

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:

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

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

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

Band	Conducted Power(dBm)	Conducted Maximum	Ant Gain(dBi)	Maximum ERP/EIR	Maximum ERP/EIR	Minimum Separation	Pth (mW)
LTE Cat M band 2	23.34	24.00	1.50	25.50	354.81	6.5	383.39
LTE Cat M band 4	23.71	24.00	1.50	25.50	354.81	6.5	391.39
LTE Cat M band 5	23.81	24.00	1.50	23.35	216.27	5.0	240.27
LTE Cat M band 12	22.53	23.00	1.50	22.35	171.79	4.0	176.28
LTE Cat M band 13	24.25	25.00	1.50	24.35	272.27	6.0	306.49

Note:

1) The safety distance for body exposure assessment is 6.5cm