Lab Code: 200707-0

FCC PART 15.249
EMI MEASUREMENT AND TEST REPORT

For

XIAMEN YEALINK NETWORK TECHNOLOGY CO., LTD.

7/F HuaLian Electronic BLDG., No.580 JiaHe Road, XiaMen, China

FCC ID: T2CUSBW0001

June 8, 2006

This Report Concerns:	**Equipment Type:**
☒ Original Report	USB Wireless Phone

Test Engineer:	Deny Xiong Merry Zhao
Report No.:	RSZ06022001
Test Date:	February 24-June 7, 2005
Reviewed By:	Boni Baniqued
Prepared By:	Bay Area Compliance Lab Corp. (ShenZhen) 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone, ShenZhen, Guangdong 518038, P.R.China Tel: +86-755-33320018 Fax: +86-755-33320008

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GENERAL INFORMATION

Product Description for Equipment Under Test (EUT)

The XIAMEN YEALINK NETWORK TECHNOLOGY CO., LTD.'s product, model number: USB-W1D or the "EUT" as referred to in this report is a USB Wireless Phone, the EUT was composed of two parts, one is a Handset which measures approximately 14.0cmL x 4.2cmW x 2.0cmH, and the other is a Base which measures approximately 14.5cmL x 12.0cm W x 5.0cmH, rated input voltage: DC5V (USB Supply).

** The test data gathered are from production sample, serial number: YEALINK-0001 provided by the manufacturer, we received EUT on 2006-2-20.*

Objective

This Type approval report is prepared on behalf of *XIAMEN YEALINK NETWORK TECHNOLOGY CO., LTD.* in accordance with Part 2, Subpart J, and Part 15, Subparts A, B and C of the Federal Communication Commissions rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, and section 15.203,15.205,15.207,15.209 and 15.249 rules.

Related Submittal(s)/Grant(s)

No Related Submittals.

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

All radiated and conducted emissions measurement was performed at Bay Area Compliance Lab Corp. (ShenZhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Test Facility

The Test site used by Bay Area Compliance Lab Corp. (ShenZhen) to collect radiated and conducted emission measurement data is located in the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone, ShenZhen, Guangdong 518038, P.R.China.

Test site at Bay Area Compliance Lab Corp. (ShenZhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on November 04, 2004. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, Bay Area Compliance Lab Corp. (ShenZhen) is a National Institute of Standards and Technology (NIST) accredited laboratory, under the National Voluntary Laboratory Accredited Program (Lab Code 200707-0). The current scope of accreditations can be found at http://ts.nist.gov/ts/htdocs/210/214/scopes/2007070.htm

Host System Configuration List and Details

Manufacturer	Description	Model	Serial Number	FCC ID
Intel	Motherboard	D865GKD	11S19R1949ZJ1WCB46J1J4	DoC
IBM	Power	HIPRO-A2307F3T	11S49P2191ZJ1TAR47D1PG	DoC
IBM	Hard Disk	IC35L090AW207-0	VNVC32G3GGS52T	DoC
ALPS	3.5' Floppy	06P5226	11S06P5226ZJ1W25328053	DoC
Hitachi-LG	DVD-Rom	LTN-489S	B4F511412	DoC
Intel	Ethernet	PRO 10/100 VE	N/A	DoC

Local Support Equipment List and Details

Manufacturer	Description	Model	Serial Number	FCC ID
IBM	PC	ThinkCentre A50	99Y5681	DoC
Logitech	Keyboard	Y-SM48	SY513U68933	DoC
Logitech	Mouse	M-SAW83A	HCA31707689	DoC
IBM	CRT Monitor	6737-66W	23-P3242	BEJT17HD
ProMOS	Memory	V826616J24SATG-C0	BD070964H	DoC
Intel	CPU	Pentium4 2800MHz	N/A	DoC
HP	Laser Jet5L	C3941A	JPTVOB2337	DoC
SAST	Modem	AEM-2100	293	DoC

External I/O Cable

Cable Description	Length (M)	From/Port	To
Shielded Detachable Keyboard Cable	1.5	Keyboard Port / Host	Keyboard
Shielded Detachable Mouse Cable	1.5	PS/2 Port / Host	Mouse
Shielded Detachable Printer Cable	1.2	Parallel Port / Host	Printer
Shielded Detachable Serial Cable	1.2	Serial Port / Host	Modem
Shielded Detachable VGA Cable	1.5	VGA Port / Host	Monitor
USB Cable	1.75	EUT	PC

SYSTEM TEST CONFIGURATION

Justification

The system was configured for testing in a typical fashion (as normally used by a typical user).

EUT Exercise Software

N/A

Special Accessories

The special accessories were provided by Bay Area Compliance Lab Corp. (ShenZhen).

Block Diagram/Schematics

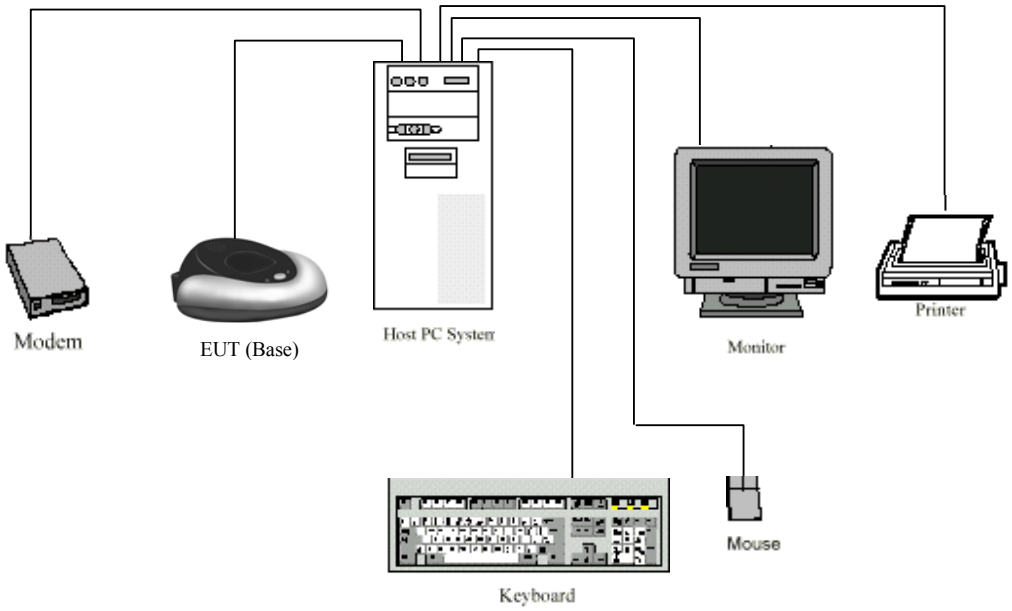
Please refer to the tech.

Equipment Modifications

Bay Area Compliance Lab Corp. (ShenZhen) has not done any modification on the EUT.

