

# RF Exposure Evaluation Report

**Product** : Fetal Monitor  
**Trade mark** : JUMPER  
**Model/Type reference** : JPD-300E  
**Serial Number** : N/A  
**Report Number** : EED32K00171707  
**FCC ID** : 2ADYL-JPD300ETX  
**Date of Issue** : Jan. 10, 2019  
47 CFR Part 1.1307  
47 CFR Part 2.1093  
**Test Standards** : KDB447498D01 General  
RF Exposure Guidance v06  
**Test result** : PASS

Prepared for:

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Jan. 10, 2019

Check No.:3177469070



## 2 Version

| Version No. | Date          | Description |
|-------------|---------------|-------------|
| 00          | Jan. 10, 2019 | Original    |
|             |               |             |
|             |               |             |

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## 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:                                                               | Battery: 3.7V 1000mAh                                                                |
| Conducted Peak Output Power:                                                | -3.252dBm<br>The Conducted Peak Output Power data refer to the report EED32K00171703 |
| Firmware version:                                                           | M1_V1.0(manufacturer declare )                                                       |
| Hardware version:                                                           | V1.0(manufacturer declare )                                                          |
| Test power grade:                                                           | N/A                                                                                  |
| Test software of EUT:                                                       | nRFgo Studio.exe(manufacturer declare)                                               |
| Test Voltage:                                                               | Battery: 3.7V 1000mAh                                                                |
| Sample Received Date:                                                       | Jul. 02, 2018                                                                        |
| Sample tested Date:                                                         | Aug. 13, 2018 to Jan. 08, 2019                                                       |
| The tested sample(s) and the sample information are provided by the client. |                                                                                      |

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#### **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  $\leq 50$  mm are determined by:

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

Power and distance are rounded to the nearest mW and mm before calculation<sup>17</sup>

The result is rounded to one decimal place for comparison

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  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 -3.252dBm in Lowest channel(2.402GHz);

The best case gain of the antenna is 0dBi.

$\text{EIRP} = -3.252\text{dBm} + 0\text{dBi} = -3.252\text{dBm}$

-3.252dBm logarithmic terms convert to numeric result is nearly 0.473mW

According to the formula. calculate the EIRP test result:

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

General RF Exposure =  $0.473\text{mW} / 5 \text{ mm} \cdot \sqrt{2.402\text{GHz}} = 0.1466$  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. EED32K00171703 for EUT external and internal photos.

\*\*\* End of Report \*\*\*

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