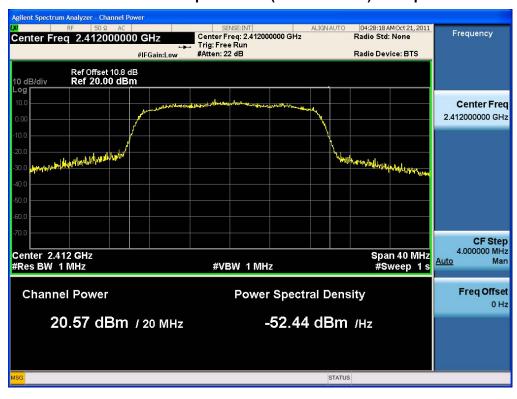


Conducted Output Power (802.11n-CH 1) 6.5Mbps



Conducted Output Power (802.11n-CH 1) 13Mbps



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G



Conducted Output Power (802.11n-CH 1) 19.5Mbps



Conducted Output Power (802.11n-CH 1) 26Mbps



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G

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Conducted Output Power (802.11n-CH 1) 39Mbps



Conducted Output Power (802.11n-CH 1) 52Mbps



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G



Conducted Output Power (802.11n-CH 1) 58.5Mbps



Conducted Output Power (802.11n-CH 1) 65Mbps



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G



Conducted Output Power (802.11n-CH 6) 6.5Mbps



Conducted Output Power (802.11n-CH 6) 13Mbps



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G

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Conducted Output Power (802.11n-CH 6) 19.5Mbps



Conducted Output Power (802.11n-CH 6) 26Mbps



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G



Conducted Output Power (802.11n-CH 6) 39Mbps



Conducted Output Power (802.11n-CH 6) 52Mbps



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type: Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	FCC ID:	IC:
HCTR1111FR01	November 01, 2011		ZNFC800G	2703C-C800G

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Conducted Output Power (802.11n-CH 6) 58.5Mbps



Conducted Output Power (802.11n-CH 6) 65Mbps



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type: Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	FCC ID:	IC:
HCTR1111FR01	November 01, 2011		ZNFC800G	2703C-C800G

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Conducted Output Power (802.11n-CH 11) 6.5Mbps



Conducted Output Power (802.11n-CH 11) 13Mbps



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type: Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	FCC ID:	IC:
HCTR1111FR01	November 01, 2011		ZNFC800G	2703C-C800G

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Conducted Output Power (802.11n-CH 11) 19.5Mbps



Conducted Output Power (802.11n-CH 11) 26Mbps



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G

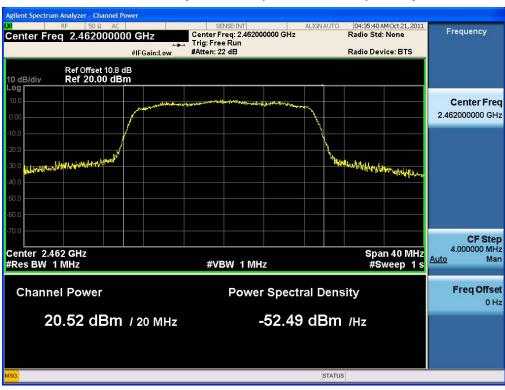
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Conducted Output Power (802.11n-CH 11) 39Mbps



Conducted Output Power (802.11n-CH 11) 52Mbps



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G



Conducted Output Power (802.11n-CH 11) 58.5Mbps



Conducted Output Power (802.11n-CH 11) 65Mbps



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G

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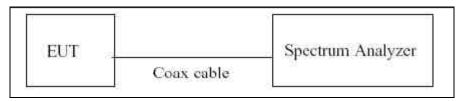
7.4 POWER SPECTRAL DENSITY (802.11b/g/n)

Test Requirements and limit, §15.247(e)

The peak power density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating in transmission mode at the appropriate frequencies.

Minimum Standard – The transmitter power density average over 1-second interval shall not be greater than 8dBm in any 3kHz BW.

■ TEST CONFIGURATION



■ TEST PROCEDURE

The spectrum analyzer is set to:

- 1. Span = 300 kHz
- 2. RBW = 3 kHz (7dB/div)
- 3. VBW = 3 kHz
- 4. Sweep = 100 sec
- 5. Detector Mode = Peak

■ TEST RESULTS

Conducted Power Density Measurements

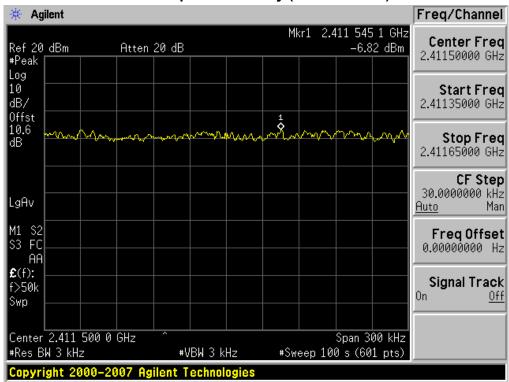
			Test Result	
Frequency (MHz)	Channel No.	Mode	Power Density (dBm)	Pass/Fail
2412	1		-6.82	Pass
2437	6	802.11b	-6.88	Pass
2462	11		-6.79	Pass
2412	1		-11.798	Pass
2437	6	802.11g	-12.110	Pass
2462	11		-12.342	Pass
2412	1		-10.901	Pass
2437	6	802.11n	-11.834	Pass
2462	11		-12.193	Pass

FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G

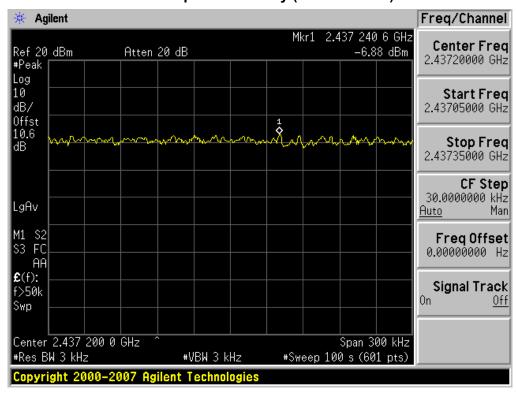


RESULT PLOTS

Power Spectral Density (802.11b-CH 1)



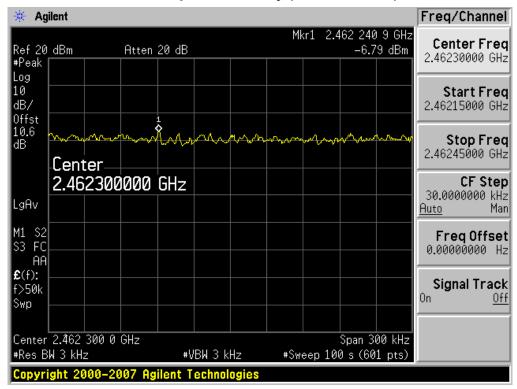
Power Spectral Density (802.11b-CH 6)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type: Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	FCC ID:	IC:
HCTR1111FR01	November 01, 2011		ZNFC800G	2703C-C800G



Power Spectral Density (802.11b-CH 11)



Power Spectral Density (802.11g-CH 1)

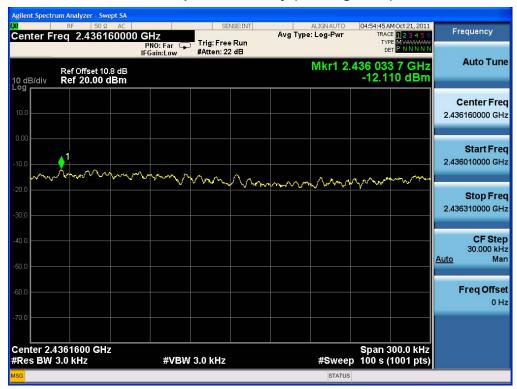


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type: Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	FCC ID:	IC:
HCTR1111FR01	November 01, 2011		ZNFC800G	2703C-C800G

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Power Spectral Density (802.11g-CH 6)



Power Spectral Density (802.11g-CH11)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type: Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	FCC ID:	IC:
HCTR1111FR01	November 01, 2011		ZNFC800G	2703C-C800G

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Power Spectral Density (802.11n-CH 1)



Power Spectral Density (802.11n-CH 6)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type: Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	FCC ID:	IC:
HCTR1111FR01	November 01, 2011		ZNFC800G	2703C-C800G

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Power Spectral Density (802.11n-CH11)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type: Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	FCC ID:	IC:
HCTR1111FR01	November 01, 2011		ZNFC800G	2703C-C800G

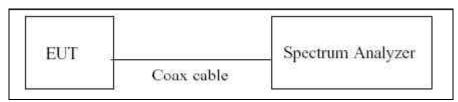
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7.5 OUT OF BAND EMISSIONS AT THE BAND EDGE/ CONDUCTED SPURIOUS EMISSIONS Test Requirements and limit, §15.247(d)

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in§ 15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

TEST CONFIGURATION



TEST PROCEDURE

The transmitter output is connected to the spectrum analyzer. The resolution bandwidth is set to 100 kHz. The video bandwidth is set to 300 kHz.

Detector Mode is set to a peak detector Mode.

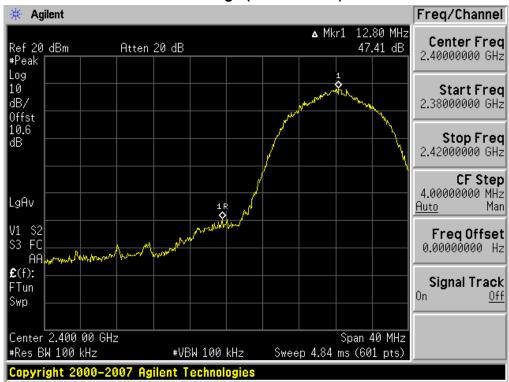
Measurements are made over the 30 MHz to 26 GHz range with the transmitter set to the lowest, middle, and highest channels.

FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G

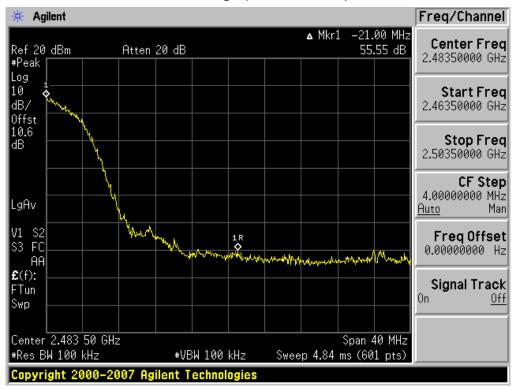


RESULT PLOTS

BandEdge (802.11b-CH1)



BandEdge (802.11b-CH11)



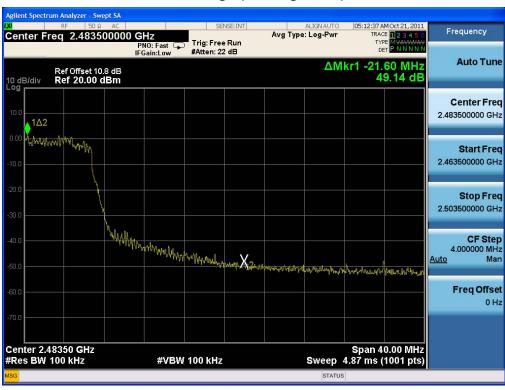
FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type: Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	FCC ID:	IC:
HCTR1111FR01	November 01, 2011		ZNFC800G	2703C-C800G



BandEdge (802.11g-CH1)



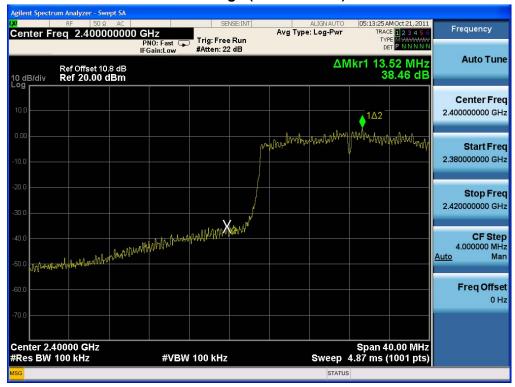
BandEdge (802.11g-CH11)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type: Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	FCC ID:	IC:
HCTR1111FR01	November 01, 2011		ZNFC800G	2703C-C800G



BandEdge (802.11n-CH1)



BandEdge (802.11n-CH11)

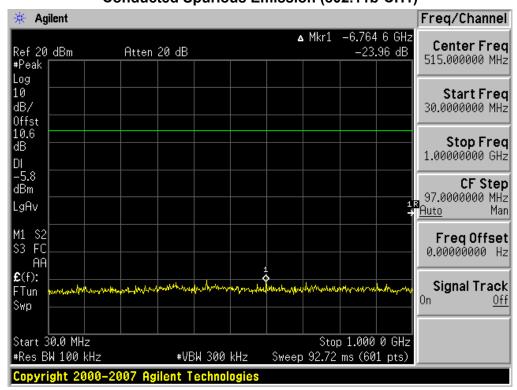


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type: Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	FCC ID:	IC:
HCTR1111FR01	November 01, 2011		ZNFC800G	2703C-C800G

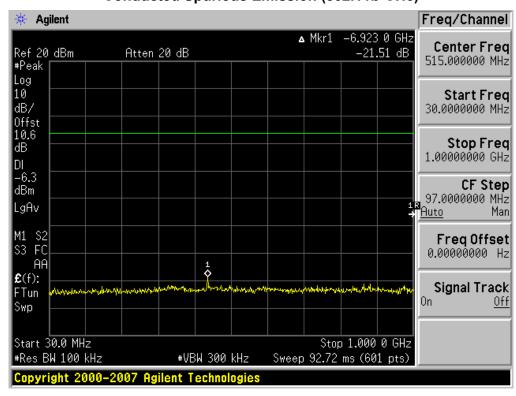
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Conducted Spurious Emission (802.11b-CH1)



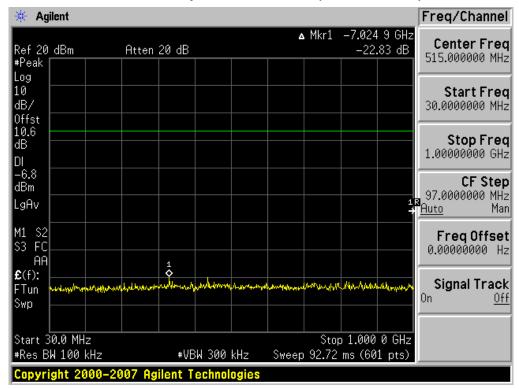
Conducted Spurious Emission (802.11b-CH6)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G



Conducted Spurious Emission (802.11b-CH11)



Conducted Spurious Emission (802.11g-CH1)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type: Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	FCC ID:	IC:
HCTR1111FR01	November 01, 2011		ZNFC800G	2703C-C800G

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Conducted Spurious Emission (802.11g-CH6)



Conducted Spurious Emission (802.11g-CH11)



