

Product Name: Wireless Access Point	Report No: FCC022022-5921RF14
Product Model: AP 6WB	Security Classification: Open
Version: V1.0	Total Page: 7

TIRT Testing Report



Prepared By:	Checked By:	Approved By:	A circular blue stamp with the text "TIRT Shenzhen" in the center and "Beijing TIRT Technology Service Co., Ltd." around the perimeter.
Stone Tang	Randy Lv	Daniel Chen	
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FCC RF EXPOSURE REPORT

FCC ID: 2A3WK-AP6WB

Project No. : 22022-05921
Equipment : Wireless Access Point
Brand Name : Nomadix
Test Model : AP 6WB
Series Model : NA
Applicant : Nomadix, Inc.
Address : 21600 Oxnard Street - 19th floor, Woodland Hills, California, United States
Manufacturer : Nomadix, Inc.
Address : 21600 Oxnard Street - 19th floor, Woodland Hills, California, United States
Factory : Nomadix, Inc.
Address : 21600 Oxnard Street - 19th floor, Woodland Hills, California, United States
Date of Receipt : Dec. 12, 2022
Date of Test : Dec. 12, 2022~Dec. 13, 2022
Issued Date : Dec. 21, 2022
Report Version : V1.0
Test Sample : 20221103020001
Standard(s) : FCC CFR Title 47, Part 15, Subpart C
FCC KDB 558074 D01 15.247 Meas Guidance v05r02
FCC KDB 662911 D01 Multiple Transmitter Output v02r01
ANSI C63.10-2013

- The test result referred exclusively to the presented test model /sample.
- Without written approval of TIRT Inc. the test report shall not reproduced except in full.

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REPORT ISSUED HISTORY

Report No.	Version	Description	Issued Date	Note
FCC022022-5921RF14	V1.0	Original Report	Dec. 21, 2022	Valid

1. TEST FACILITY

Company:	Beijing TIRT Technology Service Co.,Ltd Shenzhen
Address:	101, 3 # Factory Building, Gongjin Electronics Shatin Community, Kengzi Street, Pingshan District, Shenzhen, China
CNAS Registration Number:	CNAS L14158
A2LA Registration Number:	6049.01
FCC Accredited Lab. Designation Number:	CN1309
FCC Test Firm Registration Number:	825524
Telephone:	+86-0755-27087573

2. MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi R^2} = \frac{EIRP}{4\pi R^2}$$

where:

S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

For BLE:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	Wanshih	TW2WFI0035A	PIFA	N/A	2.5

Note: The antenna gain is provided by the manufacturer.

For WIFI 2.4GHz:

Antenna Specification:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	Wanshih	TW2WFI0036A	PIFA	MHF	3.7
2	Wanshih	TW2WFI0037A	PIFA	MHF	5.6

Note:

- 1) This EUT supports MIMO 2X2, any transmit signals are correlated with each other, so Directional gain=10log[(10^{G1/20}+10^{G2/20})/N]dBi, that is Directional gain=10log[(10^{3.7/20}+10^{5.6/20})/2]dBi =7.71.
- 2) The antenna gain and beamforming gain are provided by the manufacturer.

Table for Antenna Configuration:

Operating Mode	TX Mode	2TX
IEEE 802.11b		V(Ant. 1 + Ant. 2)
IEEE 802.11g		V(Ant. 1 + Ant. 2)
IEEE 802.11n(HT20)		V(Ant. 1 + Ant. 2)
IEEE 802.11n(HT40)		V(Ant. 1 + Ant. 2)
IEEE 802.11ax(HE20)		V(Ant. 1 + Ant. 2)
IEEE 802.11ax(HE40)		V(Ant. 1 + Ant. 2)

For WIFI 5GHz:

Antenna Specification:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	Wanshih	TW2WFI0036A	PIFA	MHF	4.6
2	Wanshih	TW2WFI0037A	PIFA	MHF	5.5

Note:

- 1) This EUT supports MIMO 2X2, any transmit signals are correlated with each other, so Directional gain= $10\log[(10^{G1/20} + 10^{G2/20})^2 / N]$ dBi, that is Directional gain= $10\log[(10^{4.6/20} + 10^{5.5/20})^2 / 2]$ dBi =8.07.
- 2) The antenna gain and beamforming gain are provided by the manufacturer.

Table for Antenna Configuration:

Operating Mode	TX Mode	2TX
IEEE 802.11a		V (Ant. 1 + Ant. 2)
IEEE 802.11n(HT20)		V (Ant. 1 + Ant. 2)
IEEE 802.11n(HT40)		V (Ant. 1 + Ant. 2)
IEEE 802.11ac(VHT20)		V (Ant. 1 + Ant. 2)
IEEE 802.11ac(VHT40)		V (Ant. 1 + Ant. 2)
IEEE 802.11ac(VHT80)		V (Ant. 1 + Ant. 2)
IEEE 802.11ac(VHT160)		V (Ant. 1 + Ant. 2)
IEEE 802.11ax(HE20)		V (Ant. 1 + Ant. 2)
IEEE 802.11ax(HE40)		V (Ant. 1 + Ant. 2)
IEEE 802.11ax(HE80)		V (Ant. 1 + Ant. 2)
IEEE 802.11ax(HE160)		V (Ant. 1 + Ant. 2)

3. TEST RESULTS

For BT (BLE):

Directional Gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Tune up Power (dBm)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
2.50	1.7783	5.20	6.00	0.0014	1	Complies

For 2.4GHz:

Directional Gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Tune up Power (dBm)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
7.71	5.9020	25.73	26.00	0.4675	1	Complies

For 5GHz:

Directional Gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Tune up Power (dBm)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
8.07	6.4121	21.18	22.00	0.2022	1	Complies

For the max simultaneous transmission MPE:

Ratio			Total	Limit of Ratio	Test Result
BLE	2.4GHz	5GHz			
0.0014	0.4675	0.2022	0.6711	1	Complies

Note: 1. The calculated distance is 20 cm.
2. Max. Tune up Power is declared by the manufacturer.
3. WIFI 2.4GHz and 5GHz can be simultaneously transmitted.

End of Test Report