

**Test Report On**  
**Single-Band 1xRTT CDMA Cellular Phone**

<b>FCC Part 24 Certification</b>	
FCC ID:	<b>OVFKWC-M1000-2J0</b>
Models:	<b>M1000-2J0</b>
Date:	<b>May 31, 2007</b>

<b>STATEMENT OF CERTIFICATION</b>	
<i>The data, data evaluation and equipment configuration represented herein are a true and accurate representation of the measurements of the sample's radio frequency interference emissions characteristics as of the dates and at the times of the test under the conditions herein specified.</i>	
<b>STATEMENT OF COMPLIANCE</b>	
<i>This product has been shown to be capable of compliance with the applicable technical standards as indicted in the measurement report and was tested in accordance with the measurement procedures specified in §2.947.</i>	
<b>Date of Test:</b>	May 17 – May 18, 2007
<b>Test performed by:</b>	Kyocera Wireless Corp. 10300 Campus Point Drive San Diego, CA 92121
<b>Report Prepared by:</b>	Binh Thai, Operator
<b>Report Reviewed by:</b>	C.K. Li, Principal Hardware Engineer
Compliance Certification Service performed the tests that required an OATS site.	

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1 General Information

<b>Applicant:</b>	Kyocera Wireless Corp 10300 Campus Point Drive San Diego CA 92121
<b>FCC ID:</b>	OVFKWC-M1000-2J0
<b>Product:</b>	Single Band CDMA Cellular Phone with Bluetooth
<b>Model Numbers:</b>	M1000-2J0
<b>EUT Serial Number:</b>	FFMK0000001409
<b>Type:</b>	<input checked="" type="checkbox"/> Identical Prototype, <input type="checkbox"/> Pre-Production, <input type="checkbox"/> Production
<b>Device Category:</b>	Portable
<b>RF Exposure Environment:</b>	General Population / Uncontrolled
<b>Antenna:</b>	Internal Antenna
<b>Detachable Antenna:</b>	No
<b>External Input:</b>	Audio/Digital Data
<b>Quantity:</b>	Quantity production is planned
<b>FCC Rule Parts:</b>	§24E
<b>Modes:</b>	1900 CDMA
<b>Multiple Access Scheme:</b>	CDMA
<b>TX Frequency (MHz):</b>	1850 - 1910
<b>Emission Designators:</b>	1M25F9W
<b>Max. Output Power (W):</b>	0.309 EIRP

## 2 Product Description

The OVFKWC-M1000-2J0 phones are Single-Band 1XRTT products. The phone has assisted GPS software feature enabled to meet the emergency location requirements of the FCC’s E911 Phase II mandate. The dual-band architecture is defined as 1900MHz (PCS CDMA).

The phone is designed in compliance with the technical specifications for compatibility of mobile and base stations in the Cellular Radio telephone service contained in “Cellular System Mobile Station -Land Station Compatibility Specification” as specified in OET Bulletin 53 and TIA Standards.

As described in Exhibit 1 (operation description), OVFKWC-M1000-2J0 can operate in the CDMA mode specified in IS-2000.2 standard, release 0. It can only invoke a Spreading Rate 1 (SR1) operational mode. SR1 is defined as a 1.2288 Mcps chip rate-based system using a direct-spread single carrier, which limits the bandwidth to the same 1.25 MHz bandwidth occupied by the legacy IS-95/8-A/B system. Thus, for SR1 in IS-2000, the frequency response is identical to the legacy IS-95 B system standard.

## 3 Test Configuration

For Part 24, all of CDMA measurements were conducted with Agilent 8960 as a base station simulator. The base station simulator establishes a CDMA link with the test device. To justify on the selection of applicable configurations, the EUT was pre-tested under all R.C. and S.O. operation modes to determine the worst-case scenario:

CONFIGURATION	CONDUCTED POWER (dBm)		
	CDMA 1900		
	Ch 25	Ch 600	Ch 1175
	Peak	Peak	Peak
SO2, RC1 Full Rate	27.09	28.15	28.00
SO2, RC3 Full Rate	27.08	27.87	27.52
SO55, RC1 Full Rate	27.06	28.14	27.93
<b>SO55, RC3 Full Rate</b>	27.10	<b>28.20</b>	28.02
TDSO SO32, RC3 (FCH +SCH) Full Rate	26.79	27.71	27.35
TDSO SO32, RC3 (FCH) Full Rate	27.74	28.15	28.00

