



NVLAP LAB CODE 200707-0



FCC PART 15.249 EMI MEASUREMENT AND TEST REPORT

For

Moretech Electronics Co., Ltd.

6/F, Bldg. 9, Shuang Long Shan Industrial District, Meixi, Zhuhai, Guangdong, China

FCC ID: S64MD08

This Report Concerns: ☒ Original Report	Equipment Type: Wireless Camera
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Report No.: RSZ07022702	
Test Date: 2007-03-02 to 2007-03-06	
Report Date: 2007-03-07	
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Note: This test report is for the customer shown above and their specific product only. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratory Corp. (Shenzhen). This report **must not** be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the Federal Government.

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Moretech Electronics Co., Ltd.*'s product, model number: *CW5700* or the "EUT" as referred to in this report is a *Wireless Camera*, which measures approximately 16.0cmL x 7.3cmW x 3.9cmH, rated input voltage: DC 12V adapter.

Adapter Manufacturer: Wisecomm, Model: TL-35-120250
Input: 120V/60Hz 0.1A, Output: 12V 250mA

** The test data gathered are from production sample, serial number:0702020, provided by the manufacturer, we receive the EUT on 2007-02-27.*

Objective

This Type approval report is prepared on behalf of *Moretech Electronics 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 Laboratory 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 Laboratory Corp. (Shenzhen) to collect test data is located in the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China.

Test site at Bay Area Compliance Laboratory 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 Laboratory 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>.

External I/O Cable

Cable Description	Length (M)	From/Port	To
Power Cable	0.96	EUT	Adapter

SYSTEM TEST CONFIGURATION

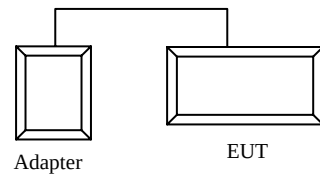
Justification

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

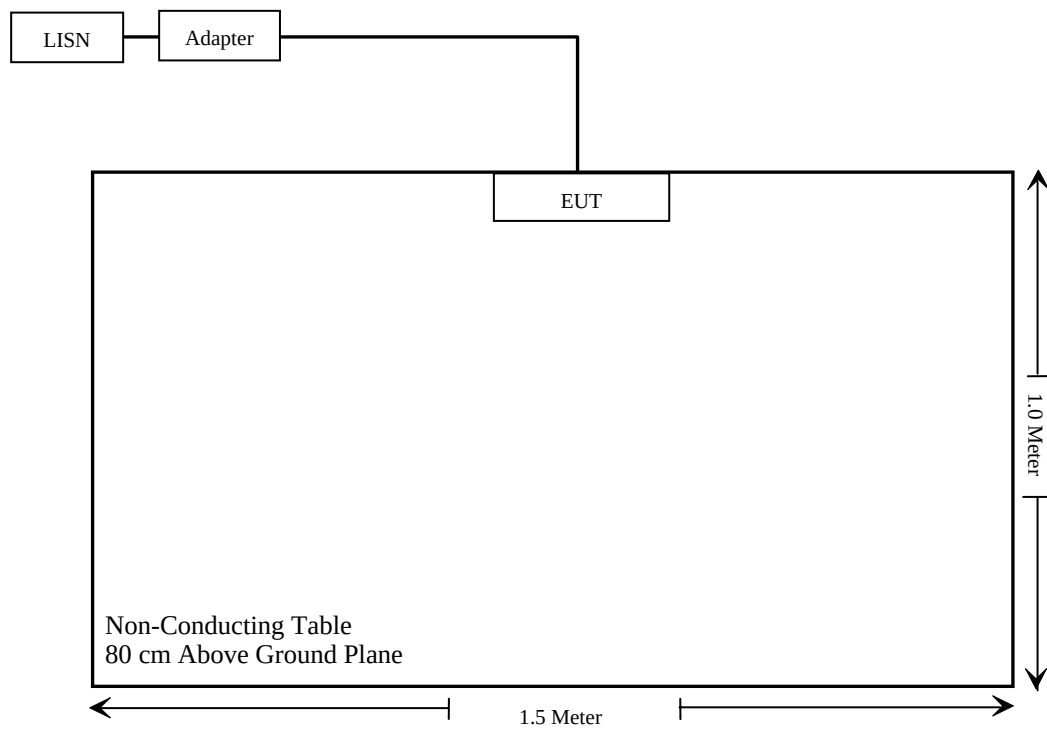
Equipment Modifications

Bay Area Compliance Laboratory Corp. (Shenzhen) has not done any modification on the EUT.

Configuration of Test Setup



Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.203	Antenna Requirement	Compliant
§15.207(a)	Conduction Emissions	Compliant
§15.205(a), §15.209(a), §15.249(a), §15.249(c)	Radiated Emissions	Compliant
§15.249(d)	Out of band emissions	Compliant

§15.203 - ANTENNA REQUIREMENT

Standard Applicable

For intentional device, according to §15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used.

Antenna Connector Construction

The EUT antenna is a permanently attached antenna, which in accordance to section 15.203, is considered sufficient to comply with the provisions of this section.

