

5. RF EXPOSURE EVALUATION

5.1 FCC SAR test exclusion

5.1.1 Applicable Standard

According to KDB447498 D01 General RF Exposure Guidance v06: 4.3. General SAR test exclusion guidance

c) For frequencies below 100 MHz, the following may be considered for SAR test exclusion (also illustrated in Appendix C):

- 1) For test separation distances > 50 mm and < 200 mm, the power threshold at the corresponding test separation distance at 100 MHz in step b) is multiplied by $[1 + \log(100/f(\text{MHz}))]$
- 2) For test separation distances ≤ 50 mm, the power threshold determined by the equation in c) 1) for 50 mm and 100 MHz is multiplied by $\frac{1}{2}$
- 3) SAR measurement procedures are not established below 100 MHz

5.1.2 Measurement Result

For NFC, the power of EUT: E Field@3m is 70.12dBuV/m = -25.08 dBm(0.003mW)

Note: $E[\text{dB}\mu\text{V/m}] = \text{EIRP}[\text{dBm}] + 95.2$ for $d = 3$ m.

SAR test exclusion threshold for NFC(13.56MHz) separation distance $< 50\text{mm}$

$$= [474 * (1 + \log(100/f(\text{MHz}))) / 2]$$

$$= 443\text{mW}$$

$$> 0.003\text{mW}$$

Result: Compliant. The stand-alone SAR test is not necessary.