MPE Calculation for Mobile Device

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FCC ID: ZYPL-C160S
EUT Description: Fixed Wireless Phone
Company: Nexpro International Limitada
Model: LC-160S

Typical use distance: d ≥ 20 cm
Operating Freuqency Range: 824.70 – 848.31 MHz
Per Supplement B, OET Bulletin 65, the Power Density limit for mobile devices for frequencies between 300 – 1500 MHz: $S \leq f/1500$ mW/cm^2. We take the lowest channel 824.7 MHz to calculate the worst case power density limit in the system: $S \leq 824.7/1500 \Rightarrow S \leq 0.55$ 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.

Maximum measured radiated power (Peak): $P_{radiated}$ = 0.212 W = 212 mW = 23.26 dBm (ERP)
Maximum measured conducted power (Peak): $P_{conducted}$ = 0.241 W = 23.82 dBm

Power density $S = (P_{radiated}) / (4\pi \times d^2) = 212 / 5026 = 0.0422$ mW/cm^2 which is far below the limit of 0.55 mW/cm^2, so pass.