)	Polarity
3681.363	51.51	-19.5	33.4	37.61	VERTICAL
3729.459	50.87	-19.6	33.4	37.07	VERTICAL
3482.966	50.79	-19.6	31.2	39.19	VERTICAL
3691.383	50.68	-19.5	33.4	36.78	VERTICAL
3641.283	50.64	-19.7	33.4	36.94	VERTICAL
3382.766	50.60	-19.5	31.2	38.90	VERTICAL

Charging Mode

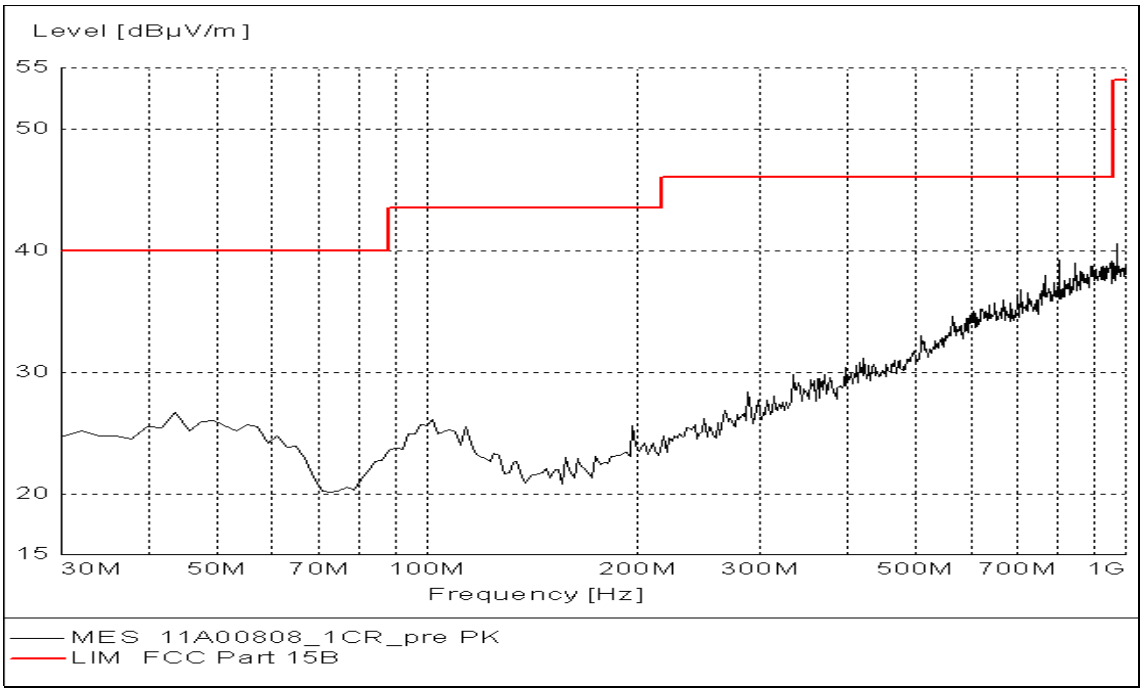


Figure A.1 Radiated Emission from 30MHz to 1GHz

