

FCC RF EXPOSURE REPORT

For

WIFI+BT Module

MODEL NUMBER: WT54M2000

FCC ID: 2AC23-WT54

REPORT NUMBER: 4788989204-4

ISSUE DATE: June 20, 2019

Prepared for

Hui Zhou Gaoshengda Technology Co.,LTD NO.75 Zhongkai Development Area Huizhou, Guangdong China

Prepared by

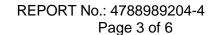
UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone, Dongguan, People's Republic of China

> Tel: +86 769-22038881 Fax: +86 769 33244054 Website: www.ul.com



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1. ATTESTATION OF TEST RESULTS

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Company Name: Hui Zhou Gaoshengda Technology Co.,LTD

Address: NO.75 Zhongkai Development Area Huizhou, Guangdong China

Manufacturer Information

Company Name: Hui Zhou Gaoshengda Technology Co.,LTD

Address: NO.75 Zhongkai Development Area Huizhou, Guangdong China

EUT Information

EUT Name: WIFI+BT Module Model: WT54M2000

Sample Status: Normal Brand Name: GSD

Sample Received Date: April 28, 2019

Date of Tested: April 29 ~ June 17, 2019

APPLICABLE STANDARDS

STANDARD

TEST RESULTS
Complies

FCC 47CFR§2.1091

KDB-447498 D01 V06

Checked By:

Kebo Zhang

Prepared By:

Engineer Project Associate

kelo. Thung.

Shawn Wen

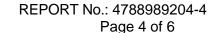
Laboratory Leader

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Approved By:

Stephen Guo

Laboratory Manager





2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 447498 D01 General RF Exposure Guidance v06.

3. FACILITIES AND ACCREDITATION

3. FACILITIES AND ACCREDITATION					
	A2LA (Certificate No.: 4102.01)				
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.				
	has been assessed and proved to be in compliance with A2LA.				
	FCC (FCC Designation No.: CN1187)				
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.				
	Has been recognized to perform compliance testing on equipment subject				
	to the Commission's Delcaration of Conformity (DoC) and Certification				
	rules				
Accreditation	ISED(Company No.: 21320)				
Certificate	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.				
	has been registered and fully described in a report filed with				
	Industry Canada. The Company Number is 21320.				
	VCCI (Registration No.: G-20019, R-20004, C-20012 and T-20011)				
	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.				
	has been assessed and proved to be in compliance with VCCI, the				
	Membership No. is 3793.				
	Facility Name:				
	Chamber D, the VCCI registration No. is G-20019 and R-20004				
	Shielding Room B, the VCCI registration No. is C-20012 and T-20011				

Note 1: All tests measurement facilities use to collect the measurement data are located at Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China

Note 2: The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

Note 3: For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. And these measurements below 30MHz had been correlated to measurements performed on an OFS.



4. REQUIREMENT

LIMIT

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure							
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm²)	Averaging Time $ E ^2$, $ H ^2$ or S (minutes)			
0.3-1.34	614	1.63	(100)*	30			
1.34-30	824/f	2.19/f	(180/f2)*	30			
30-300	27.5	0.073	0.2	30			
300-1500			f/150	30			
1500-100,000			1.0	30			

Note 1: f = frequency in MHz, * means Plane-wave equivalent power density

Note 2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Note 3: The limit value 1.0mW/cm² is available for this EUT.

MPE CALCULATION METHOD

 $S = PG/(4\pi R^2)$

where: S = power density (in appropriate units, e.g. mW/cm2)

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

R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)



CALCULATED RESULTS

Radio Frequency Radiation Exposure Evaluation

BLE (Worst case)							
Operating	Max. Tune up Power	Antenn	a Gain	Power density	Limit		
Mode	(dBm)	(dBi)	(num)	(mW/ cm ²)			
BLE	4	4.74	2.98	0.00149	1		

BT (Worst case)							
Operating	Max. Tune up Power	Antenna Gain		Power density	Limit		
Mode	(dBm)	(dBi)	(num)	(mW/ cm ²)	Liiiit		
ВТ	5	4.74	2.98	0.00187	1		

WIFI 2.4G (Worst case)							
Operating	Max. Tune up Power	Directional Gain		Power density	Limit		
Mode	(dBm)	(dBi)	(num)	(mW/ cm ²)			
802.11n HT20	16	7.75	5.96	0.0472	1		

Note: the calculated distance is 20cm.

BT+WIFI 2.4GHz=0.00187+0.0472=0.0491(mW/cm2)

Therefor the maximum calculations of above situations are less than the "1" limit.

END OF REPORT