

# HCT CO., LTD.

### CERTIFICATE OF COMPLIANCE FCC Certification

Applicant Name: LG Electronics Inc.

Address: 60-39, Gasan-dong, Gumchon-gu, Seoul 153-023, Korea Date of Issue: August 1, 2011 Location: HCT CO., LTD., 105-1, Jangam-ri, Majang-Myeon, Icheon-si, Kyunggi-Do, Korea Test Report No.: HCTR1108FR01 HCT FRN: 0005866421

# FCC ID:

# ZNFE739

# APPLICANT: LG Electronics Inc.

FCC Model(s): Additional FCC Model(s): EUT Type: FCC Classification: FCC Rule Part(s): Tx Frequency:	E739 LG-E739 850/1900 GSM/GPRS/EDGE and AWS WCDMA/HSPA Phone with BT and WLAN Licensed Portable Transmitter Held to Ear (PCE) §22, §24, §27,§2 824.20 - 848.80 MHz (GSM850) 1 850.20 - 1 909.80 MHz (GSM1900) 1 712.4 – 1 752.6 MHz (WCDMA1700)
Rx Frequency:	869.20 - 893.80 MHz (GSM850) 1930.20 - 1 989.80 MHz (GSM1900) 2 112.4 – 2 152.6 MHz (WCDMA1700)
Max. RF Output Power:	0.374 W ERP GSM850 (25.74 dBm) / 1.462 W EIRP GSM1900 (31.65 dBm) 0.123 W ERP EDGE850 (20.93 dBm) / 0.756 W EIRP EDGE1900 (28.79 dBm) 0.407W EIRP WCDMA1700(26.10 dBm)

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)

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

Approved by : Sang Jun Lee Manager of RF Team

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# **Version**

TEST REPORT NO.	DATE	DESCRIPTION
HCTR1108FR01	August 1, 2011	First Approval Report

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# **MEASUREMENT REPORT**

# **1. GENERAL INFORMATION**

Applicant Name:	LG Electronics Inc.
Address:	60-39, Gasan-dong, Gumchon-gu, Seoul 153-023, Korea
FCC ID:	ZNFE739
Application Type:	Certification
FCC Classification:	Licensed Portable Transmitter Held to Ear (PCE)
FCC Rule Part(s):	§22, §24, §27, §2
EUT Type:	850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN
FCC Model(s):	E739
Additional FCC Model(s):	LG-E739
Tx Frequency:	824.20 - 848.80 MHz (GSM850) 1 850.20 - 1 909.80 MHz (GSM1900) 1 712.4 – 1 752.6 MHz (WCDMA1700)
Rx Frequency:	869.20 - 893.80 MHz (GSM850) 1930.20 - 1 989.80 MHz (GSM1900) 2 112.4 – 2 152.6 MHz (WCDMA1700)
Max. RF Output Power:	0.374 W ERP GSM850 (25.74 dBm) / 1.462 W EIRP GSM1900 (31.65 dBm) 0.123 W ERP EDGE850 (20.93 dBm) / 0.756 W EIRP EDGE1900 (28.79 dBm) 0.407W EIRP WCDMA1700(26.10 dBm)
Date(s) of Tests:	July 25, 2011 ~ July 29, 2011

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# 2. INTRODUCTION

### 2.1. EUT DESCRIPTION

The LG Electronics Inc. E739, LG-E739 850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN consists of GSM850, GSM1900, GPRS Class12, GPRS mode, EDGE, AWS WCDMA1700, HSDPA and HSUPA.

### 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)

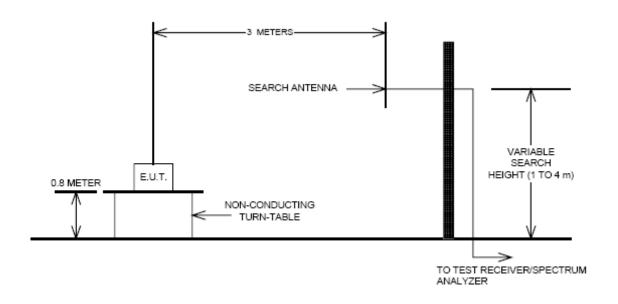
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# **3. DESCRIPTION OF TESTS**

# 3.1 EFFECTIVE RADIATED POWER/EQUIVALENT ISOTROPIC RADIATED POWER

#### Test Set-up



#### **Test Procedure**

Radiated emission measurements were performed at an SAC(Semi-Anechoic Chamber)

The equipment under test is placed on a non-conductive styrofoam resin table 3-meters from the receive antenna. A styrofoam 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

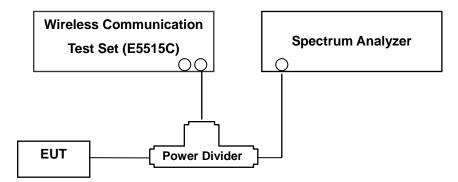
spectrum analyzer to determine the largest deviation between the average and the peak power of the EUT in a bandwidth greater than the emission bandwidth. Plots of the EUT's Peak- to- Average Ratio are shown herein.

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# 3.3 OCCUPIED BANDWIDTH.

Test set-up



(Configuration of conducted Emission measurement) Test Procedure

The EUT was setup to maximum output power at its lowest channel. The occupied bandwidth was measured using a spectrum analyzer. The measurements are repeated for the highest and a middle channel. The EUT's occupied bandwidth is measured as the width of the signal between two points, one below the carrier center frequency and one above the carrier frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. Plots of the EUT's occupied bandwidth are shown herein.

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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.

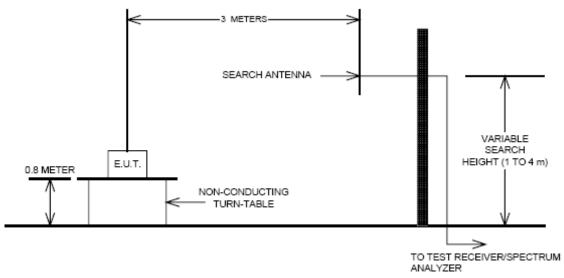
- Band Edge Requirement : In the 1MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the out of band Emissions. Limit, -13dBm.

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# 3.5 RAIDATED SPURIOUS AND HARMONIC 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 SAC(Semi-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 styrofoam platform mounted at three from the antenna mast.

- 1) The unit mounted on a styrofoam 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 10<sup>th</sup> harmonic of the fundamental frequency.

#### Test Procedure

The equipment under test is placed on a non-conductive styrofoam resin table 3-meters from the receive antenna. A styrofoam 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.

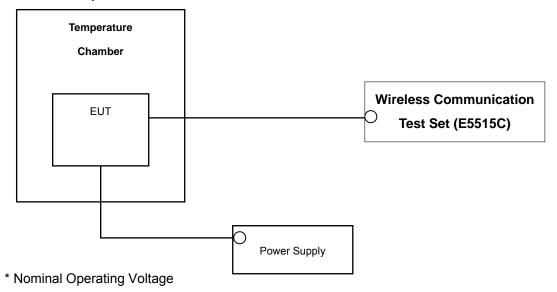
The maximum EIRP was calculated by adding the forward power to the calibrated source plus its appropriate gain value. These steps were carried out with the receiving antenna in both vertical and horizontal polarization. For readings above 1GHz, the above procedure is repeated using horn antennas and 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	04/16/2012
Agilent	E4416A/ Power Meter	GB41291412	Annual	01/04/2012
Agilent	E9327A/ Power Sensor	MY4442009	Annual	05/02/2012
Agilent	8960 (E5515C)/ Base Station	GB44400269	Annual	02/10/2012
MITEQ	AMF-6D-001180-35-20P/AMP	990893	Annual	05/02/2012
Wainwright	WHK1.2/15G-10EF/H.P.F	2	Annual	05/02/2012
Wainwright	wright WHK3.3/18G-10EF/H.P.F		Annual	05/02/2012
Agilent	775D/ Dual Directional Coupler	12922	Annual	12/29/2011
Agilent	11636B/ Power Divider	11377	Annual	12/29/2011
Digital	EP-3010/ Power Supply	3110117	Annual	01/04/2012
Schwarzbeck	UHAP/ Dipole Antenna	949	Biennial	03/18/2012
Schwarzbeck	UHAP/ Dipole Antenna	950	Biennial	03/18/2012
Korea Engineering	KR-1005L / Chamber	KRAB07063-2CH	Annual	12/28/2011
Schwarzbeck	BBHA 9120D/ Horn Antenna	296	Biennial	09/23/2011
Schwarzbeck	BBHA 9120D/ Horn Antenna	147	Biennial	04/13/2012
Agilent	E4440A/Spectrum Analyzer	US45303008	Annual	05/02/2012

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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(h)	Occupied Bandwidth	N/A		PASS
2.1051, 22.917(a), 24.238(a), 27.53(h)	Band Edge / Spurious and Harmonic Emissions at Antenna Terminal.	< 43 + 10log10 (P[Watts]) at Band Edge and for all out-of-band emissions		PASS
2.1046	Conducted Output Power	-	CONDUCTED	PASS
24.232(d),	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	RADIATED	PASS
2.1053, 22.917(a), 24.238(a), 27.53(h)	Radiated Spurious and Harmonic Emissions	< 43 + 10log10 (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	Ant. Gain	C.L	Pol.	ERP	
wode	channel	Freq.(MHz)	Level(dBm)	LEVEL(dBm)	Ant. Gam	U.L	FUI.	w	dBm
GSM850	128	824.20	-11.56	34.28	-8.32	1.17	Н	0.30	24.79

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

1) The EUT mounted on a wooden tripod 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**

#### **GSM Emission Designator**

#### Emission Designator = 249KGXW

GSM BW = 249 kHz

- G = Phase Modulation
- X = Cases not otherwise covered
- W = Combination (Audio/Data)

#### WCDMA Emission Designator

#### Emission Designator = 4M17F9W

WCDMA BW = 4.17 MHz

- F = Frequency Modulation
- 9 = Composite Digital Info
- W = Combination (Audio/Data)

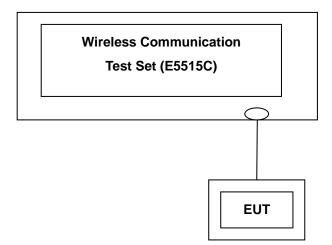
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# 7. TEST DATA

# 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.



#### **Test Result**

		Voice		GPR	S Data	
Band	Channel	GSM (dBm)	GPRS 1 TX Slot (dBm)	GPRS 2 TX Slot (dBm)	GPRS 3 TX Slot (dBm)	GPRS 4 TX Slot (dBm)
GSM	128	33.7	33.3	30.9	Ι	_
850	190	33.7	33.4	30.8	-	-
000	251	33.7	33.3	30.8	-	_
GSM	512	31.1	30.9	30.8	-	-
1900	661	31.3	31.1	31.0	_	-
1900	810	31.5	31.3	31.0	-	_