CONFIGURATION	CONDUCTED POWER (dBm)		
	CDMA 1900		
	Ch 25	Ch 600	Ch 1175
	Avg	Avg	Avg
SO2, RC1 Full Rate	22.43	22.78	22.85
SO2, RC3 Full Rate	22.50	22.82	22.88
SO55, RC1 Full Rate	22.49	22.81	22.86
<b>SO55, RC3 Full Rate</b>	<b>22.51</b>	<b>22.85</b>	<b>22.90</b>
TDSO SO32, RC3 (FCH +SCH) Full Rate	22.00	22.71	22.40
TDSO SO32, RC3 (FCH) Full Rate	22.50	22.78	22.11

The following configuration was determined and reported as worst case for all measurements:

Radio Configuration: RC3

Service Options: SO55

Data Rate: full rate

**4 HAC compliance**

**FCC § 20**

The OVFKWC-M1000-2J0 phone models have been designed for HAC Compliance.

**5 TTY compliance**

**FCC § 255 of the Telecom Act**

The OVFKWC-M1000-2J0 phone models have been designed for TTY Compliance with Cellular Compatibility Standard.

**6 Transmitter RF Power Output**

**6.1 Conducted Power**

**FCC: § 2.1046**

**Measurement Procedures:**

The RF output power was measured using a Giga-tronics 8541C Universal Power Meter. Terminated to a resistive coaxial load of 50 ohms.

Mode	Frequency (MHz)	Channel	Power (dBm)
CDMA 1900	1851.25	25	22.45
	1880.00	600	22.85
	1908.75	1175	22.76

## 6.2 Radiated Power

<b>FCC:</b> § 24.232
<p><b>Measurement Procedures:</b></p> <p>Tests were performed in Compliance Certification Service using substitution method. See separated radiated emission report for details.</p>

Mode	Frequency (MHz)	Channel	Max. Power (dBm)	Ref.
CDMA 1900	1851.25	25	24.80	EIRP
	1880.00	600	24.60	
	1908.75	1175	24.90	

7 Occupied Bandwidth

**FCC: § 2.1049, § 24.238**

**Measurement Procedures:**

The RF output of the EUT was connected to the input of the spectrum analyzer (S.A.) with sufficient attenuation. The spectrum with no modulation was recorded.

For Digital: Modulate with full rate all up power control bit.

List of Figures

Figure	Mode	Description
7-1	CDMA 1900	CDMA @ CH600
7-2		Lower Band Edge @ CH 25
7-3		Upper Band Edge @ CH 1175

