Registration Num:428261

Report No.: RZA2010-0531_15B

TESTING
No. L2264

Part 15B

TEST REPORT

Product Name	HSPA USB Modem
FCC ID	WA6M950
Type	m950
Applicant	Verykool USA, Inc.

TA Technology (Shanghai) Co., Ltd.

GENERAL SUMMARY

Product Name	HSPA USB Modem	**Type**	m950
FCC ID	WA6M950	**Report No.**	RZA2010-0531_15B
Client	Verykool USA, Inc.		
Manufacturer	Shanghai BroadMobi Communication Technology Co., Ltd.		
Reference Standard(s)	**FCC Part 15 Subpart B** Radio frequency device. (December 17, 2009) **ANSI C63.4** Methods of Measurement of Radio-Noise Emission from Low-Voltage Electrical and Electronic Equipment in the Range of 9 KHz to 40GHz. (2003)		
Conclusion	This portable wireless equipment has been measured in all cases requested by the relevant standards. Test results in Chapter 2 of this test report are below limits specified in the relevant standards. General Judgment : **Pass** **(Stamp)** **Date of issue: April 29th, 2010**		
Comment	The test result only responds to the measured sample.		

Approved by Yang Weizhong **Revised by** Song Ming **Performed by** Liu Wei

TABLE OF CONTENT

1. General Information

1.1. Notes of the test report

TA Technology (Shanghai) Co., Ltd. guarantees the reliability of the data presented in this test report, which is the results of measurements and tests performed for the items under test on the date and under the conditions stated in this test report and is based on the knowledge and technical facilities available at TA Technology (Shanghai) Co., Ltd. at the time of execution of the test.

TA Technology (Shanghai) Co., Ltd. is liable to the client for the maintenance by its personnel of the confidentiality of all information related to the items under test and the results of the test. This report only refers to the item that has undergone the test.

This report standalone dose not constitute or imply by its own an approval of the product by the certification Bodies or competent Authorities. This report can not be used partially or in full for publicity and/or promotional purposes without previous written approval of **TA Technology (Shanghai) Co., Ltd.** and the Accreditation Bodies, if it applies.

1.2. Testing laboratory

Company:	TA Technology (Shanghai) Co., Ltd.
Address:	No.145, Jintang Rd, Tangzhen Industry Park, Pudong
City:	Shanghai
Post code:	201201
Country:	P. R. China
Contact:	Yang Weizhong
Telephone:	+86-021-50791141/2/3
Fax:	+86-021-50791141/2/3-8000
Website:	http://www.ta-shanghai.com
E-mail:	yangweizhong@ta-shanghai.com

1.3. Applicant Information

Company:	Verykool USA, Inc.
Address:	4350 Executive Drive. Suite 100, San Diego, CA 92121, USA
City:	San Diego
Postal Code:	92121
Country:	USA
Contact:	Sunny Choi
Telephone:	+1-858-373-1600
Fax:	+1-858-373-1505

1.4. Manufacturer Information

Company:	Shanghai BroadMobi Communication Technology Co., Ltd.
Address:	Rm. 808, Bld. 9, No.1515 Gumei Rd, Xuhui District, Shanghai, P. R. China
City:	Shanghai
Postal Code:	200233
Country:	China
Telephone:	+86-21-60913308-833
Fax:	+86-21-60913308-818

1.5. Information of EUT

General information

Device type:	Portable device		
Name of EUT:	HSPA USB Modem		
Device operating configurations:			
SN or IMEI:	355189030026910		
Operating mode(s):	GSM 850:（tested） GSM 1900:（tested） WCDMA Band II:（tested） WCDMA Band V:（tested）		
Antenna type:	internal antenna		
Power supply:	Notebook(IBM T61)		
Rated Power Supply Voltage:	5V		
Extreme Voltage:	Minimum: 4.75V Maximum: 5.25V		
Extreme Temperature:	Lowest: -10°C Highest: +55°C		
Operating frequency range(s)	Band	Tx (MHz)	Rx (MHz)
	GSM850	824.2 ~ 848.8	869.2 ~ 893.8
	GSM1900	1850.2 ~ 1909.8	1930.2 ~ 1989.8
	WCDMA Band II	1852.4 ~ 1907.6	1932.4 ~ 1987.6.
	WCDMA Band V	826.4 ~ 846.6	871.4 ~ 891.6
Hardware version:	V1.0		
Software version:	V1.0		

Equipment Under Test (EUT) is HSPA USB Modem with internal antenna. The EUT supports GSM 850, GSM1900, WCDMA Band II and WCDMA Band V.

The sample under test was selected by the Client.

Components list please refer to documents of the manufacturer.

1.6. Test Date

The test date is from April 21, 2010 to April 26, 2010.

2. Test Information

2.1. Summary of test results

Number	Test Case	Clause in FCC Rules	Verdict
1	Radiated Emission	15.109, ANSI C63.4-2003	PASS
2	Conducted Emission	15.107, ANSI C63.4-2003	PASS

2.2. Radiated Emission

Ambient condition

Temperature	Relative humidity	Pressure
26°C	60%	102.5kPa

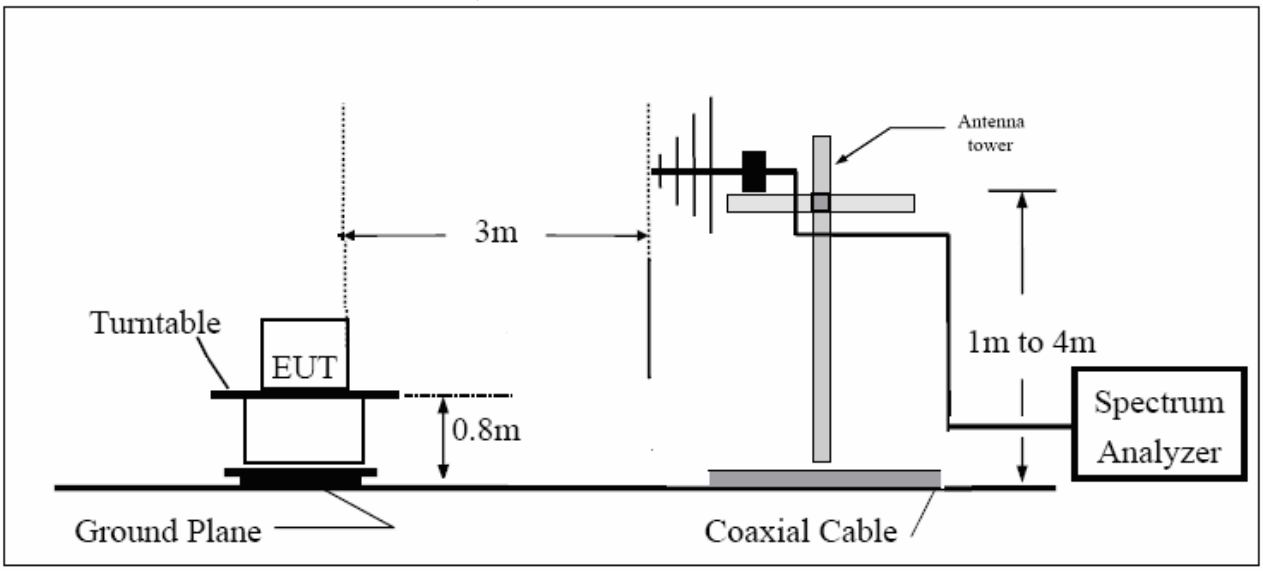
Methods of Measurement

The EUT is placed on a non-metallic table 0.8m above the horizontal metal reference ground plane. The distance between EUT and receive antenna should be 3 meters. During the test, the EUT was operating in its typical mode. The test method is according to ANSI C63.4-2003. Sweep the whole frequency band through the range from 30MHz to 10GHz. During the test, the height of receive antenna shall be moved from 1 to 4 meters, and the antenna shall be performed under horizontal and vertical polarization. The turn table shall be rotated from 0 to 360 degrees for detecting the maximum of radiated spurious signal level. The measurements shall be repeated with orthogonal polarization of the test antenna.

