

# HCT CO., LTD.

## CERTIFICATE OF COMPLIANCE

#### **FCC Certification**

**Applicant Name:** 

Pantech Co., Ltd.

Address:

Pantech Bldg, I-2, DMC, Sangam-dong, Mapo-gu,

Seoul, 121-792, Korea

Date of Issue:

January 23, 2013

Test Site/Location:

HCT CO., LTD., 105-1, Jangam-ri, Majang-Myeon,

Icheon-si, Kyunggi-Do, Korea

Report No.: HCTR1301FR15

HCT FRN: 0005866421

FCC ID

: JYCORBIT

**APPLICANT** 

: Pantech Co., Ltd.

FCC Model(s):

MHS291LVW

**EUT Type:** 

Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN

Max. RF Output

Power:

Wi-Fi 802.11b (22.33 dBm) / Wi-Fi 802.11g (23.87 dBm)/ Wi-Fi 802.11n (2.4 GHz) (22.59 dBm)

/ Wi-Fi 802.11a (5.8 GHz) (18.59 dBm)/ Wi-Fi 802.11n 20 MHz BW (5.8 GHz) (16.18 dBm)

/ Wi-Fi 802.11n 40 MHz BW (5.8 GHz) (16.44 dBm)

Frequency Range:

2412 MHz - 2462 MHz (2.4 GHz Band)

5745 MHz - 5825 MHz (5.8 GHz Band) 20 MHz BW, 5755 MHz - 5795 MHz (5.8 GHz Band) 40 MHz BW

Modulation type

CCK/DSSS/OFDM

FCC Classification:

Digital Transmission System(DTS)

FCC Rule Part(s):

Part 15.247

#### **Engineering Statement:**

The measurements shown in this report were made in accordance with the procedures indicated, and the emissions from this equipment were found to be within the limits applicable. 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)

Report prepared by

: Jong Seok Lee

Approved by

Test engineer of RF Team

: Chang Seok Choi Manager of RF Team

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# **Version**

TEST REPORT NO.	DATE	DESCRIPTION
HCTR1301FR15	January 23, 2013	- First Approval Report

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## 1. GENERAL INFORMATION

Applicant: Pantech Co., Ltd.

Address: Pantech Bldg, I-2, DMC, Sangam-dong, Mapo-gu, Seoul, 121-792, Korea

FCC ID: JYCORBIT

**EUT Type:** Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN

Model name(s): MHS291LVW

**Date(s) of Tests:** December 10, 2012 ~ December 21, 2012

Place of Tests: HCT Co., Ltd.

105-1, Jangam-ri , Majang-Myeon, Icheon-si, Kyunggi-Do, 467-811, KOREA.

(IC Recognition No.: 5944A-3)

# 2. EUT DESCRIPTION

EUT Type	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN			
FCC Model Name	MHS291L	VW		
Power Supply	DC 3.8 V			
Battery type	Li-ion Batt	ery(Standard)		
Frequency Range		TX: 2412 MHz~2462 MHz, 5745 MHz~5825 MHz_20 MHz, 5755 MHz~5795 MHz_40 MHz RX: 2412 MHz~2462 MHz, 5745 MHz~5825 MHz_20 MHz, 5755 MHz~5795 MHz_40 MHz		
Max. RF Output Power:	Peak Average	Wi-Fi 802.11b (22.33 dBm) / Wi-Fi 802.11g (23.87 dBm)/ Wi-Fi 802.11n (2.4 GHz) (22.59 dBm) / Wi-Fi 802.11a (5.8 GHz) (18.59 dBm)/ Wi-Fi 802.11n_20 MHz BW (5.8 GHz) (16.18 dBm) / Wi-Fi 802.11n_40 MHz BW (5.8 GHz) (16.44 dBm) Wi-Fi 802.11b (16.17 dBm) / Wi-Fi 802.11g (15.71 dBm)/ Wi-Fi 802.11n (2.4 GHz) (14.69 dBm)		
	Average	/ Wi-Fi 802.11b (16.17 dBiti) / Wi-Fi 802.11g (13.71 dBiti) / Wi-Fi 802.11h (2.4 GHz) (14.99 dBiti) / Wi-Fi 802.11a (5.8 GHz) (10.90 dBm) / Wi-Fi 802.11n_20 MHz BW (5.8 GHz) (8.53 dBm) / Wi-Fi 802.11n_40 MHz BW (5.8 GHz) (9.28 dBm)		
Modulation Type	DSSS/CCK(802.11b), OFDM(802.11a, 802.11g, 802.11n_20 MHz BW, 802.11n_40 MHz BW)			
Antenna Specification	Manufacturer: HCT Co., Ltd.			
	Antenna type: Internal Antenna			
	Peak Gair	Peak Gain: 0.98 dBi (2.4 GHz Band), -0.35 dBi (5.8 GHz Band)		

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#### 3. TEST METHODOLOGY

The measurement procedure described in the American National Standard for Testing Unlicensed Wireless Devices(ANSI C63.10-2009) Operating Under §15.247" were used in the measurement.

