

RF Exposure Evaluation

1. Standalone SAR test exclusion

KDB447498 D01 General RF Exposure Guidance v06, Clause 4.3.1(a)

$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$$

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 test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm, and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm according to 4.1 f) is applied to determine SAR test exclusion.

Channel (MHz)	Tune up power(dBm)
2450	-10 ~ 4

Channel (MHz)	Max. tune-up Power (dBm)	Max. tune-up Power (mW)	Min Test Distance (mm)	Test data	Limit	SAR Exclusion
2450	4	2.51	5	0.786	<3	Yes

Note:

The below information is declared by the applicant, the exposure safety distance is 5mm.

2. Simultaneous transmission SAR test exclusion considerations

KDB447498 D01 General RF Exposure Guidance v06, Clause 4.3.2(b)

When an antenna qualifies for the standalone SAR test exclusion of 4.3.1 and also transmits simultaneously with other antennas, the standalone SAR value must be estimated according to the following to determine the simultaneous transmission SAR test exclusion criteria

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

for test separation distances ≤ 50 mm; when $x=7.5$ for 1-g SAR, and $x=18.75$ for 10-g SAR.

Maximum Power (dBm)	Estimated SAR (W/kg)	
	Front of Face	Body Worn
4.00	0.021	0.105

Remark:

The EUT just works together with DIGITAL PORTABLE RADIO, so it has the same testing position and testing separation distance