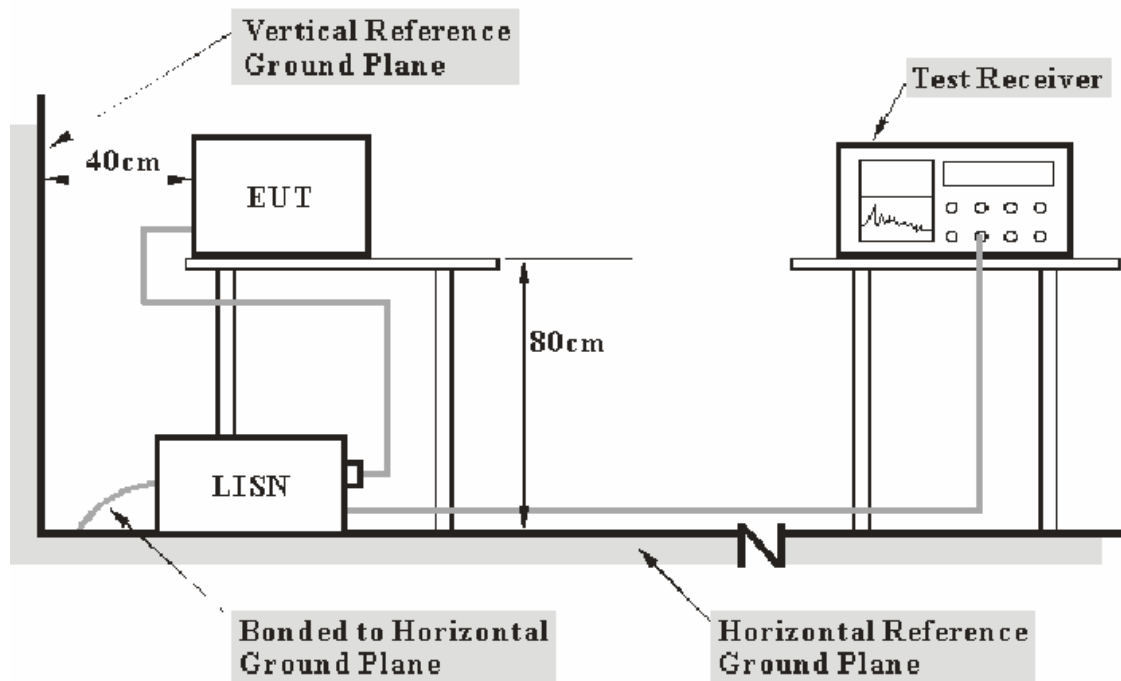
§15.207 - CONDUCTED EMISSIONS

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 Laboratory 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 adapter was connected to a 120 VAC/60 Hz power source.

EMI Test Receiver Setup

The 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:

<u>Frequency Range</u>	<u>IFBW</u>
150 kHz – 30 MHz	9 kHz

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCS30	DE25330	2006-03-20	2007-03-19
Rohde & Schwarz	L.I.S.N.	ESH2-Z5	892107/021	2007-03-01	2008-03-01

* Com-Power's LISN were used as the supporting equipment.

* **Statement of Traceability:** Bay Area Compliance Laboratory 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 adapter was connected to the outlet of the LISN.

Maximizing procedure was 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:

Transmitting Mode (High Channel): 21.28 dB at 0.3250 MHz in the **Neutral** conductor mode.

Transmitting Mode (Middle Channel): 20.75 dB at 0.4200 MHz in the **Neutral** conductor mode.

Transmitting Mode (Low Channel): 20.65 dB at 0.4250 MHz in the **Neutral** conductor mode.

Test Data**Environmental Conditions**

Temperature:	22 ° C
Relative Humidity:	55%
ATM Pressure:	1000mbar

The testing was performed by Deny Xiong on 2007-03-02.

Test Mode: Transmitting (High Channel)

Line Conducted Emissions				FCC PART 15 .207	
Frequency (MHz)	Amplitude (dBμV)	Detector (QP/AV)	Phase (Live/Neutral)	Limit (dBμV)	Margin (dB)
0.3250	38.30	QP	Neutral	59.58	21.28
0.4200	35.80	QP	Neutral	57.45	21.65
28.8100	36.60	QP	Neutral	60.00	23.40
0.2050	37.80	QP	Neutral	63.41	25.61
27.9700	33.90	QP	Live	60.00	26.10
0.3000	33.90	QP	Live	60.24	26.34
0.1800	37.60	QP	Neutral	64.49	26.89
0.4200	29.80	QP	Live	57.45	27.65
0.1800	35.60	QP	Live	64.49	28.89
0.7100	26.60	QP	Live	56.00	29.40
0.4200	17.90	AV	Neutral	47.45	29.55
0.4200	17.60	AV	Live	47.45	29.85
1.1250	25.10	QP	Live	56.00	30.90
0.7100	15.00	AV	Live	46.00	31.00
1.1250	12.20	AV	Live	46.00	33.80
1.3000	21.70	QP	Neutral	56.00	34.30
1.3000	9.40	AV	Neutral	46.00	36.60
28.8100	11.10	AV	Neutral	50.00	38.90
27.9700	10.90	AV	Live	50.00	39.10
0.3250	7.20	AV	Neutral	49.58	42.38
0.3000	6.80	AV	Live	50.24	43.44
0.2050	9.30	AV	Neutral	53.41	44.11
0.1800	10.20	AV	Live	54.49	44.29
0.1800	9.80	AV	Neutral	54.49	44.69

Test Mode: Transmitting (Middle Channel)

Line Conducted Emissions				FCC PART 15.207	
Frequency (MHz)	Amplitude (dB μ V)	Detector (QP/AV)	Phase (Live/Neutral)	Limit (dB μ V)	Margin (dB)
0.4200	36.70	QP	Neutral	57.45	20.75
0.3050	38.10	QP	Neutral	60.11	22.01
0.6900	29.60	QP	Neutral	56.00	26.40
28.0950	33.50	QP	Live	60.00	26.50
0.1750	37.60	QP	Neutral	64.72	27.12
0.4200	28.80	QP	Live	57.45	28.65
0.4200	18.30	AV	Live	47.45	29.15
0.1800	35.30	QP	Live	64.49	29.19
0.6900	26.80	QP	Live	56.00	29.20
0.4200	18.10	AV	Neutral	47.45	29.35
0.6900	16.10	AV	Live	46.00	29.90
0.7150	25.90	QP	Live	56.00	30.10
1.1500	25.60	QP	Live	56.00	30.40
0.7150	15.00	AV	Live	46.00	31.00
0.6900	14.30	AV	Neutral	46.00	31.70
1.1500	12.20	AV	Live	46.00	33.80
1.1500	21.10	QP	Neutral	56.00	34.90
1.1500	7.30	AV	Neutral	46.00	38.70
28.0950	10.50	AV	Live	50.00	39.50
7.4500	20.00	QP	Neutral	60.00	40.00
7.4500	8.30	AV	Neutral	50.00	41.70
0.3050	7.40	AV	Neutral	50.11	42.71
0.1800	9.60	AV	Live	54.49	44.89
0.1750	9.20	AV	Neutral	54.72	45.52