#### 3.1 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

#### 3.2 EUT EXERCISE

The EUT was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements. According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209 and 15.247 under the FCC Rules Part 15 Subpart C.

#### 3.3 GENERAL TEST PROCEDURES

#### **Conducted Emissions**

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 6.2 of ANSI C63.10. (Version :2009) Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

#### **Radiated Emissions**

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3 m away from the receiving antenna, which varied from 1 m to 4 m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the max. emission, the relative positions of this hand-held transmitter (EUT) was rotated through three orthogonal axes according to the requirements in Section 6.3 of ANSI C63.10. (Version: 2009).

#### 3.4 DESCRIPTION OF TEST MODES

The EUT has been tested under operating condition. Test program used to control the EUT for staying in continuous transmitting and receiving mode is programmed.

Channel low, mid and high with highest data rate (worst case) is chosen for full testing.

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#### 4. 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 equipments, which is traceable to recognized national standards.

## 5. FACILITIES AND ACCREDITATIONS

#### **5.1 FACILITIES**

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, Kyunggi-Do, 467-811, Korea. The site is constructed in conformance with the requirements of ANSI C63.4. (Version :2003) and CISPR Publication 22. Detailed description of test facility was submitted to the Commission and accepted dated March 02, 2011 (Registration Number: 90661)

#### **5.2 EQUIPMENT**

Radiated emissions are measured with one or more of the following types of Linearly polarized antennas: tuned dipole, bi-conical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements. Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers. Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

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## 6. ANTENNA REQUIREMENTS

## According to FCC 47 CFR §15.203:

"An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section."

\* The antennas of this E.U.T are permanently attached.

\*The E.U.T Complies with the requirement of §15.203

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# 7. SUMMARY TEST OF RESULTS

Test Description	FCC Part Section(s)	Test Limit	Test Condition	Test Result
6 dB Bandwidth	§15.247(a)(2)	> 500 kHz	CONDUCTED	PASS
Conducted Maximum Peak Output Power	§15.247(b)(3)	< 1 Watt		PASS
Power Spectral Density	§15.247(e)	< 8 dBm / 3 kHz Band		PASS
Band Edge(Out of Band Emissions)	§15.247(d)	Conducted < 20 dBc		PASS
AC Power line Conducted Emissions	§15.207	cf. Section 8.6		PASS
Radiated Spurious Emissions	§15.205, 15.209	cf. Section 8.5.1		PASS
Radiated Restricted Band Edge	§15.247(d), 15.205, 15.209	cf. Section 8.5.2	RADIATED	PASS

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#### 8. TEST RESULT

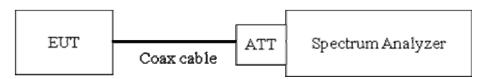
## 8.1 6 dB BANDWIDTH MEASUREMENT (802.11a/b/g/n)

## Test Requirements and limit, §15.247(a)(2)

The bandwidth at 6 dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the receive antenna while the EUT is operating in transmission mode at the appropriate frequencies.

The minimum permissible 6 dB bandwidth is 500 kHz.

#### **TEST CONFIGURATION**



#### **TEST PROCEDURE**

The transmitter output is connected to the Spectrum Analyzer.

The Spectrum Analyzer is set to

RBW = 1 - 5 % of DTS BW

VBW = 3 \* RBW

SPAN = The span range for the SA display shall be between two times and five times the OBW.

Detector = Peak

Trace mode = max hold

Sweep = auto couple

Note: We tested 6 dB bandwidth using the automatic bandwidth measurement capability of a spectrum analyzer. X dB is set 6 dB.

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## **TEST RESULTS**

#### Conducted 6 dB Bandwidth Measurements for 802.11b

802.11b Mode		Measured Bandwidth	Minimum Bandwidth	
Frequency [MHz]	Channel No.	[MHz]	[MHz]	Pass / Fail
2412	1	10.42	0.500	Pass
2437	6	10.45	0.500	Pass
2462	11	10.30	0.500	Pass

## Conducted 6 dB Bandwidth Measurements for 802.11g

802.11g Mo	ode	Measured Bandwidth	Minimum Bandwidth	
Frequency [MHz]	Channel No.	[MHz]	[MHz]	Pass / Fail
2412	1	16.46	0.500	Pass
2437	6	16.48	0.500	Pass
2462	11	16.45	0.500	Pass

## Conducted 6 dB Bandwidth Measurements for 802.11n(2.4 GHz Band)

802.11n Mo	ode	Measured Bandwidth	Minimum Bandwidth [MHz]	Pass / Fail
Frequency [MHz]	Channel No.			
2412	1	17.62	0.500	Pass
2437	6	17.68	0.500	Pass
2462	11	17.63	0.500	Pass

