



NVLAP LAB CODE 200707-0



FCC PART 15.249
MEASUREMENT AND TEST REPORT

For

JOYO Electronics Company Limited

Room 1601, Tung Ning Building, 249-255 Des Voeux Rd, Central, Hong Kong

FCC ID: R4GJY238

This Report Concerns: ☒ Original Report		Equipment Type: 900MHz Video Baby Monitor
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Report No.:	RSZ08062401	
Test Date:	2008-06-26 to 2008-07-15	
Report Date:	2008-07-15	
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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 Laboratories 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 JOYO Electronics Company Limited's product, model number: JY-238 the "EUT" as referred to in this report is a 900MHz Video Baby Monitor, which measures approximately 7.4cmL x 5.0cmW x 12.cmH, rated input voltage: DC 9V adapter.

Adapter Model: KSS05-090-55000;
Input: AC 100-240V~ 50/60Hz 150mA;
Output: 9.0V---500mA

** All measurement and test data in this report was gathered from production sample serial number: 0806063 (Assigned by BACL, Shenzhen). The EUT was received on 2008-06-24.*

Objective

This Type approval report is prepared on behalf of JOYO Electronics Company Limited 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 Laboratories 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 Laboratories 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 Laboratories 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 Laboratories Corp. (Shenzhen) is a National Institute of Standards and Technology (NIST) accredited laboratory, under the National Voluntary Laboratory Accredited Program (Lab Code 200707-0).



NVLAP LAB CODE 200707-0

The current scope of accreditations can be found at
<http://ts.nist.gov/Standards/scopes/2007070.htm>

SYSTEM TEST CONFIGURATION

Justification

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

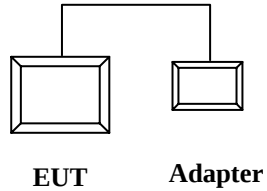
Equipment Modifications

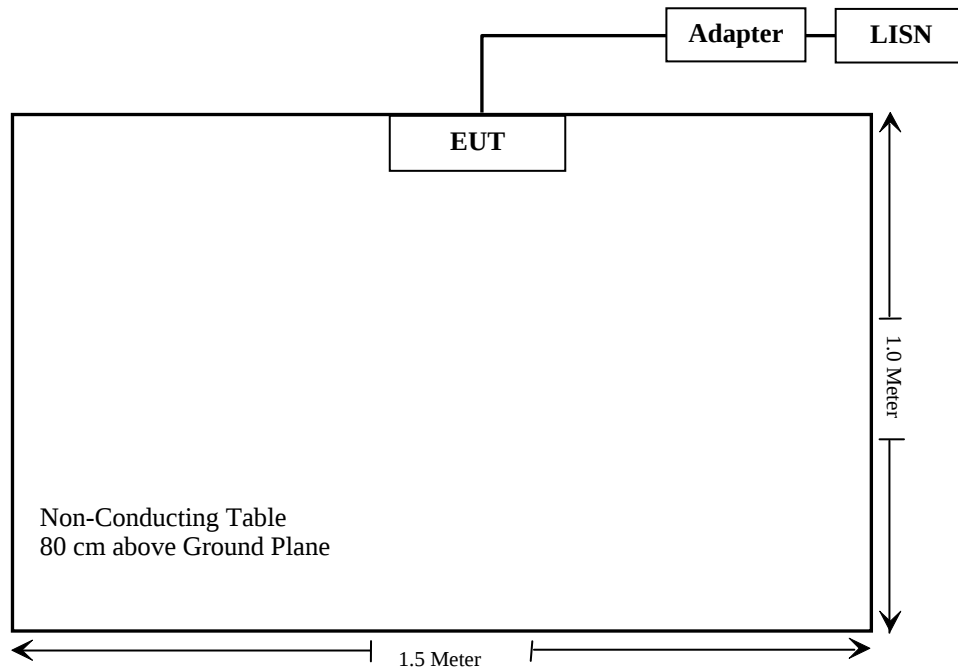
No modifications were made to the unit tested.

External I/O Cable

Cable Description	Length (m)	From/Port	To
Unshielded Detachable Power Cable	1.80	EUT	Adapter

Configuration of Test Setup



Block Diagram of Test Setup

SUMMARY OF TEST RESULTS

FCC Rules	Description of Test	Results
§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

Applicable Standard

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.

Result: Compliant.

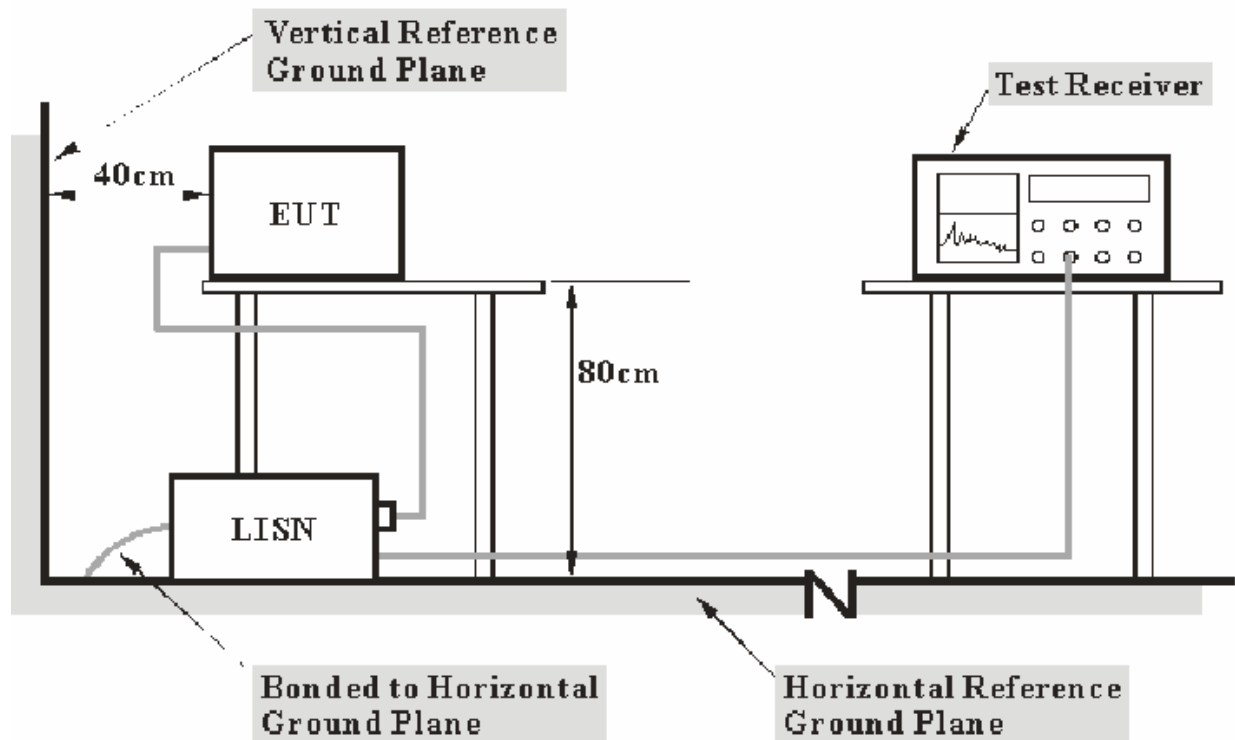
§15.207(a) - CONDUCTED EMISSIONS

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 Laboratories 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	2008-03-25	2009-03-25
Rohde & Schwarz	L.I.S.N.	ESH2-Z5	892107/021	2008-03-25	2009-03-25

* **Statement of Traceability:** Bay Area Compliance Laboratories 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(a), with the worst margin reading of:

Transmitting Mode (Channel A): 6.60 dB at 0.5150 MHz in the Neutral conductor mode.

Transmitting Mode (Channel B): 9.21 dB at 0.4700 MHz in the Neutral conductor mode.

Test Data**Environmental Conditions**

Temperature:	25 ° C
Relative Humidity:	56%
ATM Pressure:	100.2 kPa

The testing was performed by King Tang on 2008-06-26.

