



RF Exposure Analysis – Routine Evaluation Exemption

Applicant: Eppendorf SE
FCC ID: 2AXZD0116800152
Model number/name: MotorCap Multi

The above device operates in the 13.56 MHz frequency band (RFID).

The following FCC Rule Parts are applicable:

Part 2.1093 – Radiofrequency radiation exposure evaluation: portable devices

Part 1.1307(b)(3)(i)(A) - Blanket RF exposure exemption (i)

Part 1.1307(b)(3)(i)(C) - MPE test exemption (ii)

Part 1.1307(b)(3)(i)(B) - SAR test exemption (iii)

For RFID (13.56 MHz):

Maximum field strength = 15.72 dB μ V/m @3m (includes tolerance)

ERP = [15.72 – 95.2 – 2.15] dBm = **-81.63 dBm**

Measured radiated power – Ref KDB447498 D04 Section 3.1.2 –

When an antenna port is not available on the device to support conducted power measurement, e.g.: with built-in integral antennas, the available maximum output power or ERP, whichever is larger, and tolerance allowed for production units shall be used to determine RF exposure test exemption and compliance.

Evaluation

From Part 1.1307, RF exposure exemption applies if the maximum transmitted power is less than the maximum of the following three criteria:

- i) No more than 1 mw Blanket exemption. $P_{TH} = 0.001 \text{ W}$ – §1.1307(b)(3)(i)(A)
- ii) determination of exemption under the MPE-based §1.1307(b)(3)(i)(C), if i) not met
- iii) determination of exemption under the SAR-based §1.1307(b)(3)(i)(B) if both i) and ii) are not met;

Conclusion: The source-based, time-averaged power of -81.63 dBm is less than 1 mW (0 dBm) and therefore the above device is exempt from evaluation in accordance with §1.1307(b)(3)(i)(A).

Certification Body

UL International (UK) Ltd