RF Exposure Evaluation

FCC ID: 2AIFVWDM-X5

1. Client Information

Applicant	:	WUDOUMI ELECTRONICS TECHNOLOGY CO.,LTD
Address	:	3F, Block 5, Xinjihui Industrial Zone, Bantian Town, Longgang, Shenzhen, China
Manufacturer	:	WUDOUMI ELECTRONICS TECHNOLOGY CO.,LTD
Address	:	3F, Block 5, Xinjihui Industrial Zone, Bantian Town, Longgang, Shenzhen, China

2. General Description of EUT

EUT Name	:	WIFI Card Reader	
Models No.	:	WDM-X5	
Brand Name	:	WUDOUMI	
Models Difference	:	N/A	
Product Description	:	Operation Frequency: WiFi: 802.11b/g/n(HT20): 2412MHz~2462MHz	
		Number of Channel:	802.11b/g/n(HT20):11channels
		Max Peak Output Power:	802.11b: 9.28 dBm 802.11g: 9.15 dBm 802.11n (HT20): 9.10 dBm
		Antenna Gain:	1.8 dBi PCB Antenna
		Modulation Type:	802.11b: CCK, QPSK, BPSK 802.11g: OFDM 802.11n: OFDM
Power Supply	:	DC Voltage supplied from Host System by USB cable. DC power by Li-ion Battery.	
Power Rating	:	DC 5.0V by USB cable. DC 3.7V by 1400mAh Li-ion Battery.	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

Note:

More test information about the EUT please refer the RF Test Report.

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SAR Test Exclusion Calculations

1. **FCC: According to KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v05r02.**
   (1) Clause 4.3: General SAR test reduction and exclusion guidance
   Sub clause 4.31: Standalone SAR test exclusion considerations
   1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6GHz at test separation distance≤5 mm are determined by:
   [(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)]*[$\sqrt{f_{(GHz)}}$] ≤3.0 for 1-g SAR
   [(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)]*[$\sqrt{f_{(GHz)}}$] ≤7.5.0 for 10-g SAR

2. Calculation:

Test separation: 5mm					
WiFi Mode(802.11b)					
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.412	9.25	±0.5	9.441	2.932	**3.0**
2.437	9.21	±0.5	9.354	2.921	**3.0**
2.462	9.28	±0.5	9.506	2.983	**3.0**
WiFi Mode(802.11g)					
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.412	9.15	±0.5	9.226	2.866	**3.0**
2.437	9.13	±0.5	9.183	2.867	**3.0**
2.462	9.12	±0.5	9.162	2.875	**3.0**
WiFi Mode(802.11n(HT20))					
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.412	9.05	±0.5	9.016	2.800	**3.0**
2.437	9.08	±0.5	9.078	2.834	**3.0**
2.462	9.10	±0.5	9.120	2.862	**3.0**

So standalone SAR measurements are not required.