PCTEST.

PCTEST ENGINEERING LABORATORY, INC.

6660-B Dobbin Road, Columbia, MD 21045 USA Tel. 410.290.6652 / Fax 410.290.6554 http://www.pctestlab.com



CERTIFICATE OF COMPLIANCE FCC Part 22 & 24 Certification

Applicant Name: Motorola Inc. 1301 East Algonquin Road Schaumburg, IL 60196 USA Date of Testing:
August 29,2007
Test Site/Location:
PCTEST Lab., Columbia, MD, USA
Test Report Serial No.:
0708020822-R1.ABZ

FCC ID: ABZ89FT7624

APPLICANT: MOTOROLA INC.

Application Type: Certification

FCC Classification: PCS Licensed Transmitter (PCB)

FCC Rule Part(s): §2; §22(H), §24(E)

EUT Type: Mobile Computer with CDMA Module with EV-DO

Model(s): ML910

Tx Frequency Range: 824.70 - 848.31MHz (Cell. CDMA) / 1851.25 - 1908.75MHz (PCS CDMA)

Max. RF Output Power: 0.519 W ERP Cell. CDMA (27.15 dBm)

0.583 W EIRP PCS CDMA (27.66 dBm)

Emission Designator(s): 1M29F9W (CDMA) / 1M26F9W (PCS)

Test Device Serial No.: identical prototype [S/N: 343AA77S0002]

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in §2.947.

I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them.

*This revised Test Report (S/N: 0708020822-R1.ABZ) supersedes and replaces the previously issued test report on the same subject EUT for the same type of testing as indicated. Please discard or destroy the previously issued test report (S/N: 0708020822.ABZ) and dispose of it accordingly.

Grant Conditions: Power output listed is ERP for Part 22 and EIRP for Part 24.

PCTEST certifies that no party to this application has been denied the FCC benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. 862.





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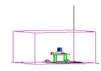


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MEASUREMENT REPORT FCC Part 22 & 24



§2.1033 General Information

APPLICANT: Motorola Inc.

APPLICANT ADDRESS: 1301 East Algonquin Road

Schaumburg, IL 60196

TEST SITE: PCTEST ENGINEERING LABORATORY, INC. **TEST SITE ADDRESS:** 6660-B Dobbin Road, Columbia, MD 21045 USA

FCC RULE PART(S): §2; §22(H), §24(E)

BASE MODEL: ML910

FCC ID: ABZ89FT7624

FCC CLASSIFICATION: PCS Licensed Transmitter (PCB) 1M29F9W (CDMA) / 1M26F9W (PCS) **EMISSION DESIGNATOR(S):**

MODE: **CDMA**

FREQUENCY TOLERANCE: ±0.00025 % (2.5 ppm)

Test Device Serial No.: 343AA77S0002 ☐ Production ☐ Pre-Production ☐ Engineering

DATE(S) OF TEST: August 29,2007 **TEST REPORT S/N:** 0708020822-R1.ABZ

Test Facility / Accreditations

Measurements were performed at PCTEST Engineering Lab. located in Columbia, MD 21045, U.S.A.



- PCTEST facility is an FCC registered (PCTEST Reg. No. 90864) test facility with the site description report on file and has met all the requirements specified in Section 2.948 of the FCC Rules and Industry Canada (IC-2451).
- PCTEST Lab is accredited to ISO 17025 by U.S. National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP Lab code: 100431-0) in EMC, FCC and Telecommunications.
- PCTEST Lab is accredited to ISO 17025-2005 by the American Association for Laboratory Accreditation (A2LA) in Specific Absorption Rate (SAR) testing, Hearing Aid Compatibility (HAC) testing, CTIA Test Plans, and wireless testing for FCC and Industry Canada Rules.
- PCTEST Lab is a recognized U.S. Conformity Assessment Body (CAB) in EMC and R&TTE (n.b. 0982) under the U.S.-EU Mutual Recognition Agreement (MRA).
- PCTEST TCB is a Telecommunication Certification Body (TCB) accredited to ISO/IEC Guide 65 by the American National Standards Institute (ANSI) in all scopes of FCC Rules and Industry Canada Standards (RSS).
- PCTEST facility is an IC registered (IC-2451) test laboratory with the site description on file at Industry Canada.
- PCTEST is a CTIA Authorized Test Laboratory (CATL) for AMPS, CDMA, and EvDO wireless devices and for Over-the-Air (OTA) Antenna Performance testing for AMPS, CDMA, GSM, GPRS, EGPRS, UMTS (W-CDMA), CDMA 1xEVDO, and CDMA 1xRTT.