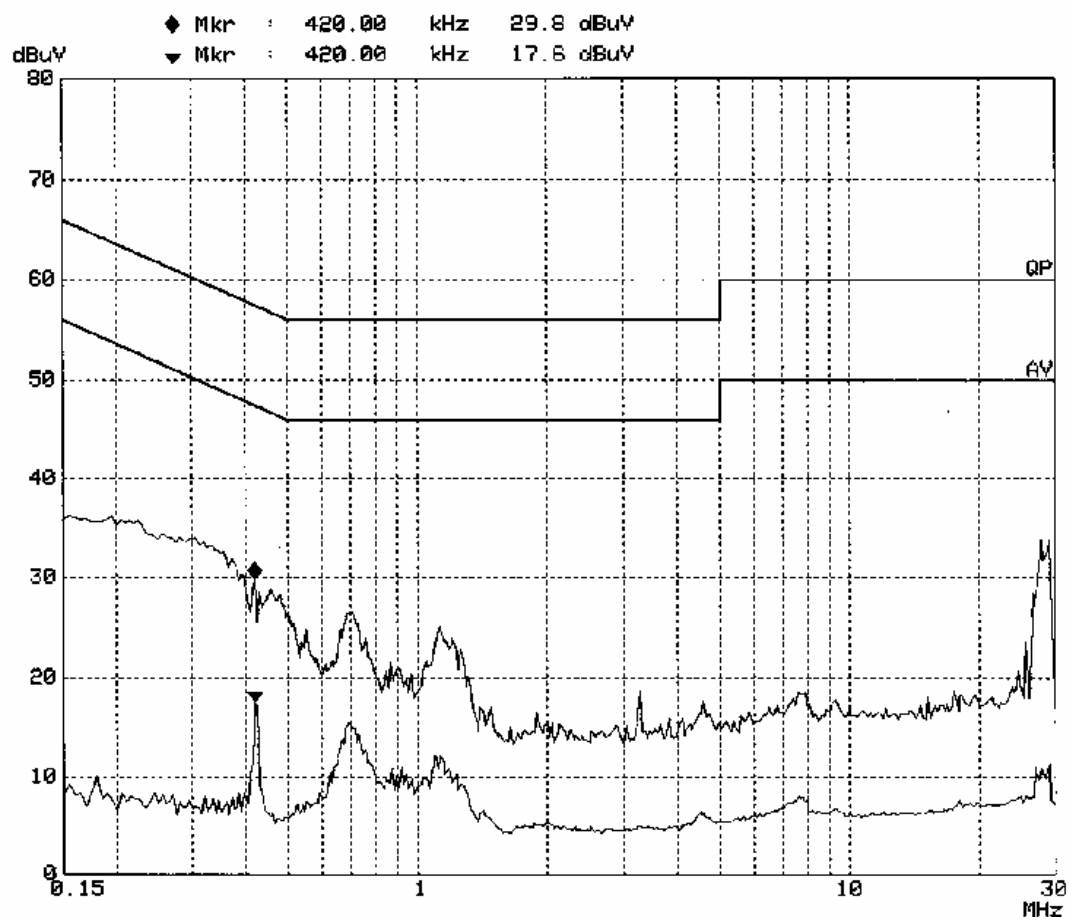
Test Mode: Transmitting (Low Channel)

Line Conducted Emissions				FCC PART 15.207	
Frequency (MHz)	Amplitude (dBμV)	Detector (QP/AV)	Phase (Live/Neutral)	Limit (dBμV)	Margin (dB)
0.4250	36.70	QP	Neutral	57.35	20.65
28.0700	36.10	QP	Live	60.00	23.90
0.6950	29.80	QP	Neutral	56.00	26.20
0.6950	28.90	QP	Live	56.00	27.10
0.1750	37.60	QP	Neutral	64.72	27.12
0.4200	29.80	QP	Live	57.45	27.65
0.7050	18.00	AV	Live	46.00	28.00
0.1750	36.10	QP	Live	64.72	28.62
1.1200	26.60	QP	Live	56.00	29.40
27.0450	29.80	QP	Neutral	60.00	30.20
0.4200	17.00	AV	Live	47.45	30.45
0.6950	14.30	AV	Neutral	46.00	31.70
0.4250	15.30	AV	Neutral	47.35	32.05
1.2800	21.40	QP	Neutral	56.00	34.60
1.1200	10.60	AV	Live	46.00	35.40
7.8250	22.30	QP	Neutral	60.00	37.70
1.2800	8.30	AV	Neutral	46.00	37.70
27.0450	11.90	AV	Neutral	50.00	38.10
7.8250	11.60	AV	Neutral	50.00	38.40
7.2200	18.80	QP	Live	60.00	41.20
28.0700	8.60	AV	Live	50.00	41.40
7.2200	7.10	AV	Live	50.00	42.90
0.1750	9.50	AV	Live	54.72	45.22
0.1750	9.20	AV	Neutral	54.72	45.52