FCC PT.15.247 TEST REPORT		FCC & IC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type: Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	FCC ID:	IC:
HCTR1111FR01	November 01, 2011		ZNFC800G	2703C-C800G

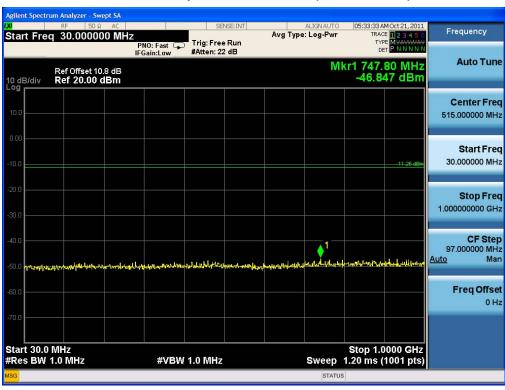
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Conducted Spurious Emission (802.11n-CH1)



Conducted Spurious Emission (802.11n-CH6)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G

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Conducted Spurious Emission (802.11n-CH11)

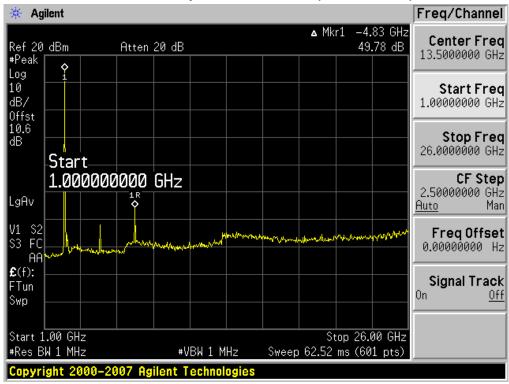


FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type: Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	FCC ID:	IC:
HCTR1111FR01	November 01, 2011		ZNFC800G	2703C-C800G

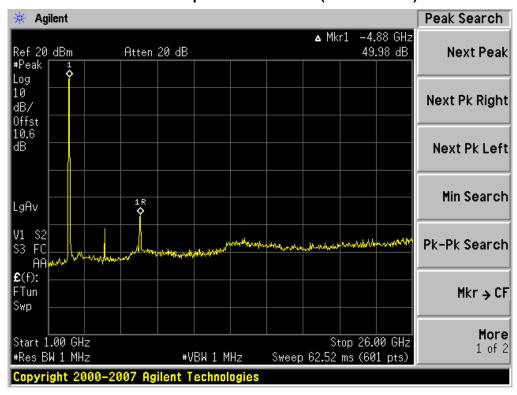


1 GHz ~ 26 GHz

Conducted Spurious Emission (802.11b-CH1)



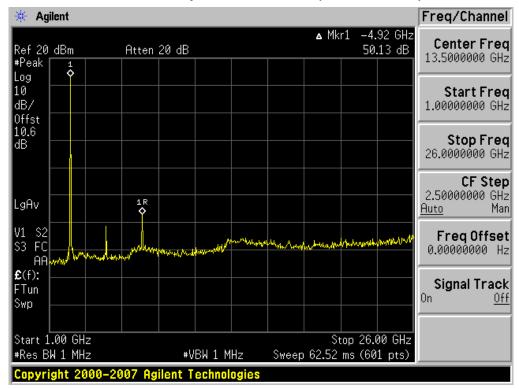
Conducted Spurious Emission (802.11b-CH6)



FCC PT.15.247 TEST REPORT		FCC & IC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type: Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	FCC ID:	IC:
HCTR1111FR01	November 01, 2011		ZNFC800G	2703C-C800G



Conducted Spurious Emission (802.11b-CH11)



Conducted Spurious Emission (802.11g-CH1)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G

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Conducted Spurious Emission (802.11g-CH6)



Conducted Spurious Emission (802.11g-CH11)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G

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Conducted Spurious Emission (802.11n-CH1)



Conducted Spurious Emission (802.11n-CH6)



FCC PT.15.247 TEST REPORT	FCC & IC CERTIFICATION REPORT			www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G



Conducted Spurious Emission (802.11n-CH11)



FCC PT.15.247 TEST REPORT		FCC & IC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G



7.6 RADIATED MEASUREMENT.

7.6.1 RADIATED SPURIOUS EMISSIONS.

Test Requirements and limit, §15.205, §15.209

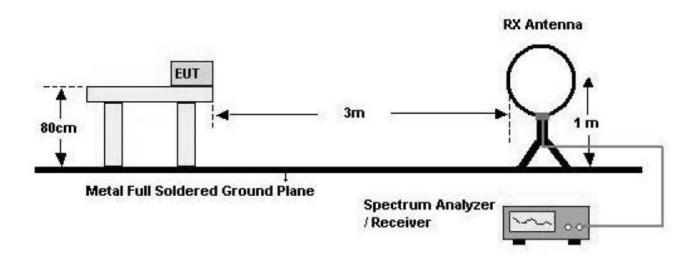
Frequency (MHz)	Field Strength (uV/m)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 – 1.705	24000/F(kHz)	30
1.705 – 30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