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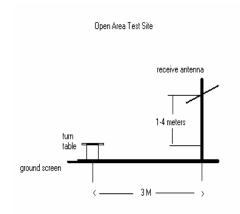
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INTRODUCTION

1.1 Measurement Procedure

The radiated spurious measurements were made outdoors at a 3-meter test range (see Figure 1-1). The equipment under test is placed on a wooden turntable 3-meters from the receive antenna. The receive antenna height and turntable rotations were adjusted for the highest reading on the receive spectrum analyzer. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic antenna are taken into consideration.



Deviation from Measurement Procedure.....None

Figure 1-1. Diagram of 3-meter outdoor test range

1.2 Scope

Measurement and determination of electromagnetic emissions (EME) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission.

1.3 **Testing Facility**

These measurements were conducted at the PCTEST Engineering Laboratory, Inc. facility in New Concept Business Park, Guilford Industrial Park, Columbia, Maryland. The site address is 6660-B Dobbin Road, Columbia, MD 21045. The test site is one of the highest points in the Columbia area with an elevation of 390 feet above mean sea level. The site coordinates are 39° 11'15" N latitude and 76° 49'38" W longitude. facility is 1.5 miles North of the FCC laboratory, and the ambient signal and ambient signal strength are approximately equal to those of the FCC laboratory. There are no FM or TV transmitters within 15 miles of the site. The detailed description of the measurement facility was found to be in compliance with the requirements of § 2.948 according to ANSI C63.4-2003 on January 27, 2006 and Industry Canada.

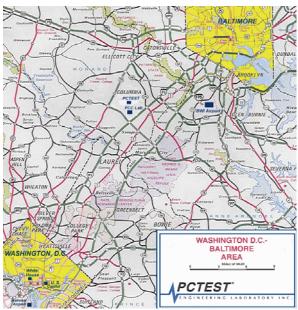


Figure 1-2. Map of the Greater Baltimore and Metropolitan Washington, D.C. area.

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2.0 PRODUCT INFORMATION

2.1 Equipment Description

The Equipment Under Test (EUT) is the **Motorola Mobile Computer with CDMA Module with EV-DO FCC ID: ABZ89FT7624**. The EUT consisted of the following component(s):

Trade Name / Base Model	FCC ID	Description
Motorola / Model: ML910	ABZ89FT7624	Mobile Computer with CDMA Module with EV-DO

Table 2-1. EUT Equipment Description

The Motorola, Inc. Model: ML910 utilizes an already certified CDMA with EV-DO Module (FCC ID: N7N-MC5725). This test report details the radiated spurious emissions test result with the module integrated into the ML910 mobile notebook. Measurements performed at the antenna terminal are reported in a separate test report submitted with this filing.

2.2 EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and no modifications were made during testing.

2.3 Labeling Requirements

Per 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase. However, when the device is so small wherein placement of the label with specified statement is not practical, only the trade name and FCC ID must be displayed on the device per Section 15.19(b)(2).

Please see attachment for FCC ID label and label location.

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3.0 DESCRIPTION OF TESTS

3.1 Occupied Bandwidth Emission Limits §2.1049, 22.917(a), 24.238(a)

- a. On any frequency outside a licensee's frequency block, the power of any emission shall be attenuated below the transmitter power (P) by at least 43 + 10 log(P) dB.
- b. Compliance with these provisions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.
- c. When measuring the emission limits, the nominal carrier frequency shall be adjusted as close to the licensee's frequency block edges, both upper and lower, as the design permits.
- d. The measurement of emission power can be expressed in peak or average values, provided they are expressed in the same parameters as the transmitter power.

