Test Report On

Single Band CDMA Cellular Phone with Bluetooth

FCC Part 24 Certification	
FCC ID:	**OVF-K5301**
Models:	**K53-01**
Date:	**November 16, 2009**

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:	November 16 – November 18, 2009
Test performed by:	Kyocera Wireless Corp. 10300 Campus Point Drive San Diego, CA 92121
Report created by:	Thuy To, Regulatory Engineer
Report Approved by:	C.K. Li, Director of Regulatory Engineering

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:	OVF-K5301
Product:	Single-Band CDMA Cellular Phone
Model Numbers:	K53-01
EUT Serial Number:	FFS2300001472
Type:	[**X**] Identical Prototype, [ ] 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:	§24E
Modes:	1900 CDMA
Multiple Access Scheme:	CDMA
TX Frequency (MHz):	1850 - 1910
Emission Designators:	1M25F9W
Max. Output Power (W):	0.2818 EIRP

2 Product Description

The OVF-K5301 is a Single-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 Single-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), OVF-K5301 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 Peak Power	CONDUCTED POWER (dBm)		
	CDMA 1900		
	Ch 25	Ch 600	Ch 1175
	Peak	Peak	Peak
SO2, RC1 Full Rate	28.27	28.09	28.15
SO2, RC3 Full Rate	27.82	27.84	27.84
SO55, RC1 Full Rate	28.34	28.36	28.35
SO55, RC3 Full Rate	28.34	28.37	28.34
TDSO SO32, RC3 (FCH+SCH) Full Rate	28.03	28.16	28.16
TDSO SO32, RC3 (-SCH) Full Rate	27.81	27.95	27.67

CONFIGURATION Average Power	CONDUCTED POWER (dBm)		
	CDMA 1900		
	Ch 25	Ch 600	Ch 1175
	Ave	Ave	Ave
SO2, RC1 Full Rate	22.6	22.35	22.65
SO2, RC3 Full Rate	22.56	22.29	22.61
SO55, RC1 Full Rate	22.61	22.33	22.6
SO55, RC3 Full Rate	**22.66**	**22.43**	**22.61**
TDSO SO32, RC3 (FCH+SCH) Full Rate	22.47	22.32	22.45
TDSO SO32, RC3 (-SCH) Full Rate	22.57	22.29	22.59

The following configuration was determined and reported as worst case for all measurements:
Radio Configuration: RC3
Service Options: SO55
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 OVF-K4801 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	22.66
	1880.00	600	22.43
	1908.75	1175	22.61

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 1900	1851.25	25	24.4	EIRP
	1880.00	600	24.2	
	1908.75	1175	24.5	

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 1900**	CDMA @ CH600
7-2		Lower Band Edge @ CH 25
7-3		Upper Band Edge @ CH 1175

