

RF EXPOSURE

SAR evaluation for handset.

Per the formula $(60 / f\text{GHz}) \text{ mW}$, $d < 2.5 \text{ cm}$, the threshold is $60 / 2.441 = 24.6 \text{ (mW)}$

Per the formula $P = A + G + 10 \log (1/x)$,

P : Peak eirp (dBm)

A : Conducted average power (dBm)

G : Antenna gain (dBi)

x : Duty cycle = $\text{TXon} / (\text{TXon} + \text{TXoff})$,

So, conducted average power $A = P - G - 10 \log (1/x)$,

For the EUT : $P = \text{conducted peak power } 16.3\text{dBm} + \text{antenna gain } 0\text{dBi} = 16.3\text{dBm}$,

$G = 0\text{dBi}$, $x = 0.0008$.

So, $A = 16.3 - 0 - 10 \log (1/ 0.0008) = -14.6 \text{ (dBm)} = 0.035 \text{ (mW)}$

So, $A = 0.035 \text{ mW} < 24.6 \text{ mW}$

Because the antenna gain (typical) is 0 dBi, so the average eirp is the same value as $A = 0.035 \text{ mW} < 24.6 \text{ mW}$.

No SAR test is required for this EUT.