

RF exposure information

FCC ID: SPLMB3000

1. Introduction:

The EUT is designed to be used in portable exposure conditions as defined in FCC part 2.1093.

This product is a Wi-Fi/Bluetooth POS terminal in 2.4GHz frequency band.

2. Output power considerations:

Worst case output power:

For Bluetooth: -2.997dBm = 0.504mW (at 2402MHz)

For Wi-Fi: 9.58dBm = 9.079mW (at 2437MHz)

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:

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

For Bluetooth: $(0.504/5) \cdot \sqrt{f(2.402)} = 0.156 < 3$ for 1g SAR

For Wi-Fi: $(9.079/5) \cdot \sqrt{f(2.437)} = 2.835 < 3$ for 1g SAR

Then SAR evaluation is not required.