

Standalone SAR test exclusion considerations(1Mbps)

September 14, 2015

- Min. transmitting frequency = 2480 MHz
- Min. test separation distance = 30 mm
- Max. power with turn-up tolerance = 10.00 dBm = 10.00 mW
- Typical Power: 9.00 dBm ± 1.00 dB
- Measured Output Power: 9.55 dBm

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

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

= $[10.00 / 30] \cdot [\sqrt{ 2.48 }]$

= **0.52** ≤ 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**

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

Standalone SAR test exclusion considerations(2/3Mbps)

September 14, 2015

- Min. transmitting frequency = 2480 MHz
- Min. test separation distance = 30 mm
- Max. power with turn-up tolerance = 3.00 dBm = 2.00 mW
- Typical Power: 2.00 dBm ± 1.00 dB
- Measured Output Power: 2.69 dBm

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

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

= $[2.00 / 30] * [\sqrt{ 2.48 }]$

= **0.10** ≤ 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**

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