

Maximum Permissible Exposure Evaluation

FCC ID: 2APIU-SOMC530

1. Client Information

Applicant : Omimo Technology Co., Ltd.
Address : Room1212, Chuangjian Building, No.6023, Shennan Blvd, Futian District, Shenzhen, China
Manufacturer : Omimo Technology Co., Ltd.
Address : Room1212, Chuangjian Building, No.6023, Shennan Blvd, Futian District, Shenzhen, China

2. General Description of EUT

EUT Name	:	Omimo Wifi Camera	
Models No.	:	SOMC530	
Product Description	:	Operation Frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz
	:	Number of Channel:	802.11b/g/n(HT20):11 channels <i>see note(3)</i> 802.11n(HT40): 7 channels <i>see note(3)</i>
	:	RF Output Power:	802.11b: 17.01dBm 802.11g: 16.54dBm 802.11n (HT20): 15.91dBm 802.11n (HT40): 14.43dBm
	:	Antenna Gain:	3.18dBi Internal Antenna
	:	Modulation Type:	802.11b: DSSS(CCK, QPSK, BPSK) 802.11g: OFDM 802.11n: OFDM
	:	Bit Rate of Transmitter:	802.11b: 11/5.5/2/1 Mbps 802.11g: 54/48/36/24/18/12/9/6 Mbps 802.11n: up to 150Mbps
Power Supply	:	DC Voltage supplied by USB Cable	
Power Rating	:	DC 5V by USB Cable	

TB-RF-075-1.0

Connecting I/O Port(S)	:	Please refer to the User's Manual
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Note: More information about the RF function, please refer the RF test reports.		
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MPE Calculations for WIFI

1. Antenna Gain:

Internal Antenna: 3.18dBi.

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							
Mode	N _{TX}	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	17.01	17±1	18	3.18	20	0.02611
802.11g	1	16.54	16±1	17	3.18	20	0.02074
802.11n (HT20)	1	15.91	15±1	16	3.18	20	0.01647
802.11n (HT40)	1	14.43	14±1	15	3.18	20	0.01308

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 802.11b/g/n (2412~2462 MHz)

MPE limit S: 1mW/ cm²

The MPE is calculated as **0.02611**mW / cm² < limit 1mW / 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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