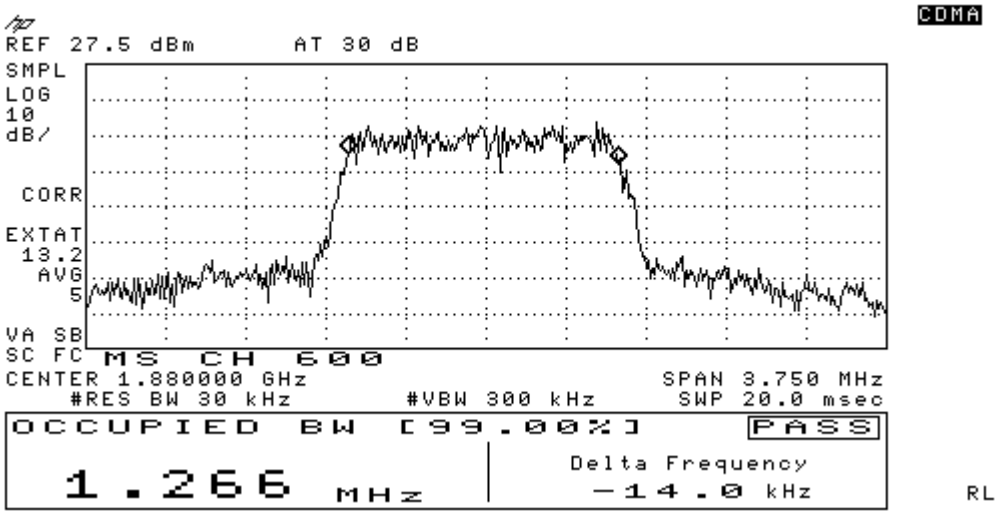


Figure 7-1 CDMA 1900 @ CH 600

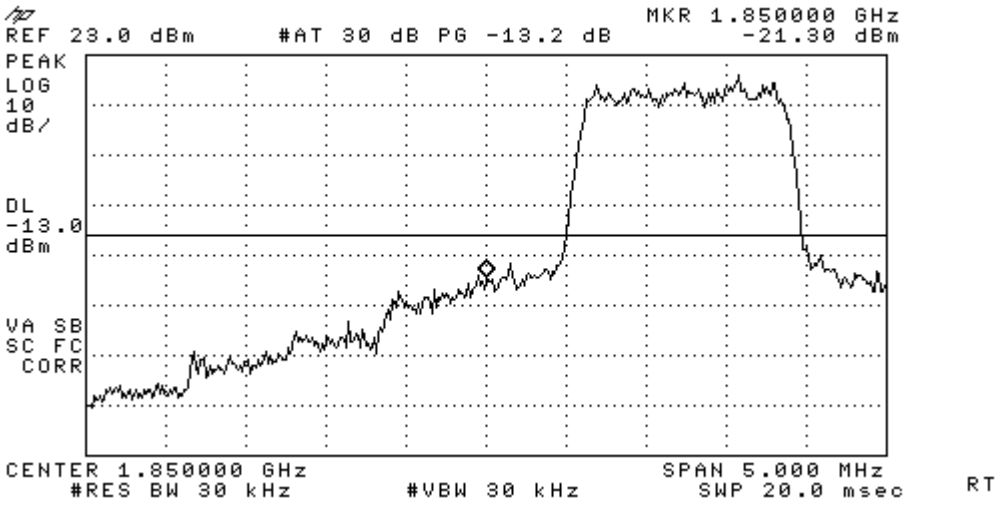


Figure 7-2 CDMA 1900 Lower Band Edge @ CH 25

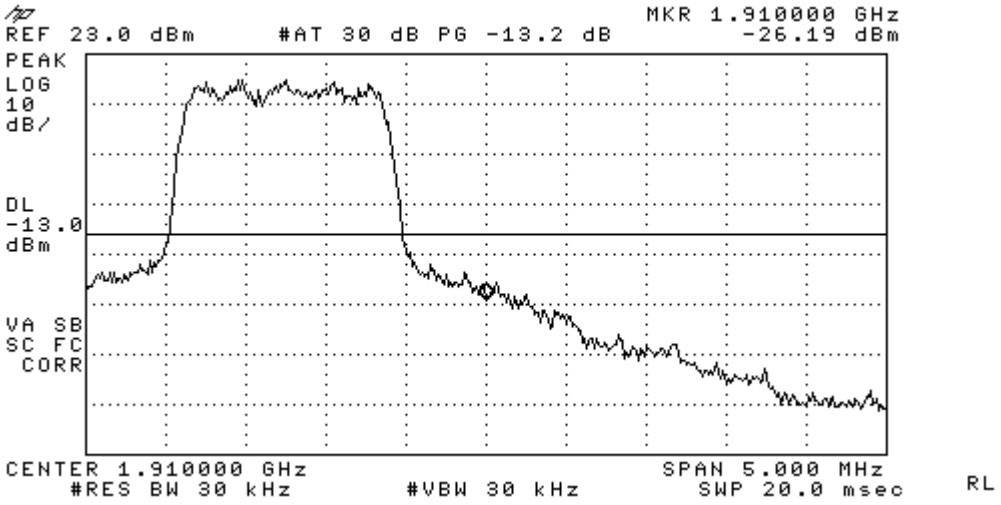


Figure 7-3 CDMA 1900 Upper Band Edge @ CH 1175

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 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