(GSM Conducted Maximum Output Powers)

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		EDGE Data					
Band	Channel	EDGE 1 TX Slot (dBm)	EDGE 2 TX Slot (dBm)	EDGE 3 TX Slot (dBm)	EDGE 4 TX Slot (dBm)		
GSM	128	26.6	26.6	-	_		
850	190	26.6	26.5	-	_		
000	251	26.6	26.5	-	-		
COM	512	25.9	25.8	-	-		
GSM 1900	661	26.2	26.1	-	_		
1900	810	26.2	26.1	_	_		

(GSM EDGE Conducted Output Powers)

		3GPP 34.121	PC	S Band [dB	m]	
3GPP			UL	UL	UL	
Release	Mode		1312	1412	1513	MPR
Version	mode	Subtest	(1712.40)	(1732.40)	(1752.60)	
r or or or or			DL	DL	DL	
			1537	1637	1738	
99	WCDMA	12.2 kbps RMC	23.5	23.7	23.7	-
99	WCDMA	12.2 kbps AMR	-	-	-	-
5		Subtest 1	23.5	23.7	23.6	0
5	HSDPA	Subtest 2	23.5	23.7	23.6	0
5	HISDI A	Subtest 3	23.0	23.2	23.2	-0.5
5		Subtest 4	23.0	23.1	23.2	-0.5
6		Subtest 1	22.9	23.0	23.0	0
6		Subtest 2	21.5	21.6	22.0	-2
6	HSUPA	Subtest 3	22.1	22.1	22.3	-1
6		Subtest 4	22.0	22.4	22.1	-2
6		Subtest 5	22.7	22.8	22.8	0

### (WCDMA 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 32.

# 7.3 OCCUPIED BANDWIDTH

Band	Channel	Frequency(MHz)	Data (GSM: kHz / WCDMA : MHz)
	128	824.20	246.8696
GSM850	190	836.60	245.8465
	251	848.80	246.5255
GSM850 EDGE	128	824.20	246.0375
	512	1850.20	246.2863
GSM1900	661	1880.00	244.2314
	810	1909.80	245.9746
GSM1900 EDGE	810	1909.80	243.3218
	1312	1712.40	4.1386
WCDMA1700	1412	1732.40	4.1400
	1513	1752.60	4.1405

- Plots of the EUT's Occupied Bandwidth are shown Page 28 ~ 31, 32 ~ 33.

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# 7.4 CONDUCTED SPURIOUS EMISSIONS

Band	Channel	Frequency of Maximum Harmonic (GHz)	Maximum Data (dBm)
	128	7.1500	-30.68
GSM850	190	7.0125	-30.36
	251	6.9625	-29.88
	512	14.5070	-26.67
GSM1900	661	13.3330	-27.01
	810	13.9200	-27.20
	1312	14.2130	-38.28
WCDMA1700	1412	15.2270	-37.68
	1513	13.7600	-37.35

- Plots of the EUT's Conducted Spurious Emissions are shown Page 44 ~ 52.

#### 7.4.1 BAND EDGE

- Plots of the EUT's Band Edge are shown Page 34 ~ 42.

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# 7.5 EFFECTIVE RADIATED POWER OUTPUT (GSM)

#### (GSM850 Mode)

Ch./	Freq.	Measured	Substitude	Ant. Gain	C.L	Pol.	ER	Р
channel	Freq.(MHz)	Level(dBm)	LEVEL (dBm)	(dBd)	U.L	FUI.	W	dBm
128	824.20	-13.36	35.57	-10.54	1.61	V	0.22	23.42
190	836.60	-12.68	36.24	-10.50	1.67	V	0.26	24.07
251	848.80	-11.21	37.85	-10.47	1.64	V	0.37	25.74
EDGE 251	848.80	-16.02	33.04	-10.47	1.64	V	0.12	20.93

#### 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 = 3 MHz. For WCDMA signals, a peak detector is used, with RBW = VBW = 1 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.

This device was tested under all configurations and the highest power is reported in WCDMA mode with HSDPA Inactive at 12.2 kbps RMC and TPC bits all set to "1" and in GSM mode and using a Power Control Level of "0" in the PCS Band and "5" in the Cellular Band. This unit was tested with its standard battery. 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 x plane in GSM850 mode. Also worst case of detecting Antenna is horizontal polarization in GSM850 mode.

The EDGE mode testing were performed using 1Tx because 1Tx is highest power in EDGE mode.

		FCC Certification	www.hct.co.kr		
Test Report No.	Date of Issue:	EUT Type:	FCC ID:		
HCTR1108FR01	August 1, 2011	850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	ZNFE739		



# 7.6 EQUIVALENT ISOTROPIC RADIATED POWER (GSM / WCDMA)

#### (GSM1900 Mode)

Ch./	Freq.	Measured	Substitude	Ant. Gain	C.L	Pol.	EII	RP
channel	Freq.(MHz)	Level(dBm)	LEVEL (dBm)	(dBi)	U.L	FUI.	w	dBm
512	1,850.20	-10.14	23.57	10.40	2.83	Н	1.30	31.13
661	1,880.00	-9.81	23.97	10.43	2.81	Н	1.44	31.59
810	1,909.80	-9.95	24.04	10.47	2.86	Н	1.46	31.65
EDGE 810	1,909.80	-12.61	21.17	10.43	2.81	Н	0.76	28.79

#### (WCDMA1700 Mode)

Ch./	Freq.	Measured	Substitude	Ant. Gain	C.L	Pol.	Ell	RP
channel	Freq.(MHz)	Level(dBm)	LEVEL (dBm)	(dBi)	U.L	FUI.	w	dBm
1312	1712.40	-15.44	17.99	9.98	2.69	Н	0.34	25.28
1412	1732.40	-14.67	18.74	10.06	2.70	Н	0.41	26.10
1513	1752.60	-14.85	18.53	10.14	2.68	Н	0.40	25.98

Note: Standard batteries are the only options for this phone

#### 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 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 = 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 in WCDMA mode with HSDPA Inactive at 12.2 kbps RMC and TPC bits all set to "1" and in GSM mode and using a Power Control Level of "0" in the PCS Band and "5" in the Cellular Band. This unit was tested with its standard battery. 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 x plane in GSM1900 and WCDMA1700 mode. Also worst case of detecting Antenna is in horizontal polarization in GSM1900 and WCDMA1700 mode.

The EDGE mode testing were performed using 1Tx because 1Tx is highest power in EDGE mode.

FCC Certification					
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# 7.7 RADIATED SPURIOUS EMISSIONS 7.7.1 RADIATED SPURIOUS EMISSIONS (GSM850)

MEASURED OUTPUT POWER:	25.74 dBm = 0.375 W

MODULATION SIGNAL:
 GSM850

DISTANCE:

■ LIMIT: - (43 + 10 log10 (W)) = \_\_\_\_\_\_ - 38.74 dBc

Ch.	Freq.(MHz)	Measured Level	Ant. Gain (dBd)	<u>Substitute</u> Level [dBm]	C.L	Pol.	ERP (dBm)	dBc
	1,648.40	-44.28	9.66	-54.61	2.63	Н	-47.58	-73.32
128 (824.2)	2,472.60	-37.54	10.79	-45.38	3.55	Н	-38.14	-63.88
, , , , , , , , , , , , , , , , , , ,	3,296.80	-42.78	11.76	-51.15	4.79	V	-44.18	-69.92
190 (836.6)	1,673.20	-36.87	9.77	-47.27	2.67	Н	-40.17	-65.91
	2,509.80	-36.01	10.82	-43.92	3.61	Н	-36.71	-62.45
	3,346.40	-45.52	11.87	-54.25	4.94	V	-47.32	-73.06
	1,697.60	-30.20	9.94	-41.03	2.61	Н	-33.70	-59.44
251 (848.8)	2,546.40	-34.92	10.84	-43.26	3.60	Н	-36.02	-61.76
	3,395.20	-37.86	11.98	-46.63	4.11	V	-38.76	-64.50

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 5<sup>th</sup> Harmonic for all channel.

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

FCC Certification					
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#### 7.7.2 RADIATED SPURIOUS EMISSIONS (GSM1900)

MEASURED OUTPUT POWER: <u>31.65 dBm =1.462 W</u>

MODULATION SIGNAL:
 <u>GSM1900</u>

DISTANCE:

LIMIT: - (43 + 10 log10 (W)) = \_\_\_\_\_ - 44.65dBc

Ch.	Freq.(MHz)	Measured Level	Ant. Gain (dBi)	<u>Substitute</u> Level [dBm]	C.L	Pol.	EIRP (dBm)	dBc
	3,700.40	-36.60	12.36	-43.39	4.87	Н	-35.90	-67.52
512 (1850.2)	5,550.60	-38.46	12.61	-39.51	6.66	V	-33.56	-65.18
	7,400.80	-54.93	10.97	-47.50	6.60	Н	-43.13	-74.75
661 (1880.0)	3,760.00	-35.47	12.40	-42.19	4.88	Н	-34.67	-66.29
	5,640.00	-37.92	12.65	-39.23	6.54	V	-33.12	-64.74
	7,520.00	-49.92	10.84	-41.64	7.32	Н	-38.12	-69.74
810 (1909.8)	3,819.60	-35.22	12.45	-41.45	5.02	Н	-34.02	-65.64
	5,729.40	-39.75	12.71	-41.12	6.54	Н	-34.95	-66.57
	7,639.20	-52.24	10.87	-43.73	7.78	Н	-40.64	-72.26

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 5<sup>th</sup> Harmonic for all channel.

