

### Conducted Output Power (802.11a-CH 116) 48 Mbps



### Conducted Output Power (802.11a-CH 116) 54 Mbps



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		<a href="http://www.hct.co.kr">www.hct.co.kr</a>
Test Report No. HCTR1208FR46	Date of Issue: August 27, 2012	EUT Type: Cellular/PCS GSM/GPRS/EDGE/WCDMA/HSDPA/HSUPA Phone with Bluetooth/WLAN/NFC	FCC ID: ZNFP895QB

### Conducted Output Power (802.11a-CH 140) 6 Mbps



### Conducted Output Power (802.11a-CH 140) 9 Mbps



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### Conducted Output Power (802.11a-CH 140) 12 Mbps



### Conducted Output Power (802.11a-CH 140) 18 Mbps



### Conducted Output Power (802.11a-CH 140) 24 Mbps



### Conducted Output Power (802.11a-CH 140) 36 Mbps



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### Conducted Output Power (802.11a-CH 140) 48 Mbps



### Conducted Output Power (802.11a-CH 140) 54 Mbps



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■ RESULT PLOTS (5180 MHz ~5240 MHz)

Conducted Output Power (802.11n-CH 36) 6.5 Mbps



Conducted Output Power (802.11n-CH 36) 13 Mbps



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### Conducted Output Power (802.11n-CH 36) 19.5 Mbps



### Conducted Output Power (802.11n-CH 36) 26 Mbps



### Conducted Output Power (802.11n-CH 36) 39 Mbps



### Conducted Output Power (802.11n-CH 36) 52 Mbps



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### Conducted Output Power (802.11n-CH 36) 58.5 Mbps



### Conducted Output Power (802.11n-CH 36) 65 Mbps



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### Conducted Output Power (802.11n-CH 40) 6.5 Mbps



### Conducted Output Power (802.11n-CH 40) 13 Mbps



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### Conducted Output Power (802.11n-CH 40) 19.5 Mbps



### Conducted Output Power (802.11n-CH 40) 26 Mbps



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### Conducted Output Power (802.11n-CH 40) 39 Mbps



### Conducted Output Power (802.11n-CH 40) 52 Mbps



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### Conducted Output Power (802.11n-CH 40) 58.5 Mbps



### Conducted Output Power (802.11n-CH 40) 65 Mbps



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### Conducted Output Power (802.11n-CH 48) 6.5 Mbps



### Conducted Output Power (802.11n-CH 48) 13 Mbps



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### Conducted Output Power (802.11n-CH 48) 19.5 Mbps



### Conducted Output Power (802.11n-CH 48) 26 Mbps



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### Conducted Output Power (802.11n-CH 48) 39 Mbps



### Conducted Output Power (802.11n-CH 48) 52 Mbps



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### Conducted Output Power (802.11n-CH 48) 58.5 Mbps



### Conducted Output Power (802.11n-CH 48) 65 Mbps



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RESULT PLOTS (5260 MHz ~5320 MHz)

Conducted Output Power (802.11n-CH 52) 6.5 Mbps



Conducted Output Power (802.11n-CH 52) 13 Mbps



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### Conducted Output Power (802.11n-CH 52) 19.5 Mbps



### Conducted Output Power (802.11n-CH 52) 26 Mbps



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### Conducted Output Power (802.11n-CH 52) 39 Mbps

