Test Report On

Dual-Band CDMA Cellular Phone with Bluetooth

FCC Part 22 & 24 Certification	
FCC ID:	**OVFE1000-255**
Models:	**E1000**
Date:	**April 27, 2007**

STATEMENT OF CERTIFICATION

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.

STATEMENT OF COMPLIANCE

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.

Date of Test:	April 24 – April 27, 2007
Test performed by:	Kyocera Wireless Corp. 10300 Campus Point Drive San Diego, CA 92121
Report Prepared by:	Ngoc-Thi Nguyen, Regulatory Engineer
Report Reviewed by:	C.K. Li, Principal Hardware Engineer

Compliance Certification Services performed the tests that required an OATS site.

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1 General Information

Applicant:	Kyocera Wireless Corp 10300 Campus Point Drive San Diego CA 92121	
FCC ID:	OVFE1000-255	
Product:	Dual-Band 1xRTT CDMA Cellular Phone with Bluetooth	
Model Numbers:	E1000	
EUT Serial Number:	FFE10000001529	
Type:	[ ] Identical Prototype, [**X**] Pre-Production, [ ] Production	
Device Category:	Portable	
RF Exposure Environment:	General Population / Uncontrolled	
Antenna:	Internal Antenna	
Detachable Antenna:	No	
External Input:	Audio/Digital Data	
Quantity:	Quantity production is planned	
FCC Rule Parts:	§22H	§24E
Modes:	800 CDMA	1900 CDMA
Multiple Access Scheme:	CDMA	CDMA
TX Frequency (MHz):	824 – 849	1850 - 1910
Emission Designators:	1M25F9W	1M25F9W
Max. Conducted Output Power (dBm):	24	23

2 Product Description

The OVFE1000-255 is a Dual-Band 1XRTT CDMA Cellular phone. 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) and 800MHz (cellular 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), OVFE1000-255 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 22 and 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 **Peak Power**	**CONDUCTED POWER (dBm)**					
	CDMA 1900			**CDMA 800**		
	Ch 25	**Ch 600**	**Ch 1175**	**Ch 1013**	**Ch 383**	**Ch 777**
	Peak	**Peak**	**Peak**	**Peak**	**Peak**	**Peak**
SO2, RC1 Full Rate	27.05	**27.54**	25.98	28.86	28.73	**29.36**
SO2, RC3 Full Rate	26.62	26.98	25.72	28.53	28.37	28.88
SO55, RC1 Full Rate	27.09	27.34	25.97	28.84	28.59	29.27
SO55, RC3 Full Rate	26.77	26.91	25.74	28.71	28.46	28.89
TDSO SO32, RC3 (FCH+SCH) Full Rate	27.64	27.94	25.65	28.43	28.32	28.8
TDSO SO32, RC3 (-SCH) Full Rate	26.64	27.06	25.55	28.48	28.33	28.68

CONFIGURATION Average Power	CONDUCTED POWER (dBm)					
	CDMA 1900			CDMA 800		
	Ch 25	Ch 600	Ch 1175	Ch 1013	Ch 383	Ch 777
	Ave	Ave	Ave	Ave	Ave	Ave
SO2, RC1 Full Rate	22.6	22.95	22.96	24.3	24.35	24.31
SO2, RC3 Full Rate	22.55	22.94	23.01	24.2	24.24	24.19
SO55, RC1 Full Rate	22.57	22.91	22.98	24.27	24.33	24.23
SO55, RC3 Full Rate	**22.62**	**22.97**	**23.03**	**24.36**	**24.38**	**24.34**
TDSO SO32, RC3 (+SCH) Full Rate	22.59	22.93	23	24.06	24.19	24.08
TDSO SO32, RC3 (F-SCH) Full Rate	22.21	22.42	22.4	23.94	24.08	23.85

The following configuration was determined and reported as worst case for all measurements:
Radio Configuration: RC1
Service Options: SO2
Data Rate: full rate

4 FCC Compliance Emergency 911

FCC § 22.921
When an emergency 911 call is originated by the user, the mobile will attempt to acquire any available system and originate the emergency call on that system, disregarding restrictions set by the roaming list. The FCC NPRM WT99-13, CC94-102 automatic analog A/B roaming option has been implemented for 911 emergency calls. Note that the models that contain the letter “L” have Global Positioning System (GPS) support.

5 TTY compliance

FCC § 255 of the Telecom Act
The OVFE1000-255 phone model has 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 800	824.70	1013	24.28
	836.52	384	24.13
	848.31	777	24.32
CDMA 1900	1851.25	25	22.85
	1880.00	600	23.31
	1908.75	1175	23.24

6.2 Radiated Power

FCC:	§ 22.913, § 24.232

Measurement Procedures:

Tests were performed in Compliance Certification Service using substitution method. See separated radiated emission report for details.