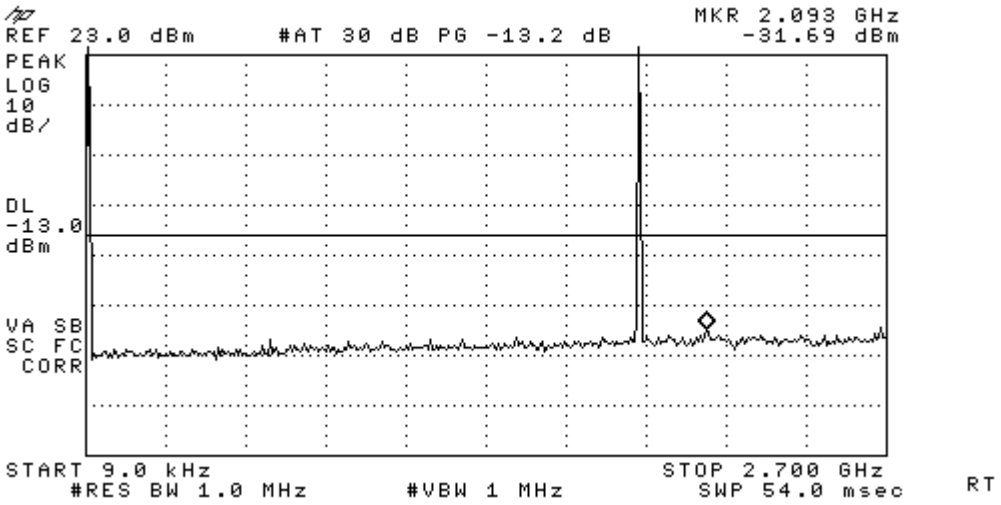


Figure 8-1a CDMA 1900 - Conducted Spurious Emission (CH 25)

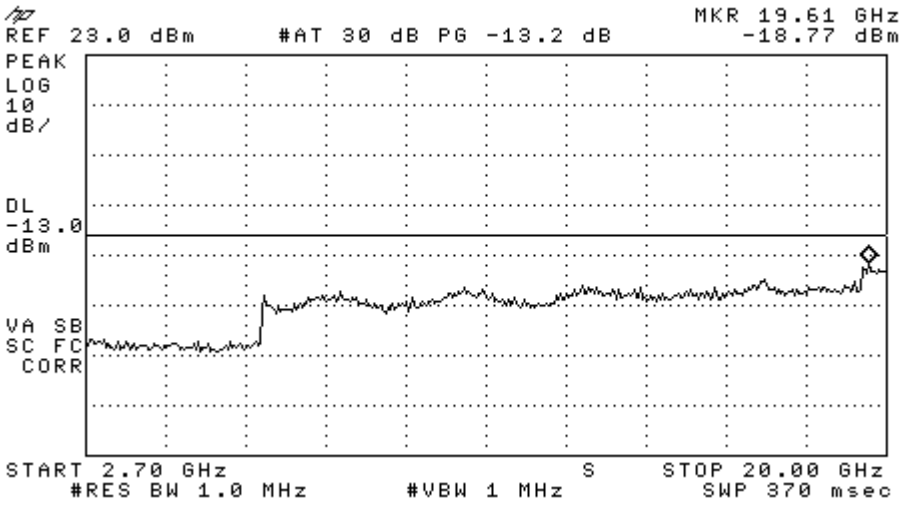


Figure 8-1b CDMA 1900 - Conducted Spurious Emission (CH 25)

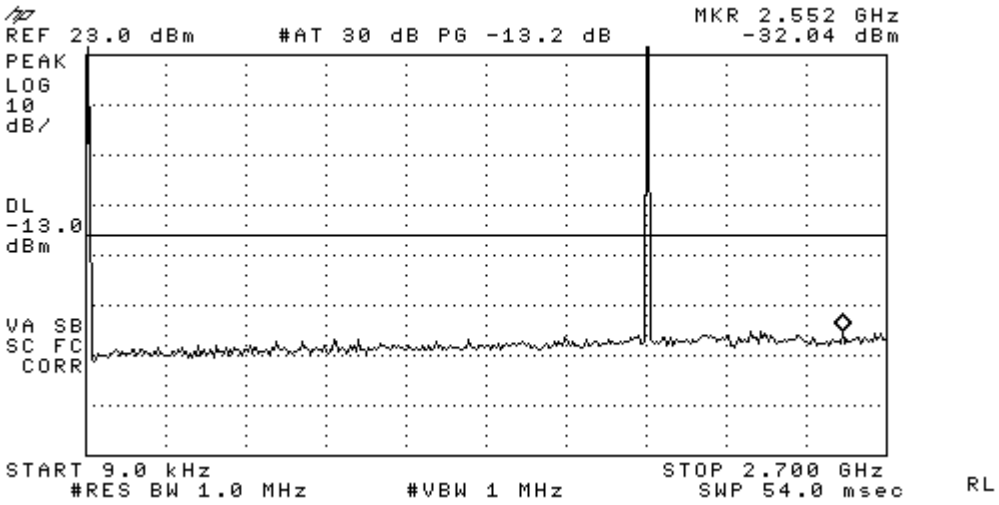


Figure 8-2a CDMA 1900 - Conducted Spurious Emission (CH 600)