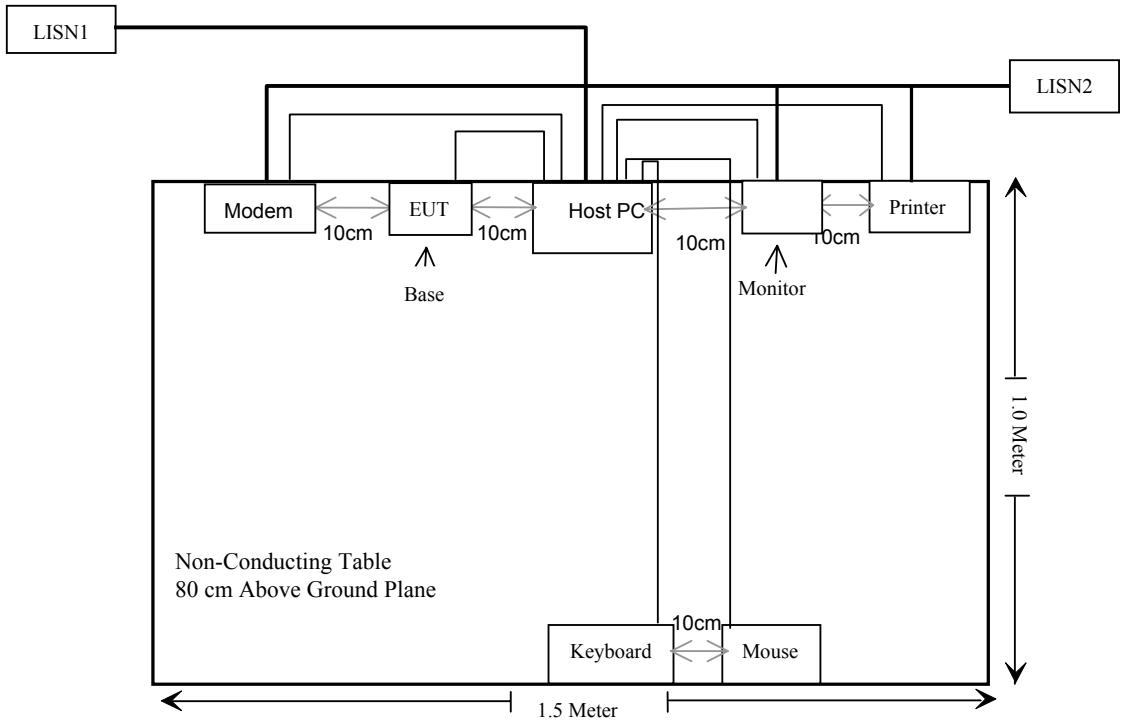
Configuration of Test Setup

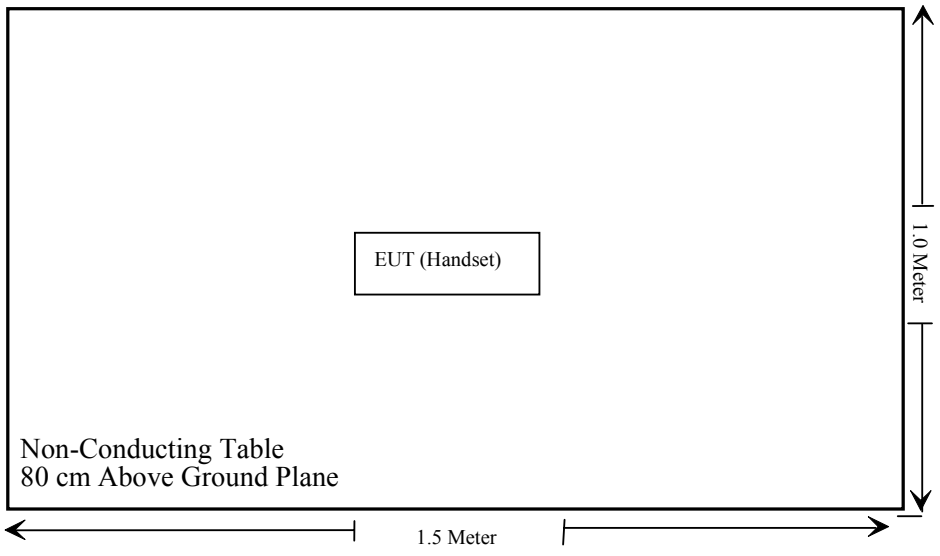
Test Mode: Transmitting



EUT (Handset)

Block Diagram of Test Setup





SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.203	Antenna Requirement	Compliant
§15.205	Restricted Bands of Operation	Compliant
§15.207(a)	Conduction Emission	Compliant
§15.209(a), §15.249(a), §15.249(c)	Radiated Emission	Compliant*
§15.249(d)	Out of band emission	Compliant

* Within the measurement uncertainty

§15.203 - ANTENNA REQUIREMENT

Standard Applicable

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

This product has a permanent antenna, fulfill the requirement of this section.

Test Result: Pass

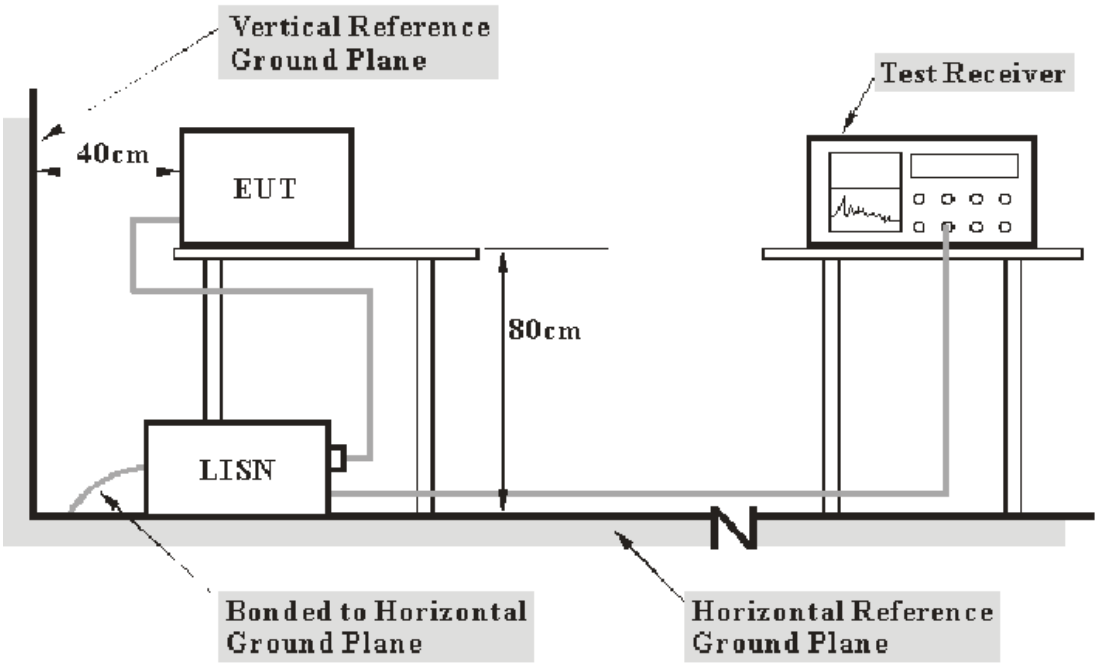
§15.207 - CONDUCTED EMISSION

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement at Bay Area Compliance Lab Corp. (ShenZhen) is ±2.4 dB.

EUT Setup



Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.4-2003 measurement procedure. The specification used was with the FCC Part 15 .207 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

The host PC was connected to a 120 VAC/60 Hz power source.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	***IFBW***
150 kHz – 30 MHz	9 kHz

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Com-Power	L.I.S.N.	LI-200	12005	N/A	N/A
Com-Power	L.I.S.N.	LI-200	12008	N/A	N/A
Rohde & Schwarz	EMI Test Receiver	ESCI	100028	2005-8-17	2006-8-17
Rohde & Schwarz	L.I.S.N.	ESH2-Z5	892107/021	2005-2-28	2006-2-28

***** Com-Power's LISN were used as the supporting equipment.
*** Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

During the conducted emission test, the host PC power system cord was connected to LISN.

