



FCC 47 CFR PART 15 SUBPART C

TEST REPORT

For

Car Kit

Model: TZ700

Trade Name: Motorola

Issued to

**Motorola Mobility Inc.
Motorola Mobility, Inc. 8000 W. Sunrise Blvd., Plantation, Florida, U.S.A.**

Issued by

**Compliance Certification Services Inc.
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Testing Laboratory
0363

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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	Sep. 10, 2010	Initial Issue	ALL	Jill Shiau



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1. TEST RESULT CERTIFICATION

Applicant: **Motorola Mobility Inc.**
 Motorola Mobility, Inc. 8000 W. Sunrise Blvd.,
 Plantation, Florida, U.S.A.

Equipment Under Test: Car Kit

Trade Name: Motorola

Model: TZ700

Date of Test: August 19 ~ September 10, 2010

APPLICABLE STANDARDS	
STANDARD	TEST RESULT
FCC 47 CFR Part 15 Subpart C	No non-compliance noted

We hereby certify that:

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4: 2003 and the energy emitted by the sample EUT tested as described in this report is in compliance with the requirements of FCC Rules Part 15.207, 15.209, 15.239.

The test results of this report relate only to the tested sample EUT identified in this report.

Approved by:

Reviewed by:

Stan Lin
 Section Manager

Jill Shiau
 Section Manager



2. EUT DESCRIPTION

Product	Car Kit		
Trade Name	Motorola		
Model Number	TZ700		
Model Name Discrepancy	N/A		
EUT Power Rating	5VDC		
Car Charger	Motorola	Model	N/A
Car Charger Power Rating	I/P: 10.8-33Vcc O/P: 4.75-5.25Vcc		
FM Transmitter Manufacturer	Slilcon Lab	Model	SI4712
Frequency Range	88.3-107.9 MHz		
Transmit Power	46.68dBuV/m		
Modulation Technique	FM		
Channel Spacing	200KHz		
Number of Channels	98 Channel		
Antenna Specification	Clip Antenna		

Remark:

1. The product is a Transmitter. This submittal(s) (test report) is intended for FCC ID: **IHDP6LO2** filing to comply with Section 15.239 of the FCC Part 15 Subpart C Rules.
2. The EUT is part of a system that operates with, another device (Bluetooth), please T100817301-RP1 Report.



3. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4 and FCC CFR 47 Part 15 Subpart C.

3.1 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

3.2 EUT EXERCISE

The calibrated antennas used to sample the radiated field strength are mounted on a non-conductive, motorized antenna mast 3 or 10 meters from the leading edge of the turntable.

3.3 GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 7.1 of ANSI C63.4. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-Peak detector mode.

Radiated Emissions

The EUT is a placed on as turntable, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4



3.4 FCC PART 15.205 RESTRICTED BANDS OF OPERATIONS

(a) Except as shown in paragraph (d) of this section, only spurious emissions are permitted in any of the frequency bands listed below:

Table with 4 columns: MHz, MHz, MHz, GHz. It lists various frequency ranges such as 0.090 - 0.110, 16.42 - 16.423, 399.9 - 410, and 4.5 - 5.15.

1 Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

2 Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.



3.5 DESCRIPTION OF TEST MODES

The EUT (model: TZ700) had been tested under operating condition and had been reported as worst case on this test report.

Test program used to control the EUT for staying in continuous transmitting mode was programmed.

Channel Low (88.3 MHz) , Mid (98.1 MHz) and High (107.9 MHz) was chosen for full testing.

Download the audio signal (MP3 songs) to the device, and then play MP3 songs during the 20dB BW test and the volume of audio was tuned to the max during the test.

The tuning controls were manually adjusted to verify maximum tuning range.

The field strength of spurious emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in stand-up position (Y axis) and the worst case was recorded.



4. INSTRUMENT CALIBRATION

4.1 MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

4.2 MEASUREMENT EQUIPMENT USED

Equipment Used for Emissions Measurement

Remark: Each piece of equipment is scheduled for calibration once a year.

Conducted Emission Test Site				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY48250064	11/05/2010
Spectrum Analyzer	R&S	FSEB	825829/011	11/02/2010
USB Power Sensor	BOONTON	52012	2061194	06/22/2011

3M Semi Anechoic Chamber				
Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	Agilent	E4446A	MY48250064	11/05/2010
Spectrum Analyzer	R&S	FSEB	825829/011	11/02/2010
Pre-Amplifier	HP	8447D	2944A06530	01/02/2011
Pre-Amplifier	HP	8449B	3008A01738	04/17/2011
EMI Test Receiver	SCHAFFNER	SCR 3501	436	01/26/2011
Loop Antenna	EMCO	6502	2356	06/11/2013
Bilog Antenna	SCHWAZBECK	VULB9160	3084	09/11/2010
Horn Antenna	EMCO	3115	00022250	05/09/2011
Turn Table	CCS	CC-T-1F	N/A	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R
Test S/W	LabVIEW 6.1 (Wugu Chamber EMI Test V1_4.5.3)			



4.3 MEASUREMENT UNCERTAINTY

For the test methods, according to the present document, the measurement uncertainty figures shall be calculated in accordance with TR 100 028-1 [2] and shall correspond to an expansion factor (coverage factor) $k = 1,96$ or $k = 2$ (which provide confidence levels of respectively 95 % and 95,45 % in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)).

Table 6 is based on such expansion factors.

