

TEST REPORT

REPORT NUMBER: 107CA6946-FCC-PART22-a

ON

Type of Equipment: CDMA Coin Payphone

Type of Designation: FW-C2080

Manufacturer: Function ATI (Huizhou) Telecommunications

Co., Ltd.

ACCORDING TO

FCC CFR Part 2, FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS; e-CFR, March 23, 2006
PART 22, PUBLIC MOBILE SERVICES (Oct 1, 02 Edition)

China Telecommunication Technology Labs.

Month date, year Oct, 7, 2008

Signature

He Guili Director



FCC Parts 2, 22
Equipment: FW-C2080 REPORT NO.: 107CA6946-FCC-PART22-a

FCC ID: VXOFW-C2080

Report Date: 2008-10-07

Test Firm Name: China Telecommunication Technology Labs

Registration Number: 840587

Statement

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported tests were carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47 Parts 2, and 22. The sample tested was found to comply with the requirements defined in the applied rules.



REPORT NO.: 107CA6946-FCC-PART22-a

CONTENTS

1 GENERAL INFORMATION	4
1.1 Notes	
1.3 Testing Laboratory information	
1.4 DETAILS OF APPLICANT OR MANUFACTURER	
2 TEST ITEM	8
2.1 GENERAL INFORMATION	8
2.2 OUTLINE OF EUT	8
2.3 Modifications Incorporated in EUT	8
2.4 EQUIPMENT CONFIGURATION	
2.5 OTHER INFORMATION	8
3 SUMMARY OF TEST RESULTS	
4 TEST RESULTS	10
4.1 RADIATED SPURIOUS EMISSION	10
4.2 RADIATED CONDUCTED RF POWER OUTPUT	14
4.3 OCCUPIED BANDWIDTH (CONDUCTED)	17
4.4 FREQUENCY STABILITY OVER TEMPERATURE VARIATION	20
4.5 FREQUENCY STABILITY OVER VOLTAGE VARIATION	22
4.6 CONDUCTED RF POWER OUTPUT	23
4.7 CONDUCTED SPURIOUS EMISSION	25
4.8 Emission bandwidth and Band-edge (conducted)	30
ANNEX A DEVIATIONS FROM PRESCRIBED TEST METHODS	35



REPORT NO.: 107CA6946-FCC-PART22-a

1 General Information

1.1 Notes

All reported tests were carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47 Parts 2 and 22.

The test results of this test report relate exclusively to the item(s) tested as specified in section 2.

The following deviation from, additions to, or exclusions from the test specifications have been made. See Annex A.

China Telecommunication Technology Labs.(CTTL) authorizes the applicant or manufacturer (see section 1.4) to reproduce this report provided, and the test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of CTTL Mr. He Guili.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. CTTL accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.



Equipment: FW-C2080 REPORT NO.: 107CA6946-FCC-PART22-a

1.2 Testers

Name: Yuan Yuan

Position: Engineer

Department: Department of EMC test

Duration of the test: 2008-10-06

Signature:

Name: Li Guoqing

Position: Engineer

Department: Department of EMC test

Duration of the test: 2008-10-07

Signature:

Editor of this test report:

Name: Li Guoqing

Position: Engineer

Department: Department of EMC test

Date: 2008-10-07

Signature:

Technical responsibility for area of testing:

Name: Zou Dongyi

Position: Manager

Department: Department of EMC test

Date: 2008-10-07

Signature:



Equipment: FW-C2080 REPORT NO.: 107CA6946-FCC-PART22-a

1.3 Testing Laboratory information

1	١.	3	 1	Lo)(ca	ti	0	n	

Name: China Telecommunication Technology Labs.

Address: No. 11, Yue Tan Nan Jie, Xi Cheng District

BEIJING

P. R. CHINA, 100083

Tel: +86 10 68094053

Fax: +86 10 68011404

Email: emc@chinattl.com

1.3.2 Details of accreditation status

Accredited by: China National Accreditation Service for Conformity

Assessment (CNAS)

Registration number: CNAS Registration No. CNAS L0570

Standard: ISO/IEC 17025: 2005

1.3.3 Test location, where different from section 1.3.1

Name: -----

Street: -----

City: -----

Country: -----

Telephone: -----

Fax:

Postcode: -----



1.4.1 Applicant

Equipment: FW-C2080 REPORT NO.: 107CA6946-FCC-PART22-a

1.4 Details of applicant or manufacturer

Name:	Function ATI (Huizhou) Telecommunications	Co.,	Ltd

Address: No.8, Huitai Road, Huitai Industrial Zone, Huizhou

City, Guangdong Province, P. R. C.

