

RF EXPOSURE Test Report

FCC ID:	2BNUS-AOV590
Applicant	Shenzhen Xiaobaotiantian technology Co., LTD
Address	501, Building 1, No. 48, Kangzheng Road, Danzhutou Community, Nanwan Street, Longgang District, Shenzhen
Manufacturer	Shenzhen Xiaobaotiantian technology Co., LTD
Address	501, Building 1, No. 48, Kangzheng Road, Danzhutou Community, Nanwan Street, Longgang District, Shenzhen
Product Name:	Tower Computer
Model/Type reference:	AOV590, AOV580, AOV7304G, AOV750TI, AOV9604G, AOV1050TI, AOV10606G, AOV2060, AOV4060/AOV10304G
Power supply:	AC120V
Hardware version:	V1.0
Software version:	V1.0
Standards:	N/A
Test procedure :	KDB 447498 D01 v06
Date of Test	
Date of tests	February 7, 2025 ~ February 20, 2025
Test Result.	Pass
This device described above has been tested by BSL Testing Co., Ltd. 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.	

Limits

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)

According to KDB 447498 D01 General RF Exposure Guidance v06, Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition(s), listed below, is (are) satisfied.

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 transmission formula: $Pd = (Pout \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

Pd = power density in mW/cm², **Pout** = output power to antenna in mW;

G = gain of antenna in linear scale, **Pi** = 3.1416;

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

Pd 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.

Test Result of RF Exposure Evaluation

5GWiFi:

802.11a: 20 MHz

802.11n: 20 MHz, 40 MHz

802.11ac: 20 MHz, 40 MHz, 80MHz .

Antenna Type: PCB+Hardware antenna

Antenna gain: 5.0dBi

R=20cm

WiFi 5G UNII-1

Channel	Frequency (MHz)	Output power to antenna (dBm)			Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
		ANT A	ANT B	ANT A+B				
802.11a	5180	10.562	6.251	11.931	15.60	0.00982	1.0	PASS
	5200	10.352	6.215	11.769	15.03	0.00946	1.0	PASS
	5240	10.241	6.032	11.638	14.58	0.00918	1.0	PASS
802.11n (HT20)	5180	9.263	5.621	10.823	12.09	0.00761	1.0	PASS
	5200	9.124	5.214	10.605	11.49	0.00724	1.0	PASS
	5240	9.024	5.026	10.480	11.17	0.00703	1.0	PASS
802.11n (HT40)	5190	7.652	4.251	9.287	8.49	0.00534	1.0	PASS
	5230	7.562	4.124	9.185	8.29	0.00522	1.0	PASS
802.11ac (HT20)	5180	8.265	4.865	9.900	9.77	0.00615	1.0	PASS
	5200	8.144	4.635	9.745	9.43	0.00594	1.0	PASS
	5240	8.214	4.234	9.675	9.28	0.00584	1.0	PASS
802.11ac (HT40)	5200	5.632	1.896	7.164	5.20	0.00328	1.0	PASS
	5240	5.241	1.563	6.791	4.78	0.00301	1.0	PASS
802.11ac (HT80)	5210	5.134	1.241	6.620	4.59	0.00289	1.0	PASS

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Channel	Frequency (MHz)	Output power to antenna (dBm)			Output power to antenna (mW)	Power Density at R=20cm (mW/cm ²)	Limit (mW/cm ²)	Result
		ANT A	ANT B	ANT A+B				
802.11a	5745	8.562	4.652	10.043	10.10	0.00636	1.0	PASS
	5785	8.452	4.534	9.931	9.84	0.00620	1.0	PASS
	5825	8.234	4.235	9.690	9.31	0.00586	1.0	PASS
802.11n (HT20)	5745	6.265	3.562	8.131	6.50	0.00409	1.0	PASS
	5785	6.124	3.421	7.990	6.30	0.00396	1.0	PASS
	5825	6.024	3.265	7.870	6.12	0.00385	1.0	PASS
802.11n (HT40)	5755	4.262	1.562	6.129	4.10	0.00258	1.0	PASS
	5795	4.124	1.423	5.990	3.97	0.00250	1.0	PASS
802.11ac (HT20)	5745	5.635	2.426	7.331	5.41	0.00340	1.0	PASS
	5785	5.235	2.354	7.039	5.06	0.00318	1.0	PASS
	5825	5.241	2.269	7.015	5.03	0.00317	1.0	PASS
802.11ac (HT40)	5755	2.211	-1.235	3.831	2.42	0.00152	1.0	PASS
	5795	2.124	-1.265	3.762	2.38	0.00150	1.0	PASS
802.11ac (HT80)	5775	2.054	-1.865	3.533	2.26	0.00142	1.0	PASS

Conclusion: No SAR is required.

-----END OF REPORT-----