

Conducted Output Power (802.11g-CH 1) 12Mbps



Conducted Output Power (802.11g-CH 1) 18Mbps



Conducted Output Power (802.11g-CH 1) 24Mbps



Conducted Output Power (802.11g-CH 1) 36Mbps



Conducted Output Power (802.11g-CH 1) 48Mbps



Conducted Output Power (802.11g-CH 1) 54Mbps



Conducted Output Power (802.11g-CH 6) 6Mbps



Conducted Output Power (802.11g-CH 6) 9Mbps



Conducted Output Power (802.11g-CH 6) 12Mbps



Conducted Output Power (802.11g-CH 6) 18Mbps



Conducted Output Power (802.11g-CH 6) 24Mbps



Conducted Output Power (802.11g-CH 6) 36Mbps



Conducted Output Power (802.11g-CH 6) 48Mbps



Conducted Output Power (802.11g-CH 6) 54Mbps



Conducted Output Power (802.11g-CH 11) 6Mbps



Conducted Output Power (802.11g-CH 11) 9Mbps



Conducted Output Power (802.11g-CH 11) 12Mbps



Conducted Output Power (802.11g-CH 11) 18Mbps



Conducted Output Power (802.11g-CH 11) 24Mbps



Conducted Output Power (802.11g-CH 11) 36Mbps



Conducted Output Power (802.11g-CH 11) 48Mbps



Conducted Output Power (802.11g-CH 11) 54Mbps



RESULT PLOTS_Ant.0_20 MHz BW

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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



RESULT PLOTS_Ant.1_ 20 MHz BW

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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