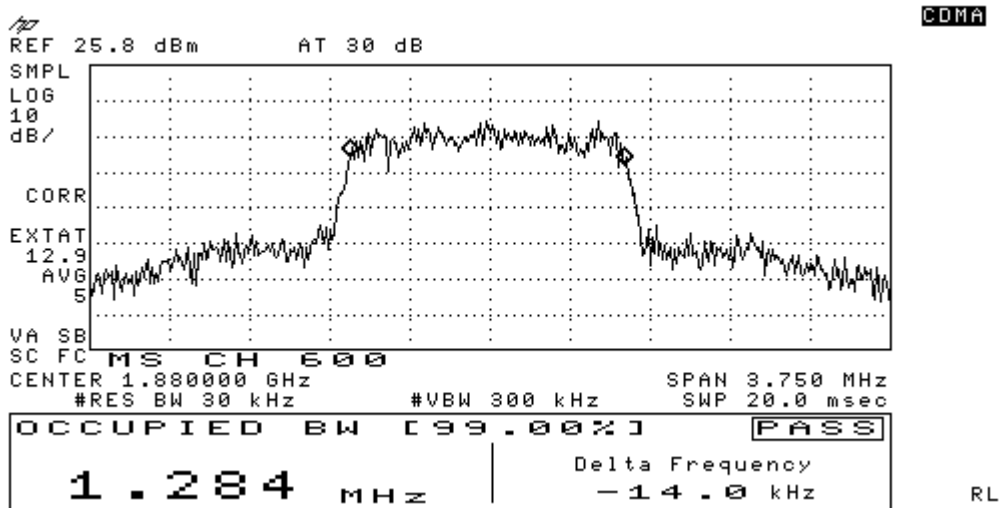


Figure 7-1 CDMA 1900 @ CH 600



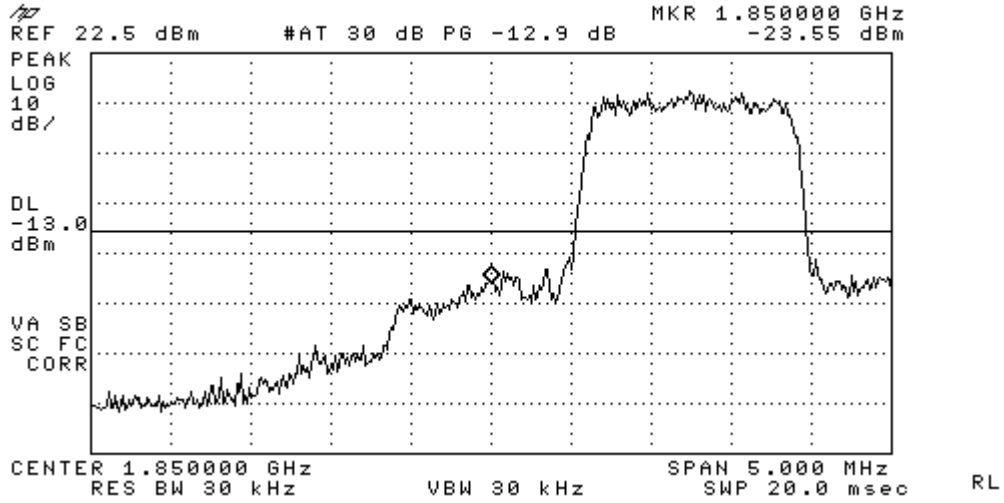


Figure 7-2 CDMA 1900 Lower Band Edge @ ch25

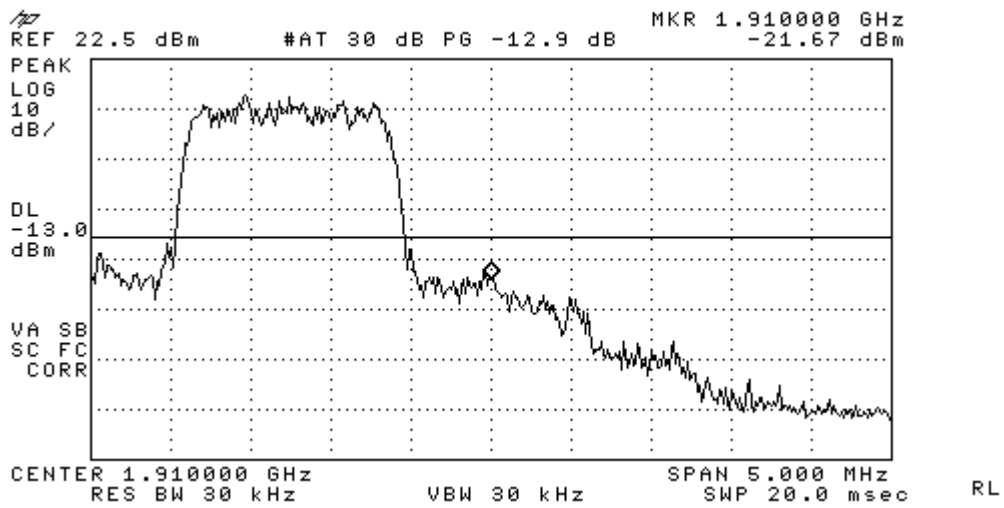


Figure 7-3 CDMA 1900 Upper Band Edge @ ch1175

## 8 Spurious Emissions At Antenna Terminals

<b>FCC:</b>	<b>§ 2.1051, § 24.238</b>
<b>Measurement Procedures:</b>	
<p><u>Out of Band:</u> The RF output of the EUT was connected to the input of the spectrum analyzer with sufficient attenuation. The modulating signal was applied accordingly. The frequency spectrum was investigated from the lowest frequency signal generated up to at least the tenth harmonic of the fundamental.</p> <p>S.A. Setting: RBW=1MHz, VBW=1MHz</p>	

**List of Figures:**

Figure	Mode	Channel	Plot Description
8-1	CDMA 1900	25	Conducted spurious emissions, 9kHz to 20GHz
8-2		600	Conducted spurious emissions, 9kHz to 20GHz
8-3		1175	Conducted spurious emissions, 9kHz to 20GHz