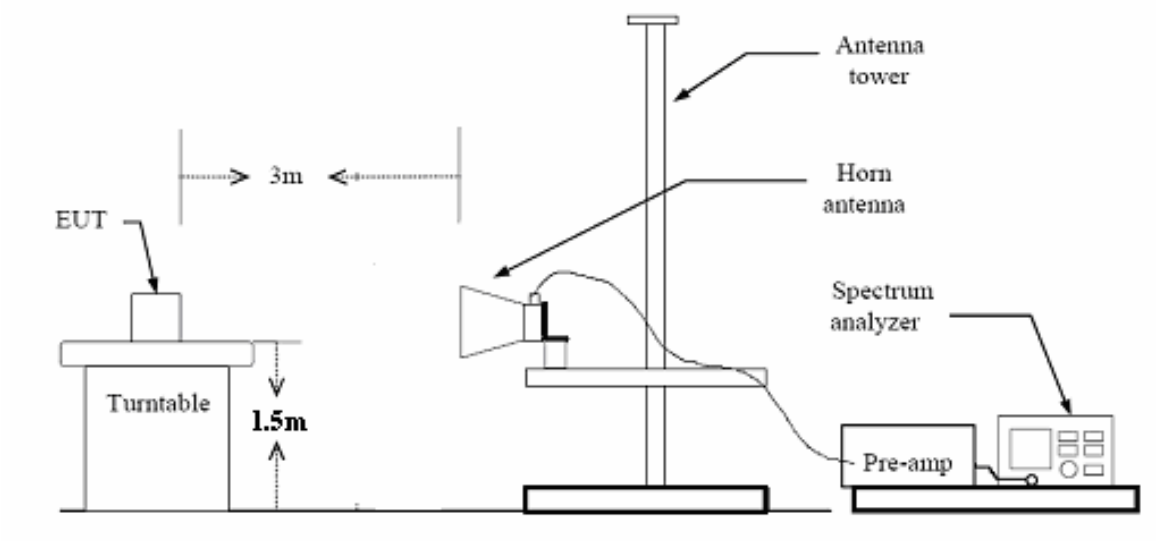
The data of cable loss and antenna factor has been calibrated in full testing frequency range before the testing

Test Setup

Below 1GHz



Above 1GHz



Limits

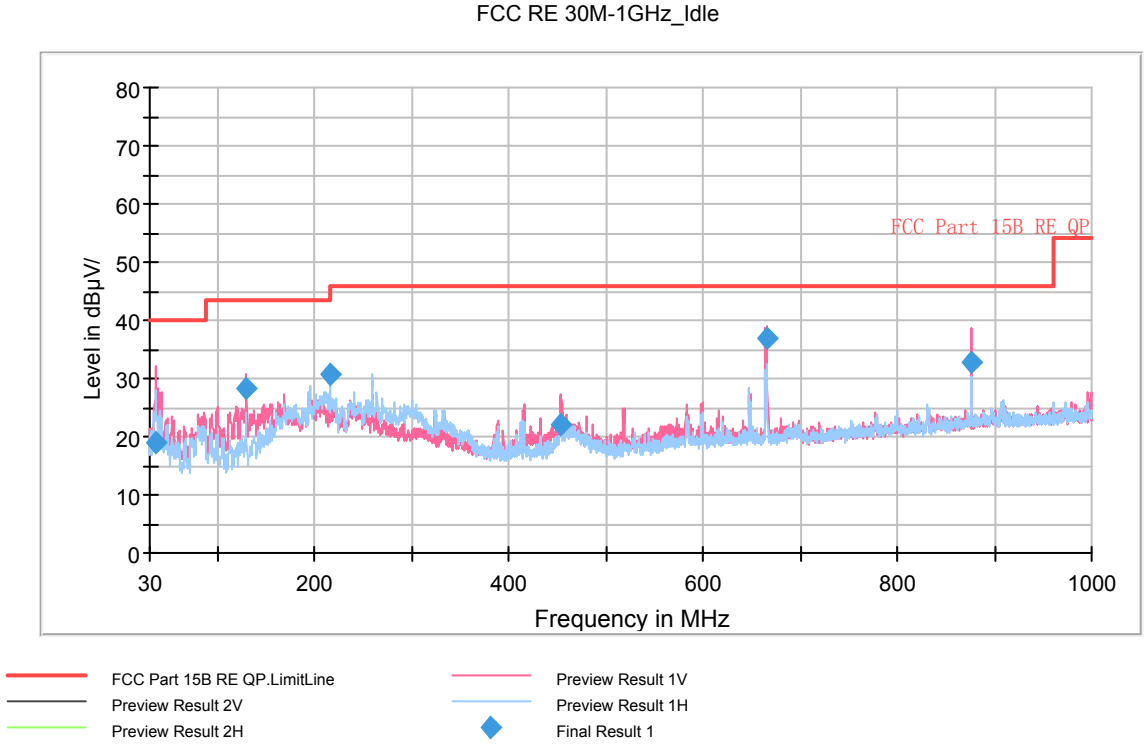
Frequency (MHz)	Field Strength (dBμV/m)	Detector
30 -88	40.0	Quasi-peak
88-216	43.5	Quasi-peak
216 – 960	46.0	Quasi-peak
Above 960	54.0	Quasi-peak
1000-5th harmonic of the highest frequency or 40GHz,which is lower	54 74	Average Peak

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor *k* = 1.96. U= 3.92 dB.

Test Results

GSM 850



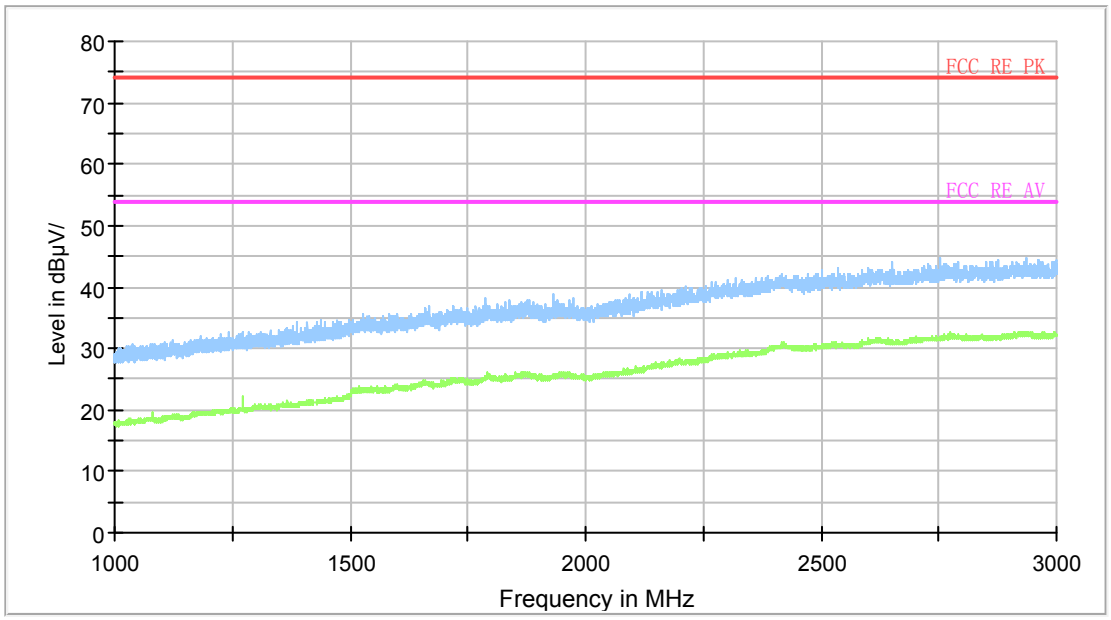
Note: Red trace is in vertical polarization Blue trace is in horizontal polarization

Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)
36.505000	19.1	116.0	Vertical	0.0	20.9	40.0
129.425000	28.4	100.0	Vertical	22.0	15.1	43.5
215.997500	30.6	125.0	Horizontal	68.0	12.9	43.5
452.837500	22.2	116.0	Vertical	202.0	23.8	46.0
666.037500	36.9	100.0	Vertical	193.0	9.1	46.0
876.300000	32.9	116.0	Vertical	13.0	13.1	46.0

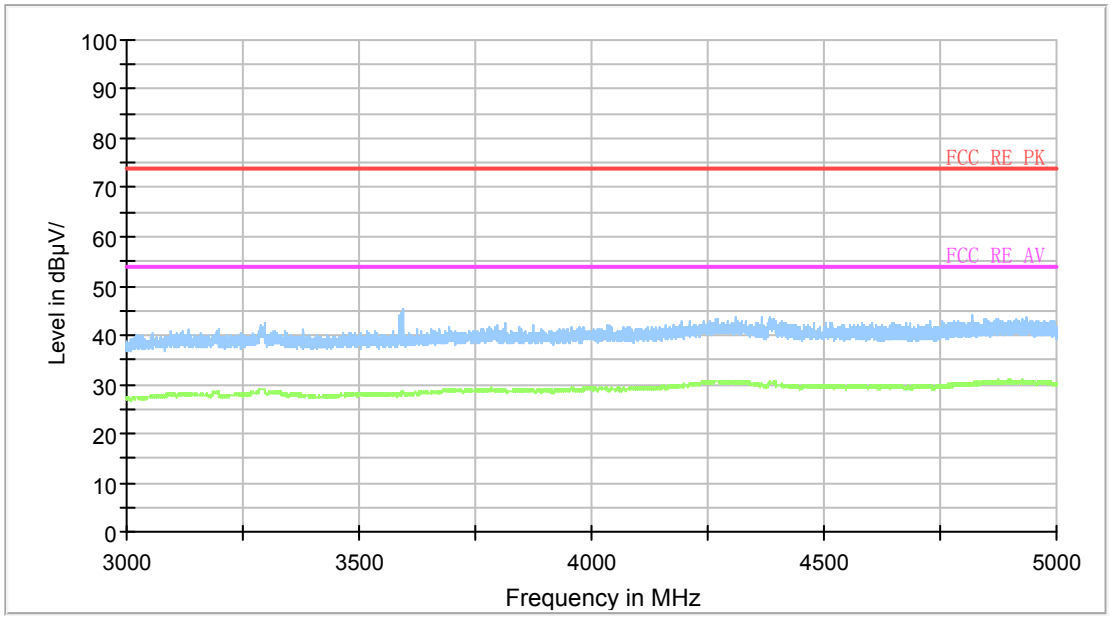
Note: all emissions level measured above 1GHz was more than10dB below the limit

