

RF exposure information

FCC ID: 2AG36MANGO-C500

1. Introduction:

The EUT is designed to be used in mobile exposure conditions.

This product is a transmitter operated in 13.56MHz frequency.

2. Output power considerations:

Worst case output power transmitter (E_{\max}): 85.4dB μ V/m@3m

$$P_t = (E \cdot d) / (30 \times g_t) = 0.002W = 2mw$$

P_t =transmitter output power in watts;

g_t =numeric gain of the transmitting antenna (unites/dBi) = 1/0dBi;

E =electric field strength in V/m = $(10^{(85.4/20)})/1000000 = 0.019$ V/m

d =measurement distance in meters (m) = 3 m

3. Compliance criteria:

According to 447498 D01 General RF Exposure Guidance v05 The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where

$f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation

Calculate:

$$(2/5) \cdot (0.01356)^{0.5} = 0.047 < 3 \text{ for 1g SAR}$$

Then SAR evaluation is not required.