Test Mode: Transmitting (Channel A)

Line Conducted Emissions				FCC PART 15.207	
Frequency (MHz)	Amplitude (dBμV)	Detector (QP/AV)	Conductor (Hot/Neutral)	Limit (dBμV)	Margin (dB)
0.5150	49.40	QP	Neutral	56.00	6.60
1.0450	47.30	QP	Neutral	56.00	8.70
1.5300	46.20	QP	Neutral	56.00	9.80
0.4250	47.40	QP	Neutral	57.35	9.95
0.5300	45.80	QP	Hot	56.00	10.20
0.3600	47.60	QP	Neutral	58.73	11.13
0.9950	41.90	QP	Hot	56.00	14.10
0.5150	31.90	AV	Neutral	49.97	18.07
0.3650	43.40	QP	Hot	58.61	15.21
1.5050	40.10	QP	Hot	56.00	15.90
0.5300	28.30	AV	Hot	46.00	17.70
0.3100	41.40	QP	Hot	59.97	18.57
0.3600	30.00	AV	Neutral	48.70	18.70
0.1500	47.10	QP	Neutral	66.00	18.90
1.0450	26.80	AV	Neutral	46.00	19.20
0.1500	33.30	AV	Neutral	56.00	22.70
0.3650	25.90	AV	Hot	48.60	22.70
0.4250	23.20	AV	Neutral	47.30	24.10
0.1500	41.70	QP	Hot	66.00	24.30
1.5350	21.70	AV	Neutral	46.00	24.30
0.9900	21.20	AV	Hot	46.00	24.80
0.1500	28.50	AV	Hot	56.00	27.50
1.5050	18.40	AV	Hot	46.00	27.60
0.3100	21.00	AV	Hot	50.00	29.00

Test Mode: Transmitting (Channel B)

Line Conducted Emissions				FCC PART 15.207	
Frequency (MHz)	Amplitude (dBμV)	Detector (QP/AV)	Conductor (Hot/Neutral)	Limit (dBμV)	Margin (dB)
0.4700	47.30	QP	Neutral	56.51	9.21
0.5200	46.20	QP	Hot	56.00	9.80
0.5700	45.40	QP	Hot	56.00	10.60
1.0500	45.30	QP	Hot	56.00	10.70
0.4250	46.00	QP	Neutral	57.35	11.35
0.5100	44.30	QP	Neutral	56.00	11.70
0.4700	34.10	AV	Neutral	46.50	12.40
0.3700	45.50	QP	Hot	58.50	13.00
0.4250	44.30	QP	Hot	57.35	13.05
0.8950	42.40	QP	Neutral	56.00	13.60
0.3500	44.00	QP	Hot	58.96	14.96
0.4250	31.20	AV	Neutral	47.30	16.10
0.5100	29.50	AV	Neutral	46.00	16.50
0.8900	26.60	AV	Neutral	46.00	19.40
0.1900	44.60	QP	Neutral	64.04	19.44
0.5700	26.20	AV	Hot	46.00	19.80
0.2350	42.30	QP	Neutral	62.27	19.97
0.1900	32.90	AV	Neutral	54.00	21.10
0.2250	31.10	AV	Neutral	52.30	21.20
0.5200	23.70	AV	Hot	46.00	22.30
1.0450	22.90	AV	Hot	46.00	23.10
0.3700	23.70	AV	Hot	48.50	24.80
0.4250	22.00	AV	Hot	47.30	25.30
0.3500	22.60	AV	Hot	49.00	26.40

