

RF Exposure Evaluation

FCC ID: 2AWIF-Y102

1. Client Information

Applicant	:	Shenzhen Aiyi Digital Technology Co., Ltd.
Address	:	Room 402, Building5, Youth Dream Workshop, Langkou Industrial Zone, Longhua District, Shenzhen, China
Manufacturer	:	Shenzhen Aiyi Digital Technology Co., Ltd.
Address	:	Room 402, Building5, Youth Dream Workshop, Langkou Industrial Zone, Longhua District, Shenzhen, China

2. General Description of EUT

EUT Name	:	10.1 Cloud Photo Frame				
Models No.	:	Y102,Y101,Y071,Y081,Y133,Y156,Y125				
Model Difference	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is Appearance color.				
Sample ID	:	20200616-10-01#				
Product Description	:	<table border="1"> <tr> <td>Operation Frequency:</td> <td>2.4G: 802.11b/g/n(HT20): 2412MHz~2462MHz</td> </tr> <tr> <td>Modulation Type:</td> <td>802.11b: DSSS(CCK, DQPSK, DBPSK) 802.11g/n: OFDM(BPSK,QPSK,16QAM, 64QAM)</td> </tr> </table>	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)
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	:	Adapter Model:JKY0212-0502000UL Input: AC 100-240V~50/60Hz, 0.30A Output: DC 5.0V-2000mA				
Software Version	:	Andriod 6.0				
Hardware Version	:	Y10-V1.0				
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:

FPC Ant:	Model	Frequency Range
	N/A	2400~2483.5MHz
		1.13dBi

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	20.93	20±1	21	1.13	20	0.0325	1
802.11G	15.98	16±1	17	1.13	20	0.0129	1
802.11N(HT20)	16.22	16±1	17	1.13	20	0.0129	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 **0.0325mW / 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.

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