Analysis Report

The equipment under test (EUT) is a transmitter for Wireless Multi-sensor Thermometer operating at 915MHz which is operated by a crystal. The EUT is powered by two 1.5V AAA batteries. For more detailed features description, please refer to the user's manual.

Type of the antenna: Integral Antenna
Modulation Type: ASK
Antenna Gain: 0dBi
The nominal conducted output power specified: -2.00dBm (+/- 3dB)
The nominal radiated output power (e.r.p) specified: -4.15dBm (+/- 3dB)

According to the KDB 447498:

The worst-case peak radiated emission for the EUT is 93.1dBμV/m at 3m in the frequency 915MHz
The EIRP = [(FS*D) ^2 / 30] mW= -2.13dBm
The ERP = EIRP – 2.15 = -4.28 dBm
which is within the production variation.

The maximun conducted output power specified is 1dBm = 1.3mW
The source- based time-averaging conducted output power
= 1.3 * Duty Cycle mW= 1.1 mW

The SAR Exclusion Threshold Level:
= 3.0 * (min. test separation distance, mm) / sqrt(freq. in GHz)
= 3.0 * 5 / sqrt (0.915) mW
= 15.7 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.

The duty cycle is simply the on-time divided by the period:
The duration of one cycle = 100.0ms
Effective period of the cycle = 0.8ms x 104 + 1.6ms
= 84.8ms
DC = 84.8ms / 100ms = 0.848 or 84.80%