

INTERTEK TESTING SERVICES

Analysis Report

The equipment under test (EUT) is a transmitter for TOY WALKIE TALKIE BASE STATION SET operating at 49.860MHz which is controlled by a crystal. The EUT is powered by one new 9.0V 6F22 size battery. EUT has an ON/OFF Switch. Turn the "ON-OFF" switch at the side of the EUT 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: -16.0dBm (+/- 3dB)

The nominal radiated output power (e.r.p) specified: -18.15dBm (+/- 3dB)

Modulation Type: AM modulation

According to the KDB 447498:

The worst-case peak radiated emission for the EUT is 78.5dB μ V/m at 3m in the frequency 49.86MHz

The EIRP = [(FS*D) ^2 / 30] mW = -16.73dBm

The ERP = EIRP – 2.15 = -18.88dBm

which is within the production variation.

The maximum conducted output power specified is -13dBm = 0.05mW

The source- based time-averaging conducted output power

= 0.05* Duty Cycle mW = 0.05mW (Duty Cycle=100%)

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

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

$$= 308.6 \text{ mW}$$

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.