

Maximum Permissible Exposure Evaluation

FCC ID: 2ABC5-ELC01WA

1. Client Information

Applicant	:	SHENZHEN ELECTRON TECHNOLOGY CO.,LTD.
Address	:	Bld.2, Yingfeng Industrial Zone, Tantou Community, Songgang Street, Bao'an, Shenzhen, China
Manufacturer	:	SHENZHEN ELECTRON TECHNOLOGY CO.,LTD.
Address	:	Bld.2, Yingfeng Industrial Zone, Tantou Community, Songgang Street, Bao'an, Shenzhen, China

2. General Description of EUT

EUT Name	:	Android Tablet	
Models No.	:	WA1012T,WA1332T,WA1562T,WF7008T,WF1008T,WL1303T,WL1506T,WL1703T	
Model Difference	:	All these models are identical in the same PCB layout and electrical circuit, the only difference is model name and color for commercial.	
Product Description	:	Operation Frequency:	Bluetooth (BLE): 2402MHz~2480MHz 802.11b/g/n(HT20): 2412MHz~2462MHz
	:	Max Output Power:	WIFI: 14.92dBm Bluetooth (BLE): 8.13dBm
	:	Antenna Gain:	1.14dBi FPC Antenna
Power Supply	:	DC Voltage Supply from DC Adapter (FJ-SW1201500U). Input:100-240V~50/60Hz 0.6A Max OUTPUT:12V-1500mA	
Power Rating	:	DC 12V-1500mA	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

MPE Calculations for WIFI

1. Antenna Gain:

FPC Antenna: 1.14dBi.

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	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]
802.11b	14.92	15±1	16	1.14	20	0.010303
802.11g	13.79	13±1	15	1.14	20	0.008184
802.11n (HT20)	13.71	13±1	14	1.14	20	0.006501
BLE	8.13	8±1	9	1.14	20	0.002056

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 802.11b/g/n:2412~2462 MHz

MPE limit S: 1mW/ cm²

The MPE is calculated as $0.010303 \text{ mW} / \text{cm}^2 < \text{limit } 1 \text{ mW} / \text{cm}^2$. 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.

Note

For a more detailed features description, please refer to the RF Test Report.

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