Plot(s) of Test Data

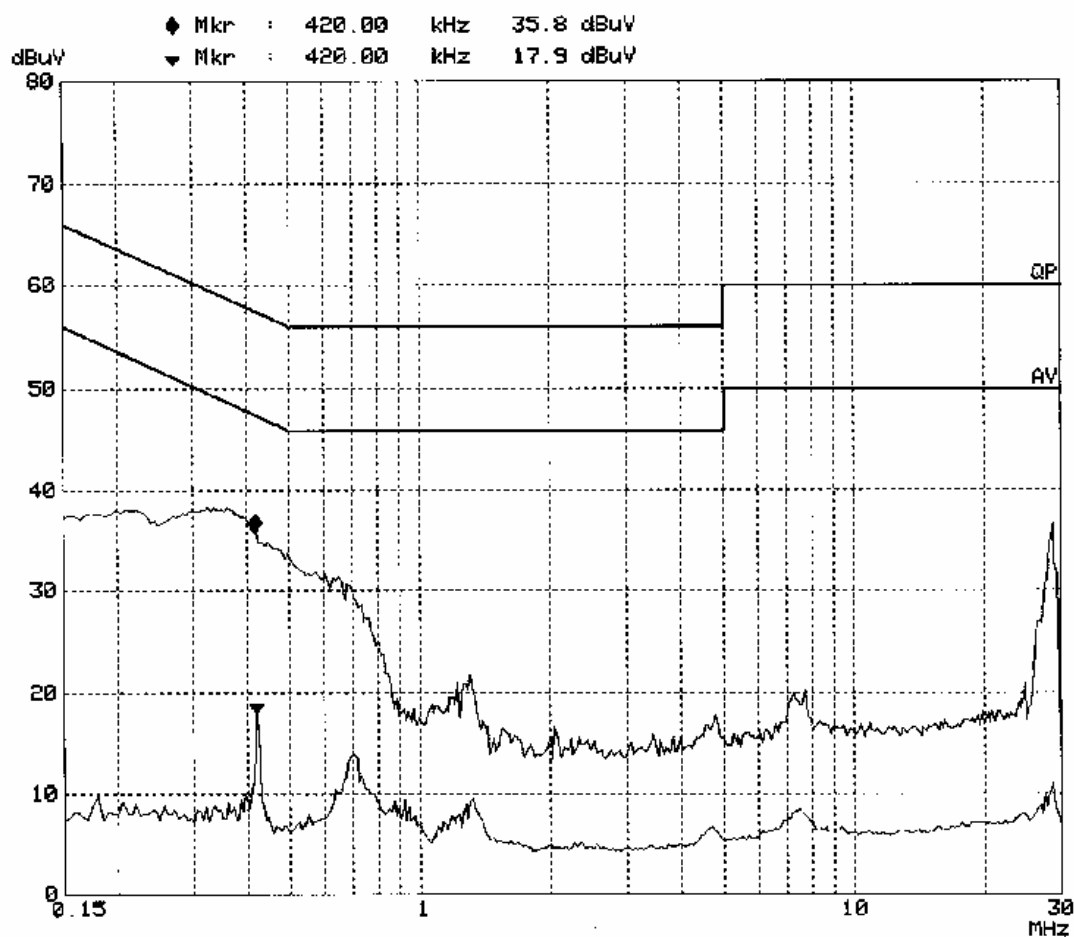
Conduction Disturbance Test
FCC Part

EUT: Wireless Camera M/N: CW5700
Manuf: Moretech
Op Cond: Transmitting high channel
Operator: deny.xiong
Test Spec: AC 120V/60Hz L
Comment: Temp: 25°C Humi: 56%
Date: 02. Mar 07 11:47



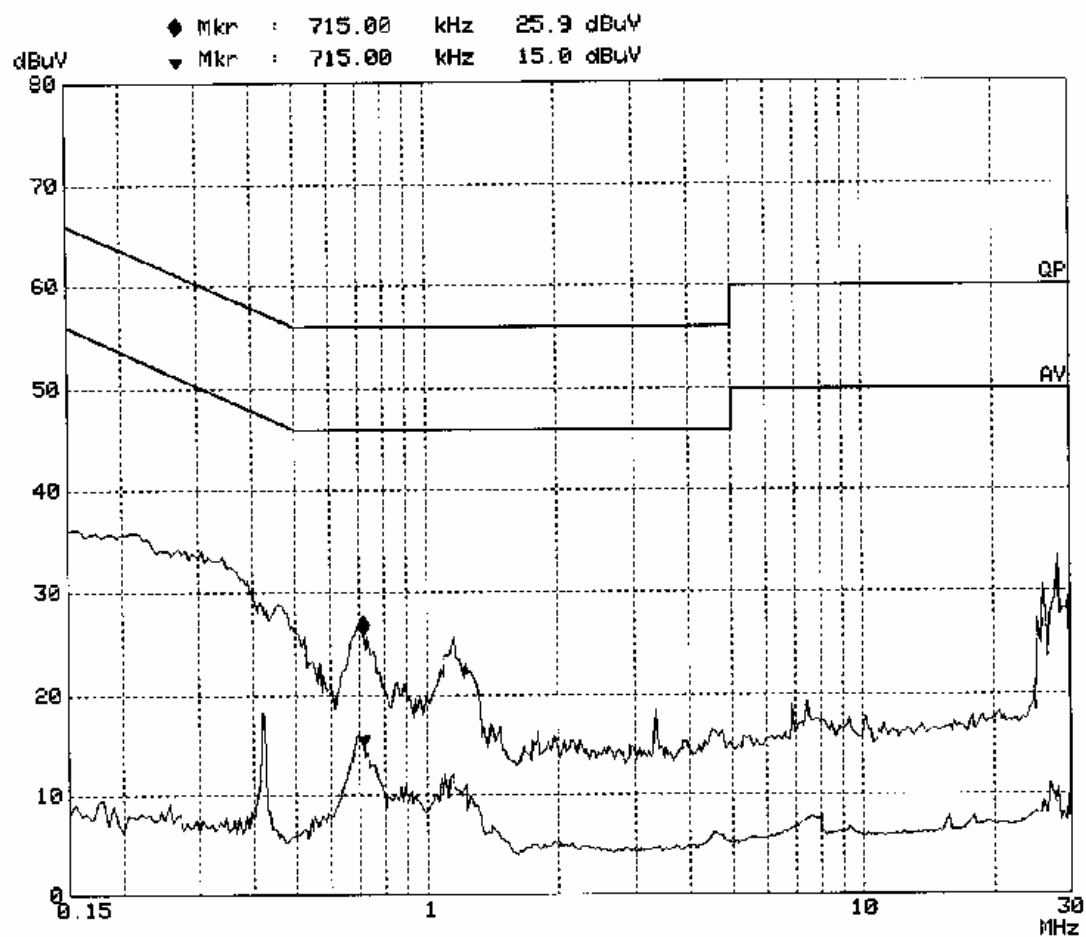
Conduction Disturbance Test FCC Part

EUT: Wireless Camera M/N: CW5700
Manuf: Moretech
Op Cond: Transmitting high channel
Operator: deny.xiong
Test Spec: AC 120V/60Hz N
Comment: Temp: 25°C Humi: 56%
Date: 02. Mar 07 11:37



