

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.			

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/ cm²

The MPE is calculated as 0.03139 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.

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