

HCT CO., LTD.

CERTIFICATE OF COMPLIANCE

FCC Certification

Applicant Name: TCT Mobile Limited		Date of Issue: May 04, 2012	
Address: 5F, E building, No.232, Liang Jing Road, ZhangJiang High-Tech Park, Pudong Area, Shanghai, P.R. China		Location: HCT CO., LTD., 105-1, Jangam-ri, Majang-Myeon, Icheon-si, Kyunggi-Do, Korea Test Report No.: HCTR1205FR11 HCT FRN: 0005866421	
FCC ID	: RAD278		
APPLICANT	: TCT Mobile Limit	ed	
FCC Model(s):	ONE TOUCH 960C		
EUT Type:	Cellular/AWS/PCS CDMA/EVD	O Phone with Bluetooth & WLAN	
Tx Frequency:	824.70 — 848.31 MHz (CDMA) 1 851.25 — 1 908.75 MHz (PC 1 711.25 — 1 753.75 MHz (AW	S CDMA)	
Rx Frequency:	869.70 — 893.31 MHz (CDMA) 1 931.25 — 1 988.75 MHz (PC 2 111.25 —. 2 153.75 MHz (AW	S CDMA)	
Max. RF Output Power:	0.362 W ERP CDMA (25.59 dE 0.600 W EIRP AWS CDMA (27	3m)/ 1.151 W EIRP PCS CDMA (30.61 dBm)/	
		5.44 dBm)/ 1.222 W EIRP PCS EVDO (30.87 dBm)/	
Emission Designator(s):		(PCS CDMA), 1M28F9W(AWS CDMA) 27F9W (PCS CDMA EVDO), 1M27F9W(AWS CDMA EVDO)	
FCC Classification:	Licensed Portable Transmitter	Held to Ear (PCE)	
FCC Rule Part(s):	§22, §24, §27,§2		

The measurements shown in this report were made in accordance with the procedures specified in §2.947. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them. HCT CO., LTD. Certifies that no party to this application has subject to a denial of Federal benefits that includes FCC benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1998,21 U.S. C.853(a)

Report prepared by : Hyo Sun Kwak Test engineer of RF Team

Approved by : Sang Jun Lee Manager of RF Team

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Test Report No.	Date of Issue:		FCC ID:
	May 04, 2012	EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	RAD278



<u>Version</u>

TEST REPORT NO.	DATE	DESCRIPTION
HCTR1205FR11	May 04, 2012	- First Approval Report

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MEASUREMENT REPORT

1. GENERAL INFORMATION

Applicant Name:	TCT Mobile Limited
Address:	5F, E building, No.232, Liang Jing Road, ZhangJiang High-Tech Park, Pudong Area,
FCC ID:	Shanghai, P.R. China RAD278
Application Type:	Certification
FCC Classification:	Licensed Portable Transmitter Held to Ear (PCE)
FCC Rule Part(s):	§22, §24, §27, §2
EUT Type:	Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN
FCC Model(s):	ONE TOUCH 960C
Tx Frequency:	824.70 — 848.31 MHz (CDMA) 1 851.25 — 1 908.75 MHz (PCS CDMA) 1 711.25 — 1 753.75 MHz (AWS CDMA)
Rx Frequency:	869.70 — 893.31 MHz (CDMA) 1 931.25 — 1 988.75 MHz (PCS CDMA) 2 111.25 —. 2 153.75 MHz (AWS CDMA)
Max. RF Output Power:	0.362 W ERP CDMA (25.59 dBm)/ 1.151 W EIRP PCS CDMA (30.61 dBm)/ 0.600 W EIRP AWS CDMA (27.78 dBm) 0.350 W EIRP CDMA EVDO (25.44 dBm)/ 1.222 W EIRP PCS EVDO (30.87 dBm)/ 0.701 W EIRP AWS EVDO CDMA (28.46 dBm)
Emission Designator(s):	1M28F9W (CDMA), 1M28F9W (PCS CDMA), 1M28F9W(AWS CDMA) 1M28F9W (CDMA EVDO), 1M27F9W (PCS CDMA EVDO), 1M27F9W(AWS CDMA EVDO)
Antenna Specification	Manufacturer: EMW Co. Ltd.
	Antenna type: INTERNAL Antenna
	Peak Gain: 2.06 dBi
Date(s) of Tests:	April 03, 2012 ~ April 27, 2012

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2. INTRODUCTION

2.1. EUT DESCRIPTION

The ONE TOUCH 960C Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN consists of Cellular CDMA, PCS CDMA, AWS, 1xRTT and EVDO Rev.0,A.

2.2. MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

2.3. TEST FACILITY

The SAC(Semi-Anechoic Chamber) and conducted measurement facility used to collect the radiated data are located at the 105-1, Jangam-ri , Majang-Myeon, Icheon-si, 467-811, KOREA. The site is constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. Detailed description of test facility was submitted to the Commission and accepted dated March 02, 2011 (Registration Number: 90661)

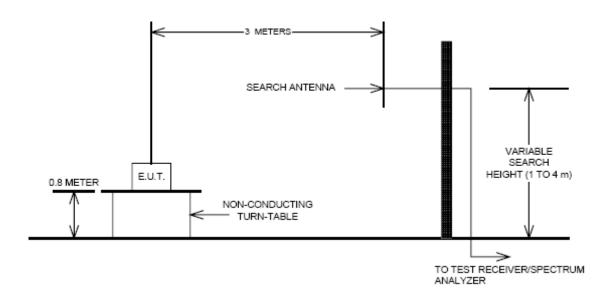
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3. DESCRIPTION OF TESTS

3.1 EFFECTIVE RADIATED POWER/EQUIVALENT ISOTROPIC RADIATED POWER

Test Set-up



Test Procedure

emission measurements were performed at an Fully-anechoic chamber.

The equipment under test is placed on a non-conductive table 3-meters from the receive antenna. A turntable was rotated 360° and the receiving antenna scanned from 1-4m in order to capture the maximum emission. A half wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the previously recorded signal was duplicated.

The maximum EIRP was calculated by adding the forward power to the calibrated source plus its appropriate gain value. These steps were carried out with the receiving antenna in both vertical and horizontal polarization. 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

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3.2 PEAK- TO- AVERAGE RATIO

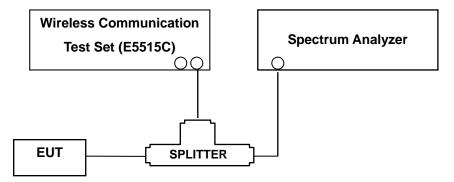
A peak to average ratio measurement is performed at the conducted port of the EUT. For CDMA and WCDMA signals, the spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level. For GSM signals, an average and a peak trace are used on a spectrum analyzer to determine the largest deviation between the average and the peak power of the EUT in a bandwidth greater than the emission bandwidth. Plots of the EUT's Peak- to- Average Ratio are shown herein.

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3.3 OCCUPIED BANDWIDTH.

Test set-up



(Configuration of conducted Emission measurement)

The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

Test Procedure

The EUT makes a call to the communication simulator. The power was measured with R&S Spectrum Analyzer. All measurements were done at 3 channels(low, middle and high operational range.)

The conducted occupied bandwidth used the power splitter via EUT RF power connector between simulation base station and spectrum analyzer.

The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth

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3.4 SPURIOUS AND HARMONIC EMISSIONS AT ANTENNA TERMINAL.

Test Procedure

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer.

The EUT was setup to maximum output power at its lowest channel. The Resolution BW of the analyzer is set to < 1 % of the emission bandwidth to show compliance with the – 13 dBm limit, in the 1 MHz bands immediately outside and adjacent to the edge of the frequency block. The 1 MHz RBW was used to scan from 10 MHz to 10 GHz. (GSM1900 Mode: 10 MHz to 20 GHz). A display line was placed at – 13 dBm to show compliance. The high, lowest and a middle channel were tested for out of band measurements.

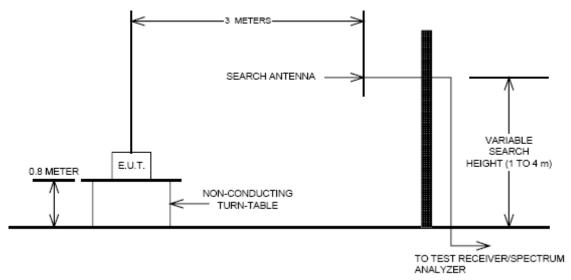
- Band Edge Requirement : In the 1MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the out of band Emissions. Limit, -13dBm.

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3.5 RADIATED SPURIOUS AND HARMOMIC EMISSIONS

Test Set-up



The measurement facilities used for this test have been documented in previous filings with the commission pursuant to section § 2.948. The Fully-anechoic chamber meets requirements in ANSI C63.4 –2003. A mast capable of lifting the receiving antenna from a height of one to four meters is used together with a rotatable platform mounted at three from the antenna mast.

- 1) The unit mounted on a turntable 1.5 m × 1.0 m × 0.80 m is 0.8 meter above test site ground level.
- 2) During the emission test, the turntable is rotated and the EUT is manipulated to find the configuration resulting in maximum emission under normal condition of installation and operation.
- 3) The antenna height and polarization are also varied from 1 to 4 meters until the maximum signal is found.
- 4) The spectrum shall be scanned up to the 10th harmonic of the fundamental frequency.

Test Procedure

The equipment under test is placed on a non-conductive table 3-meters from the receive antenna. A turntable was rotated 360° and the receiving antenna scanned from 1-4m in order to capture the maximum emission. A half wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the previously recorded signal was duplicated.

