

April 27, 2007

Federal Communications commission
Attn: Ms. Linda Elliott
7435 Oakland Mills Rd.
Columbia, MD 21036

Re: Response to FCC for Grant Certification under FCC ID RIASJMRF

Dear Tim Harrington:

1) Please explain basis that SAR was evaluated only for model numbers 1207 & 3207, or amend filing if appropriate

SJM Response:

The SAR report for model 2207 has now been filed.

2) If not in filing already, please summarize actual SAR grid dimensions for regions at and near surrounding antenna structure and feedpoint

SJM Response:

Please refer to clause 4.2 of the SAR reports. Mesh cell size was varied automatically by the software from a maximum of 3.3 mm to a lower limit preset from 1/20 to 1/60 of that dimension, or 0.165 to 0.055 mm. Variation of maximum SAR value was smaller than 0.05 W/kg over the range of minimum mesh sizes.

3) If not in filing already, please describe actual antenna/wire structure dimensions, and mesh and modeling scheme, eg. number of cells in wire cross-section, etc.

SJM Response:

The antenna wire geometry and configuration of the Current and Promote devices are controlled by the contour of the device headers. The wire is laid inside a groove that is formed by the header mold and is welded at either end to anchors that connect to the titanium can/case and RF feed through respectively. See table below for details:

Model	Total Number of Cells	Antenna Wire Diameter	Length (Reference only)
1207	288,600 to 1,534,680	0.015"	1.71"
2207	279,450 to 2,295,865	0.015"	1.96"
3207	305,809 to 1,964,384	0.015"	2.04"

As indicated in response 2 above, mesh size was automatically adjusted downward for object detail. The total number of cells was manually varied to assess the result on the computed SAR, which varied by less than 0.05 W/kg (1207), 0.02 W/kg (2207) and 0.01 W/kg (3207). Please refer to clause 4.2 and Table 2 of the SAR report.

4) PEC as numerical boundary condition seems unconventional, ie absorbing boundary condition is typically used. Please explain whether and how this represents implant physical environment.

SJM Response:

Please refer to clause 4.1 of the SAR reports. PEC was chosen to assure that all emitted energy was kept within the computational volume and is considered to be worse case. As shown in Figure 3 of the SAR report, all energy relevant to the SAR calculation is dissipated in a distance much shorter than the distance to the PEC boundary.

5) Please explain steps taken to ensure reflections if applicable from PEC do not inappropriately effect SAR results.

SJM Response:

Please refer to Figure 3 of the SAR reports. All energy relevant to the SAR calculation is contained in a distance much shorter than the distance to the PEC boundary, and reflections are not a factor in the resulting SAR computation.

6) Please explain certification status of programmer/control transmitter, eg what is FCC ID, etc.

SJM Response: We were instructed by George Tannahill, FCC to submit the implantable first and then have the third party reviewer upload the programmer/control transmitter documentation to the FCC website upon approval of the implantable or at the instruction of the FCC reviewer.

7) Radiated test setup photos show implant with header/lead-connection in one position, ie horizontal. If not in filing already, please amend to consider implant radiating element in vertical polarization, in accordance with 95.639(f)(1)(i).

SJM Response:

With regard to the requirements in 95.639(f)(2)(i): All test setup photos have been provided. Photos showing every test orientation of the EUT were not taken. The EUT was tested in three orthogonal axes. In several of the photos the EUT is laying down on the grid as opposed to standing up on it. All implant leads are too long to be laid down horizontally inside the vertical torso phantom, so the leads were suspended from the EUT and grid vertically while the EUT was manipulated in three orthogonals.

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8) We note that e-filing folder 6 contained two exhibits entitled "Test Report" - one of these was duplicate of SAR report and will be deleted. If more than one (EMC) Test Report exhibit is intended, please submit.

SJM Response:

Please delete one of the reports. It was a duplicate.