Mode	Frequency (MHz)	Channel	Max. Power (dBm)	Ref.
CDMA 800	824.70	1013	28.20	ERP
	836.52	383	27.70	
	848.31	777	27.40	
CDMA 1900	1851.25	25	30.80	EIRP
	1880.00	600	29.50	
	1908.75	1175	29.70	

7 Occupied Bandwidth

FCC:	§ 2.1049, § 22.917(b)(d), § 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 800**	CDMA @ Ch383
7-2	**CDMA 1900**	CDMA @ CH600
7-3		Lower Band Edge @ CH 25
7-4		Upper Band Edge @ CH 1175

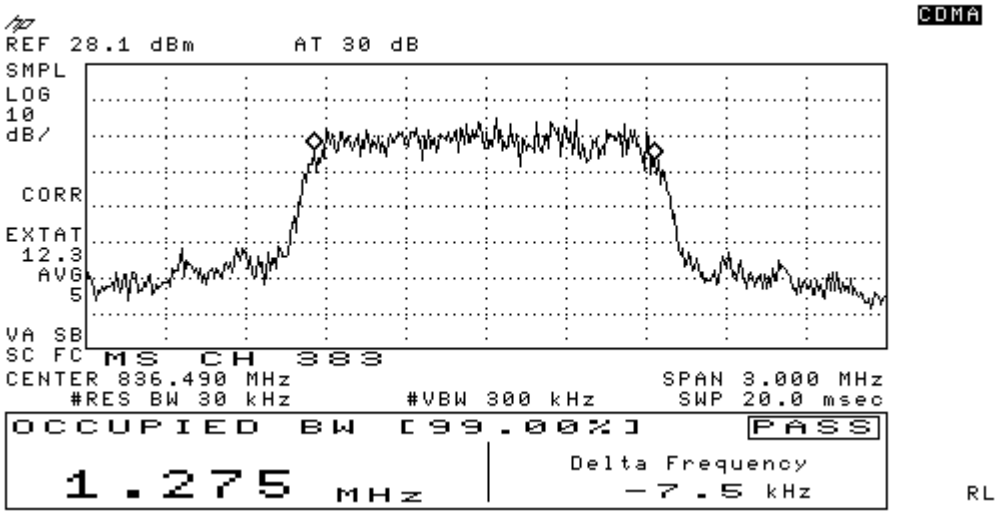


Figure 7-1 CDMA 800 @ CH 383

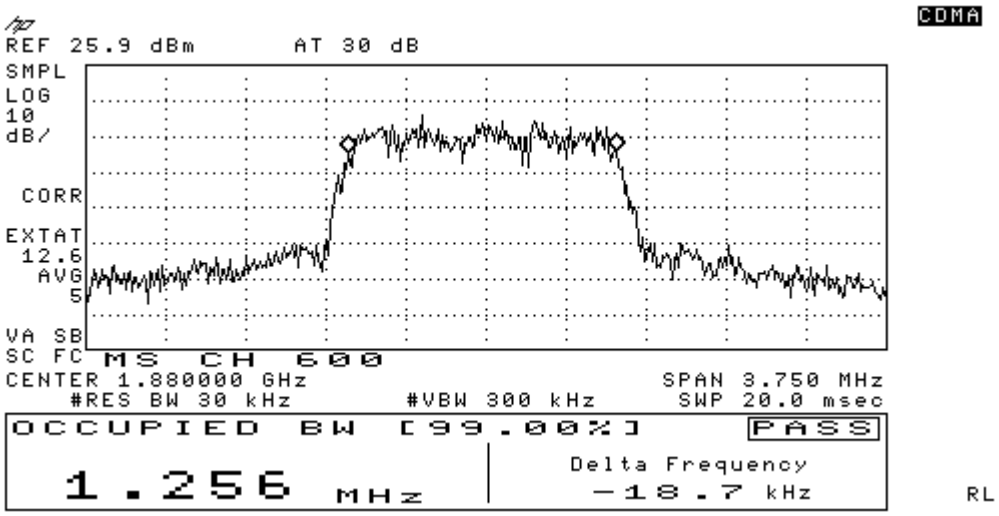


Figure 7-2 CDMA 1900 @ CH 600

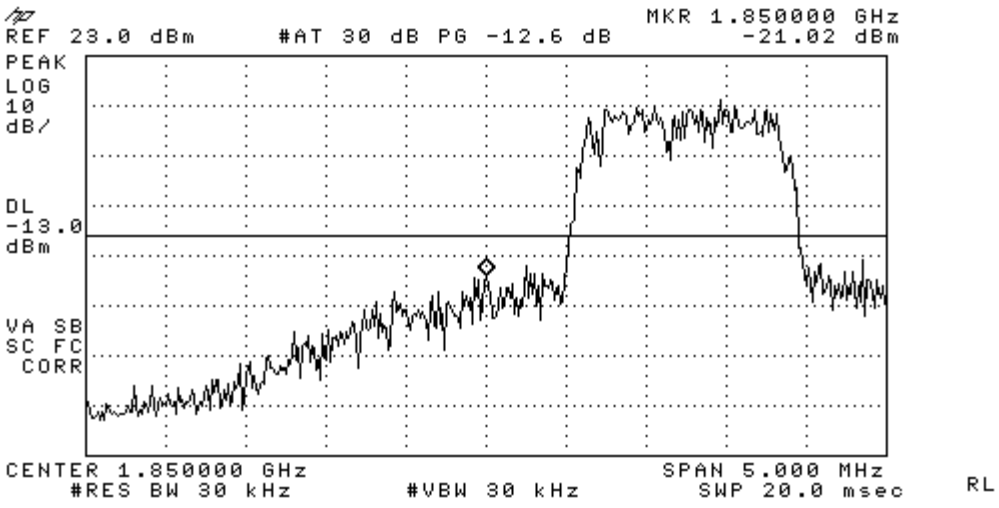


Figure 7-3 CDMA 1900 Lower Band Edge @ CH 25

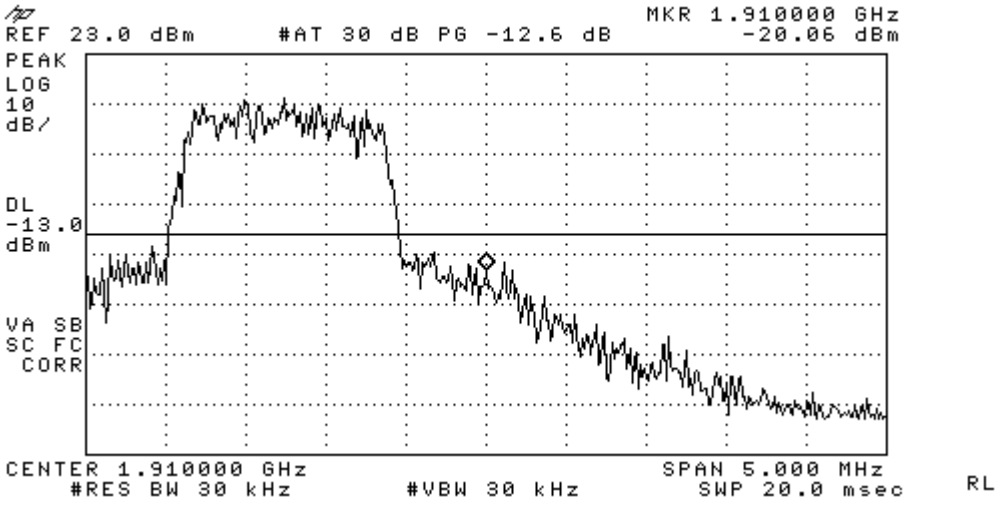


Figure 7-4 CDMA 1900 Upper Band Edge @ CH 1175

