MPE Calculation

Product Description: Wireless Bluetooth Speaker
FCC ID: VIXAUDAWSBTRX
Model(s): AWSBT7, AWSBT6, AWSBT8
Brand: Acoustic Research

Typical use distance: d ≥ 20 cm
Power density limit for mobile devices at 2.4 GHz: $S \leq 1$ mW/cm^2
Remark: Average ≤ Peak, which means that calculating the power density applying Peak power is worst case. The worst case operation mode generating the highest power in each frequency range is taken for calculation.

Frequency range: 2402-2480MHz
Maximum measured conducted power (Peak): $P_{conducted} = 0.23$ dBm
Antenna Gain: G = 2 dBi
Calculation: $P_{radiated} = P_{conducted} + G_{linear} = 0.23$ dBm $+ 2$ dBi $= 2.23$ dBm $= 1.67$ mW
Power density $S = (P_{radiated}) / (4\pi \times d^2) = 1.67 / 5026 = 0.000034$ mW/cm^2 which is far below the limit, pass.