

RF EXPOSURE EVALUATION

1. PRODUCT INFORMATION

Product Description	Wireless USB Adapter
Model Name	6B22, 6B21
FCC ID	2AKC6XHT-WF2D

2. EVALUATION METHOD

According to 447498 D01 General RF Exposure Guidance v05

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

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

Where $f(\text{GHz})$ is the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation

3. CALCULATION

2.4G WIFI:

$$P_t = 6.49 \text{ dBm} = 4.46 \text{ mW}$$

The value of the Maximum output power P_t is referred to the test report of the CFR47

§15.247.

The result for RF exposure evaluation $\text{SAR} = (4.46 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{2.462}(\text{GHz})] = 1.40 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

5G WIFI:

$$P_t = 8.15 \text{ dBm} = 6.53 \text{ mW}$$

The value of the Maximum output power P_t is referred to the test report of the CFR47

§15.247.

The result for RF exposure evaluation $\text{SAR} = (6.53 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{5.180}(\text{GHz})] = 2.98 < 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

The 2.4GHz WIFI band and 5GHz band cannot transmit simultaneously.

4. CONCLUSION

The SAR evaluation is not required.