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## Conducted 6 dB Bandwidth Measurements for 802.11a

802.11a M	ode	Measured Bandwidth	Minimum Bandwidth		
Frequency [MHz]	Frequency [MHz]	[MHz]	[MHz]	Pass / Fail	
5745	149	16.39	0.5	Pass	
5785	157	16.34	0.5	Pass	
5825	165	16.35	0.5	Pass	

## Conducted 6 dB Bandwidth Measurements for 802.11n(5.8 GHz Band)

802.11n Mo	ode	Measured Bandwidth	Minimum Bandwidth	
Frequency [MHz]	Channel No.	[MHz]	[MHz]	Pass / Fail
5745	149	17.37	0.5	Pass
5785	157	17.36	0.5	Pass
5825	165	17.43	0.5	Pass

# Conducted 6 dB Bandwidth Measurements for 802.11n\_40 MHz BW(5.8 GHz Band)

802.11n Mo	ode	Measured Bandwidth	Minimum Bandwidth	Pass / Fail
Frequency [MHz]	Channel No.	[MHz]	[MHz]	
5755	151	35.87	0.5	Pass
5795	159	36.00	0.5	Pass

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#### **RESULT PLOTS**

## 6dB Bandwidth plot (802.11b-CH 1)



## 6dB Bandwidth plot (802.11b-CH 6)



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#### 6dB Bandwidth plot (802.11b-CH 11)



## 6dB Bandwidth plot (802.11g-CH 1)



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## 6dB Bandwidth plot (802.11g-CH 6)



## 6dB Bandwidth plot (802.11g-CH 11)



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## 6dB Bandwidth plot (802.11n-CH 1)



## 6dB Bandwidth plot (802.11n-CH 6)



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## 6dB Bandwidth plot (802.11n-CH 11)



# 6dB Bandwidth plot (802.11a-CH 149)



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## 6dB Bandwidth plot (802.11a-CH 157)



## 6dB Bandwidth plot (802.11a-CH 165)



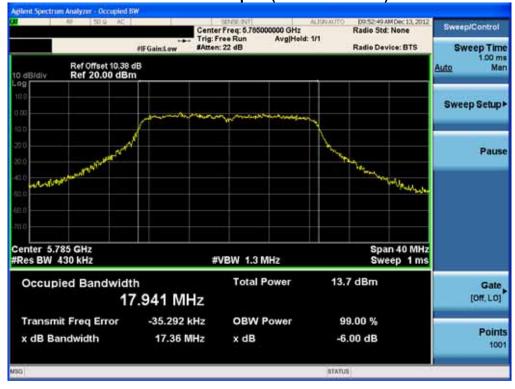
-	FCC PT.15.247 TEST REPORT		www.hct.co.kr	
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## 6dB Bandwidth plot (802.11n-CH 149)



# 6dB Bandwidth plot (802.11n-CH 157)



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# 6dB Bandwidth plot (802.11n-CH 165)



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## 6dB Bandwidth plot (802.11n-CH 151)



# 6dB Bandwidth plot (802.11n-CH 159)



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## 8.2 OUTPUT POWER MEASUREMENT (802.11a/b/g/n)

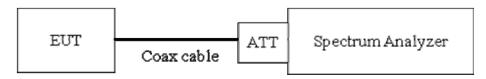
#### Test Requirements and limit, §15.247(b)(3)

A transmitter antenna terminal of EUT is connected to the input of a Spectrum Analyzer.

Measurement is made while the EUT is operating in transmission mode at the appropriate frequencies.

The maximum permissible conducted output power is 1 Watt.

#### **TEST CONFIGURATION**



#### **TEST PROCEDURE**

The transmitter output is connected to the Spectrum Analyzer. We use the spectrum analyzer's integrated band power measurement function. We tested according to ANSI 63.10.

This EUT TX condition is actual operating mode(duty cycle ≥ 98%) by WLAN test program.

#### The Spectrum Analyzer is set to

Peak Power ( Procedure 6.10.2.1 in ANCI 63.10 )

RBW = 1 MHz

VBW = 3 MHz

SPAN = Set the span just large enough to capture the emission

Detector Mode = Peak

Integrated bandwidth = EBW

Sweep = auto couple

Trace Mode = max hold

Turn averaging off

Average Power ( Procedure 6.10.3.1 in ANSI 63.10)

RBW = 1 MHz

VBW = 3 MHz

SPAN = Set span to encompass the entire EBW of the signal.

Detector Mode = Use sample detector if bin width

(i.e., span/number of points in spectrum display) < 0.5 RBW.

Otherwise, use peak detector

Integrated bandwidth = EBW

Sweep = auto couple

Sweep Point = 1001

Trace average across 100 traces in power averaging mode.