8 Spurious Emissions At Antenna Terminals

FCC:	§ 2.1051, § 22.917(e)(f), § 24.238

Measurement Procedures:

Out of Band: 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.

S.A. Setting: RBW=1MHz, VBW=1MHz

List of Figures:

Figure	Mode	Channel	Plot Description
8-1	CDMA 800	1013	Conducted spurious emissions, 9kHz to 20GHz
8-2		383	Conducted spurious emissions, 9kHz to 20GHz
8-3		777	Conducted spurious emissions, 9kHz to 20GHz
8-4	CDMA 1900	25	Conducted spurious emissions, 9kHz to 20GHz
8-5		600	Conducted spurious emissions, 9kHz to 20GHz
8-6		1175	Conducted spurious emissions, 9kHz to 20GHz

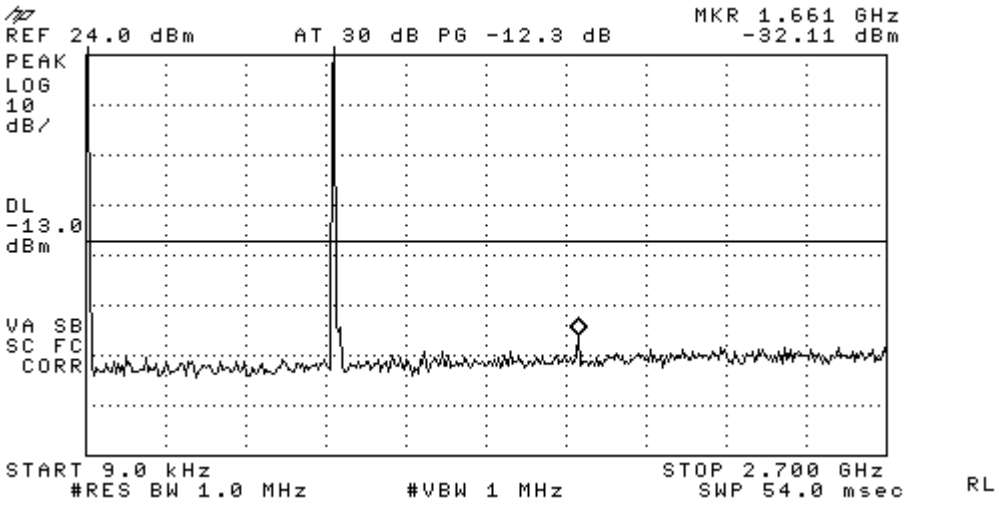


Figure 8-1a CDMA 800 – Conducted Spurious Emission (CH 1013)

