

Mobile Devices business (MDb)

PRODUCT SAFETY AND COMPLIANCE EMC LABORATORY

EMC TEST REPORT

Test Report Number – 18031-1

Report Date - March 22, 2006

The test results contained herein relate only to the model(s) identified. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical characteristics.

As the responsible EMC Engineer, I hereby declare that the equipment tested as specified in this report conforms to the requirements indicated.

Signature Name: <u>Mark Sidlow</u>

Mark Sidlow

Title: Senior Electrical Engineer Date: March 22, 2006

This report must not be reproduced, except in full, without written approval from this laboratory.

THIS REPORT MUST NOT BE USED TO CLAIM PRODUCT ENDORSEMENT BY A2LA OR ANY AGENCY OF THE U.S. GOVERNMENT.

A2LA Certificate Number: 1846-01



Table of Contents

Description	Page
Toot Donort Dataila	4
Test Report Details	4
Applicable Standards	4
Summary of Testing	5
General and Special Conditions	5
Equipment and Cable Configurations	6
Measuring Equipment and Calibration Information	6
Measurement Procedures and Data	
RF Power Output	7
Radiated Power (ERP)	8
Occupied Bandwidth	9
Measurement Results	9
AMPS-Unmodulated Carrier	10
AMPS Supervisory Audio Tone	10
AMPS Voice	11
AMPS Signaling Tone	11
AMPS – 10kb/s Wideband Data	12
AMPS Upper Band Edge	12
AMPS Upper Band Edge CDMA 800 Reference Level Plot	13 14
CDMA 800 Reference Level Flot CDMA 800 Occupied Bandwidth Plot	14
CDMA 800 Cocupied Bandwatt Flot	15
CDMA 800 Upper Band Edge	15
CDMA 1900 Reference Level Plot	16
CDMA 1900 Occupied Bandwidth Plot	16
CDMA 1900 Lower Band Edge	17
CDMA 1900 Upper Band Edge	17
Spurious Emissions at Antenna Terminals	18
AMPS 800 Tabular and Graphical Data	19
CDMA 800 Tabular and Graphical Data	20
CDMA 1900 Tabular and Graphical Data	21
Field Strength of Spurious Emissions	22
AMPS 800 Tabular and Graphical Data	23
CDMA 800 Tabular and Graphical Data	24
CDMA 1900 Tabular and Graphical Data	25

Frequency Stability AMPS 800 Tabular and Graphical Data CDMA 800 Tabular and Graphical Data CDMA 1900 Tabular and Graphical Data	26 27 30 29
Field Strength of Spurious Emissions from Unintentional Radiators AMPS 800 Tabular and Graphical Data CDMA 800 Tabular and Graphical Data CDMA 1900 Tabular and Graphical Data	30 31 32 33
Appendix A - Radiated Emissions Test Setup Photos Figure A.1 – Radiated Emissions Measurement Figure A.2 – Substitution Measurement	34 34

FCC ID: IHDT56GE1

Test Report Details

Tests Performed By: Motorola mobile Devices business

Product Safety and Compliance Group

600 North US Hwy 45 Libertyville, IL 60048

PH (847) 523-6167 Fax (561) 523-4538

Motorola PCS FRN: 0004321311 FCC Registration Number: 316588 Industry Canada Number: IC3908

Tests Requested By: Motorola Inc.

Mobile Devices business 600 North US Hwy 45 Libertyville, IL 60048

Product Type: Cellular Phone

Signaling Capability: AMPS 800, CDMA 800, CDMA 1900

Model Number: W300

Version: KAUF0015

Serial Numbers: 1E7541F6, 1E7540D1, 1E7541F7

Testing Complete Date: March 22, 2006

Applicable Standards

All tests and measurements indicated in this document were performed in accordance with the Code of Federal Regulations Title 47 Part 2, Sub-part J as well as the following parts:

Χ	Part 15 Subpart B – Unintentional Radiators
Χ	Part 22 Subpart H - Public Mobile Services
Χ	Part 24 - Personal Communications Services
	Part 90 - Private Land Mobile Radio Service

Applicable Standards: TIA EIA 137-A, TIA EIA 98-C, ANSI 63.4 2001, RSS-118 (AMPS), RSS-128 (CDMA), RSS-129 (CDMA), RSS-133 (PCS)

Summary of Testing

Test #	Test Name	Pass/Fail
		1 400/1 411
1	RF Power Output	NA
2	ERP (Effective Radiated Power)	NA
3	Modulation Characteristics	Pass
4	Occupied Bandwidth	Pass
5	Spurious Emissions at Antenna Terminal	Pass
6	Field Strength of Spurious Emissions	Pass
7	Frequency Stability	Pass
8	Field Strength of Spurious Emissions	Pass
	from Unintentional Radiators	
Test #	Test Name	Margin with respect to the Limit
	Test Name	•
	RF Power Output	•
1 2	RF Power Output ERP (Effective Radiated Power)	to the Limit
# 1 2 3	RF Power Output ERP (Effective Radiated Power) Modulation Characteristics	NA 7.35 NA
# 1 2 3 4	RF Power Output ERP (Effective Radiated Power) Modulation Characteristics Occupied Bandwidth	NA 7.35 NA See Plots
# 1 2 3 4 5	RF Power Output ERP (Effective Radiated Power) Modulation Characteristics Occupied Bandwidth Spurious Emissions at Antenna Terminal	NA 7.35 NA See Plots 10.9dBm
# 1 2 3 4 5 6	RF Power Output ERP (Effective Radiated Power) Modulation Characteristics Occupied Bandwidth Spurious Emissions at Antenna Terminal Field Strength of Spurious Emissions	NA 7.35 NA See Plots 10.9dBm 7.4 dBm
# 1 2 3 4 5	RF Power Output ERP (Effective Radiated Power) Modulation Characteristics Occupied Bandwidth Spurious Emissions at Antenna Terminal	NA 7.35 NA See Plots 10.9dBm

The margin with respect to the limit is the minimum margin for all modes and bands. () indicates the margin at which the product exceeds the limit.