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## **Sample Calculation**

Output Power = Reading Value + ATT loss + Cable loss(1 ea) = 10 dBm + 10 dB + 0.8 dB = 20.8 dBm

#### Note:

- 1. Spectrum reading values are not plot data. The power 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. So, the offset is 10.1 dB in 2.4 GHz. And the offset gap in the 2.4 GHz range do not affect the conducted output power final result. Actual value of loss for the attenuator and cable combination is below table.

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

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

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# **TEST RESULTS-Peak**

# Conducted Out Power Measurements (802.11b Mode)

802.11b Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
		1 Mbps	19.12	30
2412	1	2 Mbps	19.39	30
2412	1	5.5 Mbps	20.32	30 30 30 30 30 30 30
		11 Mbps	21.84	
		1 Mbps	19.07	30
0.407	6	2 Mbps	19.77	30 30 30 30 30 30 30 30 30 30
2437	6	5.5 Mbps	21.13	
		11 Mbps	22.33	30
		1 Mbps	18.58	(dBm)  30  30  30  30  30  30  30  30  30  3
2462	11	2 Mbps	18.85	30
2462		5.5 Mbps	19.99	30
		11 Mbps	21.74	30

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# Conducted Output Power Measurements (802.11g Mode)

802.11g Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
		6 Mbps	23.19	30
		9 Mbps	23.50	30
		12 Mbps	23.73	30
0440	4	18 Mbps	23.24	30
2412	1	24 Mbps	22.85	30
		36 Mbps	22.42	30
		48 Mbps	22.74	30
		54 Mbps	22.27	30
		6 Mbps	23.51	30
		9 Mbps	23.55	30
		12 Mbps	23.87	30
2437	6	18 Mbps	23.46	30
2437	6	24 Mbps	23.06	30
		36 Mbps	22.74	30
		48 Mbps	22.87	30
		54 Mbps	22.05	30
		6 Mbps	23.05	30
		9 Mbps	23.06	30
		12 Mbps	23.42	30
2462	11	18 Mbps	22.97	30
2402	11	24 Mbps	22.46	30
		36 Mbps	22.02	30
		48 Mbps	21.85	30
		54 Mbps	21.07	30

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# Conducted Output Power Measurements (802.11n Mode)

802.11n Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
		6.5 Mbps	22.59	30
		13 Mbps	20.48	30
		19.5 Mbps	20.29	30
2412	1	26 Mbps	21.82	30
2412	1	39 Mbps	20.66	30
		52 Mbps	20.78	30
		58.5 Mbps	20.84	30
		65 Mbps	20.47	30
		6.5 Mbps	22.24	30
	6	13 Mbps	20.23	30
		19.5 Mbps	20.16	30
2437		26 Mbps	21.63	30
2437		39 Mbps	20.59	30
		52 Mbps	20.66	30
		58.5 Mbps	20.64	30
		65 Mbps	20.58	30
		6.5 Mbps	21.65	30
		13 Mbps	19.82	30
		19.5 Mbps	19.80	30
2462	11	26 Mbps	21.11	30
2462	11	39 Mbps	20.00	30
		52 Mbps	20.05	30
		58.5 Mbps	20.20	30
		65 Mbps	20.12	30

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# Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
		6 Mbps	18.56	30
		9 Mbps	18.55	30
		12 Mbps	18.59	30
57.45	440	18 Mbps	18.23	30
5745	149	24 Mbps	17.67	30
		36 Mbps	17.73	30
		48 Mbps	17.05	30
		54 Mbps	16.48	30
		6 Mbps	17.85	30
	157	9 Mbps	18.07	30
		12 Mbps	18.17	30
5705		18 Mbps	17.84	30
5785		24 Mbps	17.65	30
		36 Mbps	17.39	30
		48 Mbps	16.60	30
		54 Mbps	16.07	30
		6 Mbps	17.68	30
		9 Mbps	18.00	30
		12 Mbps	17.95	30
E90E	405	18 Mbps	17.64	30
5825	165	24 Mbps	17.32	30
		36 Mbps	17.13	30
		48 Mbps	16.65	30
		54 Mbps	15.90	30

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# Conducted Output Power Measurements (802.11n\_20 MHz BW Mode: 5745~5825)

802.11n Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
		6.5 Mbps	16.08	30
		13 Mbps	12.64	30
		19.5 Mbps	12.82	30
E74E	440	26 Mbps	15.77	30
5745	149	39 Mbps	14.19	30
		52 Mbps	13.93	30
		58.5 Mbps	14.19	30
		65 Mbps	14.07	30
		6.5 Mbps	16.18	30
	157	13 Mbps	11.94	30
		19.5 Mbps	11.74	30
5705		26 Mbps	15.56	30
5785		39 Mbps	13.60	30
		52 Mbps	13.61	30
		58.5 Mbps	13.39	30
		65 Mbps	13.35	30
		6.5 Mbps	16.01	30
		13 Mbps	12.65	30
		19.5 Mbps	12.54	30
E90E	405	26 Mbps	15.96	30
5825	165	39 Mbps	13.88	30
		52 Mbps	13.96	30
		58.5 Mbps	14.06	30
		65 Mbps	14.10	30

