

INTERTEK TESTING SERVICES

Analysis Report

The equipment under test (EUT) is a transmitter for a Maxx Action Spy Playset operating at 49.860 MHz which is controlled by a crystal. The EUT is powered by four 1.5V AG13 batteries and one 1.5V AG3 battery. EUT has an ON/OFF Switch. Turn the "ON-OFF" switch at the side of the walkie talkies to "ON" position. Press the "Talk" button for transmitting, and speak in a normal voice level into the speaker/microphone. For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna

Antenna Gain: 0dBi

The nominal conducted output power specified: -47.0dBm (+/- 3dB)

The nominal radiated output power (e.r.p) specified: -49.15dBm (+/- 3dB)

Modulation Type: AM modulation

According to the KDB 447498:

The worst-case peak radiated emission for the EUT is 48.1dBμV/m at 3m in the frequency 49.86MHz

The EIRP = $[(FS \cdot D)^2 / 30]$ mW = -47.13dBm

The ERP = EIRP – 2.15 = -49.28dBm

which is within the production variation.

The maximum conducted output power specified is -44dBm = 0.00004mW

The source- based time-averaging conducted output power

= 0.00004 * Duty cycle mW = 0.00004 mW (Duty cycle = 100%)

The SAR Exclusion Threshold Level for 49.860MHz when the minimum test separation distance is < 50mm:

= $474 * [1 + \log(100/f(\text{MHz}))]/2$

= 308.6 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.