



FCC TEST REPORT

REPORT NO.:VITE1107006E-4

MODEL NO.: M31

FCC ID: R38-YLM31

RECEIVED: July15, 2011

TESTED: July15, 2011 to August 21, 2011

APPLICANT: Yulong Computer Telecommunication Scientific (Shenzhen) Co. LTD

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ISSUED BY: SHENZHEN UNITE-CICC SERVICES CO.,LTD.

LAB LOCATION: 21F, COFCO Building, Baoan District, Shenzhen, Guangdong, China

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Address : Coolpad Information Harbor,2nd Mengxi Road,Hi-Tich Industrial Park
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Manufacture : Yulong Computer Telecommunication Scientific (Shenzhen) Co. LTD
Address : Coolpad Information Harbor,2nd Mengxi Road,Hi-Tich Industrial Park
(North) ,NanShan District,ShenZhen, China
Product : CDMA 1x EV-DO Rev A (800MHZ)
Model No. : M31
Trademark : Coolpad
Test Standard : FCC 15.107 and FCC 15.109
Prepared by : SHENZHEN UNITE-CICC SERVICES CO.,LTD.
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Prepared by : 
(Engineer)

Reviewer by : 
(Project Engineer)

Approved by : 
(Manager)

Report Number : VITE1107006E-4

Date of Test : July16, 2011 to August 22, 2011

Date of Report : August 22, 2011

The device described above is tested by SHENZHEN UNITE-CICC SERVICES CO.,LTD. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. This report applies to above tested sample only and shall not be reproduced in part without written approval of SHENZHEN UNITE-CICC SERVICES CO.,LTD.



EMC Standards Compliance List / Test Summary:

The following standards have been applied to ensure the product conforms with the protection requirements of the Part 2, Subpart J, and Part 15, Subparts A and B of the Federal Communication Commissions rules

Electromagnetic Emissions			
Test Item	Class	Standard	Result
Conducted Emission(0.15-30MHz)	B	FCC part 15.107	PASS
Radiated Emission(30-1000MHz)	B	FCC part 15.109	PASS



TABLE OF CONTENTS

EMC Standards Compliance List / Test Summary:	3
TABLE OF CONTENTS	4
Section 1 General Information	5
1.1 Introduction	5
1.2 EUT General and Technical Descriptions	5
1.3 Support Equipment(s) and Test Configuration	5
1.3.1 Details of Support Equipment(s)	5
1.3.2 Working State of EUT	5
1.3.3 Block Diagram of Test Configuration	6
1.4 Test Facility	6
Section 2 Electromagnetic Emissions	7
2.1 Conducted Emission at Mains Terminals	7
2.1.1 Conducted Emission Test Information	7
2.1.2 Conducted Emission Test Setup Block Diagram	7
2.1.3 Measurement Equipments Used for Conducted Emission	7
2.2 Conducted Emission at Mains Terminals, 150 KHz to 30MHz	8
2.1.4 Test Data	9
2.1.5 Test Setup	11
2.2 Radiated Emission (0.009-1000MHz)	12
2.2.1 Radiated Emission Test Information	12
2.2.2 Radiated Emission Test Setup Block Diagram	12
2.2.3 Measurement Equipments Used for Radiated emission	12
2.2 Radiated Emissions, 30MHz to 1GHz	13
2.2.4 Test Data	14
2.2.5 Test Setup	16



Section 1 General Information

1.1 Introduction

This report documents the emission and immunity test results for the Switching Adapter.

1.2 EUT General and Technical Descriptions

EUT	:	CDMA 1x EV-DO Rev A (800MHZ)
Brand Name	:	YULONG
Model Number	:	M31
IMEI	:	a10000075c8009
Hardware Version	:	Msm7627_7X_SURF
Software Version	:	1.0.24552.0144
Power Supply	:	Battery DC 3.7V, Adapter DC USB 5V
Power Cable	:	USB cable
Frequency range:	:	CDMA800:824.7~848.31(Tx)868.7~893.31(Rx) WiFi:2400~2483.5MHz Bluetooth:2400~2483.5MHz
Modulation	:	GMSK(CDMA) ,DSSS,OFDM,QPSK (802.11b/g/n) GFSK(Bluetooth)
Antenna Gain:	:	CDMA: 0dBi WiFi and Bluetooth:0dBi
Type of Antenna	:	Integral Antenna
Manufacturer	:	Yulong Computer Telecommunication Scientific (Shenzhen) Co. LTD
Address	:	Coolpad Information Harbor,2nd Mengxi Road,Hi-Tich Industrial Park (North) ,NanShan District,ShenZhen, China
Date of receiver	:	June 15, 2011
Date of Test	:	July16, 2011 to August 22, 2011

