

INTERTEK TESTING SERVICES

Analysis Report

The equipment under test (EUT) is an ANKI OVERDRIVE X52 ICE with Bluetooth (4.0 single mode) function. The EUT was powered by 1 x 3.7V Rechargeable Battery which can be charged by charger, but it can't use Bluetooth function while charging. For more detail information pls. refer to the user manual.

Modulation Type: GFSK

Bluetooth Version: 4.0 (Single Mode) with Low Energy

Antenna Type: Integral antenna

Antenna Gain: 0dBi

The nominal radiated output power (e.i.r.p) specified: 3.0dBm (tolerance: +/- 3 dB)

The nominal conducted output power specified: 3.0dBm (tolerance: +/- 3dB)

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 99.1dB μ V/m at 3m in the frequency 2402MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 3.87dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 97.0dB μ V/m at 3m in the frequency 2480MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = 1.77dBm
which is within the production variation.

The maximum conducted output power specified is 6.0 dBm = 3.98mW

The source- based time-averaging conducted output power
= 3.98 * Duty cycle mW= 3.98 mW

The SAR Exclusion Threshold Level:

= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.480) mW
= 9.5 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.

Transmitter Duty Cycle Calculation

The test signal of the EUT is Continuous emission, so the Duty Cycle is 100%.