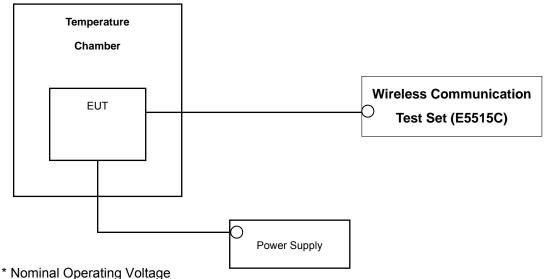
The maximum EIRP was calculated by adding the forward power to the calibrated source plus its appropriate gain value. These steps were carried out with the receiving antenna in both vertical and horizontal polarization. For readings above 1GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn and an isotropic antenna are taken into consideration.

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3.6 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE

Test Set-up



Test Procedure

The frequency stability of the transmitter is measured by:

a.) Temperature: The temperature is varied from - 30 °C to + 50 °C using an environmental chamber.

b.) **Primary Supply Voltage:** The primary supply voltage is varied from battery end point to 115 % of the voltage normally at the input to the device or at the power supply terminals if cables are not normally supplied.

Specification — the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within \pm 0.000 25 %(\pm 2.5 ppm) of the center frequency.

Time Period and Procedure:

The carrier frequency of the transmitter is measured at room temperature (20°C to provide a reference). 1. The equipment is turned on in a "standby" condition for one minute before applying power to the transmitter.

Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.

2. Frequency measurements are made at 10°C intervals ranging from -30°C to +50°C. A period of at least one halfhour is provided to allow stabilization of the equipment at each temperature level. **NOTE: The EUT is tested down to the battery endpoint.**

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4. LIST OF TEST EQUIPMENT

Manufacture	Model/ Equipment	Serial Number	Calibration Interval	Calibration Due
R&S	N9020A	MY51110020	Annual	09/23/2012
Agilent	E9327A/ Power Sensor	MY4442009	Annual	05/02/2013
R&S	CMW500/ Base Station	1201.0002K50_116858	Annual	01/17/2013
MITEQ	AMF-6D-001180-35-20P/AMP	1081666	Annual	09/24/2012
Wainwright	WHK1.2/15G-10EF/H.P.F	2	Annual	05/02/2013
Wainwright	WHK3.3/18G-10EF/H.P.F	1	Annual	05/02/2013
Hewlett Packard	11667B / Power Splitter	10126	Annual	11/04/2012
Digital	EP-3010/ Power Supply	3110117	Annual	11/07/2012
Schwarzbeck	UHAP/ Dipole Antenna	557	Biennial	03/11/2013
Schwarzbeck	UHAP/ Dipole Antenna	558	Biennial	03/11/2013
Korea Engineering	KR-1005L / Chamber	KRAB05063-3CH	Annual	11/07/2012
Schwarzbeck	BBHA 9120D/ Horn Antenna	296	Biennial	02/20/2014
Agilent	E4440A/Spectrum Analyzer	US45303008	Annual	05/02/2013
WEINSCHEL	ATTENUATOR	BR0592	Annual	11/07/2012
REOHDE&SCHWARZ	FSP30/Spectrum Analyzer	839117/011	Annual	02/09/2013
Agilent	8960 (E5515C)/ Base Station	GB44400269	Annual	02/10/2013

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5. SUMMARY OF TEST RESULTS

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result
2.1049, 22.917(a), 24.238(a), 27.53(g)(1)	Occupied Bandwidth	N/A		PASS
2.1051, 22.917(a), 24.238(a), 27.53(g)	Band Edge / Spurious and Harmonic Emissions at Antenna Terminal.	< 43 + 10log ₁₀ (P[Watts]) at Band Edge and for all out-of-band emissions	CONDUCTED	PASS
2.1046	Conducted Output Power	N/A		PASS
24.232(d), 27.50(d)(5)	Peak- to- Average Ratio	< 13 dB		PASS
2.1055, 22.355, 24.235, 27.54	Frequency stability / variation of ambient temperature	< 2.5 ppm		PASS
22.913(a)(2)	Effective Radiated Power	< 7 Watts max. ERP		PASS
24.232(c), 27.50(d)(2)	Equivalent Isotropic Radiated Power	< 2 Watts max. EIRP(PCS) < 1 Watts max. EIRP(AWS)	RADIATED	PASS
2.1053, 22.917(a), 24.238(a), 27.53(g)	Radiated Spurious and Harmonic Emissions	< 43 + 10log ₁₀ (P[Watts]) for all out-of band emissions		PASS

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6. SAMPLE CALCULATION

A. ERP Sample Calculation

Mode	Ch./ Freq.		Measured	Substitude		C.L	Pol.	EF	RP
Mode	channel	Freq.(MHz)	Level(dBm)	LEVEL(dBm)	Ant. Gain	U.L	P01.	w	dBm
CDMA	384	836.52	-10.96	24.81	2.50	1.19	Н	0.41	26.12

ERP = SubstitudeLEVEL(dBm) + Ant. Gain – CL(Cable Loss)

1) The EUT mounted on a non-conductive tuntable is 0.8 meter above test site ground level.

2) During the test, the turn table is rotated and the antenna height is also varied from 1 to 4 meters until the maximum signal is found.

3) Record the field strength meter's level.

4) Replace the EUT with dipole/Horn antenna that is connected to a calibrated signal generator.

5) Increase the signal generator output till the field strength meter's level is equal to the item (3).

6) The signal generator output level with Ant. Gain and cable loss are the rating of effective radiated power (**ERP**).

B. Emission Designator CDMA Emission Designator

Emission Designator = 1M27F9W

CDMA BW = 1.27 MHz (Measured at the 99% power bandwidth)

F = Frequency Modulation

9 = Composite Digital Info

W = Combination (Audio/Data)

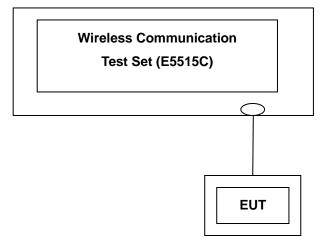
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7. TEST DATA

7.1 CONDUCTED OUTPUT POWER

A base station simulator was used to establish communication with The EUT. The base station simulator parameters were set to produce the maximum power from the EUT. This device was tested under all configurations and the highest power is reported. Conducted Output Powers of EUT are reported below.



_		SO2	SO2	SO55	SO55	TDSO SO32	1xEvDO Rev.O	1xEvDO Rev.O	1xEvDO Rev.1	1xEvDO Rev.1
Band	Channel	RC1/1 (dBm)	RC3/3 (dBm)	RC1/1 (dBm)	RC3/3 (dBm)	RC3/3 (dBm)	(FTAP)	(RTAP)	(FETAP)	(RETAP)
	1013	25.68	25.70	25.69	25.70	25.70	25.65	25.55	25.67	25.68
CDMA	384	25.56	25.57	25.57	25.55	25.59	25.64	25.53	25.64	25.70
	777	25.55	25.54	25.55	25.54	25.56	25.56	25.49	25.60	25.69
	25	24.82	24.84	24.76	24.80	24.81	24.84	24.84	24.84	25.03
PCS	600	24.89	24.87	24.86	24.86	24.88	24.81	24.86	24.80	24.83
	1175	25.19	25.16	25.14	25.10	25.19	25.24	25.11	25.18	25.17
	25	25.14	25.14	25.12	25.01	25.15	24.91	24.94	24.98	24.93
AWS	450	24.84	24.89	24.83	24.86	24.89	24.72	24.74	24.73	24.72
	875	24.79	24.80	24.73	24.80	24.79	24.94	25.04	24.93	25.03

(Maximum Conducted Output Powers)

Note : Detecting mode is average.

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7.2 PEAK-TO-AVERAGE RATIO

- Plots of the EUT's Peak- to- Average Ratio are shown Page 31, 34.

7.3 OCCUPIED BANDWIDTH

Band	Channel	Frequency(MHz)	Data (MHz)
	1013	824.70	1.2751
CDMA	384	836.52	1.2786
	777	848.31	1.2752
CDMA EVDO	384	836.52	1.2816
	25	1851.25	1.2713
PCS	600	1880.00	1.2791
	1175	1908.75	1.2764
PCS EVDO	600	1880.00	1.2722
	25	1711.25	1.2813
AWS	450	1732.50	1.2785
	875	1753.75	1.2777
AWS EVDO	25	1711.25	1.2702

- Plots of the EUT's Occupied Bandwidth are shown Page 27 ~ 30, 32 ~ 33.

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7.4 CONDUCTED SPURIOUS EMISSIONS

Band	Channel	Frequency of Maximum Harmonic (GHz)	Maximum Data (dBm)	
	1013	7.112	-41.23	
CDMA	384	1.673	-37.90	
	777	1.697	-36.32	
	25	3.702	-34.22	
PCS	600	3.762	-26.99	
	1175	3.815	-34.18	
	25	14.080	-38.52	
AWS	450	14.990	-38.72	
	875	14.150	-39.68	

- Plots of the EUT's Conducted Spurious Emissions are shown Page 47 ~ 55.

7.4.1 Band Edge

- Plots of the EUT's Band Edge are shown Page 35 ~ 46.

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7.2 EFFECTIVE RADIATED POWER OUTPUT

(CDMA Mode)

	Ch.	/ Freq.	Measured	Substitude	Ant.		Pol.	ERP	
Mode chan	channel	Freq.(MHz)	Level(dBm)	LEVEL (dBm)	Gain	C.L		W	dBm
	1013	824.70	-11.16	37.74	-10.54	1.61	V	0.362	25.59
CDMA	384	836.52	-12.04	36.88	-10.50	1.67	V	0.296	24.71
	777	848.31	-11.73	37.33	-10.47	1.64	V	0.333	25.22
	1013	824.70	-11.31	37.59	-10.54	1.61	V	0.350	25.44
EVDO	384	836.52	-12.09	36.83	-10.50	1.67	V	0.292	24.66
	777	848.31	-11.66	37.40	-10.47	1.64	V	0.338	25.29

Note: Standard batteries are the only options for this phone. And a peak detector is used.