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

FCC Certification					
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#### 7.7.3 RADIATED SPURIOUS EMISSIONS (WCDMA1700)

MEASURED OUTPUT POWER: 26.10 dBm = 0.407 W

MODULATION SIGNAL: WCDMA1700

DISTANCE:

3 meters

LIMIT: - (43 + 10 log10 (W)) = - 39.10 dBc

Ch.	Freq.(MHz)	<u>Measured Level</u> [dBm]	Ant. Gain (dBi)	<u>Substitute</u> Level [dBm]	C.L	Pol.	EIRP (dBm)	dBc
	3,424.80	-44.46	12.09	-52.41	5.14	Н	-45.46	-71.56
1312 (1712.4)	5,137.20	_	-	-	-	-	_	_
· · · ·	6,849.60	_	_	_	_	-	_	_
	3,464.80	-41.39	12.12	-50.05	4.56	Н	-42.49	-68.59
1412 (1732.4)	5,197.20	-	_	_	_	-	_	_
	6,929.60	_	_	-	-	-	-	_
1513 (1752.6)	3,505.20	-43.41	12.22	-50.86	5.07	Н	-43.71	-69.81
	5,257.80	_	_	_	-	-	-	_
	7,010.40	_	_	_	-	-	_	_

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

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

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

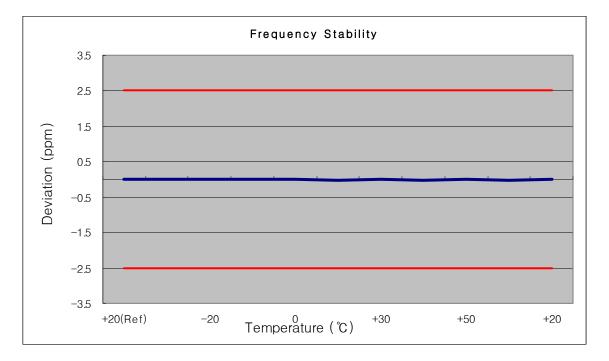
FCC Certification					
Test Report No. HCTR1108FR01	Date of Issue: August 1, 2011	EUT Type: 850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	FCC ID: ZNFE739		
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# 7.8 FREQUENCY STABILITY / VARIATION OF AMBIENT TEMPERATURE 7.8.1 FREQUENCY STABILITY (GSM850)

OPERATING FREQUENCY:	836,600,000 Hz
CHANNEL:	190
REFERENCE VOLTAGE:	3.7 VDC
DEVIATION LIM IT:	± 0.000 25 % or 2.5 ppm

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°°)	(Hz)	Error (Hz)	(%)	ppm
100%		+20(Ref)	836 600 034	-6.59	-0.000 001	-0.008
100%		-30	836 599 990	-10.12	-0.000 001	-0.012
100%		-20	836 599 997	-2.94	0.000 000	-0.004
100%		-10	836 599 995	-5.09	-0.000 001	-0.006
100%	3.700	0	836 599 995	-4.7	-0.000 001	-0.006
100%		+10	836 599 984	-15.64	-0.000 002	-0.019
100%		+30	836 599 993	-7.4	-0.000 001	-0.009
100%		+40	836 599 988	-12.2	-0.000 001	-0.015
100%		+50	836 599 992	-7.8	-0.000 001	-0.009
115%	4.255	+20	836 599 980	-19.56	-0.000 002	-0.023
Batt. Endpoint	3.400	+20	836 599 991	-8.71	-0.000 001	-0.010



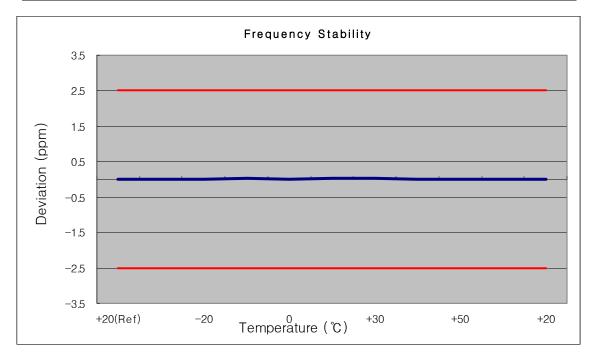
FCC Certification					
Test Report No. HCTR1108FR01	Date of Issue: August 1, 2011	EUT Type: 850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	FCC ID: ZNFE739		
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# 7.8.2 FREQUENCY STABILITY (GSM1900)

OPERATING FREQUENCY:	1880,000,000 Hz
CHANNEL:	661
REFERENCE VOLTAGE:	3.7 VDC
DEVIATION LIM IT:	± 0.000 25 % or 2.5 ppm

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°°)	(Hz)	Error (Hz)	(%)	ppm
Voltage		Temp.	Frequency	Frequency	Deviation	ppm
(%)		(°C)	(Hz)	Error (Hz)	(%)	-0.017
100%		+20(Ref)	1880 000 059	-3.81	0.000 000	-0.005
100%	Power	-30	1880 000 008	7.51	0.000 001	0.009
100%	(VDC)	-20	1880 000 006	6.48	0.000 001	0.008
100%	3.700	-10	1880 000 016	16.06	0.000 002	0.019
100%		0	1880 000 009	8.54	0.000 001	0.010
100%		+10	1880 000 017	17.03	0.000 002	0.020
100%		+30	1880 000 018	17.82	0.000 002	0.021
100%	4.255	+40	1880 000 004	4.21	0.000 001	0.005
100%	3.400	+50	1880 000 007	6.81	0.000 001	0.008



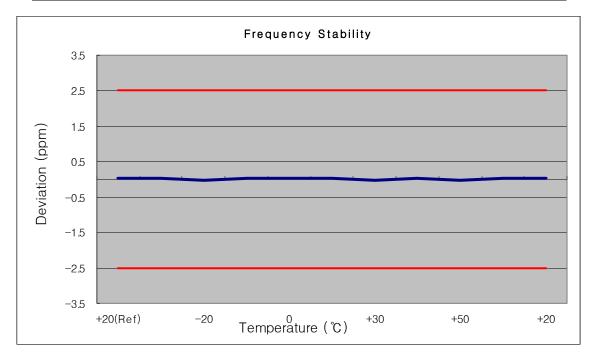
FCC Certification				
Test Report No. HCTR1108FR01	Date of Issue: August 1, 2011	EUT Type: 850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	FCC ID: ZNFE739	
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# 7.8.3 FREQUENCY STABILITY (WCDMA1700)

OPERATING FREQUENCY:	1,732.400,000 Hz
CHANNEL:	1412
REFERENCE VOLTAGE:	3.7 VDC
DEVIATION LIM IT:	<u>± 0.000 25 % or 2.5 ppm</u>

Voltage	Power	Temp.	Frequency	Frequency	Deviation	
(%)	(VDC)	(°°)	(Hz)	Error (Hz)	(%)	ppm
100%		+20(Ref)	000 000 000	22.67	0.000 003	0.027
100%		-30	1732 400 026	28.51	0.000 003	0.034
100%		-20	1732 399 976	-20.74	-0.000 002	-0.025
100%		-10	1732 400 016	19.41	0.000 002	0.023
100%	3.700	0	1732 400 019	22.3	0.000 003	0.027
100%		+10	1732 400 016	19.1	0.000 002	0.023
100%		+30	1732 399 976	-20.76	-0.000 002	-0.025
100%		+40	1732 400 018	20.68	0.000 002	0.025
100%		+50	1732 399 978	-18.64	-0.000 002	-0.022
115%	4.255	+20	1732 400 023	26.14	0.000 003	0.031
Batt. Endpoint	3.400	+20	1732 400 015	18.28	0.000 002	0.022



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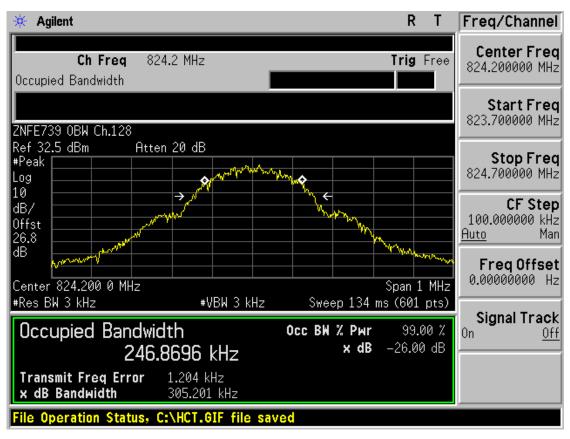


# 8. TEST PLOTS

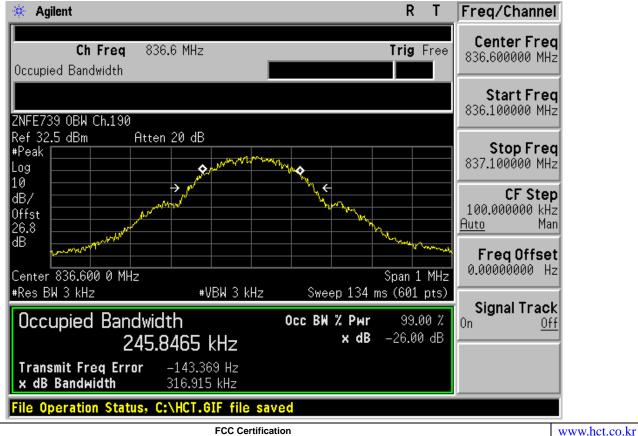
	FCC Certification			
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#### ■ GSM850 MODE (128 CH.) Occupied Bandwidth



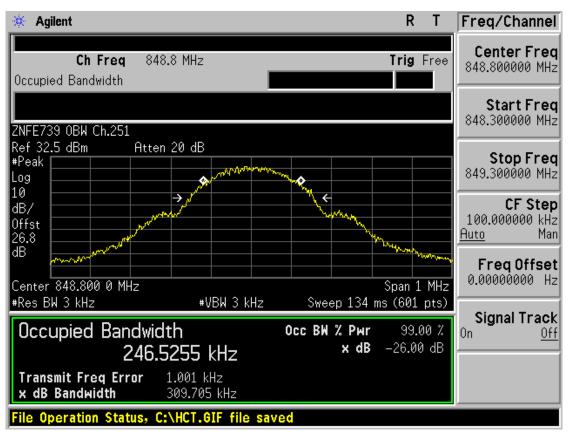
#### ■ GSM850 MODE (190 CH.) Occupied Bandwidth



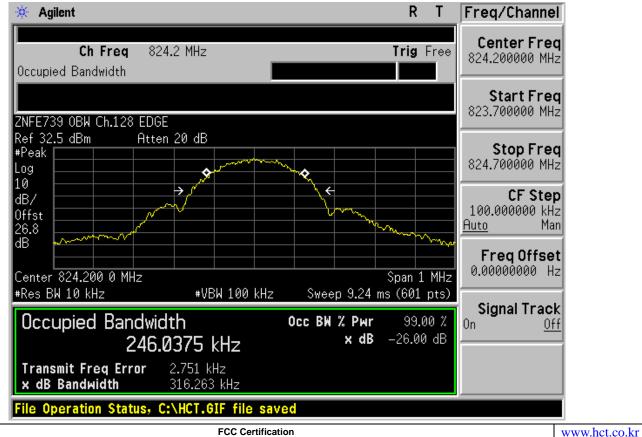
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
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#### ■ GSM850 MODE (251 CH.) Occupied Bandwidth



