RF Exposure Evaluation

FCC ID: 2BKNS-XTC-600

1. Client Information

Applicant	:	Xtech Americas
Address	:	10310 NW 121 Way, Suite 100, Medley, Florida, 33178
Manufacturer	:	Xtech Americas
Address	:	10310 NW 121 Way, Suite 100, Medley, Florida, 33178

2. General Description of EUT

EUT Name	:	USB WiFi Dongle	
Model(s) No.	:	XTC-600	
Model Difference	:	----	
Product Description	:	Operation Frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz U-NII-1: 5180MHz~5240MHz U-NII-3: 5745MHz~5825MHz
		Antenna Gain:	2.0dBi Internal Antenna
Power Supply	:	USB Input: DC 5V/0.4A	
Software Version	:	V1.0	
Hardware Version	:	V1.0	

Remark:
(1) The antenna gain provided by the applicant, the verified for the RF conduction test provided by TOBY test lab.
(2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
(3) The above antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

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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 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)]*[$\sqrt{f_{(GHz)}}$] ≤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

802.11b

Frequency (MHz)	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
2412	6.94	6±1	7	5.012	1.557	**3.0**
2437	6.45	6±1	7	5.012	1.565	**3.0**
2462	5.78	5±1	6	3.981	1.249	**3.0**

802.11g

Frequency (MHz)	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
2412	4.47	4±1	5	3.162	0.982	**3.0**
2437	4.90	4±1	5	3.162	0.987	**3.0**
2462	4.50	4±1	5	3.162	0.992	**3.0**

802.11n(HT20)

Frequency (MHz)	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
2412	4.64	4±1	5	3.162	0.982	**3.0**
2437	4.26	4±1	5	3.162	0.987	**3.0**
2462	3.83	3±1	4	2.512	0.788	**3.0**

802.11n(HT40)

Frequency (MHz)	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
2422	3.74	3±1	4	2.512	0.782	**3.0**
2437	3.55	3±1	4	2.512	0.784	**3.0**
2452	3.14	3±1	4	2.512	0.787	**3.0**

Test separation: 5mm						
802.11a						
Frequency (MHz)	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
5180	7.51	7±1	8	6.31	2.872	**3.0**
5200	7.07	7±1	8	6.31	2.878	**3.0**
5240	7.43	7±1	8	6.31	2.889	**3.0**
5745	6.01	6±1	7	5.012	2.403	**3.0**
5785	6.32	6±1	7	5.012	2.411	**3.0**
5825	6.41	6±1	7	5.012	2.419	**3.0**
802.11n(HT20)						
Frequency (MHz)	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
5180	7.35	7±1	8	6.31	2.872	**3.0**
5200	7.46	7±1	8	6.31	2.878	**3.0**
5240	7.41	7±1	8	6.31	2.889	**3.0**
5745	6.92	6±1	7	5.012	2.403	**3.0**
5785	6.45	6±1	7	5.012	2.411	**3.0**
5825	6.51	6±1	7	5.012	2.419	**3.0**
802.11n(HT40)						
Frequency (MHz)	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
5190	7.67	7±1	8	6.31	2.875	**3.0**
5230	6.92	6±1	7	5.012	2.292	**3.0**
5755	6.30	6±1	7	5.012	2.405	**3.0**
5795	6.55	6±1	7	5.012	2.413	**3.0**

802.11ac(VHT20)						
Frequency (MHz)	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
5180	7.17	7±1	8	6.31	2.872	**3.0**
5200	7.34	7±1	8	6.31	2.878	**3.0**
5240	7.52	7±1	8	6.31	2.889	**3.0**
5745	6.03	6±1	7	5.012	2.403	**3.0**
5785	6.86	6±1	7	5.012	2.411	**3.0**
5825	6.46	6±1	7	5.012	2.419	**3.0**
802.11ac(VHT40)						
Frequency (MHz)	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
5190	7.21	7±1	8	6.31	2.875	**3.0**
5230	7.09	7±1	8	6.31	2.886	**3.0**
5755	6.21	6±1	7	5.012	2.405	**3.0**
5795	6.40	6±1	7	5.012	2.413	**3.0**
802.11ac(VHT80)						
Frequency (MHz)	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
5210	6.82	6±1	7	5.012	2.288	**3.0**
5775	6.88	6±1	7	5.012	2.409	**3.0**

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.

-----END OF THE REPORT-----