RESULT PLOTS_Ant.0: 40 MHz BW

Conducted Output Power (802.11n-CH 3) 13.5 Mbps



Conducted Output Power (802.11n-CH 3) 27 Mbps



Conducted Output Power (802.11n-CH 3) 40.5 Mbps



Conducted Output Power (802.11n-CH 3) 54 Mbps



Conducted Output Power (802.11n-CH 3) 81 Mbps



Conducted Output Power (802.11n-CH 3) 108 Mbps



Conducted Output Power (802.11n-CH 3) 121.5 Mbps



Conducted Output Power (802.11n-CH 3) 135 Mbps



Conducted Output Power (802.11n-CH 6) 13.5 Mbps



Conducted Output Power (802.11n-CH 6) 27 Mbps



Conducted Output Power (802.11n-CH 6) 40.5 Mbps



Conducted Output Power (802.11n-CH 6) 54 Mbps



Conducted Output Power (802.11n-CH 6) 81 Mbps



Conducted Output Power (802.11n-CH 6) 108 Mbps



Conducted Output Power (802.11n-CH 6) 121.5 Mbps



Conducted Output Power (802.11n-CH 6) 135 Mbps



Conducted Output Power (802.11n-CH 9) 13.5Mbps



Conducted Output Power (802.11n-CH 9) 27 Mbps



Conducted Output Power (802.11n-CH 9) 40.5 Mbps



Conducted Output Power (802.11n-CH 9) 54 Mbps



Conducted Output Power (802.11n-CH 9) 81 Mbps



Conducted Output Power (802.11n-CH 9) 108 Mbps



Conducted Output Power (802.11n-CH 9) 121.5 Mbps



Conducted Output Power (802.11n-CH 9) 135 Mbps



RESULT PLOTS_Ant.1: 40 MHz BW

Conducted Output Power (802.11n-CH 3) 13.5 Mbps



Conducted Output Power (802.11n-CH 3) 27 Mbps



Conducted Output Power (802.11n-CH 3) 40.5 Mbps



Conducted Output Power (802.11n-CH 3) 54 Mbps



Conducted Output Power (802.11n-CH 3) 81 Mbps



Conducted Output Power (802.11n-CH 3) 108 Mbps



Conducted Output Power (802.11n-CH 3) 121.5 Mbps



Conducted Output Power (802.11n-CH 3) 135 Mbps



Conducted Output Power (802.11n-CH 6) 13.5 Mbps



Conducted Output Power (802.11n-CH 6) 27 Mbps



Conducted Output Power (802.11n-CH 6) 40.5 Mbps



Conducted Output Power (802.11n-CH 6) 54 Mbps



Conducted Output Power (802.11n-CH 6) 81 Mbps



Conducted Output Power (802.11n-CH 6) 108 Mbps



Conducted Output Power (802.11n-CH 6) 121.5 Mbps



Conducted Output Power (802.11n-CH 6) 135 Mbps



Conducted Output Power (802.11n-CH 9) 13.5Mbps



Conducted Output Power (802.11n-CH 9) 27 Mbps



Conducted Output Power (802.11n-CH 9) 40.5 Mbps



Conducted Output Power (802.11n-CH 9) 54 Mbps



Conducted Output Power (802.11n-CH 9) 81 Mbps



Conducted Output Power (802.11n-CH 9) 108 Mbps



Conducted Output Power (802.11n-CH 9) 121.5 Mbps



Conducted Output Power (802.11n-CH 9) 135 Mbps



RESULT PLOTS_Ant.0 (5745 MHz -5825 MHz)

Conducted Output Power (802.11a-CH 149) 6 Mbps



Conducted Output Power (802.11a-CH 149) 9 Mbps



Conducted Output Power (802.11a-CH 149) 12 Mbps



Conducted Output Power (802.11a-CH 149) 18 Mbps



Conducted Output Power (802.11a-CH 149) 24 Mbps



Conducted Output Power (802.11a-CH 149) 36 Mbps



Conducted Output Power (802.11a-CH 149) 48 Mbps



Conducted Output Power (802.11a-CH 149) 54 Mbps



Conducted Output Power (802.11a-CH 157) 6 Mbps



Conducted Output Power (802.11a-CH 157) 9 Mbps



Conducted Output Power (802.11a-CH 157) 12 Mbps



Conducted Output Power (802.11a-CH 157) 18 Mbps



Conducted Output Power (802.11a-CH 157) 24 Mbps



Conducted Output Power (802.11a-CH 157) 36 Mbps



Conducted Output Power (802.11a-CH 157) 48 Mbps



Conducted Output Power (802.11a-CH 157) 54 Mbps



Conducted Output Power (802.11a-CH 165) 6 Mbps



Conducted Output Power (802.11a-CH 165) 9 Mbps



Conducted Output Power (802.11a-CH 165) 12 Mbps



Conducted Output Power (802.11a-CH 165) 18 Mbps



Conducted Output Power (802.11a-CH 165) 24 Mbps



Conducted Output Power (802.11a-CH 165) 36 Mbps



Conducted Output Power (802.11a-CH 165) 48 Mbps



Conducted Output Power (802.11a-CH 165) 54 Mbps



RESULT PLOTS_Ant.1 (5745 MHz - 5825 MHz)

Conducted Output Power (802.11a-CH 149) 6 Mbps



Conducted Output Power (802.11a-CH 149) 9 Mbps



Conducted Output Power (802.11a-CH 149) 12 Mbps



Conducted Output Power (802.11a-CH 149) 18 Mbps



Conducted Output Power (802.11a-CH 149) 24 Mbps



Conducted Output Power (802.11a-CH 149) 36 Mbps



Conducted Output Power (802.11a-CH 149) 48 Mbps



Conducted Output Power (802.11a-CH 149) 54 Mbps



Conducted Output Power (802.11a-CH 157) 6 Mbps



Conducted Output Power (802.11a-CH 157) 9 Mbps



Conducted Output Power (802.11a-CH 157) 12 Mbps



Conducted Output Power (802.11a-CH 157) 18 Mbps



Conducted Output Power (802.11a-CH 157) 24 Mbps



Conducted Output Power (802.11a-CH 157) 36 Mbps



Conducted Output Power (802.11a-CH 157) 48 Mbps



Conducted Output Power (802.11a-CH 157) 54 Mbps



Conducted Output Power (802.11a-CH 165) 6 Mbps



Conducted Output Power (802.11a-CH 165) 9 Mbps



Conducted Output Power (802.11a-CH 165) 12 Mbps



Conducted Output Power (802.11a-CH 165) 18 Mbps



Conducted Output Power (802.11a-CH 165) 24 Mbps



Conducted Output Power (802.11a-CH 165) 36 Mbps



Conducted Output Power (802.11a-CH 165) 48 Mbps



Conducted Output Power (802.11a-CH 165) 54 Mbps



RESULT PLOTS_Ant.0 (5745 MHz – 5825 MHz)_ 20 MHz BW
Conducted Output Power (802.11n-CH 149) 6.5 Mbps



