

**NingBo Panel Electric Appliance Co., Ltd**

# MPE ASSESSMENT REPORT

**Report Type:**

FCC MPE assessment report

**Model:**

BJ-LR68

**REPORT NUMBER:**

231200828HAN-002

**ISSUE DATE:**

April 20, 2024

**DOCUMENT CONTROL NUMBER:**

TTRFFCCMPE-01\_V1 © 2018 Intertek



**TEST REPORT**

**Applicant** : **NingBo Panel Electric Appliance Co., Ltd.**  
**No.255, Lvyan 1st Road, Chongshou Town, Cixi City, Ningbo, China**

**Manufacturer** : **Same as Manufacturer**

**Factory** : **Same as Manufacturer**

**FCC ID** : **2BEK4-PANEL01**

**SUMMARY:**

The equipment complies with the requirements according to the following standard(s) or Specification:

KDB447498 D01 General RF Exposure Guidance v06  
FCC Part2.1091, FCC Part1.1307(b)

**PREPARED BY:****REVIEWED BY:**

Project Engineer  
Alex Wu



Reviewer  
Wakeyou Wang

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## Revision History

Report No.	Version	Description	Issued Date
231200828HAN-002	Rev. 01	Initial issue of report	April 20, 2024

## 1 GENERAL INFORMATION

### 1.1 Description of Equipment Under Test (EUT)

Product name:	Cat Litter Box
Type/Model/PMN/HVIN:	BJ-LR68
Description of EUT:	<p>The EUT is Cat Litter Box which is powered by an adaptor. The adaptor model No is M120200-S99US. It has only one model. It incorporates the Wi-Fi and Bluetooth module which FCC-ID is: 2ANDL-WBR3. Another new RF module is working at 24GHz for sensor. Therefore, the EUT is applied for the new FCC ID: <b>2BEK4-PANEL01</b>.</p> <p>Therefore, we test it under all different working modes, the worst testing data is listed in the report as representative.</p>
Brand name:	NA
Rating:	DC12V, 24w powered by adaptor, Adaptor input: 120V, 60Hz Output:12VDC, 24W
Category of EUT:	Class B
EUT type:	<input type="checkbox"/> Table top <input checked="" type="checkbox"/> Floor standing
Software Version:	/
Hardware Version:	/
Sample received date:	December 27, 2023
Date of test:	December 28-30, 2023

### 1.2 Technical Specification

Frequency Range:	24000MHz ~ 24250MHz
Type of Modulation:	FSK
Antenna Information:	Integrated PCB antenna
Channel Number:	1
Center frequency:	24065.8MHz



## TEST REPORT

### 1.3 Description of Test Facility

Name:	Intertek Testing Services Shanghai
Address:	Building 86, No. 1198 Qinzhou Road (North), Shanghai 200233, P.R. China
Telephone:	86 21 61278200
Telefax:	86 21 54262353

The test facility is recognized, certified, or accredited by these organizations:	CNAS Accreditation Lab Registration No. CNAS L0139
	FCC Accredited Lab Designation Number: CN0175
	IC Registration Lab CAB identifier.: CN0014
	VCCI Registration Lab Member No: 3598 (Registration No.: R-14243, G-10845, C-14723, T-12252)
	A2LA Accreditation Lab Certificate Number: 3309.02

## TEST REPORT

## 2 MPE Assessment

Test result: Pass

### 2.1 MPE Assessment Limit

Mobile device exposure for standalone operations:

Frequency range	E-field strength (V/m)	H-field strength (A/m)	B-field (uT)	Equivalent plane wave power density $S_{eq}$ (W/m <sup>2</sup> )
0-1 Hz	-	$3,2 \times 10^4$	$4 \times 10^4$	-
1-8 Hz	10 000	$3,2 \times 10^4/f^2$	$4 \times 10^4/f^2$	-
8-25 Hz	10 000	$4\,000/f$	$5\,000/f$	-
0,025-0,8 kHz	$250/f$	$4/f$	$5/f$	-
0,8-3 kHz	$250/f$	5	6,25	-
3-150 kHz	87	5	6,25	-
0,15-1 MHz	87	$0,73/f$	$0,92/f$	-
1-10 MHz	$87/f^{1/2}$	$0,73/f$	$0,92/f$	-
10-400 MHz	28	0,073	0,092	2
400-2 000 MHz	$1,375 f^{1/2}$	$0,0037 f^{1/2}$	$0,0046 f^{1/2}$	$f/200$
2-300 GHz	61	0,16	0,20	10

Mobile device exposure for simultaneous transmission operations: **the sum of the MPE ratios for all simultaneously transmitting antennas incorporated in a host device is  $\leq 1.0$ .**

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### 2.2 Assessment Results

Power density (S) is calculated according to the formula:

$$S = PG / (4\pi R^2)$$

Where S = power density in mW/cm<sup>2</sup>

P = Radiated transmit power in mW

G = numeric gain of transmit antenna

R = distance (cm)

As we can see from the test report 231200828HAN -001, 708881974877-00 Rev.1 and 708881974888-00 Rev.1:

The calculations in the table below use the highest gain of antenna for client EUT. These calculations represent worst case in terms of the exposure levels.

Frequency Band (MHz)	Fundamental Radiated Emission at 3 m (dBuV/m)	Fundamental Radiated Emission at 20 cm (dBuV/m)	Maximum EIRP (dBm)	R (cm)	S (mW/cm <sup>2</sup> )	Limits (mW/cm <sup>2</sup> )
24000 ~ 24250	67.51	91.03	-4.17	20	0.00007	1

Mode	Frequency band	Power		Antenna Gain	R	S	Limits
	(MHz)	dBm	mW	dBi	(cm)	(mW/cm <sup>2</sup> )	(mW/cm <sup>2</sup> )
2.4G WIFI	2400-2483.5	24.33	271.00	2.5	20	0.1348	1
2.4G BLE	2402-2480	6.25	4.22	2.5	20	0.0021	1

Note: limit 1 mW/cm<sup>2</sup> from §1.1310 Table 1

The sum of the MPE ratios assessment value is  $0.00007/1+0.1348/1+0.0021/1=0.13797 < 1.0$ , therefore, the MPE requirement is deemed to be satisfied without test.

**Result: Compliance**, the device meets MPE requirement for Devices Used by the General Public (Uncontrolled Environment) at distance  $\geq 20$  cm.



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### Appendix I

Definition below must be outlined in the User Manual:

To satisfy FCC RF exposure requirements, a separation distance of 20 cm or more should be maintained between the antenna of this device and persons during device operation.  
To ensure compliance, operations at closer than this distance is not recommended.

\*\*\*\*\* END \*\*\*\*\*