1.3 Support Equipment(s) and Test Configuration

1.3.1 Details of Support Equipment(s)

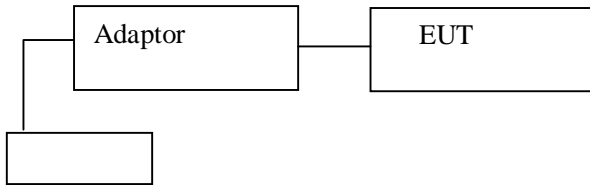
Description	Manufacturer	Model No.	Connection	Working state
Adaptor	Aigo	CYSK10-05150	USB Cable	Charging

1.3.2 Working State of EUT

1. Power Supply of EUT: 120V/60Hz
2. EUT Status: Normal operating



1.3.3 Block Diagram of Test Configuration



1.4 Test Facility

Test Laboratory: Shenzhen LCS Compliance Testing Laboratory Ltd. The Lab is registered Federal Communications Commission, the Registration Number is 899208. Address: Xingyuan Industrial Park, Tongda Road, Bao'an Blvd, Bao'an District, Shenzhen, China



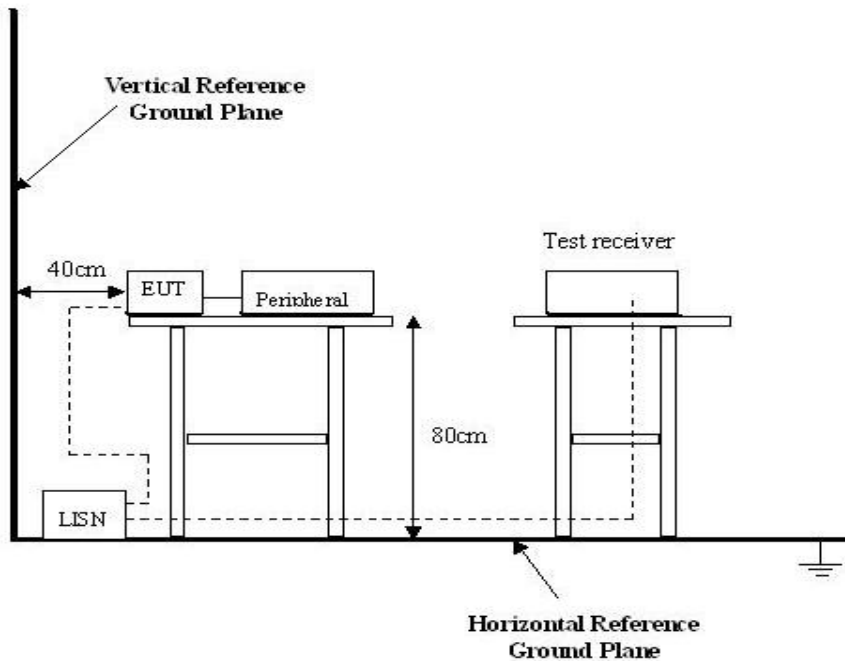
Section 2 Electromagnetic Emissions

2.1 Conducted Emission at Mains Terminals

2.1.1 Conducted Emission Test Information

Temperature:	23°C	Humidity:	60% RH
ATM Pressure:	103 k Pa	Grounding:	/
Test Voltage:	120VAC / 60Hz	Tested Range:	150kHz to 30MHz
Tested by:	Jack Lee	Date of test:	2011-08-21
Test Reference:	FCC 15.105 & ANSI C63.4-2003		
Results:	PASS		

2.1.2 Conducted Emission Test Setup Block Diagram



2.1.3 Measurement Equipments Used for Conducted Emission

Test Equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due
Test Receiver	Rohde & Schwarz	ESCI	100869	Dec. 28, 2010	Dec. 27, 2011
L.I.S.N	Rohde & Schwarz	ESH3-Z5	101288	Dec. 28, 2010	Dec. 27, 2011



2. 2 Conducted Emission at Mains Terminals, 150 KHz to 30MHz

Test Requirement:	FCC part 15B
Test Method:	FCC part 15B
Test Voltage:	120V AC
Frequency Range:	150 KHz to 30MHz
Detector:	QP and Ave Quasi-Peak and Average at frequency with maximum peak (9 kHz resolution bandwidth)
Class / Limit:	Class B

Frequency range MHz	Class B Limits dB (μ V)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50

NOTE 1 :The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

NOTE 2: The lower limit is applicable at the transition frequency.



