

NFC Exposure Requirements

Product Description: Smart Phone

Model No.: X22 POS

FCC ID: YHLBLUX22

According to the KDB 447498 D01 V06, clause 4.3, the following RF exposure evaluation shall to demonstrate RF exposure compliance.

Tx frequency: 13.56 MHz Type of Modulation: ASK

Antenna Type: Fixed internal Antenna

Nominal rated field strength: 53.54 dB μ V/m at 3 meter

Based on the Maximum allowed field strength was 53.54 dB μ V/m at 3m in frequency 13.56MHz, thus;

The EIRP = $[(FS \cdot D)^2 \cdot 1000 / 30] = 0.00007\text{mW}$

Thus;

Conducted power = Radiated Power (EIRP) – Antenna Gain

So;

Conducted Power = 0.00007mW.

The SAR Exclusion Threshold Level for 13.56MHz when the minimum test separation distance is < 50mm:

$$= [474 * (1 + \log_{10}(f(\text{MHz})))]/2$$

$$= 443\text{mW}$$

Since the source-based time-averaging conducted output power is well below the SAR low threshold level, so the EUT is considered to comply with SAR requirement without testing.