

Standalone SAR test exclusion considerations

April 18, 2013

- Min. transmitting frequency = 2403 MHz
- Min. test separation distance = 5 mm
- Max. power with turn-up tolerance = 1.50 dBm = 2 mW
- Typical Power: -1.00 dBm ± 2.50 dB
- Measured Power: 1.21 dBm

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

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

= $[2.00 / 5] \cdot [\sqrt{2.403}]$

= 0.62 ≤ 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

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