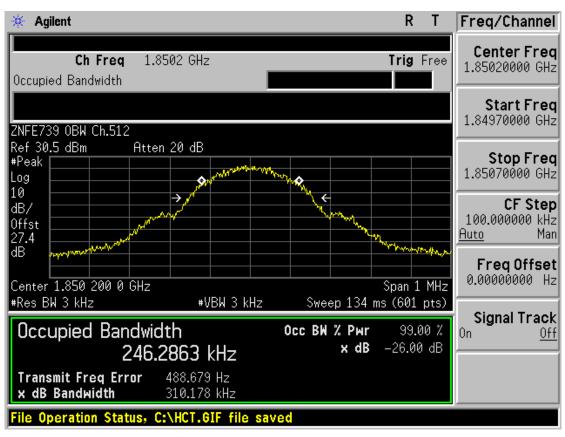
#### ■ GSM850 EDGE (128 CH.) Occupied Bandwidth



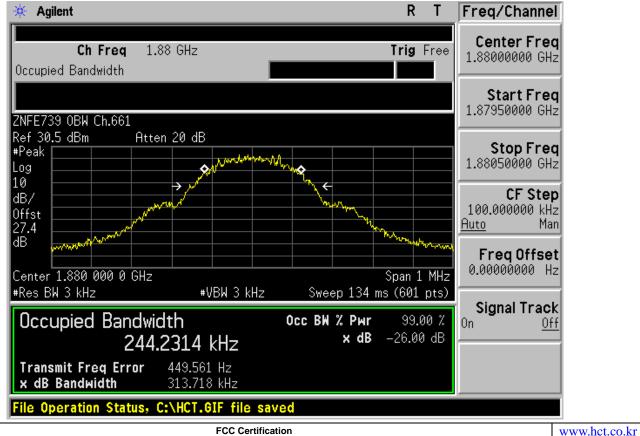
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
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#### GSM1900 MODE (512 CH.) Occupied Bandwidth



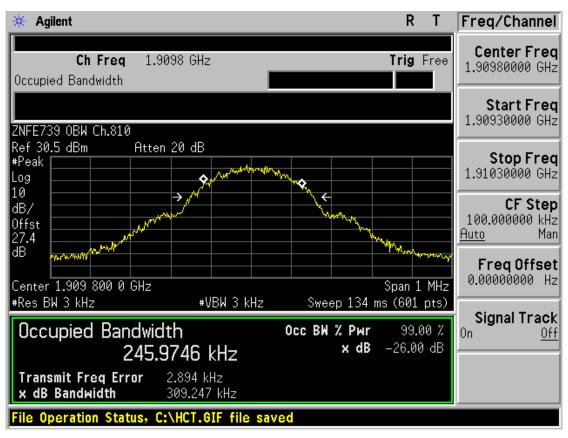
#### GSM1900 MODE (661 CH.) Occupied Bandwidth



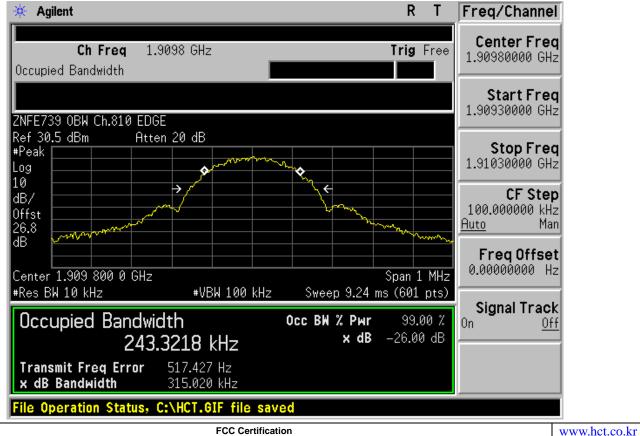
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
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#### GSM1900 MODE (810 CH.) Occupied Bandwidth



#### GSM1900 EDGE (810 CH.) Occupied Bandwidth



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🔆 Agilent			RT	Freq/Channel
ZNFE739 P.A.R Ch.661 Edge Ref 33 dBm Atten 2 #Avg	20 dB		kr1 0 Hz -0.18 dB	Center Freq 1.88000000 GHz
Log 10 dB/	1R		*	<b>Start Freq</b> 1.87750000 GHz
Offst 26.8 dB				<b>Stop Freq</b> 1.88250000 GHz
#LgAv				<b>CF Step</b> 500.000000 kHz <u>Auto</u> Man
V1 M2 S3 FC			Marcin Ann	FreqOffset 0.00000000 Hz
€(f): FTun Swp				Signal Track <sup>On <u>Off</u></sup>
Center 1.880 000 GHz #Res BW 1 MHz	#VBW 1 MHz	Sp Sweep 1 ms (	an 5 MHz 601 pts)	
File Operation Status, C:\	HCT.GIF file saved			

### ■ GSM1900 MODE (661 CH.) Peak-to-Average Ratio

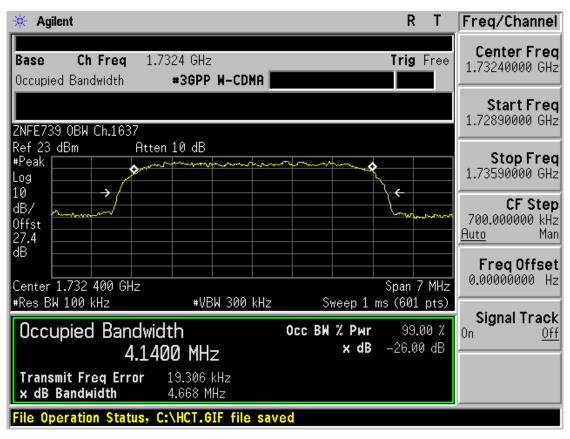
### ■ WCDMA1700 MODE (1312 CH.) Occupied Bandwidth

🔆 Agilent		RT	Freq/Channel
Base Ch Freq 1.7124 GHz Occupied Bandwidth #3GPP W-C	DMA	Trig Free	Center Freq 1.71240000 GHz
ZNFE739 0BW Ch.1537			<b>Start Freq</b> 1.70890000 GHz
Ref 23 dBm Atten 10 dB #Peak Log 10 ->/	mmmmm		<b>Stop Freq</b> 1.71590000 GHz
dB/  0ffst 27.4			<b>CF Step</b> 700.000000 kHz <u>Auto</u> Man
dB Center 1.712 400 GHz		Span 7 MHz	FreqOffset 0.00000000 Hz
*Res BW 100 kHz *VBW 30 Occupied Bandwidth 4.1386 MHz	Occ BW % Pwr	s (601 pts) 99.00 % –26.00 dB	Signal Track <sup>On <u>Off</u></sup>
Transmit Freq Error 16.611 kHz × dB Bandwidth 4.680 MHz			
File Operation Status, C:\HCT.GIF f	le saved		
FCC	Certification		33/33/2

	FCC Certification				
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#### ■ WCDMA1700 MODE (1412 CH.) Occupied Bandwidth



#### ■ WCDMA1700 MODE (1513 CH.) Occupied Bandwidth

🔆 Agilent	RT	Freq/Channel
Base Ch Freq 1.7526 GHz Occupied Bandwidth #3GPP W-CDMA	Trig Free	Center Freq 1.75260000 GHz
ZNFE739 0BW Ch.1738		<b>Start Freq</b> 1.74910000 GHz
Ref 23 dBm Atten 10 dB #Peak Log 10 →		<b>Stop Freq</b> 1.75610000 GHz
dB/		<b>CF Step</b> 700.000000 kHz <u>Auto</u> Man
dB Center 1.752 600 GHz	Span 7 MHz	Freq Offset 0.00000000 Hz
*Res BW 100 kHz *VBW 300 kHz Occupied Bandwidth 4.1405 MHz	Sweep 1 ms (601 pts) Occ BW % Pwr 99.00 % x dB -26.00 dB	<b>Signal Track</b> On <u>Off</u>
Transmit Freq Error -4.690 kHz × dB Bandwidth 4.669 MHz		
File Operation Status, C:\HCT.GIF file save	d	
ECC Certificatio	n	33/33/

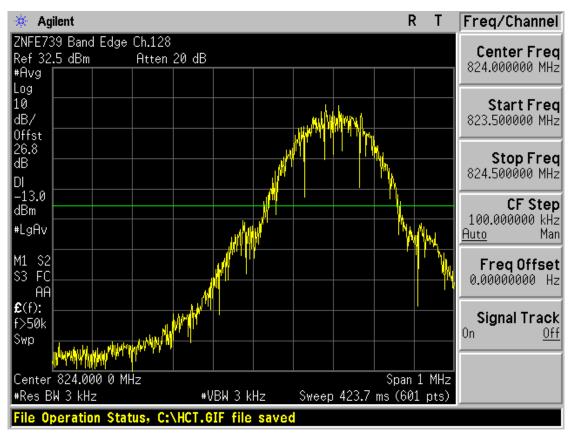
FCC Certification			
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🔆 Agilent			R	T Freq/Channel
ZNFE739 Band Edge	e Ch.128		Mkr1 823.993 4	MHz Conton From
Ref 32.5 dBm	Atten 20 dB		-19.63	dBm Center Freq 823.500000 MHz
#Avg				023.300000 MHZ
Log				
10				Start Freq
dB/				823.000000 MHz
Offst				
26.8				Stop Freq
dB				824.000000 MHz
DI				024.000000 1112
-13.0				CF Step
dBm				100.000000 kHz
#LgAv				Auto Man
				<u>,                                    </u>
M1 S2			l al	Freq Offset
\$3 FC			<mark>/1</mark>	0.00000000 Hz
AA				
£(f):			<b>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</b>	Cignal Treak
f>50k			A. HOLE AND	Signal Track
Swp		lad to bland	the shall be a second	0n <u>0ff</u>
ANT CALLAND AND	wordynygen Welter heitynen	Kan Managaran Managaran Ang		
Center 823.500 0 M	MHz		Span 1	MHz
#Res BW 3 kHz	#VBW 3	kHz S <u>wee</u> j	o 423.7 ms (601 j	ots)
File Aperation Sta	atus, C:\HCT.GIF fi	lo savod		
The operation sta	atusy cathoraotr fi	IC SAVEN		

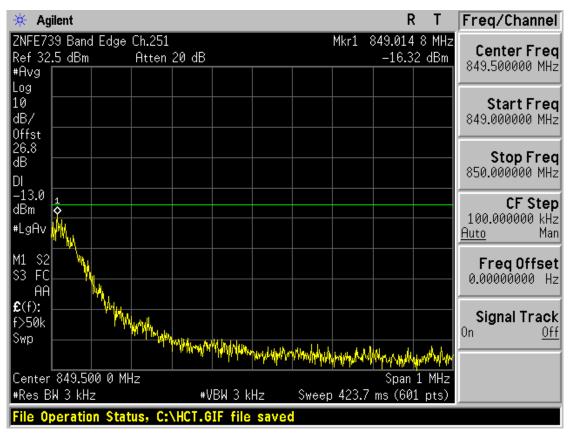
#### ■ GSM850 MODE (128 CH.) Block Edge 1