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# Conducted Output Power Measurements (802.11n\_40 MHz BW Mode: 5755~5795)

802.11n Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
		13.5 Mbps	16.44	30
		27 Mbps	13.90	30
		40.5 Mbps	13.80	30
E755	151	54 Mbps	16.24	30
5755	151	81 Mbps	14.52	30
		108 Mbps	14.56	30
		121.5 Mbps	14.70	30
		135 Mbps	14.33	30
	4-0	13.5 Mbps	15.98	30
		27 Mbps	13.37	30
		40.5 Mbps	13.08	30
<b>5705</b>		54 Mbps	16.26	30
5795	159	81 Mbps	14.49	30
		108 Mbps	14.39	30
		121.5 Mbps	14.48	30
		135 Mbps	14.58	30

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# **TEST RESULTS-Average**

# **Conducted Output Power Measurements (802.11b Mode)**

802.11b Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
		1 Mbps	16.17	30
2412	1	2 Mbps	15.74	30
2412	1	5.5 Mbps	16.08	30
		11 Mbps	15.61	30
	6	1 Mbps	16.08	30
0.407		2 Mbps	16.08	30
2437		5.5 Mbps	16.04	30
		11 Mbps	16.03	30
	11	1 Mbps	15.55	30
2462		2 Mbps	15.54	30
		5.5 Mbps	15.51	30
		11 Mbps	15.09	30

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# **Conducted Output Power Measurements (802.11g Mode)**

802.11g Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
		6 Mbps	15.46	30
		9 Mbps	15.49	30
		12 Mbps	15.32	30
2412	4	18 Mbps	15.38	30
2412	1	24 Mbps	13.97	30
		36 Mbps	13.92	30
		48 Mbps	14.53	30
		54 Mbps	13.23	30
		6 Mbps	15.71	30
	6	9 Mbps	15.66	30
		12 Mbps	15.67	30
2437		18 Mbps	15.70	30
2437		24 Mbps	14.28	30
		36 Mbps	14.24	30
		48 Mbps	14.10	30
		54 Mbps	13.05	30
		6 Mbps	15.15	30
		9 Mbps	15.18	30
		12 Mbps	15.10	30
2462	44	18 Mbps	15.29	30
2462	11	24 Mbps	13.73	30
		36 Mbps	13.71	30
		48 Mbps	13.15	30
		54 Mbps	12.19	30

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# Conducted Output Power Measurements (802.11n Mode)

802.11n Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
		6.5 Mbps	14.69	30
		13 Mbps	12.26	30
		19.5 Mbps	12.39	30
0440	4	26 Mbps	13.41	30
2412	1	39 Mbps	12.30	30
		52 Mbps	12.15	30
		58.5 Mbps	12.18	30
		65 Mbps	12.09	30
		6.5 Mbps	14.41	30
		13 Mbps	12.18	30
	6	19.5 Mbps	12.30	30
0.407		26 Mbps	13.19	30
2437		39 Mbps	12.14	30
		52 Mbps	11.95	30
		58.5 Mbps	11.94	30
		65 Mbps	11.83	30
		6.5 Mbps	13.86	30
		13 Mbps	11.74	30
		19.5 Mbps	11.84	30
0.460		26 Mbps	12.79	30
2462	11	39 Mbps	11.71	30
		52 Mbps	11.53	30
		58.5 Mbps	11.52	30
		65 Mbps	11.37	30

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# Conducted Output Power Measurements (802.11a Mode: 5745~5825)

802.11a	Mode	Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
		6 Mbps	10.90	30
		9 Mbps	10.88	30
		12 Mbps	10.86	30
57.45	440	18 Mbps	10.90	30
5745	149	24 Mbps	9.77	30
		36 Mbps	9.63	30
		48 Mbps	9.23	30
		54 Mbps	8.10	30
		6 Mbps	10.80	30
	157	9 Mbps	10.80	30
		12 Mbps	10.79	30
5705		18 Mbps	10.80	30
5785		24 Mbps	9.43	30
		36 Mbps	9.27	30
		48 Mbps	8.82	30
		54 Mbps	9.52	30
		6 Mbps	10.59	30
		9 Mbps	10.27	30
		12 Mbps	10.45	30
5005	405	18 Mbps	10.21	30
5825	165	24 Mbps	9.62	30
		36 Mbps	9.63	30
		48 Mbps	8.87	30
		54 Mbps	8.01	30

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# Conducted Output Power Measurements (802.11n\_20 MHz BW Mode: 5745~5825)

