Maximum Permissible Exposure Evaluation

FCC ID: A6M-200MON

1. Client Information

Applicant : Trail Ridge Technologies, LLC

Address : 3706 Ashmount Dr, Fort Collins, Colorado, USA

Manufacturer : Trail Ridge Technologies, LLC

Address : 3706 Ashmount Dr, Fort Collins, Colorado, USA

2. General Description of EUT

EUT Name	:	QuickVu Digital Backup Camera	
Models No.	:	200	
Brand Name	:	QuickVu	
Model Difference	:	N/A	
Product Description	:	Operation Frequency: 2402MHz~2474MHz	
		Number of Channel:	73 channels **see note(3)**
		Max Peak Output Power:	GFSK (1Mbps): 17.68 dBm GFSK (2Mbps): 17.64 dBm
		Antenna Gain:	3.3 dBi PCB Antenna
		Modulation Type:	GFSK
		Bit Rate of Transmitter:	GFSK (1Mbps, 250KHz deviation) GFSK (2Mbps, 500KHz deviation)
Power Supply	:	DC power supplied by Battery.	
Power Rating	:	DC power 12V Battery.	
Connecting I/O Port(S)	:	Please refer to the User's Manual	
Note: More detail information about Equipment, please refer to User's manual, more information about the RF，please refer to test report.			

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MPE Calculations for 2.4G

1. Antenna Gain:

Ant.	Brand	Model Name	Antenna Type	Gain (dBi)
1	N/A	N/A	PCB Ant.	3.3

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}**	**Power(max) (dBm) [P]**	**ANT Gain (dBi) [G]**	**Turn-up Power Tolerance (dB)**	**Distance (cm) [R]**	**Power Density (mW/ cm^2) [S]**
GFSK (1Mbps)	**1**	17.68	**3.3**	**±1**	**20**	**0.03139**
GFSK (2Mbps)	**1**	17.64	**3.3**	**±1**	**20**	**0.03110**
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 : 2.4G: 2402MHz~2474MHz
MPE limit S: 1 mW/ cm^2
The MPE is calculated as 0.03139 mW / cm^2 < limit 1 mW / 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.

-----END OF REPORT-----