RF Exposure

The Equipment under Test (EUT) is a control unit for the 37290 37291 MECH-X4 MECH-LINK COMMUNICATORS model: 37291 operating at 2.4GHz band. It is powered by DC 3.0V (2 x 1.5V AAA batteries). For more detail information pls. refer to the user manual.

Antenna Type: Integral antenna.
Antenna Gain: 0dBi.
The normal radiated output power (e.i.r.p) is: -5.0dBm (tolerance: +/- 3dB).
The normal conducted output power is -5.0dBm (tolerance: +/- 3dB).
Modulation Type: AM.

According to the KDB 447498:

The Maximum peak radiated emission for the EUT is 90.3dBμV/m at 3m in the frequency 2480MHz
The EIRP = [(FS*D) ^2 / 30] mW = -4.93dBm
which is within the production variation.

The Minimum peak radiated emission for the EUT is 89.1dBμV/m at 3m in the frequency 2442MHz
The EIRP = [(FS*D) ^2 / 30] mW = -6.13dBm
which is within the production variation.

The maximum conducted output power specified is -2dBm = 0.63mW
The source- based time-averaging conducted output power
= 0.63 mW

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.480) mW
= 9.53 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.