FCC RE 1G-3GHz PK



Note: Blue trace uses the peak detection Green trace uses the average detection

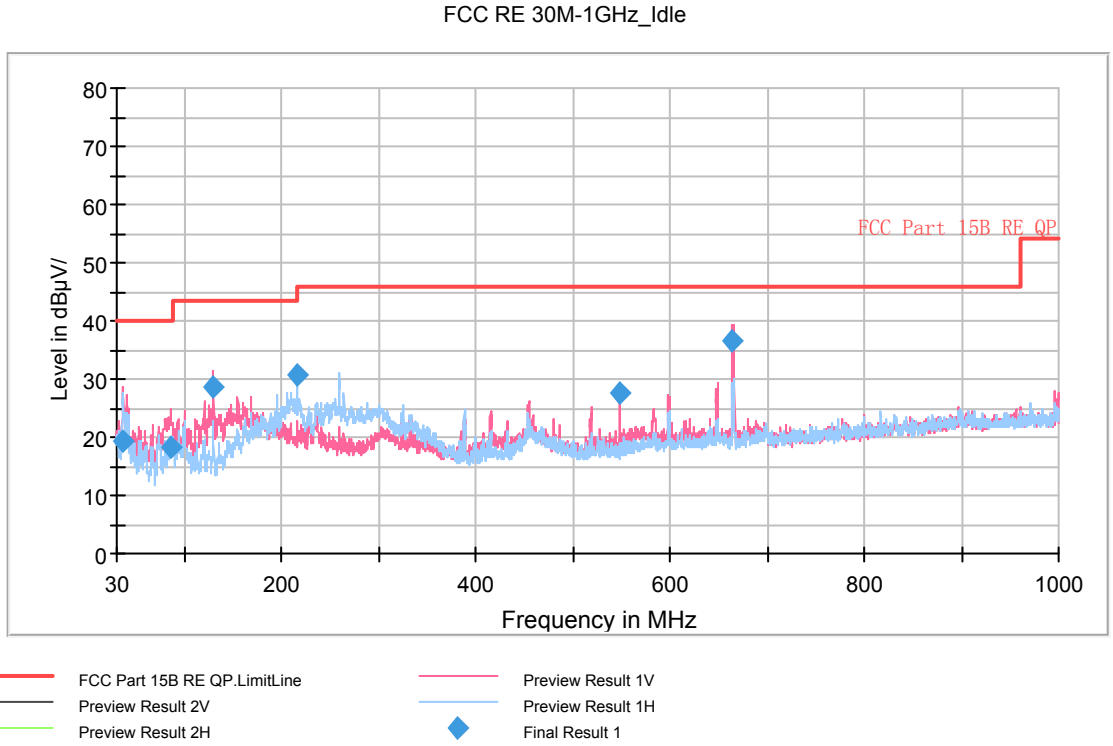
Radiated Emission from 1GHz to 3GHz



Note: Blue trace uses the peak detection Green trace uses the average detection

Radiated Emission from 3GHz to 5GHz

GSM 1900



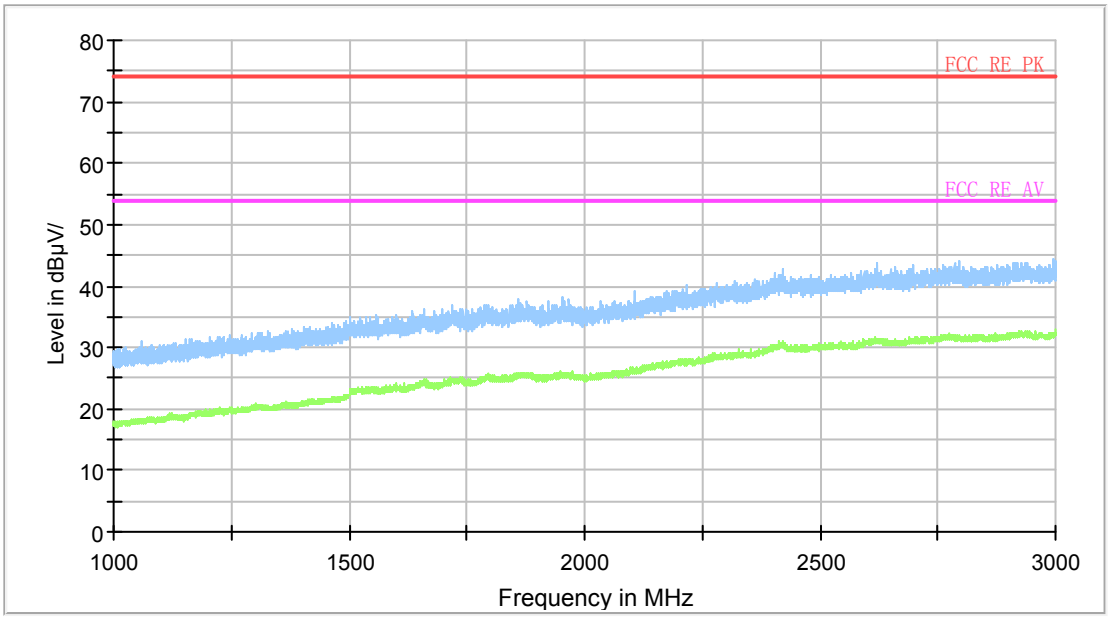
Note: Red trace is in vertical polarization Blue trace is in horizontal polarization

Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	Quasi-Peak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)
36.502500	19.4	100.0	Vertical	2.0	20.6	40.0
86.257500	18.1	100.0	Vertical	15.0	21.9	40.0
129.787500	28.5	100.0	Vertical	22.0	15.0	43.5
215.997500	30.5	125.0	Horizontal	68.0	13.0	43.5
547.217500	27.7	100.0	Vertical	272.0	18.3	46.0
663.897500	36.4	100.0	Vertical	193.0	9.6	46.0

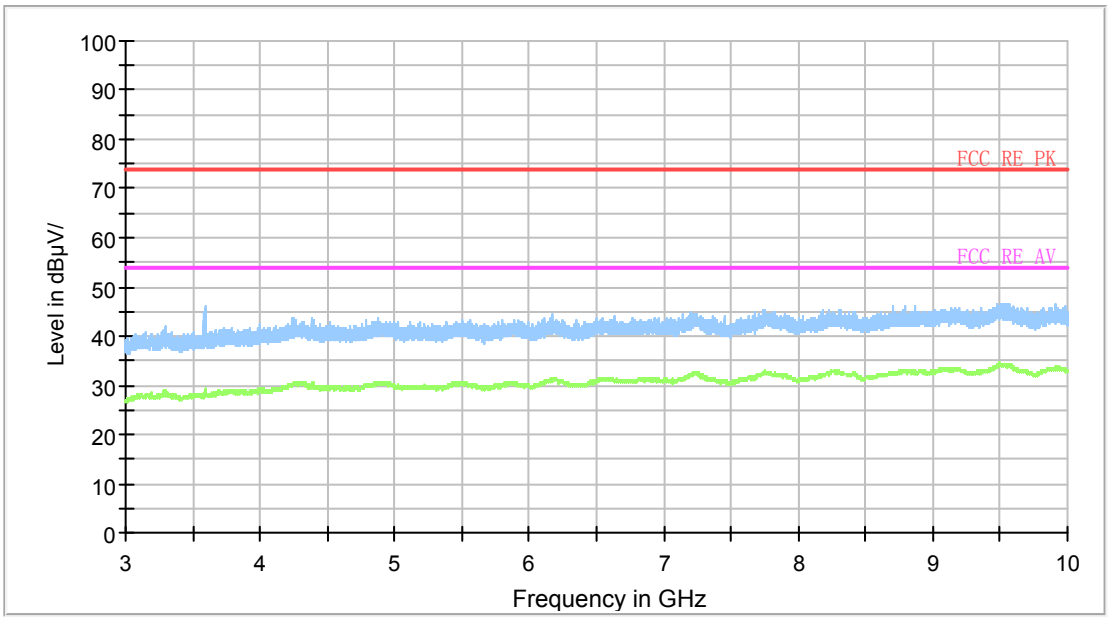
Note: all emissions level measured above 1GHz was more than10dB below the limit

