



FCC TEST REPORT

FCC ID: 2BNZN-BHD100

Product	:	Mini PC
Model Name	:	BHD100、BHD200、BHD300、BHD400、BHD500、BHD600、BHD700、BHD800、BHD900、BXD100、BXD200、BXD300、BXD400、BXD500、BXD600、BXD700、BXD800、BXD900、BAD100、BAD200、BAD300、BAD400、BAD500、BAD600、BAD700、BAD800、BAD900、BHL10、BHL11、BHL12、BHL13、BHL14、BHL15、BHL16、BHL17、BHL18、BHL19、BXL10、BXL11、BXL12、BXL13、BXL14、BXL15、BXL16、BXL17、BXL18、BXL19、BHLD8、BHLD9、BHLD10、BHLD11、BHLD12、BHLD13、BHLD14、BHLD15、BHLD16、BHLD17、BHLD18、BBA-8、BBA-9、BBA-10、BBA-11、BBA-12、BBA-13、BBA-14、BBA-15、BBA-16、BBA-17、BBA-18、BBA-19、BXA-8、BXA-9、BXA-10、BXA-11、BXA-12、BXA-13、BXA-14、BXA-15、BXA-16、BXA-17、BXA-18、BXA-19、BXB-8、BXB-9、BXB-10、BXB-11、BXB-12、BXB-13、BXB-14、BXB-15、BXB-16、BXB-17、BXB-18、BXB-19、BLL600*(*Represents capital letters A-Z, represents different customer numbers and sales regions) The appearance, size, color, and display form of each model are different only due to different marketing strategies
Brand	:	N/A
Report No.	:	PTC241204156005E-FC05
Prepared for		
Shenzhen Bolinia Technology Co.,Ltd		
601, A3, Shangxue, Bantian, Longgang District, Shenzhen		
Prepared by		
Precise Testing & Certification Co., Ltd.		
Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China.		



Report No.: PTC241204156005E-FC05

TEST RESULT CERTIFICATION

Applicant's name : Shenzhen Bolinia Technology Co.,Ltd
Address : 601, A3, Shangxue, Bantian, Longgang District, Shenzhen
Manufacture's name : Shenzhen Bolinia Technology Co.,Ltd
Address : 601, A3, Shangxue, Bantian, Longgang District, Shenzhen
Product name : Mini PC
Model name : BHD100 (family model please see page 5)
Test procedure : FCC CFR47 Part 1.1307(b)(1)
Test Date : Oct. 14, 2024 to Feb. 26, 2025
Date of Issue : Feb. 27, 2025
Test Result : Pass

This device described above has been tested by PTC, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Test Engineer:

A handwritten signature in black ink, appearing to read 'Jack Zhou'.

Jack Zhou / Engineer

Technical Manager:

A handwritten signature in black ink, appearing to read 'Simon Pu'.

Simon Pu / Manager



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2 Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	15.247 (i)	PASS
Remark:		
N/A: Not Applicable		



