Analysis Report

Report No.: 14070167HKG-001

The equipment under test (EUT) is a transmitter for a Doll (RFID toy reader) operating at 13.56 MHz, which is controlled by a crystal. The EUT is powered by 4 x AA size batteries. This product consists of a doll (RFID toy reader) and six interactive accessories (passive tags). The EUT have an ON/OFF switch, a head button, a lip button, two LCD displays and two touch buttons (on the eyeglasses). After switch on the EUT, it can give you a response (i.e. dancing or singing) when you place the passive tags on the lip or you can play different modes by pressing different buttons. The EUT can also connect with iPad via 18kHz audio tone for game playing.

Antenna Type: Internal antenna
Antenna Gain: 0dBi
Maximum allowed field strength of production tolerance: 48 dBμV/m to 54 dBμV/m at 3m.

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 54 dBμV/m at 3m in frequency 13.56MHz, thus;
The EIRP = [(FS*D) ^2*1000 / 30] = 0.00008mW

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;
Conducted Power = 0.00008mW.

The SAR Exclusion Threshold Level for 13.56MHz when the minimum test separation distance is < 50mm:
= [474 * (1 + log100/f(MHz))]/2
= 442.7mW

Since the above conducted output power is well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.