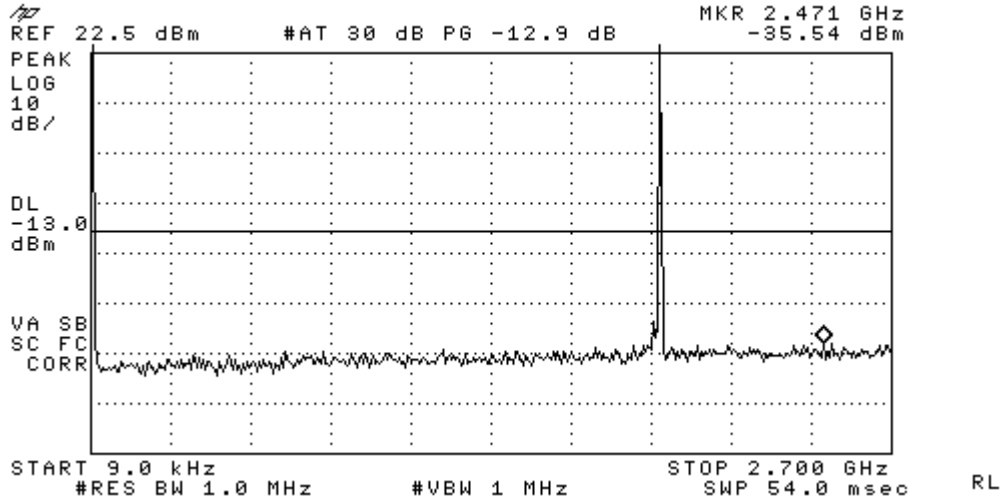


Figure 8-3a CDMA 1900 - Conducted Spurious Emission (CH 1175)

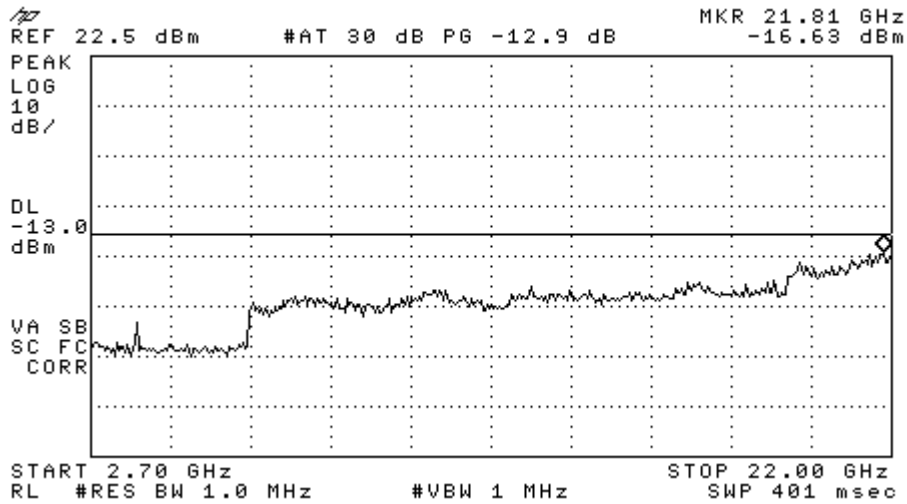


Figure 8-3b CDMA 1900 - Conducted Spurious Emission (CH 1175)

## 9 Transmitter Radiated Spurious Emissions Measured Data

**FCC:** § 2.1053, § 24.238

**Measurement Procedures:**

The radiated spurious emission test was performed at Compliance Certification Service. The test report is attached in a separate attachment.

## 10 Receiver Spurious Emissions

**FCC:** § 15.109

**Measurement Procedures:**

The receiver radiated spurious emission test was performed at Compliance Certification Service. The test report is attached in a separate attachment.