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 non-conductive styrofoam resin table 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 = 3 MHz. For WCDMA 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.

This device was tested under all configurations and the highest power is reported. Also, we have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna. The worst case of the EUT is in y plane in CDMA mode. Also worst case of detecting Antenna is in vertical polarization in CDMA mode.

The EVDO mode testing were performed using RETAP on Rev.A because RETAP on Rev.A is highest power in EVDO mode.

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7.3 EQUIVALENT ISOTROPIC RADIATED POWER

(PCS CDMA Mode)

Mode	Ch./ Freq.		Measured	Substitude	Ant. Gain		C.L Pol.		EIRP	
Mode	channel	Freq.(MHz)	Level(dBm)	LEVEL (dBm)	Ant. Gain	0.2	1 01.	W	dBm	
	25	1,851.25	-10.69	21.11	10.02	1.71	Η	0.875	29.42	
PCS	600	1,880.00	-9.64	22.34	10.04	1.77	Н	1.151	30.61	
	1175	1,908.75	-10.32	21.94	10.05	1.80	Н	1.045	30.19	
	25	1,851.25	-10.50	21.30	10.02	1.71	Н	0.914	29.61	
EVDO	600	1,880.00	-9.38	22.60	10.04	1.77	Н	1.222	30.87	
	1175	1,908.75	-10.00	22.26	10.05	1.80	Н	1.125	30.51	

(AWS CDMA Mode)

Mode	Ch	Ch./ Freq.		Substitude	Ant. Gain	C.L	Pol.	EIRP	
Mode	channel	Freq.(MHz)	Level(dBm)	(dBm) LEVEL (dBm)	Ant. Gain	U.L	1 01.	W	dBm
	25	1,711.25	-13.78	17.58	9.55	1.64	Н	0.354	25.49
AWS	450	1,732.50	-12.30	19.20	9.65	1.65	Н	0.525	27.20
	875	1,753.75	-11.80	19.72	9.75	1.69	Н	0.600	27.78
	25	1,711.25	-12.83	18.53	9.55	1.64	Н	0.441	26.44
EVDO	450	1,732.50	-11.46	20.04	9.65	1.65	Н	0.637	28.04
	875	1,753.75	-11.12	20.40	9.75	1.69	Н	0.701	28.46

Note: Standard batteries are the only options for this phone. And a peak detector is used.

NOTES:

Equivalent Isotropic Radiated Power Measurements by Substitution Method

according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

The EUT was placed on a non-conductive styrofoam resin table 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 = 5MHz. For AMPS, GSM, and NADC TDMA signals, a peak detector is used, with RBW = VBW = 5MHz. 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.

This device was tested under all configurations and the highest power is reported. Also, we have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna. And worst case of the EUT is in x plane in PCS mode. Also worst case of detecting Antenna is in horizontal in PCS mode.

The EVDO mode testing were performed using FTAP on Rev.0 because FTAP on Rev.0 is highest power in EVDO mode.

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7.4 RADIATED SPURIOUS EMISSIONS 7.4.1 RADIATED SPURIOUS EMISSIONS (CDMA Mode)

- MEASURED OUTPUT POWER: 25.59 dBm = 0.362 W
- MODULATION SIGNAL: CDMA
- DISTANCE:
- 3 meters

-38.59 dBc

LIMIT: - (43 + 10 log10 (W)) =

Ch.	Freq.(MHz)	Measured Level	Ant. Gain	<u>Substitute</u> Level [dBm]	C.L	Pol.	ERP (dBm)	dBc
	1,649.40	-36.18	9.66	-40.81	2.63	Н	-33.78	-59.37
1013	2,474.10	_	_	-	-	_	_	_
	3,298.80	_	_	_	_	Ι	-	_
	1,673.04	-38.03	9.77	-42.73	2.67	Н	-35.63	-61.22
384	2,509.56	_	Ι	_	_	I	-	_
	3,346.08	_	_	-	-	_	_	_
	1,696.62	-38.22	9.94	-43.35	2.61	Н	-36.02	-61.61
777	2,544.93	_	_	-	_	_	_	_
	3,393.24	-	_	_	-	_	_	_

 NOTES:
 1. Radiated Spurious Emission Measurements at 3 meters by Substitution Method

 according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

 2. The magnitude of spurious emissions attenuated more than 20dB below the limit above 5th Harmonic for

all channel.

3. we have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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7.4.2 RADIATED SPURIOUS EMISSIONS (PCS Mode)

- MEASURED OUTPUT POWER: <u>30.87 dBm = 1.222 W</u>
- MODULATION SIGNAL:
 PCS CDMA EVDO
- DISTANCE:
- LIMIT: (43 + 10 log10 (W)) = _____43.87 dBc

Ch.	Freq.(MHz)	<u>Measured Level</u> [dBm]	Ant. Gain	<u>Substitute</u> Level [dBm]	C.L	Pol.	ERP (dBm)	dBc
	3,702.50	-40.22	12.36	-42.01	4.87	Н	-34.52	-65.39
25	5,553.75	-48.52	12.61	-44.97	6.66	Н	-39.02	-69.89
	7,405.00	_	-	_	-	-	_	_
	3,760.00	-41.2	12.40	-42.92	4.88	Н	-35.40	-66.27
600	5,640.00	-50.33	12.66	-46.45	6.64	V	-40.43	-71.30
	7,520.00	_	-	_	-	-	_	_
	3,817.50	-44.06	12.45	-46.29	5.02	Н	-38.86	-69.73
1175	5,726.25	-50.11	12.71	-46.58	6.54	V	-40.41	-71.28
	7,635.00	-	-	_	-	_	_	-

3 meters

NOTES: <u>1. Radiated Spurious Emission Measurements at 3 meters by Substitution Method</u> according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

2. The magnitude of spurious emissions attenuated more than 20dB below the limit above 5th Harmonic for all channel.

3. we have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

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7.4.3 RADIATED SPURIOUS EMISSIONS (AWS CDMA Mode)

- MEASURED OUTPUT POWER: 28.46 dBm = 0.701 W
- MODULATION SIGNAL:
 AWS CDMA EVDO
- DISTANCE:
- LIMIT: (43 + 10 log10 (W)) = -41.46 dBc

Ch.	Freq.(MHz)	<u>Measured Level</u> [dBm]	Ant. Gain	<u>Substitute</u> Level [dBm]	C.L	Pol.	ERP (dBm)	dBc
	3,422.50	-46.35	12.03	-50.44	5.14	Н	-43.55	-72.01
25	5,133.75	-54.71	12.48	-50.46	6.33	V	-44.31	-72.77
	6,845.00	-59.23	11.61	-51.41	6.53	Н	-46.33	-74.79
	3,465.00	-44.18	12.12	-48.44	4.56	Н	-40.88	-69.34
450	5,197.50	-53.65	12.50	-49.71	6.54	Н	-43.75	-72.21
	6,930.00	-57.76	11.54	-49.40	6.70	Н	-44.56	-73.02
	3,507.50	-41.67	12.22	-44.62	5.07	Н	-37.47	-65.93
875	5,261.25	-51.52	12.52	-48.52	6.32	V	-42.32	-70.78
	7,015.00	-58.61	11.49	-49.11	6.69	Н	-44.31	-72.77

3 meters

NOTES: <u>1. Radiated Spurious Emission Measurements at 3 meters by Substitution Method</u> according to ANSI/TIA/EIA-603-C-2004, Aug. 17, 2004:

2. The magnitude of spurious emissions attenuated more than 20dB below the limit above 5th Harmonic for all channel.

3. we have done x, y, z planes in EUT and horizontal and vertical polarization in detecting antenna.

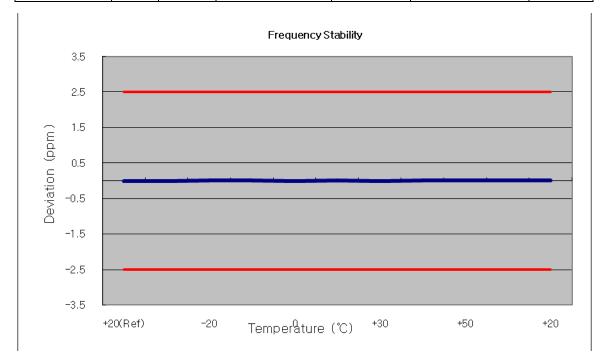
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7.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE 7.8.1 FREQUENCY STABILITY (CDMA)

OPERATING FREQUENCY:	836,520,000 Hz
CHANNEL:	384
REFERENCE VOLTAGE:	3.7 VDC
DEVIATION LIM IT:	± 0.000 25 % or 2.5 ppm

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	ppm
100%		+20(Ref)	836 519 992	0	0.000 000	0.000
100%		-30	836 519 985	-7.24	-0.000 001	-0.009
100%		-20	836 519 997	4.91	0.000 001	0.006
100%		-10	836 519 998	5.16	0.000 001	0.006
100%	3.700	0	836 519 989	-3.33	0.000 000	-0.004
100%		+10	836 520 001	8.82	0.000 001	0.011
100%		+30	836 519 987	-4.91	-0.000 001	-0.006
100%		+40	836 520 000	7.78	0.000 001	0.009
100%		+50	836 520 001	8.33	0.000 001	0.010
115%	4.255	+20	836 520 000	8.06	0.000 001	0.010
Batt. Endpoint	3.400	+20	836 520 007	14.62	0.000 002	0.017



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7.8.2 FREQUENCY STABILITY (PCS CDMA)

