No. I16Z42400-SEM01

for

TCL Communication Ltd.

Home Bridge

FCC ID: 2ACCJBC01

Hardware Version: V03

Software Version: HB01_00_01.00_24

Model Name: HB01

Issued Date: 2017-2-6

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

Test Laboratory:

CTTL, Telecommunication Technology Labs, Academy of Telecommunication Research, MIIT

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REPORT HISTORY

Report Number	Revision	Issue Date	Description
I16Z42400-SEM01	Rev.0	2017-1-26	Initial creation of test report
I16Z42400-SEM01	Rev.1	2017-2-6	Update the typo for calculation from V/m to mW/cm² in section 7.3 on page 8

CONTENTS

1. Test Laboratory

1.1. Testing Location

Company Name:	CTTL(Shouxiang)
Address:	No. 51 Shouxiang Science Building, Xueyuan Road, Haidian District, Beijing, P. R. China100191
Postal Code:	100191
Telephone:	00861062304633
Fax:	00861062304793

1.2. Testing Environment

Normal Temperature:	15-35 ℃
Relative Humidity:	20-75%

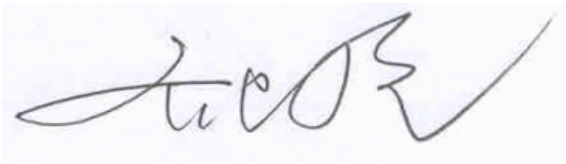
1.3. Project data

Project Leader:	Lin Hao
Testing Start Date:	2017-01-26
Testing End Date:	2017-01-26

1.4. Signature

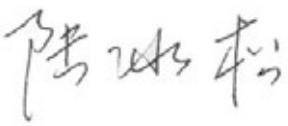
Lin Hao

(Prepared this test report)



Qi Dianyuan

(Reviewed this test report)



Lu Bingsong

Deputy Director of the laboratory

(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name:	TCL Communication Ltd.
Address /Post:	5F, C-Tower, No.232, Liangjing Road, Zhangjiang High-tech Park, Pudong,Shanghai,China
City:	Shanghai
Contact:	Liu Feng
Email:	liu.feng@tcl.com
Telephone:	0755-33035419

2.2. Manufacturer Information

Company Name:	TCL Mobile Communication Co. Ltd. Huizhou.
Address /Post:	70 Huifeng 4rd., ZhongKai High-Technology Development District, Huizhou, Guangdong, PRC. 516006
City:	Shanghai
Contact:	Liu Feng
Email:	liu.feng@tcl.com
Telephone:	0755-33035419

3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	Home Bridge
Model name	HB01
Operation mode	WiFi,ZigBee
Normal Voltage	5.0V

3.2. Internal Identification of EUT

UT01a	/	v03	HB01_00_01.00_24

*EUT ID: is used to identify the test sample in the lab internally.

3.3. Internal Identification of AE

AE ID*	Description	SN
AE1	Switching Adapter	---

*AE ID: is used to identify the test sample in the lab internally.

4. Reference Documents

4.1. Reference Documents for testing

The following documents listed in this section are referred for testing.

ANSI C95.1–1999: IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.

447498 D01 General RF Exposure Guidance v06: Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies

Canadian RSS-102 standard for uncontrolled environment requires the RF-exposure value in W/m^2 unit, therefore the MPE limit value determined in mW/cm^2 unit, should be multiplied by 10 to have the required unit. The MPE limits are the same like on FCC § 1.1301 at table 1.

5. RF Exposure Limit

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/cm^2)	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	**($180/f^2$)***	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 *Plane-wave equivalent power density

Friis transmission formula: $P_d = \frac{P_{out} * G}{4 * \Pi * r^2}$

where

P_d =power density (mW/cm^2)
P_{out} = output power to antenna (mW)
G = gain of antenna (linear scale)
r = distance between antenna and observation point (cm)

6. Classification

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.

7. Test Results

7.1. The maximum antenna gain

The maximum antenna gain for each frequency band is:
WIFi2.4G: 1.5 dBi
ZigBee: 1.5 dBi

7.2. The maximum rated power limits

Range of operating power:
WIFi2.4G: ≤19 dBm(+/-2dB)
ZigBee: ≤8dBm(+/-2dB)

7.3. Output Power Into Antenna & RF Exposure value at distance 20cm

The worst cases conducted output power for every frequency band is:

Frequency band	Maximum Rated Power (dBm)	Maximum Rated Power (mW)	Antenna gain	d (cm)	Calculation (mW/cm²)	Limit (mW/cm²)	Calculation
WiFi2.4G	21	125.89	1.5	20	0.04	1.0	PASS
ZigBee	10	10	1.5	20	0.003	1.0	PASS

According above test result, and the device complies with the exposure requirements.

*****END OF REPORT*****