



RF Exposure Evaluation

FCC ID: 2BFGM-W1

Applicant: Shenzhen Xin An Zhuo Technology Co.,Ltd.

Address: 5f, 7th Factory Bldg, zhengzhong Ind Zone Qiaotou Community, fuyong St, bao'an Dist Shenzhen, China

Manufacturer: Shenzhen Xin An Zhuo Technology Co.,Ltd.

Address: 5f, 7th Factory Bldg, zhengzhong Ind Zone Qiaotou Community, fuyong St, bao'an Dist Shenzhen, China

EUT: Car Video Player

Trade Mark: Cinandrow

Model Number: W1, W2, W3, W5, W6, W7, W8, W9, W10, W11, W12, W13, W15, W16, W17, W18, W19, W20

Date of Receipt: Apr. 20, 2025

Test Date: Apr. 20, 2025 - May 13, 2025

Date of Report: May 13, 2025

Prepared By: Shenzhen DL Testing Technology Co., Ltd.

Address: 101-201, Comprehensive Building, Tongzhou Electronics Longgang Factory Area, No.1 Baolong Fifth Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China

Applicable Standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247
KDB 447498 D01 General RF Exposure Guidance v06

Test Result: Pass

Report Number: DLE-250429006R-1

Prepared by(Engineer): Ken Tan

Reviewer(Supervisor): Jack Bu

Approved(Manager): Jade Yang



This test report is based on a single evaluation of one sample of above mentioned products. It is not permitted to be duplicated in extracts without written approval of Shenzhen DL Testing Technology Co., Ltd.



Table of Contents

Page

1. TEST FACILITY	3
1.1 MEASUREMENT UNCERTAINTY	3
2. GENERAL INFORMATION	4
2.1 GENERAL DESCRIPTION OF EUT	4
3. METHOD OF MEASUREMENT	5
3.1 APPLICABLE STANDARD	5
3.2 EVALUATION METHOD AND LIMIT	5
3.3 MPE CALCULATION METHOD	5
3.4 ANTENNA INFORMATION	5
3.5 MANUFACTURING TOLERANCE	6
4. EVALUATION RESULTS	6
4.1 STANDALONE EVALUATION	6



1. TEST FACILITY

Test lab: Shenzhen DL Testing Technology Co., Ltd.

101-201, Comprehensive Building, Tongzhou Electronics Longgang Factory Area, No.1

Address: Baolong Fifth Road, Baolong Community, Baolong Street, Longgang District, Shenzhen, China

FCC Test Firm Registration Number: 854456

Designation Number: CN1307

IC Registered No.: 27485

CAB ID.: CN0118

1.1 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95 %**.

No.	Item	Uncertainty
1	Conducted Emission Test	$\pm 2.56\text{dB}$
2	RF power,conducted	$\pm 0.42\text{dB}$
3	Spurious emissions,conducted	$\pm 2.76\text{dB}$
4	All emissions,radiated(<1G)	$\pm 3.65\text{dB}$
5	All emissions,radiated(>1G)	$\pm 4.89\text{dB}$
6	Temperature	$\pm 0.5^{\circ}\text{C}$
7	Humidity	$\pm 2\%$
8	20dB Bandwidth	$\pm 0.2\text{MHz}$



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Product Name:	Car Video Player
Trademark	Cinandrow
Model No.:	W1, W2, W3, W5, W6, W7, W8, W9, W10, W11, W12, W13, W15, W16, W17, W18, W19, W20
Model Difference	All models are same as the samples except model name and appearance color, they have the same structure and circuit.
Sample ID:	DLE-250429006-001#
Operation Frequency:	2.4G WIFI: 2412~2462 MHz for 802.11b/g/nHT20 2422~2452 MHz for 802.11nHT40
Channel numbers:	2.4G WIFI: 11 Channels for 802.11b/g/n(HT20) 7 channels for 802.11nHT40
Channel separation:	2.4G WIFI:5MHz
Modulation technology:	2.4G WIFI: 802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g/n(20/40): OFDM(QPSK, BPSK, 16-QAM, 64-QAM)
Rate of Transmitter:	2.4G WIFI: 802.11b: 11/5.5/2/1Mbps 802.11g: 54/48/36/24/18/12/9/6Mbps 802.11n: up to 150Mbps
Antenna Type:	FPC Antenna
Antenna gain:	2.55 dBi
Power Supply:	DC 5V/3A from Car Charger

Note:

- 1.For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- 2.The EUT's all information provided by client.



3. METHOD OF MEASUREMENT

3.1 APPLICABLE STANDARD

According to §1.1307(b)(1), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

According to §1.1310 and §2.1091 RF exposure is calculated.

FCC KDB 447498 D01 General RF Exposure Guidance v06: Mobile and Portable Device, RF Exposure, Equipment Authorization Procedures

3.2 EVALUATION METHOD AND LIMIT

Limits for Maximum Permissible Exposure (MPE)/Controlled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	6
3.0 – 30	1842/f	4.89/f	(900/f)*	6
30 – 300	61.4	0.163	1.0	6
300 – 1500	/	/	f/300	6
1500 – 100,000	/	/	5	6

Limits for Maximum Permissible Exposure (MPE)/Uncontrolled Exposure

Frequency Range(MHz)	Electric Field Strength(V/m)	Magnetic Field Strength(A/m)	Power Density (mW/cm ²)	Averaging Time (minute)
Limits for Occupational/Controlled Exposure				
0.3 – 3.0	614	1.63	(100) *	30
3.0 – 30	824/f	2.19/f	(180/f)*	30
30 – 300	27.5	0.073	0.2	30
300 – 1500	/	/	f/1500	30
1500 – 100,000	/	/	1.0	30

F=frequency in MHz

*=Plane-wave equivalent power density

3.3 MPE CALCULATION METHOD

Predication of MPE limit at a given distance

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 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

3.4 ANTENNA INFORMATION

EUT can only use antennas certificated as follows provided by manufacturer;

Antenna	Model No. of antenna:	Type of antenna:	Gain of the antenna (Max.)	Frequency range:
WIFI	/	FPC Antenna	2.55 dBi	2400-2500MHz



3.5 MANUFACTURING TOLERANCE

WIFI 2.4G			
Frequency (MHz)	11b(Peak)		
	2412	2437	2462
Target (dBm)	14.0	15.0	14.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
Frequency (MHz)	11g(Peak)		
	2412	2437	2462
Target (dBm)	17.0	18.0	17.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
Frequency (MHz)	11n(HT20) (Peak)		
	2412	2437	2462
Target (dBm)	16.0	17.0	17.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0
Frequency (MHz)	11n(HT40) (Peak)		
	2422	2437	2452
Target (dBm)	17.0	17.0	18.0
Tolerance $\pm$ (dB)	1.0	1.0	1.0

4. EVALUATION RESULTS

4.1 STANDALONE EVALUATION

As declared by the Applicant, the EUT is a wireless device used in a fix application, at least 20 cm from any body part of the user or nearby persons; from the maximum EUT RF output power, the minimum separation distance, $r=20\text{cm}$, as well as the gain of the used antenna is refer to section 4, the RF power density can be obtained.

Modulation Type	Output power with tune_up		Antenna Gain (dBi)	Antenna Gain (linear)	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	dBm	mW				
WIFI 2.4G	19	79.433	2.55	1.80	0.02843	1

Remark:

1. Output power (Peak) including turn-up tolerance;
2. MPE evaluate distance is 20cm from user manual provide by manufacturer.
3. The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

***** END OF REPORT *****