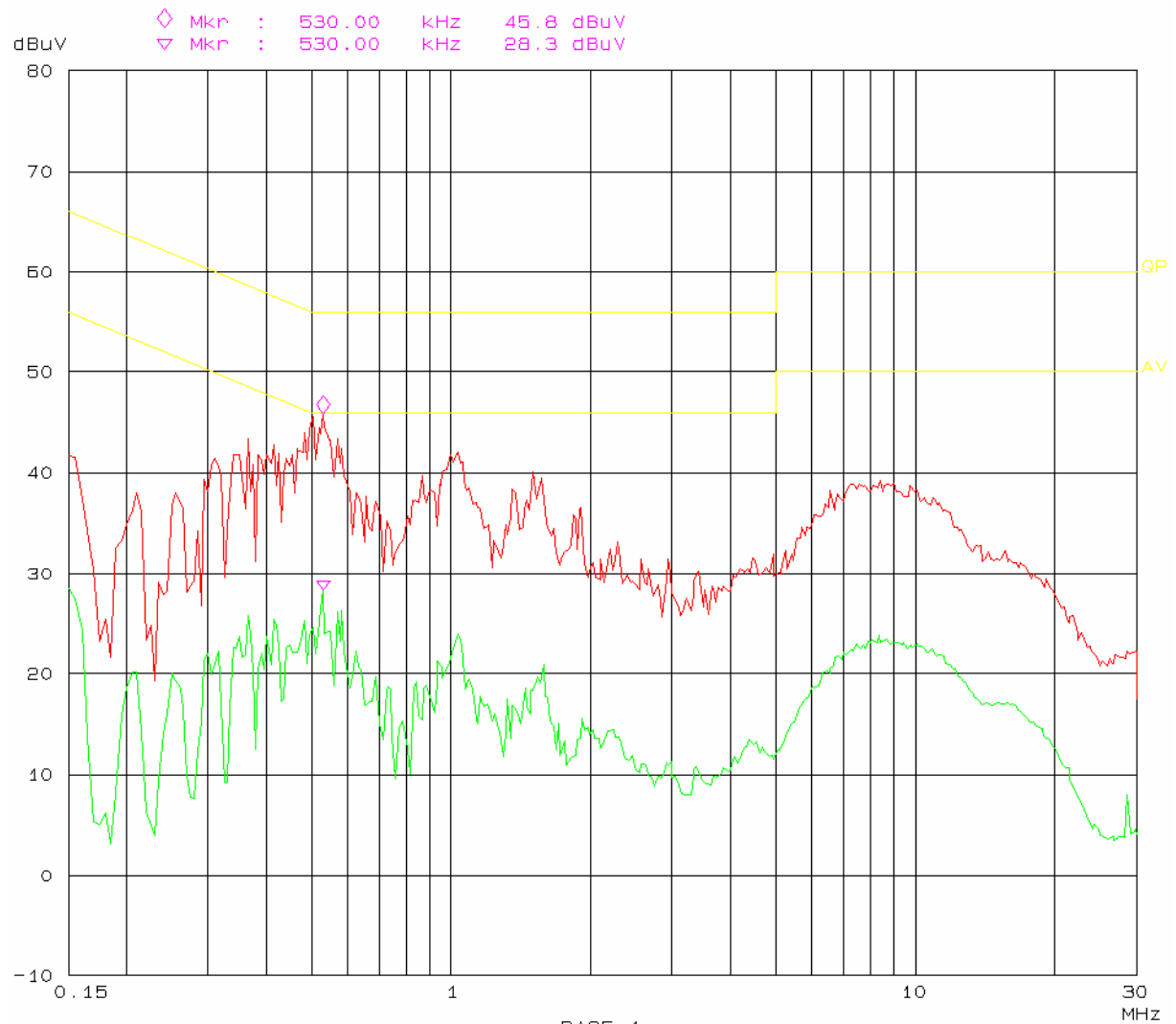
Plot(s) of Test Data

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

Conduction Emission
FCC Part15

26. Jun 08 21:42

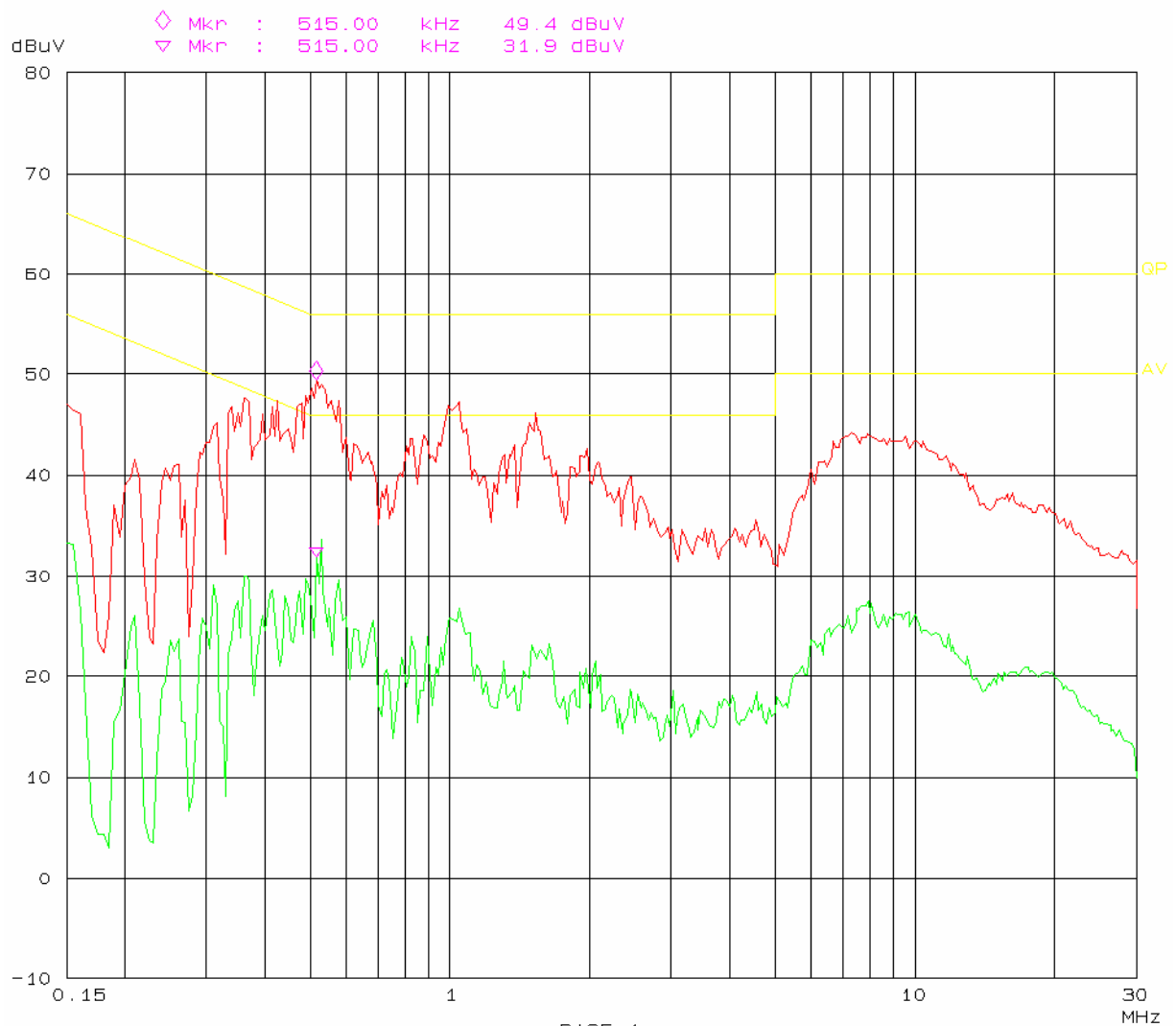
EUT: Wireless baby monitor M/N: JY238
Manuf: JOYO
Op Cond: transmitting channel A
Operator: King
Test Spec: AC 120V/60Hz hot
Comment: Temp: 25 Hum: 56%



Conduction Emission FCC Part15

26. Jun 08 21:32

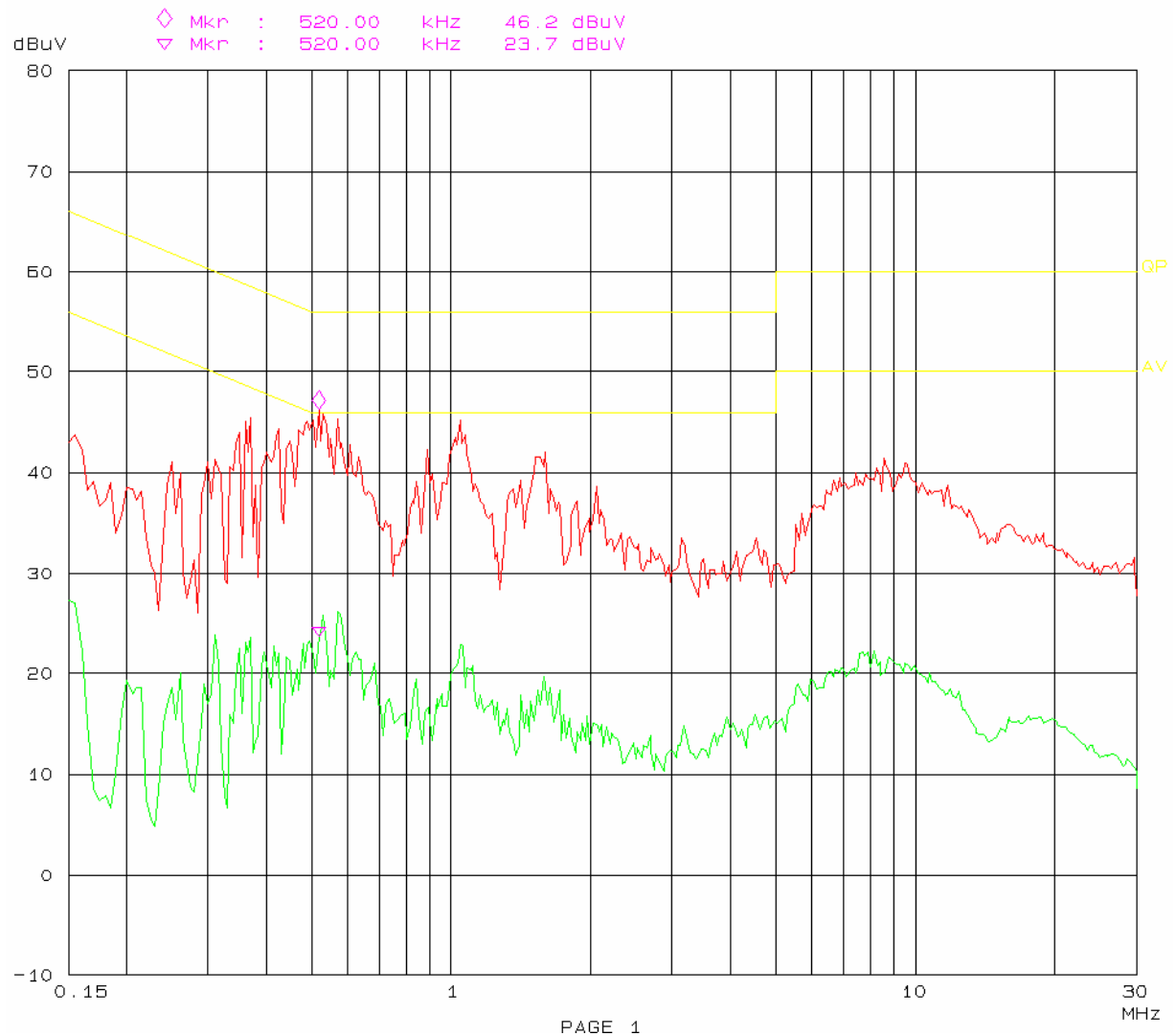
EUT: Wireless baby monitor M/N: JY238
Manuf: JOYO
Op Cond: transmitting channel A
Operator: King
Test Spec: AC 120V/60Hz Neutral
Comment: Temp: 25 Hum: 56%



