

# FCC RF Exposure

EUT Description: Outdoor thermal image telescope

Model No.: HT-A11

FCC ID: 2AVBO-HT-A11

Equipment type: Portable Device

## 1. Test Procedure

According to KDB 447498 D01 General RF Exposure Guidance v06

The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:

$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}]}{\leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR,}}$$

where

f(GHz) is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation. The result is rounded to one decimal place for comparison.

The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz.

When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

## 2. Test Result of RF Exposure Evaluation

Modulation	Channel Freq. (MHz)	Conducted power (dBm)	Antenna Gain (dBi)	Antenna gain numeric	Results of power (W)
802.11b	2412	8.51	5.0	3.16	0.00709
	2437	8.16	5.0	3.16	0.00655
	2462	8.34	5.0	3.16	0.00682
802.11g	2412	8.20	5.0	3.16	0.00661
	2437	8.32	5.0	3.16	0.00679
	2462	8.22	5.0	3.16	0.00664
802.11n	2412	8.34	5.0	3.16	0.00682
	2437	8.42	5.0	3.16	0.00695
	2462	8.11	5.0	3.16	0.00647

$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}]}{= 7.09 / 5 \cdot \sqrt{2.412} = 2.20 \leq 3.0}$$
 Threshold at which no SAR required is and  $\leq 3.0$  for 1-g SAR, Separation distance is 5mm.