3.2 Cellular - Base Frequency Blocks



BLOCK 1: 869 - 880 MHz (A* Low + A)

BLOCK 3: 890 - 891.5 MHz (A* High)

BLOCK 2: 880 - 890 MHz (B)

BLOCK 4: 891.5 - 894 MHz (B*)

3.3 Cellular - Mobile Frequency Blocks



BLOCK 1: 824 - 835 MHz (A* Low + A)

BLOCK 3: 845 - 846.5 MHz (A* High)

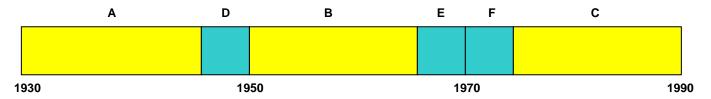
BLOCK 2: 835 – 845 MHz (B) BLOCK 4: 846.5 – 849 MHz (B*)

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PCS - Base Frequency Blocks

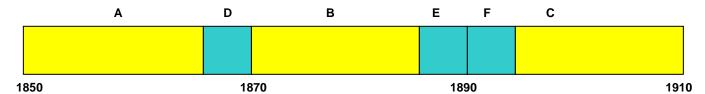


BLOCK 1: 1930 - 1945 MHz (A) BLOCK 4: 1965 - 1970 MHz (E)

BLOCK 2: 1945 - 1950 MHz (D) BLOCK 5: 1970 - 1975 MHz (F)

BLOCK 3: 1950 - 1965 MHz (B) BLOCK 6: 1975 - 1990 MHz (C)

PCS - Mobile Frequency Blocks 3.5



BLOCK 4: 1885 - 1890 MHz (E) BLOCK 1: 1850 - 1865 MHz (A)

BLOCK 2: 1865 - 1870 MHz (D) BLOCK 5: 1890 - 1895 MHz (F)

BLOCK 3: 1870 - 1885 MHz (B) BLOCK 6: 1895 - 1910 MHz (C)

3.6 Spurious and Harmonic Emissions at Antenna Terminal §2.1051, 22.917(a), 24.238(a); RSS-132 (4.5.1.2), RSS-133 (6.5.1)

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic.

3.7 Radiated Spurious and Harmonic Emissions §2.1053, 22.917(a), 24.238(a); RSS-132 (4.5.1.2), RSS-133 (6.5.1(i))

Spurious and harmonic radiated emissions are measured outdoors at our 3-meter test range. The equipment under test is placed on a wooden turntable 3-meters from the receive antenna. antenna height and turntable rotations were adjusted for the highest reading on the receive spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator with the level of the signal generator being adjusted to obtain the same receive spectrum analyzer reading. This level is recorded. For readings above 1 GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration. This device was tested under all R.C.s and S.O.s and the worst case is reported with EvDO RETAP with "All Up" power control bits.

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TEST EQUIPMENT CALIBRATION DATA

Test Equipment Calibration is traceable to the National Institute of Standards and Technology (NIST).