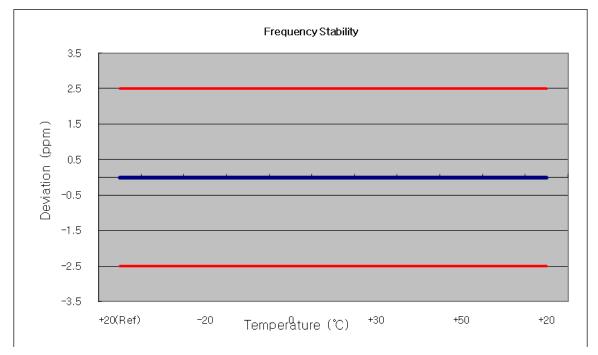
 OPERATING FREQUENCY:
 1880,000,000 Hz

 CHANNEL:
 600

 REFERENCE VOLTAGE:
 3.7 VDC

 DEVIATION LIM IT:
 ± 0.000 25 % or 2.5 ppm

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	ppm
100%		+20(Ref)	1880 000 007	0	0.000 000	0.000
100%		-30	1879 999 993	-7.46	0.000 000	-0.004
100%		-20	1879 999 993	-7.20	0.000 000	-0.004
100%		-10	1879 999 995	-4.76	0.000 000	-0.003
100%	3.700	0	1879 999 991	-8.85	0.000 000	-0.005
100%		+10	1879 999 994	-6.42	0.000 000	-0.003
100%		+30	1879 999 993	-6.76	0.000 000	-0.004
100%		+40	1879 999 993	-6.62	0.000 000	-0.004
100%		+50	1879 999 995	-4.82	0.000 000	-0.003
115%	4.255	+20	1879 999 993	-6.99	0.000 000	-0.004
Batt. Endpoint	3.400	+20	1879 999 992	-7.62	0.000 000	-0.004



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7.8.2 FREQUENCY STABILITY (AWS)

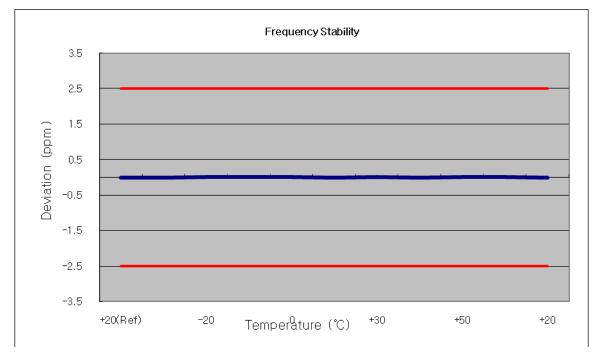
 OPERATING FREQUENCY:
 1732,500,000 Hz

 CHANNEL:
 450

 REFERENCE VOLTAGE:
 3.7 VDC

 DEVIATION LIM IT:
 ± 0.000 25 % or 2.5 ppm

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°C)	(Hz)	Error (Hz)	(%)	ppm
100%		+20(Ref)	1732 499 994	0	0.000 000	0.000
100%		-30	1732 499 996	-3.73	0.000 000	-0.002
100%		-20	1732 500 005	5.17	0.000 000	0.003
100%		-10	1732 500 007	7.25	0.000 000	0.004
100%	3.700	0	1732 500 012	11.59	0.000 001	0.007
100%		+10	1732 499 995	-5.31	0.000 000	-0.003
100%		+30	1732 500 004	3.60	0.000 000	0.002
100%		+40	1732 499 995	-4.66	0.000 000	-0.003
100%		+50	1732 500 007	6.91	0.000 000	0.004
115%	4.255	+20	1732 500 006	6.38	0.000 000	0.004
Batt. Endpoint	3.400	+20	1732 499 995	-5.06	0.000 000	-0.003



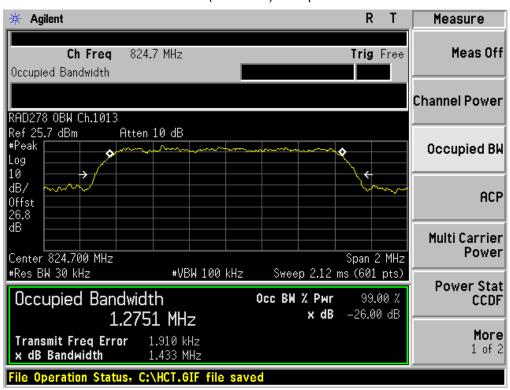
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8. TEST PLOTS

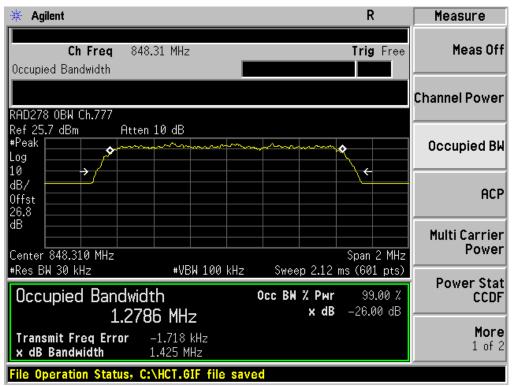
FCC CERTIFICATION REPORT			
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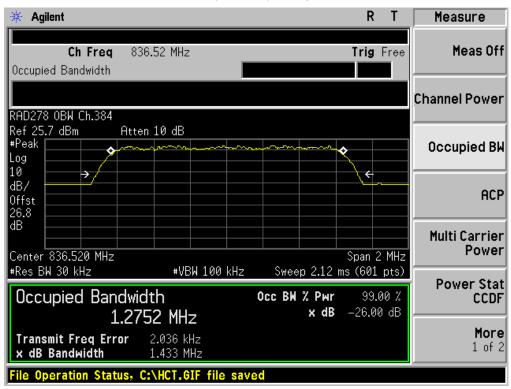
■ CDMA MODE (1013 CH.) Occupied Bandwidth

CDMA MODE (384 CH.) Occupied Bandwidth



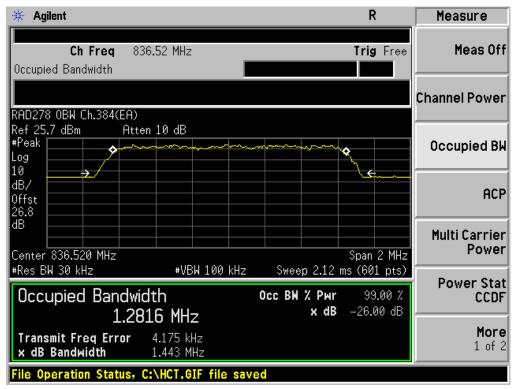
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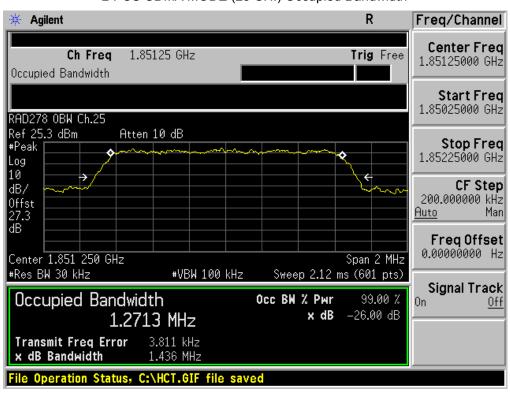
■ CDMA MODE (777 CH.) Occupied Bandwidth

CDMA EVDO MODE (384 CH.) Occupied Bandwidth



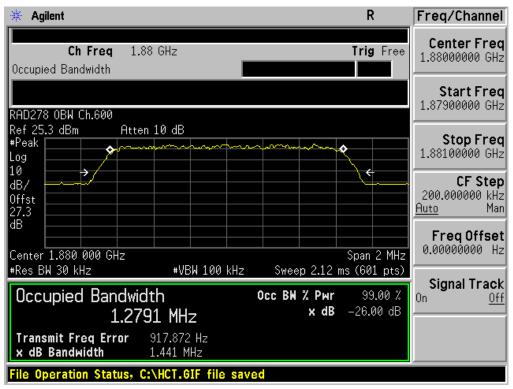
FCC CERTIFICATION REPORT					
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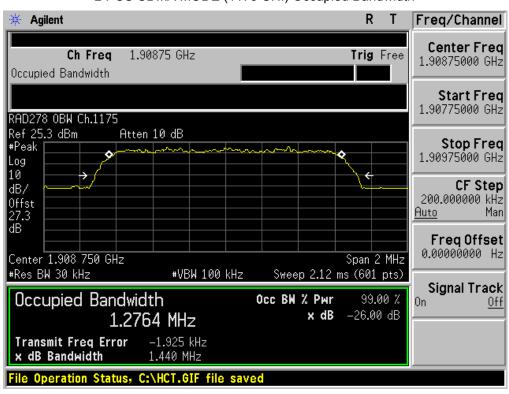
■ PCS CDMA MODE (25 CH.) Occupied Bandwidth

PCS CDMA MODE (600 CH.) Occupied Bandwidth



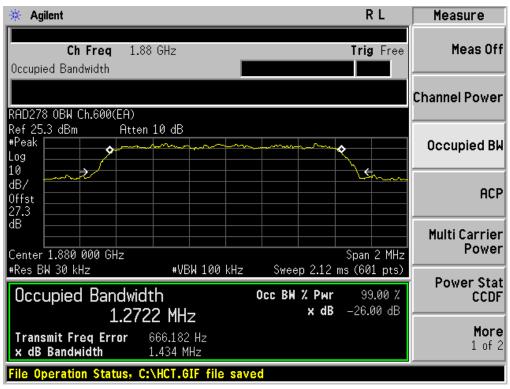
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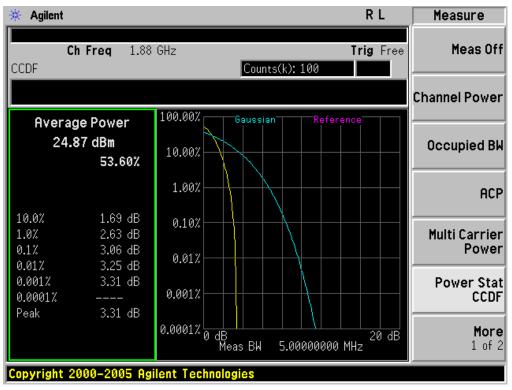
■ PCS CDMA MODE (1175 CH.) Occupied Bandwidth