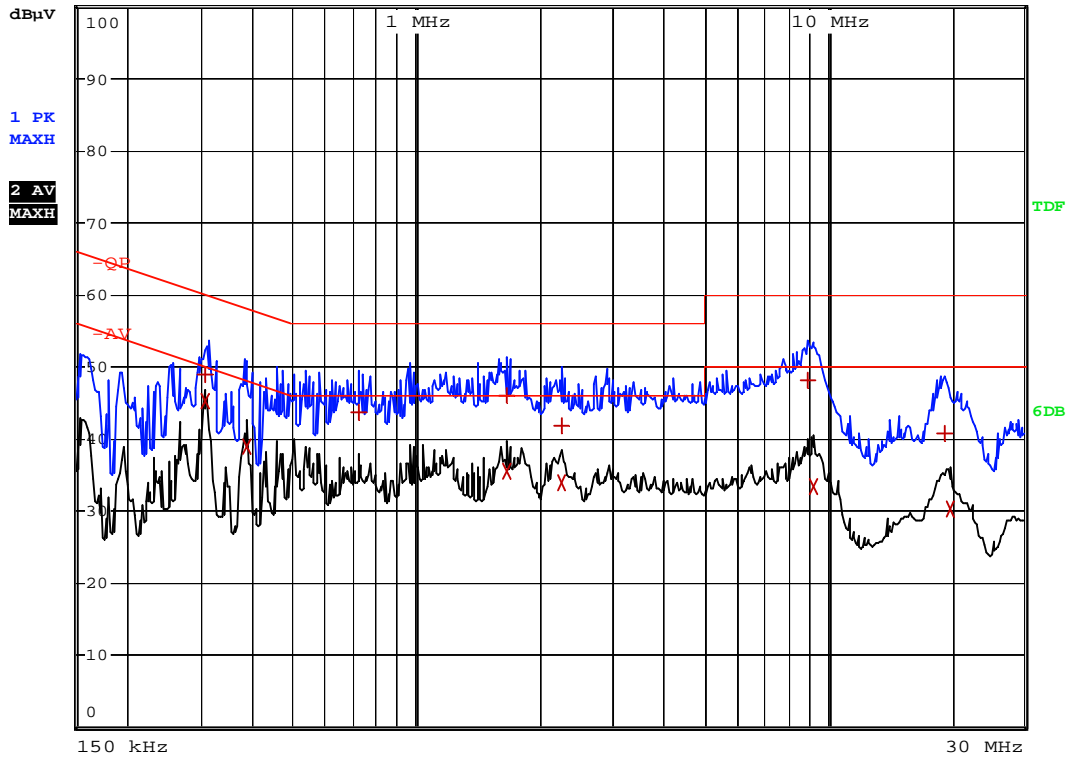
2.1.4 Test Data

Live Line:
Level (dB μ V)



REBW 9 kHz
MT 5 s

Att 10 dB AUTO



Quasi-peak and Average measurement

EDIT PEAK LIST (Final Measurement Results)			
TRACE	FREQUENCY	LEVEL dB μ V	DELTA LIMIT dB
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
2 Average	306 kHz	45.17	-4.90
1 Quasi Peak	310 kHz	48.99	-10.97
2 Average	386 kHz	39.07	-9.07
1 Quasi Peak	722 kHz	43.79	-12.20
1 Quasi Peak	1.65 MHz	46.13	-9.86
2 Average	1.65 MHz	35.47	-10.52
1 Quasi Peak	2.266 MHz	41.91	-14.09
2 Average	2.266 MHz	33.94	-12.05
1 Quasi Peak	8.958 MHz	48.12	-11.87
2 Average	9.266 MHz	33.47	-16.52
1 Quasi Peak	19.178 MHz	40.92	-19.07
2 Average	19.85 MHz	30.27	-19.73