General and Special Conditions

The EUT was tested using a fully charged battery when applicable. Where a battery could not be used due to the need for a controlled variation of input voltage, an external power supply was utilized.

All testing was done in an indoor controlled environment with an average temperature of 22° C and relative humidity of 50%.

Equipment and Cable Configurations

The EUT was tested in a stand-alone configuration that is representative of typical use.

Measuring Equipment and Calibration Information

Manufacturer	Equipment Type	Model No.	Serial Number	Cal. Due Date
Rohde & Schwarz	Receiver	ESI26	838786/010	6/17/2006
Hewlett-Packard	EMC Analyzer	7405	US40240219	6/8/2006
ETS	DRG Horn Antenna	265	2455	5/25/2006
ETS	DRG Horn Antenna	356	2455	5/19/2006
ETS	Log-Periodic Antenna	3148	1188	6/14/2006
ETS	Biconical Antenna	3110B	3369	8/18/2006
Attenuator	Weinschel	AS-6	6677	11/10/2006
Attenuator	Weinschel	AS-3	6677	11/10/2006
Attenuator	Agilent	8491A	36904	9/19/2006
Rohde & Schwarz	Mobile Test Set	CMD 80	DE29008	N/A
Hewlett-Packard	Signal Generator	83623B	3844A01195	6/20/2006
Thermotron	Environmental Chamber	S-4	31580	1/31/2007
Agilent	Power Meter	EE4418B	GB40206388	6/4/2006
Agilent	Power Sensor	E4412A	US38486321	6/20/2006

All equipment is on a one-year calibration cycle.

Measurement Procedures and Data

RF POWER OUTPUT

Measurement Procedure

The RF output port of the equipment under test is directly coupled to the input of a HPE4406A Vector Signal Analyzer through a 10dB passive attenuator, adaptor (if needed), and specialized RF connector. The peak power output is measured for all channels.

CFR Part 2.1046

Measurement Results

AMPS 800		
	Frequency (MHz)	Power (dBm)
	824.04	28.01
	836.52	27.92
	848.97	28.15
CDMA 800		
	Frequency (MHz)	Power (dBm)
	824.04	24.98
	836.52	24.95
	848.97	24.96
CDMA 1900		
	Frequency (MHz)	Power (dBm)
	1851.25	24.93
	1880.00	24.98
	1908.75	25.00

RADIATED (ERP)

Measurement Procedure

The phone was tested in a 16' anechoic chamber with a 2-axis position system that permits taking complete spherical scans of the EUT's radiation patterns. For all tests, the phone was supported in a free space type environment, vertically oriented in the chamber. Tests were done for AMPS 800 three frequencies (824.04, 836.52 and 848.97MHz) CDMA 800 three frequencies (824.04, 836.52 and 848.97 MHz) and CDMA 1900(1851.25, 1880.00, 1908.75).

CDMA measurements were made with the phone placed in a call using the HP8922M mobile station test set. The phone was weakly coupled to the test set and configured to transmit in full data rate mode. Radiated power was measured at each 15 degree step. The radiated power was measured using a Gigatronics 8542C power meter in "Burst Avg" mode. From these measurements, the software calculates the angle at which maximum radiated power occurs for each case, and the radiated power at this angle was extracted from the data. The max radiated power results for the IHDT56GE1 follows, as EIRP in dBm. To get ERP (effective radiated power referenced to a half-wave dipole), subtract 2.1 dB from these numbers.

Measurement Results

CDMA 800:

824.70 MHz: 24.48 dBm 836.52 MHz: 24.58 dBm 848.31 MHz: 24.48 dBm

CDMA 1900:

1851.25 MHz: 27.39 dBm 1880.00 MHz: 27.42 dBm 1908.75 MHz: 26.49 dBm

800 Analog:

824.04 MHz: 28.22 dBm 836.52 MHz: 26.89 dBm 848.97 MHz: 27.90 dBm

For all measurement, calibration was performed via gain substitution with a half-wave dipole.

The max EIRP is 24.58 dBm in 800 CDMA mode (max ERP is 21.86 dBm). The max EIRP is 27.42 dBm in 1900 CDMA mode (max ERP is 23.05 dBm). The max EIRP is 28.22 dBm in Analog mode (max ERP is 25.65 dBm).

^{*} Data not supplied by EMC Lab

OCCUPIED BANDWIDTH

CFR Part 2.1049, 22.917, 24.238

Measurement Procedure

The RF output port of the equipment under test is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 10dB passive attenuator. The amplitude of the spectrum analyzer is corrected for the attenuator and any other applicable losses. The analyzer is set for Peak Detector and each trace is set for Max Hold. A fully charged battery was used for the supply voltage.