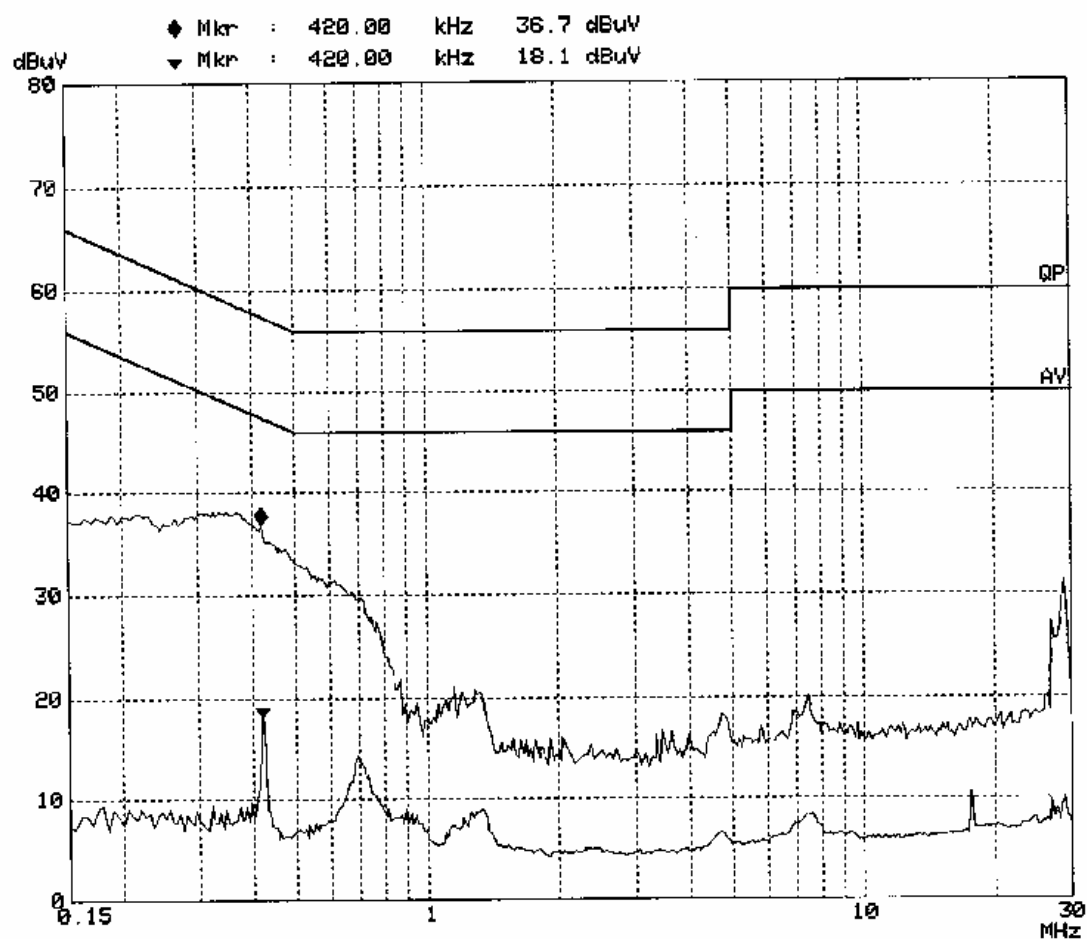
Conduction Disturbance Test FCC Part

EUT: Wireless Camera M/N:CW5700
Manuf: Moretech
Op Cond: Transmitting Middle channel
Operator: deny.xiong
Test Spec: AC 120V/60Hz L
Comment: Temp:25'C Humi:56%
Date: 02. Mar 07 11:08



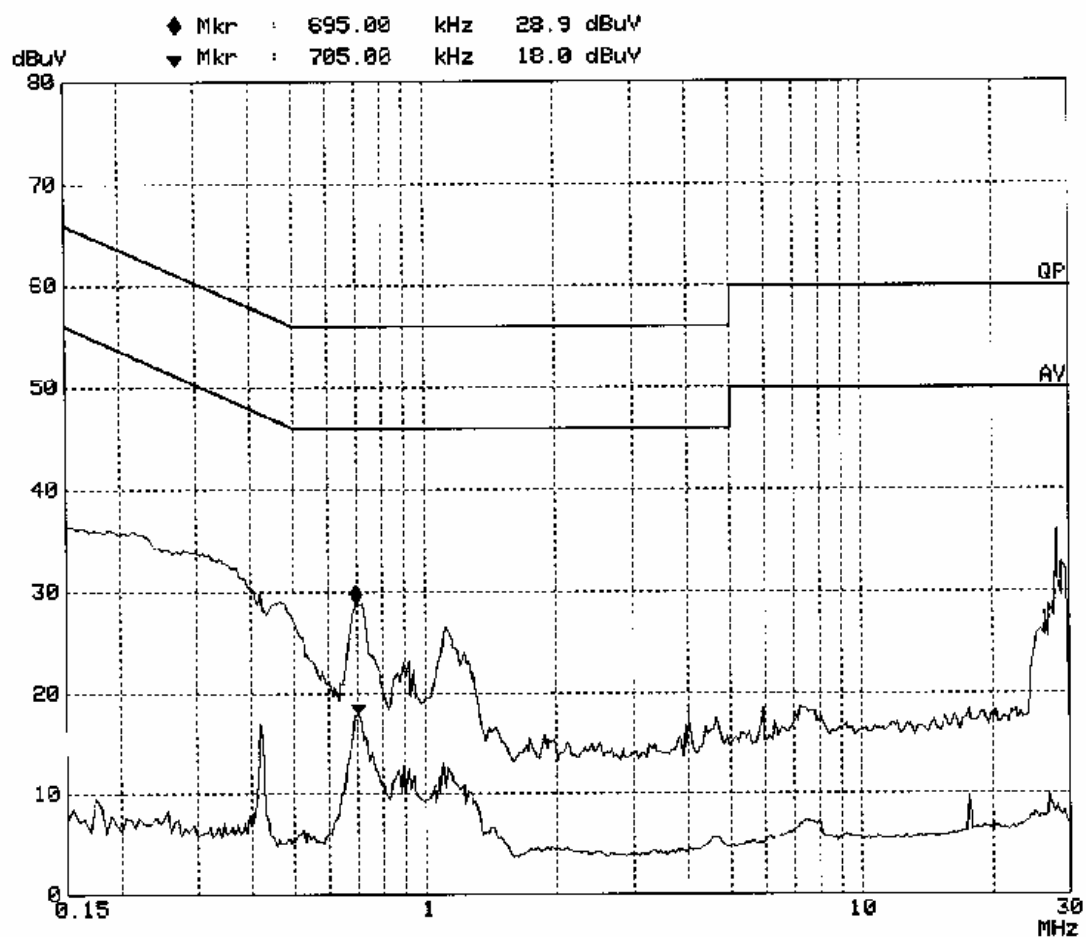
Conduction Disturbance Test FCC Part

EUT: Wireless Camera M/N: CW5700
Manuf: Moretech
Op Cond: Transmitting Middle channel
Operator: deny.xiong
Test Spec: AC 120V/60Hz N
Comment: Temp: 25°C Humi: 56%
Date: 02. Mar 07 11:20



