

RF Exposure Evaluation

FCC ID: X4YNLNX150P

1. Client Information

Applicant	:	NEXXT SOLUTIONS
Address	:	3505 N.W 107TH AVE. MIAMI FLORIDA 33178 U.S.A
Manufacturer	:	NEXXT SOLUTIONS
Address	:	3505 N.W 107TH AVE. MIAMI FLORIDA 33178 U.S.A

2. General Description of EUT

EUT Name	:	Wireless USB Adapter	
Model(s) No.	:	NCU-L150	
Model Different	:	----	
Product Description	:	Operation Frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz
	:	Number of Channel:	802.11b/g/n(HT20):11 channels 802.11n(HT40): 7 channels
	:	Max Peak Output Power:	802.11b: 8.48dBm (MAX) 802.11g: 8.84dBm (MAX) 802.11n(HT20): 8.63dBm (MAX) 802.11n(HT40): 8.46dBm (MAX)
	:	Antenna Gain:	2.0dBi PCB Antenna
	:	Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g/n:OFDM(BPSK,QPSK,16QAM,64 QAM)
Power Supply	:	USB Input: DC 5V	
Software Version	:	Windows XP/Vista / 7 / 8 / 8.1 / 10 (32、 64); MacOS10.6~MacOS10.11	
Hardware Version	:	MT7601U	
Remark: The antenna gain and adapter provided by the applicant, the adapter and verified for the RF conduction test provided by TOBY test lab.			

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

SAR Test Exclusion Calculations

1. FCC: According to KDB 447498 D01 Mobile and Portable Devices RF Exposure Procedures and Equipment Authorization Policies v06.

- (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)] * $\sqrt{f_{\text{GHz}}}$ ≤ 3.0 for 1-g SAR

- [(max. power of channel, including tune-up tolerance, mW)/(min. test separation, mm)] * $\sqrt{f_{\text{GHz}}}$ $\leq 7.5.0$ for 10-g SAR

2. Calculation:

Test separation: 5mm						
802.11b						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.412	8.48	8±1	9	7.943	2.467	3.0
2.437	8.38	8±1	9	7.943	2.480	3.0
2.462	8.31	8±1	9	7.943	2.493	3.0
802.11g						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.412	8.84	8±1	9	7.943	2.467	3.0
2.437	8.23	8±1	9	7.943	2.480	3.0
2.462	8.29	8±1	9	7.943	2.493	3.0
802.11n(HT20)						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.412	8.63	8±1	9	7.943	2.467	3.0
2.437	7.98	7±1	8	6.310	1.970	3.0
2.462	8.05	8±1	9	7.943	2.493	3.0
802.11n(HT40)						
Frequency (GHz)	Conducted Power (dBm)	Turn-up Power Tolerance (dB)	Max power of tune up tolerance (dBm)	Max power of tune up tolerance (mw)	Calculation Value	Threshold Value
2.422	8.46	8±1	9	7.943	2.472	3.0
2.437	7.92	7±1	8	6.310	1.970	3.0
2.452	7.65	7±1	8	6.310	1.976	3.0

Conclusion: The measurement results comply with the FCC Limit per 47 CFR 2.1093 for the uncontrolled RF Exposure and SAR Exclusion Threshold per KDB 447498 v06.

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