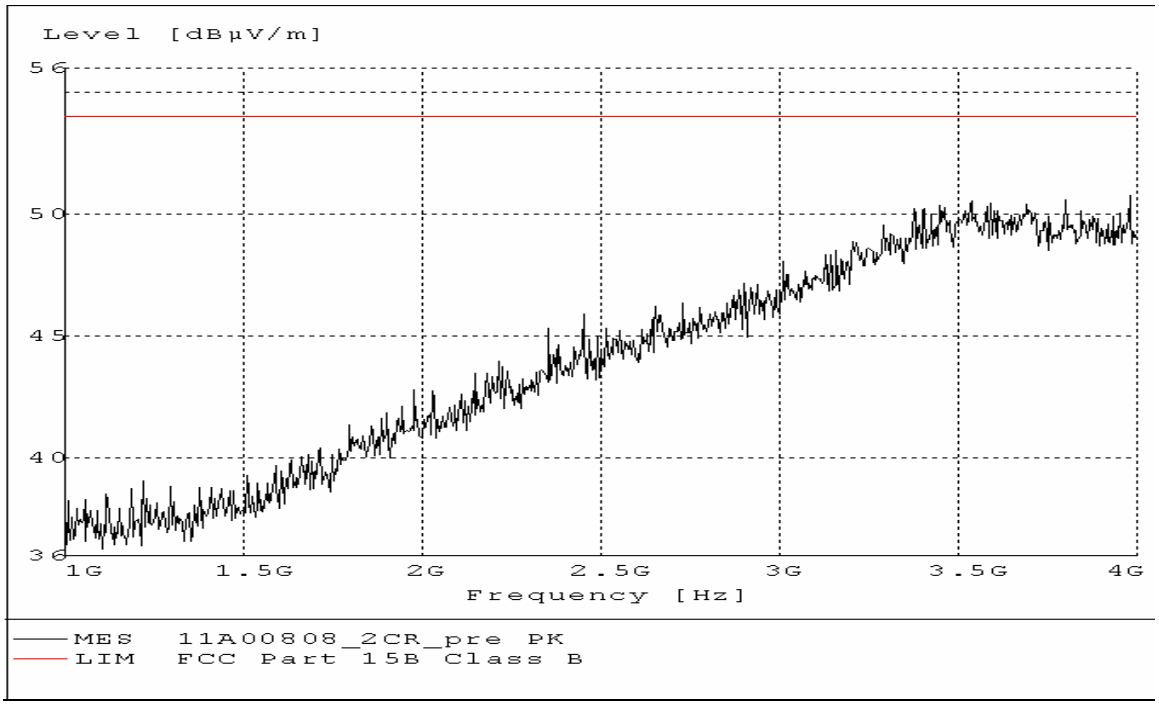


Figure A.2 Radiated Emission from 1GHz to 4GHz

USB Mode

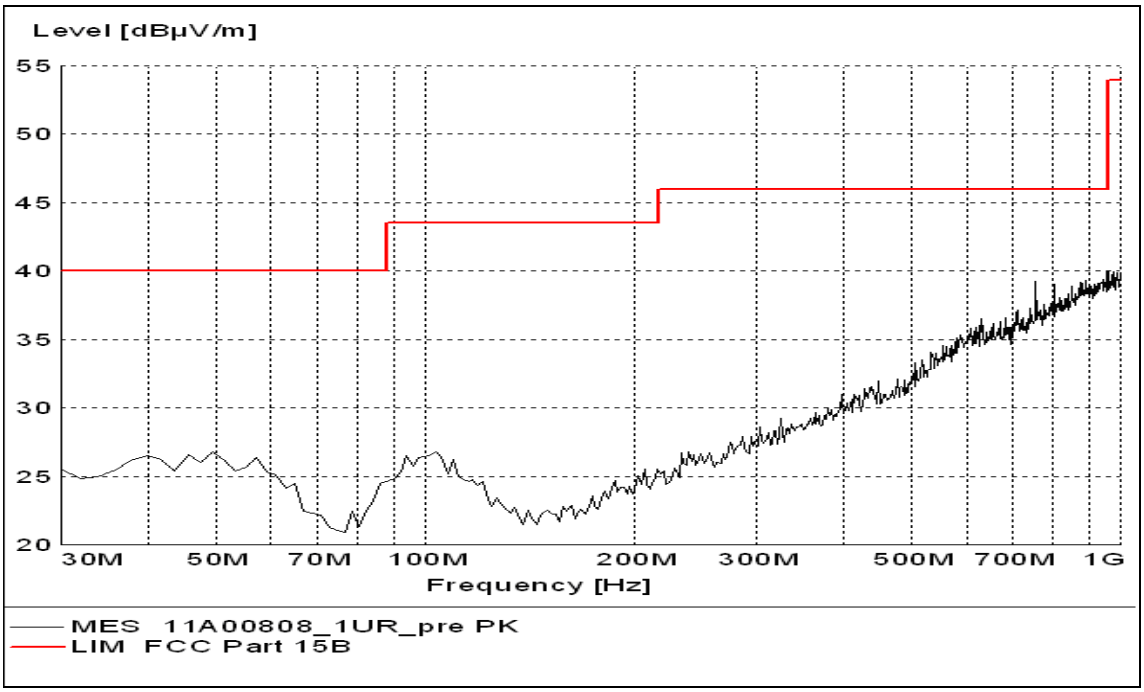


Figure A.3 Radiated Emission from 30MHz to 1GHz

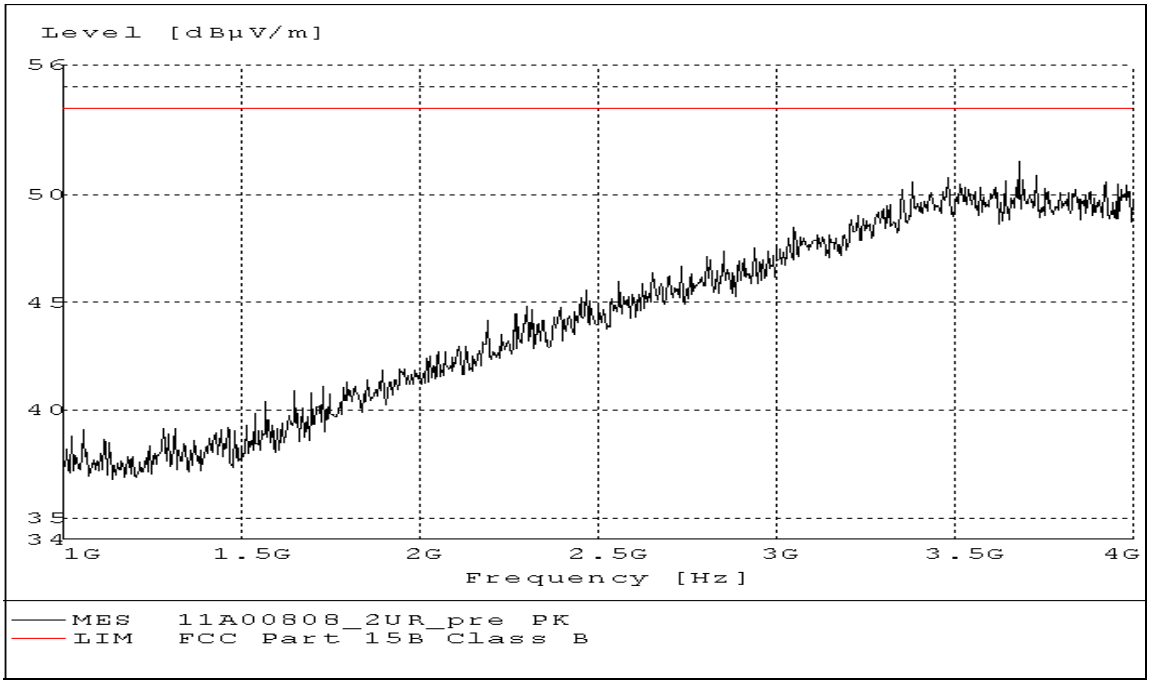


Figure A.4 Radiated Emission from 1GHz to 4GHz