FCC PT.15.247 TEST REPORT		FCC & IC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G

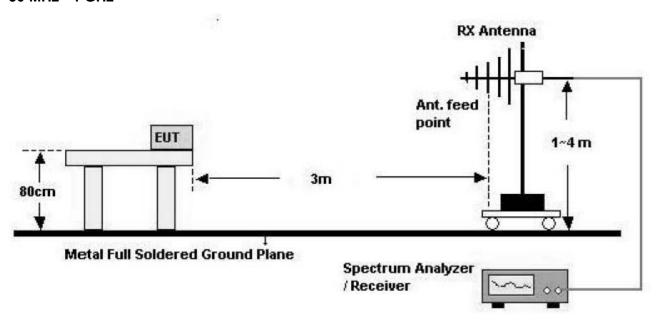


Test Configuration

Below 30 MHz



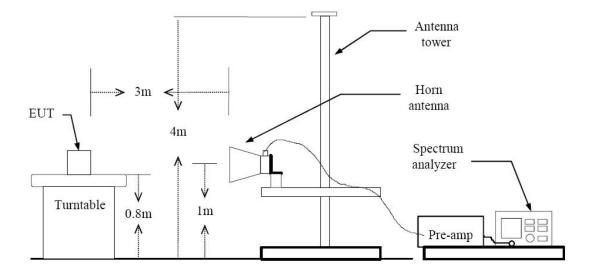
30 MHz - 1 GHz



	FCC PT.15.247 TEST REPORT		FCC & IC CERTIFICATION REPORT		www.hct.co.kr
I	Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
	HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G



Above 1 GHz



TEST PROCEDURE

- 1. The EUT is placed on a turntable, which is 0.8 m above ground plane.
- 2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 3 m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
- 4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 6. Repeat above procedures until the measurements for all frequencies are complete.

FCC PT.15.247 TEST REPORT		www.hct.co.kr		
Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:
HCTR1111FR01	November 01, 2011	Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	ZNFC800G	2703C-C800G



TEST RESULTS

9 kHz - 30MHz

Operation Mode: Normal Mode

Frequency	Reading	Ant. factor	Cable loss	Ant. POL	Total	Limit	Margin	
MHz	$dB\mu \! \! V$	dB /m	dB	(H/V)	dB <i>μ</i> V/m	dB <i>μ</i> V/m	dB	
No Critical peaks found								

Notes:

- 1. Measuring frequencies from 9 kHz to the 30MHz.
- 2. The reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
- 3. Distance extrapolation factor = 40 log (specific distance / test distance) (dB)
- 4. Limit line = specific Limits (dBuV) + Distance extrapolation factor

FCC PT.15.247 TEST REPORT		www.hct.co.kr		
Test Report No.	Date of Issue:	EUT Type: Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	FCC ID:	IC:
HCTR1111FR01	November 01, 2011		ZNFC800G	2703C-C800G



TEST RESULTS

Below 1 GHz

Operation Mode: 802.11b Mode (Channel: 6, Data rate: 11 Mbps)

Frequency	Reading	Ant. Factor	Cable Loss	ANT POL	Total	Limit	Margin
MHz	dBuV	dB/m	dB	(H/V)	dBuV/m	dBuV/m	dB
127.8	15.4	11.62	1.15	V	28.2	43.5	15.3
143.0	12.9	12.70	1.22	V	26.9	43.5	16.7
194.0	20.2	10.68	1.44	Н	32.3	43.5	11.2
281.0	14.2	12.75	1.79	Н	28.7	46.0	17.3
383.0	15.7	15.23	2.12	Н	33.0	46.0	13.0
482.0	12.2	17.39	2.43	Н	32.0	46.0	14.0

- 1. Measuring frequencies from 30 MHz to the 1 GHz.
- 2. Radiated emissions measured in frequency range from 30 MHz to 1000 MHz were made with an instrument using Quasi peak detector mode.
- 3. We have done 802.11b Mode, 802.11g and 802.11n mode test. Worst case of EUT is 802.11b Mode.

FCC PT.15.247 TEST REPORT		FCC & IC CERTIFICATION REPORT					
Test Report No.	Date of Issue:	EUT Type: Cellular/PCS GSM/EDGE/WCDMA Phone with Bluetooth & WLAN	FCC ID:	IC:			
HCTR1111FR01	November 01, 2011		ZNFC800G	2703C-C800G			



Above 1 GHz

Operation Mode: 802.11 b

Transfer Rate: 1 Mbps

Operating Frequency 2412

Channel No. 01 Ch

Frequency	Reading	AN.+CL-AMP G	ANT. POL	Total	Limit	Margin	
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Detect
4824	57.72	-3.81	V	53.91	74	20.09	PK
4824	51.35	-3.81	V	47.54	54	6.46	AV
7236	53.15	5.17	V	58.32	74	15.68	PK
7236	39.21	5.17	V	44.38	54	9.62	AV
4824	58.62	-3.81	Н	54.81	74	19.19	PK
4824	52.68	-3.81	Н	48.87	54	5.13	AV
7236	53.73	5.17	Н	58.90	74	15.10	PK
7236	39.48	5.17	Н	44.65	54	9.35	AV

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Spectrum setting:
 - a. Peak Setting 1 GHz 26 GHz, RBW = 1 MHz, VBW = 1 MHz.
 - b. AV Setting 1 GHz 26 GHz, RBW = 1 MHz, VBW = 10 Hz.
- 5. We have done 802.11b, 802.11g and 802.11n test. Worst case of EUT is 1 Mbps in 802.11b.

