MPE Calculation (Mobile Device)

FCC ID: MVADHP381A-001T

EUT Description: 2.4GHz Digital Wireless Headphone (transmitter=docking part)
Company: Uni-Art Precise Products Ltd
Model: DHP380A

Typical use distance: d ≥ 20 cm
Frequency: 2406-2472MHz (31 channels)
Modulation: FHSS(GFSK)
Power density limit for mobile devices at 2.4GHz: $S \leq 1$ mW/cm^2
Maximum measured conducted power (Peak): $P_{conducted}$ = 14.55 mW = 11.63 dBm
Antenna Gain: G = 2 dBi
Remark: Average ≤ Peak, which means that calculating the power density applying Peak power is worst case.

Calculation:

$P_{radiated} = P_{conducted} + G_{linear}$ = 11.63 dBm + 2 dBi = 13.63 dBm = 23.07 mW

$$S = \frac{(P_{radiated})}{(4\pi \times d^2)} \ (\text{mW/cm}^2) = 0.0046 \ \text{mW/cm}^2$$

Conclusion: At 20 cm distance, the power density EUT appears to be (far) below the required limit, so PASS.