Conducted Output Power (802.11n-CH 149) 13 Mbps



Conducted Output Power (802.11n-CH 149) 19.5 Mbps



Conducted Output Power (802.11n-CH 149) 26 Mbps



Conducted Output Power (802.11n-CH 149) 39 Mbps



Conducted Output Power (802.11n-CH 149) 52 Mbps



Conducted Output Power (802.11n-CH 149) 58.5 Mbps



Conducted Output Power (802.11n-CH 149) 65 Mbps



Conducted Output Power (802.11n-CH 157) 6.5 Mbps



Conducted Output Power (802.11n-CH 157) 13 Mbps



Conducted Output Power (802.11n-CH 157) 19.5 Mbps



Conducted Output Power (802.11n-CH 157) 26 Mbps



Conducted Output Power (802.11n-CH 157) 39 Mbps



Conducted Output Power (802.11n-CH 157) 52 Mbps



Conducted Output Power (802.11n-CH 157) 58.5 Mbps



Conducted Output Power (802.11n-CH 157) 65 Mbps



Conducted Output Power (802.11n-CH 165) 6.5 Mbps



Conducted Output Power (802.11n-CH 165) 13 Mbps



Conducted Output Power (802.11n-CH 165) 19.5 Mbps



Conducted Output Power (802.11n-CH 165) 26 Mbps



Conducted Output Power (802.11n-CH 165) 39 Mbps



Conducted Output Power (802.11n-CH 165) 52 Mbps



Conducted Output Power (802.11n-CH 165) 58.5 Mbps



Conducted Output Power (802.11n-CH 165) 65 Mbps



RESULT PLOTS_Ant.1 (5745 MHz – 5825 MHz) _ 20 MHz BW
Conducted Output Power (802.11n-CH 149) 6.5 Mbps



Conducted Output Power (802.11n-CH 149) 13 Mbps



Conducted Output Power (802.11n-CH 149) 19.5 Mbps



Conducted Output Power (802.11n-CH 149) 26 Mbps



Conducted Output Power (802.11n-CH 149) 39 Mbps



Conducted Output Power (802.11n-CH 149) 52 Mbps



Conducted Output Power (802.11n-CH 149) 58.5 Mbps



Conducted Output Power (802.11n-CH 149) 65 Mbps



Conducted Output Power (802.11n-CH 157) 6.5 Mbps



Conducted Output Power (802.11n-CH 157) 13 Mbps



Conducted Output Power (802.11n-CH 157) 19.5 Mbps



Conducted Output Power (802.11n-CH 157) 26 Mbps



Conducted Output Power (802.11n-CH 157) 39 Mbps



Conducted Output Power (802.11n-CH 157) 52 Mbps



Conducted Output Power (802.11n-CH 157) 58.5 Mbps



Conducted Output Power (802.11n-CH 157) 65 Mbps



Conducted Output Power (802.11n-CH 165) 6.5 Mbps



Conducted Output Power (802.11n-CH 165) 13 Mbps



Conducted Output Power (802.11n-CH 165) 19.5 Mbps



Conducted Output Power (802.11n-CH 165) 26 Mbps



Conducted Output Power (802.11n-CH 165) 39 Mbps



Conducted Output Power (802.11n-CH 165) 52 Mbps



Conducted Output Power (802.11n-CH 165) 58.5 Mbps



Conducted Output Power (802.11n-CH 165) 65 Mbps



RESULT PLOTS_Ant.0 (5755 MHz~5795 MHz) _ 40 MHz BW
Conducted Output Power (802.11n-CH 151) 13.5 Mbps