Maximizing procedure were performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 15.207, with the worst margin reading of:

-10.75 dB at **4.982 MHz** in the **Neutral** conductor mode.

Test Data

Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	65%
ATM Pressure:	1000mbar

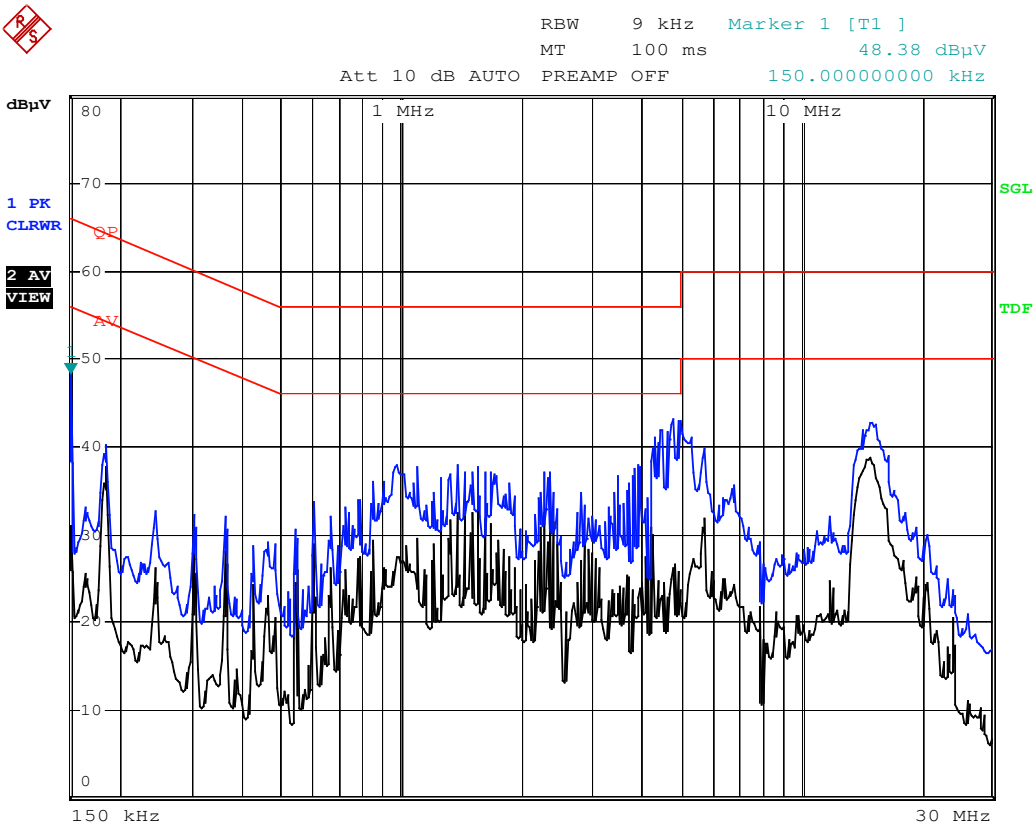
The testing was performed by Merry Zhao on 2006-2-24.

Test mode: Running

LINE CONDUCTED EMISSIONS				FCC PART 15 .207	
Frequency MHz	Amplitude dBµV	Detector QP/AV	Phase Line/Neutral	Limit dBµV	Margin dB
4.982	45.3	QP	Neutral	56.00	-10.75
15.126	39.1	AV	Neutral	50.00	-10.87
15.010	38.7	AV	Live	50.00	-11.27
4.802	43.1	QP	Live	56.00	-12.88
2.282	32.7	AV	Neutral	46.00	-13.33
2.342	32.5	AV	Live	46.00	-13.47
0.182	40.3	QP	Live	56.00	-15.69
0.150	48.4	QP	Live	64.39	-16.01
15.126	43.7	QP	Neutral	60.00	-16.32
15.010	42.8	QP	Live	60.00	-17.25
0.966	38.5	QP	Neutral	56.00	-17.52
0.970	37.9	QP	Live	56.00	-18.12
1.868	37.7	QP	Neutral	56.00	-18.31
2.342	37.0	QP	Live	56.00	-19.02
2.282	36.8	QP	Neutral	56.00	-19.20
4.802	26.7	AV	Live	46.00	-19.33
4.982	24.7	AV	Neutral	46.00	-21.26
0.182	37.8	AV	Live	64.39	-26.64
1.868	28.3	AV	Neutral	56.00	-27.71
0.970	27.3	AV	Live	56.00	-28.69
0.182	34.0	QP	Neutral	64.39	-30.37
0.150	31.0	AV	Live	66.00	-35.00
0.966	27.5	AV	Neutral	64.39	-36.90
0.182	26.8	AV	Neutral	66.00	-39.17

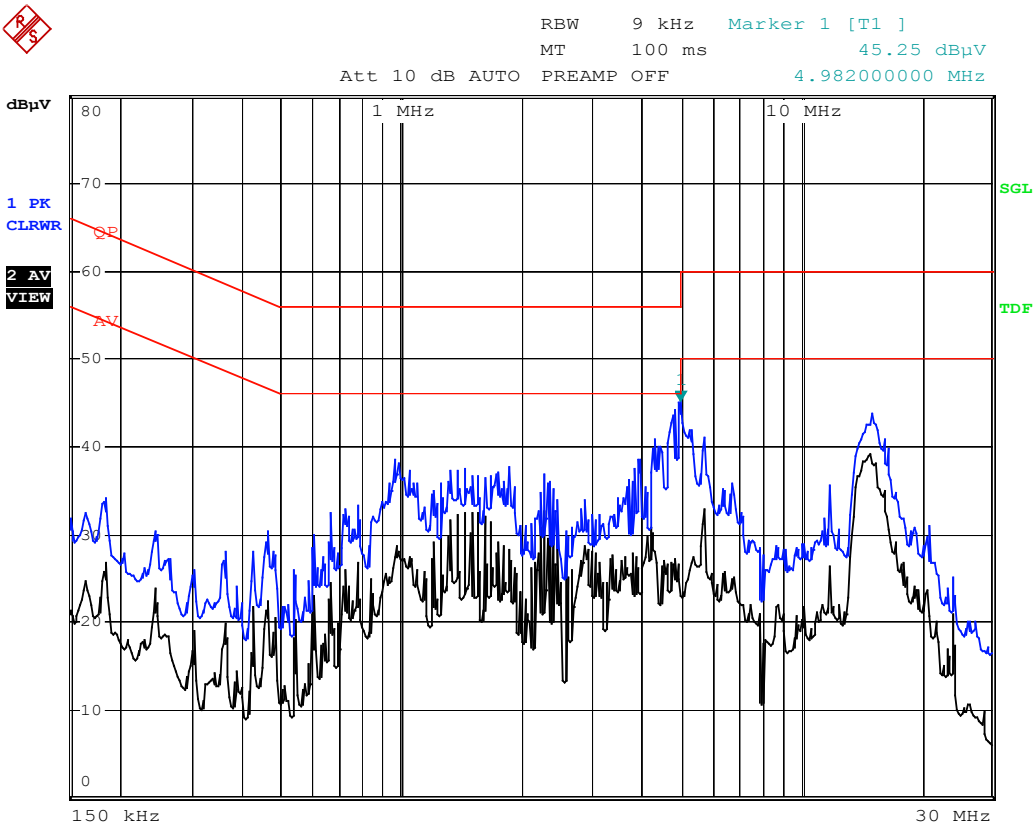
Plot(s) of Test Data

Plot(s) of Test Data is presented hereinafter as reference.