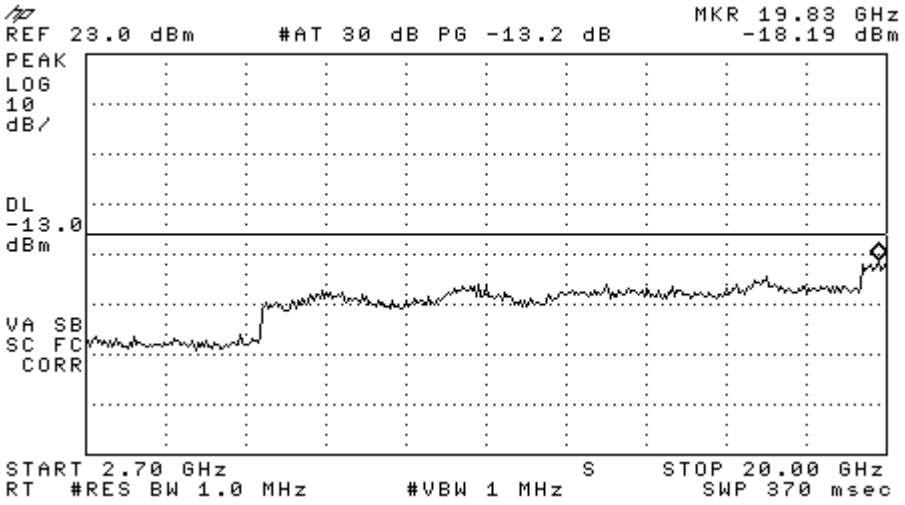


Figure 8-2b CDMA 1900 - Conducted Spurious Emission (CH 600)

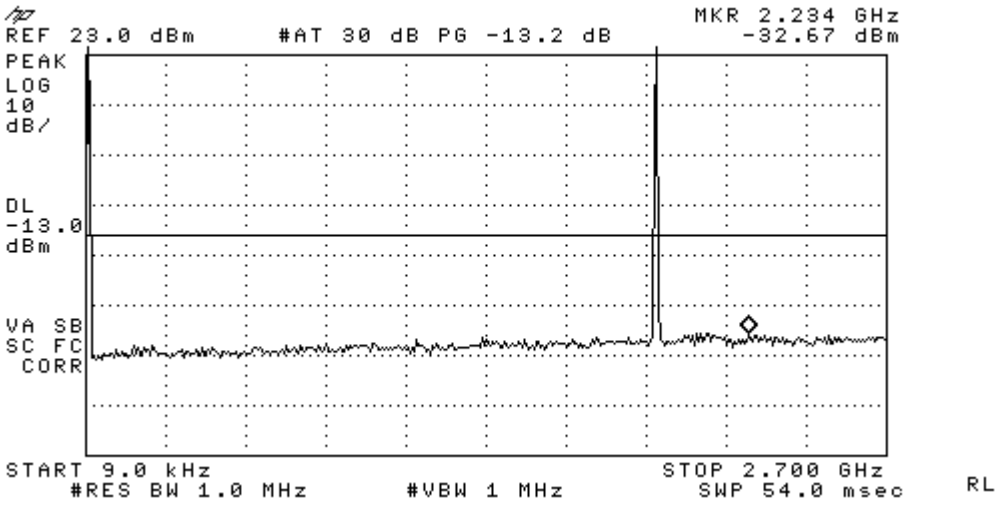


Figure 8-3a CDMA 1900 - Conducted Spurious Emission (CH 1175)

