

# Engineering Change Notice (ECN) QAFO 0001

Originated By:	Lisa Jore	genson		Effective Date:	7-2-2014	
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Document Number	NEW	OLD	Release Y/N	Document Title		
EERE 0625	1.2	1.1	N	Model 4100 PoP conducted tr	ansmit power output report	
EERE 0627	1.2	1.1	N	Model 4200 PPC conducted tr	cansmit power output report	
EERE 0628	1.2	1.1	N	Model 4300 EPG conducted tr	cansmit power output report	
EERE 0629	1.2	1.1	N	Model 4500 CP conducted tra	ansmit power output report	
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Change is requested by Northwest EMC based on their review of the reports. The reports show internal photos of the device and we have requested that internal photos be held confidential; however, test reports aren't eligible for confidential treatment.						
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Revision 1.12 ECN # 1363 Released 01/25/2012



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Te	est Report		
Title: Model 4200 Patient Programmer Charger Conducted Transmit Power Output Report			
Document Number and Revision: EERE 0627 Revision 1.2	Page 1 of 3		
Prepared By: Dave Petsko	Approved By:		

## 1. Purpose

FCC Rules §2.1046 requires the conducted measurement of transmitter power output be included in the EMC test report documents submitted to the FCC for product certification. This document describes the RF Test Method and Conducted Transmit Power Output Test Results for Patient Programmer Charger (PPC), Model 4200.

### 2. References

- 47 CFR § 2.1046(a)
- DS-0000-79-7 Torpedo Patient Programmer / Charger Schematic 001-a
- AP-0000-99-9 ASBY PCB Torpedo Patient Programmer / Charger 001-a

#### 3. RF Test Method

The 402-405 MHz conducted transmit power output of the Patient Programmer Charger, Model 4200 may be measured directly from the Murata MM8130-2600 RF Connector with Switch using a test coaxial cable and spectrum analyzer.

## 4. Equipment Used

Table 1 – List of Test Equipment

Equipment	Mfg.	Model	Cal ID	Cal Due
Spectrum Analyzer	Rohde Schwartz	FSL6	10055	8 NOV 2014
Coax Cable*	Johnson/Emerson	415-0033-012	NA	NA

#### 5. Sample Information

A single sample was used for the Conducted Transmit Power Output Test as described in Table 2 below.

Table 2 – Sample Used

·	PPC Sample 1		
PCB Serial Number	0013		
PPC DBR #	Dbr1358, log1049		
PPC Serial Number [EXID]	0x034569		
SW Version	Custom EMC Test Software \ PWM, Antenna, MICS test apps, Torpedo\Software\PPC\Tools		

#### 5.1. Sample Traceability

Traceability records are defined for the sample including workflow/traveler, which includes reference to BOM revision, manufacturing procedures with revision number and component lot or serial numbers. A description of the methods and processes used to assemble/process the materials are recorded in the Minnetronix Development Build Record (DBR) so that the method and processes can be repeated if necessary. The DBR incorporates:



- DA-0001-89-8 ASBY Assembly Procedure for Torpedo PPC Patient Programmer
- Revision information for BOMs
- Supplements for updates (e.g. software changes, any rework, etc.)

#### 5.2. Sample Retention

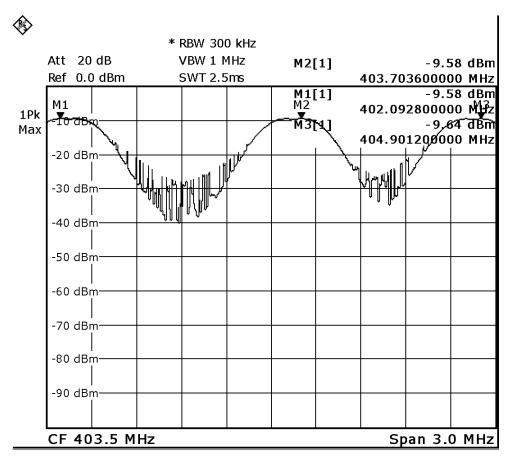
EERE 0627 Revision 1.

Sample is retained at QIG's Cleveland facility.

## 6. Transmitter Power Output Test Results

The 402-405 MHz transmitter measured conducted power output data was recorded for low, medium, and high RF channels selected. The test results are shown in Figure 1 and recorded in Table 3. Test limits are not applicable per FCC §2.1046 requirements.

Figure 1 - Conducted Transmitter Power, Patient Programmer Charger, Model 4200



Date: 30.MAY.2014 15:01:53



## **Test Report**

Title:

**Model 4200 Patient Programmer Charger Conducted Transmit Power Output Report** 

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Table 3 - Patient Programmer Charger, Model 4200, Conducted Transmit Power Output

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Transmit Power Setting		Channel 0	Channel 5	Channel 9
52				
Frequency (MHz)		402.15	403.65	404.85
Power Output (dBm)		-9.28	-9.28	-9.34

<sup>\*</sup> Coax Cable Insertion Loss - 0.3 dB

## 7. Revision History

Revision Level	Revision Description		Effective Date
1.1	Initial release	2333	06/09/14
1.2	Removed internal device photo.	2365	07/02/14