i est Equipment Ca	libration is traceable to the National Institute of S	standards and	i ecnnology	/ (INIST).	
Manufacturer	Model / Equipment	Calibration Date	Cal Interval	Calibration Due	Serial No.
Agilent	E4407B ESA Spectrum Analyzer	04/29/07	Annual	04/28/08	US39210313
Agilent	E5515C Wireless Communications Test Set	07/27/06	Biennial	07/26/08	GB41450275
Agilent	E5515C Wireless Communications Test Set	10/06/06	Biennial	10/05/08	GB43193972
Agilent	E5515C Wireless Communications Test Set	10/26/06	Biennial	10/25/08	GB46310798
EMCO	Model 3115 (1-18GHz) Horn Antenna	09/24/06	Biennial	09/23/08	9203-2178
EMCO	Model 3115 (1-18GHz) Horn Antenna	09/25/06	Biennial	09/24/08	9704-5182
Rohde & Schwarz	NRVS Power Meter	07/03/07	Biennial	07/02/09	835360/079
Rohde & Schwarz	NRV-Z53 Power Sensor	07/03/07	Biennial	07/02/09	846076/007
Rohde & Schwarz	CMU200 Base Station Simulator	11/08/06	Annual	11/08/07	107826
Rohde & Schwarz	CMU200 Base Station Simulator	09/07/07	Annual	09/06/08	833855/010
Rohde & Schwarz	CMU200 Base Station Simulator	05/24/07	Annual	05/23/08	836371/079
Agilent	HP 8566B (100Hz–22GHz) Spectrum Analyzer	12/21/06	Annual	12/21/07	3638A08713
Agilent	E8257D (250kHz-20GHz) Signal Generator	03/08/07	Annual	03/07/08	MY45470194
Agilent	HP 85650A Quasi-Peak Adapter	12/21/06	Annual	12/21/07	2043A00301
Agilent	HP 8449B (1-26.5GHz) Pre-Amplifier	12/12/06	Annual	12/12/07	3008A00985
Agilent	HP 85650A Quasi-Peak Adapter	12/21/06	Annual	12/21/07	2043A00301
Agilent	HP 8449B (1-26.5GHz) Pre-Amplifier	12/12/06	Annual	12/12/07	3008A00985
Agilent	HP 11713A Attenuation/Switch Driver	12/12/06	Annual	12/12/07	N/A
Agilent	HP 85685A (20Hz-2GHz) Preselector	12/12/06	Annual	12/12/07	N/A
Agilent	HP 8566B Opt. 462 Impulse Bandwidth	12/12/06	Annual	12/12/07	3701A22204
EMCO	Dipole Pair	09/21/06	Biennial	09/20/08	23951
SOLAR	8012-50 LISN (2)	11/18/05	Biennial	11/18/07	0313233, 0310234
K&L	11SH10 Band Pass Filter	N/A	Annual	N/A	1300/4000
K&L	11SH10 Band Pass Filter	N/A	Annual	N/A	4000/12000
Agilent	HP 8495A (0-70dB) DC-4GHz Attenuator	N/A		N/A	N/A
-	263-10dB (DC-18GHz) 10 dB Attenuator	N/A		N/A	N/A
Pasternack	PE2208-6 Bidirectional Coupler	N/A		N/A	N/A
-	No.165 (30MHz - 1000MHz) RG58 Coax Cable	N/A		N/A	N/A
	No.166 (1000-26500MHz) Microwave RF Cable	N/A		N/A	N/A
-	No.167 (100kHz - 100MHz) RG58 Coax Cable	N/A		N/A	N/A
Rohde & Schwarz	NRVD Dual Channel Power Meter	12/11/06	Biennial	12/10/08	101695
Rohde & Schwarz	NRV-Z33 Peak Power Sensor (1mW-20W)	11/28/06	Biennial	11/27/08	100155
	71144775				

Table 4-1. Test Equipment

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5.0 SAMPLE CALCULATIONS

Emission Designator

Emission Designator = 1M25F9W

CDMA BW = 1.25 MHz F = Frequency Modulation

9 = Composite Digital Info

W = Combination (Audio/Data) (Measured at the 99.75% power bandwidth)

Spurious Radiated Emission - PCS Band

Example: Channel 25 PCS Mode 2nd Harmonic (3702.50 MHz)

The receive analyzer reading at 3 meters with the EUT on the turntable was -81.0 dBm. The gain of the substituted antenna is 8.1 dBi. The signal generator connected to the substituted antenna terminals is adjusted to produce a reading of -81.0 dBm on the receive analyzer. The loss of the cable between the signal generator and the terminals of the substituted antenna is 2.0 dB at 3702.50 MHz. So 6.1 dB is added to the signal generator reading of -30.9 dBm yielding -24.80 dBm. The fundamental EIRP was 25.501 dBm so this harmonic was 25.501 dBm - (-24.80) = 50.3 dBc.