## 11 Transmitter RF Carrier Frequency Stability

**FCC:** § 2.1055, § 24.235

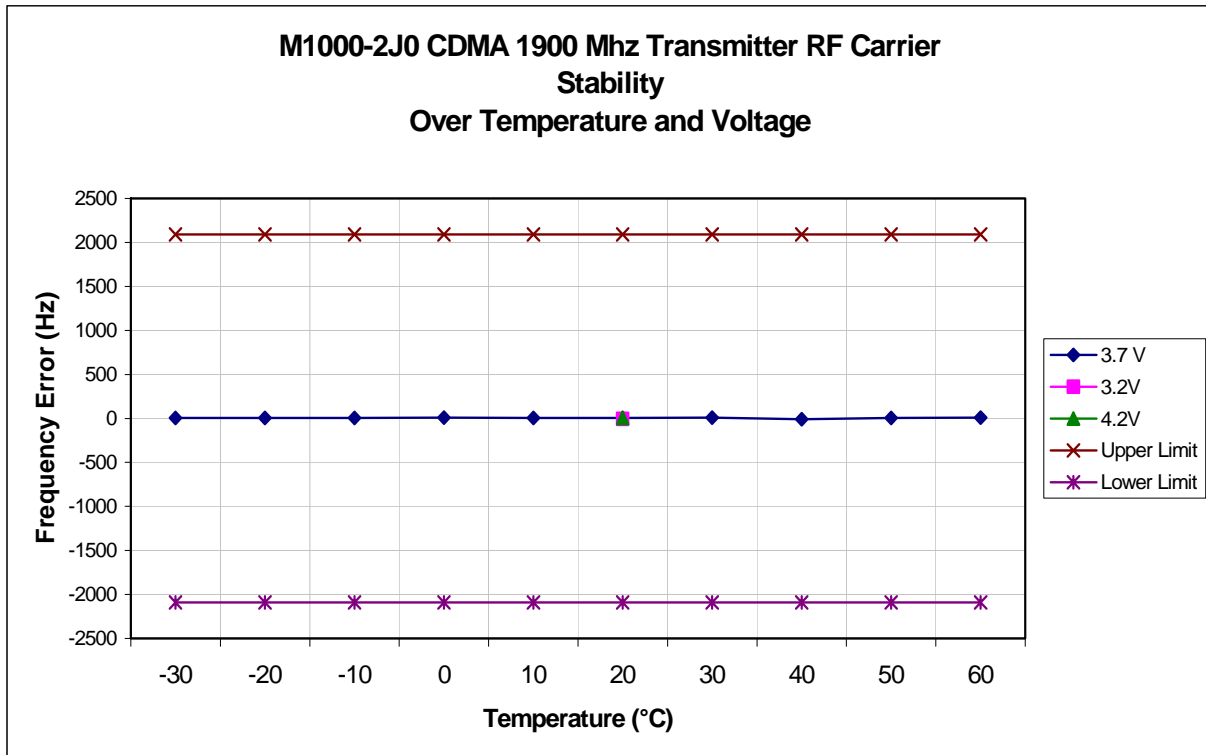
**Measurement Procedures:**

The EUT was placed in an environmental chamber. The RF output of the EUT was connected to Agilent 8960 Series 10 E5515C. A power supplier was connected as primary voltage supply.

11.1 CDMA 1900 Mode

<b>Tx Frequency:</b>	1880.00 MHz	<b>Voltage :</b>	3.7V
<b>Tolerance:</b>	+/- 2.5 Ppm (+/-4700 Hz)	<b>Ch:</b>	600

Temperature (°C)	Deviation of Carrier (Hz)			Specification (Hz)	
	3.5V (Battery endpoint)	3.7V	4.26V (115%)	Lower limit	Upper limit
-30		15.39		-4700	4700
-20		13.73		-4700	4700
-10		14.61		-4700	4700
0		17.51		-4700	4700
10		12.81		-4700	4700
20	<b>11.4</b>	<b>14.76</b>	<b>12.89</b>	-4700	4700
30		17.55		-4700	4700
40		19.77		-4700	4700
50		13.10		-4700	4700
60		13.42		-4700	4700



**12 Exposure of Humans to RF Fields (SAR)**

The SAR Test Report is showed in a separate attachment as Exhibit 9.

**13 Test Equipment**

Description	Manufacturer	Model Number	Serial Number	Cal Due Date
Power Meter	Giga-tronics	8541C	1831306	07/11/07
Spectrum Analyzer	Hewlett Packard	8593EM	3710A00203	03/22/08
Spectrum Analyzer	Hewlett Packard	8595E	3911A03899	07/11/07
Wireless Communications Test Set	Agilent	8960	GB44052789	09/02/07
Temperature Chamber	Test Equity	ZH2-033-033-H/AC	ZZ9622421	08/23/07