

PROX-ATEX Z1C (EUT) RF Exposure:-

FCC ID: 2ASAB-PROXATEX-Z1C

ISED ID: 24680-PROXATEXZ1C

The PROX-ATEX Z1C temperature controller is intended as a fixed use device. A person's extremity (hand) can operate the controls and come to within 10mm approx. of the radiating coil.

FCC Evaluation is for exposure potential against the Exclusion limits given in **KDB447498** section 4.3.1.

Exclusion requirements are based upon 10g SAR exclusion for extremities.

Equation of 4.3.1. part 1A Transposed is:

$$\text{Exclusion in mW} = ((\text{Threshold} / (\sqrt{F})) * D$$

where: Threshold = 7.5 for 10g SAR Extremities

F = Frequency in GHz (0.01356 GHz)

D = Separation distance in mm (10mm)

Threshold in mW for 13.56MHz is based on equation above and 4.3.1. part b)1) (using 100MHz and 50mm distance)

$$= 1186 \text{ mW}$$

Further modified by 4.3.1. part c)1) (using 100MHz and 50mm distance)

$$= 2215 \text{ mW (at 50mm)}$$

And further modified by part 4.3.1. part c)2) (<50mm distance under 100MHz)

$$= 2215 / 2 \quad (50\text{mm exclusion value divided by 2})$$

Therefore exclusion for 13.56MHz and 10mm separation distance is

$$= 1107\text{mW}.$$

As measured values for the PROX-ATEX Z1C temperature controller EUT were: 46.7dBuV/m @ 3m which is -48.5 dBm (or 0.014 mW) and any antenna gain is included in the field strength measurement, the EUT is excluded from RF Exposure / SAR testing requirements.

With reference to **RSS-102 issue 5** section 2.5.1 table 1, the exemption limit for devices operating on frequencies $\leq 300\text{MHz}$ at 10mm separation distance is 101mW. Therefore the device is exempt from routine SAR/RF exposure evaluations.