FCC RE 1G-3GHz PK



Note: Blue trace uses the peak detection Green trace uses the average detection

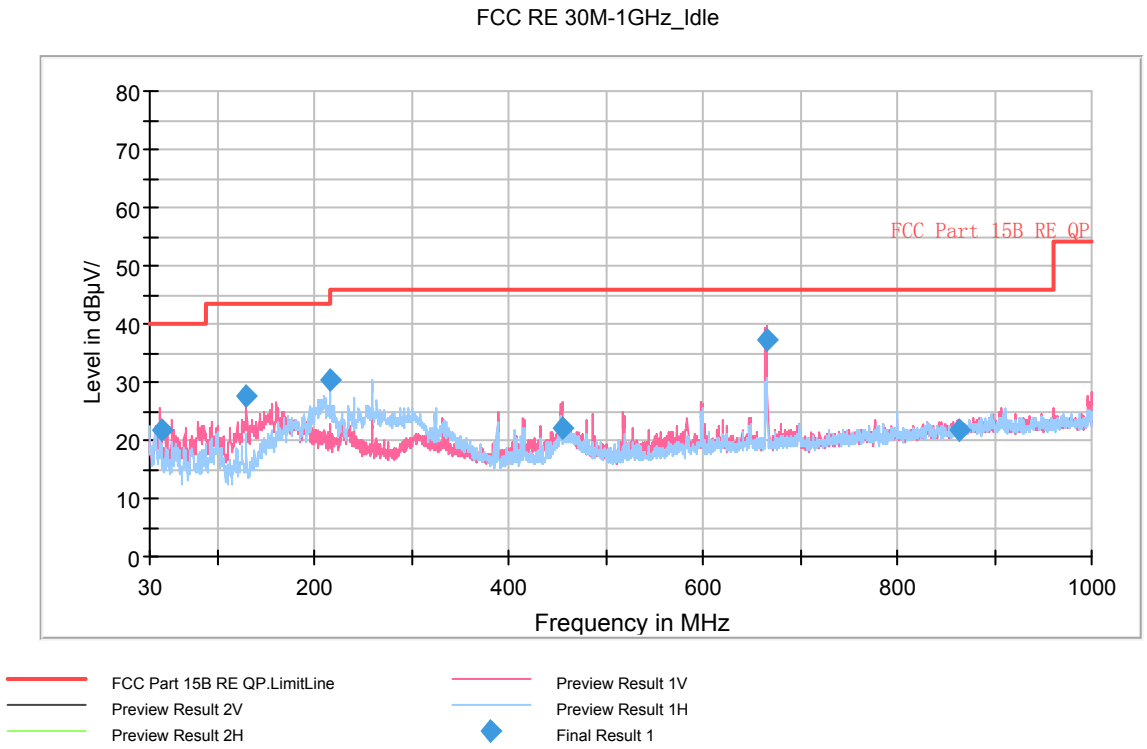
Radiated Emission from 1GHz to 3GHz



Note: Blue trace uses the peak detection Green trace uses the average detection

Radiated Emission from 3GHz to 10GHz

WCDMA Band II



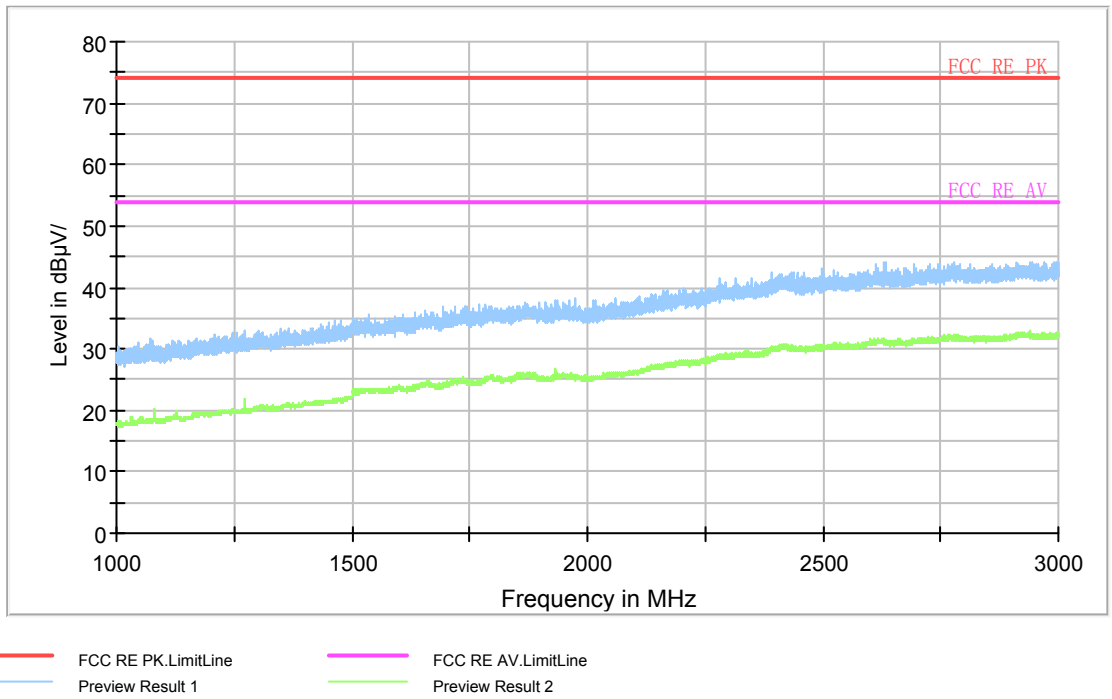
Note: Red trace is in vertical polarization Blue trace is in horizontal polarization

Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)
41.352500	21.7	125.0	Vertical	68.0	18.3	40.0
129.787500	27.5	100.0	Vertical	22.0	16.0	43.5
215.997500	30.3	125.0	Horizontal	68.0	13.2	43.5
454.375000	22.2	125.0	Vertical	158.0	23.8	46.0
666.077500	37.4	100.0	Vertical	186.0	8.6	46.0
863.997500	21.9	116.0	Vertical	0.0	24.1	46.0

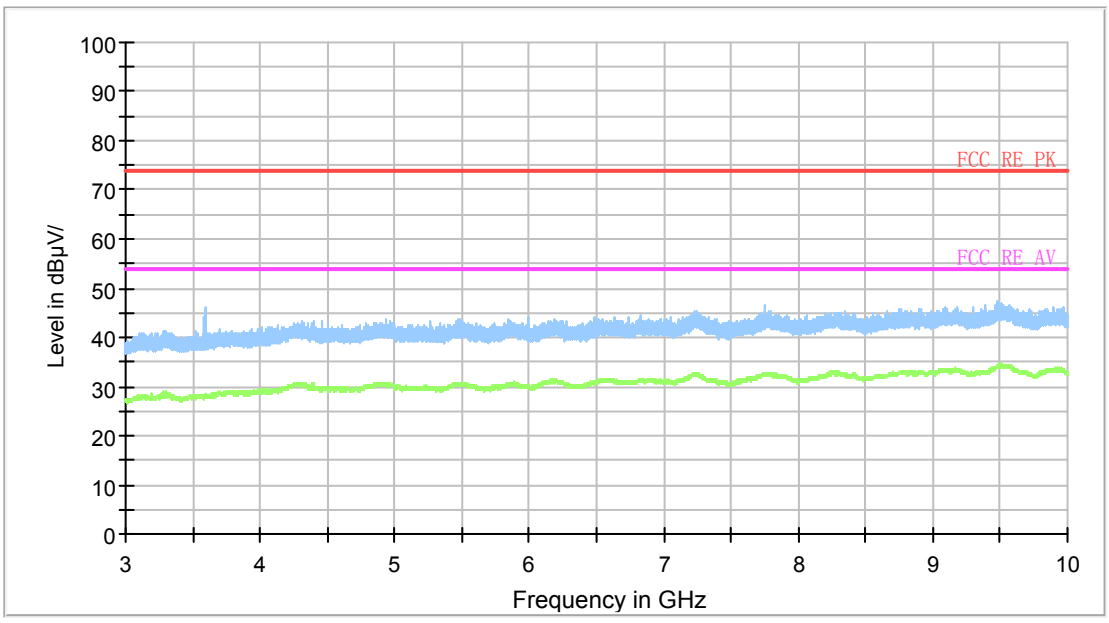
Note: all emissions level measured above 1GHz was more than10dB below the limit