#### ■ GSM850 MODE (128 CH.) Block Edge 2



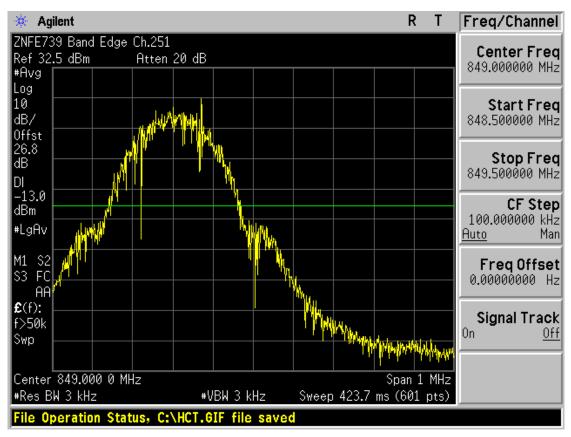
FCC Certification			
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1108FR01	August 1, 2011	850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	ZNFE739
		Page 34 of 52	





#### GSM850 MODE (251 CH.) Block Edge 1

#### ■ GSM850 MODE (251 CH.) Block Edge 2



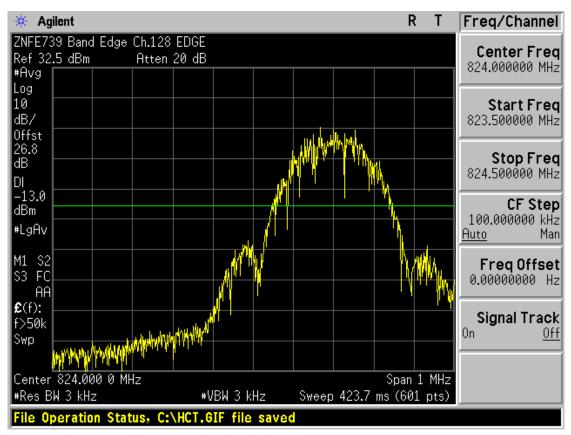
FCC Certification			
Test Report No. HCTR1108FR01	Date of Issue: August 1, 2011	EUT Type: 850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	FCC ID: ZNFE739
		Page 35 of 52	



🔆 Agilent			F	₹ T	Freq/Channel
ZNFE739 Band Edge			Mkr1 823.980		Center Freq
Ref 32 <mark>.5 dBm</mark>	Atten 20 dB		-25.5	54 dBm	823.500000 MHz
#Avg					020.000000 MHZ
Log					
10					Start Freq
dB/					823.000000 MHz
Offst 🛛 👘					
26.8					Stop Freq
dB					824.000000 MHz
DI					024.000000 1112
-13.0					CF Step
dBm 📃 📃					100.000000 kHz
#LgAv				1	Auto Man
				<u> </u>	<u>11000</u> 1101
M1 S2					Freq Offset
S3 FC					0.00000000 Hz
AA				$\mathcal{J}^{++}$	0.00000000 112
<b>£</b> (f):				V	
f>50k			ليدلل المرابي		Signal Track
Swp			a an internation		0n <u>Off</u>
	i i i i i i i i i i i i i i i i i i i	to the second by all all and the	MAL A MAN I A		
multimension	Abush shull be where have been been been been been been been be	WANTA AND	<u>  ' ' '</u>		
Center 823 <b>.</b> 500 0 M	1Hz			1 MHz	
#Res BW 3 kHz	#VBW 3	kHz Sweer	o 423.7 ms (60	1 pts)	
File Aneration Sta	tus, C:\HCT.GIF fi	lo savod			

#### ■ EDGE MODE (128 CH.) Block Edge 1

#### ■ EDGE MODE (128 CH.) Block Edge 2



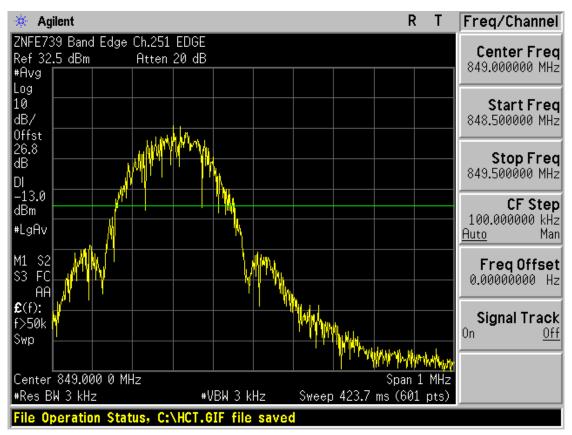
FCC Certification			
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1108FR01	August 1, 2011	850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	ZNFE739
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🔆 Agilent			RT	Freq/Channel
ZNFE739 Band Edge Ch.25		Mkr1	849.004 9 MHz	Center Freq
	1 20 dB		-26.49 dBm	849.500000 MHz
#Avg Log				
10				Start Freq
dB/				849.000000 MHz
Offst				
26.8				Stop Freq
dB				850.000000 MHz
-13.0 dBm				CF Step
				100.000000 kHz
#LgAv 1				<u>Auto</u> Man
M1 S2				Freq Offset
\$3 FC 1				0.00000000 Hz
AA 🚺				
£(f):				Cignal Track
f>50k 1000				Signal Track On Off
Swp Yr twy t	Mala and a			<u>on</u>
	" "What has shown when a	WINNIN JAMAS JAMAA	Alexandra March 1997 - Alexandra	
Center 849.500 0 MHz			Span 1 MHz	
#Res BW 3 kHz	⊭VBW 3 kHz	Sweep 423.7	′ms(601 pts)	
File Operation Status, C	:\HCT.GIF file sa	ved		

#### ■ EDGE MODE (251 CH.) Block Edge 1

#### ■ EDGE MODE (251 CH.) Block Edge 2



		FCC Certification	www.hct.co.kr
Test Report No. HCTR1108FR01	Date of Issue: August 1, 2011	EUT Type: 850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	FCC ID: ZNFE739
		Page 37 of 52	



🔆 Agilent			R	Freq/Channel
ZNFE739 Band Edge		Mk		Contor From
Ref 30.5 dBm	Atten 20 dB		-18.27 df	3m 1.84950000 GHz
#Avg				1.0 1000000 0112
Log 10				Start Freq
dB/				1.84900000 GHz
Öffst				1.04000000 0112
27.4				Chan Enge
dB 🛛 👘				Stop Freq 1.85000000 GHz
DI				1.00000000000
-13.0				夫 CF Step
dBm				🏡 100.000000 kHz
PAvg			الهي	Auto Man
M1 00				
M1 S2 S3 FC				Freq Offset
AA			الل ا	0.00000000 Hz
<b>£</b> (f):			WWWW	
f>50k			WWWM	Signal Track
Swp white the second se	MARCH MARCH AND	www.whithelinipten.frequency	<u> </u>	0n <u>0ff</u>
th states and a state	ANNUL			
Center 1.849 500 0	GHz		Span 1 M	47
#Res BW 3 kHz		3 kHz Sweep	423.7 ms (601 pt	
rile operation Stat	tus, C:\HCT.GIF	tile saved		

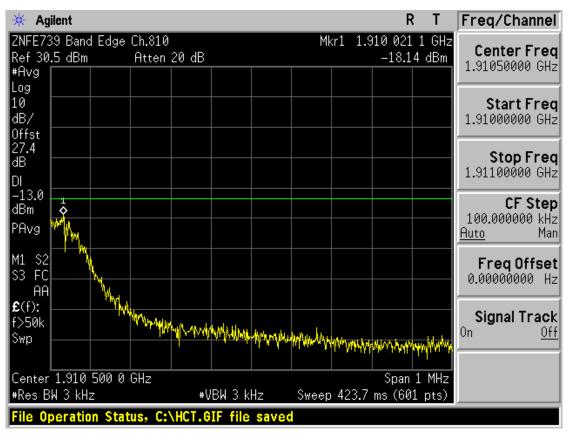
#### ■ GSM1900 MODE (512 CH.) Block Edge 1

### ■ GSM1900 MODE (512 CH.) Block Edge 2



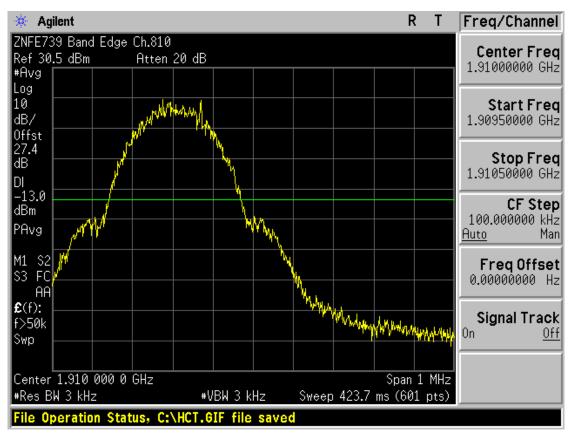
		FCC Certification	www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1108FR01	August 1, 2011	850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	ZNFE739
		Page 38 of 52	





#### GSM1900 MODE (810 CH.) Block Edge 1

### ■ GSM1900 MODE (810 CH.) Block Edge 2



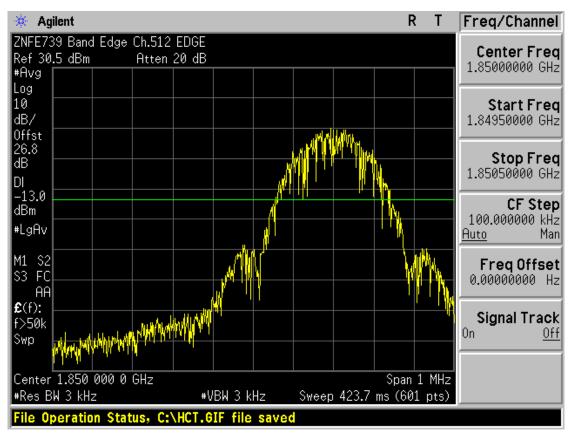
		FCC Certification	www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1108FR01	August 1, 2011	850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	ZNFE739
		Page 39 of 52	