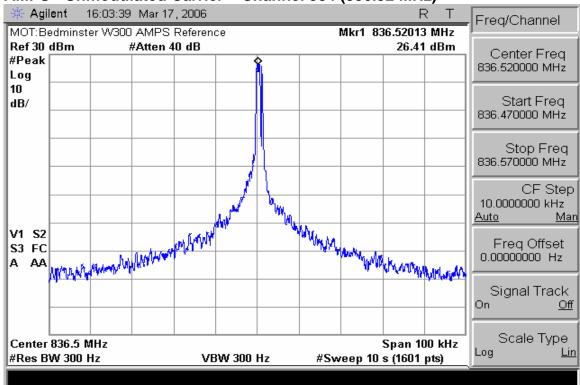
The middle channel within the designated frequency block was measured. For digital modulation, the lower and upper band edge plots are displayed.

Measurement Results

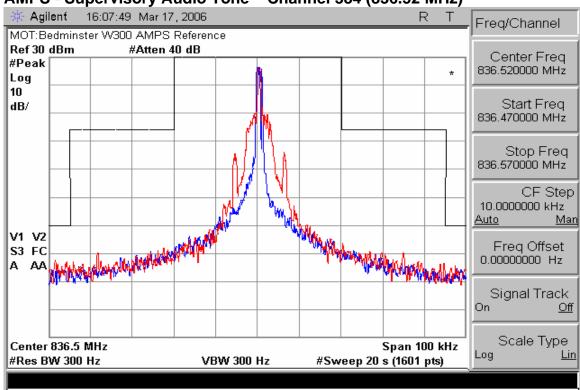
Attached

<u>Measurement Results – AMPS</u>

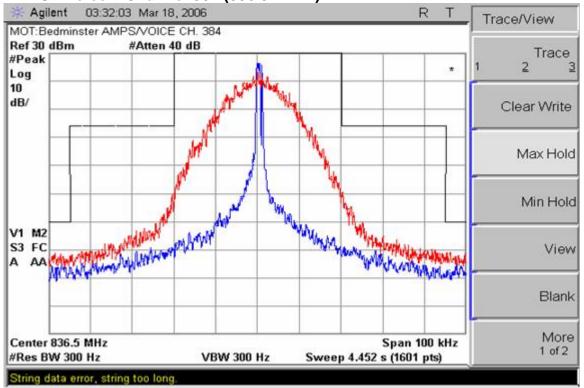
AMPS - Unmodulated Carrier - Channel 384 (836.52 MHz)



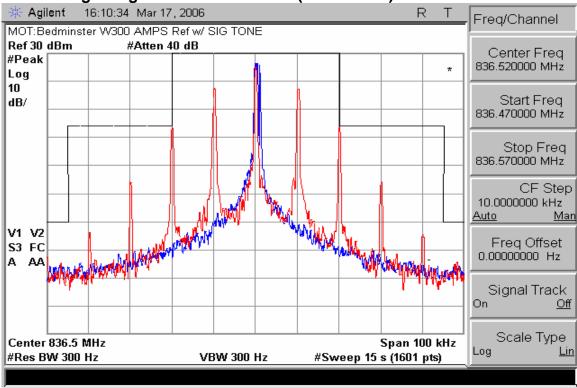
AMPS - Supervisory Audio Tone - Channel 384 (836.52 MHz)



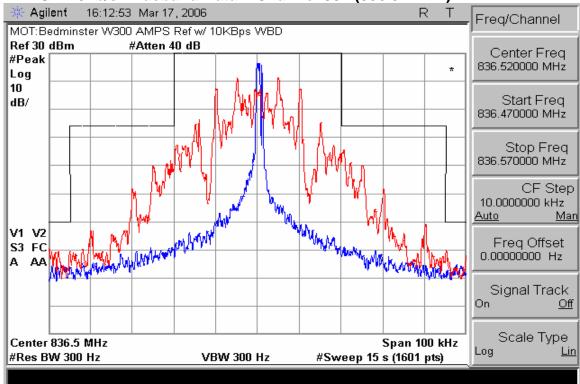
AMPS - Voice - Channel 384 (836.52 MHz)



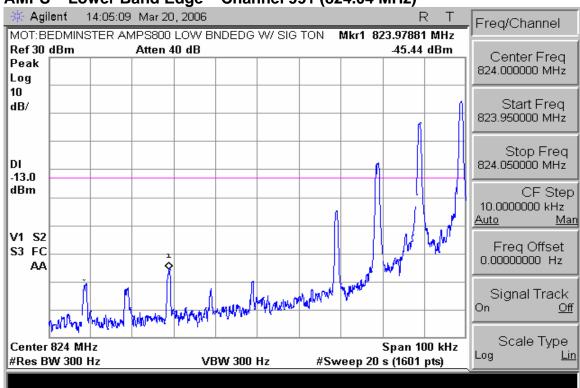
AMPS – Signaling Tone – Channel 384 (836.52 MHz)

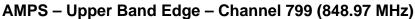


AMPS – 10kb/s Wideband Data – Channel 384 (836.52 MHz)



AMPS - Lower Band Edge - Channel 991 (824.04 MHz)