Table 6: Maximum measurement uncertainty

Parameter	Uncertainty
RF frequency	$\pm 1 \cdot 10^{-5}$
Total RF power conducted	$\pm 1,5$ dB
RF power density, conducted	± 3 dB
Spurious emissions, conducted	± 3 dB
All emissions, radiated	± 6 dB
Humidity	± 5 %
Temperature	$\pm 1^{\circ}\text{C}$
DC and low frequency voltages	$\pm 3\%$



5. FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

No.199, Chungshen Road, Hsintien City, Taipei Hsien, Taiwan, R.O.C.
Tel: 886-2-2217-0894 / Fax: 886-2-2217-1029

No.11, Wugong 6th Rd., Wugu Industrial Park, Taipei Hsien 248, Taiwan
Tel: 886-2-2299-9720 / Fax: 886-2-2298-4045

No. 81-1, Lane 210, Bade 2nd Rd., Lujhu Township, Taiwan, R.O.C.
Tel: 886-3-324-0332 / Fax: 886-3-324-5235

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.

5.2 EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with preselectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.





All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

5.3 LABORATORY ACCREDITATIONS AND LISTINGS

The test facilities used to perform radiated and conducted emissions tests are accredited by National Voluntary Laboratory Accreditation Program for the specific scope of accreditation under Lab Code: 200600-0 to perform Electromagnetic Interference tests according to FCC PART 15 AND CISPR 22 requirements. No part of this report may be used to claim or imply product endorsement by NVLAP or any agency of the US Government. In addition, the test facilities are listed with Federal Communications Commission (registration no: 93105 and 90471).



5.4 TABLE PF ACCREDITATIONS AND LISTINGS

Country	Agency	Scope of Accreditation	Logo
USA	A2LA	EN 55011, EN 55014-1/2, CISPR 11, CISPR 14-1/2, EN 55022, EN 55015, CISPR 22, CISPR 15, AS/NZS 3548, VCCI V3 (2001), CFR 47, FCC Part 15/18, CNS 13783-1, CNS 13439, CNS 13438, CNS 13803, CNS 14115, EN 55024, IEC 801-2, IEC 801-3, IEC 801-4, IEC/EN 61000-3-2, EIC/EN 61000-3-3, IEC/EN 61000-4-2/3/4/5/6/8/11, EN 50081-1/ EN 61000-6-3, EN 50081-2/EN 61000-6-4, EN 50081-2/EN 61000-6-1: 2001	 TESTING CERT #0824.01
USA	FCC	3M Semi Anechoic Chamber (965860 and 898658) to perform FCC Part 15/18 measurements	 965860, 898658
Taiwan	TAF	LP0002, RTTE01, FCC Method-47 CFR Part 15 Subpart C, D, E, RSS-210, RSS-310 IDA TS SRD, AS/NZS 4268, AS/NZS 4771, TS 12.1 & 12.2, ETSI EN 300 440-1, ETSI EN 300 440-2, ETSI EN 300 328, ETSI EN 300 220-1, ETSI EN 300 220-2, ETSI EN 301 893, ETSI EN 301 489-1/3/7/17 FCC OET Bulletin 65 + Supplement C, EN 50360, EN 50361, EN 50371, RSS 102, EN 50383, EN 50385, EN 50392, IEC 62209, CNS 14958-1, CNS 14959 FCC Method -47 CFR Part 15 Subpart B IEC / EN 61000-3-2, IEC / EN 61000-3-3, IEC / EN 61000-4-2/3/4/5/6/8/11	 Testing Laboratory 1309
Canada	Industry Canada	3M Semi Anechoic Chamber (IC 6106 & IC 6106A-2) to perform RSS 212 Issue 1	 IC 6106 IC 6106A-2

Note: No part of this report may be used to claim or imply product endorsement by A2LA, TAF or other government agency.



6. SETUP OF EQUIPMENT UNDER TEST

6.1 SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

6.2 SUPPORT EQUIPMENT

No.	Device Type	Brand	Model	Series No.	FCC ID	Data Cable	Power Cord
1.	DC Power Source	GW	GPS-3303	0011606	FCC DoC	N/A	Unshielded, 1.8m

Remark: *Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.*



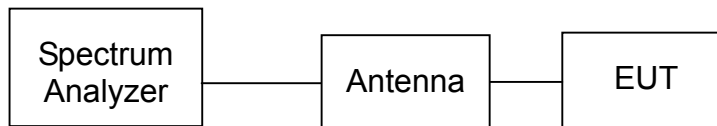
7. FCC PART 15.239 REQUIREMENTS

7.1 20 DB BANDWIDTH

LIMIT

N/A

TEST CONFIGURATION



TEST PROCEDURE

1. Place the EUT on the table and set it in the transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the spectrum analyzer.
3. Set the spectrum analyzer as RBW=10kHz, VBW = 30KHz, Span = 200MHz, Sweep = auto.
4. Repeat until all the rest channels are investigated.

