RF Exposure Evaluation

According to KDB 447498 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 ≤ 50 mm, the 1-g and 10-g SAR test exclusion thresholds are determined by the following:
[(max. power of channel, including tune-up tolerance, mW) / (min. test separation distance, mm)] · [√$f_{(GHz)}$] ≤ 3.0 for 1-g SAR, and ≤ 7.5 for 10-g extremity 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
 The result is rounded to one decimal place for comparison

According to ANSI C63.10:2013 clause 9.5
Calculate the EIRP from the radiated field strength in the far field using Equation (22):

$$EIRP = E_{Meas} + 20\log(d_{Meas}) - 104.7 \tag{22}$$

where

EIRP	is the equivalent isotropically radiated power, in dBm
E_{Meas}	is the field strength of the emission at the measurement distance, in dBμV/m
d_{Meas}	is the measurement distance, in m

NOTE—Because this equation yields the identical result whether the field strength is extrapolated using the default 20 dB/decade of distance extrapolation factor, or the field strength is not extrapolated for distance, this equation can generally be applied directly (with no further correction) to determine EIRP. In some cases, a different distance correction factor may be required; see 9.1.

Frequency(MHz)	E-Field Strength (dBuV/m)	Measurement Distance(m)	EIRP(dBm)
433.92	88.38	3	-6.79

dBm=88.38+20^log*3-104.7=88.37+9.54-104.7=-6.79

Frequency(433.92)	
Target(dBm)	-6
Tolerance ± （dB）	1.0

Max Power(dBm)	Max Power(mW)	Antenna Gain(dBi)	Frequency (MHz)	Min. distance(mm)	Calc. thresholds	limit
-6	0.06	-1.06	0.43392	5	0.434	3.0

So a SAR test is not required