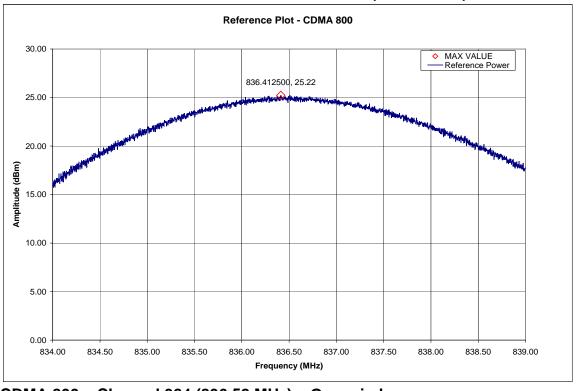




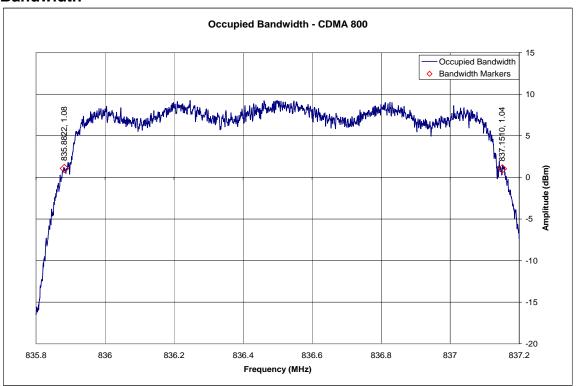


Measurement Results - CDMA 800

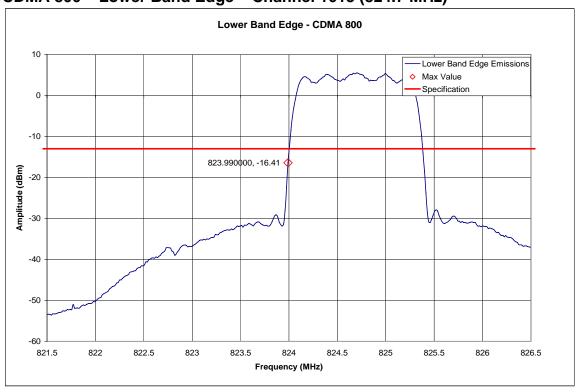
CDMA 800 - Reference Level Plot - Channel 384 (836.52 MHz)



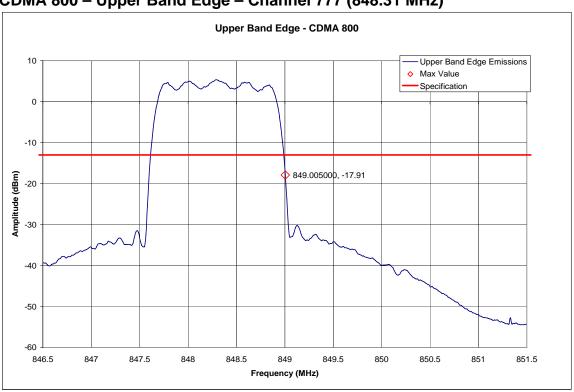
CDMA 800 - Channel 384 (836.52 MHz) - Occupied Bandwidth



CDMA 800 - Lower Band Edge - Channel 1013 (824.7 MHz)

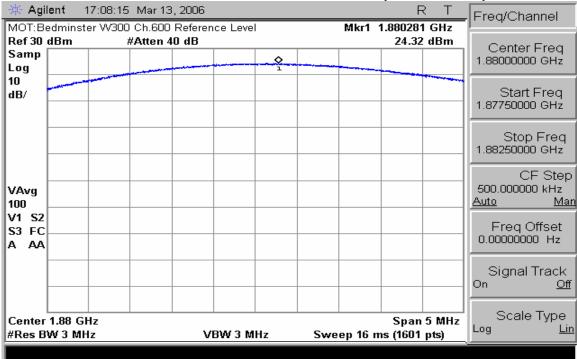


CDMA 800 - Upper Band Edge - Channel 777 (848.31 MHz)

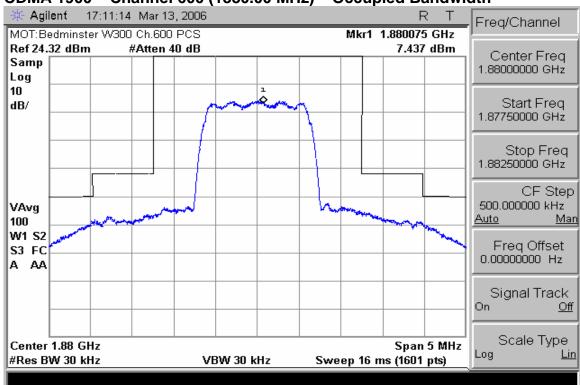


Measurement Results - CDMA 1900

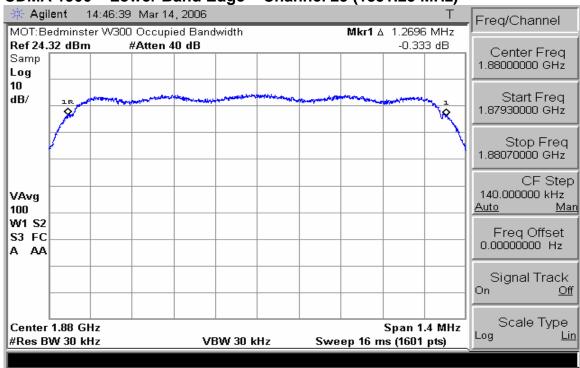
CDMA 1900 – Reference Level Plot – Channel 600 (1880.00 MHz)