Conduction Emission
FCC Part15

26. Jun 08 21:57

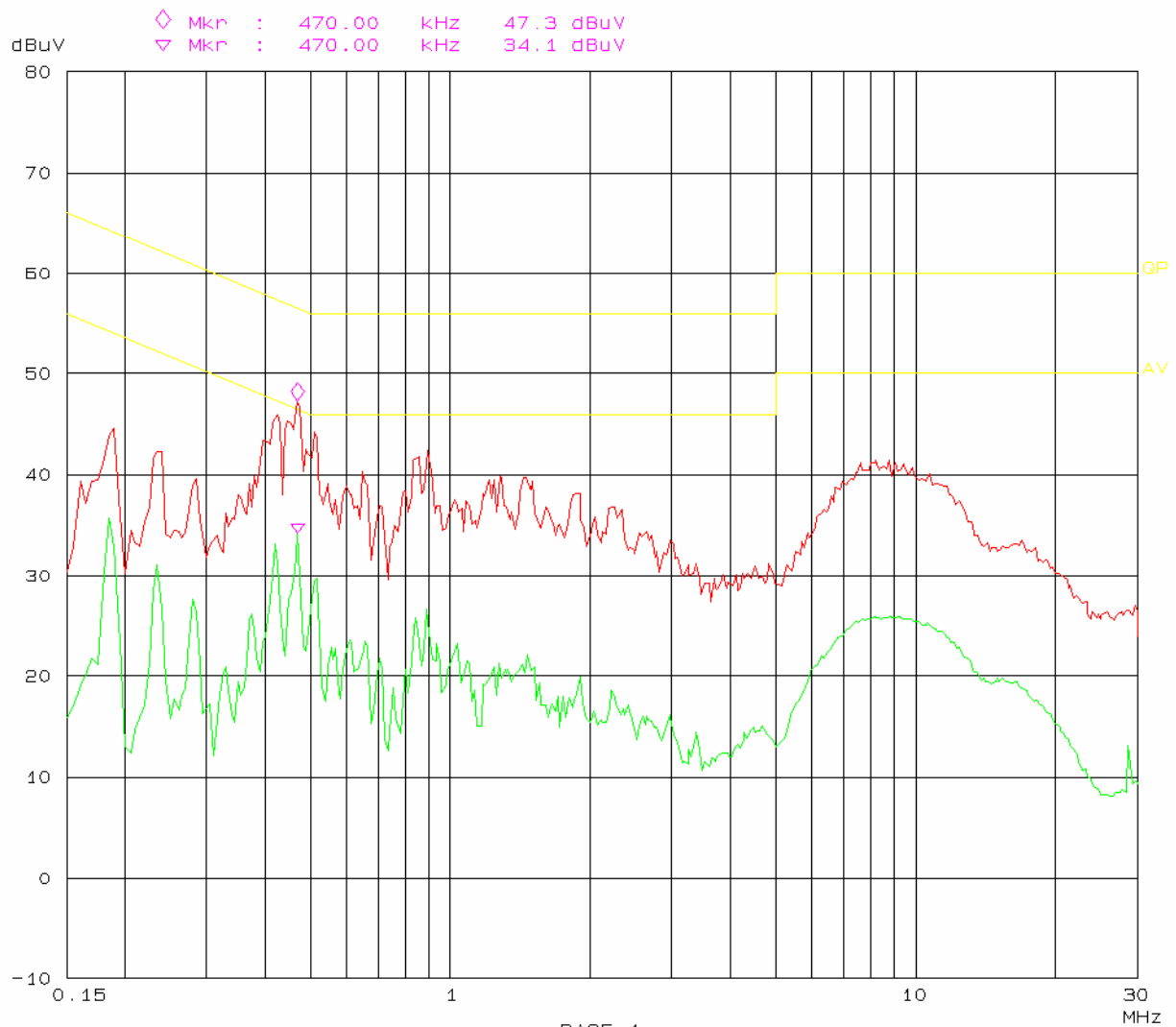
EUT: Wireless baby monitor M/N: JY238
Manuf: JOYO
Op Cond: transmittiing channel B
Operator: King
Test Spec: AC 120V/60Hz hot
Comment: Temp: 25 Hum: 56%



Conduction Emission
FCC Part15

26. Jun 08 22:09

EUT: Wireless baby monitor M/N: JY238
Manuf: JOYO
Op Cond: transmittiing channel B
Operator: King
Test Spec: AC 120V/60Hz Neutral
Comment: Temp: 25 Hum: 56%



§15.205(a) §15.209(a) §15.249(a) §15.249(d) - RADIATED EMISSIONS**Applicable Standard**

As per §15.249 (a), except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental Frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902–928 MHz	50	500
2400–2483.5 MHz	50	500
5725–5875 MHz	50	500
24.0–24.25 GHz	250	2500

As per §15.249 (c), Field strength limits are specified at a distance of 3 meters.

(d) 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.

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 Laboratories Corp. (Shenzhen) is ± 4.0 dB.

Test Equipment Setup

The spectrum analyzer or receiver is set as:

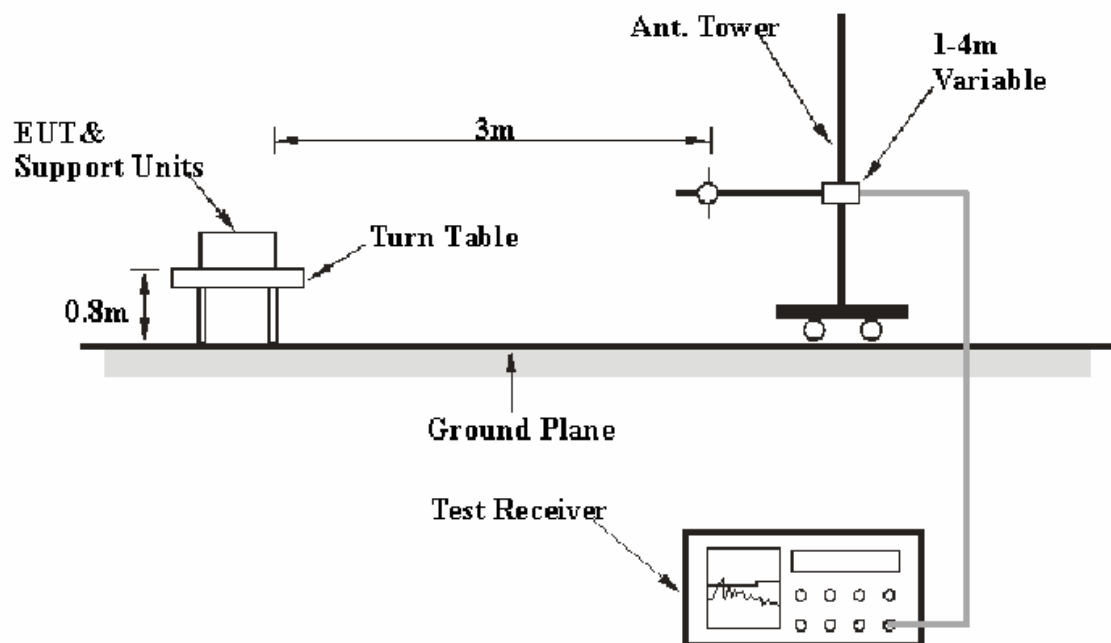
Below 1000MHz:

$$\text{RBW} = 100 \text{ kHz} / \text{VBW} = 300 \text{ kHz} / \text{Sweep} = \text{Auto}$$

Above 1000MHz:

- (1) Peak: RBW = 1MHz / VBW = 1MHz / Sweep = Auto
- (2) Average: RBW = 1MHz / VBW = 10Hz / Sweep = Auto

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.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
HP	Amplifier	8447E	1937A01046	2007-11-15	2008-11-15
Rohde & Schwarz	EMI Test Receiver	ESCI	100224	2007-10-16	2008-10-16
Sunol Sciences	Bilog Antenna	JB1	A040904-2	2007-08-14	2008-08-14
HP	Amplifier	8449B	3008A00277	2007-09-29	2008-09-29
Sunol Sciences	Horn Antenna	DRH-118	A052604	2007-09-25	2008-09-25
Rohde & Schwarz	Spectrum Analyzer	FSEM30	849720/019	2007-05-09	2008-05-09

*** Statement of Traceability:** Bay Area Compliance Laboratories 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 EUT, and all support equipment power cords 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.

