

Maximum Permissible Exposure Evaluation

FCC ID: SJ8BC200

1. Client Information

Applicant : RDI Technology (Shenzhen) Co., Ltd.
Address : Building C1, Xintang Industrial Park, East Baishixia, Fuyong, Baoan, Shenzhen, PRC.
Manufacturer : RDI Technology (Shenzhen) Co., Ltd.
Address : Building C1, Xintang Industrial Park, East Baishixia, Fuyong, Baoan, Shenzhen, PRC.

2. General Description of EUT

EUT Name	:	Wireless P/T HD Camera	
Models No.	:	BC200	
Product Description	:	Operation Frequency:	2408~2468MHz
	:	Number of Channel:	16Channels
	:	RF Output Power:	2408MHz:19.060dBm 2440MHz:18.919dBm 2468MHz:18.758dBm
	:	Antenna Gain:	2dBi Dipole Antenna
	:	Modulation Type:	GFSK
	:	Bit Rate of Transmitter:	4 Mbps
Power Supply	:	DC Voltage supplied by AC/DC Adapter.	
Power Rating	:	AC/DC Adapter (CS6F050100FUF): Input: AC 100~240V, 50/60Hz, 0.2A. Output: DC 5V, 1.0A.	
Connecting I/O Port(S)	:	Please refer to the User's Manual	
Note: More information about the RF function, please refer the RF test reports.			

TB-RF-075-1.0

MPE Calculations for 2.4G

1. Antenna Gain:

Dipole 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:

Worst Maximum MPE Result							
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]
1	2408	19.060	19±0.5	19.5	2	20	0.0281
	2440	18.919	19±0.5	19.5	2	20	0.0281
	2468	18.758	19±0.5	19.5	2	20	0.0281
Note: (1) N _{TX} = Number of Transmit Antennas (2) 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 2408~2468 MHz)

MPE limit S: 1mW/ cm²

The MPE is calculated as **0.0281**mW / cm² < limit 1 mW / cm². 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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