

Report on the FCC Testing of the
Monica Healthcare Ltd
Novii Interface Unit, Model: Novii System Interface
Unit (Part number 107-PT-001), Novii Pod, Model:
Novii System Pod (Part number 107-PT-003)
In accordance with FCC 47 CFR Part 11



Product Service

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Prepared for: Monica Healthcare Ltd
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FCC ID: Interface: YOM-6961-MON
FCC ID: POD: YOM-6960-MON

COMMERCIAL-IN-CONFIDENCE

Date: December 2017
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RESPONSIBLE FOR	NAME	DATE	SIGNATURE
Project Management	Jennifer Harris	13 December 2017	
Authorised Signatory	Matthew Russell	13 December 2017	

Signatures in this approval box have checked this document in line with the requirements of TÜV SÜD Product Service document control rules.

ENGINEERING STATEMENT

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported testing was carried out on a sample equipment to demonstrate limited compliance with FCC Part 1 The sample tested was found to comply with the requirements defined in the applied rules.

RESPONSIBLE FOR	NAME	DATE	SIGNATURE
Testing	Jack Tuckwell	13 December 2017	

FCC Accreditation
90987 Octagon House, Fareham Test Laboratory

EXECUTIVE SUMMARY

A sample of this product was tested and found to be compliant with FCC 47 CFR Part 1: 2016.

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1 Report Summary

1.1 Report Modification Record

Alterations and additions to this report will be issued to the holders of each copy in the form of a complete document.

Issue	Description of Change	Date of Issue
1	First Issue	13 December 2017

Table 1

1.2 Introduction

Applicant	Monica Healthcare Ltd
Manufacturer	Monica Healthcare Ltd
Model Number(s)	1) Interface (107-PT-001) 2) Pod (107-PT-003) 3) Pod (107-PT-003)
Serial Number(s)	1) TA1772 2) AA5425 3) AA5431
Hardware Version(s)	Interface Rev L , Pod Rev H
Software Version(s)	Interface V2.71, Pod V2.54
Number of Samples Tested	1 (one interface, two pods)
Test Specification/Issue/Date	FCC Part 1: 2016
Order Number	issue 2 501559
Date	30-November-2017
Date of Receipt of EUT	05-December-2017
Start of Test	11-December-2017
Finish of Test	11-December-2017
Name of Engineer(s)	Jack Tuckwell
Related Document(s)	KDB 680106 D01 RF Exposure Wireless Charging Aps v02



1.3 Brief Summary of Results

A brief summary of the tests carried out in accordance with FCC 47 Part 1 is shown below.

Section	Specification Clause	Test Description	Result	Comments/Base Standard
Configuration: Charging 1%				
2.1	1.1310	RF Exposure E and H fields	Pass	KDB 680106 D01
Configuration: Charging 50%				
2.1	1.1310	RF Exposure E and H fields	Pass	KDB 680106 D01
Configuration: Charging 99%				
2.1	1.1310	RF Exposure E and H fields	Pass	KDB 680106 D01

Table 2



1.4 Product Information

1.4.1 Technical Description

The Monica Novii POD is an intrapartum Maternal/Fetal Monitor that non-invasively measures and displays fetal heart rate (FHR), uterine activity (UA) and maternal heart rate (MHR).

The Novii POD acquires and displays the FHR tracing from abdominal surface electrodes that pick up the fetal ECG (fECG) signal. Using the same surface electrodes, the POD also acquires and displays the UA tracing from the uterine electromyography (EMG) signal and the MHR tracing from the maternal ECG signal (mECG).

The POD is indicated for use on women who are at >36 completed weeks, in labor, with singleton pregnancies, using surface electrodes on the maternal abdomen.

The Novii Patch is an accessory to the Novii POD that connects directly to the Novii POD and contains the surface electrodes that attach to the abdomen. The Novii Interface is an accessory to the Novii POD which provides a means of interfacing the wireless output of the Novii POD to the transducer inputs of a Maternal/Fetal Monitor.

The Novii Interface enables signals collected by the Novii POD to be printed and displayed on a Maternal/Fetal Monitor and sent on to a central network, if connected.

1.5 Deviations from the Standard

No deviations from the applicable test standard were made during testing.

1.6 EUT Modification Record

The table below details modifications made to the EUT during the test programme. The modifications incorporated during each test are recorded on the appropriate test pages.

