

INTERTEK TESTING SERVICES

RF Exposure

The equipment under test (EUT) is a ELECTRIC SCOOTER with Bluetooth function. The EUT was powered by DC 36 V from internal rechargeable battery and can be Charged by AC/DC adapter AOI-08420155DD1 with the following ratings: Input: AC100-240V 50/60Hz 1.5A Output: DC42V 1550mA . For more detail information pls. refer to the user manual.

Modulation Type GFSK, $\pi/4$ DQPSK, 8DPSK for BT 3.0, 2.1+EDR.
Bluetooth Version: 3.0, 2.1 with EDR.

Antenna Type: Integral antenna.

Antenna Gain: 0dBi.

The nominal conducted output power specified: 6.0dBm +/-3dB.

The nominal radiated output power (e.i.r.p) specified: 6.0dBm (+/- 3dB)

According to the KDB 447498:

The minimum peak radiated emission for the EUT is 100.7dB μ V/m at 3m in the frequency 2402MHz of BT 3.0, 2.1+EDR

The EIRP = $[(FS^*D)^2 / 30]$ mW = 5.47dBm
which is within the production variation.

The maximum peak radiated emission for the EUT is 100.9dB μ V/m at 3m in the frequency 2441MHz of BT 3.0, 2.1+EDR

The EIRP = $[(FS^*D)^2 / 30]$ mW = 5.67dBm
which is within the production variation.

The maximum conducted output power specified is 9.0dBm = 7.94mW

The source- based time-averaging conducted output power

= 7.94 * Duty factor mW (where Duty Factor ≤ 1)
= 7.94 mW

The SAR Exclusion Threshold Level:

= $3.0 * (\text{min. test separation distance, mm}) / \text{sqrt(freq. in GHz)}$
= $3.0 * 5 / \text{sqrt}(2.480)$ mW
= 9.53 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.