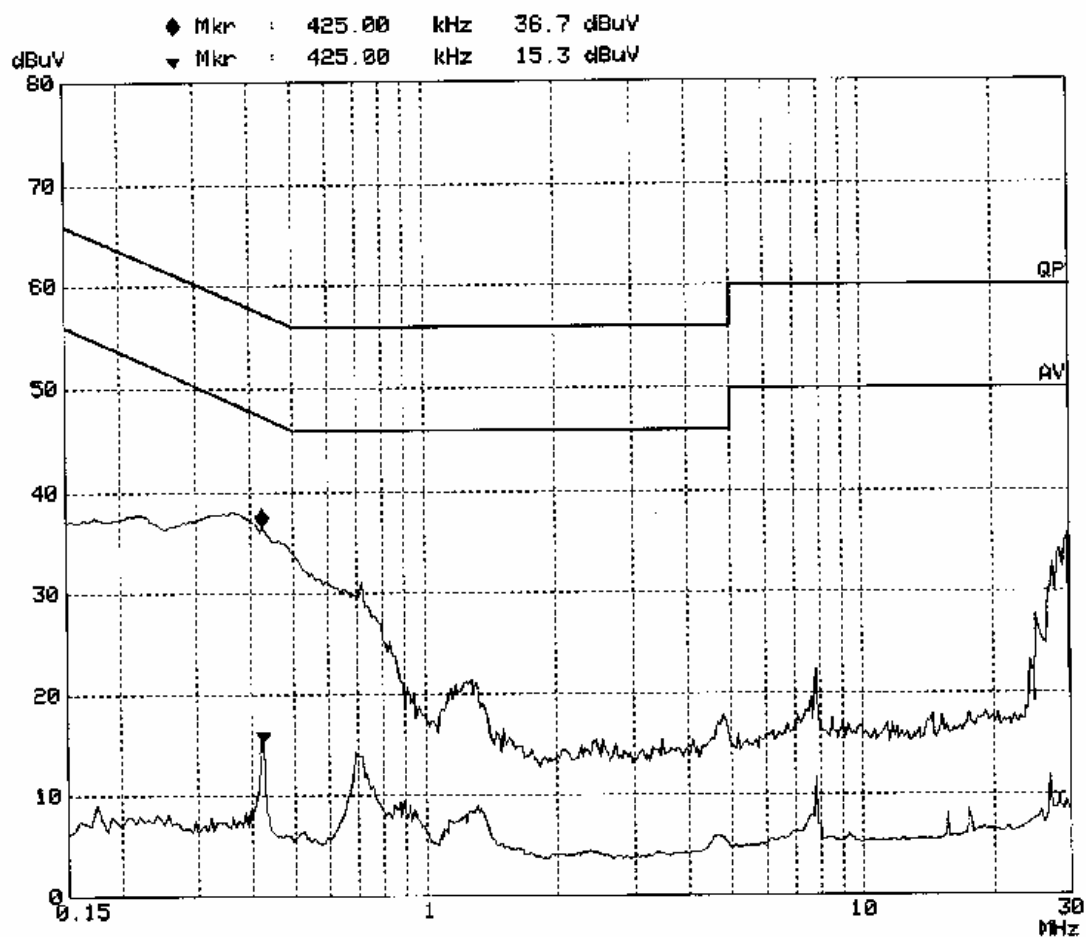
Conduction Disturbance Test FCC Part

EUT: Wireless Camera M/N: CW5700
Manuf: Moretech
Op Cond: Transmitting low channel
Operator: deny.xiong
Test Spec: AC 120V/60Hz L
Comment: Temp: 25'C Humi: 56%
Date: 02. Mar 07 10:52



Conduction Disturbance Test FCC Part

EUT: Wireless Camera M/N: CW5700
Manuf: Moretech
Op Cond: Transmitting low channel
Operator: deny.xiong
Test Spec: AC 120V/60Hz N
Comment: Temp: 25°C Humi: 56%
Date: 02. Mar 07 10:34



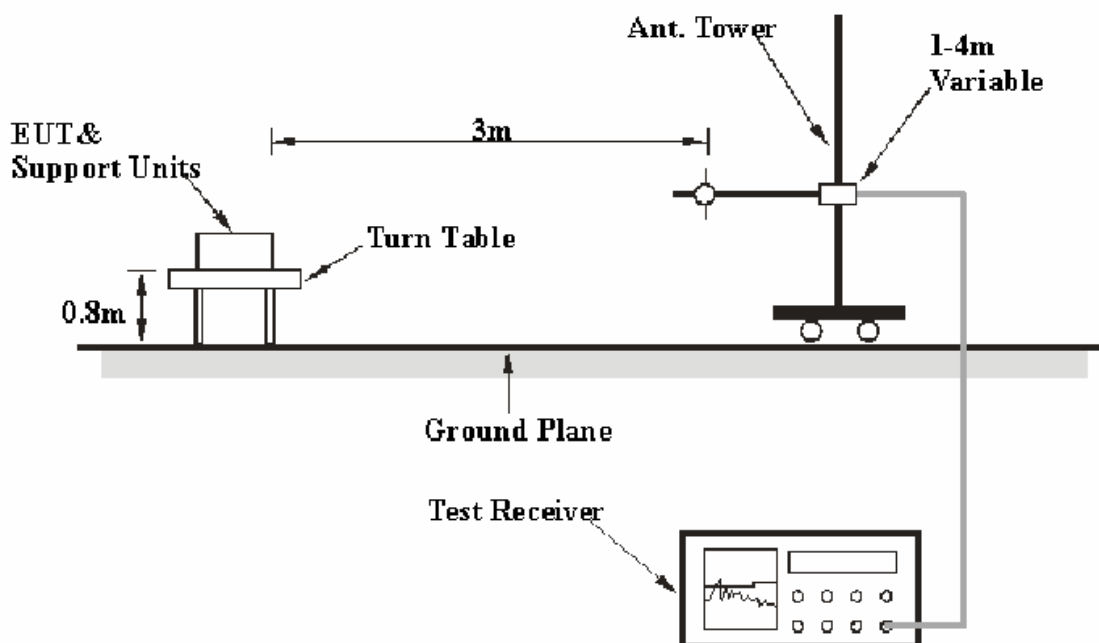
§15.205 §15.209(a) §15.249(a) §15.249(c) - RADIATED EMISSIONS

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 Laboratory Corp. (Shenzhen) is ± 4.0 dB.