FCC RE 1G-3GHz PK



Note: Blue trace uses the peak detection Green trace uses the average detection

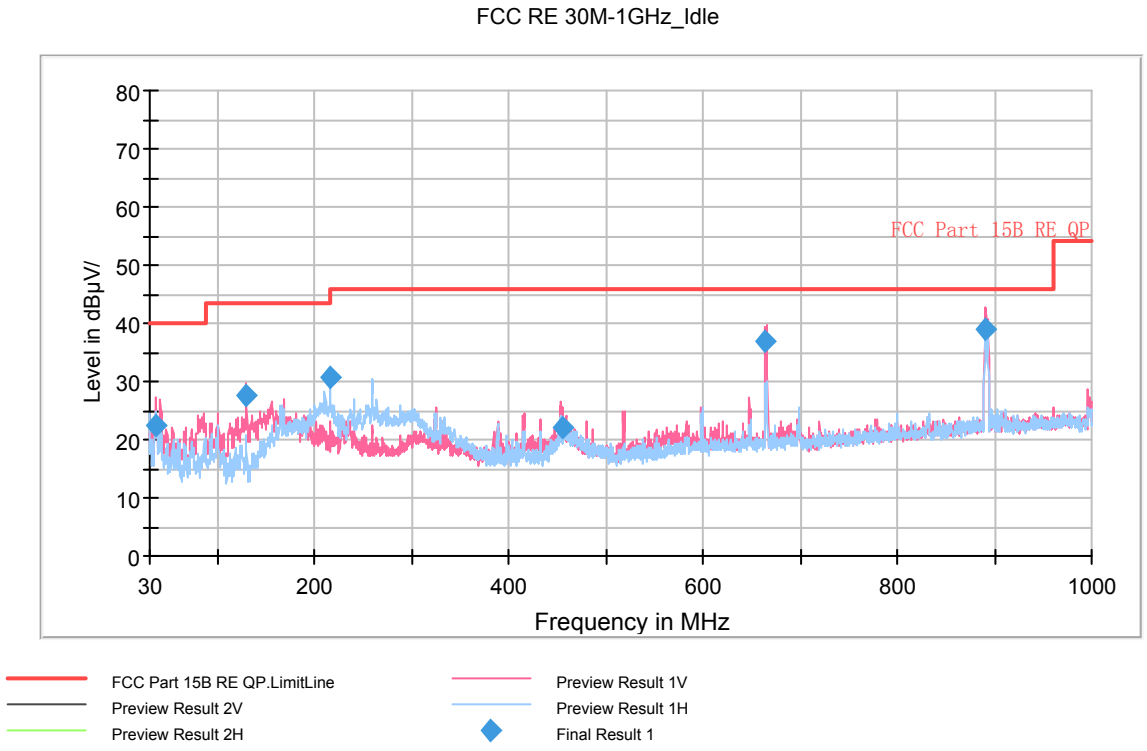
Radiated Emission from 1GHz to 3GHz



Note: Blue trace uses the peak detection Green trace uses the average detection

Radiated Emission from 3GHz to 10GHz

WCDMA Band V



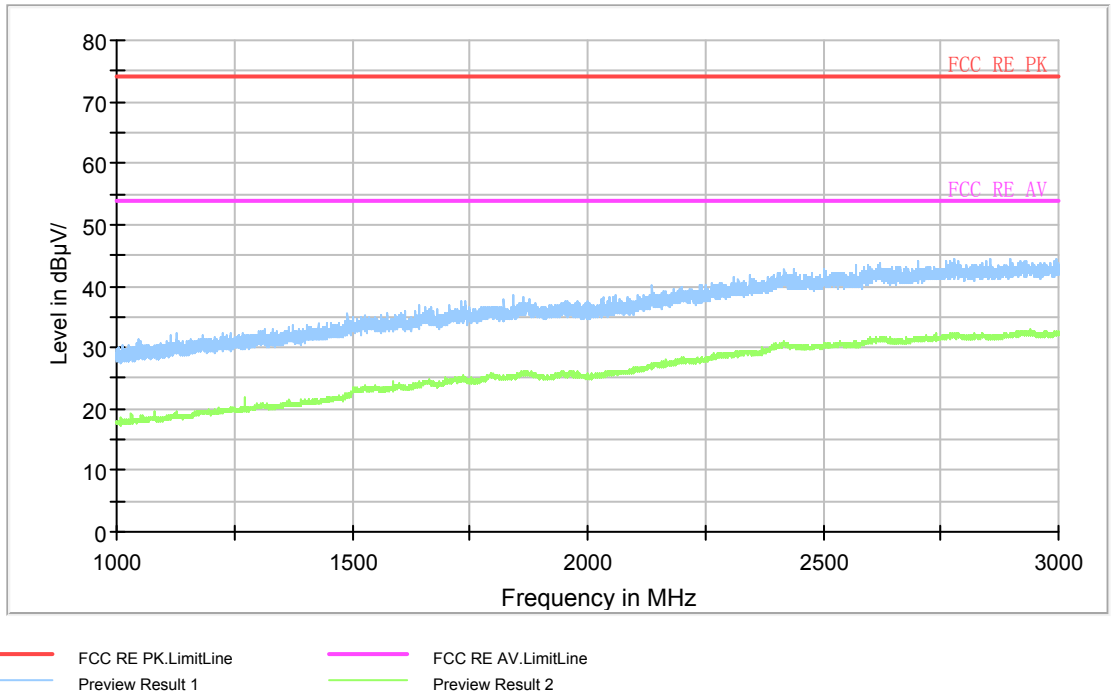
Note:Red trace is in vertical polarization Blue trace is in horizontal polarization

Radiated Emission from 30MHz to 1GHz

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBµV/m)
36.505000	22.5	116.0	Vertical	292.0	17.5	40.0
129.787500	27.5	100.0	Vertical	22.0	16.0	43.5
215.997500	30.6	125.0	Horizontal	68.0	12.9	43.5
454.410000	22.0	125.0	Vertical	202.0	24.0	46.0
663.935000	37.0	100.0	Vertical	193.0	9.0	46.0
891.202500	39.1	125.0	Vertical	168.0	6.9	46.0

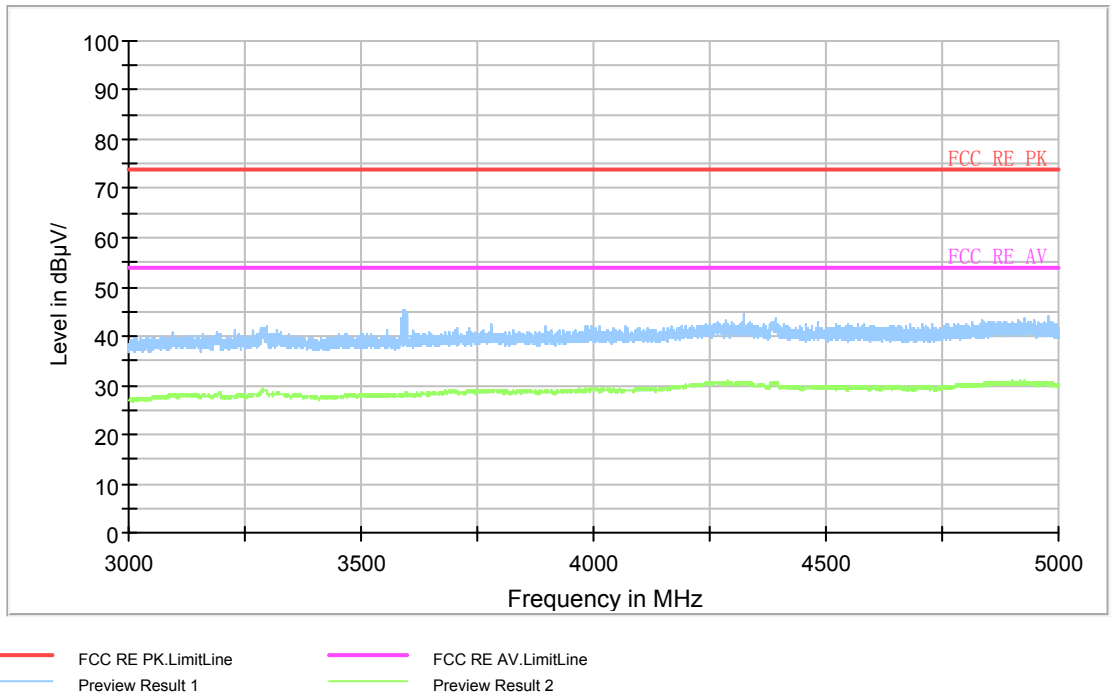
Note: all emissions level measured above 1GHz was more than10dB below the limit

FCC RE 1G-3GHz PK



Note: Blue trace uses the peak detection Green trace uses the average detection

Radiated Emission from 1GHz to 3GHz



Note: Blue trace uses the peak detection Green trace uses the average detection

Radiated Emission from 3GHz to 5GHz

2.3. Conducted Emission

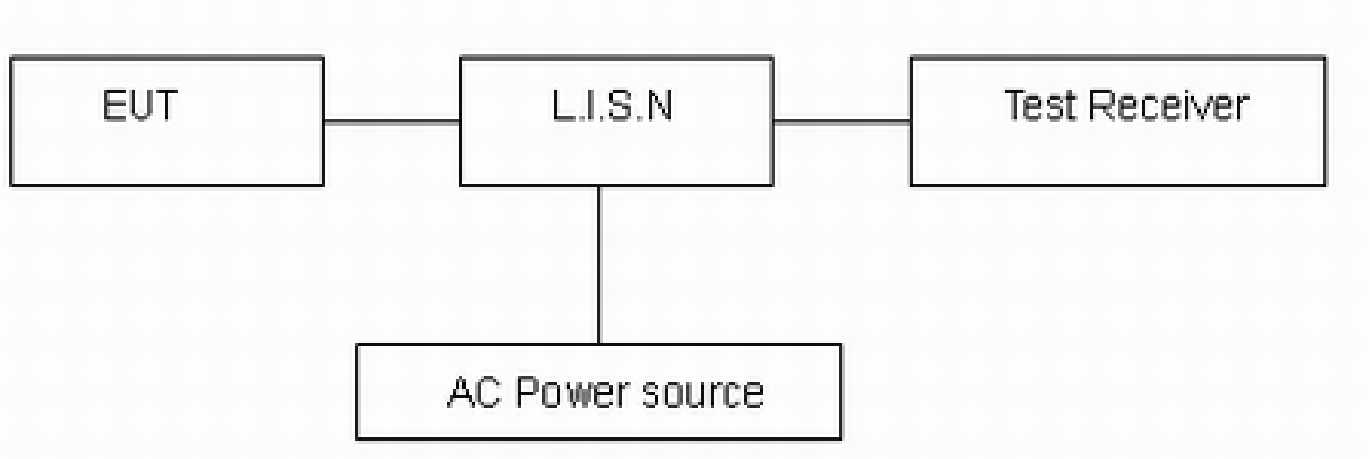
Ambient condition

Temperature	Relative humidity	Pressure
25°C	58%	102.5kPa

Methods of Measurement

The EUT is placed on a non-metallic table of 80cm height above the horizontal metal reference ground plane. During the test, the EUT was operating in its typical mode. The test method is according to ANSI C63.4-2003. Connect the AC power line of the EUT to the L.I.S.N. Use EMI receiver to detect the average and Quasi-peak value. The measurement result should include both L line and N line.

Test Setup



Note: AC Power source is used to change the voltage from 220V/50Hz to 110V/60Hz.