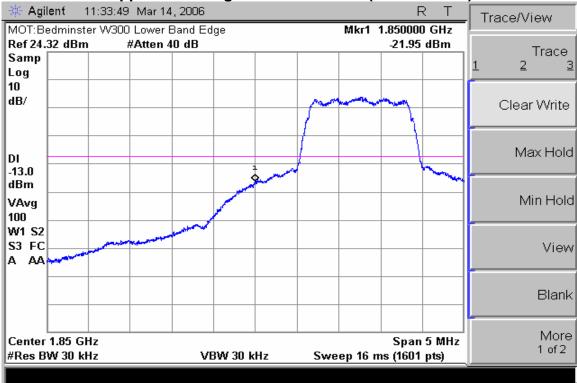
CDMA 1900 - Channel 600 (1880.00 MHz) - Occupied Bandwidth



CDMA 1900 – Lower Band Edge – Channel 25 (1851.25 MHz)



CDMA 1900 - Upper Band Edge - Channel 1175 (1908.75 MHz)



SPURIOUS EMISSIONS AT ANTENNA TERMINALS

CFR Part 2.1051, 22.917, 24.238

Measurement Procedure

The RF output port of the Equipment Under Test is directly coupled to the input of the EMC analyzer through a specialized RF connector and a 10dB passive attenuator. A fully charged battery was used for the supply voltage.

The spectrum was investigated from the lowest frequency signal generated, without going below 9 kHz, up to at least the tenth harmonic of the fundamental or 40 GHz, whichever is lower.

Measurements were made at the middle channel within the frequency band and within the base station frequency range (869-894 MHz) for cellular.

The spectrum analyzer settings were as follows:

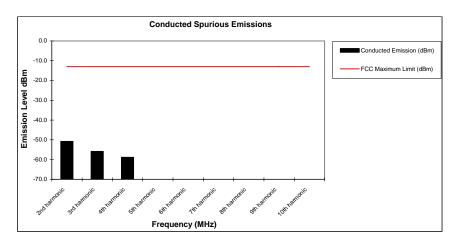
Units dBm
Divisions 10 dB
Resolution Bandwidth 1 MHz
Video Bandwidth (AVG) Auto
Sweep Time Auto

Measurement Results

Attached

Conducted Spurious and Harmonic Emissions

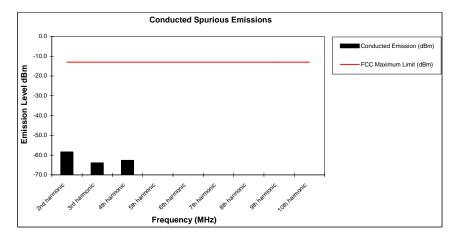
Harmonic of Fundamental	FCC Maximum Limit (dBm)	Conducted Emission (dBm)
2nd harmonic	-13	-50.8
3rd harmonic	-13	-55.9
4th harmonic	-13	-58.9
5th harmonic	-13	*
6th harmonic	-13	*
7th harmonic	-13	*
8th harmonic	-13	*
9th harmonic	-13	*
10th harmonic	-13	*



- Notes:
 1. * Indicates the spurious emission could not be detected due to noise limitations or ambients.
 2. Each emission reported reflects the highest absolute level at the specific harmonic for the low, mid, and high channels at maximum power.
- 3. The Spectrum was investigated from 9 kHz to the tenth harmonic of the fundamental.

Conducted Spurious and Harmonic Emissions

Harmonic of Fundamental	FCC Maximum Limit (dBm)	Conducted Emission (dBm)
2nd harmonic	-13	-58.4
3rd harmonic	-13	-63.9
4th harmonic	-13	-62.7
5th harmonic	-13	*
6th harmonic	-13	*
7th harmonic	-13	*
8th harmonic	-13	*
9th harmonic	-13	*
10th harmonic	-13	*

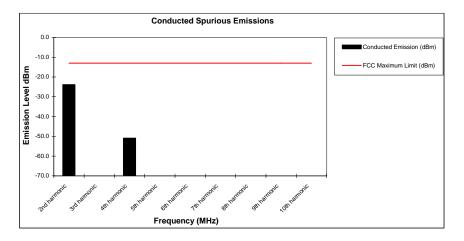


- Notes:

 1. * Indicates the spurious emission could not be detected due to noise limitations or ambients.
- 2. Each emission reported reflects the highest absolute level at the specific harmonic for the low, mid, and high channels at maximum power.
- 3. The Spectrum was investigated from 9 kHz to the tenth harmonic of the fundamental.

Conducted Spurious and Harmonic Emissions

Harmonic of Fundamental	FCC Maximum Limit (dBm)	Conducted Emission (dBm)
2nd harmonic	-13	-23.9
3rd harmonic	-13	*
4th harmonic	-13	-50.9
5th harmonic	-13	*
6th harmonic	-13	*
7th harmonic	-13	*
8th harmonic	-13	*
9th harmonic	-13	*
10th harmonic	-13	*



- Notes:

 1. * Indicates the spurious emission could not be detected due to noise limitations or ambients.
- 2. Each emission reported reflects the highest absolute level at the specific harmonic for the low, mid, and high channels at maximum power.