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Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:			
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Operation Mode: 802.11 b

Transfer Rate: 1 Mbps

Operating Frequency 2437

Channel No. 06 Ch

Frequency	Reading	AN.+CL-AMP G	ANT. POL	Total	Limit	Margin	
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Detect
4874	56.30	-3.72	V	52.58	74	21.42	PK
4874	49.59	-3.72	V	45.87	54	8.13	AV
7311	52.51	5.53	V	58.04	74	15.96	PK
7311	38.50	5.53	V	44.03	54	9.97	AV
4874	57.54	-3.72	Н	53.82	74	20.18	PK
4874	51.22	-3.72	Н	47.50	54	6.50	AV
7311	52.22	5.53	Н	57.75	74	16.25	PK
7311	38.81	5.53	Н	44.34	54	9.66	AV

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20 dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000 MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Spectrum setting:
 - a. Peak Setting 1 GHz 26 GHz, RBW = 1 MHz, VBW = 1 MHz.
 - b. AV Setting 1 GHz 26 GHz, RBW = 1 MHz, VBW = 10 Hz.
- 5. We have done 802.11b, 802.11g and 802.11n test. Worst case of EUT is 1 Mbps in 802.11b.

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Test Report No.	Date of Issue:	EUT Type:	FCC ID:	IC:			
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Operation Mode: 802.11 b

Transfer Rate: 1 Mbps

Operating Frequency 2462

Channel No. 11 Ch

Frequency	Reading	AN.+CL-AMP G	ANT. POL	Total	Limit	Margin	
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Detect
4924	55.15	-3.58	V	51.57	74	22.43	PK
4924	47.92	-3.58	V	44.34	54	9.66	AV
7386	52.30	6.15	V	58.45	74	15.55	PK
7386	38.36	6.15	V	44.51	54	9.49	AV
4924	56.17	-3.58	Н	52.59	74	21.41	PK
4924	49.77	-3.58	Н	46.19	54	7.81	AV
7386	51.78	6.15	Н	57.93	74	16.07	PK
7386	38.40	6.15	Н	44.55	54	9.45	AV

- 1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 2. Measurements above show only up to 6 maximum emissions noted, or would be lesser if no specific emissions from the EUT are recorded (ie: margin > 20dB from the applicable limit) and considered that's already beyond the background noise floor.
- 3. Radiated emissions measured in frequency above 1000MHz were made with an instrument using Peak detector mode and average detector mode of the emission shown in Actual FS column.
- 4. Spectrum setting:
 - a. Peak Setting 1 GHz 26 GHz, RBW = 1 MHz, VBW = 1 MH.
 - b. AV Setting 1 GHz 26 GHz, RBW = 1 MHz, VBW = 10 Hz.
- 5. We have done 802.11b, 802.11g and 802.11n test. Worst case of EUT is 1 Mbps in 802.11b.

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7.6.2 RECEIVER SPURIOUS EMISSIONS.

FCC Rule(s) §15.109 (see Table Below)

Test Requirements: Emission Level shall not exceed §15.109 limits

Operating conditions: Under normal test conditions

Method of testing: Radiated

F < 1 GHz: RBW: 120 kHz, VBW: 300 kHz (Quasi Peak)

S/A. Settings:

F > 1 GHz: RBW: 1 MHz, VBW: 1 MHz (Peak)

Mode of operation: Receive

Frequency (MHz)	Field Strength (mV/m)	Measurement Distance (m)		
30 – 88	100 (40 dBuV)	3		
88 - 216	150 (43.5 dBuV))	3		
216 – 960	200 (46 dBuV)	3		
Above 960	500 (54 dBuV)	3		

Operation Mode: Receive:

30 MHz \sim 1 GHz

Frequency	Reading	Ant. Factor	Cable Loss	ANT POL	Total	Limit	Margin
MHz	dBuV	dB/m	dB	(H/V)	dBuV/m	dBuV/m	dB
127.1	15.7	11.54	1.14	V	28.4	43.5	15.1
144.2	14.0	12.74	1.22	٧	28.0	43.5	15.5
192.5	20.8	10.77	1.44	Н	33.0	43.5	10.5
282.0	14.4	12.78	1.79	Н	29.0	46.0	17.0
382.2	14.8	15.21	2.11	Н	32.1	46.0	13.9
481.0	11.2	17.37	2.43	Н	31.0	46.0	15.0

Above 1 GHz

Frequency	Reading	Ant. Factor	Cable Loss	ANT POL	Total	Limit	Margin	
MHz	dBuV	dB/m	dB	(H/V)	dBuV/m	dBuV/m	dB	
No Critical peaks found								

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7.6.3 RADIATED RESTRICTED BAND EDGE MEASUREMENTS

Test Requirements and limit, §15.247(d) §15.205, §15.209

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in section 15.209(a) (See section 15.205(c)).