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6.0 TEST RESULTS

6.1 Summary

Company Name: <u>Motorola Inc.</u>

FCC ID: <u>ABZ89FT7624</u>

FCC Classification: PCS Licensed Transmitter (PCB)

Mode(s): CDMA

FCC Part Section(s)	RSS Section	Test Description	Test Limit	Test Condition	Test Result	Reference		
TRANSMITTER MO	TRANSMITTER MODE (TX)							
22.913(a)(2)	RSS-132 (4.5.1.2)	Effective Radiated Power	< 7 Watts max. ERP		PASS	Section 6.2		
24.232(c)	RSS-133 (6.4) [SRSP-510 (5.1.2)]	Equivalent Isotropic Radiated Power	< 2 Watts max. EIRP	RADIATED	PASS	Section 6.3		
2.1053, 22.917(a) 24.238(a)	RSS-132 (4.5.1.2) RSS-133 (6.5.1)	Undesirable Emissions	< 43 + 10log ₁₀ (P[Watts]) for all out-of-band emissions		PASS	Sections 6.4, 6.5		
RECEIVER MODE	(RX) / DIGITAL EMIS	SIONS						
15.107	RSS-Gen [7.2.2]	AC Conducted Emissions 150kHz – 30MHz	< FCC 15.207 limits or < RSS-Gen table 2 limits	LINE CONDUCTED	PASS	Pt. 15B Test Report		
15.109	RSS-132 (10(a,d)) RSS-133 (6.7(a,b)) RSS-210 (7.3)	General Field Strength Limits (Restricted Bands and Radiated Emissions Limits)	< FCC 15.209 limits or < RSS-Gen limits [Section 6; Table 1]	RADIATED (30MHz-1GHz) (1-25 GHz)	PASS	Pt. 15B Test Report		
RF EXPOSURE								
2.1091 / 2.1093	RSS-102	MPE Test	1 mW/cm² (MPE Limit) @ 20 cm	MPE	PASS	MPE Report		

Table 6-1. Summary of Test Results

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6.2 Effective Radiated Power Output Data

§22.913(a)(2); RSS-132 (4.5.1.2)

POWER: "All Up" Bits (Cellular CDMA with EV-DO Mode)

Frequency [MHz]	Measured Level [dBm]	Substitute Level [dBm]	Antenna Gain [dBd]	Pol [H/V]	ERP [dBm]	ERP [Watts]	Battery Type
824.70	-14.490	22.91	0.00	Н	22.91	0.195	Standard
836.52	-12.630	24.77	0.00	Н	24.77	0.300	Standard
848.31	-10.250	27.15	0.00	Η	27.15	0.519	Standard

Table 6-2. Effective Radiated Power Output Data

NOTES:

Effective Radiated Power Output Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. For CDMA signals, a peak detector is used, with RBW = VBW = 3 MHz. For WCDMA signals, a peak detector is used, with RBW = VBW = 5 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1 MHz. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. The conducted power at the terminals of the dipole is measured. The ERP is recorded.

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6.3 Equivalent Isotropic Radiated Power Output Data §24.232(c); RSS-133 (6.4) [SRSP-510 (5.1.2)]

POWER: "All Up" Bits (PCS CDMA with EV-DO Mode)

Frequency [MHz]	Measured Level [dBm]	Substitute Level [dBm]	Antenna Gain [dBi]	Pol [H/V]	EIRP [dBm]	EIRP [Watts]	Battery Type
1851.25	-14.000	18.20	8.00	Н	26.20	0.417	Standard
1880.00	-12.720	19.48	8.00	Н	27.48	0.560	Standard
1908.75	-12.540	19.66	8.00	Ι	27.66	0.583	Standard

Table 6-3. Equivalent Isotropic Radiated Power Output Data

NOTES:

<u>Equivalent Isotropic Radiated Power Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:</u>

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. For CDMA signals, a peak detector is used, with RBW = VBW = 3 MHz. For WCDMA signals, a peak detector is used, with RBW = VBW = 5 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1 MHz. A Horn antenna was substituted in place of the EUT. This Horn antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. The conducted power at the terminals of the Horn antenna is measured. The difference between the gain of the horn and an isotropic antenna is taken into consideration and the EIRP is recorded.