802.11n Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
		6.5 Mbps	8.41	30
		13 Mbps	5.33	30
		19.5 Mbps	5.46	30
5745	440	26 Mbps	8.30	30
5745	149	39 Mbps	6.38	30
		52 Mbps	6.33	30
		58.5 Mbps	6.32	30
		65 Mbps	6.30	30
		6.5 Mbps	8.40	30
	157	13 Mbps	4.43	30
		19.5 Mbps	4.54	30
5705		26 Mbps	7.70	30
5785		39 Mbps	5.70	30
		52 Mbps	5.75	30
		58.5 Mbps	5.41	30
		65 Mbps	5.68	30
		6.5 Mbps	8.53	30
		13 Mbps	5.09	30
		19.5 Mbps	5.32	30
5005		26 Mbps	8.46	30
5825	165	39 Mbps	6.24	30
		52 Mbps	6.08	30
		58.5 Mbps	6.17	30
		65 Mbps	6.03	30

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# Conducted Output Power Measurements (802.11n\_40 MHz BW Mode: 5755~5795)

802.11n Mode		Rate	Measured	Limit
Frequency[MHz]	Channel No.	(Mbps)	Power(dBm)	(dBm)
		13.5 Mbps	9.28	30
		27 Mbps	6.24	30
		40.5 Mbps	6.31	30
<b>6755</b>	454	54 Mbps	8.48	30
5755	151	81 Mbps	6.56	30
		108 Mbps	6.48	30
		121.5 Mbps	6.14	30
		135 Mbps	6.33	30
	159	13.5 Mbps	8.87	30
		27 Mbps	5.60	30
		40.5 Mbps	5.73	30
F705		54 Mbps	8.33	30
5795		81 Mbps	6.56	30
		108 Mbps	6.36	30
		121.5 Mbps	6.37	30
		135 Mbps	6.30	30

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#### **RESULT PLOTS-Peak**

## Conducted Output Power (802.11b-CH 1) 1Mbps



## Conducted Output Power (802.11b-CH 1) 2Mbps



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## Conducted Output Power (802.11b-CH 1) 5.5Mbps



## Conducted Output Power (802.11b-CH 1) 11Mbps



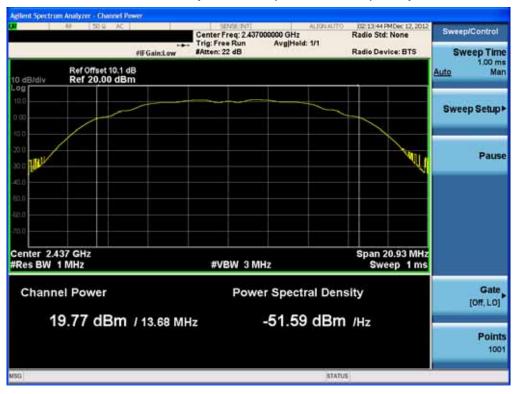
FCC PT.15.247 TEST REPORT		www.hct.co.kr	
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## Conducted Output Power (802.11b-CH 6) 1Mbps



## Conducted Output Power (802.11b-CH 6) 2Mbps



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#### Conducted Output Power (802.11b-CH 6) 5.5Mbps



## Conducted Output Power (802.11b-CH 6) 11Mbps



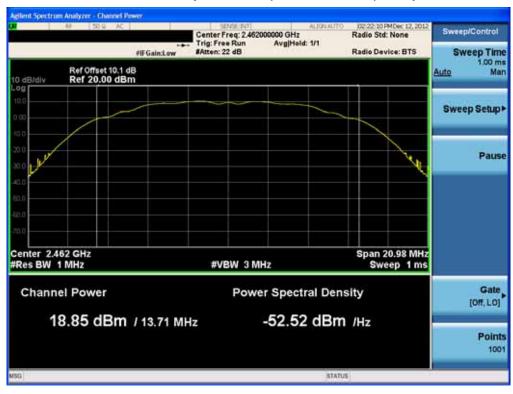
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## Conducted Output Power (802.11b-CH 11) 1Mbps



## Conducted Output Power (802.11b-CH 11) 2Mbps



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#### Conducted Output Power (802.11b-CH 11) 5.5Mbps



## Conducted Output Power (802.11b-CH 11) 11Mbps



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#### Conducted Output Power (802.11g-CH 1) 6Mbps



## Conducted Output Power (802.11g-CH 1) 9Mbps



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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



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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 CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



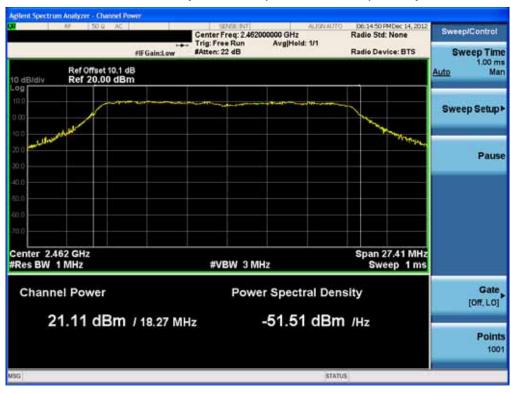
FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



(5745 MHz ~5825 MHz)

