

# Maximum Permissible Exposure Evaluation

## FCC ID: SJ8-CA794

### 1. Client Information

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

### 2. General Description of EUT

<b>EUT Name</b>	:	Wireless Camera	
<b>Models No.</b>	:	CA794	
<b>Model Different</b>	:	----	
<b>Brand Name</b>	:	CasaCam	
<b>Product Description</b>	:	Operation Frequency:	802.11b/g: 2412MHz~2462MHz
	:	Number of Channel:	802.11b/g:11 channels
	:	RF Output Power:	16.93dBm (Max)
	:	Antenna Gain:	Dipole antenna, Maximum Gain: 2.0dBi
<b>Power Rating</b>	:	Adapter(CS6D090060FUF) Input: AC 100-240V~50/60Hz 200mA Output: 9V, 0.6A 5.4W	
<b>Software Version</b>	:	N/A	
<b>Hardware Version</b>	:	N/A	
<b>Connecting I/O Port(S)</b>	:	Please refer to the User's Manual	
<b>Remark</b>	:	the MPE report used the EUT-2(20211014-10-2#).	

## MPE Calculations for WIFI

### 1. Antenna Gain:

Dipole Antenna: 2.0dBi.

### 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 <sub>TX</sub>	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 <sup>2</sup> ) [S]
802.11b	1	2412	16.70	16±1	17	2	20	0.0158
		2437	16.68	16±1	17	2	20	0.0158
		2462	16.93	16±1	17	2	20	0.0158
802.11g	1	2412	16.86	16±1	17	2	20	0.0158
		2437	16.74	16±1	17	2	20	0.0158
		2462	16.87	16±1	17	2	20	0.0158

**Note:**

N<sub>TX</sub>= 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 <sup>2</sup> )
300-1,500	F/1500
1,500-100,000	1.0

For 2.4G WIFI: 2412~2462MHz

MPE limit S: 1mW/ cm<sup>2</sup>

The MPE is calculated as  $0.0158mW / cm^2 < limit 1mW / cm^2$ . 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-----