EUT Setup



The radiated emission and out of band emission tests were performed in the 3 meters 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 adapter was connected to a 120 VAC/60 Hz power source.

EMI Test Receiver Setup

The system was investigated from 30 MHz to 25000 MHz.

During the radiated emission and out of band emission test, the test receiver was set with the following configurations:

<i>Frequency Range</i>	<i>RBW</i>	<i>Video B/W</i>
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
Rohde & Schwarz	EMI Test Receiver	ESCI	100224	2006-09-29	2007-09-29
HP	Amplifier	8447E	1937A01046	2006-11-15	2007-11-15
Sunol Sciences	Bilog Antenna	JB1	A040904-2	2006-08-14	2007-08-14
HP	Amplifier	8449B	3008A00277	2006-09-29	2007-09-29
Sunol Sciences	Horn Antenna	DRH-118	A052604	2006-07-20	2007-07-20
Agilent	Spectrum Analyzer	8564E	3943A01781	2006-11-22	2007-11-22

*** Statement of Traceability:** Bay Area Compliance Laboratory 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 adapter was 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 peak and average 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:

$$\text{Corr. Ampl.} = \text{Meter Reading} + \text{Antenna Loss} + \text{Cable Loss} - \text{Amplifier Gain}$$

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 maximum limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corr. Ampl.}$$

Test Results Summary

According to the data in the following table, the EUT complied with the FCC Part 15.209 & 15.249, with the worst margin reading of:

30-1000MHz:

Transmitting Mode: 19.8 dB at 30.150679 MHz in the Vertical polarization.

Above 1000MHz:

Transmitting Mode (High Channel): 8.83 dB at 9872 MHz in the Horizontal polarization.

Transmitting Mode (Middle Channel): 8.93 dB at 9800 MHz in the Horizontal polarization.

Transmitting Mode (Low Channel): 9.55 dB at 9656 MHz in the Horizontal polarization.

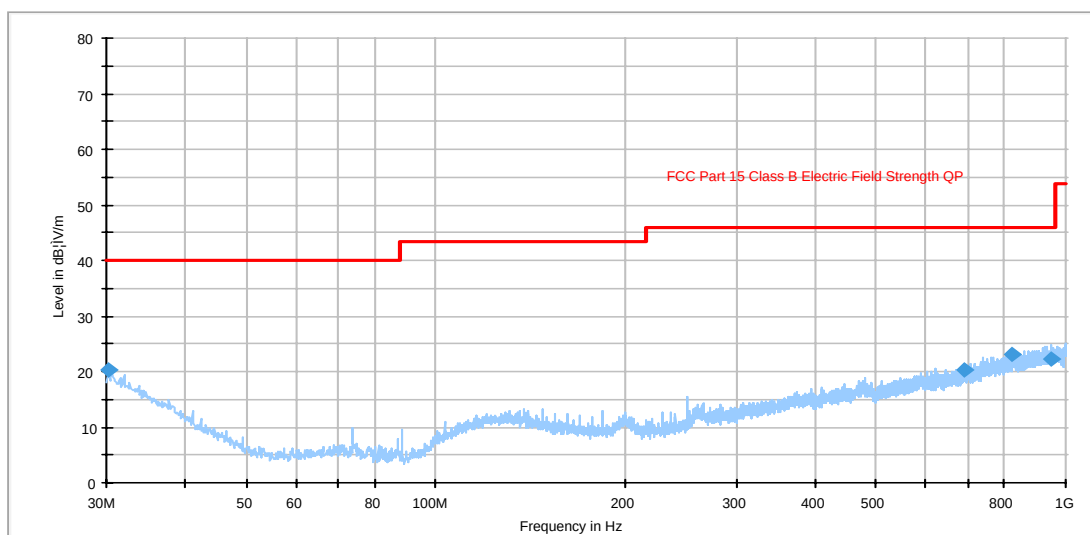
Test Data

Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	53%
ATM Pressure:	1009mbar

The testing was performed by Deny Xiong on 2007-03-02.

30-1000MHz:



Frequency (MHz)	Quasi Peak (dB µ V/m)	Antenna Height (cm)	Polarity	Turntable Position (deg)	Corr. (dB)	Limit (dB µ V/m)	Margin (dB)
30.150679	20.2	396.0	V	28.0	-6.1	40.0	19.8
821.694375	23.1	396.0	V	194.0	-3.3	46.0	22.9
949.944225	22.3	372.0	H	194.0	-1.8	46.0	23.7
691.663000	20.2	396.0	H	31.0	-5.7	46.0	25.8

Above 1000MHz:

Frequency (MHz)	Meter Reading (dBuV)	Detector PK/QP/AV	Direction Degree	Heigh t (m)	Polar H / V	Antenna Loss (dB)	Cable loss (dB)	Pre-Amp Gain (dB)	Corr. Ampl. (dBuV/m)	FCC Part 15.209 & 15.249		
										Limit (dBuV/m)	Margin (dB)	Comment
Transmitting (High Channel)												
9872	35.3	AV	147	1.6	H	38.2	5.77	34.1	45.17	54	8.83	Harmonic
9872	34.7	AV	259	1.2	V	38.2	5.77	34.1	44.57	54	9.43	Harmonic
7404	35.1	AV	45	1.0	H	35.3	4.75	33.7	41.45	54	12.55	Harmonic
7404	34.1	AV	90	1.2	V	35.3	4.75	33.7	40.45	54	13.55	Harmonic
9872	49.3	PK	259	1.2	V	38.2	5.77	34.1	59.17	74	14.83	Harmonic
9872	49.17	PK	147	1.6	H	38.2	5.77	34.1	59.04	74	14.96	Harmonic
4936	33.9	AV	180	1.6	V	32.0	4.55	33.4	37.05	54	16.95	Harmonic
4936	33.7	AV	109	1.2	H	32.0	4.55	33.4	36.85	54	17.15	Harmonic
7404	49.33	PK	180	1.0	H	35.3	4.75	33.7	55.68	74	18.32	Harmonic
7404	48.33	PK	90	1.2	V	35.3	4.75	33.7	54.68	74	19.32	Harmonic
2468	77.5	AV	182	1.2	V	27.4	3.61	35.0	73.51	94	20.49	Fundamental
4936	48.1	PK	45	1.0	V	32.0	4.55	33.4	51.25	74	22.75	Harmonic
4936	47.5	PK	109	1.2	H	32.0	4.55	33.4	50.65	74	23.35	Harmonic
2468	71.9	AV	197	1.6	H	27.4	3.61	35.0	67.91	94	26.09	Fundamental
2468	80.83	PK	182	1.2	V	27.4	3.61	35.0	76.84	114	37.16	Fundamental
2468	76.13	PK	197	1.6	H	27.4	3.61	35.0	72.14	114	41.86	Fundamental

