

## RF Exposure Evaluation

According to KDB 447498 D01 V06 and part 2.1093, Unless specifically required by the *published RF exposure KDB procedures*, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding *SAR Test Exclusion Threshold* condition(s), listed below, is (are) satisfied.

For 100 MHz to 6 GHz and test separation distances  $\leq 50$  mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f_{(\text{GHz})}}] \leq 3.0$  for 1-g SAR, and  $\leq 7.5$  for 10-g extremity SAR, where

$f_{(\text{GHz})}$  is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation

The result is rounded to one decimal place for comparison

$$\text{EIRP} = \text{E}_{\text{Meas}} + 20\log(d_{\text{Meas}}) - 104.7$$

EIRP is the equivalent isotropically radiated power, in dBm

$\text{E}_{\text{Meas}}$  is the field strength of the emission at the measurement distance, in dB  $\mu$  V/m

$d_{\text{Meas}}$  is the measurement distance, in m

For BLE

| Peak Output Power (dBm) | Max tune-up (mW) | Frequency (MHz) | Min. distance(mm) | Calc. thresholds | limit |
|-------------------------|------------------|-----------------|-------------------|------------------|-------|
| 3.1                     | 2.04             | 2402            | 5                 | 0.63             | 3.0   |

So a SAR test is not required