

## Standalone SAR test exclusion considerations

September 14, 2015

- Min. transmitting frequency = 2480 MHz
- Min. test separation distance = 30 mm
- Max. power with turn-up tolerance = 9.00 dBm = 7.94 mW
  - Typical Power: 6.00 dBm ± 3.00 dB
  - Measured Output Power: 8.91 dBm

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

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}]$

=  $[ 7.94 / 30 ] \cdot [ \sqrt{ 2.48 } ]$

= 0.42 ≤ 3, for 1g SAR

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**

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