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RF Exposure Evaluation Report

Report No.: CQASZ20201201530E-02
Applicant: Tech4home International, Lda
Address of Applicant: Startup Madeira, Campus da Penteada 9020-105 Funchal Portugal
Equipment Under Test (EUT):
EUT Name: Remote Control Unit
Model No.: T4HiU2002 32k Gen8 Lite for ADO, T4HiU2001 32k Gen8 Lite for HOT
Test Model No.: T4HiU2002 32k Gen8 Lite for ADO
Brand Name: Tech4home International, Lda
FCC ID: 2AYLW-G8LTBLE01
Standards: 47 CFR Part 1.1307
47 CFR Part 2.1093
KDB447498D01 General RF Exposure Guidance v06
Date of Receipt: 2020-12-23
Date of Test: 2020-12-23 to 2020-12-30
Date of Issue: 2020-12-30
Test Result: PASS*

*In the configuration tested, the EUT complied with the standards specified above

Tested By:

Tiny You

(Tiny You)

Reviewed By:

Ares Liu

(Ares Liu)

Approved By:

Sheek Luo

(Sheek Luo)



1 Version

Revision History Of Report

Report No.	Version	Description	Issue Date
CQASZ20201201530E-02	Rev.01	Initial report	2020-12-30

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3 General Information

3.1 Client Information

Applicant:	Tech4home International, Lda
Address of Applicant:	Startup Madeira, Campus da Penteada 9020-105 Funchal Portugal
Manufacturer:	Jiangsu Huitong Group Co.,Ltd.
Address of Manufacturer:	No.24, Block 2,Taohuawu New District Zhenjiang Jiangsu P.R.C
Factory:	Jiangsu Huitong Group Co.,Ltd.
Address of Factory:	No.24, Block 2,Taohuawu New District Zhenjiang Jiangsu P.R.C

3.2 General Description of EUT

Product Name:	Remote Control Unit
All Model No.:	T4HiU2002 32k Gen8 Lite for ADO, T4HiU2001 32k Gen8 Lite for HOT
Test Model No.:	T4HiU2002 32k Gen8 Lite for ADO
Trade Mark:	Tech4home International, Lda
Hardware Version:	GWA7.820.1071-5(V0.0)
Software Version:	4HiU2002_32k_0231.01.01_APP_PLUS_BIM_PLUS_UDB_18.03.08.02
Operation Frequency:	2402MHz~2480MHz
Bluetooth Version:	V4.0
Modulation Type:	GFSK
Transfer Rate:	1Mbps
Number of Channel:	40
Product Type:	☐ Mobile ☒ Portable ☐ Fix Location
Test Software of EUT:	Non_Signaling_Test_Tool (manufacturer declare)
Antenna Type:	PCB antenna
Antenna Gain:	3.3dBi
EUT Power Supply:	2XAAA battery:DC 3V

4 SAR Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations

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 Exclusion Threshold condition, listed below, is satisfied.

4.1.2 Limits

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{(\text{min. test separation distance, mm}) \cdot \sqrt{f(\text{GHz})}} \right] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation¹⁷

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion

4.1.3 EUT RF Exposure

1) For BLE

Measurement Data

GFSK(1Mbps) mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	0.85	1.0±1	2.0	1.585
Middle(2440MHz)	1.26	1.0±1	2.0	1.585
Highest(2480MHz)	1.63	1.0±1	2.0	1.585

Worst case: GFSK(2Mbps)						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune- up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	0.85	1.0±1	2.0	1.585	0.491	3.0
Middle (2440MHz)	1.26	1.0±1	2.0	1.585	0.495	
Highest (2480MHz)	1.63	1.0±1	2.0	1.585	0.499	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: CQASZ20201201530E-01

--THE END--