Country: P. R. C

Telephone: 86-752-5839133-609

Fax: 86-752-2601958

Contact: Teddy Li

Telephone: 86-752-5839133-609

Email: teddy@functiongroup.com.cn

1.4.2 Manufacturer (if different from applicant in section 1.4.1)

Name: --

Address: --

City: --

Country: --

1.4.3 Manufactory (if different from applicant in section 1.4.1)

Name: --

Address: --

City: --

Country: --



REPORT NO.: 107CA6946-FCC-PART22-a

2 Test Item

2.1 General Information

Manufacturer: Function ATI (Huizhou) Telecommunications Co., Ltd.

Name: CDMA Coin Payphone

Model Number: FW-C2080

Serial Number:

Production Status: Production

Receipt date of test item: 2007-11-9

2.2 Outline of EUT

EUT is a CDMA Coin Payphone, and its operating band range is 824~849MHz.

2.3 Modifications Incorporated in EUT

The EUT has not been modified from what is described by the brand name and unique type identification stated above.

2.4 Equipment Configuration

Equipment configuration list:

Item	Generic Description	Manufacturer	Туре	Serial No.	Remarks
A	CDMA Coin Payphone	Function ATI (Huizhou) Telecommunications Co., Ltd.	FW-C2080		None
В	Adaptor	Dongguan yingju Technology co.,ltd.	BI13-120100-E		None

Cables:

Item	Cable Type	Manufacturer	Length	Shield	Quantity	Remarks
1	AC line	Unknown	1.8 m	No	1	None

2.5 Other Information

Emission Designator: 1M23F9W



REPORT NO.: 107CA6946-FCC-PART22-a

3 Summary of Test Results

A brief summary of the tests carried out is shown as following.

Specification Clause	Name of Test	Result		
2.1051,22.917	Radiated Spurious Emission	Pass		
22.913(a)	Radiated Conducted RF Power Output	Pass		
2.1049,22.917(b)	Occupied Bandwidth	*Note 1		
2.1055,22.355	Frequency Stability over Temperature Variation	Pass		
0.1055.00.055				
2.1055,22.355	Frequency Stability over Voltage Variation	Pass		
2.1046,22.913(a)	Conducted RF Power Output	Pass		
2.1051,22.917	Conducted spurious emissions	Pass		
22.917	Emission bandwidth and Band-edge conducted	Pass		
Note 1: No applicable	Note 1: No applicable performance criteria.			



REPORT NO.: 107CA6946-FCC-PART22-a

4 Test Results

4.1 Radiated Spurious Emission

Specifi	cations:	2.1051, 22.917						
Date o	f Tests	2008-10-0	2008-10-07					
Test co	onditions:	Ambient Te	mperature: 15°C	C-35℃				
		Relative Hu	ımidity: 30%-60	%				
		Air pressur	e: 86-106kPa					
Operat	ion Mode	TX on, cha	nnel 384		X			
Test Re	esults:	Pass			0	\		
Test ed	quipment Used	d:				7		
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State		
7805	EMI Test Receiver	R/S	ESI26	100211	2009-01-04	Normal		
7330	Ultra Broadband Antenna	R/S	HL562	100013	2009-07-24	Normal		
7330	Double-Ridged Horn Antenna	R/S	HF906	100037	2009-01-14	Normal		
713	Fully-Anechoic Chamber	ETS	11.8m×6.5m×6.3 m		2010-11-17	Normal		
	Wireless							

Limit Level Construction:

Test Set

According to Part 22.917 (a), i.e., Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB, so the limit level is: P(dBm) - (43 + 10 log(P)) dB = -13dBm

Limits for Radiated spurious emissions(UE)		
Frequency range	Limit Level /Resolution Bandwidth	
30 MHz to 20000 MHz	-13dBm/1MHz	

Test Setup:

The EUT was placed in an anechoic chamber, see figure SP. The Wireless Communications Test Set was used to set the TX channel and power level and modulate the TX signal with different bit patterns.



REPORT NO.: 107CA6946-FCC-PART22-a

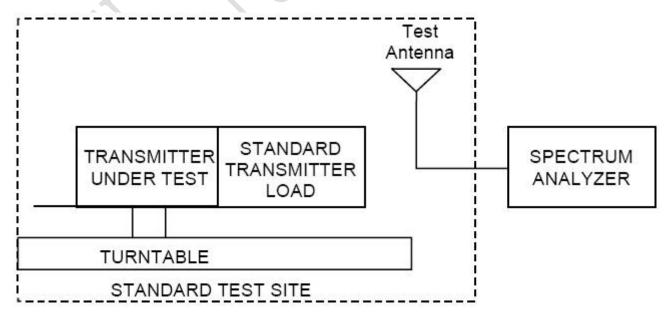


Figure SP

Test Method:

The measurement method is substitution method accordance with section 2.2.12 of ANSI/TIA-603-B-2002: Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.