YEALINK USB wirelessPhone USB-W1D running -Live

Date: 24.FEB.2006 18:40:20



YEALINK USB wirelessPhone USB-W1D running -Neutral

Date: 24.FEB.2006 18:31:11

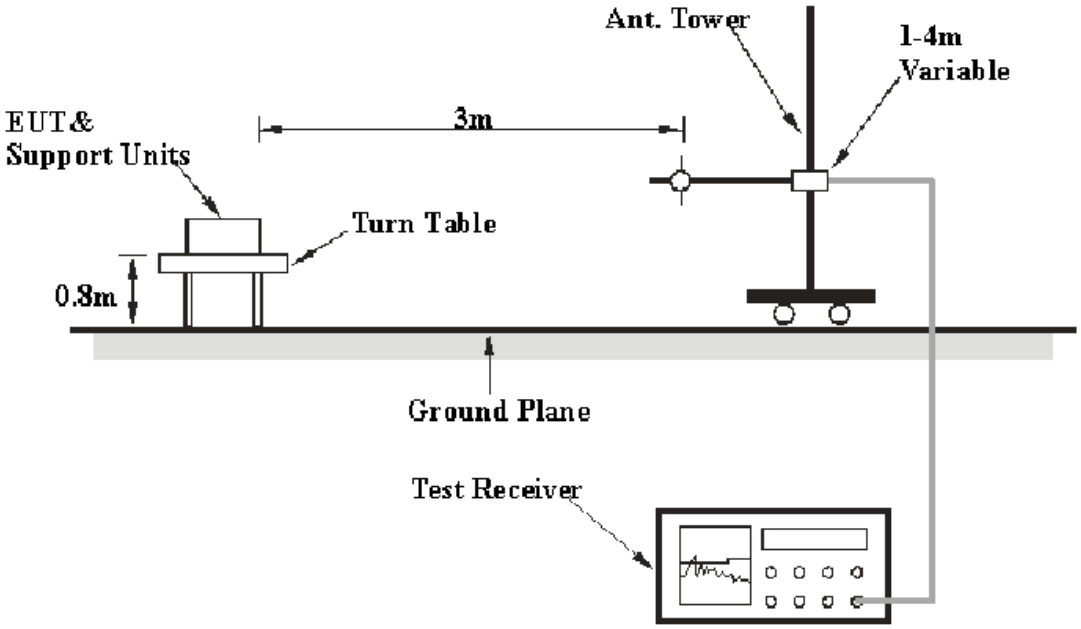
§15.205 §15.209(a) §15.249(a) - RADIATED EMISSION

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement at Bay Area Compliance Lab Corp. (ShenZhen) is ±4.0 dB.

EUT Setup



The radiated emission tests were performed in the 3-meter Chamber B, using the setup accordance with the ANSI C63.4-2003. The specification used was the FCC 15.209 and FCC 15.249 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

The host PC was connected to a 120 VAC/60 Hz power source.

EMI Test Receiver Setup

The system was investigated from 30 MHz to 25 GHz.

During the radiated emission test, the EMI test receiver was set with the following configurations:

Frequency Range	***RBW***	***Video B/W***
30 – 1000 MHz	100 kHz	300 kHz
1000 MHz – 25000 MHz	1MHz	3 MHz

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	Spectrum Analyzer	8564E	3943A01781	2005-12-8	2006-12-8
Com-Power	Dipole Antenna	AD-100	041000	N/A	N/A
HP	Amplifier	8447D	2994A09795	2005-8-17	2006-8-17
HP	Amplifier	8449B	3008A00277	2005-8-17	2006-8-17
Rohde & Schwarz	EMI Test Receiver	ESCI	100028	2005-8-17	2006-8-17
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2006-4-28	2007-4-28
Sunol Sciences	Horn Antenna	DRH-118	A052604	2005-7-20	2006-7-20
Sunol Sciences	Horn Antenna	SAS-200/571	135	2006-4-28	2007-4-28

*** Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

For the radiated emissions test, the host PC power cords were connected to the AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

All data was recorded in the Quasi-peak detection mode.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Loss and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corr. Ampl. = Meter Reading + Antenna Loss + Cable Loss - Amplifier Gain

The "**Margin**" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Corr. Ampl. – Standard Limit

Test Results Summary

According to the data in the following table, the EUT complied with the FCC Part 15.249, with the worst margin reading of:

Base:

-4.33 dB at **32.18 MHz** in the **Vertical** polarization, 30 -1000MHz
-10.06 dB at **7206.6 MHz** in the **Vertical** polarization, 1-25 GHz, Low channel.
-9.06 dB at **7323.6 MHz** in the **Vertical** polarization, 1-25 GHz, Middle channel
-10.36 dB at **7440.6 MHz** in the **Vertical** polarization, 1-25 GHz, High channel

Handset:

-3.80 dB at **32.18 MHz** in the **Vertical** polarization, 30 -1000MHz
-8.59 dB at **9608.8 MHz** in the **Vertical** polarization, 1-25 GHz, Low channel
-5.29 dB at **4880.4 MHz** in the **Horizontal** polarization1-25 GHz, Middle channel
-9.04 dB at **9920.8 MHz** in the **Vertical** polarization 1-25 GHz, High channel

Test Data

Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	53%
ATM Pressure:	1000mbar

The testing was performed by Deny Xiong on 2006-5-13.

Test mode: Transmitting

Base:

Frequency	Meter Reading	Detector	Direction	Height	Polar	Antenna Loss	Cable loss	Amplifer Gain	Corr. Ampl.	FCC Part 15.209	
MHz	dBuV/m	PK/QP/AV	Degree	Meter	H / V	dB	dB	dB	dBuV/m	Limit dBuV/m	Margin dB
32.18	38.22	QP	45	1.0	V	24.10	0.37	27.02	35.67	40.00	-4.33
47.99	51.05	PK	60	1.2	V	10.80	0.44	27.01	35.28	40.00	-4.72
32.29	34.98	PK	289	1.0	H	24.10	0.37	27.02	32.43	40.00	-7.57
134.55	45.05	PK	60	1.0	H	14.50	1.78	27.00	34.33	43.50	-9.17
432.54	41.44	PK	45	1.0	H	16.80	3.12	27.36	34.00	46.00	-12.00
670.49	37.08	PK	90	1.2	V	20.60	3.21	27.08	33.81	46.00	-12.19
47.99	43.12	PK	289	1.0	H	10.80	0.44	27.01	27.35	40.00	-12.65
134.56	40.58	PK	35	3.8	V	14.50	1.78	27.00	29.86	43.50	-13.64
432.55	37.88	PK	45	1.2	V	16.80	3.12	27.36	30.44	46.00	-15.56
239.98	40.67	PK	45	1.2	H	11.90	2.33	26.44	28.46	46.00	-17.54
287.99	38.31	PK	180	1.2	H	13.80	2.60	26.34	28.37	46.00	-17.63
191.74	36.50	PK	35	3.8	V	11.80	1.86	26.62	23.54	43.50	-19.96