🔆 Agilent				RT	Freq/Channel
ZNFE739 Band Edge	Ch.512 EDGE		Mkr1 1.849	978 6 GH	Contor From
Ref 30.5 dBm	Atten 20 dB		—	28.62 dBm	Center Fred 1.84950000 GHz
#Avg					1.04950000 GH2
Log					
10					Start Fred
dB/					1.84900000 GHz
Offst 🛛 👘					
26.8					Stop Fred
dB					1.85000000 GHz
DI 📃 🗌					1.00000000000
-13.0					CF Step
dBm 📃 📃					100.000000 kH;
#LgAv				1	Auto Mai
					<u>nato</u> na
M1 S2				Jal <sup>a</sup>	Freq Offse
53 FC				- In	0.00000000 H
AA				Lik <sup>n</sup>	0.00000000 11.
<b>£</b> (f):				<b>//</b>	
f>50k			her hick hat	N/HI	Signal Traci
Swp		understall			0n <u>Of</u>
Mund-Markana Mundar	mburnhampantation	AN AND AND AND AND AND AND AND AND AND A	Á., L – I	۱)	
Center 1.849 500 0	GHZ		<	pan 1 MHz	
#Res BW 3 kHz		I3 kHz Swee	۔ ep 423.7 ms		
			əp 420.7 ilis	(our his)	
File Operation Sta	tus, C:\HCT.GIF	file saved			

### ■ EDGE MODE (512 CH.) Block Edge 1

#### ■ EDGE MODE (512 CH.) Block Edge 2



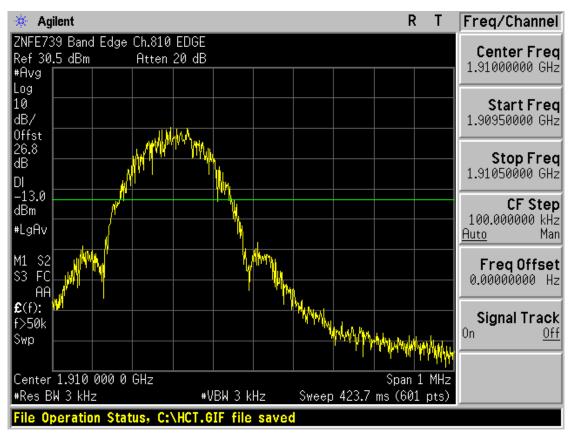
		FCC Certification	www.hct.co.kr
Test Report No. HCTR1108FR01	Date of Issue: August 1, 2011	EUT Type: 850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	FCC ID: ZNFE739
		Page 40 of 52	



🔆 Agilent		F	₹T.[	Freq/Channel
ZNFE739 Band Edge Ch.81 Ref 30.5 dBm Atter #Avg	0 EDGE n 20 dB	Mkr1 1.910 005 -28.6	55GHz 68dBm	Center Freq 1.91050000 GHz
Log 10 dB/ 0ffst				<b>Start Freq</b> 1.91000000 GHz
26.8 dB DI				<b>Stop Freq</b> 1.91100000 GHz
-13.0				<b>CF Step</b> 100.000000 kHz <u>Auto</u> Man
M1 S2 S3 FC AA				FreqOffset 0.00000000 Hz
£(f): f>50k Swp	M Jon the half a stand of a second			<b>Signal Track</b> On <u>Off</u>
Center 1.910 500 0 GHz #Res BW 3 kHz	#VBW 3 kHz	איייאייאיאאאאאאאאאאאאאאאאאאאאאאאאאאאא	1 MHz	
File Operation Status, C				

#### ■ EDGE MODE (810 CH.) Block Edge 1

#### ■ EDGE MODE (810 CH.) Block Edge 2



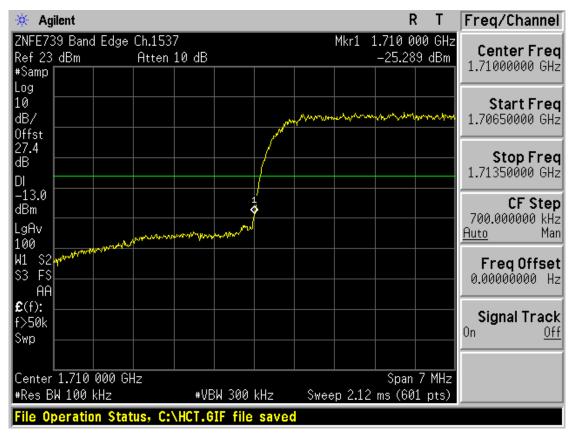
		FCC Certification	www.hct.co.kr
Test Report No. HCTR1108FR01	Date of Issue: August 1, 2011	EUT Type: 850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	FCC ID: ZNFE739
	August 1, 2011	Page 41 of 52	2111 2733



🔆 Agilent				RT	Freq/Channel
ZNFE739 Band Edg Ref 23 dBm #Samp	e Ch.1537 Atten 10 dB			10 000 GHz 25.289 dBm	Center Freq 1.71000000 GHz
Log 10 dB/ Offst			and the second	maket have a start	<b>Start Freq</b> 1.70650000 GHz
27.4 dB DI					<b>Stop Freq</b> 1.71350000 GHz
-13.0 dBm LgAv	North Contraction of the State	1 m			<b>CF Step</b> 700.000000 kHz <u>Auto</u> Man
100 W1 S2 S3 FS AA					FreqOffset 0.00000000 Hz
£(f): f>50k Swp					<b>Signal Track</b> On <u>Off</u>
Center 1.710 000   #Res BW 100 kHz		00 kHz 5	бweep 2.12 ms	Span 7 MHz s (601 pts)	
	atus, C:\HCT.GIF				

### ■ WCDMA1700 MODE (1312 CH.) Block Edge 1

### ■ WCDMA1700 MODE (1312 CH.) Block Edge 2



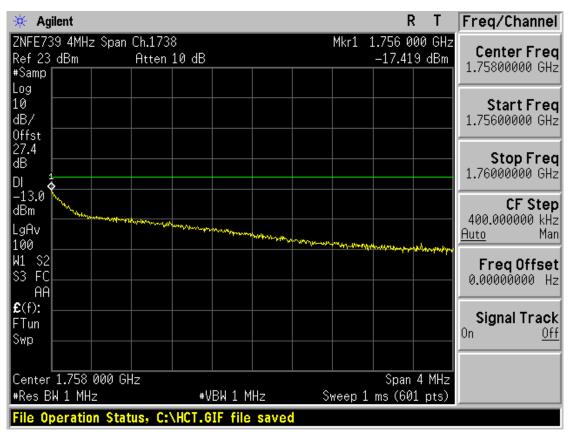
		FCC Certification	www.hct.co.kr
Test Report No. HCTR1108FR01	Date of Issue: August 1, 2011	EUT Type: 850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	FCC ID: ZNFE739
		Page 42 of 52	



🔆 Agilent					R	Т	Freq/Channel
ZNFE739 4MHz Sp				Mkr1	1.709 00		Center Freq
Ref 23 dBm #Samp	Atten 10	) dB			-17.74	9 dBm	1.70700000 GHz
Log							
10							Start Freq
dB/							1.70500000 GHz
Offst							
27.4 dB							Stop Freq
							1.70900000 GHz
-13.0						\$	
dBm				- annound the second	where we wanted	- Alashing	CF Step
LgAv		the many manufacture and	With and a start of a start				400.000000 kHz Auto Man
100 mapanament	wanter and the second second						
W1 S2							Freq Offset
\$3 FC							0.00000000 Hz
AA £(f):							
FTun							Signal Track
Swp							0n <u>Off</u>
Center 1.707 000					Spon	4 MHz	
#Res BW 1 MHz	012	#VBW 1 M	Ш <sub>7</sub>	Sween 1	opan ms (601		
					- m5 (001	- pt3/	
File Operation S	tatus, C:\F	CI.GIF file	saved				

#### ■ WCDMA1700 MODE (1513 CH.) – 4 MHz Span 1

#### ■ WCDMA1700 MODE (1513 CH.) – 4 MHz Span 2



FCC Certification					
Test Report No.	Date of Issue:	EUT Type:	FCC ID:		
HCTR1108FR01	August 1, 2011	850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	ZNFE739		
		Page 43 of 52			



🔆 Agilent						R	T	Freq/Channel
ZNFE739 Cond Spu		=			Mki		48 GHz	Center Freq
Ref 32.5 dBm #Peak	Atten 20	1 dB				-32.4	2 dBm	1.26500000 GHz
Log								
10								Start Freq
dB/								30.0000000 MHz
Offst								
26.8 dB								Stop Freq
DI								2.50000000 GHz
-13.0								
dBm								CF Step 247.000000 MHz
#LgAv								Auto Man
				— <u>1</u> —				11000
V1 S2				\$		Lacin	an der	Freq Offset
S3 FC	all and the second of	www.when	transportent and	Window	****	and the second secon	n en de seu prope	0.00000000 Hz
£(f):								
FTun								Signal Track
Swp								On <u>Off</u>
Center 1.265 GHz					<u>م</u>	non 27	17 GHz	
#Res BW 1 MHz		₩VBW 1	MHZ	Swee	p 4.12	•		
	atus Call				p-1.12	mo (00	- pco/	
File Operation St	atus, C:\A	CT.GIF TH	e saved					

# ■ GSM850 MODE (128 CH.) Conducted Spurious Emissions1

# ■ GSM850 MODE (128 CH.) Conducted Spurious Emissions2

🔆 Agilent				RT	Freq/Channel
ZNFE739 Cond Spur (			Mkr1		Center Freq
Ref 32.5 dBm #Peak	Atten 20 dB			-30.68 dBm	6.25000000 GHz
Log					
10					Start Freq
dB/ Offst					2.50000000 GHz
26.8					
dB					Stop Freq 10.0000000 GHz
					10.0000000 0H2
-13.0 dBm					CF Step
#LgAv					750.000000 MHz
			1		<u>Auto</u> Man
V1 S2		- hash was he was	All marine to the Comment	wenter produces on the sec	Freq Offset
S3 FC	************************	1999 Marian Maria and			0.00000000 Hz
<b>£</b> (f):					
FTun					Signal Track
Swp					On <u>Off</u>
Center 6.250 0 GHz				Span 7.5 GHz	
#Res BW 1 MHz	#V	BW 1 MHz	Sweep 12.52	ms (601 pts)	
File Operation State	us, C:\HCT.G	IF file saved			

	FCC Certification					
Test Report No. HCTR1108FR01	Date of Issue: August 1, 2011	EUT Type: 850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	FCC ID: ZNFE739			
		Page 44 of 52				