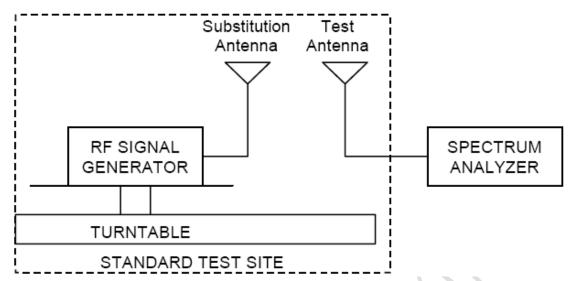
(a) Connect the equipment as illustrated and measure the spurious emissions as the method as above.



(b) Reconnect the equipment as illustrated.



FCC Parts 2, 22
Equipment: FW-C2080 REPORT NO.: 107CA6946-FCC-PART22-a



- (c) Remove the transmitter and replace it with a substitution antenna. The center of the substitution antenna should be approximately at the same location as the center of the transmitter.
- (d) Feed the substitution antenna at the transmitter end with a signal generator connected to the antenna by means of a non-radiating cable. With the antennas at both ends horizontally polarized, and with the signal generator tuned to a particular spurious frequency, raise and lower the test antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previously recorded maximum reading for this set of conditions is obtained. This should be done carefully repeating the adjustment of the test antenna and generator output.
- (e) Repeat step d) with both antennas vertically polarized for each spurious frequency.
- (f) Calculate power in dBm into a reference ideal half-wave dipole antenna by reducing the readings obtained in steps d) and e) by the power loss in the cable between the generator and the antenna, and further corrected for the gain of the substitution antenna used relative to an ideal half-wave dipole antenna by the following formula:

 $P_d(dBm) = P_g(dBm) - cable loss (dB) + antenna gain (dB)$ where:

 P_d is the dipole equivalent power and

 P_a is the generator output power into the substitution antenna.



quipment: FW-C2080 REPORT NO.: I07CA6946-FCC-PART22-a

Test Data (channel 384)

Frequency	Generator	Cable loss	Antenna	Spurious	Antenna
[GHz]	output	[dB]	Gain [dB]	Emission	Polarization
	power(P _g)			Power (P _d)	[H/V]
	[dBm]			[dBm]	
1.67336673	-44.16	0.5	8.77	-35.89	V
2.50905900	-55.81	0.6	10.20	-46.21	V
3.3408000	-49.95	0.6	10.00	-40.55	V
4.18209900	-50.94	0.6	10.37	-41.17	V
5.0192100	-50.94	0.7	10.91	-40.73	V
5.855139	-50.94	0.7	10.18	-41.46	V
1.67336673	-44.65	0.5	8.77	-36.38	Н
2.50907576	-54.88	0.6	10.20	-45.28	Н
3.34089219	-52.64	0.6	10.00	-43.24	Н
4.1811576	-51.29	0.6	10.37	-41.52	Н
5.0191200	-44.58	0.7	10.91	-34.37	Н
5.855139	-43.72	0.7	10.18	-34.24	Н



REPORT NO.: 107CA6946-FCC-PART22-a

4.2 Radiated Conducted RF Power Output

Specifications:	22.913(a)
Date of Tests	2008-10-07
Test conditions:	Ambient Temperature: 15°C-35°C
	Relative Humidity: 30%-60%
	Air pressure: 86-106kPa
Operation Mode	TX on, channel 991, 384 and 799
Test Results:	Pass

Test equipment Used:

Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
7805	EMI Test Receiver	R/S	ESI26	100211	2009-01-04	Normal
7330	Ultra Broadband Antenna	R/S	HL562	100013	2009-07-24	Normal
7330	Double-Ridged Horn Antenna	R/S	HF906	100037	2009-01-14	Normal
713	Fully-Anechoic Chamber	ETS	11.8m×6.5m×6 .3m		2010-11-17	Normal
023	Wireless Communications Test Set	Agilent	8960(E5515C)	GB41450323	2009-06-13	Normal

Limit Level Construction:

ERP: According to Part 22.913(a), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

Limits for ERP

Frequency range	Limit Level (ERP)
TX channel	7W or 38.5dBm

Test Setup:

The EUT was set in an anechoic chamber, which is connected to the Wireless Communications Test Set located outside the chamber. The test was done using an automated test system, where all test equipments were controlled by a computer.

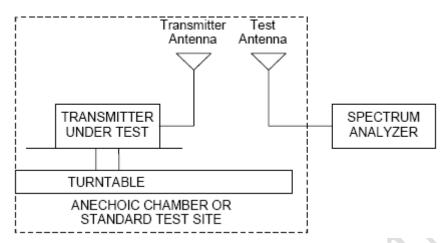
Test Method

The measurement was performed accordance with section 2.2.17 of ANSI/TIA-603-B-2002: Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.

