中认信通
CHINA CERTIFICATION ICT CO., LTD (DONGGUAN)

ACCREDITED
Certificate #6356.01

TEST REPORT

Applicant: **Proxim Wireless Corporation**

Address: 2114 Ringwood Ave, San Jose, CA 95131, USA

FCC ID: **HZB-NGPPS**

Product Name: **NGP LC 4.9+5 GHz radio**

Model Number: **MP-1045-BS3-US, AB-CCCCD-XXX-YYY-ZZ**

Standard(s): **47 CFR Part 1.1310**
47 CFR Part 2.1091
47 CFR Part 15.247(i)
47 CFR Part 15.407(f)

The above equipment has been tested and found compliance with the requirement of the relative standards by China Certification ICT Co., Ltd (Dongguan)

Report Number: **CR21090075-00E**

Date Of Issue: **2022-04-08**

Reviewed By: **Sun Zhong** Sun Zhong

Title: Manager

Test Laboratory: China Certification ICT Co., Ltd (Dongguan)
No. 113, Pingkang Road, Dalang Town, Dongguan,
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Test Facility

The Test site used by China Certification ICT Co., Ltd (Dongguan) to collect test data is located on the No. 113, Pingkang Road, Dalang Town, Dongguan, Guangdong, China.

The lab has been recognized as the FCC accredited lab under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No. : 442868, the FCC Designation No. : CN1314.

The lab has been recognized by Innovation, Science and Economic Development Canada to test to Canadian radio equipment requirements, the CAB identifier: CN0123.

Declarations

China Certification ICT Co., Ltd (Dongguan) is not responsible for the authenticity of any test data provided by the applicant. Data included from the applicant that may affect test results are marked with a triangle symbol "▲". Customer model name, addresses, names, trademarks etc. are not considered data.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

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CONTENTS

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

EUT Name:	NGP LC 4.9+5 GHz radio
EUT Model:	MP-1045-BS3-US
Multiple Model	AB-CCCCD-XXX-YYY-ZZ (Refer to the DOS letter for details)
Rated Input Voltage:	DC 56V from POE
Serial Number:	CR21090075-RF-S1
EUT Received Date:	2021.09.29
EUT Received Status:	Good
Note: The Multiple models are identical with Test model, please refer to the declaration letter for more detail, which was provided by manufacturer.	

Accessory Information:

Accessory Description	Manufacturer	Model	Parameters
Adapter	Proxim / RISUNIC	RP025-5600536YG/Proxim 400-00021	Input AC 100-240V 50/60Hz 0.7A Max Output: DC 56.0V 0.536A

Description of Configuration

The devices have below Optional Antenna Kit Accessory, the information as below▲:

Manufacturer	Model	Antenna Type	input impedance (Ohm)	Antenna Gain /Used Frequency Range
ARC Wireless	ARC-OA5813SD1	Dual Pol Omni Antenna	50	13 dBi/ 4.9-5.875GHz
ARC Wireless	VS5821	Dual Polarization Variable Beamwidth Sector Antenna	50	21 dBi/ 4.94-5.875GHz
Proxim	PA5-0823-DP	High Gain Dual Polarized/Dual Slant Antenna	50	23 dBi/ 4.9-5.875GHz
UBIQUITI Networks	RD5G34	2x2 PtP Bridge Dish Antenna	50	34 dBi/ 4.9-5.875GHz

The Conducted output power including Tune-up Tolerance for each antenna/bands as below, which was declared by manufacturer▲:

Antenna Model	Frequency Range (GHz)	Conducted output power including Tune-up Tolerance (dBm)
ARC-OA5813SD1	4.94-4.99	19
	5.15-5.25	21.5
	5.725-5.85	23
ARC-VS5821SD1	4.94-4.99	22
	5.15-5.25	21.5
	5.725-5.85	23
PA5-0530-DP	4.94-4.99	22
	5.15-5.25	21.5
	5.725-5.85	23
'RD-5G34	4.94-4.99	19
	5.15-5.25	14
	5.725-5.85	23
BLE	2.402-2.480	-2.0

Applicable Standard

According to subpart 15.247(i), 15.407(f) and subpart §1.1310, systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

Limits for Maximum Permissible Exposure (MPE) (§1.1310, §2.1091)

(B) Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	Averaging Time (minutes)
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f^2)	30
30–300	27.5	0.073	0.2	30
300–1500	/	/	f/1500	30
1500–100,000	/	/	1.0	30

f = frequency in MHz; * = Plane-wave equivalent power density;

According to §1.1310 and §2.1091 RF exposure is calculated.

Calculation Methodology:

Prediction of power density at the distance of the applicable MPE limit
$S = PG/4\pi R^2$= power density (in appropriate units, e.g. mW/cm^2);
P = power input to the antenna (in appropriate units, e.g., mW);
G = power gain of the antenna in the direction of interest relative to an isotropic radiator, the power gain factor, is normally numeric gain;
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm);

$=>R=(PG/4\pi S)^{0.5}$

For simultaneously transmit system, the calculated power density should comply with:

$$\sum_i \frac{S_i}{S_{Limit,i}} \le 1$$

Calculation Result:

Minimum Distance Calculated For No Co-location:

Antenna Model	Frequency Range (GHz)	Antenna Gain (dBi)	Conducted output power including Tune-up Tolerance (dBm)	Power Density Limit (mW/cm^2)	Minimum Distance(R) (cm)
ARC-OA5813SD1	4.94-4.99	13	19	1.0	11.23
	5.15-5.25	13	21.5	1.0	14.98
	5.725-5.85	13	23	1.0	17.80
ARC-VS5821SD1	4.94-4.99	21	22	1.0	39.86
	5.15-5.25	21	21.5	1.0	37.63
	5.725-5.85	21	23	1.0	44.72
PA5-0823-DP	4.94-4.99	23	22	1.0	50.18
	5.15-5.25	23	21.5	1.0	47.37
	5.725-5.85	23	23	1.0	56.30
RD5G34	4.94-4.99	34	19	1.0	126.04
	5.15-5.25	34	14	1.0	70.88
	5.725-5.85	34	23	1.0	199.76
BLE	2.4-2.5	2	-2.0	1.0	0.28

Result: The minimum distance should be more than above distance**.**

Note: The 4.9G Radio and 5G NII can`t transmit simultaneously, 4.9G Radio or 5G NII can transmit simultaneously with BLE, but BLE power is too small to be ignored simultaneously transmission evaluation.

******* END OF REPORT *******