

# Maximum Permissible Exposure Evaluation

## FCC ID: 2AAH9-5700

### 1. Client Information

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

### 2. General Description of EUT

<b>EUT Name</b>	:	StiX
<b>Models No.</b>	:	5700
<b>Product Description</b>	<b>Operation Frequency:</b>	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
	<b>Number of Channel:</b>	Bluetooth: 79 Channels Bluetooth(BLE): 40 channels 802.11b/g/n(HT20):11 channels U-NII-1:4 channels U-NII-3:6 channels
	<b>RF Output Power:</b>	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
	<b>Antenna Gain:</b>	2.0dBi PIFA Antenna
<b>Power Rating</b>	:	For Adapter (Model:FJ-SW1241202000U): Input: 100-240V~ 50/60Hz 0.6A Max Output:12V $\overline{\text{---}}$ , 2A
<b>Software Version</b>	:	ubuntu 18.04
<b>Hardware Version</b>	:	V1
<b>Connecting I/O Port(S)</b>	:	Please refer to the User's Manual
<b>Remark</b>	:	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 <sub>TX</sub>	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 <sup>2</sup> ) [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( $\pi/4$ -DQPSK)	1	2402	5.75	$5 \pm 1$	6	2.0	20	0.0013
		2441	5.71	$5 \pm 1$	6	2.0	20	0.0013
		2480	4.94	$4 \pm 1$	5	2.0	20	0.0010
BT(8DPSK)	1	2402	5.55	$5 \pm 1$	6	2.0	20	0.0013
		2441	6.09	$6 \pm 1$	7	2.0	20	0.0016
		2480	4.84	$4 \pm 1$	5	2.0	20	0.0010
BLE(GFSK)	1	2402	1.01	$1 \pm 1$	2	2.0	20	0.0005
		2442	1.23	$1 \pm 1$	2	2.0	20	0.0005
		2480	0.77	$1 \pm 1$	2	2.0	20	0.0005
802.11a	1	5180	16.06	$14 \pm 1$	15	2.0	20	0.0100
	1	5200	15.74	$13 \pm 1$	14	2.0	20	0.0079
	1	5240	14.59	$12 \pm 1$	13	2.0	20	0.0063
802.11n(HT20)	1	5180	15.90	$12 \pm 1$	13	2.0	20	0.0063
	1	5200	15.17	$13 \pm 1$	14	2.0	20	0.0079
	1	5240	14.58	$12 \pm 1$	13	2.0	20	0.0063
802.11a	1	5745	15.84	$13 \pm 1$	14	2.0	20	0.0079
	1	5785	15.76	$13 \pm 1$	14	2.0	20	0.0079
	1	5825	14.43	$12 \pm 1$	13	2.0	20	0.0063
802.11n(HT20)	1	5745	15.67	$13 \pm 1$	14	2.0	20	0.0079
	1	5785	14.92	$12 \pm 1$	13	2.0	20	0.0063
	1	5825	14.55	$12 \pm 1$	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 <sup>2</sup> )
300-1,500	F/1500
1,500-100,000	1.0

For 2.4WIFI:2412~2462 MHz

MPE limit S: 1mW/ cm<sup>2</sup>

The MPE is calculated as **0.0126 mW / cm<sup>2</sup> < limit 1mW / cm<sup>2</sup>**. 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-----**