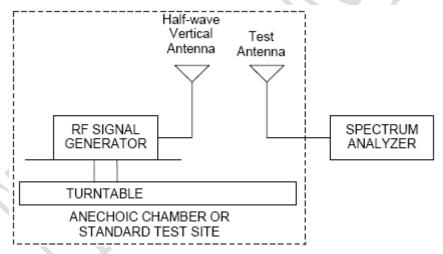
a) Connect the equipment as illustrated. Mount the equipment in a vertical orientation on a multi-axis plastic holder in a RF anechoic chamber.



REPORT NO.: 107CA6946-FCC-PART22-a



- b) Key the transmitter on, then rotate the EUT 360 degree azimuthally and record spectrum analyzer power level (LVL) measurements at angular increments that are sufficiently small to permit resolution of all peaks.
- c) Replace the transmitter under test with a vertically polarized half-wave dipole, or an antenna whose gain is known relative to an ideal half-wave dipole, illustrated as following. The center of the antenna should be at the same location as the center of the antenna under test.



d) Connect the antenna to a signal generator with a known output power and record the path loss (in dB) as LOSS.

LOSS = Generator Output Power (dBm) - Analyzer reading (dBm)

e) Determine the effective radiated output power at each angular position from the readings in steps b) and d) using the following equation:

$$ERP (dBm) = LVL (dBm) + LOSS (dB)$$

f) The maximum ERP is the maximum value determined in the preceding step.

Method of Calculation

ERP can then be calculated as follows:

 P_d (dBm) = P_g (dBm) - Losses (dB) + Antenna Gain (dBd) where:

dBd refers to gain relative to an ideal dipole.



REPORT NO.: 107CA6946-FCC-PART22-a

Test Data:

Channel	Output power (Pg) [dBm]	Loss [dB]	Antenna Gain [dBd]	ERP (P _d) [dBm]
1013	22.17	0.3	2.73	24.60
384	23.07	0.5	2.80	25.37
777	22.17	0.5	2.87	24.54



Equipment: FW-C2080 REPORT NO.: 107CA6946-FCC-PART22-a

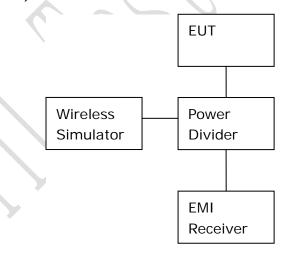
4.3 Occupied bandwidth (Conducted)

Specific	cations:	2.1049				
Date of	Test	2008-10-07				
Test conditions: Ambient Temperature: 15°C-35°C						
Relative Humidity: 30%-60%						
		Air pressure: 86-106kPa				
Operati	ion Mode	TX on, channel 991, 384, 799				
Test Re	sults:	ılts:				
Test eq	uipment Used	l:				
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
7805	EMI Test Receiver	R/S	ESI26	100211	2009-01-04	Normal
713	Fully-Anechoic Chamber	ETS	11.8m×6.5m×6.3 m		2010-11-17	Normal
023	Wireless Communications	Agilent	8960(E5515C)	GB41450323	2009-06-13	Normal

Test Setup

Test Set

During the test, the EUT was controlled via the Wireless Communications Test Set to ensure max power transmission and proper modulation and measured by EMI receiver (ESI26).



Test Method

The 99% occupied bandwidth was calculated form the spectrum analyzer. Markers in the spectrum analyzer were then placed between the calculated frequencies to show the calculated 99% power band.

Note:

None

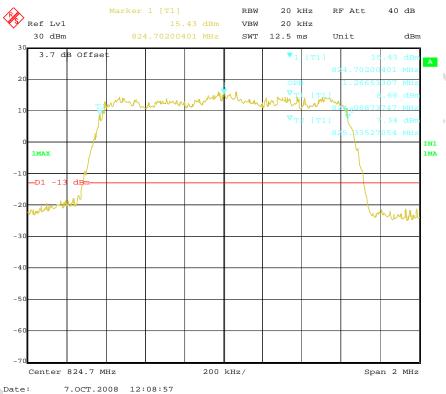


REPORT NO.: 107CA6946-FCC-PART22-a

Test Data:

EUT channel no.	99% occupied bandwidth [MHz]
1013	1.270
384	1.267
777	1.267

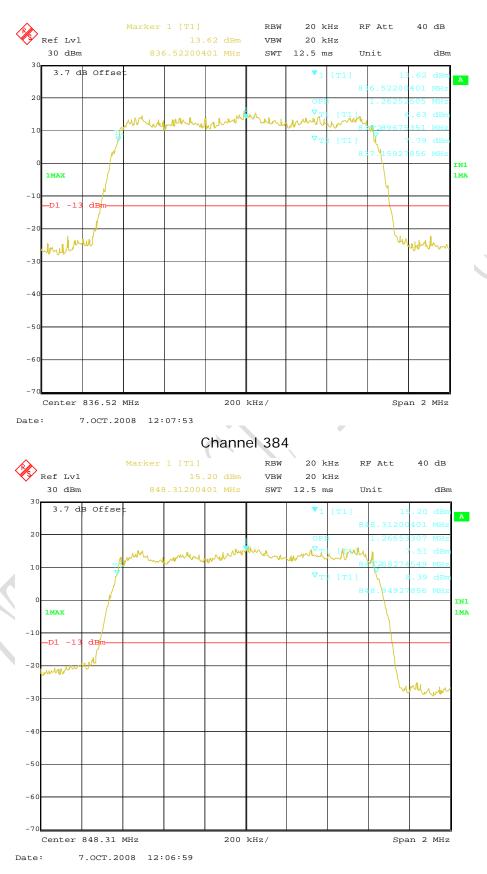
Graphical results:



Channel 1013



REPORT NO.: 107CA6946-FCC-PART22-a



Channel 777



REPORT NO.: 107CA6946-FCC-PART22-a

4.4 Frequency Stability over Temperature Variation

Specific	cations:	ations: 2.1055,22.355				
Date of	Test	2008-10-07				
Test co	nditions:	Ambient Tem	perature: -30℃	-50℃		
		Relative Hum	nidity: 30%-60%	6		
		Air pressure:	86-106kPa			
Operati	ion Mode	TX on, chanr	nel 384			
Test Re	Results: Pass					
Test eq	Test equipment Used:					
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
023	Wireless Communication s Test Set	Agilent	8960(E5515C)	GB41450323	2009-06-13	Normal
561	Temperature Chamber	Terchy Environmental Technology LTD.	MHU-800SR	84121202	2009-05-06	Normal
Limit		T				
	ncy deviation [ppm]		X	±2.5		

Test Setup

The EUT was placed in a temperature chamber, demonstrated as figure T. The Wireless Telecommunications Test Set was used to set the Tx channel and power level, modulate the TX signal with different bit patterns and measure the frequency of Tx.

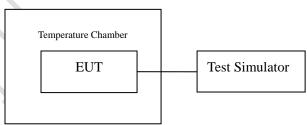


Figure T: setup for measurement of frequency stability over temperature variation

Test Method

- 1. The EUT was turned off and placed in the temperature chamber.
- 2. The temperature of the chamber was set to -30° C and allowed to stabilize.
- 3. The EUT temperature was allowed to stabilize for 45 minutes.
- 4. The EUT was turned on and set to transmit with Wireless Telecommunications Test Set.



REPORT NO.: 107CA6946-FCC-PART22-a

- 5. The maximum transmit frequency deviation during one minute period was measured by Wireless Communications Test Set.
- 6. The steps 3-5 were repeated for -20°C, -10°C, 0°C, 10°C, 20°C, 30°C, 40°C and 50°C.

Test data:

Table T1: frequency deviation over temperature variation

	1 3	· · · · · · · · · · · · · · · · · · ·	
Temperature[℃]	Deviation[Hz]	Deviation[ppm]	Remarks
-30	29	0.035	Pass
-20	34	0.041	Pass
-10	25	0.030	Pass
0	21	0.025	Pass
10	20	0.024	Pass
20	23	0.028	Pass
30	25	0.030	Pass
40	23	0.028	Pass
50	28	0.033	Pass



quipment: FW-C2080 REPORT NO.: I07CA6946-FCC-PART22-a

4.5 Frequency Stability over Voltage Variation

Specific	cations:	2.1055,22.3	2.1055,22.355			
Date of	Test	2008-10-07				
Test co	nditions:	Ambient Tem	nperature: 15℃-	35℃		
		Relative Humidity: 30%-60%				
		Air pressure: 86-106kPa				
Operat	ion Mode	TX on, channel 384				
Test Results: Pass						
Test equipment Used:						
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
023	Wireless Communication s Test Set	Agilent	8960(E5515C)	GB41450323	2009-06-13	Normal
Limit				A		
_	ncy deviation [ppm]			±2.5	1	

Test Setup

The EUT was placed in a shielding chamber and powered by an adjustable power supply, demonstrated as figure V. A Wireless Telecommunications Test Set was used to set the TX channel and power level, modulate the TX signal with different bit patterns and measure the frequency of TX.

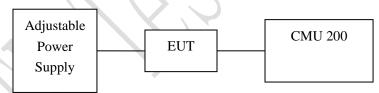


Figure V: test setup for measurement of frequency stability over voltage variation

Test Method

The EUT was powered by the adjustable power supply. The frequency stability is measured by the Wireless Telecommunications Test Set.

