

ELECTROMAGNETIC EMISSION COMPLIANCE REPORT FOR LOW-POWER, NON-LICENSED TRANSMITTER

Test Report No. : OT-207-RWD-063
AGR No. : A206A-120
Applicant : InBody Co., Ltd.
Address : InBody Bldg., 625, Eonju-ro, Gangnam-gu, Seoul, 06106, South Korea
Manufacturer : InBody Co., Ltd.
Address : 15, Heugam-gil, Ipjang-myeon, Seobuk-gu, Cheonan-si, Chungcheongnam-do 31025
KOREA
Type of Equipment : Blood Pressure Monitor
FCC ID. : F60-INBODY-BP170B
Model Name : BP170B
Multiple Model Name : BP160B
Serial number : N/A
Total page of Report : 7 pages (including this page)
Date of Incoming : July 08, 2020
Date of issue : July 30, 2020

SUMMARY

The equipment complies with the regulation; *FCC PART 15 SUBPART C Section 15.247*
 This test report only contains the result of a single test of the sample supplied for the examination.
 It is not a generally valid assessment of the features of the respective products of the mass-production.

Reviewed by: 

 Tae-Ho, Kim / Senior Manager
 ONETECH Corp.

Approved by: 

 Ki-Hong, Nam / General Manager
 ONETECH Corp.

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Revision History

| Rev. No. | Issue Report No. | Issued Date | Revisions | Section Affected |
|----------|------------------|---------------|-----------------|------------------|
| 0 | OT-207-RWD-063 | July 30, 2020 | Initial Release | All |
| | | | | |
| | | | | |

1. VERIFICATION OF COMPLIANCE

Applicant : InBody Co., Ltd.
 Address : InBody Bldg., 625, Eonju-ro, Gangnam-gu, Seoul, 06106, South Korea
 Contact Person : Kyung Keun, Kim / Manager
 Telephone No. : +82-2-300-2241
 FCC ID : F6O-INBODY-BP170B
 Model Name : BP170B
 Brand Name : 
 Serial Number : N/A
 Date : July 30, 2020

| | |
|--|--|
| EQUIPMENT CLASS | DTS – DIGITAL TRNSMISSION SYSTEM |
| E.U.T. DESCRIPTION | Blood Pressure Monitor |
| THIS REPORT CONCERNS | Original Grant |
| MEASUREMENT PROCEDURES | ANSI C63.10: 2013 |
| TYPE OF EQUIPMENT TESTED | Pre-Production |
| KIND OF EQUIPMENT AUTHORIZATION REQUESTED | Certification |
| EQUIPMENT WILL BE OPERATED UNDER FCC RULES PART(S) | FCC PART 15 SUBPART C Section 15.247 KDB 558074 D01 15.247 Meas Guidance v05r02 |
| Modifications on the Equipment to Achieve Compliance | None |
| Final Test was Conducted On | 3 m Semi Anechoic Chamber |

-. The above equipment was tested by ONETECH Corp. for compliance with the requirement set forth in the FCC Rules and Regulations. This said equipment in the configuration described in this report, shows the maximum emission levels emanating from equipment are within the compliance requirements.

2. GENERAL INFORMATION

2.1 Product Description

The InBody Co., Ltd., Model BP170B (referred to as the EUT in this report) is a Blood Pressure Monitor. The product specification described herein was obtained from product data sheet or user’s manual.

| | |
|---|------------------------|
| Device Type | Blood Pressure Monitor |
| Temperature Range | 10 °C ~ 40 °C |
| Operating Frequency | 2 402 MHz ~ 2 480 MHz |
| RF Output Power | -7.08 dBm |
| Number of Channel | 40 Channel |
| Modulation Type | GFSK (Bluetooth LE) |
| Antenna Type | Chip Antenna |
| Antenna Gain | 1.99 dBi |
| List of each Osc. or crystal Freq.(Freq. >= 1 MHz) | 16 MHz |

2.2 Alternative type(s)/model(s); also covered by this test report.

-. The following lists consist of the added model and their differences.

| Model Name | Differences | Tested |
|------------|--|-------------------------------------|
| BP170B | Basic Model (One-touch Cuff) | <input checked="" type="checkbox"/> |
| BP160B | The models are identical to basic model but the Cuff is different. (Normal Cuff) | <input type="checkbox"/> |

Note: 1. Applicant consigns only basic model to test. Therefore this test report just guarantees the units, which have been tested.

2. The Applicant/manufacturer is responsible for the compliance of all variants.

3. EUT MODIFICATIONS

-. None

4. MAXIMUM PERMISSIBLE EXPOSURE

4.1 Applicable Standard

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensure that the public is not exposed to radio frequency energy level in excess of the Commission’s guideline.

This is a Portable device with its physical nature to be used nearby, the distance between radiating structure and human is less than 20 cm.

As per KDB 447498 D01, The 1-g and 10-g SAR test exclusion thesholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are detrmined by:

$[(\text{Max. Power of channel, including tune-up tolerance, mW})/(\text{Mim. test separation distance, mm})] \times [\sqrt{f(\text{GHz})}]$
 < 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

The result is rounded to one decimal place for comparison.

4.2 EUT Description

| | |
|-----------------------------|--|
| Kind of EUT | Blood Pressure Monitor |
| Device Category | <input checked="" type="checkbox"/> Portable (< 20 cm separation) <input type="checkbox"/> Mobile (> 20 cm separation) <input type="checkbox"/> Others |
| Exposure Evaluation Applied | <input type="checkbox"/> MPE <input type="checkbox"/> SAR <input checked="" type="checkbox"/> N/A |

4.3 Test Result

According to the procedure, KDB 447498 D01, the standalone SAR test exclusion threshold is

$$[(\text{Max. Power of channel, including tune-up tolerance, mW})/(\text{Min. test separation distance, mm})] \times [\sqrt{f(\text{GHz})}] < 3$$

$$= (0.22/5) \times \sqrt{2.440} = 0.07$$

Conclusion: The SAR test exclusion threshold is less than 3, so the device meets the RF Exposure Requirement and are excluded from SAR Test.

| Operating Mode | Frequency (MHz) | Target Power W/tolerance (dBm) | Max tune up power (dBm) | Max tune up power (mW) | Separation distance (mm) | RF exposure |
|----------------|-----------------|--------------------------------|-------------------------|------------------------|--------------------------|-------------|
| Bluetooth LE | 2 402.00 | -7.50 ± 0.5 | -7.00 | 0.20 | 5.00 | 0.06 |
| | 2 441.00 | -7.00 ± 0.5 | -6.50 | 0.22 | 5.00 | 0.07 |
| | 2 480.00 | -7.50 ± 0.5 | -7.00 | 0.20 | 5.00 | 0.06 |



Tested by: Hyung-Kwon, Oh / Manager