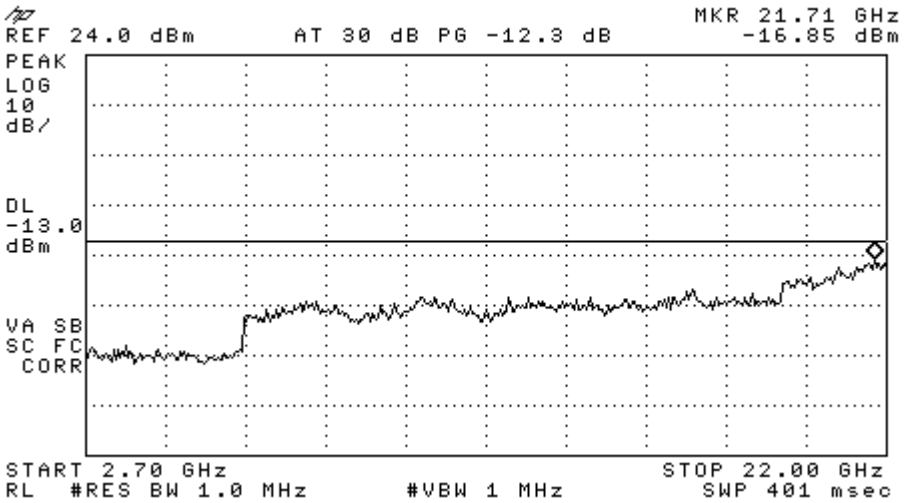


Figure 8-1b CDMA 800 – Conducted Spurious Emission (CH 1013)

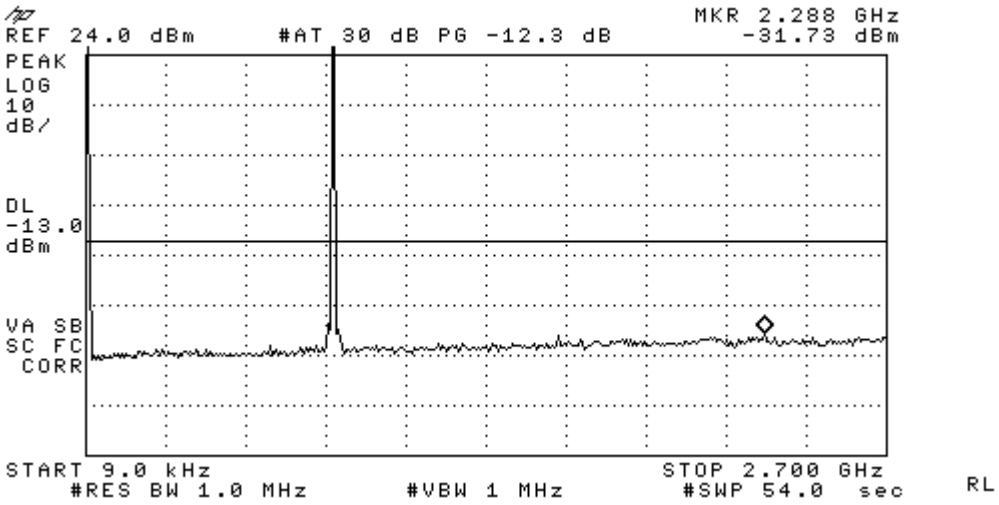


Figure 8-2a CDMA 800 – Conducted Spurious Emission (CH 383)

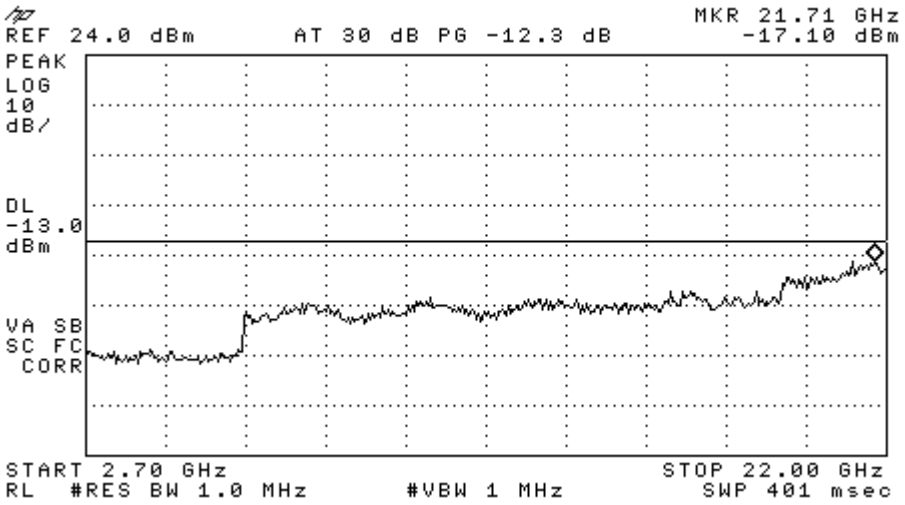


Figure 8-2b CDMA 800 – Conducted Spurious Emission (CH 383)