Test data:

Table V: frequency deviation over voltage variation

Level	Voltage[V]	Deviation[Hz]	Deviation[ppm]	Remarks
Nominal	110	26	0.031	Pass
85% normal	93.5	27	0.032	Pass
115% normal	126.5	20	0.024	Pass



REPORT NO.: 107CA6946-FCC-PART22-a

4.6 Conducted RF Power Output

			<u>-</u>				
Specifi	cations:	2.1046,22.	2.1046,22.913(a)				
Date o	f Tests	2008-10-07					
Test conditions: Ambient Temperature: 15 °C - 35 °C							
		Relative Hu	ımidity: 30%-6	0%			
		Air pressur	e: 86-106kPa				
Operat	ion Mode	TX on, channel 1013, 384, 777					
Test Re	esults:	Pass					
Test ed	quipment Used	d:					
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State	
7805	EMI Test Receiver	R/S	ESI26	100211	2009-01-04	Normal	
023	Wireless Communications Test Set	Agilent	8960(E5515C)	GB41450323	2009-06-13	Normal	
	Power spliter	Jie sai		1000132	2009-01-04	Normal	

Limit Level Construction:

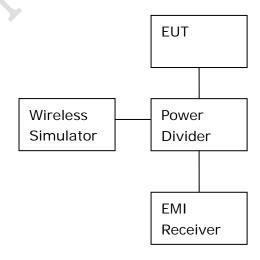
ERP: According to Part 22.913(a), the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 Watts.

Limits for ERP

Frequency range	Limit Level (ERP)
TX channel	7W or 38.5dBm

Test Setup:

During the test, the EUT was controlled via the Wireless Communications Test Set to ensure max power transmission and proper modulation and measured by EMI receiver (ESI26).





REPORT NO.: 107CA6946-FCC-PART22-a

Test Method

- 1) The EUT was coupled to the EMI test receiver analyzer mode and the base station simulator through a power divider. The lost of the cables the test system is calibrated to correct the readings.
- 2) The spectrum analyzer was set to Maxpeak Detector function and Maximum hold mode.
- 3) The resolution bandwidth of the spectrum analyzer was comparable to the emission bandwidth.

-	N١	_	+	_	
	N	()	U	e	

None

Test Results:

Channel No.	Peak output power [dBm]
1013	27.04
384	27.23
777	27.43



REPORT NO.: 107CA6946-FCC-PART22-a

2009-06-13

2009-01-04

Normal

Normal

4.7 Conducted Spurious Emission

Agilent

Jie sai

Specifi	cations:	2.1051,22.917				
Date o	f Tests	2008-10-07				
Test co	onditions:	Ambient Temperature: 15°C-35°C				
		Relative Humidity: 30%-60%				
		Air pressure: 86-106kPa				
Operat	ion Mode	TX on, channel 384				
Test R	esults:	Pass				
Test ed	quipment Use	d:			X	
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
7805	EMI Test Receiver	R/S	ESI26	100211	2009-01-04	Normal
	Wiroloss					

Limit Level Construction:

Communications

Test Set

Power spliter

023

According to Part 24.238 (a), i.e., Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB, so the limit level is: P(dBm) - (43 + 10 log(P)) dB = -13dBm

8960(E5515C)

GB41450323

1000132

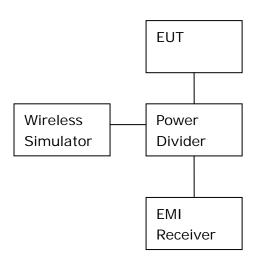
Limits for Radiated spurious emissions (UE)		
Frequency range Limit Level /Resolution Bandwidth		
30 MHz to 20000 MHz	-13dBm/1MHz	

Test Setup:

During the test, the EUT was controlled via the Wireless Communications Test Set to ensure max power transmission and proper modulation and measured by EMI receiver (ESI26).



REPORT NO.: 107CA6946-FCC-PART22-a



Test Method

The measurement was performed accordance with section 2.2.13 of ANSI/TIA-603-B-2002: Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.

The following steps outline the procedure used to measure the conducted emissions from the EUT.

1. Determine frequency range for measurements: From CFR 2.1057 the spectrum should be investigated from the lowest radio frequency generated in the equipment up to at least the 10th harmonic of the carrier frequency.