🔆 Agilent				R	Т	Freq/Channel
ZNFE739 Cond Spu				Mkr1 1.67		Center Freq
Ref 32.5 dBm #Peak	Atten 20 d	3		-32.43	dBm	1.26500000 GHz
Log						
10						Start Freq
dB/						30.0000000 MHz
Offst						
26.8 dB	<mark> </mark>		<u> </u>			Stop Freq
						2.50000000 GHz
-13.0						
dBm						CF Step
#LgAv						247.000000 MHz Auto Man
			1			
V1 S2						Freq Offset
	nonesserver the construction of the server	alongst alone white alongst	Madage and Made and a strategy	-torner and the second second second	******	0.00000000 Hz
AA £(f):						
FTun						Signal Track
Swp						0n <u>Off</u>
Center 1.265 GHz				Span 2.47	' GU-7	
#Res BW 1 MHz		ŧVBW 1 MHz	Sween 41	- 3pan 2.47 .2 ms (601		
					pc3/	
File Operation St	iatus, C:\HUI	our the save	a			

# ■ GSM850 MODE (190 CH.) Conducted Spurious Emissions1

# ■ GSM850 MODE (190 CH.) Conducted Spurious Emissions2

🔆 Agilent				RT	Freq/Channel
ZNFE739 Cond Spur			Mkr1		Contor Lroa
Ref 32.5 dBm #Peak	Atten 20 dB			-30.36 dBm	6.25000000 GHz
Log					
10 dB/					Start Freq 2.50000000 GHz
Offst					2.30000000 0112
26.8 dB					Stop Freq
DI					10.0000000 GHz
-13.0					CF Step
dBm					750.000000 MHz
#LgAv			L		<u>Auto</u> Man
V1 S2 S3 FC	and the states and	- And Anna Marine	and the second	nummennenduranyan	FreqOffset 0.00000000 Hz
AA £(f):					
FTun					Signal Track
Swp					On <u>Off</u>
Center 6.250 0 GHz				Span 7.5 GHz	
#Res BW 1 MHz		3W 1 MHz	Sweep 12.52	ms (601 pts)	
File Operation Stat	us, C:\HCT.GI	F file saved			

FCC Certification					
Test Report No. HCTR1108FR01	Date of Issue: August 1, 2011	EUT Type: 850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	FCC ID: ZNFE739		
		Page 45 of 52			



🔆 Agilent				F	? Т	Freq/Channel
ZNFE739 Cond Spur				Mkr1 1.6		Center Freq
Ref 32.5 dBm #Peak	Atten 20 dB			-30.5	4 dBm	1.26500000 GHz
Log						
10						Start Freq
dB/						30.0000000 MHz
Offst 26.8						
dB						Stop Freq
DI						2.50000000 GHz
-13.0						CF Step
dBm						247.000000 MHz
#LgAv			1			<u>Auto</u> Man
V1 S2			Ŷ			Freq Offset
S3 FC	man and a second and and and and and and and and and a	howard many ships	www.unhormor	and the second second	www.	0.00000000 Hz
AA						
<b>£</b> (f):						Signal Track
FTun Swp						On Off
Jwb						
Center 1.265 GHz #Res BW 1 MHz		BW 1 MHz	Sucon	.Span 2 4.12 ms (60		
				4.12 IIIS (00	1 pts)	
File Operation Stat	us, C:\HCT.G	IF file saved				

# ■ GSM850 MODE (251 CH.) Conducted Spurious Emissions1

# ■ GSM850 MODE (251 CH.) Conducted Spurious Emissions2

🔆 Agilent				RT	Freq/Channel
ZNFE739 Cond Spur Ref 32.5 dBm	Ch.251 Atten 20 dB		Mkr1	7.012 5 GHz -29.88 dBm	Center Freq
#Peak Log					6.25000000 GHz
10 dB/ Offst					Start Freq 2.50000000 GHz
26.8 dB DI					<b>Stop Freq</b> 10.0000000 GHz
-13.0 dBm #LgAv					<b>CF Step</b> 750.000000 MHz <u>Auto</u> Man
V1 S2 S3 FC	handerlander hann man	warmily provide	naddthe stander for stander of	e-terrenteel Annotation (1)	Freq Offset 0.00000000 Hz
£(f): FTun Swp					<b>Signal Track</b> On <u>Off</u>
Center 6.250 0 GHz				Span 7.5 GHz	
#Res BW 1 MHz	#VE	W 1 MHz	Sweep 12.52		
File Operation Stat	us, C:\HCT.GI	F file saved			

	FCC Certification					
Test Report No. HCTR1108FR01	Date of Issue: August 1, 2011	EUT Type: 850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	FCC ID: ZNFE739			
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🔆 Agilent				R	Т	Freq/Channel
ZNFE739 Cond Spur			Mkr	1 3.371		Center Freq
Ref 30.5 dBm #Peak	Atten 20 dB			-30.66	dBm	2.01500000 GHz
Log						
10 dB/						Start Freq 30.0000000 MHz
Offst 27.4						
dB DI						Stop Freq 4.00000000 GHz
-13.0						CF Step
dBm						397.000000 MHz
LgAv				1		<u>Auto</u> Man
V1 S2 S3 FC AA	ารคาปพระเทศการสาราชุราชุราชุราชุราชุราชุราชุราชุราชุราช	ment and a second s	manshere and the	whome and the	dvin my	FreqOffset 0.00000000 Hz
£(f):						
FTun						Signal Track On Off
Swp						
Center 2.015 GHz				an 3.97		
#Res BW 1 MHz	#V	BW 1 MHz	Sweep 6.64 n	ns (601 p	pts)	
Copyright 2000-2	2007 Agilent T	echnologies				

# ■ GSM1900 MODE (512 CH.) Conducted Spurious Emissions1

# ■ GSM1900 MODE (512 CH.) Conducted Spurious Emissions2

dB       DI       -13.0       CF Step         dBm       1       1       CF Step         LgAv       1       1       CF Step         V1 S2       1       1       1         AA       1       1       1         £(f):       FTun       1       1       1         Swp       Center 12.000 GHz       *VBW 1 MHz       Sweep 40 ms (601 pts)       Signal Track	🔆 Agilent			F	₹ T	Freq/Channel
Net 20.5 dbin       Fitten 20 db       -20.07 dbin       12.0000000 GHz         Log       10       12.0000000 GHz       12.0000000 GHz         10       10       10       10       12.0000000 GHz         10       10       10       10       12.0000000 GHz         10       10       10       10       12.0000000 GHz         0ffst       10       10       10       10         0ffst       10       10       10       10         0       10       10       10       10         0       10       10       10       10       10         0       10       10       10       10       10       10         10       10       10       10       10       10       10         11       10       10       10       10       10       10       10         11       10						Contor From
Treak       Start Freq         10		Atten 20 dB		-26.6	7 dBm	
10       dB/       dB						12.000000000000
dB/       4.00000000 GHz         Offst       27.4         dB       27.4         dB       20.0000000 GHz         DI       20.0000000 GHz         -13.0       CF Step         dBm       20.0000000 GHz         LgAv       1         V1 S2       Freq Offset         AA       A.00000000 GHz         Stop Freq       20.0000000 GHz         Ge(f):       Freq Offset         Swp       Signal Track         Center 12.000 GHz       #VBW 1 MHz       Sweep 40 ms (601 pts)						Start Fred
Offst         Stop Freq           27.4         dB         dB           DI         -13.0         dB           -13.0         dB         dB           JgAv         t         t           V1 S2         t         t           AA         t         t           AA         t         t           AA         t         t           Stop Freq         20.0000000 GHz           LgAv         t         t           V1 S2         t         t           AA         t         t           AA         t         t           Stop Freq         20.0000000 GHz           HA         t         t           Center 12.000 GHz         t         t           #Res BW 1 MHz         t         Sweep 40 ms (601 pts)						
27.4 dB DI −13.0 dBm       Stop Freq 20.0000000 GHz         13.0 dBm       1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						4.000000000000
DI	27.4					Stop Eron
UI       -13.0       CF Step         LgAv       1       1         V1 S2       1       1         AA       1       1         £(f):       1       1         FTun       1       1       1         Swp       1       1       1       1         Center 12.000 GHz       #VBW 1 MHz       Sweep 40 ms (601 pts)       Sweep 40 ms (601 pts)						
dBm         LgAv         top         top         top         1.6000000 GHz           V1 S2         Man         Man         Freq Offset         0.0000000 Hz           S3 FC         AA         AA         AA         Freq Offset           £(f):         Swp         Signal Track         On         Off           Center 12.000 GHz         #VBW 1 MHz         Sweep 40 ms (601 pts)         Sweep 40 ms (601 pts)         Sweep 40 ms (601 pts)						20.0000000 0112
LgAv       1.6000000 GHz         LgAv       1.6000000 GHz         V1 S2       1.6000000 GHz         AA       1.6000000 GHz         E(f):       FTun         Swp       1.6000000 GHz         Center 12.000 GHz       WBW 1 MHz         #Res BW 1 MHz       #VBW 1 MHz						CF Step
Light       Image: Constraint of the second se			4			
V1         S2         Freq Offset           S3         FC         AA	LgHV					<u>Auto</u> Man
S3 FC       AA       0.00000000 Hz         AA       Signal Track         £(f):       Signal Track         Swp       Signal Track         Center 12.000 GHz       Span 16 GHz         #Res BW 1 MHz       #VBW 1 MHz       Sweep 40 ms (601 pts)	U1 \$2	manyah Manya mangana ma	hand hand	www.white	and the second	<b>E</b>
AA         E.000000000000000000000000000000000000	A T C MALANNA MARKANA					
£(f):       Signal Track         Swp       Signal Track         Center 12.000 GHz       Span 16 GHz         #Res BW 1 MHz       #VBW 1 MHz         Sweep 40 ms (601 pts)						0.00000000 HZ
Swp     On     Off       Swp     Span 16 GHz     Span 16 GHz       #Res BW 1 MHz     #VBW 1 MHz     Sweep 40 ms (601 pts)	<b>£</b> (f):					
Center 12.000 GHz Span 16 GHz #Res BW 1 MHz #VBW 1 MHz Sweep 40 ms (601 pts)	FTun					
#Res BW 1 MHz	Swp					Un <u>Uff</u>
#Res BW 1 MHz						
#Res BW 1 MHz	Center 12.000 GHz			Snan í	l6 GHz	
		#VBW 1	MHz Sw			