 3. The Spectrum was investigated from 9 kHz to the tenth harmonic of the fundamental.

FIELD STRENGTH OF SPURIOUS EMISSIONS

CFR Part 2.1053, 24.238

Measurement Procedure

The equipment under test is placed inside the semi-anechoic chamber on a wooden table at the turntable center. For each spurious frequency, the antenna mast is raised and lowered from 1 to 4 meters and the turntable is rotated 360 degrees to obtain a maximum reading on the spectrum analyzer. This is repeated for both horizontal and vertical polarizations of the receive antenna.

The equipment under test is then replaced with a substitution antenna fed by a signal generator. With the signal generator tuned to a particular spurious frequency, the antenna mast is raised and lowered from 1 to 4 meters to obtain a maximum reading at the spectrum analyzer. The output of the signal generator is then adjusted until a reading identical to that obtained with the actual transmitter is achieved.

The power in dBm of each spurious emission is calculated by correcting the signal generator level for cable loss and gain of the substitution antenna referenced to a dipole. A fully charged battery was used for the supply voltage.

The settings of the receiver were as follows:

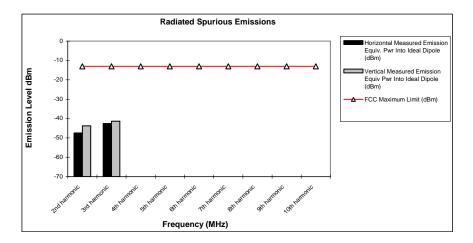
Units dBm
Divisions 5 dB
Resolution Bandwidth 1 MHz
Video Bandwidth (AVG) Auto
Sweep Time Auto

Measurement Results

Attached

Radiated Spurious and Harmonic Emissions

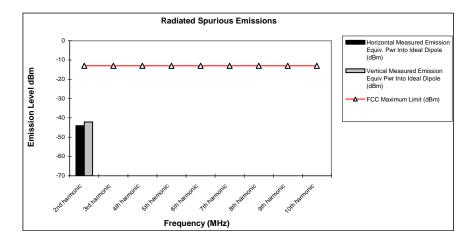
Frequency (MHz)	FCC Maximum Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
2nd harmonic	-13	-47.4	-43.8
3rd harmonic	-13	-42.5	-41.4
4th harmonic	-13	*	*
5th harmonic	-13	*	*
6th harmonic	-13	*	*
7th harmonic	-13	*	*
8th harmonic	-13	*	*
9th harmonic	-13	*	*
10th harmonic	-13	*	*



- Notes:
 1. * Indicates the spurious emission could not be detected due to noise limitations or ambients.
 2. Each emission reported reflects the highest absolute level at the specific harmonic for the low, mid, and high channels at maximum power.
- 3. The Spectrum was investigated from 30 MHz to the tenth harmonic of the fundamental.

Radiated Spurious and Harmonic Emissions

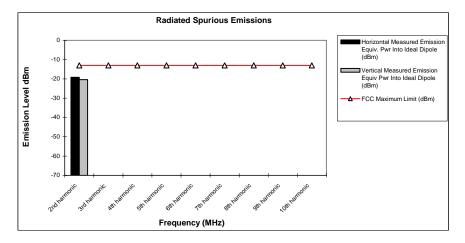
Frequency (MHz)	FCC Maximum Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
2nd harmonic	-13	-44.0	-42.1
3rd harmonic	-13	*	*
4th harmonic	-13	*	*
5th harmonic	-13	*	*
6th harmonic	-13	*	*
7th harmonic	-13	*	*
8th harmonic	-13	*	*
9th harmonic	-13	*	*
10th harmonic	-13	*	*



- Notes:
 1. * Indicates the spurious emission could not be detected due to noise limitations or ambients.
 2. Each emission reported reflects the highest absolute level at the specific harmonic for the low, mid, and high channels at maximum power.
- 3. The Spectrum was investigated from 30 MHz to the tenth harmonic of the fundamental.

Radiated Spurious and Harmonic Emissions

Frequency (MHz)	FCC Maximum Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
2nd harmonic	-13	-19.2	-20.4
3rd harmonic	-13	*	*
4th harmonic	-13	*	*
5th harmonic	-13	*	*
6th harmonic	-13	*	*
7th harmonic	-13	*	*
8th harmonic	-13	*	*
9th harmonic	-13	*	*
10th harmonic	-13	*	*



- Notes:

 1. * Indicates the spurious emission could not be detected due to noise limitations or ambients.
- 2. Each emission reported reflects the highest absolute level at the specific harmonic for the low, mid, and high channels at maximum power.
- 3. The Spectrum was investigated from 30 MHz to the tenth harmonic of the fundamental.

FREQUENCY STABILITY

CFR Part 2.1055, 24.235

Measurement Procedure

The equipment under test is placed in an environmental chamber. The antenna port of the Equipment Under Test is directly coupled to the input of the measurement equipment through a specialized RF connector. A power supply is attached as the primary voltage supply.

Frequency measurements are made at the extremes of the temperature range -30° C to +60° C and at intervals of 10° C with the primary supply voltage set to the nominal battery operating voltage. A period of time sufficient to stabilize all components of the equipment is allowed at each frequency measurement. The maximum variation of frequency is measured.

