

## MPE Calculation (for Mobile Device)

FCC ID: PU5DW271HL

EUT Description: LCD Monitor  
Company: Wistron Corporation  
Model: DW271HL

Typical use distance:  $d \geq 20 \text{ cm}$

Power density limit for mobile devices at 2.4 and 5 GHz:  $S \leq 1 \text{ mW/cm}^2$

Remark: Average  $\leq$  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: 2412-2462MHz

Maximum measured conducted power (Peak):  $P_{\text{conducted}} = 13.3 \text{ dBm}$

Antenna Gain:  $G = 3 \text{ dBi}$

Calculation:  $P_{\text{radiated}} = P_{\text{conducted}} + G_{\text{linear}} = 13.3 \text{ dBm} + 3 \text{ dBi} = 16.3 \text{ dBm} = 42.66 \text{ mW}$

Power density  $S = (P_{\text{radiated}}) / (4\pi \times d^2) = 0.0085 \text{ mW/cm}^2 \rightarrow \text{below limit, pass.}$

Frequency range: 2422-2452MHz

Maximum measured conducted power (Peak):  $P_{\text{conducted}} = 12.36 \text{ dBm}$

Antenna Gain:  $G = 3 \text{ dBi}$

Calculation:  $P_{\text{radiated}} = P_{\text{conducted}} + G_{\text{linear}} = 12.36 \text{ dBm} + 3 \text{ dBi} = 15.36 \text{ dBm} = 34.36 \text{ mW}$

Power density  $S = (P_{\text{radiated}}) / (4\pi \times d^2) = 0.0068 \text{ mW/cm}^2 \rightarrow \text{below limit, pass.}$

Frequency range: 5745-5805MHz

Maximum measured conducted power (Peak):  $P_{\text{conducted}} = 11.76 \text{ dBm}$

Antenna Gain:  $G = 5 \text{ dBi}$

Calculation:  $P_{\text{radiated}} = P_{\text{conducted}} + G_{\text{linear}} = 11.76 \text{ dBm} + 5 \text{ dBi} = 16.76 \text{ dBm} = 47.42 \text{ mW}$

Power density  $S = (P_{\text{radiated}}) / (4\pi \times d^2) = 0.0094 \text{ mW/cm}^2 \rightarrow \text{below limit, pass.}$