The EUT is set 3 meter away from the testing antenna, which is varied from 1-4 mete, and the EUT is placed on a turntable, which is 0.8 meter above ground plane, the table shall be rotated for 360 degrees to find out the highest emission. The receiving antenna should be changed the polarization both of horizontal and vertical.

Corrected Amplitude & Margin Calculation

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

$$\text{Corrected Amplitude} = \text{Receiver Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

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 limit for Class B. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

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 (Channel A, Adapter): 6.0 dB at 42.998525 MHz in the Vertical polarization.

Transmitting Mode (Channel B, Adapter): 2.2 dB at 955.263400 MHz in the Horizontal polarization.

Transmitting Mode (Channel A, Battery): 5.8 dB at 41.245877 MHz in the Vertical polarization.

Transmitting Mode (Channel B, Battery): 2.4 dB at 956.487512 MHz in the Horizontal polarization.

Above 1GHz:

Transmitting Mode (Channel A, Adapter): 4.01 dB at 1818 MHz in the Horizontal polarization.

Transmitting Mode (Channel B, Adapter): 2.47 dB at 1842 MHz in the Horizontal polarization.

Transmitting Mode (Channel A, Battery): 3.69 dB at 1818 MHz in the Horizontal polarization.

Transmitting Mode (Channel B, Battery): 3.03 dB at 1842 MHz in the Horizontal polarization.

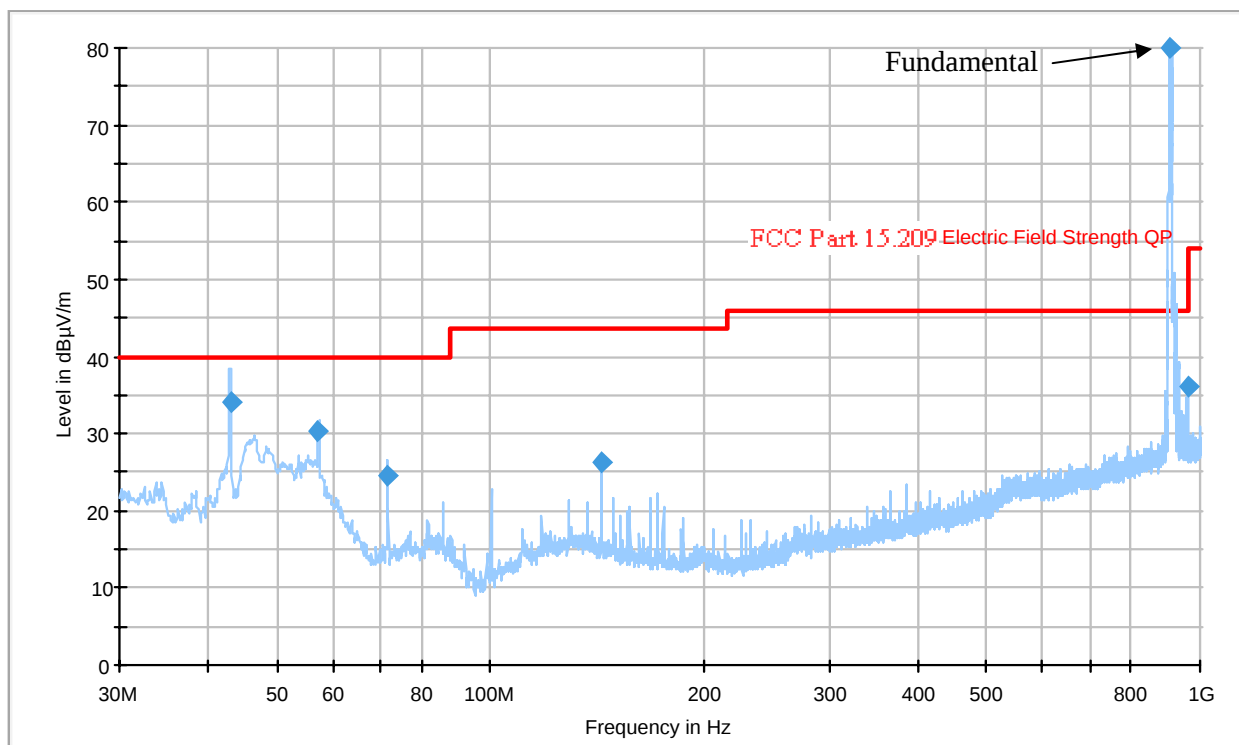
Test Data**Environmental Conditions**

Temperature:	25 ° C
Relative Humidity:	56%
ATM Pressure:	100.2 kPa

The testing was performed by King Tang on 2008-06-26.

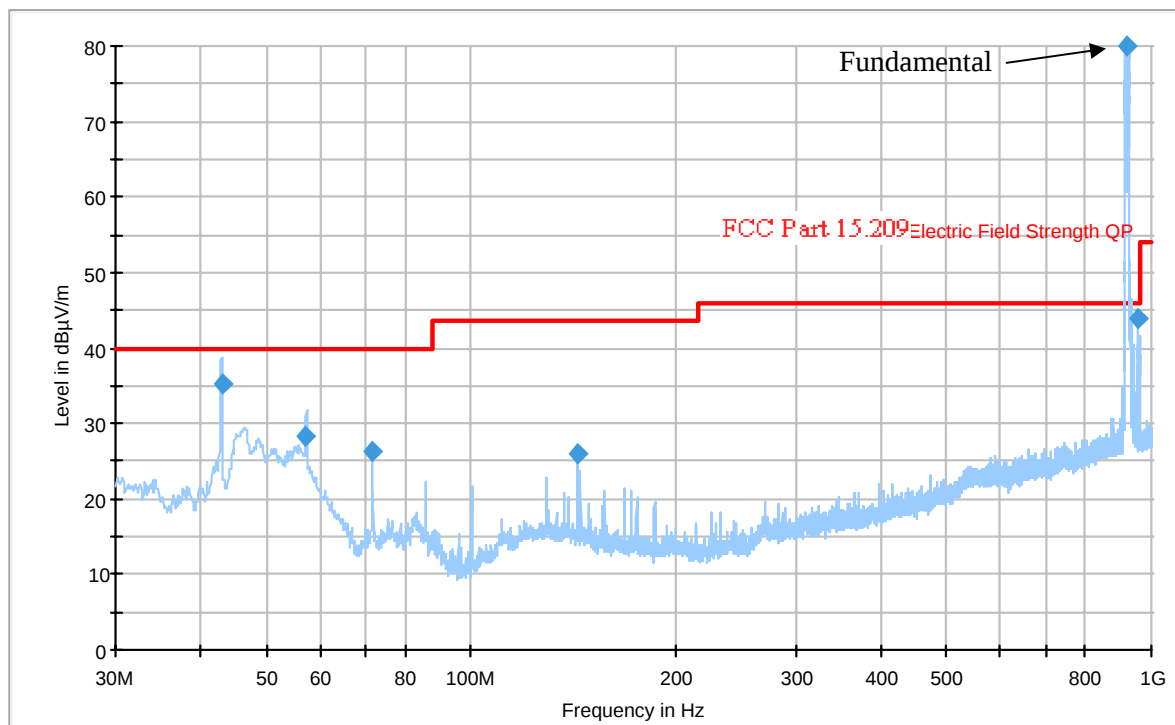
30-1000 MHz:

Test Mode: Transmitting Channel A (Adapter)



