



Maximum Permissible Exposure Evaluation

FCC ID: 2APRB-BK23-W

1. Client Information

Applicant	:	Guangzhou Juan Intelligent Tech Co., Ltd
Address	:	No.2 Plant, West of Shanxi country, Dashi street, Panyu District, Guangzhou, China
Manufacturer	:	Guangzhou Juan Intelligent Tech Co., Ltd
Address	:	No.2 Plant, West of Shanxi country, Dashi street, Panyu District, Guangzhou, China

2. General Description of EUT

EUT Name	:	Battery Camera	
Models No.	:	Please see page 2	
Model Different	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is model name.	
Brand 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:	17.57dBm (Max)
		Antenna Gain:	3.0dBi Dipole Antenna
Power Rating	:	USB Input: DC 5V1A DC 3.7V by 9000mAh 33.3Wh Li-ion battery	
Software Version	:	v3.6.60	
Hardware Version	:	v102P2	
Connecting I/O Port(S)	:	Please refer to the User's Manual	
Remark	:	the MPE report used the EUT-2(RW-C-202202-0074-5-2#).	

Models No.	: BK23-W, XF-DC07, OSX-BK23-W, OH-BK23-W, WE-BK23-W, BA24, BA25, BA17, PT516, BC13-A, BA22-A, JA-BPT2230-30WSL, JA-BPT2232-30WSL, JA-BPT2330-30WSL, C1371BN3M-W, C1372BN3M-W, C1373BN3M-W, C1374BN3M-W, C1375BN3M-W, C7101BN3M-W, C7102BN3M-W, C7103BN3M-W, C7104BN3M-W, C7105BN3M-W, N01, S02, CW26B, HGWBK-355, P31HJ35, T-CL6040LF, T-KL6030LF, DW112-JA-2, DW112-JA-3, DWQ646-JA-3-T, W610, W601, W602, W603, W604, SC02A, SC02B, SC02C, SC03A, SC03B, SC04A, SC04B, SC04C, SC05A, SC05B, SC05C, SC06A, SC06B, SC06C, SC07A, SC07B, SC07C, SC08A, SC08B, SC08C, SC09A, SC09B, SC09C, SC10A, SC10B, SC10C, C90
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MPE Calculations for Bluetooth

1. Antenna Gain:

Dipole Antenna: 3.0dBi.

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 MPE Result								
Mode	N _{TX}	Freq. (MHz)	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	1	2412	16.73	16±1	17	3.0	20	0.0198
		2437	17.14	17±1	18	3.0	20	0.0250
		2462	17.14	17±1	18	3.0	20	0.0250
802.11g	1	2412	17.10	17±1	18	3.0	20	0.0250
		2437	17.20	17±1	18	3.0	20	0.0250
		2462	17.27	17±1	18	3.0	20	0.0250
802.11n20	1	2412	17.08	17±1	18	3.0	20	0.0250
		2437	17.57	17±1	18	3.0	20	0.0250
		2462	17.49	17±1	18	3.0	20	0.0250

Note:

N_{TX}= Number of Transmit Antennas

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 2.4 WIFI:2412~2462MHz

MPE limit S: 1mW/ cm²

The MPE is calculated as **$0.0250\text{mW} / \text{cm}^2 < \text{limit } 1\text{mW} / \text{cm}^2$** . 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.

6. Conclusion:

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

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