Frequency (MHz)	Meter Reading (dBuV)	Detector PK/QP/AV	Direction Degree	Heigh t (m)	Polar H / V	Antenna Loss (dB)	Cable loss (dB)	Pre-Amp Gain (dB)	Corr. Ampl. (dBuV/m)	FCC Part 15.209 & 15.249		
										Limit (dBuV/m)	Margin (dB)	Comment
Transmitting (Middle Channel)												
9800	35.2	AV	256	1.5	H	38.2	5.77	34.1	45.07	54	8.93	Harmonic
9800	34.9	AV	130	1.3	V	38.2	5.77	34.1	44.77	54	9.23	Harmonic
7350	35.1	AV	45	1.0	H	35.3	4.75	33.7	41.45	54	12.55	Harmonic
7350	34.6	AV	90	1.2	V	35.3	4.75	33.7	40.95	54	13.05	Harmonic
9800	48.83	PK	256	1.5	H	38.2	5.77	34.1	58.7	74	15.30	Harmonic
9800	48.5	PK	130	1.3	V	38.2	5.77	34.1	58.37	74	15.63	Harmonic
2450	81.33	AV	182	1.2	V	27.4	3.61	35.0	77.34	94	16.66	Fundamental
4900	34.5	AV	180	1.6	V	31.3	4.64	33.4	37.04	54	16.96	Harmonic
4900	33.7	AV	109	1.2	H	31.3	4.64	33.4	36.24	54	17.76	Harmonic
7350	48.17	PK	180	1.0	H	35.3	4.75	33.7	54.52	74	19.48	Harmonic
7350	48.17	PK	90	1.2	V	35.3	4.75	33.7	54.52	74	19.48	Harmonic
2450	75.33	AV	197	1.6	H	27.4	3.61	35.0	71.34	94	22.66	Fundamental
4900	48.17	PK	109	1.2	H	31.3	4.64	33.4	50.71	74	23.29	Harmonic
4900	46.67	PK	45	1.0	V	31.3	4.64	33.4	49.21	74	24.79	Harmonic
2450	84.2	PK	182	1.2	V	27.4	3.61	35.0	80.21	114	33.79	Fundamental
2450	79.83	PK	197	1.6	H	27.4	3.61	35.0	75.84	114	38.16	Fundamental

Frequency (MHz)	Meter Reading (dBuV)	Detector PK/QP/AV	Direction Degree	Heigh t (m)	Polar H / V	Antenna Loss (dB)	Cable loss (dB)	Pre-Amp Gain (dB)	Corr. Ampl. (dBuV/m)	FCC Part 15.209 & 15.249		
										Limit (dBuV/m)	Margin (dB)	Comment
Transmitting (Low Channel)												
9656	35.6	AV	238	1.5	H	37.6	5.35	34.1	44.45	54	9.55	Harmonic
9656	34.5	AV	158	1.3	V	37.6	5.35	34.1	43.35	54	10.65	Harmonic
7242	35.67	AV	90	1.2	V	35.4	4.51	33.7	41.88	54	12.12	Harmonic
7242	33.6	AV	261	1.0	H	35.4	4.51	33.7	39.81	54	14.19	Harmonic
9656	50.0	PK	158	1.3	V	37.6	5.35	34.1	58.85	74	15.15	Harmonic
9656	48.33	PK	158	1.6	H	37.6	5.35	34.1	57.18	74	16.82	Harmonic
4828	34.3	AV	270	1.6	H	31.3	4.64	33.4	36.84	54	17.16	Harmonic
7242	49.2	PK	180	1.0	V	35.4	4.51	33.7	55.41	74	18.59	Harmonic
7242	48.33	PK	180	1.3	H	35.4	4.51	33.7	54.54	74	19.46	Harmonic
4828	31.67	AV	180	1.6	V	31.3	4.64	33.4	34.21	54	19.79	Harmonic
2414	77.67	AV	45	1.0	V	27.4	3.61	35.0	73.68	94	20.32	Fundamental
2414	76.17	AV	263	1.4	H	27.4	3.61	35.0	72.18	94	21.82	Fundamental
4828	48.17	PK	49	1.2	H	31.3	4.64	33.4	50.71	74	23.29	Harmonic
4828	47.38	PK	250	1.0	V	31.3	4.64	33.4	49.92	74	24.08	Harmonic
2414	82.17	PK	18	1.6	V	27.4	3.61	35.0	78.18	114	35.82	Fundamental
2414	81.33	PK	20	1.2	H	27.4	3.61	35.0	77.34	114	36.66	Fundamental

§15.249(d) – OUT OF BAND EMISSIONS

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

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set the RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including the specified frequencies of band edges.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2006-09-29	2007-09-29

*** Statement of Traceability:** Bay Area Compliance Laboratory 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:	53%
ATM Pressure:	1009mbar

The testing was performed by Deny Xiong on 2007-03-06.

Test Mode: Transmitting

Frequency (MHz)	Meter Reading (dBuV)	Antenna Factor (dB)	Cable loss (dB)	Amplifier (dB)	Correct Amplitude (dBuV/m)	Limit (dBuV/m)	Margin (dB)
2399.9	33.10	27.4	3.61	35.0	29.11	54	24.89
2483.6	32.81	27.4	3.61	35.0	28.82	54	25.18

Test Result: Pass