

# RF EXPOSURE Test Report

FCC ID:	2BDJS-HXYBCP
Applicant	Hefei Huanxin Technology Development Company Limited
Address	Building A18,Wanyang Zhongchuangcheng Industrial Park,Menghe Road and Fengting Road intersection,Changfeng County,Hefei City,China
Manufacturer	Hefei Huanxin Technology Development Company Limited
Address	Building A18,Wanyang Zhongchuangcheng Industrial Park,Menghe Road and Fengting Road intersection,Changfeng County,Hefei City,China
Product Name:	CP-01 Display
Model/Type reference:	HXYB-CP-01, HXYB-CP
Power supply:	DC 9V-90V
Adapter information	/
Hardware version:	V1.0
Software version:	V1.0
Standards:	N/A
Test procedure :	KDB 447498 D01 v06
Date of Test	
Date of tests	September 25, 2023 ~ October 10, 2023
Test Result.	Pass
This device described above has been tested by BSL Testing Co., Ltd. and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.	

## RF Exposure Evaluation

### Limits

The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

According to KDB 447498 D01 General RF Exposure Guidance v06, Unless specifically required by the published RF exposure KDB procedures, standalone 1-g head or body and 10-g extremity SAR evaluation for general population exposure conditions, by measurement or numerical simulation, is not required when the corresponding SAR Test Exclusion Threshold condition(s), listed below, is (are) satisfied.

#### Limits for Maximum Permissible Exposure (MPE)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm <sup>2</sup> )	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f <sup>2</sup> )	6
30–300	61.4	0.163	1.0	6
300–1500			f/300	6
1500–100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f <sup>2</sup> )	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

Friis transmission formula:  $P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$

Where

**Pd** = power density in mW/cm<sup>2</sup>, **Pout** = output power to antenna in mW;

**G** = gain of antenna in linear scale, **PI** = 3.1416;

**R** = distance between observation point and center of the radiator in cm

Pd is the limit of MPE, 1 mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

### Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

**Test Result of RF Exposure Evaluation****BT/BL E:**

Operation Frequency: 2402-2480MHz,

Power density limited: 1mW/ cm<sup>2</sup>**2.4GWiFi:**

Operation Frequency: WIFI 802.11b/g/n HT20: 2412-2462MHz,

Power density limited: 1mW/ cm<sup>2</sup>**Antenna Type: IPEX Antenna**

Antenna gain: 3.2dBi

R=20cm

mW= 10^(dBm/10)

Antenna gain Numeric= 10^(dBi/10)= 10^(-1.69/10)=2.09

**BR+EDR**

Channel	Frequency (MHz)	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Result
GFSK	2402	-4.901	0.32	0.00013	1.0	PASS
	2441	-5.372	0.29	0.00012	1.0	PASS
	2480	-6.195	0.24	0.00010	1.0	PASS
Π/4DQPSK	2402	-2.473	0.57	0.00024	1.0	PASS
	2441	-3.039	0.50	0.00021	1.0	PASS
	2480	-3.912	0.41	0.00017	1.0	PASS
8DPSK	2402	-1.872	0.65	0.00027	1.0	PASS
	2441	-2.434	0.57	0.00024	1.0	PASS
	2480	-3.321	0.47	0.00019	1.0	PASS

**WiFi 2.4G**

Channel	Frequency (MHz)	Output power to antenna (dBm)	Output power to antenna (mW)	Power Density at R=20cm (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Result
802.11b	2412	6.245	4.21	0.00175	1.0	PASS
	2437	7.652	5.82	0.00242	1.0	PASS
	2462	7.851	6.10	0.00254	1.0	PASS
802.11g	2412	2.456	1.76	0.00073	1.0	PASS
	2437	1.546	1.43	0.00059	1.0	PASS
	2462	1.145	1.30	0.00054	1.0	PASS
802.11n (HT20)	2412	-1.456	0.72	0.00030	1.0	PASS
	2437	-2.654	0.54	0.00023	1.0	PASS
	2462	-3.311	0.47	0.00019	1.0	PASS
802.11n (HT40)	2422	-4.654	0.34	0.00014	1.0	PASS
	2437	-5.412	0.29	0.00012	1.0	PASS
	2452	-5.654	0.27	0.00011	1.0	PASS

**Conclusion: No SAR is required.****----END OF REPORT----**