■ PCS CDMA EVDO MODE (600 CH.) Occupied Bandwidth



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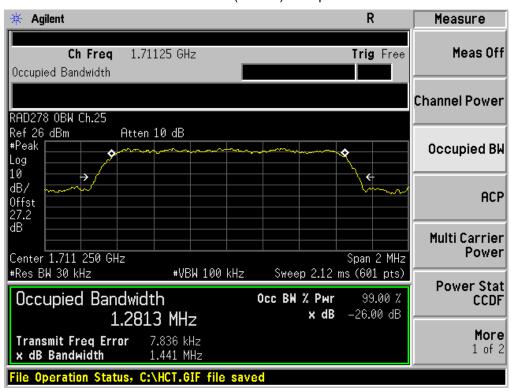
PCS CDMA MODE (600 CH.) Peak-to-Average Ratio

■ PCS CDMA EVDO MODE (600 CH.) Peak-to-Average Ratio

🔆 Agilent				RL	Measure
CCDF	Freq 1.88	GHz	Counts(k): 100	Trig Free	Meas Off
		100.00%			Channel Power
	e Power 8 dBm 50.33%	10.00%	Gaussian Ref	erence	Occupied BW
		1.00% —			ACP
10.0% 1.0% 0.1%	2.79 dB 3.37 dB 3.58 dB	0.10% —			Multi Carrier Power
	3.50 dB 3.67 dB 3.67 dB	0.01%			Power Stat
0.0001% Peak	 3.67 dB	0.001%			CCDF
		0.0001% 0 d	B Meas BW 5.0000000	20 dB 10 MHz	More 1 of 2
Copyright 20	000-2005 Ag	ilent Techno	logies		

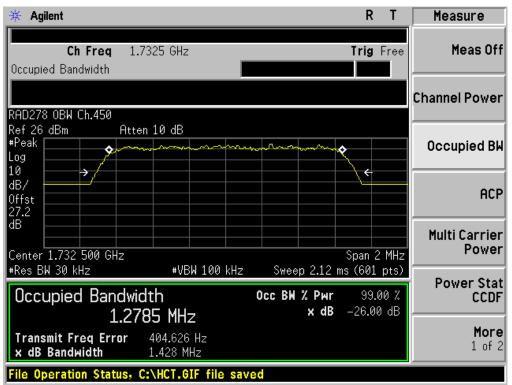
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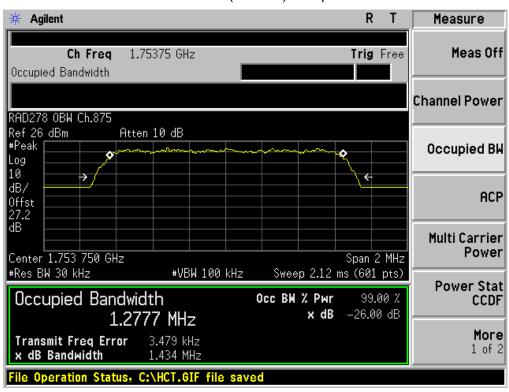
AWS CDMA MODE (25 CH.) Occupied Bandwidth

AWS CDMA MODE (450 CH.) Occupied Bandwidth



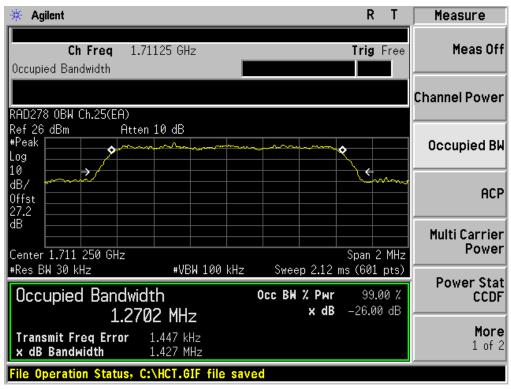
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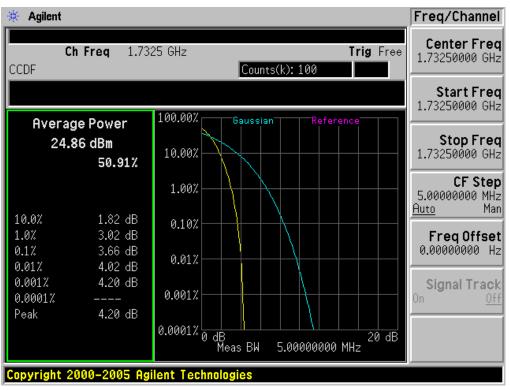
■ AWS CDMA MODE (875 CH.) Occupied Bandwidth

AWS CDMA EVDO MODE (25 CH.) Occupied Bandwidth



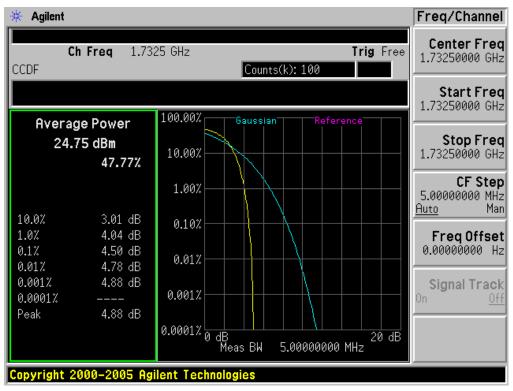
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AWS CDMA MODE (450 CH.) Peak-to-Average Ratio

AWS CDMA EVDO MODE (450 CH.) Peak-to-Average Ratio



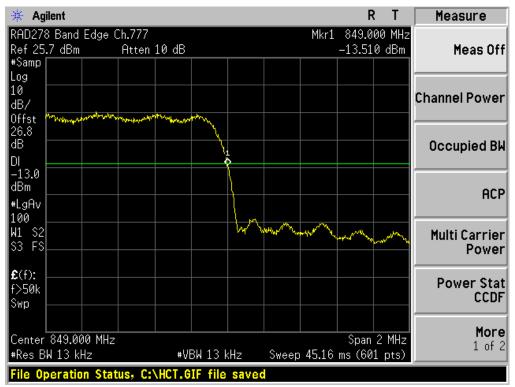
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T Measure	RT							ent	🔆 Agilo
	824.000 MHz 16.328 dBm					3 10 dB		Band Edge 'dBm	Ref 25.7
Channel Power	Antice of the state of the stat	**************************************	N ^{erte} Martin Control						#Samp Log 10 dB/ Offst
Occupied Bl									26.8 dB DI = -13.0
ACF					and a second	1 martin	with		dBm #LgAv 100 _
Multi Carrier Power					,			antite and a star and	41 S2 53 FS
Power Sta CCDF									€ (f): f>50k Swp
	Span 2 MHz s (601 pts)	45.1 <u>6</u>	Swe	kHz		#V	z	324.000 MH 13 kHz	L ۲ Center Res BW
			ed	sav	IF file	\HCT.G	atus, C:	eration St	File Op

CDMA MODE (1013 CH.) Block Edge

■ CDMA MODE (777 CH.) Block Edge



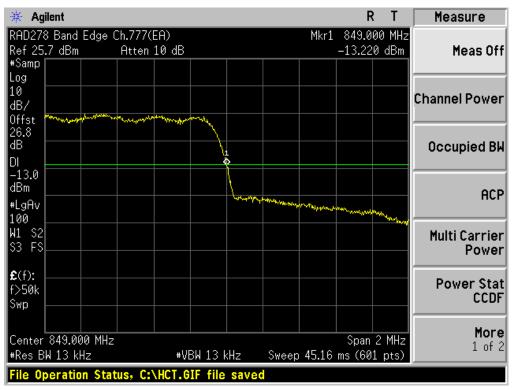
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🔆 Agilent				R	Т	Measure
RAD278 Band Ed				824.000		
Ref 25.7 dBm	Atten 10 dB			-15.912	dBm	Meas Off
#Samp						
Log 10						
dB/						Channel Power
Öffst		M	where we are a second	www.www.weather	wilness	
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dB						Occupied BW
		1 Ø				
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	and and all all all and a strange and all	-series and a grant				ACP
#LgAv	AND A DECEMBER OF A DECEMBER O					
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S3 FS						Multi Carrier
						Power
£ (f):						
f>50k						Power Stat
Swp ———						CCDF
Center 824.000	MHz			Span 2	MHz	More
#Res BW 13 kHz		3W 13 kHz	Sweep 45.16			1 of 2
	Status, C:\HCT.G					
rne operation :	Status, C:\ncl.6	ir the saved				

■ CDMA EVDO MODE (1013 CH.) Block Edge

CDMA EVDO MODE (777 CH.) Block Edge



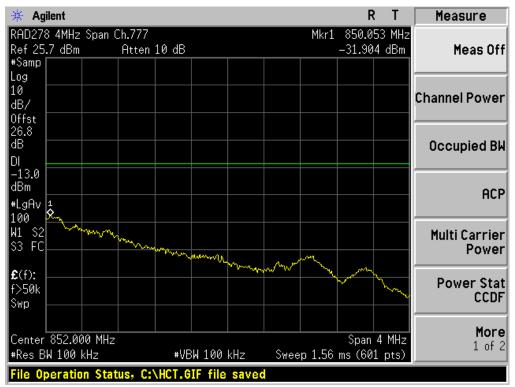
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🗧 Agilent				R	Т	Measure
RAD278 4MHz Span I Ref 25.7 dBm	Ch.1013 Atten 10 dB		Mkr	1 823.00 -30.271		Meas Of
Samp				00.271		neas or
.og Ø IB/						Channel Powe
)ffst :6.8 IB						Occupied Bl
-13.0 Bm LgAv					1	ACI
00 11 S2 53 FC			and the second	N		Multi Carrie Powe
C(f): >50k						Power Sta CCDI
Center 821.000 MHz Res BW 100 kHz		 BW 100 kHz	Sweep 1.5		4 MHz nts)	Mor 1 of