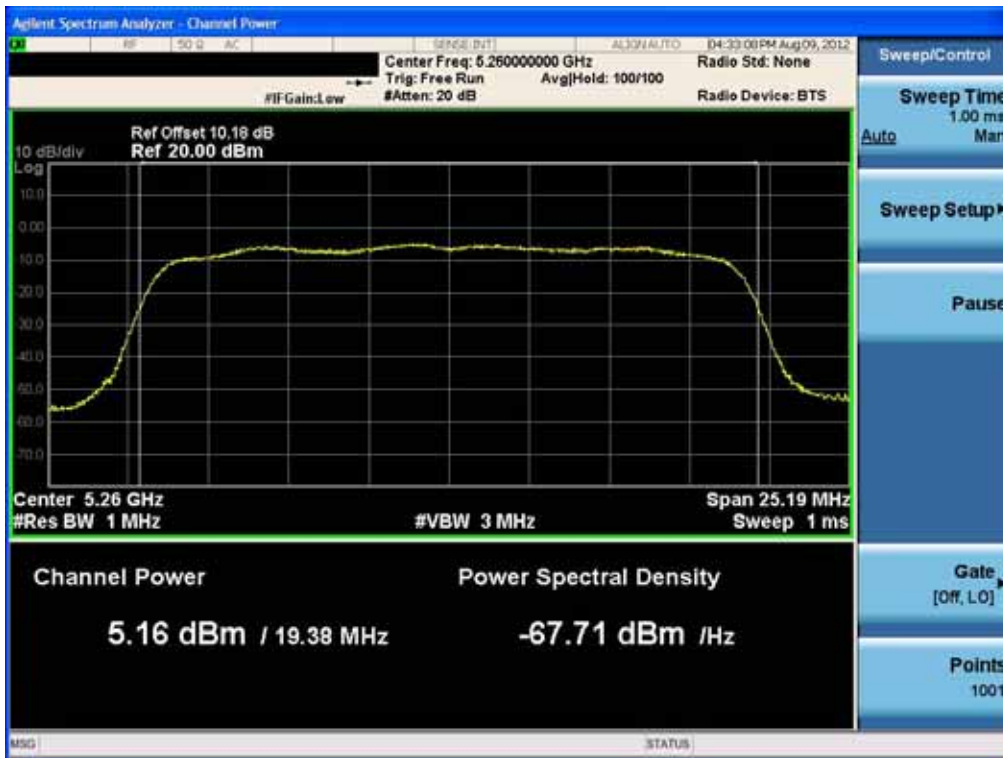


### Conducted Output Power (802.11n-CH 52) 52 Mbps





### Conducted Output Power (802.11n-CH 52) 58.5 Mbps



### Conducted Output Power (802.11n-CH 52) 65 Mbps



### Conducted Output Power (802.11n-CH 60) 6.5 Mbps



### Conducted Output Power (802.11n-CH 60) 13 Mbps



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Test Report No. HCTR1208FR46	Date of Issue: August 27, 2012	EUT Type: Cellular/PCS GSM/GPRS/EDGE/WCDMA/HSDPA/HSUPA Phone with Bluetooth/WLAN/NFC	FCC ID: ZNFP895QB

### Conducted Output Power (802.11n-CH 60) 19.5 Mbps



### Conducted Output Power (802.11n-CH 60) 26 Mbps



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Test Report No. HCTR1208FR46	Date of Issue: August 27, 2012	EUT Type: Cellular/PCS GSM/GPRS/EDGE/WCDMA/HSDPA/HSUPA Phone with Bluetooth/WLAN/NFC	FCC ID: ZNFP895QB

### Conducted Output Power (802.11n-CH 60) 39 Mbps



### Conducted Output Power (802.11n-CH 60) 52 Mbps



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		<a href="http://www.hct.co.kr">www.hct.co.kr</a>
Test Report No. HCTR1208FR46	Date of Issue: August 27, 2012	EUT Type: Cellular/PCS GSM/GPRS/EDGE/WCDMA/HSDPA/HSUPA Phone with Bluetooth/WLAN/NFC	FCC ID: ZNFP895QB



### Conducted Output Power (802.11n-CH 60) 58.5 Mbps



### Conducted Output Power (802.11n-CH 60) 65 Mbps



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Test Report No. HCTR1208FR46	Date of Issue: August 27, 2012	EUT Type: Cellular/PCS GSM/GPRS/EDGE/WCDMA/HSDPA/HSUPA Phone with Bluetooth/WLAN/NFC	FCC ID: ZNFP895QB

### Conducted Output Power (802.11n-CH 64) 6.5 Mbps



### Conducted Output Power (802.11n-CH 64) 13 Mbps



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### Conducted Output Power (802.11n-CH 64) 19.5 Mbps



### Conducted Output Power (802.11n-CH 64) 26 Mbps



### Conducted Output Power (802.11n-CH 64) 39 Mbps



### Conducted Output Power (802.11n-CH 64) 52 Mbps





### Conducted Output Power (802.11n-CH 64) 58.5 Mbps



### Conducted Output Power (802.11n-CH 64) 65 Mbps



RESULT PLOTS (5500 MHz ~5700 MHz)

Conducted Output Power (802.11n-CH 100) 6.5 Mbps



Conducted Output Power (802.11n-CH 100) 13 Mbps



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### Conducted Output Power (802.11n-CH 100) 19.5 Mbps