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



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



-	FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
	Test Report No. HCTR1301FR15	Date of Issue: January 23, 2013	EUT Type: Cellular/PCS CDMA. GSM. WCDMA and LTE Portable Router with WLAN	FCC ID: JYCORBIT
	TCTK1301FK13	January 23, 2013	Celidal/PCS CDIVIA, GSIVI, WCDIVIA and LTE Fortable Router With WEAN	JICORDII



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



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



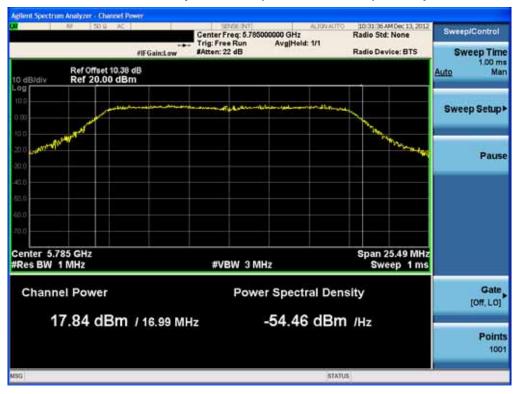
FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



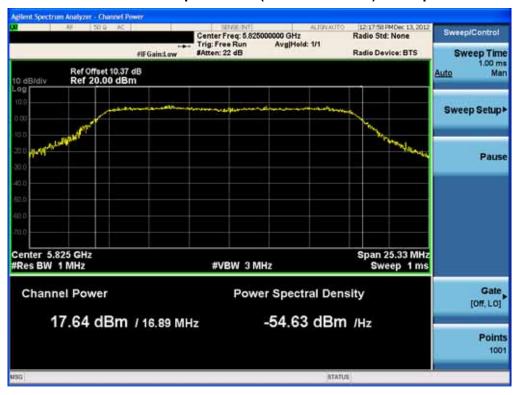
-	FCC PT.15.247 TEST REPORT		www.hct.co.kr	
	Test Report No. HCTR1301FR15	Date of Issue: January 23, 2013	EUT Type: Cellular/PCS CDMA. GSM. WCDMA and LTE Portable Router with WLAN	FCC ID: JYCORBIT
	TCTK1301FK13	January 23, 2013	Celidal/PCS CDIVIA, GSIVI, WCDIVIA and LTE Fortable Router With WEAN	JICORDII



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



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



FCC PT.15.247 TEST REPORT		www.hct.co.kr	
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT		www.hct.co.kr	
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT		www.hct.co.kr	
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



#### 20 MHz BW

(5745 MHz ~5825 MHz)

Conducted Output Power (802.11n-CH 149) 6.5 Mbps



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



FCC PT.15.247 TEST REPORT		www.hct.co.kr	
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT		www.hct.co.kr	
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT		www.hct.co.kr	
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT		www.hct.co.kr	
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT		www.hct.co.kr	
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT		www.hct.co.kr	
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT		www.hct.co.kr	
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT		www.hct.co.kr	
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



-	FCC PT.15.247 TEST REPORT		www.hct.co.kr	
	Test Report No. HCTR1301FR15	Date of Issue: January 23, 2013	EUT Type: Cellular/PCS CDMA. GSM. WCDMA and LTE Portable Router with WLAN	FCC ID: JYCORBIT
	TCTK1301FK13	January 23, 2013	Celidal/PCS CDIVIA, GSIVI, WCDIVIA and LTE Fortable Router With WEAN	JICORDII



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



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



FCC PT.15.247 TEST REPORT		www.hct.co.kr	
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT		www.hct.co.kr	
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT		www.hct.co.kr	
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



#### 40 MHz BW

(5755 MHz ~5795 MHz)

Conducted Output Power (802.11n-CH 149) 13.5 Mbps



## Conducted Output Power (802.11n-CH 149) 27 Mbps



FCC PT.15.247 TEST REPORT	ECC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:  Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	FCC ID:
HCTR1301FR15	January 23, 2013		JYCORBIT



## Conducted Output Power (802.11n-CH 149) 40.5 Mbps



### Conducted Output Power (802.11n-CH 149) 54 Mbps



	FCC PT.15.247 TEST REPORT		www.hct.co.kr	
I	Test Report No.	Date of Issue:	EUT Type:	FCC ID:
	HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



## Conducted Output Power (802.11n-CH 149) 81 Mbps



### Conducted Output Power (802.11n-CH 149) 108 Mbps



FCC PT.15.247 TEST REPORT		www.hct.co.kr	
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



## Conducted Output Power (802.11n-CH 149) 121.5 Mbps



## Conducted Output Power (802.11n-CH 149) 135 Mbps



FCC PT.15.247 TEST REPORT		www.hct.co.kr	
Test Report No. HCTR1301FR15	Date of Issue: January 23, 2013	EUT Type: Cellular/PCS CDMA. GSM. WCDMA and LTE Portable Router with WLAN	FCC ID: JYCORBIT
HCTK1301FK13	January 23, 2013	Celiulai/FC3 CDIVIA, GSIVI, WCDIVIA and LTE PORTABLE ROUTER WITH WLAN	JICORDII