TEST RESULTS

No non-compliance noted

Test Data

Channel	Frequency (MHz)	Bandwidth (kHz)
Low	88.3	56.5
Mid	98.1	55.5
High	107.9	55.5



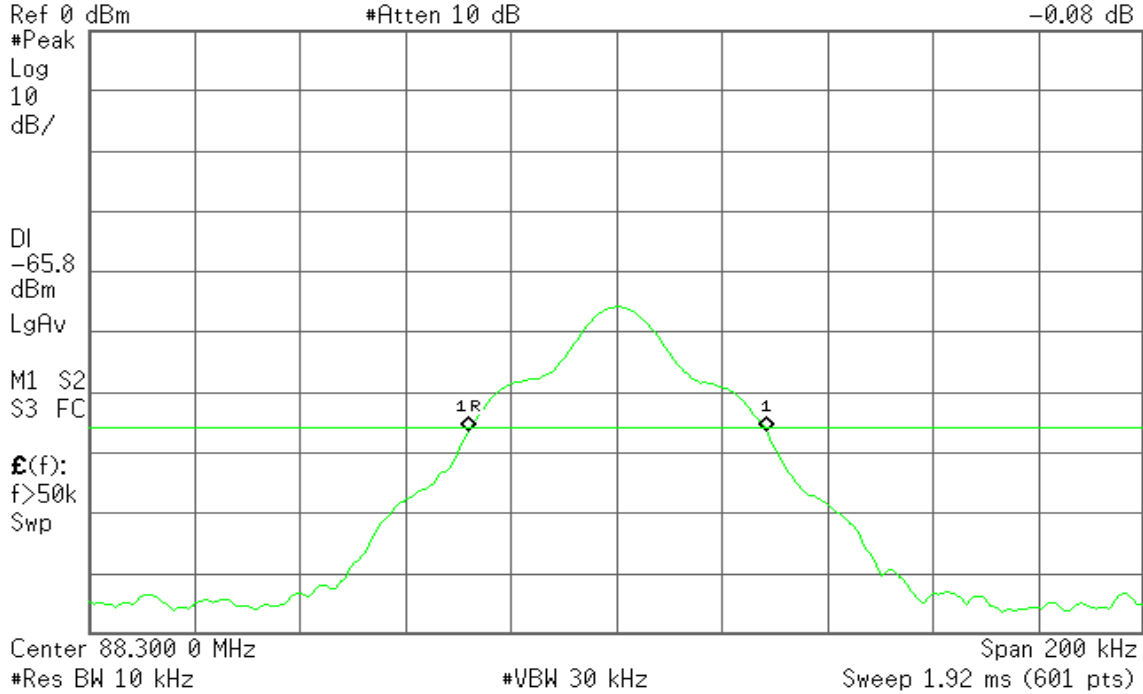
Test Plot

CH Low

Agilent 10:35:06 Aug 19, 2010

R L

Mkr1 56.5 kHz
-0.08 dB

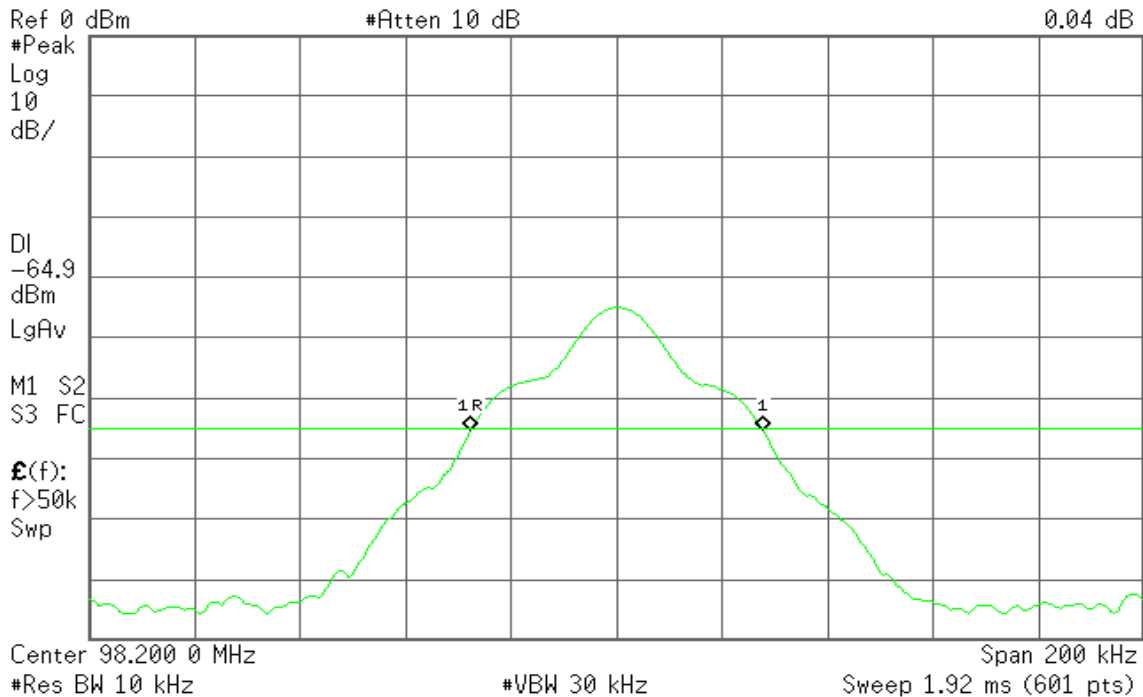


CH Mid

Agilent 10:34:06 Aug 19, 2010

R L

Mkr1 55.5 kHz
0.04 dB



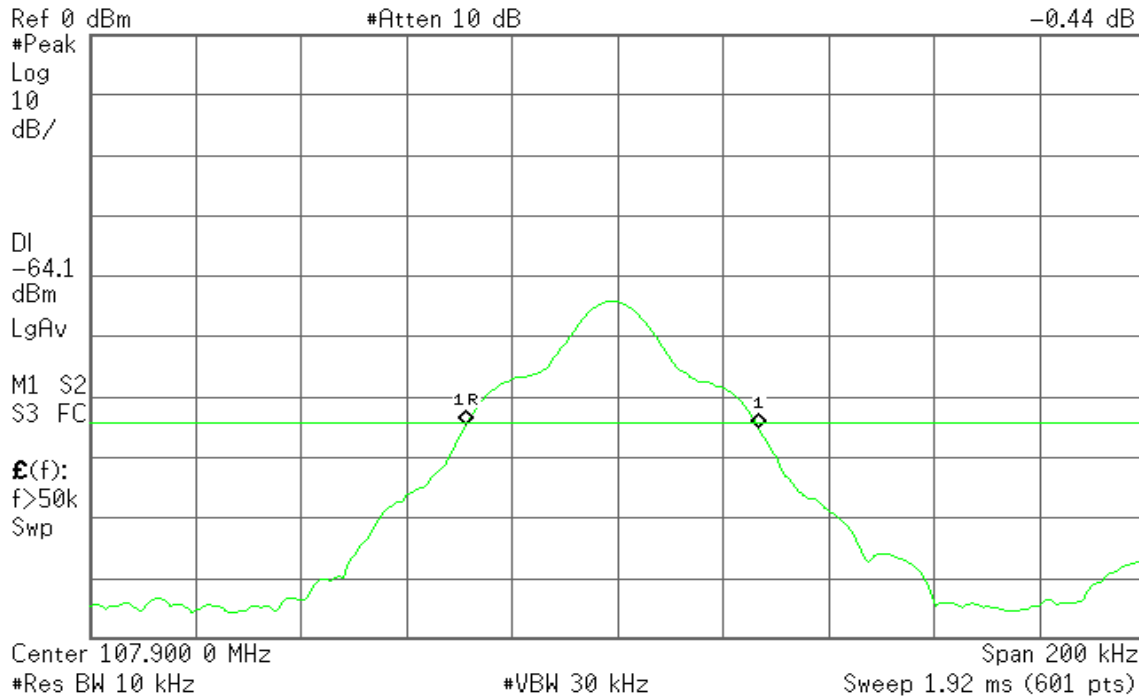


CH High

Agilent 10:32:51 Aug 19, 2010

R T

▲ Mkr1 55.5 kHz
-0.44 dB



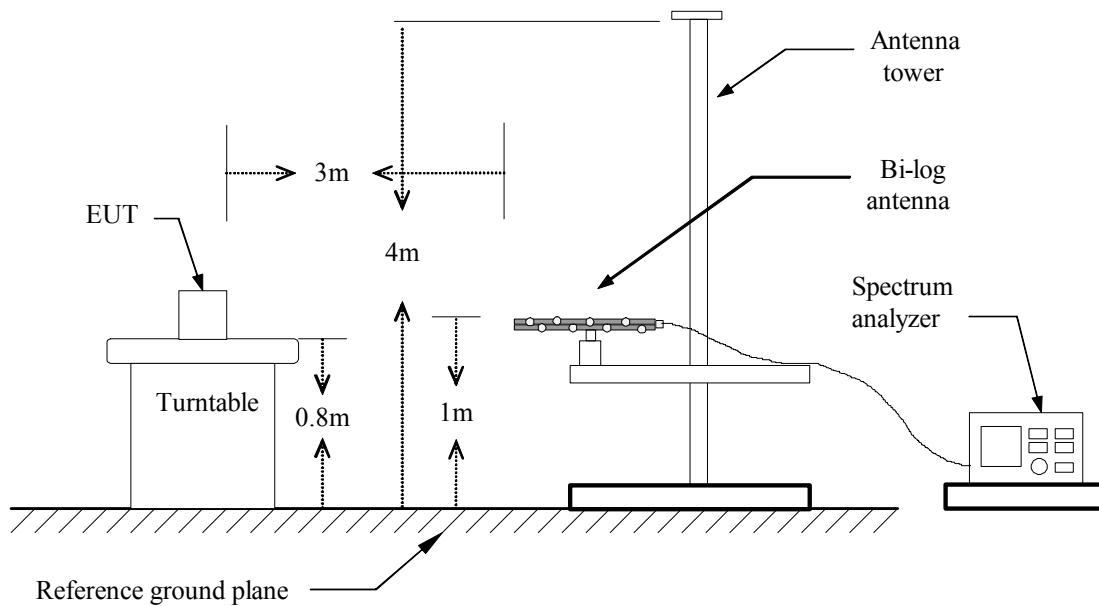


7.2 BAND EDGES MEASUREMENT

LIMIT

According to §15.239(a), emissions from the intentional radiator shall be confined within a band 200kHz wide centered on the operating frequency. The 200kHz band shall lie wholly within the frequency range of 88-108MHz.

TEST CONFIGURATION



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 as shown in figure 1 and measurement the turn on the EUT. 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 both RBW and VBW of spectrum analyzer to 10kHz and 100kHz respectively with a convenient frequency span including 200kHz bandwidth of the emission.
4. Mark the bandwidth of 200kHz points and plot the graph on spectrum analyzer.
5. Repeat the procedures until all measured frequencies were complete.



TEST RESULTS

Refer to attach spectrum analyzer data chart.

