RF Exposure evaluation

According to KDB447498D01 General RF Exposure Guidance v06

4.3.1. Standalone SAR test exclusion considerations

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 Exclusion Threshold condition, listed below, is satisfied.

The 1-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] • [√f(GHz)] ≤ 3.0 for 1-g SAR, where

- f(GHz) is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- When the minimum test separation distance is < 5 mm, a distance of 5 mm according is applied to determine SAR test exclusion.

The worst case (refer to report SMS208 FCC17110974A-BLE) is below:

For 2.4G wireless:

Model	Max. Power (dBm)	Max. Power (mW)	Tune Up Power (dBm)	Max. Tune Up Power (dBm)	Max. Tune Up Power (dBm)	f (GHz)	Test Distance (mm)	Result	Standalone SAR test exclusion Threshold
BLE	1.21	1.32	0.5±1.0	1.50	1.41	2.450	<5.00	0.44	3.00

Calculation Result : 0.44<3.0 for 1-g SAR

Result : Base on the calculation value, No SAR measurement is required.