RF Exposure

The equipment under test (EUT) is a LEXGO E-Scooter with 2.4G wireless technology operating in 2402-2483MHz. The EUT is powered by DC 36V with battery. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna
Antenna Gain: 0 dBi max
Modulation Type: GFSK
The nominal conducted output power specified: -16.43dBm (+/-4dB).
The nominal radiated output power (e.i.r.p) specified: -16.43dBm (+/- 4dB).

According to the KDB 447498 V07:

The Maximum peak radiated emission for the EUT is 81.4 dBμV/m at 3m in the frequency 2402MHz
The EIRP = [(FS*D) ^2 / 30] mW = -13.83dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 75.3 dBμV/m at 3m in the frequency 2442MHz
The EIRP = [(FS*D) ^2 / 30] mW = -19.93dBm
which is within the production variation.

The maximum conducted output power specified is -12.43dBm= 0.057mW
The maximum radiated output power specified is -12.43dBm= 0.057mW

The SAR Exclusion Threshold Level:

P_{th}(mW) = ERP_{20cm} * $(d/20cm)^{x}$ (X= $-\log_{10}\left(\frac{60}{ERP_{20\ cm}\sqrt{f}}\right)$)

= 3060 * $(0.5/20)^{1.9}$ mW

= 2.72 mW

Since max. conducted output power and effective radiated power (ERP) is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.

Note: EIRP is higher than ERP, thus EIRP is compared with the Exclusion Threshold.