Limits

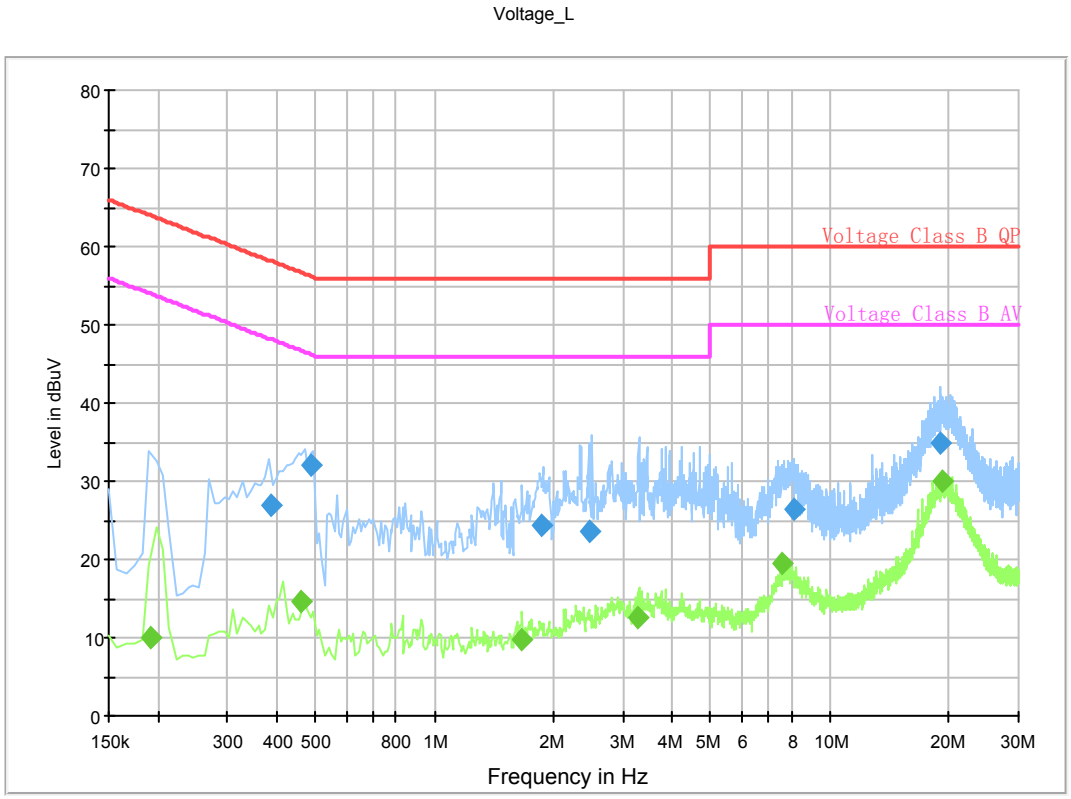
Frequency (MHz)	Conducted Limits(dBμV)	
	Quasi-peak	Average
0.15 - 0.5	66 to 56 *	56 to 46*
0.5 - 5	56	46
5 - 30	60	50
*: Decreases with the logarithm of the frequency.		

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor *k* = 1.96. U= 2.69 dB.

Test Results

GSM 850

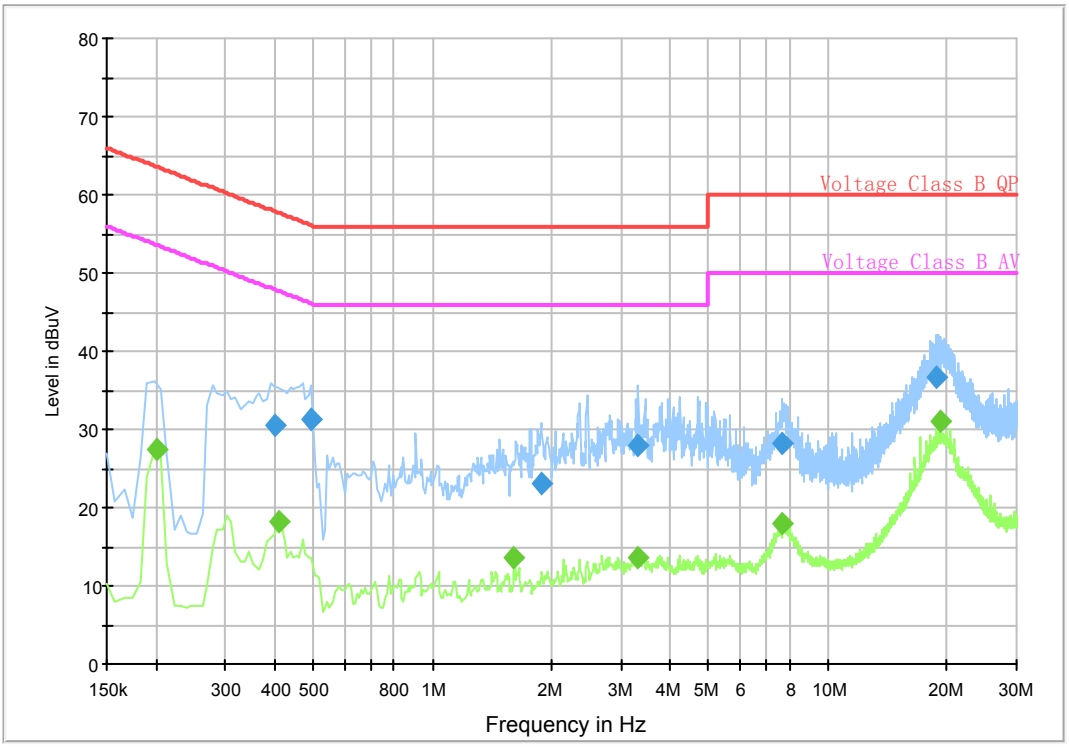


Note: Blue trace uses the Quasi-peak detection Green trace uses the average detection

L line

Conducted Emission from 150 KHz to 30 MHz

Voltage_N



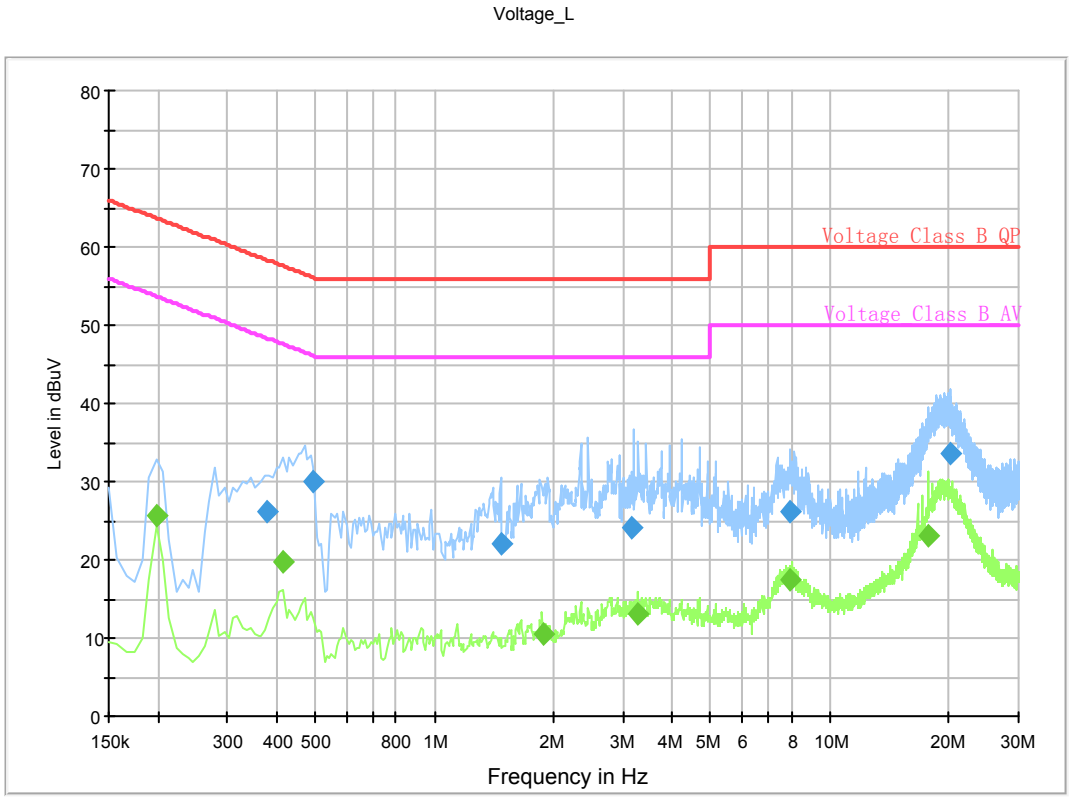
Note: Blue trace uses the Quasi-peak detection Green trace uses the average detection

N line

Conducted Emission from 150 KHz to 30 MHz

Frequency (MHz)	Detector	Line	Level (dBµV)	Limit (dBµV)	Margin (dB)
0.201	Average	N	27.4	53.6	26.2
0.411	Average	N	18.3	47.6	29.3
7.583	Average	L	19.5	50	30.5
7.673	Average	N	18	50	32
19.327	Average	N	30.9	50	19.1
19.333	Average	L	30	50	20
0.401	Quasi-peak	N	30.5	57.8	27.3
0.489	Quasi-peak	L	31.9	56.2	24.3
0.495	Quasi-peak	N	31.4	56.1	24.7
3.297	Quasi-peak	N	28	56	28
18.789	Quasi-peak	N	36.6	60	23.4
18.989	Quasi-peak	L	34.9	60	25.1

