

RF Exposure Evaluation Report

Product : Fetal Monitor
Trade mark : JUMPER
Model/Type reference : JPD-300E
Serial Number : N/A
Report Number : EED32K00171705
FCC ID : 2ADYL-JPD300E
Date of Issue : Feb. 29, 2019
47 CFR Part 1.1307
47 CFR Part 2.1093
Test Standards : KDB447498D01 General
RF Exposure Guidance v06
Test result : PASS

Prepared for:

Shenzhen Jumper Medical Equipment Co., Ltd
D Building, No. 71, Xintian Road, Fuyong Street, Baoan,
Shenzhen, Guangdong, China

Prepared by:

Centre Testing International Group Co., Ltd.
Hongwei Industrial Zone, Bao'an 70 District,
Shenzhen, Guangdong, China

TEL: +86-755-3368 3668

FAX: +86-755-3368 3385

Tested by:

Peter

Peter

Compiled by:

Tom - chen

Tom chen

Reviewed by:

Max Liang

Max Liang

Approved by:

Kevin Yang

Kevin yang

Date:

Feb. 19, 2019

Check No.:3177469070



2 Version

Version No.	Date	Description
00	Feb. 19, 2019	Original

3 Contents

	Page
1 COVER PAGE.....	1
2 VERSION.....	2
3 CONTENTS.....	3
4 GENERAL INFORMATION.....	4
4.1 CLIENT INFORMATION.....	4
4.2 GENERAL DESCRIPTION OF EUT.....	4
4.3 PRODUCT SPECIFICATION SUBJECTIVE TO THIS STANDARD.....	4
4.4 TEST LOCATION.....	5
4.5 DEVIATION FROM STANDARDS.....	5
4.6 ABNORMALITIES FROM STANDARD CONDITIONS.....	5
4.7 OTHER INFORMATION REQUESTED BY THE CUSTOMER.....	5
5 SAR EVALUATION.....	6
5.1 RF EXPOSURE COMPLIANCE REQUIREMENT.....	6
5.1.1 Standard Requirement.....	6
5.1.2 Limits.....	6
5.1.3 EUT RF Exposure.....	6
PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS.....	7

4 General Information

4.1 Client Information

Applicant:	Shenzhen Jumper Medical Equipment Co., Ltd
Address of Applicant:	D Building, No. 71, Xintian Road, Fuyong Street, Baoan, Shenzhen, Guangdong, China
Manufacturer:	Shenzhen Jumper Medical Equipment Co., Ltd
Address of Manufacturer:	D Building, No. 71, Xintian Road, Fuyong Street, Baoan, Shenzhen, Guangdong, China
Factory:	Shenzhen Jumper Medical Equipment Co., Ltd
Address of Factory:	D Building, No. 71, Xintian Road, Fuyong Street, Baoan, Shenzhen, Guangdong, China

4.2 General Description of EUT

Product Name:	Fetal Monitor
Model No.(EUT):	JPD-300E
Trade Mark:	JUMPER
EUT Supports Radios application:	BT 4.1 Single mode, 2402MHz-2480MHz

4.3 Product Specification subjective to this standard

Frequency Range:	2402MHz-2480MHz
Sample Type:	Portable production
Test power grade:	N/A
Test software of EUT:	nRFgo Studio.exe(manufacturer declare)
Antenna Type:	PCB Antenna
Antenna Gain:	0dBi
Power Supply:	AC 120V, 60Hz
	Battery: 3.7V 3000mAh
Conducted Peak Output Power:	-3.335dBm
	The Conducted Peak Output Power data refer to the report EED32K00171701
Firmware version:	M1_V1.0(manufacturer declare)
Hardware version:	3000R0(manufacturer declare)
Test power grade:	N/A
Test software of EUT:	nRFgo Studio.exe(manufacturer declare)
Test Voltage:	DC 3.7V by Battery
Sample Received Date:	Jul. 02, 2018
Sample tested Date:	Aug. 13, 2018 to Fed. 19, 2019
The tested sample(s) and the sample information are provided by the client.	

Report No. : EED32K00171705

Page 5 of 7

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:

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

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

The Max Conducted Peak Output Power is -3.335dBm in Lowest channel(2.402GHz);

The best case gain of the antenna is 0dBi.

$EIRP = -3.335\text{dBm} + 0\text{dBi} = -3.335\text{dBm}$

-3.335dBm logarithmic terms convert to numeric result is nearly 0.464mW

According to the formula. calculate the EIRP test result:

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

General RF Exposure = $(0.464\text{mW} / 5 \text{ mm}) \times \sqrt{2.402\text{GHz}} = 0.1438$ ①

SAR requirement:

S = 3.0

② ;

① < ②.

So the SAR report is not required.

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32K00171701 for EUT external and internal photos.

*** End of Report ***

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.