Conducted Output Power (802.11n-CH 149) 13.5 Mbps



## Conducted Output Power (802.11n-CH 149) 27 Mbps



FCC PT.15.247 TEST REPORT		www.hct.co.kr	
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



## Conducted Output Power (802.11n-CH 149) 40.5 Mbps



### Conducted Output Power (802.11n-CH 149) 54 Mbps



FCC PT.15.247 TEST REPORT		www.hct.co.kr	
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



## Conducted Output Power (802.11n-CH 149) 81 Mbps



### Conducted Output Power (802.11n-CH 149) 108 Mbps



-	FCC PT.15.247 TEST REPORT		www.hct.co.kr	
	Test Report No. HCTR1301FR15	Date of Issue: January 23, 2013	EUT Type: Cellular/PCS CDMA. GSM. WCDMA and LTE Portable Router with WLAN	FCC ID: JYCORBIT
	TCTK1301FK13	January 23, 2013	Celidal/PCS CDIVIA, GSIVI, WCDIVIA and LTE Fortable Router With WEAN	JICORDII



## Conducted Output Power (802.11n-CH 149) 121.5 Mbps



## Conducted Output Power (802.11n-CH 149) 135 Mbps



-	FCC PT.15.247 TEST REPORT		www.hct.co.kr	
	Test Report No. HCTR1301FR15	Date of Issue: January 23, 2013	EUT Type: Cellular/PCS CDMA. GSM. WCDMA and LTE Portable Router with WLAN	FCC ID: JYCORBIT
	TCTK1301FK13	January 23, 2013	Celidal/PCS CDIVIA, GSIVI, WCDIVIA and LTE Fortable Router With WEAN	JICORDII



### **RESULT PLOTS-Average**

## Conducted Output Power (802.11b-CH 1) 1Mbps



## Conducted Output Power (802.11b-CH 1) 2Mbps



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



## Conducted Output Power (802.11b-CH 1) 5.5Mbps



## Conducted Output Power (802.11b-CH 1) 11Mbps



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



### Conducted Output Power (802.11b-CH 6) 1Mbps



## Conducted Output Power (802.11b-CH 6) 2Mbps



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



## Conducted Output Power (802.11b-CH 6) 5.5Mbps



## Conducted Output Power (802.11b-CH 6) 11Mbps



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



### Conducted Output Power (802.11b-CH 11) 1Mbps



## Conducted Output Power (802.11b-CH 11) 2Mbps



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT

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### Conducted Output Power (802.11b-CH 11) 5.5Mbps



## Conducted Output Power (802.11b-CH 11) 11Mbps



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



## Conducted Output Power (802.11g-CH 1) 6Mbps



## Conducted Output Power (802.11g-CH 1) 9Mbps



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



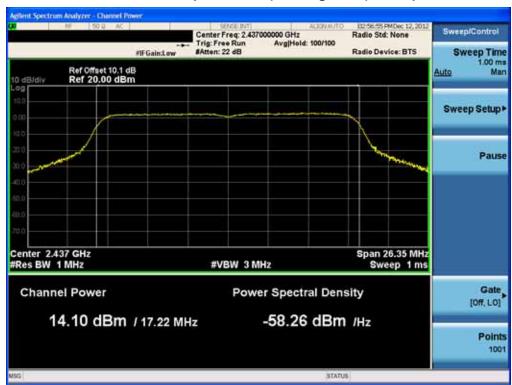
## Conducted Output Power (802.11g-CH 6) 36Mbps



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT

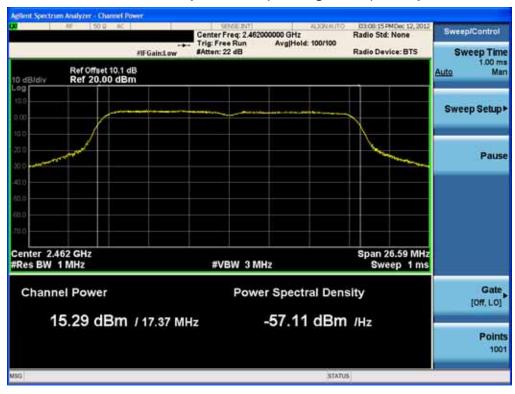
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## Conducted Output Power (802.11g-CH 11) 12Mbps



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT



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



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



FCC PT.15.247 TEST REPORT	FCC CERTIFICATION REPORT		www.hct.co.kr
Test Report No.	Date of Issue:	EUT Type:	FCC ID:
HCTR1301FR15	January 23, 2013	Cellular/PCS CDMA, GSM, WCDMA and LTE Portable Router with WLAN	JYCORBIT