

Maximum Permissible Exposure Evaluation

FCC ID: 2AAH9-5700

1. Client Information

Applicant	:	Navori Inc.
Address	:	1000 rue Sherbrooke st W Suite 710 Montreal, QC H3A 3G4 Canada
Manufacturer	:	Shenzhen MicoRose Technology Co., Ltd.
Address	:	8B2A, Daqing Building, southeast of the intersection of Shennan Road and Guangshen Expressway, Futian District, Shenzhen, China

2. General Description of EUT

EUT Name	:	StiX
Models No.	:	5700
Product Description	:	Operation Frequency: Bluetooth 4.0(BT): 2402~2480 MHz Bluetooth 4.0(BLE): 2402MHz~2480MHz 802.11b/g/n(HT20): 2412MHz~2462MHz U-NII-1: 5180MHz~5240MHz U-NII-3: 5745MHz~5825MHz
		Number of Channel: Bluetooth: 79 Channels Bluetooth(BLE): 40 channels 802.11b/g/n(HT20):11 channels U-NII-1:4 channels U-NII-3:6 channels
		RF Output Power: GFSK:6.22dBm $\pi/4$ -DQPSK:5.75dBm 8DPSK:6.09dBm GFSK (BLE) :1.23dBm 802.11b: 15.74dBm 802.11g: 15.06dBm 802.11n (HT20): 14.83dBm U-NII-1 802.11a: 14.06dBm 802.11n(HT20): 13.84dBm U-NII-3 802.11a: 13.9dBm 802.11n(HT20): 13.67dBm
		Antenna Gain: 2.0dBi PIFA Antenna
Power Rating	:	For Adapter (Model:FJ-SW1241202000U): Input: 100-240V~ 50/60Hz 0.6A Max Output:12V $\overline{\text{---}}$, 2A
Software Version	:	ubuntu 18.04
Hardware Version	:	V1
Connecting I/O Port(S)	:	Please refer to the User's Manual
Remark	:	the MPE report used the EUT(20211022-08_1-02#).

MPE Calculations for WIFI

1. Antenna Gain:

PIFA Antenna:2.0dBi.

2. EUT Operation Condition:

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

3. Exposure Evaluation:

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S=(PG)/4\pi R^2$$

Where

S: power density

P: power input to the antenna

G: power gain of the antenna in the direction of interest relative to an isotropic radiator.

R: distance to the center of radiation of the antenna

4. Test Result:

Worst Maximum MPE Result								
Mode	N _{TX}	Freq. (MHz)	Conducted Power(max) (dBm)	Turn-up Power (dB)	Max tune up power (dBm) [P]	ANT Gain (dBi) [G]	Distance (cm) [R]	Power Density (mW/ cm ²) [S]
802.11b	1	2412	15.74	15±1	16	2.0	20	0.0126
		2437	15.60	15±1	16	2.0	20	0.0126
		2462	15.63	15±1	16	2.0	20	0.0126
802.11g	1	2412	15.06	15±1	16	2.0	20	0.0126
		2437	14.99	14±1	15	2.0	20	0.0100
		2462	15.00	15±1	16	2.0	20	0.0126
802.11n(HT20)	1	2412	14.83	14±1	15	2.0	20	0.0100
		2437	14.60	14±1	15	2.0	20	0.0100
		2462	14.68	14±1	15	2.0	20	0.0100
BT(GFSK)	1	2402	5.96	5±1	6	2.0	20	0.0013
		2441	6.22	6±1	7	2.0	20	0.0016
		2480	5.38	5±1	6	2.0	20	0.0013

BT(π /4-DQPSK)	1	2402	5.75	5 ± 1	6	2.0	20	0.0013
		2441	5.71	5 ± 1	6	2.0	20	0.0013
		2480	4.94	4 ± 1	5	2.0	20	0.0010
BT(8DPSK)	1	2402	5.55	5 ± 1	6	2.0	20	0.0013
		2441	6.09	6 ± 1	7	2.0	20	0.0016
		2480	4.84	4 ± 1	5	2.0	20	0.0010
BLE(GFSK)	1	2402	1.01	1 ± 1	2	2.0	20	0.0005
		2442	1.23	1 ± 1	2	2.0	20	0.0005
		2480	0.77	1 ± 1	2	2.0	20	0.0005
802.11a	1	5180	16.06	14 ± 1	15	2.0	20	0.0100
	1	5200	15.74	13 ± 1	14	2.0	20	0.0079
	1	5240	14.59	12 ± 1	13	2.0	20	0.0063
802.11n(HT20)	1	5180	15.90	12 ± 1	13	2.0	20	0.0063
	1	5200	15.17	13 ± 1	14	2.0	20	0.0079
	1	5240	14.58	12 ± 1	13	2.0	20	0.0063
802.11a	1	5745	15.84	13 ± 1	14	2.0	20	0.0079
	1	5785	15.76	13 ± 1	14	2.0	20	0.0079
	1	5825	14.43	12 ± 1	13	2.0	20	0.0063
802.11n(HT20)	1	5745	15.67	13 ± 1	14	2.0	20	0.0079
	1	5785	14.92	12 ± 1	13	2.0	20	0.0063
	1	5825	14.55	12 ± 1	13	2.0	20	0.0063
Note: (1) N_{TX} = Number of Transmit Antennas (2) RF Output power specifies that Maximum Conducted Peak Output Power.								

5. Conclusion:

As specified in Table 1B of 47 CFR 1.1310- Limits for Maximum Permissible Exposure (MPE),

Limits for General Population/ Uncontrolled Exposure

Frequency Range (MHz)	Power density (mW/ cm ²)
300-1,500	F/1500
1,500-100,000	1.0

For 2.4WIFI:2412~2462 MHz

MPE limit S: 1mW/ cm²

The MPE is calculated as $0.0126 \text{ mW} / \text{cm}^2 < \text{limit } 1 \text{mW} / \text{cm}^2$. So, RF exposure limit warning or SAR test are not required.

The EUT will only be used with a separation of 20cm or greater between the antenna and nearby persons and can therefore be considered a mobile transmitter per 47 CFR2.1091 (b).

The RF Exposure Information page from the manual is included here for reference.

Note

For a more detailed features description, please refer to the RF Test Report.

6. Conclusion:

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

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