Conducted Output Power (802.11n-CH 151) 27 Mbps



Conducted Output Power (802.11n-CH 151) 40.5 Mbps



Conducted Output Power (802.11n-CH 151) 54 Mbps



Conducted Output Power (802.11n-CH 151) 81 Mbps



Conducted Output Power (802.11n-CH 151) 108 Mbps



Conducted Output Power (802.11n-CH 151) 121.5 Mbps



Conducted Output Power (802.11n-CH 151) 135 Mbps



Conducted Output Power (802.11n-CH 159) 13.5 Mbps



Conducted Output Power (802.11n-CH 159) 27 Mbps



Conducted Output Power (802.11n-CH 159) 40.5 Mbps



Conducted Output Power (802.11n-CH 159) 54 Mbps



Conducted Output Power (802.11n-CH 159) 81 Mbps



Conducted Output Power (802.11n-CH 159) 108 Mbps



Conducted Output Power (802.11n-CH 159) 121.5 Mbps



Conducted Output Power (802.11n-CH 159) 135 Mbps



RESULT PLOTS_Ant.1 (5755 MHz~5795 MHz) _ 40 MHz BW
 Conducted Output Power (802.11n-CH 151) 13.5 Mbps



Conducted Output Power (802.11n-CH 151) 27 Mbps



Conducted Output Power (802.11n-CH 151) 40.5 Mbps



Conducted Output Power (802.11n-CH 151) 54 Mbps



Conducted Output Power (802.11n-CH 151) 81 Mbps



Conducted Output Power (802.11n-CH 151) 108 Mbps



Conducted Output Power (802.11n-CH 151) 121.5 Mbps



Conducted Output Power (802.11n-CH 151) 135 Mbps



Conducted Output Power (802.11n-CH 159) 13.5 Mbps



Conducted Output Power (802.11n-CH 159) 27 Mbps



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No. HCTR1209FR09-1	Date of Issue: September 21, 2012	EUT Type: Wi-Fi module	FCC ID: BEJTWFM006D

Conducted Output Power (802.11n-CH 159) 40.5 Mbps



Conducted Output Power (802.11n-CH 159) 54 Mbps



Conducted Output Power (802.11n-CH 159) 81 Mbps



Conducted Output Power (802.11n-CH 159) 108 Mbps



Conducted Output Power (802.11n-CH 159) 121.5 Mbps



Conducted Output Power (802.11n-CH 159) 135 Mbps



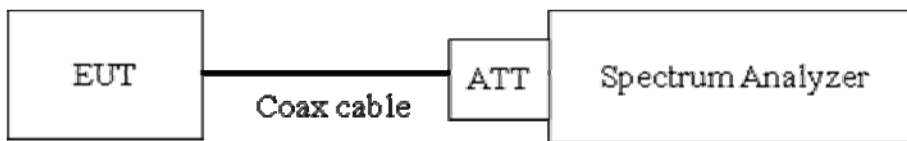
8.3 POWER SPECTRAL DENSITY (802.11a/b/g/n)

Test Requirements and limit, §15.247(e)

The peak power spectral 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 power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

▣ TEST CONFIGURATION



▣ TEST PROCEDURE

We tested according to KDB 558074(issued 1/18/2012).

The spectrum analyzer is set to :

1. Span = OBW * 1.3
2. RBW = 100 kHz
3. VBW = 300 kHz
4. Sweep = Auto couple
5. Detector Mode = Peak
6. Trace Mode = Max hold
7. Search peak

▣ Sample Calculation

$$\text{PSD} = \text{Reading Value} + \text{ATT loss} + \text{Cable loss}(1 \text{ ea}) + \text{BWCF}$$

$$= -5 \text{ dBm} + 10 \text{ dB} + 0.8 \text{ dB} - 15.2 \text{ dB} = 0.6 \text{ dBm}$$

Where: BWCF(Bandwidth Correction Factor) = $10\log(3 \text{ kHz}/100 \text{ kHz}) = -15.2 \text{ dB}$

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 2.4 GHz and 5.8 GHz range that was rounded off to the closest tenth dB.
Actual value of loss for the attenuator and cable combination is below table.

FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No. HCTR1209FR09-1	Date of Issue: September 21, 2012	EUT Type: Wi-Fi module	FCC ID: BEJTWFBM006D

Band	Frequency(MHz)	Loss(dB)
2.4 GHz	2412	10.11
	2437	10.10
	2462	10.12
5.8 GHz (20 MHz BW)	5745	10.37
	5785	10.38
	5825	10.37
5.8 GHz (40 MHz BW)	5755	10.37
	5795	10.38

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