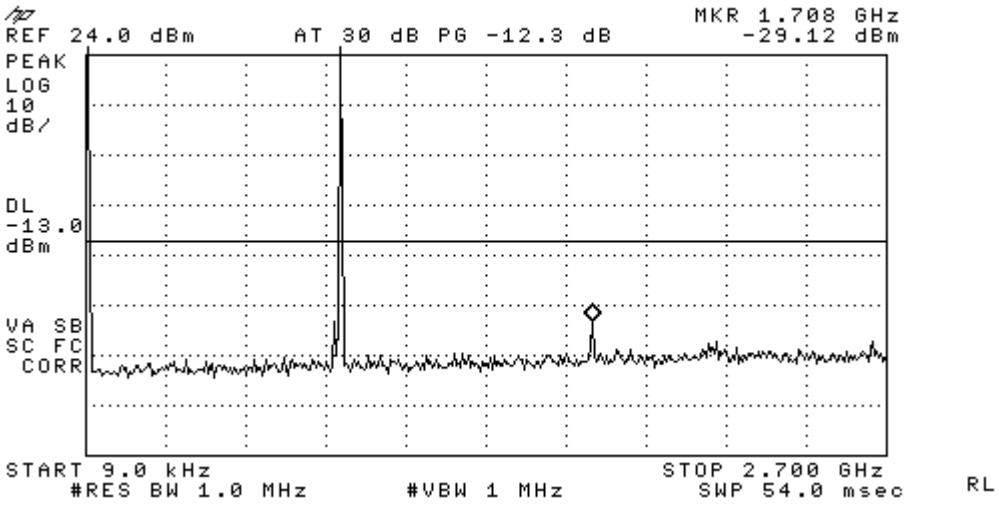


Figure 8-3a CDMA 800 – Conducted Spurious Emission (CH 777)

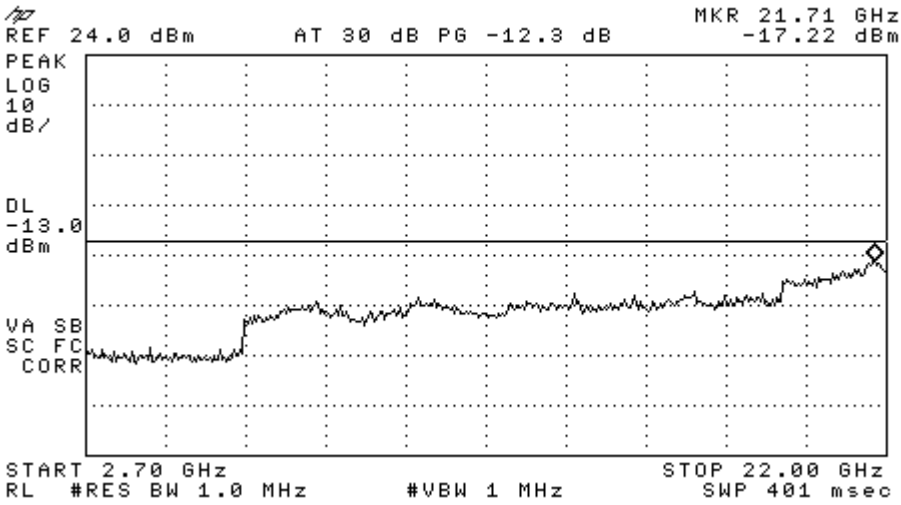


Figure 8-3b CDMA 800 – Conducted Spurious Emission (CH 777)

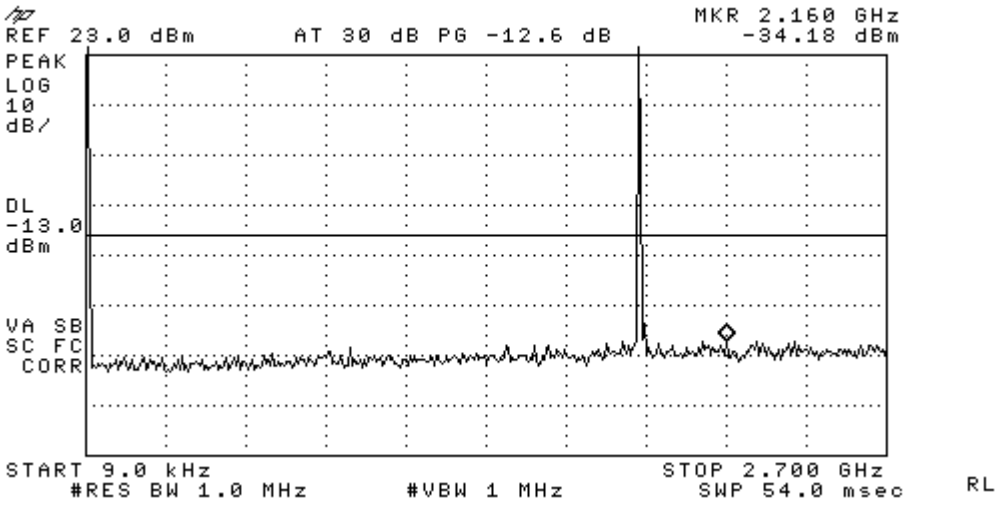


Figure 8-4a CDMA 1900 - Conducted Spurious Emission (CH 25)

