

RF Exposure Evaluation Report

Product : Sport Earbuds
Trade mark : Walker's
Model/Type reference : GWP-SPEB, GWP-SPEB-XXX
(Where X = 0-9 or A-Z for different color)
Test Model No. : GWP-SPEB
Serial Number : N/A
Report Number : EED32N80687203
FCC ID : 2AU3A-GWPSPEB
Date of Issue : Nov. 26, 2021
Test Standards : 47 CFR Part 1.1307
47 CFR Part 2.1093
KDB447498D01 General RF
Exposure Guidance v06
Test result : PASS

Prepared for:

Good Sportsman Marketing, LLC
5250 Frye Road Irving TX 75061

Prepared by:

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Date:

Nov. 26, 2021

Check No.: 7631040821

1 Version

Version No.	Date	Description
00	Nov. 26, 2021	Original

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3 General Information

3.1 Client Information

Applicant:	Good Sportsman Marketing, LLC
Address of Applicant:	5250 Frye Road Irving TX 75061
Manufacturer:	Good Sportsman Marketing, LLC
Address of Manufacturer:	5250 Frye Road Irving TX 75061
Factory:	Concord Intelligent Technology (Huizhou) Ltd.
Address of Factory:	21, Ping An Rd, Shuikou Street, Hui Cheng District, Huizhou City, Guangdong Province, China

3.2 General Description of EUT

Product Name:	Sport Earbuds
Mode No.:	GWP-SPEB, GWP-SPEB-XXX(Where X = 0-9 or A-Z for different color)
Test Mode No.:	GWP-SPEB
Trade mark:	Walker's
EUT Supports Radios application:	Bluetooth 5.0 dual mode: 2402-2480MHz
Bluetooth Version:	V5.0
Product Type:	☐ Mobile ☒ Portable ☐ Fix Location
Power Supply:	Battery: DC 3.7V, Charge by DC 5.0V
Test Voltage:	DC 3.7V
Sample Received Date:	Aug. 05, 2021
Sample tested Date:	Aug. 05, 2021 to Aug. 24, 2021
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. Model No.: GWP-SPEB, GWP-SPEB-XXX(Where X = 0-9 or A-Z for different color) Only the model GWP-SPEB was tested, since the electrical circuit design, layout, components used and internal wiring were identical for the above models, with difference being color of appearance.	

3.3 General Description of BLE

Operation Frequency:	2402MHz~2480MHz
Modulation Type:	GFSK
Transfer Rate:	☒ 1Mbps ☐ 2Mbps
Number of Channel:	40
Antenna Type:	Chip antenna
Antenna Gain:	0.8dBi

3.4 General Description of BT Classic

Operation Frequency:	2402MHz~2480MHz
Modulation Technique:	Frequency Hopping Spread Spectrum(FHSS)
Modulation Type:	GFSK, $\pi/4$ DQPSK, 8DPSK
Number of Channel:	79
Hopping Channel Type:	Adaptive Frequency Hopping systems
Antenna Type:	Chip antenna
Antenna Gain:	0.8dBi

3.5 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

3.6 Deviation from Standards

None.

3.7 Abnormalities from Standard Conditions

None.

3.8 Other Information Requested by the Customer

None.

4 SAR Evaluation

4.1 RF Exposure Compliance Requirement

4.1.1 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.

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:

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

$f(\text{GHz})$ 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

4.1.2 EUT RF Exposure

1) For BLE

Measurement Data

GFSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	-6.19	-7.0±1	-6.0	0.251
Middle(2440MHz)	-6.47	-7.0±1	-6.0	0.251
Highest(2480MHz)	-6.96	-7.5±1	-6.5	0.224

Worst case: GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune- up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	-6.19	-7.0±1	-6.0	0.251	0.078	3.0
Middle (2440MHz)	-6.47	-7.0±1	-6.0	0.251	0.078	
Highest (2480MHz)	-6.96	-7.5±1	-6.5	0.224	0.071	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: EED32N80687201.

2) For BT Classic
Measurement Data

GFSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	1.98	1.5±1	2.5	1.778
Middle(2441MHz)	1.72	1.0±1	2.0	1.585
Highest(2480MHz)	1.29	0.5±1	1.5	1.413
π/4DQPSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	3.68	3.0±1	4.0	2.512
Middle(2441MHz)	3.45	3.0±1	4.0	2.512
Highest(2480MHz)	3.05	2.5±1	3.5	2.239
8DPSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	4.00	3.5±1	4.5	2.818
Middle(2441MHz)	3.78	3.0±1	4.0	2.512
Highest(2480MHz)	3.37	2.5±1	3.5	2.239

Worst case: 8DPSK

Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune- up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	4.00	3.5±1	4.5	2.818	0.874	3.0
Middle (2441MHz)	3.78	3.0±1	4.0	2.512	0.785	
Highest (2480MHz)	3.37	2.5±1	3.5	2.239	0.705	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: EED32N80687202.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32N80687201 for EUT external and internal photos.

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*** End of Report ***