### Conducted Output Power (802.11n-CH 100) 26 Mbps



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		<a href="http://www.hct.co.kr">www.hct.co.kr</a>
Test Report No. HCTR1208FR46	Date of Issue: August 27, 2012	EUT Type: Cellular/PCS GSM/GPRS/EDGE/WCDMA/HSDPA/HSUPA Phone with Bluetooth/WLAN/NFC	FCC ID: ZNFP895QB

### Conducted Output Power (802.11n-CH 100) 39 Mbps



### Conducted Output Power (802.11n-CH 100) 52 Mbps



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Test Report No. HCTR1208FR46	Date of Issue: August 27, 2012	EUT Type: Cellular/PCS GSM/GPRS/EDGE/WCDMA/HSDPA/HSUPA Phone with Bluetooth/WLAN/NFC	FCC ID: ZNFP895QB



### Conducted Output Power (802.11n-CH 100) 58.5 Mbps



### Conducted Output Power (802.11n-CH 100) 65 Mbps



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Test Report No. HCTR1208FR46	Date of Issue: August 27, 2012	EUT Type: Cellular/PCS GSM/GPRS/EDGE/WCDMA/HSDPA/HSUPA Phone with Bluetooth/WLAN/NFC	FCC ID: ZNFP895QB

### Conducted Output Power (802.11n-CH 116) 6.5 Mbps



### Conducted Output Power (802.11n-CH 116) 13 Mbps



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### Conducted Output Power (802.11n-CH 116) 19.5 Mbps

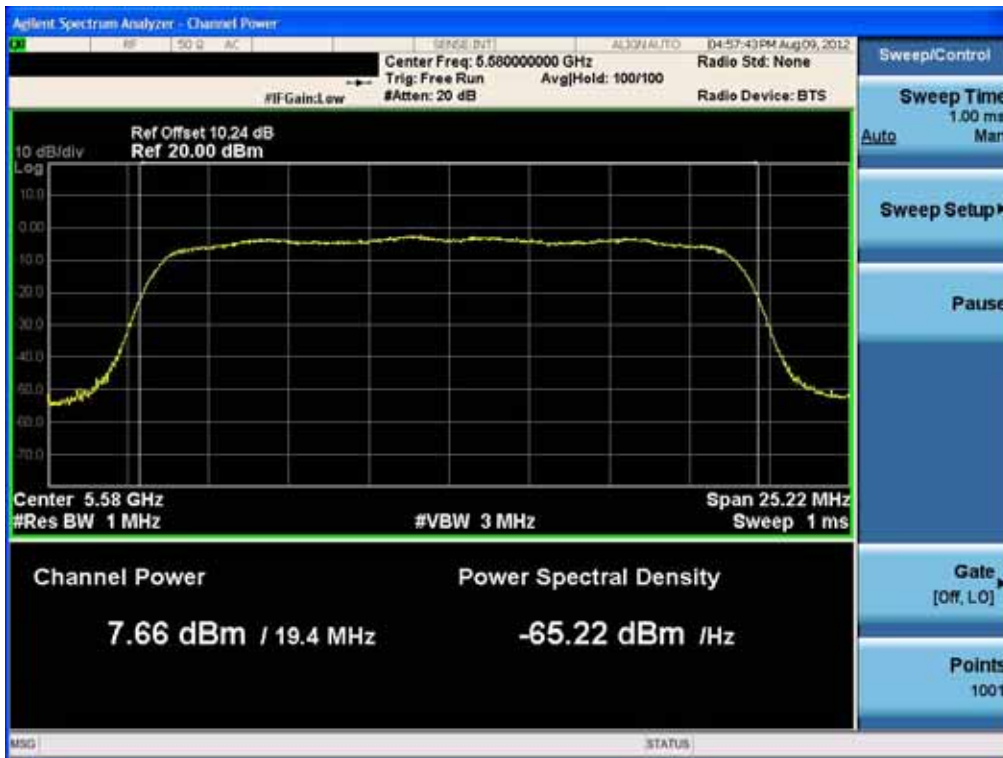


### Conducted Output Power (802.11n-CH 116) 26 Mbps



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### Conducted Output Power (802.11n-CH 116) 39 Mbps



### Conducted Output Power (802.11n-CH 116) 52 Mbps



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### Conducted Output Power (802.11n-CH 116) 58.5 Mbps