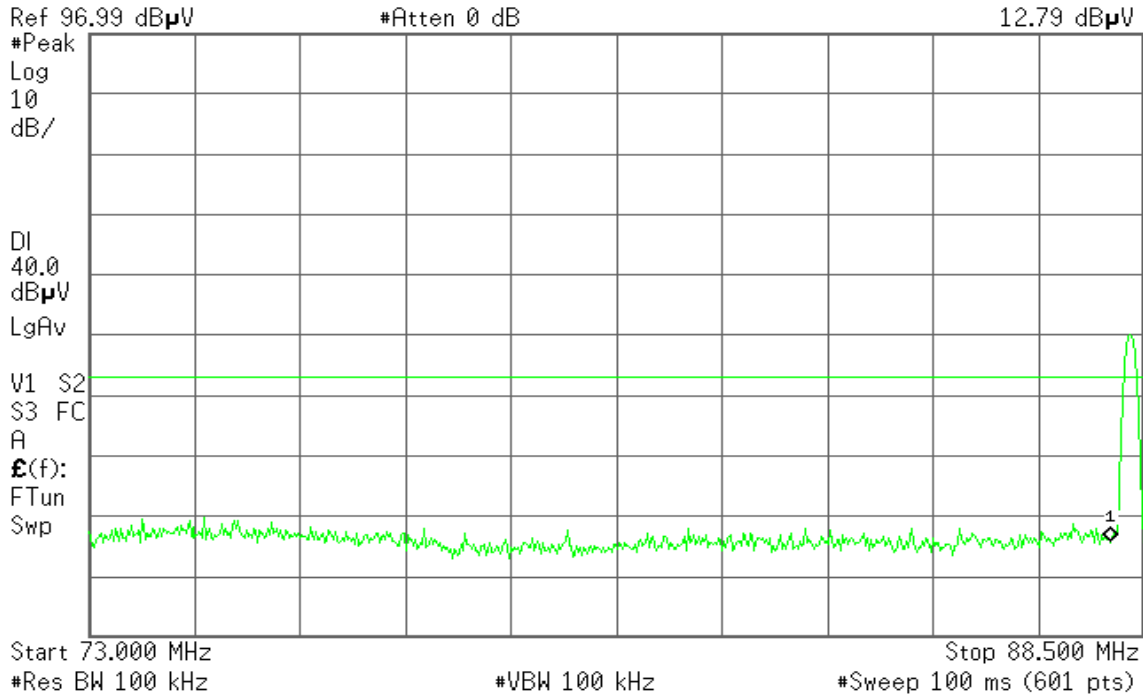
Band Edges (CH Low)