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 - 2003, 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 755, and the serial number of the PC is 3908243625. 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	Sweep Time(s)
9kHz	1

A.2.5 Measurement Results

Charging Mode

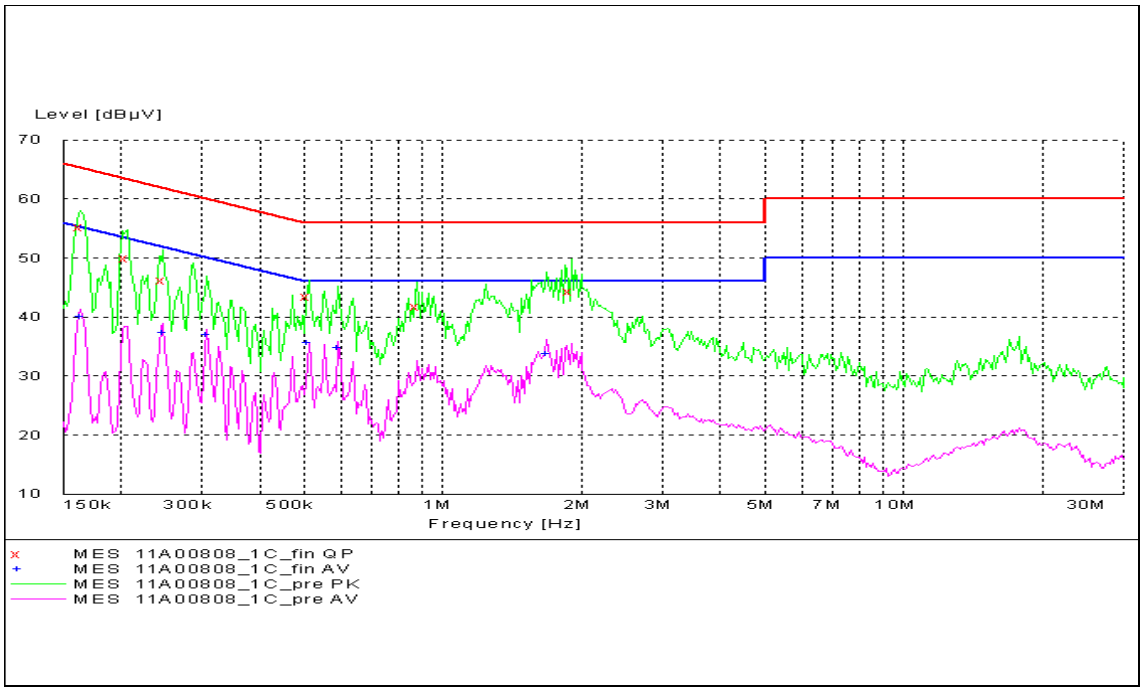


Figure A.5 Conducted Emission

MEASUREMENT RESULT: "11A00808_1C_fin QP"