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6.4 Cellular CDMA with EV-DO Mode Radiated Measurements §2.1053, 22.917(a): RSS-132 (4.5.1.2)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 824.70 MHz

CHANNEL: 1013

MEASURED OUTPUT POWER: 27.150 dBm = 0.519 W

MODULATION SIGNAL: CDMA (Internal)

DISTANCE: _____ a ___ meters

LIMIT: $43 + 10 \log_{10} (W) = 40.15$ dBc

FREQ.	LEVEL @ ANTENNA	SUBSTITUTE ANTENNA	CORRECT GENERATOR	POL	
(MHz)	TERMINALS	GAIN	LEVEL	(H/V)	(dBc)
	(dBm)	(dBd)	(dBm)		
1649.40	-55.60	6.08	-49.52	Н	76.7
2474.10	-55.80	6.08	-49.72	Н	76.9
3298.80	-97.04	6.53	-90.51	Н	117.7
4123.50	-94.23	6.87	-87.35	Ι	114.5
4948.20	-92.03	7.21	-84.82	Н	112.0

Table 6-4. Radiated Spurious Data (Cellular CDMA with EV-DO Mode - Ch. 1013)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. For CDMA signals, a peak detector is used, with RBW = VBW = 3 MHz. For WCDMA signals, a peak detector is used, with RBW = VBW = 5 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1 MHz. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This spurious level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

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Cellular CDMA with EV-DO Mode Radiated Measurements (Cont'd) §2.1053, 22.917(a); RSS-132 (4.5.1.2)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 836.52 MHz

> CHANNEL: 384

MEASURED OUTPUT POWER: 27.150 dBm 0.519

MODULATION SIGNAL: CDMA (Internal)

DISTANCE:

LIMIT: $43 + 10 \log_{10} (W) =$ 40.15 dBc

FREQ. (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBd)	CORRECT GENERATOR LEVEL (dBm)	POL (H/V)	(dBc)
1673.04	-52.48	6.09	-46.39	Н	73.5
2509.56	-55.58	6.55	-49.03	Н	76.2
3346.08	-94.09	6.89	-87.20	Н	114.4
4182.60	-92.19	7.43	-84.76	Н	111.9
5019.12	-90.05	8.35	-81.70	Н	108.8

Table 6-5. Radiated Spurious Data (Cellular CDMA with EV-DO Mode - Ch. 384)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. For CDMA signals, a peak detector is used, with RBW = VBW = 3 MHz. For WCDMA signals, a peak detector is used, with RBW = VBW = 5 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1 MHz. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This spurious level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

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Cellular CDMA with EV-DO Mode Radiated Measurements (Cont'd) §2.1053, 22.917(a); RSS-132 (4.5.1.2)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 848.31 MHz

CHANNEL: 777

MEASURED OUTPUT POWER: _____ 27.150 ____ dBm = ____ 0.519 _ W

MODULATION SIGNAL: CDMA (Internal)

DISTANCE: 3 meters

LIMIT: $43 + 10 \log_{10} (W) = 40.15$ dBc

FREQ.	LEVEL @ ANTENNA	SUBSTITUTE ANTENNA	CORRECT GENERATOR	POL	
(MHz)	TERMINALS	GAIN	LEVEL	(H/V)	(dBc)
	(dBm)	(dBd)	(dBm)		
1696.62	-52.25	6.09	-46.16	Н	73.3
2544.93	-50.03	6.57	-43.46	Н	70.6
3393.24	-93.96	6.91	-87.05	Н	114.2
4241.55	-92.35	7.65	-84.70	Н	111.9
5089.86	-89.67	8.33	-81.34	Н	108.5

Table 6-6. Radiated Spurious Data (Cellular CDMA with EV-DO Mode – Ch. 777)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. For CDMA signals, a peak detector is used, with RBW = VBW = 3 MHz. For WCDMA signals, a peak detector is used, with RBW = VBW = 5 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1 MHz. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This spurious level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

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6.5 PCS CDMA with EV-DO Mode Radiated Measurements §2.1053, 24.238(a); RSS-133 (6.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 1851.25 MHz

CHANNEL: 25

MEASURED OUTPUT POWER: _____ 27.660 ____ dBm = ____ 0.583 _ W

MODULATION SIGNAL: CDMA (Internal)