Operation Mode: 802.11 g

Transfer Rate: 6 Mbps

Operating Frequency 2412 MHz, 2462 MHz

Channel No. 01 Ch, 11 Ch

Frequency	Reading	AN.+CL	ANT. POL	Total	Limit	Margin	
[MHz]	dBuV	[dB]	[H/V]	[dBuV/m]	[dBuV/m]	[dB]	Detect
2390.0	36.08	33.25	Н	69.33	74	4.67	PK
2390.0	17.05	33.25	Н	50.30	54	3.70	AV
2390.0	27.92	33.25	V	61.17	74	12.83	PK
2390.0	12.73	33.25	V	45.98	54	8.02	AV
2483.5	30.45	33.73	Н	64.18	74	9.82	PK
2483.5	15.08	33.73	Н	48.81	54	5.19	AV
2483.5	25.60	33.73	V	59.33	74	14.67	PK
2483.5	11.72	33.73	V	45.45	54	8.55	AV

- 1. Spectrum setting:
 - a. Peak Setting 1 GHz 26 GHz, RBW = 1 MHz, VBW = 1 MHz.
 - b. AV Setting 1 GHz 26 GHz, RBW = 1 MHz, VBW = 10 Hz.
- 2. We have done 802.11b, 802.11g and 802.11n test. Worst case of EUT is 6 Mbps in 802.11g.

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7.7 POWERLINE CONDUCTED EMISSIONS

Test Requirements and limit, §15.207

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

Fraguency Pango (MHz)	Limits (dBμV)				
Frequency Range (MHz)	Quasi-peak	Average			
0.15 to 0.50	66 to 56	56 to 46			
0.50 to 5	56	46			
5 to 30	60	50			

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

Test Configuration

See test photographs attached in Appendix 1 for the actual connections between EUT and support equipment.

TEST PROCEDURE

- 1. The EUT is placed on a wooden table 80 cm above the reference groundplane.
- 2. The EUT is connected via LISN to a test power supply.
- 3. The measurement results are obtained as described below:
- 4. Detectors Quasi Peak and Average Detector.

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■ RESULT PLOTS

Conducted Emissions (Line 1)

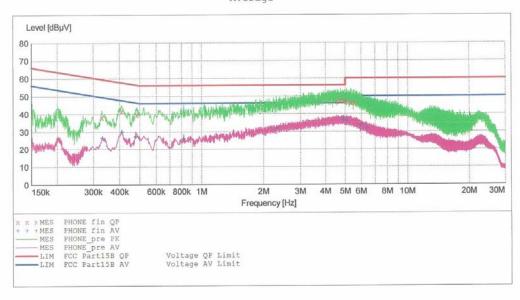
HCT

EMC

C800g EUT: Manufacturer: LG Manufacturer: LG
Operating Condition: WLAN MODE
Test Site: SHIELD ROOM
Operator: JH CHOI
Test Specification: FCC PART15 CLASS B
Comment: H (STA-U17WR #2)

SCAN TABLE: "FCC PART 15 B(H)"

Short Desc			FCC PART 15		T 173	Transducer
Start	Stop	Step	Detector	Meas.	IF	llansducer
Frequency	Frequency	Width		Time	Bandw.	
150.0 kHz	500.0 kHz	1.0 kHz	MaxPeak	10.0 ms	9 kHz	None
			Average	10.0 ms	O letter	None
500.0 kHz	5.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 KHZ	None
5.0 MHz	30.0 MHz	4.0 kHz	MaxPeak	10.0 ms	9 kHz	None



MEASUREMENT RESULT: "PHONE fin QP"

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.330010	38.20	10.1	60	21.3		
0.409010	41.40	10.1	58	16.3		
0.484010	39.60	10.1	56	16.7		
4.572000	46.70	10.5	56	9.3		
4.752000	47.00	10.5	56	9.0		
4.968000	47.10	10.5	56	8.9		
5.076000	46.70	10.5	60	13.3		
5.340000	46.20	10.6	60	13.8		
5.536000	45.90	10.6	60	14.1		

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MEASUREMENT RESULT: "PHONE_fin AV"

10/24/2011 1:	28PM					
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.332010	26.50	10.1	49	22.9		
0.411010	29.90	10.1	48	17.8		
0.478010	27.20	10.1	46	19.2		
0.820000	26.00	10.1	46	20.0		
2.308000	31.70	10.2	46	14.3		
4.904000	36.60	10.5	46	9.4		
5.092000	35.90	10.5	50	14.1		
5.964000	33.50	10.6	50	16.5		
6.408000	31.70	10.7	50	18.3		

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FCC PT.15.247 TEST REPORT		FCC & IC CERTIFICATION REPORT					
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Conducted Emissions (Line 2)

