RF Exposure

The equipment under test (EUT) is a Smart Tag with BLE 5.0 function operating in 2402-2480MHz. The EUT is powered by DC 3V by button battery. For more detailed features description, please refer to the user's manual.

Bluetooth Version: 5.0 BLE (Single Mode)
Antenna Type: Integral antenna
Modulation Type: GFSK
Antenna Gain: 0dBi Max
The nominal conducted output power specified: 3dBm (+/-2dB)
The nominal radiated output power (e.i.r.p) specified: 3dBm (+/-2dB)

According to the KDB 447498 V06:

The maximun peak radiated emission for the EUT is 100.0dBμV/m at 3m in the frequency 2402MHz
The EIRP = [(FS*D) ^2 / 30] mW = 4.77dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 99.1dBμV/m at 3m in the frequency 2440MHz
The EIRP = [(FS*D) ^2 / 30] mW = 3.87dBm
which is within the production variation.

The maximun conducted output power specified is 5 dBm = 3.16 mW
The source- based time-averaging conducted output power
= 3.16 * Duty factor mW (where Duty Factor≤1)
= 3.16 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.