

FCC RF Exposure

EUT Description: **usb wifi adapter**

Model No.: **N12**

FCC ID: **2AYQ6-WIRELSSAC1200**

1. Limits

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 ≤ 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:

Result = $P/D^2 \cdot \sqrt{F}$

F = the RF channel transmit frequency in GHz

P = Maximum turn - up power in mw

D = Min. test separation distance in mm

2. Test Result of RF Exposure Evaluation

WIFI

Frequency (MHz)	Output power (dBm)	Tune Up Power (dBm)	Max Tune Up power dBm/mW	Min test separation distance mm	Result	Limit (mW/cm ²)	SAR Test Exclusion
2.4G WIFI Ant. 1 2412	7.10	7±1	8/6.31	5	1.960	3.0	Pass
2.4G WIFI Ant. 2 2437	6.88	6±1	7/5.01	5	1.565	3.0	Pass
MIMO 2437	9.37	8.4±1	9.4/8.71	5	2.719	3.0	Pass
5.2G WIFI Ant. 1 5240	7.75	7±1	8/6.31	5	2.872	3.0	Pass
5.2G WIFI Ant. 2 5180	6.98	6±1	7/5.01	5	2.889	3.0	Pass
MIMO 5180	7.82	6.9±1	7.9/6.166	5	2.807	3.0	Pass
5.8G WIFI Ant. 1 5745	6.34	6±1	7/5.01	5	2.403	3.0	Pass
5.8G WIFI Ant. 2 5825	6.77	6±1	7/5.01	5	2.419	3.0	Pass
MIMO 5775	7.93	6.93±1	7.93/6.209	5	2.984	3.0	Pass

Note:

PK Output power = conducted power.

Conducted power see the test report **HK2202170427-1E/2E/3E**, antenna gain = 1dBi

Per KDB 447498 D01, when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine RF Exposure test exclusion. The test exclusion threshold is 2.984 which is ≤ 3 , RF Exposure testing is not required.

Note: Exclusion Thresholds Results = $\frac{(\text{max. power of channel, including tune-up tolerance, mW})}{(\text{min. test separation distance, mm})} \cdot [\sqrt{f_{\text{(GHz)}}}]$

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

Distance = 5mm

Note: the device could not transmit simultaneously in 2.4G and 5G.