

## Standalone SAR test exclusion considerations

June 22, 2015

- Min. transmitting frequency = **2480** MHz
- Min. test separation distance = **5** mm
- Max. power with turn-up tolerance = **5.50** dBm = **4** mW
  - Typical Power: **4.50** dBm ± **1.00** dB
  - Measured Output Power: **4.80** dBm

**Step 1) SAR test exclusion thresholds for 100MHz to 6GHz at test separation distances ≤ 50 mm = **Used****

$$\begin{aligned}
 & [(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \\
 & = [ 4.00 / 5 ] * [ \sqrt{ 2.48 } ] \\
 & = \mathbf{1.26} \leq 3, \text{ for } \mathbf{1g} \text{ SAR}
 \end{aligned}$$

[Thus SAR for this device is not required.](#)

**Step 2-1) SAR test exclusion thresholds for 100MHz to 1500MHz at test separation distances > 50 mm = **N/A****

$$[\text{Threshold at 50 mm in step 1}) + (\text{test separation distance} - 50 \text{ mm}) \cdot (f(\text{MHz}) / 150)] \text{ mW}$$

**Step 2-2) SAR test exclusion thresholds for 1500MHz to 6GHz at test separation distances > 50 mm = **N/A****

$$[\text{Threshold at 50 mm in step 1}) + (\text{test separation distance} - 50 \text{ mm}) \cdot 10] \text{ mW}$$