Polarity: Vertical

Agilent 14:09:43 Sep 10, 2010

R T

Mkr1 88.000 MHz
12.79 dB μ V

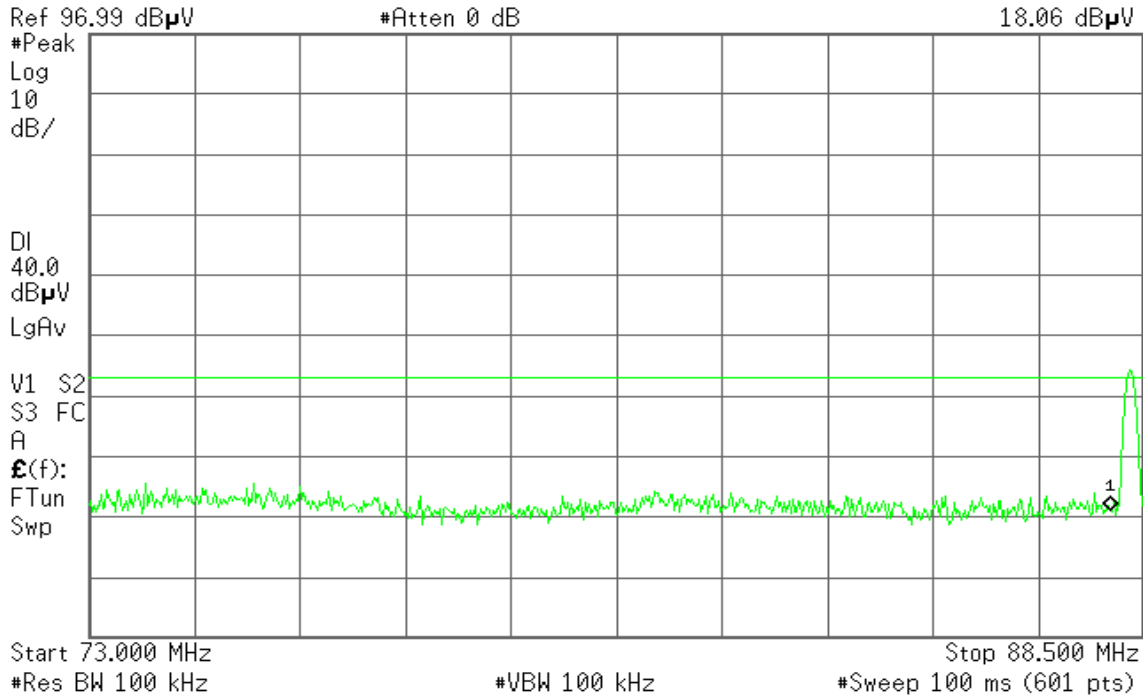


Polarity: Horizontal

Agilent 14:13:19 Sep 10, 2010

R L

Mkr1 88.000 MHz
18.06 dB μ V





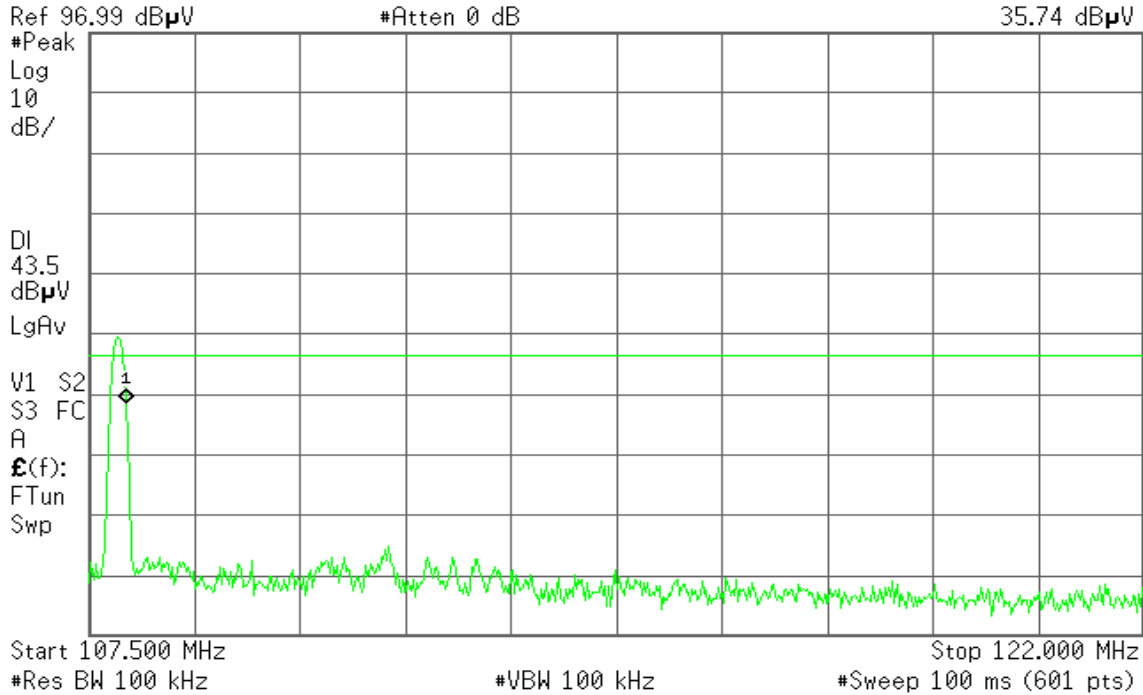
Band Edges (CH High)

Polarity: Vertical

Agilent 14:28:21 Sep 10, 2010

R L

Mkr1 108.000 MHz
35.74 dB μ V

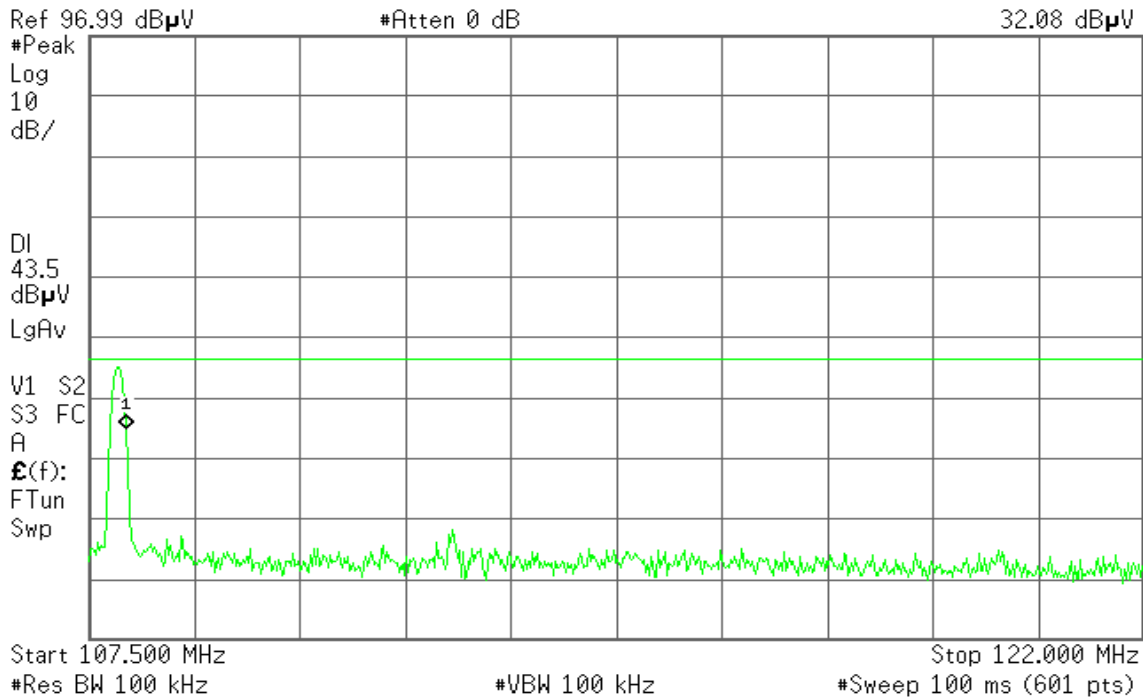


Polarity: Horizontal

Agilent 14:16:23 Sep 10, 2010

R L

Mkr1 108.000 MHz
32.08 dB μ V





7.3 RADIATED EMISSIONS

LIMIT

1. The field strength of any emission within this band (section 15.239 frequency between 88 MHz –108 MHz) shall not exceed 250 microvolts /meter at 3 meters. (48dB μ V/m at 3m) The emission limit in this paragraph is based on measurement instrumentation employing an average detector. The provisions in section 15.35 for limiting peak emissions apply.

The field strength of any emissions which appear outside of this band shall not exceed the general radiated emission limits in section 15.209(Intentional Radiators general limit), as below.