Modification State	Description of Modification still fitted to EUT	Modification Fitted By	Date Modification Fitted
Serial Number: TA1772			
0	As supplied by the customer	Not Applicable	Not Applicable
Serial Number: AA5425			
0	As supplied by the customer	Not Applicable	Not Applicable
Serial Number: AA5431			
0	As supplied by the customer	Not Applicable	Not Applicable

Table 3



1.7 Test Location

TÜV SÜD Product Service conducted the following tests at our Fareham Test Laboratory.

Test Name	Name of Engineer(s)	Accreditation
Configuration and Mode: Charging 1%		
RF Exposure E and H Field	Jack Tuckwell	Not Accredited
Configuration and Mode: Charging 50%		
RF Exposure E and H Field	Jack Tuckwell	Not Accredited
Configuration and Mode: Charging 99%		
RF Exposure E and H Field	Jack Tuckwell	Not Accredited

Table 4

Office Address:

Octagon House
Concorde Way
Segensworth North
Fareham
Hampshire
PO15 5RL
United Kingdom



2 Test Details

2.1 RF Exposure E and H Fields

2.1.1 Specification Reference

FCC Part 1, Clause 1.1310

2.1.2 Equipment Under Test and Modification State

Interface, S/N: TA1772 - Modification State 0
Pod, S/N: AA5425 - Modification State 0
Pod, S/N: AA5431 - Modification State 0

2.1.3 Date of Test

11-December-2017

2.1.4 Test Method

Measurements were made from all sides and the top of the primary/client pair, with the 10 cm measured from the centre of the probe(s) to the edge of the device.

Two Pods were placed on the Interface's charging plate to maximise the output of the wireless charger.

Emissions between 100 kHz to 300 kHz should be assessed versus the limits at 300 kHz in Table 1 of Section 1.1310: 614 V/m and 1.63 A/m.

2.1.5 Environmental Conditions

Ambient Temperature	20.1 °C
Relative Humidity	36 %



2.1.6 Test Results

Charging 1% (1/8 bars)

Field Type	Measurement Position	Field Strength Result (at 10 cm separation distance)	Maximum Permissible Exposure Limit	Units	Compliance (Yes/No)
Electric field	Left Side Face on	71.8	614	V/m rms	Yes
Electric field	Left Side Edge on	65.1	614	V/m rms	Yes
Electric field	Right Side Face on	55.5	614	V/m rms	Yes
Electric field	Right Side Edge on	63.5	614	V/m rms	Yes
Electric field	Front Face on	76.0	614	V/m rms	Yes
Electric field	Front Edge on	71.8	614	V/m rms	Yes
Electric field	Rear Face on	133.7	614	V/m rms	Yes
Electric field	Rear Edge on	115.1	614	V/m rms	Yes
Electric field	Top Face on	82.3	614	V/m rms	Yes
Electric field	Top Edge on	92.2	614	V/m rms	Yes

Table 5 – RF Exposure Electric Field (E Field) at 1% Charge – 100 Hz to 400 kHz

Field Type	Measurement Position	Field Strength Result (at 10 cm separation distance)	Maximum Permissible Exposure Limit	Units	Compliance (Yes/No)
Magnetic field	Left Side Face on	0.05	1.63	A/m rms	Yes
Magnetic field	Left Side Edge on	0.06	1.63	A/m rms	Yes
Magnetic field	Right Side Face on	0.06	1.63	A/m rms	Yes
Magnetic field	Right Side Edge on	0.08	1.63	A/m rms	Yes
Magnetic field	Front Face on	0.09	1.63	A/m rms	Yes
Magnetic field	Front Edge on	0.06	1.63	A/m rms	Yes
Magnetic field	Rear Face on	0.05	1.63	A/m rms	Yes
Magnetic field	Rear Edge on	0.05	1.63	A/m rms	Yes
Magnetic field	Top Face on	0.05	1.63	A/m rms	Yes
Magnetic field	Top Edge on	0.04	1.63	A/m rms	Yes

Table 6 – RF Exposure Magnetic Field (H Field) at 1% Charge – 100 Hz to 400 kHz



Charging 50% (4/8 bars)