Note:

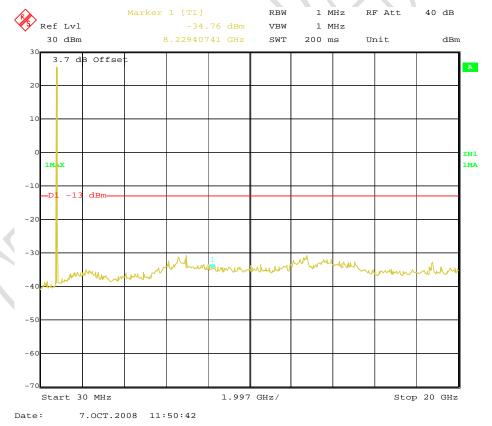
None



FCC Parts 2, 22
Equipment: FW-C2080 REPORT NO.: 107CA6946-FCC-PART22-a

Test Results: Channel 1013:

Out of band emission	
Frequency Level	
[GHz]	(dBm)
1.626100802	-35.35
2.466521643	-34.91
3.30694248	-37.46
4.10734329	-36.86
4.94776413	-36.73
5.78818497	-35.43
6.62860581	-30.25
6.98878617	-30.60
8.22940741	-33.70
Note:	



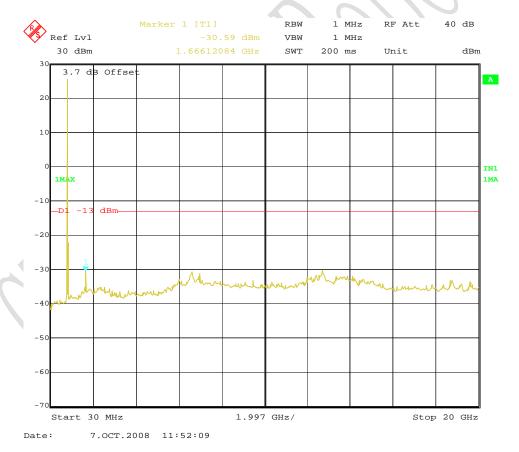
Channel 1013



REPORT NO.: 107CA6946-FCC-PART22-a

Channel 384:

Out of band emission		
Frequency	Level	
[GHz] (dBm)		
1.66612084	-30.59	
2.506541683	-35.46	
3.346962525	-38.08	
4.14736333 -37.40		
5.02780421 -36.67		
5.62810481	-33.98	
6.62860581	-30.91	
7.50904669 -33.15		
8.34946754	-33.97	
Note:		



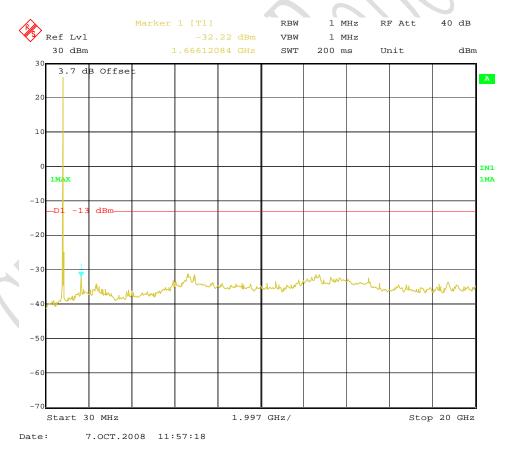
Channel 384



REPORT NO.: 107CA6946-FCC-PART22-a

Channel 777:

Out of band emission	
Frequency	Level
[GHz]	(dBm)
1.666120842	-32.05
2.506541683	-35.08
3.627102908	-37.89
4.22740341	-37.78
5.067824248 -36.59	
5.94826513	-33.49
6.98878617	-30.56
7.50904669	-32.45
8.46952766	-34.86
Note:	, () ()



Channel 777



REPORT NO.: 107CA6946-FCC-PART22-a

4.8 Emission bandwidth and Band-edge (conducted)

Specifi	cations:	22.917				
Date of	f Tests	2008-10-07				
Test co	onditions:	Ambient Temperature: 15°C-35°C				
		Relative Humidity: 30%-60%				
		Air pressure: 86-106kPa				
Operat	ion Mode	TX on				
Test Re	esults:	Pass				
Test equipment Used:						
Asset	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
Number	Description	Manufacturer	Model Number	Serial Number	Cai Due	State
7805	EMI Test Receiver	R/S	ESI26	100211	2009-01-04	Normal
	Wireless			40		
023	Communications Test Set	Agilent	8960(E5515C)	GB41450323	2009-06-13	Normal
	1031 361					

Limit Level Construction:

Power spliter

Jie sai

According to Part 24.238 (a), i.e., Out of band emissions. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P) dB$, so the limit level is: $P(dBm) - (43 + 10 \log(P)) dB = -13dBm$

1000132

2009-01-04

Normal

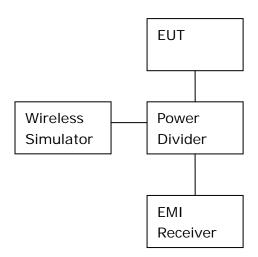
Limits for Radiated spurious emissions			
Frequency range	Limit Level		
Band edge	-13dBm		

Test Setup:

During the test, the EUT was controlled via the Wireless Communications Test Set to ensure max power transmission and proper modulation and measured by EMI receiver (ESI26).