■ CDMA MODE (1013 CH.) 4 MHz Span

CDMA MODE (777 CH.) 4 MHz Span



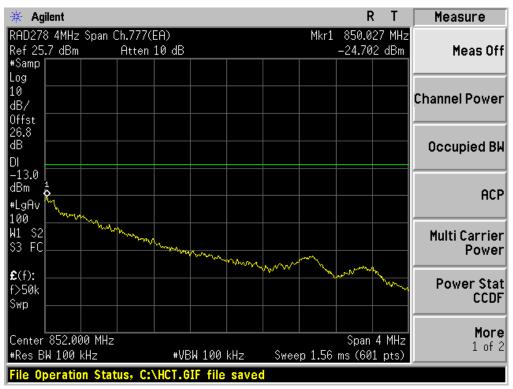
FCC CERTIFICATION REPORT								
Test Report No. HCTR1205FR11	Date of Issue: May 04, 2012	EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278					



🔆 Agilent				R	Т	Measure
RAD278 4MHz Span	Ch.1013(EA)		Mkr1	822.98	0 MHz	
Ref 25.7 dBm	Atten 10 dB			-23.858	dBm	Meas Off
#Samp						
10						Channel Power
Offst 26.8						
dB						Occupied BW
						occupied by
-13.0						
dBm					1	
#LgAv					Ň	ACP
100				. Jose	w	
W1 S2			a number	and the second		Multi Carrier
S3 FC			mm			Power
	Martin and	www.				Fower
£ (f):	New Contraction	1				
f>50k mm						Power Stat
Swp						CCDF
C . 001.000 MU					4 6411	More
Center 821.000 MHz			0 1 50	Span 4		1 of 2
#Res BW 100 kHz	#V(3W 100 kHz	Sweep 1.56	MS (601	pts)	J
File Operation Sta	tus, C:\HCT.0	IF file save	d			

CDMA EVDO MODE (1013 CH.) 4 MHz Span

CDMA EVDO MODE (777 CH.) 4 MHz Span



FCC CERTIFICATION REPORT						
Test Report No. HCTR1205FR11	Date of Issue: May 04, 2012	EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278			
-						



Agilent	CH OF					ML1		R T 100 CH	Freq/Channe
AD278 Band Edge ef 25.3 dBm Samp		10 dB				Mkr1 (1.849 9 -33.03		
0g Ø B/ ffst							whee		Start Fre 1.84900000 GH
7.3 B I						/	/		Stop Fre 1.85100000 GH
13.0 Bm _gAv 00			1		North and a start	\sim			CF Ste 200.000000 kH <u>Auto</u> Ma
00 1 S2 3 FS <mark>minuterenterterterente</mark>	and all all and and and all all all all all all all all all al	an the second	and a start of the						Freq Offse 0.00000000 H
(f): >50k wp									Signal Trac ^{On <u>Of</u>}
enter 1.850 000 Res BW 13 kHz	GHz	#VB	W 13 k	Hz	Sween	45.16		2 MH: 01 pts)	

■ PCS CDMA MODE (25 CH.) Block Edge

■ PCS CDMA MODE (1175 CH.) Block Edge



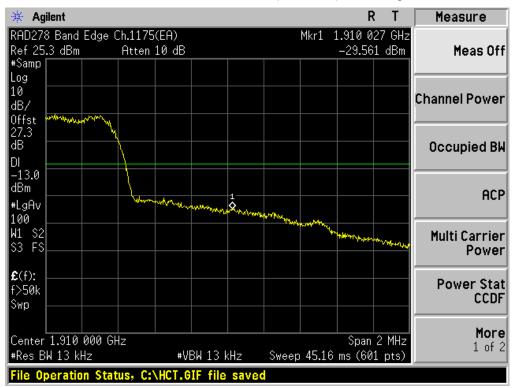
FCC CERTIFICATION REPORT						
Test Report No. HCTR1205FR11	Date of Issue: May 04, 2012	EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278			



🔆 Agilent				R	Т	Measure
RAD278 Band Edg			Mkr1 1	1.849 99		
	Atten 10 c	B		-30.056	dBm	Meas Off
#Samp						
Log 10						
dB/						Channel Power
Offst				Many	manderly	
27.3						
dB			/			Occupied BW
DI			⊨			
dBm			l l			
#LgAv		malle half and many and	and a had a			ACP
100	and a start and	and the second s				
W1 S2	AN AL AND					Multi Carrier
NI 52 S3 FS	···					Power
• (D)						
£ (f): f>50k						Power Stat
Swp						CCDF
410						
						More
Center 1.850 000			S	Span 2		1 of 2
#Res BW 13 kHz		₩VBW 13 kHz	Sweep 45.16	ms (601	pts)	
File Operation S	Status, C:\HCT	.GIF file save				

■ PCS CDMA EVDO MODE (25 CH.) Block Edge

■ PCS CDMA EVDO MODE (1175 CH.) Block Edge



FCC CERTIFICATION REPORT						
Test Report No. HCTR1205FR11	Date of Issue: May 04, 2012	EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278			



Agilent				R	T	Freq/Channe
AD278 4MHz Span ef 25.3 dBm Samp				848 97 -24.568		Center Fred 1.84700000 GH
og 0 B/ ffst						Start Fre 1.84500000 GH
7.3 B I						Stop Fre 1.84900000 GH
13.0 Bm LgAv 00					1 Www.P	CF Ste 400.000000 kH <u>Auto</u> Ma
1 00	adore and a complete	ng-managemeter of the	wynant frantsfrantsfr	Avera		Freq Offse 0.00000000 H
(f): Tun wp						Signal Trac On <u>O</u>
enter 1.847 000 G Res BW 1 MHz		BW 1 MHz	Sweep 1	Span 4 ms (601		

■ PCS CDMA MODE (25 CH.) 4 MHz Span

■ PCS CDMA MODE (1175 CH.) 4 MHz Span



FCC CERTIFICATION REPORT								
Test Report No. HCTR1205FR11	Date of Issue: May 04, 2012	EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278					



🔆 Agilent				R	Т	Measure
RAD278 4MHz Span			Mkr1 :	1.849 000		
Ref 25.3 dBm #Samp	Atten 10 dB			-20.847	dBm	Meas Off
roamp Log						
10						Channel Power
dB/						channel Fower
Offst 27.3						
dB						Occupied BW
DI						•
-13.0 dBm					1	
#LgAv					We Alfred Mart	ACP
100				all and and a second		
W1 S2	www.www.	any parter and a state and a state	www.www.www.www.			Multi Carrier
S3 FC	and the second second					Power
£ (f):						
FTun						Power Stat
Swp						CCDF
						Maria
Center 1.847 000 G		· · ·		Span 4		More 1 of 2
#Res BW 1 MHz	#	VBW 1 MHz	Sweep 1	ms (601	pts)	1012
File Operation Sta	tus, C:\HCT.	GIF file saved				

■ PCS CDMA EVDO MODE (25 CH.) 4 MHz Span

■ PCS CDMA EVDO MODE (1175 CH.) 4 MHz Span



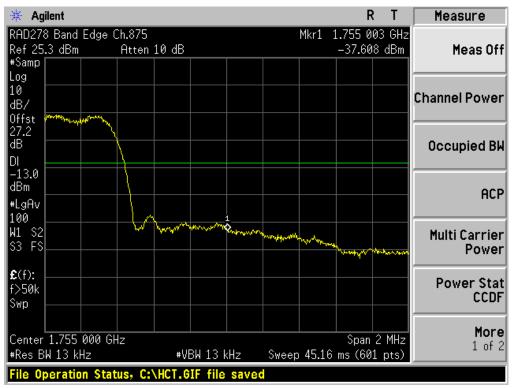
FCC CERTIFICATION REPORT						
Test Report No. HCTR1205FR11	Date of Issue: May 04, 2012	EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278			



🔆 Agilent				RΤ	Measure
RAD278 Band Edg		Mkr1		993 GHz	
Ref 25.3 dBm #Samp	Atten 10 dB		-34.43	35 dBm	Meas Off
Log					
10 dB/					Channel Power
Offst			Martin	Margaret March	
27.2 dB					
ab DI			Л		Occupied BW
-13.0			/		
dBm			<u> </u>		ACP
#LgAv 100		1 martine mark			
W1 S2	and a stand of the	A Construction of the second sec			Multi Carrier
S3 FS	and the second s				Power
£ (f):					
f>50k					Power Stat
Swp			_		CCDF
					More
Center 1.710 000				1 2 MHz	1 of 2
#Res BW 13 kHz	#VBW 13		6 ms (60	01 pts)	
File Operation S	tatus, C:\HCT.GIF fi	e saved			

AWS CDMA MODE (25 CH.) Block Edge

AWS CDMA MODE (875 CH.) Block Edge



FCC CERTIFICATION REPORT						
Test Report No. HCTR1205FR11	Date of Issue: May 04, 2012	EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278			



