RF Exposure

The Equipment under Test (EUT) is a Parent unit of Baby Monitor model: PNMW01. It is powered by DC 3.7V rechargeable battery which was charged by USB port (DC 5V). For more detail information please refer to the user manual.

RF module
The J2.4GM20S3 module is designed for 2.4GHz ISM band;
Frequency Band: 2410MHz to 2471MHz;
19 channels with 3.375MHz channel spacing;
Modulation: GFSK;
Antenna Type: Integral antenna.
Antenna Gain: 2.5dBi;
The nominal conducted output power specified: 14.5dBm (Tolerance: +/- 3dB)

The maximum conducted output power for the EUT is 14.40dBm in the frequency 2.410GHz which is within the production variation.

The minimum conducted output power for the EUT is 13.90dBm in the frequency 2.441GHz which is within the production variation.

According to the KDB 447498:
The maximum conducted output power specified is 17.5dBm = 56.23mW
The source- based time-averaging conducted output power
= 56.23* Duty Cycle mW = 56.23 * 0.0158 mW = 0.89mW
The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (2.480) mW
= 9.5 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.

Transmitter Duty Cycle Calculation

The duty cycle is simply the on-time divided by the period:
The duration of one cycle = 73.478ms
Effective period of the cycle = 1.159ms x 1 = 1.159ms
DC = 1.159ms / 73.478ms = 0.0158 or 1.58%