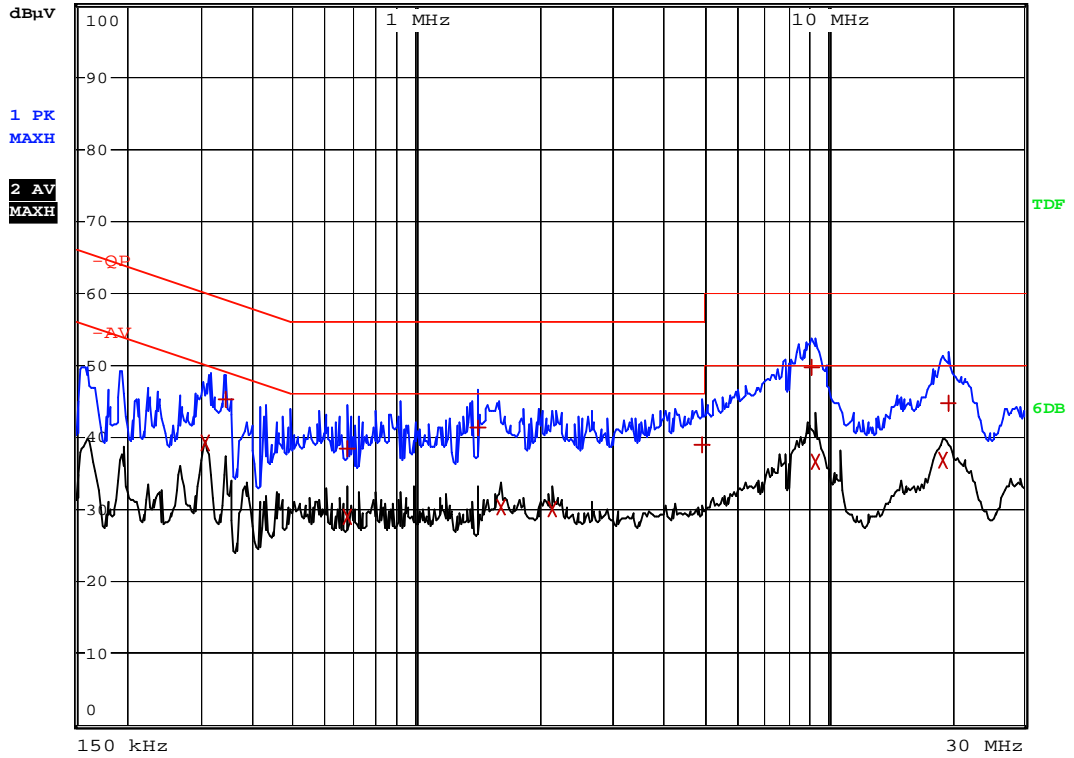
Neutral Line:

Level (dB μ V)



