FCC Question 1 Per 2.1033(c)(12), please submit additional internal photo views of the internal construction to define component placement and chassis assembly

Answer : Since the PCB (Hybrid) is folded inside the housing and covered by the battery, a picture of the PCB outside the housing, a picture of the opened housing, a CAD drawing, indicating the location of the internal parts, and the HF circuit sector of the PCB layout is attached is attached. The relevant HF circuit parts are marked in the picture of the hybrid and an the PCB layout.

FCC Question 2 Per 95.639(f)(2)(i), if not in filing already, please explain and/or show how radiated power for implant "positioned vertically and horizontally" was addressed

Answer: The radiated output power was tested in a position close to the normal use (including associated implant leads) as declared by the applicant, considering the mounting instruction according to 95.639(f)(2)(i) "The implant must be mounted 6 cm from the side wall and centered vertically in the container." The position is displayed on test setup pictures in the report.
Two radiated power measurements were done, in vertical and horizontal antenna position.
The mentioned wording "positioned vertically and horizontally" is part of the description of the test environment only and does not implicit a request to change the position of the sample inside the human torso simulator for radiated power measurement. My interpretation is that this wording requires the ability of the mounting grid inside the torso to put different samples in suitable positions and not in predetermined position only, caused by mounting grid.

FCC Question 3 If not in filing already, please provide phantom dimensions, measured liquid parameters, and liquid composition info used for radiated EMC tests

Answer: The used human torso simulator consists of a cylindrical plexiglas container with a size of 30 cm by 76 cm as described in 95.639(f)(2)(i) and EN 301 839. See test setup pictures.
- Please find the liquid parameters and composition information attached.

FCC Question 4: For SAR, was antenna wire modeled as rectangular/square cross-section, or (staircased) circular cross-section? What was the cross-section number-of-cell dimensions?

Answer: The antenna wire was modeled using square cross-section cells. Cell dimensions were 0.3 mm in the X, Y, and Z-axis. The simulation used a minimum of 3 cells in all three axis of the antenna structure which, according to Remcom, Inc., the vendor of the finite-difference time-domain computational software, is appropriate for the analysis.

FCC Question 5: Relative permittivity and conductivity used in the SAR computation differs from the FCC recommended values of 57.9 and 0.82 respectively – please revise where appropriate.

Answer: The SAR analysis was computed using a permittivity of 62.5 and a conductivity of 0.90 S/m. These values were chosen to simulate human muscle at 400 MHz based upon the published report:

”Simulated Biological Materials for Electromagnetic Radiation Absorption Studies”, by G. Hartsgrove, A. Kraszewski, and A. Surowiec, University of Ottawa, Department of Electrical Engineering, Ottawa, Ontario, Canada. This report was published in Bioelectromagnetics, 8, pp. 29-36, 1987, and referenced [15] in section: Tissue Models on page 11 of FCC Supplement C, (Edition 01-01) to OET Bulletin 65 (Edition 97-01), Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields.

In accordance with FCC Supplement C, Appendix C: Tissue Dielectric Parameters, the tolerance of the tissue dielectric parameters may be allowed to vary by up to 10%. The values used in the SAR analysis comply with this tolerance value. In addition, the SAR analysis, performed with a conductivity of 0.90 S/m results in a higher (worst-case) value than if it were performed with a value of 0.82 S/m. Using this worst-case value, the SAR analysis indicates the device complies with the FCC regulations with a margin of 48 dB.

FCC Question 6: Other previous separate FCC ID filings from applicant have requested waiver of certain for MICS rules - if not in filing already, please describe how this device differs such that similar waiver is not

applicable.

Answer: The previous submitted devices does not provide a channel monitoring system as outlined in CFR 95.620 (a) and are therefore not in compliance with the applicable FCC rule for MICS. The waiver was granted in order to allow the distribution of these equipment nevertheless.
The Lumax devices provide such a channel monitoring feature and therefore are in compliance with CFR 95.620 (a) so that it is not necessary to apply the waiver.