### Conducted Output Power (802.11n-CH 116) 65 Mbps



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Test Report No. HCTR1208FR46	Date of Issue: August 27, 2012	EUT Type: Cellular/PCS GSM/GPRS/EDGE/WCDMA/HSDPA/HSUPA Phone with Bluetooth/WLAN/NFC	FCC ID: ZNFP895QB

### Conducted Output Power (802.11n-CH 140) 6.5 Mbps



### Conducted Output Power (802.11n-CH 140) 13 Mbps



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### Conducted Output Power (802.11n-CH 140) 19.5 Mbps



### Conducted Output Power (802.11n-CH 140) 26 Mbps



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### Conducted Output Power (802.11n-CH 140) 39 Mbps



### Conducted Output Power (802.11n-CH 140) 52 Mbps



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### Conducted Output Power (802.11n-CH 140) 58.5 Mbps



### Conducted Output Power (802.11n-CH 140) 65 Mbps

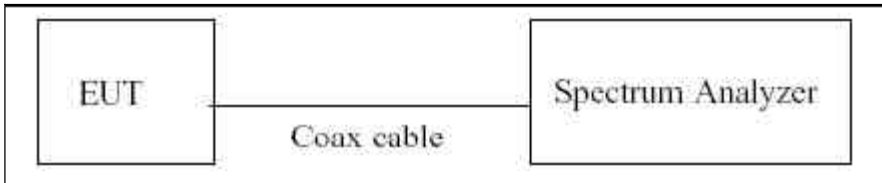


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### 8.3 POWER SPECTRAL DENSITY

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. The maximum permissible peak power spectral density is 4 dBm/ MHz in the 5.15 GHz – 5.25 GHz band and 11 dBm/ MHz in the 5.25 GHz – 5.35 GHz and 5.47 GHz – 5.725 GHz bands

#### ■ TEST CONFIGURATION



#### ■ TEST PROCEDURE

The spectrum analyzer is set to :

RBW = 1 MHz

VBW = 3 MHz

SPAN = to encompass the entire EBW of the signal

Sweep Time = auto

Sweep Point = 1001

Detector Mode = Average

Trace average at least 100 traces in power averaging(RMS) mode

#### ■ Sample Calculation

$$\begin{aligned}
 \text{PSD} &= \text{Reading Value} + \text{ATT loss} + \text{Cable loss}(1 \text{ ea}) \\
 &= -5 \text{ dBm} + 10 \text{ dB} + 0.8 \text{ dB} = 15.8 \text{ dBm}
 \end{aligned}$$

Note :

1. Spectrum reading values are not plot data. The PSD results in plot is already including the actual values of loss for the attenuator and cable combination.
2. Spectrum offset = Attenuator loss + Cable loss
3. We apply to the offset in the 5.2 GHz, 5.3 GHz and 5.6 GHz range that was rounded off to the closest tenth dB. Actual value of loss for the attenuator and cable combination is below table.

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Band	Frequency(MHz)	Loss(dB)
UNII 1	5180	10.26
	5200	10.18
	5240	10.19
UNII 2	5260	10.18
	5300	10.14
	5320	10.09
UNII 3	5500	10.20
	5580	10.24
	5700	10.40

(Actual value of loss for the attenuator and cable combination)

■ TEST RESULTS

Conducted Power Density Measurements

Frequency (MHz)	Channel No.	Mode	Test Result		
			Power Density (dBm)	Limit (dBm)	Pass/Fail
5180	36	802.11a	-2.014	4	Pass
5200	40		-1.958	4	Pass
5240	48		-2.143	4	Pass
5260	52	802.11a	-2.292	11	Pass
5300	60		-2.416	11	Pass
5320	64		-2.675	11	Pass
5500	100	802.11a	-0.137	11	Pass
5580	116		-0.600	11	Pass
5700	140		-0.634	11	Pass

Conducted Power Density Measurements

Frequency (MHz)	Channel No.	Mode	Test Result		
			Power Density (dBm)	Limit (dBm)	Pass/Fail
5180	36	802.11n	-3.597	4	Pass
5200	40		-3.624	4	Pass
5240	48		-3.624	4	Pass
5260	52	802.11n	-3.724	11	Pass
5300	60		-3.946	11	Pass
5320	64		-4.360	11	Pass
5500	100	802.11n	-1.659	11	Pass
5580	116		-2.078	11	Pass
5700	140		-2.379	11	Pass



RESULT PLOTS

Power Spectral Density (802.11a-CH 36)



Power Spectral Density (802.11a-CH 40)



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