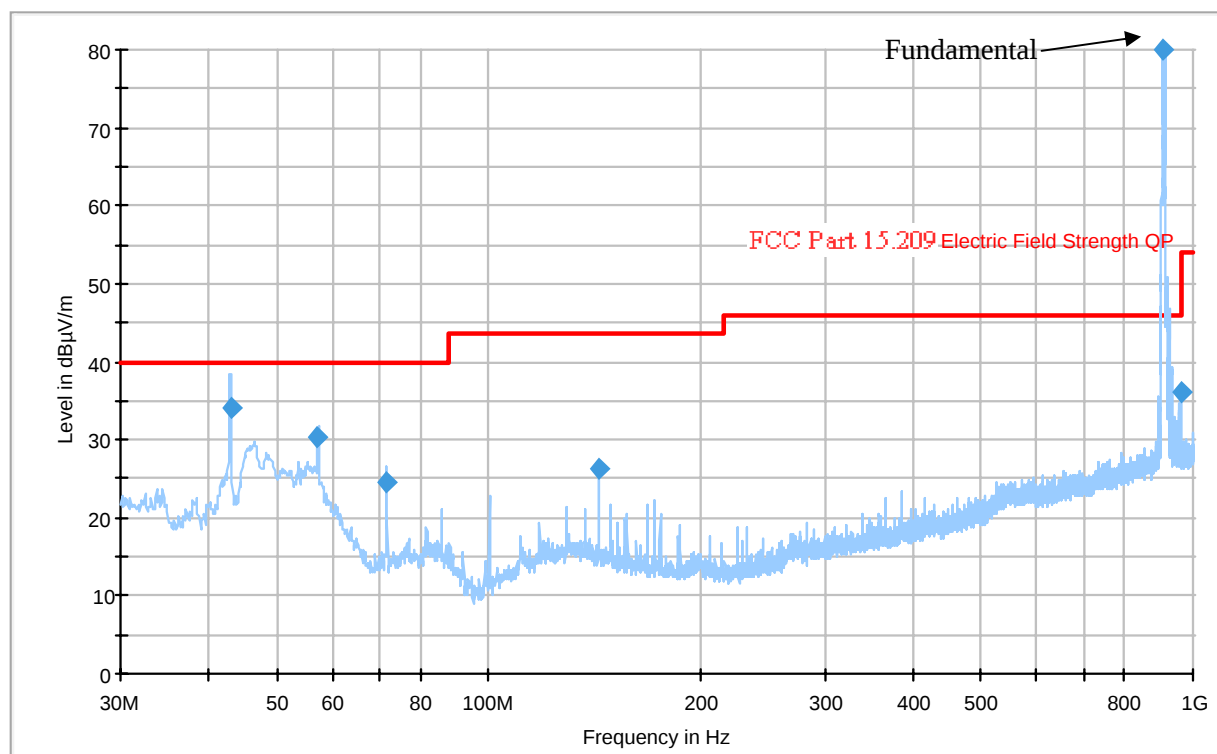
Frequency (MHz)	Corrected Amplitude (dBμV/m)	Ant. Height (cm)	Ant. Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBμV/m)	Margin (dB)
42.998525	34.0	104.0	V	87.0	-13.4	40.0	6.0
57.099750	30.2	141.0	V	99.0	-17.4	40.0	9.8
959.658500	36.2	104.0	V	24.0	1.2	46.0	9.8
71.289950	24.5	105.0	V	85.0	-16.8	40.0	15.5
143.126250	26.3	103.0	V	26.0	1.3	43.5	17.2

Test Mode: Transmitting Channel B (Adapter)



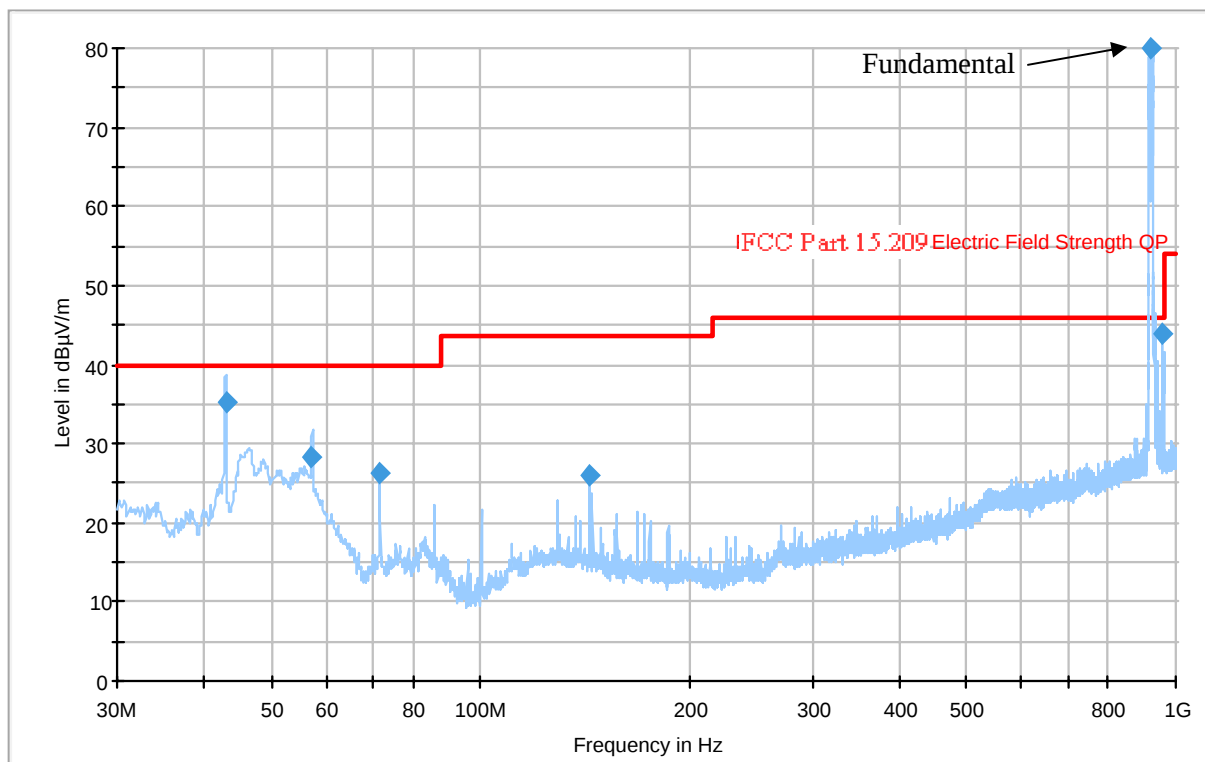
Frequency (MHz)	Corrected Amplitude (dBμV/m)	Ant. Height (cm)	Ant. Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBμV/m)	Margin (dB)
955.263400	43.8	118.0	H	34.0	1.9	46.0	2.2
43.046125	35.2	106.0	V	130.0	-13.5	40.0	4.8
56.983125	28.4	106.0	V	143.0	-17.4	40.0	11.6
71.571375	26.2	125.0	V	169.0	-16.8	40.0	13.8
143.126250	26.0	105.0	V	25.0	1.2	43.5	17.5

Test Mode: Transmitting Channel A (Battery)



Frequency (MHz)	Corrected Amplitude (dBμV/m)	Ant. Height (cm)	Ant. Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBμV/m)	Margin (dB)
41.245877	34.2	125.0	V	100.0	-14.5	40.0	5.8
960.358716	36.3	114.0	V	124.0	1.3	46.0	9.7
56.147256	30.0	130.0	V	120.0	-12.6	40.0	10.0
70.685472	24.7	141.0	V	65.0	-16.3	40.0	15.3
144.581690	26.6	123.0	V	78.0	1.5	43.5	16.9

Test Mode: Transmitting Channel B (Battery)



Frequency (MHz)	Corrected Amplitude (dBμV/m)	Ant. Height (cm)	Ant. Polarity (H/V)	Turntable Position (deg)	Correction Factor (dB)	Limit (dBμV/m)	Margin (dB)
956.487512	43.6	105.0	H	260.0	1.8	46.0	2.4
43.014875	35.1	112.0	V	60.0	-10.2	40.0	4.9
56.247836	28.2	145.0	V	120.0	-9.4	40.0	11.8
70.214759	26.8	133.0	V	200.0	-4.8	40.0	13.2
144.218576	26.5	160.0	V	45.0	1.0	43.5	17.0

