

Analysis Report

Report No.: 21120267HKG-001

The Equipment Under Test (EUT) is a WiseCube which is a POS device (point of sale device). It supports EMV smart credit card and passive RFID tag credit card. It can be connected to PC via USB port and operated by a corresponding software. The embedded EMV chip interface are used for reading EMV smart credit card data. The EUT contains 13.56MHz NFC tag reader for contactless payment card transaction. The EUT is powered by 3.7V internal rechargeable battery and/or USB port (5VDC).

13.56MHz NFC portion (single channel)

Antenna Type: Internal, Integral

Antenna Gain: 0dBi

Conducted RF power range: -50 dBm to 0 dBm

According to the KDB 447498:

Conducted power (max) = 0 dBm (1 mW)

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

$$= [474 * (1 + \log_{10} f(\text{MHz}))]/2$$
$$= 442.7 \text{ mW}$$

Since the above conducted output power is well below the SAR Exclusion threshold level, so the EUT is considered to comply with SAR requirement without testing.