Frequency	Meter Reading	Detector	Direction	Height	Polar	Antenna Loss	Cable loss	Amplifer Gain	Corr. Ampl.	FCC Part 15.249		
MHz	dBuV/m	PK/QP/AV	Degree	Meter	H / V	dB	dB	dB	dBuV/m	Limit dBuV/m	Margin dB	Commend
1GHz-25GHz (Low Channel)												
7206.6	37.33	AV	90	1.2	V	35.8	4.51	33.7	43.94	54	-10.06	Harmonic
4804.3	58.5	PK	250	1.0	V	33.8	4.64	33.4	63.54	74	-10.46	Harmonic
7206.6	36.7	AV	261	1.0	H	35.8	4.51	33.7	43.31	54	-10.69	Harmonic
4804.3	35.83	AV	180	1.6	V	33.8	4.64	33.4	40.87	54	-13.13	Harmonic
4804.3	35.82	AV	270	1.6	H	33.8	4.64	33.4	40.86	54	-13.14	Harmonic
7206.6	53.5	PK	180	1.0	V	35.8	4.51	33.7	60.11	74	-13.89	Harmonic
4804.3	54.67	PK	49	1.2	H	33.8	4.64	33.4	59.71	74	-14.29	Harmonic
7206.6	50.83	PK	180	1.3	H	35.8	4.51	33.7	57.44	74	-16.56	Harmonic
2402.2	99.5	PK	18	1.6	V	28.1	3.61	35	96.21	114	-17.79	Fundamental
2402.2	95.33	PK	20	1.2	H	28.1	3.61	35	92.04	114	-21.96	Fundamental
2402.2	41.33	AV	263	1.4	H	28.1	3.61	35	38.04	94	-55.96	Fundamental
2402.2	41.33	AV	45	1.0	V	28.1	3.61	35	38.04	94	-55.96	Fundamental
1GHz-25GHz (Middle Channel)												
7323.6	38.33	AV	90	1.2	V	35.8	4.51	33.7	44.94	54	-9.06	Harmonic
7323.6	37.5	AV	45	1.0	H	35.8	4.51	33.7	44.11	54	-9.89	Harmonic
4882.4	58.83	PK	45	1.0	V	33.8	4.64	33.4	63.87	74	-10.13	Harmonic
4882.4	36.83	AV	180	1.6	V	33.8	4.64	33.4	41.87	54	-12.13	Harmonic
4882.4	35.96	AV	109	1.2	H	33.8	4.64	33.4	41	54	-13.00	Harmonic
7323.6	54.17	PK	90	1.2	V	35.8	4.51	33.7	60.78	74	-13.22	Harmonic
4882.4	55.17	PK	109	1.2	H	33.8	4.64	33.4	60.21	74	-13.79	Harmonic
7323.6	51.5	PK	180	1.0	H	35.8	4.51	33.7	58.11	74	-15.89	Harmonic
2441.2	100.3	PK	182	1.2	V	28.1	3.61	35	97.01	114	-16.99	Fundamental
2441.2	94.67	PK	197	1.6	H	28.1	3.61	35	91.38	114	-22.62	Fundamental
2441.2	42.0	AV	182	1.2	V	28.1	3.61	35	38.71	94	-55.29	Fundamental
2441.2	41.17	AV	197	1.6	H	28.1	3.61	35	37.88	94	-56.12	Fundamental
1GHz-25GHz (High Channel)												
7440.6	37.33	AV	150	1.2	V	35.5	4.51	33.7	43.64	54	-10.36	Harmonic
7440.6	37.0	AV	240	1.3	H	35.5	4.51	33.7	43.31	54	-10.69	Harmonic
4960.4	57.83	PK	360	1.0	V	32.0	4.64	33.4	61.07	74	-12.93	Harmonic
4960.4	36.17	AV	360	1.6	V	32.0	4.64	33.4	39.41	54	-14.59	Harmonic
4960.4	35.17	AV	19	1.0	H	32.0	4.64	33.4	38.41	54	-15.59	Harmonic
7440.6	51.5	PK	150	1.2	V	35.5	4.51	33.7	57.81	74	-16.19	Harmonic
4960.4	54.33	PK	19	1.0	H	32.0	4.64	33.4	57.57	74	-16.43	Harmonic
2480.2	100.7	PK	238	1.2	V	28.1	3.61	35	97.41	114	-16.59	Fundamental
7440.6	50.83	PK	240	1.3	H	35.5	4.51	33.7	57.14	74	-16.86	Harmonic
2480.2	94.17	PK	157	1.2	H	28.1	3.61	35	90.88	114	-23.12	Fundamental
2480.2	42.07	AV	238	1.2	V	28.1	3.61	35	38.78	94	-55.22	Fundamental
2480.2	40.83	AV	157	1.2	H	28.1	3.61	35	37.54	94	-56.46	Fundamental

Handset:

Frequency	Meter Reading	Detector	Direction	Height	Polar	Antenna Loss	Cable loss	Amplifer Gain	Corr. Ampl.	FCC Part 15.209	
MHz	dBuV/m	PK/QP/AV	Degree	Meter	H / V	dB	dB	dB	dBuV/m	Limit dBuV/m	Margin dB
32.18	38.75	PK	45	1.0	V	24.10	0.37	27.02	36.20	40.00	-3.80*
945.43	39.68	PK	45	1.0	H	23.40	3.86	26.96	39.98	46.00	-6.02
32.06	34.91	PK	289	1.0	H	24.10	0.37	27.02	32.36	40.00	-7.64
64.20	43.72	PK	35	3.8	V	8.10	0.62	26.91	25.53	40.00	-14.47
64.20	41.86	PK	60	1.0	H	8.10	0.62	26.91	23.67	40.00	-16.33
435.58	36.99	PK	90	1.2	V	16.80	3.12	27.36	29.55	46.00	-16.45
535.70	34.76	PK	180	1.2	H	18.60	3.03	27.26	29.13	46.00	-16.87
48.16	36.63	PK	60	1.2	V	10.80	0.44	27.01	20.86	40.00	-19.14
48.16	36.40	PK	289	1.0	H	10.80	0.44	27.01	20.63	40.00	-19.37
128.11	34.53	PK	45	1.2	H	14.40	1.78	26.58	24.13	43.50	-19.37
151.66	34.98	PK	45	1.2	V	13.10	1.66	26.90	22.84	43.50	-20.66
93.11	38.59	PK	35	3.8	V	7.70	0.90	26.75	20.44	43.50	-23.06

