

1701E-HMS (Hawk Maintenance Station) (EUT) RF Exposure calculation: -

FCC ID: **2ALTW1701HMS**

The **1701E-HMS (Hawk Maintenance Station)** EUT is an RFID Reader for which certification is sought. The module operates at 13.56 MHz plugged into a computer at a typical distance of 20cm from a user. For the purposes of this exclusion calculation a distance of 200mm has been used as the worst case. The power used is the maximum field strength measured from the RFID transmitter. Evaluation is for worst case General population/uncontrolled exposure.

RFID operation:

Maximum measured PK power from the RFID transmitter was 66.59 dBuV/m @3m. This equates to an EIRP of -28.64dBm (or 0.0014 mW).

FCC Evaluation is for exposure potential against the Exclusion limits given in **KDB447498** D04 v01 section 2.1.2.

Per § 1.1307(b)(3)(i)(A), a single RF source is exempt RF device (from the requirement to show data demonstrating compliance to RF exposure limits, as previously mentioned) if the available maximum time-averaged power is no more than 1 mW, regardless of separation distance. This exemption applies to all operating configurations and exposure conditions, for the frequency range 100 kHz to 100 GHz, regardless of fixed, mobile, or portable device exposure conditions. This is a standalone exemption, and it cannot be applied in conjunction with any other test exemption.

As measured values for the RFID transmitter in the EUT were: 66.59 dBuV/m @ 3m which is -28.64 dBm (or 0.0014 mW) and any antenna gain is included in the field strength measurement, the EUT is excluded from RF Exposure / SAR testing requirements in stand-alone operation as it meets the <1mW exemption requirement.

The above RF evaluation demonstrates compliance with the exemption criteria.

This calculation was prepared by Daniel Sims of Kiwa Ltd, Acting as Agent towards FCC certification.

Date: 24th April 2024

Signed:



(Radio Approvals Manager)