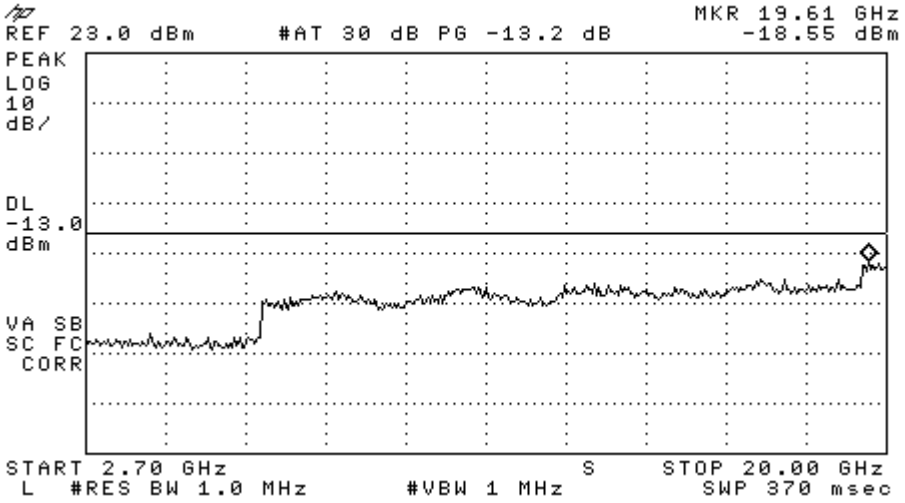


Figure 8-3b CDMA 1900 - Conducted Spurious Emission (CH 1175)

9 Transmitter Radiated Spurious Emissions Measured Data

FCC:	§ 2.1053, § 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

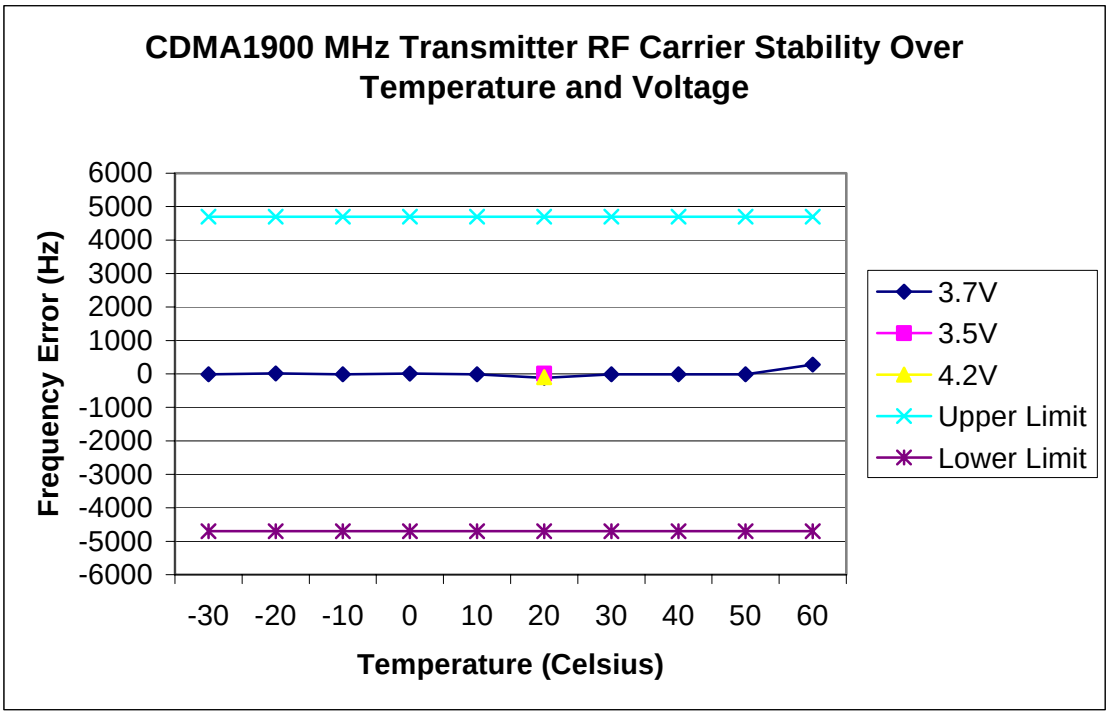
Measurement Procedures:

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.

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)	
	3.4V (Battery endpoint)	3.7V	4.26V (115%)	Lower limit	Upper limit
-30		-8.84		-4700	4700
-20		12.38		-4700	4700
-10		-10.74		-4700	4700
0		8.01		-4700	4700
10		-9.72		-4700	4700
20	**8.9**	**-116.98**	**-94.15**	-4700	4700
30		-7.95		-4700	4700
40		-10.18		-4700	4700
50		-8.24		-4700	4700
60		279.83		-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	1832048	07/16/09
Spectrum Analyzer	Hewlett Packard	8593EM	3710A00203	03/04/10
Spectrum Analyzer	Hewlett Packard	8595E	3911A03899	07/19/09
Wireless Communications Test Set	Agilent	8960	GB44052789	05/19/10
Temperature Chamber	Test Equity	ZH2-033-033-H/AC	ZZ9622421	02/20/09