Maximum Permissible Exposure Evaluation

FCC ID: 2A2ZP-SD810

1. Client Information

Applicant	:	Shenzhen BaoYouFa Trading Co., Ltd.
Address	:	T1-3211, Vanke Shennan Square, 2011 Shennan East Road, Xinnan Community, Nanhu Street, Luohu District, Shenzhen, China
Manufacturer	:	Shenzhen BaoYouFa Trading Co., Ltd.
Address	:	T1-3211, Vanke Shennan Square, 2011 Shennan East Road, Xinnan Community, Nanhu Street, Luohu District, Shenzhen, China

2. General Description of EUT

EUT Name	:	Dash Camera	
Models No.	:	SD810, SD910, SD710, SD930, SD830, SD730, SD610, SD630, SD310, SD330, SD510, SD530	
Model Different	:	All these models are the same in the same PCB, layout and circuit, the only difference is the color and model name.	
Product Description	:	Operation Frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz
		Number of Channel:	802.11b/g/n(HT20):11 channels
		RF Output Power:	802.11b: 14.12dBm(MAX)
		Antenna Gain:	2.4dBi PIFA Antenna
Power Rating	:	Input: DC 5V1.5A Output: DC 3.7V by 240 mAh Rechargeable Li-ion battery#1 Output: DC 3.7V by 240 mAh Rechargeable Li-ion battery#2	
Software Version	:	N/A	
Hardware Version	:	V0.3	
Connecting I/O Port(S)	:	Please refer to the User's Manual	
Remark	:	the evaluation report used the EUT(20210811-04-02#).	

MPE Calculations for WIFI

1. **Antenna Gain:**
   PIFA Antenna:2.4dBi.

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:**

2.4G WiFi

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]	Limit of Power Density (mW/ cm^2) (S)
802.11B	14.12	14±1	15	2.4	20	0.01093	1
802.11G	11.87	11±1	12	2.4	20	0.00548	1
802.11N(HT20)	11.98	11±1	12	2.4	20	0.00548	1

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 2.4WIFI:2412~2462 MHz
MPE limit S: 1mW/ cm^2

The MPE is calculated as **0.01093*mW / cm^2 < limit 1mW / 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.

6. Conclusion:

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

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