

Analysis Report

The Equipment Under Test (EUT) is portable walkie-talkie which operates at 49.860MHz. The EUT is power by 4 x 1.5V AG13 batteries. After switching on the EUT and pressing and releasing the TALK button, the walkie-talkie can transmit and receive sound data to/from another walkie-talkie respectively. By pressing the CODE button, it can transmit Morse code.

Antenna Type: External, Integral

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Antenna Gain: 0dBi

Nominal rated field strength is 70.2 dB μ V/m at 3m

Maximum allowed production tolerance: +/- 3dB

According to the KDB 447498:

Based on the Maximum allowed field strength of production tolerance was 73.2dB μ V/m at 3m in frequency 0.04986GHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.006\text{mW}$

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 0.006mW.

The SAR Exclusion Threshold Level:

= $3.0 \cdot (\text{min. test separation distance, mm}) / \sqrt{\text{freq. in GHz}}$

= $3.0 \cdot 5 / \sqrt{0.04986} \text{ mW}$

= 67.1762 mW

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.