RF Exposure

The equipment under test (EUT) is a Sport Watch with Bluetooth 5.0 function operating in 2402-2480MHz. The EUT can be powered by DC 3.7V rechargeable battery. The supplied USB cable is only use for charging purpose. For more detail information pls. refer to the user manual.

BT 5.0 BLE Mode:
Modulation Type: GFSK
Bluetooth Version: 5.0 BLE (Single Mode)

Antenna Type: Integral antenna.
Antenna Gain: -0.49dBi.
The nominal conducted output power specified: -6.51dBm (±1.5dB).
The nominal radiated output power (e.i.r.p) specified: -7.00dBm (±1.5dB)

According to the KDB 447498:
The maximun peak radiated emission for the EUT is 89.4dBμV/m at 3m in the frequency 2402MHz
The EIRP = [(FS*D) ^2 / 30] mW = -5.83dBm
which is within the production variation.

The minimum peak radiated emission for the EUT is 87.1dBμV/m at 3m in the frequency 2480MHz
The EIRP = [(FS*D) ^2 / 30] mW = -8.13dBm
which is within the production variation.

The maximun conducted output power specified is -5.01dBm = 0.32mW
The source- based time-averaging conducted output power
= 0.32 * Duty factor mW (where Duty Factor≤1)
= 0.32 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.