

INTERTEK TESTING SERVICES

Analysis Report

The equipment under test (EUT) is a transceiver for a ZEUS UNIVERSAL PORTAL model: 3000061482 operating at 13.56MHz. The EUT is powered by DC 5.0V with USB host Unit. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna.

Antenna Gain: 0dBi

The nominal conducted output power specified: -15.00dBm (+/- 3dB)

The nominal radiated output power (e.r.p) specified: -17.15dBm (+/- 3dB)

Modulation Type: Pulse modulation

According to the KDB 447498:

The worst-case peak radiated emission for the EUT is 80.2dBμV/m at 3m in the frequency 13.56MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -15.03dBm

The ERP = EIRP – 2.15 = -17.18 dBm

which is within the production variation.

The maximum conducted output power specified is -12.0dBm = 0.063mW

The source- based time-averaging conducted output power

= $0.063 \cdot \text{Duty Cycle mW} < 0.063\text{mW}$ (Duty Cycle < 100%)

The SAR Exclusion Threshold Level for 13.56MHz when the minimum test separation distance is < 50mm:

= $474 \cdot [1 + \log_{10}(f(\text{MHz}))]/2$

= 442.7 mW

Since the source-based time-averaging conducted output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.