Above 1GHz:*Test Mode: Transmitting Channel A (Adapter)*

Freq. (MHz)	Receiver Reading (dBμV)	Detector PK/QP/AV	Direction Degree	Ant. Height (m)	Ant. Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	FCC Part 15.209 & 15.249		
										Limit (dBμV/m)	Margin (dB)	Comment
1818	50.95	AV	220	1.6	V	27.1	5.34	33.4	49.99	54	4.01	Harmonic
1818	48.17	AV	320	1.6	H	27.1	5.34	33.4	47.21	54	6.79	Harmonic
2727	43.36	AV	305	1.5	V	28.9	7.81	33.8	46.27	54	7.73	Harmonic
1579	49.26	AV	45	1.7	V	25.4	4.79	34.2	45.25	54	8.75	Spurious
2727	42.28	AV	180	1.2	H	28.9	7.81	33.8	45.19	54	8.81	Harmonic
1579	48.49	AV	120	1.2	H	25.4	4.79	34.2	44.48	54	9.52	Spurious
909	57.33	QP	90	1.2	V	20.4	6.65	0	84.38	94	9.62	Fund.
909	55.56	QP	200	1.3	H	20.4	6.65	0	82.61	94	11.39	Fund.
1818	56.95	PK	0	1.6	V	27.1	5.34	33.4	55.99	74	18.01	Harmonic
1818	52.54	PK	300	1.5	H	27.1	5.34	33.4	51.58	74	22.42	Harmonic
2727	48.25	PK	145	1.3	V	28.9	7.81	33.8	51.16	74	22.84	Harmonic
2727	47.13	PK	60	1.2	H	28.9	7.81	33.8	50.04	74	23.96	Harmonic
1579	53.41	PK	325	1.2	V	25.4	4.79	34.2	49.4	74	24.60	Spurious
1579	51.15	PK	260	1.7	H	25.4	4.79	34.2	47.14	74	26.86	Spurious

Test Mode: Transmitting Channel B (Adapter)

Freq. (MHz)	Receiver Reading (dBμV)	Detector PK/QP/AV	Direction Degree	Ant. Height (m)	Ant. Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	FCC Part 15.209 & 15.249		
										Limit (dBμV/m)	Margin (dB)	Comment
1842	52.49	AV	190	1.3	V	27.1	5.34	33.4	51.53	54	2.47	Harmonic
1842	50.29	AV	360	1.5	H	27.1	5.34	33.4	49.33	54	4.67	Harmonic
2763	42.26	AV	0	1.0	V	28.9	7.81	33.8	45.17	54	8.83	Harmonic
1612	48.76	AV	360	1.3	V	25.4	4.79	34.2	44.75	54	9.25	Spurious
921	56.31	QP	90	1.2	V	20.4	6.63	0	83.34	94	10.66	Fund.
1612	47.16	AV	90	1.5	H	25.4	4.79	34.2	43.15	54	10.85	Spurious
2763	40.21	AV	120	1.0	H	28.9	7.81	33.8	43.12	54	10.88	Harmonic
921	54.98	QP	120	1.5	H	20.4	6.63	0	82.01	94	11.99	Fund.
1842	57.18	PK	145	1.1	V	27.1	5.34	33.4	56.22	74	17.78	Harmonic
1842	56.47	PK	325	1.5	H	27.1	5.34	33.4	55.51	74	18.49	Harmonic
2763	48.15	PK	200	1.7	V	28.9	7.81	33.8	51.06	74	22.94	Harmonic
2763	46.63	PK	180	1.3	H	28.9	7.81	33.8	49.54	74	24.46	Harmonic
1612	53.18	PK	60	1.0	V	25.4	4.79	34.2	49.17	74	24.83	Spurious
1612	52.71	PK	245	1.5	H	25.4	4.79	34.2	48.7	74	25.30	Spurious

Test Mode: Transmitting Channel A (Battery)

Freq. (MHz)	Receiver Reading (dBμV)	Detector PK/QP/AV	Direction Degree	Ant. Height (m)	Ant. Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	FCC Part 15.209 & 15.249		
										Limit (dBμV/m)	Margin (dB)	Comment
1818	51.27	AV	78	1.3	V	27.1	5.34	33.4	50.31	54	3.69	Harmonic
1818	49.36	AV	200	1.5	H	27.1	5.34	33.4	48.4	54	5.60	Harmonic
2727	43.27	AV	188	1.7	V	28.9	7.81	33.8	46.18	54	7.82	Harmonic
2727	42.77	AV	320	1.2	H	28.9	7.81	33.8	45.68	54	8.32	Harmonic
1553	49.63	AV	235	1.2	H	25.4	4.79	34.2	45.62	54	8.38	Spurious
909	58.47	QP	0	1.4	V	20.4	6.65	0	85.52	94	8.48	Fund.
1553	48.16	AV	90	1.2	V	25.4	4.79	34.2	44.15	54	9.85	Spurious
909	54.19	QP	220	1.5	H	20.4	6.65	0	81.24	94	12.76	Fund.
1818	55.24	PK	45	1.2	V	27.1	5.34	33.4	54.28	74	19.72	Harmonic
2727	48.56	PK	300	1.5	H	28.9	7.81	33.8	51.47	74	22.53	Harmonic
2727	48.15	PK	160	1.3	V	28.9	7.81	33.8	51.06	74	22.94	Harmonic
1818	52.01	PK	145	1.5	H	27.1	5.34	33.4	51.05	74	22.95	Harmonic
1553	52.79	PK	0	1.3	V	25.4	4.79	34.2	48.78	74	25.22	Spurious
1553	51.03	PK	165	1.4	H	25.4	4.79	34.2	47.02	74	26.98	Spurious

Test Mode: Transmitting Channel B (Battery)

Freq. (MHz)	Receiver Reading (dBμV)	Detector PK/QP/AV	Direction Degree	Ant. Height (m)	Ant. Polar (H/V)	Ant. Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Cord. Amp. (dBμV/m)	FCC Part 15.209 & 15.249		
										Limit (dBμV/m)	Margin (dB)	Comment
1842	51.93	AV	0	1.2	V	27.1	5.34	33.4	50.97	54	3.03	Harmonic
1842	51.47	AV	330	1.2	H	27.1	5.34	33.4	50.51	54	3.49	Harmonic
1643	49.68	AV	180	1.2	V	25.4	4.79	34.2	45.67	54	8.33	Spurious
2763	42.55	AV	40	1.0	V	28.9	7.81	33.8	45.46	54	8.54	Harmonic
1643	48.63	AV	245	1.3	H	25.4	4.79	34.2	44.62	54	9.38	Spurious
2763	41.67	AV	100	1.1	H	28.9	7.81	33.8	44.58	54	9.42	Harmonic
921	57.14	QP	360	1.1	V	20.4	6.63	0	84.17	94	9.83	Fund.
921	55.22	QP	90	1.6	H	20.4	6.63	0	82.25	94	11.75	Fund.
1842	58.19	PK	160	1.5	V	27.1	5.34	33.4	57.23	74	16.77	Harmonic
1842	57.48	PK	200	1.5	H	27.1	5.34	33.4	56.52	74	17.48	Harmonic
2763	49.07	PK	325	1.6	V	28.9	7.81	33.8	51.98	74	22.02	Harmonic
2763	47.49	PK	65	1.3	H	28.9	7.81	33.8	50.4	74	23.60	Harmonic
1643	54.17	PK	90	1.0	V	25.4	4.79	34.2	50.16	74	23.84	Spurious
1643	51.28	PK	200	1.4	H	25.4	4.79	34.2	47.27	74	26.73	Spurious

Note: Fund. - Fundamental

§15.249(d) – OUT OF BAND EMISSIONS

Applicable Standard

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

The EUT is set 3 meter away from the testing antenna, which is varied from 1-4 mete, and the EUT is placed on a turntable, which is 0.8 meter above ground plane, the table shall be rotated for 360 degrees to find out the highest emission at the band edge. The receiving antenna should be changed the polarization both of horizontal and vertical.