REPORT NO.: 107CA6946-FCC-PART22-a



Test Method

- 1) The EUT was coupled to the EMI test receiver analyzer mode and the base station simulator through a power divider. The lost of the cables the test system is calibrated to correct the readings.
- 2) The spectrum analyzer was set to Maxpeak Detector function and Maximum hold mode.
- 3) The resolution bandwidth of the spectrum analyzer was a little greater than 1% of the 26dB emission bandwidth.

Note: --

Test Results:

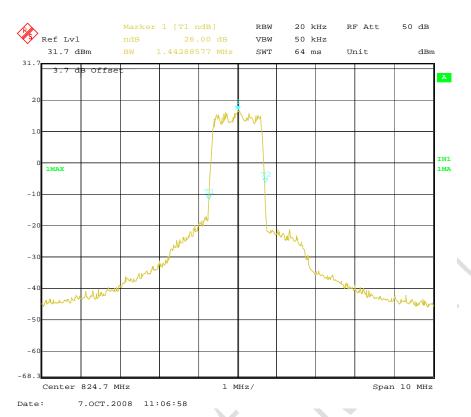
(1) Emission bandwidth (26 dB):

RBW=20 kHz, VBW=50 kHz

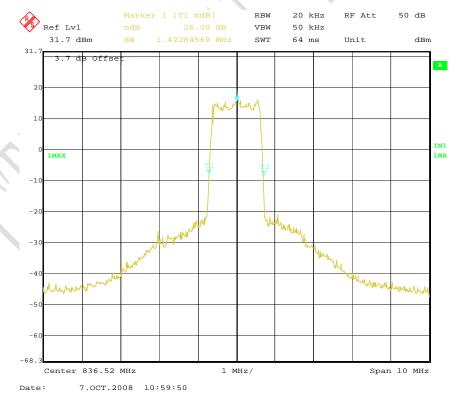
26 dB emission bandwidth			
Channel	26dB Bandwidth [MHz]		
1013	1.423		
384	1.423		
777	1.423		



REPORT NO.: 107CA6946-FCC-PART22-a



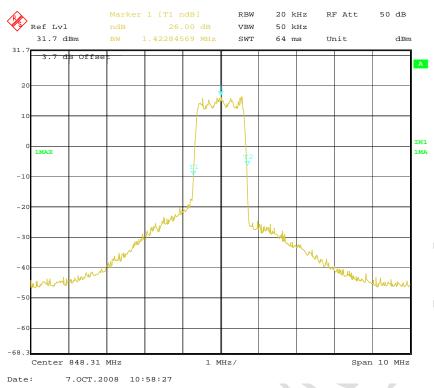
Channel 1013 26 dB bandwidth



Channel 384 26 dB bandwidth



REPORT NO.: 107CA6946-FCC-PART22-a



Channel 777 26 dB bandwidth

(2) band-edge emission:

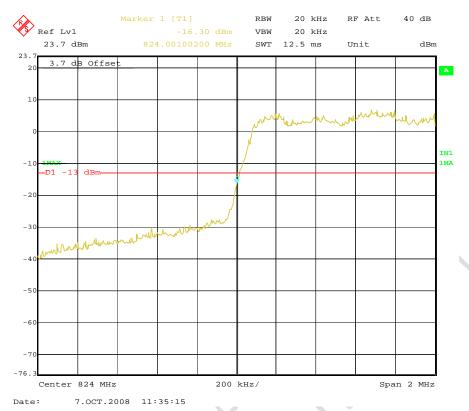
RBW=VBW=20 kHz

Band-edge emission			
EUT Channel	Frequency [MHz]	Level [dBm]	
1013 left band edge	824.00100200	-16.30	
777 right band edge	849.00156313	-14.86	

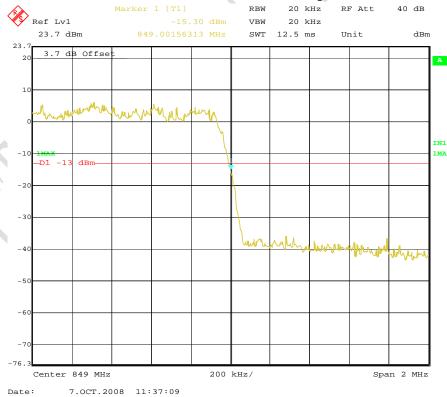


Date:

REPORT NO.: 107CA6946-FCC-PART22-a



channel 1013 Left band edge



channel 777 Right band edge



REPORT NO.: 107CA6946-FCC-PART22-a

ANNEX A Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

