

Maximum Permissible Exposure Evaluation

FCC ID: 2BAOD-0880

1. Client Information

Applicant	:	AirSuite Limited
Address	:	3 Melody Lane, Hamilton East, Hamilton 3216 New Zealand
Manufacturer	:	SHENZHEN FENDA SMART TECHNOLOGY LIMITED
Address	:	Fenda Hi-Tech Park, Zhoushi Road, Shiyan Baoan, Shenzhen, China. 518108

2. General Description of EUT

EUT Name	:	AirSuite Sense Wi-Fi
Model(s) No.	:	SSCM880
Model Difference	:	----
Product Description	:	Operation Frequency: Bluetooth 5.0(BLE):2402MHz~2480MHz 2.4G WiFi:2412MHz~2462MHz
Power Supply	:	For Adapter (Model:MS-V2000R050-012H0-US) Input: 100-240V~ 50/60Hz 0.3A max Output: 5V---2A
Li-ion Polymer Battery	:	DC 3.7V by 1000mAh Li-ion battery
Software Version	:	1.1.0
Hardware Version	:	S006F
Remark: The antenna gain provided by the applicant, the adapter and verified for the RF conduction test and adapter provided by TOBY test lab.		

Note: More test information about the EUT please refer the RF Test Report.

MPE Calculations for WIFI

1. Antenna Gain:

BLE Chip Antenna: -0.65dBi.

2.4G WiFi Chip Antenna: 1.5dBi

2. EUT Operation Condition:

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

3. Exposure Evaluation:

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S=(PG)/4\pi R^2$$

Where

S: power density

P: power input to the antenna

G: power gain of the antenna in the direction of interest relative to an isotropic radiator.

R: distance to the center of radiation of the antenna

4. Test Result:

Mode	Freq. (MHz)	N _T x	Conducted Power(max) (dBm)	Turn-up Power (dB)	Max tune up power (dBm) [P]	ANT Gain (dBi) [G]	Distance (cm) [R]	Power Density (mW/ cm ²) [S]
BLE (1Mbps)	2402	1	1.449	1±1	2	-0.65	20	0.00027
	2440	1	1.442	1±1	2	-0.65	20	0.00027
	2480	1	1.49	1±1	2	-0.65	20	0.00027
BLE (2Mbps)	2402	1	1.497	1±1	2	-0.65	20	0.00027
	2440	1	1.516	2±1	3	-0.65	20	0.00034
	2480	1	1.559	2±1	3	-0.65	20	0.00034
802.11b	2412	1	14.718	15±1	16	1.5	20	0.01129
	2437	1	14.54	15±1	16	1.5	20	0.01129
	2462	1	14.049	14±1	15	1.5	20	0.00889
802.11g	2412	1	16.783	17±1	18	1.5	20	0.01773
	2437	1	16.457	16±1	17	1.5	20	0.01408
	2462	1	16.21	16±1	17	1.5	20	0.01408
802.11n (HT20)	2412	1	16.749	17±1	18	1.5	20	0.01773
	2437	1	16.403	16±1	17	1.5	20	0.01408
	2462	1	15.873	16±1	17	1.5	20	0.01408

Note: RF Output power specifies that Maximum Conducted Peak Output Power.

5. Conclusion:

As specified in Table 1B of 47 CFR 1.1310- Limits for Maximum Permissible Exposure (MPE),

Limits for General Population/ Uncontrolled Exposure

Frequency Range (MHz)	Power density (mW/ cm ²)
300-1,500	F/1500
1,500-100,000	1.0

For BLE&2.4G WiFi

MPE limit S: 1mW/ cm²

6. Summary simultaneous transmission results

2.4G WiFi and Bluetooth support simultaneous transmit the

2.4G WiFi MPE (Ratio)	BLE MPE (Ratio)	simultaneous MPE (Ratio)	MPE Limits (Ratio)
0.01773	0.00034	0.01807	1.0000

So, RF exposure limit warning or SAR test are not required.

The EUT will only be used with a separation of 20cm or greater between the antenna and nearby persons and can therefore be considered a mobile transmitter per 47 CFR2.1091 (b). The RF Exposure Information page from the manual is included here for reference.

-----END OF REPORT-----