R T Measur			🔆 Agilent
Mkr1 1.709 940 GHz —31.105 dBm Meas		d Edge Ch.25(EA) n Atten 10	RAD278 Band Ref 25.3 dBm
			#Samp Log
Channel Po			10 dB/
Occupie			Offst 27.2 dB
			DI -13.0 dBm
and a second descent	manthe market and		#LgAv 100
Multi Car Po			W1 S2 S3 FS جمہو سیس
Power			€(f): f>50k Swp
Span 2 MHz	#VBW 13 kHz		Center 1.710 #Res BW 13 k

AWS CDMA EVDO MODE (25 CH.) Block Edge

AWS CDMA EVDO MODE (875 CH.) Block Edge



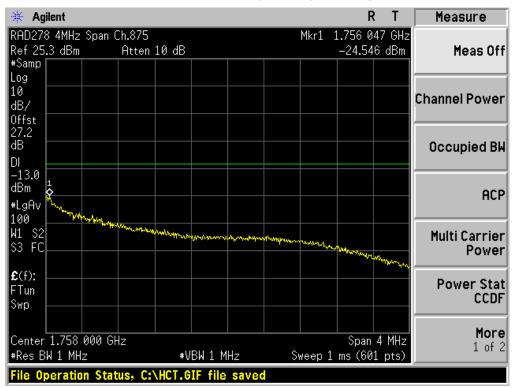
FCC CERTIFICATION REPORT						
Test Report No. HCTR1205FR11	Date of Issue: May 04, 2012	EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278			



🔆 Agilent					R	Т	Measure
RAD278 4MHz Span Ref 25.3 dBm		dB		Mkr1 1	L.708 96 -24.835		Meas Off
#Samp					-24.030		neas on
Log 10 dB/							Channel Power
Offst 27.2 dB DI							Occupied BW
H -13.0 dBm #LgAv						1	ACP
100 11 S2 S3 FC	water and the second	Juse March	nangangkangkangkalan	gr-indressforred Marriel	gun gud de a	M ^{PCV}	Multi Carrier Power
E(f): FTun Swp							Power Stat CCDF
Center 1.707 000 (#Res BW 1 MHz	GHz	#VBW 1 Mł	17	 Sweep 1		4 MHz nts)	More 1 of 2
File Operation Sta	atus, C:\HC						p

AWS CDMA MODE (25 CH.) 4 MHz Span

AWS CDMA MODE (875 CH.) 4 MHz Span



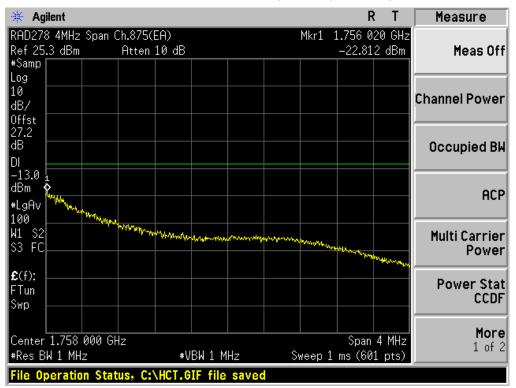
FCC CERTIFICATION REPORT					
Test Report No. HCTR1205FR11	Date of Issue: May 04, 2012	EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278		



🔆 Agilent				R	Т	Measure
RAD278 4MHz Sp				.709 000		
	Atten 10 d	В		-22.551	dBm	Meas Off
#Samp Log						
10					_	
dB/						Channel Power
Offst						
27.2 dB						
						Occupied BW
DI						
dBm					4	0.00
#LgAv					W. Ward	ACP
100				and the worked		
W1 S2	a net and a second	www.Levezoleten.gozieten.gozieten	white begins a strange of the			Multi Carrier
S3 FC	whate Werger way for a polyour					Power
£ (f): FTun						Power Stat
Swp						CCDF
Center 1.707 000				Suco 1	MU-	More
Lenter 1.707 000 #Res BW 1 MHz		#VBW 1 MHz	Sweep 1 r	Span 4		1 of 2
				13 (001	pts)	
File Operation S	Status, C:\HCT	.GIF file saved		_		

AWS CDMA EVDO MODE (25 CH.) 4 MHz Span

AWS CDMA EVDO MODE (875 CH.) 4 MHz Span



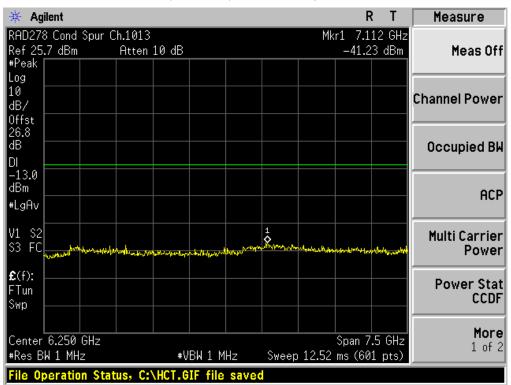
FCC CERTIFICATION REPORT					
Test Report No. HCTR1205FR11	Date of Issue: May 04, 2012	EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278		



🔆 Agilent				RT	Measure
RAD278 Cond Spur	·Ch.1013		Mkr1	2.475 GHz	
Ref 25.7 dBm	Atten 10 dB		-4	3.35 dBm	Meas Off
#Peak					
10 dB/					Channel Power
ab/ Offst	f				
26.8					
dB					Occupied BW
DI					occupica pri
-13.0					
dBm					ACP
#LgAv					псг
V1 S2				1	Multi Carrier
S3 FC	and me hat have been		and the state of the state		Power
	hours when the date of the of	An and the state of the second se			
£ (f):					Power Stat
FTun					CCDF
Swp					
					Moro
Center 1.265 GHz			Span	2.47 GHz	More 1 of 2
#Res BW 1 MHz	#VBW	l1 MHz – Swe	ep 4.12 ms	(601 pts)	1 01 2
File Operation St	tatus, C:\HCT.GIF	file saved			

CDMA MODE (1013 CH.) Conducted Spurious Emissions - 1

CDMA MODE (1013 CH.) Conducted Spurious Emissions - 2



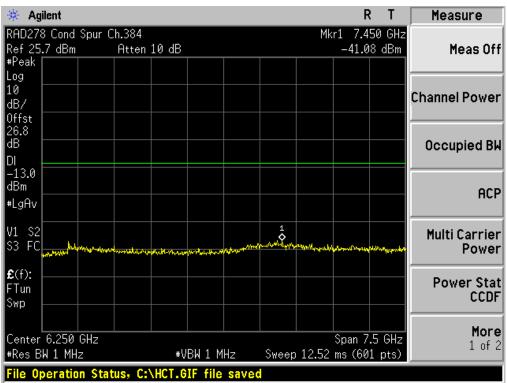
FCC CERTIFICATION REPORT					
Test Report No. HCTR1205FR11	Date of Issue: May 04, 2012	EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278		



🖗 Agilent				R	Т	Measure
RAD278 Cond Spur Ch				1.673		
	Atten 10 dB			-37.90	dBm	Meas Off
Peak						
.og						
яви IIIIIII						Channel Power
)ffst						
26.8						
JB						Occupied BW
-13.0 JBm						
						ACP
•LgAv						
л s2			\$			Hulti Comion
	10 1					Multi Carrier Power
www.www.horshown	warmen black from the	enthermorements in substances	Martin	tratelanters	tubber	Fower
€(f):						
Tun						Power Stat CCDF
Эмр						CUDF
Center 1.265 GHz			Spa	in 2.47	GHz	More
ŧRes BW 1 MHz	#V[SW 1 MHz S	weep 4.12 ms			1 of 2
ile Operation Statu						

■ CDMA MODE (384 CH.) Conducted Spurious Emissions - 1

■ CDMA MODE (384 CH.) Conducted Spurious Emissions - 2



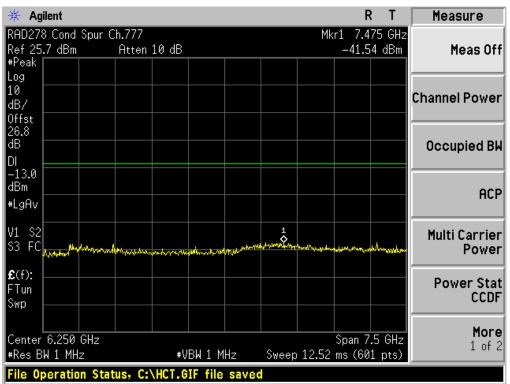
FCC CERTIFICATION REPORT				
Test Report No. HCTR1205FR11	Date of Issue: May 04, 2012	EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278	



🔆 Agilent			R	Т	Measure
RAD278 Cond Spur Ref 25.7 dBm			Mkr1 1.69 -36.32		Meas Off
#Peak Log					
10 dB/					Channel Power
Offst 26.8					
dB DI					Occupied Bk
-13.0 dBm					ACF
#LgAv					
V1 S2 S3 FC	Marine Constant	man plan min policing and and and		nhauturnal	Multi Carrier Power
€(f): FTun Swp					Power Stat CCDF
Center 1.265 GHz			Span 2.47		More 1 of 2
*Res BW 1 MHz	#VBW itus, C:\HCT.GIF		.2 ms (601	pts)	

CDMA MODE (777 CH.) Conducted Spurious Emissions - 1

CDMA MODE (777 CH.) Conducted Spurious Emissions - 2



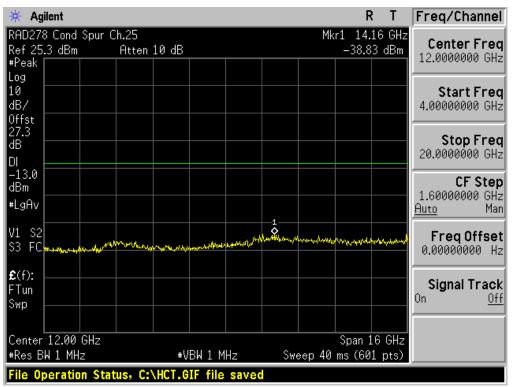
FCC CERTIFICATION REPORT								
Test Report No.Date of Issue:HCTR1205FR11May 04, 2012		EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278					