Frequency (MHz)	Field Strength (mV/m)	Measurement Distance (m)
1.705-30	30	30
30-88	100*	3
88-216	150*	3
216-960	200*	3
Above 960	500	3

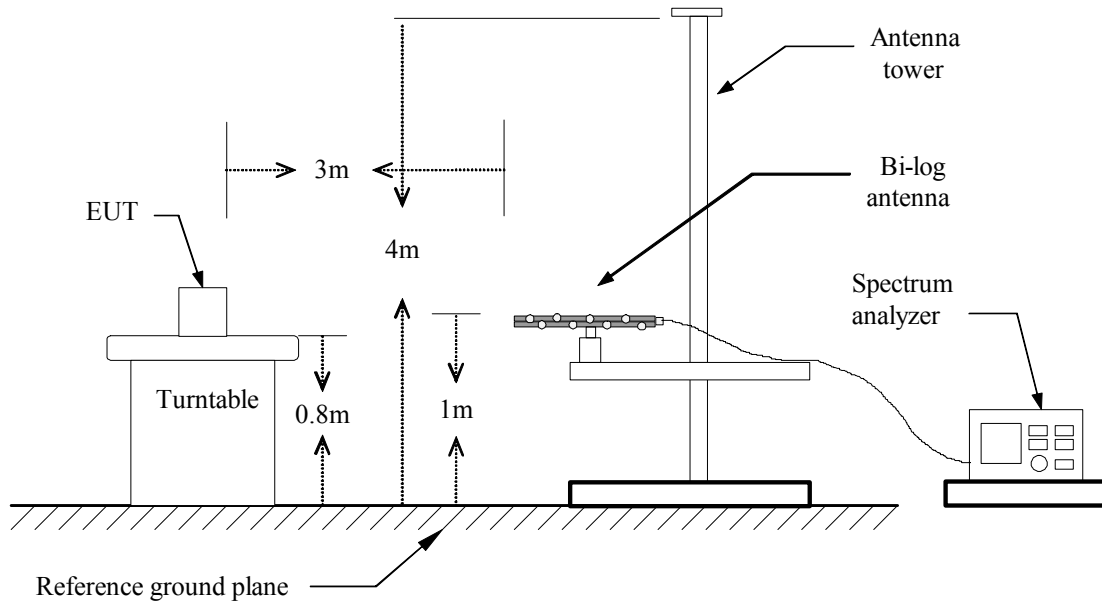
Remark: Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

2. In the above emission table, the tighter limit applies at the band edges.

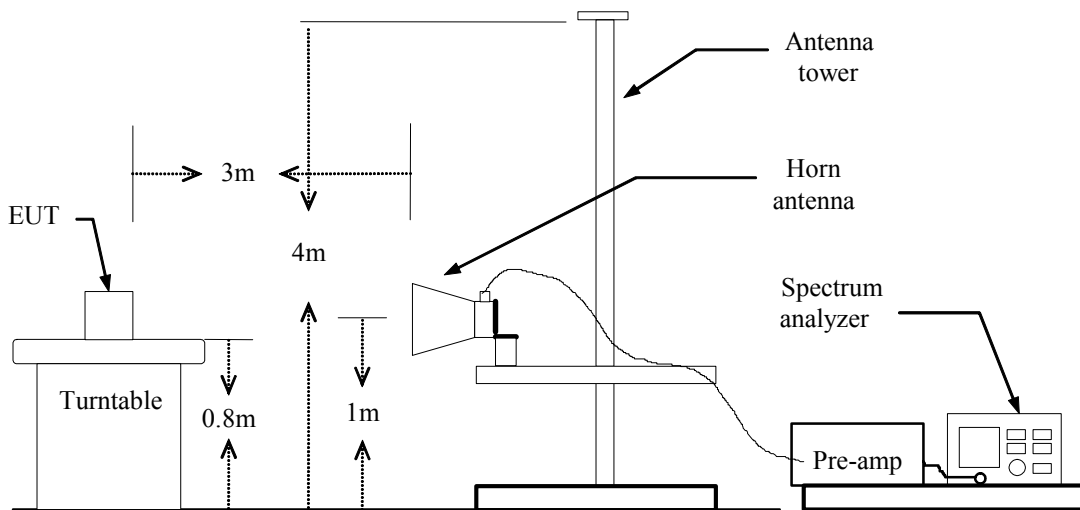
Frequency (Hz)	Field Strength (μ V/m at 3-meter)	Field Strength (dB μ V/m at 3-meter)
1.705-30	30	69.54
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54



Below 1 GHz



Above 1 GHz





TEST PROCEDURE

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Set the spectrum analyzer in the following setting as:
Below 1GHz:
RBW=100kHz / VBW=300kHz / Sweep=AUTO
Above 1GHz:
(a) PEAK: RBW=VBW=1MHz / Sweep=AUTO
(b) AVERAGE: RBW=1MHz / VBW=10Hz / Sweep=AUTO
7. Repeat above procedures until the measurements for all frequencies are complete.



TEST RESULTS

Test Data

Operation Mode: CH Low **Test Date:** Sep. 6, 2010
Temperature: 18°C **Tested by:** Chieh Cheng
Humidity: 60 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol (H/V)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
88.2789	V	64.28	-18.43	45.85	68.00	-22.15	Peak
51.8250	V	43.37	-14.16	29.21	40.00	-10.79	QP
63.9500	V	47.29	-16.66	30.63	40.00	-9.37	QP
78.5000	V	49.25	-19.43	29.82	40.00	-10.18	QP
105.1750	V	55.62	-17.27	38.35	43.50	-5.15	QP
156.1000	V	50.54	-12.81	37.73	43.50	-5.77	QP
289.4750	V	41.20	-11.47	29.73	46.00	-16.27	QP
354.9500	V	41.73	-9.65	32.08	46.00	-13.92	QP
410.7250	V	42.48	-9.21	33.27	46.00	-12.73	QP
88.2910	H	56.68	-18.43	38.25	68.00	-29.75	Peak
59.1000	H	33.41	-15.48	17.93	40.00	-22.07	QP
146.4000	H	40.38	-12.48	27.90	43.50	-15.60	QP
192.4750	H	41.80	-15.08	26.72	43.50	-16.78	QP
224.0000	H	45.86	-14.82	31.04	46.00	-14.96	QP
289.4750	H	47.05	-11.47	35.58	46.00	-10.42	QP
352.5250	H	40.84	-9.65	31.19	46.00	-14.81	QP

