SAR report

The main and sole function of the product is as pocket worm camera recorder. The system incorporates high definition camera and quality lens for recording and documenting actions in vicinity of the wearer and field of view of the camera lens. Recorded video is stored on internal memory for transfer at the end of a shift under the agencies procedure under evidence chain of custody protocols. The design operates from internal rechargeable batteries designed to provide operation throughout the shift length.
The design considers power consumption of the digital camera and recording circuitry critical and has been designed to provide the longest operational service by maintaining the transmitter in a standby state until activated. Activation of the device may be performed manually by the user but is typically remotely activated through a wireless RF link (the transmitter circuitry in consideration for the authorization) which is typically initiated from the patrol car. The user may also initiate the transmitter function to stream recorded video to local complaint device for review. The manufacturer has reduced the transmitter module output power to compliant levels for exemption from rf exposure testing limiting the output power to 0.004 Watts.
The location and position of printed circuit board and transmitting antenna chip are located inside the plastic cover maintaining a minimum separation distance of 7 mm between to antenna and outside of the case which would then be located in an exterior shirt, vest or coat pocket.
RF Exposure exempt SAR evaluation per KDB 447498 D01 v06. **Appendix A**
***SAR Test Exclusion Thresholds* for 100 MHz – 6 GHz and ≤ 50 mm**
Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table. The equation and threshold in 4.3.1 must be applied to determine SAR test exclusion.

MHz	5	10	15	20	25	mm
150	39	77	116	155	194	*SAR Test Exclusion Threshold* (mW)
300	27	55	82	110	137	
450	22	45	67	89	112	
835	16	33	49	66	82	
900	16	32	47	63	79	
1500	12	24	37	49	61	
1900	11	22	33	44	54	
2450	10	19	29	38	48	
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19	25	31	

RSS-102 provides the following opportunity for consideration of RF exposure exemption

RSS-102

Table 1: SAR evaluation – Exemption limits for routine evaluation based on frequency and separation distance

Frequency (MHz)	Exemption Limits (mW)				
	At separation distance of ≤5 mm	At separation distance of 10 mm	At separation distance of 15 mm	At separation distance of 20 mm	At separation distance of 25 mm
≤300	71 mW	101 mW	132 mW	162 mW	193 mW
450	52 mW	70 mW	88 mW	106 mW	123 mW
835	17 mW	30 mW	42 mW	55 mW	67 mW
1900	7 mW	10 mW	18 mW	34 mW	60 mW
2450	4 mW	7 mW	15 mW	30 mW	52 mW
3500	2 mW	6 mW	16 mW	32 mW	55 mW
5800	1 mW	6 mW	15 mW	27 mW	41 mW

Frequency (MHz)	Exemption Limits (mW)				
	At separation distance of 30 mm	At separation distance of 35 mm	At separation distance of 40 mm	At separation distance of 45 mm	At separation distance of ≥50 mm
≤300	223 mW	254 mW	284 mW	315 mW	345 mW
450	141 mW	159 mW	177 mW	195 mW	213 mW
835	80 mW	92 mW	105 mW	117 mW	130 mW
1900	99 mW	153 mW	225 mW	316 mW	431 mW
2450	83 mW	123 mW	173 mW	235 mW	309 mW
3500	86 mW	124 mW	170 mW	225 mW	290 mW
5800	56 mW	71 mW	85 mW	97 mW	106 mW

The device operating with 4mW output power and maintaining a 5 cm distance complies with the requirements of RSS-102 Table 1 exclusion for SAR evaluation