🖗 Agilent		RT	Freq/Channe
RAD278 Cond Spur C Ref 25.3 dBm Peak	Ch.25 Atten 10 dB	Mkr1 3.702 GHz -34.22 dBm	Center Fred 2.01500000 GH
.og .0 IB/)ffst			Start Fred 30.0000000 MH
27.3 HB			Stop Fred 4.00000000 GH2
-13.0 HBm HLgAv			CF Ste; 397.000000 MH: <u>Auto</u> Ma
	manual contract and	and the compart of the control of th	Freq Offse 0.00000000 Hi
C(f): Tun Swp			Signal Trac l On <u>Of</u>
Center 2.015 GHz Res BW 1 MHz	#VBW 1 MHz	Span 3.97 GHz Sweep 6.64 ms (601 pts)	

■ PCS CDMA MODE (25 CH.) Conducted Spurious Emissions - 1

■ PCS CDMA MODE (25 CH.) Conducted Spurious Emissions - 2



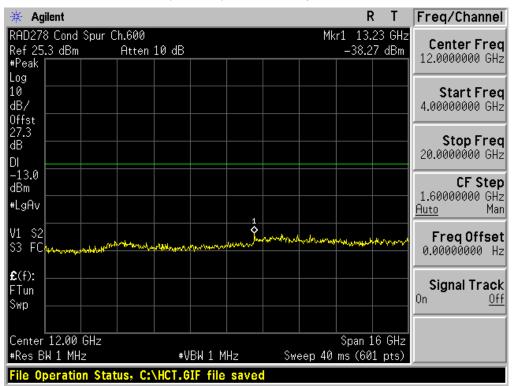
FCC CERTIFICATION REPORT								
Test Report No.Date of Issue:HCTR1205FR11May 04, 2012		EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278					



🗧 Agilent				RT	Freq/Channel
RAD278 Cond Spur Ref 25.3 dBm Peak	Ch.600 Atten 10 dB			.762 GHz .99 dBm	Center Fred 2.01500000 GH
.og 0 IB/)ffst					Start Fre 30.0000000 MH
27.3 IB DI					Stop Fred 4.00000000 GH
-13.0 HBm HgAv				1 \$	CF Ste 397.000000 MH <u>Auto</u> Ma
/1 S2 53 FC	egenerander frankrike finder	NI Goodingo Managela	poly by and	whenher	Freq Offse 0.00000000 H
C(f): Tun Swp					Signal Trac On <u>Of</u>
Center 2.015 GHz Res BW 1 MHz	#VBW	1 MHz Sv	Span 3 veep 6.64 ms (6	3.97 GHz 601 pts)	

■ PCS CDMA MODE (600 CH.) Conducted Spurious Emissions - 1

■ PCS CDMA MODE (600 CH.) Conducted Spurious Emissions - 2



FCC CERTIFICATION REPORT								
Test Report No. Date of Issue: HCTR1205FR11 May 04, 2012		EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278					



🗧 Agilent		RT	Freq/Channe
AD278 Cond Spur Ch.1175 Aef 25.3 dBm Attem Peak og	5 10 dB	Mkr1 3.815 GH 34.18 dBm	
0 IB/			Start Free 30.0000000 MH
77.3 IB II 13.0			Stop Fre 4.00000000 GH
LgAv			CF Ste 397.000000 MH <u>Auto</u> Ma
	sadadada manga sa ang bantaranga	month the manufacture of the second	Freq Offse 0.00000000 H
:(f): Tun wp			Signal Trac On <u>Oi</u>
Center 2.015 GHz Res BW 1 MHz	#VBW 1 MHz	Span 3.97 GHz Sweep 6.64 ms (601 pts)	

■ PCS CDMA MODE (1175 CH.) Conducted Spurious Emissions - 1

■ PCS CDMA MODE (1175 CH.) Conducted Spurious Emissions - 2



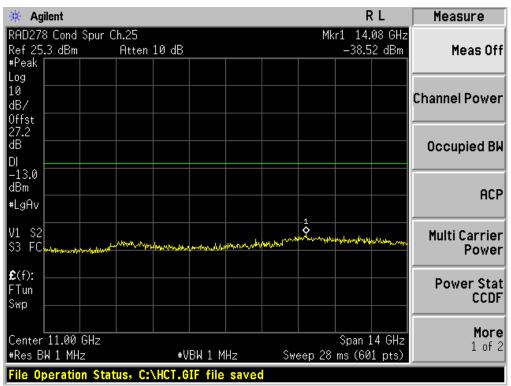
FCC CERTIFICATION REPORT							
Test Report No. HCTR1205FR11	Date of Issue: May 04, 2012	EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278				



🔆 Agilent			R	Т	Measure
RAD278 Cond Spu Ref 25.3 dBm #Peak			3.352 -42.13		
Log 10 dB/					Channel Power
Offst 27.2 dB DI					Occupied Bl
-13.0 dBm #LgAv					ACF
V1 S2 S3 FC	 and another and the second statements	A sugar determinent	1 2 	судала	Multi Carriei Powei
£(f): FTun Swp					Power Sta CCDF
Center 2.015 GHz #Res BW 1 MHz	BW 1 MHz	Spa Sweep 6.64 ms	in 3.97 5 (601		More 1 of 2

AWS CDMA MODE (25 CH.) Conducted Spurious Emissions - 1

AWS CDMA MODE (25 CH.) Conducted Spurious Emissions - 2



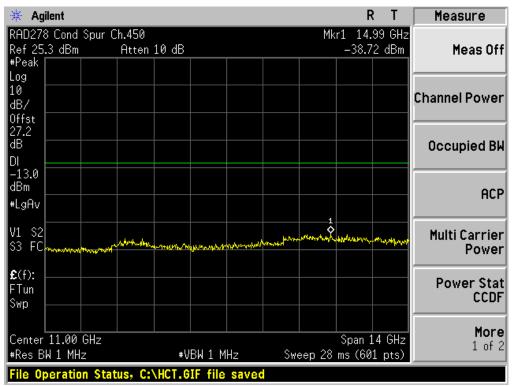
FCC CERTIFICATION REPORT							
Test Report No. HCTR1205FR11	Date of Issue: May 04, 2012	EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278				



re	Measure	Т	2	F									ilent	<u>ж</u> А(
		GHz	86	3.1	kr1	M					h.450	d Spur C	3 Cond	RAD27
as Off	Meas	dBm	(Ö	42.3	_					0 dB	Atten :	n	.3 dBm	Ref 25
														ŧPeak
														og
lower	Channel Po													10
ower	channel F 0													dB/
														Offst
														27.2
ed Bk	Occupied													dB
														DI
														-13.0
ACF														dBm
														ŧLgAv
arrier	Multi Cari				1									J1 S2
ower		Section 1	hump	e-Herrie	?		U.I. KIL		μ					S3 FC
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	D													£ (f):
														Tun
CCDF	L L													Swp
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1 of 2	1						~							
		ots)	1 f	(60	ms	p 6.6	Swe	HŻ	W 1 M	#VE		Hz	W 1 M⊦	#Kes b
		GHz pts)				p 6.6			W 1 M F file		us, C:\		2.015 W 1 MH	Tun Swp Centei ≢Res E

AWS CDMA MODE (450 CH.) Conducted Spurious Emissions - 1

AWS CDMA MODE (450 CH.) Conducted Spurious Emissions - 2



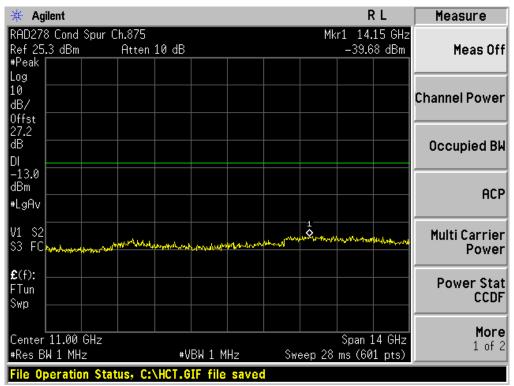
FCC CERTIFICATION REPORT							
Test Report No. HCTR1205FR11	Date of Issue: May 04, 2012	EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278				



🔆 Agilent					R	Т	Measure
RAD278 Cond Sp					3.113		
Ref 25.3 dBm	Atten 10	dB		_	41.45	dBm	Meas Off
#Peak							
Log							
10							Channel Power
dB/							
Offst 27.2							
dB		<u>_</u>					Occupied Bk
							occupied br
-13.0							
dBm							
#LgAv							ACP
V1 S2				1			Multi Carrier
ം ലി				, Am	and the second	S. Mark	Power
مالارم الأمرير وعادة بالمالية و	in which advantighter	and a second and a second days	ut to be the the state of the s	40-04			Fower
£ (f):							_
FTun							Power Stat
Swp							CCDF
Center 2.015 GH					. 2 07		More
	IZ	ALIDIT 1 MUL	e		n 3.97		1 of 2
#Res BW 1 MHz		₩VBW 1 MHz		o 6.64 ms	(001	pts)	
File Operation	Status, C:\H	CT.GIF file sa	ived				

AWS CDMA MODE (875 CH.) Conducted Spurious Emissions - 1

AWS CDMA MODE (875 CH.) Conducted Spurious Emissions - 2



FCC CERTIFICATION REPORT						
Test Report No. HCTR1205FR11	Date of Issue: May 04, 2012	EUT Type: Cellular/AWS/PCS CDMA/EVDO Phone with Bluetooth & WLAN	FCC ID: RAD278			