$$\text{Corrected Amplitude} = \text{Receiver Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Amplifier Gain}$$

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100224	2007-10-16	2008-10-16
HP	Amplifier	8449B	3008A00277	2007-09-29	2008-09-29
Sunol Sciences	Horn Antenna	DRH-118	A052604	2007-09-25	2008-09-25

*** Statement of Traceability:** Bay Area Compliance Laboratories 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:	56%
ATM Pressure:	100.2 kPa

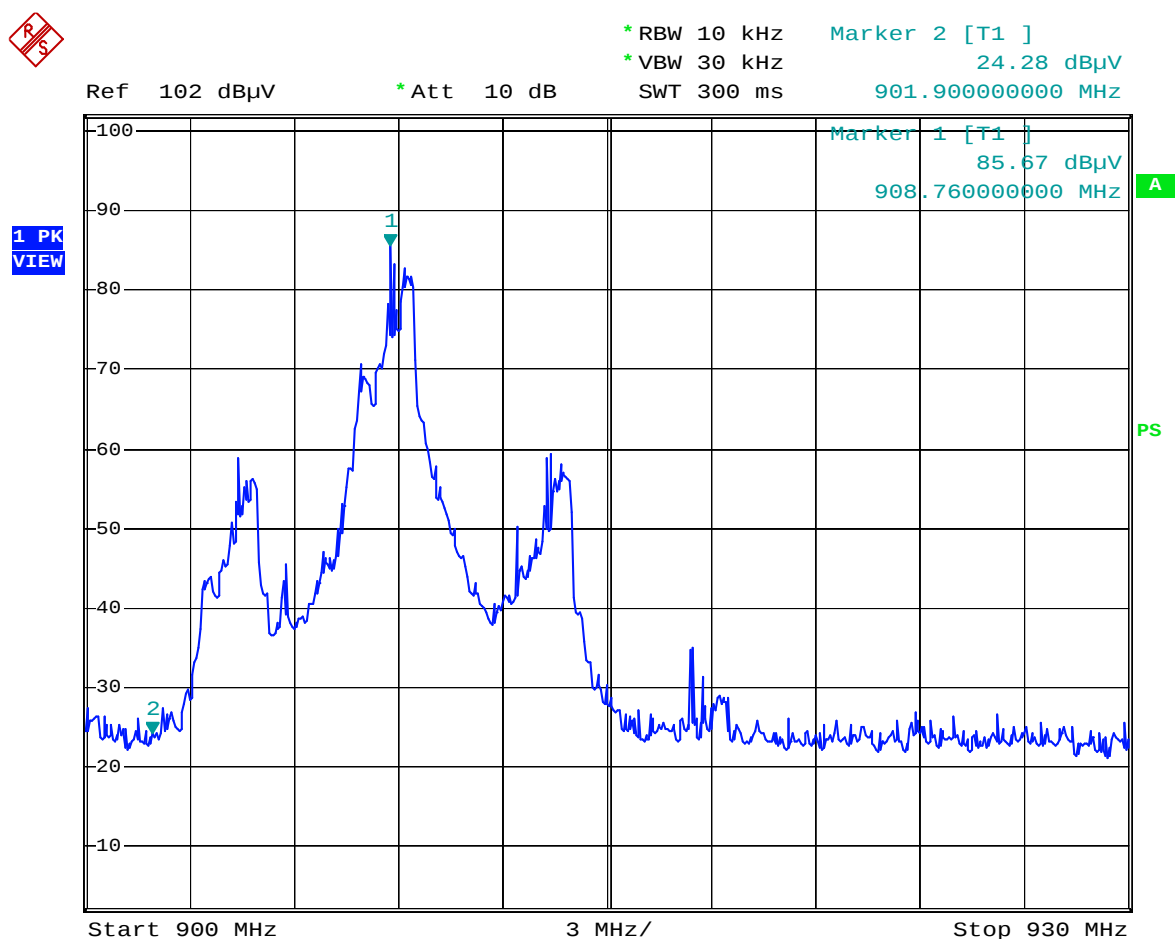
The testing was performed by King Tang on 2008-07-15.

Test Mode: Transmitting

Frequency (MHz)	Receiver Reading (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Pre-Amp. Gain (dB)	Correct Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
901.9	24.28	20.4	6.65	28.9	22.43	46	23.57
928.1	24.57	20.4	6.63	29.0	22.60	46	23.40

Please refer to following plots.

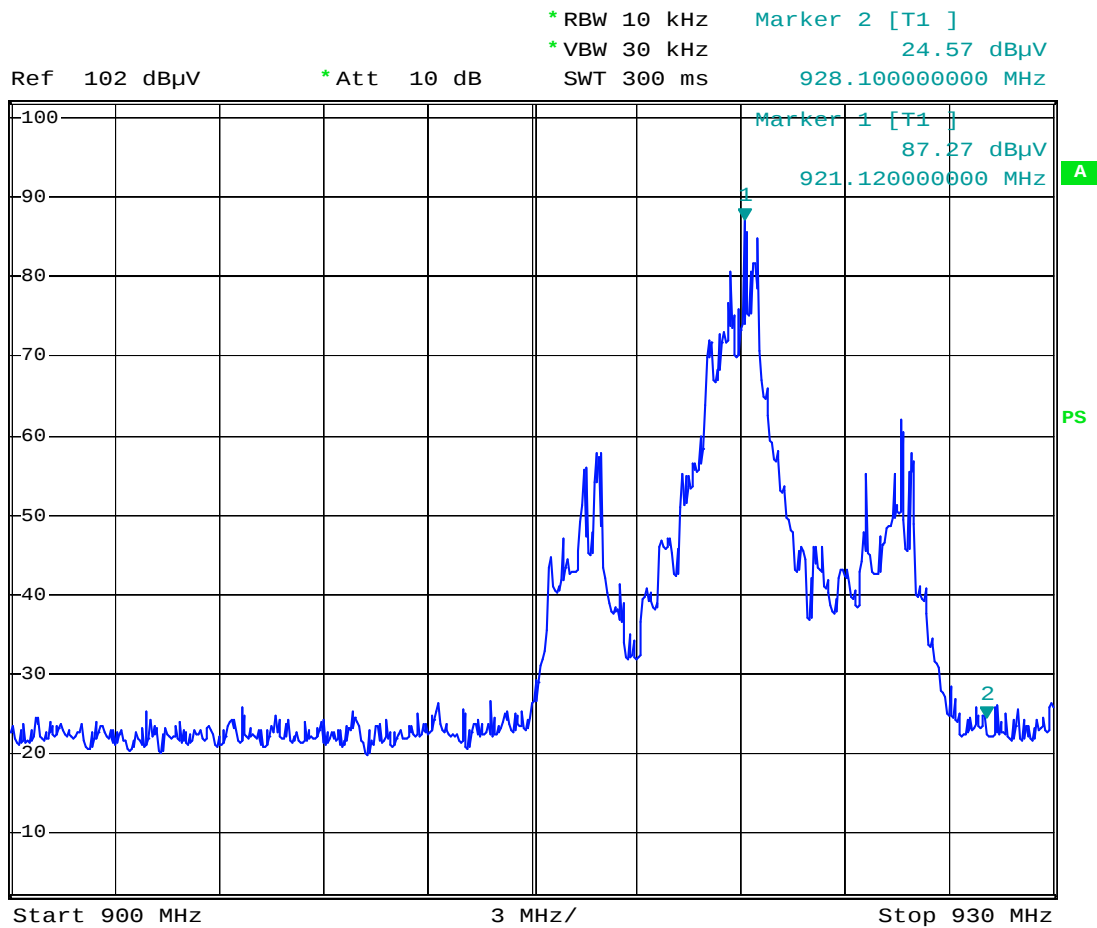
Low Band Edge



band edge -low channel

Date: 15.JUL.2008 01:48:38

High Band Edge

1 PK
VIEW

band edge -high channel

Date: 15.JUL.2008 01:50:13

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