3 General Information

3.1 General Description of E.U.T.

Product Name	:	Mini PC
Model Name	:	BHD100
Additional model	:	BHD200、BHD300、BHD400、BHD500、BHD600、BHD700、BHD800、BHD900、BXD100、BXD200、BXD300、BXD400、BXD500、BXD600、BXD700、BXD800、BXD900、BAD100、BAD200、BAD300、BAD400、BAD500、BAD600、BAD700、BAD800、BAD900、BHL10、BHL11、BHL12、BHL13、BHL14、BHL15、BHL16、BHL17、BHL18、BHL19、BXL10、BXL11、BXL12、BXL13、BXL14、BXL15、BXL16、BXL17、BXL18、BXL19、BHLD8、BHLD9、BHLD10、BHLD11、BHLD12、BHLD13、BHLD14、BHLD15、BHLD16、BHLD17、BHLD18、BBA-8、BBA-9、BBA-10、BBA-11、BBA-12、BBA-13、BBA-14、BBA-15、BBA-16、BBA-17、BBA-18、BBA-19、BXA-8、BXA-9、BXA-10、BXA-11、BXA-12、BXA-13、BXA-14、BXA-15、BXA-16、BXA-17、BXA-18、BXA-19、BxB-8、BxB-9、BxB-10、BxB-11、BxB-12、BxB-13、BxB-14、BxB-15、BxB-16、BxB-17、BxB-18、BxB-19、BLL600*(*Represents capital letters A-Z, represents different customer numbers and sales regions) The appearance, size, color, and display form of each model are different only due to different marketing strategies
Specification	:	Bluetooth BDR+EDR; Bluetooth BLE 802.11b/g/n HT20/HT40 802.11a/n HT20/HT40/ac20/ac40/ac80
Operation Frequency	:	2400-2480MHz for BT 2412-2462MHz for 802.11b/g/ n(HT20) 2422-2452MHz for 802.11 n(HT40) 5G Wifi: 5180-5240MHz 5.8G Wifi: 5745-5825MHz
Number of Channel	:	79 channels for BDR+EDR 40 channels For DTS 11 channels for 802.11b/g/ n(HT20) 7 channels for 802.11n(HT40) 4 channels for 802.11a/n20/ac20 5180-5240 MHz 5 channels for 802.11a/n20/ac20 5745MHz~5825MHz 2 channels for 802.11n40/ac40 5190-5230 MHz 2 channels for 802.11n40/ac40 5755MHz~5795MHz 1 channels for 802.11 ac80
Type of Modulation	:	GFSK, $\pi/4$ -DQPSK, 8DPSK For DSS GFSK, For DTS DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n/a/ac
Antenna installation	:	FPC antenna
Antenna Gain	:	2.4G:1.81 dBi 5G:4.5 dBi



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Power supply	:	Adapter: DC-852-1203000U Input: AC100-240V 50/60Hz 1.0A Output: DC 12V 3A Adapter: DC-832-1205000 Input: AC100-240V 50/60Hz 1.5A Output: DC 12V 5A
Hardware Version	:	N/A
Software Version	:	N/A



4 RF Exposure

Test Requirement : FCC Part 1.1307(b)(1)

Evaluation Method : KDB 447498 D01 General RF Exposure Guidance v06

4.1 Requirements

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 levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

4.2 The procedures / limit

(A) Limits for Occupational / Controlled Exposure

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	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

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

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



4.3 MPE Calculation Method

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } P_d \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$P_d = \frac{30 \times P \times G}{377 \times d^2} \theta_{\phi}$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

4.4 Standalone MPE Result

As declared by the Applicant, the EUT is a wireless device used in a fix application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum separation distance, r =20cm, as well as the gain of the used antenna, the RF power density can be obtained.

Mode	Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Tune up tolerance (dBm)	Max Tune Up Power (mW)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)	Result
BT	1.81	1.5171	9.09	9.09±1	10.2094	0.0031	1	Pass
BLE	1.81	1.5171	8.67	8.67±1	9.2683	0.0028	1	Pass
2.4GWIFI	1.81	1.5171	13.25	13.25±1	26.6073	0.0080	1	Pass
5.2GWIFI	4.5	2.8184	15.74	15.74±1	47.2063	0.0265	1	Pass
5.8GWIFI	4.5	2.8184	12.28	12.28±1	21.2814	0.0119	1	Pass

Remark:

1. Output power (Peak) including turn-up tolerance;
2. MPE evaluate distance is 20cm from user manual provide by manufacturer.
3. The sample BT/WiFi modular they supports two antennas, support simultaneous transmission;



4.5 simultaneous MPE Result

Max. MPE (Ratio) At ANT1	Max. MPE (Ratio) At ANT2	simultaneous MPE (Ratio)	MPE Limits (Ratio)
0.0080	0.0265	0.0345	1.0000

4.6 Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

*****THE END REPORT*****