

# INTERTEK TESTING SERVICES

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## 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 80.2dB $\mu$ V/m at 3m in the frequency 13.56MHz

The EIRP = [(FS\*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\* Duty Cycle mW < 0.063mW (Duty Cycle<100%)

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

= 474 \* [1 + log100/f(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.