Frequency	Meter Reading	Detector	Direction	Height	Polar	Antenna Loss	Cable loss	Amplifer Gain	Corr. Ampl.	FCC Part 15.249		
MHz	dBuV/m	PK/QP/AV	Degree	Meter	H / V	dB	dB	dB	dBuV/m	Limit dBuV/m	Margin dB	Commend
1GHz-25GHz (Low Channel)												
9608.8	36.56	AV	246	1.3	V	37.6	5.35	34.1	45.41	54	-8.59	Harmonic
4804.3	60.33	PK	45	1.0	H	33.8	4.64	33.4	65.37	74	-8.63	Harmonic
9608.8	35.23	AV	142	1.2	H	37.6	5.35	34.1	44.08	54	-9.92	Harmonic
4804.3	58.5	PK	45	1.0	V	33.8	4.64	33.4	63.54	74	-10.46	Harmonic
4804.3	37.83	AV	270	1.6	H	33.8	4.64	33.4	42.87	54	-11.13	Harmonic
4804.3	37.33	AV	180	1.6	V	33.8	4.64	33.4	42.37	54	-11.63	Harmonic
7206.6	32.33	AV	45	1.0	H	35.8	4.51	33.7	38.94	54	-15.06	Harmonic
7208.6	31.50	AV	90	1.2	V	35.8	4.51	33.7	38.11	54	-15.89	Harmonic
9608.8	48.52	PK	246	1.3	V	37.6	5.35	34.1	57.37	74	-16.63	Harmonic
9608.8	47.62	PK	142	1.2	H	37.6	5.35	34.1	56.47	75	-18.53	Harmonic
7206.6	47.33	PK	180	1.0	H	35.8	4.51	33.7	53.94	74	-20.06	Harmonic
7208.6	46.67	PK	90	1.2	V	35.8	4.51	33.7	53.28	74	-20.72	Harmonic
2402.2	85.0	PK	180	1.6	V	28.1	3.61	35	81.71	114	-32.29	Fundamental
2402.2	84.83	PK	270	1.6	H	28.1	3.61	35	81.54	114	-32.46	Fundamental
2402.2	42.17	AV	45	1.2	V	28.1	3.61	35	38.88	94	-55.12	Fundamental
2402.2	41.83	AV	180	1.0	H	28.1	3.61	35	38.54	94	-55.46	Fundamental

Frequency	Meter Reading	Detector	Direction	Height	Polar	Antenna Loss	Cable loss	Amplifer Gain	Corr. Ampl.	FCC Part 15.249		
MHz	dBuV/m	PK/QP/AV	Degree	Meter	H / V	dB	dB	dB	dBuV/m	Limit dBuV/m	Margin dB	Commend
1GHz-25GHz (Middle Channel)												
4880.4	63.67	PK	109	1.2	H	33.8	4.64	33.4	68.71	74	-5.29	Harmonic
4804.3	62.0	PK	45	1.0	V	33.8	4.64	33.4	67.04	74	-6.96	Harmonic
9760.8	36.66	AV	148	1.2	H	37.6	5.77	34.1	45.93	54	-8.07	Harmonic
9760.8	35.83	AV	173	1.5	V	37.6	5.77	34.1	45.1	54	-8.90	Harmonic
7320.6	37.83	AV	90	1.2	V	35.8	4.51	33.7	44.44	54	-9.56	Harmonic
7320.6	37.67	AV	45	1.0	H	35.8	4.51	33.7	44.28	54	-9.72	Harmonic
4880.4	39.17	AV	109	1.2	H	33.8	4.64	33.4	44.21	54	-9.79	Harmonic
4804.3	38.5	AV	180	1.6	V	33.8	4.64	33.4	43.54	54	-10.46	Harmonic
7320.6	52.33	PK	180	1.0	H	35.8	4.51	33.7	58.94	74	-15.06	Harmonic
9760.8	48.0	PK	148	1.2	H	37.6	5.77	34.1	57.27	74	-16.73	Harmonic
7320.6	49.33	PK	90	1.2	V	35.8	4.51	33.7	55.94	74	-18.06	Harmonic
9760.8	47.17	PK	173	1.5	V	37.6	5.77	34.1	56.44	75	-18.56	Harmonic
2402.2	89.67	PK	182	1.2	V	28.1	3.61	35	86.38	114	-27.62	Fundamental
2440.2	88.33	PK	197	1.6	H	28.1	3.61	35	85.04	114	-28.96	Fundamental
2402.2	42.33	AV	182	1.2	V	28.1	3.61	35	39.04	94	-54.96	Fundamental
2440.2	41.83	AV	197	1.6	H	28.1	3.61	35	38.54	94	-55.46	Fundamental
1GHz-25GHz (High Channel)												
9920.8	35.83	AV	152	1.3	V	38.0	5.23	34.1	44.96	54	-9.04	Harmonic
9920.8	35.67	AV	148	1.2	H	38.0	5.23	34.1	44.8	54	-9.20	Harmonic
7440.6	37.32	AV	150	1.2	V	35.5	4.51	33.7	43.63	54	-10.37	Harmonic
7440.6	37.17	AV	240	1.3	H	35.5	4.51	33.7	43.48	54	-10.52	Harmonic
4960.4	60.0	PK	19	1.0	H	32.0	4.64	33.4	63.24	74	-10.76	Harmonic
4960.4	37.57	AV	19	1.0	H	32.0	4.64	33.4	40.81	54	-13.19	Harmonic
4960.4	57.5	PK	360	1.0	V	32.0	4.64	33.4	60.74	74	-13.26	Harmonic
4960.4	36.83	AV	360	1.6	V	32.0	4.64	33.4	40.07	54	-13.93	Harmonic
9920.8	48.5	PK	148	1.2	H	38.0	5.23	34.1	57.63	74	-16.37	Harmonic
7440.6	51.17	PK	150	1.2	V	35.5	4.51	33.7	57.48	74	-16.52	Harmonic
9920.8	49.17	PK	152	1.3	V	38.0	5.23	34.1	58.3	75	-16.70	Harmonic
7440.6	50.0	PK	240	1.3	H	35.5	4.51	33.7	56.31	74	-17.69	Harmonic
2480.2	87.0	PK	238	1.2	V	28.1	3.61	35	83.71	114	-30.29	Fundamental
2480.2	86.17	PK	157	1.2	H	28.1	3.61	35	82.88	114	-31.12	Fundamental
2480.2	42.17	AV	238	1.2	V	28.1	3.61	35	38.88	94	-55.12	Fundamental
2480.2	42.03	AV	157	1.2	H	28.1	3.61	35	38.74	94	-55.26	Fundamental

* Within the measurement uncertainty

§15.249(d) – OUT OF BAND EMISSION

Standard Applicable

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

Test Procedure

With the EUT's antenna attached, the EUT's radiated emission power was received by the test antenna which was connected to the spectrum analyzer with the START and STOP frequencies set to the EUT's operation band.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Agilent	Spectrum analyzer	8564E	3943A01781	2005-12-8	2006-12-8
HP	Amplifier	HP8447E	1937A01046	2005-8-17	2006-8-17
HP	Preamplifier	8449B	3008A00277	2005-8-17	2006-8-17
SUNOL SCIENCES	Horn Antenna	DRH-118	A052604	2005-7-20	2006-7-20

*** Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) Corp. attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	55%
ATM Pressure:	1016mbar