At room temperature, the primary supply voltage is reduced to the battery operating endpoint of the equipment under test. The maximum variation of frequency is measured. A battery eliminator was used for the input supply voltage.

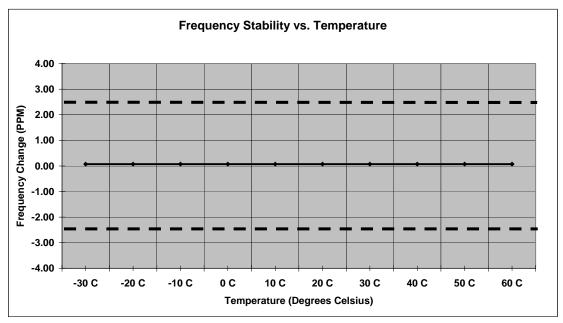
Measurement Results

Attached

Frequency Stability

Mode:AnalogOperating Frequency:836.52 MHzChannel:384Deviation Limit (PPM):2.5ppm

Temperature	Frequency Error	Frequency Error	Voltage	Voltage
С	HZ	(PPM)	(%)	(VDC)
-30 C	57.00	0.068	100%	3.60
-20 C	57.00	0.068	100%	3.60
-10 C	56.00	0.067	100%	3.60
0 C	56.00	0.067	100%	3.60
10 C	58.00	0.069	100%	3.60
20 C	57.00	0.068	100%	3.60
30 C	58.00	0.069	100%	3.60
40 C	59.00	0.071	100%	3.60
50 C	56.00	0.067	100%	3.60
60 C	56.00	0.067	100%	3.60
20 C	90.00	0.108	Battery Endpoint	3.20



Technician: Don J

Date: Product Name: W300 3/12/2006

Submission #: 18031-1

S/N: 1E7540D1

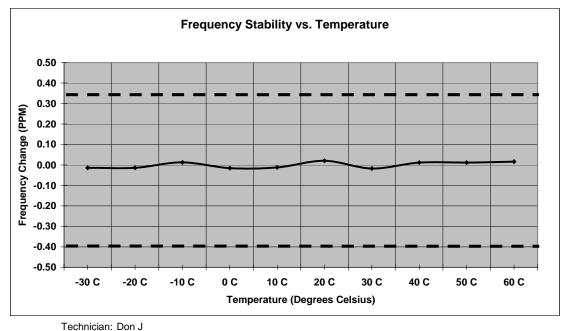
(Uncontrolled When Printed)

Form Control Number: FCD-0192, Rev. 6

Frequency Stability Operating Frequency: 836.52 MHz

Mode: **CDMA 800** Channel: 384 Deviation Limit (PPM): 0.359ppm (+/-300 Hz)

Temperature	Frequency Error	Frequency Error	Voltage	Voltage
С	HZ	(PPM)	(%)	(VDC)
-30 C	-11.51	-0.014	100%	3.60
-20 C	-11.81	-0.014	100%	3.60
-10 C	10.67	0.013	100%	3.60
0 C	-12.86	-0.015	100%	3.60
10 C	-10.06	-0.012	100%	3.60
20 C	17.28	0.021	100%	3.60
30 C	-14.38	-0.017	100%	3.60
40 C	9.76	0.012	100%	3.60
50 C	9.75	0.012	100%	3.60
60 C	13.52	0.016	100%	3.60
20 C	79.62	0.095	Battery Endpoint	3.20



Date: Product Name: W300 3/12/2006

Submission #: 18031-1

S/N: 1E7540D1

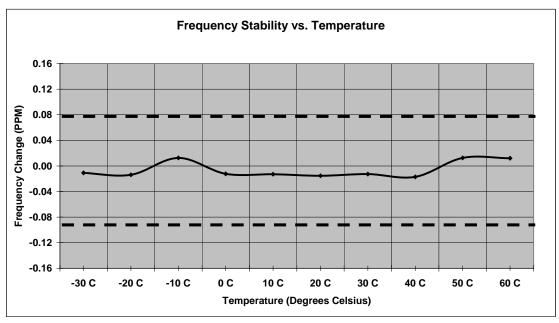
(Uncontrolled When Printed)

Form Control Number: FCD-0192, Rev. 6

Frequency Stability

Mode:CDMA 1900Operating Frequency:1880.0 MHzChannel:600Deviation Limit (PPM):0.08ppm (+/-150Hz)

Temperature	Frequency Error	Frequency Error	Voltage	Voltage
С	HZ	(PPM)	(%)	(VDC)
00.0				
-30 C	-20.43	-0.011	100%	3.60
-20 C	-26.12	-0.014	100%	3.60
-10 C	23.64	0.013	100%	3.60
0 C	-23.27	-0.012	100%	3.60
10 C	-24.40	-0.013	100%	3.60
20 C	-28.91	-0.015	100%	3.60
30 C	-24.14	-0.013	100%	3.60
40 C	-32.26	-0.017	100%	3.60
50 C	23.72	0.013	100%	3.60
60 C	22.62	0.012	100%	3.60
20 C	88.83	0.047	Battery Endpoint	3.20



Technician: Don J

Date:

3/12/2006

Product Name: W300 Submission #: 18031-1

(Uncontrolled When Printed)

S/N: 1E7540D1

Form Control Number: FCD-0192, Rev. 6

FIELD STRENGTH OF EMISSIONS FROM UNINTENTIONAL RADIATORS

CFR Part 15.109

Measurement Procedure

The equipment under test is placed inside the semi-anechoic chamber on a wooden table at the turntable center. For each radiated emission, the antenna mast is raised and lowered from 1 to 4 meters and the turntable is rotated 360 degrees to obtain a maximum peak reading on the spectrum analyzer. The radiated emissions are then measured using an EMI receiver employing a CISPR quasi-peak detector function below 1000 MHz and an average detector function above 1000 MHz. This is repeated for both horizontal and vertical polarizations of the receive antenna. A fully charged battery was used for the supply voltage.

