

US Tech Test Report:  
FCC ID:  
Test Report Number:  
Issue Date:  
Customer:  
Model:

FCC Part 15 Certification  
2AB5RHUB521  
23-0085  
June 27, 2023  
SwipeSense, Inc.  
Location Hub

## Maximum Public Exposure to RF (MPE) CFR 15.247 (i), CFR 1.1310 (e)

The maximum exposure level to the public from the RF power of the EUT shall not exceed a power density, **S** as per the respective limits in Table 1 below, at a distance, d, of 20 cm (Mobile condition) from the EUT.

TABLE 1—LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
<b>Limits for General Population/Uncontrolled Exposure</b>				
0.3-1.34	614	1.63	*100	30
1.34-30	824/f	2.19/f	*180/f <sup>2</sup>	30
30-300	27.5	0.073	0.2	30
300-1,500			f/1500	30
1,500-100,000			1.0	30

f = frequency in MHz \* = Plane-wave equivalent power density

Therefore, for:

### MPE for 2400 MHz – 2483.5 MHz for Bluetooth LE:

Limit: 1.0 mW/cm<sup>2</sup>

Peak Power (dBm) = 3.64 dBm

Peak Power (Watts) = 0.002 W

Gain of Transmit Antenna = 1.15 dBi = 0.641 numeric(Highest Gain Antenna)

d = Distance = 20 cm = 0.2 m

$$\begin{aligned}
 S &= (PG/4\pi d^2) = EIRP/4A = 0.002(0.641)/4*\pi*0.2*0.2 \\
 &= 0.00128/0.5030 = 0.00254 \text{ W/m}^2 \\
 &= (0.00254 \text{ W/m}^2) (1\text{m}^2/\text{W}) (0.1 \text{ mW/cm}^2) \\
 &= 0.000254 \text{ mW/cm}^2
 \end{aligned}$$

which is << less than S = 1.0 mW/cm<sup>2</sup>