RF Exposure Evaluation Report

Product	:	Infrared Forehead Thermometer
Trade mark	:	N/A
Model/Type reference	:	DET-3018c, DET-3018b
Serial Number	:	N/A
Report Number	:	EED32O80625102
FCC ID	:	2AQVU0019
Date of Issue	:	Jul. 14, 2022
Test Standards	:	47 CFR Part 1.1307 47 CFR Part 2.1093 KDB447498D01 General RF Exposure Guidance v06
Test result	:	PASS

Prepared for:

JOYTECH HEALTHCARE CO., LTD
No.365, Wuzhou Road, Yuhang Economic Development Zone,
Hangzhou City, 311100 Zhejiang, China

Prepared by:

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2 Version

Version No.	Date	Description
00	Jul. 14, 2022	Original

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4 General Information

4.1 Client Information

Applicant:	JOYTECH HEALTHCARE CO., LTD.
Address of Applicant:	No.365, Wuzhou Road, Yuhang Economic Development Zone, Hangzhou City, 311100 Zhejiang, China
Manufacturer:	JOYTECH HEALTHCARE CO., LTD.
Address of Manufacturer:	No.365, Wuzhou Road, Yuhang Economic Development Zone, Hangzhou City, 311100 Zhejiang, China
Factory:	JOYTECH HEALTHCARE CO., LTD.
Address of Factory:	No.365, Wuzhou Road, Yuhang Economic Development Zone, Hangzhou City, 311100 Zhejiang, China

4.2 General Description of EUT

Product Name:	Infrared Forehead Thermometer
Model No.:	DET-3018c, DET-3018b
Test Model No.(EUT):	DET-3018c
Trade Mark:	N/A

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz~2480MHz
Modulation Type:	GFSK
Test Power Grade:	Default
Test Software of EUT:	PhyPlusKit
Antenna Type:	PCB Antenna
Antenna Gain:	0 dBi
Power Supply:	DC 3V
Max Conducted Peak Output Power:	0.59dBm
	The Max Conducted Peak Output Power data refer to the report EED32O80625101
Sample Received Date:	May 17, 2022
Sample tested Date:	May 17, 2022 to Jul. 12, 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.
Model No.: DET-3018c, DET-3018b
Only the model DET-3018c was tested. their electrical circuit design, layout, components used and internal wiring are identical.The difference is that the DET-3018b has distance detection,DET-3018c has indicator light.

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:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(GHz)] ≤ 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

f(GHz) is the RF channel transmit frequency in GHz
Power and distance are rounded to the nearest mW and mm before calculation[17]
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 Bluetooth LE

Measurement Data:

1M:

GFSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	0.59	0±1	1	1.259
Middle(2441MHz)	0.13	0±1	1	1.259
Highest(2480MHz)	-0.52	0±1	1	1.259

2M:

GFSK mode				
Test channel	Peak Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power	
			(dBm)	(mW)
Lowest(2402MHz)	0.59	0±1	1	1.259
Middle(2441MHz)	0.14	0±1	1	1.259
Highest(2480MHz)	-0.53	0±1	1	1.259

Worst case is 1M: GFSK						
Channel	Maximum Peak Conducted Output Power (dBm)	Tune up tolerance (dBm)	Maximum tune-up Power		Calculated value	Exclusion threshold
			(dBm)	(mW)		
Lowest (2402MHz)	0.59	0±1	1	1.259	0.397	3.0
Middle (2441MHz)	0.13	0±1	1	1.259	0.397	
Highest (2480MHz)	-0.52	0±1	1	1.259	0.397	
Conclusion: the calculated value ≤3.0, SAR is exempted.						

Remark: The Max Conducted Peak Output Power data refer to report Report No.: EED32O80625101.

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 ***