DISTANCE: 3 meters

LIMIT: $43 + 10 \log_{10} (W) = 40.66$ dBc

FREQ.	LEVEL @ ANTENNA	SUBSTITUTE ANTENNA	CORRECT GENERATOR	POL	
(MHz)	TERMINALS	GAIN	LEVEL	(H/V)	(dBc)
	(dBm)	(dBi)	(dBm)		
3702.50	-29.10	9.02	-20.09	Н	47.7
5553.75	-44.45	10.40	-34.05	Н	61.7
7405.00	-48.60	10.51	-38.09	Н	65.8
9256.25	-86.41	11.84	-74.57	Н	102.2
11107.50	-85.45	12.76	-72.70	Н	100.4

Table 6-7. Radiated Spurious Data (PCS CDMA with EV-DO Mode - Ch. 25)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. For CDMA signals, a peak detector is used, with RBW = VBW = 3 MHz. For WCDMA signals, a peak detector is used, with RBW = VBW = 5 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1 MHz. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This spurious level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

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PCS CDMA with EV-DO Mode Radiated Measurements (Cont'd) §2.1053, 24.238(a); RSS-133 (6.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 1880.00 MHz

MEASURED OUTPUT POWER: 27.660 dBm = 0.583 W

MODULATION SIGNAL: CDMA (Internal)

DISTANCE: _____ meters

LIMIT: $43 + 10 \log_{10} (W) = 40.66$ dBc

FREQ.	LEVEL @ ANTENNA TERMINALS	SUBSTITUTE ANTENNA GAIN	CORRECT GENERATOR LEVEL	POL (H/V)	(dBc)
(=)	(dBm)	(dBi)	(dBm)	()	(0.20)
3760.00	-34.93	8.99	-25.93	Н	53.6
5640.00	-42.52	10.40	-32.12	Н	59.8
7520.00	-55.16	10.62	-44.54	Н	72.2
9400.00	-86.02	11.70	-74.32	Н	102.0
11280.00	-84.99	12.69	-72.30	Н	100.0

Table 6-8. Radiated Spurious Data (PCS CDMA with EV-DO Mode - Ch. 600)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. For CDMA signals, a peak detector is used, with RBW = VBW = 3 MHz. For WCDMA signals, a peak detector is used, with RBW = VBW = 5 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1 MHz. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This spurious level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

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PCS CDMA with EV-DO Mode Radiated Measurements (Cont'd) §2.1053, 24.238(a); RSS-133 (6.5.1)

Field Strength of SPURIOUS Radiation

OPERATING FREQUENCY: 1908.75 MHz

CHANNEL: 1175

MEASURED OUTPUT POWER: ______ 27.660 _____ dBm = _____ 0.583 __W

MODULATION SIGNAL: CDMA (Internal)

DISTANCE: 3 meters

LIMIT: $43 + 10 \log_{10} (W) = 40.66$ dBc

FREQ. (MHz)	LEVEL @ ANTENNA TERMINALS (dBm)	SUBSTITUTE ANTENNA GAIN (dBi)	CORRECT GENERATOR LEVEL (dBm)	POL (H/V)	(dBc)
	, ,	, ,	, ,		
3817.50	-32.12	8.97	-23.15	Н	50.8
5726.25	-41.50	10.40	-31.10	Н	58.8
7635.00	-86.49	10.71	-75.78	Н	103.4
9543.75	-85.75	11.64	-74.12	Н	101.8
11452.50	-84.53	12.62	-71.91	Н	99.6

Table 6-9. Radiated Spurious Data (PCS CDMA with EV-DO Mode – Ch. 1175)

NOTES:

Radiated Spurious Emission Measurements by Substitution Method according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a wooden turn table 3-meters from the receive antenna. The receive antenna height and turntable rotation was adjusted for the highest reading on the receive spectrum analyzer. For CDMA signals, a peak detector is used, with RBW = VBW = 3 MHz. For WCDMA signals, a peak detector is used, with RBW = VBW = 5 MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 1 MHz. A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. This spurious level is recorded. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic or dipole antenna are taken into consideration.

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7.0 CONCLUSION

The data collected show that the Motorola Mobile Computer with CDMA Module with EV-DO FCC ID: ABZ89FT7624 complies with all the requirements of Parts 2, 22, and 24 of the FCC rules.

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