

FCC RF Exposure

EUT Description: Wireless dual-band network card

Model No.: M-18A, M-18B, M-18C, M-18D, M-18E, M-18F, N32, N21, M-30A, M-30B, M-30C, M-30D, M-30E, M-30F

FCC ID: 2A5M6-M-18A

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:
[(max power of channel, including tune - up tolerance, mW)/(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:

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

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

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	5.98	5 \pm 1	6/3.98	5	1.236	3.0	Pass
2.4G WIFI Ant. 2 2462	5.39	5 \pm 1	6/3.98	5	1.249	3.0	Pass
MIMO	/	/	/	/	2.485	3.0	Pass
5.2G WIFI Ant. 1 5240	4.96	4 \pm 1	5/3.16	5	1.447	3.0	Pass
5.2G WIFI Ant. 2 5180	4.85	4 \pm 1	5/3.16	5	1.438	3.0	Pass
MIMO	/	/	/	/	2.885	3.0	Pass
5.8G WIFI Ant. 1 5825	3.98	3 \pm 1	4/2.51	5	1.211	3.0	Pass
5.8G WIFI Ant. 2 5785	3.85	3 \pm 1	4/2.51	5	1.207	3.0	Pass
MIMO	/	/	/	/	2.418	3.0	Pass

Note:

PK Output power= conducted power.

Conducted power see the test report **HK2211255331-1E/2E/3E**, 2.4G WIFI antenna gain=1.48Bi, 5.2G WIFI antenna gain=2.28Bi, 5.8G WIFI antenna gain=2.31Bi

The device could not transmit simultaneously in 2.4G and 5G.

The certified sample is portable device, 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 2.885 which is<= 3, RF Exposure testing is not required.

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

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

Distance=5mm