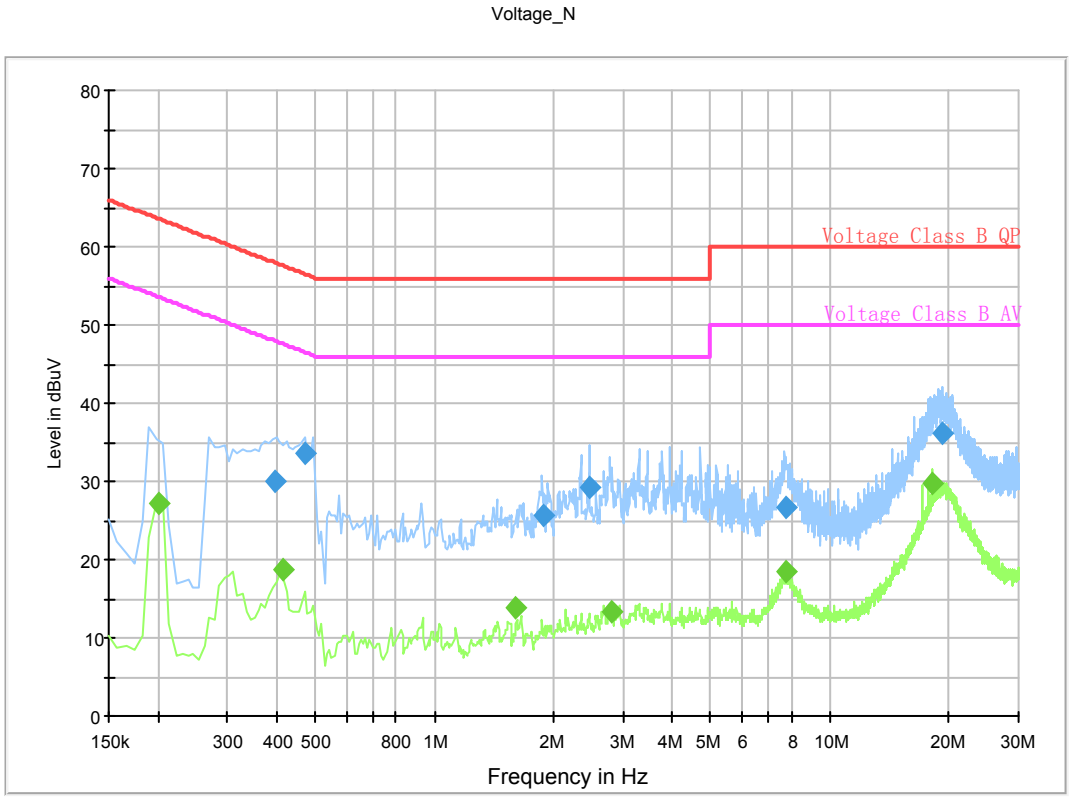
GSM 1900



Note: Blue trace uses the Quasi-peak detection Green trace uses the average detection

L line

Conducted Emission from 150 KHz to 30 MHz



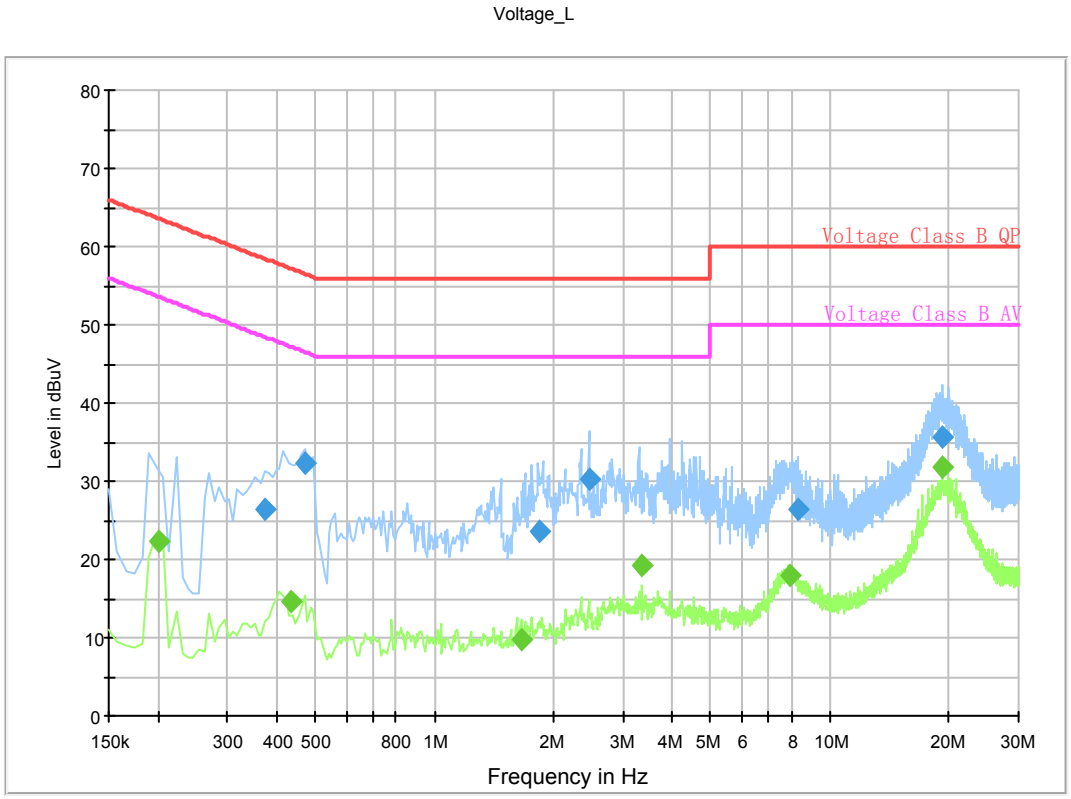
Note: Blue trace uses the Quasi-peak detection Green trace uses the average detection

N line

Conducted Emission from 150 KHz to 30 MHz

Frequency (MHz)	Detector	Line	Level (dBµV)	Limit (dBµV)	Margin (dB)
0.199	Average	L	25.6	53.7	28.1
0.201	Average	N	27.1	53.6	26.5
0.413	Average	N	18.8	47.6	28.8
0.413	Average	L	19.8	47.6	27.8
17.673	Average	L	23.1	50	26.9
18.251	Average	N	29.7	50	20.3
0.393	Quasi-peak	N	30	58	28
0.469	Quasi-peak	N	33.7	56.5	22.8
0.491	Quasi-peak	L	30.1	56.2	26.1
2.465	Quasi-peak	N	29.3	56	26.7
19.327	Quasi-peak	N	36.1	60	23.9
20.111	Quasi-peak	L	33.6	60	26.4

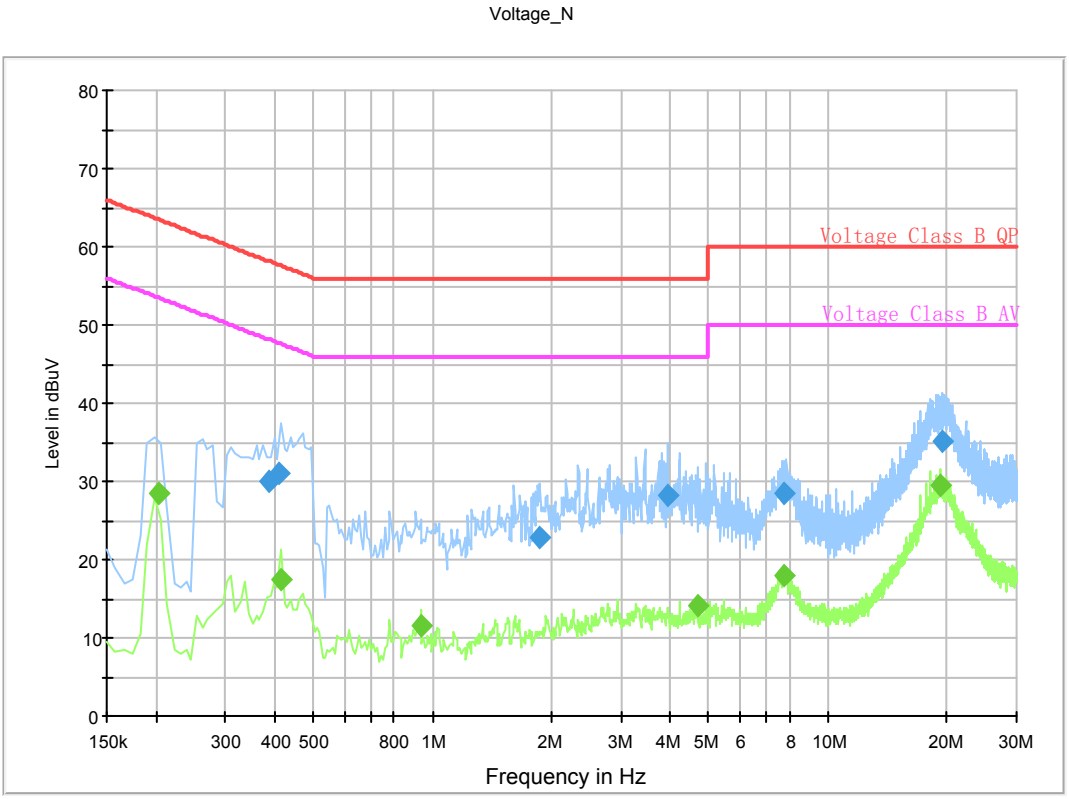
WCDMA Band II



Note: Blue trace uses the Quasi-peak detection Green trace uses the average detection