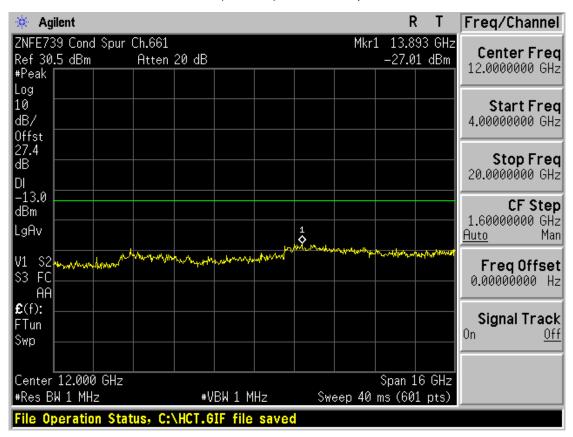
	FCC Certification				
Test Report No.	Date of Issue:	EUT Type:	FCC ID:		
HCTR1108FR01	August 1, 2011	850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	ZNFE739		
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ZNFE739 Cond Spur Ch.661			Freq/Channel
		Mkr1 3.113 GHz	Center Freq
Ref 30.5 dBm Atten 2 #Peak		-31.47 dBm	2.01500000 GHz
Log			
10 dB/			Start Freq 30.0000000 MHz
0ffst 27.4			
dB DI			Stop Freq 4.00000000 GHz
-13.0			CF Step
dBm LgAv			397.000000 MHz Auto Man
V1 S2 S3 FC AA	mandana	water and a state of the state	FreqOffset 0.00000000 Hz
<b>£</b> (f):			
FTun			Signal Track On Off
Swp			
Center 2.015 GHz		Span 3.97 GHz	
#Res BW 1 MHz	#VBW 1 MHz S	weep 6.64 ms (601 pts)	
File Operation Status, C:\			,

### ■ GSM1900 MODE (661 CH.) Conducted Spurious Emissions1

#### ■ GSM1900 MODE (661 CH.) Conducted Spurious Emissions2



	FCC Certification				
Test Report No.	Date of Issue:	EUT Type:	FCC ID:		
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🔆 Agilent		RT	Freq/Channel
ZNFE739 Cond Spur Ch.		Mkr1 3.285 GH:	Contor Lrog
Ref 30.5 dBm At #Peak	ten 20 dB	-31.36 dBm	2.01500000 GHz
Log			
10			Start Freq
dB/			30.0000000 MHz
Offst			
27.4			Stop Freq
dB			4.00000000 GHz
DI -13.0			
dBm			CF Step
LgAv			_397.000000 MHz
29/10		1	<u>Auto</u> Man
V1 S2		ng prompto and the month and the second	Freq Offset
S3 FC	uphahana any kadapanan'ny kadarana an		0.00000000 Hz
AA			
<b>£</b> (f):			Signal Track
FTun			On Off
Swp			
Center 2.015 GHz		Span 3.97 GHz	
#Res BW 1 MHz	₩VBW 1 MHz	Sweep 6.64 ms (601 pts)	
File Operation Status	C:\HCT.GIF file saved		

# ■ GSM1900 MODE (810 CH.) Conducted Spurious Emissions1

# ■ GSM1900 MODE (810 CH.) Conducted Spurious Emissions2

🔆 Agilent				RT	Freq/Channel
ZNFE739 Cond Spur Ref 30.5 dBm	Ch.810 Atten 20 dB			4.800 GHz 7.20 dBm	Center Freq
#Peak Log					12.0000000 GHz
10 dB/ 0ffst					<b>Start Freq</b> 4.00000000 GHz
27.4 dB DI					<b>Stop Freq</b> 20.0000000 GHz
-13.0 dBm LgAv			1		<b>CF Step</b> 1.60000000 GHz <u>Auto</u> Man
V1 S2 S3 FC AA	hand and a stand	Haydram	allanana ang gului	and for the second s	Freq Offset 0.00000000 Hz
€(f): FTun Swp					<b>Signal Track</b> On <u>Off</u>
Center 12.000 GHz			Sna	n 16 GHz	
#Res BW 1 MHz	#VBW 1	MHz	Sweep 40 ms (		
File Operation Stat	us, C:\HCT.GIF fi	le saved			

	FCC Certification		
Test Report No. HCTR1108FR01	Date of Issue: August 1, 2011	EUT Type: 850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	FCC ID: ZNFE739
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🔆 Agilent			RT	Freq/Channel
ZNFE739 Cond Spur Ref 23 dBm #Peak	Ch.1537 Atten 10 dB	Mkr	1 2.327 GHz -41.71 dBm	Center Freq 1.26500000 GHz
Log 10 dB/ 0ffst				Start Freq 30.0000000 MHz
27.4 dB DI				<b>Stop Freq</b> 2.50000000 GHz
-13.0 dBm LgAv				<b>CF Step</b> 247.000000 MHz <u>Auto</u> Man
V1 S2 S3 FC AA	Materia and a state of the stat	-	apart a the same short a strack	FreqOffset 0.00000000 Hz
£(f): FTun Swp				<b>Signal Track</b> On <u>Off</u>
Center 1.265 GHz #Res BW 1 MHz	#VBW 1 M		oan 2.47 GHz ms (601 pts)	
File Operation Sta	tus, C:\HCT.GIF file	saved		

# ■ WCDMA1700 MODE (1312 CH.) Conducted Spurious Emissions1

# ■ WCDMA1700 MODE (1312 CH.) Conducted Spurious Emissions2

🔆 Agilent				R	Т	Freq/Channel
ZNFE739 Cond Spur	Ch.1537		Mk	r1 7.400	0 GHz	<b>C</b>
Ref 23 dBm	Atten 10 dB			-38.2	8 dBm	Center Freq
#Peak						6.25000000 GHz
Log						
10						Start Freq
dB/						2.50000000 GHz
Offst 🛛 👘						
27.4						Stop Frog
dB						Stop Freq 10.0000000 GHz
DI						10.0000000 GHZ
-13.0						CE Chan
dBm						CF Step
LgAv						750.000000 MHz
			1			<u>Auto</u> Man
V1 S2		MAN	Mulan mary	manner		
S3 FC		watter and a strange of the second		- · · · · · · · · · · · · · · · · · · ·	···· <b>·</b> ·······························	Freq Offset
ÂÂ						0.00000000 Hz
<b>£</b> (f):						
FTun						Signal Track
						On Off
Swp						<u></u>
Center 6.250 0 GHz				Span 7	5 GHz	
#Res BW 1 MHz	#\//	3W 1 MHz	Sweep 12.5			
					r ptoy	
File Operation Stat	us, C:\HCT.G	IF file saved				

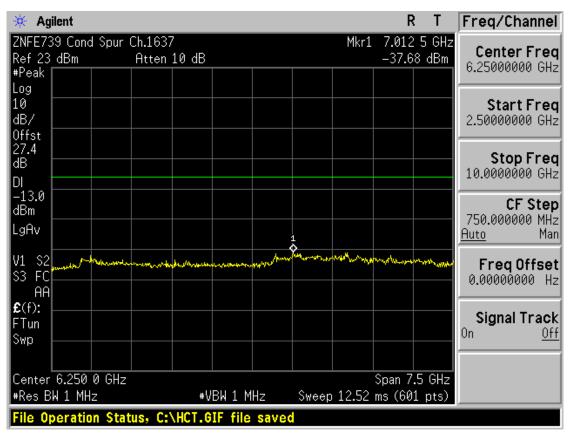
		FCC Certification	www.hct.co.kr
Test Report No. HCTR1108FR01	Date of Issue: August 1, 2011	EUT Type: 850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	FCC ID: ZNFE739
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🔆 Agilent				₹Т	Freq/Channel
ZNFE739 Cond Spur Ref 23 dBm #Peak	Ch.1637 Atten 10 dB		Mkr1 2.2 -42.0	274 GHz 09 dBm	Center Freq 1.26500000 GHz
Log 10 dB/ Offst					Start Freq 30.0000000 MHz
27.4 dB DI –13.0					<b>Stop Freq</b> 2.50000000 GHz
dBm LgAv					<b>CF Step</b> 247.000000 MHz <u>Auto</u> Man
V1 S2 S3 FC AA	allan-habbertans-sub-sub-short-as	and a star star star source and a star		1 \$	FreqOffset 0.00000000 Hz
€(f): FTun Swp					<b>Signal Track</b> <sup>On <u>Off</u></sup>
Center 1.265 GHz #Res BW 1 MHz	#VBW 1	MHz Swe	Span 2. ep 4.12 ms (60		
File Operation Stat	us, C:\HCT.GIF fi	le saved			

### ■ WCDMA1700 MODE (1412 CH.) Conducted Spurious Emissions1

### ■ WCDMA1700 MODE (1412 CH.) Conducted Spurious Emissions2



	FCC Certification			
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	
HCTR1108FR01	August 1, 2011	850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	ZNFE739	
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🔆 Agilent			R	Т	Freq/Channel
ZNFE739 Cond Spur Ref 23 dBm #Peak	Ch.1738 Atten 10 dB		Mkr1 2.228 -41.49		Center Freq 1.26500000 GHz
Log 10 dB/ Offst					Start Freq 30.0000000 MHz
27.4 dB DI					<b>Stop Freq</b> 2.50000000 GHz
-13.0 dBm LgAv					<b>CF Step</b> 247.000000 MHz <u>Auto</u> Man
V1 S2 S3 FC AA	alarmating tender for her many and the source	monort	1 	nathann .	FreqOffset 0.00000000 Hz
€(f): FTun Swp					<b>Signal Track</b> On <u>Off</u>
Center 1.265 GHz #Res BW 1 MHz	#VBW 1 M	MHz Sweer	Span 2.47 4.12 ms (601		
File Operation Stat	tus, C:\HCT.GIF file	e saved			

# ■ WCDMA1700 MODE (1513 CH.) Conducted Spurious Emissions1

# ■ WCDMA1700 MODE (1513 CH.) Conducted Spurious Emissions2

🔆 Agilent				R	Т	Freq/Channel	
ZNFE739 Cond Spur			Mkr1	7.775		Center Freq	
Ref 23 dBm	Atten 10 dB			-37.35	dBm	6.25000000 GHz	
#Peak Log							
10						Start Freq	
dB/						2.50000000 GHz	
Offst							
27.4 dB						Stop Freq	
						10.0000000 GHz	
DI -13.0							
dBm						CF Step	
LgAv						750.000000 MHz Auto Man	
						<u>Auto</u> Man	
V1 S2 monthermore		www.werenawa	when a fact has a second	montechers	Augender	Freq Offset	
\$3 FC						0.00000000 Hz	
AA A (D)							
£(f):						Signal Track	
Swp						On <u>Off</u>	
410							
				~ 75			
Center 6.250 0 GHz				Span 7.5			
#Res BW 1 MHz		BW 1 MHz	Sweep 12.52	ms (601	pts)		
File Operation Status, C:\HCT.GIF file saved							

FCC Certification				
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	
HCTR1108FR01	August 1, 2011	850/1900 GSM/GPRS/EDGE and AWS WCDM/HSPA Phone with BT and WLAN	ZNFE739	
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