

RF Exposure Evaluation Report

Product : Yarbo Controller
Trade mark : Yarbo
Model/Type reference : C1
Serial Number : N/A
Report Number : EED32O81788502
FCC ID : 2A9JF-HY0886-YARBO
Date of Issue : Dec. 09, 2022
Test Standards : 47 CFR Part 1.1307
47 CFR Part 2.1093
KDB447498D01 General RF
Exposure Guidance v06
Test result : PASS

Prepared for:

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Dec. 09, 2022

Check No.:



2 Version

Version No.	Date	Description
00	Dec. 09, 2022	Original

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4 General Information

4.1 Client Information

Applicant:	Shenzhen Hanyang Technology Co., Ltd.
Address of Applicant:	Room 12KLM, Building 6B, Baoneng Science and Technology Park, Qinghu Community, Longhua Street, Longhua District, Shenzhen
Manufacturer:	Shenzhen Hanyang Technology Co., Ltd.
Address of Manufacturer:	Room 12KLM, Building 6B, Baoneng Science and Technology Park, Qinghu Community, Longhua Street, Longhua District, Shenzhen
Factory:	Shenyang Robotics (Huizhou) Co., Ltd.
Address of Factory:	7th Floor, Building 2, Huizhou Shenghong Electric Industrial Park, No. 31, Huifeng West 2nd Road, Huihuan Street, Zhongkai High-tech District, Huizhou City, Guangdong Province

4.2 General Description of EUT

Product Name:	Yarbo Controller
Model No.:	C1
Trade mark:	Yarbo

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz to 2480MHz
Modulation Type:	GFSK
Test Power Grade:	Default
Antenna Type:	PCB Antenna
Antenna Gain:	0dBi
Power Supply:	DC 3.7V
Max Conducted Peak Output Power:	-4.26 dBm The Max Conducted Peak Output Power data refer to the report EED32O81788501
Sample Received Date:	Nov. 11, 2022
Sample tested Date:	Nov. 11, 2022 to Nov. 28, 2022
Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.	

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax: +86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 SAR Evaluation

5.1 RF Exposure Compliance Requirement

5.1.1 Standard Requirement

According to KDB447498D01 General RF Exposure Guidance v06

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.

5.1.2 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:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot$

$[\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 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

5.1.3 EUT RF Exposure

1) For 2.4G

Measurement Data:

GFSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	-8.3	-9±1	-8	0.158
Middle(2441MHz)	-6.06	-7±1	-6	0.251
Highest(2480MHz)	-4.26	-5±1	-4	0.398

Worst case is : GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune- up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	-8.3	-9±1	-8	0.158	0.05	3.0
Middle (2441MHz)	-6.06	-7±1	-6	0.251	0.079	
Highest (2480MHz)	-4.26	-5±1	-4	0.398	0.125	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark:

The Max Conducted Peak Output Power data refer to report Report No.: EEED32O81788501.

The test report is effective only with both signature and specialized stamp, The result(s) shown in this report refer only to the sample(s) tested. Without written approval of CTI, this report can't be reproduced except in full.

*** End of Report ***