

RF Exposure Evaluation

FCC ID: VACPDWX10

1. Client Information

Applicant	:	SUN HEI (WORLDWIDE) ELECTRONIC CO.,LTD.
Address	:	UNIT B, 15/F, WING CHEUNG IND.BLDG 58-70, KWAI CHEONG RD.,KWAI CHUNG, N.T. HONGKONG
Manufacturer	:	Xiang Shun Electronic Products Co., Ltd
Address	:	No.5, Xixing Street, Changan Town, Dongguan City, Guangdong Province, China

2. General Description of EUT

EUT Name	:	10 Inch Wi-Fi Digital Picture Frame
Models No.	:	PDWX-1050B,PDWX-1050G
Model Difference	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is Appearance color.
Sample ID	:	20200708-17-03#
Product Description	Operation Frequency:	2.4G: 802.11b/g/n(HT20): 2412MHz~2462MHz
	Modulation Type:	802.11b: DSSS(CCK, DQPSK, DBPSK) 802.11g/n: OFDM(BPSK,QPSK,16QAM, 64QAM)
Power Rating	:	DC 5V from AC/DC Adapter(SR-C60502000U2): Input: AC 100-240V, 50/60Hz. 0.35A Output: DC 5V, 2000mA.
Software Version	:	NCH_V1.0.0_.d3.a3_a.u_s_v0.202007131519
Hardware Version	:	TZXM790
Connecting I/O Port(S)	:	Please refer to the User's Manual
Remark	:	The antenna gain provided by the applicant, the verified for the RF conduction test provided by TOBY test lab.

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

MPE Calculations for WIFI

1. Antenna Gain:

Internal ant:	Model	Frequency Range
	N/A	2400~2483.5MHz
		1.22

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:

2.4G WIFI

Mode	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]	Limit of Power Density (mW/ cm ²) (S)
802.11B	18.19	18±1	19	1.22	20	0.0209	1
802.11G	16.40	16±1	17	1.22	20	0.0132	1
802.11N(HT20)	16.74	16±1	17	1.22	20	0.0132	1

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 WIFI: 802.11b/g/n(HT20): 2412MHz~2462MHz

MPE limit S: 1mW/ cm²

The MPE is calculated as **0.0209mW / cm² < limit 1mW / cm²**. 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.

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