

Maximum Permissible Exposure Evaluation

FCC ID: VAC-PDWX10

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-1050C, PDWX-1050G	
Model Different	:	All these models are identical in the same PCB, layout and electrical circuit, The only difference is model name.	
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
		RF Output Power:	802.11b:17.069dBm(MAX)
		Antenna Gain:	1.55dBi PIFA Antenna
Power Rating	:	Adapter(THX-050200KV) Input: 100-240V~, 50/60Hz, 0.65A MAX Output: DC 5V2.0A Adapter(SR-C6050200U2) Input: 100-240V~, 50/60Hz, 0.35A MAX Output: DC 5V2.0A	
Software Version	:	N/A	
Hardware Version	:	BND-RK3126-D916 A1.0	
Connecting I/O Port(S)	:	Please refer to the User's Manual	
Remark	:	the evaluation report used the EUT(20210608-07-02#).	

MPE Calculations for WIFI

1. Antenna Gain:

PIFA Antenna:1.55dBi.

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	17.069	17±1	18	1.55	20	0.01794	1
802.11G	15.587	15±1	16	1.55	20	0.01132	1
802.11N(HT20)	15.482	15±1	16	1.55	20	0.01132	1
802.11N(HT40)	13.548	14±1	15	1.55	20	0.00899	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 2.4WIFI:2412~2462 MHz
MPE limit S: 1mW/ cm²

The MPE is calculated as $0.01794mW / cm^2 < limit 1mW / cm^2$. 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-----