RBW 9 kHz
MT 5 s

Att 10 dB AUTO

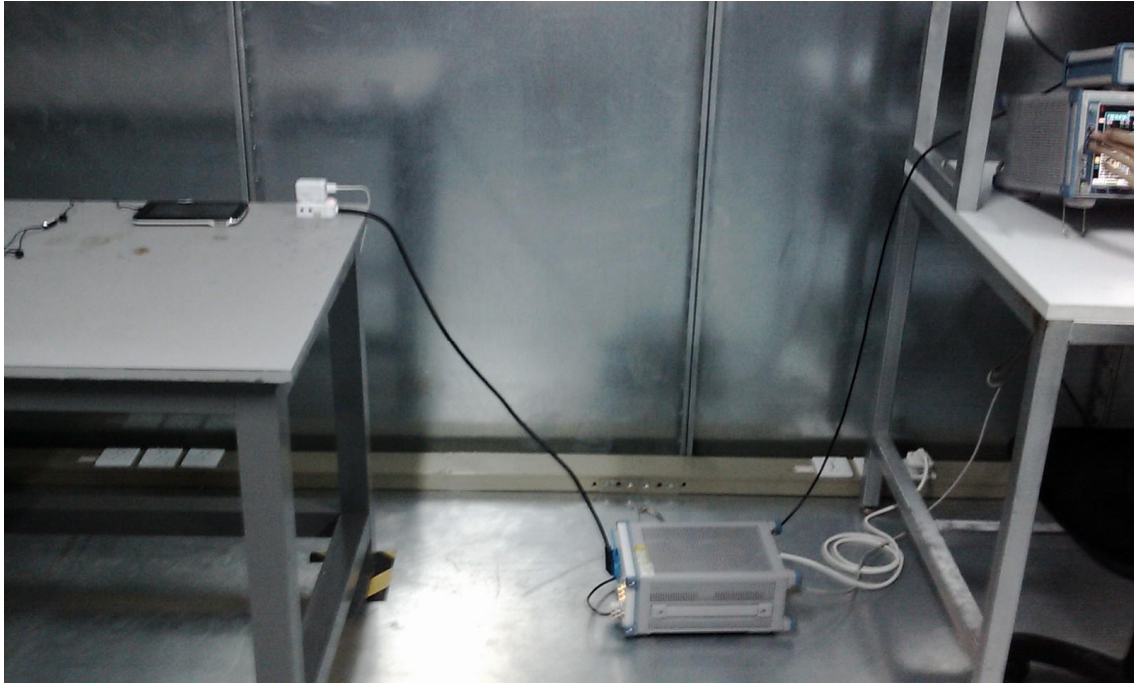


Quasi-peak and Average measurement

EDIT PEAK LIST (Final Measurement Results)			
Trace1:	-QP		
Trace2:	-AV		
Trace3:	---		
TRACE	FREQUENCY	LEVEL dB μ V	DELTA LIMIT dB
2 Average	306 kHz	39.25	-10.82
1 Quasi Peak	342 kHz	45.26	-13.88
1 Quasi Peak	682 kHz	38.33	-17.66
2 Average	682 kHz	29.09	-16.90
1 Quasi Peak	1.41 MHz	41.35	-14.64
2 Average	1.602 MHz	30.24	-15.75
2 Average	2.134 MHz	30.18	-15.81
1 Quasi Peak	4.922 MHz	38.93	-17.06
1 Quasi Peak	9.154 MHz	49.65	-10.34
2 Average	9.302 MHz	36.73	-13.27
2 Average	19.022 MHz	36.92	-13.07
1 Quasi Peak	19.674 MHz	44.77	-15.22



2.1.5 Test Setup



Conducted emission Test Set-up Front View

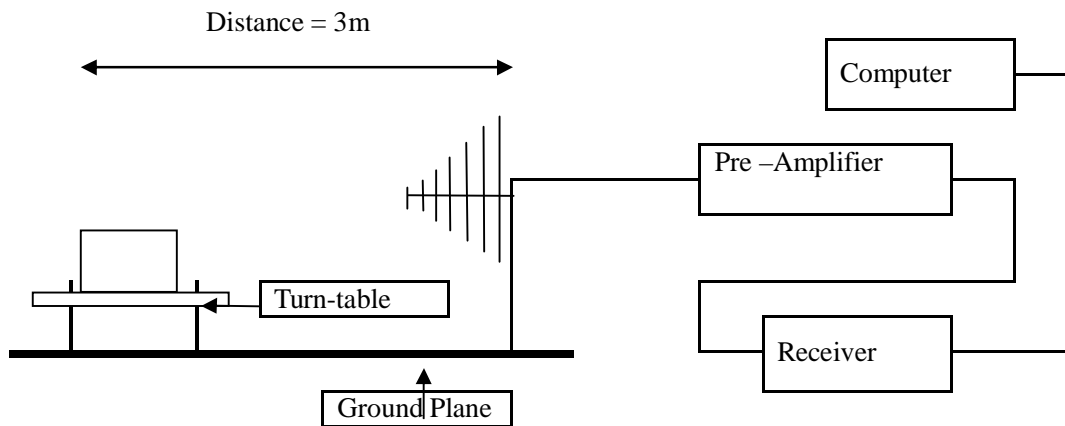


2.2 Radiated Emission (0.009-1000MHz)

2.2.1 Radiated Emission Test Information

Temperature:	23°C	Humidity:	60% RH
ATM Pressure:	103 k Pa	Grounding:	/
Test Voltage:	120VAC / 60Hz	Tested Range:	30MHz to 1000MHz
Tested by:	Jack Lee	Date of test:	2011-08-21
Test Reference:	FCC 15.207 & ANSI C63.4-2003		
Results:	PASS		