Field Type	Measurement Position	Field Strength Result (at 10 cm separation distance)	Maximum Permissible Exposure Limit	Units	Compliance (Yes/No)
Electric field	Left Side Face on	106.2	614	V/m rms	Yes
Electric field	Left Side Edge on	75.4	614	V/m rms	Yes
Electric field	Right Side Face on	110.8	614	V/m rms	Yes
Electric field	Right Side Edge on	93.6	614	V/m rms	Yes
Electric field	Front Face on	110.2	614	V/m rms	Yes
Electric field	Front Edge on	110.1	614	V/m rms	Yes
Electric field	Rear Face on	135.7	614	V/m rms	Yes
Electric field	Rear Edge on	160.9	614	V/m rms	Yes
Electric field	Top Face on	130.0	614	V/m rms	Yes
Electric field	Top Edge on	145.5	614	V/m rms	Yes

Table 7 – RF Exposure Electric Field (E Field) at 50% Charge – 100 Hz to 400 kHz

Field Type	Measurement Position	Field Strength Result (at 10 cm separation distance)	Maximum Permissible Exposure Limit	Units	Compliance (Yes/No)
Magnetic field	Left Side Face on	0.07	1.63	A/m rms	Yes
Magnetic field	Left Side Edge on	0.10	1.63	A/m rms	Yes
Magnetic field	Right Side Face on	0.08	1.63	A/m rms	Yes
Magnetic field	Right Side Edge on	0.08	1.63	A/m rms	Yes
Magnetic field	Front Face on	0.11	1.63	A/m rms	Yes
Magnetic field	Front Edge on	0.13	1.63	A/m rms	Yes
Magnetic field	Rear Face on	0.04	1.63	A/m rms	Yes
Magnetic field	Rear Edge on	0.03	1.63	A/m rms	Yes
Magnetic field	Top Face on	0.06	1.63	A/m rms	Yes
Magnetic field	Top Edge on	0.05	1.63	A/m rms	Yes

Table 8 – RF Exposure Magnetic Field (H Field) at 50% Charge – 100 Hz to 400 kHz



Charging 99% (7/8 bars)

Field Type	Measurement Position	Field Strength Result (at 10 cm separation distance)	Maximum Permissible Exposure Limit	Units	Compliance (Yes/No)
Electric field	Left Side Face on	56.2	614	V/m rms	Yes
Electric field	Left Side Edge on	49.3	614	V/m rms	Yes
Electric field	Right Side Face on	56.8	614	V/m rms	Yes
Electric field	Right Side Edge on	55.8	614	V/m rms	Yes
Electric field	Front Face on	66.0	614	V/m rms	Yes
Electric field	Front Edge on	66.2	614	V/m rms	Yes
Electric field	Rear Face on	105.1	614	V/m rms	Yes
Electric field	Rear Edge on	92.1	614	V/m rms	Yes
Electric field	Top Face on	59.8	614	V/m rms	Yes
Electric field	Top Edge on	72.1	614	V/m rms	Yes

Table 9 – RF Exposure Electric Field (E Field) at 99% Charge – 100 Hz to 400 kHz

Field Type	Measurement Position	Field Strength Result (at 10 cm separation distance)	Maximum Permissible Exposure Limit	Units	Compliance (Yes/No)
Magnetic field	Left Side Face on	0.04	1.63	A/m rms	Yes
Magnetic field	Left Side Edge on	0.04	1.63	A/m rms	Yes
Magnetic field	Right Side Face on	0.05	1.63	A/m rms	Yes
Magnetic field	Right Side Edge on	0.05	1.63	A/m rms	Yes
Magnetic field	Front Face on	0.05	1.63	A/m rms	Yes
Magnetic field	Front Edge on	0.06	1.63	A/m rms	Yes
Magnetic field	Rear Face on	0.04	1.63	A/m rms	Yes
Magnetic field	Rear Edge on	0.03	1.63	A/m rms	Yes
Magnetic field	Top Face on	0.03	1.63	A/m rms	Yes
Magnetic field	Top Edge on	0.04	1.63	A/m rms	Yes

Table 10 – RF Exposure Magnetic Field (H Field) at 99% Charge – 100 Hz to 400 kHz

2.1.7 Test Location and Test Equipment Used

This test was carried out in Wireless Lab 3.

Instrument	Manufacturer	Type No	TE No	Calibration Period (months)	Calibration Due
Field Meter	Wavecontrol	SMP2	s/n: 17SN0452	12	16-Feb-2018
Hygrometer	Rotronic	HYGROPALM 1	2338	12	24-Oct-2018

Table 11



3 Measurement Uncertainty

For a 95% confidence level, the measurement uncertainties for defined systems are:

Test Name	Measurement Uncertainty
RF Exposure V/m	3.3 %
RF Exposure A/m	2.9 %

Table 12