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TEST REPORT
No. AR20-0054710-02

performed in accordance with

FCC Rules: Code of Federal Regulations (CFR) no. 47
Part 15 Subpart C Section 15.247

PRODUCT	Remote medical patient monitoring by Bluetooth® low energy integrated module.
MODEL(s) TESTED	**EmbracePlus**
FCC ID	2AGGH-EMBPLUS
TRADE MARK(s)	EMPATICA

APPLICANT	EMPATICA srl VIA STENDHAL 36 I-20144 MILANO MI

Tested by	Robertino Torri *[Laboratory technician]*	
Approved by	Roberto Colombo *[Laboratory manager]*	

Revision Sheet

Release No.	Date	Revision Description
Rev. 0	2021-09-03	First edition Digital signed - AR20-0054710-02_TR_RF Exposure _EMPATICA_EmbracePlus

1. GENERAL DATA

SAMPLE		
Samples received on	2020-07-29	**(Item(s) sampled and sent by applicant)**
IMQ reference samples	**BEM** 100475	
Samples tested No.	1	
Object under analysis recognition	**Not carried out** Except where stated, characteristics of products were taken from client description and were not verified by the laboratory	
Date of acceptance of test item	2020-07-29	
TEST LOCATION		
Testing dates	2020-08-06	
Testing laboratory.	IMQ S.p.A. - Via Quintiliano, 43 – I-20138 Milano	
Testing site	Via Quintiliano, 43 – I-20138 Milano	
ENVIRONMENTAL CONDITIONING		
Parameter	***Measured***	
Ambient Temperature	21.0 ÷ 23.0 °C	
Relative Humidity	47 ÷ 55 %	
Atmospheric Pressure	991 ÷ 1001 mbar	
The laboratory is monitored by a continuous environmental conditions measurements system. Temperature, humidity and pressure data are recorded on a weekly basis and stored in local archive.		
REMARKS		
Throughout this report a point is used as the decimal separator. The ability or reliability of this product to perform its intended function in a particular application has not been investigated. Unless otherwise specified, warnings, installation instruction and/or user manual provided with the sample have been checked in Italian or English version only. IMQ declines any responsibility derived from missing or wrong information provided aside by the applicant.		

2. REFERENCE DOCUMENT

DOCUMENT		DATE	TITLE
☒	47 CFR Part 15	2015	Radio Frequency Device
☒	447498 D01 v06	2015	RF exposure procedures and equipment authorization policies for mobile and portable devices

3. EQUIPMENT UNDER TEST (EUT) DETAILS

GENERAL DATA (according to manufacturer declaration)

MODEL (basic)	Description
EmbracePlus	Remote medical patient monitoring by Bluetooth® low energy integrated module.
VARIANTS (derived)	**Description**
/	/

FCC ID	2AGGH-EMBPLUS

Manufacturer	EMPATICA srl - VIA STENDHAL 36 - I-20144 MILANO MI

Type of equipment	DTS - Digital transmission equipment (Bluetooth® Low Energy module)
Operating frequency	2400 ÷ 2483.5 MHz
Max RF radiated power	81.58dBµV/m @3m
Modulation	GFSK
Channel	40 channel, 2MHz spaced from 2402 to 2480MHz
Antenna	Dedicated
Remarks	None

Frequency and Channel list

Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
1(lower)	**2402**	2	2404	3	2406	4	2408
5	2410	6	2412	7	2414	8	2416
9	2418	10	2416	11	2422	12	2424
13	2426	14	2420	15	2430	16	2432
17	2434	18	2424	19	2438	**20(middle)**	**2440**
21	2442	22	2428	23	2446	24	2448
25	2450	26	2432	27	2454	28	2456
29	2458	30	2436	31	2462	32	2464
33	2466	34	2440	35	2470	36	2472
37	2474	38	2444	39	2478	**40(higher)**	**2480**

4. SUMMARY OF TEST RESULTS

POSSIBLE TEST CASE VERDICTS	
Test object meets the requirement	PASS
Test object does not meet the requirement	FAIL
Test case does not apply to the test object	N.A.
Test not performed	N.P.

CFR47 Part 15	TITLE	RESULT
§ 15.247(i), § 47CFR 1.1307(b)(1)	RF humane exposure	PASS

7. TEST RESULTS

7.1 RF EXPOSURE EVALUATION

TEST REQUIREMENT	
Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines § 1.1307(b)(1).	
EUT classification (fixed, mobile or portable devices)	Portable according to § 2.1093(b) of this Chapter
LIMITS	According to § 2.1093 of this Chapter, by means of the following guidelines: OET Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies (447498 D01 General RF Exposure Guidance v06)
Testing dates	2020-08-06

SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm

447498 D01 General RF Exposure Guidance v06 – Appendix A

MHz	**5**	10	15	20	25	mm
150	39	77	116	155	194	SAR Test Exclusion Threshold (mW)
300	27	55	82	110	137	
450	22	45	67	89	112	
835	16	33	49	66	82	
900	16	32	47	63	79	
1500	12	24	37	49	61	
1900	11	22	33	44	54	
2450	**10**	19	29	38	48	
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19	25	31	

The test separation distances ≥ 5 mm is applied to determine SAR test exclusion.

SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm

447498 D01 General RF Exposure Guidance v06 § 4.3

Channel No.	Frequency (MHz)	Radiated power (dBm)	Radiated power (mW)	Distance (mm)	$\frac{max.\ power\ (mW)}{min.distance\ (mm)} \cdot \sqrt{f(GHz)}$	Limits
01	2402	-14.24	0.0377	5	0.012	≤ 3.0 for 1-g head SAR or ≤ 7.5 for 10-g extremity SAR
20	2440	-13.81	0.0416	5	0.013	≤ 3.0 for 1-g head SAR or ≤ 7.5 for 10-g extremity SAR
40	2480	-13.65	0.0432	5	0.014	≤ 3.0 for 1-g head SAR or ≤ 7.5 for 10-g extremity SAR

TEST RESULT

This value is less than the low threshold limit. No SAR test is required.

Maximum radiated power was taken into consideration to establish the worst case aggregate maximum output power.

END OF TEST REPORT