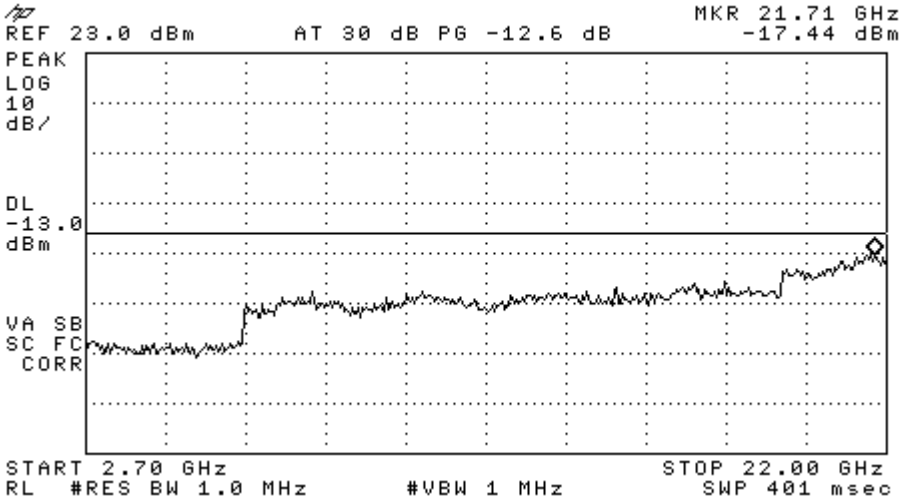


Figure 8-4b CDMA 1900 - Conducted Spurious Emission (CH 25)

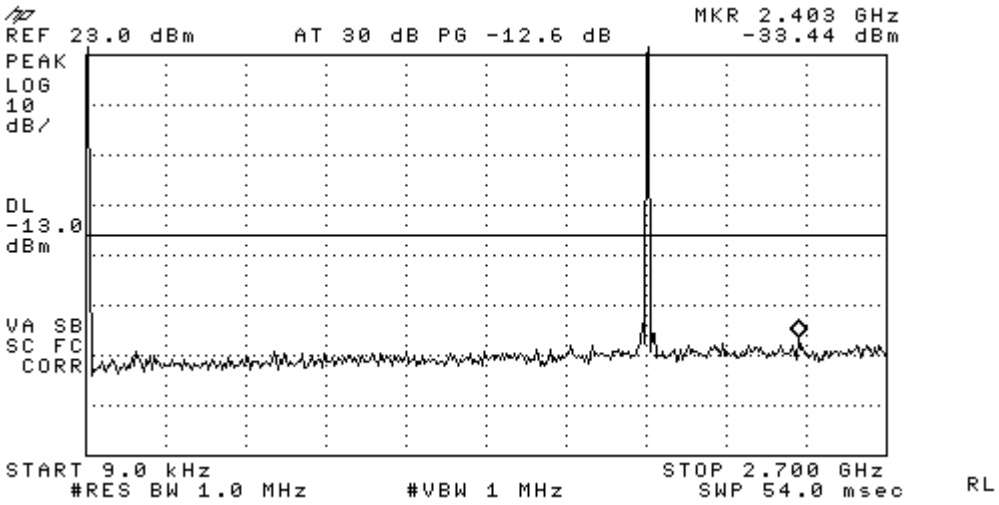


Figure 8-5a CDMA 1900 - Conducted Spurious Emission (CH 600)

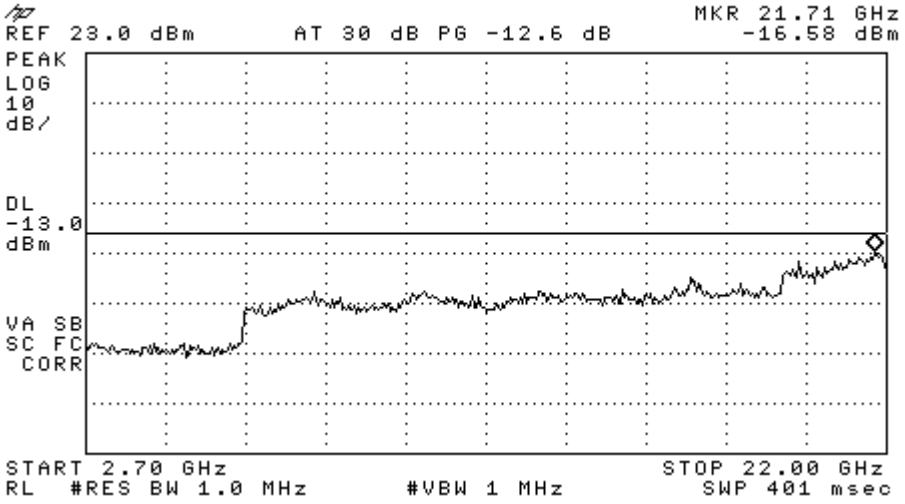


Figure 8-5b CDMA 1900 - Conducted Spurious Emission (CH 600)