L line

Conducted Emission from 150 KHz to 30 MHz



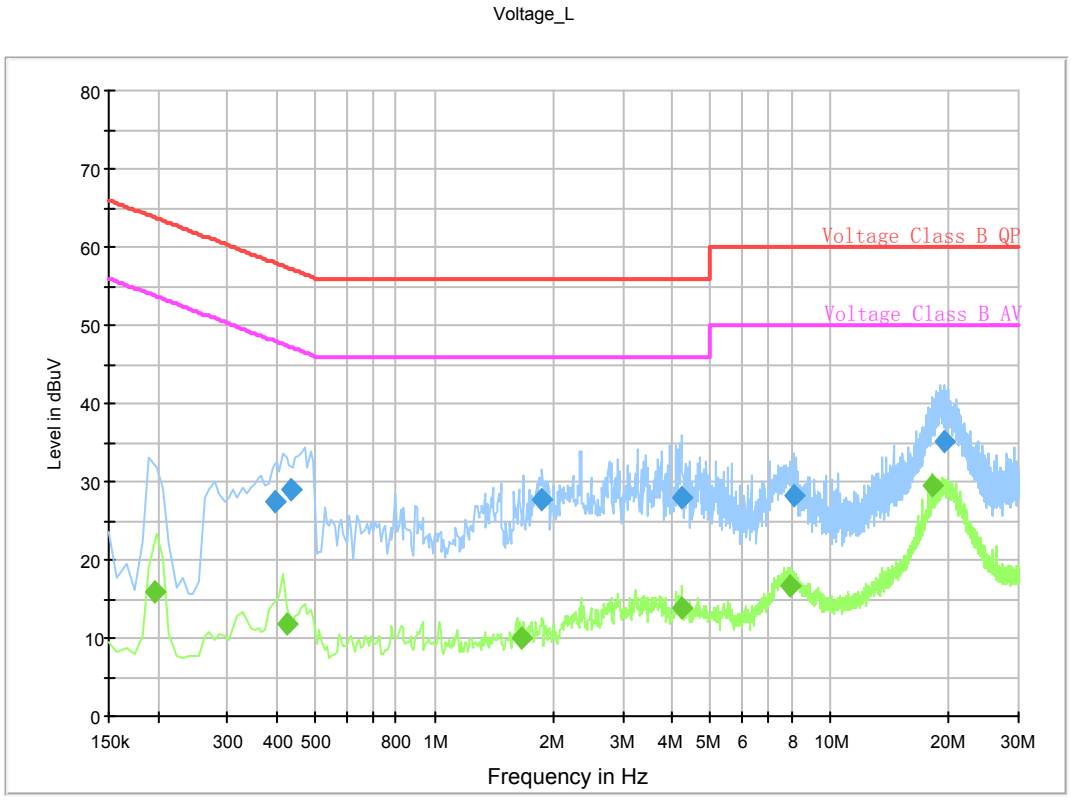
Note: Blue trace uses the Quasi-peak detection Green trace uses the average detection

N line

Conducted Emission from 150 KHz to 30 MHz

Frequency (MHz)	Detector	Line	Level (dBµV)	Limit (dBµV)	Margin (dB)
0.201	Average	L	22.2	53.6	31.4
0.413	Average	N	17.4	47.6	30.2
3.359	Average	L	19.3	46	26.7
0.203	Average	N	28.4	53.5	25.1
19.333	Average	N	29.5	50	20.5
19.333	Average	L	31.9	50	18.1
0.407	Quasi-peak	N	31	57.7	26.7
0.469	Quasi-peak	L	32.2	56.5	24.3
2.459	Quasi-peak	L	30.4	56	25.6
3.931	Quasi-peak	N	28.1	56	27.9
19.225	Quasi-peak	L	35.6	60	24.4
19.437	Quasi-peak	N	35.1	60	24.9

WCDMA Band V

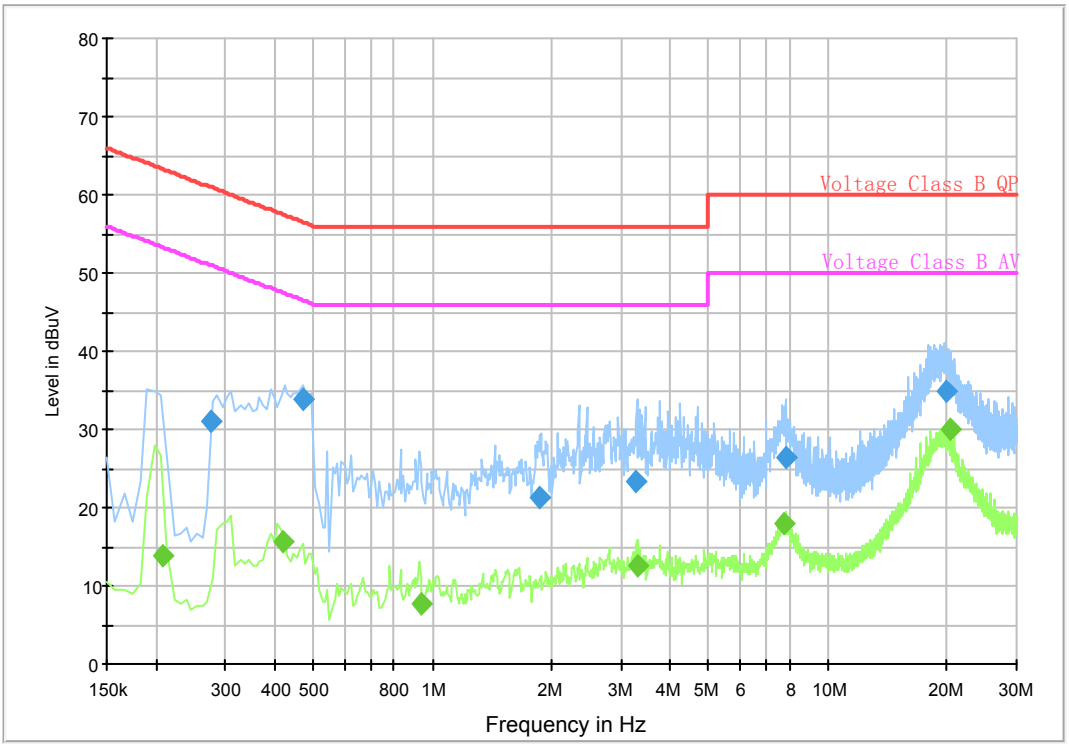


Note: Blue trace uses the Quasi-peak detection Green trace uses the average detection

L line

Conducted Emission from 150 KHz to 30 MHz

Voltage_N



Note: Blue trace uses the Quasi-peak detection Green trace uses the average detection

N line

Conducted Emission from 150 KHz to 30 MHz

Frequency (MHz)	Detector	Line	Level (dBµV)	Limit (dBµV)	Margin (dB)
0.419	Average	N	15.6	47.5	31.9
4.207	Average	L1	13.8	46	32.2
7.793	Average	N	18	50	32
7.927	Average	L1	16.7	50	33.3
18.259	Average	L1	29.5	50	20.5
20.403	Average	N	30	50	20
0.433	Quasi-peak	L1	29	57.2	28.2
0.471	Quasi-peak	N	33.9	56.5	22.6
1.875	Quasi-peak	L1	27.7	56	28.3
4.227	Quasi-peak	L1	27.9	56	28.1
19.567	Quasi-peak	L1	35.2	60	24.8
19.835	Quasi-peak	N	34.9	60	25.1

3. Main Test Instruments

No.	Name	Type	Manufacturer	Serial Number	Calibration Date	Valid Period
01	Base Station Simulator	CMU200	R&S	118133	2009-06-02	One year
02	Signal Analyzer	FSV	R&S	100815	2009-06-29	One year
03	Signal generator	SMR27	R&S	100365	2009-07-02	One year
04	EMI Test Receiver	ESCI	R&S	100948	2009-07-02	One year
05	Trilog Antenna	VULB 9163	SCHWARZBECK	9163-391	2009-05-14	Two years
06	Horn Antenna	HF907	R&S	100126	2009-07-02	Two years
07	LISN	EMCO	3816/2	00084033	2009-12-04	Two years
08	AC Power Source	AFC-11005G	APC	F309040118	2009-07-25	One year
09	Semi-Anechoic Chamber	9.6*6.7*6.6m	ETS-Lindgren	NA	NA	NA
10	Shielding room	5*4*4m	ETS-Lindgren	NA	NA	NA
11	EMI test software	ES-K1	R&S	NA	NA	NA

ANNEX A： The EUT Appearance and Test Configuration

A.1 EUT and Auxiliary Appearance

Picture 1 EUT

A.2 Test Setup

Picture 2 Radiated Emission Test Setup

Picture 3-1

Picture 3-2

Picture 3 Conducted Emission Test Setup

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