

RF Exposure Evaluation

REQUIREMENT

KDB 447498 D04 Interim General RF Exposure Guidance v01

Appendix B Exemptions for Single RF Sources

B.3 MPE-based Exemption and B.4 SAR-based Exemption:

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B.2})$$

where

$$x = -\log_{10} \left(\frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

f is in GHz, d is the separation distance (cm), and $ERP_{20 \text{ cm}}$ is per Formula (B.1).

TEST RESULT

Passed **Not Applicable**

Head:

Type	Conducted Average Power (dBm)	Maximum Tune-up (dBm)	Maximum Tune-up (mW)	Limit(mW)	Result
BT EDR	-0.70	-0.50	0.89	< 10.17	Pass
BT BLE	7.91	8.00	6.31	< 10.17	Pass

Extremity:

Type	Conducted Average Power (dBm)	Maximum Tune-up (dBm)	Maximum Tune-up (mW)	Limit(mW)	Result
BT EDR	-0.70	-0.50	0.89	< 6.79	Pass
BT BLE	7.91	8.00	6.31	< 6.79	Pass

Note:

- 1) The maximum antenna gain is 1.15dBi
- 2) The safety distance for head exposure assessment was 10mm,
- 3) The safety distance for Extremity exposure assessment was 0mm.
- 4) when 10-g extremity SAR applies, SAR test exemption may be considered by applying a factor of 2.5 to the SAR-based exemption thresholds.