RF EXPOSURE EVALUATION

1. PRODUCT INFORMATION

FCC ID	2AKC6-AX3010
Product Description	Wireless USB Adapter
Model Name	AX3010, AX3008
Frequency Band (Operating)	☒WLAN: 2.412GHz ~ 2.462GHz ☒WLAN: 5.18GHz ~ 5.32GHz / ☒WLAN: 5.745GHz ~ 5825GHz ☐Bluetooth: 2.402GHz ~ 2.480GHz ☐Others (NFC:13.56MHz)
Device Category	☒Portable (<20cm separation) ☐Mobile (>20cm separation) ☐Others:
Antenna Diversity	☐Single antenna ☒Multiple antennas ☐Tx diversity ☐Rx diversity ☐Tx/Rx diversity
Antenna Gain	2.4GWIFI: ANT 1: 1.34dBi; ANT 2: 2.11dBi 5GWIFI: Ant 1: 4.44dBi; Ant 2: 5.46dBi
Minimum Assessment Distance	5mm
Evaluation Applied	☐MPE Evaluation ☒SAR Evaluation
Evaluation Result	Pass

2. PORTABLE DEVICE EVALUATION METHOD AND LIMIT

Following FCC KDB 447498 D01 “General SAR test exclusion guidance” The corresponding SAR Exclusion Threshold condition, listed below:

1) 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:
   [(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] [√f(GHz)] ≤ 3.0 for 1-g SAR, and ≤ 7.5 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 ≤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) At 100 MHz to 6 GHz and for test separation distances > 50 mm, the SAR test exclusion threshold is determined according to the following:
   a) [Threshold at 50 mm in step 1) + (test separation distance - 50mm) (f(MHz)/150)] mW, at 100MHz to 1500 MHz;
   b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm)-10] mW at > 1500 MHz and ≤6 GHz;

3) At frequencies below 100 MHz, the following may be considered for SAR test exclusion.
   a) The threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by [1 + log(100/f(MHz))] for test separation distances > 50 mm and < 200 mm.
   b) The threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by 1/2 for test separation distances ≤ 50 mm.
   c) SAR measurement procedures are not established below 100 MHz. When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any test results to be acceptable.

3. MEASUREMENT RESULT

Test Mode	Channel Frequency (MHz)	Max Output power (dBm)	Max Output power (mW)	Calculation Value (Note 1)	Limit Value
OFDM					
2.4G WLAN ANT 1	2422	6.48	4.446	1.384	3.0
5G WLAN ANT 2	5200	5.00	3.162	1.442	3.0
5G MIMO	5200	8.01	6.324	2.884	3.0
DSSS					
2.4G WLAN ANT 2	2412	6.13	4.102	1.274	3.0
OFDMA					
2.4G WLAN MIMO	2422	9.23	8.375	2.607	3.0
5G WLAN ANT 1	5210	5.49	3.540	1.616	3.0

Note 1: Calculation Value =[(max. power of channel, mW)/(min. test separation distance, mm)] ·[√f(GHz)].
Fox example: 6.324/5*√5.200=2.884≤ 3.0

4. CONCLUSION

Since Source-base time average power is below SAR test exclusion power thresholds, the SAR evaluation is not required.