The field strength of each radiated emission is calculated by correcting the EMI receiver level for cable loss, amplifier gain, and antenna correction factors.

Field Strength (dBuV/m) = EMI Receiver Level (dBuV) + Cable Loss (dB) Amplifier Gain (dB) + Antenna Correction Factor (1/m)

The receiver settings were as follows:

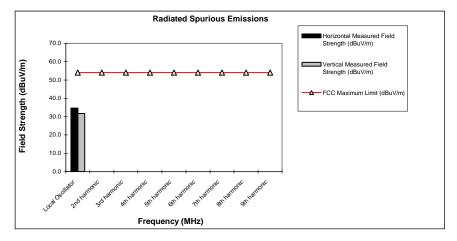
Units dBuV
Resolution Bandwidth 30 kHz
Video Bandwidth (AVG) Auto
Sweep Time auto
Attenuation 10 dB

Measurement Results

Attached

Receiver Radiated Spurious Emissions

Frequency (MHz)	FCC Maximum Limit (dBuV/m)	Horizontal Measured Field Strength (dBuV/m)	Vertical Measured Field Strength (dBuV/m)
Local Oscillator	54	34.7	31.7
2nd harmonic	54	*	*
3rd harmonic	54	*	*
4th harmonic	54	*	*
5th harmonic	54	*	*
6th harmonic	54	*	*
7th harmonic	54	*	*
8th harmonic	54	*	*
9th harmonic	54	*	*
10th harmonic	54	*	*



- Notes:

 1. * Indicates the spurious emission could not be detected due to noise limitations or ambients.

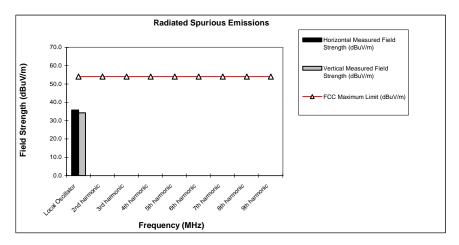
 2. Each emission reported reflects the highest absolute level at the specific frequency for the low, mid, and high channels.

Measurement Results

Modulation: CDMA 800

Receiver Radiated Spurious Emissions

Frequency (MHz)	FCC Maximum Limit (dBuV/m)	Horizontal Measured Field Strength (dBuV/m)	Vertical Measured Field Strength (dBuV/m)
Local Oscillator	54	35.8	34.3
2nd harmonic	54	*	*
3rd harmonic	54	*	*
4th harmonic	54	*	*
5th harmonic	54	*	*
6th harmonic	54	*	*
7th harmonic	54	*	*
8th harmonic	54	*	*
9th harmonic	54	*	*
10th harmonic	54	*	*



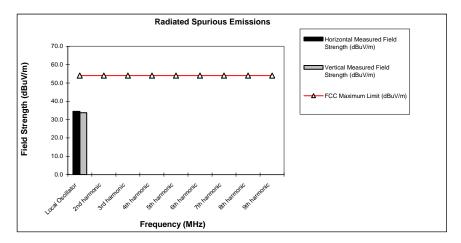
- Notes:

 1. * Indicates the spurious emission could not be detected due to noise limitations or ambients.

 2. Each emission reported reflects the highest absolute level at the specific frequency for the low, mid, and high channels.

Receiver Radiated Spurious Emissions

Frequency (MHz)	FCC Maximum Limit (dBuV/m)	Horizontal Measured Field Strength (dBuV/m)	Vertical Measured Field Strength (dBuV/m)
Local Oscillator	54	34.6	33.8
2nd harmonic	54	*	*
3rd harmonic	54	*	*
4th harmonic	54	*	*
5th harmonic	54	*	*
6th harmonic	54	*	*
7th harmonic	54	*	*
8th harmonic	54	*	*
9th harmonic	54	*	*
10th harmonic	54	*	*



- Notes:

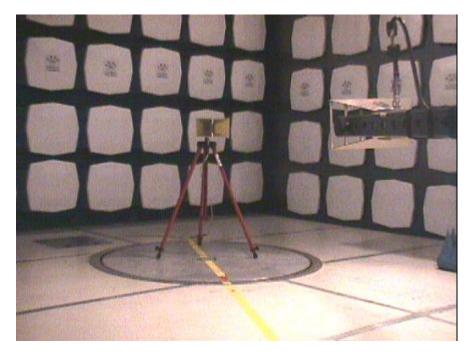
 1. * Indicates the spurious emission could not be detected due to noise limitations or ambients.

 2. Each emission reported reflects the highest absolute level at the specific frequency for the low, mid, and high channels.

Appendix A – Radiated Emissions Test Setup Photos



A.1 Radiated Emissions Measurement



A.2 Substitution Measurement

End of Test Report