Exemption from SAR evaluation

Worst case emission from device = 101.7 dBμV/m at 2402 MHz

Electric field strength is related to transmitter power by the following formula:

$$P_t = \text{eirp} = \frac{E^2 r^2}{30}$$

Where E is the electric field strength (V/m) of EUT emissions measured at the test antenna, and
r is the separation of the EUT and test antenna.

Using units of dBμV/m for field strength, and dBm for EIRP, the above formula becomes:

$$P = E + 20 \log_{10} r - 104.8 \quad \text{(dBm)}$$

for a measurement distance of r = 3m,
$P = E - 95.3$ (dBm)

P = 101.7-95.3 dBm
= 6.4 dBm
= 4.4 mW

The power threshold above which SAR testing is required is equal 60/f (GHz) mW. For the worst-case frequency in the 2.4 GHz band (2.4835 GHz) this threshold is equates to 24 mW. Therefore the device is exempt from SAR evaluation.