

Maximum Permissible Exposure Evaluation

FCC ID: SJ8BC240

1. Client Information

Applicant	:	RDI Technology (Shenzhen) Co., Ltd
Address	:	101 to 401, Building 1, and Building 2, No. 7 Yongyue Road, East Baishixia, Fuyong, Baoan, Shenzhen, PRC
Manufacturer	:	RDI Technology (Shenzhen) Co., Ltd
Address	:	101 to 401, Building 1, and Building 2, No. 7 Yongyue Road, East Baishixia, Fuyong, Baoan, Shenzhen, PRC

2. General Description of EUT

EUT Name	:	Wireless Camera	
Models No.	:	BC240	
Model Different	:	N/A	
Sample ID	:	20201215-15-1# & 20201215-15-2#	
Product Description	:	Operation Frequency:	2408MHz~2468MHz
		RF Output Power:	19.129dBm
		Antenna Gain:	2dBi Dipole Antenna
		Modulation Type:	GFSK (4Mbps)
Power Rating	:	DC 5V from Adapter (Model:CS6F050100FUF) Input: AC 100-240V~50/60Hz, 200mA Output: DC 5.0V, 1.0A	
Software Version	:	N/A	
Hardware Version	:	N/A	
Remark	:	The adapter and antenna gain provided by the applicant, the verified for the RF conduction test provided by TOBY test lab.	

MPE Calculations for WIFI

1. Antenna Gain:

Monopole Antenna: 2dBi.

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]
2408	19.129	19±1	20	2	20	0.0315
2440	18.816	19±1	20	2	20	0.0315
2468	18.447	19±1	20	2	20	0.0315

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 GFSK:2408~2468 MHz

MPE limit S: 1mW/ cm²

The MPE is calculated as $0.0315\text{mW} / \text{cm}^2 < \text{limit } 1\text{mW} / \text{cm}^2$. 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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