2.2.2 Radiated Emission Test Setup Block Diagram



2.2.3 Measurement Equipments Used for Radiated emission

Test Equipment	Manufacturer	Model	Serial No.	Last Cal.	Cal. Due
Horn Antenna	SCHWARZBECK	VULB9418	9418-763	Dec. 28, 2010	Dec. 27, 2011
Trilog Broadband Antenna	SCHWARZBECK	VULB 9163	9613-470	Dec. 28, 2010	Dec. 27, 2011
Universal Radio Communication Tester	Rohde & Schwarz	CMU200	112065	Dec. 28, 2010	Dec. 27, 2011
Signal Generator	Rohde & Schwarz	SMR20	100158	Dec. 28, 2010	Dec. 27, 2011
Amplifier	MITEQ	AFS44-0012	858687	Dec. 28, 2010	Dec. 27, 2011
Test Receiver	Advantest	R3182	14060028	Dec. 28, 2010	Dec. 27, 2011
Spectrum Analyzer	Agilent	E4403	US4192834	Dec. 28, 2010	Dec. 27, 2011



2.2 Radiated Emissions, 30MHz to 1GHz

Test Requirement:	FCC part15B and Section 15.209
Test Method:	FCC part 15B
Test Voltage:	120V AC
Test Date:	2011.08.21
Frequency Range:	30MHz to 1GHz
Measurement Distance	3m
Detector:	Peak for pre-scan Quasi-Peak if maximised peak within 6dB of limit (120 kHz resolution bandwidth)
Class / Limit:	Class B

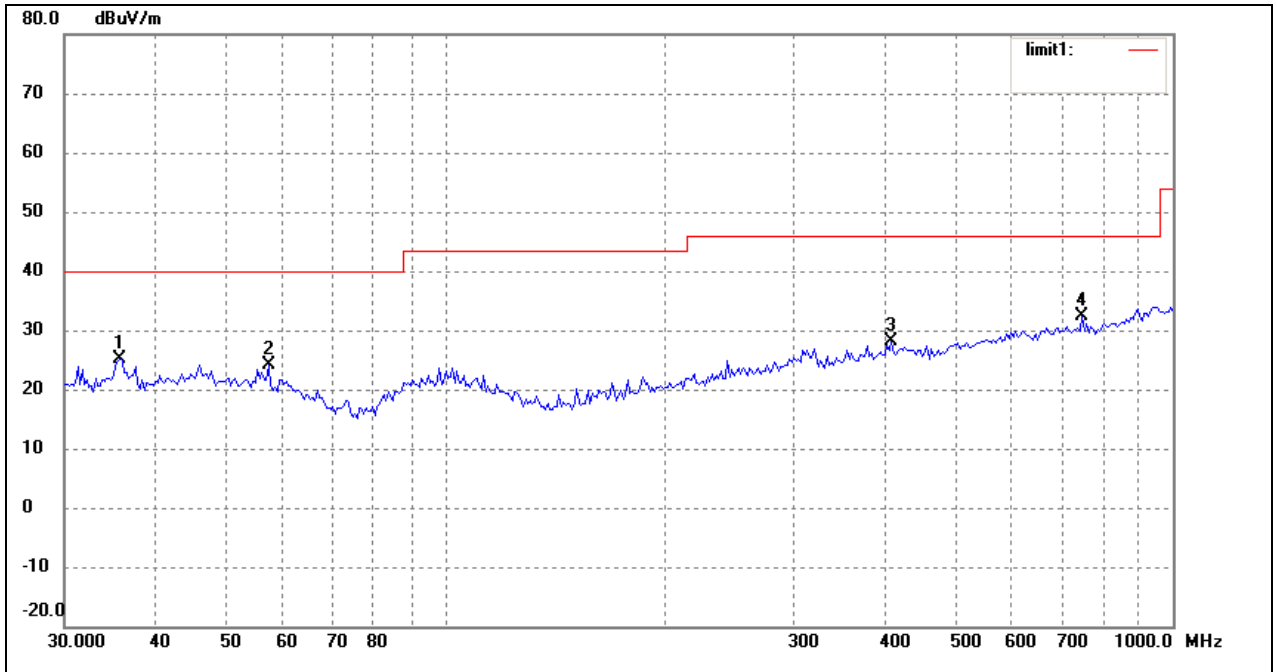
Frequency range MHz	Quasi-peak limits dB (μ V/m)
0.009 to 0.490	88 to 54
0.490 to 1.705	1000 to 301
1.705 to 30	50
30 to 88	40
88 to 216	43.5
216 to 960	46
960 to 1000	54