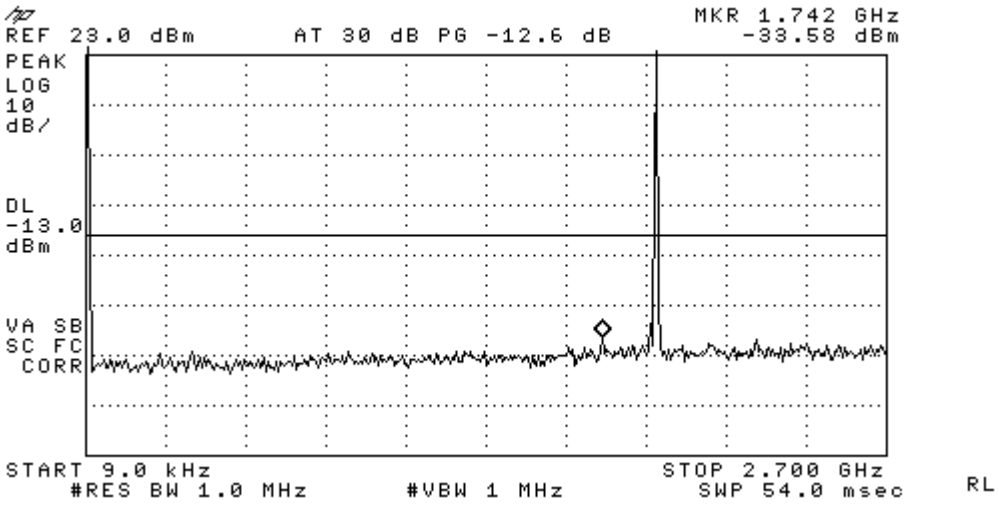


Figure 8-6a CDMA 1900 - Conducted Spurious Emission (CH 1175)

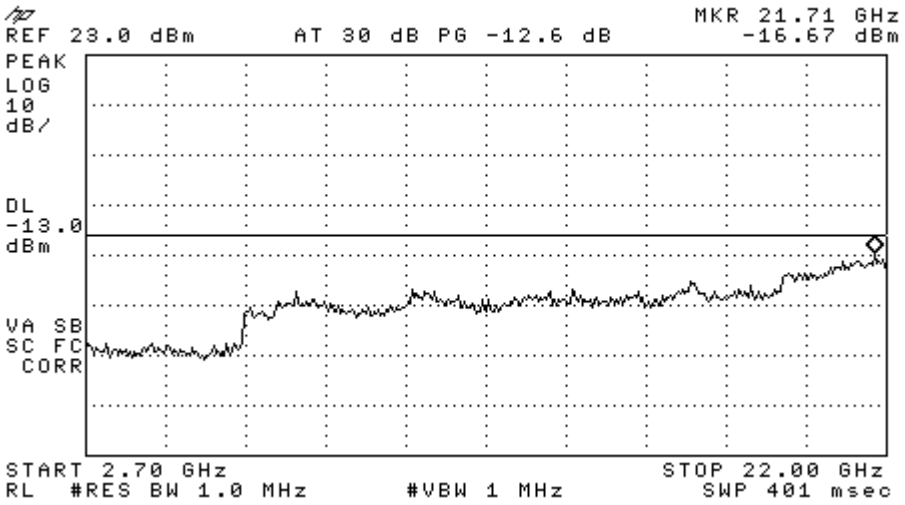


Figure 8-6b CDMA 1900 - Conducted Spurious Emission (CH 1175)

9 Transmitter Radiated Spurious Emissions Measured Data

FCC:	§ 2.1053, § 22.91, § 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, § 22.355, § 24.235

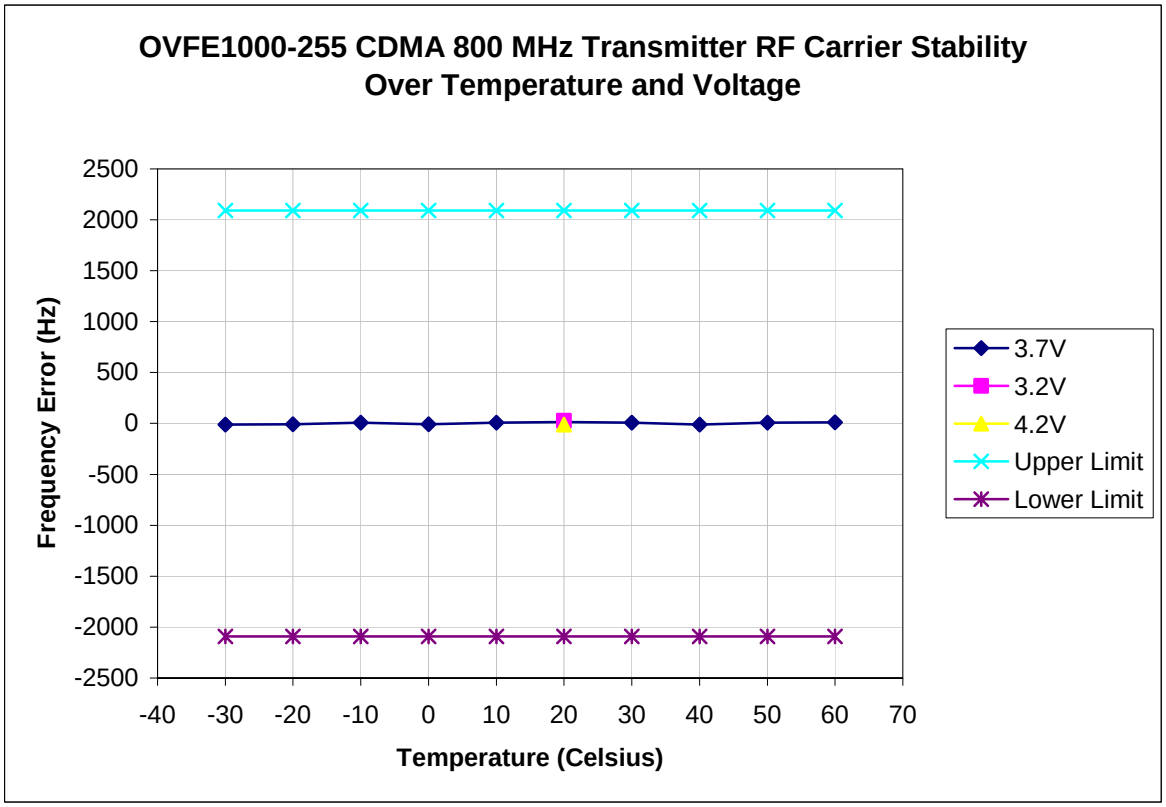
Measurement Procedures:

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 800 Mode

Tx Frequency:	836.49 MHz	**Voltage :**	3.7V
Tolerance:	+/- 2.5 Ppm (+/- 2091 Hz)	**Ch:**	383

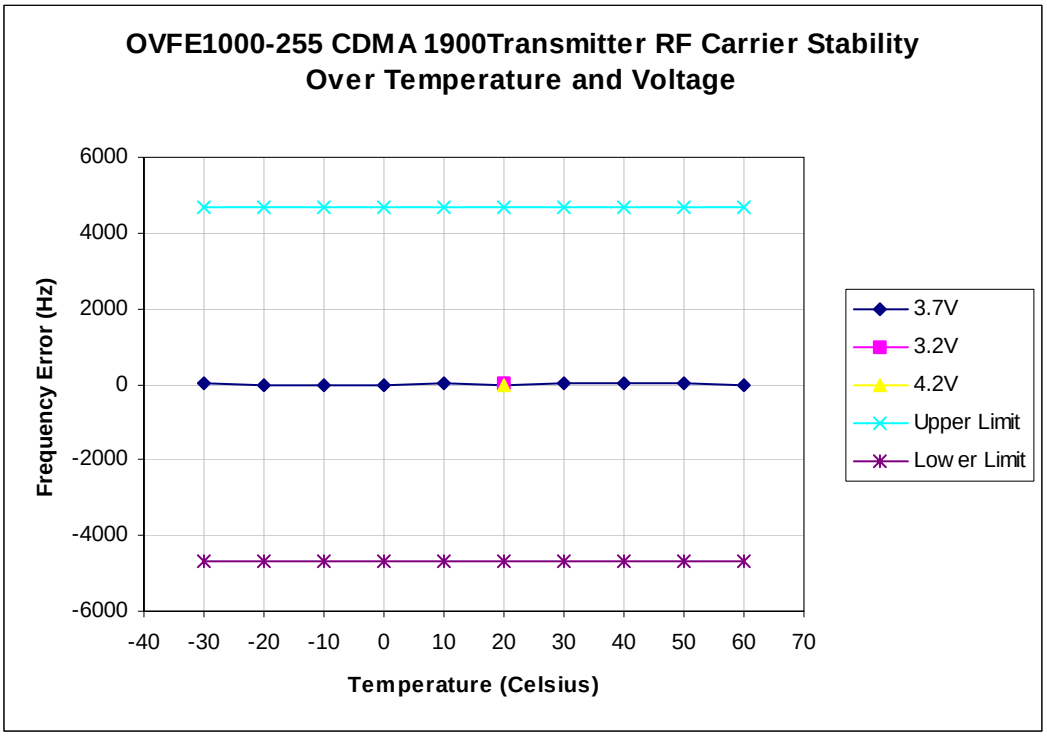
Temperature (°C)	Deviation of Carrier (Hz)			Specification (Hz)	
	3.2V (Battery endpoint)	3.7V	4.26V (115%)	Lower limit	Upper limit
-30		-10.99		-2091	2091
-20		-8.36		-2091	2091
-10		7.75		-2091	2091
0		-8.99		-2091	2091
10		9.27		-2091	2091
20	**27.41**	**15.66**	**-12.26**	-2091	2091
30		9.41		-2091	2091
40		-9.63		-2091	2091
50		9.26		-2091	2091
60		9.68		-2091	2091



11.2 CDMA 1900 Mode

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

Temperature (°C)	Deviation of Carrier (Hz)			Specification (Hz)	
	3.2V (Battery endpoint)	3.7V	4.26V (115%)	Lower limit	Upper limit
-30		18.36		-4700	4700
-20		-16.91		-4700	4700
-10		-28.08		-4700	4700
0		-17.54		-4700	4700
10		22.6		-4700	4700
20	**18.46**	**-14.87**	**-21.44**	-4700	4700
30		23.3		-4700	4700
40		26.6		-4700	4700
50		19.7		-4700	4700
60		-29.84		-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