Remark:

1. No emission found between lowest internal used / generated frequency to 30 MHz. (9kHz ~ 30MHz)
2. Measuring frequencies from 30 MHz to the 1GHz.
3. Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak detector mode.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. The IF bandwidth of SPA between 30MHz to 1GHz was 100kHz.



Compliance Certification Services Inc.

Report No: T1100914302-RP2

FCC ID: IHDP6LO2

Date of Issue: Sep. 19, 2011

Operation Mode: CH Mid **Test Date:** Sep. 6, 2010
Temperature: 18°C **Tested by:** Chieh Cheng
Humidity: 60 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol (H/V)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
98.0925	V	64.36	-17.68	46.68	68.00	-21.32	Peak
98.0925	V	61.30	-17.68	43.62	48.00	-4.38	AVG
41.1320	V	40.10	-13.59	26.51	40.00	-13.49	QP
51.8250	V	43.39	-14.16	29.23	40.00	-10.77	QP
110.0250	V	42.31	-16.99	25.32	43.50	-18.18	QP
197.3250	V	46.43	-15.29	31.14	43.50	-12.36	QP
282.2000	V	45.49	-11.72	33.77	46.00	-12.23	QP
352.5250	V	43.24	-9.65	33.59	46.00	-12.41	QP
391.3250	V	42.38	-9.50	32.88	46.00	-13.12	QP
413.1500	V	42.17	-9.16	33.01	46.00	-12.99	QP
98.0925	H	57.71	-17.68	40.03	68.00	-27.97	Peak
51.8250	H	31.97	-14.16	17.81	40.00	-22.19	QP
197.3250	H	47.97	-15.29	32.68	43.50	-10.82	QP
238.5500	H	45.20	-13.54	31.66	46.00	-14.34	QP
279.7750	H	45.93	-11.79	34.14	46.00	-11.86	QP
369.5000	H	49.18	-9.59	39.59	46.00	-6.41	QP
432.5500	H	42.09	-8.70	33.39	46.00	-12.61	QP
481.0500	H	40.87	-7.53	33.34	46.00	-12.66	QP

Remark:

1. No emission found between lowest internal used / generated frequency to 30 MHz. (9kHz ~ 30MHz)
2. Measuring frequencies from 30 MHz to the 1GHz.
3. Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak detector mode.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. The IF bandwidth of SPA between 30MHz to 1GHz was 100kHz.



Compliance Certification Services Inc.

Report No: T1100914302-RP2

FCC ID: IHDP6LO2

Date of Issue: Sep. 19, 2011

Operation Mode: CH High **Test Date:** Sep. 6, 2010
Temperature: 18°C **Tested by:** Chieh Cheng
Humidity: 60 % RH **Polarity:** Ver. / Hor.

Frequency (MHz)	Ant. Pol (H/V)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
107.8900	V	62.62	-17.11	45.51	68.00	-22.49	Peak
31.0706	V	46.69	-14.95	31.74	40.00	-8.26	QP
51.8250	V	43.68	-14.16	29.52	40.00	-10.48	QP
71.2250	V	42.41	-18.41	24.00	40.00	-16.00	QP
216.7250	V	50.08	-14.99	35.09	46.00	-10.91	QP
352.5250	V	43.22	-9.65	33.57	46.00	-12.43	QP
396.1750	V	43.90	-9.48	34.42	46.00	-11.58	QP
410.7250	V	42.58	-9.21	33.37	46.00	-12.63	QP
755.0750	V	29.93	-2.15	27.78	46.00	-18.22	QP
107.8900	H	58.31	-17.11	41.20	68.00	-26.80	Peak
216.7250	H	53.58	-14.99	38.59	46.00	-7.41	QP
274.9250	H	48.29	-11.96	36.33	46.00	-9.67	QP
282.2000	H	48.59	-11.72	36.87	46.00	-9.13	QP
289.4750	H	50.90	-11.47	39.43	46.00	-6.57	QP
367.0750	H	48.90	-9.60	39.30	46.00	-6.70	QP
427.7000	H	43.21	-8.82	34.39	46.00	-11.61	QP
876.3250	H	29.74	0.02	29.76	46.00	-16.24	QP

Remark:

1. No emission found between lowest internal used / generated frequency to 30 MHz. (9kHz ~ 30MHz)
2. Measuring frequencies from 30 MHz to the 1GHz.
3. Radiated emissions measured in frequency range from 30 MHz to 1000MHz were made with an instrument using Peak detector mode.
4. Data of measurement within this frequency range shown " --- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
5. The IF bandwidth of SPA between 30MHz to 1GHz was 100kHz.



7.4 POWERLINE CONDUCTED EMISSIONS

LIMIT

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

Frequency Range (MHz)	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

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

TEST CONFIGURATION

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

TEST PROCEDURE

1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.

TEST RESULTS

The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on the following data page, and these signals are then quasi-peaked.

Test Data

Not applicable, because EUT does not connect to AC Main Source.