At transitional frequencies the lower limit applies



2.2.4 Test Data

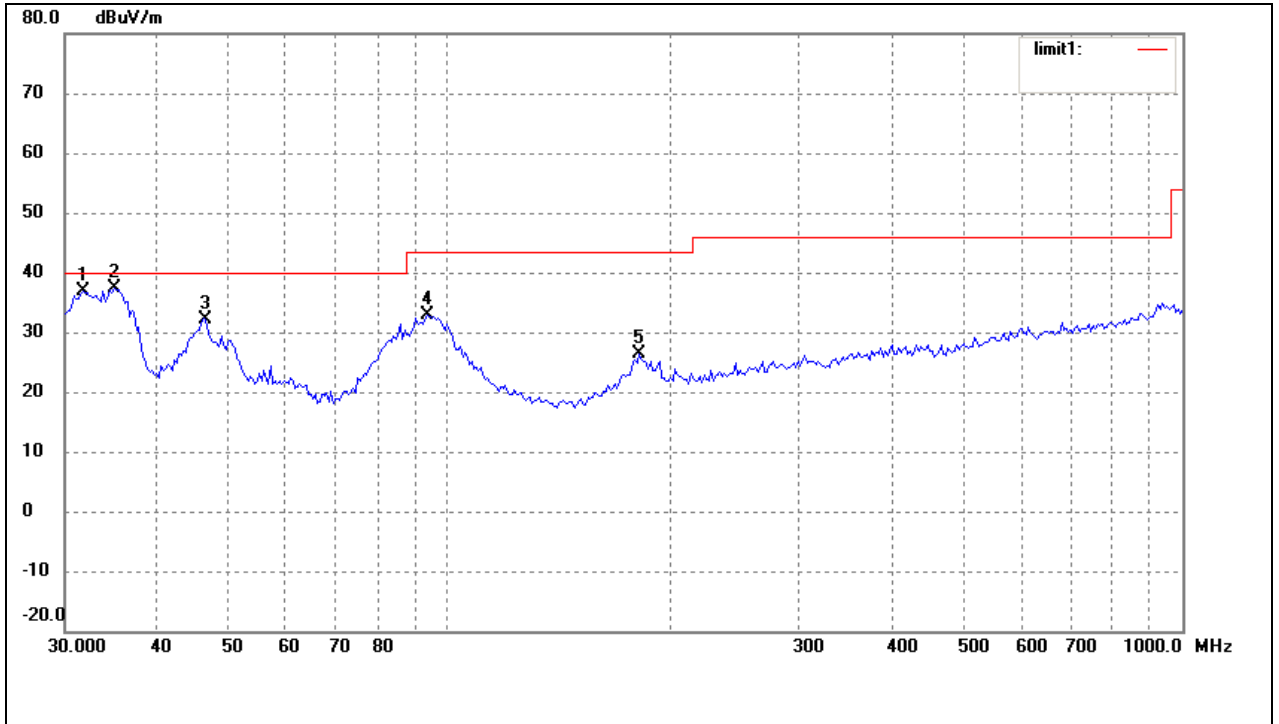
Horizontal:
Peak scan



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	35.7490	18.19	6.98	25.17	40.00	-14.83	12	100	Peak
2	57.1914	16.55	7.66	24.21	40.00	-15.79	212	100	Peak
3	410.3825	16.69	11.38	28.07	46.00	-17.93	360	100	Peak
4	750.1083	17.30	15.01	32.31	46.00	-13.69	0	100	Peak



Vertical:
Peak scan



No.	Frequency (MHz)	Reading (dBuV/m)	Correct Factor(dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (°)	Height (cm)	Remark
1	31.7313	30.16	6.77	36.93	40.00	-3.07	125	100	QP
2	35.0048	30.61	6.77	37.38	40.00	-2.62	54	100	QP
3	46.6664	23.92	8.14	32.06	40.00	-7.94	231	100	Peak
4	93.4402	25.23	7.75	32.98	43.50	-10.52	2	100	Peak



2.2.5 Test Setup



Radiated emission Test Set-up Front View

END OF THE TEST REPORT