HCT

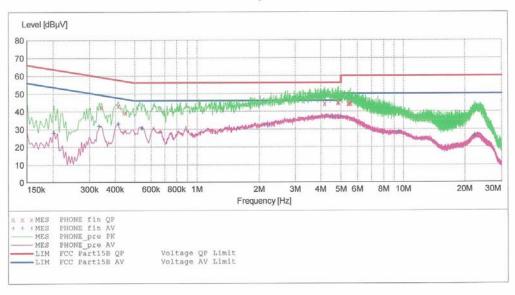
EMC

EUT: C800g Manufacturer: LG Operating Condition: WLAN MODE SHIELD ROOM Test Site:

Operator: JH CHOI
Test Specification: FCC PART15 CLASS B
Comment: N (STA-U17WR #2)

SCAN TABLE: "FCC PART 15 B(N)"

Short Desc	ription:		FCC PART 15	CLASS B		
Start	Stop	Step	Detector	Meas.	IF	Transducer
Frequency	Frequency	Width		Time	Bandw.	
150.0 kHz		4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
500.0 kHz	5.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None
5.0 MHz	30.0 MHz	4.0 kHz	MaxPeak Average	10.0 ms	9 kHz	None



MEASUREMENT RESULT: "PHONE fin QP"

10/24/2011 1	:31PM					
Frequency	Level	Transd	Limit	Margin	Line	PE
MHz	dBµV	dB	dBµV	dB		
0.342010	42.30	10.3	59	16.9		
0.414010	43.30	10.3	58	14.2		
0.450010	39.20	10.3	57	17.7		
4.192000	44.40	10.6	56	11.6		
4.848000	44.80	10.7	56	11.2		
4.884000	45.10	10.7	56	10.9		
5.428000	44.40	10.8	60	15.6		
5.492000	44.30	10.8	60	15.7		
5.564000	44.50	10.8	60	15.5		

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MEASUREMENT RESULT: "PHONE_fin AV"

10/24/2011 1	:31PM					
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Line	PE
0.202010	28.00	10.3	54	25.5		
0.334010	31.70	10.3	49	17.7		
0.414010	33.10	10.3	48	14.5		
0.544000	30.50	10.3	46	15.5		
2.196000	32.20	10.4	46	13.8		
4.556000	36.90	10.7	46	9.1		
5.000000	37.20	10.7	46	8.8		
9.504000	28.40	11.0	50	21.6		
22.244000	25.90	11.8	50	24.1		

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8. LIST OF TEST EQUIPMENT

Manufacturer	Model / Equipment	Calibration Interval	Calibration Due	Serial No.	
Rohde & Schwarz	ESH2-Z5/ LISN	Annual	02/01/2012	861741/013	
Schwarzbeck	VULB 9168/ TRILOG Antenna	Biennial	02/09/2013	200	
Rohde & Schwarz	ESI 40 / EMI TEST RECEIVER	Annual	05/26/2012	831564103	
Agilent	E4440A/ Spectrum Analyzer	Annual	05/02/2012	US45303008	
Agilent	N9020A/ SIGNAL ANALYZER	Annual	09/23/2012	MY51110020	
HD	MA240/ Antenna Position Tower	N/A	N/A	556	
EMCO	1050/ Turn Table	N/A	N/A	114	
HD GmbH	HD 100/ Controller	N/A	N/A	13	
HD GmbH	KMS 560/ SlideBar	N/A	N/A	12	
Rohde & Schwarz	ESH3-Z2/ PULSE LIMITER	Annual	08/01/2012	375.8810.352	
Rohde & Schwarz	SCU-18/ Signal Conditioning Unit	Annual	09/19/2012	10094	
MITEQ	AFS44-00102650-42-10P-44-PS/ POWER AMP	Annual	09/23/2012	1532439	
Schwarzbeck	BBHA 9120D/ Horn Antenna	Biennial	04/13/2012	147	
Rohde & Schwarz	FSP / Spectrum Analyzer	Annual	03/23/2012	839117/011	
Agilent	E4440A / Spectrum Analyzer	Annual	05/02/2012	US45303008	
Agilent	E4416A /Power Meter	Annual	01/04/2012	GB41291412	
Agilent	E9327A /POWER SENSOR	Annual	05/02/2012	MY4442009	
Wainwright Instrument	WHF3.3/18G-10EF / High Pass Filter	Annual	05/02/2012	1	
Wainwright Instrument	WRCJ2400/2483.5-2370/2520-60/14SS / Band Reject Filter	Annual	05/02/2012	1	
Hewlett Packard	11636B/Power Divider	Annual	12/29/2011	11377	
Hewlett Packard	11667B / Power Spliter	Annual	11/08/2011	10126	
DIGITAL	EP-3010 /DC POWER SUPPLY	Annual	01/04/2012	3110117	
ITECH	IT6720 / DC POWER SUPPLY	Annual	12/01/2011	010002156287001199	
TESCOM	TC-3000C / BLUETOOTH TESTER	Annual	04/01/2012	3000C000276	
Rohde & Schwarz	CBT / BLUETOOTH TESTER	Annual	05/02/2012	100422	
EMCO	6502.LOOP ANTENNA	Biennial	01/13/2012	9009-2536	

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HCTR1111FR01	November 01, 2011		ZNFC800G	2703C-C800G