

TEST REPORT

Report Number. :	90479-25-72-25-PP003	
Date of issue :	2025.05.26	
Prepared by (+signature)..... :	Pale	
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Approved by (+signature) :	Jason	
Testing Laboratory name :	SLG-CPC Testlaboratory Co., Ltd.	
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Applicant's name :	Audio Enhancement, Inc.	
Address :	9858 South Audio Drive West Jordan United States 84081 Of America	
Manufacturer's name :	Barix AG	
Address :	Limmatquai 120 CH-8001 Zuerich Switzerland	
Factory's name :	MOKO TECHNOLOHY Ltd	
Address :	Factory 201, 107 Pinshun Rd Guixiang community, Guanlan Street, Longhua, Shenzhen, China 518110	
Standard(s) :	FCC 1.1310: §1.1307(b)	
Test item description..... :	Barix BLE Receiver	
Trade Mark :	N/A	
Model/Type reference :	BARIXBR-32	
FCC ID :	2BOMJ-BARIXBR-32	
Date of receipt of test item :	2025.05.14	
Date (s) of performance of test:	2025.05.14- 2025.05.24	
Test Report Form No. :	FCC CFR Part 1_B1	
Master TRF..... :	Dated 2021-09	
Summary of Test Results :	Pass	
The Summary of Test Results based on a technical opinion belongs to the standard(s).		

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Modified History

Report No.	Revision Date	Summary
90479-25-72-25-PP003	2025.05.26	Original Report

1. EUT Specification

Product:	Barix BLE Receiver
Model Number:	BARIXBR-32
Power supply:	☒ : DC 24V ☐ : Adapter information
Modulation:	IEEE 802.11b mode: DSSS(CCK,QPSK, BPSK) IEEE 802.11g mode: OFDM (BPSK/QPSK/16QAM/64QAM) IEEE 802.11n HT20 MHz mode: OFDM (BPSK/QPSK/16QAM/64QAM) IEEE 802.11n HT40 MHz mode: OFDM (BPSK/QPSK/16QAM/64QAM) BLE(GFSK)
Frequency Range:	IEEE 802.11b/g: 2412 ~ 2472 MHz IEEE 802.11n HT20 : 2412 ~ 2472 MHz IEEE 802.11n HT40 : 2422 ~ 2462 MHz BLE: 2402MHz~2480MHz
Number of Channels:	IEEE 802.11b: 13 Channels IEEE 802.11g: 13 Channels IEEE 802.11n HT20: 13 Channels IEEE 802.11n HT40: 9 Channels BLE:40channels
Antenna Gain:	3.75dBi
Antenna:	PCB Antenna

2. Test Requirement

RF EXPOSURE EVALUATION

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) Radiation as specified in §1.1307(b)

Limits for Maximum Permissible Exposure (MPE)

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f ²)	6
30–300	61.4	0.163	1.0	6
300–1500			f/300	6
1500–100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
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

Friis Formula

Friis transmission formula: $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot R^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

Test Procedure:

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

3. Measurement Result

Mode	Frequency (MHz)	Peak output power (dBm)	Peak output power (mW)	Target power (dBm)	Maximum tune-up Power (mW)	Antenna gain		Power Density (S) (mW/cm ²)	Limited of Power Density (S) (mW/cm ²)	Test Result
						(dBi)	(Linear)			
BLE-GFSK	2402	3.02	2.00	3±1	2.51	3.75	2.37	0.0119	1	Complies
	2440	3.78	2.39	3±1	2.51	3.75	2.37	0.0119	1	Complies
	2480	4.02	2.52	4±1	3.16	3.75	2.37	0.0150	1	Complies

Mode	Frequency (MHz)	output power (dBm)	output power (mW)	Target power (dBm)	Maximum tune-up Power (mW)	Antenna gain		Power Density (S) (mW/cm ²)	Limited of Power Density (S) (mW/cm ²)	Test Result
						(dBi)	(Linear)			
IEEE 802.11b	2412	14.02	25.24	14±1	31.62	3.75	2.37	0.1499	1	Compiles
	2442	14.56	28.58	14±1	31.62	3.75	2.37	0.1499	1	Compiles
	2472	13.91	24.60	14±1	31.62	3.75	2.37	0.1499	1	Compiles
IEEE 802.11g	2412	9.96	9.91	10±1	12.59	3.75	2.37	0.0597	1	Compiles
	2442	10.25	10.59	10±1	12.59	3.75	2.37	0.0597	1	Compiles
	2472	10.49	11.19	10±1	12.59	3.75	2.37	0.0597	1	Compiles
IEEE 802.11n HT20	2412	10.34	10.81	10±1	12.59	3.75	2.37	0.0597	1	Compiles
	2442	9.67	9.27	10±1	12.59	3.75	2.37	0.0597	1	Compiles
	2472	9.58	9.08	10±1	12.59	3.75	2.37	0.0597	1	Compiles
IEEE 802.11n HT40	2422	7.27	5.33	7±1	6.31	3.75	2.37	0.0299	1	Compiles
	2442	7.12	5.15	7±1	6.31	3.75	2.37	0.0299	1	Compiles
	2462	7.31	5.38	7±1	6.31	3.75	2.37	0.0299	1	Compiles

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Power Density (S) (mW/cm2)			Limited of Power Density (S) (mW/cm2)	Test Result
BT	WIFI	Sum		
0.0150	0.1499	0.1649	1	Compiles

The Maximum power is less than the limit, complies with the exemption requirements, SAR is exempted.

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as Mobile Device.

Remark: The Max Conducted Peak Output Power data refer to report Report No.: 90477-25-72-25-PP001; 90477-25-72-25-PP002.

THE END

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