

#### FCC RF EXPOSURE REPORT

For

**Home Gateway** 

**MODEL NUMBER: ZXHH H196Q** 

FCC ID: Q78-ZXHNH196Q

IC: 5200A-H196Q

REPORT NUMBER: 4789807220-4

ISSUE DATE: March 31, 2021

Prepared for

ZTE CORPORATION ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, P.R.China

### Prepared by

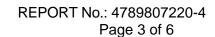
UL Verification Services (Guangzhou) Co., Ltd, Song Shan Lake Branch Building 10, Innovation Technology Park, No. 1, Li Bin Road, Song Shan Lake Hi-Tech Development Zone, Dongguan, People's Republic of China

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



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**PASS** 



1. ATTESTATION OF TEST RESULTS

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Company Name: ZTE CORPORATION

Address: ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan

District, Shenzhen, Guangdong, P.R.China

**Manufacturer Information** 

Company Name: ZTE CORPORATION

Address: ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan

District, Shenzhen, Guangdong, P.R.China

**EUT Information** 

EUT Name: Home Gateway
Model: ZXHH H196Q
Sample Received Date: February 4, 2021

Sample Status: Normal Sample ID: 3615510

Date of Tested: February 4 ~ March 31, 2021

#### APPLICABLE STANDARDS

STANDARD TEST RESULTS

Shemmy lier

Shawn Wen

FCC 47CFR§2.1091

KDB-447498 D01 V06

Tested By: Checked By:

Kebo Zhang

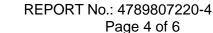
kelo. Thury.

Project Engineer Laboratory Leader

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

5. I ACILITIES 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  <sup>2</sup> ,  H  <sup>2</sup> 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/cm<sup>2</sup> 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

WIFI 2.4G (Worst case)						
Operating	Max. Tune up Power	Antenna Gain		Power density	Limit	
Mode	(dBm)	(dBi)	(num)	(mW/ cm <sup>2</sup> )	Liiiii	
WIFI 2.4G	19	7.7	5.89	0.0931	1	

WIFI 5G (Worst case)					
Operating	Max. Tune up Power	Antenna Gain		Power density	Limit
Mode	(dBm)	(dBi)	(num)	(mW/ cm <sup>2</sup> )	Liiiit
WIFI 5G	18	11.32	13.55	0.1701	1

Note: 1. The calculated distance is 20cm.

2. WIFI5+WIFI2.4G =0.0931+0.1701=0.2632 (mW/ cm<sup>2</sup>)
Therefor the maximum calculations of above situations are less than the "1" limit.

## **END OF REPORT**