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.164053	55.20	10.1	65	10.0	L1	GND
0.206241	49.90	10.1	63	13.4	N	GND
0.246695	46.10	10.1	62	15.8	N	GND
0.510059	43.40	10.1	56	12.6	L1	GND
0.881649	41.80	10.1	56	14.2	L1	GND
1.896887	44.30	10.1	56	11.7	L1	GND

MEASUREMENT RESULT: "11A00808_1C_fin AV"

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.164053	40.10	10.1	55	15.2	N	GND
0.246695	37.40	10.1	52	14.4	N	GND
0.307065	37.00	10.1	50	13.1	N	GND
0.510059	35.60	10.1	46	10.4	N	GND
0.592162	34.70	10.1	46	11.3	N	GND
1.683391	33.70	10.1	46	12.3	L1	GND

USB Mode

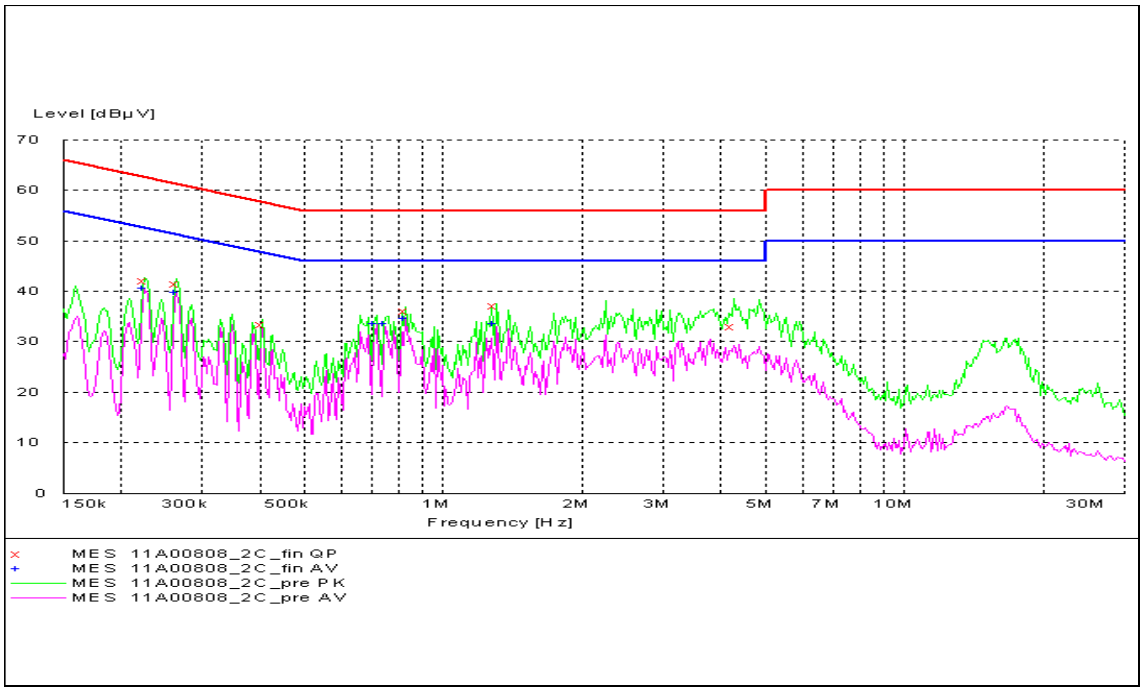


Figure A.6 Conducted Emission

MEASUREMENT RESULT: "11A00808_2C_fin QP"

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.225563	42.00	10.1	63	20.6	N	GND
0.264490	41.40	10.1	61	19.9	N	GND
0.405722	33.40	10.1	58	24.3	N	GND
0.830553	36.10	10.1	56	19.9	N	GND
1.299659	37.00	10.1	56	19.0	N	GND
4.260440	32.90	10.1	56	23.1	N	GND

MEASUREMENT RESULT: "11A00808_2C_fin AV"

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.225563	40.50	10.1	53	12.1	N	GND
0.264490	39.70	10.1	51	11.6	N	GND
0.715397	33.60	10.1	46	12.4	N	GND
0.751889	33.70	10.1	46	12.3	N	GND
0.830553	34.70	10.1	46	11.3	N	GND
1.299659	33.70	10.1	46	12.3	N	GND

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