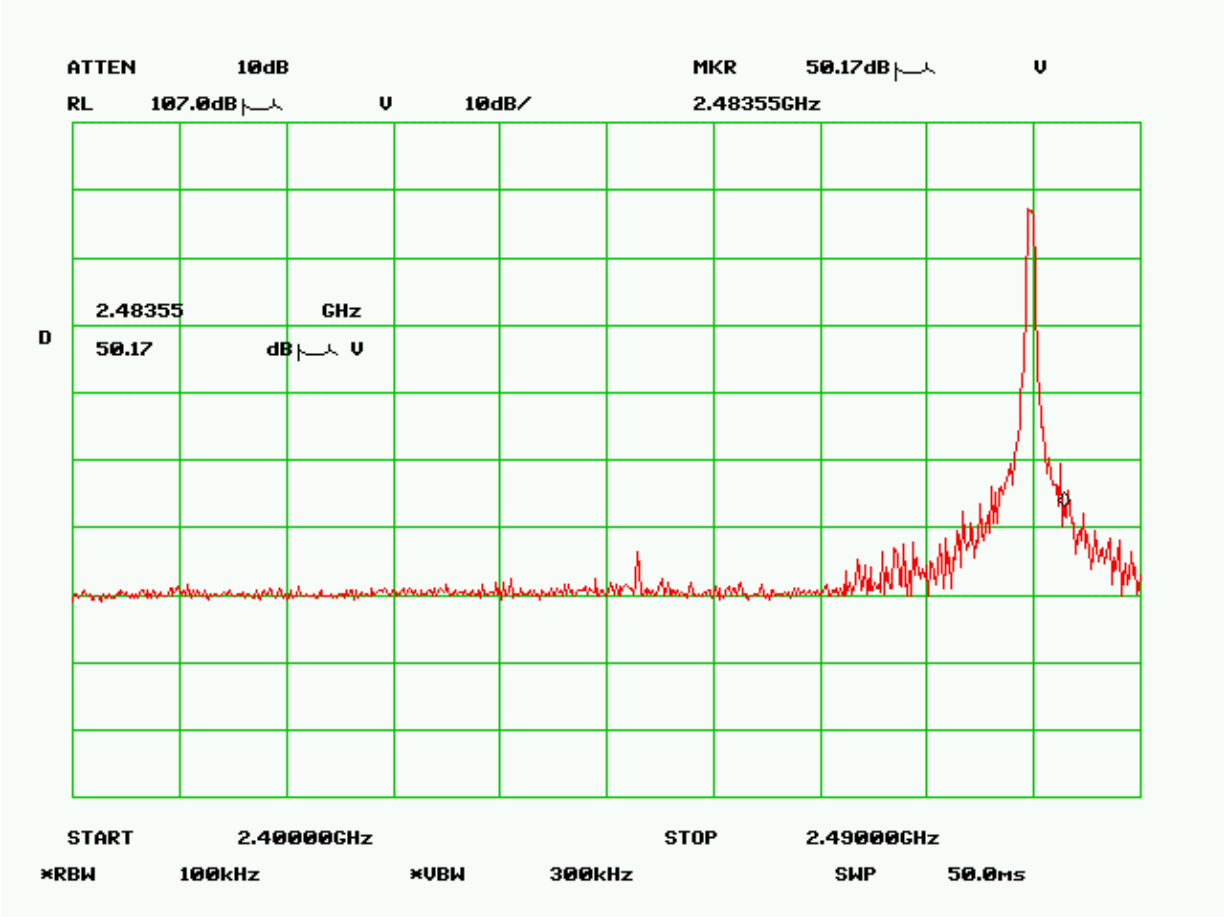
The testing was performed by Merry Zhao on 2006-6-7.

