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# **1.0** Permissible Exposure Evaluation to FCC Part 95.2585

## 1.1 Procedure

The human exposure is determined using the transmit power as weighed per the operational transmission time required.

## 1.2 Limits

| Requirement | Limits |
|---|---|
| Radiofrequency radiation exposure requirements specified in §§ 1.1307(b) and 2.1093. | ≤1.0 mW*<br>SAR exclusion per FCC KDB 447498. |
| 47 CFR § 1.1307 (b)(2)(iv) Equipment authorized for use in the Medical Device Radiocommunication Service (MedRadio) as a medical implant device or body-worn transmitter (as defined in subpart I of part 95 of this chapter) is subject to routine environmental evaluation for RF exposure prior to equipment authorization, as specified in §§ 2.1093 and 95.2585 of this chapter by finite difference time domain (FDTD) computational modeling or laboratory measurement techniques. […]<br>47 CFR § 2.1093 (c)(1) Portable devices […] the Medical Device Radiocommunication Service (MedRadio), and […] are subject to routine environmental evaluation for RF exposure prior to equipment authorization or use. | |
| *FCC 447498 D01 General RF Exposure Guidance v06:<br>Paragraph 4.2.4. *Transmitters implanted in the body of a user When the aggregate of the maximum power available at the antenna port and radiating structures of an implanted transmitter, under all operating circumstances, is ≤ 1.0 mW, SAR test exclusion may be applied. The maximum available output power requirement and worst case operating conditions must be supported by power measurement results, based on device design and implementation requirements, and fully justified in a SAR analysis report according to KDB Publication 865664 D02, in lieu of SAR measurement or numerical simulation.* | |

### 1.3 Results

The EUT satisfied the requirement.

Highest recorded field strength of the EUT 402-405 MHz radio is 73.1 dBuV/m at 10. This is a conservative worst-case figure as the time-based averaging is not applied.

This calculates to EIRP of 0.017 mW which is below the 1.0 mW limit as cited in the FCC 447498 KDB, paragraph 4.2.4, as the exclusion threshold.

Further, even if the full allowed power of 74.7 dBuV/m at 10 meters were radiated by the EUT, the EIRP would calculate to less than 0.1 mW.

It is concluded that the RF exposure is below the exclusion threshold of 1.0 mW and the SAR exclusion applies.

Signed:

Eric Lifsey

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