

# Maximum Permissible Exposure Evaluation

## FCC ID: A6M-200

### 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

<b>EUT Name</b>	: QuickVu Digital Backup Camera	
<b>Models No.</b>	: 200	
<b>Brand Name</b>	: QuickVu	
<b>Model Difference</b>	: N/A	
<b>Product Description</b>	Operation Frequency: 2402MHz~2474MHz	
	Number of Channel:	73 channels <b>see note(3)</b>
	Max Peak Output Power:	GFSK (1Mbps): 19.66 dBm GFSK (2Mbps): 18.80 dBm
	Antenna Gain:	3.3 dBi PCB Antenna
	Modulation Type:	GFSK
	Bit Rate of Transmitter:	GFSK (1Mbps, 250KHz deviation) GFSK (2Mbps, 500KHz deviation)
<b>Power Supply</b>	: DC power supplied by Lithium Battery.	
<b>Power Rating</b>	: DC power 2*1.5V AA Lithium Battery.	
<b>Connecting I/O Port(S)</b>	: Please refer to the User's Manual	
<b>Note:</b> More detail information about Equipment, please refer to User's manual, more information about the RF, please refer to test report.		

TB-RF-075-1.0

## MPE Calculations for WIFI

### 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

$$S = (P \cdot G) / (4\pi R^2)$$

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 <sub>TX</sub>	Power(max) (dBm) [P]	ANT Gain (dBi) [G]	Turn-up Power Tolerance (dB)	Distance (cm) [R]	Power Density (mW/ cm <sup>2</sup> ) [S]
GFSK (1Mbps)	1	19.66	3.3	±1	20	0.04951570
GFSK (2Mbps)	1	18.80	3.3	±1	20	0.04062028

**Note:**

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

For : 2.4G: 2402MHz~2474MHz

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

The MPE is calculated as 0.04951570mW / cm<sup>2</sup> < limit 1 mW / cm<sup>2</sup>.

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-----