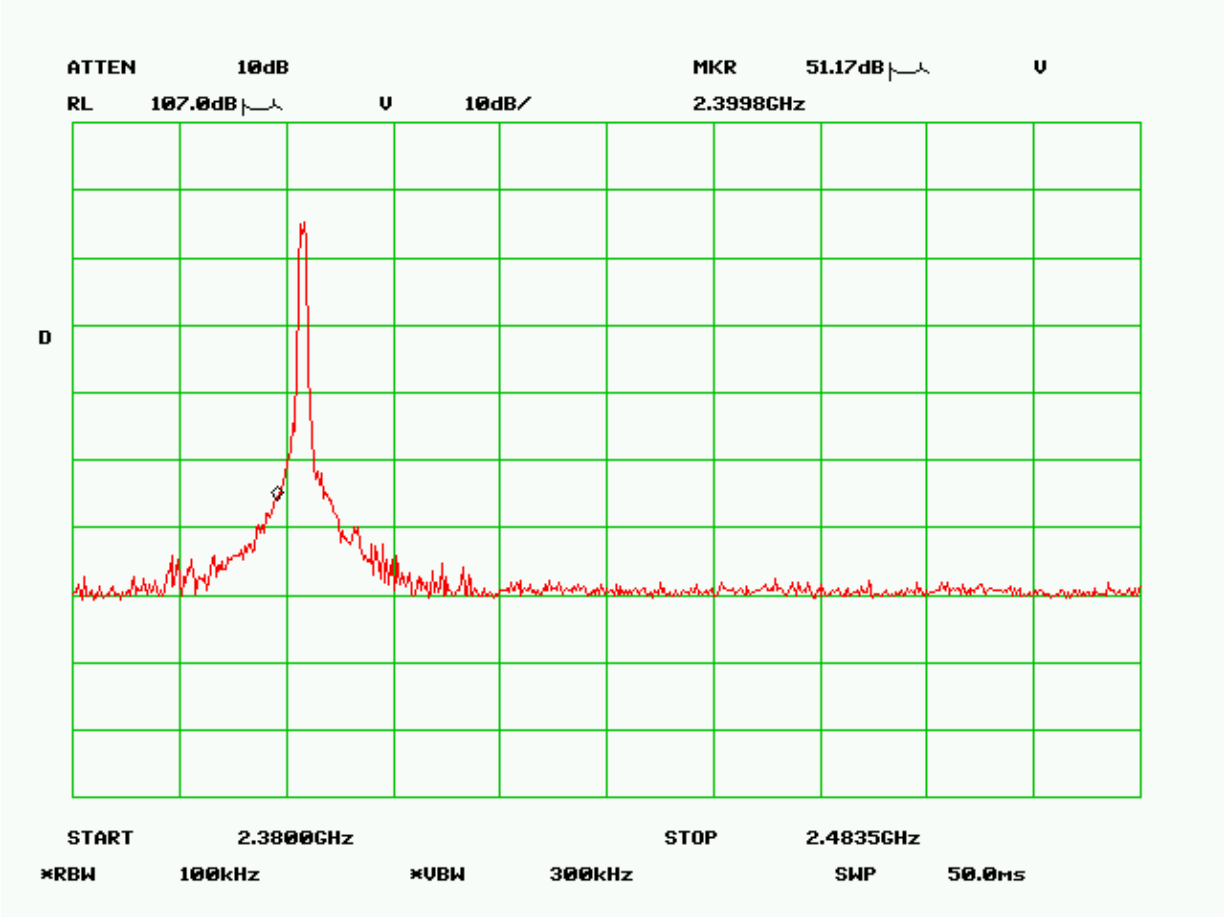
Test mode: Transmitting

Frequency MHz	Emission dBμV	Limit dBμV/m
2483.5	50.17	54
2399.8	51.17	54

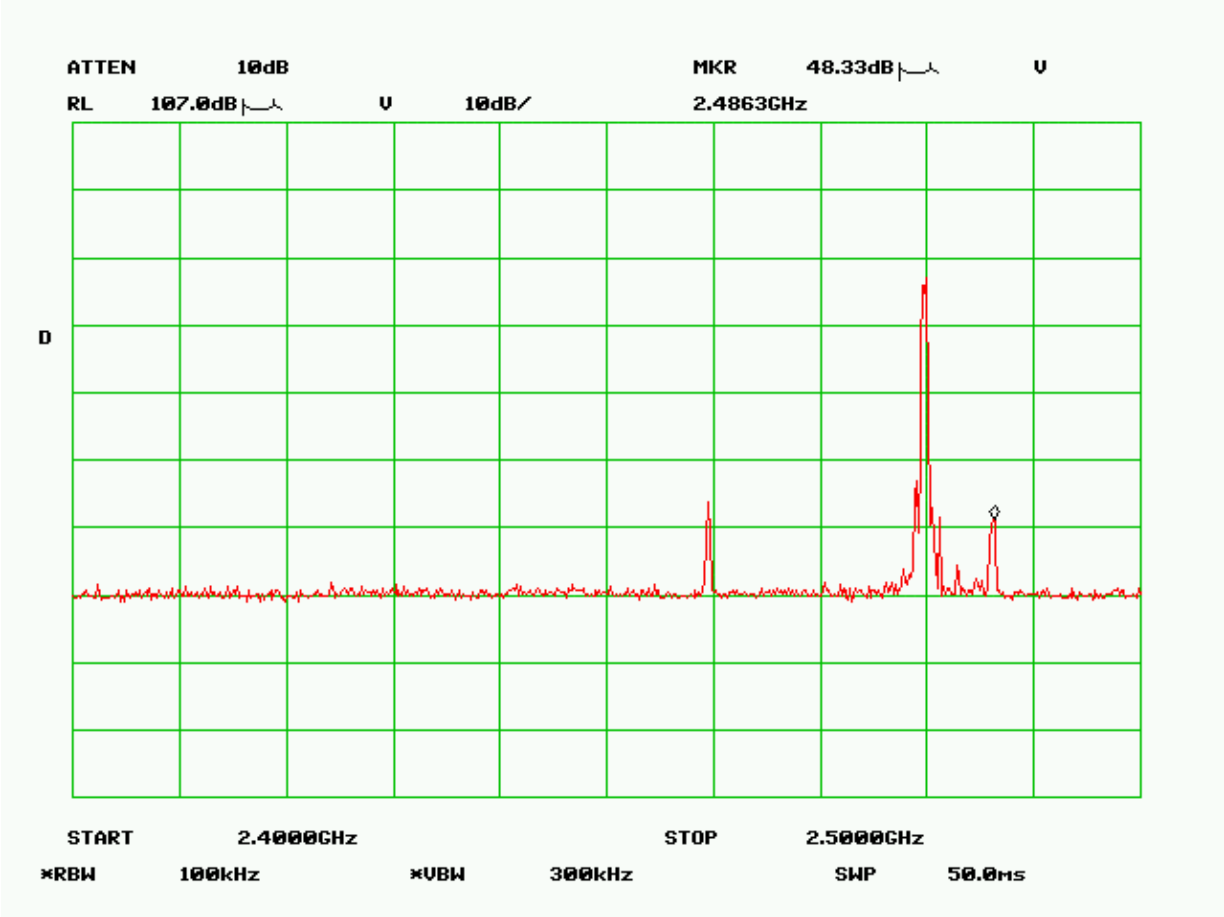
Test Result: Pass

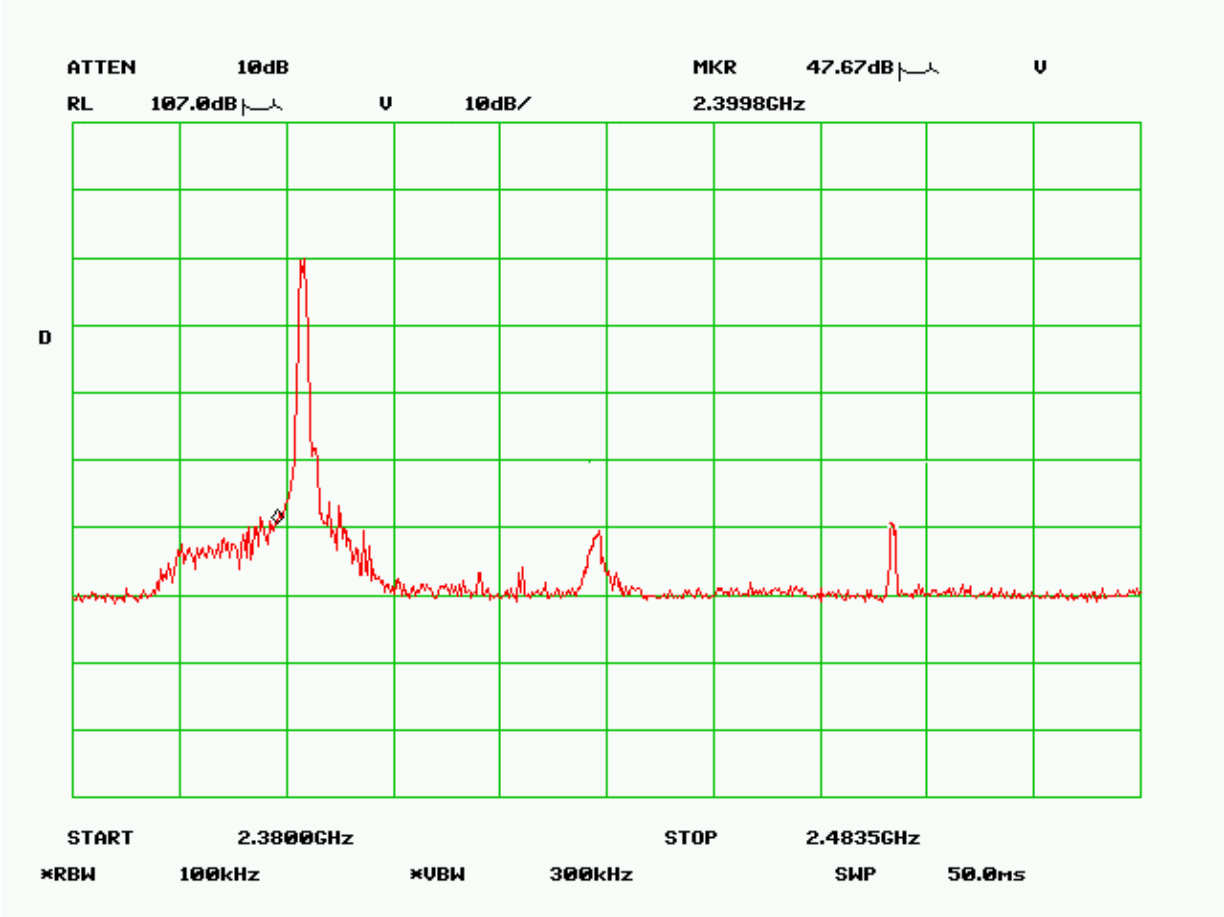
Base:


ATTEN 10dB
MKR 50.17dB V
RL 107.0dB V 10dB/
2.48355GHz
D
2.48355 GHz
50.17 dB V
START 2.40000GHz
STOP 2.49000GHz
*RBW 100kHz
*VBW 300kHz
SWP 50.0ms


ATTEN 10dB
MKR 51.17dB
V
RL 107.0dB
V
10dB/
2.3998GHz
D
START 2.3800GHz
STOP 2.4835GHz
*RBW 100kHz
*VBW 300kHz
SWP 50.0ms

Handset:


ATTEN 10dB
MKR 48.33dB
V
RL 107.0dB
V
10dB/
2.4863GHz
D
START 2.4000GHz
STOP 2.5000GHz
*RBW 100kHz
*VBW 300kHz
SWP 50.0ms


ATTEN 10dB
MKR 47.67dB
V
RL 107.0dB
V
10dB/
2.3998GHz
D
START 2.3800GHz
STOP 2.4835GHz
*RBW 100kHz
*VBW 300kHz
SWP 50.0ms